

### DINISCO DESIGN architects + planners

# William A. Welch Sr. Elementary School Community Meeting #2 February 8, 2021



"Every Student, Every Day"

DORE + WHITTIER

TANIA DIACHISIN

you bring COLOR to my life o

Miss u!







Project Milestones & Schedule Educational Goals & Programming **Existing Conditions Overview Preliminary Considerations** Swing Space COLOR to my lifes i missu! Final Evaluation of Alternatives **Questions & Answers** 



# Project Schedule

William A.Welch Sr. ( Elementary School 1





### Process

## Milestone Dates

## Preliminary Schedule

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i Missu! ♥Mrs Cobb









## **MSBA Grant Program**

Who is the Massachusetts School Building Authority

- Quasi-independent government authority created to reform funding of capital improvement in the commonwealths public schools.
- Your partner to support the design and construction of an educationally appropriate, flexible, sustainable and cost-effective school
- Grant Program: Designed to reimburse as-you-go
- Feasibility & Schematic Reimbursement: 54% of eligible costs
- Approved Design Enrollment of 390 Students
- MSBA Requires team to study renovation only, addition and renovation, and new construction as the options to address the needs of the District.





## **MSBA** Process

The MSBA delivers a project through a clearly defined and prescribed process utilizing 'modules'

- Module 1 Eligibility Period
- Module 2 Forming the Team
- Module 3 Feasibility Study We are here
- Module 4 Schematic Design
- Module 5 Funding the Project
- Module 6 Detailed Design
- Module 7 Construction
- Module 8 Completing the Project









### **Project Timeline** September 2020 – April 2021

Module 3 Activities - Feasibility:

- Submit Preliminary Design Program (PDP) December 2020
  - Educational program
  - Existing Conditions Report
  - Establish Design Parameters
  - Develop and evaluate alternates
- Submit Preferred Schematic Report (PSR) February 2021
- Summarize the process and conclusions of the Preliminary and Final Evaluation of Alternatives
- Document District's selection and recommendation of the most cost effective and educationally appropriate preferred solution to the MSBA
- Cost comparison table







## **Project Timeline** February 2021 – October 2021

Module 4 Activities - Schematic Design:

- Schematic Design Submission September 2021
  - Final design program
  - More detailed Estimates
  - Preliminary Plans / Specs
- MSBA Board Approval of Schematic Design October 2021











### **Project Timeline** November 2021 – June 2022

Module 5 Activities – Funding the project:

- The District has 120 days from MSBA board approval of schematic design to secure project funding
- Once district approves funding the MSBA will enter into a project funding project scope, schedule, and cost
- If approved, proceed to Module 6 Detailed Design

agreement which will lock the MSBA maximum reimbursement and act to confirm









## **Milestone Dates**

- Community Meeting #2
- SBC Vote to Approve PSR
- Submit Preferred Schematic Report (PSR)
- MSBA Facilities Assessment Subcommittee Mtg
- MSBA Board of Directors Meeting for Approval to Begin Schematic Design







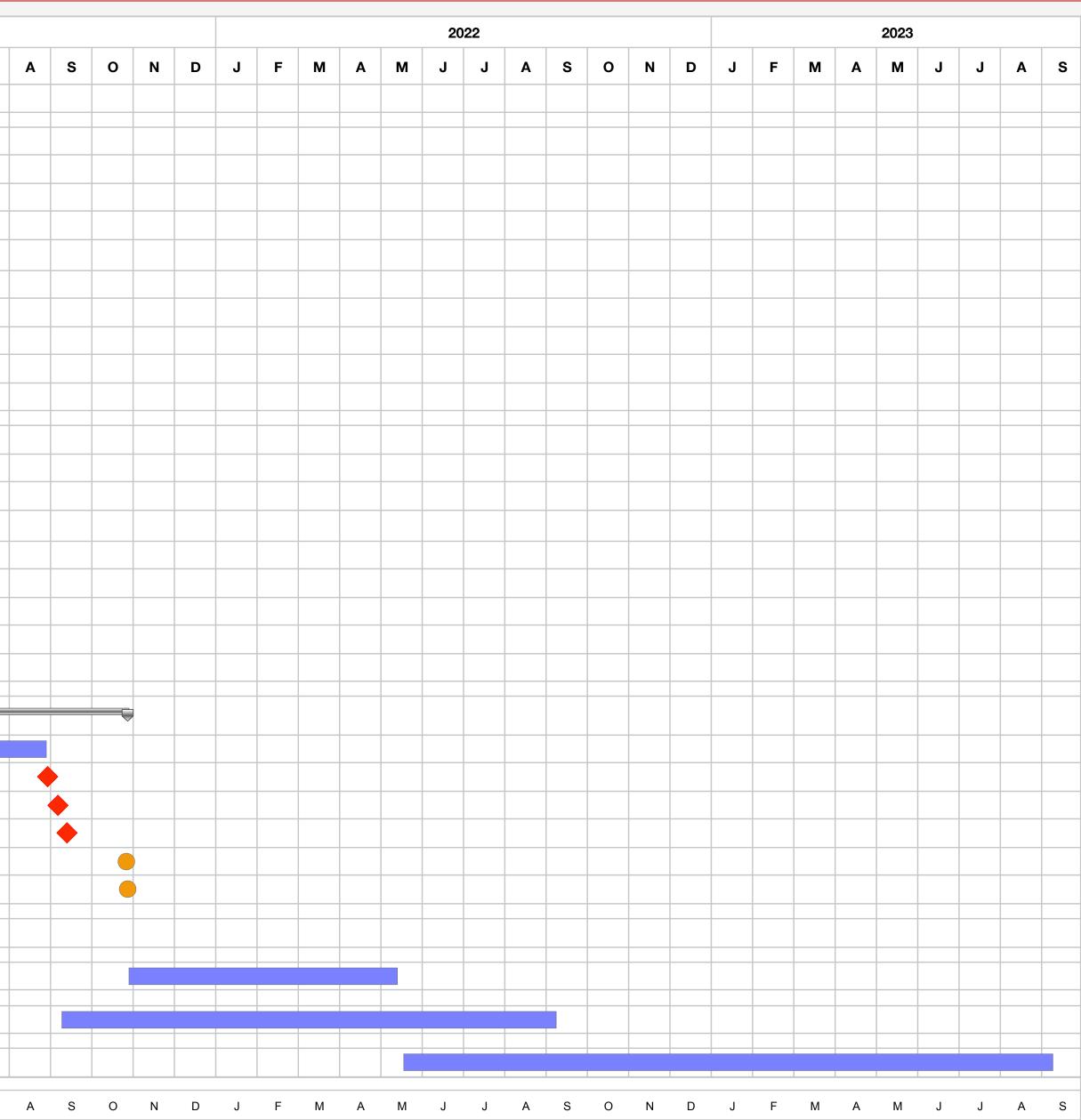






### Preliminary Project Schedule

William A. Welch Elementary School	2020							2021								
	Α	М	J	J	Α	S	0	N	D	J	F	м	Α	м	J	J
Module 2 - Forming the Team																
Module 3 - Feasibility Phase																
Preliminary Design Program					$\bigtriangledown$											
Evaluation of Existing Conditions																
Site Development																
Educational Program																
Initial Space Summary																
Preliminary Evaluation of																
Community Meeting #1																
SBC Vote to Approve PDP																
Submit PDP to MSBA																
Preferred Schematic Report									Ţ							
Evaluation of Proposed Alternatives																
Preferred Solution																
Community Meeting #2																
SBC/SC Vote to Approve PSR																
Submit PSR to MSBA																
MSBA FAS Meeting																
MSBA FAS Meeting (alternate date)																
MSBA BOD Vote to Approve																
Module 4 - Schematic Design											$\bigtriangledown$					
SD Submission Development																
Community Meeting #3																
SBC/SC Vote to Approve SD																
Submit SD to MSBA																
MSBA BOD Vote to Approve																
MSBA Project Scope & Budget																
CM Procurement																
Module 5 - Local Funding																
Modue 6 - Detailed Design																
Module 7 - Construction																
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# Educational Goals

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## Educational Program Improvements





## **Educational Program Improvements**

- Reconfigure select spaces to better serve school community
- Accommodate developing PPS district-wide programs, such as Digital Literacy
- Enhance Media Center provides additional area for Digital Literacy and other small group instruction
- Capture under-utilized spaces to use programmatically
- Maintain or enhances school-specific programs, such as Pre-K & Extended Day
- Support social emotional learning (SEL)
- Maximize or provide additional storage space
- Improve security











# **Existing Conditions**



# Site Building





## **Site** Existing Conditions

- Welch School
- O'Connor Park
- Marrs Park
- Meadow Golf Course
- Site Access
- Pathways
- Solar orientation
- Dense neighborhood
- Construction traffic
- Disruptions







## **Site** Pedestrian Circulation



Existing Conditions

## **Site** Vehicular Circulation



## **Existing Site Conditions Summary**

### **Vehicular Pavement & Curbing**

- Bituminous concrete in poor condition, curbing in fair condition Porous pavement clogged with debris
- +/- 74 parking space some accessible parking non-compliant with MAAB

### **Recreation Areas**

- Hardscape in poor condition, play structures in good condition
- Play structures, benches & bike racks inaccessible
- Inadequate vehicular & pedestrian site lighting

### Landscape & Plantings

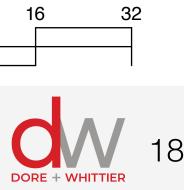
- Most trees in good or fair health (white pines, oaks, ash, maples)
- Invasive plant species observed along East property line and Strongwater Brook Coordinate future development with two memorials & memorial trees



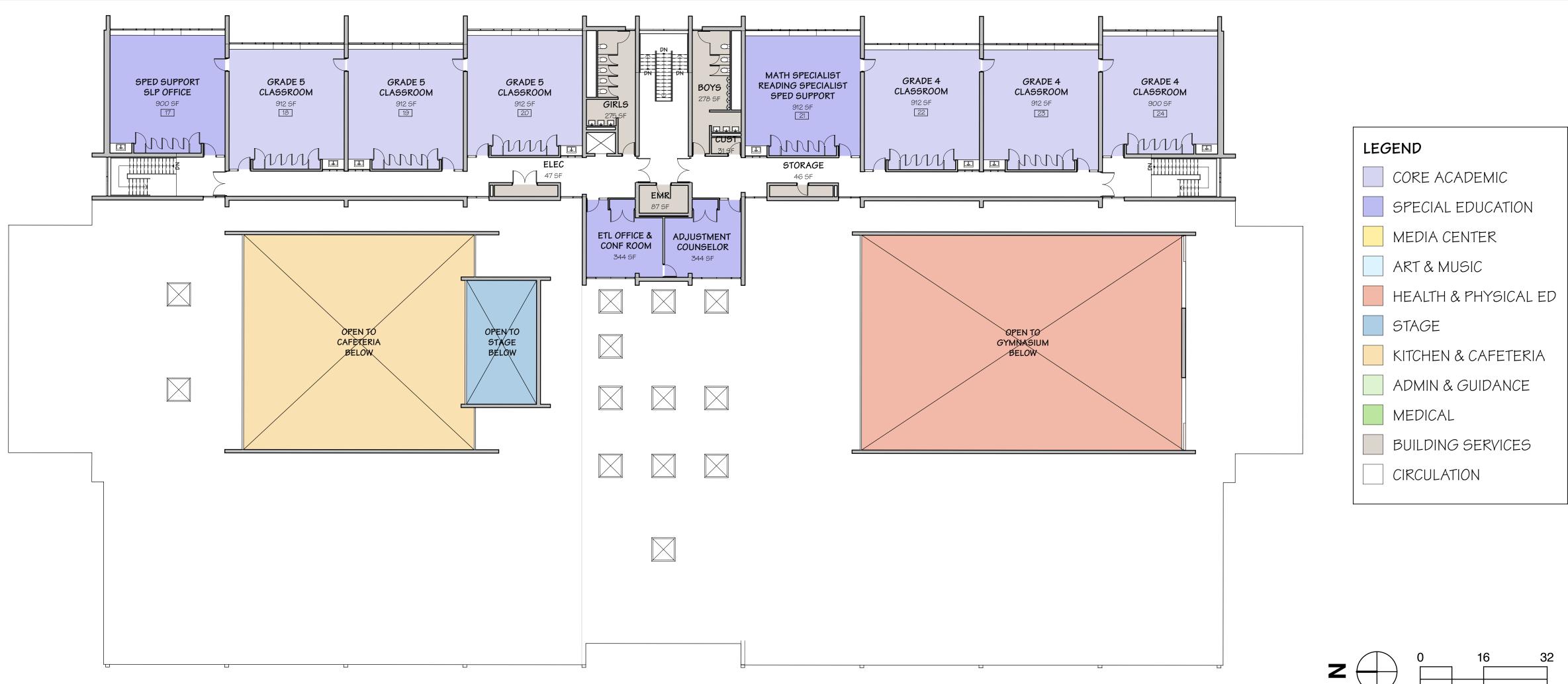
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## **Existing 1st Floor Plan**

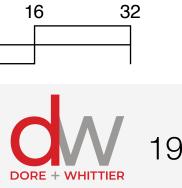




## **Existing 2nd Floor Plan**



DINISCO DESIGN



## **Existing Building Conditions Summary**

### **Mechanical Systems**

• All components past useful life

### **Plumbing Systems**

• All components past useful life

### **Electrical, Communications & Data Systems**

• All components past useful life

### Structural

Analysis of existing building complete

### **Hazardous Materials**

Analysis of material samples complete

### **Code Analysis**

Building Code and MAAB evaluation complete











# Preliminary Considerations

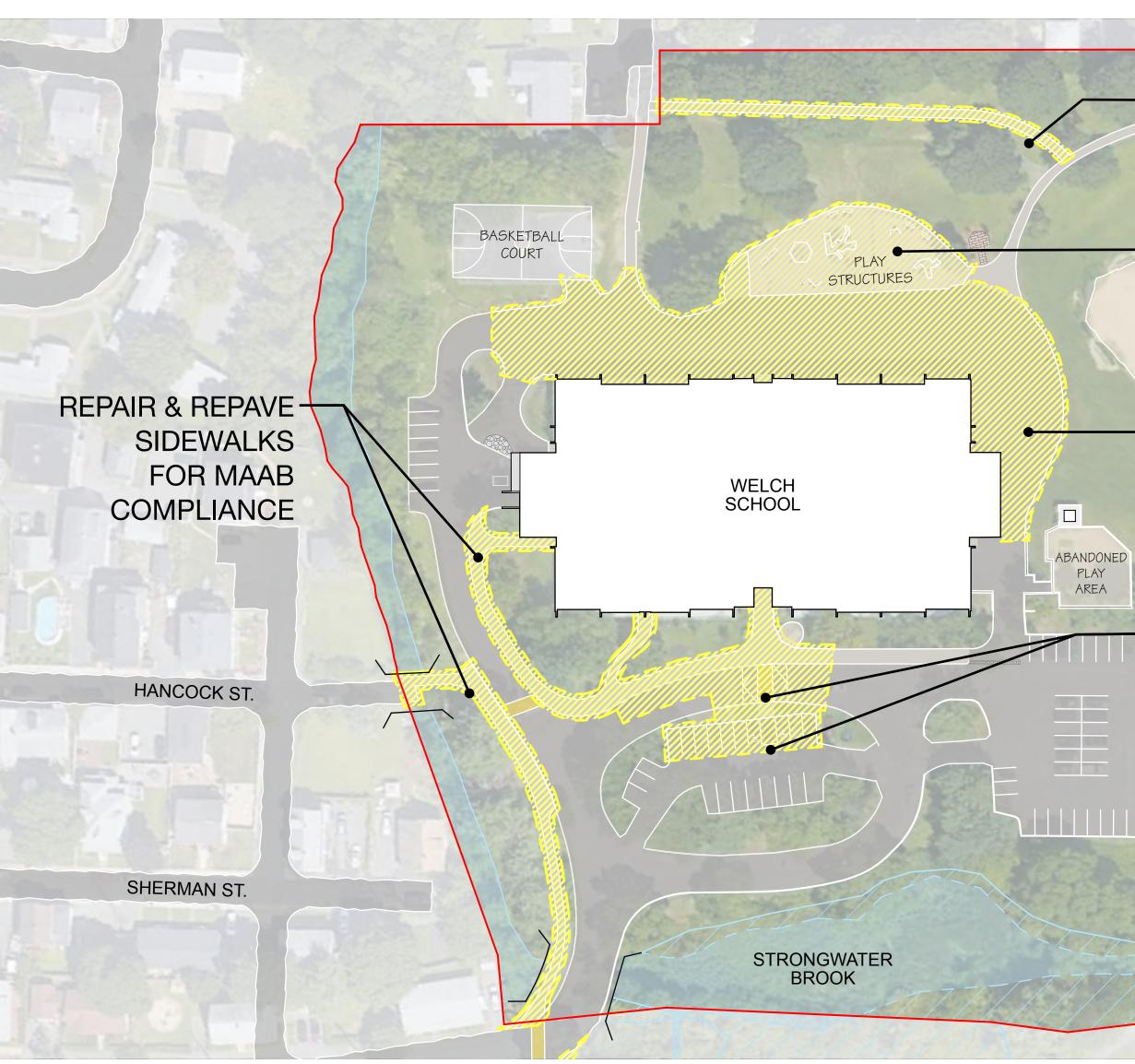
DINISCO DESIGN

# Site Building





## **Proposed Site Improvements**



DINISCO DESIGN

NEW MAAB COMPLIANT PEDESTRIAN PATH

NEW MAAB COMPLIANT PLAYGROUND SURFACING

SOFTBALL

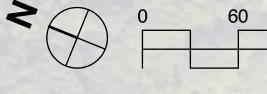
O'CONNOR PARK

REPAIR & REPAVE PLAY AREA FOR MAAB COMPLIANCE

SOFTBALL

NEW MAAB COMPLIANT HANDICAP PARKING & CROSSWALK

WETLANDS



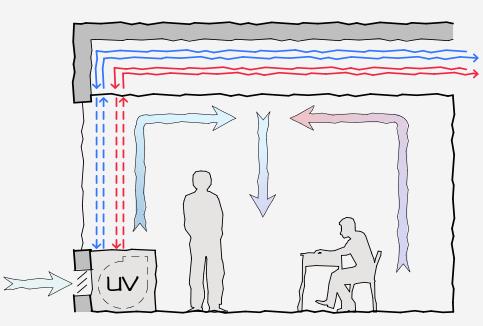
TENNIS

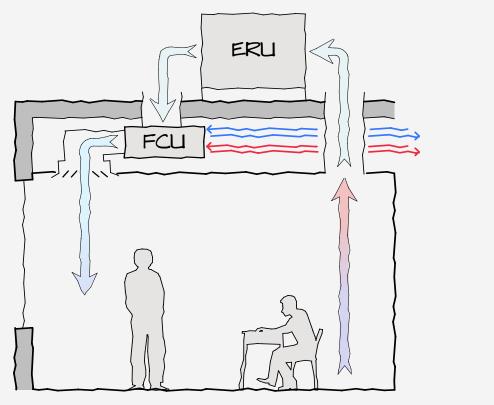
TENNIS





## **HVAC System Evaluation**





HEAT

PUMP

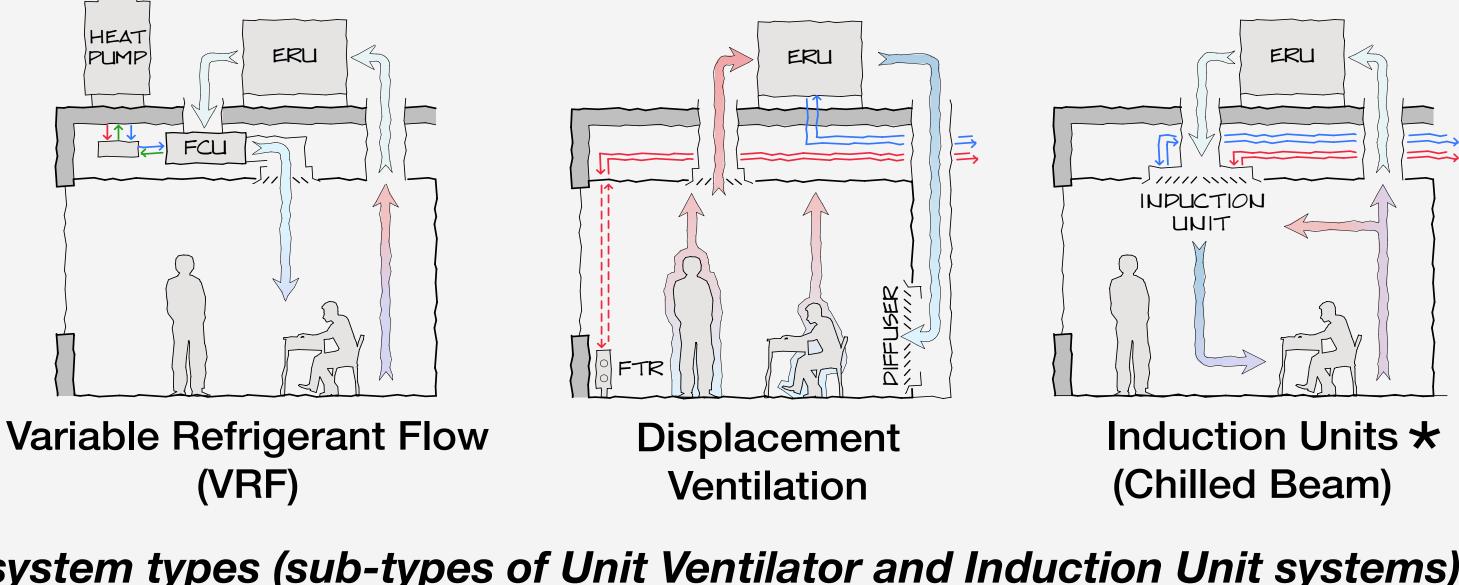


Fan Coil Units (FCU) \*

### **Critical Evaluation Criteria**

- Building & Energy Code compliance (new MA Energy Code takes effect next week)
- MSBA minimum energy requirements and incentives
- Physical requirements structural modifications to existing building to accommodate new system
- First Cost
- Operating Cost & Fuel Type (electric rates, gas rates, maintenance frequency, skilled labor)
- Air Filtration (airborne disease prevention)

### DINISCO DESIGN



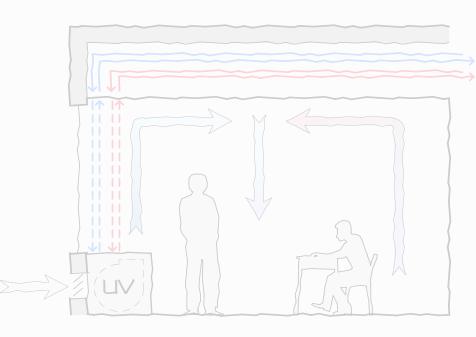
Design Team currently evaluating total of (8) system types (sub-types of Unit Ventilator and Induction Unit systems)

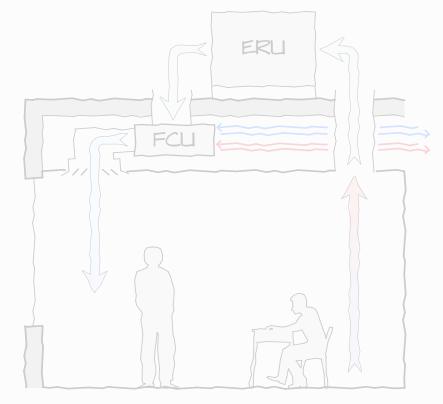


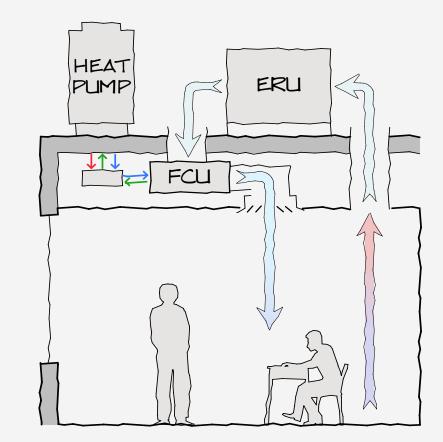




## **HVAC System Recommendation**







Unit Ventilators (UV) \*

Fan Coil Units (FCU) \*

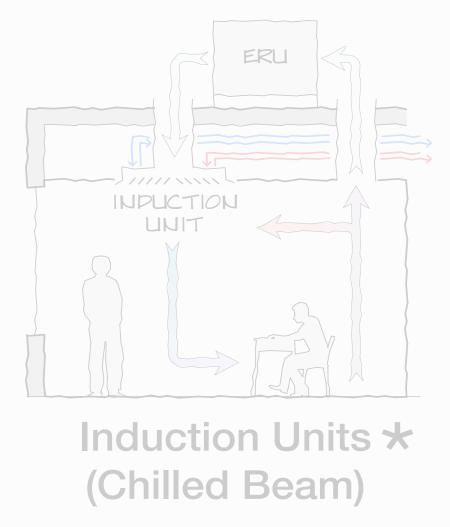
Variable Refrigerant Flow (VRF)

### Variable Refrigerant Flow (VRF) Recommended

- Full air conditioning
- All-electric (no new utilities)
- Cost Efficient
  - Low First Cost
  - Low Operating Cost
- Quiet

# ERU FTR

Displacement Ventilation

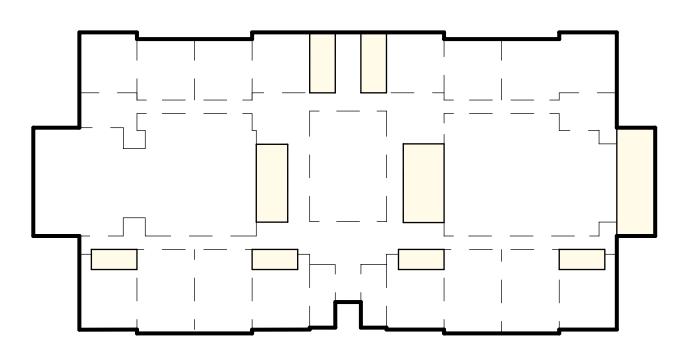


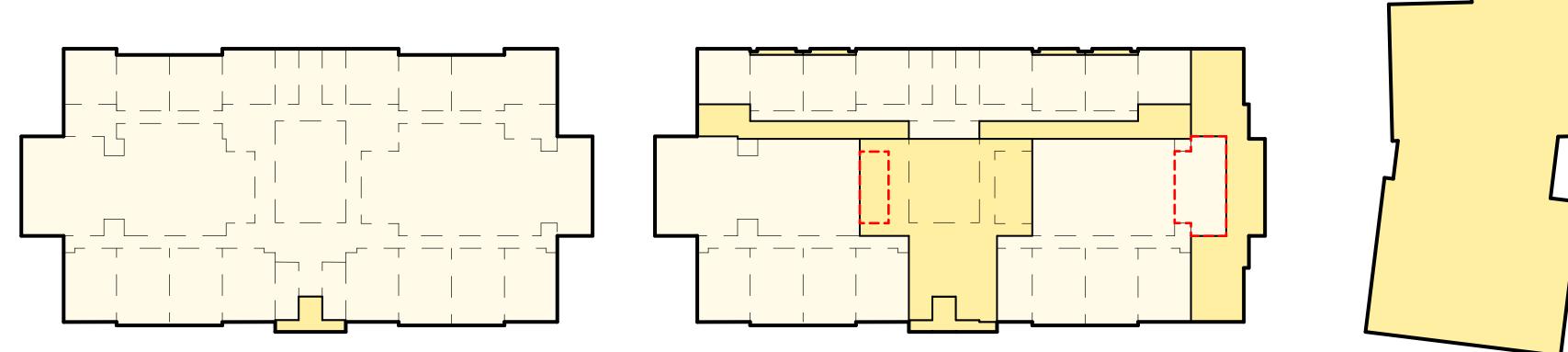






## **Preliminary Evaluation of Alternatives**





### **OPTION R** Code Upgrades

### **OPTION R-AC**

Code Upgrades w/ Air Conditioning

### **OPTION R-1**

Renovations w/ A/C (VRF System)

### **OPTION R-2**

Renovations w/ A/C (Unit Vent System) **OPTION AR-1** Minor Renovation / Addition

### **OPTION N** New Construction

**OPTION AR-2** Major Renovation / Addition



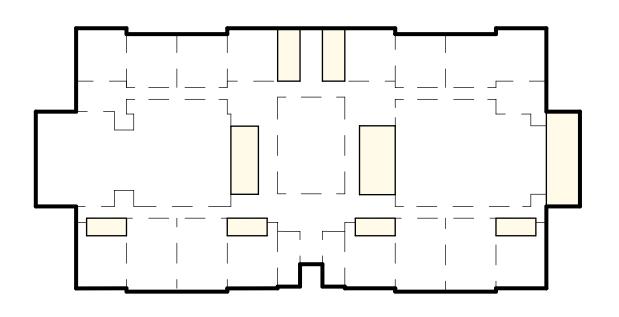




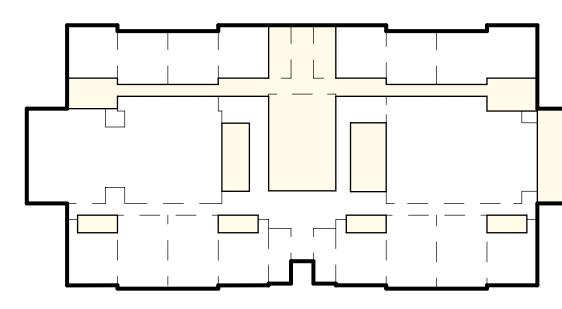




## **Final Evaluation of Alternatives**

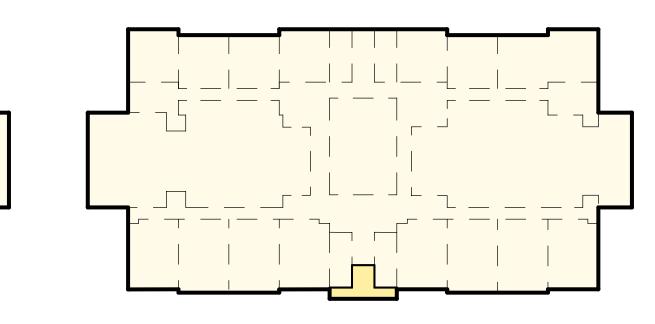


**OPTION R** Code Upgrades



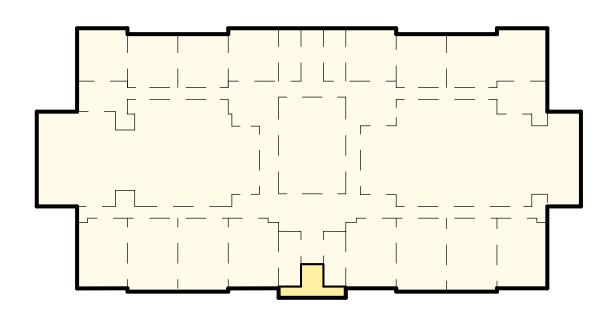
**OPTION R-AC** Code Upgrades w/ Air Conditioning





### **OPTION R-1**

Renovations w/ A/C (VRF System) & Select Improvements



### **OPTION R-1+**

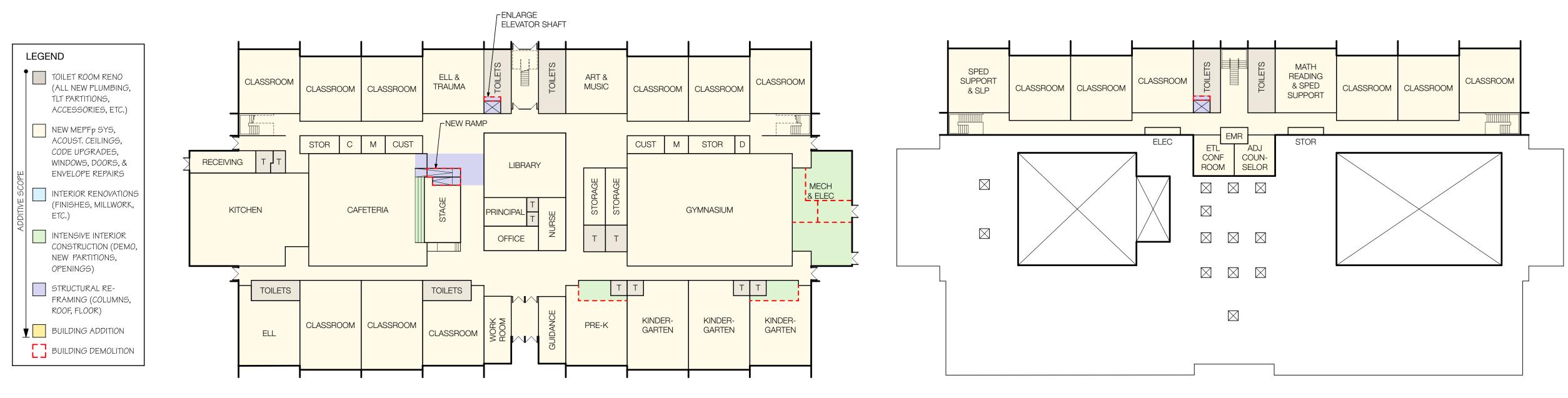
Renovations w/ A/C (VRF System) & Additional Improvements







## **Option R** | Code Upgrades (MAAB/Repairs)





### A. MAAB & CODE UPGRADES

- Stage Ramp
- New Elevator
- Replace non-compliant door hardware
- Comprehensive signage
- Stair Modifications
- Toilet Rooms & Water Fountains
- Classroom Sinks

### **B. EXTERIOR / ENVELOPE REPAIRS**

- New Exterior Windows
- Soffit Replacement \*
- New Exterior Doors
- Repair & Paint CMU Fin Walls \*\*
- \* No cement asbestos fascia work included \*\* No brick repointing or repairs included

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SECOND FLOOR PLAN

### **C. BUILDING SYSTEMS REPAIRS**

- Replace Unit Ventilators (no A/C)
- Sprinkler & Fire Alarm
- Power System (with Emergency Generator)
- Security System
- Lighting & Controls
- Data, Comms, Clocks & Public Address
- Paint 50% of Building Interiors
- Acoustic Ceilings

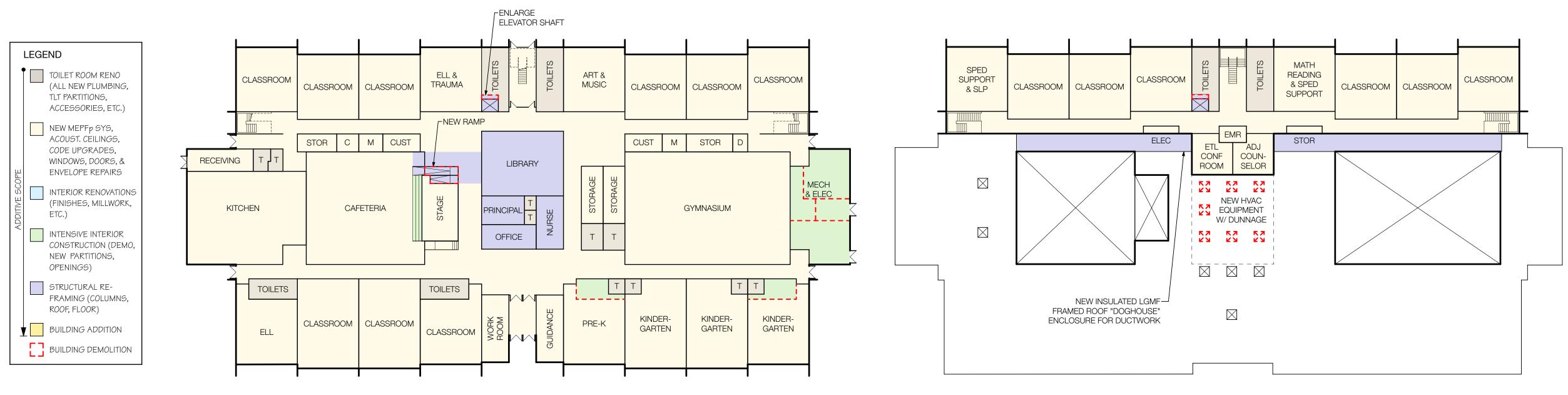








## **Option R-AC** Code Upgrades with Air Conditioning



FIRST FLOOR PLAN

### A. MAAB & CODE UPGRADES

- Stage Ramp
- New Elevator
- Replace non-compliant door hardware
- Comprehensive signage
- Stair Modifications
- Toilet Rooms & Water Fountains
- Classroom Sinks

### **B. EXTERIOR / ENVELOPE REPAIRS**

- New Exterior Windows
- Soffit Replacement \*
- New Exterior Doors
- Repair & Paint CMU Fin Walls \*\*
- \*\* No brick repointing or repairs included

DINISCO DESIGN

SECOND FLOOR PLAN

No cement asbestos fascia work included

\* Bold included in R-AC but not R-Code

### **C. BUILDING SYSTEMS REPAIRS**

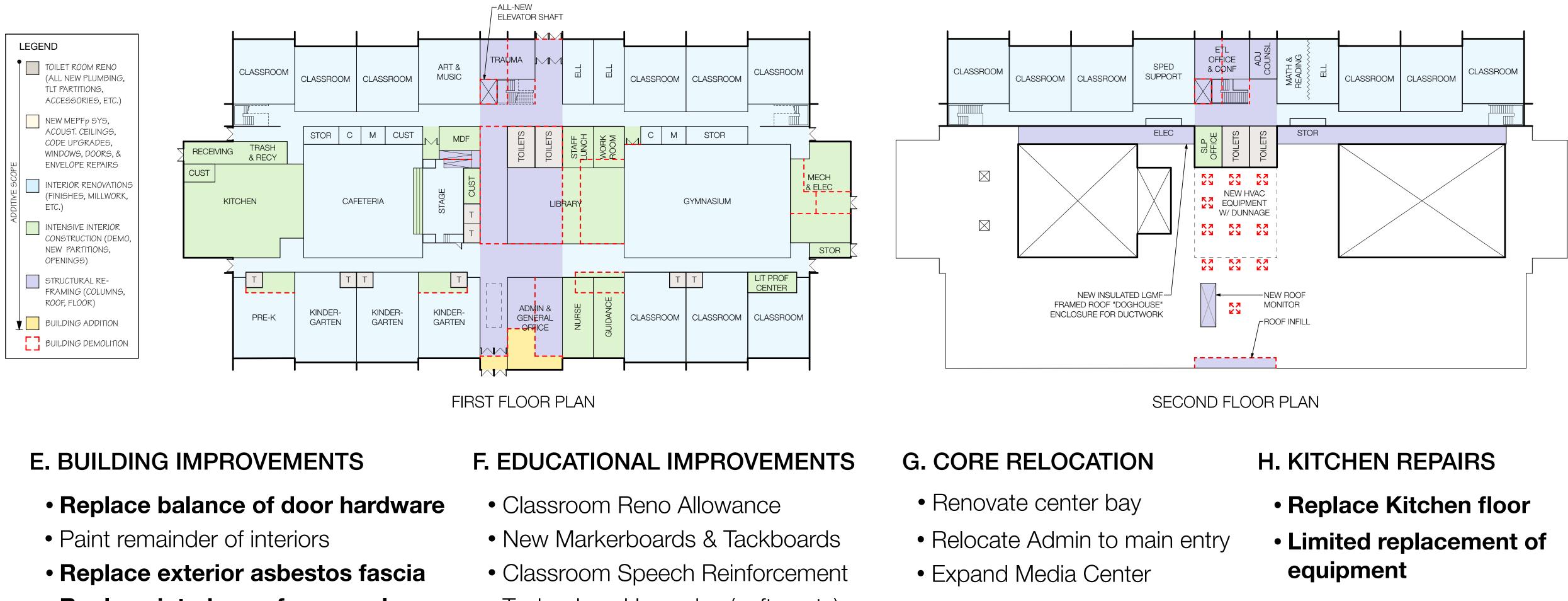
### New Mechanical System with A/C

- Sprinkler & Fire Alarm
- Power System (with Emergency Generator)
- Security System
- Lighting & Controls
- Data, Comms, Clocks & Public Address
- Paint 50% of Building Interiors
- Acoustic Ceilings





## **Options R-1 & R-1+** Renovations with A/C



- Replace int. doors, frames, glass
- Vinyl Asbestos Flooring removal
- Install new VCT Flooring throughout

- Technology Upgrades (soft costs)
- FF&E Upgrades (soft costs)





## **Options R-1 & R-1+** | Educational & Operational Benefits

- Enhance building security
- Accommodate developing PPS district-wide programs, such as Digital Literacy
- Enhance Media Center provides additional area for Digital Literacy and other small group instruction
- Maintain or enhances school-specific programs, such as Pre-K & Extended Day
- Support social emotional learning (SEL)
- Maximize or provide additional storage space







# Preliminary Considerations

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## Swing Space





## **Exploring Alternative Swing Space Options**

- Rationale:
  - Construction on an occupied site will require the relocation of up to 8 classrooms for a period of 2 years
  - Modular classrooms are a non-reimbursable expense
  - Finding alternative swing space within the district would allow funds to be reallocated to address educational program needs
  - Considerations: Which Students and Swing Space Options?







## **Options for Swing Space**

- 1. Rent Space in Centennial Park
- 2. Relocate classrooms to Peabody High School
- **3.** Relocate classrooms to Higgins Middle School
- 4. Relocate classrooms to area elementary schools











## **Next Steps**

- March 2021: Meet with Welch Families
- Spring 2021: Identify potential relocation schools
- Summer 2021: Finalize school placements
- August 2022: Implement relocation plan











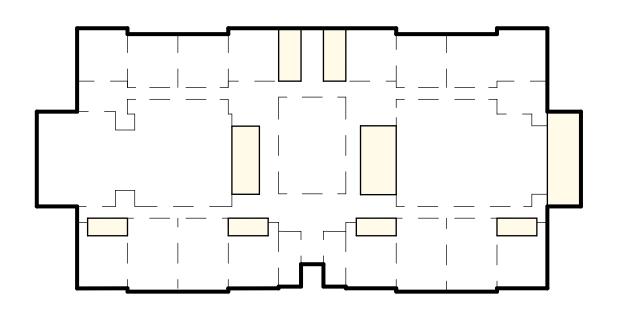
# **Final Evaluation** of Alternatives



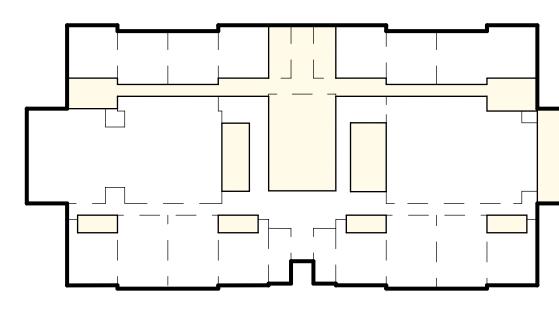




## **Final Evaluation of Alternatives**

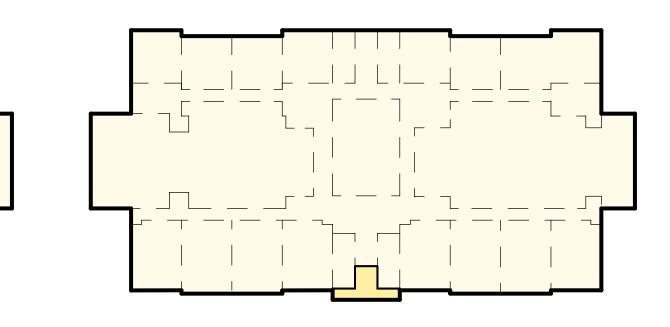


### **OPTION R** Code Upgrades



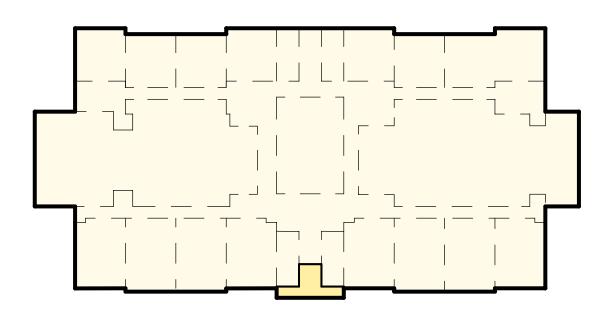
**OPTION R-AC** Code Upgrades w/ Air Conditioning

	<b>R-CODE</b> (w/ Modulars)	<b>R-CODE w/ A/C</b> (w/ Modulars)	<b>R-1 w/ A/C</b> (no Modulars)	<b>R-1+ w/ A/C</b> (no Modulars)	<b>R-1+ w/ A</b> (no Modular & +2% Gree Reimburseme
TOTAL CONSTRUCTION COST	\$17,951,149	\$20,551,149	\$20,551,149	\$21,613,162	\$21,613, <sup>-</sup>
TOTAL PROJECT BUDGET	\$23,257,610	\$26,356,162	\$26,734,649	\$28,000,304	\$28,000,3
ESTIMATED CITY SHARE	\$11,162,206	\$12,542,245	\$11,835,036	\$12,997,674	\$12,497,3



### **OPTION R-1** Renovations w/ A/C

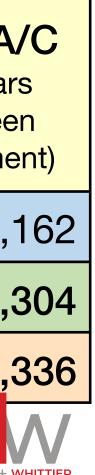
(VRF System) & Select Improvements



### **OPTION R-1+**

Renovations w/ A/C (VRF System) & Additional Improvements









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