



# BARRINGTON PUBLIC SCHOOLS MASTER PLAN

## STAGE 1 RIDE SUBMISSION

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TOWN of BARRINGTON PUBLIC SCHOOL DISTRICT  
283 COUNTY ROAD  
FEBRUARY 15, 2023



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Stage 1 RIDE Submission

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# 1 PROJECT JUSTIFICATION

## STATEMENT OF INTEREST



### **BARRINGTON PUBLIC SCHOOLS**

283 County Road, P.O. Box 95 Barrington, Rhode Island 02806

[www.barringtonschools.org](http://www.barringtonschools.org)

Tel: 401-245-5000 Fax: 401-245-5003

**Michael B. Messore, III**  
Superintendent

**Douglas E. Fiore**  
Director of Administration & Finance

**David J. Burrows**  
Director of Technology

**Paula A. Dillon**  
Assistant Superintendent for Curriculum & Instruction

**Kristen C. Matthes**  
Director of Pupil Personnel Services

February 15, 2023

Joseph da Silva, Ph. D., NCARB  
School Construction Coordinator / Architectural Design Reviewer  
School Building Authority  
Rhode Island Department of Education  
255 Westminster Street  
Providence, RI 02903

Subject: Statement of Interest

Dear Dr. da Silva:

The town of Barrington, Barrington School Committee and the Barrington Public Schools is pleased to submit this Stage 1 Application for the Necessity of School Construction to the Rhode Island Department of Education (RIDE) School Building Authority (SBA).

This Stage 1 Submission intends to follow the Spring 2023 Council of Elementary and Secondary Education (CESE) approval timeline. While the extent of capital improvement projects is still undetermined, the goals of the submission will align with the long term educational, and facility needs. Barrington intends to pursue a submission timeline which will allow the community to capture the incentive bonuses which expire at the end of 2023.

We appreciate the opportunity to continue to work with the School Building Authority to continue the effects to improve the Barrington Public Schools.  
Thank you for your support.

Sincerely,

Michael B. Messore, III  
Superintendent

Patrick McCrann  
School Committee Chair

Municipal Representative

Barrington Public Schools does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, sexual orientation, gender identity or expression, citizenship, or status as a disabled veteran, or past or present honorable military service, or any other protected category with respect to access to, the provision of, or employment in its educational services, programs and activities, including admissions, athletics and other BPS program as required by Title IX of the Education Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI and VII of the Civil Rights Act of 1965, the Age Discrimination Act of 1975, and other federal and state laws that prohibit discrimination. The following person has been designated to handle inquiries regarding the non-discrimination policies: Equity Officer, Assistant Superintendent; 401-245-5000 x 2. You may also direct inquiries directly to the Office for Civil Rights (Boston Office), U.S. Department of Education, 8th Floor, 5 Post Office Square, Boston, MA 02109-3921, Telephone: (617) 289-0111; Facsimile: (617) 289-0150; Email: [OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov). If you require accommodation to attend a meeting or program at a school, call the Equal Employment Officer at least two business days in advance of the meeting or program. If you require an accommodation to attend a District meeting or program, call the Equity Officer at least two business days in advance of the meeting or program, or the school principal to attend a building-based event.

## EXECUTIVE SUMMARY

Barrington is a suburban community located just ten miles from the capital city of Providence on the East Bay of Rhode Island. It is a highly sought-after community due in part to the success of the public school system and the sense of community. The public schools are consistently ranked among the highest in the state with all six schools being honored as blue-ribbon schools. Barrington continues to innovate its curriculum to service its students however its facilities were not designed to support future-focused curriculum.

In 2016 the community recognized the need to upgrade its Middle School facility. With support from the RIDE SBA, the new Barrington Middle School opened in 2019. The design focused on flexibility, innovation, and collaboration has allowed new teaching and learning to flourish. The facility itself serves as an example of the symbiotic relationship between curriculum and facility to support students.

While the Middle School facility is new, the other five school facilities are aged buildings that inhibit the ability to provide current and future teaching and learning methods and requirements. At each facility, time and effort has gone into maintenance and repair work to maintain clean and safe learning environments however Barrington is making a strategic review of all of our facilities for significant investment.

Building on the success of the Middle School project, Barrington is submitting this Stage 1 Application. The School Building Committee and School Committee are committed to creating facilities that support the robust curriculum and commitment to rigorous educational in Barrington.

### MOTION RECOMMENDATION:

Scope of work may include new construction, addition/renovation, repairs, and educational facility updates reflecting the district’s long-term educational vision that is currently ongoing.

General Goals for projects to include, but not limited to:

- Decrease classroom overcrowding at all schools and increase classroom sizes.
- Provide future-focused educational space including but not limited to: Classroom quantities / sizes, small learning communities which include student and teacher collaboration spaces, Interdisciplinary areas for instruction, small and large group instruction spaces, social emotional support spaces indoor/outdoor learning connections, authentic learning opportunities, break-out and project areas.
- Provide dedicated enrichment spaces for Art, Music, Physical Education, STEM/Technology in each elementary school.

- Create dedicated and appropriate intervention and special education spaces
- Align grade configuration with teaching and curriculum models
- Create district-wide equity for all Barrington students
- Align space sizes to RIDE Basic Educational Plan (BEP)
- Upgrade safety and security features, protocols, and technology in all schools
- Create sustainable and energy efficient buildings with decreased operating costs.
- Consider opportunities for development of parks, recreation, and/or other amenities at sites considered surplus after implementation of plan
- Improve traffic safety, student drop-off and pick up and multimodal transportation access
- Consider opportunities for development of parks, recreation, and/or other amenities at sites considered surplus after implementation of plan
- Improve traffic safety, student drop-off and pick up and multimodal transportation access

It is the intention of the Barrington School Committee to submit the Stage 2 in September 2023 and begin work at the end of the year to capture the temporary incentive bonuses which expire at the end of 2023. The projects will seek to include solutions that capture the identified incentive bonuses including the following:

- School Safety and Security
- Health and Safety Deficiencies
- Educational Enhancements
- Decrease Overcrowding
- Replacement of Facility FCI 65% or Higher (Pending scope determination)
- Increased Utilization (Pending scope determination)

Barrington Public Schools has procured Kaestle Boos Associates (KBA) to serve help facilitate the Educational Facility Master Plan for the district. Barrington Public Schools also agrees to procure an independent commissioning agent for all work and that all appropriate state and local regulations including those pertaining to WBE/MBE requirements will be fulfilled.

Kaestle Boos Associates was hired in June 2021 and began the process of educational facility master planning and educational programming. Members of KBA including Accredited Learning Environment Planners and Architects toured each school to understand the current use and capacity of each building. KBA met with educational leaders and visionaries to understand the high-level educational goals for the district and how those may affect facilities long-term. KBA and Locker Education + Architecture Planning conducted visioning with 50 community members to help determine educational goals and long-term planning concepts. The summary report of the Visioning workshop is included as an appendix to this report. On behalf of Barrington Public Schools, KBA submitted a Stage 1 submission in September 2021. During the work towards the Stage 2 submission, it was determined that more time was required to find a solution so it was determined that a new Stage 1 submission is required.

Although no solutions have been selected or approved, the scope ranges from repair work to future-focused facilities that align with the educational goals and range from \$75-\$225 million seeking to maximize Barrington's reimbursement rate of 56.5% (including sustainability incentives). Community forums tentatively planned for March, April, May and June of 2023 will allow community members and stakeholders to be informed about the project. For more information, please refer to Section 8 of this report.

Although the full scope of work is still undetermined, the project included within this document will align with the general goals indicated above and seek to solve district educational and facility deficiencies following the Spring 2023 Council or Elementary and Secondary Education (CESE) approval timeline. The community referendum is planned for Fall 2023. The district has submitted the Annual Asset Protection Plan according to RIDE regulations.

# INITIAL COMPLIANCE CERTIFICATION



## **BARRINGTON PUBLIC SCHOOLS**

283 County Road, P.O. Box 95 Barrington, Rhode Island 02806

[www.barringtonschools.org](http://www.barringtonschools.org)

Tel: 401-245-5000 Fax: 401-245-5003

**Michael B. Messore, III**  
Superintendent

**Douglas E. Fiore**  
Director of Administration & Finance

**David J. Burrows**  
Director of Technology

**Paula A. Dillon**  
Assistant Superintendent for Curriculum & Instruction

**Kristen C. Matthes**  
Director of Pupil Personnel Services

### **Initial Compliance Certification**

#### Barrington Public Schools

*This Initial Compliance Certification ("ICC") must be completed by all Applicants, as defined by RIDE School Construction Regulation (SCR) 200-RICR-20-05-4.3.A.1, who intend to submit a Necessity of School Construction application to the Rhode Island School Building Authority (the "Authority"), as defined by R.I.G.L. 16-105.2. The Authority will not consider a District, as defined by RIDE School Construction Regulation (SCR) 1.01, to be eligible for School Housing Aid or School Building Authority Capital Funding until after the District has properly submitted an ICC and received Council on Elementary and Secondary Education approval.*

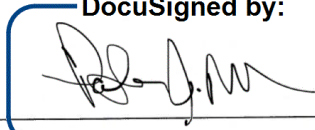
1. The District hereby acknowledges and agrees that in order to qualify for any funding from the Authority, the District must comply with R.I.G.L. 16-7-35 through 16-7-45 and RIDE SCR 200-RICR-20-05-4 *et seq.* which require the Authority's collaboration and approval at each step of the Necessity of School Construction approval process and further acknowledges and agrees that any actions taken, costs incurred or agreements entered into for the repair, renovation or construction of school facilities without the explicit prior written approval of the Authority shall not be eligible for state aid.
2. The District hereby certifies that it will study and consider all available options for remedying the deficiencies identified through the Necessity process, including, to the extent applicable, regionalization or tuition agreements with adjacent school districts, district assignment policies within the school district, rental or acquisition and any necessary rehabilitation or usage modification of any existing building which could be made available for school use.
3. The District hereby acknowledges and agrees that, before the Council on Elementary and Secondary Education can grant final approval of a Project, the District must submit documentation of community support, including City/Town Council and School Committee approvals, vote to authorize and appropriate the full amount of funding for the Proposed Project that is necessary to meet the total project budget, as agreed to by the Authority and as described in RIDE SCR RIDE SCR 200-RICR-20-05-4.
4. The District hereby acknowledges and agrees that, in connection with a Proposed Project or an Approved Project, it shall use any standard forms (certifications, statements, affidavits, and agreements) established or developed by the Authority.
5. The District hereby acknowledges and agrees that it will notify RIDE in writing six months prior to the sale, lease, demolition or other removal from service of any school facility in the district's jurisdiction, or portion thereof. Where a building that has received school construction payments from RIDE for a building that has not remained in service for 50 years, RIDE may recapture at its discretion a portion of the State aid.
6. The District shall undertake a Feasibility Study to investigate potential options and solutions, including cost estimates, to the School's deficiencies and issues, as identified through the Necessity of School Construction process, or as

otherwise determined by the Authority. The District hereby acknowledges and agrees that, as part of a Feasibility Study where a new school option is among the options that may be studied, the District shall study potential sites for the Proposed Project and hereby acknowledges and agrees that it shall base its site selection for a Proposed or Approved Project on, among other things, cost and environmental factors, including an awareness of soil conditions and their probable effect on foundation and site development costs, transportation effects, dislocation of site occupants, and relationship to other community facilities in accordance with the School Construction Regulations.

7. The District hereby acknowledges and agrees that any Approved Project for the construction of a new facility, or for the addition to or renovation of an existing school facility, shall have a useful life of fifty (50) years as a public school in the District as required by RIDE SCR 200-RICR-20-05-4.
8. The District hereby acknowledges and agrees that it shall procure the necessary professionals to conduct any necessary assessments, develop an educational program and specification, design and engineer Approved Projects, and manage construction. The necessary professional must monitor compliance with the regulations through the design and construction process to ensure that all building systems are in compliance with regulations and are consistent with all plans, construction documents, and cost estimates as required by RIDE SCR 200-RICR-20-05-4.
9. The District hereby certifies that it has specifically read the provisions of RIDE School Construction Regulations RIDE SCR 200-RICR-20-05-4 and certifies that it has met or will meet each of the requirements described therein and further acknowledges and agrees that the District's failure to comply with each requirement, as determined by the Authority, may be grounds for disapproval of the District's application.

***By signing this Initial Compliance Certification, I hereby certify that I have read and understand the terms of this Initial Compliance Certification and further certify on behalf of the Applicant that each of the above statements is true, complete, and accurate.***

**DocuSigned by:**



1/31/2023

**Patrick McCramm** 8844F4CAA85A4A4...

**Date**

**School Committee Chair**



1-30-2023

**Michael B. Messoro, III**  
**Superintendent of Schools**

**Barrington Public Schools does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, sexual orientation, gender identity or expression, citizenship, or status as a disabled veteran, or past or present honorable military service, or any other protected category with respect to access to, the provision of, or employment in its educational services, programs and activities, including admissions, athletics and other BPS program as required by Title IX of the Education Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI and VII of the Civil Rights Act of 1965, the Age Discrimination Act of 1975, and other federal and state laws that prohibit discrimination. The following person has been designated to handle inquiries regarding the non-discrimination policies: Equity Officer, Assistant Superintendent; 401-245-5000 x 2. You may also direct inquiries directly to the Office for Civil Rights (Boston Office), U.S. Department of Education, 8th Floor, 5 Post Office Square, Boston, MA 02109-3921, Telephone: (617) 289-0111; Facsimile: (617) 289-0150; Email: [OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov). If you require accommodation to attend a meeting or program at a school, call the Equal Employment Officer at least two business days in advance of the meeting or program. If you require an accommodation to attend a District meeting or program, call the Equity Officer at least two business days in advance of the meeting or program, or the school principal to attend a building-based event.**



# SCHOOL BUILDING COMMITTEE MEMBERS LIST



## **BARRINGTON PUBLIC SCHOOLS**

283 County Road, P.O. Box 95 Barrington, Rhode Island 02806

[www.barringtonschools.org](http://www.barringtonschools.org)

Tel: 401-245-5000 Fax: 401-245-5003

**Michael B. Messore, III**  
Superintendent

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Director of Administration & Finance

**Paula A. Dillon**  
Assistant Superintendent for Curriculum & Instruction

**David J. Burrows**  
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**Kristen C. Matthes**  
Director of Pupil Personnel Services

February 15, 2023

Joseph da Silva, Ph. D., NCARB  
School Construction Coordinator / Architectural Design Reviewer  
School Building Authority  
Rhode Island Department of Education  
255 Westminster Street  
Providence, RI 02903

Subject: Statement of Interest

Dear Dr. da Silva:

In accordance with RIDE School Construction Regulations 200-RICR-20-05-4, attached for your review and approval is the membership of the School Building Committee for Barrington Public Schools in Barrington, Rhode Island.

The Committee was formed in accordance with the provisions of all applicable statutes, local charters, by-laws, and agreements of the Town. Committee Members include the following:

Designation Committee Role -Alignment with RIDE 4.9.2.A.2	Name	Background
Superintendent of Schools	Michael B. Messore III	Superintendent
Member of School Committee	Thomas Peck	School Committee Member
Local Official Responsible for Maintenance	Matthew Glum	School Facility Director
Representative authorized by law to construct school buildings in the municipality	Teresa Crean	Town Planner
School Principal	Gino Sangiuliano	Hampden Meadows Principal
Member with knowledge of the Educational Mission and function of the facility	Paula Dillon	Assistant Superintendent
Local Budget Official or member of finance committee	Douglas Fiore	Director of Finance
Member of the Community with architecture, engineering, or construction	Brian Valentine	Architecture/Project Manager
At-Large Representative	Patrick McCrann	School Committee Member
At-Large Representative	Patrick Guthlein	Deputy Finance Director
At-Large Representative	Bill Dwyer	Parent
At-Large Representative	Steve Marchetti	Educator
At-Large Representative	Robert Wilmarth	Parent

After approval of this committee by the Authority, the Town will notify the Authority in writing within 20 calendar days of any changes to the membership or the duties of said committee.

Sincerely,

A handwritten signature in cursive script that reads "Michael B. Messore III". The signature is written in black ink and is positioned above the typed name.

Authorized Signature for the District, City, or Town

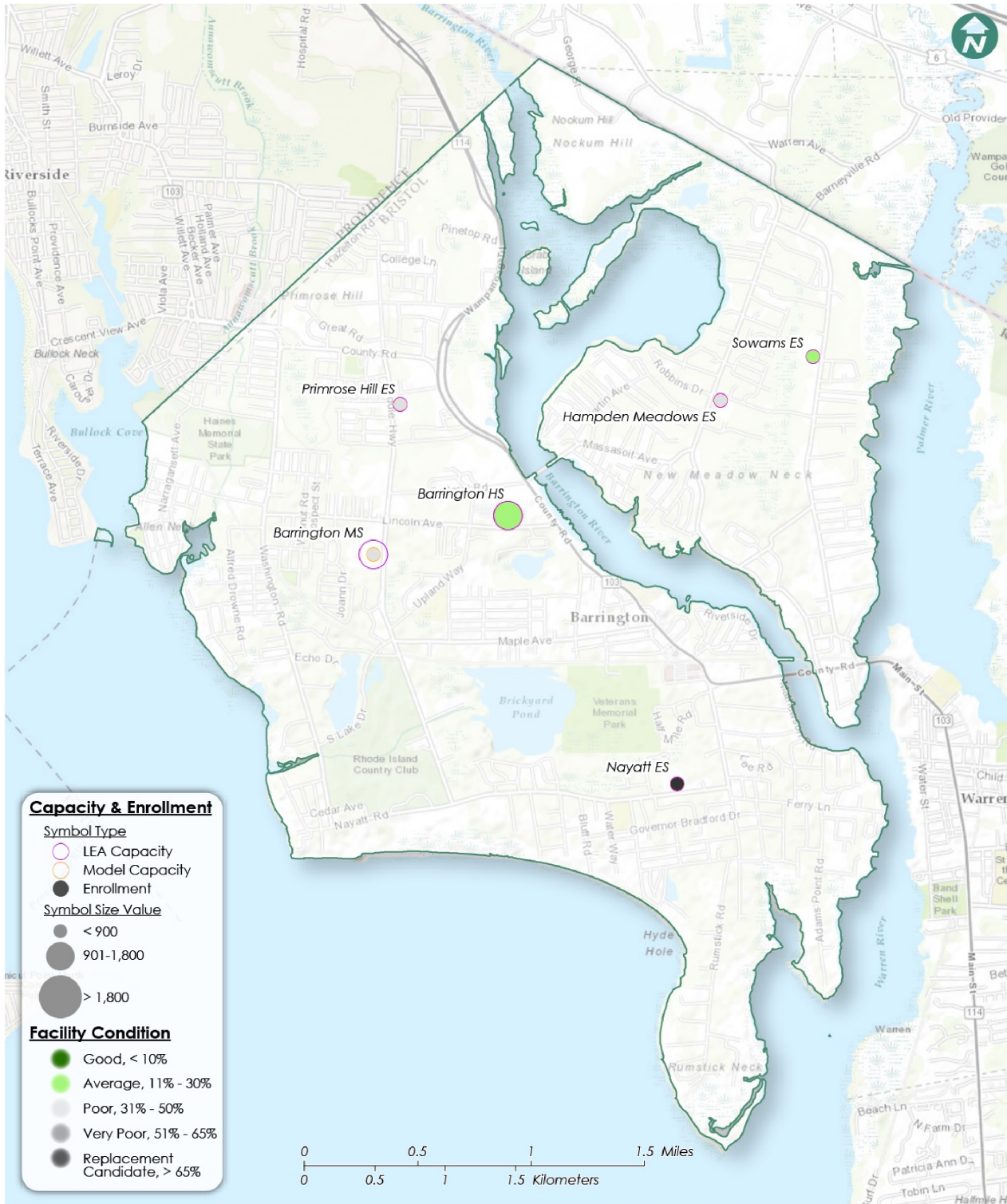
**Barrington Public Schools does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, sexual orientation, gender identity or expression, citizenship, or status as a disabled veteran, or past or present honorable military service, or any other protected category with respect to access to, the provision of, or employment in its educational services, programs and activities, including admissions, athletics and other BPS program as required by Title IX of the Education Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI and VII of the Civil Rights Act of 1965, the Age Discrimination Act of 1975, and other federal and state laws that prohibit discrimination. The following person has been designated to handle inquiries regarding the non-discrimination policies: Equity Officer, Assistant Superintendent; 401-245-5000 x 2. You may also direct inquiries directly to the Office for Civil Rights (Boston Office), U.S. Department of Education, 8th Floor, 5 Post Office Square, Boston, MA 02109-3921, Telephone: (617) 289-0111; Facsimile: (617) 289-0150; Email: [OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov). If you require accommodation to attend a meeting or program at a school, call the Equal Employment Officer at least two business days in advance of the meeting or program. If you require an accommodation to attend a District meeting or program, call the Equity Officer at least two business days in advance of the meeting or program, or the school principal to attend a building-based event.**

# LEA MAP

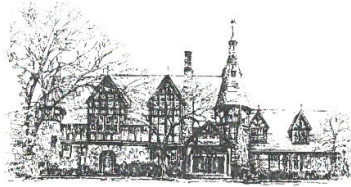


## Barrington

### LEA Summary



**INSPECTION REPORTS** BARRINGTON HIGH SCHOOL



**Town of Barrington**

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
 Barrington Town Hall | 283 County Road | Barrington, RI 02806

**STATE BUILDING CODE'S CERTIFICATE OF INSPECTION  
 FOR THE ANNUAL APPROVAL OF EXISTING SCHOOLS  
 YEAR 2022-2023**

To: Michael Messore, Superintendent

Barrington High School

Name of School

220 Lincoln Avenue

Location

Barrington

Rhode Island

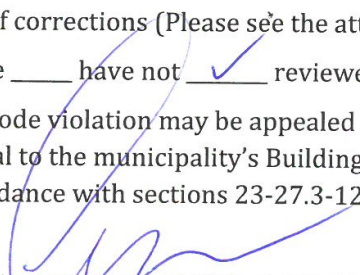
02806

Town (City)

State

Zip Code

1. Maximum number of students regularly attending the school at one time is **828**.
2. Based upon field observations, made upon visiting said facilities on 7/26/2022 it was found that subject school was in the following condition (circle one)
  - a. The school is in substantial conformance with the provisions of the State Building Code for existing buildings as required in Chapter 16-21-3 of the General Laws entitled "Standards for School Building". The following list of corrections must be completed by 9/30/2022 and a reinspection scheduled with the Building Official's Office.
  - b. The school is in noncompliance with the aforementioned Code provisions. The following list of corrections must be completed before the school can be occupied and a reinspection scheduled with this office.
3. List of corrections (Please see the attached list of corrections necessary)
4. I have  have not  reviewed the school's repair log.
5. Any code violation may be appealed by the Superintendent of Schools or the private school official to the municipality's Building Code Board of Appeals for a variance or a time delay in accordance with sections 23-27.3-127.2.4 of the State Building Code.

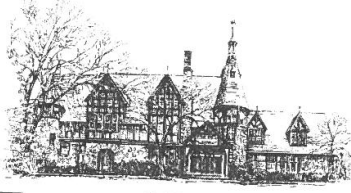
  
 Dennis Begin, Building Official

401-247-1900 ext. 325  
 Telephone Number

Ph: (401) 247-1900, ext. 325 | Fax: (401) 247-3765



[dbegin@barrington.ri.gov](mailto:dbegin@barrington.ri.gov) | [www.barrington.ri.gov](http://www.barrington.ri.gov)



## Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
Barrington Town Hall | 283 County Road | Barrington, RI 02806

### 2022-2023 Inspections Results

(\* indicates a repeated concern from the prior year's inspection)

#### Barrington High School (7/26/2022)

##### Code

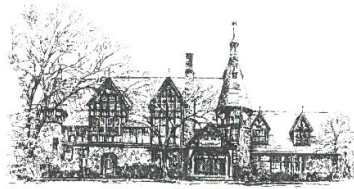
1. Double entry doors to the auditorium area right on the right side but left door does not latch.
2. Men's room door next to room 825 does not shut.
3. Women's room next to room 825 HC stall not closing properly.
4. Auditorium double door left side stage not closing properly.
5. Auditorium far right entry door bottom sticking.
6. Door #815 sticks and not closing.
7. Gym HC locations need to be marked.
8. Auxiliary Gym paint peeling on ceiling beams and ducts.
9. Second floor stairwell ceiling peeling paint.
10. Curb stop and HC sign down @ rear parking lot.
11. Electric light Poles at rear lot need cover plates as there are at least 4 missing.

##### Fire

1. There are no emergency egress plans posted in the classrooms. \*



**BARRINGTON MIDDLE SCHOOL**



**Town of Barrington**

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
 Barrington Town Hall | 283 County Road | Barrington, RI 02806

**STATE BUILDING CODE'S CERTIFICATE OF INSPECTION  
 FOR THE ANNUAL APPROVAL OF EXISTING SCHOOLS  
 YEAR 2022-2023**

To: Michael Messore, Superintendent

Barrington Middle School

Name of School

261 Middle Highway

Location

Barrington

Rhode Island

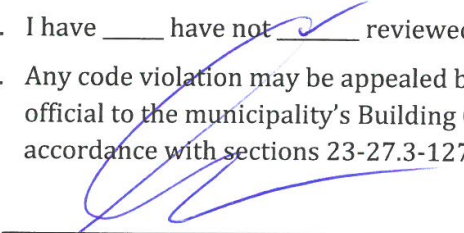
02806

Town (City)

State

Zip Code

1. Maximum number of students regularly attending the school at one time is **831**.
2. Based upon field observations, made upon visiting said facilities on 7/27/2022 it was found that subject school was in the following condition (circle one)
  - a. The school is in substantial conformance with the provisions of the State Building Code for existing buildings as required in Chapter 16-21-3 of the General Laws entitled "Standards for School Building". The following list of corrections must be completed by 9/30/2022 and a reinspection scheduled with the Building Official's Office.
  - b. The school is in noncompliance with the aforementioned Code provisions. The following list of corrections must be completed before the school can be occupied and a reinspection scheduled with this office.
3. List of corrections (Please see the attached list of corrections necessary)
4. I have \_\_\_ have not  reviewed the school's repair log.
5. Any code violation may be appealed by the Superintendent of Schools or the private school official to the municipality's Building Code Board of Appeals for a variance or a time delay in accordance with sections 23-27.3-127.2.4 of the State Building Code.

  
 Dennis Begin, Building Official

401-247-1900 ext. 325  
 Telephone Number

Ph: (401) 247-1900, ext. 325 | Fax: (401) 247-3765



[dbegin@barrington.ri.gov](mailto:dbegin@barrington.ri.gov) | [www.barrington.ri.gov](http://www.barrington.ri.gov)



## Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
Barrington Town Hall | 283 County Road | Barrington, RI 02806

### 2022-2023 Inspections Results

(\* indicates a repeated concern from the prior year's inspection)

#### Barrington Middle School (7/27/2022)

##### Code

1. Media center entry doors do not close properly. \*
2. Stair B1 door #13 exterior latch not allowing the door to open.
3. Door to classroom #12 ,13 needs adjustments
4. Electrical room 1E03 need fire sealing at ceiling.
5. Room #1110A Fitness storage door needs Adjustments.
6. Room #1104 Auditorium door needs adjustment both entries.
7. Stair 2s1 door not closing properly.
8. Room #2r9 Restroom electrical wall plate is missing.
9. Stair 3 level 2 door hinge needs Attention.
10. 3r8 adult restroom HC. Grab bar behind toilet is missing.

##### Fire



HAMPDEN MEADOWS



Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
 Barrington Town Hall | 283 County Road | Barrington, RI 02806

**STATE BUILDING CODE'S CERTIFICATE OF INSPECTION  
 FOR THE ANNUAL APPROVAL OF EXISTING SCHOOLS  
 YEAR 2022-2023**

To: Michael Messore, Superintendent

Hampden Meadows School

Name of School

297 New Meadow Road

Location

Barrington

Rhode Island

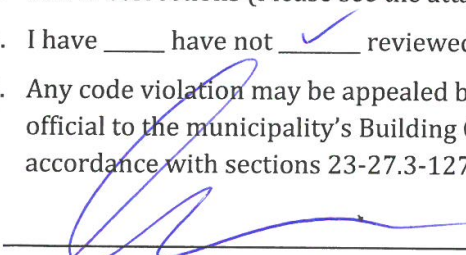
02806

Town (City)

State

Zip Code

1. Maximum number of students regularly attending the school at one time is **498**.
2. Based upon field observations, made upon visiting said facilities on 7/21/2022 it was found that subject school was in the following condition (circle one)
  - a. The school is in substantial conformance with the provisions of the State Building Code for existing buildings as required in Chapter 16-21-3 of the General Laws entitled "Standards for School Building". The following list of corrections must be completed by 9/30/2022 and a reinspection scheduled with the Building Official's Office.
  - b. The school is in noncompliance with the aforementioned Code provisions. The following list of corrections must be completed before the school can be occupied and a reinspection scheduled with this office.
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 Dennis Begin, Building Official

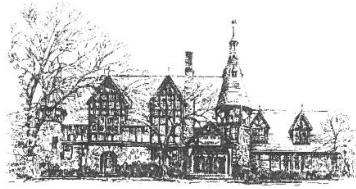
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dbegin@barrington.ri.gov | www.barrington.ri.gov





## Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
Barrington Town Hall | 283 County Road | Barrington, RI 02806

### 2022-2023 Inspections Results

(\* indicates a repeated concern from the prior year's inspection)

#### Hampden Meadows School (7/21/2022)

##### Code

1. Down spouts broken and detached around the building needs to be diverted away from the foundation. \*
2. Hold open door device in music-area corridor does not work. \*

##### Fire

##### Maintenance

1. Side lot curb stops protecting sidewalk should be every space. \*(7 missing)



NAYATT SCHOOL



Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
 Barrington Town Hall | 283 County Road | Barrington, RI 02806

**STATE BUILDING CODE'S CERTIFICATE OF INSPECTION  
 FOR THE ANNUAL APPROVAL OF EXISTING SCHOOLS  
 YEAR 2022-2023**

To: Michael Messore, Superintendent

Nayatt School

Name of School

400 Nayatt Road

Location

Barrington

Rhode Island

02806

Town (City)

State

Zip Code

1. Maximum number of students regularly attending the school at one time is 327.
2. Based upon field observations, made upon visiting said facilities on 7/25/2022 it was found that subject school was in the following condition (circle one)
  - a. The school is in substantial conformance with the provisions of the State Building Code for existing buildings as required in Chapter 16-21-3 of the General Laws entitled "Standards for School Building". The following list of corrections must be completed by 9/30/2022 and a reinspection scheduled with the Building Official's Office.
  - b. The school is in noncompliance with the aforementioned Code provisions. The following list of corrections must be completed before the school can be occupied and a reinspection scheduled with this office.
3. List of corrections (Please see the attached list of corrections necessary)
4. I have  have not  reviewed the school's repair log.
5. Any code violation may be appealed by the Superintendent of Schools or the private school official to the municipality's Building Code Board of Appeals for a variance or a time delay in accordance with sections 23-27.3-127.2.4 of the State Building Code.

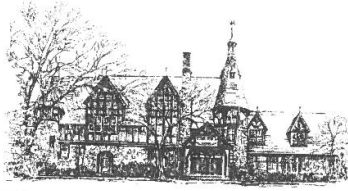
  
 Dennis Begin, Building Official

401-247-1900 ext. 325  
 Telephone Number

Ph: (401) 247-1900, ext. 325 | Fax: (401) 247-3765



dbegin@barrington.ri.gov | www.barrington.ri.gov



## Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
Barrington Town Hall | 283 County Road | Barrington, RI 02806

### 2022-2023 Inspections Results

(\* indicates a repeated concern from the prior year's inspection)

#### Nayatt School (7/25/2022)

##### Code

1. Cafeteria door left double does not latch properly – needs adjustment. \*
2. Basement boiler room locked – needs to be labeled. \*
3. Basement double door hold open device is not working.
4. Attic hatch ladder is being used as a hanger.
5. Room #9 door does not close properly.
6. Room #13 door does not close properly for both entries.
7. Main office doors do not close properly.
8. Room #3 entry does not close.
9. Room #2 entry does not close.
10. Boys room door needs adjustment.
11. Kindergarten door does not close properly.

##### Fire



PRIMROSE HILL SCHOOL



Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
 Barrington Town Hall | 283 County Road | Barrington, RI 02806

**STATE BUILDING CODE'S CERTIFICATE OF INSPECTION  
 FOR THE ANNUAL APPROVAL OF EXISTING SCHOOLS  
 YEAR 2022-2023**

To: Michael Messore, Superintendent

Primrose Hill School

Name of School

60 Middle Highway

Location

Barrington

Rhode Island

02806

Town (City)

State

Zip Code

1. Maximum number of students regularly attending the school at one time is 326.
2. Based upon field observations, made upon visiting said facilities on 7/20/2022 it was found that subject school was in the following condition (circle one)
  - a. The school is in substantial conformance with the provisions of the State Building Code for existing buildings as required in Chapter 16-21-3 of the General Laws entitled "Standards for School Building". The following list of corrections must be completed by 9/30/2022 and a reinspection scheduled with the Building Official's Office.
  - b. The school is in noncompliance with the aforementioned Code provisions. The following list of corrections must be completed before the school can be occupied and a reinspection scheduled with this office.
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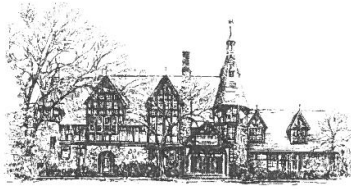
  
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## Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
Barrington Town Hall | 283 County Road | Barrington, RI 02806

### 2022-2023 Inspections Results

(\* indicates a repeated concern from the prior year's inspection)

#### Primrose Hill School (7/20/2022)

##### Code

1. Gym storage room door needs adjustment.
2. Hall double door near rear exit needs adjustments, does not close. \*
3. Area under rear stairway is being used for storage of gym equipment. \*
4. Boiler rooms being used for storage areas. \*
5. Electrical panels blocked. \*
6. Service room area behind boiler room being used as storage area, blocked high voltage room and panels and services blocked. Sign on high voltage room need to be upgraded. \*
7. Boiler room doors need closers.

##### Maintenance

1. Broken glass blocks windows back of school. \*
2. Side HVAC vent in attic very damaged. \*



SOWAMS SCHOOL



Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
 Barrington Town Hall | 283 County Road | Barrington, RI 02806

**STATE BUILDING CODE'S CERTIFICATE OF INSPECTION  
 FOR THE ANNUAL APPROVAL OF EXISTING SCHOOLS  
 YEAR 2022-2023**

To: Michael Messore, Superintendent

Sowams Elementary School

Name of School

364 Sowams Road

Location

Barrington

Rhode Island

02806

Town (City)

State

Zip Code

1. Maximum number of students regularly attending the school at one time is 256.
2. Based upon field observations, made upon visiting said facilities on 7/19/2022 it was found that subject school was in the following condition (circle one)
  - a. The school is in substantial conformance with the provisions of the State Building Code for existing buildings as required in Chapter 16-21-3 of the General Laws entitled "Standards for School Building". The following list of corrections must be completed by 9/30/2022 and a reinspection scheduled with the Building Official's Office.
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 Dennis Begin, Building Official

401-247-1900 ext. 325  
 Telephone Number

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## Town of Barrington

PLANNING, BUILDING AND RESILIENCY DEPARTMENT  
Barrington Town Hall | 283 County Road | Barrington, RI 02806

### 2022-2023 Inspections Results

(\* indicates a repeated concern from the prior year's inspection)

#### Sowams Elementary School (7/19/2022)

##### Code

1. Library entry door panic hardware needs to be repaired.
2. Rear exit door needs a glass panel.

##### Fire

1. Library strobe is obstructed by television screen. \*
2. Stage side exit door has no exit sign. \*

##### Maintenance

1. Miscellaneous exterior roof drainage causing issues with the masonry walls\*
2. Sink holes at the front entry near drainage\*
3. Outdoor atrium area needs attention.
4. Rear left building corner foundation cracks need to be addressed.
5. Rear of building seal brick @condensing unit.



# DISTRICT ASSET PROTECTION PLAN

8/27/2021

District Asset Protection



[eRide Home](#) > [District Asset Protection](#)

Barrington |

[Log Out](#)

## 2021 Barrington district asset protection

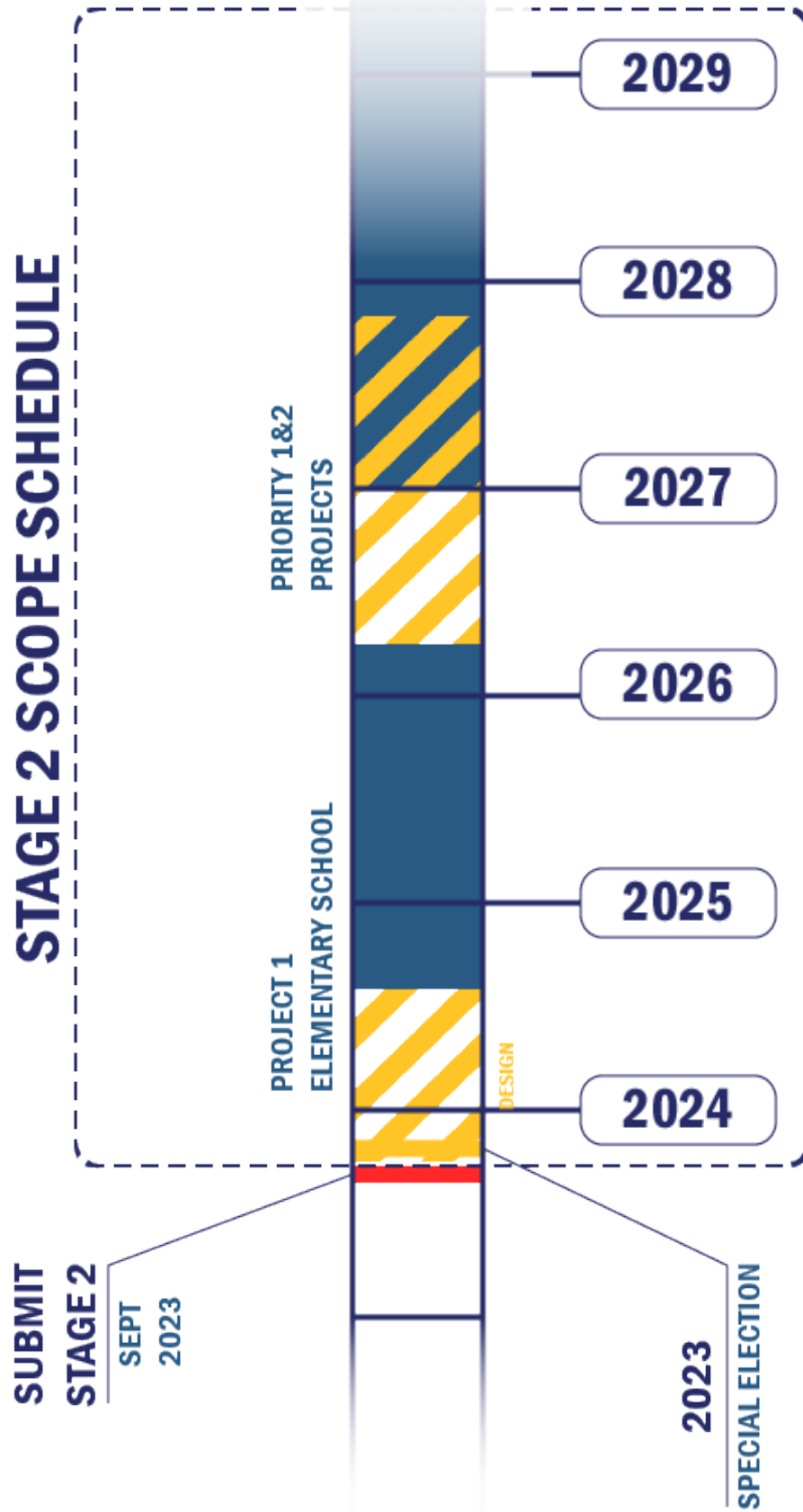
[Building information](#) [Current Year Expenditure](#) [Future Year Expenditure](#) [Sign and Submit](#)

School Name	Past Expenditure			
	Project	FY_2019	FY_2020	FY_2021
Barrington High School (01106)	Capital Improvement Subtotal	32,552	28,543	<a href="#">82,689</a>
	Maintenance Subtotal	983,466	879,639	<a href="#">422,512</a>
	Grand Total	1,016,018	908,182	505,201
Barrington Middle School (01108)	Capital Improvement Subtotal	0	0	<a href="#">1,490</a>
	Maintenance Subtotal	716,598	673,455	<a href="#">394,092</a>
	Grand Total	716,598	673,455	395,582
Hampden Meadows School (01105)	Capital Improvement Subtotal	0	7,573	<a href="#">135,564</a>
	Maintenance Subtotal	311,895	306,205	<a href="#">162,125</a>
	Grand Total	311,895	313,778	297,689
Nayatt School (01104)	Capital Improvement Subtotal	824,430	0	<a href="#">29,757</a>
	Maintenance Subtotal	209,334	197,076	<a href="#">115,567</a>
	Grand Total	1,033,764	197,076	145,324
Primrose Hill School (01103)	Capital Improvement Subtotal	0	0	<a href="#">21,696</a>
	Maintenance Subtotal	211,613	203,153	<a href="#">97,595</a>
	Grand Total	211,613	203,153	119,291
Sowams Elementary School (01109)	Capital Improvement Subtotal	0	8,798	<a href="#">6,486</a>
	Maintenance Subtotal	214,346	203,740	<a href="#">127,131</a>
	Grand Total	214,346	212,538	133,617
<b>Sum of Maintenance</b>		2,647,252	2,463,268	1,319,022



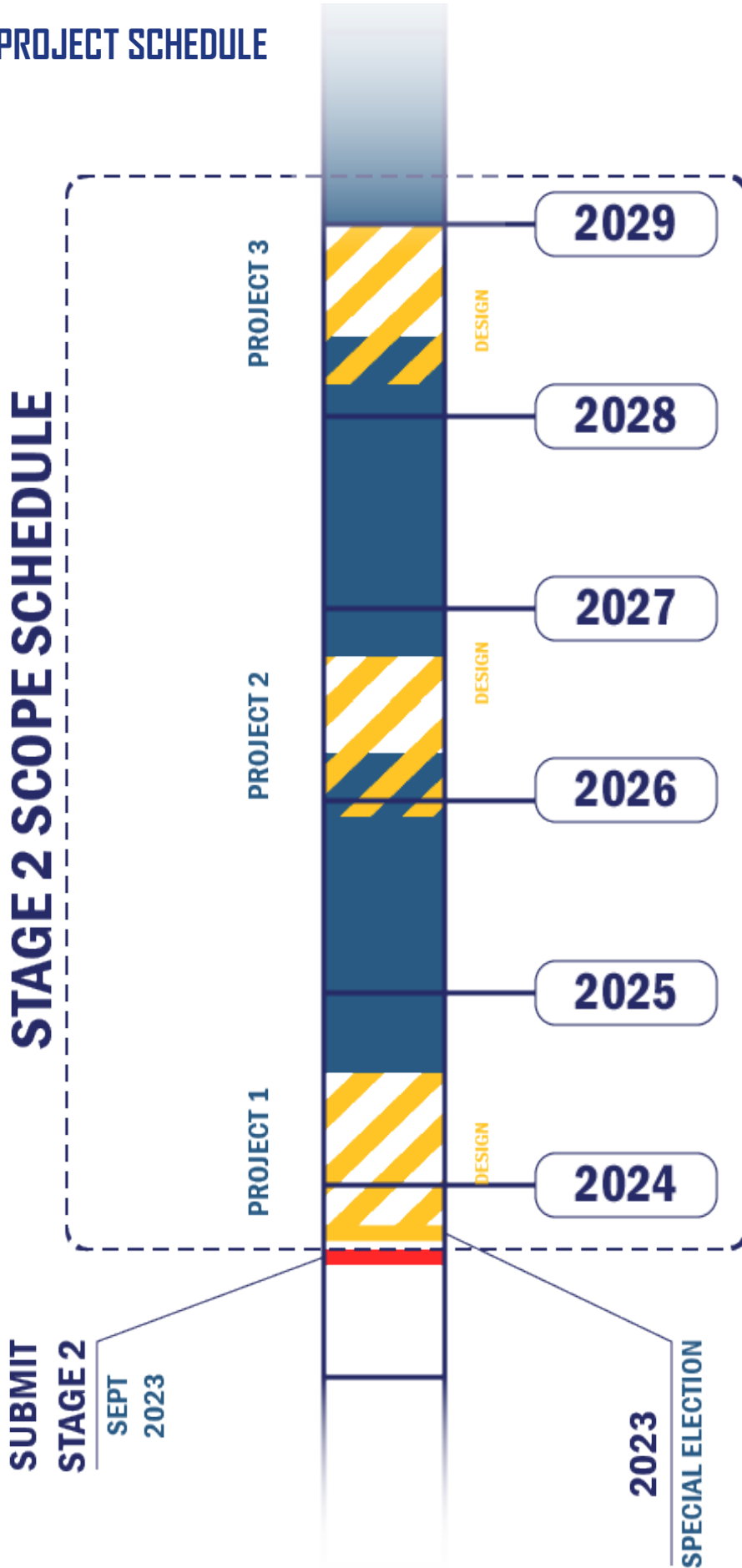


# POTENTIAL PROJECT SCHEDULE

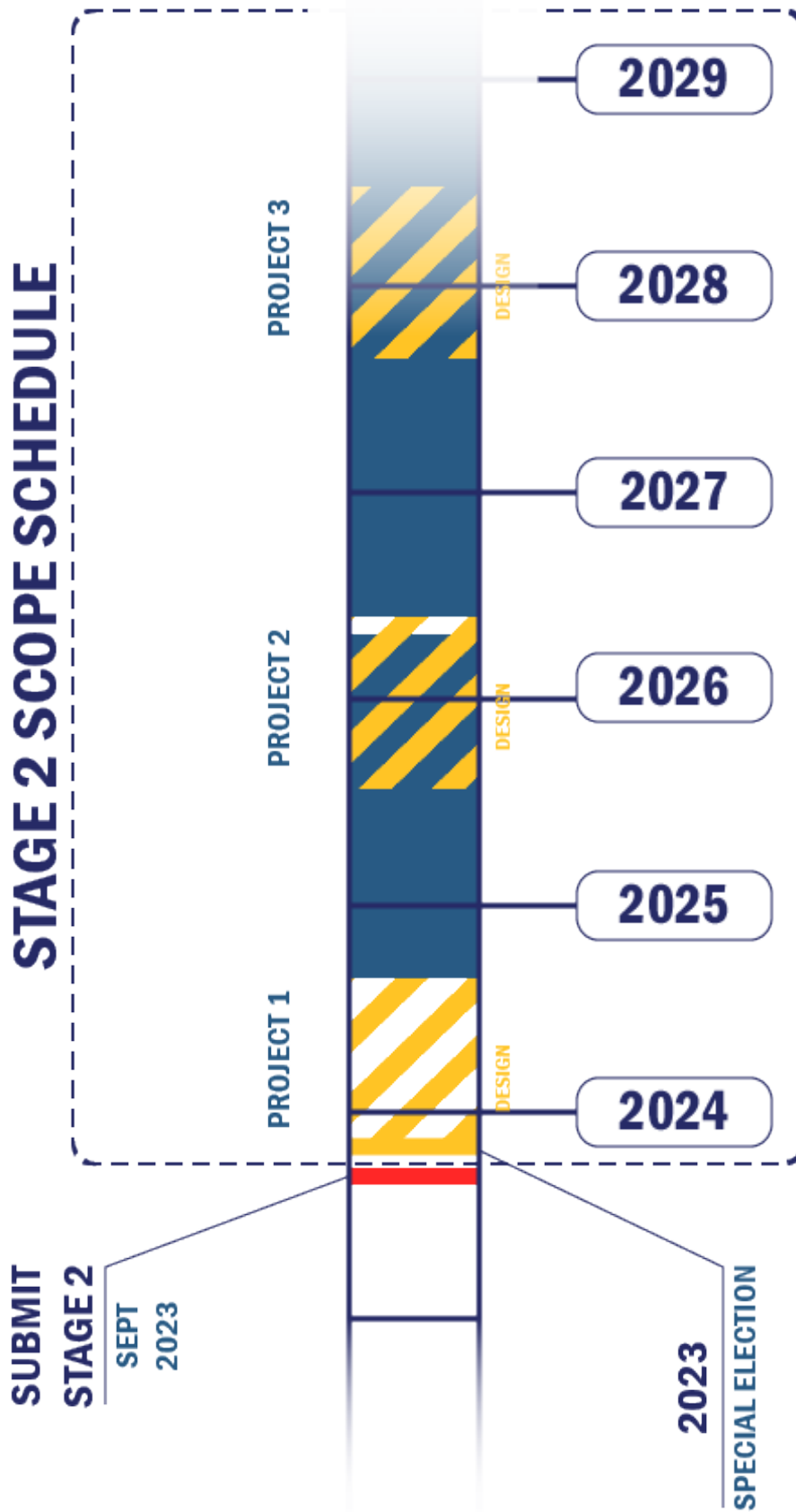


# POTENTIAL PROJECT SCHEDULE

## STAGE 2 SCOPE SCHEDULE



# POTENTIAL PROJECT SCHEDULE





# 2 ED FACILITIES MANAGER CREDENTIAL

Included in this section is the Resume of Matther Glum the Director of Facilities for the Barrington Public Schools and the adoption of the Tools for Schools criteria dated January 04, 2012.

## TOOLS FOR SCHOOLS CRITERIA

### Tools for Schools

EBD

The United States Environmental Protection Agency has established a process to address issues related to Indoor Air Quality (IAQ) known as TOOLS FOR SCHOOLS.

In the Barrington School District, indoor air quality is related to circumstances and conditions influenced by the overall school environment.

This varies from school to school and is not limited to the following:

- a. General cleanliness
- b. Animals in the classroom
- c. Drain traps in the classroom
- d. Excess moisture in the classroom
- e. Thermal comfort
- f. Ventilation
- g. Local exhaust fans
- h. Science and Art supplies
- i. Supplies
- j. Locker rooms

In aligning with the EPA model, the Barrington School District requires that each building principal be responsible for the indoor air quality of their buildings. Accordingly, the school principal or his/her designee(s) shall serve as the IAQ Coordinator(s) for their respective sites and that each school in collaboration with the Maintenance Department establishes an Indoor Air Quality Management Plan to be effectuated immediately.

This plan will be used as the process for developing any work orders and/or action to be taken to remedy circumstances in each of the schools. Any actions requiring capital improvements and/or School Committee approval must be followed in accordance with the appropriate School Department policy. Any ordinary maintenance repair, in accordance with the School Department budget will follow the protocol of the IAQ Management Plan as coordinated by the school principal in collaboration with the Director of Facilities.

All school Indoor Air Quality Management Plans must be kept on file in the respective school and the office of the Superintendent. It is the Superintendent's responsibility to ensure that plans have been developed and are routinely effectuated.

Barrington has designated the Director of Facilities as its Tools for Schools point of contact.

Approved: 01/04/12

## RESUME - MATTHEW T. GLUM

### Matthew T. Glum

12 Claremont Road \* Barrington, RI 02806  
matthewglum@gmail.com 845.392.0305

#### Director of Engineering Services, Johnson & Wales University

Johnson & Wales University Providence, Rhode Island 12/2018- 06/2021

- Experienced owner's representative for contractor management in a University setting of over 60 buildings with proven ability to effectively manage and resolve operational and project related issues independently or within a multi-disciplined team setting.
- Performed supervisory functions pertaining to MEP Facilities staff, with direct supervision of HVAC Manager, including performance evaluations and recommendations related to recruitment, retention, and promotion.
- Developed solid working relationships with internal leadership, technical staff and outside general contractors to support the operational goals of the university.
- Created FM department standards and managed operational and capital budgets for MEP requirements at the university.
- Championed initiative to standardized and consolidate 8 building management systems to Johnson Controls through a building automation retrofit program to provide better control for the campus, promote energy efficiency, and reduce any associated maintenance or IT costs.
- Provided oversight for CMMS including work order routing and administrative duties including report generation for review with staff to increase responsiveness of service requests.
- Assisted with master planning for university long term facilities improvements.
- Developed, planned, and managed capital projects and preventive maintenance programs in a diverse educational setting while collaborating with all constituent levels of the campus community.
- Provided stewardship, communication, strategic planning and project development for replacement and renewal upgrades of HVAC equipment throughout the JWU campus by identifying the needs through work order system reporting, life cycle analysis and site investigations.
- Maintained project budgets and schedules to ensure deadlines are within the university's objectives. Previous projects ranged from \$10,000 up to \$2,500,000.
- Provided oversight for Building Management Systems including coordination with IT on server upgrades.
- Experience with variety of required projects of differing magnitudes such as replacement of cooling towers, RTU's or chillers and also smaller items such as EV charging stations, gate arms, roofs, flooring, classroom & lab renovations, water fountain & bottle fill stations, bluelight security phones, lighting control systems, refrigeration monitoring, etc.
- Contract administration of SLA and projects dealing with life safety, plumbing, electrical, generators, HVAC and controls.

### Mechanical Systems Project Manager, Johnson & Wales University (Promoted)

Johnson & Wales University      Providence, Rhode Island      11/2017- 06/2021

- Experience with project estimations, RFP process, selective bidding process, project risk assessments, change orders, invoice approvals, AIA contracts and vendor contract administration.
- Developed large multiphase roof and mechanical projects from the discovery phase to project closeout and turnover. Prepared project presentations for leadership approval.
- Familiar with building codes, design practices, envelop construction, structural roof systems, as well as, MEP, HVAC, A/V, IT, FA/FP, lighting control retrofits, security and control systems.
- Partnered with National Grid on strategic energy management program to identify opportunities for financial incentives of renewal projects to provide both higher energy efficiency and rebates back to the university. Utilized OBR to fund projects.
- Participated in weekly project tracking meetings to provide updates on project status.

### Assistant Facilities Manager JLL- Fidelity Investments Account

Jones Lang Lasalle      Smithfield, Rhode Island      04/2017- 11/2017

- Managed Corrigo CMMS for assigned Fidelity locations routing work orders to appropriate vendors for facility services.
- Project management of small projects related to investor centers including RTU replacements, flooring, plumbing, water heaters, minor renovations and finish work related items as required.
- Vendor contract management for services related to construction and facilities management within the US based Fidelity Investments portfolio (198 sites). Ensure SLA agreement compliance with vendors.
- Subject matter specialist for HVAC related issues including equipment condition assessments and renewal strategies.

### Project Site Supervisor, JCI NYC Major Projects Division- Hudson Yards, Rudin

Johnson Controls Inc.      New York, New York      10/2015- 04/2017

- Project management installation experience with building automation, HVAC controls, fire and security, and network integration systems in a unionized environment.
- Interpreted contract parameters to determine scope of work for project.
- Managed related database for MEP construction documentation.
- Managed project tasks and provided direction for union technicians and electricians.
- Procured, purchased, and managed required inventory items to meet project goals.
- Performed building walk-throughs to inspect and ensure quality control and safety.

### Energy Engineer, Energy Solutions Group- Empire State Building

Johnson Controls Inc.      New York, New York      03/2015- 10/2015

- Worked in partnership with the Building Chief Engineer to create facilities optimization plans to increase the efficiency of building systems.
- Setup data trends for system operation analysis.
- Assisted with sustainability project related needs by working with commissioning agent to problem solve system related issues (AHU).



**Building Systems Consultant- NYC Energy Management**

CUNY Building Performance Lab                      New York, New York                      12/2014- 3/2015

- Partnered with the Pacific Northwest National Laboratory to assist building operators with energy reduction and building retuning strategies.
- Provided consultation for technical and non-technical audiences on environmental control technologies for large building systems.
- Demonstrated building systems knowledge and computer aptitude while navigating a variety of building automation systems for data collection and analysis.

**Assistant Project Manager- Utilities & Maintenance Division**

Brooklyn Navy Yard Development Corporation                      Brooklyn, New York                      9/2013- 12/2014

- Managed building renovation construction projects on multiple sites BNYDC complex including trades such as carpentry, electrical, plumbing, and HVAC.
- Conducted site inspections for repair issues by monitoring work done by contracted maintenance personnel to keep in line with the campus wide master plan.

**Assistant Facilities Manager- Facilities & Ice Rink Operations**

Aviator Sports and Events Center                      Brooklyn, New York                      4/2012- 5/2014

- Inspected and monitored zones of the complex for operational compliance to facility standards.
- Ice making, painting and maintenance (Zamboni operator) for twin rink ice complex.
- Facility snow removal

**Education****City University of New York, NYC College of Technology****Bachelors of Technology, Facilities Management**

Engineering, Project Management, Business, Architecture, Behavioral Sciences

Graduated CUM LAUDE

**Associates of Applied Science, Environmental Control Technology (HVAC Engineering)**

HVAC Engineering &amp; Design, Building Automation, MEP Building Systems, Energy Management, HVAC Controls

Graduated with Honors

**State University of New York, Dutchess Community College****Associates of Arts, Liberal Arts and Humanities**

Humanities, Social Sciences, Mathematics, and Sciences

Emergency Medical Technician

**Certifications & Awards**

- OSHA 10 Construction Safety
- Johnson Controls Metasys (BMS) Operator Certification
- JCI Project Management Training Certification
- Building Operator Certification (BOC)
- Microsoft Office Certification (Excel, Word, Powerpoint)
- International Facilities Management Association member
- ASHRAE member- Rhode Island
- Congressional Recognition for National Service with Americorps
- CUNY NYC College of Technology Facilities Management Department Award for Excellence

# 3 CAPITAL FACILITIES IMPROVEMENT PLAN

Barrington intends to pursue improvements to the district that include both facility improvements and educational improvements in alignment with the motion included below which was adopted by both the Facilities Committee/School Building Committee and the School Committee:

Although no solutions have been selected or approved, the scope ranges from repair work to future-focused facilities that align with the educational goals and range from \$75-\$225 million seeking to maximize Barrington's reimbursement rate of 52.5% + additional sustainability reimbursements up to 56.5%.

Scope of work may include new construction, addition/renovation, repairs, and educational facility updates reflecting the district's long-term educational vision that is currently ongoing.

General Goals for projects to include, but not limited to:

- Decrease classroom overcrowding at all schools and increase classroom sizes.
- Provide future-focused educational space including but not limited to: Classroom quantities / sizes, small learning communities which include student and teacher collaboration spaces, Interdisciplinary areas for instruction, small and large group instruction spaces, social emotional support spaces indoor/outdoor learning connections, authentic learning opportunities, break-out and project areas.
- Provide dedicated enrichment spaces for Art, Music, Physical Education, STEM/Technology in each elementary school.
- Create dedicated and appropriate intervention and special education spaces
- Align grade configuration with teaching and curriculum models
- Create district-wide equity for all Barrington students
- Align space sizes to RIDE Basic Educational Plan (BEP)
- Upgrade safety and security features, protocols, and technology in all schools
- Create sustainable and energy efficient buildings with decreased operating costs.
- Consider opportunities for development of parks, recreation, and/or other amenities at sites considered surplus after implementation of plan
- Improve traffic safety, student drop-off and pick up and multimodal transportation access
- Consider opportunities for development of parks, recreation, and/or other amenities at sites considered surplus after implementation of plan
- Improve traffic safety, student drop-off and pick up and multimodal transportation access

Barrington does have an existing capital improvement plan on file at RIDE. As indicated in the executive summary, the Town of Barrington, Barrington School Committee and the Barrington Public Schools are waiting to conduct extensive community forums and visioning sessions to help determine the scope of project to be included as part of the Stage 2 Submission.

The following 3 schedules include options for projects that reflect the range in solution from repairs to renovation and new construction. Once Barrington has had the opportunity to weigh options and receive community input, a capital plan will be developed that reflects the intended scope of work. All of the solutions will likely require a school bond to finance.



# 4 FACILITIES ANALYSIS

## BARRINGTON HIGH SCHOOL

### SITE

Barrington High School site visited for site review on August 9, 2021, by two members of the KBA Landscape Department. These visits took place on a cloudy humid day, with temperatures in the 80's.

Overall, the site is in good condition. There were no immediate pressing issues in either the Priority 1 or 2 categories at the school.

With an extremely flat site, ADA issues due to grading are minimal.

Priority 3 issues are ADA compliance for paths to fields, including all of the softball fields, and the multipurpose fields. Pavements are in fair conditions with no signs of major ponding, though some ponding is evident at the



### CAPTION

*Barrington Public School's mission is to empower all students to excel in character, citizenship, collaboration, creativity, communication, and critical thinking, so that they may positively impact the future*

front of the school. Some pavements, specifically between the school and the baseball field, need to be replaced. At one location at the front of the school, the building juts out into the sidewalk so that the minimal 36" is not available on the sidewalk surface. The track surfacing and drainage need to be addressed. There did not appear to be ADA access to the press box. A lawn outdoor eating area with picnic tables was not ADA compliant.

Priority 4 issues included major cracking in asphalt with vegetation growing and retaining wall around the outdoor eating area in poor condition around the school. Trash collection is done in dumpsters with no fencing protection to keep trash from littering the surrounding area. Athletically, missing warning strips at outfield fences and track surfacing and drainage need to be repaired and/or resprayed and striped, goal posts need to be repainted, and some fencing both around the perimeter of the site and the track and fields need to be replaced. Some of the fencing is missing bottom or even top posts. There is no scoreboard

for one of the softball fields.

At the front of the school, one of the trees at the entrance is in poor condition and needs to be removed. Invasive species have grown up around the perimeter of the property and are smothering some otherwise healthy vegetation. This should be removed if possible.

## TRAFFIC ANALYSIS

**Address:** Barrington High School, 220 Lincoln Ave.

**Date of Observation ,** 6/18/2021

**Time:** 8:00 – 8:40 AM

**Participants:** David McKinley, Youry McKeon, Nora Brigham

### Student Drop-Offs by Parents

# of Cars: Front loop & Lincoln Street: 180 vehicles  
 West side:  
 East side (staff lot): No students, one teacher dropped off  
 Stacking out on Road: Two cars stacked on road during drop-off  
 How many cars can stack on the property: 10-12 on Front loop and entrance from Lincoln St.

### Bus Drop-Off

# of Buses (Large) 9, (Small) 2 Buses arrived between 8:17 and 8:30.

Bicyclists # 48 Are there bicycle racks on site?  Yes  No  
 5 bike racks on site.

Adequate Signage at Drop-off? *No signage at the drop-off areas.*  
 No idling signage at Bus loop? *No idling signage at Bus drop-off or pick-up area.*

ADA drop-off? *There is an ADA drop-off area.* Any Students being dropped off? *None seen*

Any specific areas that appear problematic on-site?

- *The entrance point on Lincoln Street creates some confusion and back up. The exit had no issues on the day that we visited.*
- *There is no sidewalk on Lincoln in front of the school but students are being dropped off there.*

Are buses and parents mixing or are the drop-offs separate? *Busses and parents all enter in the same location but the busses stay on the west side of the building while the parents stay on the south side.*

- Junior/Senior parking lots easily fill up with a senior class of over 300.
- Teacher lot did not fill up or generate any drop-off traffic.
- No adequate handicap spots at teacher lot (only one is for the field)
- The North door (right) is what most teachers use.
- Landscapers use this lot to access greenspace via the Northwest corner (there is also another access on the Southeast corner of lot)
- Student Dropoff Traffic buildup on full capacity days extends all the way to Middle school intersection at Lincoln and Middle Road. (approx. 0.5 miles)
- Total parking spaces on East side, 76

Parking Chart

	Regular Spaces	HC spaces	Total
East Lot	76	1	77
South ring road	26	4	30
West Lot	302	2	304
Total	404	7	411

Overall aerial photo of Barrington High School at 220 Lincoln Avenue, looking northwest taken by Odeh Engineers with a drone



## STRUCTURE

Odeh Engineers has conducted a RIDE Stage I & II structural inspection of the Barrington High School building located at 220 Lincoln Avenue in Barrington, RI. This evaluation included a visual inspection of the building interior and exterior. The following is a report of our findings and recommendations.

## STANDARD OF CARE

Please note that the results of this evaluation are limited to cursory visual observations of the accessible areas only. While we have reviewed the areas of interest, nearly all the structural framing is concealed by architectural finishes or was otherwise inaccessible, and therefore unforeseen damage or conditions may be present. The findings of this report represent our professional opinion based on the information available to us at this time.

Odeh Engineers understand that this report is intended for use only by Kaestle Boos Associates, and their client, to determine the existing structural condition of the existing building. In any budgeting, adequate contingency for hidden or unforeseen conditions that are not identified or are worse than described herein must be carried.

Please note that all dimensions of the existing structure given herein are approximate and based on measurements or estimates of representative members. Dimensions can and will vary and must be considered as "+/-" in all cases (whether or not the "+/-" symbol is indicated).

## ACTIONS TAKEN

Odeh Engineers took the following actions to complete this investigation:

- On Thursday, August 5, 2021, Robert Bowen, from this office, performed a walk-through tour of the accessible interior portions of the building and made visual observations of the existing structure and its condition.
- On Monday, August 16, 2021, Robert Bowen, from this office, performed a walk-through tour of the accessible interior and exterior portions of the building and flew a DJI Mavic 2 Pro unmanned aircraft (drone) around the building and took photos of the building's roof and exterior.
- Prepared this written summary of findings and recommendations.
- Discussed with and reviewed by M. David Odeh.

## DOCUMENTS REVIEWED

No existing drawings have been provided to Odeh Engineers for review.



Overall aerial photo of Barrington High School at 220 Lincoln Avenue taken by Odeh Engineers with a drone. North is oriented upwards on the page

## EXISTING BUILDING DESCRIPTION

The existing Barrington High School, located at 220 Lincoln Avenue in Barrington, Rhode Island, is predominantly a single story building with a variety of roof systems, roof slopes, building wings, and courtyards. There is a two-story portion of the building located on the north side of the building, just east of the building centerline. In addition to classrooms, administrative and utility spaces, there is an auditorium, cafeteria, gymnasium, auxiliary gymnasium, library, and wood shop. Refer to the following paragraphs for detailed descriptions.

## FOUNDATIONS

Based upon what could be see above grade, the foundation walls appear to be cast in place concrete.



Photo of typical cast-in-place concrete foundation wall

## ROOF FRAMING

Based upon what was visible, the roof framing appears to vary from open web steel joists, long-span steel joists, steel trusses or steel beams supporting tectum roof panels.



Photo of open web steel joists supporting tectum roof panels in one of the utility rooms.



Photo of long span steel joists in the auxiliary gym supporting tectum roof panels.



Photo of a metal truss in the gym supporting tectum roof panels.



## EXTERIOR WALLS

The exterior walls appear to primarily be constructed of a brick veneer exterior and a concrete masonry unit (cmu) interior. The cmu walls appear to be the support for roof framing system.

## LATERAL FORCE RESISTANCE SYSTEM

A distinct lateral force resistance system, such as steel bracing, was not observed. With the predominant use of cmu bearing walls throughout the building, the cmu walls are most likely behaving as the lateral force resistance system.

## OBSERVED BUILDING DEFICIENCIES AND POTENTIAL PROBLEM AREAS

The following structural deficiencies and potential problem areas are examples of visually apparent deficiencies observed by Odeh Engineers, Inc. during our due walk-through inspection of the existing building. Additionally, based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.



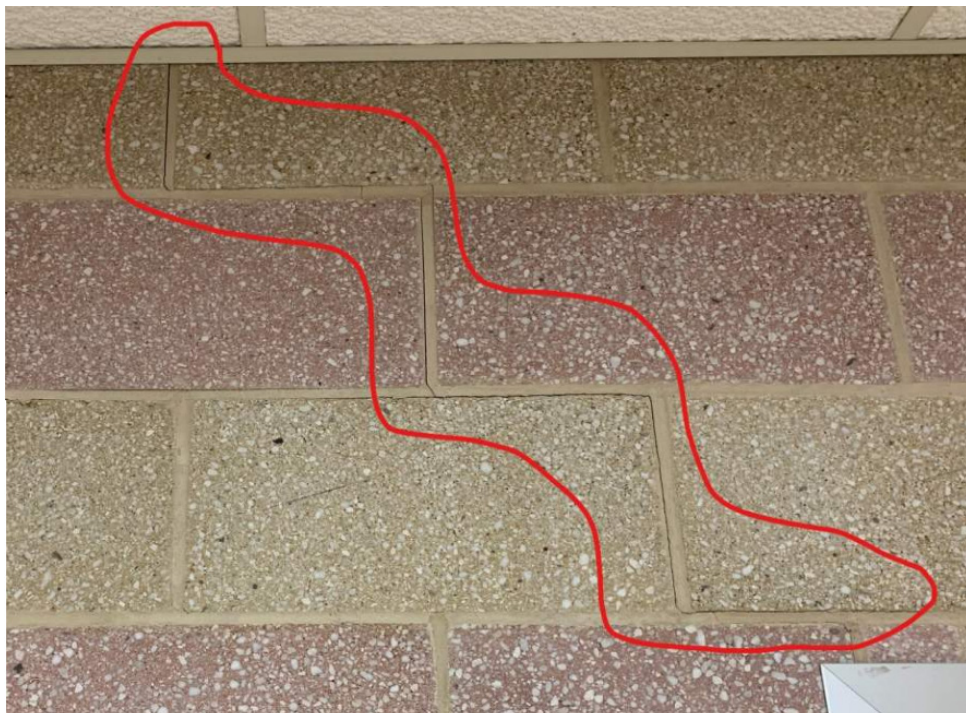
## WATER STAINED CEILING TILES

Comments and recommendations: In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration.



### CRACKS IN THE FLOOR FINISH

Comments and recommendations: In several locations throughout the building, the floor finish is cracked and/or raised which may create a tripping hazard. These cracks may be due to the cracking of the concrete slab underneath due to settlement and/or insufficient control joints. It is recommended that the floors be repaired as necessary to provide a smooth walking surface.

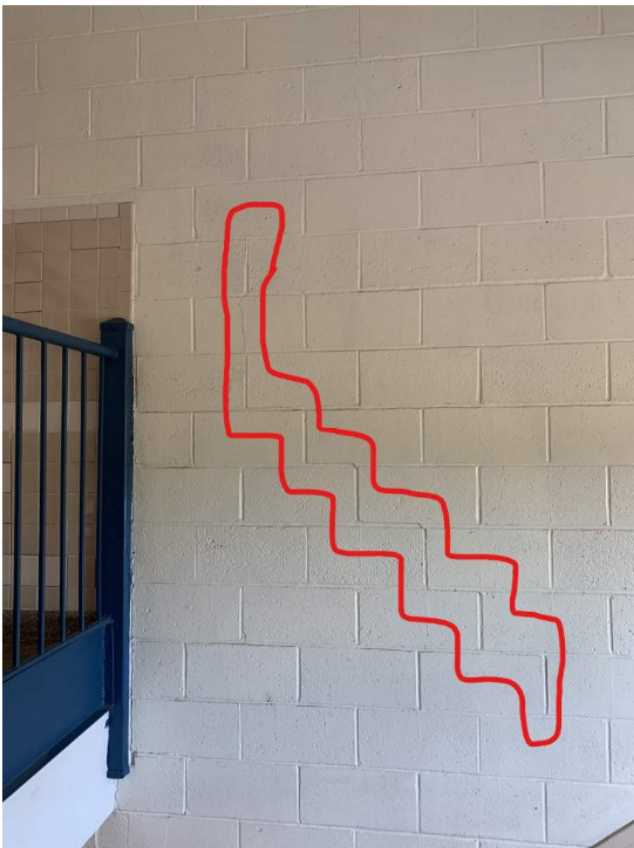


### STEP CRACKING IN INTERIOR CMU WALLS

Comments and recommendations: In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.

### VERTICAL CRACKING IN INTERIOR CMU WALLS

Comments and recommendations: In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



### VERTICAL AND STEP CRACKING IN STAIRWAY CMU WALLS

Comments and recommendations: In both stairways to the second floor, the cmu walls have vertical and step cracks through the cmu and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from a combination of vertical displacement due to foundation settlement and horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



### POSSIBLE UNDER-DESIGNED ROOF TRUSSES SUPPORTING BASKETBALL HOOPS

Comments and recommendations: In the main gymnasium, the basketball hoop support framing is connected to the roof trusses between panel point and is not reinforced at these locations. It is recommended that the existing structural drawings be reviewed and/or the metal truss manufacturer be contacted to verify that the trusses were designed to support the basketball hoop framing as it has been built.



### ROOF JOIST BRIDGING NOT CONNECTED

Comments and recommendations: In the main gymnasium, the roof joist bridging is not connected to the cmu wall. The purpose of the bridging is to help prevent out-of-plane buckling of the joists. It is recommended that the bridging be connected to the cmu walls as required by the joist manufacturer.

## CRACKED AND SPALLED CONCRETE, EXPOSED AND RUSTING REINFORCEMENT, ACTIVE WATER PENETRATION IN THE ELECTRICAL ROOM

Comments and recommendations: In the electrical room adjacent to the boiler room, there are several locations of cracked and spalled concrete, rusting reinforcement bars, efflorescence and water was actively leaking into the room. Due to the significance and potentially hazardous nature of the equipment in this room, it is recommended that the concrete, reinforcement, and water penetrations be repaired at once.



Additional photo showing spalled concrete, exposed and rusting reinforcement bars and efflorescence in the electrical room adjacent to the boiler room.

## LINTEL RUSTING

Comments and recommendations: The lintels are showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. A lack of weep holes will trap water behind the brick which could further accelerate rusting. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system and weep holes be installed.



## MISSING DOWNSPOUT, PEELING PAINT, RUSTING LINTELS

Comments and recommendations: There were a couple locations where the downspout is missing and focusing water to flow down the face of the wall which may lead to deterioration of the brick and/or mortar joints and allow water to infiltrate the building envelope which could cause damage to the structure or architectural finishes. It is recommended that proper downspouts be installed and any damaged brick and/or mortar joints be repaired. Peeling paint on the soffit was observed at several locations. Peeling paint may allow the deterioration of the wood and allow water and air infiltration into the building envelope which could cause damage to the walls, structure, and interior finishes. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that the peeling paint be removed, and the soffit be re-finished with an appropriate coating system. Rusting lintels were also observed at several locations. Please refer to the previous comment regarding rusting lintels.

### SPALLED CONCRETE AND EXPOSED REINFORCEMENT BAR AT WINDOW SILL

Comments and recommendations: Spalled concrete and exposed reinforcement bars at the concrete window sill were observed at various locations. The exposed reinforcement bar has rusted. If the rust is allowed to continue developing, more concrete could spall off, potentially causing property damage or personal injury. It is recommended that the spalled concrete and rusted reinforcement be repaired using high-performance concrete repair products.



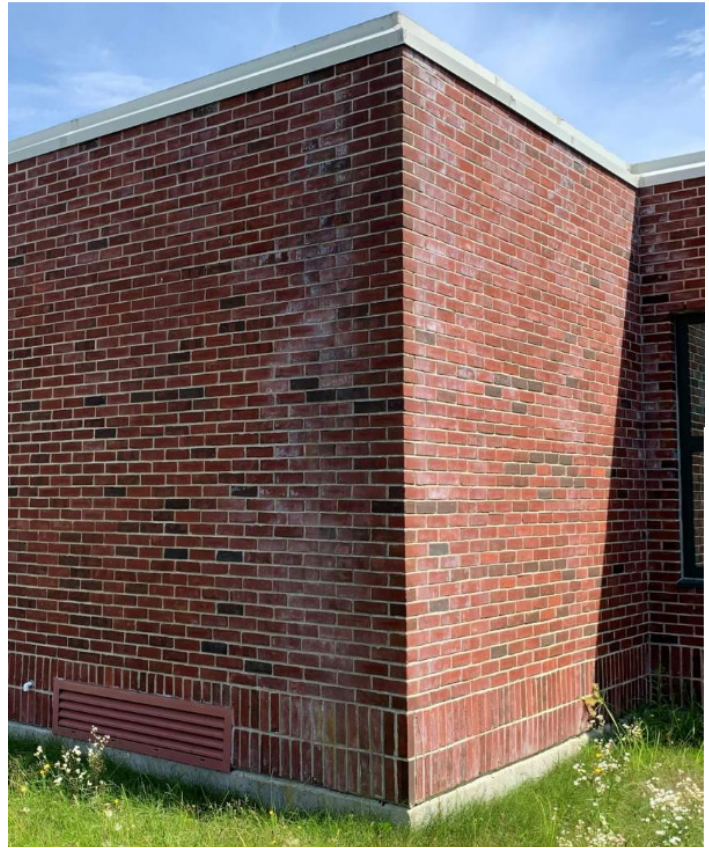
### RUSTED STEEL AND DAMAGED ROOF PANELS

Comments and recommendations: In the north-eastern courtyard, both roofs above the doors appear to have rusting framing and damaged panels. If the rust is allowed to continue to develop or the damaged panels are not repaired, it could eventually lead to failure and collapse, potentially causing property damage or personal injury. It is recommended that the rust be removed, and the framing be re-finished with an appropriate coating system and that the panels be replaced.



## EFFLORESCENCE AT BRICK WALLS

Comments and recommendations: At various and several locations, efflorescence was observed on the exterior brick walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior brick walls and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs.



## BRICK JOINT CRACKING AT VENTS

Comments and recommendations: At most of the wall vents, the adjacent brick mortar joints have cracked. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls.





### PREVIOUS CONCRETE REPAIRS

Comments and recommendations: There are a few various locations of previous concrete repairs which appear to have voids. These voids do not appear to currently post a structural hazard; however, these voids may allow water and air infiltration into the building foundation. To extend the life of the concrete walls and to protect the building, it is recommended that the concrete voids be repaired with high-performance concrete repair materials.



### CONTROL JOINTS IN THE EXTERIOR WALL HAVE AGED AND FAILED

Comments and recommendations: There are several locations where the control joints in the exterior wall have aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed control joints.



### EFFLORESCENCE AT CONCRETE WALLS

Comments and recommendations: At various locations, efflorescence and cracks were observed on the exterior concrete walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior concrete walls, and to protect the building structure, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs.



### STAINING AND MINOR CRACKING ON PRE-CAST COMPONENTS

Comments and recommendations: Along the southern face of the building, at the east end, staining and minor cracking was observed on several pre-cast components. To extend the life of the components and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source and cause of the staining and cracking and the required repairs.

## DISCONNECTED DOWNSPOUT AND CONCRETE SPALLING

Comments and recommendations: At various locations, downspouts are no longer connected to the drainage system and part of the concrete has been eroded away. While this does not currently appear to be a structural hazard, if allowed to continue, additional concrete spalls, and possibly concrete cracks and exposure of reinforcement, may occur which could allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the exterior concrete walls and to protect the building structure, it is recommended that the downspouts be properly connected, and a maintenance program be established to repair the cracks in the exterior concrete walls.



## MINOR CONCRETE WALL CRACKING

Comments and recommendations: There are various locations of minor concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls.



### MAJOR CONCRETE WALL CRACKING

Comments and recommendations: There are few locations of major concrete cracking at the exterior concrete walls. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the concrete walls and to protect the building, it is recommended that the concrete cracks be repaired with high-performance concrete repair materials.



### RAILING POST RUSTING AND CONCRETE CRACKING

Comments and recommendations: At several locations, railings posts are severely rusted at the base (sometimes completely through) and/or the adjacent concrete is cracked. While not a structural hazard, this is a life-safety hazard as failure of a railing post could result in property damage or personal injury. It is recommended that the rusted posts and cracked concrete be repaired.

## STAINING ON PRE-CAST COMPONENTS

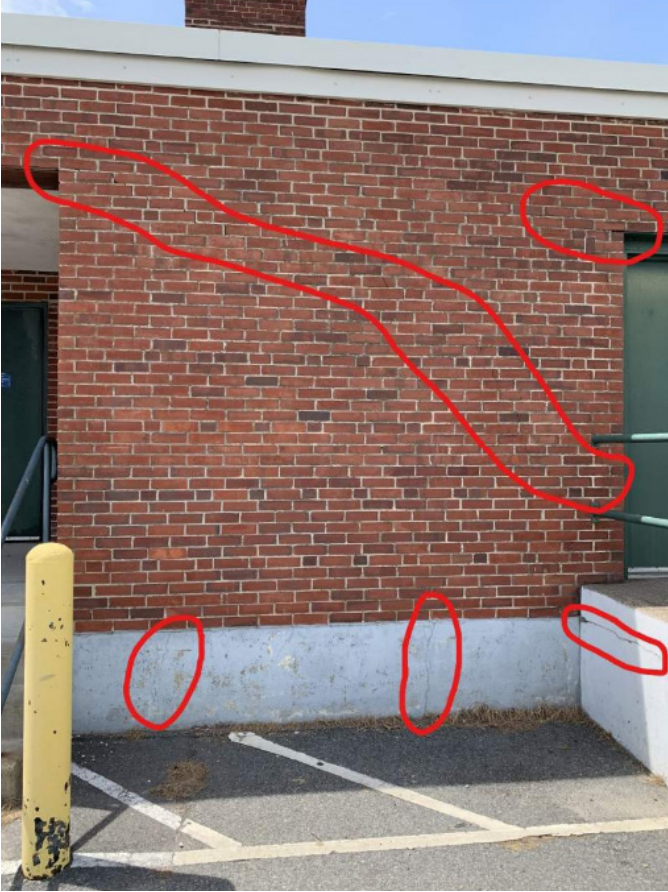
Comments and recommendations: At various locations, rust staining was observed on several pre-cast components. To extend the life of the components and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source and cause of the staining and the required repairs.



## RUSTED LINTEL AND BRICK JOINT CRACKS ADJACENT TO LIBRARY.

Comments and recommendations: Rust on a window lintel and cracked mortar joints were observed adjacent to the library. The cracked mortar joints may be caused by settlement, or the expansion of the steel lintel due to rust. While it currently does not appear to post a structural hazard, the rust should be removed from the lintel and be re-finished with an appropriate coating system, and the cracks should be periodically monitored to confirm they are dormant.





### VARIOUS BRICK AND CONCRETE CRACKS ON THE EAST FACE AT THE NORTH END

Comments and recommendations: A segment of wall on the east face, north end, has several cracks in the brick and concrete. These cracks do not appear to currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks

### BRICK CRACKS AT THE NORTH EAST CORNER OF THE WOOD SHOP

Comments and recommendations: The exterior north east corner of the wood shop has several cracks in the brick. These cracks do not appear to currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks.



## RUSTING FRAMING, ROOF PANEL DETERIORATION AND DAMAGED BRICK.

Comments and recommendations: At the north side entrance to the cafeteria, the roof framing is rusted, the panels are deteriorated and the brick wall to the west has several cracks and is slightly displaced. Due to the extent of deterioration, and its location at an entrance/exit, it is recommended that this area be rebuilt or repaired at once.



*Additional photo of the west wall that is adjacent to the cafeteria's north side entrance.*

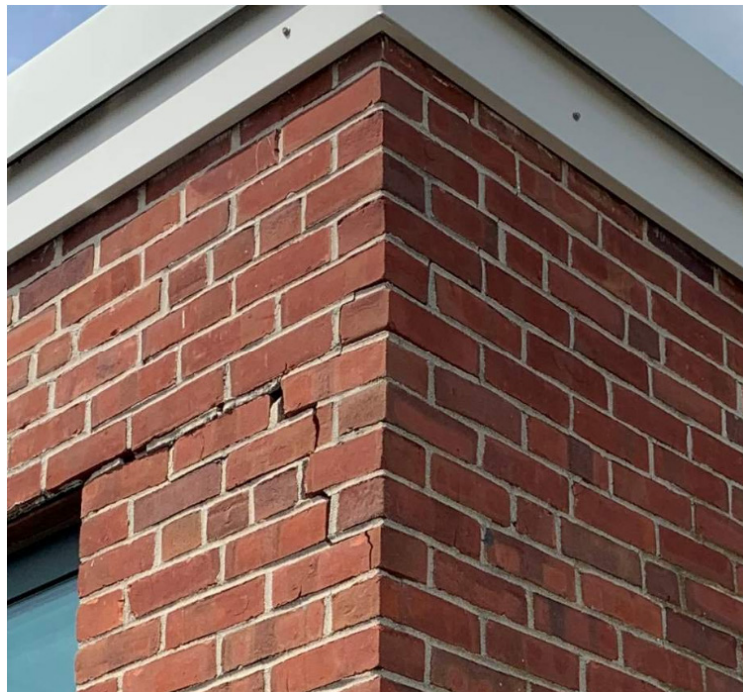
## RUSTED STEEL AND DAMAGED ROOF PANELS

Comments and recommendations: The canopy roof framing along the west face of the kitchen area appears to have rusting framing and damaged panels. If the rust is allowed to continue to develop or the damaged panels are not repaired, it could eventually lead to failure and collapse, potentially causing property damage or personal injury. It is recommended that the rust be removed, perform any repairs to the framing, and then re-finish the framing with an appropriate coating system and the panels be replaced.



## BRICK CRACKS AND DISPLACEMENT AT THE SOUTH EAST CORNER OF THE CAFETERIA

Comments and recommendations: The exterior south east corner of the cafeteria has several cracks in the brick and mortar joints and is laterally displaced. Due to the size of the cracks, and that the brick is laterally displaced, it is recommended that these deficiencies be repaired at once.





## PONDING WATER, RUSTED DUCT SUPPORTS, SHEET METAL

Comments and recommendations: The flat portion of roof at the south west area of the building has ponding water. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. The roof drains must also be cleaned of any obstructions. The framing supporting the ductwork is showing signs of rust and should be inspected for deterioration. There are pieces of sheet metal on the roof which should be removed before they can be moved by wind and possibly cause damage to property or injure personnel. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork.



## DORMER ROOF UN-SEAMED, BUCKLED FLASHING

Comments and recommendations: The curved dormer on the south face, east end has become un-seamed and a portion of the flashing has buckled. These deficiencies may allow water and air to infiltrate the building envelope and possibly cause damage to the structure and interior architectural finishes. It is recommended that these repairs be performed by a contractor that specializes in metal roofing systems.



### VEGETATION UNDER ROOF EAVE, BRICK CRACKS

Comments and recommendations: At the north east courtyard's south east corner, vegetation is growing along the edge of the flashing and vertical cracks in the brick are visible. It is recommended that the vegetation be removed as it can create openings in the building envelope which may allow water and air infiltration that could cause damage to the structure and/or interior finishes. It is recommended that cracks in the bricks be repaired for the same reasons. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas.



### ROOF TOP UNIT TARP DETERIORATED

Comments and recommendations: The tarp which has been wrapped over a roof top unit (RTU) on the east side roof appears to have reached the end of its usable life. It is recommended that the tarp be removed and replaced. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork.



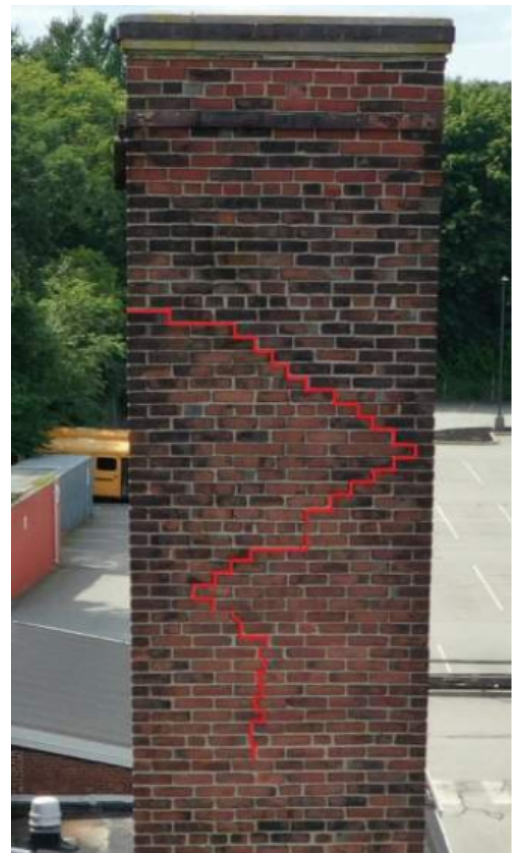
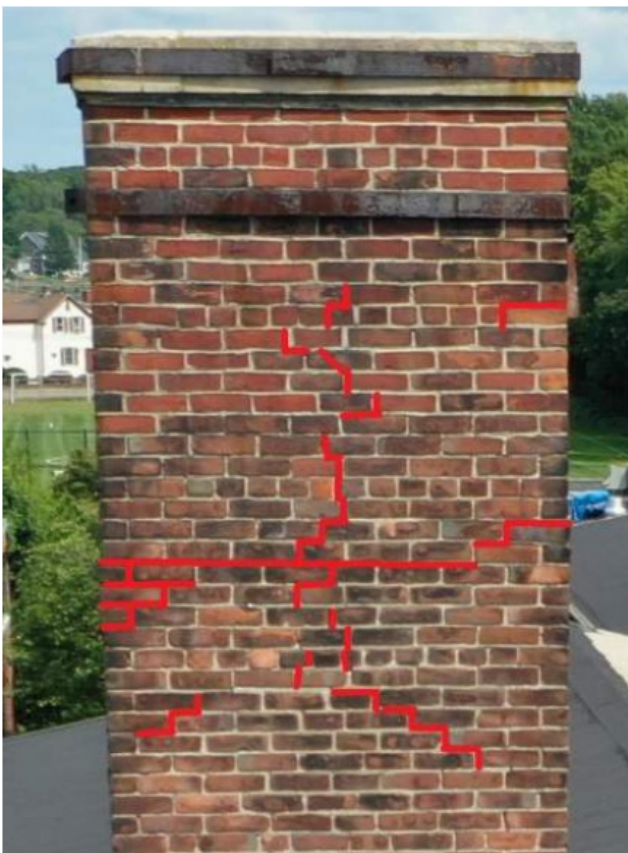
## PARTIALLY OBSTRUCTED ROOF DRAINS

Comments and recommendations: At various locations, roof drains appear to be partially obstructed. Obstructed roof drains can cause water ponding which can cause the roof structure to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. It is recommended that the roof drains be cleaned on a regular basis. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas.



## BRICK CRACKS IN WEST CHIMNEY

Comments and recommendations: The brick chimney at the west end of the building has several cracks in the bricks and mortar joints at the top. Also, the lower steel band is no longer connected on one side. It is recommended that the brick and mortar joints structural integrity be further investigated and that the steel band either be removed or replaced.



## PONDING WATER

Comments and recommendations: The flat portion of roof at the north east area of the building has ponding water around a piece of equipment and adjacent to a roof edge drain. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. The roof drains must also be cleaned of any obstructions.



## ROOFING MATERIAL DETERIORATION

Comments and recommendations: At various locations the roofing material is detaching (bubbling) from the substrate and the joint materials are cracked and appear brittle. The deficiencies do appear to currently pose a structural hazard at this time. However, if the conditions continue to deteriorate, water and air may infiltrate the building envelope and cause damage to the structure or interior finishes. It is recommended that the roofing and joint materials be inspected and repaired by a roofing contractor specializing in these roofing systems. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas.



## EQUIPMENT SUPPORT DETERIORATION

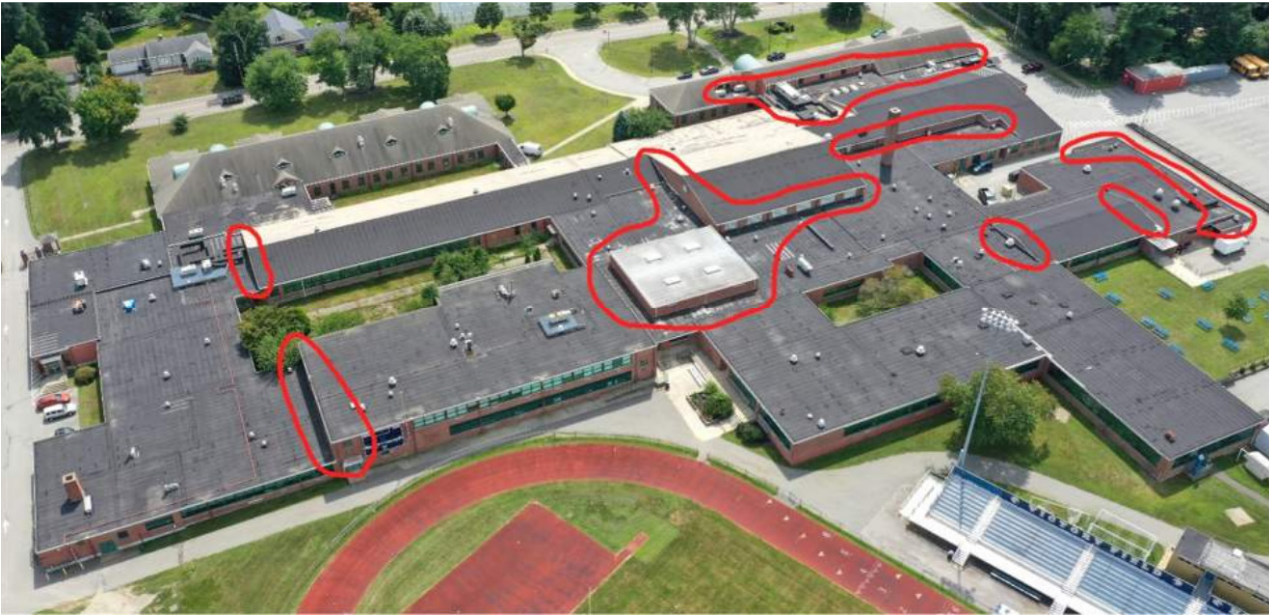
Comments and recommendations: At various locations on the roof, the wood supporting equipment has deteriorated and/or is no longer connected to the roof below. Insufficient support of the equipment could allow it to displace during strong winds. It is recommended that new pressure-treated equipment support framing be installed. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork.



## BALLASTED ROOFING

Comments and recommendations: The ballasted roofs along the southern side of the building appears to have reached the end of its service life. The ballast is no longer adhering to the membrane and is falling onto adjacent roofs and into gutters. It is recommended that the ballasted roofs be removed and replaced.





*Photo with high/low roof areas highlighted.*



*Photos of rtu's and high/low roof conditions.*

## SNOW DRIFT AT HIGH/LOW ROOF AND RTU AREAS

Comments and recommendations: Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.

## CONCLUSION

In conclusion, it is Odeh Engineer's professional opinion that the existing building is in good and serviceable condition, however we noticed several localized issues which will need to be addressed to maintain the serviceability of the structure. Please refer to the Observed Building Deficiencies and Potential Problem Areas section for descriptions and recommendations.

## MECHANICAL SYSTEMS

### EXECUTIVE SUMMARY

Barrington High School was built in 1951 and has undergone several additions and renovations since that time. The most recent being an addition to the building in 1999. The existing HVAC equipment installed in the school is generally past its useful life expectancy.

### HEATING SYSTEM

1. The building has two boiler rooms serving their own sections of the building. The first boiler room contains two (2) gas fired boilers. One (1) antiquated gas-fired boiler, manufactured by H.B. Smith Co. Inc., model M450L Mills, with 15 cast iron sections. The boiler has a natural gas input of 4,956 MBH, with an output of 3,965 MBH making it 80% efficient. The boiler utilizes a Power Flame Burner, model C3-G-25. The boiler is well past its useful life expectancy. A newer gas-fired boiler, manufactured by Weil-Mclain., model 88. The boiler has a natural gas input of 4,113 MBH, with an output of 3,270 MBH making it 80% efficient. The boiler utilizes a Power Flame Burner, model WCR3-G-25.
2. Insulated rectangular ductwork, with draft dampers, terminating in a brick chimney is provided as venting for the boilers. Combustion air is brought in through insulated rectangular ductwork. With an associated fan.
3. Heating hot water is circulated to air handling units, fin tube radiation, unit ventilators, unit heaters, convectors, etc. via two (2) floor mounted end suction pumps. The heating hot water is distributed via insulated piping throughout the building. The end suction pumps appear to be in acceptable condition.
4. The heating plant is equipped with all necessary hydronic accessories, such as air separators, expansion tanks and chemical treatment for proper operation. The accessories are of the same vintage as the boilers.
5. The second boiler room contains two (2) antiquated oil-fired boilers, manufactured by H.B. Smith Co. Inc., 640 series. The boilers have a oil input of 37.5 GPH. The boilers utilize Power Flame Burners, model C3-CB. The boilers are well past their useful life expectancy.
6. Insulated rectangular ductwork, with draft dampers, terminating in a brick chimney is provided as venting for the boilers. Combustion air is brought in through insulated rectangular ductwork. With an associated fan. There is also a louver with insect screen that is open to the outdoors without any damper control.
7. Heating hot water is circulated to air handling units, fin tube radiation, unit ventilators, unit heaters, convectors, etc. via two (2) floor mounted end suction pumps. The heating hot water is distributed via insulated piping throughout the building. Insulated piping in this boiler room appears to be in poor condition, showing signs of water damage from leaks. The end suction pumps are manufactured by Armstrong, model 3x2x10-4030 (130 GPM) and appear to be in poor condition.
8. The heating plant is equipped with all necessary hydronic accessories, such as air separators, expansion tanks and chemical treatment for proper operation. The accessories are of the same vintage as the boilers except for the expansion tank that appears to be recently replaced.



Existing Boilers (Boiler Room #1)



Pumps (Boiler Room #1)



Existing Boilers 1 (Boiler Room #2)



Existing Boiler 2 (Boiler Room #2)





Existing Pumps (Boiler Room #2)



Water damaged insulation (Boiler Room #2)

## AIR CONDITIONING

The building is not fully air conditioned. Packaged heating and cooling rooftop units are installed where air conditioning is required. These units serve areas such as the auditorium, library, and administrative areas.



Typical Packaged Rooftop Units



Typical Ceiling Mounted Diffuser and Register

## VENTILATION

1. Floor mounted classroom unit ventilators are utilized for the heating and ventilation requirements for most classroom spaces. Each unit is equipped with a hot water heating coil, supply fan and filter, and dedicated outdoor air louver. The unit ventilators appear original to the building. The classroom spaces are provided with exhaust systems to remove any outdoor air that is introduced through the unit ventilators which helps maintain a neutral pressure within the space. Classroom (exhaust) is served by roof mounted exhaust fan systems. The unit ventilators are generally past their expected useful service life.
2. Restrooms, janitor's closets and utility rooms are exhausted by roof mounted exhaust air fans. There are many roof curbs which appear to have been abandoned and flashed over. Providing reason for concern as to the level of ventilation in the school.



Classroom Unit Ventilator



Outdoor Air Intake Louver Associated with Unit Vent



Abandoned Curb



Typical Roof Mounted Exhaust Fan

## AIR HANDLING UNITS

There is one (1) indoor air handling unit providing heating and ventilation to the gymnasium. The units is in a mechanical mezzanine accessed near the auditorium lobby.



Air Handling Unit



Louver Associated with Air Handler

## KITCHEN

1. The kitchen is a full working kitchen. There are multiple exhaust hoods over several different appliances with dedicated fans. A dedicated exhaust system is connected to the dishwasher. Make-up air is provided by a dedicated air handling unit similar to those described above.



*Kitchen Hood Over Cooking Appliances*



*Dishwasher with Dediccate Exhaust System*



*Kitchen Exhaust Fans and Make-up Air Unit*



*Kitchen Exhaust Fans and Make-up Air Unit*

## CONTROLS

1. The building HVAC control system appear to be standalone in nature. Various types of digital and electronic thermostats were witnessed within the building. Some spaces have multiple thermostats serving the same area, provided from a range of manufacturers such as Honeywell, Schneider Electric, and Barber Colman. This is assumed to control different pieces of equipment independently as no building management system, or related control panels, appeared to be present.



*Various Thermostats Serving Same Space*



*Typical Thermostat*

## RECOMMENDATIONS:

1. The existing boilers appear to be original to the building, with exception of the Weil Mclain, and are past their useful life expectancy. Four new gas fired condensing boilers (95% Efficient) with all new accessories should be installed.
2. The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit.
3. A new air handling unit serving the Cafeteria should be provided. We recommend the system provide dehumidified displacement air similar to the classrooms as described above.
4. Air handling units that provide ventilation air to corridors, offices, etc should be replaced and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to each respective space.
5. Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.
6. The ATC system should be further upgraded. Provide new DDC controls for all equipment such as fin tube, unit heaters, Unit Ventilators, AHU, pumps, etc. Along with new controls, a building management system (BMS) is recommended to help track and maintain all mechanical systems, provide scheduling, and alert the school of any problematic equipment as soon as possible.

## ELECTRICAL SYSTEMS

### EXECUTIVE SUMMARY:

1. In general, the Electrical systems range from original vintage to more recent upgrades, such as, the electric service. The service size is adequate for the current usage; however, would not be adequate from both a voltage standpoint and capacity in any renovation program. The building's feeders and sub-panels are original. Reuse of existing wiring and distribution equipment becomes impractical and not cost effective as panels and equipment ultimately are housed in different locations due to updated programs and require extensive splicing and extensions. Exit signs, and the fire alarm system are not compliant with current codes and are in need of replacement.
2. It is our recommendation, taking into consideration the age and general condition of the existing equipment, that all systems be replaced with new energy efficient, code compliant systems with the exception of the electrical service.

### ELECTRICAL DISTRIBUTION SYSTEM:

1. There is one service present at the facility. The service is rated at 120/208 Volt, 3 Phase, 4 Wire. The existing main switchboard has a 2,000 amp rated switch. The switchboard is manufactured by Square D and is in good condition.
2. There is a utility company transformers located outdoors adjacent to the Main Electric Room. The site is on one secondary meter located outdoors adjacent to the Main Electric Room. The service is underground to the building.
3. There are electrical sub-panels located throughout the building, both in closets and exposed in public areas. The panels are circuit breaker type; however, the some of them are obsolete and in poor condition. The panels are manufactured by Frank Adams which no longer produces electrical distribution equipment and Square D.



Main Switchboard



2000A Main Switch and CT Section



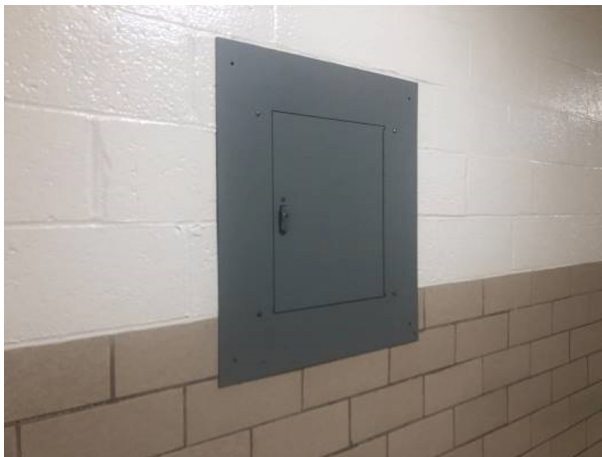
Pad Mounted Transformer



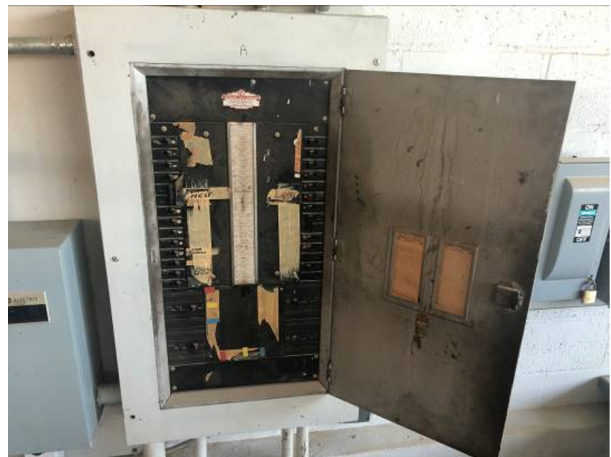
Sub-Panel



Kitchen Sub-Panel



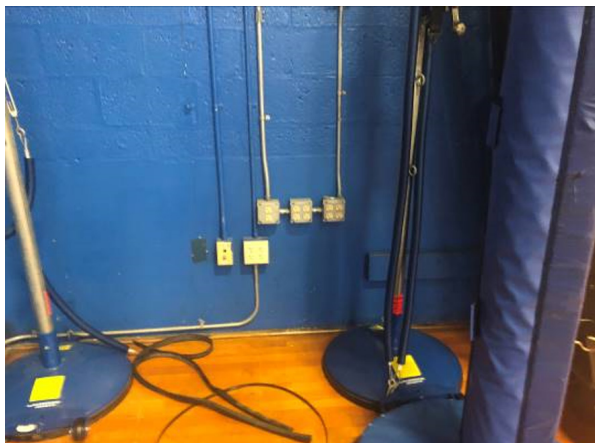
Recessed Sub-Panel



Original Panel

### BRANCH CIRCUITS:

1. In general, the quantity of receptacles throughout the facility appears to accommodate the current needs.
2. Computer labs have had power poles installed to accommodate the computer equipment.
3. Not all Kitchen receptacles are GFI type.



Outlet



Power & Data Wiremold



Plug Strip



Shop Plug Strip

### INTERIOR LIGHTING SYSTEM:

1. Lighting in weight room, music room, cafeteria, and main office consists of 2x4 recessed fluorescent acrylic troffers.
2. Corridor lighting consists of 2x2 recessed center basket fluorescent fixtures. Light levels appear adequate.
3. Creative Lab lighting consists of recessed 2x4 parabolic fluorescent fixtures.
4. Kitchen and Library lighting consists of surface 1x4 wraparound fluorescent fixtures.
5. Gym lighting consists of high bay chain mounted 2x4 fluorescent fixtures.
6. Auditorium consists of recessed downlight, wall sconces, pendant downlights and theatrical spot lights.
7. Stage lighting consists of spot and boarder lights.
8. Toilet rooms and Locker Rooms have 2x2 recessed center basket fluorescent fixtures.
9. Lighting controls are of the manual type with local switches throughout. Classrooms, Library, Cafeteria, and Gym have occupancy sensors.



Corridor Lighting



Classroom Lighting



Cafeteria Lighting



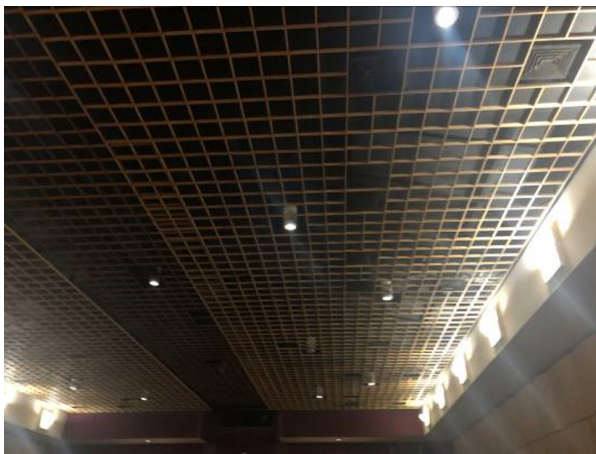
Shop Lighting



Kitchen Lighting



Gym Lighting



Auditorium Lighting



Stage Lighting



### EMERGENCY LIGHTING SYSTEM:

1. There is an emergency generator present that services the building. Location of automatic transfer switches was not available.
2. The generator is rating was not available, 120/208V, 3 Phase, 4 Wire, diesel fired, manufactured by Superior and located in a weatherproof enclosure. The generator and enclosure are in fair condition.



Generator

### FIRE ALARM SYSTEM:

1. The fire alarm system is an original Simplex 4100 addressable system. The system is obsolete. The fire alarm notification devices do not meet code and detection is limited. The building does not have a sprinkler system except in the Auditorium. The fire alarm system is in need of replacement.



Pull Station



Fire Alarm Control Panel



Horn/Strobe



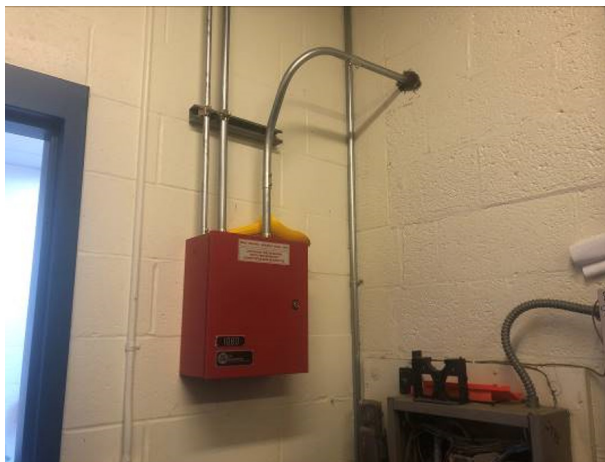
Smoke Detector



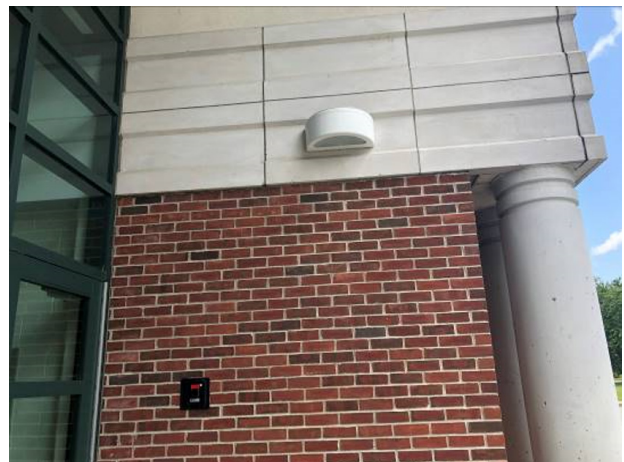
Smoke Detector



Fire Alarm Annunciator



Sigcom Radio Box



Recessed Knox Box

## RECOMMENDATIONS:

1. Receptacles should be added to accommodate technology devices and A/V devices used in 21st century learning. The branch circuits should be wired to dedicated power panels with TVSS protection and 200% neutrals to protect sensitive electronics.
2. Lighting should be upgraded to high efficiency LED lighting to reduce the overall light power density and improve light levels. An automated lighting control system should be provided in the facility that communicates with occupancy sensors, daylight dimming sensors, and low voltage light switches. This will allow for an energy code compliant lighting control system that will further reduce energy usage.
3. A new code compliant addressable fire alarm system with voice evacuation notification appliances throughout the facility should be provided.
4. A new wireless master clock system should be provided.
5. A new addressable intrusion system should be provided and door contacts integrated into the access control system.

## PLUMBING & FIRE PROTECTION SYSTEMS

The plumbing systems at the 177,600 square foot Barrington High School (built in 1950) in general are in working order. The major systems, although working adequately at this time, are approaching the end of their useful life. In Addition, many of the systems are not up to the latest industry standards, best practices, and current codes. If it is anticipated that major modifications are planned for the building, the plumbing systems should be considered for an overall upgrade. Also, a complete fire protection system shall be installed as the building does not currently have a fire sprinkler system.

### (2) 2-INCH DOMESTIC WATER SERVICE

Description: (2) 2-inch domestic water service lines enter the building at the boiler room. it enters the building as poly tubing and transitions to copper piping where it is metered, there are main backflow preventers at the building entry.

Condition: The piping appears in satisfactory working condition. the water meter appears in good working condition.

Deficiencies:

1. No main backflow preventers are installed.
2. The Water service piping is not insulated as required by current energy codes.

Recommendation: a backflow preventers shall be installed. provide insulation

### DOMESTIC WATER PIPING SYSTEM

Description: The domestic water piping system (where observable) consists of primarily copper pipe & fittings with soldered joints. most of the observable piping has been recently replaced. The replaced piping utilizes press joints instead of soldered joints.

Condition: The domestic water piping although working appears in satisfactory condition.

Deficiencies: Some of the water piping is not insulated as required by current energy codes.

Recommendation : Insulate all domestic water piping in accordance with the energy code.

## DOMESTIC HOT WATER

Description: The Domestic hot water system for the building is provided by a dedicated hot water heater system in the boiler room. it consists of a gas fired hot water heater with indirect storage tank, the boiler. the domestic hot water has a master mixing valve to set the temperature and a circulation pump to circulate the water for the main building loop.

Condition: The hot water mixing valve and water heater appears in good working condition. the circulation pump appears to have reached the end of its useful life.

Deficiencies:

1. Some of the hot water piping is not insulated as required by current energy codes.
2. Energy codes.

Recommendation: Replace hot water circulation pump with new.

## GAS PIPING SYSTEM

Description: The gas piping system at the building consists of (2) 8-inch natural gas services that enter the building at the boiler rooms. the gas piping is welded black steel piping and feeds the boilers, and domestic water heaters.

Condition: The gas piping appears in good working order.

## SANITARY WASTE AND VENT SYSTEM

Description: The sanitary waste and vent system where visible appears to consist mainly of pvc pipe and fittings.

Condition: The piping where visible appeared to be in satisfactory condition. The under-ground piping was not visible.

## STORM SYSTEM

Description: The storm system consists of roof drains with some draining to external gutter downspouts and some connected to internal storm drainage.

Condition: The observable components of the storm system appears in good working condition.

## TOILET ROOMS

Description: The main toilet rooms have been recently updated to include newer plumbing fixtures. the peripheral toilet rooms have some dated plumbing fixtures.

Condition: The newer fixtures appear in good working condition. in some areas, the plumbing fixtures are older and appear in satisfactory condition.

Recommendation: Replace the aging plumbing fixtures with new.

## FIRE SUPPRESSION SYSTEMS

Description: There is no fire sprinkler system protecting the building.

Recommendation: Provide a fully sprinklered fire suppression system in accordance with latest adoption of NFPA-13.

## TECHNOLOGY

### INTRODUCTION

This section includes an existing conditions report and recommendations for the Technology Communication Cabling Infrastructure, Public Address and Master Clock systems, Electronic Physical Security Systems, and Audio-Visual Systems.

Floor plans notating the location and name of each technology room are included in the appendix of this report. These plans were provided by Barrington Public Schools IT. The nomenclature (MDF, IDF1, IDF2, etc.) for each space in this survey is based on those plans.

### COMMUNICATION CABLING INFRASTRUCTURE

#### FINDINGS

1. Barrington High School has (1) MDF & (5) IDFs. It should be noted that IDF4 could not be reviewed during the existing conditions site visit.
2. Horizontal Ethernet cable is a mix of Category 5e, Category 6, and Category 6A, with a mix of Plenum and Riser Cable.
3. Backbone cable between data rooms includes 6 strand multi-mode fiber optic cable to each IDF originating from the MDF.
4. The MDF and all IDF's have dedicated power, which is sufficient for the electronic devices in each room.
5. Grounding and bonding protection for all low voltage devices within the MDF and all IDF's is not in place.
6. The MDF has dedicated cooling units. All IDF's ranged from warm to hot.
7. Most penetrations / sleeves for cable pathways could not be observed, but many that were visible did not have proper firestopping. Firestop all penetrations. Photo of non-firestopped



*Photo of non-firestopped penetrations for cable pathways*

## RECOMMENDATIONS:

1. Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.
2. Install properly sized cooling units in the following spaces to protect the lifespan of the active electronics within these rooms:
  - a. IDF1
  - b. IDF2
  - c. IDF3
  - d. IDF5
3. Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.
4. The following rooms are in shared space. Consider relocating to a dedicated space.
  - a. IDF 2 – Shared with storage
  - b. IDF 3 – Shared with storage
  - c. IDF 5 – Shared with storage
5. Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within.
6. Replace zip ties with Velcro hook and loop straps.

## II. PUBLIC ADDRESS & MASTER CLOCK

### FINDINGS

1. Barrington High School has an antiquated Simplex Public Address and Master Clock system. Classrooms have analog phones that integrate into this Simplex system.

## RECOMMENDATIONS:

1. Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system.
2. Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.
3. Replace all associated cabling.
4. Install public address strobes to notify students and staff of an announcement in high volume areas, including, but not limited to:
  - a. Gymnasiums
  - b. Cafeteria
  - c. Shop Classrooms
  - d. Music / Choral Classrooms
5. Install exterior horns around the building for full coverage of the exterior, including the fields.
6. Install a phone to public address interface so that any phone in the building can access the public address system.
7. Replace the Public Address Phone handsets with newer models.
8. Replace the Simplex Wired Master Clock with a modern, wireless Master Clock.
9. Replace all hardwired clocks in all spaces with Wireless clocks.



Photo of typical classroom Phone / Clock / PA Speaker assembly

### III. PHYSICAL ELECTRONIC SECURITY

#### FINDINGS

1. Barrington High School has the following manufacturers for the Physical Security Systems:
  - a. Intrusion Detection – Sonitrol
  - b. Access Control – Keyscan
  - c. Video Surveillance – Uniview with (2 – 4) analog cameras
2. There is a spot monitor in the main office with a single image of the interior camera capturing the second set of vestibule doors into the facility.
3. Barrington High School currently has a “Lockdown” system, controlled via a desk mounted button. BPS facilities confirmed that when engaged, the lockdown button makes an announcement over the Public Address system and auto-dials out to central monitoring (Sonitrol) to relay the alarm to first responders.
4. The front entrance does not have any access control. A two-way communication device and card reader is installed at the first set of interior vestibule doors. High School staff confirmed that the first set of doors into the main entrance are rarely locked.



*Picture of communication device and card reader*

#### RECOMMENDATIONS:

1. Access Control:
  - a. Install a card reader and an intercom door release at the main entrance. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.
2. Intrusion Detection:
  - a. BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication ( POTs, IP, Cellular). Consider adding door position switches on all exterior doors.
  - b. It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.
3. Video Surveillance:
  - a. The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a “Single Pane of Glass” to manage all cameras throughout the district.
  - b. Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary.
  - c. Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.
  - d. Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.

4. Lockdown System:
  - a. Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area.
  - b. Consider intergratine the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders.
  - c. Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.
  - d. Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.

## IV. AUDIO-VISUAL SYSTEMS

### FINDINGS

1. Classroom Audio-Visual Findings
  - a. Classrooms on the first floor have wall mounted TV's and Apple TV's. Cable is not properly dressed and protected, and classrooms do not have visible external speakers.
  - b. Most classrooms on the second floor have SMART interactive displays. Two to four classrooms on the second floor have speakers that may be integrated into the interactive display systems.
  - c. Many classrooms have projectors or manual screens. It is not clear if they are in use.



*Photo of typical classroom AV display*



*Photo of classroom AV system on second floor.*



*Photo of ceiling mounted projector.*





# **AUTOMATIC TEMPERATURE CONTROLS REPORT**

## **BARRINGTON HIGH SCHOOL**











# HAZARDOUS MATERIALS REPORT

BARRINGTON HIGH SCHOOL



**FINAL REPORT  
FOR LIMITED  
HAZARDOUS MATERIALS IDENTIFICATION  
STUDY  
AT THE  
HIGH SCHOOL  
BARRINGTON, RHODE ISLAND**

PROJECT NO: 221 371.00

Survey Dates:  
August 2, 2021

CONDUCTED BY:

**UNIVERSAL ENVIRONMENTAL CONSULTANTS  
12 Brewster Road  
Framingham, MA 01702**



August 9, 2021

Mr. Sean L. Schmigle AIA, NCARB  
*Senior Architect*  
KAESTLE BOOS ASSOCIATES, INC  
10 Chestnut Street, Suite 301  
Foxborough, MA 02035

Reference: Report for Limited Hazardous Materials Identification Study  
High School, Barrington, Rhode Island

Dear Mr. Schmigle:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for the limited Hazardous Materials Identification Study at the Barrington High School, Barrington, Rhode Island.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

A handwritten signature in blue ink, appearing to read "Ammar M. Dieb", is written over a horizontal line.

Ammar M. Dieb  
President

UEC:\221 371.00\High School Report.DOC

Enclosure

## 1.0 INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-two years of experience.

UEC was contracted by Kaestle Boos Associates, Inc. to conduct the following services at the High School, Barrington, Rhode Island:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's Caulking Inspection.
- Lead Based Paint Inspection.

This is a limited inspection, and the report should not be used to renovate or demolish the building. Inspection per the Environmental Protection Agency (EPA) NESHAP regulations will be required to be performed.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by a Rhode Island licensed asbestos inspector Mr. Leonard J. Busa (AAC-0745) and analyzed by a Rhode Island licensed laboratory Asbestos Identification Laboratory, Woburn, MA.

Samples results are attached.

## 2.0 FINDINGS:

### **Asbestos Containing Materials (ACM):**

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition, a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations.

No additional suspect or accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities. It is recommended that once the scope of work has been determined, a full comprehensive survey including destructive testing is performed.

### ***Number of Samples Collected:***

Forty-seven (47) bulk samples were collected from materials suspected of containing asbestos, including:

### **Type and Location of Suspect Material**

1. New 2' x 4' Suspended acoustical ceiling tile at room 815
2. New 2' x 4' Suspended acoustical ceiling tile at hallway by auditorium
3. Joint compound at stage
4. Joint compound at room 111
5. Joint compound at classroom 410
6. Gypsum ceiling deck at wood shop
7. Grey sink damproofing at classroom 403

8. Grey sink damproofing at classroom 410
9. Lab table type I at classroom 308
10. Lab table type II at classroom 317-A
11. Soft grey glazing caulking within interior window
12. Soft brown glazing caulking within interior window
13. Hard tan glazing caulking within interior window
14. Wall plaster at classroom 317-A
15. Wall plaster at hallway
16. Gypsum wall behind wall plaster at classroom 317-A
17. Ceiling plaster at stairwells by classroom 308
18. Ceiling plaster at boy's locker room
19. Adhesive for glazed wall tile at stairwell by classroom 322
20. Paper jacketing for gypsum ceiling at boiler room
21. New light grey 12" x 12" vinyl floor tile at room 403-A
22. Unknown tile under new light grey 12" x 12" vinyl floor tile at room 403-A
23. Black mastic for new light grey 12" x 12" vinyl floor tile at room 403-A
24. Exposed caramel 12" x 12" vinyl floor tile at elevator hallway
25. Mastic for exposed caramel 12" x 12" vinyl floor tile at elevator hallway
26. New tan 12" x 12" vinyl floor tile at hallway
27. Mastic for new tan 12" x 12" vinyl floor tile at hallway
28. Unknown tile under 12" x 12" vinyl floor tile at classroom 411
29. Brown mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 411
30. Black mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 411
31. Unknown tile under 12" x 12" vinyl floor tile at hallway
32. Black mastic for unknown tile under 12" x 12" vinyl floor tile at hallway
33. Black mastic for unknown tile under 12" x 12" vinyl floor tile at hallway
34. Unknown tile under 12" x 12" vinyl floor tile at classroom 113
35. Black mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 113
36. Black mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 113
37. Exterior unit vent grille caulking
38. Exterior unit vent grille caulking
39. Exterior window framing caulking
40. Exterior window framing caulking
41. Exterior window framing caulking
42. Exterior window framing caulking
43. Exterior window framing caulking
44. Exterior soft glazing caulking for old window
45. Exterior expansion joint caulking
46. Exterior grey caulking in seams of stone sill
47. Exterior flashing protruding from foundation

**Sample Results:**

**Type and Location of Suspect Material**

**Sample Result**

- |   |                      |
|---|----------------------|
| 1. New 2' x 4' Suspended acoustical ceiling tile at room 815              | No Asbestos Detected |
| 2. New 2' x 4' Suspended acoustical ceiling tile at hallway by auditorium | No Asbestos Detected |
| 3. Joint compound at stage  | No Asbestos Detected |
| 4. Joint compound at room 111   | No Asbestos Detected |
| 5. Joint compound at classroom 410  | No Asbestos Detected |
| 6. Gypsum ceiling deck at wood shop                                       | No Asbestos Detected |
| 7. Grey sink damproofing at classroom 403                                 | No Asbestos Detected |
| 8. Grey sink damproofing at classroom 410                                 | No Asbestos Detected |
| 9. Lab table type I at classroom 308                                      | No Asbestos Detected |
| 10. Lab table type II at classroom 317-A                                  | No Asbestos Detected |
| 11. Soft grey glazing caulking within interior window                     | 15% Asbestos         |

12. Soft brown glazing caulking within interior window	25% Asbestos
13. Hard tan glazing caulking within interior window	3% Asbestos
14. Wall plaster at classroom 317-A	No Asbestos Detected
15. Wall plaster at hallway	No Asbestos Detected
16. Gypsum wall behind wall plaster at classroom 317-A	No Asbestos Detected
17. Ceiling plaster at stairwells by classroom 308	No Asbestos Detected
18. Ceiling plaster at boy's locker room	No Asbestos Detected
19. Adhesive for glazed wall tile at stairwell by classroom 322	No Asbestos Detected
20. Paper jacketing for gypsum ceiling at boiler room	No Asbestos Detected
21. New light grey 12" x 12" vinyl floor tile at room 403-A	No Asbestos Detected
22. Unknown tile under new light grey 12" x 12" vinyl floor tile at room 403-A	2% Asbestos
23. Black mastic for new light grey 12" x 12" vinyl floor tile at room 403-A	No Asbestos Detected
24. Exposed caramel 12" x 12" vinyl floor tile at elevator hallway	No Asbestos Detected
25. Mastic for exposed caramel 12" x 12" vinyl floor tile at elevator hallway	No Asbestos Detected
26. New tan 12" x 12" vinyl floor tile at hallway	No Asbestos Detected
27. Mastic for new tan 12" x 12" vinyl floor tile at hallway	No Asbestos Detected
28. Unknown tile under 12" x 12" vinyl floor tile at classroom 411	No Asbestos Detected
29. Brown mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 411	No Asbestos Detected
30. Black mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 411	No Asbestos Detected
31. Unknown tile under 12" x 12" vinyl floor tile at hallway	2% Asbestos
32. Black mastic for unknown tile under 12" x 12" vinyl floor tile at hallway	No Asbestos Detected
33. Black mastic for unknown tile under 12" x 12" vinyl floor tile at hallway	3% Asbestos
34. Unknown tile under 12" x 12" vinyl floor tile at classroom 113	2% Asbestos
35. Black mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 113	No Asbestos Detected
36. Black mastic for unknown tile under 12" x 12" vinyl floor tile at classroom 113	No Asbestos Detected
37. Exterior unit vent grille caulking	No Asbestos Detected
38. Exterior unit vent grille caulking	5% Asbestos
39. Exterior window framing caulking	No Asbestos Detected
40. Exterior window framing caulking	No Asbestos Detected
41. Exterior window framing caulking	No Asbestos Detected
42. Exterior window framing caulking	No Asbestos Detected
43. Exterior window framing caulking	No Asbestos Detected
44. Exterior soft glazing caulking for old window	No Asbestos Detected
45. Exterior expansion joint caulking	No Asbestos Detected
46. Exterior grey caulking in seams of stone sill	4% Asbestos
47. Exterior flashing protruding from foundation	No Asbestos Detected

### **Observations and Conclusions:**

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

Refer to the AHERA Management Plan for condition of ACM.

1. Soft grey glazing caulking within interior window was found to contain asbestos.
2. Soft brown glazing caulking within interior window was found to contain asbestos.
3. Hard tan glazing caulking within interior window was found to contain asbestos.
4. Unknown tile under new light grey 12" x 12" vinyl floor tile was found to contain asbestos.
5. Unknown tile under 12" x 12" vinyl floor tile was found to contain asbestos.
6. Black mastic for unknown tile under 12" x 12" vinyl floor tile was found to contain asbestos.
7. Exterior unit vent grille caulking was found to contain asbestos.
8. Exterior grey caulking in seams of stone sill was found to contain asbestos.
9. Ceramic tile grout and adhesive were assumed to contain asbestos.
10. Paper/mastic under hardwood floors were assumed to contain asbestos.
11. Glue holding blackboard/chalkboard was assumed to contain asbestos.

12. Transite inside fume hood was assumed to contain asbestos.
13. Hidden ACM pipe and hard joint insulation was assumed to exist.
14. Damproofing on exterior and foundation walls was assumed to exist and assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle.
15. Roofing material was assumed to contain asbestos.
16. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

**Polychlorinated Biphenyls (PCB’s)-Electrical Equipment and Light Fixtures:**

**Observations and Conclusions:**

Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB’s and mercury. Ballasts in light fixtures were assumed not to contain PCB’s since there were labels indicating that “No PCB’s” was found. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.

**PCB’s in Caulking:**

PCB’s are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB’s was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB’s are a class of chemicals made up of more than 200 different compounds. PCB’s are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB’s are not very soluble in water, and they do not break down easily in the environment. PCB’s also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB’s have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB’s if PCB’s level exceed 50 mg/kg (ppm). An abatement plan might also be required.

**Observations and Conclusions:**

Building materials and caulking were assumed to contain PCB’s.

**Lead Based Paint (LBP):**

**Observations and Conclusions**

LBP was assumed to exist on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

**3.0 COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition projects.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout:	Multiple-Layers of Vinyl Floor Tiles and Mastic	98,500 SF	492,500.00
	Interior Windows	50 Total	7,500.00
	Hidden Pipe and Hard Joint Insulation	Unknown	25,000.00
	Blackboards/Tackboards	Unknown	70,000.00

Location	Material	Approximate Quantity	Cost Estimate (\$)
	Light Fixtures	1,500 Total	70,000.00
	Miscellaneous Hazardous Materials/Hidden ACM	Unknown	75,000.00
Classroom 316	Fume Hood	1 Total	4,500.00
Gymnasiums	Wood Flooring, Paper and Mastic	10,500 SF	73,500.00
Exterior	Unit Vent Grilles	90 Total	18,000.00
	Caulking in Stone Sill	150 LF	7,500.00
	Roofing Materials	Unknown	150,000.00
	Transite Sewer Pipes	Unknown <sup>1</sup>	50,000.00
	Damproofing on Walls	Unknown <sup>1</sup>	625,000.00
Estimated costs for NESHAP Inspection			15,000.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			181,500.00
<b>TOTAL:</b>			<b>\$ 1,850,000.00</b>

<sup>1</sup>: Part of total demolition.

#### 4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA /600/R-93/116.

Inspected By:



Leonard Busa  
Asbestos Inspector  
(AAC-0745)

## 5.0 LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.





## Asbestos Identification Laboratory.

165 New Boston St., Ste 227  
Woburn, MA 01801  
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**Batch: 67431**

Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

Project Information

*Barrington H.S,  
Barrington,  
RI*

*Method: BULK PLM ANALYSIS,  
EPA/600/R-93/116*

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning  
Owner/Director

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information


Barrington H.S.,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
01 749302	New 2x4 SAT	Rm 815	gray	Mineral Wool 20 Cellulose 20 Non-Fibrous 60	None Detected
02 749303	New 2x2 SAT	Hall by Aud.	gray	Mineral Wool 40 Cellulose 40 Non-Fibrous 20	None Detected
03 749304	Joint Compound	Stage	white	Non-Fibrous 100	None Detected
04 749305	Joint Compound	Rm 111	white	Non-Fibrous 100	None Detected
05 749306	Joint Compound	C'rm 410	white	Non-Fibrous 100	None Detected
06 749307	GYP CLG Deck	Wood Shop	gray	Cellulose 5 Non-Fibrous 95	None Detected
07 749308	Sink Damproofing, Grey	C'rm 403	gray	Cellulose 10 Non-Fibrous 90	None Detected
08 749309	Sink Damproofing, Grey	C'rm 410	gray	Cellulose 10 Non-Fibrous 90	None Detected
09 749310	Lab Table Type - 1	C'rm 308	tan	Cellulose 100 Non-Fibrous < 1	None Detected
10 749311	Lab Table Type - 2	Prep Rm, 317-A	black	Non-Fibrous 100	None Detected
11 749312	Soft Grey Glaze at Diag Mesh Window	317/317-A	gray	Non-Fibrous 85	<b>Detected Chrysotile 15</b>
12 749313	Soft Brown? Gl at Diag Mesh Window	Library Entrance	gray	Non-Fibrous 75	<b>Detected Chrysotile 25</b>
13 749314	Hard Tan? Gl at Diag Mesh Window	Stairwell by 305	tan	Non-Fibrous 97	<b>Detected Chrysotile 3</b>
14 749315	Wall Plaster	317-A	gray	Non-Fibrous 100	None Detected
15 749316	Wall Plaster	Hall by 641	white	Non-Fibrous 100	None Detected
16 749317	GYP Wall Behind #15	Hall by 641	gray	Cellulose 5 Non-Fibrous 95	None Detected

Sampled: August 02, 2021      Received: August 05, 2021      Analyzed: August 06, 2021

Friday 06 August 2021

Analyzed by: 

Batch: 67431

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Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Barrington H.S.,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 749318	Ceiling Plaster	Stairwell by 308	gray	Non-Fibrous 100	None Detected
18 749319	Ceiling Plaster	Boy's Lockers	gray	Non-Fibrous 100	None Detected
19 749320	Adhesive For Glazed Wall Tile	Tile Stairwell by 322	gray	Non-Fibrous 100	None Detected
20 749321	Paper Jacketing for GYP CLG	Boiler Rm	black	Cellulose 100 Non-Fibrous < 1	None Detected
21 749322	New 12" Light Grey VT	Rm 403-A	gray	Non-Fibrous 100	None Detected
22 749323	Unknown Under #21	Rm 403-A	gray	Non-Fibrous 98	Detected Chrysotile 2
23 749324	Black Mastic #22	Rm 403-A	black	Non-Fibrous 100	None Detected
24 749325	Exposed Carmel 12" VT	Gym H.C. Elevator Hall	tan	Non-Fibrous 100	None Detected
25 749326	Adhesive #24	Gym H.C. Elevator Hall	yellow	Non-Fibrous 100	None Detected
26 749327	New 12" Tan VT	Hall by 611	tan	Non-Fibrous 100	None Detected
27 749328	Adhesive(s)? #26	Hall by 611	yellow	Non-Fibrous 100	None Detected
28 749329	Unknown Under 12"	C'rm 411	tan	Non-Fibrous 100	None Detected
29 749330	Brwon Adhesive #28	C'rm 411	yellow	Non-Fibrous 100	None Detected
30 749331	Black Adhesive #28	C'rm 411	black	Non-Fibrous 100	None Detected
31 749332	Unknown Under New 12"	Hall by 401	tan	Non-Fibrous 98	Detected Chrysotile 2
32 749333	Black Mastic on #31	Hall by 401	black	Non-Fibrous 100	None Detected

Sampled: August 02, 2021    Received: August 05, 2021    Analyzed: August 06, 2021

Friday 06 August 2021

Analyzed by: 

Batch: 67431

Ammar Dieb  
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 12 Brewster Road  
 Framingham, MA 01702

Project Information

Barrington H.S.,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 749334	Black Mastic other Side #31	Hall by 401	black	Cellulose 10 Non-Fibrous 87	Detected Chrysotile 3
34 749335	Unknown Under New 12"	Rm 113	tan	Non-Fibrous 98	Detected Chrysotile 2
35 749336	Black Mastic on #33	Rm 113	black	Non-Fibrous 100	None Detected
36 749337	Black Mastic Other Side of #34	Rm 113	black	Non-Fibrous 100	None Detected
37 749338	Grille Caulk	Library Exterior	gray	Non-Fibrous 100	None Detected
38 749339	Grille Caulk	100 Wing Exterior	gray	Non-Fibrous 95	Detected Chrysotile 5
39 749340	Window Frame Caulk	Wood Shop Exterior	green	Non-Fibrous 100	None Detected
40 749341	Window Frame	Library Exterior	green	Non-Fibrous 100	None Detected
41 749342	Window Frame	Rm 820 Exterior	green	Non-Fibrous 100	None Detected
42 749343	Window Frame	Rm 807 Exterior	green	Non-Fibrous 100	None Detected
43 749344	Window Frame	By Guidance Exterior	green	Non-Fibrous 100	None Detected
44 749345	Soft GI For Old Window	Library (by 301)	black	Non-Fibrous 100	None Detected
45 749346	Exp. Joint (Vert. at Brick)	Library Exterior	gray	Non-Fibrous 100	None Detected
46 749347	Susp. Grey Caulk in Seams of Stone Sill	300 Wing Exterior	gray	Non-Fibrous 96	Detected Chrysotile 4
47 749348	Flashing Protruding From Foundation	Rear Aud. Exterior	black	Fiberglass 10 Cellulose 30 Non-Fibrous 60	None Detected

Sampled: August 02, 2021      Received: August 05, 2021      Analyzed: August 06, 2021

Friday 06 August 2021

Analyzed by:



Batch: 67431

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# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Barrington, RI Building Name Barrington H.S.

Sample	Result	Description of Material	Sample Location
1		NEW 2x4 SAT	rm 815
2		NEW 2x2 SAT	hall by aud.
3		Joint Compound (JC)	stage
4		JC	rm 111
5		JC	rm 410
6		gyp c/c deck	ward Shop
7		sink damp proofing, grey	rm 403
8		sink sp, grey	rm 410
9		LAB TABLE type-I	rm 308
10		LAB TABLE type-II	prep rm, 317-A <span style="float:right">wallpaper?</span>
11		soft grey glaz c/dig mesh window	317/317-A
12		soft brown? gl c/dig mesh win	Library entrance
13		hard tan? gl c/dig mesh win	stairwell by 305
14		wall plaster (WP)	317-A
15		WP	hall by 641
16		gyp wall behind #15	" " "
17		ceiling plaster (CP)	stairwell by 308
18		CP	Boys Locker
19		adhesive for glazed wall tile	stairwell by 322
20		paper jacketing for gyp c/c	Boiler rm

Reported By: Sam Bura Date: 8-2-21 Due Date: 24 hr

Received By: Uln Date: 8-5-21

2008

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Bellingham, RI Building Name: Bellingham H.S.

Sample	Result	Description of Material	Sample Location
21		new 12" light grey vt	rm 403-A
22		unknown under #21	↓
23		Black mastic #22	↓
24		exposed camel 12" vt	gym h.c. elevator hall
25		adhesive # 24	" " "
26		new 12" tan vt	hall by 611
27		adhesives) ? # 26	" "
28		unknown under new 12"	rm 411
29		Brown adhesive # 28	↓
30		Black adhesive # 28	↓
31		unknown under new 12"	hall by 401
32		Black (m) # 31	↓
33		Black (m) other side # 31	↓
34		unknown under new 12"	rm 113
35		Black (m) on # 33	↓
36		Black (m) other side of # 34	↓
37		Grille caulk	Library
38		Grille caulk	100 wing
39		window frame caulk	Wood Shop
40		winf	Library

EXTERIOR

Reported By: [Signature] Date: 8-2-21 Due Date: 24-hr  
 Received By: [Signature] Date: 8-5-21

303

# CHAIN OF CUSTODY

**Universal Environmental Consultants**  
 12 Brewster Road  
 Framingham, MA 01702  
 Tel: (508) 628-5486 - Fax: (508) 628-5488  
 adieb@uec-env.com

Town/City: Barrington, RI Building Name: Barrington H.S.

Sample	Result	Description of Material	Sample Location
41		win fr	rm 820 ✓ EXTERIOR
42		win fr	rm 807
43		win fr	by Guidance
44		soft gl. for old window	L. by (by 301)
45		exp joint (vert @ brick)	Library
46		susp. grey caulk in seams of stone sill	300 wing
47		flashing protruding from foundation	rear ext.

Reported By: [Signature] Date: 8-22 Due Date: 24-10  
 Received By: [Signature] Date: 8-5-2

# **FACILITY DEFICIENCY BUDGET ESTIMATES**

**BARRINGTON HIGH SCHOOL**



High School Priority Budgetary Estimates

Client: Barrington Public School		Project Name: High School		RIDE Stage 1					
Project Manager: Sean Schmigle		Project #: 21023							
Site Name: High School		School Size: 177,600 sf		Year Built: 1950					
PRIORITY TOTAL									
Item	System	1	2	3	4	5	Total	% of Total	
1	Site			3	4		\$ 556,250.00	1.52%	
2	Roofing	1	4				\$ 5,499,625.00	14.99%	
3	Structural		15	17	4		\$ 5,006,375.00	13.64%	
4	Exterior		3				\$ 1,337,950.00	3.65%	
5	Interior			11			\$ 8,314,608.75	22.66%	
6	Haz Mat			15			\$ 2,331,250.00	6.35%	
7	Mechanical		2	4			\$ 2,156,250.00	5.88%	
8	Electrical			4			\$ 1,875,000.00	5.11%	
9	Plumbing	1	2				\$ 91,250.00	0.25%	
10	Fire & Life Safety	1					\$ 809,100.00	2.21%	
11	Technology	-	-	48			\$ 8,047,500.00	21.93%	
12	Conveyances						\$ -	0%	
13	Specialties				1		\$ 666,000.00	1.82%	
** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**							Total	\$ 36,691,158.75	100%

Site						
Deficiency	Category	Unit	Priority	Repair Cost		
1 Pavements in some locations need replacing	Capital Renewal	Lump	3	\$	187,500.00	34%
2 Sidewalk at front of school is non-compliant (not wide enough)	Barrier of Accessibility	Lump	3	\$	93,750.00	17%
3 Football goals need repainting	Capital Renewal	Lump	4	\$	6,250.00	1%
4 Add scoreboards for JV	Technology	Lump	4	\$	31,250.00	6%
5 No ADA accessibility to fields	Barrier of Accessibility	Lump	3	\$	93,750.00	17%
6 New fencing required in places	Capital Renewal	Lump	4	\$	125,000.00	22%
7 Remove unhealthy vegetation	Enhancements	Lump	4	\$	18,750.00	3%
				<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>	<b>Subtotal</b>	<b>\$ 556,250.00 100%</b>

Roofing						
Deficiency	Category	Unit	Priority	Repair Cost		
1 Cleaning Roof Drains	Capital Renewal	Lump	2	\$	55,500.00	1.01%
2 Installing new downspouts	Capital Renewal	24	2	\$	31,500.00	0.57%
3 Replacement of damaged low-sloping modified Bitumen roof(s) (School)	Capital Renewal	91,475 SF	1	\$	4,116,375.00	74.85%
4 Replacement of damaged low-sloping modified Bitumen roof(s) (Press Box)	Capital Renewal	4,500 SF	2	\$	202,500.00	3.68%
5 Field storage buildings roof repair / replacement	Capital Renewal	2,500 SF	2	\$	1,093,750.00	19.89%
				<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>	<b>Total</b>	<b>\$ 5,499,625.00 100%</b>

Structural						
Deficiency	Category	Unit	Priority	Repair Cost		
1 In several locations throughout the building, the floor finish is cracked and/or raised which may create a tripping hazard. These cracks may be due to the cracking of the concrete slab underneath due to settlement and/or insufficient control joints. It is recommended that the floors be repaired as necessary to provide a smooth walking surface.	Capital Renewal	Lump	3	\$	3,663,000.00	73.17%
2 In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$	166,500.00	3.33%
3 In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$	62,500.00	1.25%
4 In both stairways to the second floor, the cmu walls have vertical and step cracks through the cmu and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from a combination of vertical displacement due to foundation settlement and horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.	Capital Renewal	Lump	3	\$	62,500.00	1.25%
5 In the main gymnasium, the basketball hoop support framing is connected to the roof trusses between panel point and is not reinforced at these locations. It is recommended that the existing structural drawings be reviewed and/or the metal truss manufacturer be contacted to verify that the trusses were designed to support the basketball hoop framing as it has been built.	Capital Renewal	Lump	2	\$	12,500.00	0.25%
6 In the main gymnasium, the roof joist bridging is not connected to the cmu wall. The purpose of the bridging is to help prevent out-of-plane buckling of the joists. It is recommended that the bridging be connected to the cmu walls as required by the joist manufacturer.	Capital Renewal	Lump	3	\$	18,750.00	0.37%
7 In the electrical room adjacent to the boiler room, there are several locations of cracked and spalled concrete, rusting reinforcement bars, efflorescence and water was actively leaking into the room. Due to the significance and potentially hazardous nature of the equipment in this room, it is recommended that the concrete, reinforcement, and water penetrations be repaired at once.	Capital Renewal	Lump	3	\$	12,500.00	0.25%
8 The lintels are showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. A lack of weep holes will trap water behind the brick which could further accelerate rusting. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system and weep holes be installed.	Capital Renewal	Lump	3	\$	10,625.00	0.21%
9 There were a couple locations where the downspout is missing and focusing water to flow down the face of the wall which may lead to deterioration of the brick and/or mortar joints and allow water to infiltrate the building envelope which could cause damage to the structure or architectural finishes. It is recommended that proper downspouts be installed and any damaged brick and/or mortar joints be repaired. Peeling paint on the soffit was observed at several locations. Peeling paint may allow the deterioration of the wood and allow water and air infiltration into the building envelope which could cause damage to the walls, structure, and interior finishes. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that the peeling paint be removed, and the soffit be re-finished with an appropriate coating system. Rusting lintels were also observed at several locations. Please refer to the previous comment regarding rusting lintels	Capital Renewal	Lump	4	\$	31,250.00	0.62%
10 Spalled concrete and exposed reinforcement bars at the concrete window sill were observed at various locations. The exposed reinforcement bar has rusted. If the rust is allowed to continue developing, more concrete could spall off, potentially causing property damage or personal injury. It is recommended that the spalled concrete and rusted reinforcement be repaired using high-performance concrete repair products	Capital Renewal	Lump	4	\$	18,750.00	0.37%
11 In the north-eastern courtyard, both roofs above the doors appear to have rusting framing and damaged panels. If the rust is allowed to continue to develop or the damaged panels are not repaired, it could eventually lead to failure and collapse, potentially causing property damage or personal injury. It is recommended that the rust be removed, and the framing be re-finished with an appropriate coating system and that the panels be replaced.	Capital Renewal	Lump	2	\$	31,250.00	0.62%
12 At various and several locations, efflorescence was observed on the exterior brick walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior brick walls and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs	Capital Renewal	Lump	3	\$	18,750.00	0.37%
13 At most of the wall vents, the adjacent brick mortar joints have cracked. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls	Capital Renewal	Lump	3	\$	25,000.00	0.50%
14 There are a few various locations of previous concrete repairs which appear to have voids. These voids do not appear to currently post a structural hazard; however, these voids may allow water and air infiltration into the building foundation. To extend the life of the concrete walls and to protect the building, it is recommended that the concrete voids be repaired with high-performance concrete repair material	Capital Renewal	Lump	3	\$	37,500.00	0.75%
15 There are several locations where the control joints in the exterior wall have aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed control joints	Capital Renewal	Lump	3	\$	18,750.00	0.37%

16	At various locations, efflorescence and cracks were observed on the exterior concrete walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior concrete walls, and to protect the building structure, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs	Capital Renewal	Lump	3	\$	18,750.00	0.37%
17	Along the southern face of the building, at the east end, staining and minor cracking was observed on several pre-cast components. To extend the life of the components and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source and cause of the staining and cracking and the required repairs	Capital Renewal	Lump	3	\$	93,750.00	1.87%
18	At various locations, downspouts are no longer connected to the drainage system and part of the concrete has been eroded away. While this does not currently appear to be a structural hazard, if allowed to continue, additional concrete spalls, and possibly concrete cracks and exposure of reinforcement, may occur which could allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the exterior concrete walls and to protect the building structure, it is recommended that the downspouts be properly connected, and a maintenance program be established to repair the cracks in the exterior concrete walls	Capital Renewal	Lump	3	\$	62,500.00	1.25%
19	There are various locations of minor concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete wall	Capital Renewal	Lump	4	\$	18,750.00	0.37%
20	There are few locations of major concrete cracking at the exterior concrete walls. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the concrete walls and to protect the building, it is recommended that the concrete cracks be repaired with high-performance concrete repair materials	Capital Renewal	Lump	4	\$	43,750.00	0.87%
21	At several locations, railings posts are severely rusted at the base (sometimes completely through) and/or the adjacent concrete is cracked. While not a structural hazard, this is a life-safety hazard as failure of a railing post could result in property damage or personal injury. It is recommended that the rusted posts and cracked concrete be repaired	Capital Renewal	Lump	4	\$	25,000.00	0.50%
22	At various locations, rust staining was observed on several pre-cast components. To extend the life of the components and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source and cause of the staining and the required repairs	Capital Renewal	Lump	4	\$	31,250.00	0.62%
23	Rust on a window lintel and cracked mortar joints were observed adjacent to the library. The cracked mortar joints may be caused by settlement, or the expansion of the steel lintel due to rust. While it currently does not appear to pose a structural hazard, the rust should be removed from the lintel and be re-finished with an appropriate coating system, and the cracks should be periodically monitored to confirm they are dormant	Capital Renewal	Lump	4	\$	93,750.00	1.87%
24	A segment of wall on the east face, north end, has several cracks in the brick and concrete. These cracks do not appear to currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks	Capital Renewal	Lump	4	\$	62,500.00	1.25%
25	The exterior north east corner of the wood shop has several cracks in the brick. These cracks do not appear to currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the crack	Capital Renewal	Lump	3	\$	31,250.00	0.62%
26	At the north side entrance to the cafeteria, the roof framing is rusted, the panels are deteriorated and the brick wall to the west has several cracks and is slightly displaced. Due to the extent of deterioration, and its location at an entrance/exit, it is recommended that this area be rebuilt or repaired at once. See the next page for a photo of the other side of the brick wall	Capital Renewal	Lump	2	\$	62,500.00	1.25%
27	The canopy roof framing along the west face of the kitchen area appears to have rusting framing and damaged panels. If the rust is allowed to continue to develop or the damaged panels are not repaired, it could eventually lead to failure and collapse, potentially causing property damage or personal injury. It is recommended that the rust be removed, perform any repairs to the framing, and then re-finish the framing with an appropriate coating system and the panels be replaced	Capital Renewal	Lump	2	\$	31,250.00	0.62%
28	The exterior south east corner of the cafeteria has several cracks in the brick and mortar joints and is laterally displaced. Due to the size of the cracks, and that the brick is laterally displaced, it is recommended that these deficiencies be repaired at once.	Capital Renewal	Lump	3	\$	25,000.00	0.50%
29	The curved dormer on the south face, east end has become un-seamed and a portion of the flashing has buckled. These deficiencies may allow water and air to infiltrate the building envelope and possibly cause damage to the structure and interior architectural finishes. It is recommended that these repairs be performed by a contractor that specializes in metal roofing systems.	Capital Renewal	Lump	2	\$	93,750.00	1.87%
30	At the north east courtyard's south east corner, vegetation is growing along the edge of the flashing and vertical cracks in the brick are visible. It is recommended that the vegetation be removed as it can create openings in the building envelope which may allow water and air infiltration that could cause damage to the structure and/or interior finishes. It is recommended that cracks in the bricks be repaired for the same reasons. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas	Capital Renewal	Lump	2	\$	15,000.00	0.30%
31	The tarp which has been wrapped over a roof top unit (RTU) on the east side roof appears to have reached the end of its useable life. It is recommended that the tarp be removed and replaced. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork	Capital Renewal	Lump	2	\$	1,250.00	0.02%
32	At various locations, roof drains appear to be partially obstructed. Obstructed roof drains can cause water ponding which can cause the roof structure to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. It is recommended that the roof drains be cleaned on a regular basis. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas	Capital Renewal	Lump	2	\$	18,750.00	0.37%
33	The brick chimney at the west end of the building has several cracks in the bricks and mortar joints at the top. Also, the lower steel band is no longer connected on one side. It is recommended that the brick and mortar joints structural integrity be further investigated and that the steel band either be removed or replaced	Capital Renewal	Lump	3	\$	18,750.00	0.37%
34	At various locations the roofing material is detaching (bubbling) from the substrate and the joint materials are cracked and appear brittle. The deficiencies do appear to currently pose a structural hazard at this time. However, if the conditions continue to deteriorate, water and air may infiltrate the building envelope and cause damage to the structure or interior finishes. It is recommended that the roofing and joint materials be inspected and repaired by a roofing contractor specializing in these roofing systems. In addition, the roof structure must be investigated for snow drifting loads at all high/low roof areas	Capital Renewal	Lump	2	\$	6,250.00	0.12%
35	At various locations on the roof, the wood supporting equipment has deteriorated and/or is no longer connected to the roof below. Insufficient support of the equipment could allow it to displace during strong winds. It is recommended that new pressure-treated equipment support framing be installed. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork	Capital Renewal	Lump	2	\$	43,750.00	0.87%

36	Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.	Capital Renewal	Lump	2	\$ 18,750.00	0.37%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 5,006,375.00</b>	<b>100.00%</b>

Exterior							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Press Box needs repair / replacement	Capital Renewal	Lump	3	\$ 244,200.00	18%	
2	Field storage buildings needs repair / replacement	Capital Renewal	Lump	3	\$ 1,093,750.00	82%	
3					\$ -		
4	See Structural For Additional Exterior Items				\$ -		
5					\$ -		
6					\$ -		
7					\$ -		
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,337,950.00</b>	<b>100%</b>

Interior							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Wood Classroom Entry Doors	Capital Renewal	70	3	\$ 656,250.00	7.89%	
2	Vinyl Composition Tile Requires Replacement	Capital Renewal	177,600 SF	3	\$ 1,110,000.00	13.35%	
3	The Plaster Ceilings Require Replacement due to water infiltration	Capital Renewal	1,500 SF	3	\$ 9,375.00	0.11%	
4	Classroom Doors Requires Vision Panel	Capital Renewal	35	3	\$ 65,625.00	0.79%	
5	Rooms lacking appropriate sound control	Capital Renewal	2,500 SF	3	\$ 15,625.00	0.19%	
6	Casework Replacement	Capital Renewal	177,600 SF	3	\$ 1,110,000.00	13.35%	
7	Room has insufficient writing area.	Capital Renewal	177,600 SF	3	\$ 1,165,500.00	14.02%	
8	Welding Bays Are Required	Capital Renewal	177,600 SF	3	\$ 3,885,000.00	46.72%	
9	Work Tables Are Required	Capital Renewal	177,600 SF	3	\$ 39,960.00	0.48%	
10	Walk In Cooler/Freezer Is Required	Capital Renewal	177,600 SF	3	\$ 44,400.00	0.53%	
11	General wall painting and coatings	Capital Renewal	189,221 Sf	3	\$ 212,873.75	2.56%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 8,314,608.75</b>	<b>100.00%</b>

Haz Mat							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Multiple-Layers of Vinyl Floor Tiles and Mastic	Haz. Materials	98,500 SF	3	\$ 615,625.00	26.41%	
2	Interior Windows	Haz. Materials	50 Total	3	\$ 9,375.00	0.40%	
3	Hidden Pipe and Hard Joint Insulation	Haz. Materials	Unknown	3	\$ 31,250.00	1.34%	
4	Blackboards/Tackboards	Haz. Materials	Unknown	3	\$ 87,500.00	3.75%	
5	Light Fixtures	Haz. Materials	1,500 Total	3	\$ 87,500.00	3.75%	
6	Miscellaneous Hazardous Materials/Hidden ACM	Haz. Materials	Unknown	3	\$ 93,750.00	4.02%	
7	Classroom 316 - Fume Hood	Haz. Materials	1 Total	3	\$ 5,625.00	0.24%	
8	Gymnasiums - Wood Flooring, Paper and Mastic	Haz. Materials	10,500 SF	3	\$ 91,875.00	3.94%	
9	Exterior - Unit Vent Grilles	Haz. Materials	90 Total	3	\$ 22,500.00	0.97%	
10	Exterior - Caulking in Stone Sill	Haz. Materials	150 LF	3	\$ 9,375.00	0.40%	
11	Roofing Materials	Haz. Materials	Unknown	3	\$ 187,500.00	8.04%	
12	Transite Sewer Pipe	Haz. Materials	Unknown	3	\$ 62,500.00	2.68%	
13	Damproofing on Walls	Haz. Materials	Unknown	3	\$ 781,250.00	33.51%	
14	Estimated costs for NESHAP Inspection	Haz. Materials		3	\$ 18,750.00	0.80%	
15	Estimated costs for Design, Construction Monitoring and Air Sampling Services	Haz. Materials		3	\$ 226,875.00	9.73%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 2,331,250.00</b>	<b>100%</b>

Mechanical							
Deficiency	Category	Unit	Priority	Repair Cost			
1	The existing boilers appear to be original to the building, with exception of the Weil Mclain, and are past their useful life expectancy. Four new gas fired condensing boilers (95% Efficient) with all new accessories should be installed.	Capital Renewal	Lump	2	\$ 187,500.00	8.70%	
2	The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit.	Capital Renewal	Lump	2	\$ 56,250.00	2.61%	
3	A new air handling unit serving the Cafeteria should be provided. We recommend the system provide dehumidified displacement air similar to the classrooms as described above.	Capital Renewal	Lump	2	\$ 106,250.00	4.93%	
4	Air handling units that provide ventilation air to corridors, offices, etc should be replaced and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to each respective space.	Capital Renewal	Lump	2	\$ 112,500.00	5.22%	
5	Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.	Capital Renewal	Lump	2	\$ 131,250.00	6.09%	
6	Upgrade / replace air handling units that provide ventilation air and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal units	Capital Renewal	Lump	1	\$ 1,562,500.00	72.46%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 2,156,250.00</b>	<b>28%</b>

Plumbing							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Domestic Water Service Backflow Preventer to be installed	Code Compliance	2	3	\$ 22,500.00	24.66%	
2	Domestic Water Piping not fully insulated	Code Compliance	1	3	\$ 5,000.00	5.48%	
3	Replace the hot water circulator	Functional Def	1	3	\$ 1,250.00	1.37%	
4	Replace Old Plumbing Fixtures	Capital Renewal	20	3	\$ 62,500.00	68.49%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 91,250.00</b>	<b>100%</b>

Electrical							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Additional receptacles including new dedicated power panels with TVSS protection and 200% neutrals.	Capital Renewal	Lump	3	\$ 125,000.00	6.67%	
2	New addressable fire alarm system to be provided with voice evacuation.	Capital Renewal	Lump	1	\$ 312,500.00	16.67%	
3	Upgrading / relocating of electrical systems.	Capital Renewal	Lump	1	\$ 812,500.00	43.33%	
4	Diesel Generator Replacement w/ Transfer switch upgrades	Capital Renewal	Lump	1	\$ 625,000.00	33.33%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,875,000.00</b>	<b>23%</b>

Fire & Life Safety							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Install new NFPA-13 Fire Suppression System	Code Compliance	177,600 SF	1	\$ 187,500.00	23%	
2	Replace ACT Ceiling	Code Compliance	177,600 SF	1	\$ 621,600.00	77%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 809,100.00</b>	<b>100%</b>

Technology						
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1	Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.	Technology	Lump	3	\$	312,500.00	3.88%	Tech - Comm Cabling Infrastructure
2	Install properly sized cooling units in the following spaces to protect the lifespan of the active electronics within these rooms: IDF1, IDF2, IDF3, IDF5	Technology	Lump	3	\$	375,000.00	4.66%	
3	Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.	Technology	Lump	3	\$	625,000.00	7.77%	
4	The following rooms are sharing space with storage. Consider relocating to a dedicated space: IDF2, IDF3, IDF5	Technology	Lump	3	\$	18,750.00	0.23%	
5	Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within.	Technology	Lump	3	\$	18,750.00	0.23%	
6	Replace zip ties with Velcro hook and loop straps.	Technology	Lump	3	\$	56,250.00	0.70%	
7	Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system.	Technology	Lump	2	\$	60,000.00	0.75%	Public Address/Master Clock
8	Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.	Technology	Lump	2	\$	45,000.00	0.56%	
9	Replace all public address/master clock associated cabling.	Technology	Lump	2	\$	93,750.00	1.16%	
10	Install public address strobes to notify students and staff of an announcement in high volume areas, including, but not limited to: Gymnasiums, Cafeteria, Shop Classrooms, Music/Choral Classrooms	Technology	Lump	2	\$	82,500.00	1.03%	
11	Install exterior horns around the building for full coverage of the exterior, including the fields	Technology	Lump	2	\$	93,750.00	1.16%	
12	Install a phone to public address interface so that any phone in the building can access the public address system.	Technology	Lump	2	\$	75,000.00	0.93%	
13	Replace the Public Address Phone handsets with newer models	Technology	Lump	2	\$	45,000.00	0.56%	
14	Replace the Simplex Wired Master Clock with a modern, wireless Master Clock.	Technology	Lump	2	\$	56,250.00	0.70%	
15	Replace all hardwired clocks in all spaces with Wireless clocks.	Technology	Lump	2	\$	91,250.00	1.13%	
16	Install a card reader and an intercom door release at the main entrance. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.	Technology	Lump	2	\$	31,875.00	0.40%	Physical Electronic Security
17	BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTS, IP, Cellular). Consider adding door position switches on all exterior doors.	Technology	Lump	2	\$	35,625.00	0.44%	
18	It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.	Technology	Lump	2	\$	52,500.00	0.65%	
19	The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a "Single Pane of Glass" to manage all cameras throughout the district.	Technology	Lump	2	\$	187,500.00	2.33%	
20	Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary	Technology	Lump	2	\$	56,250.00	0.70%	
21	Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.	Technology	Lump	2	\$	112,500.00	1.40%	
22	Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.	Technology	Lump	2	\$	93,750.00	1.16%	
23	Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area.	Technology	Lump	2	\$	47,500.00	0.59%	
24	Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders	Technology	Lump	2	\$	150,000.00	1.86%	
25	Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.	Technology	Lump	2	\$	118,750.00	1.48%	
26	Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.	Technology	Lump	2	\$	81,250.00	1.01%	
27	Replace all TV's in classrooms with Interactive Displays	Technology	Lump	3	\$	331,250.00	4.12%	Audio Visual Systems
28	Install a dedicated sound system in each classroom with the following functionality: speakers throughout the space; wireless microphones for students and teachers; Priority Override / Public Address Mute for muting the speakers during a Public Address announcement; Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired; Hardwired AV connections from teacher's desk to interactive display; Remove antiquated or unused projectors.	Technology	Lump	3	\$	312,500.00	3.88%	
29	Replace all AV headend equipment in the auditorium to include new amplifiers, mixer, audio patch panels, and digital signal processing.	Technology	Lump	3	\$	468,750.00	5.82%	
30	Consider installing two systems in the auditorium that work in tandem: one is a larger system capable of running musicals and performances with a dedicated Front of House (FOH) mixing station, the other is a smaller keynote speaker system for presentations with microphone auto-mixing.	Technology	Lump	3	\$	375,000.00	4.66%	
31	Consider installing an AV matrix system in the auditorium capable of transmitting video and audio signal from users' devices through the system and over the LAN	Technology	Lump	3	\$	250,000.00	3.11%	
32	Consider installing a modern control system in the auditorium with touch screen controllers, auto-mixing, and input sensing for ease of use for non-technical personnel	Technology	Lump	3	\$	187,500.00	2.33%	
33	Consider installing a larger projector in the auditorium with higher lumen output at the projection booth. This will make servicing the projector easier.	Technology	Lump	3	\$	250,000.00	3.11%	
34	Consider installing (32 – 48) XLR, Line, and Ethernet inputs throughout the stage, backstage, and FOH area for tie-in to the system.	Technology	Lump	3	\$	206,250.00	2.56%	
35	Consider installing a Blu-ray / multi-media player in the auditorium with control at the stage and at the FOH.	Technology	Lump	3	\$	218,750.00	2.72%	
36	Consider installing PTZ cameras in the auditorium for capturing lectures and performances.	Technology	Lump	3	\$	312,500.00	3.88%	
37	Consider installing (16 – 32) handheld, lavalier, and headset wireless microphones in the auditorium for support during larger performances.	Technology	Lump	3	\$	375,000.00	4.66%	
38	Consider installing a stage intercom system in the auditorium capable of relaying information from FOH to backstage / supporting spaces during performances.	Technology	Lump	3	\$	281,250.00	3.49%	
39	Ensure the Assisted Listening System in the auditorium is ADA compliant with the proper quantity of receivers	Technology	Lump	3	\$	250,000.00	3.11%	
40	Replace the Simplex Local Sound System in the auxiliary gymnasium and the cafeteria with a system capable integrating the following: Two to four hardwired microphone locations; Two to four wireless microphones; Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution; Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection; Multi-Media / CD / Bluetooth inputs; Control panels capable of muting, program audio volume control, system power on / off; Public Address integration ensuring that announcements are always heard throughout the space; An ADA compliant Assisted Listening System; Consider adding a video display wall, or electric screen and projector in the cafeteria. Include an AV matrix distribution system to manage and control the video	Technology	Lump	3	\$	562,500.00	6.99%	
41	Replace the speakers in the gymnasium with Speakers capable of comfortably covering the intended area. Include properly sized amplifiers to power the speakers.	Technology	Lump	3	\$	62,500.00	0.78%	
42	Consider replacing the antiquated iPod dock in the gymnasium with a manufacturer-neutral input to accept newer phones and media players	Technology	Lump	3	\$	43,750.00	0.54%	

43	Install an ADA compliant assisted listening system in the gymnasium.	Technology	Lump	3	\$ 62,500.00	0.78%	
44	Ensure Public Address integration in the gymnasium so that announcements are always heard throughout the space.	Technology	Lump	3	\$ 62,500.00	0.78%	
45	Consider replacing all displays in the library with interactive displays.	Technology	Lump	3	\$ 106,250.00	1.32%	
46	Consider replacing the projector in the library	Technology	Lump	3	\$ 81,250.00	1.01%	
47	Consider installing an AV matrix distribution system capable of multiple media inputs that can be managed across all displays.	Technology	Lump	3	\$ 75,000.00	0.93%	
48	Consider installing a local sound system with speakers, control, wireless microphones, and AV signal integration.	Technology	Lump	3	\$ 156,250.00	1.94%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 8,047,500.00</b>	<b>100%</b>

**Conveyances**

	Deficiency	Category	Unit	Priority	Repair Cost	
1	N/A					
2						
3						
4						
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ -</b>

**Specialties**

	Deficiency	Category	Unit	Priority	Repair Cost		
1	Replace Cabinetry in Classrooms and Labs	Capital Renewal		4	\$ 666,000.00	100.00%	
2							
3							
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 666,000.00</b>	<b>100%</b>



# **FACILITY CONDITIONS ASSESSMENT**

**HAMPDEN MEADOWS SCHOOL**



## HAMPDEN MEADOWS



Site Plan from Google Earth, North is page up.

### SITE

Hampden Meadows was visited for site review on August 9, 2021, by two members of the KBA Landscape Department. These visits took place on a cloudy humid day, with temperatures in the 80's. Overall the site is in good condition. Most of the issues are ADA access issues to playing fields, and playgrounds.

Priority 3 issues include poor pavement/asphalt at back of school and teacher lot, damaged concrete at basketball courts. And non-compliant ADA Parking is non compliant. Some "No Idling" signage is missing at the front of the school. The Bus stacking area does not comply with new regulations issued by RIDE in its current form.

Priority 4 issues include ponding of the basketball court with some damaged concrete walls and surfacing. An outdoor classroom at southeast side of site is currently no accessible, due to lack of a suitable surfacing and grading for access. There is poor drainage around the site, especially in the back by the swing sets, where water floats a great deal of wood fiber chips to one end of the playground. There is no fencing around the dumpsters, so that trash control is limited. Lawns are in poor condition within and around the back of the school where most of the play takes place.

## TRAFFIC ANALYSIS

### School Traffic Report

School: Hampden Meadows School, 297 New Meadow Road  
247-3166

Phone # 401-

School covers 4-5 Grades for entire town.

Date of Observation: 6/22/2021, 7:30-8:30

Participants: Nora Bingham, David McKinley

### Student Drop-Offs by Parents

Drop-off Time: 7:15-8:00 \_ Parents continued to drop off until 8:15.

# of Cars: 231

### Bus Drop-Off

# of Buses (Large) 9,	(Small) 1	
Number of Students on Bus	Bus #1 – 4 kids	Bus#7 – 10 kids
	Bus #2 – 5 kids	Bus#8 – 3 kids
	Bus #3 – 10 kids	Bus#9 – 5 kids
	Bus #4 – 4 kids	Bus#10 – 4 kids
	Bus #5 – 9 kids	Bus#11 – 9 kids
	Bus #6 – 6 kids	Small bus – 6 kids

Bicyclists # 60; One teacher rode her bike. Are there bicycle racks on site? Yes 4 big racks, 9 small in front, 2 big racks by dumpster pad at northeast corner.

Can accommodate how many bikes? 94 but kids aren't always using them.

Walkers# 26 Are there sidewalks? Yes Both sides of Road on New Meadow Road, School side only on Kent Street.

Paths through the woods? No

Adequate Signage at Drop-off? No

No idling signage at Bus loop? Only one sign was observed on the Kent Street side of the school. None were seen on the New Meadows Drop off loop.

ADA drop-off? Yes Any Students being dropped off? None observed.

Any specific areas that appear problematic on-site?

Mixing of traffic in front of school, back up on New Meadow road at loop entrance, and exit from Kent St to New Meadows Road resulted in backups on the site.

Are buses and parents mixing or are the drop-offs separate? Yes. All dropped off in the Front loop.

Are parents dropping off only or walking in? Drop-off only. Only parents bringing in student projects were coming into the school.

Parking Chart

	<u>Regular Spaces</u>	<u>HC spaces</u>	<u>Total</u>
North Lot	40	1	41
West ring road	8	1	9
Total	48	2	50

Picnic tables: 10 (front)

Front Access: Some kids go to South door; most go to main entrance

Side Access: Walkers/bikers/special bus use Eastern entrance, teachers use Northern ones.

Problematic areas:

- Curb cut.
- Insufficient parking: teachers utilize striped spots, handicap, side of road, and across the street.
  - o 7 parked on street.
  - o 9 on striping
- Stacking on road in morning
- Pickup is worse in afternoon, stacked down road.

Notes:

- Staff parks at front and side
- Mobile storage and composting at back.
- Some students (5) dropped off at teacher's lot: parents drive into handicap parking area then back out to exit same way they came in (rather than making the loop)
- There are two crossing attendants, one at the corner of Kent St and New Meadow Rd, the other at Kent St and Old Chimney Rd

Signs:

- One Way
- Only Buses 2:00-2:30
- No Parking Anytime
- No Idling

Overall aerial photo of the Hampden Meadows Elementary School at 297 New Meadow Road, looking Southeast, taken by Odeh Engineers with a drone.



## STRUCTURE

Odeh Engineers has conducted a RIDE Stage I & II structural inspection of the Hampden Meadows Elementary School building located at 297 New Meadow Road in Barrington, RI. This evaluation included a visual inspection of the building interior and exterior. The following is a report of our findings and recommendations.

## STANDARD OF CARE

Please note that the results of this evaluation are limited to cursory visual observations of the accessible areas only. While we have reviewed the areas of interest, nearly all the structural framing is concealed by architectural finishes or was otherwise inaccessible, and therefore unforeseen damage or conditions may be present. The findings of this report represent our professional opinion based on the information available to us at this time.

We understand that this report is intended for use only by the Kaestle Boos Associates, and their client, to determine the existing structural condition of the existing building. In any budgeting, adequate contingency for hidden or unforeseen conditions that are not identified or are worse than described herein must be carried.

Please note that all dimensions of the existing structure given herein are approximate and based on measurements or estimates of representative members. Dimensions can and will vary and must be considered as "+/-" in all cases (whether or not the "+/-" symbol is indicated).

## ACTIONS TAKEN

Odeh Engineers took the following actions to complete this investigation:

- On Tuesday, August 16, 2021, Ryan Conley, from this office, conducted a walk-through tour of the buildings and made visual observations of the existing structure and its condition
- On Tuesday, August 16, 2021, Robert Bowen, from this office, flew a DJI Mavic 2 Pro unmanned aircraft (drone) around the building and took photos of the building's exterior and performed a walk-through of the building's exterior
- Prepared this written summary of findings and recommendations.
- Discussed with and reviewed by M. David Odeh.

## DOCUMENTS REVIEWED

No existing drawings have been provided to Odeh Engineers for review.



Overall aerial photo of the Hampden Meadows Elementary School at 297 New Meadow taken by Odeh Engineers with a drone. North is oriented upward on the page.

## EXISTING BUILDING DESCRIPTION

The existing Hampden Meadows Elementary School, located at 297 New Meadow Road in Barrington, Rhode Island, is a single story building with three main wings. The main entry wing is in the west-east direction and there are wings at each end in the north-south direction. The roofs are mostly flat; there are gable roofs at the north west and south west corners of the building. Refer to the following paragraphs for detailed descriptions.

## FOUNDATIONS

Based upon what could be see above grade, the foundation walls appear to be cast in place concrete.



Photo of typical cast-in-place concrete foundation wall

## ROOF FRAMING

Based upon what was visible, the roof framing appears to be open web steel joists with either tectum panels or metal deck, supported by steel beams and columns or concrete masonry unit (cmu) walls



*Photo of open web steel joist and tectum roof panels and bearing upon a steel beam*



*Photo of open web steel joist and metal roof deck bearing upon a cmu wall.*

## EXTERIOR WALLS

The exterior walls appear to be either a cmu veneer (left side of photo) or a brick veneer system (right side of photo).

## LATERAL FORCE RESISTANCE SYSTEM

A distinct lateral force resistance system, such as steel bracing, was not observed. With the predominant use of cmu bearing walls throughout the building, the cmu walls are most likely behaving as the lateral force resistance system.

## OBSERVED BUILDING DEFICIENCIES AND POTENTIAL

### PROBLEM AREAS

The following structural deficiencies and potential problem areas were observed by Odeh Engineers, Inc. during our due walk-through inspection of the existing building. Additionally, based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years



Photo showing the two typical exterior wall systems.

## RUST AT CANOPY COLUMN BASES

The main entry columns are rusting at their bases. The rusting does not currently appear to pose a structural hazard, however, if the rusting is allowed to continue, the columns may fail and allow the canopy to collapse, potentially causing damage to property or injuring personnel. It is recommended that the column bases be cleaned of rust, inspected for deterioration, repaired if necessary and then finished with an appropriate coating system.



## PEELING PAINT AND WOOD DETERIORATION

Comments and recommendations: Peeling paint and wood deterioration on the soffit was observed at various locations. Peeling paint may allow the deterioration of the wood and allow water and air infiltration into the building envelope which could cause damage to the walls, structure, and interior finishes. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that the peeling paint be removed, and the soffit be re-finished with an appropriate coating system.



## BRICK DISPLACEMENT AND MORTAR JOINT CRACKS

Comments and recommendations: At various locations, the brick has displaced, and the mortar joints have cracked or are missing. These cracks do not appear to currently pose a structural hazard. However, these conditions may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks.



### MINOR CRACKS AND SPALLS IN THE EXTERIOR CONCRETE FOUNDATION WALLS

Comments and recommendations: At various locations, the concrete foundation wall has minor (less than 1/16" wide) cracks and spalls. These cracks and spalls do not appear to currently pose a structural hazard. However, they may allow water and air infiltration into the building envelope. To extend the life of the exterior concrete foundation walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks and spalls in the exterior concrete foundation walls.



### MAJOR CRACKS IN THE EXTERIOR CONCRETE FOUNDATION WALLS

Comments and recommendations: At various locations, the concrete foundation wall has major (larger than 1/16" wide) cracks. These cracks and spalls do not appear to currently pose a structural hazard. However, they may allow water and air infiltration into the building envelope. To extend the life of the exterior concrete foundation walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair these cracks in the exterior concrete foundation walls.



## VERTICAL AND STEP CRACKING IN CMU WALLS

Comments and recommendations: In various locations, the cmu walls have vertical and step cracks through the cmu and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from a combination of vertical displacement due to foundation settlement and horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



## CONTROL JOINTS IN THE EXTERIOR WALL HAVE AGED AND FAILED

Comments and recommendations: There are several locations where the control joints in the exterior wall have aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed control joints.



## DISCONNECTED OR DAMAGED DOWNSPOUTS

There were a few locations where the downspout is disconnected or damaged, allowing water to flow down the face of the wall and causing staining and deterioration of the brick and/or mortar joints and concrete foundation wall, and possibly allowing water to infiltrate the building envelope which could cause damage to the structure and/or architectural finishes. It is recommended that proper downspouts be installed and any damaged brick and/or mortar joints be repaired.

## RAILING POST RUSTING AND CONCRETE CRACKING

Comments and recommendations: At several locations, railings posts are rusted at the base and/or the adjacent concrete is cracked or spalled. While not a structural hazard, this is a life-safety hazard as failure of a railing post could result in property damage or personal injury. It is recommended that the rusted posts and cracked concrete be repaired.



## DISCONNECTED GUTTER

Comments and recommendations: Along the north eave of the gabled roof, it appears that the gutter is disconnected or otherwise damaged. This could possibly allow water to flow down the face of the wall and/or window and possibly infiltrate the building envelope which could cause damage to the structure and/or architectural finishes. It is recommended that gutter be repaired or replaced.





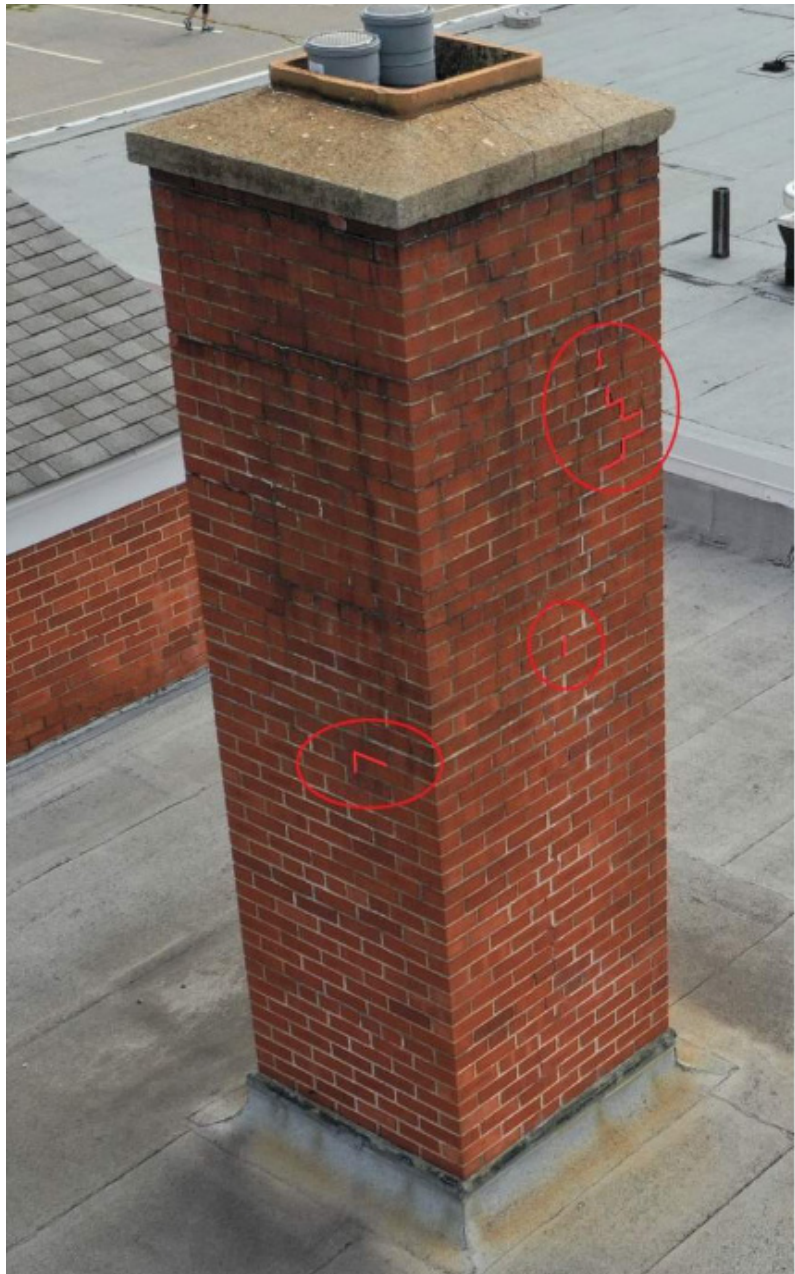
## PONDING WATER

Several areas of the flat roof are showing evidence of water ponding. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. The roof drains must also be cleaned of any obstructions. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork.



### BRICK CRACKS IN CHIMNEY

Comments and recommendations: The brick chimney has cracks in the bricks and mortar joints. These cracks and spalls do not appear to currently pose a structural hazard. However, they may allow water and air infiltration into the building envelope. To extend the life of chimney and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the chimney.





### **OBSTRUCTED DRAINS AND EVIDENCE OF PONDING AT SOUTH EAST ROOF**

Comments and recommendations: The roof drains at the roof south east roof appear to be obstructed and there is evidence of ponding water. The roof drains must be cleared of obstructions. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains.

## WATER STAINED CEILING TILES.

Comments and recommendations: In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration.



## STEP CRACKING IN INTERIOR CMU WALLS

Comments and recommendations: In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.





### VERTICAL CRACKING IN INTERIOR CMU WALLS

Comments and recommendations: In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



### CRACKING IN INTERIOR BRICK WALLS

Comments and recommendations: In the boiler room of the building, the brick walls have vertical cracks through the brick and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



## LINTEL RUSTING

Comments and recommendations: In the boiler room along the southern wall the lintel is showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system.



## PONDING WATER

Comments and recommendations: Several skylights are showing evidence of water ponding. Ponding of water can cause deterioration of finishes, structural elements, and allow further water and air infiltration into the building envelope. It is recommended that roof sealant at the skylights be removed and replaced or that the skylights be replaced in their entirety.



## LINTEL BEARING CONDITION

In the boiler room along the southern wall the cmu wall on which the lintel bears has cracks through the cmu and at mortar joints. If left unattended the crack could worsen and lead a failure. It is recommended that this area be immediately repaired using high-performance concrete repair products.



## SNOW DRIFT AT HIGH/LOW ROOF AND RTU AREAS

Comments and recommendations: Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.



## CONCLUSION

In conclusion, it is Odeh Engineers professional opinion that the existing building is in good and serviceable condition, however we noticed several localized issues which will need to be addressed to maintain the serviceability of the structure. Please refer to the Observed Building Deficiencies and Potential Problem Areas section for descriptions and recommendations.

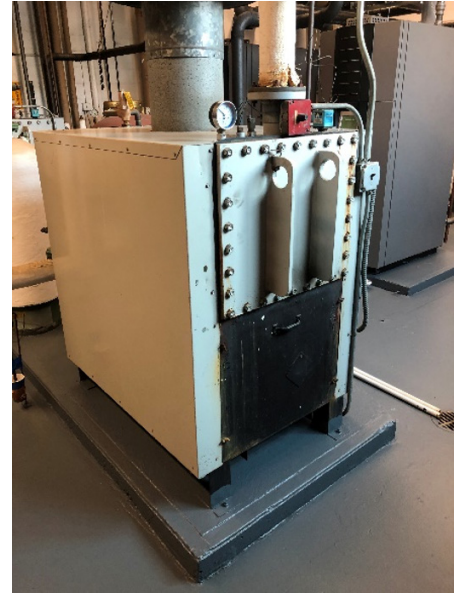
## MECHANICAL SYSTEMS

### EXECUTIVE SUMMARY

Presently, the HVAC Systems serving the Hampden Meadows School building consists of four natural gas fired, hot water boilers serving hot water to fan coil units, unit ventilators, unit heaters, radiators, and convectors. The exhaust fans throughout the building are utilized for general building exhaust and relief of pressurization. A direct digital control system is present in the building however, it's controllability is limited to only several components. Many spaces are controlled via KMC thermostats which are utilized for on/off of the heating system and ventilation control, while other spaces utilize standalone thermostats which are not connected to the building management system.

### HEATING SYSTEM

1. The building is currently heated by two (2) standard efficiency gas-fired boilers, manufactured by Ajax Boiler Inc, model WG-850-S. Each boiler has a natural gas input of 850 MBH, with an output of 680 MBH making them 80% efficient. The two boilers have serial numbers of 91-43491, 91-43527. The first two numbers indicate the year the boilers were manufactured.
2. The building has just received a boiler upgrade in 2020 where two (2) new high efficiency gas condensing boilers were installed. These two new boilers will replace the existing Ajax boilers indicated above. These two new boilers are manufactured by Lochinvar, model FBN1501. Each have an input capacity of 1,500 MBH and an output of 1,443 MBH making them 96% efficient.
3. For venting of the existing boilers, an individual galvanized sheet metal breeching systems is utilized for each boiler. The breeching system is a common header for both boilers which travels up through the building and exits several feet above the roof. The two new high efficiency boilers utilize a dedicated double wall breeching system with AL29-4C interior. These boilers are direct vent category IV venting and exit the building independently into the existing masonry chimney and travel up to the roof where they terminate.
4. There is a combustion air louver for the existing gas fired boilers. The louver is located on an exterior wall and is provided with a motorized damper which opens upon the existing boilers activating. The two new boilers are direct vent so they are individually ducted to the outside for combustion air.
5. Heating hot water is circulated to unit ventilators, unit heaters, convectors, fin-tube radiation, etc. via two (2) in-line pumps. The pumps operate in a lead lag fashion to maintain system pressure. There is an additional two in-line pumps which serve the addition portion of the building which houses the library. The heating hot water is distributed via insulated piping throughout the building. Some piping within the boiler room and throughout the building is missing sections of insulation. The piping system is a combination of copper and black schedule 40 steel. The pumps do show signs of corrosion on the impeller body which could imply that a failure is in the near future. The two main in-line pumps should be replaced.



*Ajax Boiler*



*Condensing Boiler*



*Existing Breeching*

6. The heating plant is equipped with all necessary hydronic accessories, such as air separators, expansion tanks and chemical treatment for proper operation. The accessories are of the same vintage as the boilers except for the expansion tank that appears to be recently replaced.
7. The classrooms, Gym/Multipurpose room and Library are provided with fan coils and unit ventilators, the administration area and the Computer/Art/Music classrooms are equipped with dedicated rooftop units which utilizes gas for heating and direct expansion for cooling, and the lobbies and vestibules utilize ceiling and wall mounted unit heaters for their heating purposes.



*New Breeching*



*Combustion Louver*



*In-line Pumps*



*Expansion Tanks*



*In-line Pumps*



Corridor Unit Heater



Vestibule Unit Heater

## AIR CONDITIONING

1. The building is not fully air conditioned. Individual window air conditioners and ductless split systems are installed where air conditioning is required. The main conference room is equipped with one ductless split unit, classrooms 1, 2, 5 & 6 also have several ductless split systems, the Library is provided with one and the Teachers Work room also has one ductless split. These units are associated with outdoor air cooled condensers and are interconnected with the indoor unit via refrigerant piping. These units are provided with their own manufacture's standalone thermostats.
2. The Administration area and the Computer/Art/Music rooms are provided with dedicated rooftop units which provide ventilation, heating and air conditioning to all the spaces. The units are equipped with a gas fired furnace, direct expansion cooling, supply fan, filters and direct outside air hood. These units are associated with a galvanized sheet metal duct distribution system which supplies and returns air from the unit to the spaces. The tempered air terminates within the spaces via ceiling mounted grilles. The units do appear to be connected to the building management system and are controlled by a wall mounted KMC thermostat.



Ductless Cooling Units



Outdoor Condenser



Admin RTU



Computer/Art/Music RTU

## VENTILATION

1. Wall mounted classroom unit ventilators are utilized in all classrooms, Gym/multipurpose room, and Library. Ventilation air is introduced to each of these units through an exterior wall-mounted louver. Each unit is equipped with a hot water heating coil, supply fan and filter. The spaces are provided with exhaust systems to remove any outdoor air that is introduced through the unit ventilators which helps maintain a neutral pressure within the space. The overall exhaust systems are served by various central roof mounted exhaust fan systems. The unit ventilators installed are generally past their expected useful service life.
2. Restrooms, janitor's closets and utility rooms are exhausted by roof mounted exhaust fans, there are a couple of janitor rooms which are not provided with any exhaust which is not code compliant.



Typical Unit Ventilator



Typical Fin-tube



Typical Older Unit Ventilator



Toilet Exhaust



Typical Roof Exhaust Fan

## KITCHEN

1. The kitchen does not appear to be a full working kitchen. The main kitchen hood does not appear to be code compliant; the hood is not provided with any fire suppression system, or grease filters, and the exhaust fan does not appear to be UL 762 compliant. There is no dedicated make-up air system provided for the kitchen. Make-up air is provided by the air handling unit described above that serves the Gym/multipurpose room.
2. The kitchen utilizes a horizontal cabinet unit heater to provide heat, whereas there is no dedicated air handling unit for this space.
3. The dishwasher is not provided with any exhaust system.



Kitchen Hood



Kitchen Exhaust Fan

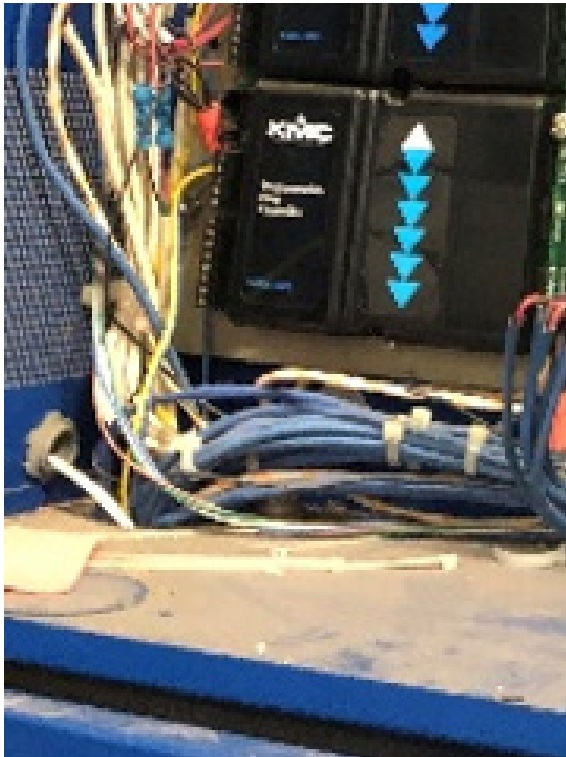




*Kitchen Unit Heater*

## CONTROLS

The kitchen does not appear to be a full working kitchen. The main kitchen hood does not appear to be code compliant; the hood is not provided with any fire suppression system, or grease filters, and the exhaust fan does not appear to be UL 762 compliant. There is no dedicated make-up air system provided for the kitchen. Make-up air is provided by the air handling unit described above that serves the Gym/multipurpose room.



*KMC Controls*



*Older KMC Thermostat*



Newer KMC Thermostat



Typical KMC Thermostat

## RECOMMENDATIONS

Based on our findings as summarized above, the following recommendations are made with regards to HVAC system upgrades:

1. Provide a Central Building Management System (BMS) consisting of current technologies to control, monitor, and trend all HVAC system operation for optimum comfort and efficiency.
2. Provide some level of air-conditioning for all regularly occupied spaces for increased health, productivity, comfort, and building longevity.
3. Provide a mechanical source of tempered make-up air for the kitchen area for code-compliance.
4. Replace all existing terminal heating units with new hot water heating units including direct digital control (DDC) valves for increased efficiency, controllability, and longevity.
5. Provide new re-circulating type variable volume air-handling units to serve the Gym/multi-purpose area including demand control ventilation and energy recovery.
6. Provide new 100% Outdoor Air central ventilation system including energy recovery and hot water heating coils to provide tempered ventilation to all the classroom, administration, and corridor areas via a galvanized duct distribution system consisting of supply and exhaust ductwork. This could be single or multiple units depending on several factors including roof capacity and clearance for ductwork.
7. Replace all existing building exhaust systems with new fans and duct distribution systems.

## ELECTRICAL SYSTEMS

### EXECUTIVE SUMMARY

1. The facility was constructed in phases with the original building completed in 1956 plus two subsequent building additions. Most of the electrical systems are of original vintage to each building section and although functioning, some have outlived their intended useful life.
2. The power distribution system in the original building, with the exception of the main service distribution panel, is original to the building and is generally in poor condition. Interior lighting generally consists of fluorescent fixtures with the exception of some recently replaced LED fixtures in corridors. Although the lights were replaced, the original wiring and controls were reused. The fire alarm system although it is addressable and functioning, the system no longer meets current codes, does not have voice evac, and does not provide adequate coverage.
3. The emergency lighting system consists of battery units but do not provide adequate coverage in corridors and various other spaces.
4. Refer to recommendations section herein for upgrades to individual systems. We would however recommend replacement of all the Electrical systems under a full renovation program.

### ELECTRIC SERVICE(S)

1. Three phase primary runs overhead on Kent street.
2. The Facility is fed with two underground electric services originating at two separate utility poles on Kent street.
3. Electric Service #1: The original building is fed from pole #2 with (1) 3" underground conduit (no spares) connecting to a pull box in the boiler room. The utility meter is located on the exterior wall outside the boiler room at the playground. The service is rated at 350 amperes, 120/208V, 3 phase, 4 wire.
4. Electrical Service #2: The 2002, 3 classroom addition is fed with a second service from pole #3-50 on Kent street with (1) 4" underground conduit to a building mounted meter. From the meter, (1) 4" conduit feeds a 400 ampere, 120/240v, 1 phase, 3 wire flush panel located in the corridor.

### ELECTRICAL DISTRIBUTION SYSTEM

1. The original building main distribution panel is located in the boiler room and is rated at 350 amperes 120/208v, 3 phase, 4w with a main breaker. The panel is newer and backfeeds local as well as remote panels throughout the facility, these panels are generally located in non-electrical spaces. Most panels are flush mounted in corridors. The original building panels were manufactured by Westinghouse and are in poor condition.
2. The panel boards within the library addition were manufactured by GE and are in good condition. These panels are located within an electric room.
3. The panel board in the 2002 addition was manufactured by Siemens and is in good condition. The panel is located in the corridor.
4. Branch circuits/wiring devices:
  5. The wiring method appears to be AC cable, MC cable and pipe and wire.
  6. In general the quantity of receptacles is minimal throughout the facility occasionally resulting in the need to use extension cords.
  7. The typical classroom has one receptacle per wall. Some classrooms have added surface wire mold raceways.
  8. In general most receptacles near sinks have GFI protection. But some do not. Boiler room & certain kitchen receptacles are not GFI protected. Kitchen receptacles below cabinets are mounted face-up. The use of extension cords is ongoing in kitchen.
  9. Receptacles throughout the facility are not tamper-resistant type currently required by code.



Service #1 Riser Pole #2



Meter for Service #2



Service #2 Riser Pole #3-50



C/T Cabinet and Main Distribution. Panel in Boiler Room



Main Dist. Panel in Boiler Room



Older Westinghouse Panel in Boiler Room



Older Westinghouse Panel in Corridor



Kitchen Panel



2002 Additional Panel



*Kitchen Face-Up Non-GFI Receptacles*



*Extension Cord Use*

## LIGHTING SYSTEM

1. Interior lighting is typically 2x4 recessed troffers with acrylic lens, with T8 fluorescent lamps, and electronic ballasts in areas with dropped ceilings and acoustical ceiling tiles. Some corridors and offices have 2x4 fixtures with LED sources. Most other locations consist of two lamp surface wraparound fixtures with T8 fluorescent lamps and electronic ballasts. In general, interior lighting is in fair condition. The LED fixtures are in good condition.
2. Multi-purpose room lighting consists of four T5HO lamps fluorescent high bay fixtures with lens and wire guards and with integral occupancy sensors.
3. Kitchen has 1x4 wraparound fixtures with T8 lamps.
4. The library has recessed parabolic fixtures with 3 T8 lamps. The two story space is lit with wall mounted up/down linear fixtures with LED sources.
5. Corridor lighting is controlled with local line voltage switches. There is no automated lighting control system or daylight harvesting sensors installed in the school.
6. Exterior lighting consists of building mounted wall packs with HID sources. These fixtures do not provide adequate light. There are no pole mounted lights for parking areas and roadways.



*Typical Classroom Lighting with Surface Wraparounds*



*Multi-Purpose Room Lighting*



Corridor Lights



Typical Classroom Lighting in the Addition



Recessed Canopy Light



Exterior Wall Pack

## EMERGENCY POWER SYSTEM

There is no generator at this facility. Emergency lighting is accomplished using central emergency battery units with remote heads as well as self-contained battery units. Exit signs are LED with battery back-up. The condition varies on these units from fair to good. A test was not done to confirm code compliance at the time of the visit. Various corridors & kitchen do not have emergency lighting. Exterior doors have one remote head, two are required.



*Exterior Door Remote Head*



*Exit Sign*



*Central Battery Unit*

## FIRE ALARM SYSTEM

1. The fire alarm system consists of an addressable Notifier control panel with horn/strobe notification appliances. The school has full coverage for detection. The system is in fair condition however it does not meet current code. Educational use group is required to have a voice evacuation system. The Sigcom #1106 radio master box is located inside the main lobby adjacent to the control panel. Heat detectors located above ceiling and below stage are tied to alarm indicating lights on the wall. Heat detectors located above ceiling and below stage are tied to alarm indicating lights on the wall.
2. Strobes are ADA compliant however coverage is inadequate. Classrooms have mini-horns but no strobes.
3. Corridor doors as well as most classroom doors are held open with magnetic door holders. The stage local sound system does not mute upon fire alarm activation.



Fire Alarm Control Panel and Radio Box



Horn/Strobe



Above Ceiling Heat Detector Indicators



Classroom Mini-Horn



Heat Detector Below Stage



Classroom Magnetic Door Holder



## MISCELLANEOUS

1. There is no BDA, Bi-Directional Antenna System, installed in the facility for the Police and Fire Dept. first responders.
2. The existing incoming communications services run underground as well as overhead between Pole #2 and the building.
3. The school has an MDF plus two IDFs interconnected with multi-mode fiber. The MDF and IDFs are not located within dedicated rooms. The MDF is located within the janitor's closet and is covered with a coat of dust. The space is not air conditioned.
4. There is no Lightning Protection System installed at the Facility.

## RECOMMENDATIONS

1. The two electric services should be replaced with one larger 1,600 ampere, 120/208v, 3-phase, 4w service with a pad mounted transformer. Replace existing older Westinghouse panels and backfeed existing circuits.
2. All of the existing non-led lighting in the building should be upgraded to LED fixtures with integral dimming drivers for reduction in energy consumption and reoccurring lamp replacement costs.
3. An addressable lighting control system with occupancy and daylight dimming sensors should supplement the new LED lighting to further increase energy savings.
4. Where the budget does not allow for an addressable lighting control system, local occupancy sensors should be installed in all spaces and local daylight photo dimmers installed where natural daylight is available.
5. Exterior lighting should be replaced with LED/dark sky compliant fixtures. Pole lights should be provided in parking lot areas & roadways.
6. A test should be performed to determine the compliance of the current emergency battery units providing the required emergency egress lighting. Exterior egress lighting should be provided at all egress doors.
7. An exterior diesel or natural gas stand-by generator within a weatherproof sound attenuated enclosure should be provided along with two transfer switches. The generator should serve emergency lighting, freeze protection, selected HVAC equipment, refrigeration, communications and security systems at a minimum. Where it is designated to serve emergency lighting, a second transfer switch will be required with a dedicated life safety panel within a 2-hour rated closet to serve selected egress lights and exit signs.
8. The existing fire alarm system should be upgraded to an addressable system with voice evacuation in order to comply with current code. A mass notification system should be provided integral to the fire alarm system.
9. A system of lightning protection should be provided when the roof is replaced. The system will be installed in compliance with the provisions of the latest "Code for Protection Against Lightning" for buildings as adopted by the National Fire Protection Association and the Underwriters' Laboratories, Inc. for a UL Master Label System. The lightning protection equipment will include air terminals, conductors, conduits, fasteners, connectors, ground rods, etc.
10. Provide a BDA, Bi-Directional Antenna System.
11. Provide dedicated rooms for MDF and IDF locations with A/C and cable tray.
12. Replace all non tamper resistant receptacles located at 5'-6" above floor or lower, with tamper resistant receptacles.
13. Provide GFI protection for receptacles within 6' of water sources, kitchen & boiler room.

## PLUMBING & FIRE PROTECTION SYSTEMS

The plumbing systems at the 49,350 square foot Hampden Meadows Hill School (built in 1956) in general are in working order. The major systems, although working adequately at this time, are approaching the end of their useful life. In Addition, many of the systems are not up to the latest industry standards, best practices, and current codes. If it is anticipated that major modifications are planned for the building, the plumbing systems should be considered for an overall upgrade. Also, a complete fire protection system shall be installed as the building does not currently have a fire sprinkler system.

### 2-INCH DOMESTIC WATER SERVICE

Description – 2-inch domestic water service enters the building at the crawl space.

Condition – the piping where visible appears in satisfactory working condition.

## DOMESTIC WATER PIPING SYSTEM

Description: The domestic water piping system (where observable) consists of primarily copper pipe & fittings with soldered joints. much of the observable piping appears original to the building.

Condition: The domestic water piping although working appears in poor condition. the piping appears original to the building and beyond its useful life.

Deficiencies: Some of the water piping is not insulated as required by current energy codes.

Recommendation: The domestic water piping should be replaced, where visible and a replacement plan for concealed piping should be developed until all of the existing piping is replaced with new. insulate all domestic water piping in accordance with the energy code.

## DOMESTIC HOT WATER

Description: The Domestic hot water system for the building is provided a tank-less gas fired hot water heater. a circulation pump is on the system to circulate the hot water for the main building loop. the kitchen has a dedicated 80 gallon electric hot water tank to provide hot water to the kitchen fixtures.

Condition: The hot water heaters have been recently replaced and appear in good working condition.

## GAS PIPING SYSTEM

Description: The gas piping system at the building consists of a 4-inch natural gas service. the gas piping enters the boiler room thru a crawl space. the piping is welded black steel piping and feeds the boiler.

Condition: The gas piping appears in good working order.

## SANITARY WASTE AND VENT SYSTEM

Description: The sanitary waste and vent system where visible appears to consist mainly of pvc pipe and fittings.

Condition: The piping where visible appeared to be in satisfactory condition. The under-ground piping was not visible. much of the sanitary waste, and vent piping appeared original to the building and is approaching the end of its service life.

Recommendations: Where current piping is exposed, replace sanitary, waste, and vent piping with new piping. a replacement plan for concealed and under-slab piping should be developed until all of the existing piping is replaced with new.

## STORM SYSTEM

Description: The storm system consists of roof drains piped to external gutter downspouts.

Condition: The observable components of the storm system appears in good working condition.

## TOILET ROOMS

Description: The main toilet room on one wing of the building has been recently updated to include newer plumbing fixtures. the peripheral toilet rooms and the toilet room on the other wing have dated plumbing fixtures.

Condition: The newer fixtures appear in good working condition. the fixtures in the remaining toilet rooms have older fixtures, and although in good working condition, are approaching the end of their useful life.

Recommendation: Provide fixture upgrades for the older plumbing fixtures in the building. Provide new floor drains in the main toilet rooms.

## MISCELLANEOUS PLUMBING FIXTURES & EQUIPMENT

Description: The kitchen fixtures, drinking fountain, classroom sinks, and service sinks, in general appear in good working.

Condition: Most of the miscellaneous plumbing fixtures appear in good condition and in working order. The Janitor closets have service sinks.

Recommendation: Replace service sinks with new.

## FIRE SUPPRESSION SYSTEMS

Description: There is no fire sprinkler system protecting the building.

Recommendation: Provide a fully sprinklered fire suppression system in accordance with latest adoption of NFPA-13.

## TECHNOLOGY

### INTRODUCTION

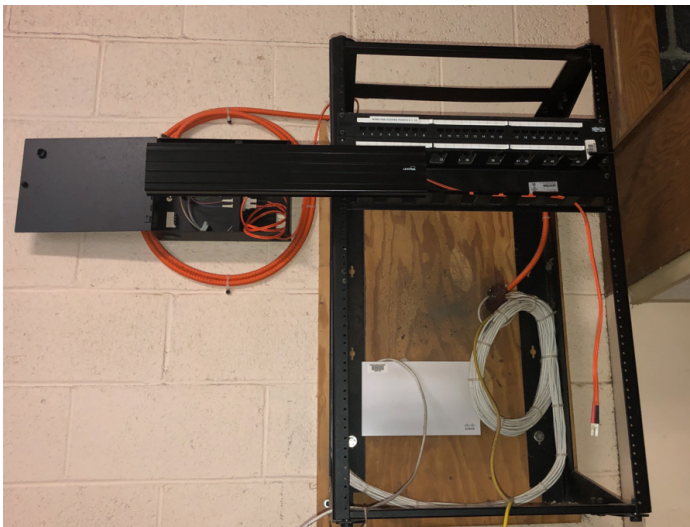
This section includes an existing conditions report and recommendations for the Technology Communication Cabling Infrastructure, Public Address and Master Clock systems, Electronic Physical Security Systems, and Audio Visual Systems.

Floor plans notating the location and name of each technology room are included in the appendix of this report. These plans were provided by Barrington Public Schools IT. The nomenclature (MDF, IDF1, IDF2, etc.) for each space in this survey is based on those plans.

### COMMUNICATION CABLING INFRASTRUCTURE

#### FINDINGS

1. Hampden Meadows School has (1) MDF & (3) IDFs.
2. Horizontal Ethernet cable is a mix of Category 5e, Category 6, and Category 6A, with a mix of Plenum and Riser Cable.
3. Backbone cable between data rooms includes 6 strand multi-mode fiber optic in IDF1 originating from the MDF.
4. Backbone cable between data rooms includes 6 strand multi-mode fiber optic in IDF3 (on the multi-purpose stage) originating from IDF2.
5. It could not be determined if there is a fiber backbone between the MDF and IDF2 & IDF3.
6. The MDF does not have dedicated power. Power for IDF1-3 could not be observed.
7. IDF3 did not have any network electronics and did not look to be in use.
8. Grounding and bonding protection for all low voltage devices within the MDF and all IDF's is not in place.
9. Dedicated cooling units for the MDF and IDFs is not in place.
10. The video surveillance server is located within IDF2.
11. Most penetrations / sleeves for cable pathways could not be observed, but many that were visible did not have proper firestopping. Firestop all penetrations.



*Photo of IDF3*



*Photo of non-firestopped sleeve in IDF2 below.*

**RECOMMENDATIONS:**

1. Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.
2. Install properly sized cooling units in the following spaces to protect the lifespan of the active electronics within these rooms:
  - a. MDF
  - b. IDF1
  - c. IDF2
  - d. IDF3
3. Install a fiber backbone between the MDF and IDF2 & IDF3.
4. Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.
5. The following rooms are in shared space. Consider relocating to a dedicated space.
  - a. MDF – Shared with storage
  - b. IDF1 – Shared with storage
  - c. IDF2 – Shared with custodial storage
  - d. IDF3 – Shared with storage
6. Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within.
7. Replace zip ties with Velcro hook and loop straps.



*Photo of typical call switch below*

**PUBLIC ADDRESS & MASTER CLOCK****FINDINGS**

1. Hampden Meadows School has a Bogen Multicom 2000 Public Address and American Time Site Sync IQ Wireless Master Clock system. Classrooms have antiquated public address speakers that integrate into this system.
2. Classrooms have public address call switches to initiate two-way communication with the main office



*Photo of typical classroom speaker assembly*

## RECOMMENDATIONS

1. Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.
2. Replace all associated cabling.
3. Install public address strobes to notify students and staff of an announcement in high volume areas, including the Multi-Purpose Room.
4. Install exterior horns around the building for full coverage of the exterior, including the fields.
5. Install a phone to public address interface so that any phone in the building can access the public address system.

## PHYSICAL ELECTRONIC SECURITY

### FINDINGS

1. Hampden Meadows School has the following manufacturers for the Physical Security Systems:
  - a. Intrusion Detection – Sonitrol
  - b. Access Control – Keyscan
  - c. Video Surveillance – Uniview with (2–4) analog cameras
2. There is a spot monitor in the main office. It was not functioning during the site visit.
3. Hampden Meadows School currently has a “Lockdown” system, controlled via a wall-mounted button. BPS facilities confirmed that when engaged, the lockdown button makes an announcement over the Public Address system and auto-dials out to central monitoring (Sonitrol) to relay the alarm to first responders.
4. The front entrance has access control. An antiquated two-way communication device and card reader is installed. Photo of communication device and card reader below:



Photo of lockdown button

## RECOMMENDATIONS:

1. Access Control: Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.
2. Intrusion Detection:
  - a. BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTs, IP, Cellular). Consider adding door position switches on all exterior doors.
  - b. It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.
3. Video Surveillance:
  - a. The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a "Single Pane of Glass" to manage all cameras throughout the district.
  - b. Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary.
  - c. Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.
  - d. Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.
4. Lockdown System:
  - a. Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area.
  - b. Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders.
  - c. Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.
  - d. Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.

## AUDIO VISUAL SYSTEMS

### FINDINGS

1. Classroom Audio Visual Findings
  - a. Classrooms have wall mounted TV's and Apple TV's. Cable is not properly dressed and protected, and classrooms do not have visible external speakers.
2. Multi-Purpose Room Audio Visual Findings:
  - a. There is an antiquated electric screen.
  - b. There is a small AV cabinet on stage with antiquated sound system consisting of a (4) input microphone mixer, (5) disc CD player and speaker amplifier.
  - c. An assisted listening system was not visible.
  - d. There are speakers mounted on the exterior walls.



*Speakers mounted on exterior walls*

## RECOMMENDATIONS:

### Classroom Audio Visual Recommendations

1. Replace all TV's with Interactive Displays
2. Install a dedicated sound system in each classroom with the following functionality:
  - a. Speakers throughout the space
  - b. Wireless microphones for students and teachers
  - c. Priority Override / Public Address Mute for muting the speakers during a Public Address announcement.
  - d. Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired
  - e. Hardwired AV connections from teacher's desk to interactive display

### Multi-Purpose Room AV Recommendations:

Replace the existing Local Sound System with a system capable integrating the following:

1. Two to four hardwired microphone locations
2. Two to four wireless microphones
3. Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution
4. Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection
5. Multi-Media / CD / Bluetooth inputs
6. Control panels capable of muting, program audio volume control, system power on / off
7. Public Address integration ensuring that announcements are always heard throughout the space
8. An ADA compliant Assisted Listening System
9. Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video.

### Lockdown System:

1. Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area.
2. Consider intergratine the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the

system active for administration and first responders.

3. Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter
4. Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.





# **AUTOMATIC TEMPERATURE CONTROLS REPORT**

HAMPDEN MEADOWS







# HAZARDOUS MATERIALS REPORT

## HAMPDEN MEADOWS

**FINAL REPORT  
FOR LIMITED  
HAZARDOUS MATERIALS IDENTIFICATION  
STUDY  
AT THE  
HAMPDEN MEADOWS MIDDLE SCHOOL  
BARRINGTON, RHODE ISLAND**

PROJECT NO: 221 371.00

Survey Dates:  
August 3, 2021

CONDUCTED BY:  
**UNIVERSAL ENVIRONMENTAL CONSULTANTS  
12 Brewster Road  
Framingham, MA 01702**



August 9, 2021

Mr. Sean L. Schmigle AIA, NCARB  
*Senior Architect*  
KAESTLE BOOS ASSOCIATES, INC  
10 Chestnut Street, Suite 301  
Foxborough, MA 02035

Reference: Report for Limited Hazardous Materials Identification Study  
Hampden Meadows Middle School, Barrington, Rhode Island

Dear Mr. Schmigle:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for the limited Hazardous Materials Identification Study at the Barrington Hampden Meadows Middle School, Barrington, Rhode Island.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

A handwritten signature in blue ink, appearing to read "Ammar M. Dieb", is written over a horizontal line.

Ammar M. Dieb  
President

UEC:\221 371.00\Hampden Meadows Middle School Report.DOC

Enclosure



## 1.0 INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-two years of experience.

UEC was contracted by Kaestle Boos Associates, Inc. to conduct the following services at the Hampden Meadows Middle School, Barrington, Rhode Island:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's Caulking Inspection.
- Lead Based Paint Inspection.

This is a limited inspection, and the report should not be used to renovate or demolish the building. Inspection per the Environmental Protection Agency (EPA) NESHAP regulations will be required to be performed.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by a Rhode Island licensed asbestos inspector Mr. Leonard J. Busa (AAC-0745) and analyzed by a Rhode Island licensed laboratory Asbestos Identification Laboratory, Woburn, MA.

Samples results are attached.

## 2.0 FINDINGS:

### **Asbestos Containing Materials (ACM):**

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition, a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations.

No additional suspect or accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities. It is recommended that once the scope of work has been determined, a full comprehensive survey including destructive testing is performed.

### **Number of Samples Collected:**

Forty-six (46) bulk samples were collected from materials suspected of containing asbestos, including:

### **Type and Location of Suspect Material**

1. Ceiling plaster at the boiler room
2. Ceiling plaster at the girl's room
3. Ceiling plaster at the boiler room
4. Ceiling plaster at the boy's room
5. Wall plaster at kitchen small storage
6. Wall plaster at resource room
7. Wall plaster at classroom 5

8. Wall plaster at custodian room
9. 2' x 4' Suspended acoustical ceiling tile at classroom 8
10. 2' x 4' Suspended acoustical ceiling tile at lobby
11. Wall plaster at classroom 10
12. Glazing caulking for interior window at hallway by main office
13. Roofing debris on top of the ceiling tile at lobby
14. Roofing debris on top of the ceiling tile at classroom 12
15. Roofing debris on top of the ceiling tile at side entrance
16. Red linoleum on shelf at classroom 3
17. Adhesive for red linoleum on shelf at classroom 3
18. Caramel 12" x 12" vinyl floor tile at cafeteria
19. Mastic for caramel 12" x 12" vinyl floor tile at cafeteria
20. Red 9" x 9" vinyl floor tile at custodian room by classroom 7
21. Mastic for red 9" x 9" vinyl floor tile at custodian room by classroom 7
22. Mastic for red 9" x 9" vinyl floor tile at classroom 8
23. Mastic for brown 9" x 9" vinyl floor tile at custodian room by main office
24. Mastic for black 9" x 9" vinyl floor tile at cafeteria storage
25. Mud on end of fiberglass insulated tank at boiler room
26. Pipe insulation at boiler room
27. Hard joint insulation at boiler room
28. Hard joint insulation off fiberglass insulated pipe at boiler room
29. New 12" x 12" vinyl floor tile at addition I hallway
30. Exterior unit vent grille caulking
31. Exterior unit vent grille caulking
32. Exterior window framing caulking
33. Exterior window framing caulking
34. Exterior window framing caulking
35. Exterior vertical brown expansion joint caulking
36. Exterior old window framing caulking
37. Exterior mesh window framing caulking
38. Exterior mesh window glazing caulking
39. Exterior sealant in seams of mesh window
40. Exterior door framing caulking residue
41. Exterior window framing caulking at addition II
42. Exterior flashing protruding from foundation at addition II
43. Exterior flashing protruding from foundation at addition I
44. Exterior flashing protruding from foundation at addition I
45. Thick black paper under hardwood floor at stage
46. Interior glazing caulking for exterior window

**Sample Results:**

**Type and Location of Suspect Material**

**Sample Result**

1. Ceiling plaster at the boiler room	No Asbestos Detected
2. Ceiling plaster at the girl's room	No Asbestos Detected
3. Ceiling plaster at the boiler room	No Asbestos Detected
4. Ceiling plaster at the boy's room	No Asbestos Detected
5. Wall plaster at kitchen small storage	No Asbestos Detected
6. Wall plaster at resource room	No Asbestos Detected
7. Wall plaster at classroom 5	No Asbestos Detected
8. Wall plaster at custodian room	No Asbestos Detected
9. 2' x 4' Suspended acoustical ceiling tile at classroom 8	No Asbestos Detected
10. 2' x 4' Suspended acoustical ceiling tile at lobby	No Asbestos Detected
11. Wall plaster at classroom 10	No Asbestos Detected
12. Glazing caulking for interior window at hallway by main office	No Asbestos Detected

13. Roofing debris on top of the ceiling tile at lobby	No Asbestos Detected
14. Roofing debris on top of the ceiling tile at classroom 12	No Asbestos Detected
15. Roofing debris on top of the ceiling tile at side entrance	3% Asbestos
16. Red linoleum on shelf at classroom 3	No Asbestos Detected
17. Adhesive for red linoleum on shelf at classroom 3	No Asbestos Detected
18. Caramel 12" x 12" vinyl floor tile at cafeteria	2% Asbestos
19. Mastic for caramel 12" x 12" vinyl floor tile at cafeteria	No Asbestos Detected
20. Red 9" x 9" vinyl floor tile at custodian room by classroom 7	2% Asbestos
21. Mastic for red 9" x 9" vinyl floor tile at custodian room by classroom 7	No Asbestos Detected
22. Mastic for red 9" x 9" vinyl floor tile at classroom 8	No Asbestos Detected
23. Mastic for brown 9" x 9" vinyl floor tile at custodian room by main office	No Asbestos Detected
24. Mastic for black 9" x 9" vinyl floor tile at cafeteria storage	No Asbestos Detected
25. Mud on end of fiberglass insulated tank at boiler room	No Asbestos Detected
26. Pipe insulation at boiler room	22% Asbestos
27. Hard joint insulation at boiler room	60% Asbestos
28. Hard joint insulation off fiberglass insulated pipe at boiler room	No Asbestos Detected
29. New 12" x 12" vinyl floor tile at addition I hallway	No Asbestos Detected
30. Exterior unit vent grille caulking	2% Asbestos
31. Exterior unit vent grille caulking	2% Asbestos
32. Exterior window framing caulking	No Asbestos Detected
33. Exterior window framing caulking	No Asbestos Detected
34. Exterior window framing caulking	No Asbestos Detected
35. Exterior vertical brown expansion joint caulking	No Asbestos Detected
36. Exterior old window framing caulking	3% Asbestos
37. Exterior mesh window framing caulking	5% Asbestos
38. Exterior mesh window glazing caulking	No Asbestos Detected
39. Exterior sealant in seams of mesh window	No Asbestos Detected
40. Exterior door framing caulking residue	No Asbestos Detected
41. Exterior window framing caulking at addition II	No Asbestos Detected
42. Exterior flashing protruding from foundation at addition II	No Asbestos Detected
43. Exterior flashing protruding from foundation at addition I	No Asbestos Detected
44. Exterior flashing protruding from foundation at addition I	No Asbestos Detected
45. Thick black paper under hardwood floor at stage	No Asbestos Detected
46. Interior glazing caulking for exterior window	3% Asbestos

#### **Observations and Conclusions:**

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

Refer to the AHERA Management Plan for condition of ACM.

1. Roofing debris on top of the ceiling tile was found to contain asbestos.
2. Caramel 12" x 12" vinyl floor tile was found to contain asbestos.
3. Red 9" x 9" vinyl floor tile was found to contain asbestos.
4. Pipe insulation was found to contain asbestos.
5. Hard joint insulation was found to contain asbestos.
6. Exterior unit vent grille caulking was found to contain asbestos.
7. Exterior old window framing caulking was found to contain asbestos.
8. Exterior mesh window framing caulking was found to contain asbestos.
9. Interior glazing caulking for exterior window was found to contain asbestos.
10. Ceramic tile grout and adhesive were assumed to contain asbestos.
11. Glue holding blackboard/chalkboard was assumed to contain asbestos.
12. Hidden ACM pipe and hard joint insulation was assumed to exist.
13. ACM debris was found to exist mixed with soil in the crawl space.

14. Damproofing on exterior and foundation walls was assumed to exist and assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle.
15. Roofing material was assumed to contain asbestos.
16. Insulation within boiler was assumed to contain asbestos.
17. Unit vent grille caulking was assumed to contain asbestos.
18. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

**Polychlorinated Biphenyls (PCB’s)-Electrical Equipment and Light Fixtures:**

**Observations and Conclusions:**

Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB’s and mercury. Ballasts in light fixtures were assumed not to contain PCB’s since there were labels indicating that “No PCB’s” was found. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.

**PCB’s in Caulking:**

PCB’s are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB’s was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB’s are a class of chemicals made up of more than 200 different compounds. PCB’s are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB’s are not very soluble in water, and they do not break down easily in the environment. PCB’s also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB’s have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB’s if PCB’s level exceed 50 mg/kg (ppm). An abatement plan might also be required.

**Observations and Conclusions:**

Building materials and caulking were assumed to contain PCB’s.

**Lead Based Paint (LBP):**

**Observations and Conclusions**

LBP was assumed to exist on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

**3.0 COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition projects.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout:	Vinyl Floor Tiles and Mastic	20,000 SF	100,000.00
	Roofing Debris Contaminated Ceiling Tiles	27,000 SF	54,000.00
	Interior Windows	12 Total	3,600.00
	Hidden Pipe and Hard Joint Insulation	Unknown	25,000.00

Location	Material	Approximate Quantity	Cost Estimate (\$)
	Blackboards/Tackboards	140 Total	42,000.00
	Light Fixtures	500 Total	25,000.00
	Miscellaneous Hazardous Materials/Hidden ACM	Unknown	25,000.00
Boiler Room	Pipe and Hard Joint Insulation	225 LF	6,750.00
	Boilers	2 Total	12,500.00
Crawl Space	Pipe and Hard Joint Insulation	4,500 LF	135,000.00
	Debris	25,000 SF	75,000.00
Exterior	Old Windows	60 Total	18,000.00
	Old Residue Caulking	200 LF	5,000.00
	Unit Vent Grilles	25 Total	5,000.00
	Roofing Materials	Unknown	50,000.00
	Transite Sewer Pipes	Unknown <sup>1</sup>	25,000.00
	Damproofing on Walls	Unknown <sup>1</sup>	200,000.00
Estimated costs for NESHAP Inspection			10,000.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			86,150.00
<b>TOTAL:</b>			<b>\$ 900,000.00</b>

<sup>1</sup>: Part of total demolition.

#### 4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA /600/R-93/116.

Inspected By:



Leonard Busa  
Asbestos Inspector  
(AAC-0745)

## 5.0 LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.



## Asbestos Identification Laboratory.

165 New Boston St., Ste 227  
Woburn, MA 01801  
781-932-9600

Web: [www.asbestosidentificationlab.com](http://www.asbestosidentificationlab.com) Email:  
[mikemanning@asbestosidentificationlab.com](mailto:mikemanning@asbestosidentificationlab.com)



**Batch: 67425**

Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

Project Information

*Hampden Meadows School,  
Barrington,  
RI*

*Method: BULK PLM ANALYSIS,  
EPA/600/R-93/116*

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning  
Owner/Director

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Hampden Meadows School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 749221	Ceiling Plaster	Boiler Room	gray	Non-Fibrous 100	None Detected
2 749222	Ceiling Plaster	Girl's Room by Boiler Room	multi	Non-Fibrous 100	None Detected
3 749223	Ceiling Plaster	Boiler Room	gray	Non-Fibrous 100	None Detected
4 749224	Ceiling Plaster	Boy's Room by Main Office	multi	Non-Fibrous 100	None Detected
5 749225	Wall Plaster	Kitchen (Small) Storage	multi	Non-Fibrous 100	None Detected
6 749226	Wall Plaster	Resource Room	multi	Non-Fibrous 100	None Detected
7 749227	Wall Plaster	C'Rm 5	multi	Non-Fibrous 100	None Detected
8 749228	Wall Plaster	Custodian Room by Break Rm.	multi	Non-Fibrous 100	None Detected
9 749229	2x4 SAT	C'Rm 8	gray	Fiberglass 20 Mineral Wool 30 Cellulose 40 Non-Fibrous 10	None Detected
10 749230	2x2 SAT	Lobby	gray	Fiberglass 20 Mineral Wool 30 Cellulose 40 Non-Fibrous 10	None Detected
11 749231	Wall Plaster	C'Rm 10	multi	Non-Fibrous 100	None Detected
12 749232	Glazing for Int Window	Hall by Main Office	gray	Non-Fibrous 100	None Detected
13 749233	Roofing Debris on Top of SAT	Lobby (Main Lobby)	black	Cellulose 60 Non-Fibrous 40	None Detected
14 749234	Roofing Debris on Top of SAT	C'Rm 12	black	Non-Fibrous 100	None Detected
15 749235	Roofing Debris on Top of SAT	Side Entrance Hall to Play Ground	multi	Non-Fibrous 97	Detected Chrysotile 3
16 749236	Red Lino on Shelf	C'Rm 3	multi	Non-Fibrous 100	None Detected

Sampled: August 03, 2021      Received: August 06, 2021      Analyzed: August 06, 2021

Monday 09 August 2021



Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Hampden Meadows School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 749237	Adhesive ? Present #16	C'Rm 3	yellow	Cellulose 5 Non-Fibrous 95	None Detected
18 749238	12" Carmel VT	Cafe	brown	Non-Fibrous 98	Detected Chrysotile 2
19 749239	Adhesive #18	Cafe	black	Non-Fibrous 100	None Detected
20 749240	9" Red VT	Custodian Rm. by C'Rm 7	red	Non-Fibrous 98	Detected Chrysotile 2
21 749241	Mastic #20	Custodian Room by C'Rm 7	black	Non-Fibrous 100	None Detected
22 749242	Mastic for 9" Red	C'Rm 8	black	Non-Fibrous 100	None Detected
23 749243	Mastic for 9" Brown	Custodian Room by Main Office	black	Non-Fibrous 100	None Detected
24 749244	Mastic for 9" Black	Cafe Storage	black	Non-Fibrous 100	None Detected
25 749245	Verticle FG Tank w/Mud End	Boiler Room	gray	Fiberglass 10 Mineral Wool 20 Non-Fibrous 70	None Detected
26 749246	(PI)	Boiler Room	white	Non-Fibrous 78	Detected Amosite 20 Crocidolite 2
27 749247	@ Office #26	Boiler Room	gray	Non-Fibrous 40	Detected Chrysotile 60
28 749248	@ Office FG (PI)	Boiler Room	gray	Fiberglass 30 Mineral Wool 40 Non-Fibrous 30	None Detected
29 749249	New 12" VT	Addition - I/Hall	white	Non-Fibrous 100	None Detected
30 749250	Grille Caulk	Street Side Exterior	tan	Non-Fibrous 98	Detected Chrysotile 2
31 749251	Grille Caulk	Front Side Exterior	tan	Non-Fibrous 98	Detected Chrysotile 2
32 749252	Window Frame	Playground Side Exterior	gray	Non-Fibrous 100	None Detected

Sampled: August 03, 2021      Received: August 06, 2021      Analyzed: August 06, 2021

Monday 09 August 2021

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Hampden Meadows School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 749253	Window Frame	Front Exterior	gray	Non-Fibrous 100	None Detected
34 749254	Window Frame	C'Rm 1 Exterior	gray	Non-Fibrous 100	None Detected
35 749255	Brown Expansion Joint in Brick	Playground Side Exterior	gray	Non-Fibrous 100	None Detected
36 749256	Window Frame for Older System	Maintenance Exterior	gray	Non-Fibrous 97	Detected Chrysotile 3
37 749257	Window Frame for Mesh Windows	Cafe Exterior	gray	Non-Fibrous 95	Detected Chrysotile 5
38 749258	Glazing for #57 System	Cafe Exterior	gray	Non-Fibrous 100	None Detected
39 749259	Sealant @ Seams of #57 System	Cafe Exterior	gray	Non-Fibrous 100	None Detected
40 749260	New? Door Frame & Residue Original Frame	Boiler Door Exterior	gray	Non-Fibrous 100	None Detected
41 749261	Window Frame	Addition - II Exterior	gray	Non-Fibrous 100	None Detected
42 749262	Flashing Protruding from Foundation Addition - II	Addition - II Exterior	black	Cellulose 10 Non-Fibrous 90	None Detected
43 749263	Flashing Protruding from Found	Addition - I Exterior	black	Cellulose 10 Non-Fibrous 90	None Detected
44 749264	Flashing Protruding from Found	Addition - I	black	Cellulose 10 Non-Fibrous 90	None Detected
45 749265	Thick Black Paper Under Harewood	Stage	black	Cellulose 70 Non-Fibrous 30	None Detected
46 749266	Interior Glaze for Exterior Window	Cafe Mesh Windows	gray	Non-Fibrous 97	Detected Chrysotile 3

Sampled: August 03, 2021      Received: August 06, 2021      Analyzed: August 06, 2021

Monday 09 August 2021

103

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Framington, RI Building Name: Hampden Meadows School

Sample	Result	Description of Material	Sample Location
1		ceiling plaster (CP)	Boiler rm
2		CP	girl's rm by Boiler Rm
3		CP	Boiler rm
4		CP	boys rm by main office
5		wall plaster (WP)	Kitchen (small) storage
6		WP	Resource Rm
7		WP	rm 5
8		WP	cust. rm by Break Rm
9		2x4 SAT	rm - 8
10		2x2 SAT	lobby
11		WP	rm-10
12		glazing for int win	hall by main office
13		rotting debris on top of SAT	lobby (main lobby)
14		rotting debris top of SAT	rm 12
15		rotting debris top of SAT	side entrance hall to playground
16		red line on shelf	rm 3
17		adhesive present #16	" "
18		12" camel vt	Cafe
19		adhesive #18	Cafe
20		9" red vt	cust. rm by rm-7

Reported By: [Signature] Date: 8/3/21 Due Date: 24-hr  
 Received By: [Signature] Date: 8/6/21

203

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Barrington, R.I. Building Name: Shades Meadows School

Sample	Result	Description of Material	Sample Location
21		mastic # 20	cust rm by cim 7
22		mastic for 9" red	cim 8
23		mastic for 9" Brown	cust rm by main office
24		mastic for 9" Black	CAFE storage
25		vehicle tank w/ mod end	Boiler Rm
26		(P1)	↓
27		(C) OFF #26	
28		(C) OFF FG (P1)	
29		new 12" vt	addition - I / hall
30		Gillie caulk	side street side EXTERIOR
31		Gillie caulk	front side
32		wind fr	playground side
33		wind fr	front
34		wind fr	cim-1 playground side
(35)		VERT. Brown expansion joint in brick	side playground side
(36)		wind fr for older system	main entrance
(37)		wind fr for mesh windows	CAFE
(38)		glazing for #57 system	↓
(39)		sealant @ seams of #57 system	
(40)		new? door fr & residue orig frame	Boiler room Door

LJB  
 (38)  
 (39)  
 (40)

Reported By: Jenna R. Buse Date: 8-3-21 Due Date: 24 hr  
 Received By: Wai Man Date: 8/6/21



# FACILITY DEFICIENCY BUDGET ESTIMATES

HAMPDEN MEADOWS

Hampden Meadows Priority Budgetary Estimates

Client: Barrington Public School		Project Name: Hampden Meadows Elementary School		RIDE Stage 1					
Project Manager: Sean Schmigle		Project #: 21023							
Site Name: Hampden Meadows		School Size: 49,350 sf		Year Built: 1956					
PRIORITY TOTAL									
Item	System	1	2	3	4	5	Total	% of Total	
1	Site			3	1		\$ 352,000.00	3.67%	
2	Roofing			SEE STRUCTURAL			\$ -	0.00%	
3	Structural			8	12		\$ 989,500.00	10.31%	
4	Exterior			SEE STRUCTURAL			\$ -	0.00%	
5	Interior			1	10		\$ 2,186,710.00	22.79%	
6	Haz Mat			19			\$ 1,128,750.00	11.77%	
7	Mechanical		6	1			\$ 1,450,000.00	15.11%	
8	Electrical	3		1			\$ 709,406.25	7.39%	
9	Plumbing			4	1		\$ 648,587.50	6.76%	
10	Fire & Life Safety	1					\$ 228,800.00	2.38%	
11	Technology			26			\$ 1,591,875.00	16.59%	
12	Conveyances						\$ -	0.00%	
13	Specialties						\$ 308,437.50	3.21%	
** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**							<b>Total</b>	<b>\$ 9,594,066.25</b>	<b>100.00%</b>

Site						
Deficiency	Category	Unit	Priority	Repair Cost		
1	Asphalt pavement needs to be replaced	Capital Renewal	Lump	3	\$ 300,000.00	85.23%
2	Concrete at basketball needs replacing	Capital Renewal	Lump	4	\$ 50,000.00	14.20%
3	ADA parking non-compliant	Barrier to Accessibility	Lump	3	\$ 1,000.00	0.28%
4	No Idling Signs are missing	Code Compliance	Lump	3	\$ 1,000.00	0.28%
				<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>	<b>Subtotal</b>	<b>\$ 352,000.00</b>
						<b>100.00%</b>

Roofing						
Deficiency	Category	Unit	Priority	Repair Cost		
1	See Structural For Additional Roofing Items				\$ -	
2					\$ -	
3					\$ -	
4					\$ -	
				<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>	<b>Subtotal</b>	<b>\$ -</b>

Structural						
Deficiency	Category	Unit	Priority	Repair Cost		
1	The main entry columns are rusting at their bases. The rusting does not currently appear to pose a structural hazard, however, if the rusting is allowed to continue, the columns may fail and allow the canopy to collapse, potentially causing damage to property or injuring personnel. It is recommended that the column bases be cleaned of rust, inspected for deterioration, repaired if necessary and then finished with an appropriate coating system	Capital Renewal	Lump	4	\$ 15,000.00	1.52%
2	Peeling paint and wood deterioration on the soffit was observed at various locations. Peeling paint may allow the deterioration of the wood and allow water and air infiltration into the building envelope which could cause damage to the walls, structure, and interior finishes. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that the peeling paint be removed, and the soffit be re-finished with an appropriate coating system.	Capital Renewal	Lump	4	\$ 42,000.00	4.24%
3	At various locations, the brick has displaced, and the mortar joints have cracked or are missing. These cracks do not appear to currently pose a structural hazard. However, these conditions may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks.	Capital Renewal	Lump	4	\$ 150,000.00	15.16%
4	At various locations, the concrete foundation wall has minor (less than 1/16" wide) cracks and spalls. These cracks and spalls do not appear to currently pose a structural hazard. However, they may allow water and air infiltration into the building envelope. To extend the life of the exterior concrete foundation walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks and spalls in the exterior concrete foundation walls	Capital Renewal	Lump	4	\$ 12,000.00	1.21%
5	At various locations, the concrete foundation wall has major (larger than 1/16" wide) cracks. These cracks and spalls do not appear to currently pose a structural hazard. However, they may allow water and air infiltration into the building envelope. To extend the life of the exterior concrete foundation walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair these cracks in the exterior concrete foundation walls	Capital Renewal	Lump	4	\$ 25,000.00	2.53%
6	There are several locations where the control joints in the exterior wall have aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed control joints	Capital Renewal	Lump	4	\$ 15,000.00	1.52%
7	In various locations, the cmu walls have vertical and step cracks through the cmu and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from a combination of vertical displacement due to foundation settlement and horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	4	\$ 28,000.00	2.83%
8	There were a few locations where the downspout is disconnected or damaged, allowing water to flow down the face of the wall and causing staining and deterioration of the brick and/or mortar joints and concrete foundation wall, and possibly allowing water to infiltrate the building envelope which could cause damage to the structure and/or architectural finishes. It is recommended that proper downspouts be installed and any damaged brick and/or mortar joints be repaired	Capital Renewal	Lump	4	\$ 11,500.00	1.16%
9	At several locations, railings posts are rusted at the base and/or the adjacent concrete is cracked or spalled. While not a structural hazard, this is a life-safety hazard as failure of a railing post could result in property damage or personal injury. It is recommended that the rusted posts and cracked concrete be repaired	Capital Renewal	Lump	4	\$ 20,000.00	2.02%
10	Several areas of the flat roof are showing evidence of water ponding. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains. The roof drains must also be cleaned of any obstructions. In addition, the roof structure must be investigated for snow drifting loads surrounding all rtu's and exposed ductwork	Capital Renewal	Lump	3	\$ 150,000.00	15.16%
11	The brick chimney has cracks in the bricks and mortar joints. These cracks and spalls do not appear to currently pose a structural hazard. However, they may allow water and air infiltration into the building envelope. To extend the life of chimney and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the chimney	Capital Renewal	Lump	4	\$ 35,000.00	3.54%
12	Along the north eave of the gabled roof, it appears that the gutter is disconnected or otherwise damaged. This could possibly allow water to flow down the face of the wall and/or window and possibly infiltrate the building envelope which could cause damage to the structure and/or architectural finishes. It is recommended that gutter be repaired or replaced	Capital Renewal	Lump	3	\$ 18,000.00	1.82%
13	The roof drains at the roof south east roof appear to be obstructed and there is evidence of ponding water. The roof drains must be cleared of obstructions. Ponding of water can cause the roof to sag due to the weight of the water. As the roof sags, more water can become entrapped in the low spot of the roof, causing additional sagging. The roof structure must be adequately pitched, or tapered insulation below the roof membrane must be installed, to allow the water to flow to the roof drains	Capital Renewal	Lump	3	\$ 150,000.00	15.16%
14	In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration	Capital Renewal	Lump	3	\$ 65,000.00	6.57%
15	In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$ 30,000.00	3.03%
16	In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$ 30,000.00	3.03%



17	In the boiler room of the building, the brick walls have vertical cracks through the brick and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$ 28,000.00	2.83%	
18	In the boiler room along the southern wall the lintel is showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system	Capital Renewal	Lump	4	\$ 15,000.00	1.52%	
19	Several skylights are showing evidence of water ponding. Ponding of water can cause deterioration of finishes, structural elements, and allow further water and air infiltration into the building envelope. It is recommended that roof sealant at the skylights be removed and replaced or that the skylights be replaced in their entirety	Capital Renewal	Lump	2	\$ 85,000.00	8.59%	
20	In the boiler room along the southern wall the cmu wall on which the lintel bears has cracks through the cmu and at mortar joints. If left unattended the crack could worsen and lead a failure. It is recommended that this area be immediately repaired using high-performance concrete repair products	Capital Renewal	Lump	4	\$ 30,000.00	3.03%	
21	Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years	Capital Renewal	Lump	3	\$ 35,000.00	3.54%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 989,500.00</b>	<b>100.00%</b>

Interior							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Interior CMU Wall Repair	Capital Renewal	49,350 SF	3	\$ 123,375.00	5.64%	
2	Interior Door Replacement	Capital Renewal	49,350 SF	4	\$ 308,437.50	14.11%	
3	Toilet Partition Replacement	Capital Renewal	49,350 SF	4	\$ 30,843.75	1.41%	
4	General wall painting and coatings	Capital Renewal	49,350 SF	4	\$ 154,218.75	7.05%	
5	Repair moveable partitions	Capital Renewal	49,350 SF	4	\$ 52,435.00	2.40%	
6	Increase room acoustics	Acoustical	49,350 SF	4	\$ 123,375.00	5.64%	
7	Replace Vinyl Composition Tile Flooring (Post Abatement)	Capital Renewal	35,000 SF	4	\$ 350,000.00	16.01%	
8	Replace Carpeting (Post Abatement)	Capital Renewal	5,500 SF	4	\$ 44,687.50	2.04%	
9	Replace Acoustical Ceiling Tiles	Capital Renewal	49,350 SF	4	\$ 431,812.50	19.75%	
10	Repair / Replace Interior Classroom Casework	Capital Renewal	49,350 SF	4	\$ 493,500.00	22.57%	
11	Replace Blackboards / Tackboards(Post Abatement)	Capital Renewal	49,350 SF	4	\$ 74,025.00	3.39%	
12							
13							
14							
15							
16							
17							
18							
19							
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 2,186,710.00</b>	<b>100.00%</b>

Haz Mat							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Vinyl Floor Tiles and Mastic	Haz. Materials	20,000 SF	3	\$ 125,000.00	11.07%	
2	Roofing Debris Contaminated Ceiling Tile	Haz. Materials	27,000 SF	3	\$ 67,500.00	5.98%	
3	Interior Windows	Haz. Materials	12 Total	3	\$ 4,500.00	0.40%	
4	Hidden Pipe and Hard Joint Insulation	Haz. Materials	Unknown	3	\$ 31,250.00	2.77%	
5	Blackboards/Tackboards	Haz. Materials	140 Total	3	\$ 52,500.00	4.65%	
6	Light Fixtures	Haz. Materials	500 Total	3	\$ 31,250.00	2.77%	
7	Miscellaneous Hazardous Materials/Hidden ACM	Haz. Materials	Unknown	3	\$ 31,250.00	2.77%	
8	Boiler Room - Pipe and Hard Joint Insulation	Haz. Materials	225 LF	3	\$ 8,437.50	0.75%	
9	Boiler Room - Boilers	Haz. Materials	2 Total	3	\$ 15,625.00	1.38%	
10	Crawl Space - Pipe and Hard Joint Insulation	Haz. Materials	4,500 LF	3	\$ 168,750.00	14.95%	
11	Crawl Space - Debris	Haz. Materials	25,000 SF	3	\$ 93,750.00	8.31%	
12	Exterior - Old Windows	Haz. Materials	60 Total	3	\$ 22,500.00	1.99%	
13	Exterior - Old Residue Caulking	Haz. Materials	200 LF	3	\$ 6,250.00	0.55%	
14	Exterior - Unit Vent Grilles	Haz. Materials	25 Total	3	\$ 6,250.00	0.55%	
15	Exterior - Roofing Materials	Haz. Materials	Unknown	3	\$ 62,500.00	5.54%	
16	Exterior - Transite Sewer Pipes	Haz. Materials	Unknown	3	\$ 31,250.00	2.77%	
17	Exterior - Dampproofing on Walls	Haz. Materials	Unknown	3	\$ 250,000.00	22.15%	
18	Estimated costs for NESHAP Inspection	Haz. Materials		3	\$ 12,500.00	1.11%	
19	Estimated costs for Design, Construction Monitoring and Air Sampling Services	Haz. Materials		3	\$ 107,687.50	9.54%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,128,750.00</b>	<b>100.00%</b>

Mechanical							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Add dedicated cooling to data closet.	Capital Renewal	Lump	2	\$ 112,500.00	7.76%	
2	Provide ventilation system in building.	Capital Renewal	Lump	2	\$ 187,500.00	12.93%	
3	Replace heating hot water zone pumps and valves in boiler room	Capital Renewal	Lump	3	\$ 231,250.00	15.95%	
4	Replace rooftop exhaust fans.	Capital Renewal	Lump	2	\$ 250,000.00	17.24%	
5	Replace original hydronic heat piping infrastructure throughout building.	Capital Renewal	Lump	2	\$ 218,750.00	15.09%	
6	Replace rooftop cooling units.	Capital Renewal	Lump	2	\$ 206,250.00	14.22%	
7	Provide a new digital control system for entire building/equipment.	Capital Renewal	Lump	2	\$ 243,750.00	16.81%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,450,000.00</b>	<b>100.00%</b>

Plumbing							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Domestic Water Piping not fully insulated	Code Compliance	1	3	\$ 5,000.00	0.77%	
2	Replace Existing Domestic Water Piping with new	Capital Renewal	49,300 SF	4	\$ 496,330.00	76.52%	
3	Sanitary Waste Piping Replacement	Capital Renewal	49,300 SF	3	\$ 87,500.00	13.49%	
4	Replace Old Plumbing Fixtures	Capital Renewal	15	3	\$ 46,875.00	7.23%	
5	Replace Janitor Service Sinks	Capital Renewal	4	3	\$ 12,882.50	1.99%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 648,587.50</b>	<b>100.00%</b>

Electrical							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Fire alarm system	Code Compliance	49,350 SF	1	\$ 308,437.50	43%	
2	Emergency lighting system	Code Compliance	49,350 SF	1	\$ 215,906.25	30%	
3	Non-tamper resistant receptacles	Capital Renewal	49,350 SF	3	\$ 123,375.00	17%	
4	Non-GFI receptacles	Code Compliance	49,350 SF	1	\$ 61,687.50	9%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 709,406.25</b>	<b>100%</b>

Fire & Life Safety						
	Deficiency	Category	Unit	Priority	Repair Cost	
1	Install new NFPA-13 Fire Suppression System	Code Compliance	49,300 SF	1	\$ 56,250.00	24.58%
2	Replace ACT Ceiling	Code Compliance	49,300 SF	1	\$ 172,550.00	75.42%

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

Subtotal	\$ 228,800.00	100.00%
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Technology	Deficiency	Category	Unit	Priority	Repair Cost			
1	Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.	Technology	Lump	3	\$ 231,250.00	14.53%	Tech - Comm Cabling Infrastructure	
2	Install properly sized cooling units in the following spaces to protect the lifespan of the active electronics within these rooms: MDF; IDF1; IDF2; IDF3	Technology	Lump	3	\$ 225,000.00	14.13%		
3	Install a fiber backbone between the MDF and IDF2 & IDF3.	Technology	Lump	3	\$ 456,250.00	28.66%		
4	Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations	Technology	Lump	3	\$ 10,625.00	0.67%		
5	The following rooms are in shared space with storage or custodial storage. Consider relocating to a dedicated space: MDF; IDF1, IDF2, IDF3	Technology	Lump	3	\$ 10,625.00	0.67%		
6	Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within	Technology	Lump	3	\$ 18,750.00	1.18%		
7	Replace zip ties with Velcro hook and loop straps	Technology	Lump	3	\$ 20,625.00	1.30%		
8	Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage	Technology	Lump	3	\$ 15,000.00	0.94%	Public Address/Master Clock	
9	Replace all associated cabling.	Technology	Lump	3	\$ 31,250.00	1.96%		
10	Install public address strobes to notify students and staff of an announcement in high volume areas, including the Multi-Purpose Room.	Technology	Lump	3	\$ 27,500.00	1.73%		
11	Install exterior horns around the building for full coverage of the exterior, including the fields.	Technology	Lump	3	\$ 31,250.00	1.96%		
12	Install a phone to public address interface so that any phone in the building can access the public address system.	Technology	Lump	3	\$ 24,375.00	1.53%	Physical Electronic Security	
13	Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.	Technology	Lump	3	\$ 15,000.00	0.94%		
14	BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTS, IP, Cellular). Consider adding door position switches on all exterior doors	Technology	Lump	3	\$ 18,750.00	1.18%		
15	It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly	Technology	Lump	3	\$ 29,375.00	1.85%		
16	The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a "Single Pane of Glass" to manage all cameras throughout the district	Technology	Lump	3	\$ 31,875.00	2.00%		
17	Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary.	Technology	Lump	3	\$ 35,625.00	2.24%		
18	Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras	Technology	Lump	3	\$ 20,625.00	1.30%		
19	Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists	Technology	Lump	3	\$ 66,250.00	4.16%		
20	Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area	Technology	Lump	3	\$ 56,250.00	3.53%		
21	Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders	Technology	Lump	3	\$ 35,000.00	2.20%		
22	Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter	Technology	Lump	3	\$ 30,000.00	1.88%		
23	Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department	Technology	Lump	3	\$ 47,500.00	2.98%		
24	Replace all TV's in classrooms with Interactive Displays	Technology	Lump	3	\$ 50,000.00	3.14%	Audio Visual Systems	
25	Install a dedicated sound system in each classroom with the following functionality: Speakers throughout the space; Wireless microphones for students and teachers; Priority Override / Public Address Mute for muting the speakers during a Public Address announcement; Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired; Hardwired AV connections from teacher's desk to interactive display	Technology	Lump	3	\$ 36,250.00	2.28%		
26	Replace the existing Local Sound System in the multi-purpose room with a system capable integrating the following: Two to four hardwired microphone locations; Two to four wireless microphones; Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution; Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection; Multi-Media / CD / Bluetooth inputs; Control panels capable of muting, program audio volume control, system power on / off; Public Address integration ensuring that announcements are always heard throughout the space; An ADA compliant Assisted Listening System; Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video.	Technology	Lump	3	\$ 16,875.00	1.06%		
					Subtotal	\$ 1,591,875.00	100.00%	

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

Conveyances	Deficiency	Category	Unit	Priority	Repair Cost	
1	N/A				\$ -	
2					\$ -	
3					\$ -	
4					\$ -	
					Subtotal	\$ -

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

Specialties	Deficiency	Category	Unit	Priority	Repair Cost		
1	Replace Cabinetry in Classrooms and Labs	Capital Renewal	49,350 SF	3	\$ 308,437.50	100%	
2					\$ -		
3					\$ -		
4					\$ -		
					Subtotal	\$ 308,437.50	100%

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*



# **FACILITY CONDITIONS ASSESSMENT**

## **NAYATT SCHOOL**

## NAYATT SCHOOL



*Site Plan from Google Earth, North is page up.*

## SITE

Nayatt Elementary School site visited for site review on August 9, 2021, by two members of the KBA Landscape Department. These visits took place on a cloudy humid day, with temperatures in the 80's.

Overall, the site is in good condition. There were no immediate pressing issues in either the Priority 1 or 2 categories at the school.

Priority 3 issues include no ADA compliant access to either of the softball fields. The playground area needs surfacing and an ADA path access to the structures. With the upper portion of the rear of the school elevated above the playground and surrounding areas, some of the access doors do not have ADA compliant approaches or walks. This is especially true at the Northwest doors. A small stage at the rear of the school has a small ramp and this should have a railing system for access. Surfacing in the picnic area is gravel. The front of the school, recently rebuilt, has meets all of the ADA access issues that the grades present there.

Priority 4 issues include a missing warning strip at the baseball backstop, with softball fields in bad condition. Active drainage from the school area goes right across the field and is both depositing eroded material and eroding a path through the field. Fields were overgrown with weeds at the time of the site visit. While there were many play structures in the playground, many of them were too close to each other with multiple locations where fall zones were not respected. Some of the play equipment is dated and may not meet existing compliances. Lastly, most of the lawn areas in the rear of the school area were in very poor condition.

## TRAFFIC ANALYSIS

### School Traffic Report

School: Nayatt School constructed 1953, 400 Nayatt Road

Phone # 401-247-3175

Participant: David McKinley

Date: 06/17/2021

Time: 7:42-8:16

### Student Drop-Offs by Parents

Number of Cars: 139 Cars

Stacking out on Road: Yes

How many cars can stack on the property:

Front has two stacking lanes, which can hold 4 buses or around 10 cars each. Outer stacking lane was used as a drive lane to drive around the west side of the school to drop off for the kindergarten and 3 MAC classes.

### Bus Drop-Off

Buses stacked in the lane closest to the school and all released at the same time.

Number of Buses (Large): 4                      (Small): 1

Small bus pulled in behind school on East side of the school to the rear parking lot.

Number of Students on Bus:

Bus #1	5 students	Bus#3	6
Bus #2	2 student	Bus#4	7

Bicyclists: 44            Are there bicycle racks on site? Yes

Can accommodate how many bikes?

24, Bicycles were stacked on surrounding walls, and just left on the nearby lawns. Two scooters were included in the count.

Walkers: 25            Are there sidewalks? Yes

Paths through the woods? No

New sidewalks were located at the front of the building (including a ramp up to the front of the school, on the west side of the building and along Nyatt Road. There was a direct walk across the two drop off lanes to the Road.

### Drop Off:

Adequate Signage at Drop-off? Yes

Signage included "No left turn between 7:30-8:00 2:30-3:00", "Do not Enter", Several Stop Signs at front lane ends and at West exit from Site.

No idling signage at Bus loop? Yes

Four "No Idling, Turn off Engine" signs.

A single sign for "Low emitting and fuel-efficient vehicles" and a single sign for "Carpool vehicles" were out front.

ADA drop-off? Yes, 2 on east side of school with direct access to front

Any Students being dropped off? None were observed

### Any specific areas that appear problematic on-site?

Conflict at end of stacking aisle where some parents want to exit the site from the inside lane and others from the outside lane want to turn right to go to the drop off area on the west side of the school.

### Are buses and parents mixing or are the drop-offs separate?

Buses come and drop off early and leave before the majority of the parents dropping off the students.

### Are parents dropping off only or walking in?

No parents walked in. Drop-off only. Some parents rode their bikes with their kids and some parents walked with their children to the school.

Dumpster is in the eastern rear parking lot, facing the road.

Two mobile storage units were in the rear eastern parking lot.

Drop off for the lower classes was on the west side, with a sliding gate that open for the turn around. Gate was then closed to secure the playground.

Playground area has an outdoor stage, many picnic tables (donated by parents) two small baseball fields, a playscape area and a small garden enclosure. It included raised gardens. The stage had ADA access.

#### Parking Chart

	<u>Regular Spaces</u>	<u>HC spaces</u>	<u>Total</u>
Northeast Lot	19	1	20
South ring road	20	-	20
South Drop-off loop (4 bus spaces)	-	-	--
West Lot	15	1	16
ADA parking- East	-	2	2
Total	54	4	58

Overall aerial image  
from Google Maps of  
the Nayatt Elementary  
School at 400 Nayatt  
Road, looking north east



## STRUCTURE

### STANDARD OF CARE

Please note that the results of this evaluation are limited to cursory visual observations of the accessible areas only. While Odeh Engineer's have reviewed the areas of interest, nearly all the structural framing is concealed by architectural finishes or was otherwise inaccessible, and therefore unforeseen damage or conditions may be present. The findings of this report represent our professional opinion based on the information available to us at this time.

Odeh Engineer's understand that this report is intended for use only by the Kaestle Boos Associates, and their client, to determine the existing structural condition of the existing building. In any budgeting, adequate contingency for hidden or unforeseen conditions that are not identified or are worse than described herein must be carried.

Please note that all dimensions of the existing structure given herein are approximate and based on measurements or estimates of representative members. Dimensions can and will vary and must be considered as "+/-" in all cases (whether or not the "+/-" symbol is indicated).

### ACTIONS TAKEN

Odeh Engineers took the following actions to complete this investigation:

- On Tuesday, August 17, 2021, Ryan Conley, from Odeh Engineer's, conducted a walk-through tour of the buildings and made visual observations of the existing structure and its condition.
- On Tuesday, August 17, 2021, Griffin Tarmy, from Odeh Engineer's, flew a DJI Mavic 2 Pro unmanned aircraft (drone) around the building and took photos of the building's exterior and performed a walk-through of the building's exterior along with Ryan Conley.
- Odeh Engineers prepared this written summary of findings and recommendations.
- Discussed with and reviewed by M. David Odeh

### DOCUMENTS REVIEWED

No existing drawings have been provided to Odeh Engineers for review





Overall aerial plan view image from Google Maps of the Nayatt Elementary School at 400 Nayatt Road. North is oriented upward on the page.

## EXISTING BUILDING DESCRIPTION

The existing Nayatt Elementary School, located at 400 Nayatt Road in Barrington, Rhode Island consists of two wings: a main entry wing which is oriented approximately in the west-east direction and another wing oriented perpendicular to and on the north side of the entry. The western portion of the main entry wing is two stories, and the remaining portions of the building are a single story. The building roof is primarily flat, with a raised roof above the cafeteria in the south east corner.

## FOUNDATIONS

Based upon what could be see above grade, the foundation walls appear to be cast in place concrete.

Photo of typical cast-in-place concrete foundation wall



## FLOOR FRAMING

Based upon what was visible, the floor framing appears to be concrete double tees in the two-story portion and slab on grade in the single-story portion.



*Photo of concrete double tee floor framing in boiler room.*

## ROOF FRAMING

The roof framing was unable to be observed due to the hard ceilings, but it is assumed to be open web steel joists with tectum roof panels. Additionally, at the northern addition it is assumed to be open web steel joist with steel roof decking.



*Photo of the typical hard ceiling at Nayatt Elementary School.*



Photo of roof framing at Hampden Elementary School. The original portion of Nayatt Elementary is assumed to be constructed in a similar fashion with open web steel joists and tectum roof panels.



Photo of roof framing at Hampden Elementary School. The northern addition at Nayatt Elementary School is assumed to be constructed in a similar fashion with open web steel joists and steel roof decking.

## EXTERIOR WALLS

The exterior walls appear to primarily be constructed of a brick veneer exterior and a concrete masonry unit (cmu) interior. The cmu walls appear to be the support for roof framing system.



Photo showing the typical exterior brick veneer.



Photo showing the typical interior cmu wall

### LATERAL FORCE RESISTANCE SYSTEM

A distinct lateral force resistance system, such as steel bracing, was not observed. With the predominant use of cmu bearing walls throughout the building, the cmu walls are most likely behaving as the lateral force resistance system.

### OBSERVED BUILDING DEFICIENCIES AND POTENTIAL PROBLEM AREAS

The following structural deficiencies and potential problem areas were observed by Odeh Engineer's, Inc. during our due walk-through inspection of the existing building. Additionally, based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.



### WATER STAINED CEILING TILES.

Comments and recommendations: In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration.



### STEP CRACKING IN INTERIOR CMU WALLS.

Comments and recommendations: In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



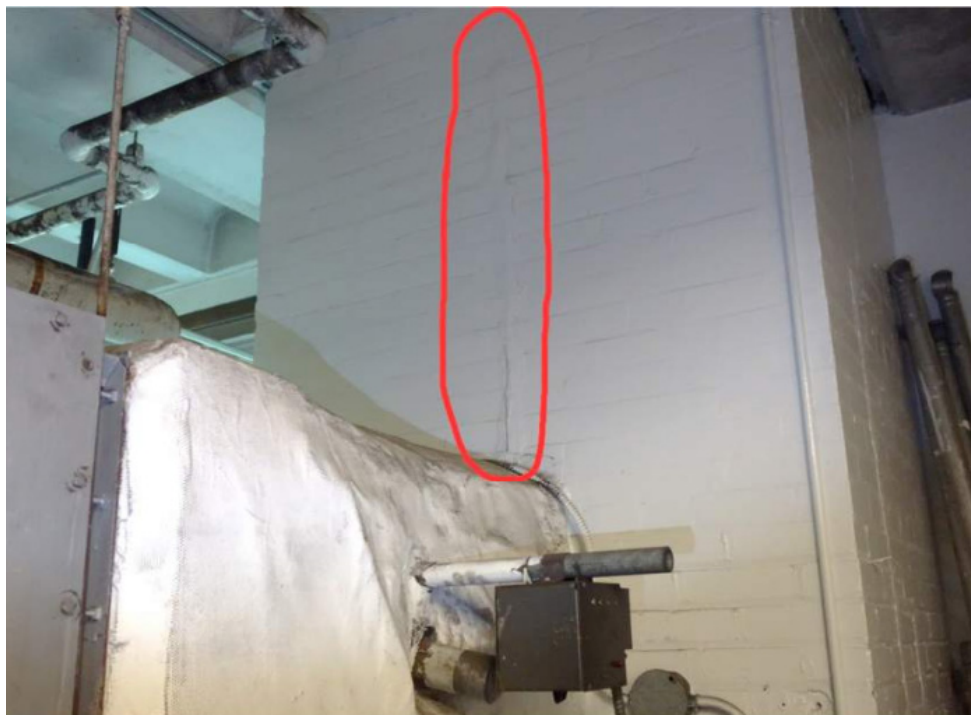
### VERTICAL CRACKING IN INTERIOR CMU WALLS.

Comments and recommendations: In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



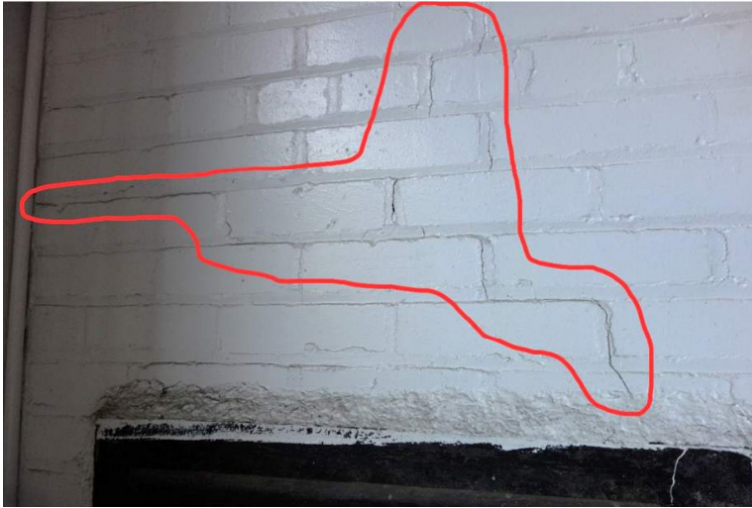
### MISSING MAT OR TILES IN THE FLOOR FINISH.

Comments and recommendations: At the exit in the hallway outside classroom 3A, the floor finish is missing tiles or an entrance mat. This is not a structural hazard but does pose a tripping hazard and it is recommended that the floors be repaired as necessary to provide a smooth walking surface.



### CRACKING IN BRICK MASONRY CHIMNEY.

Comments and recommendations: In the boiler room of the building, the brick masonry chimney has step cracks and vertical cracks through the brick and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



Additional photo of cracking in brick masonry chimney.



### CRACKING CONCRETE DOUBLE TEES.

Comments and recommendations: At various locations in the lower level there are cracks in the concrete double tees. Although these cracks do not appear to currently pose a structural hazard, it is recommended that the concrete be repaired using high-performance concrete repair products.



### **CRACKING IN INTERIOR OF FOUNDATION WALL.**

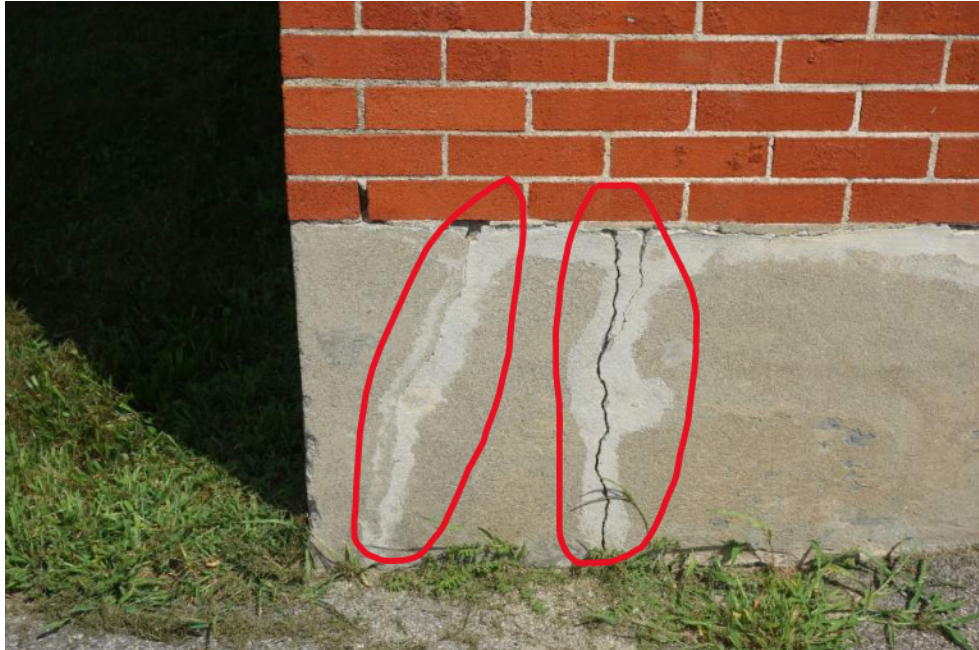
Comments and recommendations: At various locations in the Lower Level, there are several cracks in the concrete foundation walls. These cracks do not currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. It is recommended that these cracks be periodically monitored to determine if these cracks are dormant.





### **SPALLING OF CORNERS OF CONCRETE WALLS.**

Comments and recommendations: There are various locations of concrete spalling at the corners of the exterior concrete walls. These spalls do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the spalls in the exterior concrete walls.



### CONCRETE WALL CRACKING.

Comments and recommendations: There are various locations of concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. Some of these cracks appear to have been repaired at some point, and those repairs have failed. To extend the life of the concrete walls and to protect the building, it is recommended the previous repairs are removed that a maintenance program be established to repair the cracks in the exterior concrete walls using high performance concrete repair products.

## CRACKING AT TOP OF CONCRETE FOUNDATION WALL

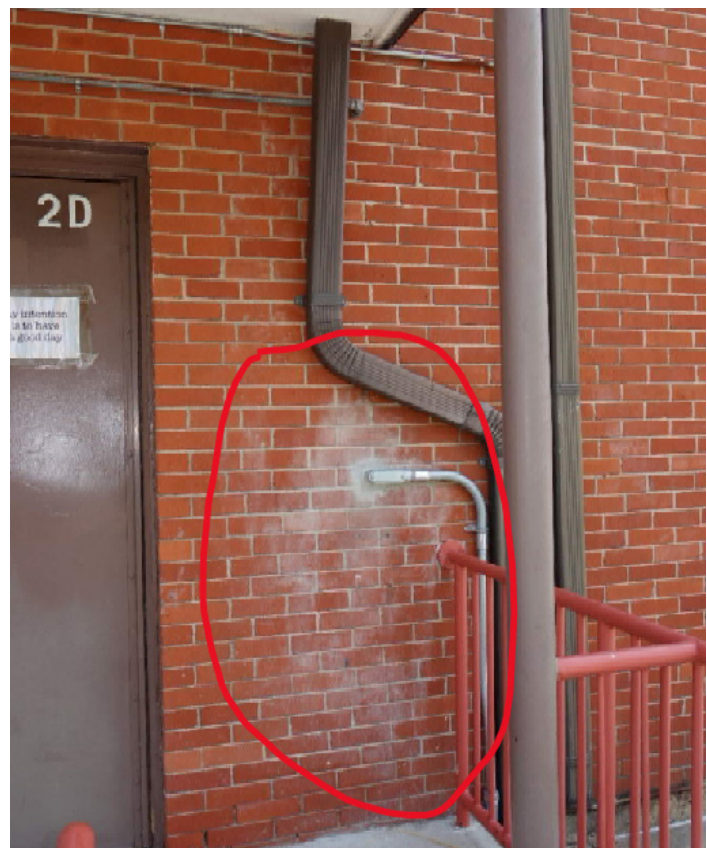
Comments and recommendations: There are various locations of cracking at the top of exterior concrete walls where it meets the exterior brick masonry. These cracks do not currently appear to pose a structural hazard. To extend the life of the exterior concrete and masonry walls and to protect the building, it is recommended the previous repairs are removed that a maintenance program be established to repair the cracks in the exterior concrete and masonry walls.

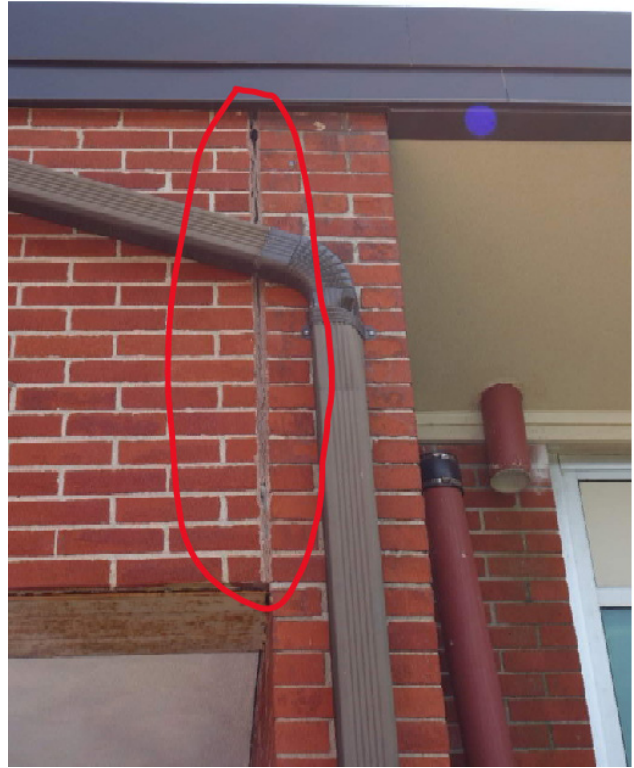




### EFFLORESCENCE AT BRICK WALLS.

Comments and recommendations: At various and several locations, efflorescence was observed on the exterior brick walls. Efflorescence is a sign which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior brick walls and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs.





### CONTROL JOINTS IN THE EXTERIOR WALL HAVE AGED AND FAILED

Comments and recommendations: There are several locations where the control joints in the exterior wall have aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed control joints.



### BRICK CRACKING AT VENTS.

Comments and recommendations: At most of the wall vents, the adjacent brick and mortar joints have cracked. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls.



### STEP CRACKING IN THE BRICK MASONRY.

Comments and recommendations: There are a few locations of step cracking at the exterior brick masonry walls, particularly near the stepped concrete foundation walls. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the concrete walls and to protect the building, it is recommended that the stepped cracks in the exterior brick masonry be repaired.

## LINTEL RUSTING.

Comments and recommendations: The lintels are showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. A lack of weep holes will trap water behind the brick which could further accelerate rusting. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system and weep holes be installed.

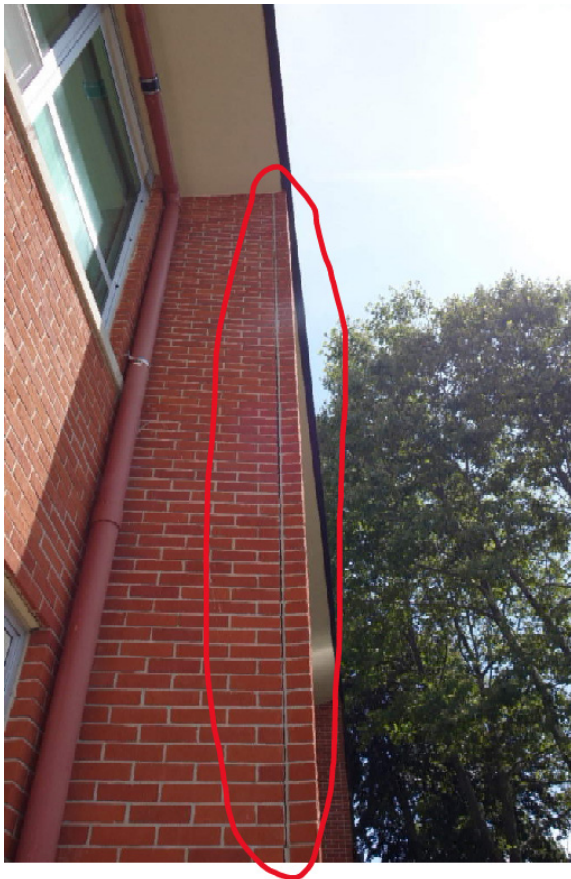
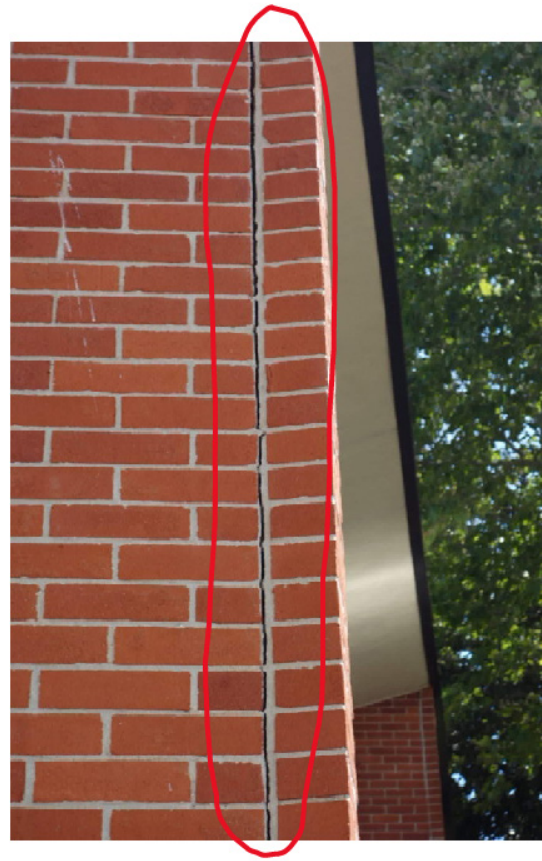




### MAJOR BRICK MASONRY SPALLING.

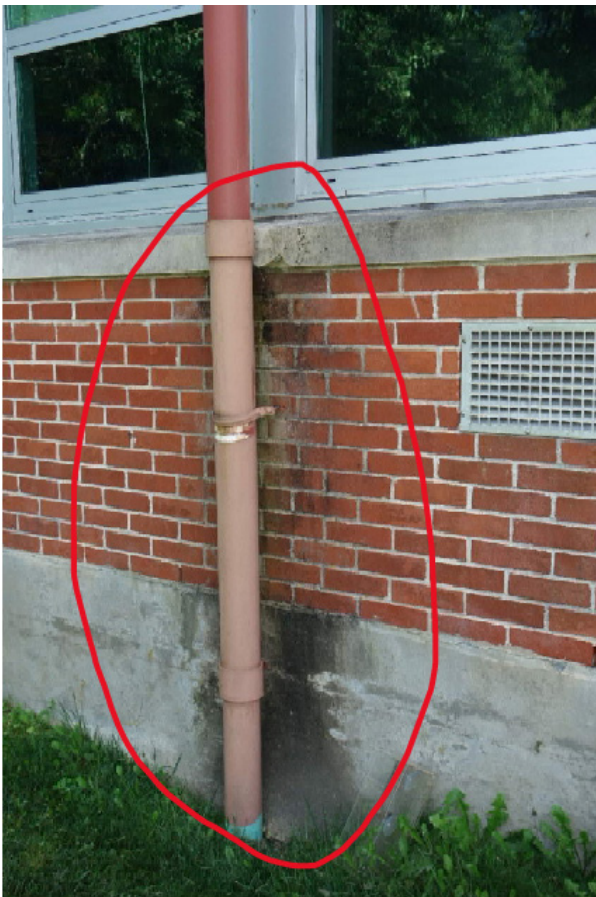
Comments and recommendations: There are few locations of major spalling at the exterior brick walls. While they do not currently appear to be a structural hazard, the spalls are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced.





### JOINT FAILURE IN EXTERIOR BRICK MASONRY PIER.

Comments and recommendations: There are several locations on the exterior brick masonry piers where the mortar joint for the outermost layer of brick masonry is nearing failure. While they do not currently appear to be a structural hazard, this joint failure should be repaired as soon as possible as failure could cause damage to property or injury to personnel.



### WATER DAMAGE TO EXTERIOR CONCRETE AND BRICK MASONRY WALLS.

Comments and recommendations: There are few locations on the exterior walls near various water pipes where water damage was observed. While this damage does not currently appear to be a structural hazard, the pipes should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage.

## BRICK CRACKS AT THE NORTH EAST CORNER OF THE WOOD SHOP

Comments and recommendations: The exterior north east corner of the wood shop has several cracks in the brick. These cracks do not appear to currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks.





### SNOW DRIFT AT HIGH/LOW ROOF AND RTU AREAS

Comments and recommendations: Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.

### CONCLUSION

In summary, it is Odeh Engineer's professional opinion that the existing building is in good and serviceable condition, however we noticed a few localized issues which will need to be addressed to maintain the serviceability of the structure. Please refer to section D. Observed Building Deficiencies and Potential Problem Areas for descriptions and recommendations.

## MECHANICAL SYSTEMS

### EXECUTIVE SUMMARY:

Presently, the HVAC Systems serving the Nayatt School building consists of one natural gas fired, hot water boilers serving hot water to fan coil units, unit ventilators, heating and ventilation units, unit heaters, radiators, and convectors. The exhaust fans throughout the building are utilized for general building exhaust and relief of pressurization. A direct digital control system is present in the building however, it's controllability is limited to only several components. There are still some original pneumatic thermostats in place, but these are no longer functional. Many spaces are controlled via standalone thermostats which are utilized for on/off of the heating system and ventilation control.

### HEATING SYSTEM

1. The building is heated by one (1) antiquated gas/oil-fired boiler, manufactured by H.B. Smith Co. Inc., model 650 Mills, with 15 cast iron sections. The boiler has a natural gas input of 5,260 MBH, with an oil max gallons per hour of 50.0. The boiler utilizes a Power Flame Burner, model C4-0B capable of using either #2 fuel oil or natural gas. The boiler is well past its useful life expectancy.
2. For venting of the boiler, there is a L.J Wing Draft-Inducer, model DI-5217, that vents to a brick chimney and rising vertically up to the roof. The chimney terminates approximately 8 feet above roof.
3. There is a 6'x4' combustion air louver for the gas fired boiler. The louver is located above the double doors into the space from outdoors. It is not provided with any motorized damper and remains open to the outdoors constantly, which is a code violation.
4. Heating hot water is circulated to unit ventilators, unit heaters, convectors, air handlers, fin-tube radiation, etc. via five (5) in-line pumps. Each pump serves a dedicated zone in the building. The heating hot water is distributed via insulated piping throughout the building. Some piping within the boiler room and throughout the building is missing sections of insulation. The piping system is a combination of copper and black schedule 40 steel. Majority of the pumps appear to have been replaced within the last five years. The pumps appear to be in fair condition.
5. The heating plant is equipped with all necessary hydronic accessories, such as air separators, expansion tanks and chemical treatment for proper operation. The accessories are of the same vintage as the boilers except for the expansion tank that appears to be recently replaced.
6. The classrooms and Library are provided with fan coils and unit ventilators, the administration area is equipped with fin tube radiation, the Gym has two indoor air handlers, and the lobbies and vestibules utilize ceiling and wall mounted unit heaters for their heating purposes.



Heating Boiler



Boiler Breeching



Combustion Air



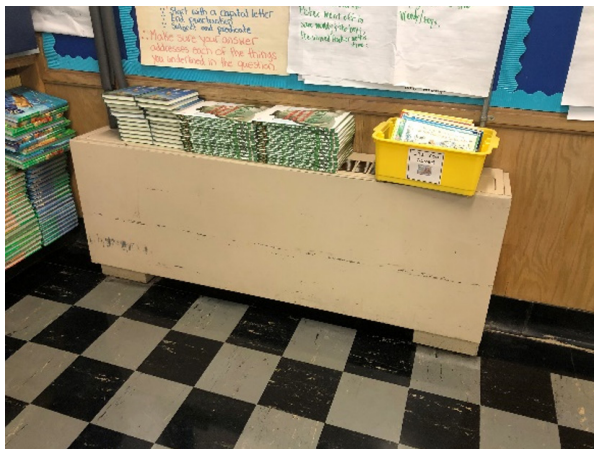
Expansion Tank



System Pumps



System Pumps



Typical Fan Coil



Typical Fin-tube



Typical Corridor Unit Heater

## AIR CONDITIONING:

The building is not fully air conditioned. Individual window air conditioners and ductless split systems are installed where air conditioning is required. There are several ductless split systems serving the Administration offices. In addition, there are a few ductless split systems serving select classrooms where needed.



*Air Conditioning Unit*



*Ductless Split*

## VENTILATION:

1. Wall mounted classroom unit ventilators are utilized in several classrooms for the heating and ventilation requirements. The unit ventilators appear to be original and in need of replacement. Ventilation air is introduced to each of these units through an exterior wall-mounted louver. Each unit is equipped with a hot water heating coil, supply fan and filter. In the majority of the classrooms and the Library wall mounted fan coils are utilized. These units do not provide any ventilation to space, therefore outdoor air is introduced via the operable windows. Although this method is acceptable by the building code it is an ineffective manner to maintain comfort and good indoor air quality. The classrooms and Library spaces are provided with exhaust systems to remove any outdoor air that is introduced through the unit ventilators and to create a negative pressure to induce infiltration through the windows and doors. Classroom (exhaust) is served by various central roof mounted exhaust fan systems. The unit ventilators installed are past their expected useful service life. The fan coils do appear to be in fair condition.
2. The administration areas utilize operable windows for their ventilation needs as well. Although this method is acceptable by the building code it is ineffective when maintaining comfort and good indoor air quality.
3. Restrooms, janitor's closets and utility rooms are exhausted by roof mounted exhaust fans.



*Typical Unit Ventilator*



*Typical Fan Coil*



Typical Fin-tube



Typical Exhaust Fans

**AIR HANDLING UNITS:**

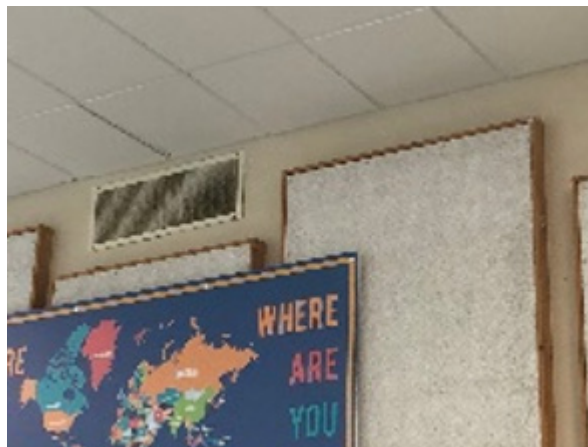
The Multipurpose room is provided with two (2) heating and ventilating units which are located above the ceiling of the main lobby. The heating and ventilating units are provided with a supply fan, a hot water coil, filters, and a direct source of outside ventilation air drawn in through roof hoods. Supply air from each unit is distributed out to the space via grilles on the back wall of the space. This space is not provided with any air conditioning. Temperature control for this space is accomplished via wall a mounted thermostat which is manufactured by KMC. It would appear this space temperature sensor and unit controls are connected to the direct digital controls system and capable of being monitored on the building management system. The heating and ventilating units have surpassed their expected service lives and are recommended for replacement.



Typical Air Handling Unit



Typical Air Handling Unit



Supply Grilles

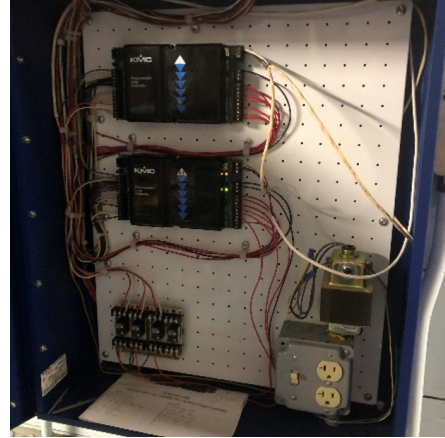


## CONTROLS:

1. The majority of the building's HVAC controls are standalone, antiquated, non-operational and past their anticipated life expectancy. There is KMC controls system installed which is a direct digital type of control system. However, the DDC system is only equipped to monitor and provide on/off capability of the boiler plant, pumps, two air handlers and several thermostats throughout the building. Overall, the system is lacking controllability and is ultimately restricting equipment and the building from operating efficiently. Therefore, we recommended the system be replaced with a new direct digital control system and it be connected to all new equipment.



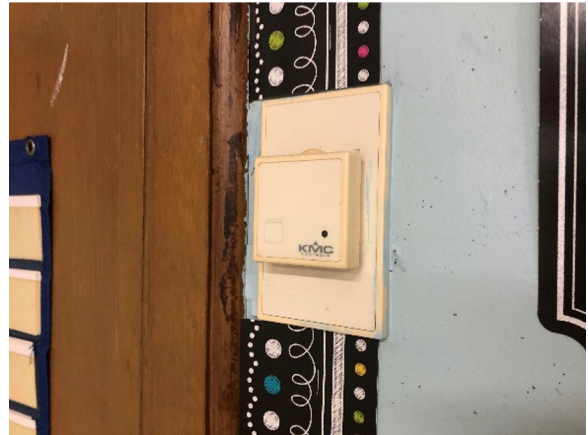
*KMC Thermostat*



*KMC Controls*



*Old Thermostat*



*Older KMS Thermostat*

**RECOMMENDATIONS:**

1. Based on our findings as summarized above, the following recommendations are made with regards to HVAC system upgrades:
2. Provide a Central Building Management System (BMS) consisting of current technologies to control, monitor, and trend all HVAC system operation for optimum comfort and efficiency.
3. Provide some level of air-conditioning for all regularly occupied spaces for increased health, productivity, comfort, and building longevity.
4. Provide a mechanical source of tempered make-up air for the kitchen area for code-compliance.
5. Replace the existing hot water heating plant with a new gas-fired high efficiency condensing boiler plant for increased efficiency, controllability, and longevity.
6. Replace all existing terminal heating units with new hot water heating units including direct digital control (DDC) valves for increased efficiency, controllability, and longevity.
7. Provide new re-circulating type variable volume air-handling units to serve the multi-purpose area including demand control ventilation and energy recovery.
8. Provide new 100% Outdoor Air central ventilation system including energy recovery and hot water heating coils to provide tempered ventilation to all the classroom, administration, and corridor areas via a galvanized duct distribution system consisting of supply and exhaust ductwork. This could be single or multiple units depending on several factors including roof capacity and clearance for ductwork.
9. Replace all existing building exhaust systems with new fans and duct distribution systems.

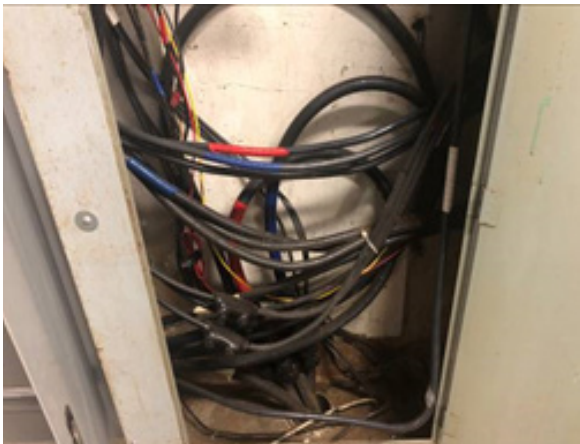
## ELECTRICAL SYSTEMS

### EXECUTIVE SUMMARY:

The existing systems of this facility range from original vintage systems, to upgraded systems and/or add-ons installed including electrical service equipment and LED lighting. Although new devices, equipment, and fixtures were provided, the existing wiring, raceways, and boxes were reused. While the facility is well maintained and clean, the systems are dated and generally obsolete. Code changes over the years have resulted in existing systems that do not meet current codes. We recommend replacement of the electrical systems for this facility under a renovation program. Existing electric service and distribution equipment should be replaced. The existing fire alarm system should be replaced with a voice evacuation type system per current code requirements. All non-LED lighting should be replaced.

### ELECTRICAL DISTRIBUTION SYSTEM:

1. The secondary service is fed underground in one 4" conduit from a utility pole riser with utility company owned pole mounted transformers.
2. A 600 ampere, 120/280-volt, 3 phase, 4 wire service serves the building. The main service equipment is located within the Boiler Room. The MDP consists of a main distribution section. The newer service equipment is in relatively good condition and is manufactured by Square D.
3. The original Westinghouse fusible main service equipment panel has been bypassed and used as a junction. Box to feed the newer Square D panel.
4. Most remote branch circuit panelboards, generally flush in corridors, are original Westinghouse panelboards and are in poor condition.



*Junction/Splice Box*



*New Panel*



*Original Panel*



Corridor Panel



Recessed Panel

### INTERIOR LIGHTING:

1. Corridor and toilet room lighting consists of 2'x4' recessed center basket fixtures. Corridor lighting is controlled via local switches.
2. Classroom and library lighting consists of recessed center basket mounted 2'x4' fixtures. Lights are controlled with local switches.
3. Multi-purpose lighting consists of 2'x4' recessed lensed fluorescent fixtures with LED sources. Lighting is controlled with local switches.
4. Platform lighting consists of recessed 2'x4' center basket LED fixtures. Lights are breaker controlled.
5. Kitchen has 2'x4' recessed center basket LED fixtures.
6. Main lobby consists of 2'x2' surface LED fixtures with center basket.
7. Work room consists of surface fluorescent wraparound fixtures.
8. Main office lighting consist of recessed double basket fixtures.
9. In general, most of the interior lighting is in fair condition.



Classroom Lighting



Main Lobby Lighting



Main Office Lighting



Work Room Lighting



Multi-Purpose Lighting

### EXTERIOR LIGHTING:

1. Wall mounted HID sconces at the building exist along the perimeter of the building. There are pole mounted LED fixtures for the parking areas.
2. Bollards are provided along the walkway.
3. Main entrance consists of recessed square canopy lighting.
4. In general, the exterior lighting offers inadequate coverage. Exterior lighting is controlled via a time clock.



Wall Pack



Pole Light



Bollard Lighting



Canopy Lighting

**EMERGENCY STANDBY SYSTEM:**

The building does not have a generator. Emergency lighting consists of battery units with integral heads. Exterior doors have remote heads. Exit signs have battery back-up.



Emergency Battery Unit



Exit Sign



Remote Exterior Emergency Heads

## FIRE ALARM SYSTEM:

1. The fire alarm system consists of a Notifier addressable control panel. The control panel is located in the Main Lobby. Horn/strobes are ADA compliant and located throughout the school. Manual pull stations are located at exterior doors. Smoke detectors and heat detectors are provided in corridors and throughout the building. Coverage of detection and signal devices is inadequate.
2. E-use groups require speaker/strobes per IBC 2012 - 907.2.3 for new buildings and structures.
3. There are door holders throughout the building. The Sigcom radio box #103 with an exterior antenna located at the Main Lobby is used to transmit alarms.
4. Exterior recessed Knox Box is located at Main entrance.



FACP Radio Master Box



Heat Detector



Horn/Strobe & Pull Station



Smoke Detector



Recessed Knox Box

## LIGHTNING PROTECTION SYSTEM:

The facility does not have a lightning protection system.

## MISCELLANEOUS:

1. Classrooms typically have two or three duplex receptacles at each teaching wall, generally with surface EMT conduits.
2. Communications services enter the building overhead from a utility pole.
3. Receptacles are not of the tamper-proof type currently required by code for elementary schools.
4. The school does not have a bi-directional antenna (BDA) system.



*Classroom Receptacles*

## RECOMMENDATIONS:

1. Recommendations for the Main Distribution System:
  - a. The existing electrical service should be upgraded to provide capacity for the building load based on 10 watts per square foot power consumption. A new pad-mounted transformer with new primary and secondary services should be provided. The pole mounted transformers will be removed when no longer needed.
  - b. The proposed secondary switchgear should be installed in a dedicated main electric room, and sized in accordance with current NEC minimum workspace requirements. New panelboards should be added as required. The new panelboards should be located in electrical rooms located in each wing of the building. The electrical rooms should be sized in accordance with current NEC minimum workspace requirements and provide space for future expansion.
  - c. Computer grade panelboards with double neutrals and with surge protective devices should be provided for computer receptacles to mitigate harmonic distortion of non-linear computer loads.
  - d. Additional duplex receptacle for general purpose power should be provided throughout the facility as required. Additional duplex receptacles for computer workstations in classrooms should be installed and circuited to the computer grade panel boards outlined above.
  - e. Each classroom should have a minimum of two duplex receptacles per teaching wall and two double duplex receptacles on dedicated circuits at classroom computer workstations. The Teacher's workstation should have a double duplex receptacle also on a dedicated circuit.
  - f. Office areas will generally have one duplex outlet per wall. At each workstation a double duplex receptacle will be provided.
  - g. Corridors should have a cleaning receptacle at approximately 30-40-foot intervals.
  - h. Exterior weatherproof GFI receptacles will be installed at exterior doors.
  - i. Existing receptacles will be replaced with tamper-proof receptacles to meet NEC requirements.
2. Recommendations for the Emergency Distribution System:
  - a. Provide a new exterior emergency generator and automatic transfer switches to provide emergency backup power for life safety and critical standby loads (i.e.; freezers, communications and security equipment, boilers, pumps, etc.) Dedicated 2-hour fire rated emergency rooms shall be provided within the building. Life safety system will feed all code required egress lighting and exit signs.



- b. Emergency life safety lighting should be provided in toilet areas and other public spaces as required by NFPA 101 Life Safety Code.
3. Recommendations for the Lighting System:
  - a. In general, the existing lighting fixtures that have been upgraded with LED sources should remain. Fluorescent fixtures should be upgraded with LED sources as required based on the proposed architectural renovations.
  - b. Classroom and Office lighting fixtures that have been upgraded with LED lamps and electronic drivers will remain. Occupancy sensors should be provided.
  - c. Corridor lighting with LED lamps and electronic drivers will remain. Occupancy sensors will be added.
  - d. Each area will be locally switched and designed for multi-level controls. Each classroom, office space and toilet room will have an occupancy sensor to turn lights off when unoccupied.
  - e. The entire school will be controlled with an automatic lighting control system using addressable networked controls for programming lights on and off.
  - f. Exterior site lighting fixtures for area lighting will be pole mounted long life, energy efficient LED luminaries in the parking areas. Building perimeter fixtures will be wall mounted LED sconces over exterior doors. The exterior lighting will be connected to the automatic lighting control system for photocell on and timed off operation. All exterior lighting will be of the cut-off type.
4. Recommendations for the Fire Alarm System:
  - a. A fire alarm and detection system in compliance with ADA should be provided with battery back-up. The system will be of the addressable type where each device will be identified at the control panel and remote annunciator by device type and location to facilitate search for origin of alarms. Smoke detectors will be provided in open areas, corridors, and other egress ways. The sprinkler system will be supervised for water flow and tampering with valves. Voice evacuation speaker/strobes will be provided in egress ways, classrooms, assembly spaces, open areas and other large spaces.
  - b. Strobe only units will be provided in single toilets and conference rooms.
  - c. Manual pull stations will be provided at exit discharge doors.
  - d. The system will be remotely connected to automatically report alarms to fire department via the existing Sigcom radio master box.
5. Recommendations for the Uninterruptible Power Supply System (UPS):
  - a. A three-phase centralized Uninterruptible Power Supply (UPS) system should be provided with battery backup. The system will provide conditioned power to sensitive electronic loads and telecommunication systems to bridge over power interruptions of short duration and allow an orderly shutdown of servers during a prolonged power outage. The UPS system will also be connected to the stand-by generator.
6. Recommendations for the Lightning Protection System:
  - a. A system of lightning protection should be provided. The system will be installed in compliance with the provisions of the latest "Code for Protection Against Lightning" for buildings as adopted by the National Fire Protection Association and the Underwriters' Laboratories, Inc. for a UL Master Label System. The lightning protection equipment will include air terminals, conductors, conduits, fasteners, connectors, ground rods, etc.

## PLUMBING & FIRE PROTECTION SYSTEMS

The plumbing systems at the 34,000 square foot nayatt school (built in 1954) in general are in working order. The major systems, although working adequately at this time, are approaching the end of their useful life. In addition, many of the systems are not up to the latest industry standards, best practices, and current codes. If it is anticipated that major modifications are planned for the building, the plumbing systems should be considered for an overall upgrade. Also, a complete fire protection system shall be installed as the building does not currently have a fire sprinkler system.

### 2-INCH DOMESTIC WATER SERVICE

Description – 2-inch domestic water service enters the building at the lower level. It enters the building as poly tubing and transitions to copper piping where it is metered, and then protected with a reduces pressure backflow preventer.

Condition – the piping, the water meter and backflow preventer appear in good working order.

Deficiencies:

1. No floor drain provided below backflow preventer.
2. No piping insulation as required by current energy codes.

Recommendation – the water service piping appears in good working order. Continued maintenance should be provided on the meter and backflow preventer as well as strainer. A floor drain should be provided as is typically required to receive any discharge from the backflow preventer during a back-pressure condition. Provide insulation

### DOMESTIC WATER PIPING SYSTEM

Description – the domestic water piping system (where observable) consists of primarily copper pipe & fittings with soldered joints. Much of the observable piping appears original to the building.

Condition – the domestic water piping although working appears in poor condition. The piping appears original to the building and beyond its useful life.

Deficiencies: Some of the water piping is not insulated as required by current energy codes.

Recommendation – the domestic water piping should be replaced, where visible and a replacement plan for concealed piping should be developed until all of the existing piping is replaced with new. Insulate all domestic water piping in accordance with the energy code.

### DOMESTIC HOT WATER

Description – the domestic hot water system for the building is provided by the boiler. The domestic hot water has a master mixing valve to set the temperature and a circulation pump to circulate the water for the main building loop. The kitchen has a dedicated 80-gallon electric hot water tank to provide hot water to the kitchen fixtures.

Condition – the hot water mixing valve has been recently replaced and appear in good working condition. The hot water circulator appears beyond its useful life. The boiler is aged and appears beyond its useful life.

Deficiencies: Some of the hot water piping is not insulated as required by current energy codes.

Recommendations – provide a new de-coupled hot water heater that is separate from the boiler.

## **GAS PIPING SYSTEM**

Description – the gas piping system at the building consists of a 3-inch natural gas service to the building with meter and regulator outside of the building near the boiler room. The gas piping enters the boiler room and transitions to 4-inch pipe size welded black steel piping and feeds the boiler.

Condition – the gas piping appears in good working order.

## **SANITARY WASTE AND VENT SYSTEM**

Description – the sanitary waste and vent system where visible appears to consist mainly of pvc pipe and fittings.

Condition – the piping where visible appeared to be in satisfactory condition. The under-ground piping was not visible. Much of the sanitary waste, and vent piping appeared original to the building and is approaching the end of its service life.

Recommendations = where current piping is exposed, replace sanitary, waste, and vent piping with new piping. A replacement plan for concealed and under slab piping should be developed until all of the existing piping is replaced with new.

## **STORM SYSTEM**

Description – the storm system consists of roof drains piped to external gutter downspouts.

Condition – the observable components of the storm system appears in good working condition.

## **TOILET ROOMS**

Description – the main toilet rooms have been recently updated to include newer plumbing fixtures. The peripheral toilet rooms have some dated plumbing fixtures.

Condition – the newer fixtures appear in good working condition. The fixtures in the remaining toilet rooms have older fixtures, and although in good working condition, are approaching the end of their useful life.

Deficiencies: The main boys and girl's toilet rooms do not have floor drains.

Recommendation – provide fixture upgrades for the older plumbing fixtures in the building. Provide new floor drains in the main toilet rooms.

## **MISCELLANEOUS PLUMBING FIXTURES & EQUIPMENT**

Description – the kitchen fixtures, drinking fountain, classroom sinks, and service sinks, in general appear in good working.

Condition – most of the miscellaneous plumbing fixtures appear in good condition and in working order. The janitor closets have service sinks.

Recommendation – replace service sinks with new.

## **FIRE SUPPRESSION SYSTEMS**

Description – there is no fire sprinkler system protecting the building.

Recommendation – provide a fully sprinklered fire suppression system in accordance with latest adoption of nfpa-13.

## TECHNOLOGY

### INTRODUCTION

This section includes an existing conditions report and recommendations for the Technology Communication Cabling Infrastructure, Public Address and Master Clock systems, Electronic Physical Security Systems, and Audio Visual Systems.

Floor plans notating the location and name of each technology room are included in the appendix of this report. These plans were provided by Barrington Public Schools IT. The nomenclature (MDF, IDF1, IDF2, etc.) for each space in this survey is based on those plans.

### COMMUNICATION CABLING INFRASTRUCTURE

#### FINDINGS

1. Nayatt School has (1) MDF.
2. Horizontal Ethernet cable is a mix of Category 5e, Category 6, and Category 6A, with a mix of Plenum and Riser Cable.
3. The MDF does not have dedicated power.
4. Grounding and bonding protection for all low voltage devices within the MDF and all IDF's is not in place.
5. Dedicated cooling units for the MDF is not in place.
6. Most penetrations / sleeves for cable pathways could not be observed, but many that were visible did not have proper firestopping. Firestop all penetrations.



*Photo of non-firestopped sleeve in MDF*

## RECOMMENDATIONS:

1. Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.
2. Install properly sized cooling units in the MDF to protect the lifespan of the active electronics within the room.
3. Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.
4. The MDF is in a shared space. Consider relocating to a dedicated space.
5. Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within.
6. Replace zip ties with Velcro hook and loop straps.

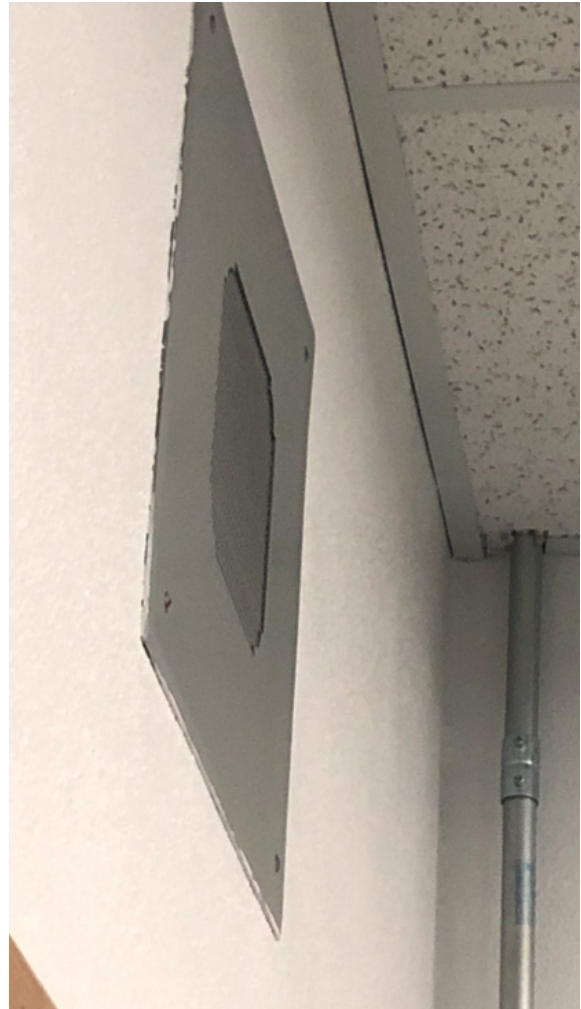
## II. PUBLIC ADDRESS & MASTER CLOCK

### FINDINGS

1. Nayatt School has an antiquated Simplex Public Address System and an American Time Site Sync IQ Wireless Master Clock system. Classrooms have antiquated public address speakers that integrate into this system.

## RECOMMENDATIONS:

1. Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system.
2. Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.
3. Replace all associated cabling.
4. Install public address strobes in the Multi-Purpose Room to notify students and staff of an announcement.
5. Install exterior horns around the building for full coverage of the exterior, including the fields.
6. Install a phone to public address interface so that any phone in the building can access the public address system.
7. Install Public Address Phone handsets or call switches to open two-way communication with the main office.



*Photo of typical classroom speaker assembly*

### III. PHYSICAL ELECTRONIC SECURITY

#### FINDINGS

1. Nayatt School has the following manufacturers for the Physical Security Systems:
  - a. Intrusion Detection – Sonitrol
  - b. Access Control – Keyscan
  - c. Video Surveillance – Uniview with (2 – 4) analog cameras
2. There is a spot monitor in the main office. It was not functioning during the site visit.
3. Nayatt School currently has a “Lockdown” system, controlled via a wall-mounted button. BPS facilities confirmed that when engaged, the lockdown button makes an announcement over the Public Address system and auto-dials out to central monitoring (Sonitrol) to relay the alarm to first responders.
4. The front entrance has access control. An antiquated audio & video two-way communication device and card reader is installed.



*Photo of communication device and card reader*

#### RECOMMENDATIONS:

1. Access Control:
  - a. Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.
2. Intrusion Detection:
  - a. BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTs, IP, Cellular). Consider adding door position switches on all exterior doors.
  - b. It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.
3. Video Surveillance:
  - a. The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a “Single Pane of Glass” to manage all cameras throughout the district.
  - b. Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary.
  - c. Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.
  - d. Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.
4. Lockdown System:
  - a. Consider replacing the lockdown button for a larger button with clear text noting “Lockdown”. Consider installing multiple buttons throughout the administration and reception area.
  - b. Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders.
  - c. Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the

- building to not enter.
- d. Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.

## IV. AUDIO-VISUAL SYSTEMS

### FINDINGS

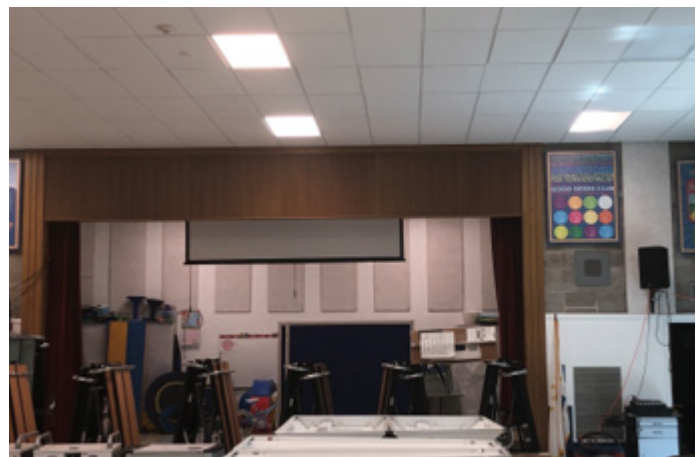
1. Classroom Audio Visual Findings
  - a. Classrooms have wall mounted TV's and Apple TV's. Cable is not properly dressed and protected, and classrooms do not have visible external speakers.
2. Multi-Purpose Room Audio Visual Findings:
  - a. There is an antiquated electric screen.
  - b. There is a small audio mixer and CD player off stage.
  - c. An assisted listening system was not visible.
  - d. There are (2) well-sized speakers mounted on each side of the stage.

### RECOMMENDATIONS

3. Classroom Audio Visual Recommendations
  - a. Replace all TV's with Interactive Displays
  - b. Install a dedicated sound system in each classroom with the following functionality:
    1. Speakers throughout the space
    2. Wireless microphones for students and teachers
    3. Priority Override / Public Address Mute for muting the speakers during a Public Address announcement.
    4. Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired
    5. Hardwired AV connections from teacher's desk to interactive display
4. Multi-Purpose Room AV Recommendations:
  - a. Replace the existing Local Sound System with a system capable integrating the following:
    1. Two to four hardwired microphone locations
    2. Two to four wireless microphones
    3. Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution
    4. Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection
    5. Multi-Media / CD / Bluetooth inputs
    6. Control panels capable of muting, program audio volume control, system power on / off
    7. Public Address integration ensuring that announcements are always heard throughout the space
    8. An ADA compliant Assisted Listening System
    9. Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video.
    10. Consider mounting all AV devices in a dedicated AV cabinet on stage.



*Photo of mixer and CD player*



*Photo of speakers*

# **AUTOMATIC TEMPERATURE CONTROLS REPORT**

## **NAYATT SCHOOL**









# HAZARDOUS MATERIALS REPORT

NAYATT SCHOOL

**FINAL REPORT  
FOR LIMITED  
HAZARDOUS MATERIALS IDENTIFICATION  
STUDY  
AT THE  
NAYATT ELEMENTARY SCHOOL  
BARRINGTON, RHODE ISLAND**

PROJECT NO: 221 371.00

Survey Dates:  
August 5, 2021

CONDUCTED BY:

**UNIVERSAL ENVIRONMENTAL CONSULTANTS  
12 Brewster Road  
Framingham, MA 01702**



August 10, 2021

Mr. Sean L. Schmigle AIA, NCARB  
*Senior Architect*  
KAESTLE BOOS ASSOCIATES, INC  
10 Chestnut Street, Suite 301  
Foxborough, MA 02035

Reference: Report for Limited Hazardous Materials Identification Study  
Nayatt Elementary School, Barrington, Rhode Island

Dear Mr. Schmigle:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for the limited Hazardous Materials Identification Study at the Barrington Nayatt Elementary School, Barrington, Rhode Island.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

A handwritten signature in blue ink, appearing to read "Ammar M. Dieb", is written over a horizontal line.

Ammar M. Dieb  
President

UEC:\221 371.00\Nayatt Elementary School Report.DOC

Enclosure

## 1.0 INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-two years of experience.

UEC was contracted by Kaestle Boos Associates, Inc. to conduct the following services at the Nayatt Elementary School, Barrington, Rhode Island:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's Caulking Inspection.
- Lead Based Paint Inspection.

This is a limited inspection, and the report should not be used to renovate or demolish the building. Inspection per the Environmental Protection Agency (EPA) NESHAP regulations will be required to be performed.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by a Rhode Island licensed asbestos inspector Mr. Leonard J. Busa (AAC-0745) and analyzed by a Rhode Island licensed laboratory Asbestos Identification Laboratory, Woburn, MA.

Samples results are attached.

## 2.0 FINDINGS:

### **Asbestos Containing Materials (ACM):**

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition, a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations.

No additional suspect or accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities. It is recommended that once the scope of work has been determined, a full comprehensive survey including destructive testing is performed.

### **Number of Samples Collected:**

Thirty-four (34) bulk samples were collected from materials suspected of containing asbestos, including:

### **Type and Location of Suspect Material**

1. Vermiculite insulation at rear attic
2. Vapor barrier under vermiculite insulation at rear attic
3. Batting insulation on duct at rear attic
4. Vermiculite insulation at rear attic
5. Vapor barrier under vermiculite insulation at rear attic
6. Debris at front attic.
7. Interior window glazing caulking

8. Grey sink coating at classroom 10
9. Smooth ceiling plaster at kitchen office
10. Rough ceiling plaster at custodian office
11. Rough ceiling plaster at classroom 10
12. Rough wall plaster at classroom 2
13. Soft ceiling plaster at office
14. Soft ceiling plaster at basement classroom
15. 9" x 9" Vinyl floor tile at lobby
16. Mastic for 9" x 9" vinyl floor tile at lobby
17. Caramel 12" x 12" vinyl floor tile at basement classroom
18. Mastic for caramel 12" x 12" vinyl floor tile at basement classroom
19. Caramel 12" x 12" vinyl floor tile at kitchen office
20. Mastic for caramel 12" x 12" vinyl floor tile at kitchen office
21. Duct insulation at boiler room
22. Duct insulation at boiler room
23. Exterior expansion joint caulking
24. Exterior window framing caulking
25. Exterior window framing caulking
26. Exterior window framing caulking
27. Exterior window framing caulking
28. Exterior window residue framing caulking
29. Exterior window residue framing caulking
30. Exterior door framing caulking
31. Exterior door framing caulking
32. Exterior door residue framing caulking
33. Exterior caulking in seams of window frame
34. Exterior flashing behind stone sill

**Sample Results:**

**Type and Location of Suspect Material**

**Sample Result**

1. Vermiculite insulation at rear attic	No Asbestos Detected
2. Vapor barrier under vermiculite insulation at rear attic	No Asbestos Detected
3. Batting insulation on duct at rear attic	No Asbestos Detected
4. Vermiculite insulation at rear attic	No Asbestos Detected
5. Vapor barrier under vermiculite insulation at rear attic	No Asbestos Detected
6. Debris at front attic.	60% Asbestos
7. Interior window glazing caulking	No Asbestos Detected
8. Grey sink coating at classroom 10	No Asbestos Detected
9. Smooth ceiling plaster at kitchen office	No Asbestos Detected
10. Rough ceiling plaster at custodian office	No Asbestos Detected
11. Rough ceiling plaster at classroom 10	No Asbestos Detected
12. Rough wall plaster at classroom 2	No Asbestos Detected
13. Soft ceiling plaster at office	2% Asbestos
14. Soft ceiling plaster at basement classroom	2% Asbestos
15. 9" x 9" Vinyl floor tile at lobby	5% Asbestos
16. Mastic for 9" x 9" vinyl floor tile at lobby	No Asbestos Detected
17. Caramel 12" x 12" vinyl floor tile at basement classroom	No Asbestos Detected
18. Mastic for caramel 12" x 12" vinyl floor tile at basement classroom	No Asbestos Detected
19. Caramel 12" x 12" vinyl floor tile at kitchen office	No Asbestos Detected
20. Mastic for caramel 12" x 12" vinyl floor tile at kitchen office	2% Asbestos
21. Duct insulation at boiler room	No Asbestos Detected
22. Duct insulation at boiler room	No Asbestos Detected
23. Exterior expansion joint caulking	No Asbestos Detected
24. Exterior window framing caulking	No Asbestos Detected



25. Exterior window framing caulking	No Asbestos Detected
26. Exterior window framing caulking	No Asbestos Detected
27. Exterior window framing caulking	No Asbestos Detected
28. Exterior window residue framing caulking	2% Asbestos
29. Exterior window residue framing caulking	No Asbestos Detected
30. Exterior door framing caulking	2% Asbestos
31. Exterior door framing caulking	2% Asbestos
32. Exterior door residue framing caulking	2% Asbestos
33. Exterior caulking in seams of window frame	No Asbestos Detected
34. Exterior flashing behind stone sill	No Asbestos Detected

**Observations and Conclusions:**

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

Refer to the AHERA Management Plan for condition of ACM.

1. Vermiculite insulation was found not to contain asbestos. However, per EPA the insulation must be treated as asbestos unless sampling proves that the insulation was not mined in Libby, Montana. Sampling for Barium will also be required.
2. Debris at front attic was found to contain asbestos.
3. Soft ceiling plaster was found to contain asbestos.
4. 9" x 9" Vinyl floor tile was found to contain asbestos.
5. Mastic for caramel 12" x 12" vinyl floor tile
6. Exterior window residue framing caulking
7. Exterior door framing caulking was found to contain asbestos.
8. Pipe insulation was assumed to contain asbestos.
9. Ceramic tile grout and adhesive were assumed to contain asbestos.
10. Glue holding blackboard/chalkboard was assumed to contain asbestos.
11. Hidden ACM pipe and hard joint insulation was assumed to exist.
12. Dampproofing on exterior and foundation walls was assumed to exist and assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle.
13. Roofing material was assumed to contain asbestos.
14. Insulation within boiler was assumed to contain asbestos.
15. Unit vent grille caulking was assumed to contain asbestos.
16. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

**Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures:**

**Observations and Conclusions:**

Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB's and mercury. Ballasts in light fixtures were assumed not to contain PCB's since there were labels indicating that "No PCB's" was found. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.

**PCB's in Caulking:**

PCB's are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB's was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB's are a class of chemicals made up of more than 200 different compounds. PCB's are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as

television sets and fluorescent light fixtures. Because of their chemical properties, PCB's are not very soluble in water, and they do not break down easily in the environment. PCB's also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB's have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB's if PCB's level exceed 50 mg/kg (ppm). An abatement plan might also be required.

**Observations and Conclusions:**

Building materials and caulking were assumed to contain PCB's.

**Lead Based Paint (LBP):**

**Observations and Conclusions**

LBP was assumed to exit on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

**3.0 COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition projects.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout:	Vinyl Floor Tiles and Mastic	16,000 SF	80,000.00
	Soft Ceiling Plaster	30,000 SF	300,000.00
	Hidden Pipe and Hard Joint Insulation	Unknown	25,000.00
	Blackboards/Tackboards	155 Total	46,500.00
	Light Fixtures	500 Total	25,000.00
	Miscellaneous Hazardous Materials/Hidden ACM	Unknown	25,000.00
	Boiler Room	Pipe and Hard Joint Insulation	550 LF
Boiler		1 Total	12,500.00
Attic	Vermiculite Insulation	12,000 SF	72,000.00
	Pipe and Hard Joint Insulation	1,500 LF	60,000.00
	Debris	50 SF	1,500.00
Exterior	Residue Window Caulking	1,500 LF	15,000.00
	Transite Panel	1 Total	500.00
	Doors	16 Total	3,200.00
	Glass Block Windows	1 Total	2,500.00
	Roofing Materials	Unknown	50,000.00
	Transite Sewer Pipes	Unknown <sup>1</sup>	50,000.00
	Damproofing on Walls	Unknown <sup>1</sup>	225,000.00
Estimated costs for NESHAP Inspection			15,000.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			135,000.00
<b>TOTAL:</b>			<b>\$ 1,160,000.00</b>

<sup>1</sup>: Part of total demolition.

#### 4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA /600/R-93/116.

Inspected By:



Leonard Busa  
Asbestos Inspector  
(AAC-0745)

## 5.0 LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.



## Asbestos Identification Laboratory.

165 New Boston St., Ste 227  
Woburn, MA 01801  
781-932-9600

Web: [www.asbestosidentificationlab.com](http://www.asbestosidentificationlab.com) Email:  
[mikemanning@asbestosidentificationlab.com](mailto:mikemanning@asbestosidentificationlab.com)



**Batch: 67527**

Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

#### Project Information

*Nayatt School,  
Barrington,  
RI*

*Method: BULK PLM ANALYSIS,  
EPA/600/R-93/116*

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning  
Owner/Director

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Nayatt School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 750611	Vermiculite	Rear Attic @ Entrance	tan	Cellulose 5 Non-Fibrous 95	None Detected
2 750612	Vapor Barrier under #1	Rear Attic @ Entrance	multi	Cellulose 40 Non-Fibrous 60	None Detected
3 750613	Batt on Duct	Rear Attic @ Entrance	multi	Fiberglass 20 Cellulose 40 Non-Fibrous 40	None Detected
4 750614	Vermiculite	Rear Attic @ Cat Walk	tan	Cellulose 5 Non-Fibrous 95	None Detected
5 750615	Vapor Barrier under #4	Rear Attic @ Cat Walk	multi	Cellulose 80 Non-Fibrous 20	None Detected
6 750616	TSI (Sig Debrid)	Front Attic @ Mechanical Space	white	Non-Fibrous 40	Detected Chrysotile 40 Amosite 20
7 750617	Interior Win. Glaze	Main Office	gray	Non-Fibrous 100	None Detected
8 750618	Grya Sink Dp.	C'Rm. 10	gray	Cellulose 15 Non-Fibrous 85	None Detected
9 750619	Smooth Clg. Plaster	Kitchen Office	gray	Non-Fibrous 100	None Detected
10 750620	Rough Clg. Pla	Cust. Cl. by C'Rm. 10	gray	Non-Fibrous 100	None Detected
11 750621	Rough Clg. Pla	C'Rm. 10 @ Coatrack	gray	Non-Fibrous 100	None Detected
12 750622	Rough Wall Pla.	C'Rm 2	gray	Non-Fibrous 100	None Detected
13 750623	Soft Clg. PLa.	Office by C'Rm. 15 (Attic Access)	gray	Non-Fibrous 98	Detected Chrysotile 2
14 750624	Soft Clg. Pla.	Bsmt. C'Rm.	gray	Non-Fibrous 98	Detected Chrysotile 2
15 750625	9" VT	Lobby, Attic Access / Storage	black	Cellulose 2 Non-Fibrous 93	Detected Chrysotile 5
16 750626	Mastic #15	Lobby, Attic Access / Storage	black	Cellulose 2 Non-Fibrous 98	None Detected

Sampled: August 05, 2021      Received: August 10, 2021      Analyzed: August 09, 2021

Tuesday 10 August 2024

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Nayatt School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 750627	12" Carmel VT	Bsmt. C'Rm.	tan	Cellulose 2 Non-Fibrous 98	None Detected
18 750628	Mastic #17 (Black)	Bsmt. C'Rm.	black	Cellulose 2 Non-Fibrous 98	None Detected
19 750629	12" Carmel VT	Kitchen Office	tan	Cellulose 2 Non-Fibrous 98	None Detected
20 750630	Mastic #19	Kitchen Office	black	Cellulose 2 Non-Fibrous 96	Detected Chrysotile 2
21 750631	Duct Insul.	Boiler Room	gray	Fiberglass 30 Cellulose 20 Non-Fibrous 50	None Detected
22 750632	Duct Insul.	Boiler Room	gray	Fiberglass 30 Cellulose 20 Non-Fibrous 50	None Detected
23 750633	Vert. (Brown) Expansion Joint @ Brick	Exterior	gray	Non-Fibrous 100	None Detected
24 750634	window Frame Caulk	Rear. Facing Palyground, Exterior	gray	Non-Fibrous 100	None Detected
25 750635	Win. Fr.	Bsmt. Front, Exterior	gray	Non-Fibrous 100	None Detected
26 750636	Win. Fr.	Boiler Room, Exterior	gray	Non-Fibrous 100	None Detected
27 750637	Win. Fr.	Driveway Side, Exterior	gray	Non-Fibrous 100	None Detected
28 750638	REsidue Door Fr. ? (on Newer)	Parking Lot Side, Exterior	multi	Non-Fibrous 98	Detected Chrysotile 2
29 750639	Residue Win. Fr. ? (on Brick)	Bsmt. Front, Exterior	multi	Non-Fibrous 100	None Detected
30 750640	Door Fr. Caulk	#4D, Exterior	tan	Non-Fibrous 98	Detected Chrysotile 2
31 750641	Door Fr. Caulk	B'Rm., Exterior	multi	Non-Fibrous 98	Detected Chrysotile 2
32 750642	Residue Door Fr.. (on Brick)	Main Entrance, Exterior	gray	Non-Fibrous 98	Detected Chrysotile 2

Sampled: August 05, 2021 Received: August 10, 2021 Analyzed: August 09, 2021

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Nayatt School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 750643	Caulk in Seams of Window Frame	Bsmt. Front, Exterior	gray	Non-Fibrous 100	None Detected
34 750644	Flashing behind Stone Sill	Diveway Side, Exterior	black	Cellulose 2 Non-Fibrous 98	None Detected

**Sampled:** August 05, 2021      **Received:** August 10, 2021      **Analyzed:** August 09, 2021

Tuesday 10 August 2021



C02

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Barnstable, RT Building Name: Mayatt School

Sample	Result	Description of Material	Sample Location
1		vermiculite	REAL ATTIC & SWANEE
2		vapor barrier under #1	↓ ↓
3		BATT on duct	
4		vermiculite	REAL ATTIC & CATWALK
5		vapor barrier under #4	" " "
6		TSI (sig debris)	Front ATTIC & mechanical space
7		INTERIOR WIND GLASS	main OFFICE
8		grey sink dp	rim 10
9		smooth cty plaster	Kitchen OFFICE
10		rough cty pla	CAST ch by rim 10
11		rough cty pla	rim 10 & CATWALK
12		rough wall pla	rim 2
13		soft cty pla	office by rim 15 (ATTIC ACCESS)
14		soft cty pla	Basement rim
15		9" VT	LOBBY, ATTIC ACCESS / STORAGE
16		MASTIC #15	" " "
17		12" CAMEL VT	Basement rim
18		MASTIC #17 (sink)	" "
19		12" CAMEL VT	Kitchen Office
20		MASTIC #19	" " "

Reported By: [Signature] Date: 8-5-21 Due Date: 24-hr  
 Received By: [Signature] Date: 8/9/2021

16  
0  
2

# CHAIN OF CUSTODY

**Universal Environmental Consultants**  
 12 Brewster Road  
 Framingham, MA 01702  
 Tel: (508) 628-5486 - Fax: (508) 628-5488  
 adieb@uec-env.com

Town/City: Barrington, RI Building Name: Noyatt School

Sample	Result	Description of Material	Sample Location
21		Door Tensil	Boiler Room
22		Door Tensil	" " "
23		vert (stone) expansion joint	brick <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">EXTERIOR</span>
24		windows frame caulk	rear facing playground
25		wind fi	Beint, front
26		wind fi	Boiler Rm
27		wind fi	driveway side
28		residue wind fi (on concrete)	parking lot side
29		residue wind fi? (on brick)	Beint, front
30		Door fi caulk	#417
31		Door fi caulk	Bin
32		residue door fi (on brick)	main ENTRANCE
33		caulk in seams of windows frame	Beint front
34		plastering behind stone sill	driveway side

Reported By: [Signature] Date: 8-5-21 Due Date: 24-hr  
 Received By: mm Date: 8/9/2021



# **FACILITY DEFICIENCY BUDGET ESTIMATES**

**NAYATT SCHOOL**

Nayatt Priority Budgetary Estimates

Client: Barrington Public School		Project Name: Nayatt Elementary School		RIDE Stage 1					
Project Manager: Sean Schmigle		Project #: 21023							
Site Name: Nayatt		School Size: 34,000 sf		Year Built: 1954					
<b>PRIORITY TOTAL</b>									
Item	System	1	2	3	4	5	Total	% of Total	
1	Site			3	4		\$ 356,250.00	3.77%	
2	Roofing			SEE STRUCTURAL			\$ -	0.00%	
3	Structural			19			\$ 742,500.00	7.86%	
4	Exterior			SEE STRUCTURAL			\$ -	0.00%	
5	Interior			8			\$ 1,851,187.50	19.60%	
6	Haz Mat			20			\$ 1,450,250.00	15.35%	
7	Mechanical		8				\$ 1,418,750.00	15.02%	
8	Electrical	1		4			\$ 1,025,000.00	10.85%	
9	Plumbing			8			\$ 507,457.50	5.37%	
10	Fire & Life Safety	1					\$ 156,805.00	1.66%	
11	Technology			27			\$ 1,407,500.00	14.90%	
12	Conveyances			1			\$ 218,750.00	2.32%	
13	Specialties				1		\$ 312,500.00	3.31%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>							<b>Total</b>	<b>\$ 9,446,950.00</b>	<b>100%</b>

Site	Deficiency	Category	Unit	Priority	Repair Cost		
1	No ADA paths to Ballfields or playgrounds	Barrier to Accessibility	Lump	3	\$ 62,500.00	17.54%	
2	Playground surfacing	Capital Renewal	Lump	3	\$ 125,000.00	35.09%	
3	ADA access to northwest door	Barrier to Accessibility	Lump	3	\$ 62,500.00	17.54%	
4	Baseball warning strips missing	Functional Def	Lump	4	\$ 12,500.00	3.51%	
5	Drainage issues	Functional Def	Lump	4	\$ 31,250.00	8.77%	
6	Playground structures too close to each other	Educational Adequacy	Lump	4	\$ 43,750.00	12.28%	
7	Lawn work	Functional Def	Lump	4	\$ 18,750.00	5.26%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 356,250.00</b>	<b>100%</b>

Roofing	Deficiency	Category	Unit	Priority	Repair Cost	
1	See Structural For Additional Roofing Items					
2						
3						
4						
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ -</b>

Structural	Deficiency	Category	Unit	Priority	Repair Cost	
1	In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration	Capital Renewal	Lump	3	\$ 43,750.00	5.89%
2	In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.	Capital Renewal	Lump	3	\$ 37,500.00	5.05%
3	In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.	Capital Renewal	Lump	3	\$ 37,500.00	5.05%
4	At the exit in the hallway outside classroom 3A, the floor finish is missing tiles or an entrance mat. This is not a structural hazard but does pose a tripping hazard and it is recommended that the floors be repaired as necessary to provide a smooth walking surface	Capital Renewal	Lump	3	\$ 18,750.00	2.53%
5	In the boiler room of the building, the brick masonry chimney has step cracks and vertical cracks through the brick and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$ 43,750.00	5.89%
6	At various locations in the lower level there are cracks in the concrete double tees. Although these cracks do not appear to currently pose a structural hazard, it is recommended that the concrete be repaired using high-performance concrete repair products	Capital Renewal	Lump	3	\$ 37,500.00	5.05%
7	At various locations in the Lower Level, there are several cracks in the concrete foundation walls. These cracks do not currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. It is recommended that these cracks be periodically monitored to determine if these cracks are dormant	Capital Renewal	Lump	3	\$ 31,250.00	4%
8	There are various locations of concrete spalling at the corners of the exterior concrete walls. These spalls do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the spalls in the exterior concrete walls	Capital Renewal	Lump	3	\$ 18,750.00	2.53%
9	There are various locations of concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. Some of these cracks appear to have been repaired at some point, and those repairs have failed. To extend the life of the concrete walls and to protect the building, it is recommended the previous repairs are removed that a maintenance program be established to repair the cracks in the exterior concrete walls using high performance concrete repair products.	Capital Renewal	Lump	3	\$ 43,750.00	5.89%
10	There are various locations of cracking at the top of exterior concrete walls where it meets the exterior brick masonry. These cracks do not currently appear to pose a structural hazard. To extend the life of the exterior concrete and masonry walls and to protect the building, it is recommended the previous repairs are removed that a maintenance program be established to repair the cracks in the exterior concrete and masonry walls	Capital Renewal	Lump	3	\$ 43,750.00	5.89%
11	At various and several locations, efflorescence was observed on the exterior brick walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior brick walls and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs	Capital Renewal	Lump	3	\$ 31,250.00	4.21%
12	There are several locations where the control joint material in the exterior wall have aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed control joint material	Capital Renewal	Lump	3	\$ 18,750.00	2.53%
13	At most of the wall vents, the adjacent brick and mortar joints have cracked. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls	Capital Renewal	Lump	3	\$ 22,500.00	3.03%
14	There are a few locations of step cracking at the exterior brick masonry walls, particularly near the stepped concrete foundation walls. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the concrete walls and to protect the building, it is recommended that the stepped cracks in the exterior brick masonry be repaired	Capital Renewal	Lump	3	\$ 18,750.00	2.53%
15	The lintels are showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. A lack of weep holes will trap water behind the brick which could further accelerate rusting. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system and weep holes be installed	Capital Renewal	Lump	3	\$ 43,750.00	5.89%
16	There are few locations of major spalling at the exterior brick walls. While they do not currently appear to be a structural hazard, the spalls are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced	Capital Renewal	Lump	3	\$ 62,500.00	8.42%

17	There are several locations on the exterior brick masonry piers where the mortar joint for the outermost layer of brick masonry is nearing failure. While they do not currently appear to be a structural hazard, this joint failure should be repaired as soon as possible as failure could cause damage to property or injury to personnel	Capital Renewal	Lump	3	\$ 35,000.00	4.71%	
18	There are few locations on the exterior walls near various water pipes where water damage was observed. While this damage does not currently appear to be a structural hazard, the pipes should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage	Capital Renewal	Lump	3	\$ 60,000.00	8.08%	
19	Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years	Capital Renewal	Lump	3	\$ 93,750.00	12.63%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 742,500.00</b>	<b>100.00%</b>

**Exterior**

Deficiency	Category	Unit	Priority	Repair Cost		
1 See Structural For Additional Exterior Items				\$ -		
2				\$ -		
3				\$ -		
4				\$ -		
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ -</b>

**Interior**

Deficiency	Category	Unit	Priority	Repair Cost		
1 Classroom Entry Doors Provide Insufficient Sound Isolation	Capital Renewal	21 EA	3	\$ 42,000.00	2.27%	
2 The Interior Door Hardware Requires Replacement	Capital Renewal	93 EA	3	\$ 110,437.50	5.97%	
3 Interior Wood Walls Require Replacement	Capital Renewal	34,000 SF	3	\$ 317,500.00	17.15%	
4 Repair / Replace Gypsum Board Ceilings	Capital Renewal	34,000 SF	3	\$ 701,250.00	37.88%	
5 Provide Classroom Door Vision Panels	Capital Renewal	34,000 SF	3	\$ 255,000.00	13.77%	
6 Replace Vinyl Cove Base (Post Abatement)	Capital Renewal	34,000 SF	3	\$ 21,250.00	1.15%	
7 Replace Carpeting	Capital Renewal	34,000 SF	3	\$ 297,500.00	16.07%	
8 General Painting & Coatings	Capital Renewal	34,000 SF	3	\$ 106,250.00	5.74%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,851,187.50</b>

**Haz Mat**

Deficiency	Category	Unit	Priority	Repair Cost		
1 Vinyl Floor Tiles and Mastic	Haz. Materials	16,000 SF	3	\$ 100,000.00	6.90%	
2 Soft Ceiling Plaster	Haz. Materials	30,000 SF	3	\$ 375,000.00	25.86%	
3 Hidden Pipe and Hard Joint Insulation	Haz. Materials	Unknown	3	\$ 31,250.00	2.15%	
4 Blackboards/Tackboards	Haz. Materials	155 Total	3	\$ 58,125.00	4.01%	
5 Light Fixtures	Haz. Materials	500 Total	3	\$ 31,250.00	2.15%	
6 Miscellaneous Hazardous Materials/Hidden ACM	Haz. Materials	Unknown	3	\$ 31,250.00	2.15%	
7 Boiler Room - Pipe and Hard Joint Insulation	Haz. Materials	550 LF	3	\$ 20,625.00	1.42%	
8 Boiler Room - Boiler	Haz. Materials	1 Total	3	\$ 15,625.00	1.08%	
9 Attic - Vermiculite Insulation	Haz. Materials	12,000 SF	3	\$ 90,000.00	6.21%	
10 Attic - Pipe and Hard Joint Insulation	Haz. Materials	1,500 LF	3	\$ 75,000.00	5.17%	
11 Attic - Debris	Haz. Materials	50 SF	3	\$ 1,875.00	0.13%	
12 Exterior - Residue Window Caulking	Haz. Materials	1,500 LF	3	\$ 18,750.00	1.29%	
13 Exterior - Transite Panel	Haz. Materials	1 Total	3	\$ 625.00	0.04%	
14 Exterior - Doors	Haz. Materials	16 Total	3	\$ 4,000.00	0.28%	
15 Exterior - Glass Block Windows	Haz. Materials	1 Total	3	\$ 3,125.00	0.22%	
16 Exterior - Roofing Materials	Haz. Materials	Unknown	3	\$ 62,500.00	4.31%	
17 Exterior - Transite Sewer Pipes	Haz. Materials	Unknown	3	\$ 62,500.00	4.31%	
18 Exterior - Dampproofing on Walls	Haz. Materials	Unknown	3	\$ 281,250.00	19.39%	
19 Estimated costs for NESHAP Inspection	Haz. Materials	3	3	\$ 18,750.00	1.29%	
20 Estimated costs for Design, Construction Monitoring and Air Sampling Services	Haz. Materials	3	3	\$ 168,750.00	11.64%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,450,250.00</b>

**Mechanical**

Deficiency	Category	Unit	Priority	Repair Cost		
1 Add dedicated cooling to data closet.	Functional Def.	Lump	2	\$ 93,750.00	6.61%	
2 Provide ventilation system in building.	Functional Def.	Lump	2	\$ 156,250.00	11.01%	
3 Replace heating hot water zone pumps and valves in boiler room	Functional Def.	Lump	2	\$ 206,250.00	14.54%	
4 Replace rooftop exhaust fans.	Functional Def.	Lump	2	\$ 218,750.00	15.42%	
5 Replace original hydronic heat piping infrastructure throughout building.	Functional Def.	Lump	2	\$ 187,500.00	13.22%	
6 Replace rooftop cooling units.	Functional Def.	Lump	2	\$ 162,500.00	11.45%	
7 Replace heating hot water boilers.	Functional Def.	Lump	2	\$ 187,500.00	13.22%	
8 Provide a new digital control system for entire building/equipment.	Functional Def.	Lump	2	\$ 206,250.00	14.54%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,418,750.00</b>

**Plumbing**

Deficiency	Category	Unit	Priority	Repair Cost		
1 Domestic Water Service Backflow Preventer missing floor drain	Code Compliance	1	3	\$ 7,500.00	1.48%	
2 Domestic Water Piping not fully insulated	Code Compliance	1	3	\$ 5,000.00	0.99%	
3 Replace Existing Domestic Water Piping with new	Capital Renewal	34000	3	\$ 342,075.00	67.41%	
4 Provide De-coupled hot water heater for building fixtures	Functional Def	1	3	\$ 20,000.00	3.94%	
5 Sanitary Waste Piping Replacement	Capital Renewal	34000	3	\$ 87,500.00	17.24%	
6 Replace Old Plumbing Fixtures	Capital Renewal	10	3	\$ 31,250.00	6.16%	
7 Provide new hot water circulator	Functional Def	1	3	\$ 1,250.00	0.25%	
8 Replace Janitor Service Sinks	Capital Renewal	4	3	\$ 12,882.50	2.54%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 507,457.50</b>

**Electrical**

Deficiency	Category	Unit	Priority	Repair Cost		
1 New electric service equipment and distribution including new panels throughout the building.	Capital Renewal	Lump	3	\$ 127,500.00	12.44%	
2 Emergency generator with dedicated 2-hour rated emergency room	Capital Renewal	Lump	3	\$ 156,250.00	15.24%	
3 Lighting should be upgraded to all high efficiency LED type.	Capital Renewal	Lump	3	\$ 340,000.00	33.17%	
4 New addressable fire alarm system to be provided with voice evacuation.	Capital Renewal	Lump	1	\$ 276,250.00	26.95%	
5 Additional receptacles including new dedicated power panels with TVSS protection to be provided.	Capital Renewal	Lump	3	\$ 125,000.00	12.20%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,025,000.00</b>

**Fire & Life Safety**

Deficiency	Category	Unit	Priority	Repair Cost		
1 Install new NFPA-13 Fire Suppression System	Code Compliance	34,000 SF	1	\$ 37,805.00	24.11%	
2 Replace ACT Ceiling	Code Compliance	34,000 SF	1	\$ 119,000.00	75.89%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 156,805.00</b>

**Technology**

Deficiency	Category	Unit	Priority	Repair Cost	
1 Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A	Technology	Lump	3	\$ 212,500.00	15.10%
2 Install properly sized cooling units in the MDF to protect the lifespan of the active electronics within the room	Technology	Lump	3	\$ 212,500.00	15.10%

Tech

3	Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations	Technology	Lump	3	\$ 382,500.00	27.18%	1 - Comm Cabling Infrastructure
4	The MDF is in a shared space. Consider relocating to a dedicated space	Technology	Lump	3	\$ 6,250.00	0.44%	
5	Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within	Technology	Lump	3	\$ 6,250.00	0.44%	
6	Replace zip ties with Velcro hook and loop straps	Technology	Lump	3	\$ 12,500.00	0.89%	Public Address/Master Clock
7	Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system	Technology	Lump	3	\$ 15,000.00	1.07%	
8	Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage	Technology	Lump	3	\$ 10,625.00	0.75%	
9	Replace all cabling associated with public address/master clock system	Technology	Lump	3	\$ 28,125.00	2.00%	
10	Install public address strobes in the Multi-Purpose Room to notify students and staff of an announcement.	Technology	Lump	3	\$ 22,500.00	1.60%	
11	Install exterior horns around the building for full coverage of the exterior, including the fields.	Technology	Lump	3	\$ 25,000.00	1.78%	
12	Install a phone to public address interface so that any phone in the building can access the public address system.	Technology	Lump	3	\$ 18,750.00	1.33%	Physical Electronic Security
13	Install Public Address Phone handsets or call switches to open two-way communication with the main office.	Technology	Lump	3	\$ 10,625.00	0.75%	
14	Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators	Technology	Lump	3	\$ 12,500.00	0.89%	
15	BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTS, IP, Cellular). Consider adding door position switches on all exterior doors	Technology	Lump	3	\$ 25,000.00	1.78%	
16	It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly	Technology	Lump	3	\$ 25,000.00	1.78%	
17	The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a "Single Pane of Glass" to manage all cameras throughout the district	Technology	Lump	3	\$ 31,250.00	2.22%	
18	Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary	Technology	Lump	3	\$ 15,000.00	1.07%	
19	Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras	Technology	Lump	3	\$ 60,000.00	4.26%	
20	Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists	Technology	Lump	3	\$ 43,750.00	3.11%	
21	Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area	Technology	Lump	3	\$ 28,750.00	2.04%	
22	Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders	Technology	Lump	3	\$ 22,500.00	1.60%	
23	Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.	Technology	Lump	3	\$ 40,000.00	2.84%	
24	Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department	Technology	Lump	3	\$ 40,000.00	2.84%	
25	Replace all TV's in classrooms with Interactive Displays	Technology	Lump	3	\$ 27,500.00	1.95%	Audio Visual Systems
26	Install a dedicated sound system in each classroom with the following functionality: Speakers throughout the space; Wireless microphones for students and teachers; Priority Override / Public Address Mute for muting the speakers during a Public Address announcement; Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired; Hardwired AV connections from teacher's desk to interactive display	Technology	Lump	3	\$ 16,875.00	1.20%	
27	Replace the existing Local Sound System in the multi-purpose room with a system capable integrating the following: Two to four hardwired microphone locations; Two to four wireless microphones; Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution; Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection; Multi-Media / CD / Bluetooth inputs; Control panels capable of muting, program audio volume control, system power on / off; Public Address integration ensuring that announcements are always heard throughout the space; An ADA compliant Assisted Listening System; Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video; Consider mounting all AV devices in a dedicated AV cabinet on stage	Technology	Lump	3	\$ 56,250.00	4.00%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,407,500.00</b>	<b>100.00%</b>

Conveyances							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Elevator is missing	Barrier to Accessibility	1	3	\$ 218,750.00	100%	
2							
3							
4							
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 218,750.00</b>	<b>100%</b>

Specialties							
	Deficiency	Category	Unit	Priority	Repair Cost		
1	Replace Cabinetry in Classrooms and Labs	Capital Renewal	21	4	\$ 312,500.00	100%	
2							
3							
4							
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 312,500.00</b>	<b>100%</b>





# **FACILITY CONDITIONS ASSESSMENT**

**PRIMROSE HILL SCHOOL**

## PRIMROSE HILL SCHOOL



*Site Plan from Google Earth, North is page up.*

### SITE

Primrose Hill Elementary School site was visited for site review on August 9, 2021, by two members of the KBA Landscape Department. These visits took place on a cloudy humid day, with temperatures in the 80's.

Overall, the site is in good condition. There were no immediate pressing issues in either the Priority 1 or 2 categories at the school.

With an extremely flat site, ADA issues due to grading are minimal.

Priority 3 issues include no ADA compliant access to either of the softball field. In the playground area, the lower area has no ADA path access to the structures or the swings, though there is an ADA swing. Some of the upper play areas has some ADA access, though not all. A small rubber path leads to one of the structures. There is no ADA connection between the upper and lower playground.

Priority 4 issues include damaged concrete walks in some locations, a missing warning strip in the baseball outfield, and the outdoor auditorium steps and seating are in poor condition with some of the wood rotting and a lot of the seating areas are settling and need infill. Some trees on the site are in poor health and should be either removed or trimmed.

## TRAFFIC ANALYSIS

### School Traffic Report

**School:** Primrose Hill School, 60 Middle Highway

Phone # 401-247-3170

**Participant:** Sean Schmigle

**Date:** 6/17/2021 & 6/18/2021

**Time:** Morning and Afternoon

### Student Drop-Offs by Parents

**Number of Cars:** 120 for K-3 25 for Pre-K

**Stacking out on Road:** No

**How many cars can stack on the property:** 3-4 in the loop, 10 in front

### Bus Drop-Off

**Number of Buses (Large):** 2

**(Small):** 2

**Number of Students on Bus:** Bus #1 2 students Bus #3 5 Students  
Bus #2 1 student Bus #4 8 Students

**Bicyclists:** 20 **Are there bicycle racks on site?** Yes  
**Can accommodate how many bikes?**

**Walkers:** 32 **Are there sidewalks?** Yes, on Middle Highway  
**Paths through the woods?** Yes, from Manning Drive Neighborhood

### Drop Off:

**Adequate Signage at Drop-off?** No  
**No idling signage at Bus loop?** No  
**ADA drop-off?** Yes  
**Any Students being dropped off?** 1

### Any specific areas that appear problematic on-site?

#### Are buses and parents mixing or are the drop-offs separate?

Short bus and parents mix in same area. Bus has a separate loop at the lower level by the playground south of the school. Bus time is 7:30 – 7:45

#### Are parents dropping off only or walking in?

Pre-K and K walk in while other parent drop off for older grades.

There is a separate Pre-K drop off which also serves as a staff parking lot. Located in the northeast corner of the site off of Old County Road.

Main parent drop off from Old County Road, west of the Pre-K drop off.

### Parking Chart

	Regular Spaces	HC spaces	Total
Northwest Lot	64	5	69
South lot	5	-	5
Northeast Lot	38	-	38
Total	107	5	112

Overall aerial photo of the Primrose Hill Elementary School 60 Middle Highway, looking Northeast, taken by Odeh Engineers with a drone.



## STRUCTURE

Odeh Engineers has conducted a RIDE Stage I & II structural inspection of the Primrose Hill Elementary School building located at 60 Middle Highway in Barrington, RI. This evaluation included a visual inspection of the building interior and exterior. The following is a report of our findings and recommendations.

### STANDARD OF CARE

Please note that the results of this evaluation are limited to cursory visual observations of the accessible areas only. While Odeh Engineers have reviewed the areas of interest, nearly all the structural framing is concealed by architectural finishes or was otherwise inaccessible, and therefore unforeseen damage or conditions may be present. The findings of this report represent our professional opinion based on the information available to us at this time.

Odeh Engineers understands that this report is intended for use only by the Kaestle Boos Associates, and their client, to determine the existing structural condition of the existing building. In any budgeting, adequate contingency for hidden or unforeseen conditions that are not identified or are worse than described herein must be carried.

Please note that all dimensions of the existing structure given herein are approximate and based on measurements or estimates of representative members. Dimensions can and will vary and must be considered as "+/-" in all cases (whether or not the "+/-" symbol is indicated).

### ACTIONS TAKEN

Odeh Engineers took the following actions to complete this investigation:

- On Tuesday, August 16, 2021, Ryan Conley, from Odeh Engineers, conducted a walk-through tour of the buildings and made visual observations of the existing structure and its condition.
- On Tuesday, August 16, 2021, Griffen Tarmy, from Odeh Engineers, flew a DJI Mavic 2 Pro unmanned aircraft (drone) around the building and took photos of the building's exterior and performed a walk-through of the building's exterior along with Ryan Conley
- Prepared this written summary of findings and recommendations.
- Discussed with and reviewed by M. David Odeh

## B. DOCUMENTS REVIEWED

- No existing drawings have been provided to Odeh Engineers for review.



Overall aerial photo of the Primrose Hill Elementary School at 60 Middle Highway taken by Odeh Engineers with a drone. North is oriented upward on the page.

## EXISTING BUILDING DESCRIPTION

The existing Primrose Hill Elementary School, located at 60 Middle Highway in Barrington, Rhode Island consists of two wings: a main entry wing which is oriented in the north-south direction and another wing oriented perpendicular to and on the east side of the entry. The southern portion of the main entry wing is two stories, and the remaining portions of the building are a single story. The building roof is primarily flat, with a raised roof above the cafeteria in the south east corner.

## FOUNDATIONS

Based upon what could be see above grade, the foundation walls appear to be cast in place concrete.

Photo of typical cast-in-place concrete foundation wall



## FLOOR FRAMING

Based upon what was visible, the floor framing appears to be concrete double tees in the two-story portion and slab on grade in the single-story portion.



Photo of concrete double tee floor framing in boiler room.

## ROOF FRAMING

The roof framing was unable to be observed due to the hard ceilings, but it is assumed to be open web steel joists with tectum roof panels. Additionally, at the eastern addition it is assumed to be open web steel joist with steel roof decking.



Photo of the hard ceiling above the dropped ceiling panels at Primrose Elementary.



Photo of roof framing at Hampden Elementary School. The original portion of Primrose Elementary is assumed to be constructed in a similar fashion with open web steel joists and tectum roof panels.



Photo of roof framing at Hampden Elementary School. The eastern addition at Primrose Elementary School is assumed to be constructed in a similar fashion with open web steel joists and steel roof decking.

## EXTERIOR WALLS

The exterior walls appear to be either a cmu veneer or a brick veneer system with interior cmu walls. The cmu walls appear to be the support for roof framing system.



Photo showing typical exterior cmu.

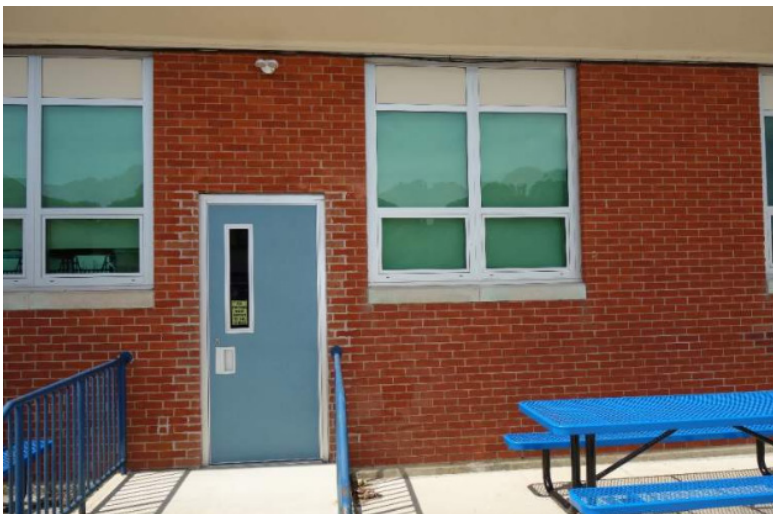


Photo showing typical exterior brick veneer.





Photo showing typical interior cmu wall.

## LATERAL FORCE RESISTANCE SYSTEM

A distinct lateral force resistance system, such as steel bracing, was not observed. With the predominant use of cmu bearing walls throughout the building, the cmu walls are most likely behaving as the lateral force resistance system.

## OBSERVED BUILDING DEFICIENCIES AND POTENTIAL PROBLEM AREAS

The following structural deficiencies and potential problem areas were observed by Odeh Engineers, Inc. during our due walk-through inspection of the existing building. Additionally, based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.



## WATER STAINED CEILING TILES.

o Comments and recommendations: In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration.



### CRACKS IN THE FLOOR FINISH.

Comments and recommendations: In several locations throughout the building, the floor finish is cracked and/or raised which may create a tripping hazard. These cracks may be due to the cracking of the concrete slab underneath due to settlement and/or insufficient control joints. It is recommended that the floors be repaired as necessary to provide a smooth walking surface.



### VERTICAL CRACKING IN INTERIOR CMU WALLS.

Comments and recommendations: In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



### **STEP CRACKING IN INTERIOR CMU WALLS.**

Comments and recommendations: In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.

### **CRACKING IN BRICK MASONRY CHIMNEY.**

Comments and recommendations: At the brick masonry chimney in the boiler room there appears to be crack that has already been repaired. It is recommended that this crack be periodically monitored to confirm that the repair holds, and the crack does not worsen.





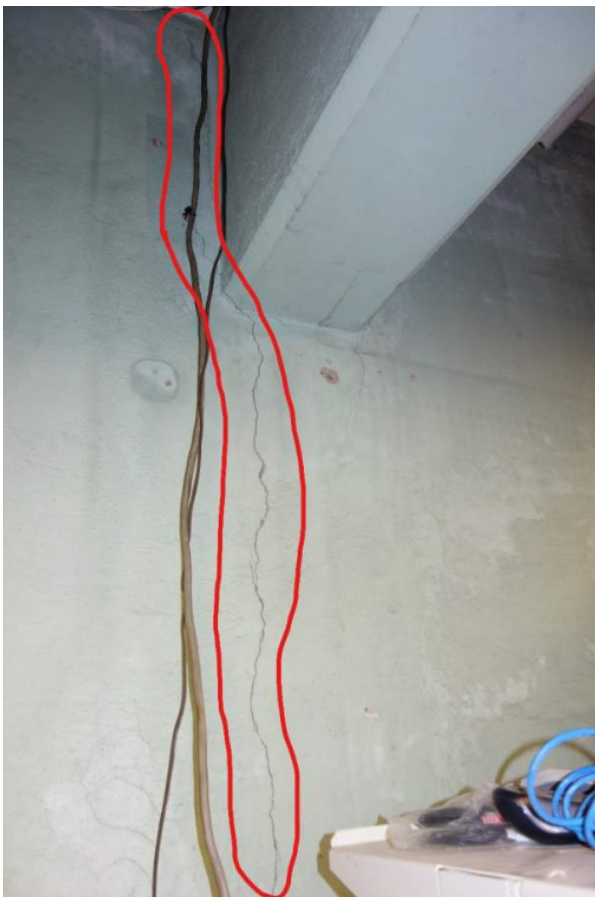
### **CRACKING CONCRETE DOUBLE TEES.**

Comments and recommendations: At various locations in the lower level there are cracks in the concrete double tees. These cracks most likely resulted from vertical displacement due to settlement of the foundations. Although these cracks do not appear to currently pose a structural hazard, it is recommended that the concrete be repaired using high-performance concrete repair products.



### CRACKING AND SPALLING CONCRETE TEE.

Comments and recommendations: In the lower level at the boiler room a tee in the concrete double tee ceiling has cracked and spalled due the installment of the pipe hanger. It is recommended that the concrete be repaired using high-performance concrete repair products and that this area be periodically monitored to determine if these cracks are dormant, and spalling does not worsen.



### CRACKING IN INTERIOR OF FOUNDATION WALL.

Comments and recommendations: In the lower level storage room adjacent to the boiler room, there are several cracks in the concrete foundation walls. These cracks do not currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. It is recommended that these cracks be periodically monitored to determine if these cracks are dormant.

**CONCRETE WALL CRACKING.**

Comments and recommendations: There are various locations of concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls using high performance concrete repair products.



### EFFLORESCENCE AT BRICK WALLS.

Comments and recommendations: At several locations, efflorescence was observed on the exterior brick walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior brick walls and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs.



### JOINT SEALANTS AT THE EXTERIOR WALL HAVE AGED AND FAILED.

Comments and recommendations: There are some locations where the joint sealants at the exterior wall has aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed sealant at these joints.



### BRICK CRACKING AT LINTELS.

Comments and recommendations: At some of the lintels, the adjacent brick and mortar joints have cracked, potentially from rusting of the lintel. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls as well as areas of rust on the lintels be cleaned, primed, and finished with an appropriate coating system and weep holes be installed.





### CRACKING IN BRICK MASONRY.

Comments and recommendations: There are few locations of cracking at the exterior brick walls. While they do not currently appear to be a structural hazard, the cracks possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired.



### MAJOR BRICK MASONRY CRACKING.

Comments and recommendations: There are few locations of major cracking at the exterior brick walls. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced.



### SPALLED CONCRETE AT WINDOW SILL.

o Comments and recommendations: Spalled concrete at the concrete window sills were observed at various locations. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. It is recommended that the spalled concrete be repaired using high-performance concrete repair products.



### WATER DAMAGE TO EXTERIOR BRICK MASONRY WALLS.

Comments and recommendations: There are few locations on the exterior walls where water damage was observed, possibly from leaks in pipes or the roof drainage system. While this damage does not currently appear to be a structural hazard, the pipes should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage.



### WATER DAMAGE TO EXTERIOR BRICK MASONRY WALLS.

Comments and recommendations: There are few locations on the exterior walls where water damage was observed, possibly from leaks in pipes or the roof drainage system. While this damage does not currently appear to be a structural hazard, the pipes should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage.



### SNOW DRIFT AT HIGH/LOW ROOF AND RTU AREAS

Comments and recommendations: Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.

### CONCLUSION

In summary, it is our professional opinion that the existing building is in good and serviceable condition, however we noticed a few localized issues which will need to be addressed to maintain the serviceability of the structure. Please refer to section D. Observed Building Deficiencies and Potential Problem Areas for descriptions and recommendations.

## MECHANICAL SYSTEMS

### EXECUTIVE SUMMARY:

Primrose Hill School was built in 1960 and is used as an emergency shelter. The existing HVAC equipment installed in the school is generally past its useful life expectancy.

### HEATING SYSTEM:

1. The building is heated by one (1) antiquated gas-fired boiler, manufactured by H.B. Smith Co. Inc., model 640 Mills, with 13 cast iron sections. The boiler has a natural gas input of 4,956 MBH, with an output of 3,965 MBH making it 80% efficient. The boiler utilizes a Power Flame Burner, model CR4-0A capable of using either #2 fuel oil or natural gas. The boiler is well past its useful life expectancy.
2. For venting of the boiler, there is a L.J. Wing Draft-Inducer, model DI-5217, that vents to a brick chimney and rising vertically up to the roof. The chimney terminates approximately 8 feet above roof.
3. There is a 6'x4' combustion air louver for the gas fired boiler. The louver is located above the double doors into the space from outdoors. It is not provided with any motorized damper and remains open to the outdoors constantly, which is a code violation.
4. Heating hot water is circulated to air handling units, fin-tube radiation, unit ventilators, unit heaters, convectors, etc. via three (3) floor mounted end suction pumps. The heating hot water is distributed via insulated piping throughout the building. The end suction pumps are manufactured by Bell & Gossett, model 4AC (300 GPM) and appears to be in fair condition.
5. The heating plant is equipped with all necessary hydronic accessories, such as air separators, expansion tanks and chemical treatment for proper operation. The accessories are of the same vintage as the boilers except for the expansion tank that appears to be recently replaced.

### AIR CONDITIONING:

The building is not fully air conditioned. Individual ductless split systems are installed where air conditioning is required. There are two (2) ductless split systems serving the library, and a few ductless split systems serving the Administration offices. In addition, there are a few ductless split systems serving select classrooms where needed.



Existing Boiler



Boiler Installed in Pit



Indoor Wall Evaporative Unit



Outdoor Condensing Units Near Administration

## VENTILATION

1. Classroom unit ventilators are mounted above ceiling and are utilized for the heating and ventilation requirements for most classroom spaces. Each unit is equipped with a hot water heating coil, supply fan and filter. There is no dedicated outdoor air louver that is typically visible with classroom unit ventilators. The unit ventilators appear original to the building. Ventilation air is introduced to the plenum space above ceiling via an air handling unit. There is no means to regulate the amount of outside air that is required by code. The classroom spaces are provided with exhaust systems to remove any outdoor air that is introduced through the unit ventilators which helps maintain a neutral pressure within the space. Classroom (exhaust) is served by in-line exhaust fan systems that exhaust air to a wall louver at the end of the corridor wing. The unit ventilators are generally past their expected useful service life.
2. Restrooms, janitor's closets and utility rooms are exhausted by in-line exhaust air fans that exhaust air to a wall louver at the end of the corridor wing.



*Classroom Unit Ventilator*



*No Outdoor Air Intake Louver Associated with Unit Vent*

## AIR HANDLING UNITS:

There are two (2) indoor air handling units providing heating and ventilation throughout the building. The units are in the ceiling space above the main lobby. One unit provides heat and ventilation to the Cafetorium.



*Air Handling Unit*



*Louver Associated with Air Handler*

## KITCHEN

The kitchen is not a full working kitchen. There is a kitchen hood and code compliant exhaust fan that appears to be used to exhaust the dish washing area. Make-up air is provided by one of the air handling units described above that provides ventilation throughout the building.



*Kitchen Hood at Dishwasher*



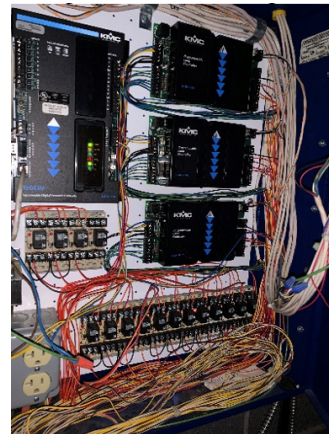
*Kitchen Exhaust System Fan*

## CONTROLS

The building HVAC control system appears to have been upgraded. There is a Honeywell panel located within the mechanical room, and we witnessed other control panels throughout the building.



*Control Panel within Mechanical Room*



*Control Panel in Ceiling Space Above Lobby*

**RECOMMENDATIONS:**

1. The existing boiler is original to the building and part its useful life expectancy. In addition, with only one boiler there is no redundancy if the boiler fails. Two new gas fired condensing boilers (95% Efficient) with all new accessories should be installed.
2. The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit.
3. A new air handling unit serving the Cafetorium should be replaced. We recommend the system provide dehumidified displacement air similar to the classrooms as described above.
4. Air handling units that provide ventilation air to corridors, offices, etc should be replaced and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to each respective space.
5. Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.
6. The ATC system should be further upgraded. Provide new DDC controls for all equipment such as fin tube, unit heaters, Unit Ventilators, AHU, pumps, etc.



## ELECTRICAL SYSTEMS

### EXECUTIVE SUMMARY:

1. The Primrose Hill School was constructed in 1960 and is currently used as an emergency shelter with a newer generator and automatic transfer switch. However, most of the electrical systems are original to the building and although functioning, most have outlived their intended useful life.
2. The power distribution system in the building is original and is generally in poor condition. Interior lighting generally consists of fluorescent fixtures with the exception of some recently replaced LED fixtures with integral controls. Although the lights were replaced, the original wiring appears to be reused. The fire alarm system although it is addressable and functioning, the system no longer meets current codes, does not have voice evac, and does not provide adequate coverage.
3. The emergency lighting system consists of battery units but do not provide adequate coverage in corridors and various other spaces.
4. Refer to recommendations section herein for upgrades to individual systems. We would however recommend replacement of all the Electrical systems under a full renovation.

### ELECTRIC SERVICE(S):

1. Three phase primary runs overhead on Old County Road.
2. The Facility is fed with electric services overhead from a utility pole on Old County Road.

### ELECTRIC SERVICE:

The building is fed from a pole with wiring going overhead to above the roof and then down to a vault, then connecting to a main circuit breaker. The utility meter is located on the wall inside the main electric room. The service is rated at 600 amperes, 120/208V, 3 phase, 4 wire.



*Overhead Wires Enter Building for Electric Service*



*Wiring Runs Overhead From Utility Pole on Old County Road*

## ELECTRICAL DISTRIBUTION SYSTEM:

1. The original building main circuit breaker panel is located in the main electric room and is rated at 600 amperes 120/208v, 3 phase, 4w. The circuit breaker panel is original and backfeeds local as well as remote panels throughout the facility, with most panels located in the Boiler Room. The original building panels were manufactured by Westinghouse and are in poor condition. Newer Siemens panels were installation in the boiler room at the time of the generator installation to supplement to original building panels and in good condition.



*Transformer Vault for Main Electric Service*



*Circuit Breaker and Meter in Main Electric Room*



*Older Westinghouse Panels in Boiler Room*



*Remote Panel in Storage Closet*



*Kitchen Panel*



*Newer Added Siemens Panel in Boiler Room*

## BRANCH CIRCUITS/WIRING DEVICES:

1. The wiring method appears to be AC cable, MC cable and pipe and wire.
2. In general the quantity of receptacles is minimal throughout the facility occasionally resulting in the need to use extension cords.
3. The typical classroom has one receptacle per wall. Some classrooms have added surface wiremold raceways.
4. In general most receptacles near sinks have GFI protection. But some do not. Boiler room and kitchen receptacles are not GFI protected.
5. Receptacles throughout the facility are not tamper-resistant type currently required by code.



*Kitchen Non-GFI Receptacles*



*Frequent Extension Cord Use*



*Limited Receptacle Availability Throughout*

## LIGHTING SYSTEM:

1. Interior lighting is typically 2x4 recessed troffers with acrylic lens, with fluorescent lamps, and electronic ballasts in areas with dropped ceilings and acoustical ceiling tiles. Some toilets and offices have fixtures with LED sources. Most other locations consist of surface wraparound fixtures with fluorescent lamps and electronic ballasts. In general, interior lighting is in fair condition. The LED fixtures are in good condition.
2. Multi-purpose room lighting consists of fluorescent high bay fixtures with lens and wire guards and with integral occupancy sensors.
3. Kitchen has 2x4 recessed fixtures with fluorescent lamps.
4. Corridor lighting is controlled with local line voltage switches. There is no automated lighting control system or daylight harvesting sensors installed in the school.
5. Exterior lighting consists of building mounted wall packs with LED sources. These fixtures based on coverage do not provide adequate light. The pole mounted lights for parking areas and roadways were upgraded to LED fixtures.



*Typical Classroom Lighting  
with Surface Wraparounds*



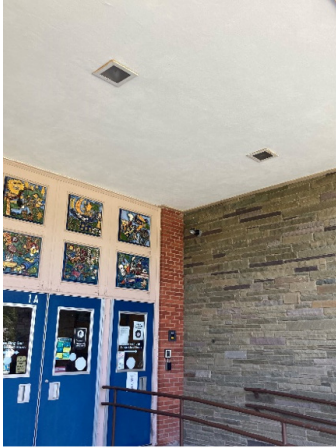
*Office Recessed Lighting*



*Corridor Lights*



*Parking Lot Pole Mounted LED Fixtures*



Recessed Canopy Lights



Exterior Wall Pack Fixtures

### EMERGENCY POWER SYSTEM:

There is an exterior generator at this facility located outside next to the Boiler Room. The generator enclosure does not have a label on it so the electrical characteristics are undetermined. Emergency lighting is accomplished using central emergency battery units with remote heads as well as self-contained battery units. Exit signs are LED with battery back-up. The condition varies on these units from fair to good. A test was not done to confirm code compliance at the time of the visit. Various corridors & kitchen do not have emergency lighting.



Exterior Backup Generator



Automatic Transfer Switch



Single Remote Head



Exit Sign



Central Battery Unit

### FIRE ALARM SYSTEM:

1. The fire alarm system consists of an addressable Notifier control panel with horn/strobe notification appliances. The system is in fair condition however it does not meet current code. Educational use group is required to have a voice evacuation system. The Sigcom radio master box is located inside the main lobby adjacent to the control panel.
2. Strobes are ADA compliant however coverage is inadequate.
3. Corridor doors as well as some classroom doors are held open with magnetic door holders. The stage local sound system does not mute upon fire alarm activation.



Fire Alarm Control Panel & Radio Box



Horn/Strobe



Ceiling Horn/Strobe



Magnetic Door Holder

**MISCELLANEOUS:**

1. There is no BDA, Bi-Directional Antenna System, installed in the facility for the Police and Fire Dept. first responders.
2. There is no Lighting Protection System installed.

**RECOMMENDATIONS:**

1. The existing electrical service should be upgraded to provide capacity for the building load based on 10 watts per square foot power consumption. A new pad-mounted transformer with new primary and secondary services should be provided. Replace existing older Westinghouse panels and backfeed existing circuits.
2. All of the existing non-led lighting in the building should be upgraded to LED fixtures with integral dimming drivers for reduction in energy consumption and reoccurring lamp replacement costs.
3. An addressable lighting control system with occupancy and daylight dimming sensors should supplement the new LED lighting to further increase energy savings.
4. Where the budget does not allow for an addressable lighting control system, local occupancy sensors should be installed in all spaces and local daylight photo dimmers installed where natural daylight is available.
5. A test should be performed to determine the compliance of the current emergency battery units providing the required emergency egress lighting. Exterior egress lighting should be provided at all egress doors.
6. A new stand-by generator within a weatherproof sound attenuated enclosure should be provided along with two transfer switches. The generator should serve emergency lighting, freeze protection, selected HVAC equipment, refrigeration, communications and security systems at a minimum. Where it is designated to serve emergency lighting, a second transfer switch will be required with a dedicated life safety panel within a 2-hour rated closet to serve selected egress lights and exit signs.
7. The existing fire alarm system should be upgraded to an addressable system with voice evacuation in order to comply with current code. A mass notification system should be provided integral to the fire alarm system.
8. A system of lightning protection should be provided when the roof is replaced. The system will be installed in compliance with the provisions of the latest "Code for Protection Against Lightning" for buildings as adopted by the National Fire Protection Association and the Underwriters' Laboratories, Inc. for a UL Master Label System. The lightning protection equipment will include air terminals, conductors, conduits, fasteners, connectors, ground rods, etc.
9. Provide a BDA, Bi-Directional Antenna System.
10. Replace all non tamper resistant receptacles located at 5'-6" above floor or lower, with tamper resistant receptacles.
11. Provide GFI protection for receptacles within 6' of water sources, toilets, kitchen & boiler room.

## PLUMBING & FIRE PROTECTION SYSTEMS

The plumbing systems at the 36,000 square foot Primrose Hill School (built in 1954) in general are in working order. The major systems, although working adequately at this time, are approaching the end of their useful life. In addition, many of the systems are not up to the latest industry standards, best practices, and current codes. If it is anticipated that major modifications are planned for the building, the plumbing systems should be considered for an overall upgrade. Also, a complete fire protection system shall be installed as the building does not currently have a fire sprinkler system.

### 2-INCH DOMESTIC WATER SERVICE

Description – 2-inch domestic water service enters the building at the lower level. It enters the building as poly tubing and transitions to copper piping where it is metered, and then protected with a reduces pressure backflow preventer.

Condition – the piping, the water meter and backflow preventer appear in good working order.

Deficiencies:

1. No floor drain provided below backflow preventer.
2. No piping insulation as required by current energy codes.

Recommendation – the water service piping appears in good working order. Continued maintenance should be provided on the meter and backflow preventer as well as strainer. A floor drain should be provided as is typically required to receive any discharge from the backflow preventer during a back-pressure condition. Provide insulation

### DOMESTIC WATER PIPING SYSTEM

Description – the domestic water piping system (where observable) consists of primarily copper pipe & fittings with soldered joints. Much of the observable piping appears original to the building.

Condition – the domestic water piping although working appears in poor condition. The piping appears original to the building and beyond its useful life.

Deficiencies: Some of the water piping is not insulated as required by current energy codes.

Recommendation – the domestic water piping should be replaced, where visible and a replacement plan for concealed piping should be developed until all of the existing piping is replaced with new. Insulate all domestic water piping in accordance with the energy code.

### DOMESTIC HOT WATER

Description – the domestic hot water system for the building is provided by the boiler. The domestic hot water has a master mixing valve to set the temperature and a circulation pump to circulate the water for the main building loop. The kitchen has a dedicated 80 gallon electric hot water tank to provide hot water to the kitchen fixtures.

Condition – the hot water mixing valve and circulator have been recently replaced and appear in good working condition. The boiler is aged and appears beyond its useful life.

Deficiencies: Some of the hot water piping is not insulated as required by current energy codes.

Recommendations – provide a new de-coupled hot water heater that is separate from the boiler.



## **GAS PIPING SYSTEM**

Description – the gas piping system at the building consists of a 3-inch natural gas service to the building with meter and regulator outside of the building near the boiler room. The gas piping enters the boiler room and transitions to 4-inch pipe size welded black steel piping and feeds the boiler.

Condition – the gas piping appears in good working order.

## **SANITARY WASTE AND VENT SYSTEM**

Description – the sanitary waste and vent system where visible appears to consist mainly of pvc pipe and fittings.

Condition – the piping where visible appeared to be in satisfactory condition. The under-ground piping was not visible. Much of the sanitary waste, and vent piping appeared original to the building and is approaching the end of its service life.

Recommendations = where current piping is exposed, replace sanitary, waste, and vent piping with new piping. A replacement plan for concealed and under slab piping should be developed until all of the existing piping is replaced with new.

## **STORM SYSTEM**

Description – the storm system consists of roof drains piped to external gutter downspouts.

Condition – the observable components of the storm system appears in good working condition.

## **TOILET ROOMS**

Description – the main toilet rooms have been recently updated to include newer plumbing fixtures. The peripheral toilet rooms have some dated plumbing fixtures.

Condition – the newer fixtures appear in good working condition. The fixtures in the remaining toilet rooms have older fixtures, and although in good working condition, are approaching the end of their useful life.

Deficiencies: The main boys and girls toilet rooms do not have floor drains.

Recommendation – provide fixture upgrades for the older plumbing fixtures in the building. Provide new floor drains in the main toilet rooms.

## **MISCELLANEOUS PLUMBING FIXTURES & EQUIPMENT**

Description – the kitchen fixtures, drinking fountain, classroom sinks, and service sinks, in general appear in good working.

Condition – most of the miscellaneous plumbing fixtures appear in good condition and in working order. The janitor closets have service sinks.

Recommendation – replace service sinks with new.

## **FIRE SUPPRESSION SYSTEMS**

Description – there is no fire sprinkler system protecting the building.

Recommendation – provide a fully sprinklered fire suppression system in accordance with latest adoption of nfpa-13.

## TECHNOLOGY

### INTRODUCTION

This section includes an existing conditions report and recommendations for the Technology Communication Cabling Infrastructure, Public Address and Master Clock systems, Electronic Physical Security Systems, and Audio Visual Systems.

Floor plans notating the location and name of each technology room are included in the appendix of this report. These plans were provided by Barrington Public Schools IT. The nomenclature (MDF, IDF1, IDF2, etc.) for each space in this survey is based on those plans.

### COMMUNICATION CABLING INFRASTRUCTURE

#### FINDINGS

1. Primrose Hill School has (1) MDF.
2. Horizontal Ethernet cable is a mix of Category 5e, Category 6, and Category 6A, with a mix of Plenum and Riser Cable.
3. The MDF does not have dedicated power.
4. Grounding and bonding protection for all low voltage devices within the MDF and all IDF's is not in place.
5. Dedicated cooling units for the MDF is not in place.
6. Most penetrations / sleeves for cable pathways could not be observed, but many that were visible did not have proper firestopping. Firestop all penetrations.



*Photo of non-firestopped sleeve in MDF*

## RECOMMENDATIONS:

1. Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.
2. Install properly sized cooling units in the MDF to protect the lifespan of the active electronics within the room.
3. Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.
4. Replace all zip ties with Velcro hook and loop straps.
5. The MDF is in a shared space. Consider relocating to a dedicated space.
6. Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within.

## II. PUBLIC ADDRESS & MASTER CLOCK

### FINDINGS

1. Primrose Hill School has an antiquated Simplex Public Address and Master Clock system. Classrooms have call switches that integrate into this Simplex system.

### RECOMMENDATIONS:

1. Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system.
2. Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.
3. Replace all associated cabling.
4. Install public address strobes in the Multi-Purpose Room to notify students and staff of an announcement.
5. Install exterior horns around the building for full coverage of the exterior, including the fields.
6. Install a phone to public address interface so that any phone in the building can access the public address system.
7. Install Public Address Phone handsets or call switches to open two-way communication with the main office.
8. Replace the Simplex Wired Master Clock with a modern, wireless Master Clock.
9. Replace all hardwired clocks in all spaces with Wireless clocks.

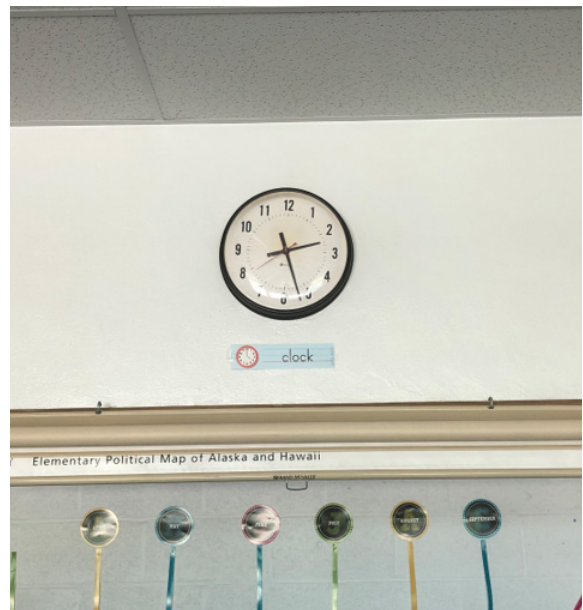


Photo of typical classroom Phone / Clock / PA Speaker assembly

### III. PHYSICAL ELECTRONIC SECURITY

#### FINDINGS

1. Primrose Hill School has the following manufacturers for the Physical Security Systems:
  - a. Intrusion Detection – Sonitrol
  - b. Access Control – Keyscan
  - c. Video Surveillance – Uniview with (2 – 4) analog cameras
2. There is a spot monitor in the main office. It shows an image of the main entrance.
3. Primrose Hill School currently has a “Lockdown” system, controlled via a wall-mounted button. BPS facilities confirmed that when engaged, the lockdown button makes an announcement over the Public Address system and auto-dials out to central monitoring (Sonitrol) to relay the alarm to first responders. Photo of lockdown button below:
4. The front entrance has access control. An antiquated audio & video two-way communication device and card reader is installed.



*Picture of communication device and card reader*



*Picture of communication device and card reader*

#### RECOMMENDATIONS:

1. Access Control:
  - a. Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.
2. Intrusion Detection:
  - a. BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTs, IP, Cellular). Consider adding door position switches on all exterior doors.
  - b. It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.
3. Video Surveillance:
  - a. The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a “Single Pane of Glass” to manage all cameras throughout the district.
  - b. Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary.
  - c. Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.
  - d. Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.
4. Lockdown System:
  - a. Consider replacing the lockdown button for a larger button with clear text noting “Lockdown”. Consider installing multiple buttons throughout the administration and reception area.
  - b. Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders.
  - c. Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.

- d. Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.

## IV. AUDIO-VISUAL SYSTEMS

### FINDINGS

1. Classroom Audio Visual Findings
  - a. Classrooms have wall mounted TV's and Apple TV's. Cable is not properly dressed and protected, and classrooms do not have visible external speakers.
2. Multi-Purpose Room Audio Visual Findings:
  - a. There is an antiquated electric screen.
  - b. There is a small audio mixer and wireless receiver on stage mounted in a wooden cabinet.
  - c. An assisted listening system was not visible.
  - d. There are (2) speakers mounted on each side of the stage.

### RECOMMENDATIONS

1. Classroom Audio Visual Recommendations
  - a. Replace all TV's with Interactive Displays
  - b. Install a dedicated sound system in each classroom with the following functionality:
    1. Speakers throughout the space
    2. Wireless microphones for students and teachers
    3. Priority Override / Public Address Mute for muting the speakers during a Public Address announcement.
    4. Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired
    5. Hardwired AV connections from teacher's desk to interactive display
2. Multi-Purpose Room AV Recommendations:
  - a. Replace the existing Local Sound System with a system capable integrating the following:
    1. Two to four hardwired microphone locations
    2. Two to four wireless microphones
    3. Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution
    4. Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection
    5. Multi-Media / CD / Bluetooth inputs
    6. Control panels capable of muting, program audio volume control, system power on / off
    7. Public Address integration ensuring that announcements are always heard throughout the space
    8. An ADA compliant Assisted Listening System
    9. Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video.
    10. Consider mounting all AV devices in a dedicated AV cabinet on stage.



Photo of typical classroom teaching wall



Photo of cabinet



Photo of speakers

# **AUTOMATIC TEMPERATURE CONTROLS REPORT**

**PRIMROSE SCHOOL**

Automatic Temperature Controls, Inc. - Primrose Building Survey

Room #	Location	Name	Type	Make	Filters	Belts	Airflow Readings (CFM)				Room Size			ACH				Total Mechanical Air Movement Filtered and ODA				Total ACH with Outside Air				ACH 1 window open	Temporary Measure to meet FIORI	Notes
							Supply	Exhaust/Return	Normal	100% ODA	Length	Width	Height	Cube Feet	Supply	Exhaust/Return	Normal	100% ODA	Heating Unit off	10% Standard	100% ODA	Cooling Program Operation	100% ODA					
1		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	180.00	180.00	32.00	24.00	9.80	7526.40	0.00	0.00	1.43	1.43	1.43	1.43	1.43	1.43	1.43	0.9	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	Need cleaning		
1		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																			6 - 20x96 windows			
2		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	180.00	180.00	32.00	24.00	9.80	7526.40	0.00	0.00	1.43	1.43	1.43	1.43	1.43	1.43	0.9	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	Need cleaning			
2		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																			6 - 20x 96 windows			
3		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	180.00	180.00	32.00	24.00	9.80	7526.40	0.00	0.00	1.43	1.43	1.43	1.43	1.43	1.43	0.8	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	Need cleaning			
3		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																			Need cleaning			
4		4	UV	AAF	10 X 60 X .75	DD	1140.00	1384.00	163.00	149.00	31.00	32.00	8.40	8332.80	8.21	9.97	1.17	1.07	1.17	1.17	1.17	1.17	0.4	6 - 22x 22 windows Unit needs to be cleaned replace both actuators				
5		5	UV	AAF	10 X 60 X .75	DD	1133.00	940.00	106.00	101.00	36.00	30.00	8.40	9072.00	7.49	6.22	0.70	0.67	0.70	0.70	0.70	0.70	0.4	12 - 22x22 windows				
6		6	UV	AAF	10 X 60 X .75	DD	1202.00	1301.00	193.00	187.00	32.00	31.00	8.40	8332.80	8.65	9.37	1.39	1.35	1.39	1.39	1.39	1.39	0.4	10 - 22x22 windows				
6	AC	6	AC	Fujitsu	Washable	DD																		Need cleaning				
6	AC	6	AC	Fujitsu																				CONDENSING UNIT				
7		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	180.00	180.00	32.00	24.00	9.80	7526.40	0.00	0.00	1.43	1.43	1.43	1.43	1.43	1.43	0.6	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	6 - 20x40 Windows			
7		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																						
8		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	180.00	180.00	32.00	24.00	9.80	7526.40	0.00	0.00	1.43	1.43	1.43	1.43	1.43	1.43	0.8	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	6 - 20x46 windows			
8		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																						
Library		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	285.00	285.00	47.00	26.00	9.80	11975.60	0.00	0.00	1.43	1.43	1.43	1.43	1.43	1.43	0.8	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	10 - 20 x 46 windows			
Library	AC	Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																			Needs cleaning			
Library	AC		AC	Fujitsu	Washable	DD																			Needs cleaning			
9		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	32.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	6 - 20 x 46			
9		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																						
10		Unit 1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	32.00	26.00	9.80	8153.60	0.00	0.00	2.74	2.74	2.74	2.74	2.74	2.74	0.8	One window with fan blowing out on bow (adding 2.5 to 3 ACH)	6 - 20x46 windows			
10		Unit 2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																						

Automatic Temperature Controls, Inc. - Primrose Building Survey

Room #	Location	Name	Type	Make	Filters	Belts	Airflow Readings (CFM)			Room Size			Supply			Exhaust/Return			Total Mechanical Air Movement Filtered and ODA			Total ACH with Outside Air			ACH 1 window open	Temporary Measure to meet ROR	Notes
							Supply	100% ODA	Normal	Length	Width	Height	Cubic Feet	Normal	100% ODA	Return	Normal	100% ODA	Total Normal	Total 100%	Heating Unit off	10% Standard	100% Program	100% ODA			
11		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	6 - 20x46 windows	
11		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
12		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	6 - 20x46 windows	
12		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
13		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	6 - 20x46 windows	
13		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
13	AC	Head	AC	Mitsubishi	Washable																						
13	AC	Condensing	AC	Mitsubishi																							
14		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	DIRTY UNITS	
14		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
15		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	DIRTY UNITS	
15		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
16		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	DIRTY UNITS	
16		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
17		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	372.00	372.00	24.00	9.80	7526.40	0.00	0.00	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	DIRTY UNITS	
17		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					
18		BB	BB				0.00	0.00	52.00	52.00	10.00	8.70	1044.00	0.00	0.00	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	0.6	One window with fan blowing out on low (adding 2.5 to 3 ACH)	17X42 WINDOW	
19		BB	BB				0.00	0.00	74.00	74.00	10.00	10.60	1484.00	0.00	0.00	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99		Air scrubber	NO WINDOW	
20		Unit1	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD	0.00	0.00	0.00	0.00	26.00	8.00	6240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	Need cleaning	
20		Unit2	CUH	TRANE	8 X 43.5 X 5 WASHABLE	DD																					



Automatic Temperature Controls, Inc. - Primrose Building Survey

Room #	Location	Name	Type	Make	Filters	Belts	Airflow Readings (CFM)			Room Size			ACH			Total Mechanical Air Movement Filtered and ODA			Total ACH with Outside Air	ACH 1 window open	Temporary Measure to meet ROI	Notes		
							Supply	100% ODA	Normal	Length	Width	Height	Cubic Feet	Supply	100% ODA	Normal	Heating Unit/cell	Total					100% Normal	100% ODA
21	Floor	Unit1	CUH	TRANE	8 X 43.5 X .5 WASHABLE	DD	0.00	0.00	0.00	47.00	26.00	8.00	9776.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.8	1 window with fan blowing out on low	9 - 46X20 WINDOWS Need Cleaning	
21	AC	Unit2	CUH	TRANE	8 X 43.5 X .5 WASHABLE	DD																		
21	AC	Head	CUH	MITSUBISHI	Washable	DD																		
	FRONT	Condensing	AC	MITSUBISHI																				
REST ROOM	FRONT	GIRLS	CUH	IMASKEK	9 X 19.5 X .5 WASHABLE	DD	0.00	0.00	0.00	25.00	12.00	9.80	2940.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
REST ROOM	FRONT	BOYS	CUH	IMASKEK	9 X 19.5 X .5 WASHABLE	DD	0.00	0.00	0.00	25.00	12.00	9.80	2940.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			Need cleaning	
REST ROOM	BACK	GIRLS	CUH	IMASKEK	9 X 19.5 X .5 WASHABLE	DD	0.00	0.00	0.00	19.00	12.00	9.80	2234.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
REST ROOM	BACK	BOYS	CUH	IMASKEK	9 X 19.5 X .5 WASHABLE	DD	0.00	0.00	0.00	19.00	12.00	9.80	2234.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
SOUTH basement stairwell			CUH	TRANE	8 X 32 X .5 WASHABLE	DD	0.00	0.00	0.00	36.00	10.00	8.00	2880.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
MAIN			CUH	TRANE	8 X 32 X .5 WASHABLE	DD	0.00	0.00	0.00	12.00	10.00	8.00	960.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
ENTRANCE		UNIT1	CUH	TRANE	8 X 32 X .5 WASHABLE	DD	0.00	0.00	0.00	12.00	10.00	8.00	960.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
ENTRANCE		UNIT2	CUH	TRANE	8 X 32 X .5 WASHABLE	DD	0.00	0.00	0.00	12.00	10.00	8.00	960.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
VESTIBULE	EAST SIDE		CUH	HEATING PRODUCTS	8 X 30.5 X .5 WASHABLE	DD	0.00	0.00	0.00	9.60	10.60	8.00	814.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
NORTH HALL			CUH	THF HEATING	8 X 30.5 X .5 WASHABLE	DD	0.00	0.00	0.00	86.00	10.00	8.00	14880.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
SOUTH STORM BASEMENT			CUH	TRANE	8 X 32 X .5 WASHABLE	DD	0.00	0.00	0.00	36.00	10.00	8.00	2880.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.8	One window with fan blowing out on low (adding 2.5 to 3 ACH)	3 - 20X16 WINDOWS	
TEACHERS LOUNGE			CUH	TRANE	8 X 43.5 X .5 WASHABLE	DD	0.00	0.00	0.00	26.00	18.00	9.80	4586.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
OFFICE	MAIN		CUH	TRANE	8 X 43.5 X .5 WASHABLE	DD	0.00	0.00	0.00	14.00	12.00	8.00	1344.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
NURSE OFFICE	AC		AC	Fujitsu	Washable	DD	0.00	0.00	0.00	14.00	12.00	8.00	1344.00	0.00	0.00	0.00	0.00	0.00	0.00				Needs cleaning	
OFFICE	MAIN	Head	AC	Fujitsu	Washable	DD																		
OFFICE	MAIN	Condensing	AC	Fujitsu	Washable	DD																		
OFFICE	PRINCIPAL	HEAD	AC	MITSUBISHI	Washable	DD																		
OFFICE	PRINCIPAL	Condensing	AC	MITSUBISHI	Washable	DD															0.8		Needs cleaning	
REST ROOM	NURSE		EX	TWIN CITY FAN		DD	114.00	114.00	0.00	8.00	6.00	8.00	384.00	17.81	17.81	0.00	17.81	17.81	0.00	19.59	5.34	17.81	0.8	Needs cleaning 2 - 20X46 WINDOWS
REST ROOM	TEACHERS	LEFT	EX	NUSTONE		DD	74.00	74.00	0.00	10.00	6.00	8.00	480.00	9.25	9.25	0.00	9.25	9.25	0.00	10.18	2.78	9.25	0.8	1 - 20X46 WINDOW (COMES ON WITH LIGHT)
REST ROOM	TEACHERS	ROOM	EX	NUSTONE		DD	99.00	99.00	0.00	10.00	6.00	8.00	480.00	12.38	12.38	0.00	12.38	12.38	0.00	13.61	3.71	12.38	0.8	COMES ON WITH LIGHT
	ROOF	EF2	EX			4L210																		EX FOR 4.5.6 AND CENTER OFFICE
	ROOF	EF2	EX	TWIN CITY FAN		DD																		BAD MOTOR (BOYS AND GIRLS Tenth Hall)
	ROOF	EF3	EX	DAYTON		4L380																		NEEDS TO BE WIRED
	ROOF	EF4	EX	DAYTON		4L210																		POWER CUT IN CEILING
	ROOF	EF5	EX	TWIN CITY FAN		DD																		
BASEMENT REST RMS	RM19	Basement Rest Rooms	EX	CENTURY FAN		4L270	0.00	0.00	259.00	259.00														NEEDS EGG CRATE IN BASEMENT REST ROOMS

Automatic Temperature Controls, Inc. - Primrose Building Survey

Room #	Location Floor	Name	Type	Make	Filters	Belts	Airflow Readings (CFM)				Room Size			ACH				Total Mechanical Air Movement Filtered and ODA				Total ACH with Outside Air	ACH 1 window open	Temporary Measure to meet RORI	Notes								
							Supply Normal	Supply 100% ODA	Exhaust/Return Normal	Exhaust/Return 100% ODA	Length	Width	Height	Cubic Feet	Supply Normal	Supply 100% ODA	Exhaust/Return Normal	Exhaust/Return 100% ODA	Total Normal	Total 100%	Heating Unit off Standard					10% Program Operation	100% ODA						
NORTH HALL			EX	KENWARD ENGINEERING		54-30	0.00	0.00	1985.00	1985.00	186.00	10.00	8.00	14880.00																			
EAST HALL			EX	KENWARD ENGINEERING		515-00	0.00	0.00	4374.00	4374.00	210.00	10.00	8.00	16800.00																			
GYM	CAFÉ		EX	KENWARD ENGINEERING		515-40	0.00	0.00	2067.00	2067.00																							
GYM	CAFÉ		MAU	KENWARD ENGINEERING	2-16 X 25 X 2 2-20X25X2 1-16X20X2 1-20X20X2	B83	4412.00	4412.00	2067.00	2067.00	60.00	40.00	16.00	38400.00	6.89	6.89	3.23	3.23	3.23	3.23	3.23	10.12	10.12	10.81	5.30	10.12						CALCULATIONS FOR EXIN COMBINATION WITH MAU (NEED TO BE CLEANED AND CONTROLS ADDED STILL PNEUMATIC CONTROLS THAT ARE N/G)	
HALL	ATTIC		MAU	KENWARD ENGINEERING	2-20X30X2 2-20X24X2	2-B85	4216.00	4216.00	0.00	0.00	60.00																					What area does this feed Hall? Near what classrooms	



# HAZARDOUS MATERIALS REPORT

PRIMROSE HILL SCHOOL

**FINAL REPORT  
FOR LIMITED  
HAZARDOUS MATERIALS IDENTIFICATION  
STUDY  
AT THE  
PRIMROSE HILL ELEMENTARY SCHOOL  
BARRINGTON, RHODE ISLAND**

PROJECT NO: 221 371.00

Survey Dates:  
August 4, 2021

CONDUCTED BY:  
**UNIVERSAL ENVIRONMENTAL CONSULTANTS  
12 Brewster Road  
Framingham, MA 01702**



August 9, 2021

Mr. Sean L. Schmigle AIA, NCARB  
*Senior Architect*  
KAESTLE BOOS ASSOCIATES, INC  
10 Chestnut Street, Suite 301  
Foxborough, MA 02035

Reference: Report for Limited Hazardous Materials Identification Study  
Primrose Hill Elementary School, Barrington, Rhode Island

Dear Mr. Schmigle:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for the limited Hazardous Materials Identification Study at the Barrington Primrose Hill Elementary School, Barrington, Rhode Island.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

A handwritten signature in blue ink, appearing to read "Ammar M. Dieb", is written over a horizontal line.

Ammar M. Dieb  
President

UEC:\221 371.00\Primrose Hill Elementary School Report.DOC

Enclosure

## 1.0 INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-two years of experience.

UEC was contracted by Kaestle Boos Associates, Inc. to conduct the following services at the Primrose Hill Elementary School, Barrington, Rhode Island:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's Caulking Inspection.
- Lead Based Paint Inspection.

This is a limited inspection, and the report should not be used to renovate or demolish the building. Inspection per the Environmental Protection Agency (EPA) NESHAP regulations will be required to be performed.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by a Rhode Island licensed asbestos inspector Mr. Leonard J. Busa (AAC-0745) and analyzed by a Rhode Island licensed laboratory Asbestos Identification Laboratory, Woburn, MA.

Samples results are attached.

## 2.0 FINDINGS:

### **Asbestos Containing Materials (ACM):**

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition, a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations.

No additional suspect or accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities. It is recommended that once the scope of work has been determined, a full comprehensive survey including destructive testing is performed.

### **Number of Samples Collected:**

Forty (40) bulk samples were collected from materials suspected of containing asbestos, including:

### **Type and Location of Suspect Material**

1. Exterior window framing caulking
2. Exterior window framing caulking
3. Exterior window framing caulking
4. Exterior window framing caulking
5. Exterior window framing caulking
6. Exterior door framing caulking
7. Interior framing caulking for exterior multi-glass block window

8. Interior framing caulking for exterior multi-glass block window
9. 9" x 9" Vinyl floor tile at basement classroom storage
10. Mastic for 9" x 9" vinyl floor tile at basement classroom storage
11. Old grey 12" x 12" vinyl floor tile at kitchen storage
12. Mastic for old grey 12" x 12" vinyl floor tile at kitchen storage
13. Old grey 12" x 12" vinyl floor tile at rear classroom stage
14. Mastic/leveler for old grey 12" x 12" vinyl floor tile at rear classroom stage
15. New 12" x 12" vinyl floor tile at cafeteria storage
16. Mastic/leveler for new 12" x 12" vinyl floor tile at cafeteria storage
17. New 12" x 12" vinyl floor tile at rear stage areas
18. New 12" x 12" vinyl floor tile at addition exit hallway
19. Mastic for new 12" x 12" vinyl floor tile at addition exit hallway
20. Grey sink damproofing at classroom 2
21. New 2' x 2' suspended acoustical ceiling tile
22. New 2' x 2' suspended acoustical ceiling tile
23. Interior window glazing caulking at main office
24. Smooth ceiling plaster at kitchen store
25. Smooth ceiling plaster at kitchen
26. Rough ceiling plaster classroom 3
27. Rough wall plaster at classroom 13
28. Rough wall plaster at teacher's room
29. Vermiculite at rear attic
30. Vermiculite at rear attic
31. Vapor barrier under vermiculite at rear attic
32. Vapor barrier under vermiculite at rear attic
33. Debris at entrance of rear attic
34. Layered pipe insulation at front attic
35. Pipe insulation at front attic
36. Boiler insulation at boiler room
37. Boiler insulation at boiler room
38. Soft ceiling plaster at classroom 2
39. Soft ceiling plaster at hallway by classroom 2
40. Soft ceiling plaster at stage

#### **Sample Results:**

##### **Type and Location of Suspect Material**

##### **Sample Result**

1. Exterior window framing caulking	No Asbestos Detected
2. Exterior window framing caulking	No Asbestos Detected
3. Exterior window framing caulking	No Asbestos Detected
4. Exterior window framing caulking	No Asbestos Detected
5. Exterior window framing caulking	No Asbestos Detected
6. Exterior door framing caulking	5% Asbestos
7. Interior framing caulking for exterior multi-glass block window	3% Asbestos
8. Interior framing caulking for exterior multi-glass block window	3% Asbestos
9. 9" x 9" Vinyl floor tile at basement classroom storage	6% Asbestos
10. Mastic for 9" x 9" vinyl floor tile at basement classroom storage	No Asbestos Detected
11. Old grey 12" x 12" vinyl floor tile at kitchen storage	No Asbestos Detected
12. Mastic for old grey 12" x 12" vinyl floor tile at kitchen storage	No Asbestos Detected
13. Old grey 12" x 12" vinyl floor tile at rear classroom stage	No Asbestos Detected
14. Mastic/leveler for old grey 12" x 12" vinyl floor tile at rear classroom stage	No Asbestos Detected
15. New 12" x 12" vinyl floor tile at cafeteria storage	No Asbestos Detected
16. Mastic/leveler for new 12" x 12" vinyl floor tile at cafeteria storage	No Asbestos Detected
17. New 12" x 12" vinyl floor tile at rear stage areas	No Asbestos Detected
18. New 12" x 12" vinyl floor tile at addition exit hallway	No Asbestos Detected



19. Mastic for new 12" x 12" vinyl floor tile at addition exit hallway	No Asbestos Detected
20. Grey sink damproofing at classroom 2	No Asbestos Detected
21. New 2' x 2' suspended acoustical ceiling tile	No Asbestos Detected
22. New 2' x 2' suspended acoustical ceiling tile	No Asbestos Detected
23. Interior window glazing caulking at main office	No Asbestos Detected
24. Smooth ceiling plaster at kitchen store	No Asbestos Detected
25. Smooth ceiling plaster at kitchen	No Asbestos Detected
26. Rough ceiling plaster classroom 3	No Asbestos Detected
27. Rough wall plaster at classroom 13	No Asbestos Detected
28. Rough wall plaster at teacher's room	No Asbestos Detected
29. Vermiculite at rear attic	No Asbestos Detected
30. Vermiculite at rear attic	No Asbestos Detected
31. Vapor barrier under vermiculite at rear attic	No Asbestos Detected
32. Vapor barrier under vermiculite at rear attic	No Asbestos Detected
33. Debris at entrance of rear attic	30% Asbestos
34. Layered pipe insulation at front attic	No Asbestos Detected
35. Pipe insulation at front attic	30% Asbestos
36. Boiler insulation at boiler room	70% Asbestos
37. Boiler insulation at boiler room	50% Asbestos
38. Soft ceiling plaster at classroom 2	2% Asbestos
39. Soft ceiling plaster at hallway by classroom 2	2% Asbestos
40. Soft ceiling plaster at stage	2% Asbestos

#### **Observations and Conclusions:**

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

Refer to the AHERA Management Plan for condition of ACM.

1. Vermiculite insulation was found not to contain asbestos. However, per EPA the insulation must be treated as asbestos unless sampling proves that the insulation was not mined in Libby, Montana. Sampling for Barium will also be required.
2. Exterior door framing caulking was found to contain asbestos.
3. Interior framing caulking for exterior multi-glass block window was found to contain asbestos.
4. 9" x 9" Vinyl floor tile was found to contain asbestos.
5. Pipe insulation was found to contain asbestos.
6. Boiler insulation was found to contain asbestos.
7. Soft ceiling plaster was found to contain asbestos.
8. Duct insulation was assumed to contain asbestos.
9. Ceramic tile grout and adhesive were assumed to contain asbestos.
10. Glue holding blackboard/chalkboard was assumed to contain asbestos.
11. Hidden ACM pipe and hard joint insulation was assumed to exist.
12. Damproofing on exterior and foundation walls was assumed to exist and assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle.
13. Roofing material was assumed to contain asbestos.
14. Insulation within boiler was assumed to contain asbestos.
15. Unit vent grille caulking was assumed to contain asbestos.
16. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

**Polychlorinated Biphenyls (PCB’s)-Electrical Equipment and Light Fixtures:**

**Observations and Conclusions:**

Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB’s and mercury. Ballasts in light fixtures were assumed not to contain PCB’s since there were labels indicating that “No PCB’s” was found. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.

**PCB’s in Caulking:**

PCB’s are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB’s was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB’s are a class of chemicals made up of more than 200 different compounds. PCB’s are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB’s are not very soluble in water, and they do not break down easily in the environment. PCB’s also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB’s have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB’s if PCB’s level exceed 50 mg/kg (ppm). An abatement plan might also be required.

**Observations and Conclusions:**

Building materials and caulking were assumed to contain PCB’s.

**Lead Based Paint (LBP):**

**Observations and Conclusions**

LBP was assumed to exit on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

**3.0 COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition projects.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout:	Vinyl Floor Tiles and Mastic	14,000 SF	70,000.00
	Soft Ceiling Plaster	25,000 SF	250,000.00
	Interior Windows	4 Total	1,000.00
	Hidden Pipe and Hard Joint Insulation	Unknown	25,000.00
	Blackboards/Tackboards	120 Total	36,000.00
	Light Fixtures	500 Total	25,000.00
	Miscellaneous Hazardous Materials/Hidden ACM	Unknown	25,000.00
Boiler Room	Pipe and Hard Joint Insulation	400 LF	10,000.00
	Boiler Insulation	175 SF	5,250.00
	Duct Insulation	25 SF	1,000.00
	Boiler	1 Total	12,500.00

Location	Material	Approximate Quantity	Cost Estimate (\$)
Attic	Vermiculite Insulation	12,000 SF	72,000.00
	Pipe and Hard Joint Insulation	1,500 LF	60,000.00
	Debris	50 SF	1,500.00
Exterior	Unit Vent Grilles	1 Total	500.00
	Doors	15 Total	3,000.00
	Glass Block Windows	2 Total	5,000.00
	Roofing Materials	Unknown	50,000.00
	Transite Sewer Pipes	Unknown <sup>1</sup>	50,000.00
	Damproofing on Walls	Unknown <sup>1</sup>	225,000.00
Estimated costs for NESHAP Inspection			15,000.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			129,250.00
<b>TOTAL:</b>			<b>\$ 1,070,000.00</b>

<sup>1</sup>: Part of total demolition.

**4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:**

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA /600/R-93/116.

Inspected By:



Leonard Busa  
 Asbestos Inspector  
 (AAC-0745)

## 5.0 LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.



## Asbestos Identification Laboratory.

165 New Boston St., Ste 227  
Woburn, MA 01801  
781-932-9600

Web: [www.asbestosidentificationlab.com](http://www.asbestosidentificationlab.com) Email:  
[mikemanning@asbestosidentificationlab.com](mailto:mikemanning@asbestosidentificationlab.com)



**Batch: 67453**

Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

Project Information

*Primrose Hill School,  
Barrington,  
RI*

*Method: BULK PLM ANALYSIS,  
EPA/600/R-93/116*

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning  
Owner/Director

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Primrose Hill School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 749532	Window frame	Bsmt. Front Exterior	tan	Non-Fibrous 100	None Detected
2 749533	Win. Fr.	Front Exterior	gray	Non-Fibrous 100	None Detected
3 749534	In Seams	Front Exterior	gray	Non-Fibrous 100	None Detected
4 749535	Win. Fr.	Pkg Lot Side Exterior	gray	Non-Fibrous 100	None Detected
5 749536	In Seams	Pkg. Lot Side Exterior	gray	Non-Fibrous 100	None Detected
6 749537	Door Fr.	Boiler Rm. Exterior	gray	Non-Fibrous 95	Detected Chrysotile 5
7 749538	Int. Dr. for Multi-glass Block Windo	Exterior	tan	Non-Fibrous 97	Detected Chrysotile 3
8 749539	Ext. Fr. for Multi-glass Block Windo	Exterior	tan	Non-Fibrous 97	Detected Chrysotile 3
9 749540	9" VT	Bsmt. C'rm. Storage	red	Cellulose 2 Non-Fibrous 92	Detected Chrysotile 6
10 749541	Mastic #9	Bsmt. C'rm. Storage	black	Cellulose 2 Non-Fibrous 98	None Detected
11 749542	Old 12" Gray VT	Kitchen Storage	gray	Cellulose 2 Non-Fibrous 98	None Detected
12 749543	Mastic #11	Kitchen Storgew	black	Cellulose 2 Non-Fibrous 98	None Detected
13 749544	Old 12" Gray VT	Rear C'Rm. Stage	gray	Cellulose 2 Non-Fibrous 98	None Detected
14 749545	M #13	Rear C'Rm. Stage	black	Cellulose 2 Non-Fibrous 98	None Detected
15 749546	New 12" W/Colors	Cafe Storage	gray	Cellulose 2 Non-Fibrous 98	None Detected
16 749547	Adh. Leveler #15	Cafe Storage	yellow	Cellulose 2 Non-Fibrous 98	None Detected

Sampled: August 04, 2021 Received: August 06, 2021 Analyzed: August 06, 2021

Monday 09 August 2021

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Primrose Hill School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 749548	New 12" W/Colors	Rear Stage Areas	gray	Cellulose 2 Non-Fibrous 98	None Detected
18 749549	New 12"	Addition Exit Hall	tan	Cellulose 2 Non-Fibrous 98	None Detected
19 749550	Mastic #18	addition Exit Hall	black	Cellulose 2 Non-Fibrous 98	None Detected
20 749551	Gray Sink Damproofing	C'Rm. #2	gray	Cellulose 15 Non-Fibrous 85	None Detected
21 749552	New 2x4 SAT	Hall by C'Rm. 2	gray	Fiberglass 40 Cellulose 40 Non-Fibrous 20	None Detected
22 749553	New 2x2 SAT	C'Rm. 2	gray	Fiberglass 40 Cellulose 40 Non-Fibrous 20	None Detected
23 749554	Int. Win. Gl.	Main Office	gray	Cellulose 5 Non-Fibrous 95	None Detected
24 749555	Smooth Ceiling Plaster (CP)	Kitchen Stor.	white	Non-Fibrous 100	None Detected
25 749556	CP	Kitchen	multi	Non-Fibrous 100	None Detected
26 749557	Rough CP	C'Rm. 13 @ Coatrack	gray	Non-Fibrous 100	None Detected
27 749558	Rough Wall Plaster	C'Rm. 13	gray	Non-Fibrous 100	None Detected
28 749559	Rough WP	Teachers Room	gray	Non-Fibrous 100	None Detected
29 749560	Vermiculite	Rear Attic	tan	Cellulose 2 Non-Fibrous 98	None Detected
30 749561	Vermiculite	Rear Attic	tan	Cellulose 2 Non-Fibrous 98	None Detected
31 749562	Vapor Barrier under Vermiculite	Rear Attic	multi	Fiberglass 15 Cellulose 40 Non-Fibrous 45	None Detected
32 749563	Vapor Barrier under Vermiculite	Rear Attic	multi	Fiberglass 15 Cellulose 40 Non-Fibrous 45	None Detected

Sampled: August 04, 2021 Received: August 06, 2021 Analyzed: August 06, 2021

Monday 09 August 2021

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Primrose Hill School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 749564	TSI Debris	Entrance of Rear Attic	multi	Cellulose 50 Non-Fibrous 20	Detected Chrysotile 30
34 749565	Layered Paper PI	Front Attic	brown	Cellulose 95 Non-Fibrous 5	None Detected
35 749566	Mag. PI	Front Attic	white	Non-Fibrous 70	Detected Chrysotile 10 Amosite 20
36 749567	Boiler Insul.	Boiler Room	gray	Non-Fibrous 30	Detected Chrysotile 70
37 749568	Mag PI	Boiler Room	white	Non-Fibrous 50	Detected Chrysotile 30 Amosite 20
38 749569	Soft Clg Plaster	C'Rm. 2	gray	Cellulose 15 Non-Fibrous 83	Detected Chrysotile 2
39 749570	Soft Clg Pla.	Hall by C'Rm. 2	gray	Cellulose 15 Non-Fibrous 83	Detected Chrysotile 2
40 749571	Soft Clg Pla.	Stage	gray	Cellulose 15 Non-Fibrous 83	Detected Chrysotile 2

Sampled: August 04, 2021      Received: August 06, 2021      Analyzed: August 06, 2021

Monday 09 August 2021



1-2

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Burlington, R.I. Building Name: Primrose Hill School

Sample	Result	Description of Material	Sample Location
1		window frame	Best front <u>EXTERIOR</u>
2		win fr	front
3		in SEAMS	front
4		win fr	ply lat side
5		in seams	ply lat side
6		Door fr	Back room
7		win fr for multi-glass block window	
8		EXT. fr " "	" "
9		9" vt	Best in storage
10		mastic #9	" " "
11		old 12" grey vt	Kitchen storage
12		mastic #11	" "
13		old 12" grey vt	rear in, storage
14		Ⓜ #13	
15		new 12" w/ colors	CAFE storage
16		adh/leveler #15	" "
17		new 12" w/ colors	rear storage areas
18		NEW 12"	addition exit hall
19		mastic #18	" " "
20		grey sink damp proofing	cm #2

Reported By: Samuel Busse Date: 8-4-21 Due Date: 24-hr  
 Received By: Owner Date: 8-6-21

202

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Burlington, R.I. Building Name: Penrose Hill School

Sample	Result	Description of Material	Sample Location
21		new 2x2 SAT	hall by c/m-2
22		new 2x4 SAT	c/m-2
23		int. w/ingl	main office
24		smooth ceiling, plaster (cp)	Kitchen Stor.
25		CP	Kitchen
26		rough CP	c/m-3 @ contract
27		rough wall plaster	c/m-13
28		rough w/p	Teachers room
29		vermiculite	rear attic
30		vermiculite	rear attic
31		vapor barrier under vermiculite	rear attic
32		vapor barrier " "	" rear attic
33		T&I debris	entrance of rear attic
34		layered paper (P1)	Front attic
35		mg (P1)	Front attic
36		Boiler Insul	Boiler room
37		mg (P1)	Boiler room
38		soft cty plaster	c/m 2
39		soft cty pla	hall by c/m-2
40		soft cty, pla	stage

Reported By: Frank Buss Date: 8-4-21 Due Date: 24 hr  
 Received By: W. M. M. Date: 8-6-21



# **FACILITY DEFICIENCY BUDGET ESTIMATES**

**PRIMROSE HILL SCHOOL**

Client: Barrington Public School		Project Name: Primrose Hill Elementary School		RIDE Stage 1					
Project Manager: Sean Schmigle		Project #: 21023							
Site Name: Primrose		School Size: 36,000 sf		Year Built: 1954					
		PRIORITY TOTAL							
Item	System	1	2	3	4	5	Total	% of Total	
1	Site			2	2		\$ 193,750.00	3%	
2	Roofing			SEE STRUCTURAL			\$ -	0%	
3	Structural			18			\$ 863,750.00	13%	
4	Exterior			SEE STRUCTURAL			\$ -	0%	
5	Interior		1	4		1	\$ 279,375.00	4%	
6	Haz Mat			22			\$ 1,340,000.00	21%	
7	Mechanical		2	4			\$ 342,500.00	5%	
8	Electrical	1		3			\$ 95,000.00	1%	
9	Plumbing			8			\$ 922,280.00	14%	
10	Fire & Life Safety	1					\$ 163,805.00	3%	
11	Technology			29			\$ 1,779,375.00	27%	
12	Conveyances			1			\$ 218,750.00	3%	
13	Specialties				1		\$ 312,500.00	5%	
** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**							<b>Total</b>	<b>\$ 6,511,085.00</b>	<b>100%</b>

Site

	Deficiency	Category	Unit	Priority	Repair Cost		
1	No ADA access to athletic fields	Barrier to Accessibility	Lump	3	\$ 37,500.00	19%	
2	Playground ADA access	Barrier to Accessibility	Lump	3	\$ 62,500.00	32%	
3	Auditorium Steps	Barrier to Accessibility	Lump	4	\$ 62,500.00	32%	
4	Some Concrete walks could be replaced	Capital Renewal	Lump	4	\$ 31,250.00	16%	
** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**					Subtotal	\$ 193,750.00	100%

Roofing

	Deficiency	Category	Unit	Priority	Repair Cost	
1	See Structural For Additional Roofing Items					
2						
3						
4						
** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**					Subtotal	\$ -

Structural

	Deficiency	Category	Unit	Priority	Repair Cost	
1	In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration	Capital Renewal	Lump	3	\$ 68,750.00	8%
2	In several locations throughout the building, the floor finish is cracked and/or raised which may create a tripping hazard. These cracks may be due to the cracking of the concrete slab underneath due to settlement and/or insufficient control joints. It is recommended that the floors be repaired as necessary to provide a smooth walking surface.	Capital Renewal	Lump	3	\$ 31,250.00	4%
3	In various locations throughout the building, the cmu walls have vertical cracks through the cmu and at the mortar joints. These vertical cracks do not appear to currently pose a structural hazard and most likely resulted from horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$ 62,500.00	7%
4	In various locations throughout the building, the cmu walls have step cracks at the mortar joints. These step cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant	Capital Renewal	Lump	3	\$ 68,750.00	8%
5	At the brick masonry chimney in the boiler room there appears to be crack that has already been repaired. It is recommended that this crack be periodically monitored to confirm that the repair holds, and the crack does not worsen	Capital Renewal	Lump	3	\$ 22,500.00	3%
6	At various locations in the lower level there are cracks in the concrete double tees. These cracks most likely resulted from vertical displacement due to settlement of the foundations. Although these cracks do not appear to currently pose a structural hazard, it is recommended that the concrete be repaired using high-performance concrete repair products	Capital Renewal	Lump	3	\$ 43,750.00	5%
7	In the lower level at the boiler room a tee in the concrete double tee ceiling has cracked and spalled due to the installment of the pipe hanger. It is recommended that the concrete be repaired using high-performance concrete repair products and that this area be periodically monitored to determine if these cracks are dormant, and spalling does not worsen.	Capital Renewal	Lump	3	\$ 12,500.00	1%
8	In the lower level storage room adjacent to the boiler room, there are several cracks in the concrete foundation walls. These cracks do not currently pose a structural hazard. However, these cracks may allow water and air infiltration into the building envelope. It is recommended that these cracks be periodically monitored to determine if these cracks are dormant	Capital Renewal	Lump	3	\$ 18,750.00	2%
9	There are various locations of concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls using high performance concrete repair products	Capital Renewal	Lump	3	\$ 43,750.00	5%
10	At several locations, efflorescence was observed on the exterior brick walls. Efflorescence is a sign of water infiltration into the building envelope which may lead to damage of the walls, building structure behind the walls and the interior finishes. To extend the life of the exterior brick walls and to protect the building structure and the interior finishes, it is recommended that a building envelope specialist be consulted to determine the source of water infiltration and the required repairs	Capital Renewal	Lump	3	\$ 62,500.00	7%
11	There are some locations where the joint sealants at the exterior wall has aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed sealant at these joints	Capital Renewal	Lump	3	\$ 43,750.00	5%
12	At some of the lintels, the adjacent brick and mortar joints have cracked, potentially from rusting of the lintel. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls as well as areas of rust on the lintels be cleaned, primed, and finished with an appropriate coating system and weep holes be installed	Capital Renewal	Lump	3	\$ 47,500.00	5%
13	There are few locations of cracking at the exterior brick walls. While they do not currently appear to be a structural hazard, the cracks possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired	Capital Renewal	Lump	3	\$ 43,750.00	5%
14	There are few locations of major cracking at the exterior brick walls. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced	Capital Renewal	Lump	3	\$ 60,000.00	7%
15	Spalled concrete at the concrete window sills were observed at various locations. While they do not currently appear to be a structural hazard, the cracks are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. It is recommended that the spalled concrete be repaired using high-performance concrete repair products	Capital Renewal	Lump	3	\$ 42,500.00	5%
16	There are few locations on the exterior walls where water damage was observed, possibly from leaks in pipes or the roof drainage system. While this damage does not currently appear to be a structural hazard, the pipes should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage	Capital Renewal	Lump	3	\$ 47,500.00	5%
	There are few locations on the exterior windows where the glass has been broken. While they do not					

18	Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years	Capital Renewal	Lump	3	\$	81,250.00	9%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>863,750.00</b>	<b>100%</b>

Exterior							
Deficiency	Category	Unit	Priority	Repair Cost			
1	See Structural For Additional Exterior Items				\$	-	
2					\$	-	
3					\$	-	
4					\$	-	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>-</b>

Interior							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Exterior Metal Door Replacement	Capital Renewal	2	\$	4,375.00	1.57%	
2	Replace Classroom Entry Doors	Acoustics	20	\$	37,500.00	13.42%	
3	Interior Door Replacement	Capital Renewal	5	\$	9,375.00	3.36%	
4	Repoint Interior CMU Walls	Capital Renewal	100 SF	\$	3,125.00	1.12%	
5	Install Classroom Vision Panels	Educational Adequacy	36,000 SF	\$	90,000.00	32.21%	
6	General Painting & Coatings	Capital Renewal	36,000 SF	\$	135,000.00	48.32%	
7				\$	-	0.00%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>279,375.00</b>

Haz Mat							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Vinyl Floor Tiles and Mastic	Haz. Materials	14,000 SF	\$	87,500.00	6.53%	
2	Soft Ceiling Plaster	Haz. Materials	25,000 SF	\$	312,500.00	23.32%	
3	Interior Windows	Haz. Materials	4 Total	\$	1,250.00	0.09%	
4	Hidden Pipe and Hard Joint Insulation	Haz. Materials	Unknown	\$	31,250.00	2.33%	
5	Blackboards/Tackboards	Haz. Materials	120 Total	\$	45,000.00	3.36%	
6	Light Fixtures	Haz. Materials	500 Total	\$	31,250.00	2.33%	
7	Miscellaneous Hazardous Materials/Hidden ACM	Haz. Materials	Unknown	\$	31,250.00	2.33%	
8	Boiler Room - Pipe and Hard Joint Insulation	Haz. Materials	400 LF	\$	12,500.00	0.93%	
9	Boiler Room - Boiler Insulation	Haz. Materials	175SF	\$	6,562.50	0.49%	
10	Boiler Room - Duct Insulation	Haz. Materials	25 SF	\$	1,250.00	0.09%	
11	Boiler Room - Boiler	Haz. Materials	1 Total	\$	15,625.00	1.17%	
12	Attic - Vermiculite Insulation	Haz. Materials	12,000 SF	\$	90,000.00	6.72%	
13	Attic - Pipe and Hard Joint Insulation	Haz. Materials	1,500 LF	\$	75,000.00	5.60%	
14	Attic - Debris	Haz. Materials	50 SF	\$	1,875.00	0.14%	
15	Exterior - Unit Vent Grilles	Haz. Materials	1 Total	\$	625.00	0.05%	
16	Exterior - Doors	Haz. Materials	15 Total	\$	3,750.00	0.28%	
17	Exterior - Glass Block Windows	Haz. Materials	2 Total	\$	6,250.00	0.47%	
18	Exterior - Roofing Materials	Haz. Materials	Unknown	\$	62,500.00	4.66%	
19	Exterior - Transit Sewer Pipes	Haz. Materials	Unknown	\$	62,500.00	4.66%	
20	Exterior - Dampproofing on Walls	Haz. Materials	Unknown	\$	281,250.00	20.99%	
21	Estimated costs for NESHAP inspection	Haz. Materials		\$	18,750.00	1.40%	
22	Estimated costs for Design, Construction Monitoring and Air Sampling Services	Haz. Materials		\$	161,562.50	12.06%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>1,340,000.00</b>

Mechanical							
Deficiency	Category	Unit	Priority	Repair Cost			
1	The existing boiler is original to the building and part its useful life expectancy. In addition, with only one boiler there is no redundancy if the boiler fails. Two new gas fired condensing boilers (95% Efficient) with all new accessories should be installed.	Capital Renewal	Lump	2	\$	92,500.00	27.01%
2	The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit	Capital Renewal	Lump	3	\$	15,000.00	4.38%
3	A new air handling unit serving the Cafeterium should be replaced. We recommend the system provide dehumidified displacement air similar to the classrooms as described above.	Capital Renewal	Lump	3	\$	43,750.00	12.77%
4	Air handling units that provide ventilation air to corridors, offices, etc should be replaced and supply dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to each respective space.	Capital Renewal	Lump	3	\$	62,500.00	18.25%
5	Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.	Capital Renewal	Lump	2	\$	81,250.00	23.72%
6	The ATC system should be further upgraded. Provide new DDC controls for all equipment such as fin tube, unit heaters, Unit Ventilators, AHU, pumps, etc.	Capital Renewal	Lump	3	\$	47,500.00	13.87%
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>342,500.00</b>

Plumbing							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Domestic Water Service Backflow Preventer missing floor drain	Code Compliance	1	\$	15,000.00	1.63%	
2	Domestic Water Piping not fully insulated	Code Compliance	1	\$	5,000.00	0.54%	
3	Replace Existing Domestic Water Piping with new	Capital Renewal	36,000 SF	\$	292,500.00	31.71%	
4	Provide De-coupled hot water heater for building fixtures	Functional Def	1	\$	20,000.00	2.17%	
5	Sanitary Waste Piping Replacement	Capital Renewal	36,000 SF	\$	225,000.00	24.40%	
6	Replace Old Plumbing Fixtures	Capital Renewal	10	\$	312,500.00	33.88%	
7	Provide Floor Drains at main toilet rooms	Functional Def	2	\$	750.00	0.08%	
8	Replace Janitor Service Sinks	Capital Renewal	4	\$	51,530.00	5.59%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>922,280.00</b>

Electrical							
Deficiency	Category	Unit	Priority	Repair Cost			
1	New electric service equipment and distribution including new panels throughout the building.	Capital Renewal	Lump	3	\$	18,750.00	19.74%
2	Lighting should be upgraded to all high efficiency LED type.	Capital Renewal	Lump	3	\$	3,125.00	3.29%
3	New addressable fire alarm system to be provided with voice evacuation.	Capital Renewal	Lump	1	\$	62,500.00	65.79%
4	Additional receptacles including new dedicated power panels with TVSS protection to be provided.	Capital Renewal	Lump	3	\$	10,625.00	11.18%
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$</b>	<b>95,000.00</b>

Fire & Life Safety							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Install new NFPA-13 Fire Suppression System	Code Compliance	36,000 SF	1	\$	37,805.00	73.08%

**Technology**

Deficiency	Category	Unit	Priority	Repair Cost		
1	Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A	Technology	Lump	3	\$ 270,000.00	15.17%
2	Install properly sized cooling units in the MDF to protect the lifespan of the active electronics within the room	Technology	Lump	3	\$ 225,000.00	12.64%
3	Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations	Technology	Lump	3	\$ 405,000.00	22.76%
4	Replace all zip ties with Velcro hook and loop straps	Technology	Lump	3	\$ 6,250.00	0.35%
5	The MDF is in a shared space. Consider relocating to a dedicated space	Technology	Lump	3	\$ 6,250.00	0.35%
6	Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within	Technology	Lump	3	\$ 12,500.00	0.70%
7	Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system	Technology	Lump	3	\$ 15,000.00	0.84%
8	Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage	Technology	Lump	3	\$ 12,500.00	0.70%
9	Replace all associated cabling	Technology	Lump	3	\$ 31,250.00	1.76%
10	Install public address strobes in the Multi-Purpose Room to notify students and staff of an announcement	Technology	Lump	3	\$ 22,500.00	1.26%
11	Install exterior horns around the building for full coverage of the exterior, including the fields	Technology	Lump	3	\$ 25,000.00	1.40%
12	Install a phone to public address interface so that any phone in the building can access the public address system	Technology	Lump	3	\$ 18,750.00	1.05%
13	Install Public Address Phone handsets or call switches to open two-way communication with the main office	Technology	Lump	3	\$ 10,625.00	0.60%
14	Replace the Simplex Wired Master Clock with a modern, wireless Master Clock	Technology	Lump	3	\$ 12,500.00	0.70%
15	Replace all hardwired clocks in all spaces with Wireless clocks	Technology	Lump	3	\$ 25,000.00	1.40%
16	Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators	Technology	Lump	3	\$ 25,000.00	1.40%
17	BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTS, IP, Cellular). Consider adding door position switches on all exterior doors	Technology	Lump	3	\$ 31,250.00	1.76%
18	It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly	Technology	Lump	3	\$ 18,750.00	1.05%
19	The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a "Single Pane of Glass" to manage all cameras throughout the district	Technology	Lump	3	\$ 62,500.00	3.51%
20	Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary	Technology	Lump	3	\$ 43,750.00	2.46%
21	Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras	Technology	Lump	3	\$ 31,250.00	1.76%
22	Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists	Technology	Lump	3	\$ 25,000.00	1.40%
23	Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area	Technology	Lump	3	\$ 43,750.00	2.46%
24	Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders	Technology	Lump	3	\$ 43,750.00	2.46%
25	Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter	Technology	Lump	3	\$ 31,250.00	1.76%
26	Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department	Technology	Lump	3	\$ 18,750.00	1.05%
27	Replace all TV's in classrooms with Interactive Displays	Technology	Lump	3	\$ 62,500.00	3.51%
28	Install a dedicated sound system in each classroom with the following functionality: Speakers throughout the space; Wireless microphones for students and teachers; Priority Override / Public Address Mute for muting the speakers during a Public Address announcement; Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired; Hardwired AV connections from teacher's desk to interactive display	Technology	Lump	3	\$ 93,750.00	5.27%
29	Replace the existing Local Sound System in the multi-purpose room with a system capable integrating the following: Two to four hardwired microphone locations; Two to four wireless microphones; Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution; Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection; Multi-Media / CD / Bluetooth inputs; Control panels capable of muting, program audio volume control, system power on / off; public Address integration ensuring that announcements are always heard throughout the space; An ADA compliant Assisted Listening System; Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video; Consider mounting all AV devices in a dedicated AV cabinet on stage	Technology	Lump	3	\$ 150,000.00	8.43%
				<b>Subtotal</b>	<b>\$ 1,779,375.00</b>	<b>100.00%</b>

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

**Conveyances**

Deficiency	Category	Unit	Priority	Repair Cost		
1	Elevator is missing	Barrier to Accessibility	3	\$ 218,750.00	100%	
2						
3						
4						
				<b>Subtotal</b>	<b>\$ 218,750.00</b>	<b>100%</b>

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

**Specialties**

Deficiency	Category	Unit	Priority	Repair Cost		
1	Replace Cabinetry in Classrooms and Labs	Capital Renewal	21	\$ 312,500.00	100%	
2						
3						
4						
				<b>Subtotal</b>	<b>\$ 312,500.00</b>	<b>100%</b>

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*





**FACILITY CONDITIONS  
ASSESSMENT**  
SOWAMS SCHOOL

## SOWAMS SCHOOL



Site Plan from Google Earth, North is page up.

### SITE

Sowams Elementary School site was visited for site review on August 9, 2021, by two members of the KBA Landscape Department. These visits took place on a cloudy humid day, with temperatures in the 80's.

Overall, the site is in good condition. There were no immediate pressing issues in either the Priority 1 or 2 categories at the school.

Priority 3 issues include no ADA compliant access to either of the baseball fields or the bleachers at baseball field (5 row seating). Surfacing at the Playground is wood chips or sand with no current compliant access to the structures. This is especially prevalent at the swing sets.

Priority 4 issues include pavement striping that needs to be redone and some drainage issues. In parking lot, a Catch basin (CB) is being bypassed completely due to heaving of the asphalt. The asphalt needs to be removed and replaced and the CB needs to be reset to prevent erosion on to the softball field. Lawns around the playground are in poor condition. In the baseball fields, warning strips at the outfield fences and at the backstop are missing.

# TRAFFIC ANALYSIS

## School Traffic Report

School: Sowams School, 364 Sowams Road, Barrington

Phone # 401-247-3180

Participant: Youry McKeon

Date: 06/17/2021

Time: 7:30am-8:15am

## Student Drop-Offs by Parents

Number of Cars: 126 Cars

Stacking out on Road: No

How many cars can stack on the property: 25

## Bus Drop-Off

Number of Buses (Large): 2

(Small): Had in Past

Number of Students on Bus: Bus #1 2 students

Bus #2 1 student

Bicyclists: 7

Are there bicycle racks on site? Yes

Can accommodate how many bikes? 40 Front, 20 Rear

Walkers: 35

Are there sidewalks? Yes

Paths through the woods? Yes, there is a paved path to Neighborhood

## Drop Off:

Adequate Signage at Drop-off? Yes

No idling signage at Bus loop? No

ADA drop-off? Yes

Any Students being dropped off? Used to take bus Pre covid. Is now dropped off.

## Any specific areas that appear problematic on-site?

Crosswalk want more visible street and front of school. More signage parents do not pull up all the way when dropping off student.

## Are buses and parents mixing or are the drop-offs separate?

Separate

## Are parents dropping off only or walking in?

Both Drop off and walking in. Depending if they go through line or parking on road or side of school. Principal and 2 teachers our front waiting for kids.

Jim Callahan School Principal

1. Principal started a separate drop off time that has helped with car back up In the Morning.
2. Many cars speed passed school. More signs and or Speed Bumps?

## Parking Chart

	Regular Spaces	HC spaces	Total
South Lot	35	2	37
West Lot	21	-	21
Total	56	2	58

Overall aerial photo of the Sowams Elementary School at 364 Sowams Road, looking Northwest, taken by Odeh Engineers with a drone.



## STRUCTURE

Odeh Engineers has conducted a RIDE Stage I & II structural inspection of the Sowams Elementary School building located at 364 Sowams Road in Barrington, RI. This evaluation included a visual inspection of the building interior and exterior. The following is a report of our findings and recommendations.

## STANDARD OF CARE

Please note that the results of this evaluation are limited to cursory visual observations of the accessible areas only. While Odeh Engineers have reviewed the areas of interest, nearly all the structural framing is concealed by architectural finishes or was otherwise inaccessible, and therefore unforeseen damage or conditions may be present. The findings of this report represent our Professional opinion based on the information available to us at this time.

Odeh Engineers understand that this report is intended for use only by the Kaestle Boos Associates, and their client, to determine the existing structural condition of the existing building. In any budgeting, adequate contingency for hidden or unforeseen conditions that are not identified or are worse than described herein must be carried.

Please note that all dimensions of the existing structure given herein are approximate and based on measurements or estimates of representative members. Dimensions can and will vary and must be considered as "+/-" in all cases (whether or not the "+/-" symbol is indicated).

## ACTIONS TAKEN

We took the following actions to complete this investigation:

- On Tuesday, August 17, 2021, Ryan Conley, from Odeh Engineers, conducted a walk-through tour of the buildings and made visual observations of the existing structure and its condition.
- On Tuesday, August 17, 2021, Griffin Tarmy, from Odeh Engineers, flew a DJI Mavic 2 Pro unmanned aircraft (drone) around the building and took photos of the building's exterior and performed a walk-through of the building's exterior along with Ryan Conley
- Prepared this written summary of findings and recommendations.
- Discussed with and reviewed by M. David Odeh

## DOCUMENTS REVIEWED

- No existing drawings have been provided to Odeh Engineers for review.



Overall aerial photo of the Sowams Elementary School at 364 Sowams Road taken by Odeh Engineers with a drone. North is oriented rightward on the page.

## EXISTING BUILDING DESCRIPTION

The existing Sowams Elementary School, located at 364 Sowams Road in Barrington, Rhode Island, is a single-story building with higher roofs for the auditorium and library. The roofs are mostly flat with two gabled roofs located at the classrooms in the northern addition.

## FOUNDATIONS

Based upon what could be see above grade, the foundation walls appear to be cast in place concrete.

Photo of typical cast-in-place concrete foundation wall



## ROOF FRAMING

Based upon what was visible, the roof framing appears to be open web steel joists with either tectum panels or metal deck, supported by steel beams and columns or concrete masonry unit (cmu) walls.



Photo of open web steel joist and tectum roof panels and bearing upon a steel beam.

## EXTERIOR WALLS

The exterior walls appear to be either a cmu veneer or a brick veneer system with interior cmu walls. The cmu walls appear to be the support for roof framing system.



Photo showing typical exterior cmu.

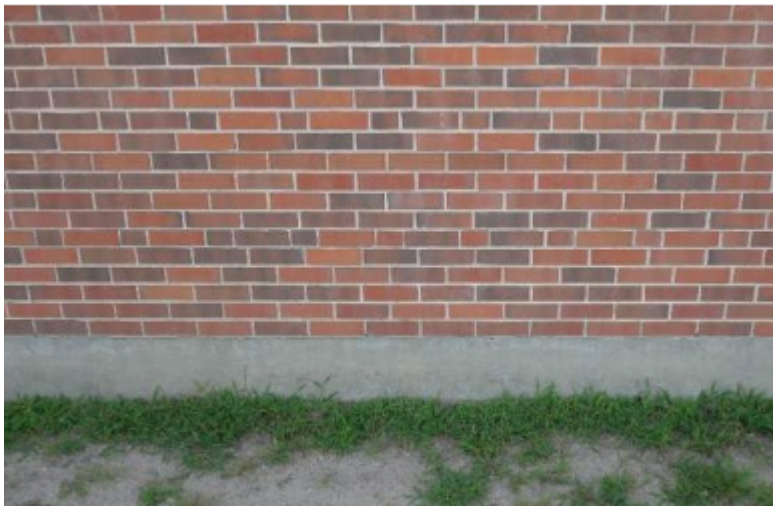


Photo showing typical exterior brick veneer.



Photo showing typical interior cmu wall.

## LATERAL FORCE RESISTANCE SYSTEM

A distinct lateral force resistance system, such as steel bracing, was not observed. With the predominant use of cmu bearing walls throughout the building, the cmu walls are most likely behaving as the lateral force resistance system.

## OBSERVED BUILDING DEFICIENCIES AND POTENTIAL PROBLEM AREAS

The following structural deficiencies and potential problem areas were observed by Odeh Engineers, Inc. during our due walk-through inspection of the existing building. Additionally, based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.





### WATER STAINED CEILING TILES.

Comments and recommendations: In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration.



Additional photo showing the water stained ceiling tile located in the office adjacent to the library. The cause of the water infiltration should be immediately investigated due to its proximity to electrical boxes.



### **VERTICAL CRACKS IN CMU AT JOISTS BEARING POINT.**

Comments and recommendations: At various locations in the auditorium, the cmu walls have vertical cracks at the joist bearing points. These cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



### **WATER DAMAGED TECTUM PANELS IN THERAPY ROOM**

Comments and recommendations: In the therapy room adjacent to the boiler room, there are several water stained and damaged tectum roof panels.



## VERTICAL, HORIZONTAL AND STEP CRACKING IN CMU WALLS.

Comments and recommendations: In various locations, the cmu walls have vertical, horizontal, and step cracks through the cmu and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely Resulted from a combination of vertical displacement due to foundation settlement and horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.



*Photo of open web steel joist and tectum roof panels and bearing upon a steel beam.*



*Additional photo showing a step crack in a cmu wall.*



### **RUSTED STRUCTURAL STEEL IN THERAPY AND STORAGE ROOMS.**

Comments and recommendations: Several structural steel members in the therapy room and storage room are rusting, likely caused by water infiltration from the roof. While it currently does not appear to post a structural hazard, the rust should be removed from the structural steel and be re-finished with an appropriate coating system.



### **FOUNDATION WALL CRACKS AND SPALLING IN BOILER ROOM.**

Comments and recommendations: There are various locations of minor concrete cracking and spalling at the foundation walls in the boiler room. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls.

## REPORTED LEAKS FROM SKYLIGHTS.

Comments and recommendations: Faculty reported that there have been leaks from the skylights located in the new addition. There were no obvious signs of water infiltration during Odeh's investigation, but these areas should be monitored to determine if, and from where, water is infiltrating and to ensure it does not worsen.



*Additional photo of the skylight corner where possible water infiltration may be occurring.*

## CRACKING AND SPALLING OF CORNERS OF CONCRETE WALLS.

Comments and recommendations: There are various locations of concrete cracking and spalling at the corners of the exterior concrete walls. These cracks and spalls do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks and spalls in the exterior concrete walls.



*Additional photo of cracking and spalling at the corners of the exterior concrete walls..*



### CONCRETE WALL CRACKING.

Comments and recommendations: There are various locations of concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls using high performance concrete repair products.



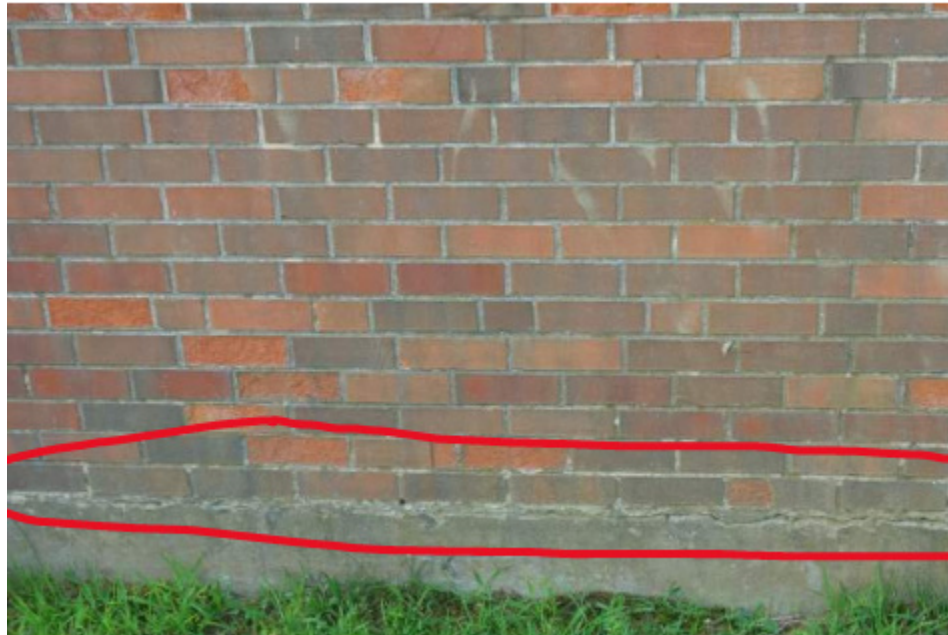
### CONCRETE WALL SPALLING.

Comments and recommendations: There are various locations of concrete spalling at the exterior concrete walls. These spalls do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the spalls in the exterior concrete walls using high performance concrete repair products.



### MORTAR JOINT AND CONCRETE CRACKING AT TOP OF CONCRETE FOUNDATION WALL

Comments and recommendations: There are various locations of cracking at the top of exterior concrete walls where it meets the exterior brick masonry. These cracks do not currently appear to pose a structural hazard. To extend the life of the exterior concrete and masonry walls and to protect the building, it is recommended the previous repairs are removed that a maintenance program be established to repair the cracks in the exterior concrete and masonry walls.





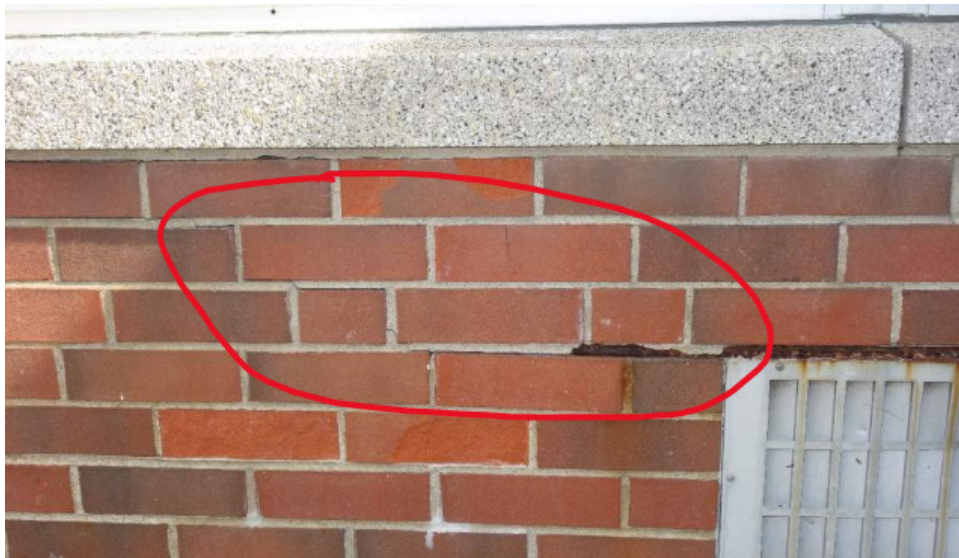


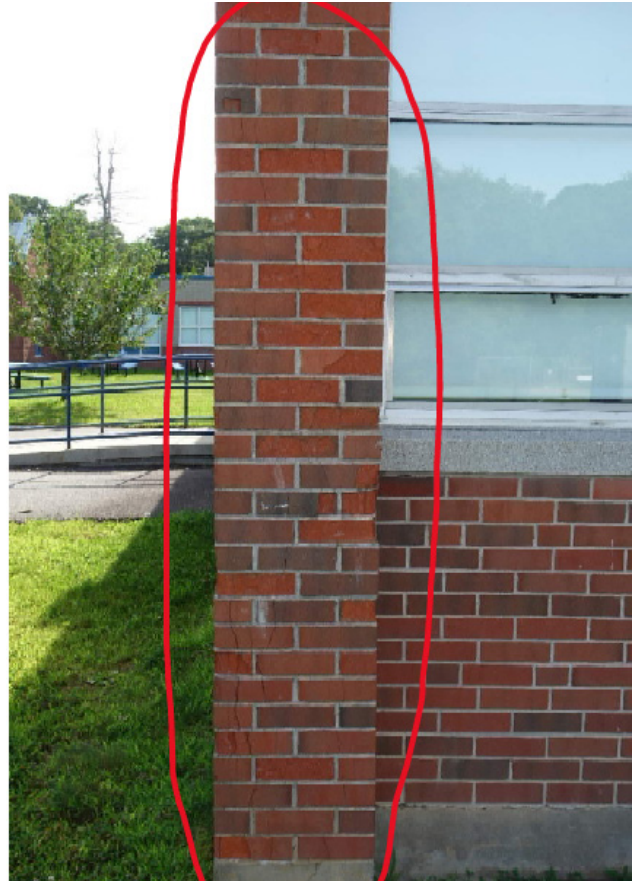
### **JOINT SEALANTS AT THE EXTERIOR WALL HAVE AGED AND FAILED.**

Comments and recommendations: There are some locations where the joint sealants at the exterior wall has aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed sealant at these joints.

### **BRICK CRACKING AT VENTS.**

Comments and recommendations: At most of the wall vents, the adjacent brick and mortar joints have cracked. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls.





### **CRACKING IN BRICK MASONRY.**

Comments and recommendations: There are various locations of cracking at the exterior brick walls. While they do not currently appear to be a structural hazard, the cracks possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired.

### LINTEL RUSTING.

Comments and recommendations: The lintels are showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. A lack of weep holes will trap water behind the brick which could further accelerate rusting. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system and weep holes be installed.



### SPALLING IN BRICK MASONRY.

Comments and recommendations: There are many locations brick of spalling in the exterior brick walls, where the either the majority, or the entire front face, of the brick has spalled off. While they do not currently appear to be a structural hazard, the spalls may allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced.



Additional photo of spalling in exterior brick masonry walls. This photo is also used to show cracking in the masonry walls for D.15, however, here the spalling is highlighted.

### MAJOR BRICK MASONRY SPALLING.

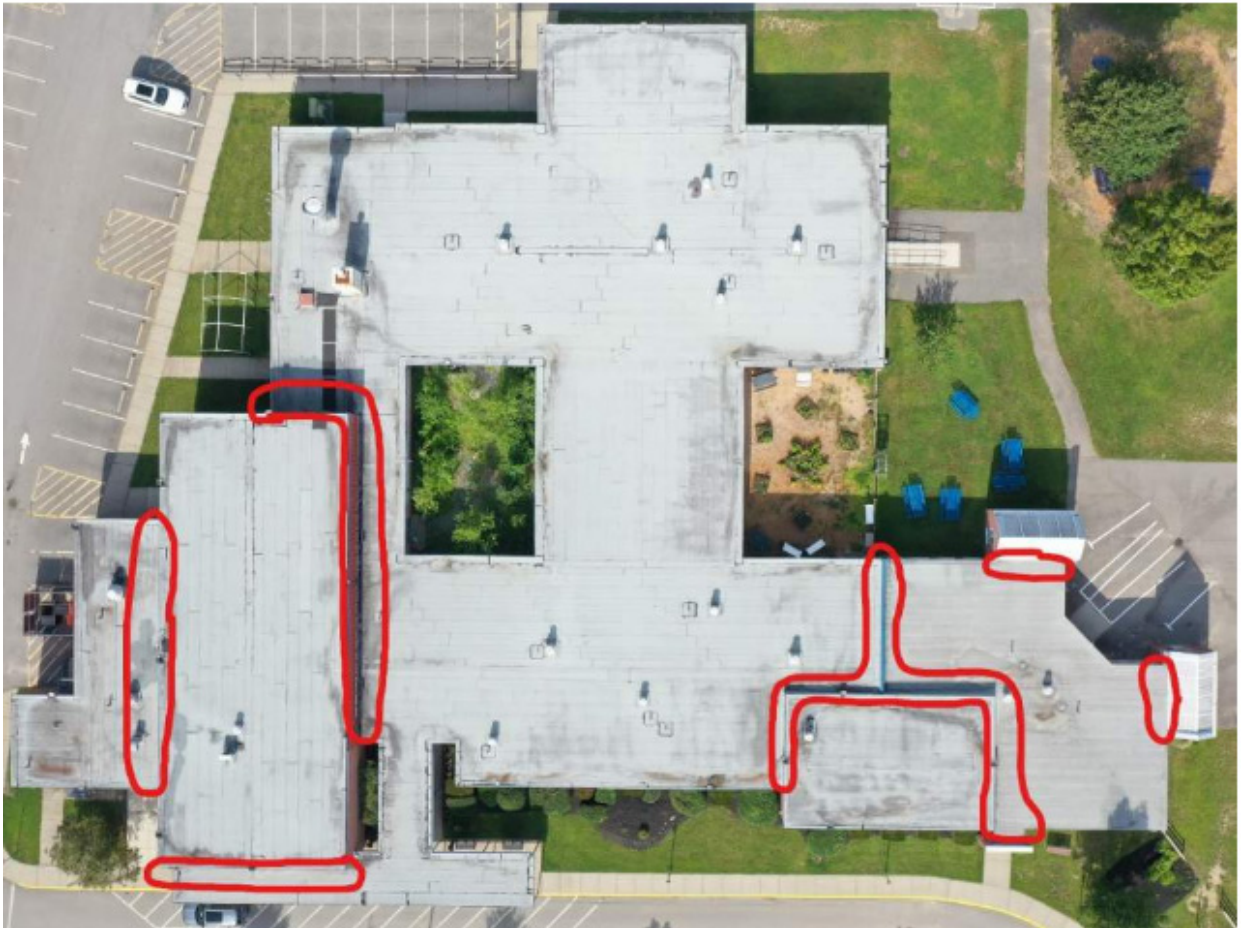
Comments and recommendations: There are few locations of major spalling at the exterior brick walls. While they do not currently appear to be a structural hazard, the spalls are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure or interior finishes. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced.



## WATER DAMAGE TO EXTERIOR CONCRETE AND BRICK MASONRY WALLS.

Comments and recommendations: There are a few locations where water damage was observed to the exterior concrete and brick masonry walls, possibly from leaks in the roof drainage. While this damage does not currently appear to be a structural hazard, the roof drainage should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage.





### SNOW DRIFT AT HIGH/LOW ROOF AND RTU AREAS

Comments and recommendations: Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years.

### CONCLUSION

In summary, it is Odeh Engineer's professional opinion that the existing building is in good and serviceable condition, however we noticed a few localized issues which will need to be addressed to maintain the serviceability of the structure. Please refer to section D. Observed Building Deficiencies and Potential Problem Areas for descriptions and recommendations.

## MECHANICAL SYSTEMS

### EXECUTIVE SUMMARY:

1. Sowams School was built in 1964 and renovated in the early 90's. The existing HVAC equipment installed in the school is generally past its useful life expectancy.

### HEATING SYSTEM:

1. The building is heated by three (3) standard efficiency gas-fired boilers, manufactured by Ajax Boiler Inc, model WG-1750-S. Each boiler has a natural gas input of 1,750 MBH, with an output of 1,400 MBH making them 80% efficient. The three boilers have serial numbers of 91-43522, 91-43527 and 91-4358x (last digit unknown). The first two numbers indicate the year the boilers were manufactured.
2. The three boilers are vented to a common breaching system that rises vertically up through the roof. The vent terminates approximately 8 feet above roof.
3. There is one large combustion air louver for the three gas fired boilers and the domestic hot water equipment within the mechanical room. The louver has multiple dampers and actuators. On a call for equipment to fire, a damper will open allowing outdoor combustion air to the space. Multiple dampers open depending on which equipment is firing.
4. There is a separate outdoor air intake louver associated with the generator. A damper opens when the generator runs.
5. Heating hot water is circulated to unit ventilators, unit heaters, convectors, air handlers, fin-tube radiation, etc. via two floor mounted end suction pumps. The heating hot water is distributed via insulated piping throughout the building. The end suction pumps are manufactured by Taco, model FI2008 (180 GPM) and were installed at the same time as the boilers. The pumps appear to be in fair condition.
6. The heating plant is equipped with all necessary hydronic accessories, such as air separators, expansion tanks and chemical treatment for proper operation. The accessories are of the same vintage as the boilers and should be replaced when the boilers are replaced.

### AIR CONDITIONING:

The building is not fully air conditioned. Individual ductless split systems or window air conditioners are installed where air conditioning is required. There is a ductless split system serving the library and a few ductless split systems serving select classrooms where needed. The administration offices utilize window air conditioners.



Existing Toilets (Typ 3)



Boiler Condition (Typ 3)



Indoor Wall Evaporative Unit Serving Library



Outdoor Condensing Unit

## VENTILATION:

1. Wall mounted classroom unit ventilators are utilized for the heating and ventilation requirements for most classroom spaces. The unit ventilators were installed during then 1990's renovation. Ventilation air is introduced to each of these units through an exterior wall-mounted louver. Each unit is equipped with a hot water heating coil, supply fan and filter. The classroom spaces are provided with exhaust systems to remove any outdoor air that is introduced through the unit ventilators which helps maintain a neutral pressure within the space. Classroom (exhaust) is served by various central roof mounted exhaust fan systems. The unit ventilators installed are generally past their expected useful service life.
2. Restrooms, janitor's closets and utility rooms are exhausted by roof mounted exhaust fans. In total, there are approximately eighteen exhaust fans located at roof level.



*Classroom Unit Ventilator*



*Outdoor Air Intake Louver Associated with Unit Vent*

## AIR HANDLING UNITS:

There is one (1) indoor air handling unit located in a storage room behind the stage that provides heating and ventilation to the Cafetorium. The system has its own outdoor air intake louver and utilizes heating hot water from the boiler system. The outdoor air introduced to the Cafetorium is exhausted in the kitchen. The air handler is past it's useful life expectancy.



*Cafetorium Air Handler*



*Cafetorium Air Handler*



**KITCHEN:**

1. The kitchen is a full working kitchen. The main kitchen hood does not appear to be code compliant; the hood is not provided with any fire suppression system, and the exhaust fan does not appear to be UL 762 compliant. There is no dedicated make-up air system provided for the kitchen. Make-up air is provided by the air handling unit described above that serves the cafetorium. The dishwasher is not provided with any means of exhausting steam generated at the station.
2. The kitchen utilizes cabinet unit heaters to provide heat, whereas there is no dedicated air handling unit for this space.



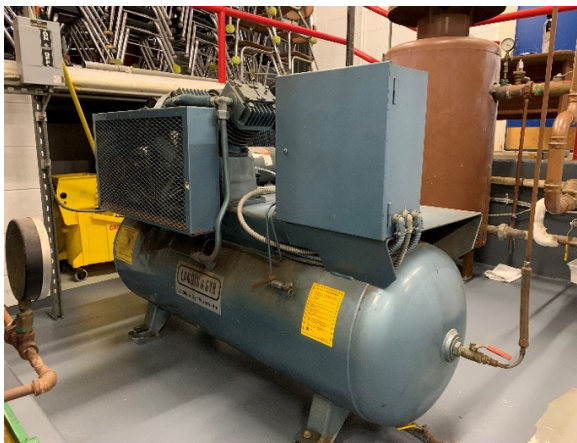
Picture of Inside of Kitchen Hood



No Hood or Exhaust System at the Dishwasher

**CONTROLS:**

1. The building HVAC system utilizes a combination of pneumatic controls and a Johnson Metasys Building Automation System.
2. A duplex compressor with refrigerant air dry system is installed in the mechanical room and provides compressed air to individual components within the mechanical room as well as components throughout the building. The pneumatic compressor appears to be in fair condition.
3. The Pneumatic system is obsolete and is not reliable or dependable. The DDC system (Johnson Metasys) is not a complete building management system, and provides limited controls for air handlers, unit ventilators, boilers, and pumps. It is recommended that all pneumatic systems be removed and the DDC system expanded to incorporate full building control.



Pneumatic Compressor



Powers System 600 Control Panel

**RECOMMENDATIONS:**

1. The existing boilers are 30 years old and part their useful life expectancy. New gas fired condensing boiler (95% Efficient) with all new accessories should be installed.
2. The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit.
3. A new air handling unit serving the Cafetorium should be replaced. We recommend the system provide dehumidified displacement air similar to classrooms as described above.
4. Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.
5. The ATC system should be further upgraded to convert all remaining pneumatic controls with new DDC controls. Provide new DDC controls for all equipment such as fin tube, unit heaters, Unit Ventilators, AHU, pumps, etc.

## ELECTRICAL SYSTEMS

### EXECUTIVE SUMMARY:

1. The facility was originally constructed in 1964 with a renovation completed during the 1990's. Most of the electrical systems are of original vintage to the building and although functioning, some have outlived their intended useful life.
2. The power distribution system in the school is part of the original building construction and is generally in poor condition. The main portion of the power distribution system is located in the school's boiler room. Interior lighting generally consists of fluorescent fixtures with the exception of some recently replaced LED fixtures. Although the lights were replaced, the original wiring and controls look to be reused. The fire alarm system although it is addressable and functioning, the system no longer meets current codes, does not have voice evac, and does not provide adequate coverage.
3. The emergency lighting system consists of battery units but do not provide adequate coverage in corridors and various other spaces.
4. Refer to recommendations section herein for upgrades to individual systems. We would however recommend replacement of all the Electrical systems under a full renovation.

### ELECTRIC SERVICE(S):

1. Three phase primary runs overhead from Sowams Road to a pole along side of the school parking lot toward the back. From there the primary runs underground to the utility transformer located just outside of the boiler room.
2. The building is fed from the pole with (1) 3" underground conduit (no spares) connecting to the transformer outside of the boiler room. The utility meter is located on the exterior wall outside the boiler room next to the transformer. The service is rated at 400 amperes, 120/208V, 3 phase, 4 wire.



*Service Riser Pole*



*Utility Transformer*



*Service Meter*

## ELECTRICAL DISTRIBUTION SYSTEM:

The original building main distribution panel is located in the boiler room and is rated at 400 amperes 120/208v, 3 phase, 4w with a main breaker. The panel is newer and backfeeds local as well as remote panels throughout the facility, these panels are generally located in non-electrical spaces. The original building panels were manufactured by ITE and are in poor condition.



*Main Switchboard*



*Main Dist. Panel in Boiler Room*



*Branch Circuit Panels*

## BRANCH CIRCUITS/WIRING DEVICES:

1. The wiring method appears to be AC cable, MC cable and pipe and wire.
2. In general the quantity of receptacles is minimal throughout the facility occasionally resulting in the need to use extension cords.
3. The typical classroom has one receptacle per wall. Some classrooms have added surface wiremold raceways.
4. In general most receptacles near sinks have GFI protection. Some of the boiler room & kitchen receptacles are not GFI protected. The use of extension cords is ongoing in numerous locations.
5. Receptacles throughout the facility are not tamper-resistant type currently required by code.



*Extensive Extension Cord Use*



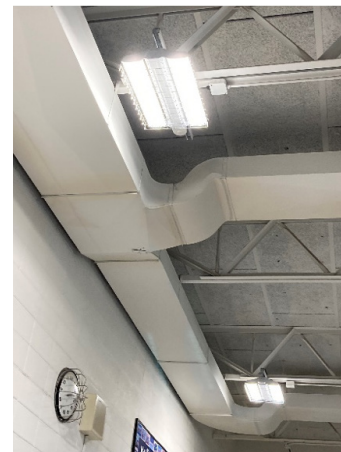
*Limited Receptacles with Power Strip Use*

### LIGHTING SYSTEM:

1. Interior lighting is typically 2x4 recessed troffers with acrylic lens, with fluorescent lamps, and electronic ballasts in areas with dropped ceilings and acoustical ceiling tiles. Some locations including the gym have 2x4 fixtures with LED sources. Most other locations consist of surface wraparound fixtures with fluorescent lamps and electronic ballasts. In general, interior lighting is in fair condition. The LED fixtures are in good condition.
2. Multi-purpose room lighting consists of LED high bay fixtures with lens and wire guards and with integral occupancy sensors.
3. Kitchen has surface vapor tight fixtures with fluorescent lamps.
4. Corridor lighting is controlled with local line voltage switches. There is no automated lighting control system or daylight harvesting sensors installed in the school.
5. Exterior lighting consists of newer building mounted wall packs and surface canopy fixtures with LED sources. These fixtures do appear to provide adequate light around the entry doors. There are no pole mounted lights for parking areas, driveways, or egress paths.



*Typical Classroom Lighting with Recessed Troffers*



*Multi-Purpose Room Lighting*



*Toilet Room with Surface Wraparounds*



*Exterior Wall Sconce*



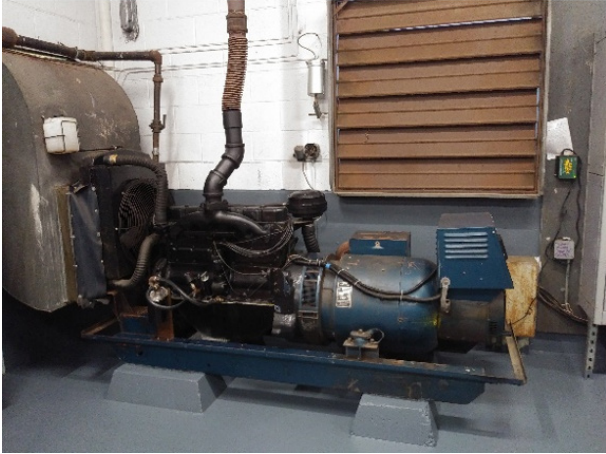
*LED Surface Canopy Lights*



*LED Exterior Wall Pack*

### **EMERGENCY POWER SYSTEM:**

There is a 50kW gas generator located at this facility inside of the boiler room. Emergency lighting is accomplished using central emergency battery units with remote heads as well as self-contained battery units. Exit signs are LED with battery back-up. The condition varies on these units from fair to good. A test was not done to confirm code compliance at the time of the visit. Various corridors & kitchen do not have emergency lighting.



Natural Gas Generator



Automatic Transfer Switch



Exterior Door Remote Heads



Stick-On Exit Sign



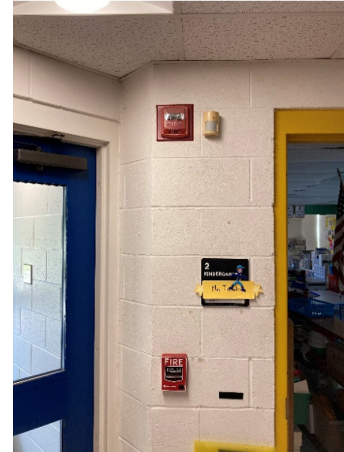
Emergency Battery Unit

## FIRE ALARM SYSTEM:

1. The fire alarm system consists of an addressable Notifier control panel with horn/strobe notification appliances. The school has full coverage for detection. The system is in fair condition however it does not meet current code. Educational use group is required to have a voice evacuation system. The Sigcom radio master box is located inside the main lobby adjacent to the control panel. Heat detectors located above ceiling are tied to alarm indicating lights on the wall.
2. Strobes are ADA compliant however coverage is inadequate. Classrooms have mini-horns but no strobes.
3. Corridor doors as well as most classroom doors are held open with magnetic door holders. The stage local sound system does not mute upon fire alarm activation.



*Fire Alarm Control Panel*



*Horn/Strobe & Pull Station*



*Above Ceiling Heat Detector Indicators*



**MISCELLANEOUS:**

1. There is no BDA, Bi-Directional Antenna System, installed in the facility for the Police and Fire Dept. First responders.
2. There is no Lighting Protection System installed.

**RECOMMENDATIONS:**

1. The existing electrical service should be upgraded and provide a capacity of the building load based on 10 watts per square foot power consumption. A new pad-mounted transformer with new primary and secondary services should be provided.
2. All of the existing non-led lighting in the building should be upgraded to LED fixtures with integral dimming drivers for reduction in energy consumption and reoccurring lamp replacement costs.
3. An addressable lighting control system with occupancy and daylight dimming sensors should supplement the new LED lighting to further increase energy savings.
4. Where the budget does not allow for an addressable lighting control system, local occupancy sensors should be installed in all spaces and local daylight photo dimmers installed where natural daylight is available.
5. Exterior lighting should be replaced with LED/dark sky compliant fixtures. Pole lights should be provided in parking lot areas & roadways.
6. A test should be performed to determine the compliance of the current emergency battery units providing the required emergency egress lighting. Exterior egress lighting should be provided at all egress doors.
7. An exterior diesel or natural gas stand-by generator within a weatherproof sound attenuated enclosure should be provided along with two transfer switches to replace the existing generator configuration. The generator should serve emergency lighting, freeze protection, selected HVAC equipment, refrigeration, communications and security systems at a minimum. Where it is designated to serve emergency lighting, a second transfer switch will be required with a dedicated life safety panel within a 2-hour rated closet to serve selected egress lights and exit signs.
8. The existing fire alarm system should be upgraded to an addressable system with voice evacuation in order to comply with current code. A mass notification system should be provided integral to the fire alarm system.
9. A system of lightning protection should be provided when the roof is replaced. The system will be installed in compliance with the provisions of the latest "Code for Protection Against Lightning" for buildings as adopted by the National Fire Protection Association and the Underwriters' Laboratories, Inc. for a UL Master Label System. The lightning protection equipment will include air terminals, conductors, conduits, fasteners, connectors, ground rods, etc.
10. Provide a BDA, Bi-Directional Antenna System.
11. Upgrade all existing infrastructure cabling with Category 6 cabling.
12. Provide dedicated rooms for MDF and IDF locations with A/C and cable tray.
13. Connect MDF, IDFs, and Security/Card Access systems to a Central UPS system with the UPS connected to the generator.
14. Replace all non tamper resistant receptacles located at 5'-6" above floor or lower, with tamper resistant receptacles.
1. Provide GFI protection for receptacles within 6' of water sources, kitchen & boiler room.

## PLUMBING & FIRE PROTECTION SYSTEMS

The plumbing systems at the 32,700 square foot sowams school (built in 1956) in general are in working order. The major systems, although working adequately at this time, are approaching the end of their useful life. In addition, many of the systems are not up to the latest industry standards, best practices, and current codes. If it is anticipated that major modifications are planned for the building, the plumbing systems should be considered for an overall upgrade. Also, a complete fire protection system shall be installed as the building does not currently have a fire sprinkler system.

### DOMESTIC WATER PIPING SYSTEM

Description – the domestic water piping system (where observable) consists of primarily copper pipe & fittings with soldered joints. Much of the observable piping appears original to the building.

Condition – the domestic water piping although working appears in poor condition. The piping appears original to the building and beyond its useful life.

Deficiencies: Some of the water piping is not insulated as required by current energy codes.

Recommendation – the domestic water piping should be replaced, where visible and a replacement plan for concealed piping should be developed until all of the existing piping is replaced with new. Insulate all domestic water piping in accordance with the energy code.

### DOMESTIC HOT WATER

Description – the domestic hot water system for the building is provided by a stand-alone gas fired hot water heater with an indirect storage tank. The domestic hot water has a master mixing valve to set the temperature and a circulation pump to circulate the water for the main building loop. The kitchen has a dedicated 80-gallon electric hot water tank to provide hot water to the kitchen fixtures.

Condition – the hot water mixing valve and circulator have been recently replaced and appear in good working condition. The boiler is aged and appears beyond its useful life.

Deficiencies:

1. Some of the hot water piping is not insulated as required by current energy codes.
2. Piping near the hot water heater is experiencing corrosion and beginning to leak.

Recommendations – provide a new de-coupled hot water heater.

## **GAS PIPING SYSTEM**

Description – the gas piping system at the building consists of a 4-inch natural gas service to the building with meter and regulator outside of the building near the boiler room. The gas piping enters the boiler room and transitions to 4-inch pipe size welded black steel piping and feeds the boiler and hot water heater.

Condition – the gas piping appears in good working order.

Sanitary waste and vent system

Description – the sanitary waste and vent system where visible appears to consist mainly of pvc pipe and fittings.

Condition – the piping where visible appeared to be in satisfactory condition. The under-ground piping was not visible. Much of the sanitary waste, and vent piping appeared original to the building and is approaching the end of its service life.

Recommendations = where current piping is exposed, replace sanitary, waste, and vent piping with new piping. A replacement plan for concealed and under slab piping should be developed until all of the existing piping is replaced with new.

## **STORM SYSTEM**

Description – the storm system consists of roof drains piped to external gutter downspouts.

Condition – the observable components of the storm system appears in good working condition.

## **TOILET ROOMS**

Description – the main toilet room plumbing fixtures have been updated approximately 10-15 years ago. Newer fixtures are available that would improve water efficiency and aesthetics.

Condition – the fixtures are in satisfactory condition. The water closets and urinals appear in better condition than the lavatory sinks.

Recommendation – provide fixture upgrades for the lavatory fixtures with new faucets at a minimum.

## **MISCELLANEOUS PLUMBING FIXTURES & EQUIPMENT**

Description – the kitchen fixtures, drinking fountain, classroom sinks, and service sinks, in general appear in good working.

Condition – most of the miscellaneous plumbing fixtures appear in good condition and in working order. The janitor closets have service sinks.

Recommendation – replace service sinks with new.

## **FIRE SUPPRESSION SYSTEMS**

Description – there is no fire sprinkler system protecting the building.

Recommendation – provide a fully sprinklered fire suppression system in accordance with latest adoption of nfpa-13.

## TECHNOLOGY

### INTRODUCTION

This section includes an existing conditions report and recommendations for the Technology Communication Cabling Infrastructure, Public Address and Master Clock systems, Electronic Physical Security Systems, and Audio Visual Systems.

Floor plans notating the location and name of each technology room are included in the appendix of this report. These plans were provided by Barrington Public Schools IT. The nomenclature (MDF, IDF1, IDF2, etc.) for each space in this survey is based on those plans.

### COMMUNICATION CABLING INFRASTRUCTURE

#### FINDINGS

1. Sowams School has (1) MDF and (2) IDFs. It should be noted that the MDF could not be reviewed during the existing conditions site visit. The MDF is located within the boiler room.
2. Horizontal Ethernet cable is a mix of Category 5e, Category 6, and Category 6A, with a mix of Plenum and Riser Cable.
3. The IDF1 does not have dedicated power. Power for IDF2 was not visible.
4. Grounding and bonding protection for all low voltage devices within the MDF and all IDF's is not in place.
5. Dedicated cooling units for IDF1 & IDF2 is not in place.
6. Most penetrations / sleeves for cable pathways could not be observed, but many that were visible did not have proper firestopping. Firestop all penetrations.

#### RECOMMENDATIONS:

1. Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A.
2. Install properly sized cooling units in the MDF and IDF's to protect the lifespan of the active electronics within the room.
3. Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.
4. Replace all zip ties with Velcro hook and loop straps.
5. The MDF is in a shared space. Consider relocating to a dedicated space.
6. Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within.

## PUBLIC ADDRESS & MASTER CLOCK

### FINDINGS

1. Sowams School has an antiquated Simplex Public Address and Master Clock system. Some classrooms have American Time clocks, although it could not be determined if these are integrated into a modern, wireless master clock system. Photo of typical classroom PA speaker and typical Clock below:



Photo of typical classroom PA speaker and typical Clock

### RECOMMENDATIONS:

1. Replace the Simplex Public Address system with a scalable, modern, Analog / IP hybrid public address system.
2. Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage.
3. Replace all associated cabling.
4. Install public address strobes in the Multi-Purpose Room to notify students and staff of an announcement.
5. Install exterior horns around the building for full coverage of the exterior, including the fields.
6. Install a phone to public address interface so that any phone in the building can access the public address system.
7. Install Public Address Phone handsets or call switches to open two-way communication with the main office.
8. Replace the Simplex Wired Master Clock with a modern, wireless Master Clock.
9. Replace all hardwired clocks in all spaces with Wireless clocks.



Photo of quartz clock in IDF

## III. PHYSICAL ELECTRONIC SECURITY

### FINDINGS

1. Sowams School has the following manufacturers for the Physical Security Systems:
  - a. Intrusion Detection – Sonitrol
  - b. Access Control – Keyscan
  - c. Video Surveillance – Uniview with (2 – 4) analog cameras
2. There is a spot monitor in the main office. It was not functioning during the site visit.
3. Sowams School currently has a “Lockdown” system, controlled via a wall-mounted button. BPS facilities confirmed that when engaged, the lockdown button makes an announcement over the Public Address system and auto-dials out to central monitoring (Sonitrol) to relay the alarm to first responders.
4. The front entrance has access control. An antiquated two-way communication device and card reader is installed.



Photo of lockdown button

## RECOMMENDATIONS:

1. Access Control:
  - a. Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators.
2. Intrusion Detection:
  - a. BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTs, IP, Cellular). Consider adding door position switches on all exterior doors.
  - b. It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly.
3. Video Surveillance:
  - a. The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a “Single Pane of Glass” to manage all cameras throughout the district.
  - b. Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary.
  - c. Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras.
  - d. Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists.
4. Lockdown System:
  - a. Consider replacing the lockdown button for a larger button with clear text noting “Lockdown”. Consider installing multiple buttons throughout the administration and reception area.
  - b. Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders.
  - c. Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter.
  - d. Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department.



Photo of communication device and card reader

## IV. AUDIO-VISUAL SYSTEMS

### FINDINGS

1. Classroom Audio Visual Findings
  - a. Classrooms have wall mounted TV's and Apple TV's. Cable is not properly dressed and protected, and classrooms do not have visible external speakers. Photo of typical classroom teaching wall below:
2. Multi-Purpose Room Audio Visual Findings:
  - a. There is an antiquated electric screen.
  - b. An AV headend or cabinet could not be located.
  - c. An assisted listening system was not visible.
  - d. There are (2) speakers mounted on each side of the stage. Photo of speakers below:



Photo of typical classroom teaching wall



Photo of speakers

### RECOMMENDATIONS

1. Classroom Audio Visual Recommendations
  - a. Replace all TV's with Interactive Displays
  - b. Install a dedicated sound system in each classroom with the following functionality:
    1. Speakers throughout the space
    2. Wireless microphones for students and teachers
    3. Priority Override / Public Address Mute for muting the speakers during a Public Address announcement.
    4. Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired
    5. Hardwired AV connections from teacher's desk to interactive display
2. Multi-Purpose Room AV Recommendations:
  - a. Replace the existing Local Sound System with a system capable integrating the following:
    1. Two to four hardwired microphone locations
    2. Two to four wireless microphones
    3. Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution
    4. Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection
    5. Multi-Media / CD / Bluetooth inputs
    6. Control panels capable of muting, program audio volume control, system power on / off
    7. Public Address integration ensuring that announcements are always heard throughout the space
    8. An ADA compliant Assisted Listening System
    9. Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video.
    10. Consider mounting all AV devices in a dedicated AV cabinet on stage.

# **AUTOMATIC TEMPERATURE CONTROLS REPORT**

## **SOWAMS SCHOOL**





Automatic Temperature Controls, Inc. - Sowams Building Survey																		
Room #	Location	Name	Type	Make	Airflow Readings (CFM)			Room Size			Supply		Exhaust /Return		Total Mechanical Air Movement Filtered and ODA	Total ACH with Outside Air	Temporary Measure to meet ROI	Notes
					Supply	100% ODA	Normal	100% ODA	Normal	100% ODA	Normal	Length	Width	Height				
HEALTH HALL	Office	PURPOSE	BB			0.00	0.00	0.00	12.00	8.70	1670.40	0.00	0.00	0.00	0.00	0.00	Open window with fan blowing out or in on low adding 2.5 to 3 ACH	2 - 16X40
CUSTODIAN KITCHEN	Office	MODLINE	UH			0.00	0.00	0.00	11.00	8.70	1052.70	0.00	0.00	0.00	0.00	0.00	Air Scrubber	9 - 13X40
CAFE			AHU	MESBITT		2422.00	3457.00	0.00	57.00	16.00	79344.00	1.83	2.61	0.00	1.83	2.61	Air Scrubber	
CUSTODIAN HALL	Closet	Next to RM25	Convactor			0.00	64.00	64.00	6.00	4.00	192.00	0.00	0.00	0.00	20.00	20.00		
Facility	Rest Room	Rest Room	Exhaust			0.00	174.00	174.00	10.00	8.00	640.00	0.00	0.00	0.00	16.31	16.31	Air Scrubber	cleaned exhaust grille
lamination	Room	Room	Exhaust			0.00	199.00	199.00	10.00	8.00	800.00	0.00	0.00	0.00	14.93	14.93		
Boys	Rest Room	Rest Room	Exhaust			0.00	281.00	281.00	11.50	6.00	552.00	0.00	0.00	0.00	30.54	30.54		cleaned exhaust grille
Girls	Rest Room	Rest Room	Exhaust			0.00	175.00	175.00	11.50	6.00	552.00	0.00	0.00	0.00	19.02	19.02		
HALL	Outside	Boys Rest Room	Convactor															
HALL	Outside	Girls Rest Room	Convactor															
HALL	Outside	Outside	Convactor			0.00	0.00	0.00	126.00	8.00	8064.00	0.00	0.00	0.00	0.00	0.00	Air Scrubber	SSCG1.SU heating valve actuator replaced
HALL	Outside	Outside	Convactor															
MAIN	Entrance	Ceiling	Convactor	Dunham Bush		0.00	0.00	0.00	24.00	30.00	5760.00	0.00	0.00	0.00	0.00	0.00	Air Scrubber	
Boys	Rest Room	RM8 Hall	Convactor			0.00	244.00	244.00	21.00	12.00	2192.40	0.00	0.00	6.68	6.68	6.68		
Girls	Rest Room	RM8 Hall	Convactor			0.00	240.00	240.00	21.00	12.00	2192.40	0.00	0.00	6.57	6.57	6.57		
HALL	Door 4D	3	CUH			0.00	0.00	0.00	18.00	10.00	1440.00	0.00	0.00	0.00	0.00	0.00	Air Scrubber	
Roof		EF1	Exhaust			0.00	0.00	0.00	8.00	8.00	512.00	0.00	0.00	0.00	0.00	0.00	Air Scrubber	
Roof		EF2	Exhaust															
Roof		EF3	Exhaust															
Roof		EF4	Exhaust															
Roof		EF5	Exhaust															
Roof		EF6	Exhaust															
Roof		EF7	Exhaust															
Roof		EF8	Exhaust															
Roof		EF9	Exhaust															
Roof		EF10	Exhaust															
Roof		EF11	Exhaust															
Roof		EF12	Exhaust															
Roof		EF13	Exhaust															
Roof		EF14	Exhaust															
Roof		EF15	Exhaust	Garnes														Does Not Run
Roof		EF16	Exhaust	Garnes														Does not run no longer used



# HAZARDOUS MATERIALS REPORT

SOWAMS SCHOOL

**FINAL REPORT  
FOR LIMITED  
HAZARDOUS MATERIALS IDENTIFICATION  
STUDY  
AT THE  
SOWAMS ELEMENTARY SCHOOL  
BARRINGTON, RHODE ISLAND**

PROJECT NO: 221 371.00

Survey Dates:  
August 6, 2021

CONDUCTED BY:

**UNIVERSAL ENVIRONMENTAL CONSULTANTS  
12 Brewster Road  
Framingham, MA 01702**



August 10, 2021

Mr. Sean L. Schmigle AIA, NCARB  
*Senior Architect*  
KAESTLE BOOS ASSOCIATES, INC  
10 Chestnut Street, Suite 301  
Foxborough, MA 02035

Reference: Report for Limited Hazardous Materials Identification Study  
Sowams Elementary School, Barrington, Rhode Island

Dear Mr. Schmigle:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for the limited Hazardous Materials Identification Study at the Barrington Sowams Elementary School, Barrington, Rhode Island.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

A handwritten signature in blue ink, appearing to read "Ammar M. Dieb", is written over a horizontal line.

\_\_\_\_\_  
Ammar M. Dieb  
President

UEC:\221 371.00\Sowams Elementary School Report.DOC

Enclosure

## 1.0 INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-two years of experience.

UEC was contracted by Kaestle Boos Associates, Inc. to conduct the following services at the Sowams Elementary School, Barrington, Rhode Island:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's Caulking Inspection.
- Lead Based Paint Inspection.

This is a limited inspection, and the report should not be used to renovate or demolish the building. Inspection per the Environmental Protection Agency (EPA) NESHAP regulations will be required to be performed.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by a Rhode Island licensed asbestos inspector Mr. Leonard J. Busa (AAC-0745) and analyzed by a Rhode Island licensed laboratory Asbestos Identification Laboratory, Woburn, MA.

Samples results are attached.

## 2.0 FINDINGS:

### **Asbestos Containing Materials (ACM):**

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition, a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations.

No additional suspect or accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities. It is recommended that once the scope of work has been determined, a full comprehensive survey including destructive testing is performed.

### **Number of Samples Collected:**

Thirty-five (35) bulk samples were collected from materials suspected of containing asbestos, including:

### **Type and Location of Suspect Material**

1. Exterior window framing caulking
2. Exterior window framing caulking
3. Exterior window framing caulking
4. Exterior window framing caulking
5. Exterior window glazing caulking
6. Exterior window glazing caulking
7. Exterior unit vent grille caulking

8. Exterior unit vent grille caulking
9. Exterior window framing caulking
10. Joint compound at main office
11. Joint compound at classroom 12
12. Interior window glazing caulking
13. Interior window glazing caulking
14. Interior glazing caulking for window in wood door
15. Interior glazing caulking for window in wood door
16. Smooth ceiling plaster at lobby work room
17. White/grey 12" x 12" vinyl floor tile at storage room behind stage
18. Mastic for white/grey 12" x 12" vinyl floor tile at storage room behind stage
19. White/grey 12" x 12" vinyl floor tile at classroom 4 storage
20. Mastic for white/grey 12" x 12" vinyl floor tile at classroom 4 storage
21. White/grey 12" x 12" vinyl floor tile at custodian room
22. Mastic for white/grey 12" x 12" vinyl floor tile at custodian room
23. New blue 12" x 12" vinyl floor tile at addition lobby hall
24. Mastic for new blue 12" x 12" vinyl floor tile at addition lobby hall
25. Thick black paper under hardwood floor at stage
26. Adhesive for glazed wall tile at kitchen
27. Grout for glazed wall tile at kitchen
28. Smooth ceiling plaster at kitchen
29. Smooth ceiling plaster at hallway by cafeteria
30. Rough ceiling plaster at boiler room
31. Rough ceiling plaster at boiler room
32. Roofing debris on top of ceiling tile at hallway by cafeteria
33. Roofing debris on top of ceiling tile at hallway by classroom 7
34. Roofing debris on top of ceiling tile at hallway by classroom 22
35. Joint compound at kitchen storage room

### **Sample Results:**

#### **Type and Location of Suspect Material**

#### **Sample Result**

1. Exterior window framing caulking	No Asbestos Detected
2. Exterior window framing caulking	No Asbestos Detected
3. Exterior window framing caulking	No Asbestos Detected
4. Exterior window framing caulking	No Asbestos Detected
5. Exterior window glazing caulking	No Asbestos Detected
6. Exterior window glazing caulking	No Asbestos Detected
7. Exterior unit vent grille caulking	No Asbestos Detected
8. Exterior unit vent grille caulking	No Asbestos Detected
9. Exterior window framing caulking	No Asbestos Detected
10. Joint compound at main office	No Asbestos Detected
11. Joint compound at classroom 12	No Asbestos Detected
12. Interior window glazing caulking	No Asbestos Detected
13. Interior window glazing caulking	No Asbestos Detected
14. Interior glazing caulking for window in wood door	2% Asbestos
15. Interior glazing caulking for window in wood door	2% Asbestos
16. Smooth ceiling plaster at lobby work room	No Asbestos Detected
17. White/grey 12" x 12" vinyl floor tile at storage room behind stage	No Asbestos Detected
18. Mastic for white/grey 12" x 12" vinyl floor tile at storage room behind stage	No Asbestos Detected
19. White/grey 12" x 12" vinyl floor tile at classroom 4 storage	No Asbestos Detected
20. Mastic for white/grey 12" x 12" vinyl floor tile at classroom 4 storage	No Asbestos Detected
21. White/grey 12" x 12" vinyl floor tile at custodian room	No Asbestos Detected
22. Mastic for white/grey 12" x 12" vinyl floor tile at custodian room	No Asbestos Detected
23. New blue 12" x 12" vinyl floor tile at addition lobby hall	No Asbestos Detected



24. Mastic for new blue 12" x 12" vinyl floor tile at addition lobby hall	No Asbestos Detected
25. Thick black paper under hardwood floor at stage	No Asbestos Detected
26. Adhesive for glazed wall tile at kitchen	5% Asbestos
27. Grout for glazed wall tile at kitchen	No Asbestos Detected
28. Smooth ceiling plaster at kitchen	No Asbestos Detected
29. Smooth ceiling plaster at hallway by cafeteria	No Asbestos Detected
30. Rough ceiling plaster at boiler room	No Asbestos Detected
31. Rough ceiling plaster at boiler room	No Asbestos Detected
32. Roofing debris on top of ceiling tile at hallway by cafeteria	No Asbestos Detected
33. Roofing debris on top of ceiling tile at hallway by classroom 7	No Asbestos Detected
34. Roofing debris on top of ceiling tile at hallway by classroom 22	No Asbestos Detected
35. Joint compound at kitchen storage room	No Asbestos Detected

**Observations and Conclusions:**

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

Refer to the AHERA Management Plan for condition of ACM.

1. Interior glazing caulking for window in wood door was found to contain asbestos.
2. Adhesive for glazed wall tile was found to contain asbestos.
3. Hidden ACM pipe and hard joint insulation was assumed to exist.
4. Dampproofing on exterior and foundation walls was assumed to exist and assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle.
5. Roofing material was assumed to contain asbestos.
6. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

**Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures:**

**Observations and Conclusions:**

Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB's and mercury. Ballasts in light fixtures were assumed not to contain PCB's since there were labels indicating that "No PCB's" was found. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.

**PCB's in Caulking:**

PCB's are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB's was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB's are a class of chemicals made up of more than 200 different compounds. PCB's are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB's are not very soluble in water, and they do not break down easily in the environment. PCB's also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB's have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB's if PCB's level exceed 50 mg/kg (ppm). An abatement plan might also be required.

**Observations and Conclusions:**

Building materials and caulking were assumed to contain PCB's.

**Lead Based Paint (LBP):**

**Observations and Conclusions**

LBP was assumed to exist on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

**3.0 COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition projects.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout:	Interior Doors with Windows	10 Total	3,000.00
	Hidden Pipe and Hard Joint Insulation	Unknown	5,000.00
	Light Fixtures	Unknown	10,000.00
	Miscellaneous Hazardous Materials/Hidden ACM	Unknown	15,000.00
Kitchen	Glazed Wall Tiles	500 SF	5,000.00
Exterior	Roofing Materials	Unknown	75,000.00
	Transite Sewer Pipes	Unknown <sup>1</sup>	25,000.00
	Damproofing on Walls	Unknown <sup>1</sup>	175,000.00
Estimated costs for NESHAP Inspection			9,000.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			28,000.00
<b>TOTAL:</b>			<b>\$ 350,000.00</b>

<sup>1</sup>: Part of total demolition.

**4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:**

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA /600/R-93/116.

Inspected By:



Leonard Busa  
Asbestos Inspector  
(AAC-0745)

**5.0 LIMITATIONS AND CONDITIONS:**

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.



## Asbestos Identification Laboratory.

165 New Boston St., Ste 227  
Woburn, MA 01801  
781-932-9600

Web: [www.asbestosidentificationlab.com](http://www.asbestosidentificationlab.com) Email:  
[mikemanning@asbestosidentificationlab.com](mailto:mikemanning@asbestosidentificationlab.com)



**Batch: 67518**

Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

### Project Information

*Sowams Elementary School,  
Barrington,  
RI*

*Method: BULK PLM ANALYSIS,  
EPA/600/R-93/116*

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning  
Owner/Director

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Sowams Elementary School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 750467	Window Frame Caulk	C'Rm. #10, Exterior	gray	Non-Fibrous 100	None Detected
2 750468	Win. Fr.	C'Rm. #8, Exterior	gray	Non-Fibrous 100	None Detected
3 750469	Win. Fr.	Kitchen, Exterior	gray	Non-Fibrous 100	None Detected
4 750470	Win. Fr.	Stage Storage, Exterior	gray	Non-Fibrous 100	None Detected
5 750471	Soft Black Glaze, Window	Random, Exterior	black	Cellulose 2 Non-Fibrous 98	None Detected
6 750472	Soft Black Glaze, Window	Random, Exterior	black	Cellulose 2 Non-Fibrous 98	None Detected
7 750473	Grille Frame Caulk	Boiler Rm., Exterior	multi	Non-Fibrous 100	None Detected
8 750474	Grille Fr.	Library, Exterior	multi	Non-Fibrous 100	None Detected
9 750475	Win. Fr.	Front, C'Rm. Wing, Exterior	multi	Non-Fibrous 100	None Detected
10 750476	Joint Compound (JC)	Main Office	white	Non-Fibrous 100	None Detected
11 750477	JC	C'Rm. #12	white	Non-Fibrous 100	None Detected
12 750478	Interior Window Glaze	Main Office	black	Non-Fibrous 100	None Detected
13 750479	Int. Win. Gl.	Main Office	black	Non-Fibrous 100	None Detected
14 750480	Glaze for Diag. Mesh, Win.in Wood Door	Main Lobby by #254	tan	Non-Fibrous 98	Detected Chrysotile 2
15 750481	Glaze for Diag. Mesh, Win.in Wood Door	Main Lobby by Library	tan	Non-Fibrous 98	Detected Chrysotile 2
16 750482	Smooth Ceiling Plaster	Lobby Workroom	white	Non-Fibrous 100	None Detected

Sampled: August 06, 2021      Received: August 09, 2021      Analyzed: August 09, 2021

Tuesday 10 August 2021

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Sowams Elementary School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 750483	12" VT-I (White W/Gray)	Storage behind Stage	gray	Cellulose 2 Non-Fibrous 98	None Detected
18 750484	Mastic #17	Storage behind Stage	black	Cellulose 2 Non-Fibrous 98	None Detected
19 750485	VT-I	C'Rm. 4 - Storage	gray	Cellulose 2 Non-Fibrous 98	None Detected
20 750486	M #19	C'Rm. 4 - Storage	black	Cellulose 2 Non-Fibrous 98	None Detected
21 750487	VT-I	Jan. Cl. by C'Rm. - 12	gray	Cellulose 2 Non-Fibrous 98	None Detected
22 750488	M #21	Jan. Cl. by C'Rm. - 12	black	Cellulose 2 Non-Fibrous 98	None Detected
23 750489	New 12" Blue VT	Addition Lobby Hall	blue	Cellulose 2 Non-Fibrous 98	None Detected
24 750490	M #23	Addition Lobby Hall	black	Cellulose 2 Non-Fibrous 98	None Detected
25 750491	Thick Black Paper under Hdwd	Stage	black	Cellulose 80 Non-Fibrous 20	None Detected
26 750492	Adhesive for Glazed Wall Tile	Kitchen	tan	Non-Fibrous 95	Detected Chrysotile 5
27 750493	Assoc. Grout for Wall Tile	Kitchen	white	Non-Fibrous 100	None Detected
28 750494	Smooth CP	Kitchen	gray	Non-Fibrous 100	None Detected
29 750495	Smooth WP	Hall along Cafe	multi	Non-Fibrous 100	None Detected
30 750496	Rough CP	Boiler Rm.	gray	Cellulose 5 Non-Fibrous 95	None Detected
31 750497	Rough CP	Boiler Rm.	gray	Cellulose 5 Non-Fibrous 95	None Detected
32 750498	Roofing Debris	Hall along Cafe, Top of. Clg. Tiles	multi	Fiberglass 5 Cellulose 20 Non-Fibrous 75	None Detected

Sampled: August 06, 2021      Received: August 09, 2021      Analyzed: August 09, 2021

Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

Project Information

Sowams Elementary School,  
 Barrington,  
 RI

Method: BULK PLM ANALYSIS,  
 EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 750499	Roofing Debris	Hall by C';Rm. 7, Top of. Clg. Tiles	multi	Fiberglass 5 Cellulose 20 Non-Fibrous 75	None Detected
34 750500	Roofing Debris	Hall by C'Rm. 22, Top of. Clg. Tiles	multi	Fiberglass 5 Cellulose 20 Non-Fibrous 75	None Detected
35 750501	JC	Kitchen Storage	white	Non-Fibrous 100	None Detected

Sampled: August 06, 2021      Received: August 09, 2021      Analyzed: August 09, 2021

Tuesday 10 August 2021

102

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Barrington, R.I. Building Name: Sawans Elementary Sch

Sample	Result	Description of Material	Sample Location
1		window frame caulk	rim #10 (EXTERIOR)
2		wind fr	rim #8
3		wind fr	Kitchen
4		wind fr	stage storage
5		soft black glaz, window	random
6		soft black glaz, window	random
7		grille frame caulk	Boiler room
8		grille fr	Library
9		wind fr	front, rim wing
10		Joint Compound (JC)	main office
11		JC	rim #12
12		interior window glaz	square mesh main office
13		int. win gl	" " main office
14		glaz for dia. mesh win in wood door	main lobby by #25
15		gl for dia. mesh win in wood door	main lobby by Library
16		smooth ceiling plaster	lobby work room
17		1/2" vt-I (white w/ grey)	storage behind stage
18		mastic #17	" " "
19		vt-I	rim 4 - storage
20		② #19	" "

Reported By: [Signature] Date: 8-6-21 Due Date: 24-hr  
 Received By: [Signature] Date: 8/9/21



# CHAIN OF CUSTODY

2021

**Universal Environmental Consultants**  
 12 Brewster Road  
 Framingham, MA 01702  
 Tel: (508) 628-5486 - Fax: (508) 628-5488  
 adieb@uec-env.com

Town/City: Framingham, MA Building Name: Swains Elementary School

Sample	Result	Description of Material	Sample Location
21		VT-I	down cl. by crm-12
22		Ⓜ # 21	" " "
23		new 12" Blue VT	ADDITION Lobby Hall
24		Ⓜ # 23	" " "
25		thick black paper under tile	STAGE
26		adhesive for glazed wall tile	Kitchen
27		ASSOC grout for wall tile	↓
28		smooth CP	
29		smooth CP	hall along CAPE
30		rough CP	Boiler Rm
31		rough CP	Boiler Rm
32		roofing debris	hall along CAPE <sup>top of</sup>
33		roofing debris	hall by crm 7 <sup>of tiles</sup>
34		roofing debris	hall by crm 22 ↓
35		JC	Kitchen Storage

Reported By: [Signature] Date: 8-6-21 Due Date: 24-hr  
 Received By: mm Date: 8/9/21

# FACILITY DEFICIENCY BUDGET ESTIMATES

SOWAMS SCHOOL

Sowams Priority Budgetary Estimates

Client: Barrington Public School		Project Name: Sowams Elementary School		RIDE Stage 1					
Project Manager: Sean Schmigle		Project #: 21023							
Site Name: Sowams		School Size: 32,700 sf		Year Built: 1956					
		PRIORITY					Total	% of Total	
Item	System	1	2	3	4	5			
1	Site			3	3		\$ 132,500.00	1.15%	
2	Roofing			SEE STRUCTURAL			\$ -	0.00%	
3	Structural			19			\$ 4,013,516.25	34.70%	
4	Exterior		1				\$ 60,770.00	0.53%	
5	Interior					2	\$ 265,687.50	2.30%	
6	Haz Mat			10			\$ 437,500.00	3.78%	
7	Mechanical		2	3			\$ 860,000.00	7.44%	
8	Electrical	1		3			\$ 1,512,375.00	13.08%	
9	Plumbing			6			\$ 497,500.00	4.30%	
10	Fire & Life Safety	1					\$ 151,950.00	1.31%	
11	Technology			29			\$ 3,552,688.75	30.72%	
12	Conveyances						\$ -	0.00%	
13	Specialties			1			\$ 81,750.00	0.71%	
** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**							Total	\$ 11,566,237.50	100.00%

Site	Deficiency	Category	Unit	Priority	Repair Cost		
1	Pavements need replacing	Capital Renewal	Lump	3	\$	93,750.00 70.75%	
2	Repair Concrete Wall at Basketball Area	Capital Renewal	Lump	4	\$	6,250.00 4.72%	
3	ADA Parking is Non-compliant	Barrier to Accessibility	Lump	3	\$	6,250.00 4.72%	
4	Add Fencing at Dumpsters	Capital Renewal	Lump	4	\$	12,500.00 9.43%	
5	Repair Lawns	Capital Renewal	Lump	4	\$	12,500.00 9.43%	
6	No Idling Signs for Buses are missing	Capital Renewal	Lump	3	\$	1,250.00 0.94%	
					** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**	Subtotal	\$ 132,500.00 100.00%

Roofing	Deficiency	Category	Unit	Priority	Repair Cost		
1	See Structural For Additional Roofing Items				\$	-	
2					\$	-	
3					\$	-	
4					\$	-	
					** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**	Subtotal	\$ -

Structural	Deficiency	Category	Unit	Priority	Repair Cost	
1	In several locations throughout the building, water stained ceiling tiles and active water leaks were observed. Prolonged water infiltration may cause deterioration to the roof elements, structural system, and interior finishes. Further investigation is required to determine the cause of the water infiltration.	Capital Renewal	Lump	3	\$	1,021,875.00 25.46%
2	At various locations in the auditorium, the cmu walls have vertical cracks at the joist bearing points. These cracks do not appear to currently pose a structural hazard and most likely resulted from vertical displacement due to settlement of the foundations. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.	Capital Renewal	Lump	3	\$	204,375.00 5.09%
3	In various locations, the cmu walls have vertical, horizontal, and step cracks through the cmu and at the mortar joints. These cracks do not appear to currently pose a structural hazard and most likely resulted from a combination of vertical displacement due to foundation settlement and horizontal dimensional changes (expansion and contraction) of the building materials due to changes in temperature and humidity. It is recommended that these cracks be periodically monitored to confirm that the cracks are dormant.	Capital Renewal	Lump	3	\$	327,000.00 8.15%
4	In the therapy room adjacent to the boiler room, there are several water stained and damaged tectum roof panels	Capital Renewal	Lump	3	\$	83,793.75 2.09%
5	Several structural steel members in the therapy room and storage room are rusting, likely caused by water infiltration from the roof. While it currently does not appear to pose a structural hazard, the rust should be removed from the structural steel and be re-finished with an appropriate coating system.	Capital Renewal	Lump	3	\$	143,062.50 3.56%
6	There are various locations of minor concrete cracking and spalling at the foundation walls in the boiler room. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls.	Capital Renewal	Lump	3	\$	149,193.75 3.72%
7	Faculty reported that there have been leaks from the skylights located in the new addition. There were no obvious signs of water infiltration during Odeh's investigation, but these areas should be monitored to determine if, and from where, water is infiltrating and to ensure it does not worsen.	Capital Renewal	Lump	3	\$	149,602.50 3.73%
8	There are various locations of concrete cracking and spalling at the corners of the exterior concrete walls. These cracks and spalls do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks and spalls in the exterior concrete walls.	Capital Renewal	Lump	3	\$	151,237.50 3.77%
9	There are various locations of concrete cracking at the exterior concrete walls. These cracks do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the cracks in the exterior concrete walls using high performance concrete repair products.	Capital Renewal	Lump	3	\$	147,967.50 3.69%
10	There are various locations of concrete spalling at the exterior concrete walls. These spalls do not currently appear to pose a structural hazard. To extend the life of the concrete walls and to protect the building, it is recommended that a maintenance program be established to repair the spalls in the exterior concrete walls using high performance concrete repair products.	Capital Renewal	Lump	3	\$	158,595.00 3.95%
11	There are various locations of cracking at the top of exterior concrete walls where it meets the exterior brick masonry. These cracks do not currently appear to pose a structural hazard. To extend the life of the exterior concrete and masonry walls and to protect the building, it is recommended the previous repairs are removed that a maintenance program be established to repair the cracks in the exterior concrete and masonry walls	Capital Renewal	Lump	3	\$	149,602.50 3.73%
12	There are some locations where the joint sealants at the exterior wall has aged, cracked and/or failed which may allow water and air to infiltrate the building envelope and possibly cause damage to the building structure and/or architectural finishes. It is recommended that a maintenance program be implemented to remove and replace all of the aged and failed sealant at these joints	Capital Renewal	Lump	3	\$	130,800.00 3.26%
13	At most of the wall vents, the adjacent brick and mortar joints have cracked. While these cracks do not appear to currently pose a structural hazard, these cracks may allow water and air infiltration into the building envelope. To extend the life of the exterior brick veneer walls and to protect the building structure and the interior finishes, it is recommended that a maintenance program be established to repair the cracks in the exterior brick masonry walls	Capital Renewal	Lump	3	\$	126,712.50 3.16%
14	The lintels are showing signs of rusting at several locations. The rusting does not appear to currently pose a structural hazard, however, rusting of the lintels can sometimes result in expansion which then can cause cracking of the adjacent materials if this expansion cannot be accommodated. A lack of weep holes will trap water behind the brick which could further accelerate rusting. It is recommended that the areas of rust be cleaned, primed, and finished with an appropriate coating system and weep holes be installed	Capital Renewal	Lump	3	\$	149,193.75 3.72%
15	There are various locations of cracking at the exterior brick walls. While they do not currently appear to be a structural hazard, the cracks possibly allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired	Capital Renewal	Lump	3	\$	150,011.25 3.74%
16	There are many locations brick of spalling in the exterior brick walls, where the either the majority, or the entire front face, of the brick has spalled off. While they do not currently appear to be a structural hazard, the spalls may allow water and air infiltration into the building envelope which could lead to damage to the structure. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced.	Capital Renewal	Lump	3	\$	194,156.25 4.84%
17	There are few locations of major spalling at the exterior brick walls. While they do not currently appear to be a structural hazard, the spalls are large enough to possibly allow water and air infiltration into the building envelope which could lead to damage to the structure or interior finishes. To extend the life of the brick masonry walls and to protect the building, it is recommended that the brick masonry wall be repaired, or the damaged bricks be removed and replaced	Capital Renewal	Lump	3	\$	204,375.00 5.09%

18	There are a few locations where water damage was observed to the exterior concrete and brick masonry walls, possibly from leaks in the roof drainage. While this damage does not currently appear to be a structural hazard, the roof drainage should be checked for potential leaks and repaired to extend the life of the exterior walls and prevent further damage	Capital Renewal	Lump	3	\$ 199,470.00	4.97%	
19	Snow drifting can occur at high/low roof areas and around rtu's. Based on our experience, buildings designed prior to 1978 did not account for snow drifting as it was not required by the Building Code at that time. As we have not received existing structural drawings, nor had access to the roof structure, the roof framing shall require further investigation to determine its load carrying capacity. This is a serious issue since we have observed the failure of several school roofs during blizzard conditions within the last 30 years	Capital Renewal	Lump	3	\$ 172,492.50	4.30%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 4,013,516.25</b>	<b>100.00%</b>

<b>Exterior</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Skylight (Kalwall) needs replacement	Capital Renewal	3	2	\$ 60,770.00	100%	
2							
3	See Structural For Additional Exterior Items						
4							
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 60,770.00</b>	<b>100%</b>

<b>Interior</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	General wall painting and coatings	Capital Renewal	32,700 SF	5	\$ 102,187.50	38%	
2	Install Classroom Vision Panels	Educational Adequacy	32,700 SF	5	\$ 163,500.00	62%	
3					\$ -		
4					\$ -		
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 265,687.50</b>	<b>100%</b>

<b>Haz Mat</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Interior Doors with Windows	Haz. Materials	10 Total	3	\$ 3,750.00	0.86%	
2	Hidden Pipe and Hard Joint Insulation	Haz. Materials	Unknown	3	\$ 6,250.00	1.43%	
3	Light Fixtures	Haz. Materials	Unknown	3	\$ 12,500.00	2.86%	
4	Miscellaneous Hazardous Materials/Hidden ACM	Haz. Materials	Unknown	3	\$ 18,750.00	4.29%	
5	Glazed Wall Tiles	Haz. Materials	500 SF	3	\$ 6,250.00	1.43%	
6	Roofing Materials	Haz. Materials	Unknown	3	\$ 93,750.00	21.43%	
7	Transite Sewer Pipes	Haz. Materials	Unknown	3	\$ 31,250.00	7.14%	
8	Damproofing on Walls	Haz. Materials	Unknown	3	\$ 218,750.00	50.00%	
9	Estimated costs for NESHAP Inspection	Haz. Materials	Unknown	3	\$ 11,250.00	2.57%	
10	Estimated costs for Design, Construction Monitoring and Air Sampling Services	Haz. Materials	Unknown	3	\$ 35,000.00	8.00%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 437,500.00</b>	<b>100.00%</b>

<b>Mechanical</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	The existing boilers are 30 years old and past their useful life expectancy. New gas fired condensing boiler (95% Efficient) with all new accessories should be installed.	Capital Renewal	Lump	2	\$ 81,250.00	9.45%	
2	The classroom unit ventilators should be replaced with a more energy efficient system. Classroom unit ventilators use a considerable amount of energy as they bring in ventilation air, which is heated, only to be exhausted to the outdoors. We recommend providing dehumidified (partial AC) displacement air with a Variable Air Volume (VAV) terminal unit to all classrooms. The systems allow for individual control in each room with CO2 demand control ventilation. Maintenance is minimized as everything is performed at the rooftop unit or indoor air handling unit.	Capital Renewal	Lump	3	\$ 62,500.00	7.27%	
3	A new air handling unit serving the Cafetorium should be replaced. We recommend the system provide dehumidified displacement air similar to classrooms as described above.	Capital Renewal	Lump	3	\$ 47,500.00	5.52%	
4	Kitchen equipment should be upgraded. The HVAC equipment should be added to support new equipment. Provide a dedicated make-up air unit for the kitchen hood with a Melink control system to modulate exhaust and make-up air to the system for energy savings. In addition, an exhaust system shall be added for the new dishwasher.	Capital Renewal	Lump	2	\$ 625,000.00	72.67%	
5	The ATC system should be further upgraded to convert all remaining pneumatic controls with new DDC controls. Provide new DDC controls for all equipment such as fin tube, unit heaters, Unit Ventilators, AHU, pumps, etc.	Capital Renewal	Lump	3	\$ 43,750.00	5.09%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 860,000.00</b>	<b>100.00%</b>

<b>Plumbing</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Domestic Water Piping not fully insulated	Code Compliance	1 EA	3	\$ 5,000.00	1.01%	
2	Replace Existing Domestic Water Piping with new	Capital Renewal	32,700 SF	3	\$ 328,750.00	66.08%	
3	Replace Existing Hot Water Heater	Capital Renewal	1 EA	3	\$ 20,000.00	4.02%	
4	Sanitary Waste Piping Replacement	Capital Renewal	32,700 SF	3	\$ 87,500.00	17.59%	
5	Replace Old Plumbing Fixtures	Capital Renewal	16 EA	3	\$ 50,000.00	10.05%	
6	Replace Janitor Service Sinks	Capital Renewal	2 EA	3	\$ 6,250.00	1.26%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 497,500.00</b>	<b>100.00%</b>

<b>Electrical</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	New electric service equipment and distribution including new panels throughout the building.	Capital Renewal	Lump	3	\$ 490,500.00	32.43%	
2	Lighting should be upgraded to all high efficiency LED type.	Capital Renewal	Lump	3	\$ 408,750.00	27.03%	
3	New addressable fire alarm system to be provided with voice evacuation.	Capital Renewal	Lump	1	\$ 327,000.00	21.62%	
4	Additional receptacles including new dedicated power panels with TVSS protection to be provided.	Capital Renewal	Lump	3	\$ 286,125.00	18.92%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 1,512,375.00</b>	<b>100.00%</b>

<b>Fire &amp; Life Safety</b>							
Deficiency	Category	Unit	Priority	Repair Cost			
1	Install new NFPA-13 Fire Suppression System	Code Compliance	32,700 SF	1	\$ 37,500.00	24.68%	
2	Replace ACT Ceiling	Code Compliance	32,700 SF	1	\$ 114,450.00	75.32%	
<b>** All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)**</b>					<b>Subtotal</b>	<b>\$ 151,950.00</b>	<b>100.00%</b>

<b>Technology</b>						
Deficiency	Category	Unit	Priority	Repair Cost		
1	Replace all Category 5e, Category 6, and all riser cable to Category 6A Plenum. Replace all termination devices to meet or exceed Category 6A	Technology	Lump	3	\$ 347,437.50	9.78%
2	Install properly sized cooling units in the MDF and IDF's to protect the lifespan of the active electronics within the room	Technology	Lump	3	\$ 93,750.00	2.64%
3	Install a proper telecommunication grounding busbar system. Ground all equipment, racks, cabinets, patch panels, wire managers, cable trays, and ladder racks to the grounding busbar system, per BICSI recommendations. This shall also include grounding the network electronics per the manufacturer's recommendations.	Technology	Lump	3	\$ 204,375.00	5.75%
4	Replace all zip ties with Velcro hook and loop straps	Technology	Lump	3	\$ 6,250.00	0.18%
5	The MDF is in a shared space. Consider relocating to a dedicated space	Technology	Lump	3	\$ 250,000.00	7.04%
6	Firestop assemblies and material should be applied to each sleeve and shall meet the fire rating of the floor or wall the sleeve is installed within	Technology	Lump	3	\$ 18,750.00	0.53%

Tech - Comm Cabling Infrastructure

8	Replace the wall mounted speakers with modern, ceiling mounted speakers to provide better coverage	Technology	Lump	3	\$ 31,250.00	0.88%	Public Address/Master Clock	
9	Replace all cabling associated with the public address/master clock system	Technology	Lump	3	\$ 102,187.50	2.88%		
10	Install public address strobes in the Multi-Purpose Room to notify students and staff of an announcement	Technology	Lump	3	\$ 81,750.00	2.30%		
11	Install exterior horns around the building for full coverage of the exterior, including the fields	Technology	Lump	3	\$ 91,968.75	2.59%		
12	Install a phone to public address interface so that any phone in the building can access the public address system	Technology	Lump	3	\$ 112,406.25	3.16%		
13	Install Public Address Phone handsets or call switches to open two-way communication with the main office	Technology	Lump	3	\$ 120,581.25	3.39%	Physical Electronic Security	
14	Replace the Simplex Wired Master Clock with a modern, wireless Master Clock	Technology	Lump	3	\$ 122,216.25	3.44%		
15	Replace all hardwired clocks in all spaces with Wireless clocks	Technology	Lump	3	\$ 111,588.75	3.14%		
16	Install a modern audio-video intercom door release at the front door. The intercom door release should have video and audio two-way communication. Install intercom door release master stations for all receptionists and building administrators	Technology	Lump	3	\$ 130,800.00	3.68%		
17	BPS Facilities confirmed that Sonitrol is the preferred vendor. Consider working with Sonitrol to ensure that the intrusion detection panels are the latest and include redundant means of communication (POTS, IP, Cellular). Consider adding door position switches on all exterior doors	Technology	Lump	3	\$ 126,712.50	3.57%		
18	It is recommended that Sonitrol perform a test of all intrusion devices to ensure all the devices are working properly	Technology	Lump	3	\$ 128,756.25	3.62%		
19	The Video Surveillance system at the recently built Middle School is Exacq Vision. Consider aligning the video surveillance management platform under an enterprise-level manufacturer to achieve a "Single Pane of Glass" to manage all cameras throughout the district.	Technology	Lump	3	\$ 131,208.75	3.69%		
20	Uniview has camera lines that are NDAA compliant and cameras that are not. Although the NDAA ban does not apply to public schools, it is recommended to replace all NDAA banned telecommunication and security devices. Consider reviewing the Uniview devices against NDAA compliance and replacing as necessary	Technology	Lump	3	\$ 122,625.00	3.45%		
21	Camera coverage is lacking in locations of the building, particularly on the exterior and in some corridors. Consider adding additional cameras	Technology	Lump	3	\$ 132,843.75	3.74%		
22	Consider adding a larger spot monitor to display more images of the exterior of the building in the main office for receptionists	Technology	Lump	3	\$ 79,706.25	2.24%		
23	Consider replacing the lockdown button for a larger button with clear text noting "Lockdown". Consider installing multiple buttons throughout the administration and reception area	Technology	Lump	3	\$ 83,793.75	2.36%		
24	Consider integrating the lockdown button with the access control system to bring the access control system into a heightened threat level. This can be configured to limit certain users from accessing the building during an emergency event while keeping the system active for administration and first responders	Technology	Lump	3	\$ 87,881.25	2.47%		
25	Consider adding security strobes around the exterior to notify staff, students, and visitors approaching the building to not enter	Technology	Lump	3	\$ 86,655.00	2.44%		
26	Consider integrating a messaging application that will send other administrators throughout the district notification that the school went into lockdown. Consider adding direct communication to the Police Department	Technology	Lump	3	\$ 87,063.75	2.45%		
27	Replace all TV's in classrooms with Interactive Displays	Technology	Lump	3	\$ 147,150.00	4.14%	Audio Visual Systems	
28	Install a dedicated sound system in each classroom with the following functionality: Speakers throughout the space; Wireless microphones for students and teachers; Priority Override / Public Address Mute for muting the speakers during a Public Address announcement; Installed or mobile ADA Compliant Assisted Listening Systems that capture all program audio in the space for transmission to the hearing impaired; Hardwired AV connections from teacher's desk to interactive display	Technology	Lump	3	\$ 151,237.50	4.26%		
29	Replace the existing Local Sound System in the multi-purpose room with a system capable integrating the following: Two to four hardwired microphone locations; Two to four wireless microphones; Modern, scalable Digital Signal Processor capable of auto-mixing and loudspeaker distribution; Amplifiers and speakers capable of comfortably covering the intended area with the proper speaker selection; Multi-Media / CD / Bluetooth inputs; Control panels capable of muting, program audio volume control, system power on / off; Public Address integration ensuring that announcements are always heard throughout the space; n ADA compliant Assisted Listening System; Consider adding a video display wall, or electric screen and projector. Include an AV matrix distribution system to manage and control the video; Consider mounting all AV devices in a dedicated AV cabinet on stage	Technology	Lump	3	\$ 157,368.75	4.43%		
					<b>Subtotal</b>	<b>\$ 3,552,688.75</b>	<b>100.00%</b>	

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

**Conveyances**

Deficiency	Category	Unit	Priority	Repair Cost	
1					
2					
3					
4					
				<b>Subtotal</b>	<b>\$ -</b>

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*

**Specialties**

Deficiency	Category	Unit	Priority	Repair Cost		
1	Provide Additional Writing Areas in Classrooms	Educational Adequacy	32,700 SF	3	\$ 81,750.00	100%
2						
3						
4						
				<b>Subtotal</b>	<b>\$ 81,750.00</b>	<b>100%</b>

\*\* All Costs are Direct Trade Cost Subtotals (Escalation to 12/31/2023)\*\*



# 5 DISTRICT & COMMUNITY DEMOGRAPHICS

The primary enrollment projections being considered were developed from the NESDEC data from 10/28/2020. This data was presented to the District January 7, 2021.



10/28/2020

Barrington, RI

School District:

Historical Enrollment By Grade																			
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2005	155	2010-11	37	177	241	255	277	266	294	255	235	288	277	265	302	297	0	3429	3466
2006	135	2011-12	29	176	229	245	258	283	264	297	255	238	281	281	259	305	0	3371	3400
2007	117	2012-13	27	179	223	232	257	272	295	258	294	260	227	279	269	255	0	3300	3327
2008	114	2013-14	21	163	234	250	240	252	274	295	258	297	256	225	281	272	0	3297	3318
2009	100	2014-15	17	175	203	237	259	249	250	263	297	259	300	252	213	290	0	3247	3264
2010	103	2015-16	23	183	221	223	255	267	258	258	280	303	263	294	253	217	0	3275	3298
2011	90	2016-17	24	198	202	231	231	266	271	259	254	279	305	259	294	257	0	3306	3330
2012	105	2017-18	26	194	215	217	237	247	275	261	274	247	281	312	254	297	0	3311	3337
2013	99	2018-19	24	206	209	225	225	240	258	288	260	282	258	280	319	263	0	3313	3337
2014	106	2019-20	34	197	223	225	234	260	253	273	297	272	289	240	273	322	0	3358	3392
2015	111	2020-21	47	224	196	230	233	242	259	259	275	305	284	283	241	292	0	3323	3370

Historical Percentage Changes			
Year	K-12	Diff.	%
2010-11	3429	0	0.0%
2011-12	3371	-58	-1.7%
2012-13	3300	-71	-2.1%
2013-14	3297	-3	-0.1%
2014-15	3247	-50	-1.5%
2015-16	3275	28	0.9%
2016-17	3306	31	0.9%
2017-18	3311	5	0.2%
2018-19	3313	2	0.1%
2019-20	3358	45	1.4%
2020-21	3323	-35	-1.0%
<b>Change</b>	<b>-106</b>	<b>-3.1%</b>	

Historical Enrollment in Grade Combinations										
Year	K-3	K-5	4-5	K-8	PK-3	6-8	PK-5	7-12	9-12	
2010-11	950	1510	560	2288	987	778	1547	1664	1141	
2011-12	908	1455	547	2245	937	790	1484	1619	1126	
2012-13	891	1458	567	2270	918	812	1485	1584	1030	
2013-14	887	1413	526	2263	908	850	1434	1589	1034	
2014-15	874	1373	499	2192	891	819	1390	1611	1055	
2015-16	882	1407	525	2248	905	841	1430	1610	1027	
2016-17	862	1399	537	2191	886	792	1423	1648	1115	
2017-18	863	1385	522	2167	889	782	1411	1665	1144	
2018-19	865	1363	498	2193	889	830	1387	1662	1120	
2019-20	879	1392	513	2234	913	842	1426	1693	1124	
2020-21	883	1384	501	2223	930	839	1431	1680	1100	

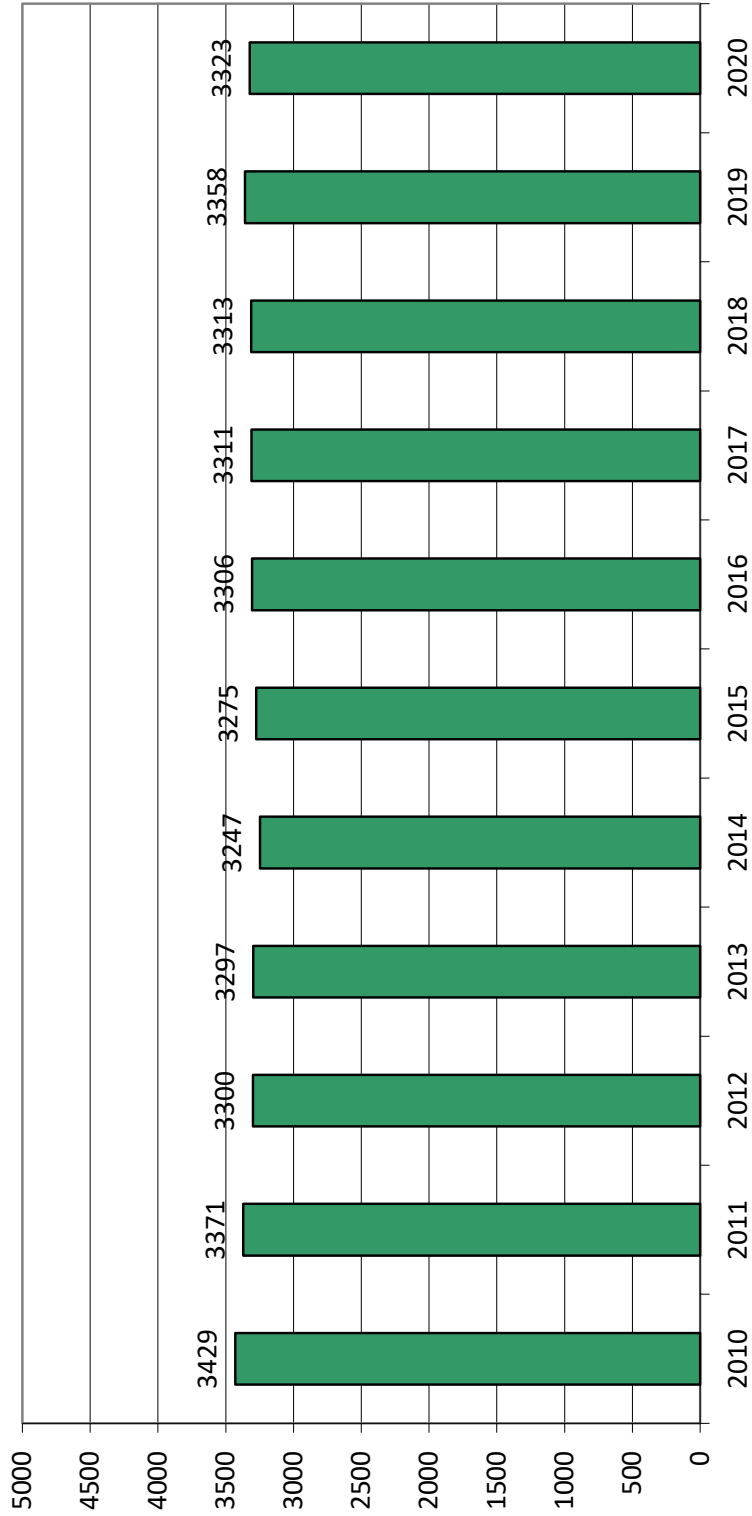
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# Barrington, RI Historical Enrollment

K-12, 2010-2020



# Barrington, RI Projected Enrollment

School District:

Barrington, RI

10/28/2020

## Enrollment Projections By Grade\*

Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2015	111	2020-21	47	224	196	230	233	242	259	259	275	305	284	283	241	292	0	3323	3370
2016	114	2021-22	47	225	236	206	239	249	250	270	263	284	317	275	283	250	0	3347	3394
2017	104	2022-23	48	205	237	248	214	255	257	261	274	272	295	307	275	294	0	3394	3442
2018	113	0	48	223	216	249	257	228	263	268	265	283	282	286	307	285	0	3412	3460
2019	110	(prov.)	49	217	235	227	258	274	235	274	272	274	294	273	286	319	0	3438	3487
2020	110	(est.)	49	217	228	247	236	275	283	245	278	281	284	285	273	297	0	3429	3478
2021	110	(est.)	50	217	228	240	256	252	284	295	287	287	292	275	285	283	0	3443	3493
2022	110	(est.)	50	216	228	240	249	273	260	296	299	257	298	283	275	296	0	3470	3520
2023	111	(est.)	51	218	227	240	249	266	282	271	300	309	267	289	283	285	0	3486	3537
2024	110	(est.)	51	217	229	239	249	266	274	294	275	310	321	259	289	294	0	3516	3567
2025	110	(est.)	52	217	228	241	248	266	274	286	298	284	322	311	259	300	0	3534	3586

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

Based on an estimate of births

Based on children already born

Based on students already enrolled

### Projected Enrollment in Grade Combinations\*

Year	K-3	K-5	4-5	K-8	PK-3	6-8	PK-5	7-12	9-12
2020-21	883	1384	501	2223	930	839	1431	1680	1100
2021-22	906	1405	499	2222	953	817	1452	1672	1125
2022-23	904	1416	512	2223	952	807	1464	1717	1171
2023-24	945	1436	491	2252	993	816	1484	1708	1160
2024-25	937	1446	509	2266	986	820	1495	1718	1172
2025-26	928	1486	558	2290	977	804	1535	1698	1139
2026-27	941	1477	536	2308	991	831	1527	1671	1135
2027-28	933	1466	533	2318	983	852	1516	1708	1152
2028-29	934	1482	548	2362	985	880	1533	1733	1124
2029-30	934	1474	540	2353	985	879	1525	1748	1163
2030-31	934	1474	540	2342	986	868	1526	1774	1192

### Projected Percentage Changes

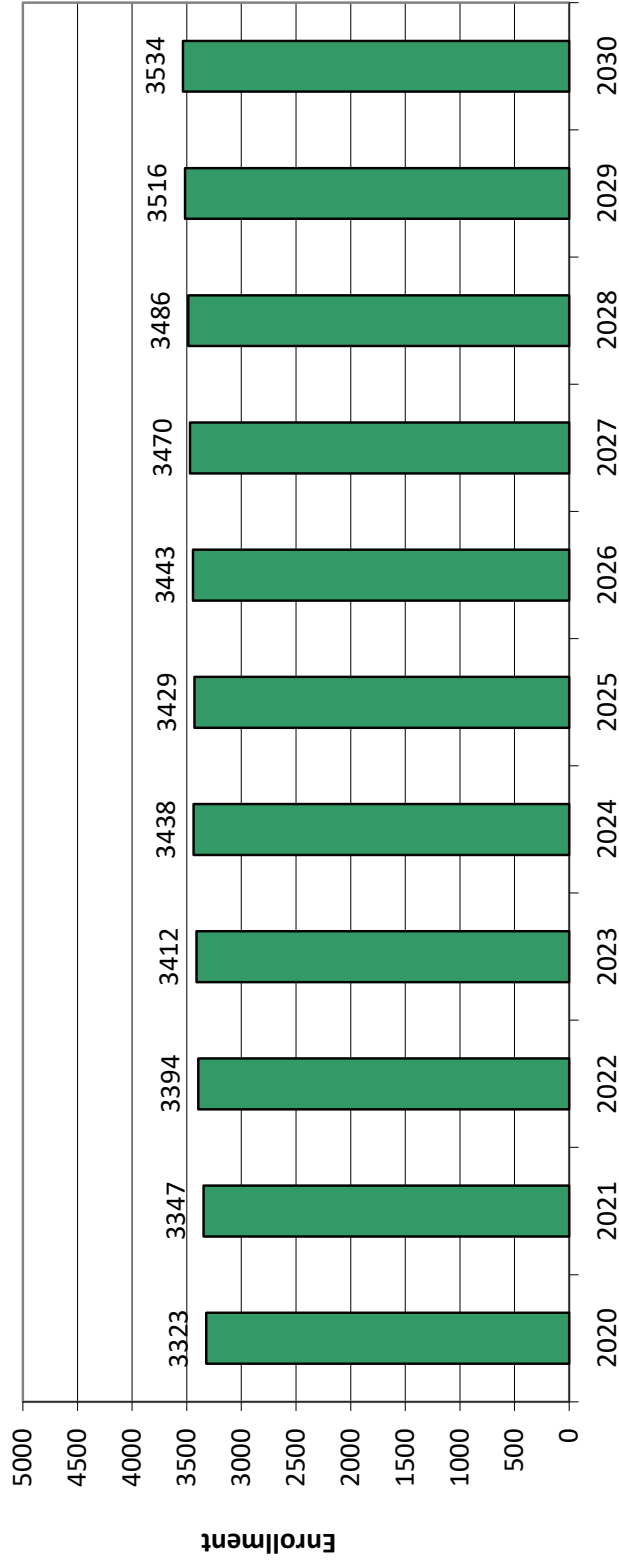
Year	K-12	Diff.	%
2020-21	3323	0	0.0%
2021-22	3347	24	0.7%
2022-23	3394	47	1.4%
2023-24	3412	18	0.5%
2024-25	3438	26	0.8%
2025-26	3429	-9	-0.3%
2026-27	3443	14	0.4%
2027-28	3470	27	0.8%
2028-29	3486	16	0.5%
2029-30	3516	30	0.9%
2030-31	3534	18	0.5%
<b>Change</b>	<b>211</b>	<b>211</b>	<b>6.3%</b>

\*Projections should be updated annually to reflect changes in in/out-migration of families, real estate sales, residential construction, births, and similar factors.



# Barrington, RI Projected Enrollment

K-12 To 2030 Based On Data Through School Year 2020-21

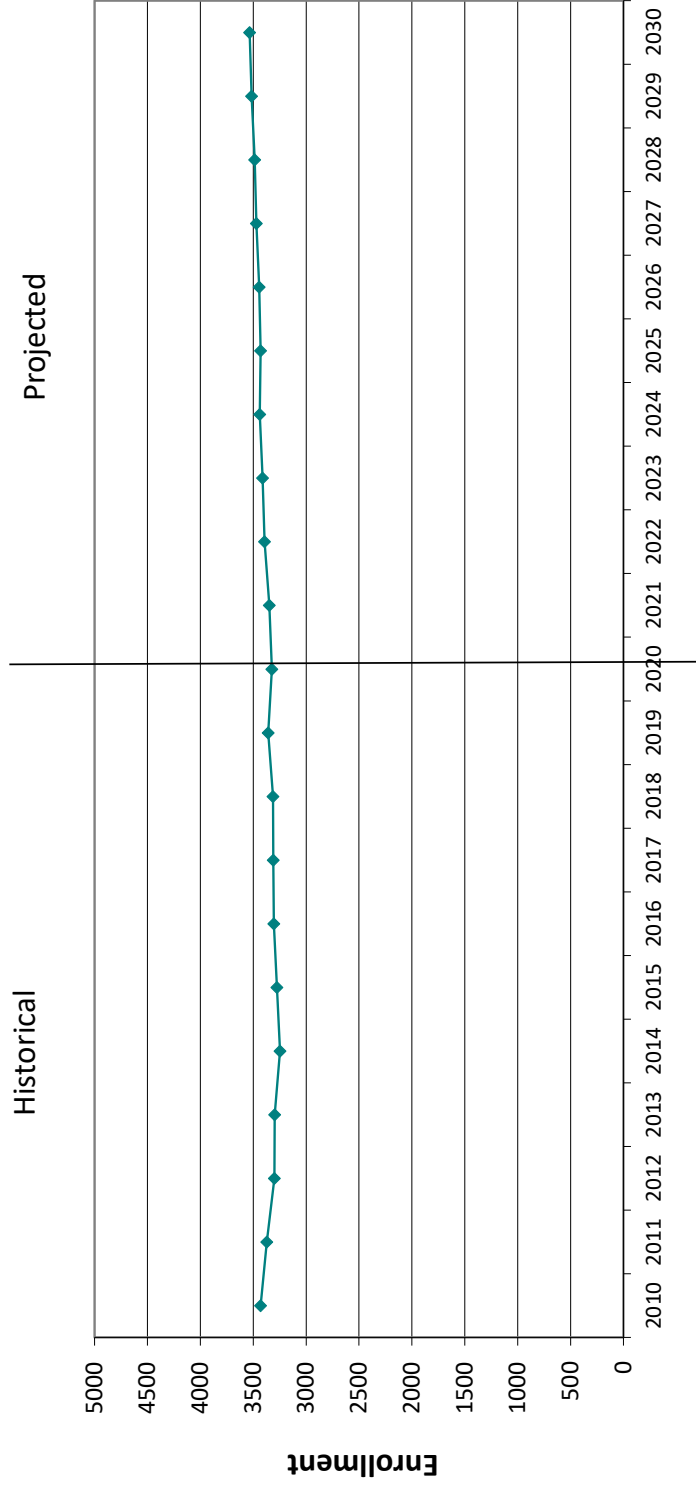


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# Barrington, RI Historical & Projected Enrollment

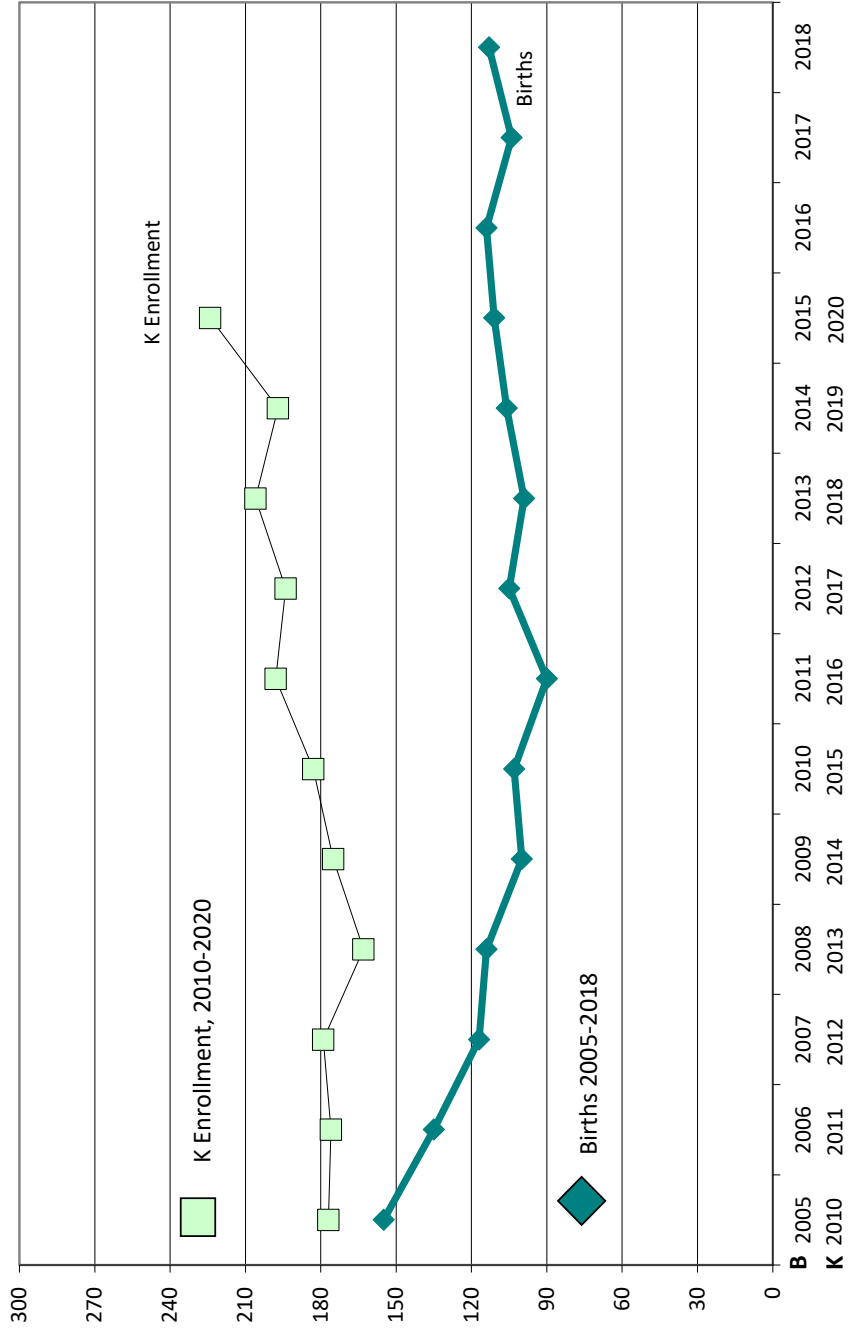
K-12, 2010-2030



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# Barrington, RI Birth-to-Kindergarten Relationship



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# Barrington, RI Additional Data

Year	Building Permits Issued	
	Single-Family	Multi-Units
2005	18	6
2016	21	0
2017	10	0
2018	19	46
2019	13	6
2020	6 to date	12 to date

Source: HUD and Building Department

Year	Enrollment History	
	Career-Tech 9-12 Total	Non-Public K-12 Total
2005-06	5	362
2016-17	1	230
2017-18	0	242
2018-19	2	246
2019-20	0	206
2020-21	n/a	101

Residents in Non-Public Independent and Parochial Schools (General Education)														
Enrollments as of Oct. 1	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	1	5	2	5	4	11	3	5	10	11	16	12	16	101

K-12 Home-Schooled Students	53
2020	

K-12 Residents in Charter or Magnet Schools, or "Choiced-out"	0
2020	

K-12 Special Education Outplaced Students	91
2020	

K-12 Tuitioned-In, Choiced-In, & Other Non-Residents	0
2020	

The above data were used to assist in the preparation of the enrollment projections. If additional demographic work is needed, please contact our office.

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# New England's PK-12 Enrollments

## The "Big Picture"

From 2016 to 2028, the US Department of Education anticipates changes in PK-12 enrollment of +5.4% in the South; +2.1% in the West; -2.1% in the Midwest; and -3.7% in the Northeast.

State	Fall 2016 PK - 12	Fall 2028 Projected	PK-12 Decline	% Change, 2016-2028
CT	535,118	471,100	-64,018	-12.0%
ME	180,512	171,600	-8,912	-5.0%
MA	964,514	939,400	-25,114	-2.6%
NH	180,888	161,000	-19,888	-11.0%
RI	142,150	135,700	-6,450	-4.5%
VT	88,428	80,400	-8,028	-9.0%

**Source:** USDE, National Center for Education Statistics, *Projections of Education Statistics to 2028*, Table 3, Pages 35-36; Published May 28, 2020.

Although most New England Districts are seeing a decline in the number of births, NESDEC's experience indicates that the impact on enrollment varies from District to District. Almost half of New England Districts are growing in PK-12 enrollment, and a similar number are declining (often in rural areas) with the other Districts remaining stable.

Barrington Public Schools



FY24 Budget Presentation-Enrollment

January, 12<sup>th</sup> 2023





Barrington Public Schools

## Enrollment

The District uses the NESDEC (New England School Development Council) to assist us in our enrollment projections. There are several assumptions used when NESDEC is preparing projections such as birth rates, demands on housing market, short term economic conditions and changes in interest rates.

Additionally, we supplement this data with information from the Town Planning department. This information includes projected new developments and other pertinent housing stock changes in town.

Projections beyond five years become less reliable as other factors can influence enrollment.



Barrington Public Schools

## Enrollment

The District's projected FY24 enrollment is based on the actual number of registered students in grades K-12.

Barrington historically experiences changes in student enrollment during the summer as a result of new families relocating to Barrington and families moving out. It is very difficult to predict enrollment by schools this early in the budget process. As a result, during the budget process we will continue to monitor the status of enrollment and make any necessary to staffing to accommodate those changes.



# Planned Housing Projects

Housing Development	Units	Configuration	Students Impact (1.4/unit)	Est. Const. Date	Est. Comp. Date
Zion Bible (possible multi-generational)	65	Assisted living units	91	2024	2026
Zion Bible	200	Apartment	280	2024	2026
Zion Bible	90	Townhouse	126	2024	2026
Zion Bible	48	Duplex	67.2	2024	2026
60 Bay Spring Ave.	14	2 bedroom	19.6	Occupied	
25 Watson Ave.	45	2 bedroom	<u>63</u>	2024	2026
<b>Total</b>			<b>646.8</b>		

# Historical Enrollment



Barrington Public Schools

Historical Enrollment By Grade																			
Birth Year	Births*	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2007	117	2012-13	27	179	223	232	257	272	295	258	294	260	227	279	269	255	0	3300	3327
2008	114	2013-14	21	163	234	250	240	252	274	295	258	297	256	225	281	272	0	3297	3318
2009	100	2014-15	17	175	203	237	259	249	250	263	297	259	300	252	213	290	0	3247	3264
2010	103	2015-16	23	183	221	223	255	267	258	258	280	303	263	294	253	217	0	3275	3298
2011	90	2016-17	24	198	202	231	231	266	271	259	254	279	305	259	294	257	0	3306	3330
2012	105	2017-18	26	194	215	217	237	247	275	261	274	247	281	312	254	297	0	3311	3337
2013	99	2018-19	24	206	209	225	225	240	258	288	260	282	258	280	319	263	0	3313	3337
2014	106	2019-20	34	197	223	225	234	260	253	273	297	272	289	240	273	322	0	3358	3392
2015	111	2020-21	47	224	196	230	233	242	259	259	275	305	284	283	241	292	0	3323	3370
2016	114	2021-22	43	225	249	203	237	239	241	254	258	278	321	275	278	245	0	3303	3346
2017	104	2022-23	54	211	241	256	209	244	241	258	265	266	260	313	278	289	0	3331	3385

\*Birth data provided by Public Health Vital Records Departments in each state.



Barrington Public Schools

# Historical Enrollment

Historical Enrollment in Grade Combinations										
Year	PK-3	K-3	4-5	K-5	PK-5	6-8	K-8	6-12	9-12	
2012-13	918	891	567	1458	1485	812	2270	1842	1030	
2013-14	908	887	526	1413	1434	850	2263	1884	1034	
2014-15	891	874	499	1373	1390	819	2192	1874	1055	
2015-16	905	882	525	1407	1430	841	2248	1868	1027	
2016-17	886	862	537	1399	1423	792	2191	1907	1115	
2017-18	889	863	522	1385	1411	782	2167	1926	1144	
2018-19	889	865	498	1363	1387	830	2193	1950	1120	
2019-20	913	879	513	1392	1426	842	2234	1966	1124	
2020-21	930	883	501	1384	1431	839	2223	1939	1100	
2021-22	957	914	480	1394	1437	790	2184	1909	1119	
2022-23	971	917	485	1402	1456	789	2191	1929	1140	

## Historical Enrollment



Barrington Public Schools

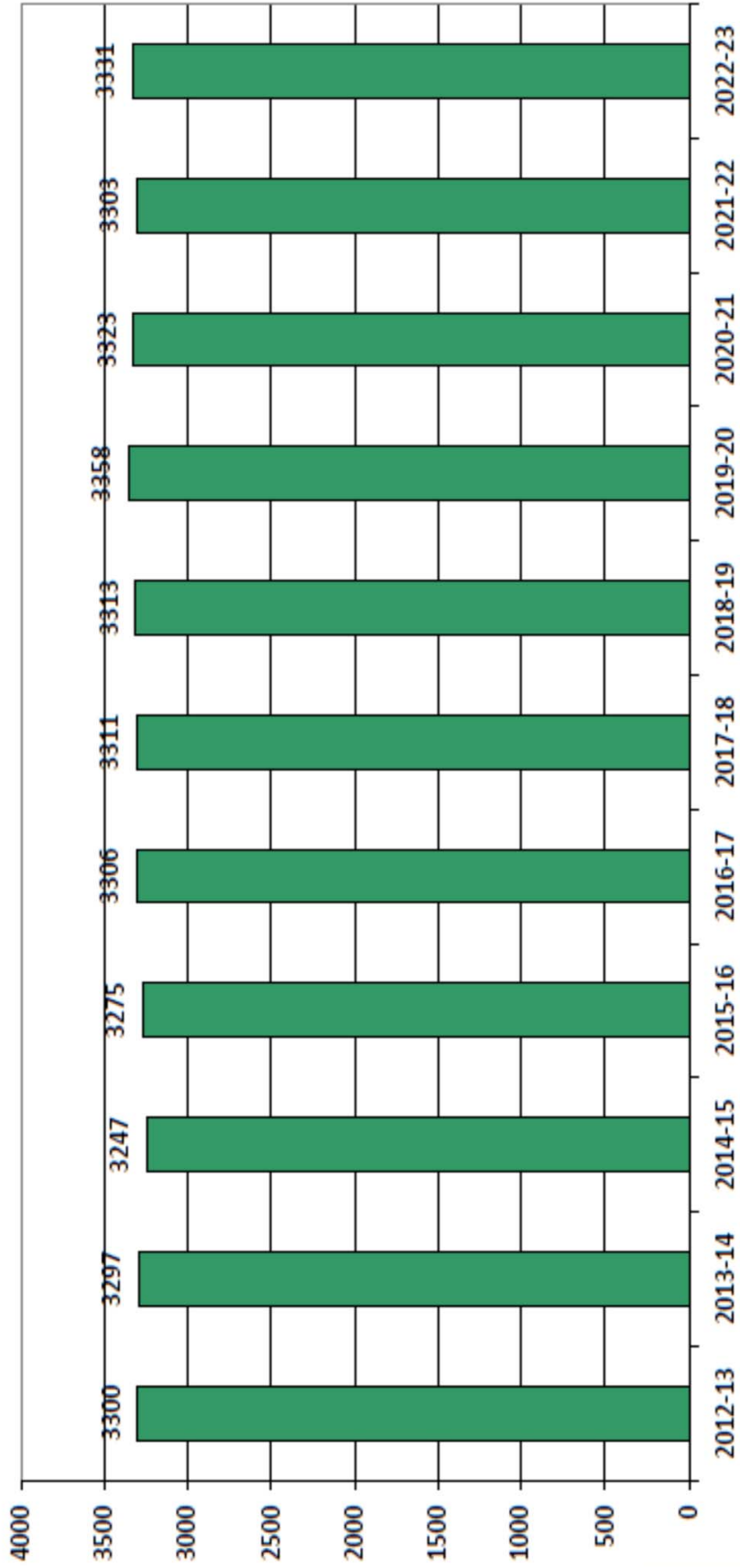
Historical Percentage Changes			
Year	K-12	Diff.	%
2012-13	3300	0	0.0%
2013-14	3297	-3	-0.1%
2014-15	3247	-50	-1.5%
2015-16	3275	28	0.9%
2016-17	3306	31	0.9%
2017-18	3311	5	0.2%
2018-19	3313	2	0.1%
2019-20	3358	45	1.4%
2020-21	3323	-35	-1.0%
2021-22	3303	-20	-0.6%
2022-23	3331	28	0.8%
<b>Change</b>		<b>31</b>	<b>0.9%</b>



Barrington Public Schools

# Historical Enrollment

## K-12, School Years 2012-13 to 2022-23



## Historical Enrollment Highlights



Barrington Public Schools

For the 2022-2023 school year, the NESDEC enrollment projection fell within 10 students of the K-12 total, 3,341 students projected vs. 3,331 enrolled.

The largest single variance of -29 students occurred at Grade 9, 289 students were projected vs. 260 enrolled, most of the other grades were +/- 10 students.

Per the NESDEC report, “The NESDEC enrollment projection fell within 10 students of the K-12 total, 3,341 students projected vs. 3,331 enrolled. Births increased by 9 from a previous ten-year average of 106 to a projected average of 115. In most districts, enrollments in Grades 1-8 are very stable environments. However, there have been increases in all of the 8 most recent years, leading to a net increase averaging 54 students per year. Additionally, non-public school enrollments decreased to 64 students in SY 2021-22, from 128 students in SY 21-22.”

Additionally, NESDEC noted “Over the next three years, K-3 enrollments are projected to increase by 19 students, Grades 4-5 enrollments are projected to increase by 55 students, Grades 6-8 are projected to decrease by -52 students, and Grades 9-12 enrollments are projected to decrease by -76 students, as students move through the grades.”





Barrington Public Schools

# NESDEC Enrollment Projections

Enrollment Projections By Grade*																			
Birth Year	Births*	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2017	104	2022-23	54	211	241	256	209	244	241	258	265	266	260	313	278	289	0	3331	3385
2018	113	2023-24	54	226	224	249	264	216	245	248	262	271	269	253	313	290	0	3330	3384
2019	111	2024-25	54	222	240	231	257	273	217	252	252	268	274	262	253	326	0	3327	3381
2020	107	2025-26	54	214	236	248	238	266	274	223	256	258	271	267	262	264	0	3277	3331
2021	131	2026-27	54	262	227	243	256	246	267	282	226	262	261	264	267	273	0	3336	3390
2022	113	2027-28 (est.)	54	226	278	234	251	265	247	274	286	231	265	254	264	278	0	3353	3407
2023	115	2028-29 (est.)	54	230	240	287	241	260	266	254	278	293	233	258	254	275	0	3369	3423
2024	115	2029-30 (est.)	54	231	244	248	296	249	261	273	258	284	296	227	258	265	0	3390	3444
2025	116	2030-31 (est.)	54	233	245	252	256	306	250	268	277	264	287	288	227	269	0	3422	3476
2026	118	2031-32 (est.)	54	236	248	253	260	265	308	257	272	283	267	280	288	237	0	3454	3508
2027	116	2032-33 (est.)	54	231	251	256	261	269	266	316	261	278	286	260	280	300	0	3515	3569

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

\*Birth data provided by Public Health Vital Records Departments in each state.

Based on an estimate of births

Based on children already born

Based on students already enrolled

# NESDEC Enrollment Projections



Barrington Public Schools

Projected Enrollment in Grade Combinations*										
Year	PK-3	K-3	4-5	K-5	PK-5	6-8	K-8	6-12	9-12	
2022-23	971	917	485	1402	1456	789	2191	1929	1140	
2023-24	1017	963	461	1424	1478	781	2205	1906	1125	
2024-25	1004	950	490	1440	1494	772	2212	1887	1115	
2025-26	990	936	540	1476	1530	737	2213	1801	1064	
2026-27	1042	988	513	1501	1555	770	2271	1835	1065	
2027-28	1043	989	512	1501	1555	791	2292	1852	1061	
2028-29	1052	998	526	1524	1578	825	2349	1845	1020	
2029-30	1073	1019	510	1529	1583	815	2344	1861	1046	
2030-31	1040	986	556	1542	1596	809	2351	1880	1071	
2031-32	1051	997	573	1570	1624	812	2382	1884	1072	
2032-33	1053	999	535	1534	1588	855	2389	1981	1126	



Barrington Public Schools

# NESDEC Enrollment Projections

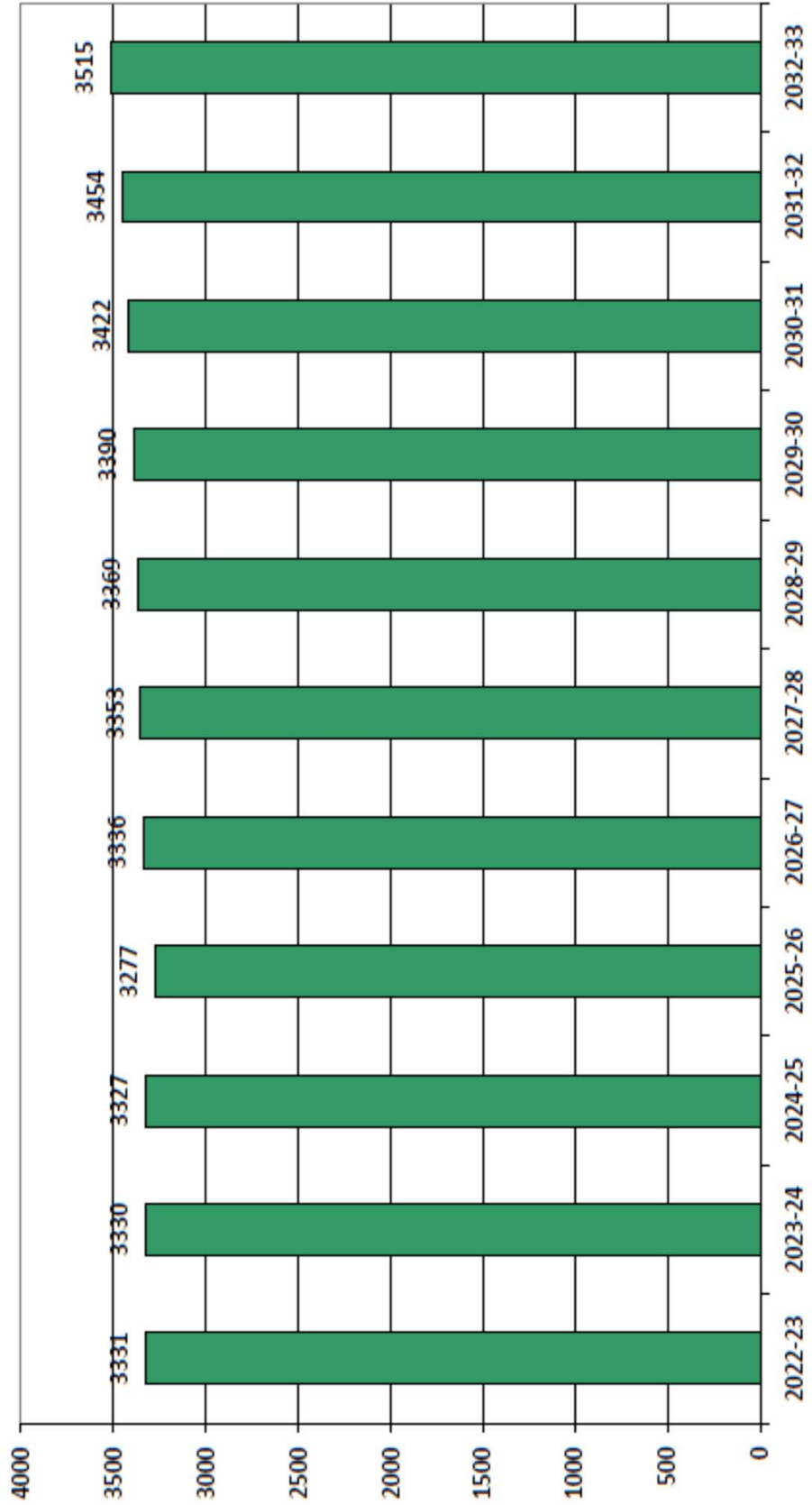
Projected Percentage Changes			
Year	K-12	Diff.	%
2022-23	3331	0	0.0%
2023-24	3330	-1	0.0%
2024-25	3327	-3	-0.1%
2025-26	3277	-50	-1.5%
2026-27	3336	59	1.8%
2027-28	3353	17	0.5%
2028-29	3369	16	0.5%
2029-30	3390	21	0.6%
2030-31	3422	32	0.9%
2031-32	3454	32	0.9%
2032-33	3515	61	1.8%
<b>Change</b>		<b>184</b>	<b>5.5%</b>

# NESDEC Projected Enrollment



Barrington Public Schools

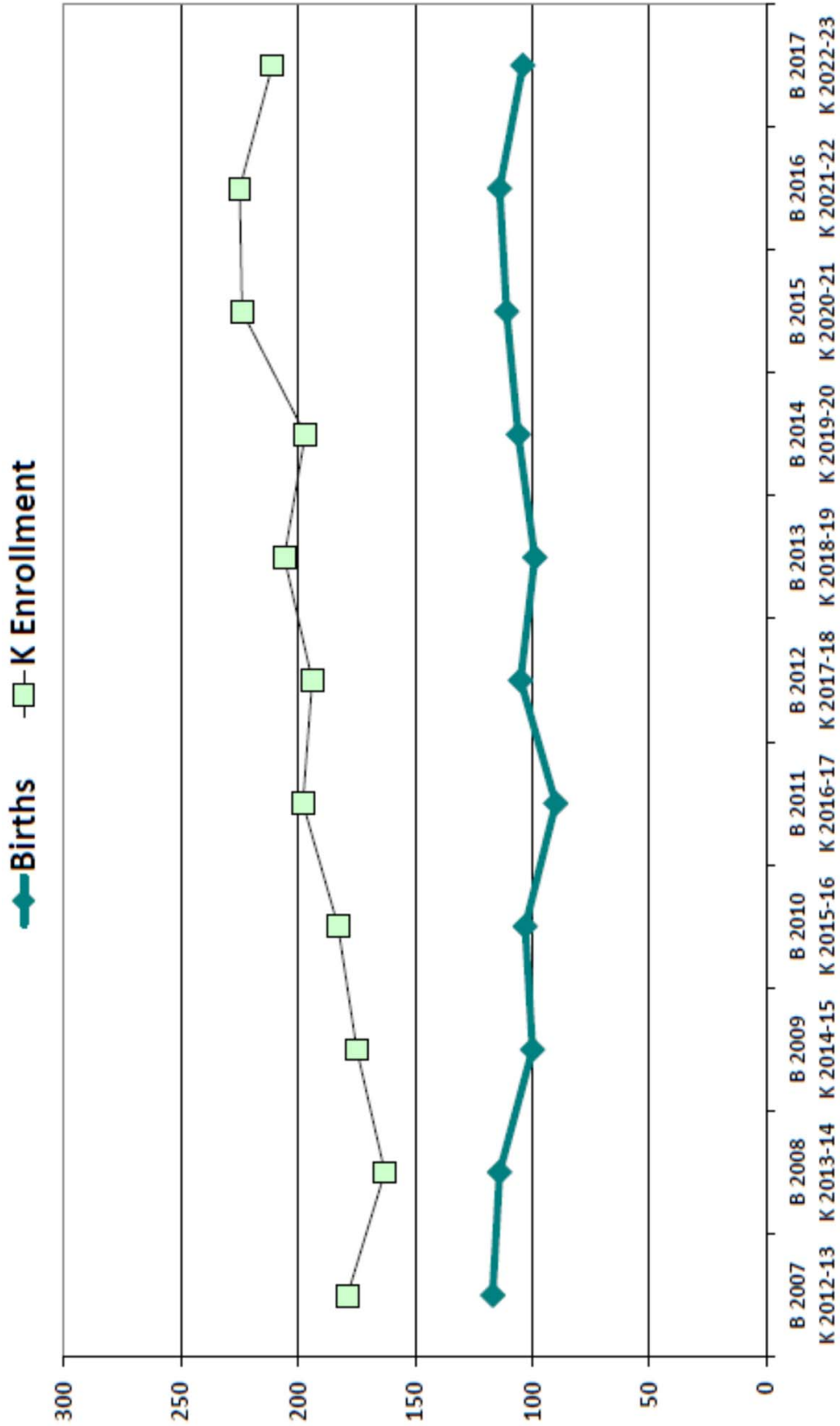
K-12, School Years 2022-23 to 2032-33





Barrington Public Schools

# NESDEC Projected Enrollment October, 2022





Barrington Public Schools

**FY23 REGISTERED ENROLLMENT UPDATE-BY SCHOOL AND GRADE (10-18-2022)**

	PRIMROSE		NAYATT		SOWAMS		Total	
	FY23	FY24 Proj.	FY23	FY24 Proj.	FY23	FY24 Proj.	FY23	FY24 Proj.
<b>Preschool</b>	<b>54</b>	<b>54</b>					<b>54</b>	<b>54</b>
<b>All Day Kindergarten</b>	18	18	19	19	20	20		
	18	18	19	19	20	20		
	19	19	19	19	20	20		
	19	19	20	20				
<b>Total ADK</b>	<b>74</b>	<b>74</b>	<b>77</b>	<b>77</b>	<b>60</b>	<b>60</b>	<b>211</b>	<b>211</b>
<b>One</b>	22	18	20	19	23	20		
	22	18	21	19	23	20		
	22	19	21	19	24	20		
	22	19	21	20				
<b>Total Grade One</b>	<b>88</b>	<b>74</b>	<b>83</b>	<b>77</b>	<b>70</b>	<b>60</b>	<b>241</b>	<b>211</b>
<b>Two</b>	20	22	20	20	24	23		
	20	22	20	21	25	23		
	21	22	20	21	25	24		
	21	22	20	21				
			20					
<b>Total Grade Two</b>	<b>82</b>	<b>88</b>	<b>100</b>	<b>83</b>	<b>74</b>	<b>70</b>	<b>256</b>	<b>241</b>
<b>Three</b>	19	20	19	25	18	24		
	19	20	19	25	18	25		
	20	21	19	25	19	25		
	20	21	19	25				
<b>Total Grade Three</b>	<b>78</b>	<b>82</b>	<b>76</b>	<b>100</b>	<b>55</b>	<b>74</b>	<b>209</b>	<b>256</b>
<b>Totals</b>	<b>376</b>	<b>372</b>	<b>336</b>	<b>337</b>	<b>259</b>	<b>264</b>	<b>971</b>	<b>973</b>

District Enrollment as of 12-2022



Barrington Public Schools

<b>HAMPDEN MEADOWS</b>		
<b>Grade 4</b>	<b>FY23</b>	<b>FY24 Proj.</b>
	24	23
	24	23
	24	23
	24	23
	24	23
	24	23
	24	23
	25	23
	25	24
	25	24
	25	
<b>Total Grade 4</b>	<b>244</b>	<b>209</b>
<b>Grade 5</b>	<b>FY23</b>	<b>FY24 Proj.</b>
	24	24
	24	24
	24	24
	24	24
	24	24
	24	24
	24	25
	24	25
	24	25
	25	25
<b>Total Grade 5</b>	<b>241</b>	<b>244</b>
<b>Totals</b>	<b>485</b>	<b>453</b>

District Enrollment as of 12-2022



Barrington Public Schools

Middle School	FY23		FY24 Proj.	
Grade 6				
Three Teacher Team	70	23.3	73	24.3
Four/Three Teacher Team	94	23.5	73	24.3
Four Teacher Team	94	23.5	98	24.5
	258		244	
Grade 7				
Three Teacher Team	72	24.0	70	23.3
Four Teacher Team	96	24.0	94	23.5
Four Teacher Team	97	24.3	94	23.5
	265		258	
Grade 8				
Four Teacher Team	88	22.0	88	22.0
Four Teacher Team	89	22.3	88	22.0
Four Teacher Team	89	22.3	89	22.3
	266		265	
Total	789		767	

District Enrollment as of 12-2022





Barrington Public Schools

	<b>FY23</b>	<b>FY24 Proj.</b>
<b>High School</b>		
<b>Grade 9</b>	260	265
<b>Grade 10</b>	313	260
<b>Grade 11</b>	278	313
<b>Grade 12</b>	289	278
	<b>1140</b>	<b>1116</b>

District Enrollment as of 12-2022



Barrington Public Schools

# Questions



## 6 CROSS DISTRICTING DUE DILIGENCE

In the RIDE Necessity of School Construction Stage 1 Application submitted as part of the Middle School construction project in 2015, the district reached out to adjacent communities including East Providence and Bristol/Warren to discuss potential for cross-districting opportunities. Ultimately, it was determined that for geographic and district challenges that each community would move forward independently.

The enrollment projections as provided by NESDEC indicate only slight potential for increase in student population for the Town of Barrington. As a result, the District has decided to move forward with projects that serve its students only. The exception to this is that as part of the long-term discussions on high school programming there is a desire to increase tuition programs and pathways to serve CTE students from adjoining districts. These programs at Barrington High School are not intended to duplicate the offerings at other local high schools including East Providence.



# 7 EDUCATIONAL PROGRAM DUE DILIGENCE

## DESIGN AND EDUCATIONAL PROGRAM

### CURRICULUM GOALS

Barrington strives to offer a high-quality curriculum to all PK-12 students. The Rhode Island Department of Education requires that the district adheres to state and Common Core Standards in all content areas. Recently, legislation was passed in Rhode Island requiring that all schools adopt a curriculum vetted by EdReports as “Green” in math, science, and English language arts. Our goal is to select the highest quality curriculum that values interdisciplinary, experiential, inquiry-based approaches in vetting the curriculum. By 2025, all of the new and required curriculum in the core areas will be in place. Beyond the core requirements, we are focused on curricula that build students’ skills in higher-order thinking, such as Advanced Placement courses, Career and Technical Education Courses, K-12 coding, the arts, and wellness. BPS will continue to be at the forefront of education nationally and internationally in adopting, developing, and implementing such curricula.



### INSTRUCTIONAL PHILOSOPHY (DISTRICT)

The instructional philosophy is rooted in our mission, “to empower all students to excel in character, citizenship, collaboration, creativity, communication, and critical thinking, so that they may positively impact the future.”

The BPS Vision of the Graduate is a learner who excels in

- **Citizenship:** Thinking like a global citizen and considering global issues
- **Character:** Understanding how to be a life-long, deep learner
- **Collaboration:** Working interdependently with others while making important decisions together and learning from and contributing to the learning of others
- **Communication:** Communicating, in a variety of ways, for specific audiences
- **Critical Thinking:** Evaluating information and argument, seeing patterns and connections, constructing meaningful knowledge, and applying it in the real world
- **Creativity:** Creating new ideas, seeing and taking opportunities, and leading others

- Empowering students to excel in critical thinking.

- Nationally Ranked Blue Ribbon Schools

- Ranked gold by US News and world reports and is #43 in STEM nationally.

- 80% of educators have their Master's Degree. 30 staff members have received their National Board Certifications. 6 have a Doctorate.

We believe that by providing students with access to authentic, interdisciplinary, experiential, inquiry-based approaches, they will have the tools to solve novel problems that will face them after high school.

We believe that all students can excel when given a high-quality curriculum that values rigor balanced with support. As such, we strive to provide students with inclusive learning environments grounded in Universal Design For Learning. Furthermore, we value our students' unique and diverse perspectives and intentionally respond to those needs with culturally relevant and responsive practices and materials.

To achieve our goal of empowering students to change the world for the better, we have adopted the NPDG Global deep learning competencies and have further grounded these competencies in the U.N. Sustainable Development Goals. Examples of student work connected to these competencies and goals include developing solutions for clean drinking water for villages in Africa, creating hospitals out of metal containers with electricity and running water in remote areas of the world, developing sustainable solutions to the disposal of trash in our schools, partnering with indigenous peoples to understand better the history of our town and the people who were the original inhabitants, and so many more...

## DISTRICT GRADE CONFIGURATION

Currently, the district is organized into (1) PK-3, (2) K-3, (1) 4-5, (1) 6-8, (1) 9-12. While this has served the district for many years, new project work provides an opportunity to evaluate the best grade configuration for both students and families. The school committee will be evaluating the grade configurations and determine which is best for students and families from an educational standpoint but also to balance the desire for neighborhood schools by community members, minimize school transitions, reduce operational and facility costs, and many other factors.

For middle and high school students, the current grade configuration serves students well. Curriculum standards are spanned 6-8, 9-10, and 11, 12. A goal of the District is to consider additional spaces for career and technical courses, the arts, freshman academy, languages, and collaborative learning environments. There is also a need for spaces and opportunities for self-directed learning, internships, deep learning, and project-based learning in these grade spans.

## SECURITY APPROACH

Barrington Public Schools will pursue increased safety in all projects to be considered. The general approach will be to have soft open and collaborative interior spaces but a hard exterior with multiple layers of security. A primary focus will be to upgrade entry vestibule security with both physical modifications and technology. Additionally, interior school design and layouts will be improved to provide greater visibility into interior spaces as well as using enhanced technology throughout building interiors. On the exterior of each site, holistic design approach to its sites based

on Crime Prevention Through Environmental Design (CPTED) principles will be implemented.

The District has focused on creating programs, task forces, District Goals connected to social and emotional learning (SEL). We are focused on teaching our students the importance of self-management, developing relationship skills, responsible decision making, and self-awareness as important strategies in creating a healthy school environment that promotes school safety. Our SEL programs provide a foundation for promoting positive student behavior and reducing emotional distress. A school environment that is focused on creating an inclusive environment where students are supported makes for safer schools. such as a curriculum for promoting alternative thinking strategies and reinforcing positive behavior, and extra school psychology resources.

The district's security approach also consists of appropriate grade level lockdown procedures that have been discussed in the classroom. Yearly, all staff and students have been instructed on lockdown procedures before lockdown drills. Teachers have reviewed the "District Lockdown Procedures" and discussed steps to take during a lockdown with their students. Throughout the school year, teachers review lockdown procedures with their students to ensure proper actions to which to adhere. Rhode Island General Law dictates schools are required to conduct lockdown drills a minimum two times each school year.

These drills reinforce the ability for teachers to quickly execute procedures of the physical lockdown, which includes ensuring classroom doors are locked, distancing students, and keeping everyone calm. Our training allows staff and students to make quick decisions such as evacuating the building or securing a classroom or location within the building. The staff also completes a quick sweep of the halls outside of the classroom before securing the classroom, as securing their area is the priority. The staff follows consistent District-wide procedures in all of our school buildings.

Building physical security is centered around having a secure vestibule in each building. This has been fully realized at the new Middle School and High School. We hope to incorporate many of these elements into all of our buildings. This includes preventing access to the main building from the vestibule until cleared by building staff. Visibility and security cameras are essential to provide staff the ability to identify and validate visitors before granting access to the building.

## EXTERIOR SPACES

The COVID pandemic has taught the District that there are underutilized outdoor spaces. Schools have seen the positive impacts of outdoor learning spaces beyond playgrounds over the past two years. Thus, there is a desire to continue to capitalize on outdoor areas for learning, play, and lunch.

## SITE CIRCULATION AND TRAFFIC PATTERNS

Site plan design for future schools in Barrington will have to fit RIDE requirements for buses, provide adequate parking spaces and drop off areas for staff and public assembly areas and most importantly, create sites in which students and staff can safely enter and exit the buildings and use the sites without any interference from vehicles. Separate entrances, drop-off areas and parking access for buses, staff and parents dropping off or picking up are most desirable. Adequate stacking of vehicles on site, to help avoid traffic buildup on public roads will also be taken into consideration. For safety reasons, access drives around buildings for public safety vehicles (police and fire) are also desirable and will be addressed in aesthetically pleasing ways. Finally, direct access for students from the building to play or field areas without the crossing of roadways will be considered as part of any good design options.

## ENROLLMENT AND CAPACITY

A critical component of the educational facility master planning process is gaining an understanding of school and district level capacities. This work is informed by the educational program to establish an understanding of existing uses, as well aspirations for delivering the educational program. By establishing a capacity, the district can better evaluate how to meet program needs both at the building level, but also across the district.

In 2017 the Statewide Facilities Assessment collected facility data for all school facilities across the state and provided important metrics for decision making, including capacities. In the report three methodologies were used to understand capacity. LEA Reported Capacities were included, as well as a Model Capacity that compared schools to the State’s space standards. Finally, the report provided a Functional Capacity which was based on a high level evaluation of the facilities based on grade level and program. The Functional Capacity metric is the standard that was tied to the Utilization bonuses in statute.

In the 2020-21 Academic Year, Barrington had an elementary level October Enrollment of 1,430 students. Per the Functional Utilization

metric, that meant that all 4 elementary schools were above 100% utilization, and 2 of these elementary schools - Nayatt and Primrose Hill - were above 120%. In essence, this confirms the understanding of the facilities that was developed through the planning process - the facilities are over capacity and have had to make difficult operational decisions and develop creative solutions to address deficiencies and find spaces for all the programmatic needs. During planning it is critical to look at projected enrollments to ensure that any decisions are future focused and can accommodate any demographic changes. In the Academic Year 2026-27, the NESDEC enrollment shows an increase of approximately 40 students at the elementary grade level. As a result, the overcrowding conditions described above are only expected to be exacerbated by enrollment increases and utilization will only increase.

In the 2020-21 Academic Year, Barrington had a middle school October Enrollment of 831 students. This results in a functional utilization of 85%. Because the enrollments are expected to stay even through AY2026-27, the Functional Utilization is expected to stay within the above mentioned range.

At the High School level, Barrington had a 2020-21 Academic Year October Enrollment of 1,100 students, which resulted in a 96% Functional Utilization. The enrollment projection shows the high school enrollment increasing by up to 70 students in the coming years, but leveling back down to 1,135 in the Academic Year 2025-26. As a result, the Functional Utilization is expected to exceed 100% and will be at approximately 99% in 2026-27.

The capacity and utilization will continue to be studied in Stage II, and will help inform the planning options studied. Depending on the proposed solution, the data above makes the district eligible for the Decrease Overcrowding bonus that is tied to the Functional Utilization.

Grade Level	School	Functional Capacity	20-21 October Enrollment	Functional Utilization	26-27 Projected Enrollment*	Functional Utilization
ELEMENTARY	Hampden Meadows School	456	501	110%	525	115%
	Nayatt School	261	342	131%	345	132%
	Primrose Hill School	256	336	131%	346	135%
	Sowams Elementary School	236	251	106%	261	111%
MIDDLE	Barrington Middle School	980	839	86%	831	85%
HIGH	Barrington High School	1147	1100	96%	1135	99%

\*Theoretical distribution of additional projected students by Elementary School.



# PROGRAMMING MEETING SCHEDULE

## KBA NEEDS FROM DISTRICT

- Scale plans of each facility
- Program of Studies for each school
- Existing Educational Specifications
- Existing demographic forecast data (as available)

## WEEK 1

### PROJECT KICKOFF

- Attendees: Facilities Leadership, Educational Leadership, KBA Team
- Goal: Introduction, Understand general overarching goals for district, Long-term curriculum and growth strategies, Review schedule
- Duration: 1 hour

### SCHOOL TOURS

- Attendees: Educational Leadership, KBA Team
- Goal: Tour each school with Principal, discuss existing space, challenges, opportunities
- Duration: 2 hours for ES, 2 hours for Lower MS, 3 hours for HS

KBA Team will develop existing educational use plans for each building.  
KBA will develop existing space summary for each building.

## WEEK 2

### DISTRICT EDUCATIONAL GOALS: GRADE CONFIGURATION

- Attendees: Facilities Leadership, Educational Leadership, KBA Team
- Goal: Review grade configuration, review demographic information, discuss capacity data parameters
- Duration: 1.5 hours

### DISTRICT EDUCATIONAL GOALS: SPECIAL EDUCATION AND STUDENT SUPPORT SERVICES

- Attendees: Educational Leadership, Special Education, Social Workers, Psychologist Leadership, KBA Team
- Goal: Review specialized program spaces for students including social workers, special education substantially separate classrooms, out-of-district programs, social emotional support, etc.
- Duration: 2 hours

KBA Team will update develop/modify educational specifications  
KBA will develop new space summary for each building.  
KBA Team to develop current use and Educational Program Capacity for each facility.

## WEEK 3

### FACILITIES ASSESSMENT DATA – FINDINGS SHARE

- Attendees: Facilities Leadership, KBA Team
- Goal: Review Facilities Data, Discuss opportunities for facility and educational alignment
- Duration: 1.5 hour

### CAPACITY DATA – FINDINGS SHARE

- Attendees: Educational Leadership, KBA Team
- Goal: Review Facilities Data, Discuss opportunities for facility and educational alignment
- Duration: 1.5 hour

### CONCEPT CHARRETTE

- Attendees: Educational Leadership, KBA Team
- Goal: Design Charrette to look at concepts to address needs at each facility. Ideally this meeting is in-person.
- Duration: 3 hours

KBA Team will update develop preliminary concepts for addressing needs at each facility

## WEEK 4

### CONCEPT SHARE

- Attendees: Educational Leadership, Facilities Leadership, KBA Team
- Goal: Review concepts for overall district and each facility
- Duration: 2 hours

KBA Team will provide concepts to estimator for order of magnitude costs

## WEEK 6 (ESTIMATES MAY TAKE 1-2 WEEKS TO BE COMPLETED)

### STAGE 1 & 2 BUDGET ALIGNMENT

- Attendees: Educational Leadership, Facilities Leadership, KBA Team
- Goal: Determine scope of projects to be included in Stage 1 & 2 Submission
- Duration: 2 hours

KBA Team will work to complete Submission.

## WEEKLY CHECK-IN

### STAGE 1 & 2

- Attendees: Educational Leadership, Facilities Leadership, KBA Team
- Goal: Weekly check-in to review tasks and questions as development of RIDE documentation continues
- Duration: 1 hour

KBA Team will work to complete Submission.

# PROGRAMMING MEETING MINUTES



**KAESTLE BOOS**  
associates, inc

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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
Barrington, RI

KBA Project #21023.00  
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**Topic:** Barrington Educational Facility Master Plan – Hampden Meadows School

**Attendees:** Kate Jessup AIA, ALEP, LEED AP - Kaestle Boos Associates, Inc (KBA)  
Sean Schmigle AIA, NCARB, MCPPO – KBA  
Manuel Cordero - CIVIC  
Nora Brigham - KBA  
Michael Messore – Barrington Superintendent  
Douglas Fiore – Barrington Director of Admin & Finance  
Patrick Guthlein – Barrington Accounting Manager

**Date:** June 29, 2021

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### Background

- Grades 4<sup>th</sup> - 5<sup>th</sup>
  - Open to idea of adding more grade levels – “Nothing is off the table”
  - Want to hear all options and want best programs for students
  - Concern of space on site, says Sowams is only space with room for growth
- Classroom organization completely changes between years
  - Lots of small pockets that they don’t know what to do with, wants to utilize space
- Nurses and some offices have been redone with additions/renovations
- Every morning has gathering at back playground; pledge / exercise then classes start
- Practice as much special education inclusion as possible with push-in services
- Two teachers per team (one for math/science and another for writing/social studies)
  - Typically across the hall, nice to have kids move around
  - Roughly 10 sections per great and averages 25 students/class
  - One special class each day; PE, health, art, or music (all have rooms except for health, which travels to classroom)
- Typically runs 3 lunches / 3 recesses
  - 4<sup>th</sup> and 5<sup>th</sup> grade mix, scheduling not good, teacher collaboration during that time not possible
  - Tried 2 (1 lunch/recess for 4<sup>th</sup> grade and 1 lunch/recess for 5<sup>th</sup> grade)
    - Staffing was easy, also allowed for teachers meeting time when their respective grade was there. Supervision and safety was not good
  - Cafeteria also acts as a gym and meeting space
    - Too small, and dual function not great smell-wise
    - Not sufficient for voting days (must close whole gym, no room for separating)
- Outdoor classroom made during Covid, has been a huge success
  - Utilizing tree stumps, has wifi access, used as formal education




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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
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### Vision for Program

- Similar to Middle school to do collaborative teaching
- Room with carpets to allow sitting/collaboration - important
- Ability to work outside in breakout spaces
- Reduce overall amount of transitions within the district
- Dedicated space for each enrichment/special

### Related Programs

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### Special Programs

- Tries to be as inclusive as possible with kids in classroom, not pulled out
- OTPT space has swing tied to structure above ceiling
- 2 Program ALP
  - They help with social/ emotional needs or behavioral, or if they are explosive or distractive in the classroom
  - They have a room which has stayed in the same spot, has worked so far
- Severe and Profound
  - Non Verbal students
  - Help with behavior, life skills. Program has continued to evolve and has been a huge success
  - Moving to a new location
  - Use of bathrooms have been a problem
  - Some students require toileting
- Washer/apartment for life skills not available, but they are open to it if there is space
- ELL
  - Has their own classroom. Has a trained teacher and a push-in one
  - Currently has 4 students. Typically 4-8 per grade, number climbing. Up to 11 languages in district.
  - Shares staff with other schools
- Social Workers and Phycologists available but shared with other schools (3 / 2 day schedule)
  - At least one is available during crisis
- They have ADA swing for as needed, and wheelchair accessible areas but are riddled with cracks
- One student has requested gender-neutral bathroom, currently uses nursing area
- Homelessness/abuse not common, social workers work with family

### Space Needs

- Cafeteria/Auditorium/Gymnasium is very difficult to shceudle around. Would prefer a second space that would be able to support one of the uses.




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## P R O G R A M M I N G M E E T I N G S

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- Social worker and phycologist co-located with privacy
- Added security
  - Locked vestibule
  - More security in back (strangers walk on property, have had issues in the past)
  - Fobs to get into building (people are propping door to woods/playground as it locks behind them)
- More bathrooms for faculty and SPED
  - Only 2 handicap restrooms, shared with faculty and SPED
  - SPED - Scheduling, needing help, and if cleaning if necessary has been difficult. More privacy and space is also needed.
  - Does not need changing table or feeding area currently, but there is one student who will be coming into the school in a couple years
- Larger cafeteria with possibility to separate spaces
- HVAC and climate control high on priority list – likes how middle school was done

### **Community Connections**

- Not as connected as they'd like with town, has room for growth
- Gardening Club
- Audubon Society
- The Cove
- Some passion projects have community connections
- Works with the schools in walking distance (Sowams)




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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
 Barrington, RI

KBA Project #21023.00  
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**Topic:** **Barrington Educational Facility Master Plan – Nayatt**  
**Attendees:** Kate Jessup AIA, ALEP, LEED AP - Kaestle Boos Associates, Inc (KBA)  
 Manuel Cordero - CIVIC  
 Nora Brigham – KBA  
 Tracy Learned – Nayatt Principal  
 Michael Messore – Barrington Superintendent  
 Douglas Fiore – Barrington Director of Admin & Finance  
 Patrick Guthlein – Barrington Accounting Manager  
 Skip Learned – Director of Facilities

**Date:** July 2, 2021

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### Background

- 341 students
- PE pushes in for health so that music can occur in gym/stage
- Specialists are all on carts or share space
- 

### Vision for Program

- Collaboration opportunities

### Related Programs

- xxx

### Special Programs

- SPED – on carts due to covid
  - Need to share spaces is a challenge as well as scheduling
- Art/Music on carts
- OTPT and Music on stage
- Coaches are in ALP space
- Media Center takes place within a former classroom - undersizes
- Reading specialist
- Social/emotional specialist
- ASD – has classroom, high functioning and focuses on sensory + behavior
- ELL – increases in numbers through the year due to parent fellowships. Not shared by other schools due to high number of students (17-70).
  - Predominantly push-in

### Space Needs

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**P R O G R A M M I N G M E E T I N G S**

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**BARRINGTON PUBLIC SCHOOL**  
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- Media Center – larger and more suitable
- Dedicated art, music, maker space
- More bathrooms for adults, currently only 2
- Space for teachers to meet

**Community Connections**

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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
 Barrington, RI

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**Topic:** **Barrington Educational Facility Master Plan – Primrose Hill**  
**Attendees:** Kate Jessup AIA, ALEP, LEED AP - Kaestle Boos Associates, Inc (KBA)  
 Nora Brigham – KBA – Design Professional  
 Manuel Cordero - CIVIC  
 Patricia Tolento – Primrose Hill Principal  
 Michael Messore – Barrington Superintendent  
 Patrick Guthlein – Barrington Accounting Manager  
 Douglas Fiore – Barrington Director of Admin & Finance  
 Skip Learned – Barrington Director of Facilities

**Date:** July 2, 2021

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### Background

- Grades Pre-K – 3<sup>rd</sup> → Only pre-school in the district
- 330-340 students
- PreK Could not qualify for Bright Stars program
  - Size of classrooms too small, restrooms would not qualify
- 3 Pre-K teachers – all dual certified for SPED and PK. Model is integrated approach
- Used picnic tables for outdoor teaching, difficulty with DPW to maintain space
- 4 Kindergarten and 1<sup>st</sup> grade sections, 3 or 4 2<sup>nd</sup>/3<sup>rd</sup> grade sections (switches based off class size)
- Gym is multipurpose: Gym / café / Auditorium / OTPT / flex
- 2 speech and language teachers to services students and walk-ins
- Only title 1 school
  - Provides additional, not just suppletive
- 2 lunches per day, 150 seating each lunch
- Art and Music share a classroom, no maker space
- SPED program services autism program
- SEL and break space needed
- ELL teacher is part time but needs a space
- OTPT on stage isn't ideal

### Vision for Program

- Looking to develop quality pre-k program with full day 4-year-old or continuum
- Outdoor classrooms

### Related Programs

- Currently have integrated model for PreK
  - Outdoor classrooms
-





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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
Barrington, RI

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- Outdoor maintenance from DPW has been an issues

### Special Programs

- Speech Services – One designated, another for walk-ins
  - Invested in videos during covid due to masks
- Specialists – Math (does interventions), reading, instructional coaches (for teachers), ELL
- Enrichment – Art, music, library, Phys. Ed,
  - Not here for the full week, has worked so far, but limits schedule and curriculum
- No makerspace, used to have a cart
- SPED – has designated space & teacher
  - Typically works with severe autism. Has been doing integrated, but sometimes needs special space. Must take kids around building.
  - Has behavior specialist, works with overstressed
- ELL Specialist
  - Part time, works in classroom and pulls kids out for testing
  - 4-5 kids in K, not a large population.
- Social worker / psychologist works sections of the week

### Space Needs

- Need for designated spaces for specialists
- Alternative to multipurpose gym
- Dedicated OTPT space

### Community Connections

- xxx




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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
 Barrington, RI

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**Topic:** **Barrington Educational Facility Master Plan – Sowams**  
**Attendees:** Kate Jessup AIA, ALEP, LEED AP - Kaestle Boos Associates, Inc (KBA)  
 Manuel Cordero - CIVIC  
 Nora Brigham – KBA  
 James Callahan – Sowams Principal  
 Michael Messoro – Barrington Superintendent  
 Douglas Fiore – Barrington Director of Admin & Finance  
 Patrick Guthlein – Barrington Accounting Manager  
 Skip Learned – Director of Facilities

**Date:** July 2, 2021

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### Background

- Grades K – 3, 256 students currently attending
- “Only fully handicap accessible Elementary School” – ADA students go here regardless of district
  - Playground is accessible
  - Not a lot of ADA bathrooms - regular bathrooms are also small
- 3 Kindergarden classrooms have bathrooms
- 3 sections in every grade
- No specialized program for severe and profound, have had students in the past.
- Lots of college staff live in Barrington
- No conference room
  - Lack of office space and extra spaces to meet
- Gym is multi purpose : Auditorium, gym, cafeteria, music → NOT IDEAL
- Only school not used for polling
- No makerspace here
- Some classrooms have significant solar heat gain issues, some have portable AC based on IEP students
- Re-heat kitchen has significant unused space which can be repurposed

### Vision for Program

- Spaces to collaborate as a staff, like how the middle school is able to as a grade level
- Zen Room
  - Has needed room before, currently no students in need. There is an incoming K student.
  - Willing to continue conversation + follow up
- Wellness/PE Office

### Related Programs

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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
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### Special Programs

- ELL - Room is very small. Combination of push-in and push-out. Increase in population, has hired another specialist. ELL population has increased over the past few years.
- No transient kids currently, most changes are from people moving here, not leaving
- Transgender/non binary not an issue currently however plan for the future
- SPED
  - Specialist in storage closet
  - Can service students with severe and profound disabilities, language issues, autism, medically fragile
- Math Specialist
  - Services in hallway
- SEL share room
- Has had a behavior specialist

### Space Needs

- Effective storage + extra space
- Larger OTPT room
- Better and more meeting places with privacy and ability to for a grade level of staff to meet
- Breakout spaces
- Collaboration areas
- Gym as less of a multipurpose space
- Need dedicated art, music, maker space
- Secure vestibule

### Community Connections

- xxx




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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
 Barrington, RI

KBA Project #21023.00  
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**Topic:** **Barrington Educational Facility Master Plan – Barrington Middle School**

**Attendees:** Andrew Anderson – Barrington Middle Principal  
 Michael Messore – Barrington Superintendent  
 Douglas Fiore – Barrington Director of Admin & Finance  
 Patrick Guthlein – Barrington Accounting Manager  
 Manuel Cordero - CIVIC  
 Kate Jessup AIA, ALEP, LEED AP - Kaestle Boos Associates, Inc (KBA)  
 Nora Brigham – KBA

**Date:** June 29, 2021

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### Background

- Completed by KBA
- Photo opportunities
- Standing, lightweight, movable desks for staff
- Under desk storage is great
- Team teaching – social studies and math/science
- Math teachers love the wrap around white board – students have enough space to work too

### Vision for Program

- Originally wanted concept to be art at the center, core around it
- Deep learning focused on the 6 Cs – Collaboration, Critical Thinking, Creativity, Citizenship, Coordination, Communication

### Related Programs

- Makerspace available for students to use
- Spaces to communicate, collaborate
- Breakout spaces for learning
- Every specialist has an office
- Windows facing hallways are not an issue or distraction for students
- Fab Lab and design spaces allow for the development of new curriculum

### Special Programs

- SPED works with each cluster → kids are fully included
  - Life Skills
    - No Home-ec - cannot find staff otherwise would probably have it
    - More academic in Middle school
    - Some ELA, writing, and math in separate room
-



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## P R O G R A M M I N G M E E T I N G S

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- Test Room
  - Not used yet, wheel desks allow for flex space
  - Allows for curriculum to expand
- Art Room
  - Natural light, efficient storage, and place to display artwork
- Lots of interest in coding and architecture
- Media Room – Very popular, too tight for 20 kids (interest in switching rooms)
  - No recording booth for podcasts
  - Considering doing morning show

### **Space Needs**

- Would like movable desks for students as well
- Operable height lab desk handles fall off
- Auditorium cannot fit whole school
- Music room cubbies should accommodate different instruments
- Larger space for tv editing lab

### **Community Connections**

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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
 Barrington, RI

KBA Project #21023.00  
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**Topic:** **Barrington Educational Facility Master Plan – High School**

**Attendees:** Kate Jessup AIA, ALEP, LEED AP - Kaestle Boos Associates, Inc (KBA)  
 Nora Brigham – KBA – Design Professional  
 Manuel Cordero - CIVIC  
 Joseph Hurley – Barrington HS Principle  
 Patrick Guthlein – Barrington Accounting Manager  
 Douglas Fiore – Barrington Director of Admin & Finance  
 Skip Learned – Barrington Director of Facilities

**Date:** July 6, 2021

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### Background

- Newest addition done in the early 2000s
- Sections of school organized by department
- Late start Tuesdays so teachers can plan, works well
- Some teachers have designated rooms, not all
- 10 Students from out of district – currently have waiting-list, not looking to aggressively enroll
- All math classrooms always utilized, sometimes need to use science wing
- Enrollment – 1100 students this year
  - Year sizes around 250
- Outdoor picnic tables used for classes, no designated teaching area
- Field has capacity to host games but is in rough shape. Desire for turf field
  - Parent Boosters = yes. Each group has parent club
- Hallway lockers not used (locker room is)

### Vision for Program

- Flexible furniture
- Collaboration opportunities (staff and students)
- Open to non-departmental organization
- Designated planning times
- More flexible spaces
- Outdoor learning opportunities




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## P R O G R A M M I N G M E E T I N G S

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**BARRINGTON PUBLIC SCHOOL**  
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### Related Programs

- Developing a Freshman Academy
- Creative Lab
  - Located in old Home-Ec room
- CAD Lab (1 new and 1 old) – led by a computer science professional
- Electronic Music – EEP Credit (overflowing with students)
- Woodshop (overflowing with students)
- Senior Project (Capstone)
- CT Program
  - Desire for collaboration with the middle school
- Desire for Electrical/circuitry (has professor)
- LGBTQISA
  - Gender Neutral Restrooms – 2 (one upstairs and downstairs)
  - Active GSA
  - No GN locker rooms, students would discuss with PE teacher / create a plan

### Special Programs

- SEL
  - Has been 30 minutes a week, which is too short
- LifeSkills
  - Built new kitchen (not used due to covid as of now)

### Space Needs

- “Long term storage is a major issue”
  - Lots of yearly programs
- 

### Community Connections

- XXX

# 8 PLANNING ACTIVITIES

## EXECUTIVE SUMMARY

Beginning in May 2021, Barrington Public Schools has been working with Kaestle Boos Associates on a master plan and Necessity of School Construction Stage 1 Application. The Facilities Committee met with the team weekly to facilitate an understanding of needs based on data collection. As part of the Stage 2 process Accredited Learning Environment Planners (ALEP)s worked with school Principals and Educational and District leaders to understand the long-term teaching and learning goals. Additionally, facilities assessments teams of architects and engineers worked to understand existing facility deficiencies.

During the Stage 2 process, it became clear that more time was needed and leadership elected to submit a new Stage 1 for February 2021. Included in this section is a calendar of events to support a successful Stage 2 submission September 2023.

Included as an Appendix to this document are the Facilities Committee and School Committee Presentations

Forthcoming meetings to support the Stage 2 Submission are identified below.

School Committee Meetings:

2/16/23, 3/2/23, 3/16/23, 4/6/23, 4/20/23, 5/4/23, 5/18/23, 6/1/23, 6/15/23, 7/6/23, 7/20/23, 8/3/23, 8/17/23, 9/7/23

School Building Committee (Tentative Schedule):

2/28/23, 3/14/23, 3/28/23, 4/18/23, 5/2/23, 5/16/23, 6/6/23, 6/20/23, 7/11/23, 7/25/23, 8/15/23, 9/5/23

Public Forum (Tentative Schedule):

3/21/23, 4/25/23, 5/23/23, 6/27/23

School-Based Programming: 5/22/23-6/2/23

Development of Design Concepts: 6/5/23-6/23/23

Approval of Design Concepts: 6/26/23-7/7/23

Schematic Design Documents: 7/10/23-9/1/23

DRAFT DUE: 9/1/23

School Committee and District Review and Comment Period: 9/4/23-9/11/23

Public Meeting for Signatures: 9/12/23-9/14/23



# 2023

- School Committee Meeting
- School Building Committee Meeting
- Public Forum
- Town Council Meeting

## January

Su	Mo	Tu	We	Th	Fr	Sa	
	1	2	3	4	5	6	7
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30	31					

Joint School Committee & Town Council Meeting

## February

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

Stage 1 Submission Deadline

Development of Design Concepts by Design Team

## March

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Approval of Design Concepts - Approval to move into Documentation

## April

Su	Mo	Tu	We	Th	Fr	Sa
					1	
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Community Forum - Site Design for Project(s)

## May

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Programming with School Officials

Public Forum

DRAFT DUE

## June

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3		
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Public Forum - Design Concepts

## July

Su	Mo	Tu	We	Th	Fr	Sa
					1	
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Approval of Design Concepts - Approval to move into Documentation

## August

Su	Mo	Tu	We	Th	Fr	Sa	
			1	2	3	4	5
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28	29	30	31			

Schematic Design Documents

## September

Su	Mo	Tu	We	Th	Fr	Sa
			1	2		
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SC District Review and Comment Period

Signatures

## October

Su	Mo	Tu	We	Th	Fr	Sa			
			1	2	3	4	5	6	7
8	9	10	11	12	13	14			
15	16	17	18	19	20	21			
22	23	24	25	26	27	28			
29	30	31							

## November

Su	Mo	Tu	We	Th	Fr	Sa		
					1	2	3	4
5	6	7	8	9	10	11		
12	13	14	15	16	17	18		
19	20	21	22	23	24	25		
26	27	28	29	30				

## December

Su	Mo	Tu	We	Th	Fr	Sa	
						1	2
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	
31							

## 9 APPROVAL OF FUNDING FOR STUDY

Included in this section is a copy of meeting minutes from the School Committee where Kaestle Boos Associates was awarded the Master Plan Study in 2021. Also included are meeting minutes approving a new submission for a Stage 1 in February 2023.

Kaestle Boos Associates and the Consultant Team meet all regulation requirements including but not limited to Accredited Learning Environment Planner and WBE/MBA participation.

**BARRINGTON SCHOOL COMMITTEE  
BARRINGTON PUBLIC SCHOOLS  
BARRINGTON, RHODE ISLAND 02806**

MINUTES OF SCHOOL COMMITTEE VIRTUAL MEETING - June 17, 2021

Present at the meeting were Gina Bae, Megan Douglas, Erika Sevetson, Amanda Regino Basse, Patrick McCrann, Michael Messori, Paula Dillon, Douglas Fiore, Kristin Matthes, and student representatives, Aryana Mohammadi and Sarah Jageler. Also present were all building principals, including Joe Hurley, Allison Scanlon, Andrew Anderson, Rebecca Silveira, Tracey McGee, Gino Sangiuliano, James Callahan, Tracey Learned, and Patricia Tolento.

At 6:37 pm, Ms. Bae called the meeting to order.

Ms. Bae recognized Aryana Mohammadi for her commitment to the Committee during the past school year. It has been a challenging year and Aryana has been a voice of the student body, providing feedback to the Committee. This will be Aryana's last meeting as student representative. Mr. Hurley also recognized Ms. Mohammadi not only for her work with the School Committee but also for the work she has done on the School Improvement Team.

Ms. Bae and Mr. Hurley then welcomed our new student representative for the upcoming school year, Sarah Jageler. Mr. Hurley outlined the different committees that Sarah has been involved in, and her interest in policy work.

**School Committee Workshop on School Goals: Mid-Year Report**

Dr. Dillon gave a brief explanation of tonight's presentation. The principals will discuss their school goals related to Student Success and Social Emotional Learning. Each school will discuss the scale scores for this year's presentation and how the schools are meeting their goals. The schools also discussed the lessons learned over the last school year.

Each principal presented their goals showing where the students were at the beginning of the school year and where they were now in a District-wide [document](#). The principals reviewed their students' outcome for the year and also strategies and collaborative work their teachers will continue in the upcoming school year.

After each of the schools' presentations, school committee members asked clarifying questions and thanked the administrators for all of their work this year. After that discussion, there was an opportunity for Public Comment and questions.

Mr. Jack Siegal - 410 County Road. Mr. Siegal inquired about the mask wearing for the next school year. He also discussed the social emotional welfare of the students, especially at the Middle School.

Mr. Hurley, high school principal, also discussed the work the teachers and staff are doing at the High School for the upcoming NEASC visit on November 14, 2021. All departments have been assigned deep learning competencies aligning with the Vision of the Graduate which will be collected for NEASC.

#### Public Comment

Mr. Jack Siegel - 410 County Road. Mr. Siegel spoke regarding the resources that are available for students with IEPs.

Devyn Smith - 14 South Meadow Lane. Mr. Smith questioned where the other academic goals were regarding students who do not have an IEP.

Dr. Dillon wrapped up the presentation with the district goal trends. Dr. Dillon also clarified that the goals that were discussed at the meeting tonight are not the goals for next year. The School Improvement Teams will be determining the goals for next year. The high school, however, does have goals already set for them for next year by NEASC.

Ms. Bae thanked the Administrators for all their hard work this year. They have all gone above and beyond and deserve special recognition.

#### End of Year Advisory Committee Reports and School Committee Lessons Learned During COVID

##### Diversity, Equity, Inclusivity Committee (DEI)

Ms. Bae presented an update to the Committee. The Committee reviewed and revised the DEI policy this year. The Committee also broke into 4 working groups to look at different protocols related to recruiting and hiring practices, community engagement, equity audit and curriculum.

##### Health & Wellness Committee

Dr. Douglas presented to the Committee that the Health & Wellness Committee worked on revising health related policies to align more with best practice, reviewed the PE curriculum, completed the adolescent sexual health survey and discussed nutritional guidelines and communication.

##### Policy Committee

Ms. Bae informed the Committee that the Policy Committee worked this year on revising the district's policy relating to Title IX, as well as, working on the student conduct handbook that will align throughout the district.

##### Social Emotional

Dr. Douglas shared that the SEL Committee split into two working groups. One group focused on resilience, including bolstering RULER implementation at the High School as well as creating virtual calming room that is easily accessible for use by educators, students and families throughout the District.

The second group investigated options for social emotional and school culture assessments. This group reviewed all the available surveys, and developed a list of options looking at school culture rather than individual student assessment to help guide policy change. After review, they recommended Panorama which is now being reviewed by administration.

#### Special Education Advisory Committee (SEAC)

Ms. Matthes shared with the Committee that the leadership for SEAC has 4 new members. The meetings were well attended and focused on socialization during the pandemic, positive psychology, de-leveling, and dyslexia. Moving forward SEAC will look at potential changes to its bylaws.

#### Facilities Committee

Mr. Fiore informed the Committee that the Facilities Committee met 6 times this past school year. The Committee vetted a list of architects regarding the Facilities Master Plan related to Phase I and Phase II and awarded the contract to KBA. The Committee is eager to get started and will be reaching out to the Administrators and the staff.

#### Senior Project Advisory

No report given

#### **School Committee Business Meeting**

##### FY22 Budget Update

Mr. Fiore shared with the Committee that the budget was approved at the financial town meeting. Mr. Fiore thanked everyone for their support. The District is now preparing for the next school year. Mr. Messoro also thanked the teachers and the community for their support.

##### Re-entry Update

Mr. Messoro shared that there isn't any new update at this time.

##### BMS Building Committee Update

Mr. Fiore shared that the field work is in progress. The District will meet with the architect next week to make a decision on final acceptance of the fields. The District is still working with legal counsel with regards to the process of closing out the project. When all the work is completed there

is a completion certificate that will need to be signed off and then the remaining money will be sent over to the Town.

Mr. Messoro shared that the District is optimistic that the fields will be opened in the fall.

Second Read: Substance Use Policy

**Ms. Bae asked for a motion to approve the Substance Use Policy. Dr. Douglas moved and Ms. Sevetsen seconded the motion. The motion passed 5/0 with Ms. Bae, Dr. Douglas, Ms. Sevetsen, Ms. Regino Basse and Mr. McCrann voting in the affirmative.**

Second Read: Administrators Benefit Policy

Mr. Messoro shared with the Committee that this policy was revised in regards to the sick bank.

**Ms. Bae asked for a motion to approve the Administrators Benefits Policy with the new revisions. Dr. Douglas moved and Ms. Sevetsen seconded the motion. The motion passed 5/0 with Ms. Bae, Dr. Douglas, Ms. Sevetsen, Ms. Regino Basse and Mr. McCrann voting in the affirmative.**

Discuss summer schedule of School Committee meeting

After a brief discussion it was decided to hold a workshop on July 26th at 9:00 am to discuss goal setting and another workshop on August 17th at 6:30 pm for SIT training.

Announcements

Mr. Messoro announced the following appointments - Ashley Szala, Registered Behavior Technician at Hampden Meadows; Ainsley Burns, Assistant Coach, Girls Basketball and D'Vonne Trumbo, Head Coach for Girls JV Basketball at the HS.

**At 9:56 pm, Ms. Bae asked for a motion to move into the Executive Session under RI General Laws §42-46-5(a)(1) to discuss the job performance and individual employment contracts of the District Administrators and §42-46-5(a)(1) sessions pertaining to Superintendent evaluation. Dr. Douglas moved and Ms. Regino Basse seconded the motion. The motion passed 5-0 with Ms. Bae, Dr. Douglas, Ms. Sevetsen, Ms. Regino Basse and Mr. McCrann voting in the affirmative.**

At 10:58 pm, Ms. Bae asked for a motion to adjourn from executive session. Megan Douglas moved and Patrick McCrann seconded the motion. The motion passed 5-0 with Gina Bae, Megan Douglas, Erika Sevetsen, Patrick McCrann and Amanda Regino Basse voting in the affirmative.

Ms. Bae announced that a vote to approve a 3-year contract for the superintendent with a 2% salary increase, retirement contributions, and adjustments to the sick days/sick bank protocol commensurate with the other administrators was held. The motion passed 5/0 with Gina Bae, Megan Douglas, Erika Sevetsen, Patrick McCrann and Amanda Regino Basse voting in the affirmative.

Megan Douglas moved to seal the minutes and Erika Sevetson seconded the motion. The motion passed 5-0 with Gina Bae, Megan Douglas, Erika Sevetson, Patrick McCrann and Amanda Regino Basse voting in the affirmative.

**Megan Douglas moved to adjourn the meeting at 11:00 pm. Patrick McCrann seconded the motion. The motion passed 5-0 with Gina Bae, Megan Douglas, Erika Sevetson, Patrick McCrann and Amanda Regino Basse voting in the affirmative.**

**Barrington School Committee  
Business Meeting Minutes  
January 19, 2023  
6:02 pm  
BMS Presentation Room**

Present: Patrick McCrann, Thomas Peck, Frazier Bell, Amanda Basse and Megan Douglas;  
Michael Messori, Paula Dillon, and Doug Fiore.

Mr. McCrann opened the meeting at 6:02 pm.

**Mr. Bell made a motion to add a public comment portion to the agenda. Dr. Douglas seconded. The motion passed 5/5 with Mr. McCrann, Mr. Peck, Mr. Bell, Ms. Basse and Dr. Douglas voting in the affirmative.**

**Public Comment**

Maraidh Thomson, 3 Ridgeland Road. Ms. Thomson urged the School Committee to attend the RIASC conference on Saturday, January 21, 2023. Ms. Thomson also commented on the need for consistency regarding notifying the community about the School Committee meetings.

**School Committee Business**

**Discuss and possible vote of Stage I services proposal**

Mr. Fiore stated that based on the discussion at the last School Committee meeting to resubmit the Stage I application to RIDE he went back to KBA. KBA has submitted their proposal for submitting the Stage I application.

Mr. Peck asked about the scope of the work which is on the proposal. Mr. Trim explained that these are things that need to be done to comply with the RIDE guidelines. Mr. Trim stated that some items need to be rechecked and there are several items the School Committee and the district will need to rewrite however they do not need to re measure the buildings.

Mr. Peck questioned Mr. Trim about the need to redo or update these items if the facilities assessment is good. Mr. Trim stated that in order to resubmit a new Stage I application to RIDE these are items that his company feels need to be looked at again. Mr. Peck asked Mr. Trim with this list does KBA feel that everything will be done in time to submit the Stage I application in February. Mr. Trim stated it will get done. Mr. Trim acknowledged that it is a short timeframe however KBA has the resources in the office to make sure the books are put together in time.



**Mr. McCrann asked for a motion to approve the Stage I services proposal. Mr. Peck moved and Mr. Bell seconded. The motion passed 5/5 with Mr. McCrann, Mr. Peck, Mr. Bell, Ms. Basse and Dr. Douglas voting in the affirmative.**

Discuss and possible vote on School Building Committee Leadership & Membership

Mr. McCrann reviewed that at the last School Committee it was discussed that the School Building Committee was formed from the Facilities Committee. Mr. Peck stated that he felt it is important to have a diverse group of Barrington community members on the committee. It was also discussed to establish procedures to put together a new Building Committee.

Mr. Bell felt the public opinion was that the Building Committee was stirring what options were being brought to the School Committee. Mr. Bell suggested that if there was a specific charge of what the School Committee is looking for from the Building Committee especially in regards to having more than one plan presented to the School Committee. Ms. Basse warned the Committee that if there are too many members on the School Building Committee it might be difficult to have a quorum at the meeting which would mean that the meeting would need to be rescheduled.

Also, discussed was to have Mr. Mario Carreno, Director of the School Building Authority come to a School Committee meeting to help the School Committee with some of the questions they have.

At the next School Building Committee meeting, the administration will discuss the membership moving forward with the current members.

Mr. Fiore will reach out to Mr. Carreno to see if he can come to a meeting in February.

Discuss and possible vote on an RFQ for an Owner's Project Manager to oversee School construction project

Mr. Fiore presented the draft RFQ for the Owner's Project Manager for the school building projects. Mr. Fiore also clarified that going out to bid for an RFQ instead of using the state vetted list would only mean that if a vendor that bids is not on the vetted list the district would need to do their due diligence on vetting them.

The date proposed for the bids to be opened is February 3, 2023. The Committee felt that this date was too soon. The Committee and Mr. Fiore discussed a few edits but Mr. McCrann asked if the Committee could send their edits directly to Mr. Fiore after they had a chance to review the bid more closely. The Committee will send their edits to Mr. Fiore by January 26th so that a new draft can be presented at the next School Committee meeting.

**At 6:49 pm, Mr. McCrann asked for a motion to adjourn. Mr. Peck moved and Mr. Bell seconded the motion. The motion passed 5/5 with Mr. McCrann, Mr. Peck, Mr. Bell, Ms. Basse and Dr. Douglas voting in the affirmative.**

DRAFT



# 10 OPERATING BUDGET ANALYSIS

Included in this section is the 2022-2023 Barrington School Department operating budget. Depending on the solution that is selected in the Stage 2 Submission, there are opportunities to reduce overall District costs. These include reduction of transportation costs, maintenance, and employee travel.

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>DETAIL</u>
<u>SCHOOL DEPT.</u>		
<b>OPERATING EXPENSES</b>		
	Salaries	\$37,089,343
	Employee Benefits	13,180,115
	Purchase Professional Services	2,007,451
	Purchase Property Services	943,521
	Other Purchase Services	4,621,084
	Supplies & Materials	1,709,147
	Purchase Property & Educ. Equipment	137,194
	Dues Fees & Miscellaneous Expense	75,708
	<b>TOTAL OPERATING EXPENDITURES</b>	<u><u>\$59,763,563</u></u>
<b>FY22 CAPITAL</b>		
	School WIFI Access	\$26,208
	Technology	362,387
	<b>TOTAL OPERATING AND CAPITAL</b>	<u><u>\$60,152,158</u></u>
	Local Share - Appropriations	\$49,440,537
	Local Share - Capital	388,595
	State Categorical Aid (High Cost Special Ed/ELL)	90,554
	State Share	9,777,357
	Medicaid	275,000
	CTE Tuition	180,115
	<b>TOTAL REVENUES</b>	<u><u>\$60,152,158</u></u>



# 11 UTILITY INCENTIVES

Included in this section is a copy of correspondence to National Grid representatives regarding potential utility incentives depending on the size and scope of the projects undertaken.

## Kate Jessup

---

**From:** Kate Jessup  
**Sent:** Tuesday, September 7, 2021 2:25 PM  
**To:** jerry.drummond@nationalgrid.com; kathleen.arthur@nationalgrid.com  
**Cc:** Sean Schmigle  
**Subject:** Barrington Public Schools Master Plan - Utility Incentives

Good Afternoon Jerry and Kathleen,

I am working with the Town of Barrington on a master plan for the public schools. With the exception of the newly completed middle school, we are looking for improvements at all of the schools: 4 elementary and the high school. Although we have not yet pinned down a scope of work, I wanted to reach out to understand the opportunities available. The options being presented vary in size and scope from renovations to a 2 school new construction at the elementary schools and renovations to the high school. Please let us know if there are specific programs that Barrington would be able to participate in.

Thanks,  
 Kate

Kate Jessup AIA, ALEP, LEED AP  
*Architect and Educational Planner*

### KAESTLE BOOS ASSOCIATES, INC

Direct/Office: 508-203-8673 | Cell: 203-570-0230  
[kjessup@kba-architects.com](mailto:kjessup@kba-architects.com) | [www.kba-architects.com](http://www.kba-architects.com)  
 416 Slater Road, New Britain, CT 06053  
 16 Chestnut Street, Suite 301, Foxborough, MA 02035  
 313 Congress Street, Suite 150, Boston, MA 02210  
 20 Newman Avenue, Suite 2001-A, Rumford, RI 02916



# 12 LEGAL CONTRACT PROCUREMENT

**KAESTLE BOOS**  
associates, inc

January 13, 2023

Mr. Patrick McCrann  
Barrington School Committee Chair  
Barrington School Committee  
Barrington, RI

C.O. Mr. Douglas Fiore  
Director of Administration & Finance  
283 County Road  
Barrington, RI 02806

**Re: Proposal Amendment No. 3: Stage I Resubmission  
Barrington Facilities Master Planner – RI State Contract #MPA 575**

Dear Mr. McCrann / Mr. Fiore:

Kaestle Boos Associates, Inc. (“KBA”) is pleased to present our additional services proposal for RIDE Stage I (Necessity of School Construction) re-submission based on School Committee redirection. This fee proposal is at a reduced scope and price, due to the fact that some of the previously developed material will be incorporated into the new Stage I submission. Reimbursables will be invoiced with a fifteen percent (15.0 %) markup, in accordance with Article 6.2.2 of the Contract.

Our design services include the following:

- Working with District on submitting an updated Letter of Intent
- Update previously developed facility conditions assessments and project priorities
- Update previously prepared demographic projections
- Provide updated educational programs based on School Committee direction
- Update projected schedules
- Update Initial Compliance Certification Form
- Update School Building Committee Members list and backgrounds
- Coordinate w/ LEA to updated asset protection plan
- Coordinate updated Certified Educational Facilities Manager credentials
- Coordinate and update Cross Districting Due diligence
- Coordinate and update Educational Program Due diligence
- Coordinate and update operating budget analysis
- Coordinate and update utility incentives

16 Chestnut St., Suite 301, Foxborough, MA 02035  
Phone: 508-549-9906 ▲ Fax: 508-549-9907  
NEW BRITAIN, CT | FOXBOROUGH, MA | BOSTON, MA | RUMFORD, RI  
Email: kba@kba-architects.com ▲ Web: www.kba-architects.com



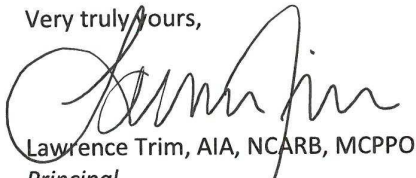
**Additional Services Fees:**

We propose a lump sum base fee of **Thirty-Two Thousand Five Hundred Dollars (\$32,500)** for the above scope of work noted. Our fee proposal is broken down as follows:


<u>Additional Services Scope</u>	<u>Total</u>
RIDE Stage I resubmission	\$ 32,500
<b>Additional Services Scope Total</b>	<b>\$ 32,500</b>

If this proposal is acceptable to you, please sign below and return one (1) copy of the proposal to our office. Should you have any questions or concerns, please feel free to contact me.

Very truly yours,

  
 Lawrence Trim, AIA, NCARB, MCPPO  
 Principal  
**KAESTLE BOOS ASSOCIATES, INC.**  
 LPT: mam

This proposal has been accepted by:

  
 \_\_\_\_\_  
 Name (sign)

1/20/2023  
 \_\_\_\_\_  
 Date

DOUGLAS FIORE  
 \_\_\_\_\_  
 Name (print)

Director of Administration + Finance  
 \_\_\_\_\_  
 Title (print):

Attachment(s):

# A APPENDIX

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## SCHOOL BUILDING COMMITTEE MEETING 02/07/2023



### School Building Committee Meeting February 7, 2023

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#### RIDE Stage 1 Submission:

1. Statement of Interest and Project Justification
  - Initial Compliance
  - **SBC Members List**
  - LEA Map
  - Inspection Reports
2. Certified Facilities Manager Credential
  - Tools for Schools
3. 5 Year Capital Improvement Plan
4. Facilities Analysis
5. District and Community Demographics
6. Cross Districting Due Diligence
7. Educational Program Due Diligence
8. **Planning Activities**
9. Approval of Architectural Feasibility Study
10. Operating Budget Analysis
11. Utility Incentives
12. Consultant Procurement Verification

## Project Goals:

Scope of work may include new construction, addition/renovation, repairs, and educational facility updates reflecting the district's long-term educational vision that is currently ongoing.

General Goals for projects to include, but not limited to:

- Decrease classroom overcrowding at all schools and increase classroom sizes.
- Provide future-focused educational space including but not limited to: Classroom quantities / sizes, small learning communities which include student and teacher collaboration spaces, interdisciplinary areas for instruction, small and large group instruction spaces, social emotional support spaces indoor/outdoor learning connections, authentic learning opportunities, break-out and project areas.
- Provide dedicated enrichment spaces for Art, Music, Physical Education, STEM/Technology in each elementary school.
- Create dedicated and appropriate intervention and special education spaces
- Align grade configuration with teaching and curriculum models
- Create district-wide equity for all Barrington students
- Align space sizes to RIDE Basic Educational Plan (BEP)
- Upgrade safety and security features, protocols, and technology in all schools
- Create sustainable and energy efficient buildings with decreased operating costs.
- Consider opportunities for development of parks, recreation, and/or other amenities at sites considered surplus after implementation of plan
- Improve traffic safety, student drop-off and pick up and multimodal transportation access

## Facilities Assessment:

The facilities assessment should list any deficiencies in the District's existing buildings. The facilities analysis must be conducted by a licensed engineer and include:

- Inspection and analysis of building envelope
- Inspection and analysis of the structural elements of the facility
- Inspection and analysis of all mechanical systems including condition, age, energy efficiency, levels of ventilation, and compliance with ASHRAE standards
- Inspection and analysis of the lighting systems including condition, age, energy efficiency, and lighting levels
- Inspection and analysis of all controls including lighting controls and sensors, energy management systems, and emergency shutoffs
- Inspection and analysis of all fire, safety, and security systems including emergency plans
- Analysis of the energy use (electric and heating and/or cooling) of the facility for at least the last two years, a survey of the facility systems, and recommendations for improving the energy efficiency. The use of Energy Star Portfolio Manager or ComCheck software systems to benchmark the facility against other buildings or the Rhode Island Energy Code is highly encouraged.

## Facilities Assessment:

Assumed Construction Start: December 31, 2023 (required for RIDE additional incentives) – Escalation to 12/31/23

\*\*All costs are Direct Trade Cost Subtotal and does not include GC OH&P or Owners Soft Costs\*\*

**Nayatt:**

Stage 1: \$9,446,950

Priority 1 & 2's: \$1,851,805 (Previously \$1,386,244)

**Primrose Hill:**

Stage 1: \$6,511,085

Priority 1 & 2's: \$ 683,805 (Previously \$387,244)

**Sowams:**

Stage 1: \$11,566,237

Priority 1 & 2's: \$ 1,511,657 (Previously \$1,114,150)

**Hampden Meadows:**

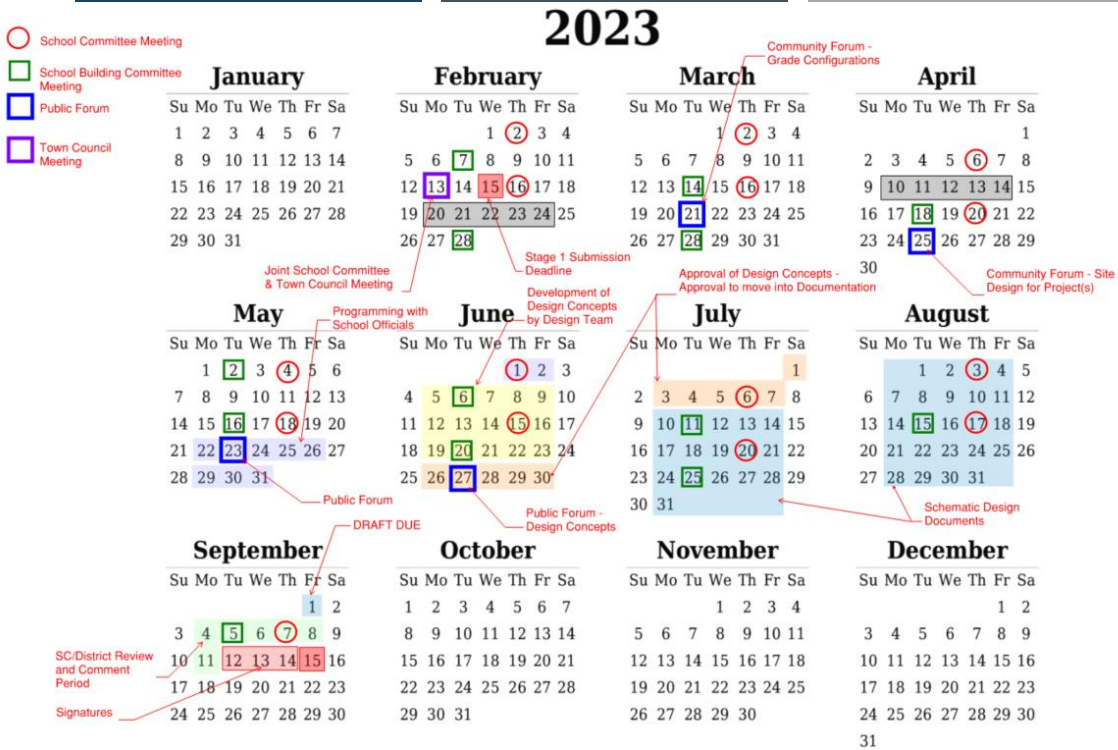
Stage 1: \$9,594,066

Priority 1 & 2's: \$2,118,581 (Previously \$1,573,825)

**Barrington High School:**

Stage 1: \$36,691,158

Priority 1 & 2's: \$12,159,975 (Previously \$8,990,581)



**K**^ESTLE BOOS  
a s s o c i a t e s , i n c

# VISIONING REPORT



## District-wide Master Planning

Barrington Public Schools  
Barrington, RI



May 2022  
Frank Locker Educational Planning

Ch 1 Contents + Acknowledgements



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- Facility Concepts

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- Key Words for Education
- Most Important Issues for the Future
- Learning Modalities
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Ch 2 Executive Summary

**INTRODUCTION**

This Educational Vision reflects the work of a Deep Dive Visioning Team, approximately 50 teachers, school and district administrators, parents, school committee members, community members, a student, the master plan architect. Created in two days of intense facilitated workshops, it is intended to guide the long-term development of both education and facilities master planning for Barrington Public Schools (BPS).

**KEY WORDS**

Visioning Team members, working independently, articulated Key Words as expressive of facilities in the long term for BPS. The most commonly cited words are shown here. These words could be the basis of an "elevator speech" that will characterize Visioning concepts in the many public meetings expected in the process to improve district facilities.

**EDUCATION**

- Flexible, doing flexible, flexible thinking (cited 9 times)
- Collaboration, collaborative (5 times)
- Choice, student choice, more student opportunity in learning choices, student-directed (4)
- Future innovation – ready for next decade, innovation, innovative learners (4)

**FACILITIES**

- Flexible learning spaces, flexibility, flexible spaces that allow access to all, flexible space/buildings, flexibility for the future, flexible/responsive (cited 11 times)
- Accessibility, fully accessible (2)
- Collaborative, collaboration (2)
- Diversity/equity/inclusion, equitable (2)
- Innovating learning space, innovative and effective (2)
- Inspiring, inspire creativity (2)
- Comfortable furniture
- Creativity
- New, new buildings (2)

See Chapters s 3 + 4 as well as Appendix Ch 5.2 for all Key Words



**Executive Summary**

## Ch 2 Executive Summary

### EDUCATIONAL VISION

#### Guiding Principles

The *Guiding Principles* presented here were created to express the values, beliefs, and concepts developed by the educator and community Visioning Teams which examined educational trends, best practices, and issues affecting the delivery of 21<sup>st</sup> century education. These *Guiding Principles* present the essence of that inquiry. They are not policy, but they address the overarching themes identified by participants. They are intended to serve as a foundation for future educational deliveries and facility plans. Staff professional development is crucial to the successful implementation of the educational concepts outlined here.

The *Guiding Principles* are:

#### OVERARCHING PRINCIPLES

- Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one still fairly traditional to one that is more transformed, more “21<sup>st</sup> century”
- This future-oriented Educational Vision articulates of innovative best and next educational practices, some of which are already in operation in some classrooms in the school
- Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one that is fairly traditional to one that is more transformed
- Prepare students for success in the 21st century, an emerging world of global competition, uncertain employment prospects simultaneous with unheralded workplace opportunities, infinite access to information, and rapid change in technology
- Teach 21st century skills at the same time as traditional content
- Build relationships with students, families, and communities through school structure and programs
- Aspire beyond the Common Core and beyond the Rhode Island Department of Education (RIDE) guidelines to do what is best for student learning, and to instill a life-long sense of wonder and purpose. Create independent, life-long learners
- Establish a program of staff Professional Development to support the educational deliveries outlined here



The full Guiding Principles are expressed in full in Ch 3, Educational Vision.

#### Most Important Concepts

Visioning Team members identified the most important issues for education at BPS

The results are outlined here, in order of importance:

#### EDUCATION

- Social/Emotional Learning
- Student Engagement
- 21<sup>st</sup> Century Skills
- Pre-Kindergarten Programs

Note that these concepts, collectively, call for a major shift in both educational deliveries and the facilities that support them. Curriculum requirements and standards will remain, but the nature of teacher roles and student activities will change.

See Educational Vision Ch 3 and Appendix Ch 5.1 for all Table Team responses.

#### Learning Modalities

The Visioning Team members identified these as the most effective ways for students to learn:

#### MODALITIES

The most cited most effective modalities varied slightly by grade level. This listing characterizes them in order of importance for all grades:

- Social/emotional learning
- Small group work/student collaboration
- Project-based learning, PBL
- Teacher teams/synchronous collaboration
- Interdisciplinary learning
- Making things to learn, prototyping, STEM, STEAM
- Peer tutoring/teaching
- Student presentations

Articulating these Modalities is important, not only as a guide to educational deliveries, but as a guide to designing facilities, as learning spaces should be designed to support these most effective/ preferred practices. The most effective facilities for Barrington would be designed





## Ch 2 Executive Summary

to support the educational deliveries above, which is considerably different than the traditional approach of primarily supporting lecturing and direct teaching modalities, as exhibited by all elementary and high school buildings

Learning Modalities preferences are expressed in full in Appendix Ch 5.1.

### School Organization

Visioning Team members reflected on model school organizational concepts, and determined these to be the most and least appropriate by grade levels:

#### ORGANIZATION

##### Elementary School

- A variety of approaches based on grade levels served, including:
  - Innovative organizations that blend a variety of innovations
  - Teacher teaming in two ways:
    - Synchronous teacher teaming, sharing students in real time
    - Teacher teaming, sharing students but not teaching together
  - Both multi-grade and grade level classroom groupings

##### High School

- Interdisciplinary Small Learning Communities (SLCs)
- Thematic interdisciplinary SLCs
- Freshman House
- Synchronous teacher teaming, sharing students in real time

See Appendix Ch 5.2 for the full record.

## FACILITY CONCEPTS

### Most Important Concepts

Visioning Team members identified the most important issues for facilities at BPS

The results are outlined here, in order of importance:

#### FACILITIES

- Small Learning Communities
- End of Isolated Teaching
- 21<sup>st</sup> Century School Planning
- Educational Space Deficiencies
- Safety + Security 21<sup>st</sup> Century Schools
- Things to Know About Barrington Schools
- End of the Library as We Know it Today
- End of the Classroom as We Know it Today



Ch 2 Executive Summary



Ch 3 Educational Vision



## INTRODUCTION

This Educational Vision reflects the work of a Deep Dive Visioning Team, approximately 50 teachers, school and district administrators, parents, school committee members, community members, a student, the master plan architect. Created in two days of intense facilitated workshops, it is intended to guide the long-term development of both education and facilities master planning for Barrington Public Schools (BPS).

Much of the work was conducted by Table Teams, small groupings of six participants each. They brainstormed, debated, and attempted to reach consensus on most of the defining issues. Each Table Team had educators, students, and community members evenly distributed to the greatest extent possible.

## VISION COMPONENTS

The Educational Vision for BPS is described here through several components:

- **Key Words** identified by the Visioning Team to characterize education in the future at BPS
- **Guiding Principles** establish broad parameters for educational delivery, school structure, and facilities
- **Most Important Concepts for the Future** identifies the best and next practices most important for future teaching and learning
- **Learning Modalities** identifies the most effective and appropriate ways for teachers to reach students with curriculum delivery
- **School Organization** defines preferred approaches to the overall relationships of people and programs

## KEY WORDS

Visioning Team members, working independently, articulated these words as expressive of desired educational deliveries in the long term for BPS.



# Educational Vision



## Ch 3 Educational Vision



### EDUCATION

- Flexible, doing flexible, flexible thinking (cited 9 times)
- Collaboration, collaborative (5 times)
- Choice, student choice, more student opportunity in learning choices, student-directed (4)
- Future innovation – ready for next decade, innovation, innovative learners (4)
- Diversity/equity, equity (2)
- Engaging, engagement (2)
- Project-based learning (2)
- Small Learning Communities (2)

These Key Words could form the basis of an elevator speech describing essential Visioning concepts to be shared with Barrington residents.

See Appendix Ch 5.2 for the full listing, and Ch 4 Facility Master Plan Concepts for Key Words related to facilities master planning.

- This future-oriented Educational Vision articulates of innovative best and next educational practices, some of which are already in operation in some classrooms in the school
- Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one that is fairly traditional to one that is more transformed
- Prepare students for success in the 21st century, an emerging world of global competition, uncertain employment prospects simultaneous with unheralded workplace opportunities, infinite access to information, and rapid change in technology
- Teach 21st century skills at the same time as traditional content
- Build relationships with students, families, and communities through school structure and programs
- Aspire beyond the Common Core and beyond the Rhode Island Department of Education (RIDE) guidelines to do what is best for student learning, and to instill a life-long sense of wonder and purpose. Create independent, life-long learners
- Establish a program of staff Professional Development to support the educational deliveries outlined here

## GUIDING PRINCIPLES

The *Guiding Principles* presented here were created to express the values, beliefs, and concepts developed by the educator and community Visioning Teams which examined educational trends, best practices, and issues affecting the delivery of 21<sup>st</sup> century education. These *Guiding Principles* present the essence of that inquiry. They are not policy but they address the overarching themes identified by participants. They are intended to serve as a foundation for future educational deliveries and facility plans. Staff professional development is crucial to the successful implementation of the educational concepts outlined here.

The *Guiding Principles* are:

### Overarching Principles

- Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one still fairly traditional to one that is more transformed, more “21<sup>st</sup> century”

## Educational Delivery

Educational Delivery addresses overarching themes required to provide a 21st century high-performing academic experience for all students PreK-12 at Barrington Public Schools.

### INSTRUCTIONAL MODELS

- Develop a social/emotional learning (SEL) initiative at all grade levels, including sanctioning educational deliveries that inherently promote SEL
- Increase student engagement by shifting the teaching model to more active, student-centered learning, with opportunities for student voice in their learning. This is particularly important at the secondary level
- Increase reliance on project-based learning in all grades
- Position students to learn 21<sup>st</sup> century skills, especially the “four C’s”, collaboration, communication, creativity, and critical thinking, while simultaneously meeting standard curriculum goals. Continue current district work with the Deeper Learning initiative



**Educational Visioning**  
Frank Locker Educational Planning

**Barrington Public Schools**

**Barrington, RI**

**Visioning for District-Wide Master Planning**

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May 2022



### Ch 3 Educational Vision

- Recognize innovation skills as important for all students; integrate them into curriculum deliverables
  - Shift from one-subject curriculum delivery to integrated, interdisciplinary curriculum delivery in all grade levels
  - Create school and community cultures that value flexibility for change
  - Pilot innovative deliverables such as making things to learn in academic courses for planned future large-scale implementation
  - Group students in small learning teams to differentiate instruction and foster communication, collaboration, and improved social skills, and foster differentiated instruction
  - Support classroom teachers working in a variety of ways calculated to increase knowing of students by teachers. Among these are:
    - Synchronous teacher teaming, sharing larger cohorts of students in real time
      - Core teachers with core teachers
      - Core teachers with “specials” teachers
    - Thematic Small Learning Communities
- These vary by grade grouping. See Appendices 5.1 + 5.2 for details.

#### TECHNOLOGY INTEGRATION

Our world is dependent on technology implementation in all aspects of life. Students must be provided with the technological skills and knowledge which will enable them to function successfully in a global context. Technology should include:

- Use technology to transform education, not just improve it
- Create places and learning goals for students to learn using new technology, including documentation of oral presentations, and the production of videos, story boards, and apps

Technology must not be viewed as a curriculum add-on, but, rather as an effective tool to be utilized in meaningful instruction that is relevant and rigorous.

#### Educational Structure

Educational Structure establishes the organizational patterns necessary to group students and teachers in the most effective ways.

#### ORGANIZATION

- Plan for future expansion of the current Pre-kindergarten program in alignment with anticipated Rhode Island Department of Education (RIDE) mandates and enabling legislation
- Position educators to better know their students through the size and strategic placement of learning spaces. In most cases this means creation of Small Learning Communities

#### RELATIONSHIPS

- Organize school as Small Learning Communities to support formation of relationships within and between curricular areas
- Foster student collaboration to build social and communication skills, and the ability to work with others
- Create opportunities for students to grow socially and emotionally while working with others in classroom assignments

#### CURRICULUM

- Build 21<sup>st</sup> century skills while meeting traditional curriculum goals
- Create regular opportunities for students to improve their oral communication skills
- Integrate the curriculum through a variety of strategies

See Appendices Ch 5.1 + 5.2 for elaboration. See Ch 3, Facility Master Plan Concepts for related facility concepts.

### MOST IMPORTANT CONCEPTS FOR THE FUTURE

Visioning Team members, working in Table Teams, identified the most important issues for education at BPS

The results are outlined here, in order of importance based on frequency of citation in Table Team discussions:

#### EDUCATION

- Social/Emotional Learning (cited 7 times)
- Student Engagement (5 times)
- 21<sup>st</sup> Century Skills (5 times)
- Pre-Kindergarten Programs (2 times)



### Ch 3 Educational Vision

Note that these concepts, collectively, call for a major shift in both educational deliveries and the facilities that support them. Curriculum requirements and standards will remain, but the nature of teacher roles and student activities will change.

See Appendix Ch 5.1 for all Table Team responses. See Ch 4 Facility Master Plan Concepts for related facility concepts.

### LEARNING MODALITIES

Visioning Team members each individually considered 24 learning modalities, ranging from traditional lecturing and direct teaching to independent study, and ranked them in order of appropriateness.

The most cited most effective modalities varied slightly by grade level. This listing characterizes them in order of importance for all grades.:

#### MODALITIES

- Social/emotional learning
- Small group work/student collaboration
- Project-based learning, PBL
- Teacher teams/synchronous collaboration
- Interdisciplinary learning
- Making things to learn, prototyping, STEM, STEAM
- Peer tutoring/teaching
- Student presentations

Articulating these Modalities is important, not only as a guide to educational deliveries, but as a guide to designing facilities, as learning spaces should be designed to support these most effective/ preferred practices. The most effective facilities for Barrington would be designed to support the educational deliveries above, which is considerably different than the traditional approach of primarily supporting lecturing and direct teaching modalities, as exhibited by all elementary and high school buildings

See Appendix Ch 5.1 for all responses, including subtle differences across the grade spectrum.



### SCHOOL ORGANIZATION

The Table Teams reflected on model school organizations, and determined these to be the most appropriate by grade groupings:

#### ORGANIZATION

##### Elementary School

- A variety of approaches based on grade levels served, including:
- Innovative organizations that blend a variety of innovations
  - Teacher teaming in two ways:
    - Synchronous teacher teaming, sharing students in real time
    - Teacher teaming, sharing students but not teaching together
  - Both multi-grade and grade level classroom groupings

##### High School

- Interdisciplinary Small Learning Communities (SLCs)
- Thematic interdisciplinary SLCs
- Freshman House
- Synchronous teacher teaming, sharing students in real time

See Appendix Ch 5.1 for the full record.



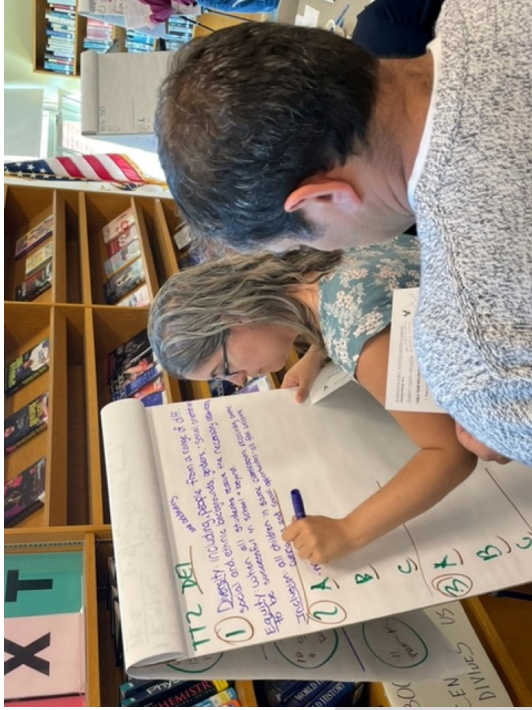
## Ch 4 Facility Master Plan Concepts



### INTRODUCTION

The Deep Dive Visioning Team developed concepts for Barrington Public Schools' future school facilities. The concepts are defined through:

- **Key Words** identified by the Visioning Team to characterize facilities in the future
- **Facility Implications** identifies physical planning concepts that correlate with the Educational Guiding Principles
- **Most Important Concepts for the Future** identifies the desired future of facilities
- **Master Planning Principles** outlines essential concepts developed by the Deep Dive Visioning Team through two days of collaborative workshops
- **Mapping Future District Schools**, capturing essential facility concepts that had developed in the two days of Visioning



## Facility Master Plan Concepts

### FACILITY IMPLICATIONS

Chapter 3 Educational Vision outlined the essential Guiding Principles for teaching and learning in the future. These are correlated by the following implications for future facilities:

- Support safety and security in new facilities as an integral planning component, not as an “add on” as it has been in the past
- Create building plans that offer security and safety despite constant visitors, many of whom will be active participants in student learning, particularly in technical programs serving customers on a daily basis
- Develop facility planning concepts as platforms for continued change, giving future generations of educators and students the power to easily change the educational model
- Design facilities to be flexible, able to support multiple learning modalities, teaching styles, and program change over time
- Develop Small Learning Communities, learning spaces arranged in clusters
- Support STEM, STEAM, and making things to learn through sufficient and appropriate Lab spaces
- Select furniture that supports collaboration, different learning modalities, and is substantiated by brain research



## Ch 4 Facility Master Plan Concepts

- Create Teacher Planning Centers to foster collaboration, interdisciplinary teaching, and greater knowing of students by teachers
- Create presentation spaces to honor and encourage frequent student and expert visitor presentations
- Minimize circulation spaces that do not also offer opportunities for learning, such as Extended Learning Areas, Breakout/Collaboration small group spaces
- Maintain the Media Center/Learning Commons as a central function, easily assessable by from all learning spaces, and possible with satellites in multiple locations within schools

## KEY WORDS

Visioning Team members, working independently, articulated these words as expressive of facilities in the long term for BPS. These words could be the basis of an “elevator speech” that will characterize Visioning concepts in the many public meetings expected in the process to improve district facilities.

### FACILITIES

- Flexible learning spaces, flexibility, flexible spaces that allow access to all, flexible space/buildings, flexibility for the future, flexible/responsive (cited 11 times)
- Accessibility, fully accessible (2)
- Collaborative, collaboration (2)
- Diversity/equity/inclusion, equitable (2)
- Innovating learning space, innovative and effective (2)
- Inspiring, inspire creativity (2)
- Comfortable furniture
- Creativity
- New, new buildings (2)

See Ch 3 Educational Vision for Key Words related to education and Appendix Ch 5.2 for all facility Key Words.



## MOST IMPORTANT CONCEPTS FOR THE FUTURE

Visioning Team members, working in Table Teams, identified the most important issues for facilities at BPS

The results are outlined here, in order of importance based on frequency of citation in Table Team discussions:

### FACILITIES

- Small Learning Communities (Cited 5 times)
- End of Isolated Teaching (5 times)
- 21<sup>st</sup> Century School Planning (4 times)
- Educational Space Deficiencies (4 times)
- Safety + Security 21<sup>st</sup> Century Schools (3 times)
- Things to Know About Barrington Schools (3 times)
- End of the Library as We Know it Today (2 times)
- End of the Classroom as We Know it Today (2 times)

## MASTER PLANNING PRINCIPLES

Through their multiple engagements in two days of working together, the Deep Dive Visioning Team identified these Principles to guide the planning for district schools. The concepts listed first were strongly supported (with more than 50% plurality) by respondents to the Community Survey taken just weeks before the Visioning workshops. They were acknowledged at the outset of Visioning.

### COMMUNITY VALUES

- Reduce/eliminate facility condition deficiencies
- Increase student engagement by delivering the required core curriculum in spaces that allow for collaboration, communication, and deep learning
- Improve physical education and sports for students and the community through improved/increased indoor/outdoor activity spaces/places, coordinated with the town
- Equity for all schools across the District: providing equal facility space for instruction and programs





## Ch 4 Facility Master Plan Concepts

- Reduce/eliminate educational space deficiencies within our school buildings (provide appropriate space sizes aligned with state standards, dedicated enrichment spaces, etc)
- Eliminate severe overcrowding at all elementary schools (please note BMS and BHS are not overcrowded)
- Improve Arts for students and the community through increased/improved visual and performing arts spaces
- Potentially increase the size of school buildings through additions and/or new construction to address overcrowding across the district
- Plan our school buildings improvements to maximize RIDE funding from 35% to 52.5% based on available RIDE incentives
- Plan for the potential of Universal Pre-School in 2028, while providing for the currently mandated IDEA Pre-School program

### BASIC UNDERSTANDINGS

- All elementary schools are overcrowded by RIDE standards
- Predicted enrollments for the next 5 and 10 years indicate that the elementary school buildings will become further overcrowded
- The district has met classroom space needs for all-day Kindergarten and increased enrollments in the past by converting spaces intended for arts and Special Education to general classrooms, resorting to stages, carts, alcoves and ad-hoc spaces to serve curricular requirements
- All elementary school buildings were built with combined cafeteria-gymnasium-assembly spaces, thus compromising program deliveries from the outset
- All elementary school buildings need additional space to serve existing programs and projected enrollment increases
- Plan for future Pre-Kindergarten programs aligned with elementary schools for greater continuity for students and parents
- Existing facilities conditions of all elementary schools and the high school range from poor to extremely poor
- The cost of repairing any of the elementary schools to meet current energy codes, Americans with Disabilities Act legislation (ADA), state energy standards, building code requirements and general repair and maintenance exceeds the cost of new construction

- The cost of meeting similar needs at the high school is almost equal to the cost of new construction
- The extent of renovation needed at each of the above schools is so extensive it cannot be achieved over school breaks and summer breaks
- Renovating operational buildings is more disruptive to the occupants if done while occupied
- Finding/designating/building a "swing space/school" as a temporary home for occupants of schools being renovated is less disruptive and often less expensive than renovation while occupied
- Existing elementary school sites are extremely limited. Only Primrose Hill has sufficient land to support construction of a new building (on the playfields) while the school is in operation
- The high school site is extremely vulnerable to flooding and will require significant measures to increase flooding resiliency. The floor level of the single floor school building is lower the projected possible flood level

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Ch 5.1 Notes Workshop Day 1



**AGENDA**

The first Visioning Workshop was held on 16<sup>th</sup> May 2022. Notes of all activities follow:

- Pre-workshop Videos + Reading
- Community Questionnaires
- 21<sup>st</sup> Century Schools
- 21<sup>st</sup> Century Schools Most Important Issues
- Collaboration
- What Works? What Could be Improved?
- School Organization: Internal



**Notes  
Workshop Day 1**

**COMMUNITY QUESTIONNAIRES**

The School Building Committee working with the master plan architects developed an on-line questionnaire to solicit community residents' thoughts on critical issues related to master planning of school facilities.

The following statements all had more than 50% plurality in the combined "Supported" and "Strongly Supported" categories:

- Reduce/eliminate facility condition deficiencies
- Increase student engagement by delivering the required core curriculum in spaces that allow for collaboration, communication, and deep learning
- Improve physical education and sports for students and the community through improved/increased indoor/outdoor activity spaces/places, coordinated with the town
- Equity for all schools across the District: providing equal facility space for instruction and programs
- Reduce/eliminate educational space deficiencies within our school buildings (provide appropriate space sizes aligned with state standards, dedicated enrichment spaces, etc)
- Eliminate severe overcrowding at all elementary schools (please note BMS and BHS are not overcrowded)
- Improve Arts for students and the community through increased/improved visual and performing arts spaces
- Potentially increase the size of school buildings through additions and/or new construction to address overcrowding across the district



## Ch 5.1 Notes Workshop Day 1

- Plan our school buildings improvements to maximize RIDE funding from 35% to 52.5% based on available RIDE incentives
- Plan for the potential of Universal Pre-School in 2028, while providing for the currently mandated IDEA Pre-School program

### PRE-WORKSHOP VIDEOS

Workshop participants had watched several videos before coming together, in the spirit of blended learning. The videos included:

- Ken Robinson, *Changing the Educational Paradigm*
- *Transformation: Renovation of the Stelburne Community School*
- *Wired Magazine: A Radical Way of Unleashing a Generation of Geniuses*

Visioning Team thoughts included:

- Sir Ken
  - As kids age in school years, the body is increasingly thought of as just to carry brains
  - Need to move
  - Power of student choice and flexibility
  - Students lead the way
    - Technology
- Space that kids can own choices
- Teacher centered – student centered
- What does extraordinary environment do?
- Wired
  - How can you unleash kids in early grades – future success
    - Slum kids
    - Kids from dump
  - Perception of worth
- Make physical space no longer an obstacle – renovation
- Collaborative
  - Kid-kid
  - Teacher-teacher
- Technology in future education
- Videos are not research papers

### 21<sup>st</sup> CENTURY SCHOOLS PRESENTATION

Frank Locker presented on the changing values, goals, and deliveries that characterize the most progressive thinking about schools in the United States, and worldwide, today. Key points included:

- 20<sup>th</sup> vs 21<sup>st</sup> century schools:
  - The 20th century was a century of creating efficient schools; the 21st century has been a century of looking for effectiveness in schools
  - 20th century was the century of the teacher; 21st century is the century of the learner
  - The teacher used to hold all the information; now the teacher is the guide
- Research in learning informs us of many effective educational practices
  - Some are gaining popularity
  - Others are not yet in general practice
- Learning is more effective when students apply their learning immediately
- 21st Century Skills Framework offers a clear concept of skills students need for success in our rapidly changing global economy. It establishes:
  - Core, subject-based learning is not sufficient any more
  - Learning relevant 21st century survival skills is just as important, perhaps more important. These include:
    - ✓ Learning and innovation skills
    - ✓ Life and career skills
    - ✓ Information, media, and technology skills
- Learning should be interdisciplinary, bridging the gaps between subject areas, and looking more like the real world
- Learning should be infused with 21st century themes
- Learning is a social activity. Students learn better when they are in strong relationships with teachers and peers
- Teachers' work is supported through strong relationships with other professionals
- Schools are looking for more community connections to improve student learning
- Flexible furniture is needed to bring the student the support to learn in a variety of modalities



### Ch 5.1 Notes Workshop Day 1

- In a sequence called "Things to Know About Barrington Schools" critical aspects of enrollments, school building size, capacity, and conditions were made visible

### Individual Responses

Visioning Team members scored the importance of the different issues outlined while Frank was presenting. Here is a compilation of their scores. Individual comments follow:

21st Century Schools PART 1 Responses to issues as presented	Very Important	Important	Don't Know	Maybe	Not Important	Scary to Me
1 History Work + School	7	19	2	3	7	5
2 Student Engagement	31	6				5
3 The Future	11	18	3	1	2	7
4 20 <sup>th</sup> vs 21 <sup>st</sup> Century Learning	16	16	2	2	1	1
5 Measures of Success	7	14	6	9	1	1
6 Creating Innovators	22	13	2			1
7 Learning Pyramid	11	13	9	3	1	1
8 Series: School Organization Can Improve Learning	7	18	7	7		2
8a Thematic Learning	11	20	4	2	1	152
8b Teacher Teaming	8	9	12	4	3	123
9a Magic of 150	2	13	9	11	1	112
9b Multi-Age	3	10	11	11		110
9c Teacher Looping	12	16	3	8		149
9d Core Teacher Teaming	27	10	1	2		182
10 Social/Emotional Learning	22	9	1	3	1	156
11 Pre-Kindergarten Programs	15	20	1	1	1	161
12a STEM/STEAM	13	22	3	1		164
12b Core Learning	15	16	3	3		154
12c Arts + Academics	28	7	1	1	2	175
13 21st Century Skills	22	16	1	1		176
14 Project Based Learning: Café Paresien	20	16		2		168
15 Design Thinking: Making Things to Learn	20	16		2		168



21st Century Schools PART 1 RANKING OF RESPONSES	Very Important	Important	Don't Know	Maybe	Not Important	RANK	Scary to Me
10 Social/Emotional Learning	27	10	1	2		1	182
2 Student Engagement	31	6				2	179
14 Project Based Learning: Café Paresien	22	16		1		3	176
13 21st Century Skills	28	7	1	1	2	4	175
15 Design Thinking: Making Things to Learn	20	16		2		5	168
6 Creating Innovators	22	13		2		6	166
12b Core Learning	13	22	3	1		7	164
12a STEM/STEAM	15	20	1	1	1	8	161
11 Pre-Kindergarten Programs	22	9	1	2	1	9	156
4 20 <sup>th</sup> vs 21 <sup>st</sup> Century Learning	16	16	2	2	1	10	155
12c Arts + Academics	15	16	3	3		11	154
8b Teacher Teaming	11	20	4	2	1	12	152
9d Core Teacher Teaming	12	16	3	8		13	149
8a Thematic Learning	7	18	7	7		14	142
7 Learning Pyramid	11	13	9	3	1	15	141
3 The Future	11	18	3	1	2	16	140
1 History Work + School	7	19	2	3	7	17	130
5 Measures of Success	7	14	6	9	1	18	128
9a Magic of 150	8	9	12	4	3	19	123
9b Multi-Age	2	13	9	11	1	20	112
9c Teacher Looping	3	10	11	11		21	110
8 Series: School Organization Can Improve Learning							
9 Series: Building Relationships							
12 Series: Interdisciplinary							

21st Century Schools PART 2 Responses to issues as presented	Very Important	Important	Don't Know	Maybe	Not Important	Scary to Me
1 21st Century School Planning	18	18	1			165
2 Small Learning Communities	19	16	3	1		170
3 Extended Learning Areas	13	24	2			167
4 Safety + Security 21st Century Schools	26	9	4			178
5 Series: School Organization Can Improve Learning						
5a Facts of Life	6	27	4	1		152
5b Grade Grouping Strategies	11	19	2	5		147
5c Teacher Autonomy	15	16	5	1		156
6 Series: Things to Know About Barrington Schools						
6a Educational Space Deficiencies	31	8				2
6b School Overcrowding	27	10	1			1
6c Walking to School	1	22	3	7	5	1
6d Facility Conditions	26	11		1		176
6e School Playground Conditions	10	21	4	2		150
7 Teacher Planning Centers	12	18	5	3		153
8 Flexible, Varied, Brain-Based Furniture	19	15	2	3		167
9 End of the Library as We Know it Today	9	12	6	8	1	2
10 End of the Cafeteria as We Know it Today	3	15	6	9	2	113
11 End of Isolated Teaching	17	10	6	1		145
12 Series: End of the Classroom as We Know it Today						
12a Wooranna Park Primary School	5	20	1	5		118
12b Milan HS Center Innovative Studies	3	20	2	5		111



## Ch 5.1 Notes Workshop Day 1

21st Century Schools PART 2 RANKING OF RESPONSES	Very Important	Important	Don't Know	Maybe	Not Important	RANK	Score to Me
6a Educational Space Deficiencies	31	8				1	2
4 Safety + Security 21st Century Schools	26	9	4			2	1
6b School Overcrowding	27	10	1			2	1
6d Facility Conditions	26	11		1		4	176
2 Small Learning Communities	19	16	3	1		5	170
3 Extended Learning Areas	13	24	2			6	167
8 Flexible, Varied, Brain-Based Furniture	19	15	2	3		6	167
1 21st Century School Planning	18	18	1			8	165
5c Teacher Autonomy	15	16	5	1		9	156
7 Teacher Planning Centers	12	18	5	3		10	153
5a Facts of Life	6	27	4	1		11	1
6e School Playfield Conditions	10	21	4	2		12	150
5b Grade Grouping Strategies	11	19	2	5		13	147
11 End of Isolated Teaching	17	10	6	1		14	145
9 End of the Library as We Know it Today	9	12	6	8	1	15	2
6c Walking to School	1	22	3	7	5	16	1
12a Wooranna Park Primary School	5	20	1	5	17	17	118
10 End of the Cafeteria as We Know it Today	3	15	6	9	2	18	113
12b Milan HS Center Innovative Studies	3	20	2	5		19	111
5 Series: School Organization Can Improve Learning							
6 Series: Things to Know About Barrington Schools							
12 Series: End of the Classroom as We Know it Today							

- Google offices moving toward what they want in school
- We haven't moved education space forward enough
- Historic approach doesn't match the careers of today
- Can help to better design the building
- How we started to where we need to go
- Accessibility!
- Prefer "if we blew it up"
- Are we considering post-Covid era?
- Our HS processes have changed in some areas but not all
- Changes in work environments in work outcomes of education
- We know better and can do better
- Time has changed; need for future not history
- We haven't changed in 120+ years
- Work environment is progressing – education is not
- Except to not repeat mistakes and to be conscious of needs of parents
- Is the argument that we need our schools to reflect the work environment?
- Better facilities or better teachers?
- Kids need to learn about work/jobs outside of school
- Think what our goal is...and how we get there
- Past does not determine our future
- You will need to know the past to effect change
- Need to be able to look ahead not back
- Need to know where we were in order to know where to go

### 2 Student Engagement

- Inclusive engagement
- Unengaged students will not learn
- Engaged students likely are more successful
- Our goal: provide engagement and promote learning
- Engagement = motivation
- We need engagement to increase!
- We want students to enjoy school
- Pre/post data similar pre pandemic
- As work is more challenging, engagement stops
- Increased engagement, increased ownership, increased transference
- Data shows engagement declines over time
- #2 is connected to #1 ...way schools are designed can contribute to level of engagement

## Individual Comments

Comments from individual Visioning Team members in response to the presentation issues are as follows:

### Part 1

#### ISSUE

#### ISSUE

### 1 History Work + School

- Teaching teachers to change and deliver curriculum
- Similar over the years
- Don't repeat the past
- We want our schools to provide practical education that is applicable to life
- Important to understand how past educational settings can set a path for future
- Spaces don't fit learning goal
- We need to prepare students for types of work/careers that might not even exist



**Educational Visioning** Barrington Public Schools  
Barrington, RI  
Frank Locker Educational Planning

Visioning for District-Wide Master Planning

## Ch 5.1 Notes Workshop Day 1



- Personal interest
  - The reason for all of this!
  - Increased engagement = lifelong learners
  - How does it look post-pandemic?
  - School must be a place kids love
  - If not only facility
  - Engagement is taught
  - As ownership of learning increases, engagement
  - This is what it's all about
  - Keeping students engaged helps them learn better
  - Family dynamics
  - Parenting – demanding schedules
  - Without it we have nothing
  - Without engagement (in anything) it will fail
  - To maximize the limited time available
  - Scary due to students seeming to be more distracted throughout the day
- ### 3 The Future
- Prepare future work force
  - Concerned about loss of jobs
  - Education must be nimble and broad
  - The future is necessary to consider and plan for
  - Need to prepare kids for future
  - Future doesn't matter if we prep our kids to be creative and flexible
  - We need to prepare students for types of work/careers that might not even exist
  - Teach "habits of character"
  - More opportunity for multi-disciplinary and new ideas
  - If students aren't prepared for the future, they aren't prepared
  - "Robot proof" our kids
  - Will help students to transition to post-secondary education life
  - We don't know what we're preparing kids for
  - Rewarding
  - Changing in economics and what the unknowns are
  - Many unknowns
  - Jobs disappearing and unclear future jobs
  - What will jobs look like in 10 years?
  - Are we preparing our students correctly?
  - What hope do our students have?
- Stability and future stability of jobs is frightening!
  - Flexibility, grit, risk takers!
  - Our goal is preparing them for their future
  - This is just incorrect. When truck drivers are being offered \$150K. Not a good example
  - It's good to know where we're going so we can help students better plan for their future
  - Resiliency/internet
  - Related to #1
  - Have students design their future
  - Skills emphasize flexibility
- ### 4 20<sup>th</sup> vs 21<sup>st</sup> Century Learning
- Interpersonal – develop leadership skills
  - Collaboration – important for future jobs
  - Frank said this is good in many courses but not all 21<sup>st</sup> century skills
  - We already do a lot of this
  - Shift in school culture, teachers need training
  - More training needed
  - PBL works – curriculum shifts – or opportunities for PBL or lab to try out new ideas
  - If students aren't prepared for the future, they aren't prepared
  - Student center – matches DL
  - Times are shifting much more rapidly
  - Hybrid model? Interdisciplinary
  - Sage on the stage to guides on the side
  - Ownership of learning
  - Student centered
  - Creating experience where teachers guide this
  - Schools have to shift
  - Students return information better when they arrive at conclusions on their own
  - Interdisciplinary learning is a goal but changing this can be difficult
  - Ties to engagement
  - Student centered is important, but engagement is...
  - Skills emphasize flexibility S/B







## Ch 5.1 Notes Workshop Day 1

### 5 Measures of Success

- Success can look different for different kids – so standardizing testing may not be for all
- Some measures of success are important
- How do we measure soft skills
- Standardize it to DL
- Lies, darn lies, statistics
- What is determining “success”?
- There’s too much context for these to me
- No universal achievements
- This has stayed conventional
- Measures changes, adapt to these
- “What kids want to talk about after school”
- What do students talk about at home?
- How are we measuring this success?
- Student data is crucial!
- The old standards stress students out
- Measures should be realistic and take into account what the world is like and how it impacts students, which can impact the measures
- Know how it works
- Talk about
- Ask student what they are talking about
- Need standards

### 6 Creating Innovators

- What are they learning online?
- Prepares students for the future work
- “Students should be doers”
- You have to live it to learn it
- How can we inspire “do-ers”? How to help students take risks, deal with failure and persevere
- Space and tools to allow
- Information is less important than ability
- Innovators are greatly needed for the future – develop learning
- Problem solving must be more important
- Our world is changing so much. We need to teach how to innovate
- I’d like to redefine this
- Being doers
- Continued learning

- Doers and learning and learn to fail
- Quote is 100%
- Learning how to fail
- What you DO is important
- How to fail
- But to be doers they need foundation
- Students need to learn how to...to succeed
- Short sighted; poor enough
- Need students to be creative, think on their feet. Provide them with that to succeed. Resilient student
- Problem solvers
- TEACH FAILURE
- Enhance student learning

### 7 Learning Pyramid

- Retention application important – learn what you want
- Need for hands on
- Would need to be universal across district/buildings
- Active learning = engagement
- Students need to use learned lessons
- Strong practices needed for teachers
- Unclear what is asked here
- Reality – college professors lecture
- Higher engagement
- How faculty can help?
- Delivery battle
- Active learning and responsibility
- The more students do, the more they remember/know
  - Ties with student engagement
- But want data by age
- In support of engagement

### 8 Series: School Organization Can Improve Learning

#### 8a Thematic Learning

- No experience – mixed review
- Will students learn the basics
- Thematic learning can be very effective to kids that cannot learn in a standard classroom
- Requires restructuring building/schedule
- Engage all types of learners
- Interpersonal skills, collaboration, student choice



Ch 5.1 Notes Workshop Day 1



- I'm not sold on this; choices is good but kids still need to do things they don't like
- Facilities and resources
- Choice schools
- Application based (how to choose one theme)
- Integrating arts
- Soft skills/communication and collaboration skills
- Hit different learning modalities
- We can no longer teach in silos
- MI and integration!
- Can have dangerous side effects?
- Don't have capacity here
- Design with OUTCOME based model

**9 Series: Building Relationships**  
**9a Magic of 150**

- One room schoolhouse model
- Typical caseload of a teacher +about 25 – I know my kids very well
- Increase belonging
- Schools are based on relationships
- Maybe small group/retained
- Podding kids is huge
- Dunbar's #
- Knowledgeable adults and each other
- Relationships important
- If you teach them how to build relationships

**8b Teacher Teaming**

- Shows expertise
- No elementary schools
- It seems like teachers would benefit from this
- Need more collaboration and interdisciplinary work/teaching
- My success in the classroom always improves with colleague collaboration
- Shared ownership of students improves outcomes for learners
- Better teacher knowledge of students
- What do teachers think
- Kids need to be seen and known to succeed
- Elementary??
- Collaboration
- More collaborative style
- Freshman academy
- Teacher teaming (like MS)
- Curious how it works
- Expecting more in teaching than currently used to
- Extremely important for success of 21<sup>st</sup> century teaching
- Turns high school into middle school
- Interdisciplinary learning
- Depends on teacher training, Loops etc clusters
- Not for all grades
- What did they do with PE, music, art, foreign language etc.?

**9b Multi-Age**

- Need to see good models
- Not sure for this district?
- We used to do this, independence, creativity has declined since we lost it
- Teacher/student relationship strengthens
- Students take leadership role
- Not sure age based hierarchy
- Need great Montessori teachers for this
- "Not right" for all kids
- Teaching others
- Differentiation
- Cool concept and stability/Montessori
- If not having to be so grade specific
- Great for good teachers but bad...
- Depends which grades
- Mentoring is very important
- I believe different teaching styles are important for students

**9c Teacher Looping**

- Works well for some
- Depends on teacher
- If the teachers would like to do it, then ok with me
- We used to do this but curriculum became too much
- I've seen this be successful
- Teachers know kids better
- Longer relationship





## Ch 5.1 Notes Workshop Day 1

- Relationship building
- My kids both benefited from looping!
- Teachers had difficulties with changes year to year
- Depends on teacher
- Could be an interesting way of doing things. It would help build better connections
- Specific to teachers

### 9d Core Teacher Teaming

- Need to see what it looks like
- If the teachers would like to do it, then ok with me
- Kids learn by observation – model collaboration
- Teachers model collaboration
- Teach by doing
- Quote is a fallacy; poor unclear case
- It takes a village
- Observation
- Collaboration
- Great quote
- Kids see more teachers
- Multi-age classroom – collaboration
- Really get to know student
- Shows collaboration
- Observe adults working together
- Great quote about teachers teaching alone

### 10 Social/ Emotional Learning

- Sense of belonging
- Support for Elementary
- Making spaces comfortable for kids to learn is greatly important
- SEL and reflection in classroom
- We need trauma-informed practices that support social/emotional well-being
- #'s are increasing with SEL needs and special education
- Too broad for
- SEL is key to support our students
- Safe and comfortable learning spaces
- Supports metacognitive work
- Need teachers equipped for this
- Don't know how to do this better
- Our society can heal if we prioritize this

- EQ, but how?

### 11 Pre-Kindergarten Programs

- Prepare skills, common skill sets learning to play together
- Will need space
- Public/private partnership
- Pre-k programs are available for our kids that are not public. I don't think public funding should be focused here as much as other grades – considering the needs of other grades
- Full time Pre-K / K programs
- We already need trailers to accommodate our growing programs
- We have the greatest impact on students trajectory in the pre-k years
- Start strong
- Strong early child program = strong elementary/MS/HS program
- Possible RI bill
- Achievement gap is evident in Kindergarten
- If you mold students young – best outcome
- It's coming, we need to prep for it
- R.O.I is highest
- Pandemic has shown the struggles of those who didn't go to preschool
- Helps with socialization of kids
- Keep out of our elementary schools
- What % already
- Play based
- More for family support
- Having kids out of house helps parents' emotions too
- Need to prepare for future requirements

### 12 Series: Interdisciplinary

#### 12a STEM/STEAM

- STEAM
- But I do think this should be broader
- Make the destination in
- Adapt to new jobs/tech
- Most visible in recent past
- #12 – #15 – all of these go with each other
- STEAM = school
- Not always applicable



## Ch 5.1 Notes Workshop Day 1



### 12b Core Learning

- Co-teaching is good to share content knowledge
- Great in theory
- If the teachers would like to do it, then ok with me
- Collaborative/team teaching
- Engagement, collaboration, teacher teams
- Increases SEL outcomes
- If kids need help, they need to feel safe to ask
- It is important to see how it all works together
- Multiple...
- AM studies is one of our best programs
- Human experience – 4 teachers synchronous – yes
- #12 – #15 – all of these go with each other
- This would affect what is expected of knowing. That can be a lot, especially with higher level teachers
- Going to speak to ¼ of the teachers! Are we teaching them the right skills of communication? Need to be able to have discussions with people you do not like or are comfortable with?
- Requires outside the box
- Not always applicable

### 12c Arts + Academics

- Appeals to diverse learners
- If the teachers would like to do it, then ok with me
- Collaboration
- In line with above (example is limited – all teachers can do this through varied assignment choice)
- Lots struggle with art
- Storyboards, not papers
- #12 – #15 – all of these go with each other
- Requires outside the box
- Not always applicable

### 13 21<sup>st</sup> Century Skills

- Prepare for future
- What about 10 years/20/30, etc
- Preparation
- Need to prepare students for post high school
- These are the basis of the ALA Library Standards
- Relevant to students' lives, skills needed for success

- Needed for both the general and specialized populations
- Too vague: Rebrand
- Make school like the real world
- I just think these are silly
- We still aren't there yet
- Integrated/overlapping skills
- 6 C's
- #12 – #15 – all of these go with each other
- Innovative and work with others
- Teacher dependent
- Life and career skills!

### 14 Project Based Learning: Café Paresien

- Help reinforce learning
- Makes learning more interesting and memorable
- Would need a restructuring of time and physical class space
- Highly engaging – but teachers need training
- Learn by doing
- Collaborate
- Covers 4 C's
- Memorable experience
- Needs excellent teachers
- Interdisciplinary project based
- Great for most
- Tied learning to practice
- Like to add a service component
- #12 – #15 – all of these go with each other
- Excessive out of schoolwork
- Great way for student driven learning within teacher's parameters
- Teacher dependent
- Solving for the problem
- "She had purpose"

### 15 Design Thinking, Making Things to Learn

- Creative problem solving
- Makes learning more interesting and memorable
- There is a huge value for kids to engage and retain when they are active in learning
- How utilized is the current maker space?
- Much more "hands on" learning





## Ch 5.1 Notes Workshop Day 1

- Innovation, creating things
- Learn by doing
- Human centered design
- Very important for innovation
- Innovation not technology, but make viable opportunity
- Stresses making things – high engagement
- #12 – #15 – all of these go with each other
- Design process can be applied to all areas
- Great way for student driven learning within teacher's parameters
- Teacher dependent
- Solving for what the problem actually is!

### Part 2 ISSUE

#### 1 21<sup>st</sup> Century School Planning

- What was good for us does not mean it's good for the future.
- It makes sense to have more compact clusters rather than long and drawn out
- The building having a vision, the teachers and the students will have a vision
- More collaboration and connection
- Relationship building prioritized
- Facility is important but #2 is most
- Feeling safe without feeling locked in
- Prepare for future workforce
- Breakout ad whole group spaces
- Inter-connected learning spaces
- Clusters of collaborative spaces
- Not long hallways with rooms on side
- Flexibility, choice
- Collaboration
- Comfort
- Don't make a "big" small learning community
- Clearly, we are using outdated designs

#### 2 Small Learning Communities

- More connection and meaningful
- Small group academic/SPED
- Especially important for those who love neighborhood schools

- In support of building stronger relationships
- Like common area – by grade level?
- Tied to #3
- Teacher collaboration
- Communication of learners
- Learning is social
- #2 and #3 seem to be connected
- Reinforce collaboration and SEL

#### 3 Extended Learning Areas

- It think it's important to have flex space where kids can hang out together in school because we don't have that space outside of schools in this town except maybe the library
- Does it get utilized?
- Flexibility – colorful – short and wide
- Movable furniture
- In support of building stronger relationships
- Allows students to expand learning outside the classes
- Collaborative places
- Good collaborative space conducive for learning
- Make learning flexible
- Common, collaborative learning space
- Right now we do this occasionally
- Allowing accessibility for different styles, movement
- "social space learning"

#### 4 Safety + Security in 21<sup>st</sup> Century Schools

- Safety is paramount
- Controlled access should be considered but not primary focus
- Important because of current situation
- It's a necessity
- Discouraging we have to change building design instead of regulate guns
- If you feel unsafe you won't engage properly = learn
- Accessibility for ADA exits
- Safety #1 priority
- Gate keys, observation of hallways
- Grants for this?



Ch 5.1 Notes Workshop Day 1



**5 SERIES: SCHOOL ORGANIZATION CAN IMPROVE LEARNING**

**5a Facts of Life**

- I don't believe kindergarteners should be exposed to grade 8 kids daily
- Solution to some SEL
- Fewer transitions
- Recommend re-organizing to keep engaged
- ? Impact on community feeling
  - Community members talk about the importance of small community schools in forming and supporting communities
- Equitable services, interactions between grade levels
- 4-5 does not work
- More collaborations among teachers
- Fewer transitions to new buildings for kids
- Is there a benefit of having 4 year-olds with 13 year-olds
- More economical, better services
- Would be very interested to see how education changed if this style of structure was adopted

**5b Grade Grouping Strategies**

- K-4 or even K-5 but not K-8
- Challenges in this town
- Less transition and stay longer
- Helps with logistics
- Upsides for families/parents
- Not sure...
- Gr 4-5 at HMS is not good
- Transition affects kids, you lose experience, resources by moving around
- Knowledge of students by teachers and specialists
- Operation costs
- Available facilities
- What about out of towners? Isolating
- More equitable, students know 1 building
- Would be very interested to see how education changed if this style of structure was adopted

**5c Teacher Autonomy**

- What would the teachers like?

- Teacher teams and empowered
- Research to see what works
- Empowerment
- Teachers control
- We need to focus on buildings that will recruit the very best teachers
- Collaboration, empowering teachers
- Please
- As long as teachers are given autonomy – nice cut down on transitions and....
- Allows benefit of teacher knowledge – equity!
- Relies on consistent, excellent teachers so a system of accountability is key
- Small learning community promotes teacher autonomy
- No bell schedule
- One teacher can do a big group, 4 can work among small groups
- Teacher teams
- Does this create inconsistent student experience? Luck of the draw?
- But also need accountability
- Would be very interested to see how education changed if this style of structure was adopted

**6 SERIES: THINGS TO KNOW ABOUT BARRINGTON SCHOOLS**

**6a Educational Space Deficiencies**

- Can't do what we already are
- Need space to learn
- Need gyms/arts spaces
- Spaces have multiple purposes – not enough space!!
- Art, music – some use carts

**6b K-4 School Overcrowding**

- Can't let trend continue
- Growing enrollments
- Prefer smaller class sizes
- Numbers projected to increase
- Multi-use classroom
- Classrooms are currently too small
- Multi-use spaces (gym/café/music)
- Growing enrollment





## Ch 5.1 Notes Workshop Day 1

### 6c Walking to School

- If there is only one elementary school then getting all kids in this town to one building would be very stressful on town traffic if the school is in a certain part of town
- Data is lacking here
- Don't get rid of community schools
- What would be the estimated time on buses if we eliminate neighborhood schools
- Transportation planning is very important to this discussion
- So many students driven at all levels

### 6d Facility Conditions

- Numbers are bad
- Important to the community
- Must keep up
- 50% ADA violation

### 6e School Playfield Conditions

- Very important for elementary schools
- We have some of the worst
- Important to the community
- Less priority
- Terrible current condition
- Important to integrate outdoor learning spaces

### 7 Teacher Planning Centers

- Will we utilize it?
- Already have it
- Change from break room – hub of teacher communication and collaboration
- If separate from other areas
- Collaboration breeds innovation
- Collaborative
- Separate places to eat, to know other teachers
- Separate from a break room
- Printer or copier should be in there!
- Promotes collaboration – model for kids

### 8 Flexible, Varied Brain Based Furniture

- Allows for collaborative learning

- Would have been good for Dyson
- Proper movement is but could be other ways
- Brain based
- Posture
- I see the benefit as long as it isn't treated like a toy and safety does not become an issue
- Quiet spaces
- Kids need to move!
- Flexible seating is key!
- Needs to be ADA compliant
- Ability to move around
- Permanent contrasting on stairs, central room areas must have clear walking spaces for disabled kids
- Teachers hate chairs with wheels
- And – we do need kids to be able to sit still

### 9 End of the Library as We Know It Today

- Library/media centers are important
- More interaction with books and magazines
- Do we need these?
- Cool concept – best practices
- I LOVE library space
- Appreciate the general incorporation into the day – instead of a carve out
- Center of the school
- Good ideas!!
- Expose kids to...resources
- Quiet spaces
- Kids with large group issues
- Allow collaboration between teachers and media specialists
- Adapt structure for modern need
- Like the idea of a decentralized/auxiliary library space that change out to accommodate needs, interests
- Should still be intentional and valued
- Strongly disagree
- Not safe haven for kids; strongly impacts librarians; makes it less personal
- I'd like to hear a librarian comment on this (my kids like a cozy reading experience)
- Sensory issues/safe haven/quiet



## Ch 5.1 Notes Workshop Day 1



### 10 End of the Cafeteria as We Know It Today

- Flow between cafeteria and media center
- I'm neither against or for this idea – need more data on engagement
- Where is the food service are?
- Have there been any studies on improvement in # of kids eating?
- Good ideas!
- Like flexibility – learning commons?
- Café can also be a large group meeting space
- Make more use of that space
- Important to provide variety of dining/seating options

### 11 End of Isolated Teaching

- If teachers want this then I support it
- Movement built into day
- Teachers working together
- All for more teacher engagement but not sure
- Great ideas!
- So important!
- Safety concerns for disabled with moving furniture
- What about teacher choice?
- Renovation for teacher teams and collaborative space

### 12 SERIES: END OF THE CLASSROOM AS WE KNOW IT TODAY

#### 12a Wooranna Park Primary School

- These help make 13/14 doable
- More opportunities for collaboration and resources and fosters project-based learning
- I'm for end of classroom, not sure about these
- School culture!!
- But! Requires teachers
- Activity zones, teacher teams, PBL, theatre space
- We learn so much from each other
- Students also make connections with different teachers

#### 12b Milan HS Center for Innovative Studies

- These help make 13/14 doable
- More opportunities for collaboration and resources and fosters project-based learning

- I'm for end of classroom, not sure about these
- Willing, able and trained in team teaching
- STEAM lab
- Teachers sharing spaces
- We learn so much from each other
- Students also make connections with different teachers

#### Additional notes

- Teaching teacher's skills to improve student's learning
- Crime prevention through environmental design
- Challenge: teachers will need more planning time within the school day to plan for collaborative activities
- #'s 2, 3, 11 all focus on meeting spaces, collaboration, multi-age, interaction/collaboration, movement
- Point of emphasis: to design spaces with students with disabilities in mind
- These categories have a lot of overlap

## 21<sup>ST</sup> CENTURY LEARNING MOST IMPORTANT ISSUES

Workshop participants, working as Table Teams, were asked to reach consensus on the three most important (effective) ideas for future Shaker schools, and identify why they believed as they did.

Their thoughts are:

### Part 1

#### TABLE TEAM 1

##### Three Most Important

- #2 Student Engagement
  - Lack of engagement leads to lower learning
  - Spaces that allow flexibility
  - Spaces that are accessible to ALL students
- #10 Social/Emotional Learning
  - Help ID thoughts/feelings behaviors and problem solve what to do
  - Ties back to student engagement; being able to process emotional and its affects on being engaged







Ch 5.1 Notes Workshop Day 1

- 15 Design Thinking: Making Things to Learn
  - Learn best from hands on
  - Ties well into 21<sup>st</sup> learning

**TABLE TEAM 2**

**Three Most important**

- #14 Project Based Learning: Café Paresien
  - To provide opportunities for students to solve novel problems, apply skills and transfer across disciplines
  - Robot proof/future prepare
- # 9 Building Relationships and #10 Social//Emotional Learning
  - Relationships matter
  - Developing the life skills to strengthen SEL and well being
- #11 Pre-Kindergarten Programs
  - Engage early and impact strong foundations of the rest

**TABLE TEAM 3**

**Three Most important**

- #13 21<sup>st</sup> Century Skills
  - 4 C's – encompasses many of the others
- #8 School Organization Can Improve Learning and # 12 Interdisciplinary
  - Collaboration
  - Integration
- #10 Social//Emotional Learning (8/9)
  - Important to build sustainable society

**TABLE TEAM 5**

**Three Most Important**

- #13 21<sup>st</sup> Century Skills
  - Engagement of students
  - Core competencies
  - Deep learning
  - Employability
- #10 Social//Emotional Learning
  - Building strong relationships
- Professional Development
  - To make it all happen

**TABLE TEAM 6**

**Three Most Important**

- #2 Student Engagement (7/9?)
  - Keystone for a lot of the other skills
- #10 Social//Emotional Learning
  - Connects to engagement
  - Helps build positive adult relationships
- #13 21<sup>st</sup> Century Skills
  - To be able to adapt and overcome challenges they may face outside of school

**TABLE TEAM 7**

**Three Most Important**

- #10 Social//Emotional Learning
  - Serve students to meet life-long challenges
- #13 21<sup>st</sup> Century Skills
  - Feeds into many of the other models and facilitates flexible life-long learners
- #2 Student Engagement
  - Learning doesn't happen without this

**TABLE TEAM 8**

**Three Most important**

- #2 Student Engagement
  - Engaged students tend to be happier and more successful
- #13 21<sup>st</sup> Century Skills (7/9)
  - Transferrable skills for after high school whatever that may be
- #6 Creating Innovators
  - Teaching resiliency, providing opportunity to fail "safely"
  - Teaching grit

**TABLE TEAM 9**

**Three Most important**

- #2 Student Engagement
  - #14 Project Based Learning: Café Paresien, #15 Design Thinking, Making Things to Learn and #12 Interdisciplinary series
  - Personal investment
- #10 Social//Emotional Learning
- #11 Pre-Kindergarten Programs



Ch 5.1 Notes Workshop Day 1



- #4 Safety + Security in 21<sup>st</sup> Century Schools (3/9)
  - Safety/feeling safe 100% essential
- #1+ 21<sup>st</sup> Century School Planning(11 End of Isolated Teaching , 2 Small Learning Communities, 9 End of the Library as We Know it Today, 10 End of the Cafeteria as We Know it Today, etc)
  - All the future proofing required

**TABLE TEAM 5**

**Three Most Important**

- #2 Small Learning Communities (6+9)
  - Building committee
  - Engagement
  - Relationships
  - Shared resources/students
- #11 End of Isolated Teaching
  - Integration
  - Collaboration
  - Shared students
- #6 Things to Know About Barrington Schools
  - Deficiencies
  - Overcrowding
  - Barriers to 21<sup>st</sup> outcomes

**TABLE TEAM 6**

**Three Most Important**

- #1 21<sup>st</sup> Century School Planning
  - Updates to facilities, teaching styles, etc
- #6 Things to Know About Barrington Schools series
- #7 Teacher Planning Centers and #11 End of Isolated Teaching
  - More collaboration

**TABLE TEAM 7**

**Three Most important**

- #2 Small Learning Communities
  - Collaboration spaces
  - Learning spaces to fit all students' needs
- #4 Safety + Security 21<sup>st</sup> Century Schools
  - Students and staff should feel safe
  - Reduces stress levels
- #6a Educational Space Deficiencies and School Overcrowding

- Communication
- More teachers to support and make connections with students
- #6b School Overcrowding (8/9)
  - Growing enrollment
- #8 Flexible, Varied, Brain-Based Furniture
  - Flexible/ADA

**TABLE TEAM 2**

**Three Most important**

- #6 a Educational Space Deficiencies, #6b School Overcrowding and #6d Facility Conditions
  - Address immediate needs
  - Space conditions
- #12 End of the Classroom as We Know it Today, #2 Small Learning Communities and #11 End of Isolated Teaching
  - Collaborative, flexible and innovative learning space
- #1 21<sup>st</sup> Century School Planning (4/9)
  - Schools that support deep learning

**TABLE TEAM 3**

**Three Most important**

- #5 School Organization Can Improve Learning
  - Important to Barrington community
- #2 Small Learning Communities
  - "Neighborhood" feel
- #12 End of the Classroom as We Know it Today
  - Changes to support learning

**TABLE TEAM 4**

**Three Most important**

- #6a Educational Space Deficiencies and #6b School Overcrowding
  - How can you teach with too many kids/different facilities?





## Ch 5.1 Notes Workshop Day 1

- Enrollment numbers are projected to increase
- We are using spaces for too many purposes
- Running out of room!

### TABLE TEAM 9

#### Three Most important

- #6a Educational Space Deficiencies
  - Having adequate spaces whether shared or not important for education
- #4 Safety + Security 21<sup>st</sup> Century Schools
  - No explanation necessary
- #1 21<sup>st</sup> Century School Planning and #11 End of Isolated Teaching
  - This planning would benefit many other factors including removal of isolating teaching, new furniture, open spaces

### TABLE TEAM 3

#### Three Most important

- #7 Teacher Planning Centers
- #6 Things to Know About Barrington School series
  - Flexibility
- #9 End of the Library as We Know it Today
  - #2 Small Learning Communities, #3 Extended Learning Centers, #11 End of Isolated Teaching, #12 End of the Classroom as We Know it Today series

## Summary

Several issues were cited as Most Important by more than one Table Team. They were:

### PART 1:

- #10 Social/Emotional Learning (cited 7 times)
- #2 Student Engagement (5 times)
- #13 21<sup>st</sup> Century Skills (5 times)
- #11 Pre-Kindergarten Programs (2 times)

### PART 2:

- #2 Small Learning Communities (Cited 5 times)
- #11 End of Isolated Teaching (5 times)
- #1 21<sup>st</sup> Century School Planning (4 times)
- #6a Educational Space Deficiencies (4 times)



**Educational Visioning** Barrington Public Schools  
Frank Locker Educational Planning

**Barrington, RI**

**Visioning for District-Wide Master Planning**

- #4 Safety + Security 21<sup>st</sup> Century Schools (3 times)
- #6 Series: Things to Know About Barrington Schools (3 times)
- #9 End of the Library as We Know it Today (2 times)
- #12 Series: End of the Classroom as We Know it Today (2 times)

## COLLABORATION

The Visioning Team have viewed the Edutopia video of Randy Nelson, then Dean of Pixar University, addressing the topic *Living and Learning in the Collaborative Age*.

In a whole group discussion, Visioning Team members had these thoughts:

- Perspective taking others' points of view
- Mastery of anything could be indication of mastery of others
- Instead of shut down – build up amplification
- Not failure avoidance but error recovery
- Interested more important than learning
- Cooperation not same as collaboration
- How to apply CBPS?
- Ok to fail
- Has to align with homes lots of pressure
- Get kids to be overt about metrics for success
- How much does Barrington culture align 2%
  - BPS is grade based
- How to teach kids above
  - Move to more open ended questions
  - Too much homework
- Introduce failure frequently and often at early years
  - Learn from it
- When engaged in problem solving
  - Multiple ways
  - Failure is a learning process
- Choose terms carefully
- To do
  - Part of strategic plan

Ch 5.1 Notes Workshop Day 1

**WHAT WORKS? WHAT COULD BE IMPROVED?**

The Table Teams brainstormed concepts that characterize the current district status. Here are their thoughts:

- \* = others shared similar concepts
- \* = shared with all as most important

**Works**

**Table Team 1**

- Teamwork
- Dedicated teachers
- Supports in place for students (SEL)
- Consistency
- Maintenance working hard \*
- Excitement in Pre-K for learning

**Table Team 2**

- Elementary coaching
- High quality teachers
- Elementary culture
- Standardized testing
- Inclusivity
- Vision of a student
- Culture of acceptance
- Higher student engagement in extra-curriculars \*

**Table Team 3**

- Extra-curricular \*
- Pre-school \*
- Standards-based education
- Teachers and administrators invested in students
- Town funds schools per pupil cost low – high R.O.I

**Table Team 4**

- Dedicated time with proficiency development
- Special education push-in
- Prepare kids well for college

**Table Team 5**

- Senior Project
- Faculty/staff dedicated, hard-working
- Extra PD days

**Table Team 6**

- ES math enrichment \*
- Highly dedicated teachers
- Shared goals

**Table Team 7**

- People – good staff/students/community
- Hands on work – students
- Access to technology

**Table Team 8**

- SEL at lower grades than HS
- Deep learning
- Retention (don't count 2021-2022)
- Student leadership
- Pathways/internships

**Table Team 9**

- Teachers
- Community involvement
- Leadership commitment – support\*
- Human element personable
- HS extra-curricular
- Support staff

**Could be Improved**

**Table Team 1**

- Improve outdoor/learning spaces
- Equitable spaces for all spaces
- Fully accessible spaces (playgrounds)
- More staff needed in order to meet needs of students \*
- More SEL supports for teachers \*
- Walkability/bussing communications \*
- One all-inclusive email from schools rather than multiple schools





Ch 5.1 Notes Workshop Day 1

**Table Team 2**

- Secondary coaching
- Secondary transition programs (IEP's)
- School period schedules
- Increase electives
- Interdisciplinary opportunities
- H/S/D collaboration to increase communication
- Integration of deep learning
- Implementation of new vision PK-12

**Table Team 3**

- Pre-school could be bigger
- Fewer school transitions \*
- Athletic facilities
- Climate control
- Increase staff student ratio \*

**Table Team 4**

- High school elective choices
- Hampden Meadows transition 4<sup>th</sup> and 5<sup>th</sup> grades
- Idea: move 3<sup>rd</sup> grade to Hampden Meadows
- Inclusion could be better across the board
- No/little sense of belonging

**Table Team 5**

- But still need to help students find their passion
- Assessments should reflect mastery, not just skills
- Focuses on our initiatives without adding more

**Table Team 6**

- Athletic programs
  - Integration with ES
- More resources and support for teachers and administration \*
- More arts resources for ES
- More collaboration between the arts and the community
- Communication

**Table Team 7**

- Need more people
  - More SEL staff
- More resources

**Table Team 8**

- Strategic FTE's at ES and HS
- HS daily school schedule
  - Time length
  - Quantity of electives
  - Quantity of offerings
- SEL
- Communication

**Table Team 9**

- SEL wellness
- Space
  - Gym
  - Art\*
  - Music
- Flexible learning space
- Funding for classroom resources
- Playing fields/outdoor learning\*
- Using town resources
- What is success
  - Mean?
- Full time special staff (SEL)\*
- Dismissal
- Sidewalks

**SCHOOL ORGANIZATION: INTERNAL**

This was the challenge:

**SCHOOL ORGANIZATIONAL STRUCTURE 1: INTERNAL**

Identify a focus: Lower ES Upper ES All Elementary MS HS

Table Team discussion and report out.

**DEVELOP A DETAILED ORGANIZATIONAL CONCEPT**  
**CREATE THE MOST APPROPRIATE CONCEPT FOR**  
**THE FUTURE FROM AN EDUCATIONAL POINT OF VIEW**



Ch 5.1 Notes Workshop Day 1

1. Rank the following, from (1=) most appropriate to least appropriate
2. Analyze your most appropriate one:
  - a. Elaborate on the structure to give it more definition
  - b. Combine possibilities if desired
  - c. Identify the Pros and Cons
  - d. What would you do to mitigate the Cons?

**ELEMENTARY SCHOOL ORGANIZATIONAL MODELS**

- A. Grade-level classroom groupings
- B. Multi-grade classroom groupings
- C. Multi-age classrooms
- D. Teachers “teaming,” sharing students but teaching separately
- E. Thematic multi-grade Small Learning Communities (SLCs)
- F. Any of above with teachers looping
- G. Any of above with synchronous teacher teaming, sharing students in real time
- H. Other

**MIDDLE SCHOOL ORGANIZATIONAL MODELS**

- A. Departmental model
- B. Grade-level classroom groupings in Small Learning Communities (SLCs)
- C. As “B” but multi-grade SLCs
- D. As “C” but thematic multi-grade SLCs
- E. Any of above with teachers looping
- F. Any of above with synchronous teacher teaming, sharing students in real time
- G. Other



**HIGH SCHOOL ORGANIZATIONAL MODELS**

- A. Departmental model
- B. Freshman House
- C. Interdisciplinary Small Learning Communities (SLCs)
- D. As “C” but thematic SLCs
- E. Any of above with teachers looping
- F. Any of above with synchronous teacher teaming, sharing students in real time
- G. Other

Table Team responses to the questions were:

**Table Team 1  
School Organization  
Focus: Lower Elementary School**

- Rank the following, from (1=) most appropriate to least appropriate

- A. 1 Grade-level classroom groupings
- B. 5 Multi-grade classroom groupings
- C. 6 Multi-age classrooms
- D. 2 Teachers “teaming”, sharing students but teaching separately
- E. 7 Thematic multi-grade Small Learning Communities (SLC’s)
- F. 4 Any of above with teachers looping
- G. 4 Any of above with synchronous teacher teaming, sharing students in real time
- H. 1 Other A and H

Analyze your most appropriate one:

- Elaborate on the structure to give it more definition
  - Grade level classroom grouping
  - Small learning community but per grade
  - Developmental basis
  - See JPG 2635 for drawing



## Ch 5.1 Notes Workshop Day 1

- o Reconfigured to Pk-2 and stressed teacher teaming and student sharing
  - o **Identify the Pros and Cons**
      - o **Pros**
        - ✓ Certification/sharing across building
        - ✓ Continuity of relationships
        - ✓ Students get what they need
      - o **Cons**
        - ✓ Change requiring PD
        - ✓ Change requiring lots of communication
    - o **What would you do to mitigate the Cons?**
      - o Instructional coaching
      - o Families as partner/ co-construct at school
- o **Rank the following, from (1=) most appropriate to least appropriate – 3-5**
  - o A. 6 Grade-level classroom groupings
  - o B. 3 Multi-grade classroom groupings
  - o C. 7 Multi-age classrooms
  - o D. 4 Teachers “teaming”, sharing students but teaching separately
  - o E. 8 Thematic multi-grade Small Learning Communities (SLC’s)
  - o F. 5 Any of above with teachers looping
  - o G. 2 Any of above with synchronous teacher teaming, sharing students in real time
  - o H. 1 Other G plus B

### TABLE TEAM 2

#### School Organization

#### Focus: Lower and Upper Elementary

- o **Rank the following, from (1=) most appropriate to least appropriate – PK-2**
  - o A. 6 Grade-level classroom groupings
  - o B. 3 Multi-grade classroom groupings
  - o C. 7 Multi-age classrooms
  - o D. 5 Teachers “teaming”, sharing students but teaching separately
  - o E. 8 Thematic multi-grade Small Learning Communities (SLC’s)
  - o F. 4 Any of above with teachers looping
  - o G. 2 Any of above with synchronous teacher teaming, sharing students in real time
  - o H. 1 Other G plus B

#### Analyze your most appropriate one:

- o **Elaborate on the structure to give it more definition**

#### Analyze your most appropriate one:

- o **Elaborate on the structure to give it more definition**
  - o Reconfigured to 3-5 and stressed teacher teaming and student sharing
- o **Identify the Pros and Cons**
  - o **Pros**
    - ✓ Certification/sharing across building
    - ✓ Continuity of relationships
    - ✓ Students get what they need
  - o **Cons**





Ch 5.1 Notes Workshop Day 1

- ✓ Change requiring PD
- ✓ Change requiring lots of communication
- **What would you do to mitigate the Cons?**
  - Instructional coaching
  - Families as partner/ co-construct at school

**TABLE TEAM 3**

School Organization  
Focus: No response

- **Rank the following, from (1=) most appropriate to least appropriate**

- A. \_6\_ Departmental model
- B. \_3\_ Grade-level classroom groupings in small learning communities (SLCs)
- C. \_1\_ As "B" but multi-grade SLCs
- D. \_4\_ As "C" but thematic multi-grade SLCs
- E. \_5\_ Any of above with teachers looping
- F. \_2\_ Any of above with synchronous teacher teaming, sharing students in real time
- G. \_n/a\_ Other

**Analyze your most appropriate one:**

- **Elaborate on the structure to give it more definition**
  - SLC with some team teaching
    - ✓ Especially humanities
- **Identify the Pros and Cons**
  - **Pros**
    - ✓ Strong relationships
    - ✓ High collaboration
    - ✓ Depth of learning for humanities
    - ✓ Process > content
    - ✓ More wrap-around to identify challenges to students
  - **Cons**
    - ✓ Depth of learning for science – perhaps
    - ✓ Larger student groups
- **What would you do to mitigate the Cons?**
  - Small group work

- Project-based learning

**TABLE TEAM 4**

School Organization  
Focus: High School

- **Rank the following, from (1=) most appropriate to least appropriate**

- A. \_5\_ Departmental model
- B. \_4\_ Grade-level classroom groupings in small learning communities (SLCs)
- C. \_1\_ As "B" but multi-grade SLCs
- D. \_2\_ As "C" but thematic multi-grade SLCs
- E. \_6\_ Any of above with teachers looping
- F. \_3\_ Any of above with synchronous teacher teaming, sharing students in real time
- G. \_n/a\_ Other

**Analyze your most appropriate one:**

- **Elaborate on the structure to give it more definition**
  - Ideas don't stand alone
  - All disciplines working together in support of student engagement through achievement of goals
  - PBL/Design Learning/Inclusion (Multi-Grade)
- **Identify the Pros and Cons**
  - **Pros**
    - ✓ Break down walls/cross pollination
    - ✓ Improve school culture (faculty)
    - ✓ Enhance collaboration and sense of belonging (engagement)
  - **Cons**
    - ✓ Scheduling
    - ✓ Currently have to exclude math
    - ✓ Change management – against 100+ years of norms
- **What would you do to mitigate the Cons?**
  - Expand time frames eg. Up to 4 hours to mitigate scheduling







Ch 5.1 Notes Workshop Day 1

- o Workshop visioning with math department stakeholders to SOLVE for inclusion
- o Build out comprehensive 3-6-9-12-18 months
  - ✓ Change management plan (Katter Model)

- o Freshman Academy dedicated faculty
- o Dedicated teacher time for planning

**TABLE TEAM 6**  
**School Organization**  
**Focus: Elementary School**

- Rank the following, from (1=) most appropriate to least appropriate

- o A. \_6\_ Grade-level classroom groupings
- o B. \_7\_ Multi-grade classroom groupings
- o C. \_8\_ Multi-age classrooms
- o D. \_2\_ Teachers “teaming”, sharing students but teaching separately
- o E. \_3\_ Thematic multi-grade Small Learning Communities (SLC’s)
- o F. \_5\_ Any of above with teachers looping
- o G. \_4\_ Any of above with synchronous teacher teaming, sharing students in real time
- o H. \_1\_ Other A and H

**TABLE TEAM 5**  
**School Organization**  
**Focus: High School**

- Rank the following, from (1=) most appropriate to least appropriate

- o A. \_6\_ Departmental model
- o B. \_2\_ Grade-level classroom groupings in small learning communities (SLCs)
- o C. \_3\_ As “B” but multi-grade SLCs
- o D. \_1\_ As “C” but thematic multi-grade SLCs
- o E. \_5\_ Any of above with teachers looping
- o F. \_4\_ Any of above with synchronous teacher teaming, sharing students in real time
- o G. \_n/a\_ Other

**Analyze your most appropriate one:**

- Elaborate on the structure to give it more definition
  - o B, C, D connected – Transition to HS
    - ✓ Successful, social emotional, skills, exec functioning, provide support!

**Identify the Pros and Cons**

- o Pros
  - ✓ Teachers know kids well
  - ✓ Collaboration – no isolation
  - ✓ Students can make connection and prepare for 21<sup>st</sup> century workforce
- o Cons
  - ✓ Scheduling
  - ✓ Staffing
  - ✓ Space

**What would you do to mitigate the Cons?**

- o PD

**Analyze your most appropriate one:**

- Elaborate on the structure to give it more definition
  - o Pods of 100 or so kids with 4-5 teachers assigned who build classes based on case load in September (grade pods feed to next level)
    - ✓ 4a pod goes to 5a pod goes to 5b pod
  - o Teachers reassess groups in December but also flexible re: group with needs in common space
  - o Meanwhile these pods are built by admin with some variability for parent choice i.e. 1 pod allows for multi-age /looping based on what kids need
    - ✓ Not necessarily all the same

**Identify the Pros and Cons**

- o Pros
  - ✓ Meets kids needs
  - ✓ Relationships
  - ✓ Teacher autonomy



Ch 5.1 Notes Workshop Day 1

- **Cons**
  - ✓ Logistical nightmare
- **What would you do to mitigate the Cons?**
  - Advance planning
  - Teacher planning

**TABLE TEAM 7**  
**School Organization**  
**Focus: Elementary School**

- **Rank the following, from (1=) most appropriate to least appropriate**
  - A. 4 Grade-level classroom groupings
  - B. 6 Multi-grade classroom groupings
  - C. 7 Multi-age classrooms
  - D. 3 Teachers "teaming", sharing students but teaching separately
  - E. 2 Thematic multi-grade Small Learning Communities (SLC's)
  - F. No/8 Any of above with teachers looping
  - G. 5 Any of above with synchronous teacher teaming, sharing students in real time
  - H. 1 Other: Thematic grade level small learning communities with multi-age options

**Analyze your most appropriate one:**

- **Elaborate on the structure to give it more definition**
  - Like subject specific teacher experts
  - Thematic grade level small learning communities with multi-age options
- **Identify the Pros and Cons**
  - **Pros**
    - ✓ Creates positive culture
    - ✓ Fosters collaboration
    - ✓ Builds leadership
    - ✓ Deeper in curriculum (deep learning)
  - **Cons**
    - ✓ Teaming hard with odd # classrooms
    - ✓ Might not work with current staff/staffing



- **What would you do to mitigate the Cons?**
  - Hire specially trained people i.e. elementary teacher with math background

**TABLE TEAM 8**  
**School Organization**  
**Focus: High School**

- **Rank the following, from (1=) most appropriate to least appropriate**
  - A. 5 Departmental model
  - B. 1 Grade-level classroom groupings in small learning communities (SLCs)
  - C. 3 As "B" but multi-grade SLCs
  - D. 2 As "C" but thematic multi-grade SLCs
  - E. 6 Any of above with teachers looping
  - F. 4 Any of above with synchronous teacher teaming, sharing students in real time
  - G. n/a Other

**Analyze your most appropriate one:**

- **Elaborate on the structure to give it more definition**
  - Set student and organization expectations for students in the most difficult educational transition year
- **Identify the Pros and Cons**
  - **Pros**
    - ✓ Advisory time
    - ✓ Common language
    - ✓ Removes/reduces anxiety
    - ✓ Helps with transition and organization
    - ✓ Interdisciplinary CPT
  - **Cons**
    - ✓ Interdisciplinary teaching
    - ✓ Daily schedule
    - ✓ Facilities
    - ✓ Student scheduling
- **What would you do to mitigate the Cons?**
  - Scheduling committee





Ch 5.1 Notes Workshop Day 1

- Knock down walls
- More than 4 in common

**TABLE TEAM 9**  
**School Organization**  
**Focus: High School**

- Rank the following, from (1=) most appropriate to least appropriate
  - A. 5 Departmental model
  - B. 3 Grade-level classroom groupings in small learning communities (SLCs)
  - C. 2 As "B" but multi-grade SLCs
  - D. 4 As "C" but thematic multi-grade SLCs
  - E. 6 Any of above with teachers looping
  - F. 1 Any of above with synchronous teacher teaming, sharing students in real time
  - G. n/a Other

**Analyze your most appropriate one:**

- Elaborate on the structure to give it more definition
  - What we have now
    - ✓ C = among top 3
    - ✓ D = high
    - ✓ F = high and low
  - Pair F with C
  - Sharing real time knowledge transfer

**Identify the Pros and Cons**

- **Pros**
  - ✓ Real world experience
  - ✓ Seeing real time
- **Cons**
  - ✓ Teacher challenge
  - ✓ Scheduling
  - ✓ Expensive
  - ✓ Homogenous grouping

**What would you do to mitigate the Cons?**

- Freshmen based?

○ More \$

Lower Elementary School Ranked										
Option	RANK	T1	T2	T3	T4	T5	T6	T7	T8	T9
H. Other	1									
G. Any of above with synchronous teacher teaming, sharing students in real time	2									
D. Teachers "teaming," sharing students but separately teaching curriculum specialties	3									
A. Grade level classroom groupings	4									
B. Multi-grade classroom groupings	5									
F. Any of above with teachers looping	6									
C. Multi-age classrooms	7									
E. Thematic Multi-grade Small Learning Communities (SLC's)	8									

Upper Elementary School Ranked										
Option	RANK	T1	T2	T3	T4	T5	T6	T7	T8	T9
H. Other	1									
G. Any of above with synchronous teacher teaming, sharing students in real time	2									
B. Multi-grade classroom groupings	3									
D. Teachers "teaming," sharing students but separately teaching curriculum specialties	4									
F. Any of above with teachers looping	5									
A. Grade level classroom groupings	6									
C. Multi-age classrooms	7									
E. Thematic Multi-grade Small Learning Communities (SLC's)	8									

All Elementary School Ranked										
Option	RANK	T1	T2	T3	T4	T5	T6	T7	T8	T9
H. Other	1									
D. Teachers "teaming," sharing students but separately teaching curriculum specialties	2							1	1	
E. Thematic Multi-grade Small Learning Communities (SLC's)	2							2	3	
G. Any of above with synchronous teacher teaming, sharing students in real time	4							3	2	
A. Grade level classroom groupings	5							4	5	
B. Multi-grade classroom groupings	6							6	4	
F. Any of above with teachers looping	6							7	6	
C. Multi-age classrooms	8							5	8	
								8	7	





Ch 5.1 Notes Workshop Day 1

High School Ranked										
Option	RANK	TT1	TT2	TT3	TT4	TT5	TT6	TT7	TT8	TT9
C. Interdisciplinary Small Learning Communities (SLCs)	1			1	1	3				3
D. As "C" above but thematic SLCs	2			4	2	1				2
B. Freshman House	3			3	4	2				1
F. Any of the above with synchronous teacher learning, sharing students in real time	4			2	3	4				4
A. Departmental model	5			6	5	6				5
E. Any of the above with intentional teacher looping	5			5	6	5				6
G. Other				na	na	na				NA

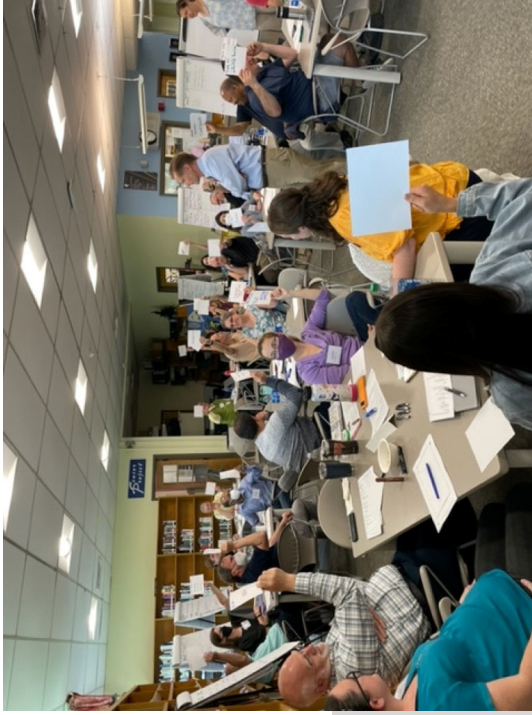
Ch 5.2 Notes Workshop Day 2



### AGENDA

The first Visioning Workshop was held on 17<sup>th</sup> May 2022. Notes of all activities follow:

- School in 2042
- Learning Modalities
- Diversity, Equity + Inclusion
- School Organization Overall
- Larry Rosenstock on High Tech High
- Who is in Charge Here?
- Mapping Future District Schools
- Key Words
- Next Steps



## Notes Workshop Day 2

### SCHOOL IN 2042

Visioning Team participants had looked into the long-term future as homework. This was the challenge:

#### DEFINE SCHOOL IN 20 YEARS

Answer as many of these questions as needed to create your concept of future school.

1. What will students at our school be doing in 20 years?
  - a. What is “a day in the life of a student?”
  - b. If they can learn content through the internet, why come to school?
2. What will faculty/staff at our school be doing in 20 years?
  - a. What is “a day in the life of a teacher?”
  - b. What is the teacher role?
3. Community?
  - a. How will the community be involved in our school? How will community use our school?



Ch 5.2 Notes Workshop Day 2



- b. How will our school be involved in the community? Will learning happen there? How?
- 4. Facilities: What does this imply for facilities?

Visioning Team members shared their thoughts, their big realizations, about school in 20 years in a whole group discussion.

**Whole Group Discussion**

- Community
  - o Get kids more engaged in town
  - o Projects sourced in community
- Coordination on communication
  - o See [www.heppell.net](http://www.heppell.net)
- More kids choosing pathways and passions at earlier age, like elementary school
  - o Kids will be "doing school" not just learning at school

**TWO DIVERGENT THOUGHTS WERE EXPRESSED:**

- 1. Will not have schools like now
  - o More internet
  - o Kids take courses anywhere in world
  - o Will still we need space at school due to childcare needs
  - o What does building look like?
  - o AR, headsets
  - o Teacher role becomes social/emotional
- 2. Maybe not that radical
  - o Covid points out all the barriers
  - o Evolution of school has been beyond slow

**A STRAW POLL WAS TAKEN, WITH EYES CLOSED AND RAISED HANDS**

- 8 people believed school will be like Opinion 1
- 10 people believed school will be like Opinion 2
- 21 people believed school will be somewhere between the two, Opinion 2.5
- Connect retired experts to schools
  - o School = community center
- Practical thoughts:

- o Classroom
- o Signage poor
- o Safety and accessibility problems
- Flexibility – school buildings
  - o We need an ideological shift in how we grade students
  - o From "ABCD"
  - o To Standards Based

Here is a record of their individual thoughts:

**SCHOOL IN 2042**

Visioning Team participants had looked into the long-term future as homework. This was the challenge:

**DEFINE SCHOOL IN 20 YEARS**

Answer as many of these questions as needed to create your concept of future school.

1. What will students at our school be doing in 20 years?
  - a. What is "a day in the life of a student?"
  - b. If they can learn content through the internet, why come to school?
2. What will faculty/staff at our school be doing in 20 years?
  - a. What is "a day in the life of a teacher?"
  - b. What is the teacher role?
3. Community?
  - a. How will the community be involved in our school? How will community use our school?
  - b. How will our school be involved in the community? Will learning happen there? How?
4. Facilities: What does this imply for facilities?





## Ch 5.2 Notes Workshop Day 2

Visioning Team members shared their thoughts about school in 20 years in a whole group discussion.

### 2042 Group Discussion

- AH.HAS
- Community
- Get kids more engaged in town
- Projects sourced in community
- Coordination on communication heppell.net
- More kids choosing pathways and passions at earlier age – ES
  - Doing school
- Will not have schools like now
  - More internet
- Kids take courses anywhere in world
- Space at school – yes due to child care
- What does building look like?
- AR, headsets
- Teacher role becomes social/emotional
- Flexibility – school buildings
- Maybe not that radical
  - Covid points out all the barriers
- Evolution of school has been beyond slow
- Connect retired experts to schools
  - School = community center
- Need ideological shift in how we grade students
  - ABCD
  - Standards based

Here is a record of their individual thoughts:

### 1. WHAT WILL STUDENTS AT OUR SCHOOL BE DOING IN 20 YEARS?

#### A. WHAT IS “A DAY IN THE LIFE OF A STUDENT?”

- Depends on the age group but I think ES will be much like today with more digital literature. SS will have a bit more voice and choice but still stuck in the same structural confines we have today
- More ownership of learning – choice and voice
- Project-based and group work learning
- Flexibility; doing more than receiving knowledge

- Expose students to different challenges by use of multiple avenues of instruction and diverse curricula opportunities
- It should reflect what “work” will be like with many going to work and new school from 9am-5pm with breaks for all “study periods” and collaborative project work with overtly stated outcomes
- Hybrid day – some online – some in person
- I think it will be very different – more hybrid
- Flexible, choice-driven, real-world problems, collaborative
- More students working together collaboratively
- Skills taught over content.
- Curriculum will be...contrast...
- More tech-based learning – fit... of careers
- Students will work on a project of their interest preparing them for the future they want
- Working with students at other schools on similar topics/projects via technology
- Increase of tech use from today
- Students will attend school and focus on an academic area(s) of their choice
- Students will have a greater say in what they learn and do
- Socializing with peers
- Access to many modes of accessing learning
- More movement and ability to choose seating/areas where they can do their best work
- 3D virtual worlds?
  - ✓ Virtual hands-on simulators
  - ✓ Simulated physical environments
  - ✓ Interactive virtual worlds
- If not VR then maybe AR glasses that decode and explain
- Interconnected continental virtual partnerships?
- Learning computers that instantly DI learning
- Working in groups, student led learning and activities
- Students work in bright, cheerful rooms. They are given time to work and learn in groups, independently and with teachers. They are also given time to play, have fun and just be children



Ch 5.2 Notes Workshop Day 2



- It's important for there to be a balance of work and play
  - Similar schedule with more options in curriculum/I to match the demands of workforce/society
  - Traditional multi-period day with customized enrichments for classes
  - Will be different for HS, MS vs ES?
  - More problem-based learning and choice 1:1 devices
  - SEL throughout the day
  - Small group breakouts – students getting what they need (intervention enrichment)
  - Learning foundational skills and habits of mind through the lens of their own passions
  - Emails and calls before school with project groups
  - Check-in over breakfast and lunch w/groups and/or teacher advisors
  - Class throughout the day comprised of on-line and university level courses, diverse enrichment with how-to videos and spaces to prototype and share ideas
  - After school sports/enrichment in diverse interest areas, project/interest area development activities
  - Students in each grade will meet in open classrooms furnished in a way to provide collaborative learning, except for PE, library, music and art. They will stay in this room. Teachers will travel to the classrooms.
  - Much of the curriculum will be project based
  - Having a flexible schedule (accomplishing certain subjects each day), deep learning projects and multiple opportunities to be productive during the school day with outside experiences or internships
  - Not as scheduled/routine
  - Open campus with experiential learning
  - Maybe "houses" for content areas/specializations?
  - More tech, individual learning
  - Hopefully more creative arts
  - Choosing their own pathway/passion
  - Learning by doing
  - Connecting learning to self, family, community, world
  - Connection problem solving, social dynamics
  - Learn by listening, doing, reflecting and showing
  - More project-based learning "self taught/self fail"
- 
- More group projects, learning and collaboration
  - I hope it is more interest-based learning.
  - Focus on individual learning experiences – hands on
  - Students will learn in a more collaborative setting with more opportunities to be creative.
  - Lots of flow and room to be flexible
  - Project based learning
  - Problem solving
  - Open concept
  - A mix of experiences and educational opportunities that provide essential skills and support but are also (age-appropriately) largely student-led
  - Collaboration, creative/free lay time, project work, occasional lectures and traditional class time
  - Lots of movement
  - Opportunities for diverse course loads options
  - Flexible
  - Collaborative
  - SEL focus
  - It depends upon grades: some (time space) for personal organization
  - Between classes do some project (learn by doing)
  - Extracurricular activities
  - Arrive and see what subject teacher has prepared to research today
  - Making use of better technology and facilities
  - Higher mix of hands-on and technology aspects of learning
  - Blended learning. Between traditional school days and internship or exploration learning
  - Student voice and choice
  - Probably close to what it is now
  - Ideally there will be more integrated learning
  - Ideally also more personal investment
  - Everything they do will be based in the 6 C's

**B. IF THEY CAN LEARN CONTENT THROUGH THE INTERNET, WHY COME TO SCHOOL?**

- Some won't need to. Others aren't as self-directed – others need the soft skills. I think Covid taught us learning can't be done in a silo





## Ch 5.2 Notes Workshop Day 2

- To work with others
  - To learn communication, executive functioning skills, social/emotional skills, collaboration
  - An "in-person" facilitator is required to address the students' questions and observations based on their internet experience
  - To be guided through expert facilitation in the understanding of the content in how it relates to their current and future lives. As well as to learn how to interact with each other and succeed together
  - Because they might need coaching, problem-solving, experiential
  - Supervision for children whose parents' work
  - Support for academics – maybe assessment
  - Study skills development
  - Social emotional skills
  - Athletics
  - Socialization
  - Technology is a tool it cannot replace engaging with a teacher. In person inspires students
  - Some skills can't be taught on the internet
  - Internet can't replace an exceptional teacher
  - Working with others
  - Some skills can't be taught online
  - Students will still require the daily structure and opportunity for support when needed (not all students but some)
  - Relationship building and social skills are a must
  - Teacher must facilitate and guide students through their learning
  - Peer and social connections
  - Child safety
  - Parent freedom
  - Access to supplies not at a house
  - Collaboration, application of learning to real life challenges
  - Human interaction will be removed and that element is important to human nature. Students should be able to interact with peers, adults and their environment. This will benefit their social-emotional growth. Technology should be utilized but never the main teaching tool
- 
- Social interaction – relationship development
  - Group work/projects
  - Superior teachers, superior environment, superior classmates
  - To be guided and supported in areas of need
  - Socialization
  - Students need to be guided in content areas
  - To hit grade level milestones
  - Connection, collaboration with others
  - Building interpersonal skills, communication skills
  - To learn how to learn and how to contribute positively to our global community
  - Human interaction, collaboration in-person and virtually, exchange of ideas, hands-on
  - Implementation/prototyping individually or in teams with some specialized equipment and software
  - Access to advice from teacher, mentors, teammates.
  - Place to share and showcase ideas
  - Students need guidance to evaluate information
  - sources and learn how to synthesize the information
  - They will miss out on relationships, communication with adults. They would miss a lot on having somebody there during difficult times or lack of motivation
  - Collaboration and critical thinking (6 C's)
  - Interaction/socialization
  - Community collaboration; connections with people outside of home bubble
  - 6 C's – community, creativity, collaboration, critical thinking, creativity, citizenship, character
  - Relationships!
  - Identity development
  - Collaboration
  - Civility
  - Exposure to content they might not choose
  - Insights and opinions other than their own
  - Global awareness
  - Navigating good and bad social interactions
  - Combination of both home/school learning
  - Increase learning from other students and teachers – collaboration is key
  - Helping lower/slower learners



Ch 5.2 Notes Workshop Day 2



- It is so important to foster relationships with! SEL is best when people are together to create connections
  - To be guided
  - Social interaction
  - Movement
  - Socialization, support, mentorship, developing critical thinking and other skills best learned with groups and interaction
  - Also accountability and direct when and how it is needed
  - Learn about reputable sources on internet and how to identify them
  - Social interactions and connection to community
  - Ability to do hands-on learning
  - Relationships
  - Thought partners
  - Collaboration
  - Deeper learning
  - Better collaboration
  - Real life learning
  - Body language and in room learning makes a lot of difference
  - Physical proximities
  - Because not everything on the internet is true. Need to know how to use to best advantage and be safe
  - Other skills that are not as effectively transferred through the web
  - Teachers can...learning. Teachers are people who can amplify learning
  - To learn what to do with the content and do so responsibly
- 2. WHAT WILL FACULTY/STAFF AT OUR SCHOOL BE DOING IN 20 YEARS?**
- A. WHAT IS "A DAY IN THE LIFE OF A TEACHER?"**
- Hopefully less of a pressure cooker. Sadly the connected life will play a greater impact in teacher burnout
  - Organizing opportunities
  - Collaborating with colleagues and students
- A "teacher" will become more of a guider and facilitator to ensure that a student exhibits and demonstrates proficiency in educational quests
  - Having prepped the three things their students will have learned today and building an engaging agenda with overt objectives that is reinforced throughout the day with students' input
  - Facilitating learning
  - I picture bigger rooms with several teachers as moderators, supervisors, advisors – kids on laptops – more like big study halls with kids taking classes
  - Facilitating
  - Acquiring resources
  - Nudging/questioning
  - Learning centered classrooms
  - Global opportunities for cultural collaborative opportunities
  - We will be more like facilitators. Students will choose own projects with teachers only being guide
  - Working in groups with students, collaborate with other educators
  - Teachers will support their students through ideas, suggestions, and further exploration
  - Same as we do now – although structure of lessons may look and sound different
  - See below (starts with "guiding kids") but if 30-40 years from now kids learn on the cloud could 1 stellar teacher teach kids around the country
  - Teacher as guide, setting up scene for application of concepts, resource for reinforcement/support of learning concepts
  - Teachers will arrive to brightly lit, cleaned buildings, with walls displaying student work and creativity. When not teaching in a large classroom, teachers are in meeting rooms, or a lounge with comfortable seating for prep work, lunch, etc
  - Depending on grade level- teacher will be a guiding force for interpreting the changing world and help students develop skills that are based in critical thinking, problem solving and socialization





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- Focused tutorial-style where teachers focus on specific students and small groups while technology handles basic instruction and grading
  - More time for collaborative planning and team teaching – need PD to plan activities (curriculum has labs)
  - Shared ownership of students
  - Facilitating the intersection of student passion, learning targets and real world/community resources and challenges
  - Responding to emails, messages, texts
  - Meeting with peers, project teams, individuals over breakfast
  - Working on collaboration and curriculum development ideas with peers, advocates, outside providers
  - Helping students find information
  - Remove barriers to exploration (60 Motivate) individuals and teams
  - Provide opportunities for students to discover talent, develop and express
  - Teaching a project-based curriculum, teachers of different subjects will work on a project in tandem – offering their expertise when appropriate
  - Teachers will guide students in non-teacher-centered environment. They will follow a flexible schedule and help students accomplish project based on the topic. Each teacher will be a member of the internship program
  - More planning time/more discussion of students
  - Small learning communities where teachers fully know their students
  - Facilitating learning, giving more individual help to those who need it
  - Facilitator of knowledge
  - Reflection and collaboration to keep students at the center of their mission
  - Growth, iteration, connections
  - Planning and executing multiple modalities of learning
  - Teachers will be more facilitator or guide to learning base/project-based learning
  - Keeping student on track
  - A teacher role will shift with new technology. I think teachers will be building more relationships peer to peer and teacher to student
  - Prepping to guide
  - Developing strategies for diverse learning
  - Welcoming and setting the plan/goals for the day.
  - Asking questions and answering student questions
  - Providing support, direction, mentorship and oversight, leading with moderating discussions, and holding students accountable when necessary
  - Facilitator – collaboration; working in teams, planning project based learning
  - It again depends upon grade/school level. Personal organization, interdisciplinary planning
  - More one-on one with student
  - More group activities
  - Unsure. Probably more prep is involved to do research on today's topic
  - Learning technology and knowledge to become more effective/efficient
  - Be the activator of the content
  - Blended learning
  - Similar, hopefully more ability to tailor learning to particular classes
  - Facilitating learning – listening – creating a space to collaborate
- B. WHAT IS THE TEACHER ROLE?**
- A guide, role model, internationalist, SEL coach, instructor and attendance keeper. Much of the same as today but in a slightly different way with whatever the educational buzz word is
  - Monitor, guide, opportunity offeror, safe space, mentor, collaborator, facilitators
  - A teacher becomes a facilitator and guide and role model to ensure a student's success in the academic arena



## Ch 5.2 Notes Workshop Day 2



- Expert facilitator to help guide the next generation through engaging discussions and applications of materials in the real world
- Facilitating learning
- Checking in
- Supervision for children whose parents' work
- Support for academics – maybe assessment
- Study skills development
- Social emotional skills
- Athletics
- Facilitating
- Acquiring resources
- Nudging/questioning
- Students as...
- Facilitator of learning
- Guide student projects and challenge students' ideas to make them dive deeper into their learning
- Facilitator, guide the student
- Teachers will support their students through ideas, suggestions and further exploration
- To be a mentor and facilitator to access info
- Guiding kids to the right learning materials, social well-being and SEL coaching, making sure the tech works, student advocate
- Teacher as guide
- A teacher is seen as a support system for students. They are trusted to do their jobs that allow students to flourish and grow. Teachers also have a balanced schedule with time built in to properly prep, have meetings and access resources to benefit student growth
- Guide/mentor
- Deep expert in their subject matter and human development
- Facilitator, guider, supporter, leader
- SEL
- Guide, facilitator
- Help students think more critically
- Coach/guide/connector/trusted adult/co-learner
- Facilitating learning, clarifying pathways
- Updating knowledge base to interact with students and student teams
- Advocate for spaces, equipment, programs and collaboration opportunities
- Create atmosphere conducive to exploration, presentation, collaboration, innovating, research, etc
- Get involved in enticement/interest areas when possible
- Teachers act as facilitators and guides on projects. They will monitor students' progress but won't micro-manage
- Letting students make mistakes they can learn from
- A motivator, a guide to deal with adversity and lack of success. They will impart their knowledge without teaching by Google.... They will teach them aspects of life.
- Coach, role model, someone to bounce ideas off of and receive feedback from – not necessarily "graders" and "lecturers"
- Guidance safety, helping promote community and foster collaboration. Help organize performance events, field trips, monitor progress of students
- Facilitator of learning experiences
- Champion of all students
- Creating pathways of student success
- Guide/facilitator
- No standardized testing/more proficiency
- To support students with their individual learning experience. We are a guide
- Knowledge
- Support
- Mentor, instructor, guide confidante, barometer, creative spark, collaborator
- To support students – educationally/emotionally
- To encourage diversity of approaches to problem-solving
- Collaborate and coordinate with other teachers to find ways to support individual needs/strengths
- Facilitator
- Inspiring and teaching life skills





Ch 5.2 Notes Workshop Day 2

- Teach how to observe and absorb information
  - Project planning teaching by solving real life issue
  - To guide students independently in subject area
  - Lead
  - Mentor
  - Deliver the curriculum with fidelity at the same time creating opportunities to use it in meaningful ways
- Parents as partners, utilize professionals and experts in community to share knowledge and experience
  - The community will have a fully transparent relationship with schools. They will be involved in decision making while also allowing schools to have the most impact.
  - Events to support student community engagement will also be held to raise funds and show support
  - Sports
  - Theatrical activities
  - Performance
  - Shared key resources (athletics, auditoriums)
  - Integrate adult learning and access to maker spaces
  - Fairly similar to now. Sports and Parent Associations primarily
  - Parents as partners in learning
  - Mentoring, more volunteering
  - As experts for students to collaborate with, as partners in the learning process
  - Support learning community
  - Mentor
  - Provide job shadowing and internship opportunities
  - Be supporters/investors in their work
  - Support opportunities and spaces that help students develop
  - Create opportunities for multi-age engagement with retired experts and professionals
  - Real world experiences can come from outside the school. Internships, volunteering or reaching for information needed on a project
  - They will act as mentors and resources. They will be more involved with imparting knowledge/guide...inviting to business. They will help with the internship
  - Internships, experiential learning
  - Sports, plays, mentors, guest presenters
  - Merge the two – spill the school into the community
    - ✓ Ex: Pre-K partners? Business models?
  - Hopefully integrated, offerings for internships, town council planning/committees
  - Participation
  - With boundaries – do they trust or not?

3. COMMUNITY?

- a. HOW WILL THE COMMUNITY BE INVOLVED IN OUR SCHOOLS?
- They'll continue to be a limiting factor that dictates the operational order and innovation or lack thereof that schools can have
  - Community spaces within schools – community center
  - Community members as mentors – retired experts
  - The community is required to ensure students' proficiency by providing the necessary resources
  - Community will be working to identify how we can create "success" – this term needs to be refined by parents/students
  - Support experiential learning
  - IDK – parents will want input in course selection, scope and sequence
  - Mentors
  - Experts
  - Providing internships
  - ...schools with community learning
  - Civic engagement – social interaction
  - Very involved. Local businesses looking for student to run projects in the schools are partnering with them
  - Partnerships, use the building
  - Changing demographics could put different programs in school in Barrington – health clinics, English classes
  - Community will provide support and outlets for students to learn and share their own ideas
  - Come in for exhibitions, offer work study opportunities, volunteer, be special guests
  - Volunteering/offering and educating teachers on problems they face that could be addressed via PBL



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- Schools remain welcoming and parents respect the educators' expertise
  - Are there prerequisites to serve on the school committee?
  - Providing opportunities for "real life" experiences/internships
  - I think we need to involve the community to build real world learning experiences for our students
  - Community learning center
  - Meeting spaces
  - Volunteer opportunities, sharing skills and expertise as mentors, teachers and guides
  - Providing support and resources, celebrating successes
  - Volunteering – in class and at events
  - Committees
  - Teach skills such as gardening
  - Community input
  - Collaborating on projects
  - Consulting when needed
  - Industry participants – get involved in some real life project
  - Initiating some extracurricular at school
  - Coach
  - I am unsure. Hopefully more positive help for the children
  - Similar oversight and guidance
  - Ideally high involvement
  - Parents can/should be part of school guidance
  - Community taps into our schools to help meet their needs
  - Place for parents (adults) to learn alongside their child
- b. **HOW WILL OUR SCHOOLS BE INVOLVED IN THE COMMUNITY?**
- Students in community internships
  - Students working on community problems (e.g. climate change) as projects
  - The school will provide the students through their rigorous and sustained commitment to ensure they can contribute to a well based community
- The projects (at least 80%) will be for the betterment of the community to increase engagement and pride with the work they are accomplishing
  - Community projects to improve community
  - Hopefully volunteering and internships
  - Mentors
  - Experts
  - Providing internships
  - Community based to provide...and community service
  - The student will be focused on bettering their community and how to make it the best possible
  - Service learning
  - Students/schools will help and support the community with current /future issues (using learning inventions, etc created by students/staff)
  - Community service projects use facility space for community events, etc
  - Problem solving and community outreach
  - Availability of public space
  - Town resources for public – i.e. how can a weight room at the HS benefit all
  - Hub of activity, community gatherings
  - Schools will hold events where the community can be involved. There will also be spaces for students to showcase work to be displayed inside and outside the buildings, as well as in town
  - Events
  - More internships and after school activities. Kids encouraged to take a semester off/foreign exchange/internship
  - HS tends to be a community focal point through athletes
  - Tour of the town – I worked in a district where 3<sup>rd</sup> grade students had a day where they visited town hall, met with town leaders and visited historical sites
  - Students participating in PBL that solves a problem in the community
  - A place for all to gather in the pursuit of personal and community growth
  - Support businesses and organizations in community
  - Develop more public/private pathways





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- Open more specialized resources to public after school so families, groups can brainstorm, innovate and prototype ideas
- Enrichment opportunities for individuals as well as families
- Real world experiences can come from outside the school. Internships, volunteering or reaching for information needed on a project
- The internships and many projects will involve the community
- Hopefully more involved, trade-like connections, opportunities for a community center, including festivals, performances, senior center type events
- Bridging partnerships – entrepreneurs, internships
- Leadership examples – bring in the community to connect and inspire
- Providing opportunities for community-based learning. Students and teacher continuing education
- We will be sending our students to get involved in community programs
- Provide space for learners
- Students engaged in community
- Providing service and expanded learning opportunities
- Support and education for young children
- Sharing facilities and resources in ways that make sense
- Events to encourage connections, family engagement, and to provide opportunities to try new things
- Communication between parents/teachers/students
- Contributing to community
- Productive members
- Giving back – some community volunteering
- Nature conservation – putting up science fair
- Cultural activism
- Recycling of as much as it can.
- A model of how to run a well-functioning school
- Continued source of pride and focus
- ...on...to be a key part of Barrington
- People here value education
- Schools learn about the community and what their needs are

4. FACILITIES: WHAT DOES THIS IMPLY FOR FACILITIES?

- The vision of the schools and community at large greatly impact the operation of our schools. We need far better athletics facilities for the town and school. We need more education space for growing community
- Flexibility
- Multi-use
- Facilities are a “tool” by which the students can achieve success in contributing towards the well-being of society
- Yes, we need to remove any infrastructure barriers that do not empower the above model, specifically around small learning communities
- Facilities need to have space for team meetings (students/staff)
- Open spaces
- Space for experiential learning
- Yes and no – maybe!
- Flexible spaces
- Redesign of facility to have safe, secure environment
- Space allows for collaboration – setting to be group and independent work - place where students and staff are excited to come to school
- Facilities need to change, to become more like campus rather than a set building
- Making sure facilities can handle new technologies; area for students to collaborate with each other
- Facilities will have to be updated with the new technologies. They will also be designed (need to) to allow for creative thinking and exploration
- State of the art, up-to-date tech.
- Flexible and ease in reconfiguration
- Electricity and adaptability
- Efficient ways to remove and upgrade existing technology/space for movement
- Flexible spacing to be used for variety of purposes – most importantly connection – with students, staff, parents/guardians, community members
- Facilities will be updated and expanded so there is proper room sizes and rooms for all students and



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- o We must consider what will remain true for the next 50 years ... FLEXIBILITY! (Don't build tech into rooms)
- o Space must remain agile and relevant for the future
  - ✓ Still with safety and security measures
- o Need to be flexible, adequate in space. Sustainable, comfortable and exciting to learn
- o We need to create more open spaces for students to engage with each other
- o Meeting needs for community schools
- o Town meetings
- o Outdoor spaces for activity and programs
- o Modular opportunities – to be able to move/expand, gather in whatever ways make sense for a need or use
- o Up-to-date tools and technology
- o Space for non-traditional (academic) skills building
- o Access – better communication channels and transportation options
- o Also full accessibility that does not just meet ADA standards but surpasses them, placing Barrington as a leader in this space
- o Accessibility – clear pathways for kids using wheelchairs or other assistive tools or blind kids
- o Safety for all
  - ✓ Contrasting stairs
  - ✓ Braille on lockers and placed at hand level to average student height
- o Flexible spaces
- o More welcoming for parents to get involved
- o Space for collaboration with student, teacher
- o Maker space and functional laboratories
- o Facilities need to adapt to allow the sharing of ideas more freely
- o More flexible re: space to share
- o Flexibility... to...needs so...
- o More smaller/medium work spaces with technology to communicate globally
- o And also spaces for real life applications to learning

- o teachers. Outdoor spaces will allow students to run around and play, while also offering additional spaces for learning. School building will have proper air and heating systems, storage and room sizes
- o The facilities will need to mimic the needs of the school community for future. The environment will need to be flexible and adapt to changes in enrollment, programming and the physical environment/climate
- o Need to be open to community but with security
- o Technology everywhere
- o Flexibility is key
- o Ability to pivot technology use and access on new developments
- o Outdoor gathering spaces
- o Indoor gathering spaces
- o Areas that support student interests (arts, garden design, solar)
- o More flexibility, space to spread out in, storage for a variety of maker projects and supplies
- o Spaces to support every type of learner (including those who need an independent/quiet break, to reflect, recharge)
- o Facilities should support community ideas on how to support student life, teacher life, family life and community life
- o Yes. Classrooms need to be collaborative spaces allowing for project-based learning. Common areas exist outside the classroom day double as workspaces, lunchrooms and social spaces
- o The facility will be open with common spaces, comfortable furniture, inviting...layout of the building that will make it a place where all departments work together
- o Technology increase, new machinery and facilities
- o Heating/cooling
- o Redesign schools for the 6 C's of (especially collaboration and critical thinking)
- o 21<sup>st</sup> century skills
- o It needs to be flexible, changeable, and have enough space for whatever offerings may arise
- o Open concept – with space for quiet reflection







Ch 5.2 Notes Workshop Day 2

**LEARNING MODALITIES**

This was the challenge:

**Identify your focus: elementary — middle — high — all grades**

Here is a list of learning modalities. Which are most appropriate for **core learning**? Which ones should we be using most at our future schools? Which ones the least?

**Personal reflection:**

- Personally rank them in order of appropriateness for learning
- Focus on the **4 most** and the **2 least appropriate** (and extensive application)
- Place (4) Xs in the “Most” column, and (2) Xs in the “Least” column

**Group consensus discussion:**

- Then debate with your Table Team members. Persuade them if you can

**Then ready your submission:**

- No need to pay attention to your table mates
- But change your ranking if you want with cross-outs

**Then share your choices in a guided all group discussion.**

**4 Most 2 Least**

- |   |       |       |
|---|-------|-------|
| A. Direct teaching  | _____ | _____ |
| B. Lecture (sustained direct teaching)                            | _____ | _____ |
| C. Book Work  | _____ | _____ |
| D. Seminar instruction  | _____ | _____ |
| E. Social/emotional learning                                      | _____ | _____ |
| F. Project-based learning PBL                                     | _____ | _____ |
| G. STEM, STEAM, making things, prototyping                        | _____ | _____ |
| H. Interdisciplinary learning                                     | _____ | _____ |
| I. Thematic/integrated learning                                   | _____ | _____ |
| J. Integrated arts learning                                       | _____ | _____ |
| K. Teacher team/synchronous collaboration                         | _____ | _____ |
| L. Independent study  | _____ | _____ |
| M. Small group work/student collaboration                         | _____ | _____ |
| N. Peer tutoring/teaching   | _____ | _____ |
| O. Internships  | _____ | _____ |
| P. Service learning   | _____ | _____ |
| Q. Student presentations  | _____ | _____ |
| R. Blended learning/flipped classroom                             | _____ | _____ |
| S. Computer-based: games, learning programs                       | _____ | _____ |
| T. Virtual learning in lieu of classroom seat time                | _____ | _____ |
| U. Skype/Zoom/GoogleMeets conversations learning around the world | _____ | _____ |
| V. Technology with any mobile device                              | _____ | _____ |
| W. Technology with desktop devices                                | _____ | _____ |
| X. Other  | _____ | _____ |



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Learning Modalities Responses RANKED ELEMENTARY	SCORE	RANK
E. Social/Emotional Learning	10	1
F. Project-based learning PBL	10	1
A. Direct teaching	6	3
M. Small group work/student collaboration	6	4
K. Teacher teams/synchronous collaboration	5	5
H. Interdisciplinary Learning	4	6
J. Integrated arts learning	4	6
G. STEM, STEAM, Making Things, Prototyping	2	8
I. Thematic/integrated learning	2	8
N. Peer tutoring/teaching	2	8
S. Computer-based; games, learning programs	2	8
V. Technology with any mobile device	2	8
P. Service learning	1	13
Q. Student presentations	1	13
Reading	1	13
D. Seminar Instruction	0	16
U. Skype/Zoom/Google Meets conversations le	0	16
X. Other	0	16
L. Independent study	-1	19
R. Blended learning/flipped classroom	-1	19
O. Internships	-2	21
W. Technology with desktop devices	-2	21
T. Virtual learning in lieu of classroom seat tim	-4	23
C. Book Work	-8	24
B. Lecture (sustained direct teaching)	-10	25

Learning Modalities Responses RANKED MIDDLE	SCORE	RANK
F. Project-based learning PBL	2	1
M. Small group work/student collaboration	2	1
K. Teacher teams/synchronous collaboration	2	1
G. STEM, STEAM, Making Things, Prototyping	2	1
E. Social/Emotional Learning	1	5
H. Interdisciplinary Learning	1	5
S. Computer-based; games, learning programs	1	5
Q. Student presentations	1	5
A. Direct teaching	0	9
J. Integrated arts learning	0	9
I. Thematic/integrated learning	0	9
N. Peer tutoring/teaching	0	9
V. Technology with any mobile device	0	9
P. Service learning	0	9
Reading	0	9
D. Seminar Instruction	0	9
U. Skype/Zoom/Google Meets conversations le	0	9
X. Other	0	9
R. Blended learning/flipped classroom	0	9
O. Internships	0	9
W. Technology with desktop devices	0	9
L. Independent study	-1	22
T. Virtual learning in lieu of classroom seat tim	-1	22
B. Lecture (sustained direct teaching)	-1	22
C. Book Work	-2	25





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Learning Modalities Responses RANKED HIGH		SCORE	RANK
F.	Project-based learning PBL	6	1
E.	Social/Emotional Learning	6	1
O.	Internships	5	3
M.	Small group work/student collaboration	4	4
H.	Interdisciplinary Learning	4	4
G.	STEM, STEAM, Making Things, Prototyping	2	6
I.	Thematic/integrated learning	2	6
K.	Teacher teams/synchronous collaboration	1	8
Q.	Student presentations	1	8
A.	Direct teaching	1	8
J.	Integrated arts learning	1	8
P.	Service learning	1	8
R.	Blended learning/flipped classroom	1	8
N.	Peer tutoring/teaching	0	14
V.	Technology with any mobile device	0	14
	Reading	0	14
D.	Seminar Instruction	0	14
U.	Skype/Zoom/Google Meets conversations le	0	14
X.	Other	0	14
L.	Independent study	0	14
S.	Computer-based; games, learning program	-1	21
W.	Technology with desktop devices	-1	21
T.	Virtual learning in lieu of classroom seat tim	-3	23
B.	Lecture (sustained direct teaching)	-6	24
C.	Book Work	-6	24

Learning Modalities Responses RANKED ALL GRADES		SCORE	RANK
F.	Project-based learning PBL	8	1
E.	Social/Emotional Learning	8	1
K.	Teacher teams/synchronous collaboration	8	1
H.	Interdisciplinary Learning	7	4
M.	Small group work/student collaboration	6	5
G.	STEM, STEAM, Making Things, Prototyping	4	6
I.	Thematic/integrated learning	3	7
P.	Service learning	3	7
O.	Internships	2	9
Q.	Student presentations	2	9
	Reading	2	9
A.	Direct teaching	1	12
J.	Integrated arts learning	1	13
N.	Peer tutoring/teaching	1	12
V.	Technology with any mobile device	1	12
U.	Skype/Zoom/Google Meets conversations le	1	12
S.	Computer-based; games, learning program	1	12
W.	Technology with desktop devices	1	12
R.	Blended learning/flipped classroom	0	19
X.	Other	0	19
L.	Independent study	-1	21
T.	Virtual learning in lieu of classroom seat tim	-2	22
D.	Seminar Instruction	-3	23
B.	Lecture (sustained direct teaching)	-11	24
C.	Book Work	-11	24



## DIVERSITY, EQUITY + INCLUSION

This was the challenge:

### TABLE TEAM DISCUSSIONS FOLLOWED BY REPORTING OUT:

1. Share your definition of Diversity, Equity + Inclusion
  - a. Consider peoples, places, programs + services
2. How do we:
  - a. Honor Diversity in schools, the district and across the town
  - b. Achieve Equity
  - c. Achieve Inclusion
3. For each, identify the most chronic shortcomings/violations to a, b, and c above
4. For each, identify strategies to correct current situations
  - a. Programs + services
  - b. Facilities



Record your thought on flipcharts. Then get ready to report out.

### DEI

#### Table Team 1

1. Share your definition of Diversity, Equity + Inclusion
  - Diversity: embrace differences
  - Learning to ask questions with respect and understanding
  - Representation in people and materials
  - Equity: level the playing field/equal materials and experiences
  - Inclusion: emotional/cognitive acceptance and understanding
2. How do we:
  - **Honor Diversity?**
    - ✓ Grant for more diverse books
    - ✓ Town has DEI committee, SEAC (Special Education Advisory Committee), school clubs
  - **Achieve Equity?**
    - ✓ Hampton M events (TT)
  - **Achieve Inclusion?**
    - ✓ Exposure to inclusive materials and experiences
3. For each, identify the most chronic shortcomings/violations to a, b, and c above
  - **Chronic shortcomings/violations**
    - ✓ A: Need diverse staff
    - ✓ B: Lack of space/resources
    - ✓ C: Lack of communication among schools (playgrounds)
4. For each, identify, identify strategies to correct current situations
  - a. **Programs + services**
    - ✓ Hire diverse staff
    - ✓ Share resources among schools for teachers
    - ✓ Committee to address the problems
  - b. **Facilities**
    - ✓ No response





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**Table Team 2**

1. **Share your definition of Diversity, Equity + Inclusion**
  - Diversity ✓ Including and celebrating people from a range of different social and ethnic backgrounds, genders, and sexual orientation
  - Equity ✓ When all students receive the necessary resources to be successful in school and beyond
  - Inclusion ✓ All children in same classroom receiving same curriculum and social opportunities – all feel welcome
2. **How do we:**
  - **Honor Diversity?**
    - ✓ Multicultural celebrations
    - ✓ Diverse book library
    - ✓ Several options for clubs
  - **Achieve Equity?**
    - ✓ Providing necessary resources to all students
      - RTI, etc
  - **Achieve Inclusion?**
    - ✓ Co-taught classes
    - ✓ Push-in services
    - ✓ Celebrate differences
    - ✓ Several options for clubs
3. **For each, identify the most chronic shortcomings/violations to a, b, and c above**
  - **Chronic shortcomings/violations**
    - ✓ A
      - Does it happen consistently across classrooms/schools?
    - ✓ B
      - Staffing issues
      - Time to implement with fidelity
      - Budget constraints
    - ✓ C

- Pushback from parents re: special ed placement, not wanting students placed in general ed setting
4. **For each, identify, identify strategies to correct current situations**
    - c. **Programs + services**
      - ✓ Events to educate families/staff/community members to educate on DEI
      - ✓ PD for teachers
    - d. **Facilities**
      - ✓ Be creative in the space we have
      - ✓ Think outside of the box

**Table Team 3**

1. **Share your definition of Diversity, Equity + Inclusion**
  - Regardless of who you are, you have access to what you need and are a valuable and integral member of the learning community
2. **How do we:**
  - **Honor Diversity?**
    - ✓ Culturally-relevant curriculum raising awareness of the need for DEI focus
  - **Achieve Equity?**
    - ✓ Creating opportunities for accessing resources
  - **Achieve Inclusion?**
    - ✓ Creating opportunities to be valued – embodied participant/unified opportunities
3. **For each, identify the most chronic shortcomings/violations to a, b, and c above**
  - **Chronic shortcomings/violations**
    - ✓ For all:
      - Lack of awareness, diversity among leaders/educators?
      - Pushback from vocal members of public on culturally relevant curriculum
4. **For each, identify, identify strategies to correct current situations**
  - a. **Programs + services**
    - ✓ Not letting financial considerations dictate resources and personnel



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- ✓ Public-private partnerships to raise awareness in community
- b. Facilities**
  - ✓ No response

**Table Team 4**

1. **Share your definition of Diversity, Equity + Inclusion**
  - All peoples...access to all places, programs and services in a fair not equal manner



2. **How do we:**
  - **Honor Diversity?**
    - ✓ Recognize, celebrate, educate and engage
  - **Achieve Equity?**
    - ✓ Identify barriers and either
      - Remove them or
      - Provide support to achieve fairness/NOT equal
  - **Achieve Inclusion?**
    - ✓ Provide choices e.g. Unified Teams
    - ✓ Ask overtly "what students want to be included?"
3. **For each, identify the most chronic shortcomings/violations to a, b, and c above**
  - **Chronic shortcomings/violations**
    - ✓ A - Ada deficiencies in infrastructure
    - ✓ B - educational program deficiencies
    - ✓ C DEI participation
4. **For each, identify, identify strategies to correct current situations**
  - a. **Programs + services**
    - ✓ Include more kids
  - b. **Facilities**
    - ✓ Meet ADA guidelines



**Table Team 5**

1. **Share your definition of Diversity, Equity + Inclusion**
  - Diversity
    - ✓ Diversity is BIG encompassing:
      - Skin color
      - Socioeconomic
      - Academic needs
      - LBGTQ
      - Religion
  - Equity:
    - ✓ Access for all
  - Inclusion:
    - ✓ Opening doors for all and teaching sensitivity and respect
2. **How do we:**
  - **Honor Diversity?**
    - ✓ Cultural responsive curriculum!
  - **Achieve Equity?**
    - ✓ Coach – increase perspective
    - ✓ Any student can select Honors or AP courses
  - **Achieve Inclusion?**
    - ✓ Chain Reaction Club
    - ✓ SMS system and registration available and reflects pronouns
3. **For each, identify the most chronic shortcomings/violations to a, b, and c above**
  - **Chronic shortcomings/violations**
    - ✓ Need better/more data disaggregation
    - ✓ ADA compliance
4. **For each, identify, identify strategies to correct current situations**
  - a. **Programs + services**
    - ✓ DEI committees
    - ✓ Calendar changes to include not exclude
  - b. **Facilities**
    - ✓ Adjusted bathrooms

**Table Team 6**

1. **Share your definition of Diversity, Equity + Inclusion**
  - Valuing differences





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- Ensuring accessibility for ALL (facilities, services) so that everyone feels welcome and that they belong
- 2. How do we:**
- **Honor Diversity?**
    - ✓ Representation – invite people from community
      - Ideas, books, adult role models, diverse spaces
  - **Achieve Equity?**
    - ✓ ADA
    - ✓ Multi-modal access to learning supports so everyone gets what they need
  - **Achieve Inclusion?**
    - ✓ Inviting community experts
    - ✓ Value differences
    - ✓ Extracurricular options at HS level
- 3. For each, identify the most chronic shortcomings/violations to a, b, and c above**
- **Chronic shortcomings/Violations**
    - ✓ A:
      - Lack of representation
      - Fear of change
    - ✓ B:
      - Lack of resources
    - ✓ C:
      - Need to find ways to amplify voices of those who might go unheard
- 4. For each, identify, identify strategies to correct current situations**

- ✓ Helpful to narrow focus yet incorporate intersectionality
- **Equity:**
    - ✓ Everyone gets what they need
    - ✓ Removal of barriers to enable access
  - **Inclusion:**
    - ✓ Culture that lends itself to enabling access
- 2. How do we:**
- **Honor Diversity?**
    - ✓ We're very good at superficial things
  - **Achieve Equity?**
    - ✓ Have an awareness (better help with what is needed)
  - **Achieve Inclusion?**
    - ✓ Best Buddies (work in progress)
- 3. For each, identify the most chronic shortcomings/violations to a, b, and c above**
- **Chronic shortcomings/violations**
    - ✓ A: More diverse staff
    - ✓ B: Lack of resources
    - ✓ C: Need buildings and events more accessible
- 4. For each, identify, identify strategies to correct current situations**
- c. **Programs + services**
    - ✓ Staff and faculty training
  - d. **Facilities**
    - ✓ Better built facilities across the district

**Table Team 8**

- 1. Share your definition of Diversity, Equity + Inclusion**
- Recognition, inclusion and celebration of ALL stakeholders especially in regards to respect for differences
- 2. How do we:**
- **Honor Diversity?**
    - ✓ IEP, PLP, ILP, gender support plan, GSA, Eagle of the Month
  - **Achieve Equity?**
    - ✓ Differentiated instruction, SEL, DEI and CRC communities
  - **Achieve Inclusion?**

**Table Team 7**

- 1. Share your definition of Diversity, Equity + Inclusion**
- Diversity
    - ✓ Wide range – race, socioeconomic, religion, able-bodied, gender identity, etc



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- ✓ Unified sports, theater/safe learning spaces, CRC club, Best Buddies
- 3. For each, identify the most chronic shortcomings/violations to a, b, and c above
  - Chronic shortcomings/violations
    - ✓ A: Lack of diverse applicants – hiring process?
    - ✓ B: Ada compliant buildings
    - ✓ C: Further develop SEL programs/training
- 4. For each, identify, identify strategies to correct current situations
  - a. Programs + services
    - ✓ PD on implicit bias
    - ✓ Increase in school psychology and social workers
    - ✓ Communication on DEI and seat(s) on town DEI committee
  - b. Facilities
    - ✓ No response

- ✓ C
  - Providing books in library
- 4. For each, identify, identify strategies to correct current situations
  - a. Programs + services
    - ✓ Speech reinforcement
    - ✓ Special needs/specialist space
      - Part of school community
      - Non-gendered anything
  - b. Facilities
    - ✓ Climate friendly building

LARRY ROSENSTOCK ON HIGH TECH HIGH

Larry Rosenstock, Chief Executive Officer of High Tech High (HTH), San Diego, shared concepts and images in a video of this highly successful 21<sup>st</sup> century school, one of the Deeper Learning schools cited in the Deeper Learning research by the Hewlett Foundation.

Workshop participants were asked “What from this video applies to our future schools?”

- Their responses were:
- Kids will rise to the occasion
    - Our expectations of them may be the real limits
    - Lots agreement
  - Diversity
    - Learn styles
  - We cannot throw out arts
    - Part of equity in school
  - Lots student engagement
    - Student voice
    - Student knowledge
  - Greater engagement – better behaviors
  - Rigor: not more content
  - Flexibility of spaces
    - All SF is for learning

Table Team 9

1. Share your definition of Diversity, Equity + Inclusion
  - Differ/equal/sharing of empower and under represented groups
2. How do we:
  - Honor Diversity?
    - ✓ Providing students what they need when they need it
  - Achieve Equity?
    - ✓ Highlighting abilities not failures or short comings
  - Achieve Inclusion?
    - ✓ Defer to experts
3. For each, identify the most chronic shortcomings/violations to a, b, and c above
  - Chronic shortcomings/violations
    - ✓ A
      - Age appropriate
    - ✓ B
      - Free lunch/provided lunch
      - Funding for science/robotics/technology based fair/competitions







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**WHO IS IN CHARGE HERE?**

This was the challenge:

**WHOLE GROUP DISCUSSION BASED ON THE FOLLOWING PROMPTS:**

Consider these higher authorities/standards:

- Rhode Island Dept of Education (RIDE) guidelines/standards
- RIDE curriculum prescriptions for math, science + ELA
- Annual RICAS state testing
- Common Core guidelines + structure
- Advanced Placement
- Parents
- School Board
- Culture/climate (across the district/within each school)
- Understandings/assumptions about university acceptance
- Other

1. Do the any of these **explicitly** stop us from delivering the kind of education we said we wanted on DAY 1 + DAY2?
2. Do any **implicitly** stop us?
3. Which, if any, has the most influence over what we do?
4. Do they present roadblocks, making it difficult or impossible to do so?

5. If “yes,” what are they?
6. What is our action plan?

**DEFINE OUR STRATEGY TO ACHIEVE WHAT WE SAID WE WANT FOR OUR STUDENTS + TEACHERS!**

Table Team responses follow (some changed their categorizations, shown as strikeouts).

**Table Team 1**

**Explicit**

- RIDE standards
- RIDE – math, science, ELA
- State testing
- Budgets \*\*

**Implicit**

- Culture/climate/assumptions (Higher EDU)
- Pressure on students to test well and go to a good college
- Grading complacency

**Other notes**

- RIDE/state guidelines
- Culture/expectations
- Budgets, RIDE
- Helpful standards and hurtful at same time
- Pressure on students to test well (state test) and for college, grading system
- Edu, communication, advocacy \$

**Table Team 2**

**Explicit**

- RIDE guidelines
- RIDE curriculum
- Common core
- School board
- Advanced placement
- Budgets
- Action plan:





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- o Community/parent forum focused on the style of education

### Implicit

- Parents
- Culture climate
- Understanding/assumptions about university acceptance
- RICAS state testing
- RIDE guidelines
- RIDE curriculum
- Common core
- School board
- Advanced placement

### Table Team 4

#### Explicit

- Resources (time/money/training)
- Mandate from District (superintendent/principals)
- Stakeholders buy-in or pain lack of engagement
- Mandate/teacher evals/resources/political backlash (parents)

### Implicit

- No response

### Other notes

- Deliver small learning environment classroom
- Short term win: principals
- Action plan (Kotter Model +)
  - o Define, socialize, adopt the problem
    - Low engagement rate of students
  - o Create urgency
  - o Build your guiding team
  - o Develop vision – TODAY!
  - o Communicate buy –in (school board)
  - o Empower action
  - o Short term wins
  - o Don't let up
  - o Continuous improvements (Evergreen)

### Table Team 5

#### Explicit

- Roadblocks
  - o Budget/funding and resources
- Action plan

- RIDE curriculum program choices
- Test scores/rankings
- Parents/grades
- “Assumptions” about university acceptance
- RIDE guidelines/standards (Elementary)
- School committee
  - o Budget – biggest
    - Most influence
    - Redeploy
    - Reallocate\$
    - Impact on any construction
- Flooding

### Implicit

- Drives some “equity”
- AP program
- Parents/grades
- School committee
- Culture/climate
- “Assumptions” about university acceptance
- RIDE curriculum program choices
- Test scores
- RIDE Guidelines/standards (Elementary!)

### Table Team 6

#### Explicit

- RIDE
- Curriculum prescriptions
- Parents
- School board
- COVID and security

### Implicit

- Advanced placement
- Culture/climate
- PBL and small groups and learning communities

### Other notes

- Roadblocks
  - o Budget/funding and resources
- Action plan





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- o Continue to work with Paula on collaboration
- o What do we want from RIDE and how to do it

### Table Team 7

#### Explicit

- Time
- Money

#### Implicit

- Everything else is some smaller manner, including district admin

#### Other notes:

- What we want
  - o Flexible spaces
  - o Team teaching
  - o Student-directed project based learning
  - o Nurturing SEL and empowering diversity
- Action plan:
  - o Leverage community values - \$?
  - o Nurture teacher buy-in
  - o Professional development
  - o Rethinking priorities in schedules/time

- ~~AP~~
- School board? – culture/climate

### Table Team 9

#### Explicit

- RIDE curriculum
- AP
- Prescribed
- Project based learning

#### Implicit

- Parents
- School board
- College acceptance
- Culture
- RICAS
- Common Core
- RIDE guidelines
- Teacher buy-in

## SCHOOL ORGANIZATION OVERALL

This was the challenge:

**Focus on students and education. Discuss these issues:**

### 1. EQUITY:

- A Is equity across the district important? YES or NO
- B Identify inequities that currently exist in Barrington Public Schools (consider programs, staffing, demographics, facilities etc)
- C Identify strategies to achieve equity

### 2. GRADE LEVELS:

What is the minimum number of grades that should be in a school? Why?

### Table Team 8

#### Explicit

#### ~~Ride~~

- o ~~Guidelines/Standards~~
- o ~~Curriculum~~
- School board? – culture/climate
- Parents?
- ~~University-acceptance-assumptions~~
- ~~Unions (other)~~
- Budget (other)
- Facilities (other)
- ~~Technology (other)~~
- State/federal legislation or funding (other)

#### Implicit

- ~~RICAS/testing~~
- ~~Common-core~~



**Educational Visioning**  
Frank Locker Educational Planning

**Barrington Public Schools** | Visioning for District-Wide Master Planning

**Barrington, RI**

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**3. K-4 ELEMENTARY ENROLLMENT CAPACITY**

(complete this chart):

Which has more advantages? WHY?

	Smaller Schools	Larger Schools	Why?
A. Educational	_____	_____	_____
B. Social (w/l school)	_____	_____	_____
C. Operational (management and cost)	_____	_____	_____
D. Community Context	_____	_____	_____

(Assume 21<sup>st</sup> century practices in all above)

**4. THE BARRINGTON EXPERIENCE:**

- A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO
- B Why?
- C If "YES," how do we achieve this?

**5. GROUPINGS**

- A Identify any natural developmental breaks in the PK-12 continuity
  - B Identify curricular grade groupings
  - C Identify ideal grade groupings
- |    |   |   |   |   |   |   |   |   |   |   |    |    |    |
|----|---|---|---|---|---|---|---|---|---|---|----|----|----|
| PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

**NOTE: use "/" to mean soft break; use "//" to mean emphatic break.**

**5. CHOOSE THE MOST APPROPRIATE:**



**A PRE-K**

- 1. Pre-K alone in its own building vs
- 2. Pre-K alone in multiple buildings vs
- 3. Pre-K integrated with other grades, like K-1-2
  - Curriculum continuity?
  - Parental continuity
  - Positioned with other grades is a contingency for possible growth in number of students

WHY?

**B ELEMENTARY YEARS**

- 1. Multiple (Pre)K-3 and one 4-5 (Current) vs
- 2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas vs
- 3. Multiple (Pre)K-5 vs
- 4. One PreK-5 serving entire district

WHY?

**C ALL GRADES K-12**

- 1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same vs

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2. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students  
 VS  
 3. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms  
 WHY?

- A. Educational Schools w/1 school Schools \_\_\_\_\_ X \_\_\_\_\_  
 B. Social (w/1 school) \_\_\_\_\_ X \_\_\_\_\_  
 C. Operational (management and cost) \_\_\_\_\_ X \_\_\_\_\_  
 D. Community Context \_\_\_\_\_ X \_\_\_\_\_  
 (Assume 21<sup>st</sup> century practices in all above) \_\_\_\_\_ X \_\_\_\_\_

4. THE BARRINGTON EXPERIENCE:  
 A. Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO  
 ▪ Yes  
 B. Why?  
 ▪ Shared curriculum/communication through schools  
 C. If "YES," how do we achieve this?  
 ▪ Shared curriculum/communication through schools

5. GROUPINGS  
 A. Identify any natural developmental breaks in the elementary school continuity  
 PK / K 1 2 / 3 4 5 / 6 7 8 / 9 10 / 11 12  
 B. Identify curricular grade groupings  
 PK K 1 2 / 3 4 5 6 / 7 8 9 10 11 12  
 C. Identify ideal grade groupings  
 PK / K 1 2 // 3 4 5 // 6 7 8 / 9 10 11 12

6. CHOOSE THE MOST APPROPRIATE:  
 6. A. PRE-K  
 1. Pre-K alone in its own building  
 VS  
 2. Pre-K alone in multiple buildings  
 VS  
 3. Pre-K integrated with other grades, like K-1-2  
 ▪ Curriculum continuity?  
 ▪ Parental continuity

Table Team responses were:

TABLE TEAM 1

1. EQUITY:

- A. Is equity across the district important? YES or NO  
 ▪ Yes
- B. Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)  
 ▪ Need for more facilities, materials, support
- C. Identify strategies to achieve equity  
 ▪ More space/facilities

2. GRADE LEVELS:

- What is the minimum number of grades that should be in a school? Why?  
 ▪ 3-4  
 ▪ Why?  
 ▪ No response

3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):

- Which has more advantages? WHY?  
 Smaller School Larger Why





- Positioned with other grades is a contingency for possible growth in number of students
- #3
- Mentorship
- Parent resources
- Building community

**WHY?**

- vs
3. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms
  - #3
  - Best practices
  - Flexible

**WHY?**

**B ELEMENTARY YEARS**

1. Multiple (Pre)K-3 and one 4-5 (Current)

vs

2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas

vs

3. Multiple (Pre)K-5

vs

4. One PreK-5 serving entire district
- #'s 2 and 4

**WHY?**

- #2
- ✓ Developmentally appropriate, teacher cert.
- #4
- ✓ Building a school with in a school
- ✓ Shared resources
- ✓ Around 1,800 students

**C ALL GRADES K-12**

1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same
- vs
2. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students

**TABLE TEAM 2**

**1. EQUITY:**

- A Is equity across the district important? YES or NO
- Yes

- B Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)
- Facilities
  - Demographics

**C Identify strategies to achieve equity**

- Opportunities

**2. GRADE LEVELS:**

- What is the minimum number of grades that should be in a school? Why?
- 3
  - Why?
  - Consistency
  - Sense of belonging and ownership

**3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):**

Which has more advantages? WHY?

	Smaller Schools	Larger Schools	Why
A. Educational	_____ x _____	_____ x _____	_____
B. Social (w/l school)	_____ x _____	_____ x _____	_____



Ch 5.2 Notes Workshop Day 2

C. Operational (management and cost) \_\_\_\_\_

D. Community Context \_\_\_\_\_

(Assume 21<sup>st</sup> century practices in all above)

Why

- A. No response
- B. Smaller cohort of teachers/students/space to know each other
- C. Only one facility to maintain instead of 3
- D. Live close by or have sense of community/belonging in small school

5. THE BARRINGTON EXPERIENCE:

A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO

- Yes

B Why?

- Same opportunities
- C If “YES,” how do we achieve this?
  - Sharing of teaching practices across district

5. GROUPINGS

A Identify any natural developmental breaks in the elementary school continuity

PK K 1 / 2 3 4 / 5 6 7 / 8 9 10 11 12

B Identify curricular grade groupings

[PK K 1 2] 3 4 5 / 6 7 8 / 9 10 11 12

C Identify ideal grade groupings

[PK K 1 2 3 4 5] [6 7 8] [9 10 11 12]

6. CHOOSE THE MOST APPROPRIATE:

6. A PRE-K-K

1. Pre-K alone in its own building

vs

4. Pre-K alone in multiple buildings

vs

5. Pre-K integrated with other grades, like K-1-2

- Curriculum continuity?
- Parental continuity
- Positioned with other grades is a contingency for possible growth in number of students
- 3

WHY?

- Flexible
- Families feel established
- Less transitions

B ELEMENTARY YEARS

5. Multiple (Pre)K-3 and one 4-5 (Current)

vs

6. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas

vs

7. Multiple (Pre)K-5

vs

8. One PreK-5 serving entire district

- 3

WHY?

- Allows for foundations, relationships, consistency to be established

C ALL GRADES K-12

4. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same

vs

5. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students

vs



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- 6. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms
  - 1 and 3

**WHY?**

- 1 is working but need to have flexibility to pilot new ideas and share out success to keep evolving

**TABLE TEAM 3**

**1. EQUITY:**

- A. Is equity across the district important? YES or NO**
  - Yes

- B. Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)**
  - No response

- C. Identify strategies to achieve equity**
  - No response

**2. GRADE LEVELS:**

- What is the minimum number of grades that should be in a school? Why?
  - 3 minimum
  - Why?
    - No response

**3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):**

- Which has more advantages? **WHY?**
- |                 |                |         |
|-----------------|----------------|---------|
| Smaller Schools | Larger Schools | Why     |
| w/1 School      | w/1 School     | Schools |
| _____ X _____   | _____ X _____  | _____   |
- A. Educational \_\_\_\_\_ X \_\_\_\_\_
  - B. Social (w/1 school) \_\_\_\_\_ X \_\_\_\_\_
  - C. Operational (management and cost) \_\_\_\_\_

- D. Community Context \_\_\_\_\_ X \_\_\_\_\_

(Assume 21<sup>st</sup> century practices in all above)  
 Why: Flexibility \_\_\_\_\_ X \_\_\_\_\_

**6. THE BARRINGTON EXPERIENCE:**

- A. Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO**
  - Yes (3 out of 4)

**B. Why?**

- Promotes equity
- C. If “YES,” how do we achieve this?**
  - Fewer and newer

**5. GROUPINGS**

- A. Identify any natural developmental breaks in the elementary school continuity**  
 PK K 1 2 3 / 4 5 6 / 7 8 9 / 10 11 12
- B. Identify curricular grade groupings**  
 PK K 1 2 3 4 5 6 7 8 9 10 11 12
- C. Identify ideal grade groupings**  
 PK K 1 2 / 3 4 5 // 6 7 8 // 9 10 11 12

**6. CHOOSE THE MOST APPROPRIATE:**

- 6. A. PRE-K**
  - 1. Pre-K alone in its own building  
vs
  - 2. Pre-K alone in multiple buildings  
vs
  - 3. Pre-K integrated with other grades, like K-1-2
    - Curriculum continuity?
    - Parental continuity
    - Positioned with other grades is a contingency for possible growth in number of students #3

**WHY?**







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- No response

**B ELEMENTARY YEARS**

- Multiple (Pre)K-3 and one 4-5 (Current)  
vs
- Multiple (Pre)K-2, 3-5 with larger attendance catchment areas  
vs
- Multiple (Pre)K-5  
vs
- One PreK-5 serving entire district #2

**WHY?**

- No response

**C ALL GRADES K-12**

- Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same  
vs
- Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students  
vs
- Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms  
Combination of 2 and 3

**WHY?**

- No response

**TABLE TEAM 4**

**4. EQUITY:**

- A Is equity across the district important? YES or NO**
- Yes (elementary schools)

- B Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)**
- ADA deficiencies in buildings

**C Identify strategies to achieve equity**

- Infrastructure improvements

**2. GRADE LEVELS:**

- What is the minimum number of grades that should be in a school? Why?
- 3
  - Why?
  - No response

**3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):**

Which has more advantages? WHY?	Smaller Schools	Larger Schools	Why
E. Educational	_____ X _____	_____	_____
F. Social (w/ school)	_____ X _____	_____	_____
G. Operational (management and cost)	_____ X _____	_____	_____
H. Community Context	_____ X _____	_____	_____

(Assume 21<sup>st</sup> century practices in all above)

**WHY RESPONSES**

- Educational – Faculty support
- Social – Separation for ages
- Operations – Maybe save for both
- Community – Build greater engagement

**7. THE BARRINGTON EXPERIENCE:**



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**A** Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? **YES** or **No**

▪ Yes

**B Why?**

▪ Less friction and more consistent with rest of experience

**C** If “YES,” how do we achieve this?

▪ One school centrally located in town

**5. GROUPINGS**

**A** Identify any natural developmental breaks in the elementary school continuity

**PK K 1 2 3 / 4 5 6 / 7 8 9 / 10 11 12**

**B** Identify curricular grade groupings

**PK / K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12**

**C** Identify ideal grade groupings

**PK K 1 2 // 3 4 5 6 // 7 8 9 // 10 11 12**

**6. CHOOSE THE MOST APPROPRIATE:**

**6. A PRE-K**

1. Pre-K alone in its own building

vs

5. Pre-K alone in multiple buildings

vs

6. Pre-K integrated with other grades, like K-1-2

▪ Curriculum continuity?

▪ Parental continuity

▪ Positioned with other grades

is a contingency for possible growth in number of students

▪ 3

**WHY?**

▪ Logistically makes sense

**B ELEMENTARY YEARS**

1. Multiple (Pre)K-3 and one 4-5

(Current)

vs  
**2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas**

vs

**3. Multiple (Pre)K-5**

vs

**4. One PreK-5 serving entire district**

▪ 2

▪ 3-6 and MS 7-9

**WHY?**

**C ALL GRADES K-12**

1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same

vs

2. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students

vs

3. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms

▪ 1

▪ No response

**WHY?**

▪

**TABLE TEAM 5**

**7. EQUITY:**

**A** Is equity across the district important? **YES** or

**NO**

▪ Yes!!

**B** Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)

▪ ADA compliance





Ch 5.2 Notes Workshop Day 2

- Diversity on staff
- C Identify strategies to achieve equity**
  - DEI committees and sub-committees
  - Culturally responsive curriculum/decisions

**2. GRADE LEVELS:**

- What is the minimum number of grades that should be in a school? Why?
- 3
  - Why?
    - No response

**3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):**

Which has more advantages? WHY?

	Smaller Schools	Larger Schools	Why
A. Educational	_____	_____	_____
B. Social (w/l school)	_____	_____	_____
C. Operational (management and cost)	_____	_____	_____
D. Community Context	_____	_____	_____

(Assume 21<sup>st</sup> century practices in all above)

**WHY RESPONSES**

- E. Educational – Magic 150 resources
- F. Social – Personalization
- G. Operations – Cheaper
- H. Community – Builds community

**8. THE BARRINGTON EXPERIENCE:**

**A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO**

- Yes
- No
- B Why?**
  - Programming
  - Facilities

- Resources
- ADA compliance
- C If “YES,” how do we achieve this?**
  - \$\$
  - Planning

**5. GROUPINGS**

- A Identify any natural developmental breaks in the elementary school continuity
  - PK K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12
- B Identify curricular grade groupings
  - PK K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12
- C Identify ideal grade groupings
  - PK K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12

**6. CHOOSE THE MOST APPROPRIATE:**

- 6. A PRE-K**
- 1. Pre-K alone in its own building vs
  - 8. Pre-K alone in multiple buildings vs
  - 9. Pre-K integrated with other grades, like K-1-2
    - Curriculum continuity?
    - Parental continuity
    - Positioned with other grades is a contingency for possible growth in number of students
    - 3
- WHY?**
- Family, SEL, Bussing, curriculum, parent continuity

**B ELEMENTARY YEARS**

- 1. Multiple (Pre)K-3 and one 4-5 (Current) vs
- 2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas



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- vs
- 3. Multiple (Pre)K-5
- vs
- 4. One PreK-5 serving entire district
- 2
- WHY?
- No response

- No response
- 2. GRADE LEVELS:
- What is the minimum number of grades that should be in a school? Why?
- 3
- Why?
- No response

- C ALL GRADES K-12**
- 1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same
  - vs
  - 2. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students
  - vs
  - 3. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms
  - 2

- 3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):**
- Which has more advantages? WHY?
- |                                      |                 |                |     |
|--------------------------------------|-----------------|----------------|-----|
|                                      | Smaller Schools | Larger Schools | Why |
| I. Educational                       | X               |                |     |
| J. Social (w/ school)                | X               |                |     |
| K. Operational (management and cost) |                 | X              |     |
| L. Community Context                 | X               |                |     |
- (Assume 21<sup>st</sup> century practices in all above)

- WHY?**
- Community support, educational flexibility
- TABLE TEAM 6**
- 10. EQUITY:**
- A Is equity across the district important? YES or NO
  - Yes
  - B Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)
  - No response
  - C Identify strategies to achieve equity

- 9. THE BARRINGTON EXPERIENCE:**
- A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO
  - Yes
  - B Why?
  - Yes but the same experience means learning with the same core knowledge and flexibility to how it's taught
  - C If "YES," how do we achieve this?
  - No response
- 5. GROUPINGS**
- A Identify any natural developmental breaks in the elementary school continuity
- |    |   |   |   |   |   |   |   |   |   |   |    |    |    |
|----|---|---|---|---|---|---|---|---|---|---|----|----|----|
| PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|---|---|---|---|---|---|---|---|---|---|----|----|----|





Ch 5.2 Notes Workshop Day 2

- B Identify curricular grade groupings  
PK K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12
- C Identify ideal grade groupings  
PK K 1 2 // 3 4 5 // 6 7 8 // 9 10 11 12

6. CHOOSE THE MOST APPROPRIATE:

- 6. A PRE-K
  - 1. Pre-K alone in its own building  
vs
  - 11. Pre-K alone in multiple buildings  
vs
  - 12. Pre-K integrated with other grades, like K-1-2
    - Curriculum continuity?
    - Parental continuity
    - Positioned with other grades is a contingency for possible growth in number of students  
▪ 1

WHY?

- A building that caters to the Pre-K age group and necessary resources

B ELEMENTARY YEARS

- 1. Multiple (Pre)K-3 and one 4-5 (Current)  
vs
- 2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas  
vs
- 3. Multiple (Pre)K-5  
vs
- 4. One PreK-5 serving entire district  
▪ 2

WHY?

- With multiple K-2 schools that feed into 1, 3, 5 build

C ALL GRADES K-12

- 1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same  
vs
- 2. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students  
vs
- 3. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms  
▪ 2

WHY?

- Allows for flexibility that best fits the students

TABLE TEAM 7

13. EQUITY:

- A Is equity across the district important? YES or NO  
▪ Yes

B Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)

- Success
- PTO's

C Identify strategies to achieve equity

- New building/spaces

2. GRADE LEVELS:

- What is the minimum number of grades that should be in a school? Why?  
▪ 3

- Why?  
▪ No response





**3. ELEMENTARY ENROLLMENT CAPACITY** (complete this chart):

Which has more advantages?	WHY?
Smaller Schools	Larger Schools
Schools w/1 school	Schools
A. Educational _____ X _____	_____
B. Social (w/l school) _____ X _____	_____
C. Operational (management and cost) _____ X _____	_____
D. Community Context _____ X _____	_____

(Assume 21<sup>st</sup> century practices in all above)

**10. THE BARRINGTON EXPERIENCE:**

A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or No

- Yes

**B Why?**

- Equity

**C If “YES,” how do we achieve this?**

- Ensure some programs across grade levels

**5. GROUPINGS**

A Identify any natural developmental breaks in the elementary school continuity

PK / K 1 / 2 / 3 4 5 / 6 7 8 / 9 10 11 12

B Identify curricular grade groupings

PK / K 1 2 / 3 4 5 / 6 7 8 / 9 / 10 11 12

C Identify ideal grade groupings

PK / K 1 2 // 3 4 / 5 // 6 7 8 // 9 10 11 12  
PK with 9-12?

**6. CHOOSE THE MOST APPROPRIATE:**

**6. A PRE-K**

1. Pre-K alone in its own building

vs

1. Pre-K alone in multiple buildings

- vs
2. Pre-K integrated with other grades, like K-1-2
- Curriculum continuity?
  - Parental continuity
  - Positioned with other grades is a contingency for possible growth in number of students
  - 3

**WHY?**

- No response

**B ELEMENTARY YEARS**

1. Multiple (Pre)K-3 and one 4-5 (Current)

vs

2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas

vs

3. Multiple (Pre)K-5

vs

4. One PreK-5 serving entire district

▪ 3

**WHY?**

- With small learning communities PK-2, 3-5
- Less transitions
- continuity

**C ALL GRADES K-12**

1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same

vs

2. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students





Ch 5.2 Notes Workshop Day 2

- VS
- Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms
    - 3

WHY?

- No response

TABLE TEAM 8

1. EQUITY:

A Is equity across the district important? YES or NO

- Yes

B Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)

- BHS class size
- BMS teaming
- Demographics of neighborhood schools

C Identify strategies to achieve equity

- Student scheduling
- Building codes

2. GRADE LEVELS:

What is the minimum number of grades that should be in a school? Why?

- 3
- Why?
- No response

3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):

Which has more advantages? WHY?

Smaller Schools vs Larger Schools

- A. Educational \_\_\_\_\_ X \_\_\_\_\_
- B. Social (w/l school) \_\_\_\_\_ X \_\_\_\_\_

C. Operational (management and cost) \_\_\_\_\_ X \_\_\_\_\_

D. Community Context \_\_\_\_\_ X \_\_\_\_\_  
 (Assume 21<sup>st</sup> century practices in all above)

11. THE BARRINGTON EXPERIENCE:

A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or NO

- Yes

B Why?

- Equity of resources
  - School culture
  - Easier transitions
- C If “YES,” how do we achieve this?
- 1 school per grade grouping
  - Removal of neighborhood schools
  - Budget process

5. GROUPINGS

A Identify any natural developmental breaks in the elementary school continuity

PK K 1 / 2 3 // 4 5 6 // 7 8 9 // 10 11 12

B Identify curricular grade groupings

PK // K 1 2 / 3 4 5 // 6 7 8 // 9 10 11 12

C Identify ideal grade groupings

~~PK~~ K 1 2 / 3 4 5 // 6 7 8 // 9 10 11 12

6. CHOOSE THE MOST APPROPRIATE:

6. A PRE-K

- 1. Pre-K alone in its own building VS
- 2. Pre-K alone in multiple buildings VS
- 3. Pre-K integrated with other





- grades, like K-1-2
- Curriculum continuity?
  - Parental continuity
  - Positioned with other grades is a contingency for possible growth in number of students
  - #3
- WHY?
- Experiential pathways

- of outcomes so schools become continuous research platforms
- #s 2 and 3
- WHY?
- No response

**TABLE TEAM 9**

**4. EQUITY:**

- A Is equity across the district important? YES or NO**
- Yes

**B ELEMENTARY YEARS**

1. Multiple (Pre)K-3 and one 4-5 (Current) vs Multiple (Pre)K-2, 3-5 with larger attendance catchment areas vs Multiple (Pre)K-5
2. One PreK-5 serving entire district vs #2

WHY?

- RIDE still drives certification

**C ALL GRADES K-12**

1. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same vs Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students vs
3. Support experimentation in educational deliveries with sharing

- B Identify inequities that currently exist in Barrington Public Schools (BPS) (consider programs, staffing, demographics, facilities etc)**
- Diversity staff

- C Identify strategies to achieve equity**
- New facility

**2. GRADE LEVELS:**

- What is the minimum number of grades that should be in a school? Why?
  - +/- 3 ish
- Why?
  - No response

**3. ELEMENTARY ENROLLMENT CAPACITY (complete this chart):**

Which has more advantages? WHY?

Smaller Schools	Larger Schools	Why
-----------------	----------------	-----

- A. Educational \_\_\_\_\_ S w/1 \_\_\_\_\_
  - B. Social (w/l school) \_\_\_ x \_\_\_ S w/1 \_\_\_\_\_
  - C. Operational (management and cost) \_\_\_\_\_ x \_\_\_\_\_
  - D. Community Context \_\_\_\_\_ S w/1 \_\_\_\_\_
- (Assume 21<sup>st</sup> century practices in all above)







Ch 5.2 Notes Workshop Day 2

4. THE BARRINGTON EXPERIENCE:

A Is there an advantage to having all of our students at each grade level have the same school experience (ie, same school)? YES or No

- Yes – built on equity

B Why?

- Providing same experiences

C If “YES,” how do we achieve this?

- No response

5. GROUPINGS

A Identify any natural developmental breaks in the elementary school continuity

PK K // 1 2 // 3 4 5 / 6 // 7 8 / 9 // 10 11 12

B Identify curricular grade groupings

PK K / 1 2 3 4 5 6 / 7 8 9 10 11 12

C Identify ideal grade groupings

PK K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12  
PK with High School

6. CHOOSE THE MOST APPROPRIATE:

6. A PRE-K

1. Pre-K alone in its own building

vs

1. Pre-K alone in multiple buildings

vs

2. Pre-K integrated with other grades, like K-1-2

▪ Curriculum continuity?

▪ Parental continuity

▪ Positioned with other grades

is a contingency for possible

growth in number of

students

▪ 2 and 3

▪ Focused resources

WHY?

- Focused resources

B ELEMENTARY YEARS



1. Multiple (Pre)K-3 and one 4-5 (Current)

vs

2. Multiple (Pre)K-2, 3-5 with larger attendance catchment areas

vs

3. Multiple (Pre)K-5

vs

4. One PreK-5 serving entire district

- 2 and 3

WHY?

- No response

C ALL GRADES K-12

4. Traditional learning focused on required curriculum content with all teaching/learning at each grade level the same

vs

5. Thematic, choice learning teaching required curriculum content in different ways for different intelligences/interests of teachers as well as students

vs

6. Support experimentation in educational deliveries with sharing of outcomes so schools become continuous research platforms

- 3

WHY?

- No response



## KEY WORDS

As closure to the three days of workshops, participants were asked to identify one word or a two-word phrase that best represented their individual thoughts about the Educational Deliveries and Facilities Concepts for their future schools. These words could be the basis of the “elevator speech” describing them.

Their key words are:

### EDUCATION

- Flexible, doing flexible, flexible thinking (cited 9 times)
- Collaboration, collaborative (5 times)
- Choice, student choice, more student opportunity in learning choices, student-directed (4)
- Future innovation – ready for next decade, innovation, innovative learners (4)
- Diversity/equity, equity (2)
- Engaging, engagement (2)
- Project-based learning (2)
- Small Learning Communities (2)
  
- 21<sup>st</sup> Century
- Accessible, relevant, civil discourse
- Adaptability
- Authentic
- Connected Learning Communities
- Dynamic team-teaching
- FIAT (Latin for “let it be done”),
- Functional, Innovative, Adaptability, Timely
- Integrated
- Less teacher-centered
- Life-long doers
- Long-term
- Outside opportunities
- Resilient





## Ch 5.2 Notes Workshop Day 2

- Social/emotional learning
- Space
- Architects develop options to present to the School Building Committee for public discussion and decision
  - Two possible paths
    - ✓ Future without significant facilities changes
    - ✓ Future if changes to facilities

### FACILITIES/MASTER PLAN

- Flexible learning spaces, flexibility, flexible spaces that allow access to all, flexible space/buildings, flexibility for the future, flexible/responsive (cited 11 times)
- Accessibility, fully accessible (2)
- Collaborative, collaboration (2)
- Diversity/equity/inclusion, equitable (2)
- Innovating learning space, innovative and effective (2)
- Inspiring, inspire creativity (2)
- Comfortable furniture
- Creativity
- New, new buildings (2)
- Everyone welcome
- Expansive
- Inclusive
- Inviting
- Less departmentalized
- Long-term, world-class education
- Modernize
- More space
- Prepared for future
- Small – multi-grade groups
- Smart growth
- Student-centered
- Updated

### NEXT STEPS

Superintendent Michael Messoro and architect Larry Trim outlined next steps for the process and for Visioning Team members:

- Bring educators and community together
- Continue planning
- Create initiatives
- Redesign facilities
- Seek funding




**Educational Visioning**  
Frank Locker Educational Planning

**Barrington Public Schools**   **Barrington, RI**   **Visioning for District-Wide Master Planning**


# 21st Century Schools Presentation

1



## 21st Century Schools

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7

1

### The History of Work + School



100 YEARS AGO



75 YEARS AGO



50 YEARS AGO



TODAY





8

1


### The History of Work + School



100 YEARS AGO



TODAY



9

1

### The History of Work + School



TODAY



10

21st Century Schools Presentation

# 1

## The History of Work + School

**TODAY**

Gallup Poll 2015

11

# 2

## Student Engagement

Grade	% Engaged
5th	75%
6th	67%
7th	55%
8th	45%
9th	41%
10th	33%
11th	32%
12th	34%
<b>Overall</b>	<b>50%</b>

**ENGAGEMENT:**  
The involvement in and enthusiasm for school. Engaged students are excited about what's happening at their school and what they're learning. These students contribute to the learning environment, and they are psychologically committed to their school.

Gallup Poll 2015

12

# 2

## Student Engagement

Grade	% Engaged
5th	75%
6th	67%
7th	55%
8th	45%
9th	41%
10th	33%
11th	32%
12th	34%
<b>Overall</b>	<b>50%</b>

**ENGAGEMENT:**  
The involvement in and enthusiasm for school. Engaged students are excited about what's happening at their school and what they're learning. These students contribute to the learning environment, and they are psychologically committed to their school.

Gallup Poll 2015

13

# 2

## Student Engagement

### BARRINGTON PUBLIC SCHOOLS

Q5 I feel engaged in my education and enjoy going to school every day.

What does the data tell us?  
Middle School: 53%  
High School: 33%

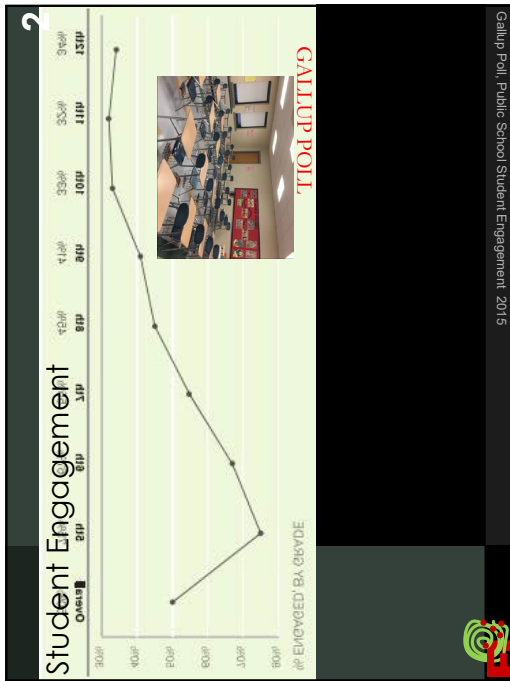
Why does this value decrease from middle to high school?

Grade	% Engaged
Middle School	53.2%
High School	33.2%

Keastle Boos Associates 2022

**STUDENT VISIONING**

14



15

### 3

## The Future

### Future of Work

Over 2 billion jobs will disappear by 2030

Students in school today will have had 10 different jobs by age 38

Chart 1. Cumulative number of jobs held from age 18 to 52, by sex and age

As a rule of thumb, 60% of the jobs 10 years from now haven't been invented yet

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### 3

## The Future

### FUTURE OF FAMILY

- Changing family composition
- Changing family economics
  - All adults working but not enough money
  - Housing not affordable
- The challenge of making time for parenting
  - Busy schedules
- Reliance on technology

### FUTURE OF CIVIC LIFE

- Internet discourse
- Human rights
- Community vs individual
- Impact of climate change

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### 3

## The Future

### FUTURE OF SCHOOL

18

21st Century Schools Presentation

**4**

**20<sup>th</sup> vs 21<sup>st</sup> Century Learning**

<p><b>20<sup>th</sup> CENTURY</b>  <b>TEACHER CENTERED</b></p> <ul style="list-style-type: none"> <li>• Focus on teaching efficiency.....</li> <li>• Rudimentary math + English skills.....</li> <li>• Content knowledge.....</li> <li>• Broadcast teaching.....</li> <li>• Students work alone.....</li> <li>• Content is abstracted.....</li> <li>• Teacher is holder of knowledge.....</li> <li>• Teacher works alone.....</li> <li>• Subjects taught separately.....</li> <li>• Mostly direct instruction, lecture + papers.....</li> </ul>	<p><b>21<sup>st</sup> CENTURY</b>  <b>STUDENT CENTERED</b></p> <ul style="list-style-type: none"> <li>• Student centered learning.....</li> <li>• "Deeper Learning".....</li> <li>• Self knowledge, content management.....</li> <li>• Personalized learning.....</li> <li>• Small group collaboration.....</li> <li>• Real application.....</li> <li>• Teacher is guide.....</li> <li>• Teaming, co-teaching, collaboration.....</li> <li>• Interdisciplinary learning.....</li> <li>• Project-based learning.....</li> </ul>
---	--



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**Measures of Success**

**HOW DO WE KNOW WE ARE DOING THE RIGHT THING?**

- Standardized testing
- Course failure rates
- Attendance rates
- Graduation rates
- Student behavior
- Parent involvement
- College/post-secondary admission
- College/post-secondary graduation
- Others?




20

**5**

**Measures of Success: Student Talk**

**HOW DO WE KNOW WE ARE DOING THE RIGHT THING?**

What do students want to talk about when they get home from school?




21


**6**

**Creating Innovators**

Tony Wagner  
 Creating Innovators



“When a student can learn everything they need to know from the internet, the curriculum is no longer important. The school experience is.”




22

**6**

Creating Innovators


Tony Wagner  
Creating Innovators



CREATING INNOVATORS  
HOW TO PREPARE OUR YOUNGEST GENERATION FOR THE 21ST CENTURY

TONY WAGNER

“What you know is not important.  
What you do is.”




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**7**

Learning Pyramid

Rate of retention of different modes of learning

**ACTIVE LEARNING + RESPONSIBILITY CREATES MORE RETENTION THAN PASSIVE LEARNING**



LECTURE	5%
READING	10%
AUDIO-VISUAL	20%
DEMONSTRATION	30%
DISCUSSION GROUP	50%
PRACTICE BY DOING	75%
TEACH OTHERS and/or IMMEDIATE USE	90%

**The Learning Pyramid**

NTL Institute for Applied Behavioral Science


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**7**

Learning Pyramid

Rate of retention of different modes of learning

**ACTIVE LEARNING + RESPONSIBILITY CREATES MORE RETENTION THAN PASSIVE LEARNING**



LECTURE	5%	Low Engagement
READING	10%	
AUDIO-VISUAL	20%	
DEMONSTRATION	30%	
DISCUSSION GROUP	50%	
PRACTICE BY DOING	75%	
TEACH OTHERS and/or IMMEDIATE USE	90%	High Engagement

**The Learning Pyramid**

NTL Institute for Applied Behavioral Science

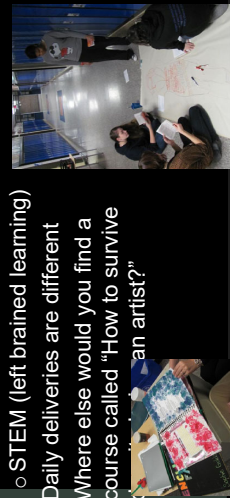

25

**8a**

School Organization Can Improve Learning

**THEMATIC LEARNING**

- Franklin HS, Franklin, MA
  - 1700 students
  - Within the departmental HS are thematic Small Learning Communities (SLCs)
    - Integrated Arts (right brained learning)
    - STEM (left brained learning)
  - Daily deliveries are different
  - Where else would you find a course called “How to survive as an artist?”

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21st Century Schools Presentation

**8a**  
**School Organization Can Improve Learning**  
**THEMATIC (MAGNET) LEARNING**  
 Sustainable Living Elementary School, Burlington, VT

**Very relevant in 2012**  
**More relevant today**

Integrated Arts Elementary School, Burlington, VT

Core learning goes up when arts are integrated in core classrooms, especially for English language learners




"Give me a classroom big enough to dance in."

Frank Locker, Educational Planning

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**8a**  
**School Organization Can Improve Learning**  
**THEMATIC (MAGNET) LEARNING**  
 Sustainable Living Elementary School, Burlington, VT  
 Integrated Arts Elementary School, Burlington, VT

**IMMEDIATE IMPACT**

- Charter + private school students returned to the district to attend these thematic (magnet) schools
- Before almost 100% of the higher income families in the attendance area applied for variances into the other 4 schools; now almost none do

**10 YEAR IMPACT IMPACT**

- MS teacher comments:
  - "Its obvious which students come from the magnet schools as they are so comfortable speaking up and being leaders"
  - "They keep me on my toes as I cannot just teach the way I used to; they expect more than traditional teaching."

Frank Locker, Educational Planning

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**8b**  
**School Organization Can Improve Learning**  
**TEACHER TEAMING**

- HIGH SCHOOL**
  - 1200 students
  - Shifted Grades 9 + 10 from departmental organization to four-teacher teams (ELA, math, social studies, science)
  - Course failure rate dropped by 50% w/i 18 months**
  - "We know our students better. Teachers who share the same students talk to each other + share knowledge about the students. This leads to early interventions, and our success." -School Principal

Oxford Hills Comprehensive HS, S Paris, ME

29

**9a**  
**Building Relationships**  
**MAGIC OF 150**

**Dunbar's Number**

The theoretical cognitive limit to the number of people with whom one can maintain stable social relationships. These are relationships in which an individual knows who each person is, and how each person relates to every other person.

150 is really 100 to 225



**GOOGLE THE "MAGIC OF 150"**

30

**9b**

**Building Relationships: Multi-Age**  
**MCKENESSOR SCHOOLS (PUBLIC)**

- Three-year multi-age groupings (K-2, 3-5 and variations)
  - Same teacher three years
  - Each year 1/3 move up
  - In a 6-to-8-year elementary sequence each child has 2 to 3 teachers
  - Oldest students are ambassadors, teach younger students
  - Then they become the younger students

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**9c**

**Building Relationships: Multi-Age + Looping**  
**EAST LYME MS, EAST LYME, CT**

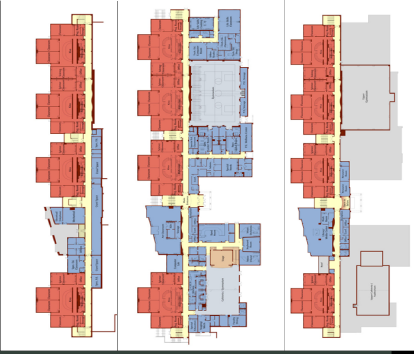
900 students  
 Grades 5-8

- Single Grade w/ Looping
- Multi-age
- Grade-level


Floor G

Floor 1

Floor 2



RIDE Associates Architects



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**9d**


**Building Relationships: Core Teacher Teaming**  
**BLADE POINT ELEMENTARY SCHOOL, Scarborough, ME**

**K-2 MULTI-AGE CLASSROOMS**



“How can we teach children collaboration if every adult they see in the building is working alone?”

POT Architects

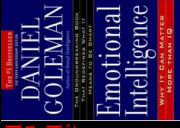


33


**10**

**Social/ Emotional Learning**  
**SUCCESS IN LIFE**

Emotional Intelligences



“85% of success is based on your EQ, not your IQ”



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# 10

## Social/ Emotional Learning

### SUCCESS IN SCHOOL + LIFE

- RIDE: Virtual wellness room, Virtual calming room
- RIDE: Social Emotional Learning Standards
- BYRT Bridge for Resilient Youth in Transition classroom
- Center for Academic, Social + Emotional Learning (CASEL) framework
- A4LE Trauma-Informed School Design

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# 11

## Pre-Kindergarten Programs

We have the greatest impact on the trajectory of student lives during the preschool years.

James Heckman, University of Chicago  
Nobel Laureate in Economics

Programs targeted towards the earliest years

Preschool programs

Schooling

Job training

Opportunity cost of funds

Age: 0, 0-3, 4-5, School, Post-school

Return to an Extra Dollar Investment at Various Ages

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# 11

## Pre-Kindergarten Programs

We have the greatest impact on the trajectory of student lives during the preschool years.

James Heckman, University of Chicago  
Nobel Laureate in Economics

Programs targeted towards the earliest years

**Current Federal funding covers 3 + 4-year-olds with special needs only.**

**Barrington has 22 in a 45-student program.**

**RI Senate Bill 2680 would fund Pre-K for all 3 + 4-year-olds in schools + w/ private providers. Barrington has 400+- children.**

Age: 0, 0-3, 4-5, School, Post-school

Return to an Extra Dollar Investment at Various Ages

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# 12a

## Interdisciplinary: STEM/ STEAM

STEM Program, Newton North High School, Frank Locker Educational Planning

High Tech Elementary, San Remo, CA


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## 21st Century Schools Presentation

**12b**

**Interdisciplinary: Core Learning**  
**OXFORD HILLS COMPREHENSIVE HS, S. PARIS, ME**

- HUMEX
  - Four teachers (ELA, math, social studies, science) created HUMEX (Human Experience)
  - 4 teachers synchronous, 100 students
  - Sequential PBL projects all year
  - **Students needing teacher help sought the teacher they felt most comfortable with, not the one credentialed in the curriculum area**
- TEACHER TEAMING
  - 1200 students
  - Shifted from departmental organization to four-teacher teams (ELA, math, social studies, science)
  - **Course failure rate dropped by 50% w/i 18 months**

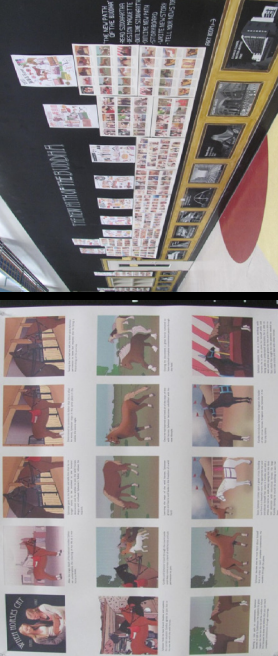


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**12c**

**Interdisciplinary: Arts + Academics**  
**HIGH TECH HIGH, SAN DIEGO, CA**

**Art teacher co-teaches with ELA teacher**



**Storyboards not papers**

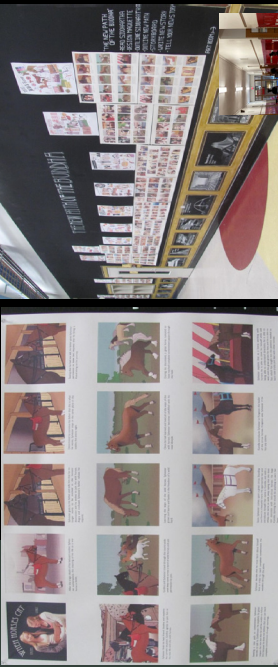


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**12c**

**Interdisciplinary: Arts + Academics**  
**HIGH TECH HIGH, SAN DIEGO, CA**

**Art teacher co-teaches with ELA teacher**



**Storyboards not papers**



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**13**

**21st Century Skills PARTNERSHIP FOR 21ST CENTURY LEARNING**




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**13**

**21<sup>st</sup> Century Skills**  
PARTNERSHIP FOR 21<sup>ST</sup> CENTURY LEARNING  
"THE FOUR 'C's'"

- Creativity + innovation
- Critical thinking + problem solving
- Communication
- Collaboration




PARTNERSHIP FOR 21<sup>ST</sup> CENTURY SKILLS



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**14**

**Project-Based Learning**  
**Africa Discovery**  
MANCHESTER, MA, MEMORIAL SCHOOL



**21<sup>st</sup> Century Skills in Action:** Manchester Memorial School, Gr. 6

A social studies unit on Africa was used to teach global awareness, technology skills, music and art at this Manchester Essex school. Each student chose an African country to study in depth, did their research online, created their final projects using PowerPoint and presented them using FlipCam. The students then discussed and constructed African masks in art class, and learned about and practiced African drumming in Music class. More on this program: <http://www.doe.mass.edu/edtech/practices/Manchester/intro.htm>

*21<sup>st</sup> century skills used in this project: global awareness, creativity, technology, collaboration, communication, problem solving*

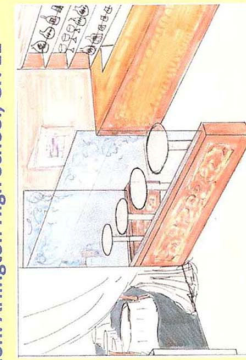


Massachusetts Dept. Education 21<sup>st</sup> Century Skills Task Force

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**14**


**Project Based Learning**  
CAPE FARMEN, ARLINGTON, MA, HIGH SCHOOL



**21<sup>st</sup> Century Skills in Action:** Arlington High School, Gr. 11

Honors French students were divided into small groups and asked to create a restaurant in France. Students used the Internet to research real estate listings, learned about the Euro to consider price options, selected a financial planning method based on interest rates, and incentive programs, and used professional software to create a business and marketing plan aimed at their target clientele. Once the plans were complete, students developed and priced their menus, sketched out the interior design and used architectural software to lay out the furniture. The project ended with oral presentations done in both English and French. Local restaurant designers and architects were invited in to hear the English presentations. The project lasted the entire year, and was conducted entirely in French. More on this project: <http://www.doe.mass.edu/edtech/practices/ar/intro.htm>.

*21<sup>st</sup> century skills used in this project: technology; collaboration; global awareness; media literacy; creativity; financial, economic, business and entrepreneurial literacy.*



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**14**

**Project Based Learning**  
CAPE FARMEN, ARLINGTON, MA, HIGH SCHOOL

**PROJECT REQUIREMENTS**

- Business plan
- Real estate analysis (in Paris)
- Café name
- Café space design
- Café menu design
- Nutrition analysis
- Set prices for menu (Euros)
- Correlation of location-market demographics-menu-space design
- Speak French

- Outside experts
- Talk to students in France
- Location mapping
- Business plan spreadsheets
- Menu graphics
- Model of design
- Presentation to "jury"



Arlington HS 11<sup>th</sup> Grade French Class

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14  
Project Based Learning  
CAPE FARELEN, ARLINGTON, MA, HIGH SCHOOL




Arlington HS, 11<sup>th</sup> Grade French Class




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14  
Project Based Learning  
CAPE FARELEN, ARLINGTON, MA, HIGH SCHOOL




Arlington HS, 11<sup>th</sup> Grade French Class




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15  
Design Thinking  
Making Things to Learn  
MARCHWORKS SCHOOL, San Francisco, CA




DESIGN THINKING  
How I learned

DESIGN THINKING  
How I learned




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15  
Design Thinking  
Making Things to Learn  
MARCHWORKS SCHOOL, San Francisco, CA



tinkerschool  
Design Thinking



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15

Design Thinking  
Making Things to Learn

NUVU STUDIO, Cambridge, MA

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15

Design Thinking  
Making Things to Learn

NUVU STUDIO, Cambridge, MA

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Break

53

20th Century Schools Planning

c	c	c
c	c	c

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21st Century Schools Presentation

### 20th Century Schools Planning

DISJOINTED CURRICULUM  
DELIVERED BY INDIVIDUAL  
TEACHERS IN ISOLATED  
SETTINGS

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### 21st Century Schools Planning

INTEGRATED CURRICULUM  
DELIVERED BY  
COLLABORATIVE TEACHERS IN  
A RELATIONSHIP-BASED  
SETTING

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### 21st Century Schools Planning

INTEGRATED CURRICULUM  
DELIVERED BY  
COLLABORATIVE TEACHERS IN  
RELATIONSHIP-BASED  
SETTINGS

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### 21st Century Schools Planning

INTEGRATED CURRICULUM  
DELIVERED BY  
COLLABORATIVE TEACHERS IN  
RELATIONSHIP-BASED  
SETTINGS

INTERNSHIPS +  
SERVICE LEARNING  
IN THE COMMUNITY

PLACE-BASED  
LEARNING

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21st Century Schools Presentation

**2**

**Small Learning Communities**  
*OLD TOWN ELEMENTARY SCHOOL* Old Town ME  
 • Teacher Collaboration  
 • Community of Learners  
 • Authentic Assessments

Frank Locker educational planner, PDT Architects

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**2**

**Small Learning Communities**  
*IPS WICH MS/HS, Ipswich MA*

STEPS NOT ADA COMPLIANT

CLASSROOMS  
 STUDENT ADMINISTRATION  
 COMMONS  
 TEACHER PLANNING CENTER  
 PERFORMING ARTS  
 GYMNASIUM  
 ELECTRONIC STUDIOS

Flansburgh Associates Architects

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**3**

**Extended Learning Areas**  
 MAKE LEARNING FLEXIBLE

61

**3**

**Extended Learning Areas**  
 LEARNING IS A SOCIAL ACTIVITY

Moody Nolan Architects

62

### 4 Safety + Security in 20th Century Schools

- NO ENTRY PROTECTION
- NO OBSERVATION OF CORRIDORS
- LOCKDOWN BY CLASSROOM
- NO ESCAPE

63

### (1) 21<sup>st</sup> Century Schools

INTEGRATED CURRICULUM DELIVERED BY COLLABORATIVE TEACHERS IN A RELATIONSHIP-BASED SETTING

64

### 4 Safety + Security in 21<sup>st</sup> Century Schools

- VISTA OVER ENTRY + SITE
- CONTROLLED ENTRY: GATEKEEPER
- OBSERVATION OF CORRIDORS
- LOCKDOWN BY SUITES OF SPACES
- PLANNED ESCAPE ROUTES

65

### 5a School Organization Can Improve Learning

**FACTS OF LIFE ABOUT SCHOOL OPERATIONS**

- Larger buildings **cost less** \$/student to operate
- Larger buildings offer **services more consistently + equitably**
- More grade levels/building offer more **continuity for students** (fewer transitions) + more **convenience for parents**
- More classrooms/grade level offer teachers more **opportunities to collaborate with, teach + learn from peers**
- Smaller buildings sometimes feel better, but big buildings can **feel small if designed correctly**

Small ES = <450 students

66

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### 5b

## School Organization Can Improve Learning

### GRADE GROUPING STRATEGIES

#### GRADE GROUPINGS IN USA

1. K-5 / 6-8 / 9-12
2. PK / K-5 / 6-8 / 9-12
3. K-2 / 3-5 / 6-8 / 9-12
4. PK / K-2 / 3-5 / 6-8 / 9-12
5. K-3 / 4-5 / 6-8 / 9-12
6. PK / K-3 / 4-5 / 6-8 / 9-12
7. K-4 / 5-8 / 9-12
8. PK / K-4 / 5-8 / 9-12
9. K-6 / 7-8 / 9-12
10. PK / K-6 / 7-8 / 9-12
11. K-8 / 9-12
12. PK / K-8 / 9-12
13. K-6 / 7-12
14. PK / K-6 / 7-12
15. PK-12
16. 3-8

#### CONSIDERATIONS

1. Curriculum continuity
2. Teacher certifications
3. State testing
4. Number of transitions
5. Knowing of students by teachers + specialists
6. School enrollment size
  - Critical mass of teachers + specialists
  - Operational costs
  - Educational effectiveness
  - Equity
7. Available facilities
8. Siblings helping each other
9. Convenience for parents

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### 5c

## School Organization Can Improve Learning

### TEACHER AUTONOMY

**small group rooms**  
quiet learning, group project work

**collaborative space**  
technology rich (audio/visual, looks)  
- display presentation  
- small group + individual work  
- student storage

**making lab**  
space, art, science  
- messy studio with lab  
- sinks, water, resistant flooring

**operable partition**

**typical classroom**  
flexible learning space

**team lab**  
flexible learning space

**outdoor learning**  
greenery and landscape

**2200 students, 18 Small Learning Communities, teacher autonomy in each**

Frank Looker Educational Planning | TheDesign Architecture

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### 5b

## School Organization Can Improve Learning

### GRADE GROUPING STRATEGIES

#### GRADE GROUPINGS IN USA

1. K-5 / 6-8 / 9-12
2. PK / K-5 / 6-8 / 9-12
3. K-2 / 3-5 / 6-8 / 9-12
4. PK / K-2 / 3-5 / 6-8 / 9-12
5. K-3 / 4-5 / 6-8 / 9-12
6. PK / K-3 / 4-5 / 6-8 / 9-12
7. K-4 / 5-8 / 9-12
8. PK / K-4 / 5-8 / 9-12
9. K-6 / 7-8 / 9-12
10. PK / K-6 / 7-8 / 9-12
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15. PK-12
16. 3-8

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  - Educational effectiveness
  - Equity
7. Available facilities
8. Siblings helping each other
9. Convenience for parents

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### 5c

## School Organization Can Improve Learning

### TEACHER AUTONOMY

The 2014 Educational Visioning led to educational practice changes and concepts for the new building:

- **Teacher teams**
- **Teacher autonomy for schedules + room use**
- **Bell schedule eliminated**

**After one year in the building:**

- **Performance up one letter full letter grade**
- **Gifted students from a C to an A**
- **Lowest 20% in achievement increased from a D to a C**
- **Gap Closing: highest score ever, from an F to a B**

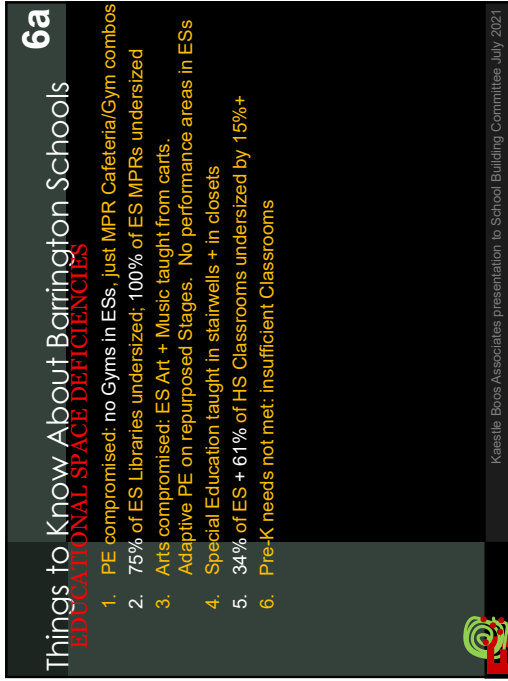
• (Each following year showed incremental improvements)

Frank Looker Educational Planning

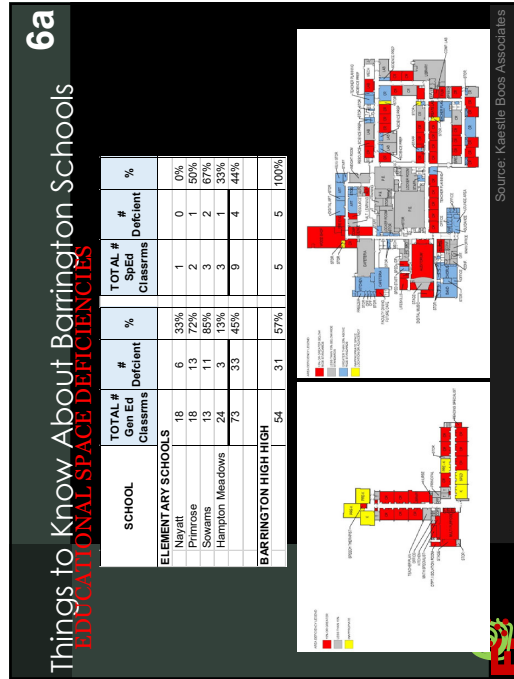
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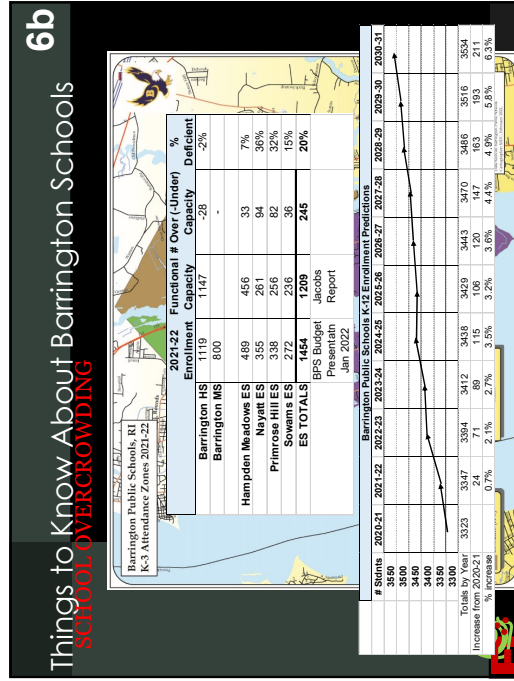
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72



73



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21st Century Schools Presentation

### 6c

## Things to Know About Barrington Schools

### WALKING TO SCHOOL

1 mile by sidewalks = approximate 7-mile radius

Overall

- 24.3% of ES students walk
- 36.3% of MS students walk
- 36.5% of HS students walk

Legend

- ES
- MS
- HS
- Elementary
- Middle
- High School

Barrington Public Schools, RI  
K-3 Attendance Zones 2021-22

Source: Kaestle Boos Associates presentation to School Building Committee July 2021

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### 6d

## Things to Know Barrington Schools

### FACILITY CONDITIONS

1. ADA violations in 50% buildings
2. HVAC dated, needing component upgrades/replacement
3. Windows at the end-of-life expectancy
4. Technology dated
5. Cost of repairing existing:
  - o ESs exceeds cost of replacement new construction
  - o HS almost equals cost of replacement new construction

**Barrington Facility Conditions**  
 ESs FCI = 112% average  
 HS FCI = 97%

Source: Kaestle Boos Associates presentation to School Building Committee July 2021

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### 6e

## Things to Know About Barrington Schools

### SCHOOL PLAYFIELD CONDITIONS

Overall Condition: fair to poor

- Barrington HS : Fields uneven + hold water. Football field is worn
- Barrington MS: Very good, almost brand new
- Nayatt ES: Softball field mostly dust + weeds
- Primrose ES: Field is flat with weeds. Pitches to the softball infield
- Sowams ES: Parking lot drains to this field behind the school, which can be wet
- Hampden Meadows ES: No field to speak of. Lawn behind swing sets is worn down

Source: Kaestle Boos Associates

- Insufficient large multi-use fields. Need at least 2 more
- Too much demand + too little maintenance
- Artificial Turf Work Group
- Exploring adding 1 artificial turf field

Source: Ad-Hoc Fields Advisory Committee

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### 7

## Teacher Planning Centers

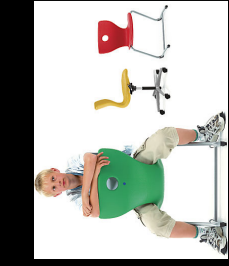
### CEDAR SPRINGS MIDDLE SCHOOL, Cedar Springs, MI

Source: Frank Locker, DeJONG Educational Planners, BetaDesign Architects


78

8

Flexible, Varied, Brain-based Furniture




79




8

Flexible, Varied, Brain-based Furniture

**STAND UP DESKS**




Saico AlphaBetter




9

End of the Library as We Know it Today

**VICTORIA, AUSTRALIA DELI EDUCATION**



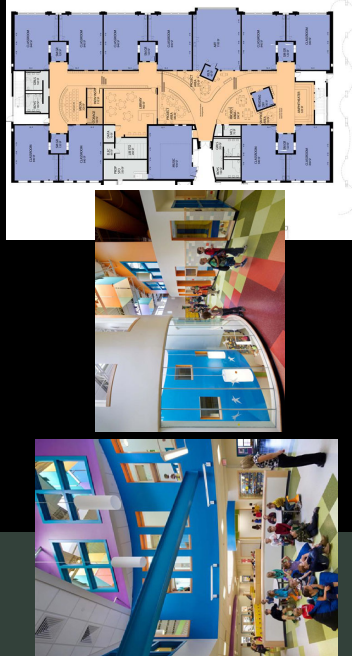
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End of the Library as We Know it Today

**CONCORD, NEW ENGLAND, INDEPENDENT SCHOOLS**



HMFH Architects



21st Century Schools Presentation

**9**  
**End of the Library as We Know it Today**  
**WEST MUSKINGUM ELEMENTARY SCHOOL, ZANESVILLE, OH**

Frank Locker Educational Planner/Framing/Howey Architects Engineers

83

**10**  
**End of the Cafeteria as We Know it Today**  
**Glacier High School, Kalspell, MT**  
**CTA Architects**

Fairfield, OH Freshman School  
 SHIP Leading Design Architects  
 Frank Locker Educational Planning

84

**11**  
**The End of Isolated Teaching**  
**K-2 CENTER, FOREST AVENUE ELEMENTARY SCHOOL, Middletown, RI**

Teacher Teams, Multi-Age, Flexible Student Groups

Frank Locker Educational Planner/Framing/Howey Architects Engineers

85

**11**  
**The End of Isolated Teaching**  
**K-2 CENTER, FOREST AVENUE ELEMENTARY SCHOOL, Middletown, RI**

Frank Locker/Fielding Nair International Educational Planners Litman Architects

86

**11**  
**The End of Isolated Teaching**  
**K-2 CENTER, FOREST AVENUE ELEMENTARY SCHOOL,**  
**Middletown, RI**

4 Core Teachers +  
 2 Spl Ed Teachers +  
 Specialists with  
 85 Students

Frank Locker/Fielding Nair International Educational Planners Litman Architects

87

**11**  
**The End of Isolated Teaching**  
**K-2 CENTER, FOREST AVENUE ELEMENTARY SCHOOL,**  
**Middletown, RI**

Teacher Teams,  
 Multi-Age,  
 Flexible  
 Student Groups

Frank Locker/Fielding Nair International Educational Planners Litman Architects

88

**11**  
**The End of Isolated Teaching**  
**K-2 CENTER, FOREST AVENUE ELEMENTARY SCHOOL,**  
**Middletown, RI**

Frank Locker/Fielding Nair International Educational Planners Litman Architects

89

**11**  
**The End of Isolated Teaching**  
**K-2 CENTER, FOREST AVENUE ELEMENTARY SCHOOL,**  
**Middletown, RI**

Nair International Educational Planners Litman Architects

90



21st Century Schools Presentation

**End of the Classroom as We Know it Today**  
**12a**  
**WOORANNA PARK PRIMARY SCHOOL, Melbourne, AU**

**Year 5 + 6**

- 110 Students
- Teacher Teams
- Activity Zones
- Project-Based Learning

BEFORE

AFTER

- High Poverty
- Test Scores at 36% - 73% vs 12% Expected per Student

**Family Occupation**

Mary Featherston Designer

91

**End of the Classroom as We Know it Today**  
**12a**  
**WOORANNA PARK PRIMARY SCHOOL, Melbourne, AU**

Mary Featherston Designer

92

**End of the Classroom as We Know it Today**  
**12b**  
**CENTER FOR INNOVATIVE STUDIES, Milan, MI**

Fanning/Howey Associates Architects

93

**End of the Classroom as We Know it Today**  
**12b**  
**CENTER FOR INNOVATIVE STUDIES, Milan, MI**

Fanning/Howey Associates Architects

94

# Community Questionnaire Responses

Community Questionnaire Responses to issues as presented		Do Not Support	Maybe	Don't Know	Important	Strongly Support
1	Equity for all schools across the District: providing equal facility space for instruction and programs.	10.5	8.5	19.7	14.1	47.2
2	Increasing student engagement by delivering the required curriculum in spaces that allow for collaboration, communication, and deep learning.	7.5	8.5	16.7	19	48.2
3	Preparing for the potential for Universal Pre-School in 2028, while providing the currently mandated IDEA preschool program.	19	8.2	21.3	20	31.5
4	Potentially reconfiguring the grade levels to address increased enrollment and align with best practice teaching models and idealized student support services.	20.7	9.2	23.9	18.7	27.5
5	Potentially increasing the size of the school buildings through additions and/or new construction to address overcrowding across the District.	18	5.6	13.1	25.2	38
6	Explore innovative ways to organize our schools with a thematic focus such as Arts-based or STEM-focused.	22.3	13.4	18.7	19.3	26.2
7	Planning our school facilities improvements to maximize RIDE funding from 35% to 52-1/2% based on available RIDE incentives	13.4	10.2	21	22.3	33.1
8	Reducing/eliminating educational space deficiencies within our school buildings (provide appropriate space sizes aligned with state standards, dedicated enrichment space, etc.).	11.5	5.9	18.7	26.2	37.7
9	Reducing/eliminating facility condition deficiencies.	4.9	4.9	14.8	28.9	46.6
10	Eliminating severe overcrowding at all elementary schools (Please note BMS and BHS are not overcrowded).	13.8	8.2	13.8	22.3	42
11	Improving Arts for students and the community through increased/improved visual and performing arts spaces.	10.2	10.5	18.4	21.3	39.7
12	Improving physical education and sports for students and the community through increased/improved indoor/outdoor activity spaces/places, coordinated with the Town.	8.2	10.8	15.1	22.3	43.6

# Community Questionnaire Responses

Community Questionnaire Responses to issues RANKED		RANK	Do Not Support	Maybe	Don't Know	Important	Strongly Support	SCORE
9	Reducing/eliminating facility condition deficiencies.	1	4.9	4.9	14.8	28.9	46.6	408
2	Increasing student engagement by delivering the required curriculum in spaces that allow for collaboration, communication, and deep learning.	2	7.5	8.5	16.7	19	48.2	392
12	Improving physical education and sports for students and the community through increased/improved indoor/outdoor activity spaces/places, coordinated with the Town.	3	8.2	10.8	15.1	22.3	43.6	382
1	Equity for all schools across the District: providing equal facility space for instruction and programs.	4	10.5	8.5	19.7	14.1	47.2	379
8	Reducing/eliminating educational space deficiencies within our school buildings (provide appropriate space sizes aligned with state standards, dedicated enrichment space, etc.).	5	11.5	5.9	18.7	26.2	37.7	373
10	Eliminating severe overcrowding at all elementary schools (Please note BMS and BHS are not overcrowded).	6	13.8	8.2	13.8	22.3	42	371
11	Improving Arts for students and the community through increased/improved visual and performing arts spaces.	7	10.2	10.5	18.4	21.3	39.7	370
5	Potentially increasing the size of the school buildings through additions and/or new construction to address overcrowding across the District.	8	18	5.6	13.1	25.2	38	359
7	Planning our school facilities improvements to maximize RIDE funding from 35% to 52-1/2% based on available RIDE incentives	9	13.4	10.2	21	22.3	33.1	352
3	Preparing for the potential for Universal Pre-School in 2028, while providing the currently mandated IDEA preschool program.	10	19	8.2	21.3	20	31.5	337
4	Potentially reconfiguring the grade levels to address increased enrollment and align with best practice teaching models and idealized student support services.	11	20.7	9.2	23.9	18.7	27.5	323
6	Explore innovative ways to organize our schools with a thematic focus such as Arts-based or STEM-focused.	12	22.3	13.4	18.7	19.3	26.2	313

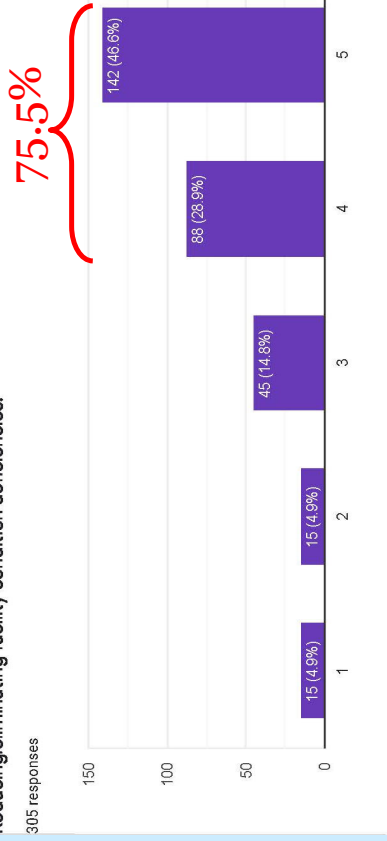
# Community Questionnaire Responses

**IN ORDER OF PRIORITY**

**Rank #1 score 408**

Reducing/eliminating facility condition deficiencies.

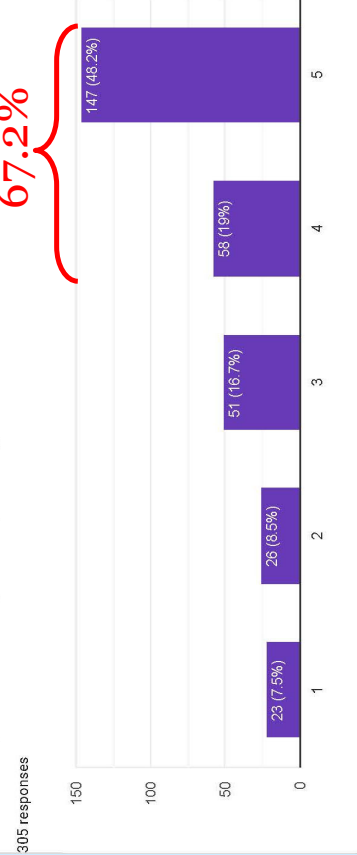
305 responses



**Rank #2 score 392**

Increasing student engagement by delivering the required curriculum in spaces that allow for collaboration, communication, and deep learning.

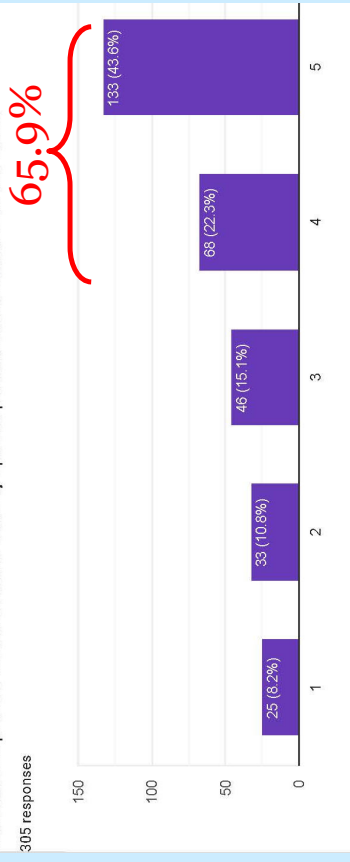
305 responses



**Rank #3 score 382**

Improving physical education and sports for students and the community through increased/improved indoor/outdoor activity spaces/places, coordinated with the Town.

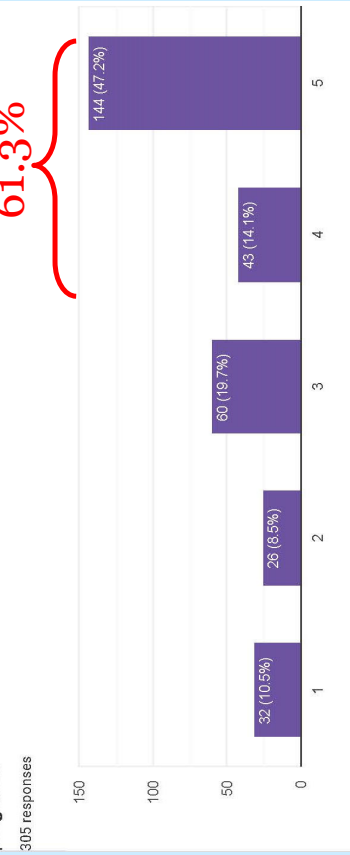
305 responses



**Rank #4 score 379**

Equity for all schools across the District; providing equal facility space for instruction and programs.

305 responses



# Community Questionnaire Responses

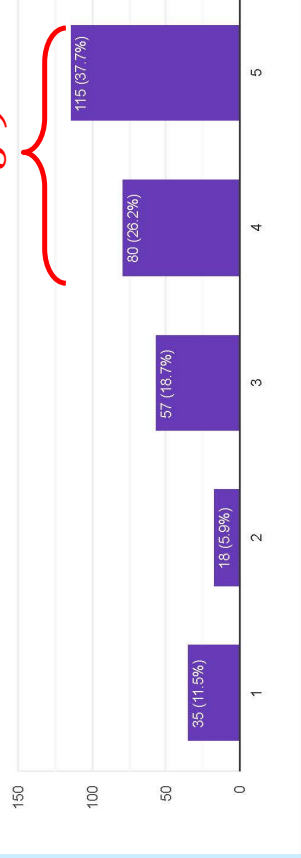
## IN ORDER OF PRIORITY

### Rank #5 score 373

Reducing/eliminating educational space deficiencies within our school buildings (provide appropriate space sizes aligned with state standards, dedicated enrichment space, etc.).

305 responses

63.9%

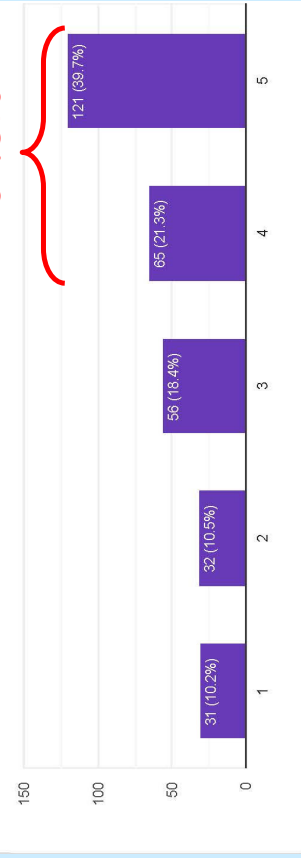


### Rank #7 score 370

Improving Arts for students and the community through increased/improved visual and performing arts spaces.

305 responses

61.0%

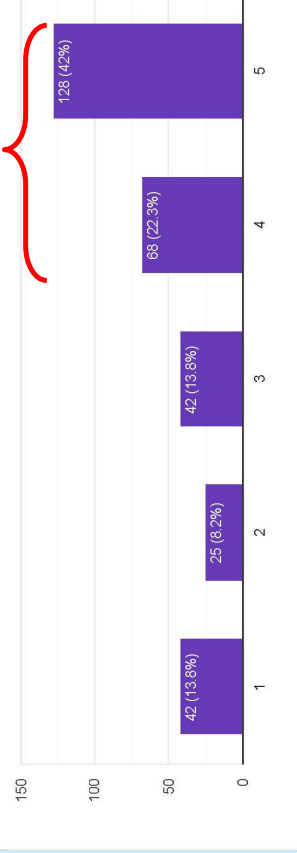


### Rank #6 score 371

Eliminating severe overcrowding at all elementary schools (Please note BMS and BHS are not overcrowded).

305 responses

64.3%

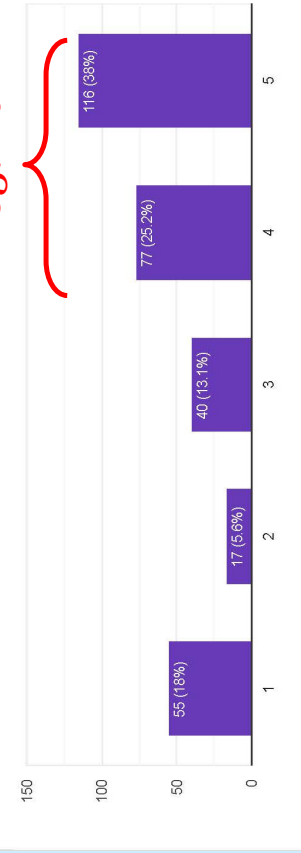


### Rank #8 score 359

Potentially increasing the size of the school buildings through additions and/or new construction to address overcrowding across the District.

305 responses

63.2%



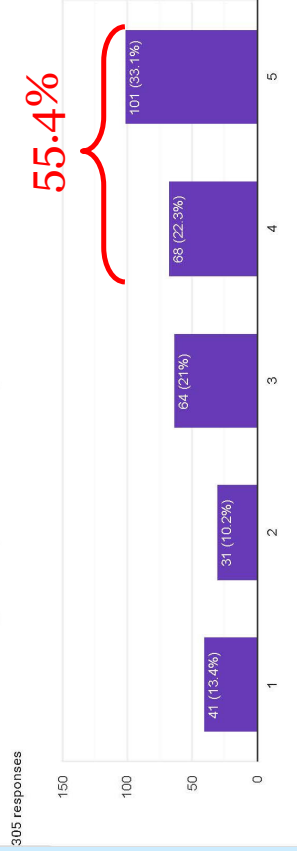
# Community Questionnaire Responses

**IN ORDER OF PRIORITY**

**Rank #9 score 352**

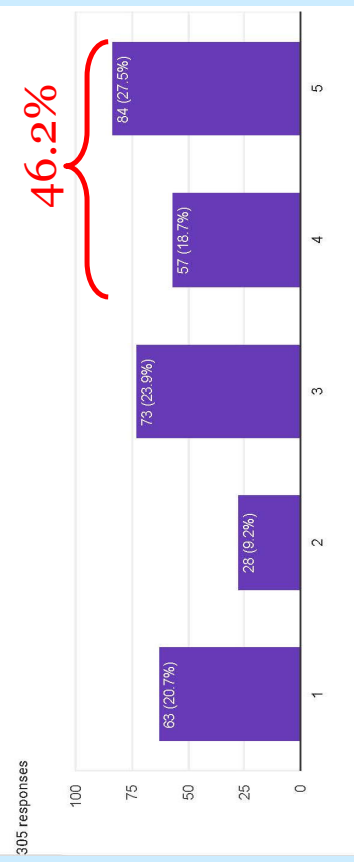
Planning our school facilities improvements to maximize RIDE funding from 35% to 52-1/2% based on available RIDE incentives (link to incentives available):

<https://www.ride.ri.gov/Portals/0/Uploads/Documents/Funding-and-Finance-Wise-Investments/SchoolBuildingAuthority/Facilities-Funding.pdf>



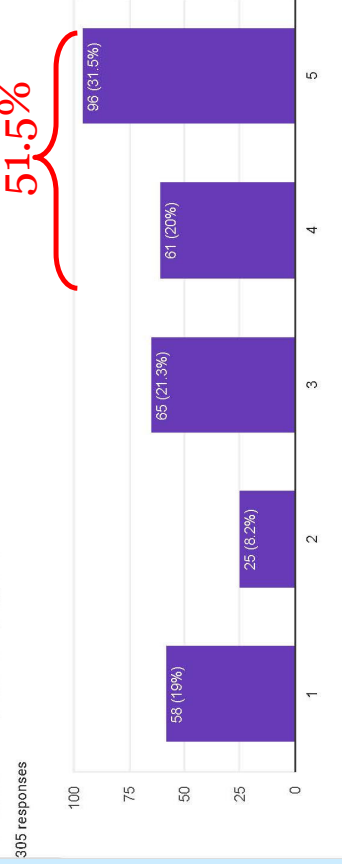
**Rank #11 score 323**

Potentially reconfiguring the grade levels to address increased enrollment and align with best practice teaching models and idealized student support services.



**Rank #10 score 337**

Preparing for the potential for Universal Pre-School in 2028, while providing the currently mandated IDEA preschool program.



**Rank #12 score 313**

Explore innovative ways to organize our schools with a thematic focus such as Arts-based or STEM-focused.

