

Minutes are considered "DRAFT" until approved by the committee.

Minutes
Farmington High School Facility and Financial Ad Hoc Committee
August 21, 2018

Present:

Edward Giannaros, Chair	Kathy Eagen, Town Manager
Bruce Charette	Kathy Greider, Superintendent of Schools
Paul Cianci	Kim Wynne, Assistant Superintendent of Schools
Liz Fitzsimmons	Vince LaFontan, School Business Administrator
Christine Arnold	Tim Harris, Director of School Facilities
Sharon Mazzochi	Matt Ross, Director of Technology
Michael Smith	Kat Howroyd, Management Specialist
	Nancy Nickerson, Ex-Officio Member

A. Call to Order.

The Chair called the meeting to order at 7:00 p.m.

B. Public Comment.

None.

C. Minutes.

1) To approve the attached July 31, 2018 minutes.

Upon a motion made and seconded (Charette/Mazzochi) it was unanimously VOTED: to approve the June 21, 2018 minutes.

D. Presentation.

1) Farmington High School Facility Presentation- Farmington Public Schools Staff.

Tim Harris, Director of School Facilities gave a presentation on the Friar K-8 Analysis. He provided an overview of the report and the process of the study, and provided a snapshot of one school, Union Elementary. A copy of the full presentation is attached to these minutes as Attachment 1.

Bruce Charette inquired if Farmington Public Schools had this information in another format to review. Vince LaFontan, School Business Administrator, said he will send an excel of the analysis financials to the committee via email. He explained that this analysis is a snapshot and was current at the time of its completion in December 2017. Since that time there has been work completed and/or funded in the last budget cycle.

Kathy Greider, Superintendent of Schools reviewed the FHS Facility presentation. A copy of this presentation is attached to these minutes as Attachment 2. She explained that there were numerous studies conducted on the facility, and a full summary of each is included in this presentation. The studies include:

Minutes are considered "DRAFT" until approved by the committee.

- Tecton FHS Facility Review (January 2015)
- NEASC Visit (October 2004 and September 2015). Superintendent Greider explained that Farmington High School was put on warning in one standard, as progress was not made since NEASC's 2004 visit.
- Learning Environments for Tomorrow (Harvard Conference, April 2014)
- Office of Civil Rights (OCR) Review and Report (April 2014). Superintendent Greider explained that FHS was put on notice for not complying with ADA, and they are now required to provide regular updates with clear plans for compliance.
- Auditorium Study (November 2013)
- Acentech Acoustic Study (May 22, 2013) and U of H Acoustic Study (May 2015)

Dr. Bill Silva, Farmington High School Principal provided a summary of the Statement of Needs, as the statement of needs prompted the creation of the prior Farmington High School Building Committee and outlines the facility issues. He reviewed each of the needs, emphasizing the following:

- FHS was put on warning for the School Resources for Learning Standard. They are required to submit reports to NEASC addressing the deficiencies. The 3rd report is due in October.
- OCR conducted a significant investigation of the facility and gave a priority list of things that need to be addressed. Some of these items have been completed, and FHS continues to update OCR on their progress.
- Safety and Security is a continuing concern. FHS is a sprawling building, and as a result has 23 entrances and exits. There is also a concern that there is a lack of public/private spaces with no clear separation.
- FHS has inefficient mechanical, electrical and plumbing, resulting in many problems each year.
- Undersized facilities include the auditorium, cafeteria, and library. The 2nd floor of the library is unable to be used for classroom space due to inaccessibility.
- While there is ample parking available, the layout is not safe for pedestrians.
- The goal of the statement of needs is to provide efficient, flexible, functional learning facility.
- Since the approval of the Statement of needs in 2016, the need has not diminished. Issues, such as the need for a new roof, are identified and addressed as they come up.

Liz Fitzsimmons explained that the building is also hindering educational progress, as students don't learn the way they used to, and the facility is restrictive.

The committee had general discussion about disseminating this information to the public. There was a concern that the statement of needs, while

Minutes are considered "DRAFT" until approved by the committee.

important, is not easy for the public to absorb. Bruce Charette and Edward Giannaros suggested the creation of a 1-2 page document that includes bullet points and buzz words to pinpoint the needs and make the information easy to absorb by the public. Sharon Mazzochi also suggested including the projected enrollment, as we are not experiencing a large decline like other school districts across the State.

Kathy Greider and Kathy Eagen both clarified that everything in the statement of needs was deemed a priority by the previous FHS Building Committee. Because Farmington High School is a sprawling building, the statement of needs encompassed the entire building, leading to an expensive project.

The committee also discussed the impact of the survey results leading to a prioritization of the statement of needs. The committee would also like to see an overview of the previous options and the differences between them.

E. New Business.

- 1) To discuss topics for the September 18, 2018 meeting.**
 - a) Presentation of requested financial information.**
 - b) Other.**

The committee decided to hold all meetings at the Farmington High School library. The next meeting will be updated presentations on the financial and facility needs, with follow up information, as requested by the committee.

It was also announced that a resident requested information from Tim Harris regarding a breakdown of instructional space at Farmington High School. A copy of this document was distributed to the committee and is attached to these minutes as Attachment 3.

F. Adjournment.

- G. Upon a motion made and seconded (Charette/Mazzochi) the meeting adjourned at 8:14 p.m.

Respectfully Submitted,

Kathryn Howroyd
Management Specialist



**CODE ANALYSIS AND
BUILDINGS & GROUNDS SURVEY**

Farmington Public Schools

Friar Architecture

Objectives of the Code Analysis and Buildings & Grounds Survey

- ❑ Evaluate the current conditions of each school building (except FHS) and its components in order to identify needs and develop a plan to implement recommended alterations
- ❑ Define improvements to support school programs that meet the needs of Farmington's students and their families
- ❑ Identify potential efficiencies with the physical plant
- ❑ Create buildings that are safe, modern, compliant with Building Codes and able to support their educational programs
- ❑ Maximize the State Grant reimbursements based upon projected population and school size
- ❑ This information will be used to prioritize projects based upon need, ease of construction, and overall cost effectiveness

Overview

Study process

Interviews with Tim, principals and custodial staff
(program and existing conditions)

School visits

Follow up visits to gather missing info

Draft reports

Meetings with Tim & facilities staff to incorporate edits

Meetings with Superintendent, Vince & Tim

Forwarded for Town reviews

Overview

Reports

Report structure

Overview

Reports

Report structure

Table of Contents

Section 1 : Introduction	5		
Introduction	7		
Building Location Plan	8		
Context Map	9		
Section 2 : Executive Summary	11		
Building Information	13		
Building Overview- Photographs	14		
Section 3 : Architectural, Structural & Food Service Survey	29		
Architectural Existing Conditions	31		
Existing Space Utilization Plans	38		
Structural Existing Conditions	45		
Architectural & Structural Survey Photographs	47		
Architectural & Structural Photo Key Plan	66		
Architectural & Structural Recommendations	75		
Food Service Survey	76		
Food Service Survey Photographs	78		
Food Service Recommendations	92		
Section 4 : Mechanical, Electrical, Plumbing & Fire Protection Survey	93		
M/E/P/FP Existing Conditions	95		
M/E/P/FP Survey Photographs	105		
M/E/P/FP Survey Photo Key Plan	122		
M/E/P/FP Recommendations	129		
Section 5 : Code Survey	131		
IBC Code Survey	133		
NFPA Code Survey	135		
Code Survey Photographs	139		
Code Survey Photo Key Plan	154		
Code Survey Recommendations & Prioritization	161		
		Section 6 : ADA Compliance Survey	163
		ADA Compliance Survey Introduction	165
		ADA Survey Failures	167
		ADA Survey Photographs	185
		ADA Survey Photo Key Plans	201
		Section 7 : Site Survey	209
		Site Plan	211
		Site Information	215
		Utilities Site Survey	219
		Site Survey Photographs	220
		Site Recommendations	223
		Section 8 : Planning Options	225
		Program & Conceptual Plans	227
		Section 9 : Opinion of Probable Costs	235
		Section 10 : Appendix	239
		Hazardous Materials Reports	242
		Current Enrollment	252
		8 Year Projected Enrollment	252



Overview

Reports

Report structure

Some sections revised during process

Determination of probable costs

Overview

Reports

Themes

Programmatic changes

Undersized areas

Cafeteria(IAR); Library (E Farms)

Relocating use groups for efficiency

Main office/Nurse @ front entry

Pre-K @ parking lot entrance (IAR)



Overview

Reports

Themes

Front entrances

Security measures @ front entry

Stand-off areas for buses; canopy?

Better wayfinding

Accessibility



Overview

Next steps (long term expectations)

Master plan

Work with Tim and Town

Analyze potential projects

Comprehensive or piecemeal

Achieve with Town resources or bid out

Adjust estimates for Previous Wage

Integrate into options for 15 / 20 yr Capital Plans





EXISTING CONDITIONS

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



Connecticut State Department of Education
Bureau of School Facilities

Long-Term Facility Planning, Maintenance and Implementation

Code	District	Long-Range Building Plan	Building Plan Implementation	Equipment Repair / Replacement	Building Maintenance Plan	Maintenance Plan Implementation
42	EAST HAMPTON	4	3	3	4	3
43	EAST HARTFORD	4	1	2	4	1
44	EAST HAVEN	3	3	4	3	3
45	EAST LYME	3	0	3	3	3
46	EASTON	2	2	2	2	2
47	EAST WINDSOR	3	3	3	4	4
48	ELLINGTON	4	3	3	3	3
49	ENFIELD	3	3	3	3	4
50	ESSEX	2	2	2	3	3
51	FAIRFIELD	4	3	4	4	4
52	FARMINGTON	4	4	3	4	4
53	FRANKLIN	3	1	2	2	2
54	GLASTONBURY	4	4	3	3	3
56	GRANBY	4	4	4	3	4
57	GREENWICH	3	3	3	3	3
58	GRISWOLD	4	3	2	3	3
59	GROTON	3	3	3	3	4
60	GUILFORD	4	3	3	3	3
62	HAMDEN	4	3	3	4	3
63	HAMPTON	4	4	3	3	2
64	HARTFORD	4	3	3	3	3
65	HARTLAND	3	3	3	3	3
67	HEBRON	4	3	4	3	2
68	KENT	4	4	4	4	4
69	KILLINGLY	0	0	1	2	3



Connecticut State Department of Education Bureau of School Facilities General Building Conditions

District	School Name	Grade Range	Year of Original Construction	Last Major Renovation	Major Code Update Since 1988?	Handicap Accessibility	CO Detection
Farmington	Union School	K-04	1938	1977	No	All Programs	Yes
Farmington	Noah Wallace School	K-04	1904	1977	No	General Area	Yes
Farmington	West District School	K-04	1961	N/R	No	All Areas	Yes
Farmington	East Farms School	K-04	1965	1989	No	All Areas	Yes
Farmington	West Woods Upper Elementary School	05-06	2003	N/R	No	All Areas	Yes
Farmington	Irving A. Robbins Middle School	07-08	1959	1995	No	All Programs	

CT State Department of Education, Report on the Condition of Connecticut's Public School Facilities
<https://www.csde.state.ct.us/public/dgm/ed050/pickyear.aspx>

Connecticut State Department of Education Bureau of School Facilities Service Systems

District	School Name	Internal Communications	Technology Infrastructure	Air Conditioning	Heating	Interior Lighting	Exterior Lighting	Roadways & Walkways	Plumbing & Lavatories
Farmington	Union School	3	3	0	4	3	2	3	3
Farmington	Noah Wallace School	3	3	0	4	3	2	3	3
Farmington	West District School	3	4	0	4	3	3	2	3
Farmington	East Farms School	3	4	0	3	3	3	3	3
Farmington	West Woods Upper Elementary School	3	4	4	3	3	3	3	3
Farmington	Irving A. Robbins Middle School	3	4	0	2	3	2	2	3

CT State Department of Education, Report on the Condition of Connecticut's Public School Facilities
<https://www.csde.state.ct.us/public/dgm/ed050/ViewData.aspx#>

FACILITY ANALYSIS SUMMARIES

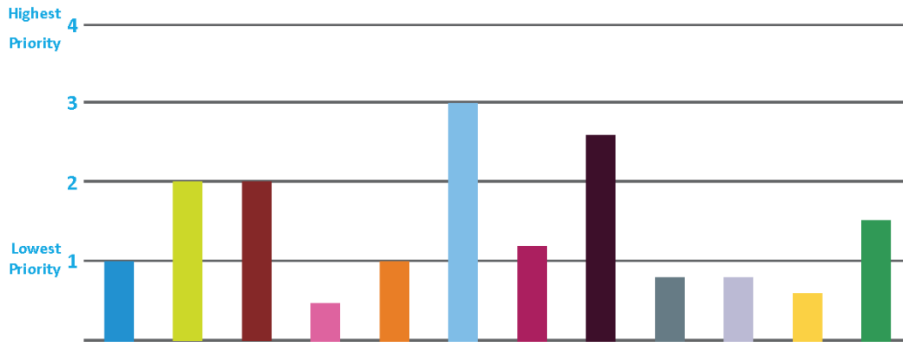


CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



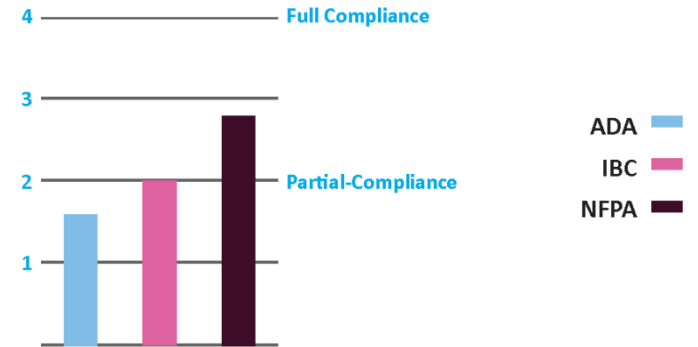
UNION ELEMENTARY

Prioritization of Required Work



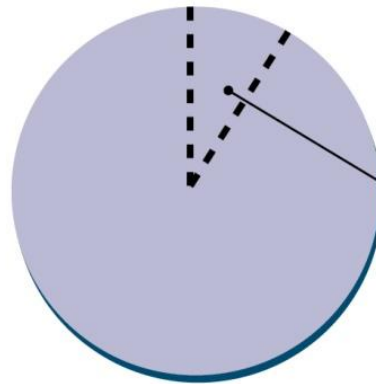
- Enclosure ■
- Roof ■
- Interior ■
- Structural ■
- Mechanical ■
- Electrical ■
- Plumbing ■
- Fire Protection ■
- Lighting ■
- Fire Alarm ■
- Security/Telecom ■
- Site ■

Code Compliance Evaluation



UNION ELEMENTARY

State Space Standards Capacity



Space Utilization

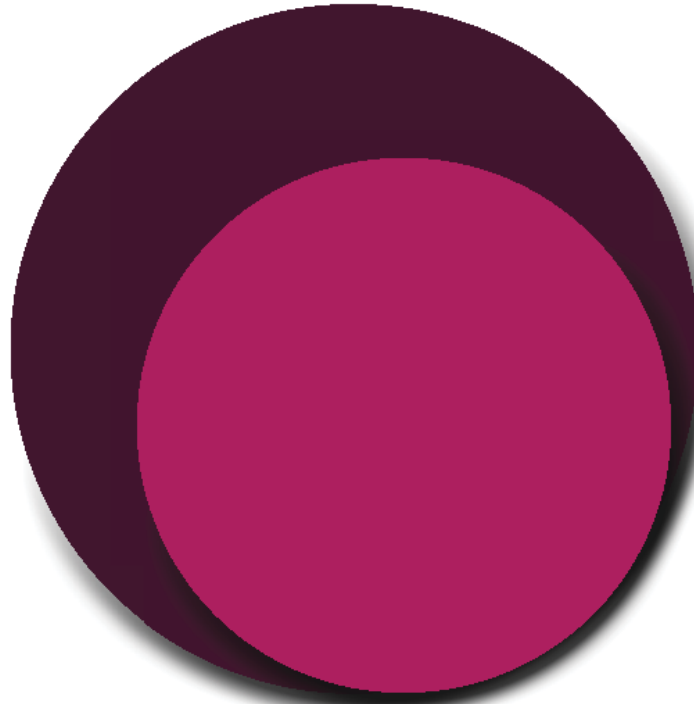
Allowable SF 43,250

SF under allowable 250 (-0.58%)

Unique features SF
4,000 (9.3% of total s.f.)

Total SF = 43,000

UNION ELEMENTARY

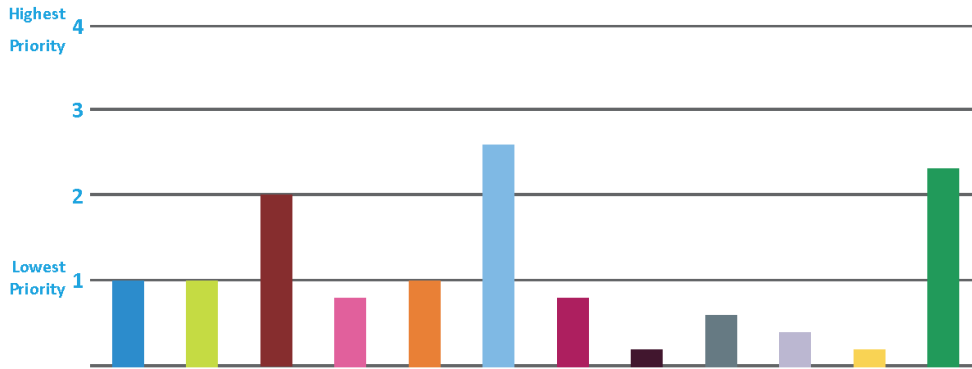


Survey Estimate ■ \$9,573,937
Renovate Like New ■ \$12,336,500
Project

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools

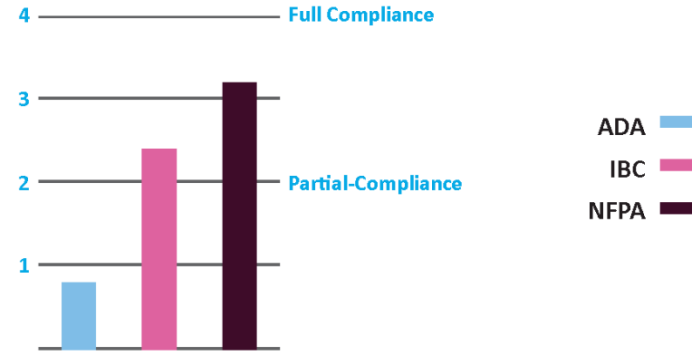
NOAH WALLACE ELEMENTARY

Prioritization of Required Work



- Enclosure ■
- Roof ■
- Interior ■
- Structural ■
- Mechanical ■
- Electrical ■
- Plumbing ■
- Fire Protection ■
- Lighting ■
- Fire Alarm ■
- Security/Telecomm ■
- Site ■

Code Compliance Evaluation

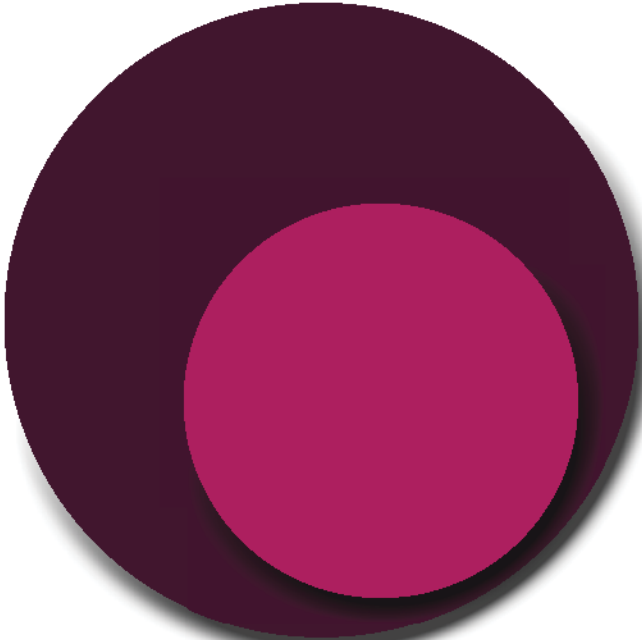


NOAH WALLACE ELEMENTARY

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



NOAH WALLACE ELEMENTARY



Survey Estimate \$8,887,212
Renovate Like New \$14,300,000
Project

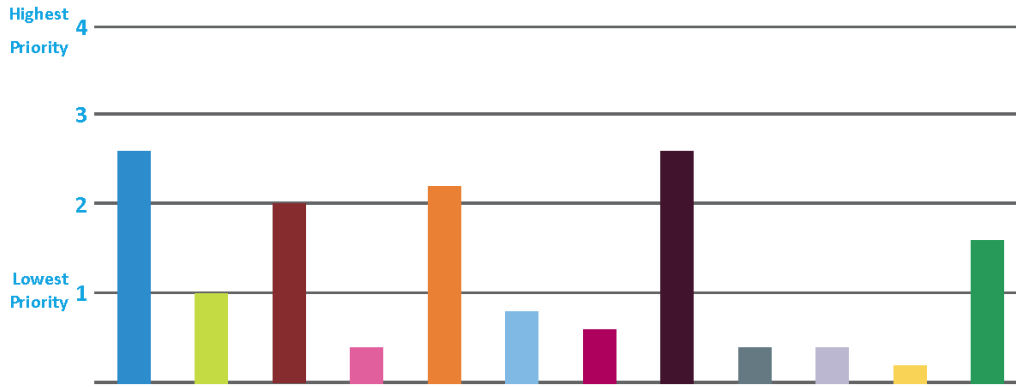


CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools

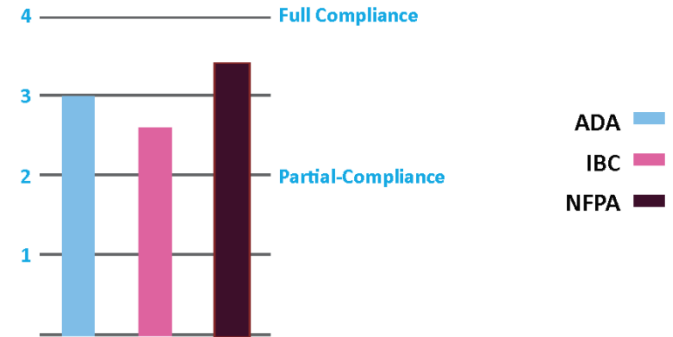


WEST DISTRICT ELEMENTARY

Prioritization of Required Work



- Enclosure ■
- Roof ■
- Interior ■
- Structural ■
- Mechanical ■
- Electrical ■
- Plumbing ■
- Fire Protection ■
- Lighting ■
- Fire Alarm ■
- Security/Telecom ■
- Site ■

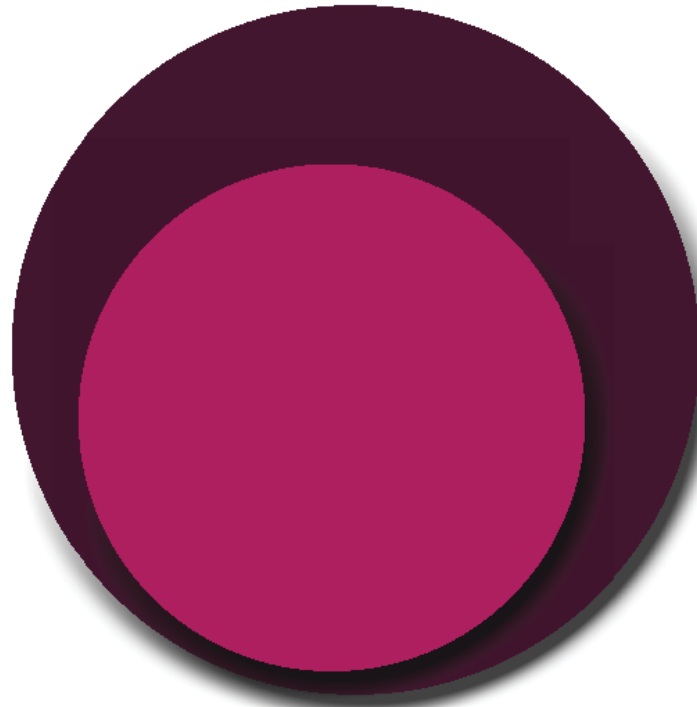


WEST DISTRICT ELEMENTARY

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



WEST DISTRICT ELEMENTARY

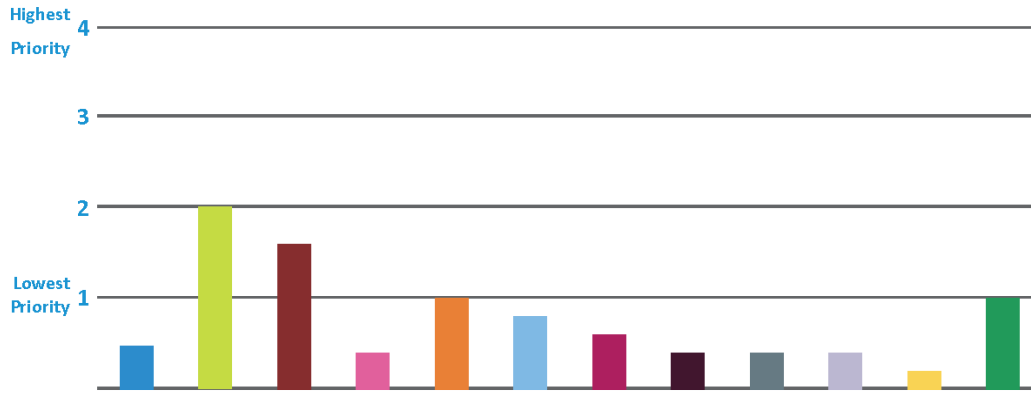


Survey Estimate \$8,705,513
Renovate Like New Project \$11,825,000

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools

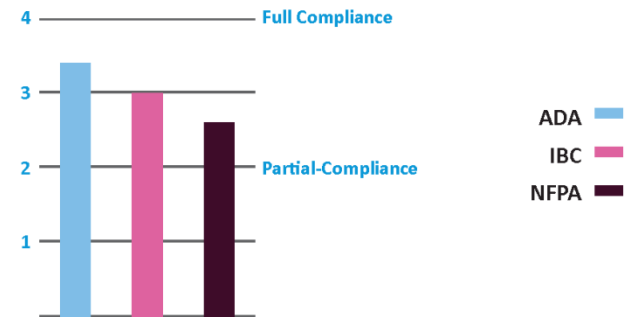
WEST WOODS ELEMENTARY

Prioritization of Required Work



- | | | | |
|------------|---|-------------------|---|
| Enclosure | ■ | Mechanical | ■ |
| Roof | ■ | Electrical | ■ |
| Interior | ■ | Plumbing | ■ |
| Structural | ■ | Fire Protection | ■ |
| | | Lighting | ■ |
| | | Fire Alarm | ■ |
| | | Security/Telecomm | ■ |
| | | Site | ■ |

Code Compliance Evaluation

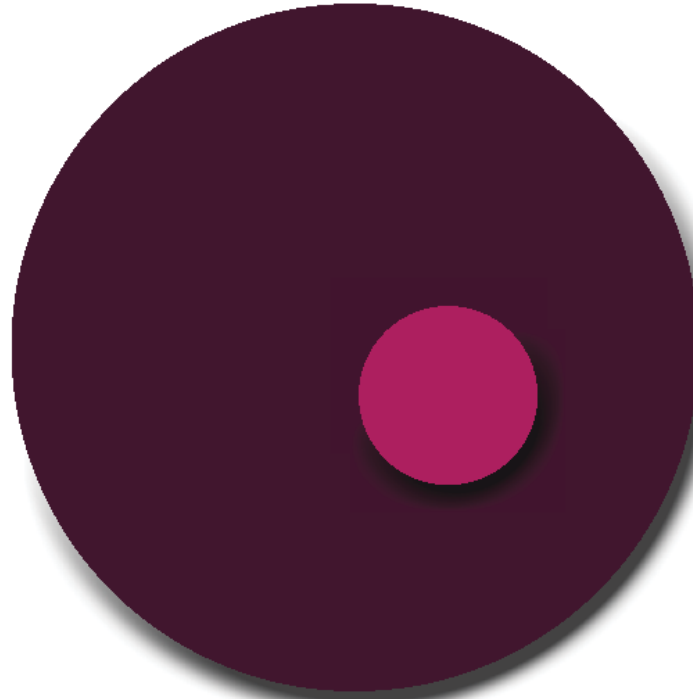


WEST WOODS ELEMENTARY

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



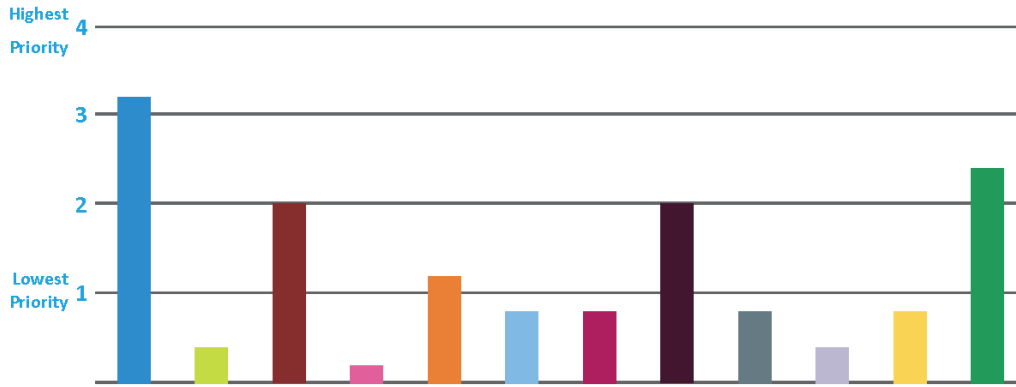
WEST WOODS ELEMENTARY



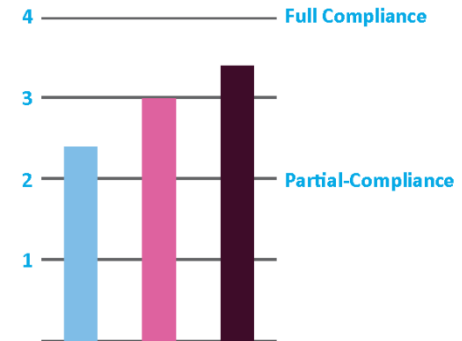
Survey Estimate  \$9,430,067
Renovate Like New  \$36,560,000
Project

EAST FARMS ELEMENTARY

Prioritization of Required Work



- | | | | | |
|------------|---|-------------------|---|----------------------------|
| Enclosure | ■ | Mechanical | ■ | Code Compliance Evaluation |
| Roof | ■ | Electrical | ■ | |
| Interior | ■ | Plumbing | ■ | |
| Structural | ■ | Fire Protection | ■ | |
| | | Lighting | ■ | |
| | | Fire Alarm | ■ | |
| | | Security/Telecomm | ■ | |
| | | Site | ■ | |

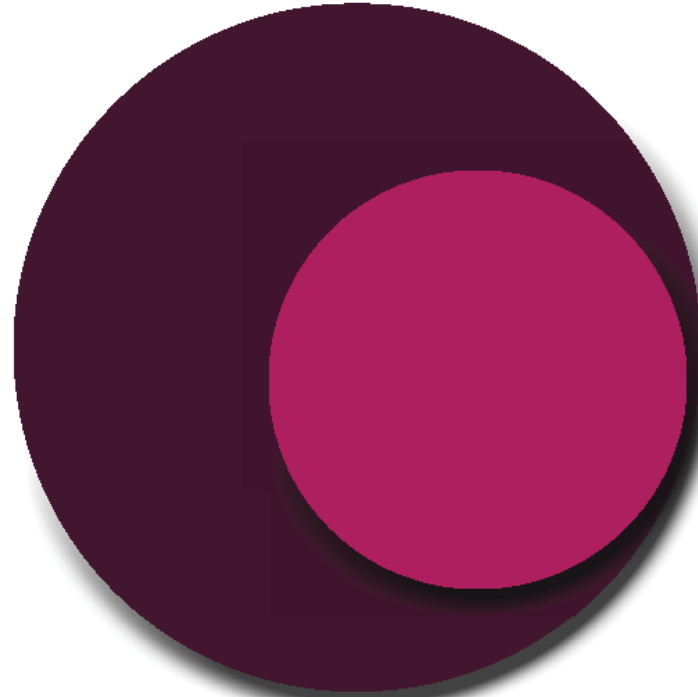


EAST FARMS ELEMENTARY

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



EAST FARMS ELEMENTARY

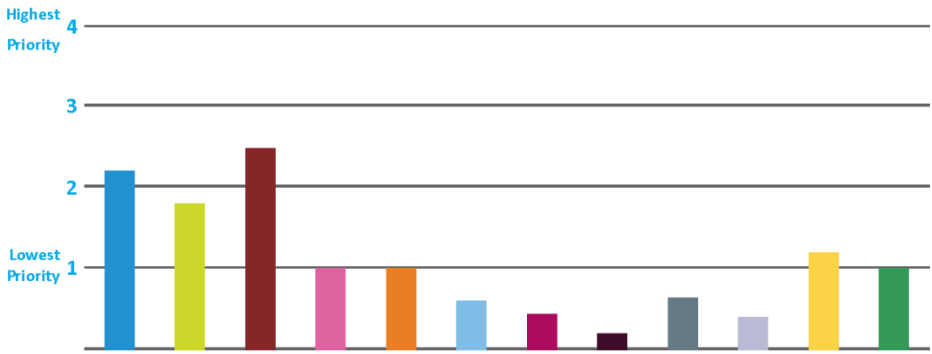


Survey Estimate ■ \$8,413,760
Renovate Like New Project ■ \$13,821,500

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools

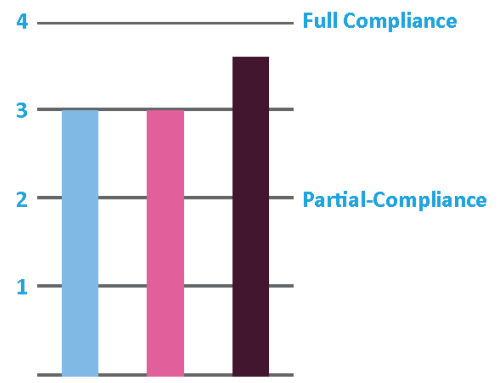
IRVING ROBBINS MIDDLE SCHOOL

Prioritization of Required Work



- Enclosure ■
- Roof ■
- Interior ■
- Structural ■
- Mechanical ■
- Electrical ■
- Plumbing ■
- Fire Protection ■
- Lighting ■
- Fire Alarm ■
- Security/Telecomm ■
- Site ■

Code Compliance Evaluation



- ADA ■
- IBC ■
- NFPA ■

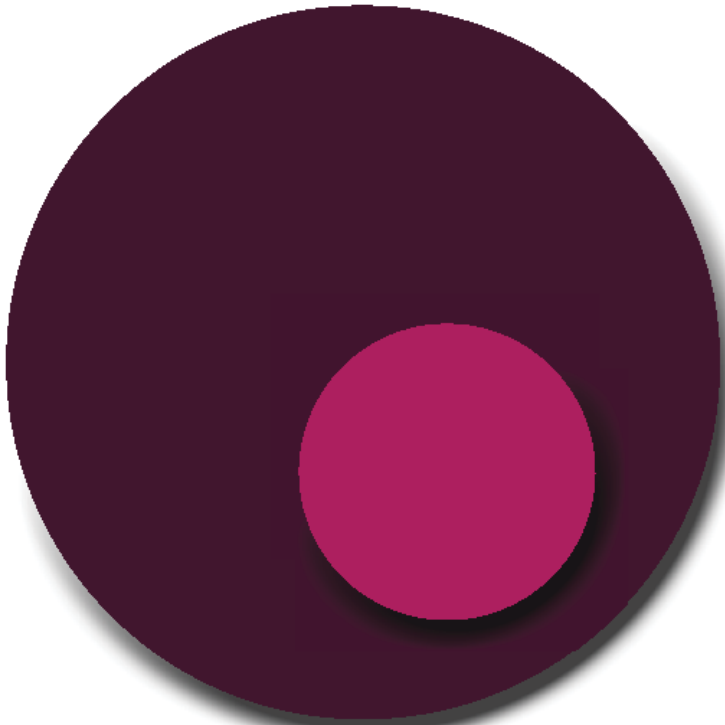


IRVING ROBBINS MIDDLE SCHOOL

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



IRVING ROBBINS MIDDLE SCHOOL



Survey Estimate ■ \$14,772,918
Renovate Like New ■ \$35,354,000
Project

CODE ANALYSIS and BUILDINGS & GROUNDS SURVEY
Farmington Public Schools



FACILITY & FINANCIAL AD HOC COMMITTEE MEETING PRESENTATION

August 21, 2018



Facility & Financial Committee Meeting Presentation

- **Section 1:** *Farmington High School Statement of Needs (May 15, 2018 Presentation)*
- **Section 2:** *Studies, Accreditation and Reviews (For Reference Purposes Only)*

SECTION 1: FARMINGTON HIGH SCHOOL STATEMENT OF NEEDS

Board of Education Approval: April 7, 2015
Town Council Approval: Jan. 12, 2016



Statement of Needs

1. *Whereas, the Farmington Board of Education has engaged in a comprehensive school feasibility study with TECTON that included multiple observations of existing conditions, age of equipment, facility, review of history of site, building and additions, analysis of energy efficiency and options for improvement, review of existing reports (OCR, NEASC, School Safety), focus groups with faculty, administration and students, assessment of education space needs and conceptual solutions to address needs.*

2. *Whereas, the FHS NEASC study summary highlights a need to improve travel distances for faculty and staff, improve circuitous and crowded corridors and intersecting/converging students and faculty, create informal collaboration spaces for students, faculty and staff, address building systems for a controllable interior environment and address accessibility to interior and exterior areas.*

Statement of Needs

3. *Whereas, several spaces at FHS do not meet ADA requirements as outlined by the OCR report issued in 2013-2014, including but not limited to the auditorium, stage, music instructional spaces, some classrooms, outdated chair lift in the weight room, media center, bathrooms, portions of 2nd and 3rd floors of 1928 building, culinary space, and outdoor athletic facilities.*
4. *Whereas, the FHS Safety and Security Study highlights accessibility issues (23 separate entry points to building), sight line issues, public/private use of building, inadequate interior and exterior lighting levels, building orientation difficulty and various issues around the multiple additions.*

Statement of Needs

5. *Whereas, Farmington High School (FHS) has experienced several additions over many years, with an aging 1928 building in need of significant renovation as well as several additions with an inefficient building envelope impacting energy costs and efficiencies (insulation, façade, windows—except for 900 wing) as well as aging mechanical, electrical, plumbing, fire alarm and protection building systems not in code compliance.*
6. *Whereas, Farmington High School system energy performance is lacking with a \$393,000 cost per year and in need of a “Green Design” (new or renovated MEP systems could save an average of 35% of annual costs or 140,000 per year—could realize a 45% savings depending upon solution).*

Statement of Needs

7. *Whereas, the auditorium (poor acoustics), cafeteria, and library are undersized, impacting high school scheduling, educational programming as well as state and federal requirements on food services.*
8. *Whereas, the additions have primarily addressed enrollment increases, but have resulted in a very large, inefficient facility footprint impacting not only energy costs, but security, insufficient student classroom space, a need for students to travel outside the building to travel to classes (696 student cross intersection between classes 9 times per day and 1070 feet from one side of the building to another), significant hallway congestion, inadequate use of space (30% unused space), a lack of space for robotics, lack of space for whole school staff professional learning and collaboration as well as constraints on educational programming for students.*

Statement of Needs

9. *Whereas, with current and emerging educational requirements and demands on comprehensive high schools, FHS is in need of an efficient, functional, flexible learning facility that meets state and federal requirements and serves the diverse needs of all students.*
10. *Whereas, the current parking is inadequate and requires expansion to accommodate the school and public use of Farmington High School's building.*

Statement of Needs: PRIORITIES

- *The Board, therefore, directs administration to begin planning a renovation of appropriate and necessary school space at Farmington High School to accommodate new MEP needs, educational programming needs, Connecticut school safety expectations, NEASC standards and OCR/ADA regulations not currently being addressed in their entirety:*
- *Maximize square footage for educational programming (see #2, #8, #9)*
- *Create multiple levels to the building to address inefficient sprawl and “maze” like building to increase classroom space, space for robotics and other current and emerging learning spaces (see #2, #8, #9)*
- *Undersized auditorium (acoustic issues), stage cafeteria and media center (see #7)*
- *Address multiple ADA compliance issues (see #3)*
- *Address Mechanical, Equipment and Piping (MEP) code compliance issues (see #2, #5, #6)*
- *Address Security compliance issues (see #4)*
- *Address overcrowded Town Hall office space as well as off-site Farmington Alternative High School space needs (#8)*

Questions?

Thank you!

End of May 15, 2018 Presentation

Section 2 of this presentation provides summaries of the reviews, Accreditation reports and studies utilized throughout the FHS Building Committee's process.

SECTION 2: STUDIES, ACCREDITATION AND REVIEWS

- ✓ Tecton FHS Facility Review (January, 2015)
- ✓ NEASC Visit (October, 2004 AND September, 2015)
- ✓ Learning Environments for Tomorrow (Harvard Conference, April 2014)
- ✓ Office of Civil Rights (OCR) Review and Report (April, 2014)
- ✓ Auditorium Study (November, 2013)
- ✓ Acentech Acoustic Study (May 22, 2013) and U of H Acoustic Study (May, 2015)

FARMINGTON HIGH SCHOOL FACILITY REVIEW January, 2015



WHY?

- Built in 1928 with renovations occurring in 1952, 1964, 1969, 1974, 1978, 1996, and 2003
- During 2014-2015 budget approval process, a recommendation was made to take a comprehensive look at Farmington High School
- Multiple renovations due to enrollment created a sprawling facility (See OCR and NEASC Reports)
- ADA non-compliance (See OCR Report)
- Facility limiting educational programming (need for more learning space)
- Facility drives schedule and impacts programming and opportunities (undersized cafeteria, library, learning commons areas, etc.)
- Pervasive issues with student and faculty comfort (heating and cooling)
- Limited Air Conditioning (facility used as an emergency shelter for the Town of Farmington)
- TECTON conducted this review

FINDINGS/RECOMMENDATIONS

Review included deep review of history, conditions, energy efficiency, review of all reports, focus groups and on-site observations.

- **Security:** 23 separate entry points, sightlines, lack of private/public separation, inadequate lighting (interior and exterior, difficult building orientation even with signage)
- **ADA:** Music spaces, media center, some classrooms, bathrooms, weight room, auditorium, stage, orchestra pit, 2nd/3rd floors of 1928 building, outdoor athletic facilities, culinary spaces, various spaces throughout the building
- **Existing Conditions:** Well maintained building, aging building, building envelope needs improvement (insulation, façade, windows etc.)

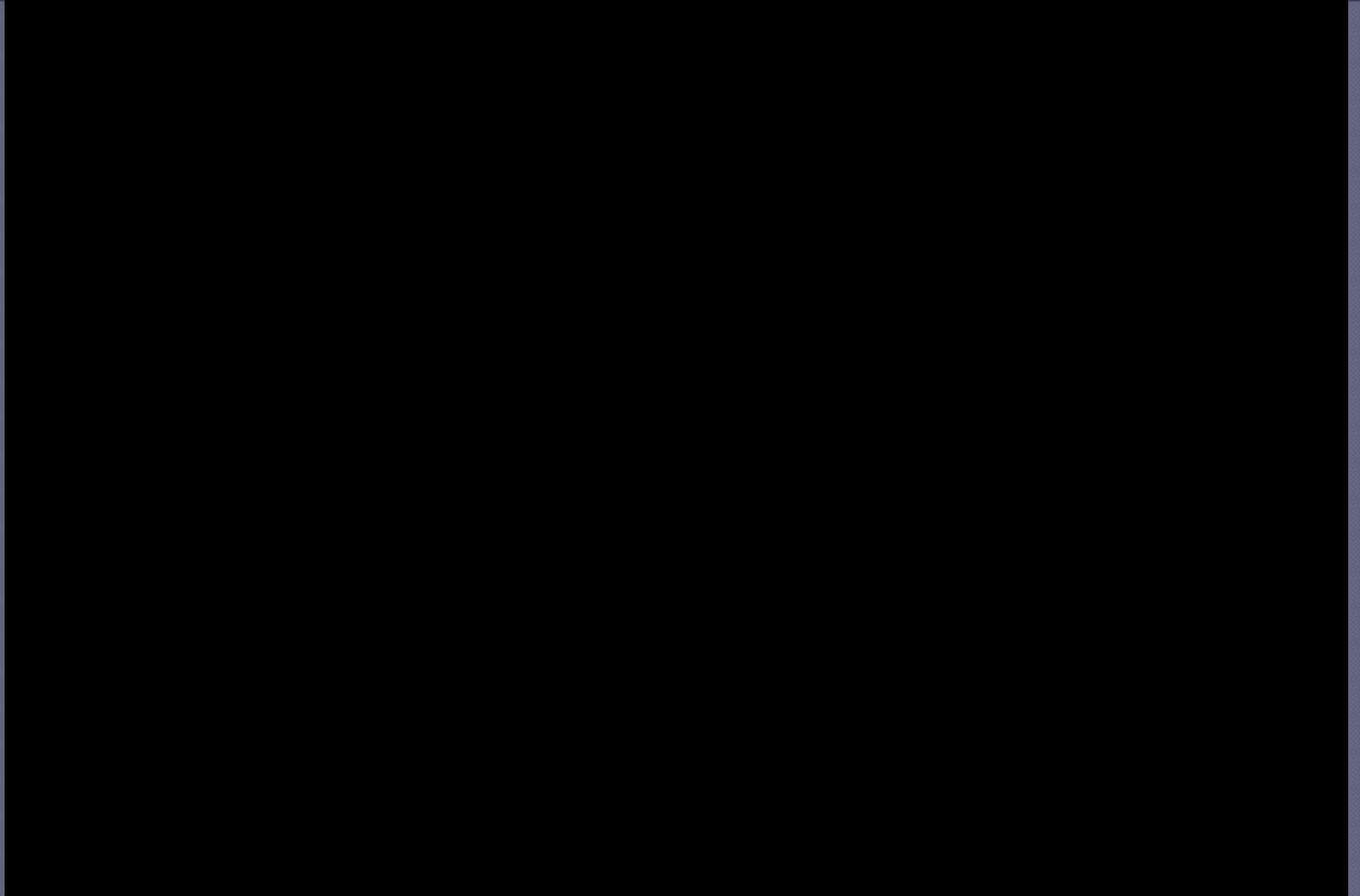
FINDINGS/RECOMMENDATIONS

- **Undersized Spaces:** The media center, cafeteria and auditorium are undersized creating issues with scheduling as well as maximum use of these spaces
- **Facility Sprawl** Several additions since 1952 creating sprawling building, 30% “unused” hallway space, and crowded hallways (need to use circle to get students to class on time), and lack of space to add educational programming. The additions have primarily addressed enrollment increases, but have resulted in a very large, inefficient facility footprint impacting not only energy costs, but security, insufficient student classroom space, a need for students to travel outside the building to travel to classes (696 student cross intersection between classes 9 times per day and 1070 feet from one side of the building to another), significant hallway congestion, inadequate use of space (30% unused space), a lack of space for robotics, lack of space for whole school staff professional learning and collaboration as well as constraints on educational programming for students (FHS Statement of Need)

FINDINGS/RECOMMENDATIONS

- **MEP** (replace a majority of MEP systems except 900 building): Age (some systems are approaching end of useful life), code compliance concerns (comfort/controls, improve compliance with Life Safety and energy efficiency)—Could save \$140,000 per year with updates to electrical systems
- **Parking:** Inadequate parking for the size and use of the building
- **Educational Programming:** With current and emerging educational requirements and demands on comprehensive high schools, FHS is in need of an efficient, functional, flexible learning facility that meets state and federal requirements and serves the diverse needs of all students.

CLASS TRANSITION



This occurs 9 times a day

Renovations 1952-2003



SPRAWLING BUILDING



LEARNING ENVIRONMENTS FOR TOMORROW (HARVARD, APRIL 2014)

Harvard Graduate School of Education and the Harvard School of Design: Architects, educators (including FPS) and facilities personnel came together to explore four key themes emerging as defining elements of 21st century educational environments –

- Collaboration;
- Technology;
- Engagement; and
- Sustainability.

IDEAL LEARNING ENVIRONMENTS

The following design qualities emerged as essential elements of the ideal learning environment:

1. **Light** – open spaces, visibility, connection to the outdoors, and natural light;
 2. **Flexibility** – furniture and spaces that are multi-purpose, adaptable, moveable;
 3. **Independence** – space that fosters persistence, self-direction, choice and curiosity;
 4. **Collaboration** – places where students can interact and spontaneously work together, share ideas and work products
 5. **Reflection** – furniture and spaces that offer quiet places for contemplation and introspection;
 6. **Creativity** – a technology rich, imagination rich environment to foster a maker mindset;
 8. **Exhibition** – public places for work in progress and final products to be displayed and presented for feedback and critique; and
 9. **Joyous** – a school that is safe, warm, welcoming and nurturing of all learners
- These design qualities may be used to guide our thinking as we look forward into the future of our school facilities here in Farmington.

FARMINGTON HIGH SCHOOL NEASC REPORT

October, 2004
September, 2015



New England Association of
Schools and Colleges (NEASC)

WHY?

- The New England Association of Schools and Colleges conducts an accreditation visit to Farmington High School every ten years for accreditation purposes.

FINDINGS/RECOMMENDATIONS

October 7 – 20, 2004

- Decrease/improve travel distances (loss of instructional time)
- Improve crowded corridors
- Create informal collaboration spaces
- Address building systems
- Address accessibility to exterior/interior areas

FINDINGS AND RECOMMENDATIONS

September 27 - 30, 2015 (Warning Status on 1 Accreditation Standard)

- Address all facility issues that hinder full implementation of the curriculum
- Identify and address the limitations of the library media facility on furthering development of program delivery
- Remedy all facility issues to ensure compliance with all state and federal laws and regulations, including those related to ADA compliance issues, and to fully support the educational program

FARMINGTON HIGH SCHOOL OFFICE OF CIVIL RIGHTS (OCR) REPORT

April, 2014



WHY?

- Connecticut's Office of Civil Rights conducted this site visit (Completed every 10 years)
- The facility reviews were conducted pursuant to Section 504 at CFR Part 104 and the regulation implementing the ADA at 28 CFR Section 35.149.

FINDINGS

- Showers: Equal Athletic Opportunity
- Fields: Equal Athletic Opportunity
- Choral Room: Accessibility Issues*
- Band Room: Accessibility Issues *
- Cafeteria: Accessibility Issues *
- Field Hockey, Football Fields and Football Seating: Accessibility Issues *
- Photography Program: Accessibility Issues *
- General Art Program: Accessibility Issues *
- Ceramics Program: Accessibility Issues *
- Library Program: Accessibility Issues*
- Physical Education Program Accessibility Issues *
- Auditorium Program: Accessibility Issues *
- Non-compliant science room fume hoods

*Highlighted in Auditorium Study and FHS Review Accessibility Issues

FARMINGTON HIGH SCHOOL AUDITORIUM STUDY November, 2013



WHY?

- Built in 1978
- Significant accessibility and code issues*
- Seating aging and in disrepair
- Low seating count
- Acoustic issues impacting performances*
- Loud mechanical systems impacting performances
- Sightlines
- House and theatrical lighting
- Inadequate lobby restrooms with ADA issues
- Inadequate storage*
- Inadequate pre-function space
- Quisenberry Arcari conducted this study

**Auditorium and Music Instructional Spaces*

FINDINGS/RECOMMENDATION

S



FUNCTIONALITY CONCERNS

- Poor Acoustics
- Condition of Seating
- Sightlines
- Sound & Light Lock at Doors
- Lighting
- Projection Booth HC Accessibility
- Projection Booth Acoustical Separation
- Mechanical Systems
- Low Proscenium Height
- Lobby Restrooms
- Inadequate Pre-function Space

CODE CONCERNS

- Stage Fire & Building Code Egress
- Stage HC Accessibility
- Orchestra Pit Guardrails
- Orchestra Pit HC Accessibility
- Auditorium HC Accessibility
- Projection Booth HC Accessibility
- Accessibility at Band & Chorus

FINDINGS/RECOMMENDATION

S

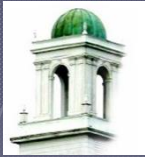
ACOUSTICS & FUNCTIONALITY

- Acoustics Short Reverberation Time
- Absorptive Rear Wall
- Side Wall Configuration
- Sound & Light Lock at Doors
- Absorptive Ceiling Materials
- Projection Booth HC Accessibility
- Projection Booth Acoustical Separation
- Mechanical Systems Noise
- Proscenium Height
- Condition of Seating

DESIGN IMPERATIVES

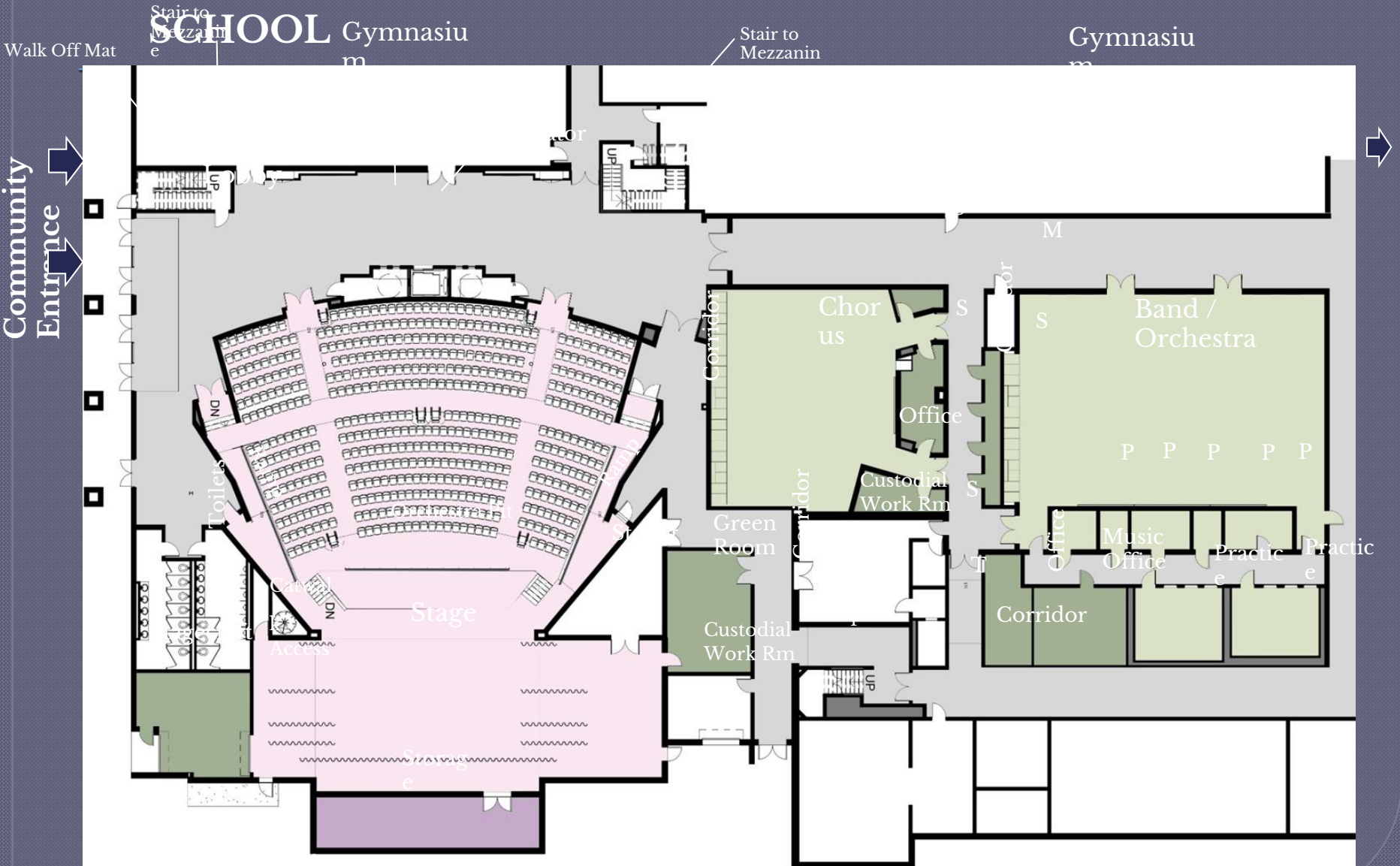


- Meet Code & Accessibility
- Acoustics Addressed
- Seating Replaced
- Sightlines Improved
- Sound & Light Control Improved
- New Lighting & Acoustic Clouds
- Projection Booth HC Accessible
- Projection Booth Acoustically Separated
- Mechanical System Replaced
- Proscenium Height Increased
- Lobby & Restrooms Expanded
- Adequate Pre-function Space



FARMINGTON HIGH SCHOOL

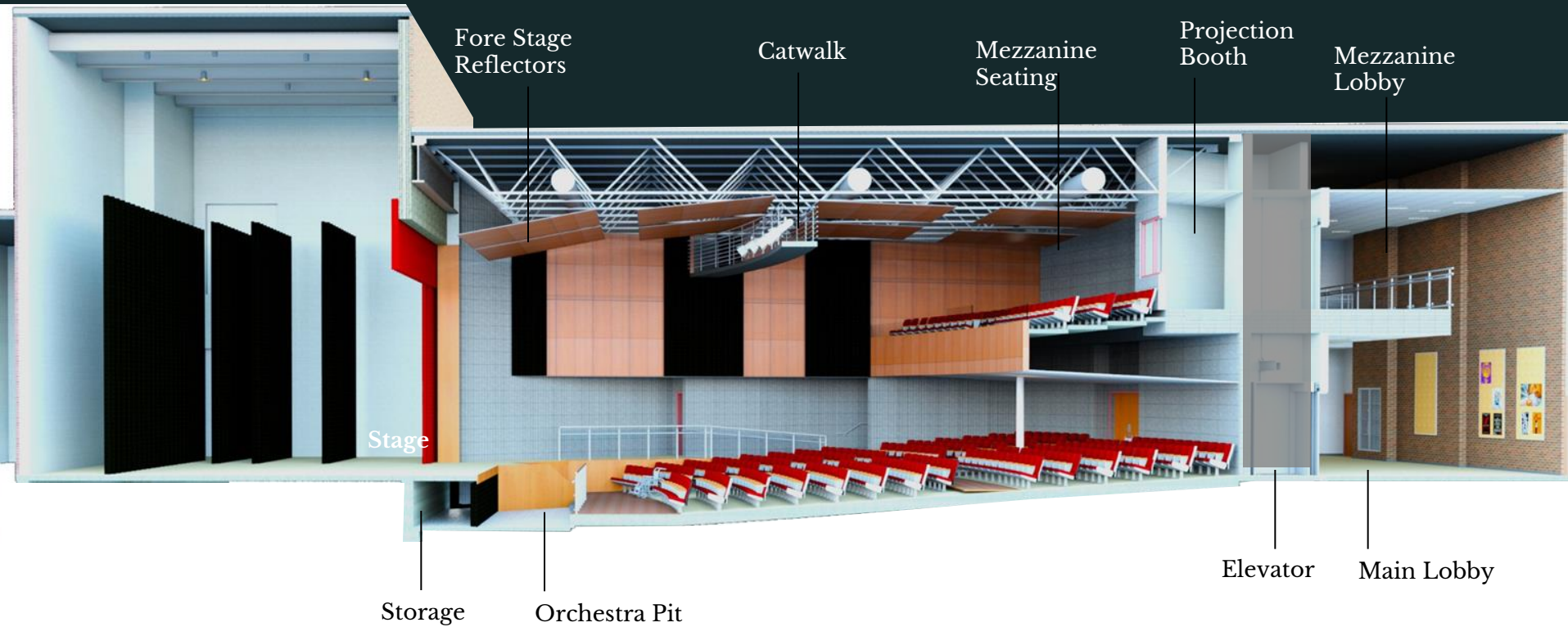
PROPOSED DESIGN – MAIN LEVEL FLOOR PLAN with MEZZANINE





FARMINGTON HIGH SCHOOL

PROPOSED AUDITORIUM DESIGN – SECTIONAL VIEW









PROPOSED DESIGN – BAND REHEARSAL ROOM

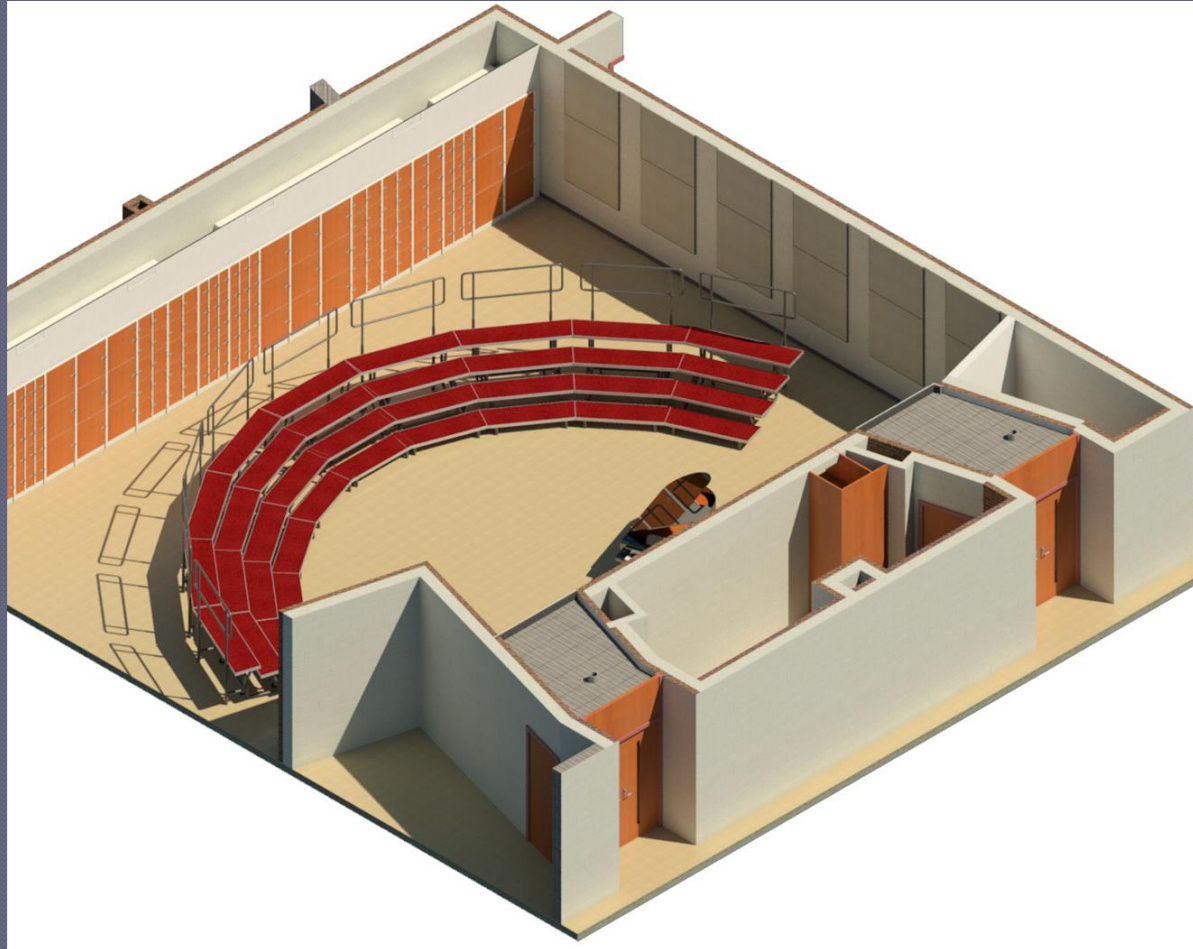


1. Meet Code & Accessibility
2. Acoustics Addressed
3. Efficient Instrument Storage
4. Increased Usable Instructional Area



FARMINGTON HIGH SCHOOL

PROPOSED DESIGN – CHORUS REHEARSAL ROOM



DESIGN

1. Meet Code & Accessibility
2. Acoustics Addressed
3. Efficient Instrument Storage
4. Increased Usable



ACOUSTIC STUDY

May 22, 2013

WHY?

- Built in 1978
- Lacks sound volume
- Uneven distribution of sound
- Poor intelligibility and volume
- Acoustic issues impacting performances
- Acentech conducted the study

FINDINGS & RECOMMENDATIONS

- Reverberation time is too short to support
- Fanned walls impact performances
- Box in fanned walls
- Raise proscenium height
- Inadequate stage shelf needs upgrading
- Loud mechanical system requires upgrading
- Add retractable curtains (front of sidewall boxes)
- Add rear wall absorption
- Add hand reflectors on ceiling

FARMINGTON HIGH SCHOOL ACOUSTIC STUDY

May, 2015



UNIVERSITY OF HARTFORD ACOUSTICS

A Division of
The Engineering Applications Center
College of Engineering, Technology, & Architecture



WHY?

- Built in 1978
- Lacks sound volume
- Uneven distribution of sound
- Poor intelligibility and volume
- Acoustic issues impacting performances
- University of Hartford Acoustics conducted this study

FINDINGS/RECOMMENDATIONS

- Add a band shell for use on stage
- Add band shell and replace ceiling above audience with acoustic clouds
- Streamline side walls, add doors to eliminate side wall vestibules

(See Auditorium Review for all other recommendations)

Questions?

Thank you!

Instructional Space at Farmington High School

Generic Classrooms – 38

Rooms 201, 202, 203, 205, 206, 207, 209, 213, 402, 404, 414, 502, 510, 610, 612, 613, 614, 616, 702, 705, 706, 707, 708, 709, 710, 808, 810, 811, 812, 901, 903, 905, 906, 907, 908, 909, 911, 913

Dedicated Instructional Space – 38 *(Due to specialized equipment or room configuration, these rooms cannot be used as generic classrooms)*

Science labs – 500, 503, 505, 506, 508, 511, 515, 517, 523, 615, 704, 711, 717 (13)

Fine Arts rooms – 301, 302, 303, 304, 306, 309 (6)

Amphitheater – 701 (1)

Performing Arts (music and theater) – 171, 172, 192 (3)

Applied Arts (transportation, construction, engineering) – 520, 522, 524 (3)

AVID program – 162 (1)

World Language Lab – 208 (1)

Business Lab – 608 (1)

Special Education programming (excludes generic classrooms used by Special Ed, but includes STEP, SAILS, Friends, and Job Readiness programs) – 406, 410, 412, 516, 601 (5)

Library Media Classroom – 805 (1)

Gymnasium and work-out spaces – Gym A, Gym B, Weight Room (3)

Tutorial Space – 4

Science tutorial – ½ size classroom 804

Math tutorial – ½ size classroom 806

World Language tutorial – ¼ size classroom 211

Writing tutorial – ¼ size classroom 802A

Maker Space – 2

Science and Engineering maker space – ½ size classroom 715

Fine and Applied Arts maker space – ¼ size classroom 305

Production Space – 2

Audio-visual workspace – 809

Edge Media Lab – 807