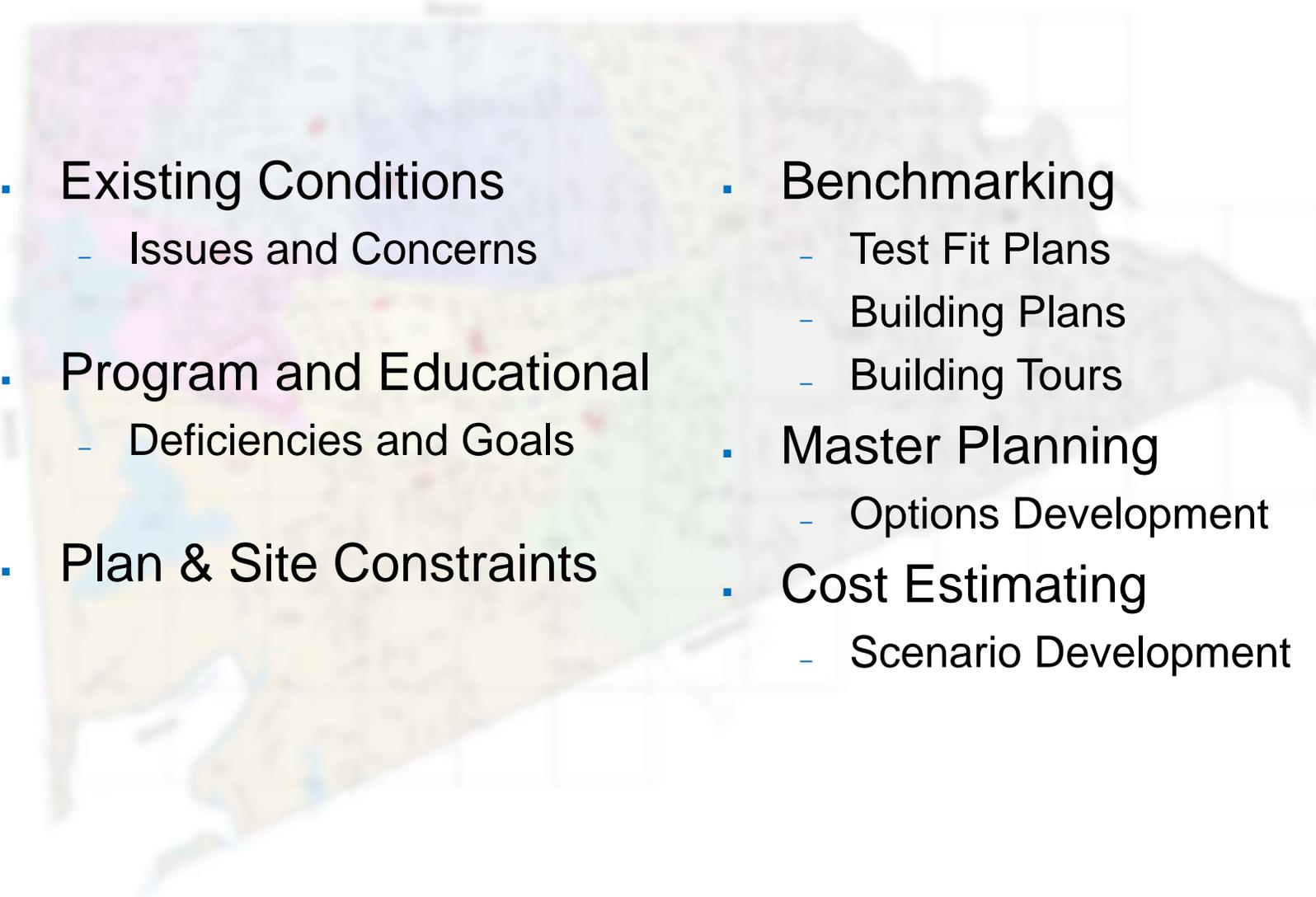


Hardy, Hunnewell & Upham  
Elementary Schools  
School Facilities Committee:  
Public Presentation

# MASTERPLAN AGENDA

- 
- Existing Conditions
    - Issues and Concerns
  - Program and Educational
    - Deficiencies and Goals
  - Plan & Site Constraints
  - Benchmarking
    - Test Fit Plans
    - Building Plans
    - Building Tours
  - Master Planning
    - Options Development
  - Cost Estimating
    - Scenario Development

# EDUCATIONAL GOALS

- Teaching Methodology
  - Understanding Learning Styles
  - Student-to-Student
  - Teacher as Facilitator
  - Project-based Learning (Controlled Open Plan)



# EDUCATIONAL GOALS

- Influences on building size, building shape, space type, and content
  - Breakout Spaces
  - Outdoor Learning Environments
  - STEM and STEAM Environments



# EDUCATIONAL GOALS

- Influences on building size, building shape, space type, and content
  - Learning Communities
  - Breakout Spaces
  - Large Group Instruction
  - Learning Outside of the Classroom
  - Appropriate and Secure Entrances



# ENROLLMENT SCENARIOS

School	2013/14	2019/2020 (Cropper)	"Redistrict" to Capacity (Fiske and Schofield population divided equally)
<b>Fiske (2Ks, 3 Sections)</b>	<b>334</b>	<b>278</b>	<b>322 (80%)</b>
<b>Schofield (3 Sections)</b>	<b>365</b>	<b>382</b>	<b>322 (80%)</b>
<b>Sprague (3 Sections)</b>	<b>399</b>	<b>351</b>	<b>382 (95%)</b>
<b>Bates (3 Sections)</b>	<b>395</b>	<b>370</b>	<b>382 (95%)</b>
	<b>1493</b>	<b>1381</b>	<b>1400 (max)</b>
<b>Total District</b>	<b>2341</b>	<b>2208</b>	

Note: Utilization Factor 90% Cropper Recommendation

Sections	2	3	4
'X' Kindergarten Rooms (@20 students)	40	60	80
'X' 1-3 Rooms (@ 22 students)	132	198	264
'X' 4-5 Rooms (@ 24 students)	96	144	192
	<b>268</b>	<b>402</b>	<b>536</b>

**402 x 90% = 362**  
(less 6.5 students/grade)

**402 x 95% = 382**  
(less 3 students/grade)

# ENROLLMENT SCENARIOS

Developed by: David Lussier, Judy Belliveau, Jack Morgan and K.C. Kato

Considerations:

- Peak Enrollment FY09: 2,481
- Total Capacity w/Modulars: 2,508
- Total 90% Capacity w/Modulars: 2,257

	Capacity w/Modulars	Utilization	Capacity at 90%	Projected 2018-19
Bates	418	90%	376	373
Fiske	374	90%	337	300
Schofield	396	90%	356	395
Sprague	418	90%	376	360
	1606		1,445	1,428
Hardy	308	90%	277	269
Hunnewell	330	90%	297	274
Upham	264	90%	238	288
	902		812	831
<b>Total Enrollment</b>	<b>2,508</b>		<b>2,257</b>	<b>2,259</b>

	Enrollment	B/F/S/S	H/H/U
Low	2,000	1450	550
Medium	2,250	1450	800
High	2,500	1450	1,050

Will the options be modeled out at 90% capacity?

# ENROLLMENT SCENARIOS

	2013-2014 Population	Existing GSF (including Modulars)	MSBA GSF (with Current Enrollment)	Capacity without Modulars	2021-2022 Projected Enrollment	MSBA GSF New Construction	SF/Student for 2021-2022 Build-out
<b>Hardy</b>	<b>308</b>	<b>45,909</b> (2 K, 11 CR, 4 Mods)	<b>54,866</b>	<b>294</b>	<b>269</b>	<b>48,420</b> (2 K, 10 CR)	<b>180</b>
<b>Hunnewell</b>	<b>330</b>	<b>36,400</b> (1 K, 12 CR, 2 Mods)	<b>53,820</b>	<b>300</b>	<b>265</b>	<b>47,700</b> (2 K, 10 CR)	<b>180</b>
<b>Upham</b>	<b>264</b>	<b>36,012</b> (3 K, 8 CR, 2 Mods)	<b>43,740</b>	<b>244</b>	<b>242</b>	<b>43,560</b> (2 K, 9 CR)	<b>180</b>
<b>2 Schools Combined (Hardy &amp; Upham)</b>					<b>511</b>	<b>79,401</b> (4 K, 19 CR)	<b>155</b>
<b>3 Schools Combined</b>					<b>776</b>	<b>112,520</b> (6 K, 28 CR)	<b>145</b>
<b>Total for District</b>	<b>2,341</b>				<b>2,098</b>		
<b>Bates, Sprague, &amp; Fiske Capacity</b>	<b>1,493</b> Fiske 266 Schofield 370 Bates 395 Sprague 399			<b>1,430</b> Fiske 318, Schofield 318, Bates 395, Sprague 399	<b>688</b>	<b>97,150</b> (5 K, 24 CR)	<b>145</b>

School Facilities Committee  
*Current Capacities and Projected Enrollments*

SMMA

# CHART OF OPTIONS

Combined Capacity	Hardy Elementary	Hunnewell Elementary	Upham Elementary
668 - 800	Renovation & Addition	Renovation & Addition	Renovation & Addition
668 - 800	Renovation & Addition	New School	Close
668 - 800	New School	Renovation & Addition	Close
668 - 800	Close	Renovation & Addition	New School
668 - 800	Renovation & Addition	Close	Renovation & Addition
668 - 800	New School	Renovation & Addition	New School
668 - 800	Close	New School	Close
668 - 800	Renovation & Addition	Renovation & Addition	New School
668 - 800	New School	New School	Close
668 - 800	Close	Close	Renovation & Addition

# HARDY SCHOOL EXISTING SITE



## Discussion Points

- Water Protection Zone
- Morses Pond: Water Supply
  - Protection District Requiring SPGA (Special Permit Granting Authority)
- Grade Change
- Building Layout
- Traffic Safety
- Play Space

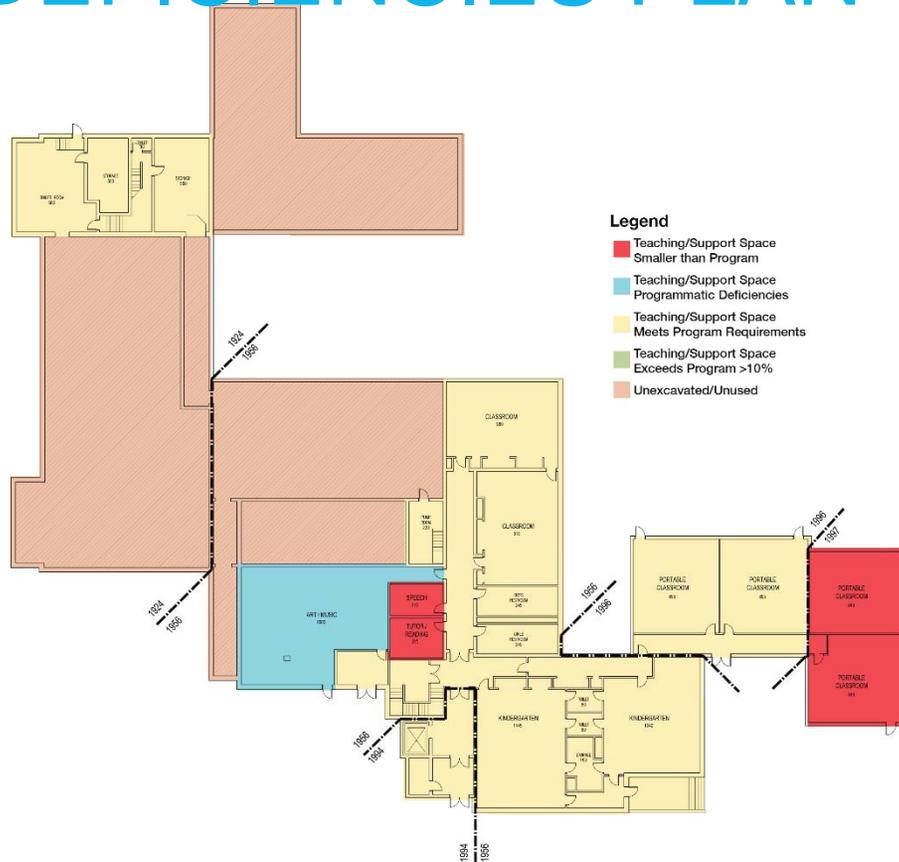
# PROGRAM DEFICIENCIES

- Shared art/music classroom
- Multi-purpose space serves as cafeteria, gymnasium, and auditorium
- Shared stage/OT/PT
- Undersized shared teacher workroom and lunch room
- Undersized media center, administration, SPED, nursing suite
- Four portable classrooms, two of which are undersized
- Lack of proper kitchen prevents the possibility of food prep in the future



# HARDY ELEMENTARY SCHOOL

## DEFICIENCIES PLAN



### Existing Classroom Areas

Kindergarten: 1100-1200 SF

Grades 1-5: 850-950 SF

### MSBA Standard

Kindergarten: 1100 SF Min. - 1300 SF Max.

Grades 1-5: 950 SF Min.

**Existing Building: 45,909 GSF**

Including 4 modular classrooms

### Current Enrollment

306 Students

### Estimated Capacity

390 Students w/ Modulars

294 Students w/o Modulars

Assumes 20 Students/Class Kindergarten

Assumes 22 Students/Class Grades 1-2

Assumes 24 Students/Class Grades 3-5

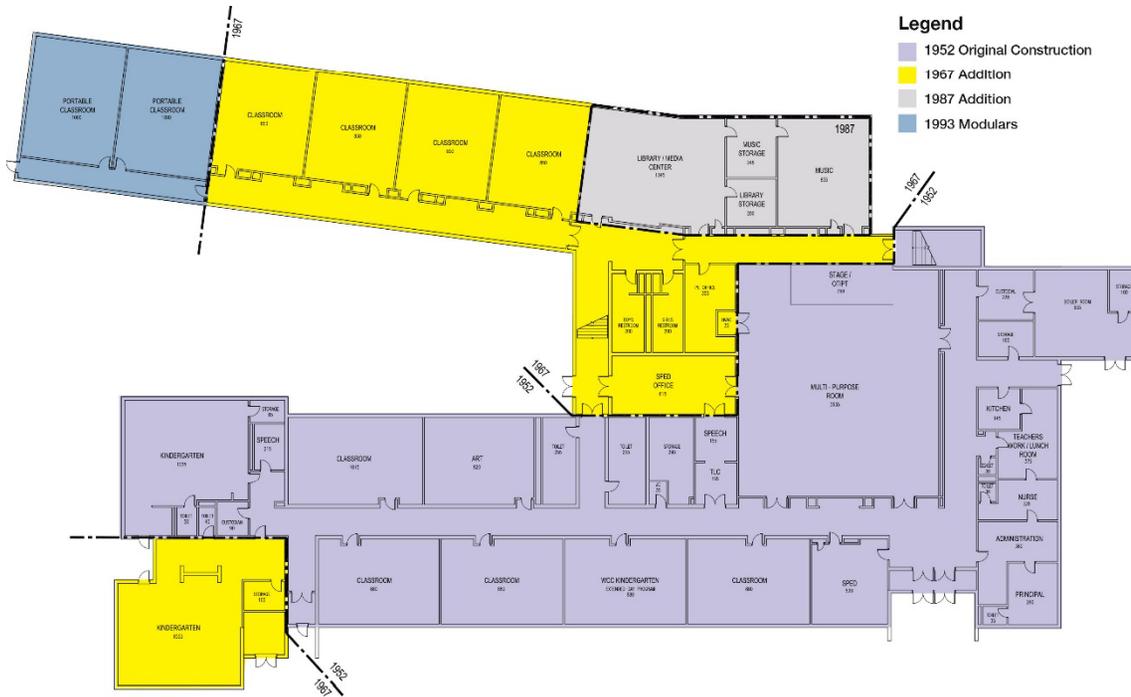
Lower Level

# UPHAM SCHOOL EXISTING SITE



# UPHAM ELEMENTARY SCHOOL

## “HISTORY” PLAN



### Existing Classroom Areas

Kindergarten: 850-1700 SF

Grades 1-5: 850-1000 SF

### MSBA Standard

Kindergarten: 1100 SF Min. - 1300 SF Max.

Grades 1-5: 950 SF Min.

### Existing Building: 36,012 GSF

Including 2 modular classrooms

### Current Enrollment

243 Students

### Estimated Capacity

292 Students w/ Modulares

244 Students w/o Modulares

Assumes 20 Students/Class Kindergarten

Assumes 22 Students/Class Grades 1-2

Assumes 24 Students/Class Grades 3-5

First Floor

# UPHAM ELEMENTARY SCHOOL DEFICIENCIES PLAN



## Existing Classroom Areas

Kindergarten: 850-1700 SF

Grades 1-5: 850-1000 SF

## MSBA Standard

Kindergarten: 1100 SF Min. - 1300 SF Max.

Grades 1-5: 950 SF Min.

## Existing Building: 36,012 GSF

Including 2 modular classrooms

## Current Enrollment

243 Students

## Estimated Capacity

292 Students w/ Modulars

244 Students w/o Modulars

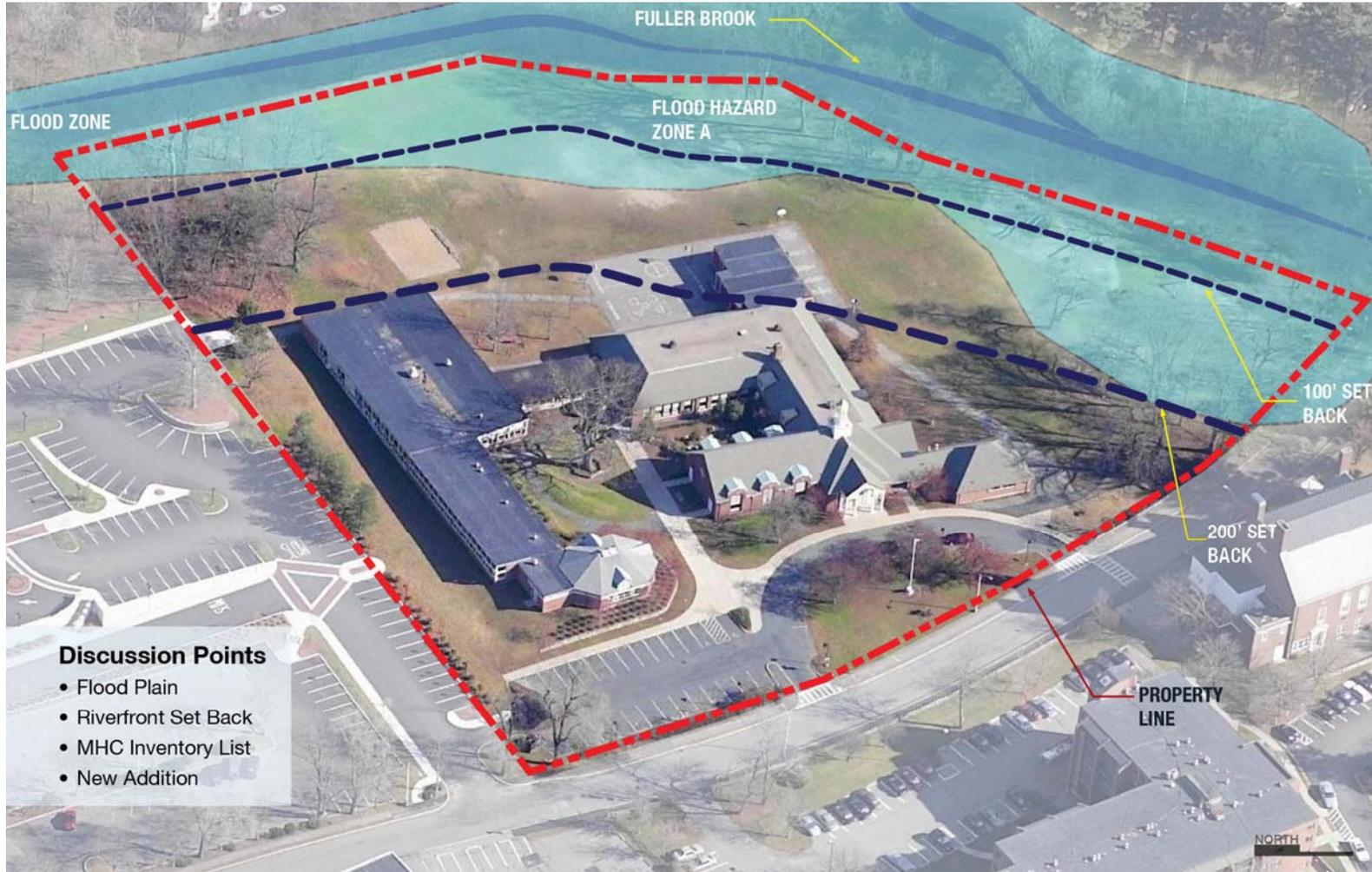
Assumes 20 Students/Class Kindergarten

Assumes 22 Students/Class Grades 1-2

Assumes 24 Students/Class Grades 3-5

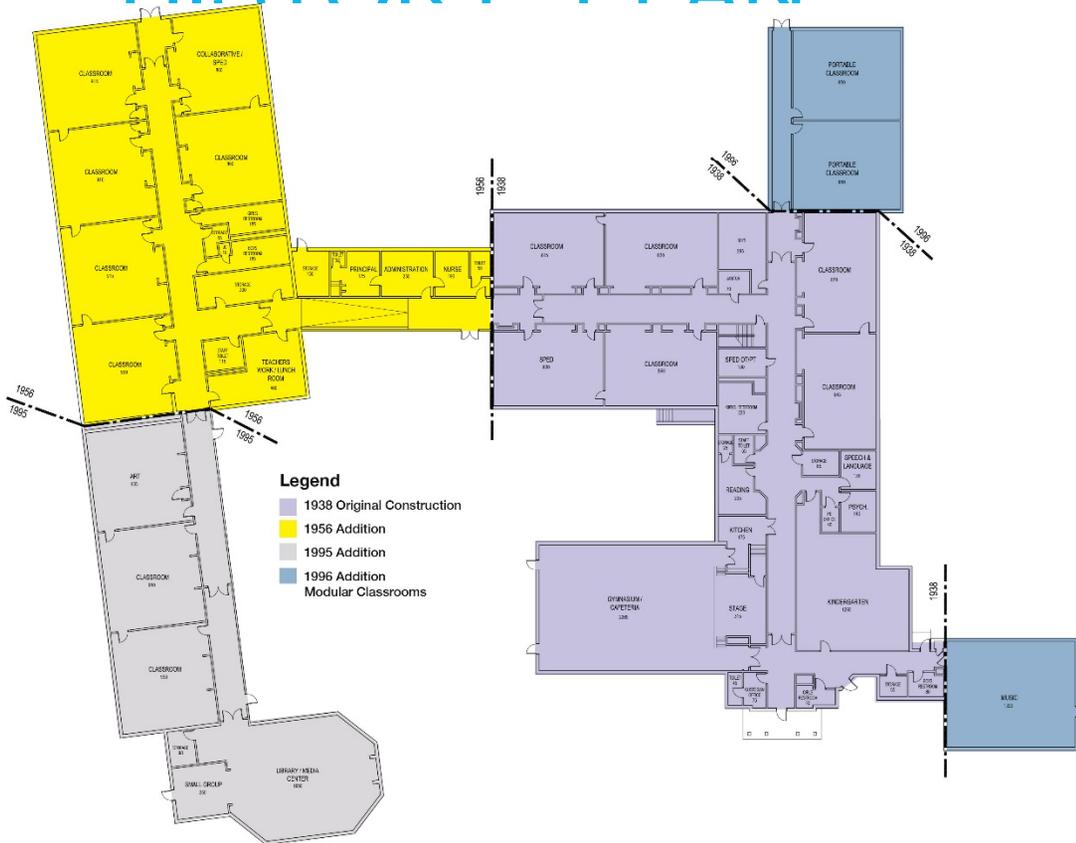
First Floor

# HUNNEWELL SCHOOL EXISTING SITE



# HUNNEWELL ELEMENTARY SCHOOL

## "HISTORY" PLAN



### Existing Classroom Areas

Kindergarten: 1250 SF

Grades 1-5: 850-950 SF

### MSBA Standard

Kindergarten: 1100 SF Min. - 1300 SF Max.

Grades 1-5: 950 SF Min.

### Existing Building: 36,400 GSF

Including 2 modular classrooms

### Current Enrollment

299 Students

### Estimated Capacity

348 Students w/ Modulares

300 Students w/o Modulares

Assumes 20 Students/Class Kindergarten

Assumes 22 Students/Class Grades 1-2

Assumes 24 Students/Class Grades 3-5

First Floor

# HUNNEWELL ELEMENTARY SCHOOL

## DEFICIENCIES PLAN



### Existing Classroom Areas

Kindergarten: 1250 SF

Grades 1-5: 850-950 SF

### MSBA Standard

Kindergarten: 1100 SF Min. - 1300 SF Max.

Grades 1-5: 950 SF Min.

### Existing Building: 36,400 GSF

Including 2 modular classrooms

### Current Enrollment

299 Students

### Estimated Capacity

348 Students w/ Modulars

300 Students w/o Modulars

Assumes 20 Students/Class Kindergarten

Assumes 22 Students/Class Grades 1-2

Assumes 24 Students/Class Grades 3-5

First Floor

# Planning Options

SMMA

SYMMES MAINI & McKEE ASSOCIATES

*December 8, 2015*

# PLANNING OPTIONS

	North 40		Hardy		Hunnewell		Upham	
New		660 Students 3 Stories		660 Students 3 Stories				660 Students 3 Stories
New		536 Students 2.5-3 Stories		536 Students 3 Stories		536 Students 3 Stories		536 Students 2.5-3 Stories
Add/Reno				536 Students 3 Stories		536 Students 2.5-3 Stories		536 Students 2.5 Stories
Add/Reno						425 Students 2 Stories		425 Students 2 Stories
Add/Reno				Historic Renovation Only (no students)		314 Students 2 Stories		283 Students 1.5-2 Stories
"New"				308 Students		330 Students		264 Students
Repairs Only				308 Students		330 Students		264 Students

# PLANNING OPTIONS

	<b>Hardy</b>	<b>Hunnewell</b>	<b>Upham</b>	<b>North 40</b>
New	Yes 	No 	Yes 	Yes 
Renovation /Addition	Yes 	Yes 	No 	N/A

# PLANNING SCENARIOS

Scenario	North 40 Site	Hardy	Hunnewell	Upham	Population	Construction Cost Total*	Construction Cost/Student
1	<b>New School</b> 660-Students 95,700 GSF New  \$ 35,620,734	<b>Close School</b> Renovation (Historic Only) 15,116 GSF Renovation \$ 6,556,522	<b>Renovation &amp; Addition</b> 425-Students 47,613 GSF Addition 22,687 GSF Renovation \$ 32,704,077	<b>Close School</b>	1,085	\$ 68,324,811  166,000 SF	\$ 62,972
2	<b>New School</b> 536-Students 81,722 GSF \$ 31,820,807	<b>Close School</b>	<b>Close School</b>	<b>New School</b> 536-Students 81,722 GSF New \$ 35,204,701	1,072	\$ 67,025,508  163,444 SF	\$ 62,524
3	N/A	<b>New School</b> 536-Students 81,722 GSF New \$ 31,993,171 (Historic Renovation) 15,116 GSF Renovation \$ 6,556,522**	<b>Renovation &amp; Addition</b> 425-Students 47,613 GSF Addition 22,687 GSF Renovation  \$ 27,012,360	<b>Close School</b>	961	**\$ 59,005,531  152,022 SF	\$ 61,400
4	N/A	<b>New School</b> 660-Students 95,700 GSF New \$ 35,900,517	<b>Close School</b>	<b>New School</b> 536-Students 81,722 GSF New \$ 35,204,701	1,196	\$ 71,105,218  177,422 SF	\$ 59,453
5	N/A	<b>Close School</b>	<b>Renovation &amp; Addition</b> 425-Students 47,613 GSF Addition 22,687 GSF Renovation \$ 27,012,360	<b>New School</b> 536-Students 81,722 GSF New  \$ 35,204,701	961	\$ 62,217,061  152,022 SF	\$ 64,741
6	N/A	<b>New School</b> 660-Students 95,700 GSF 15,116 GSF Renovation (Historic Only)** \$ 41,386,163	<b>New School</b> 536-Students 81,722 GSF New  \$ 36,636,300	<b>Renovation &amp; Addition</b> 536-Students 57,241 GSF Addition 24,481 GSF Renovation \$ 35,022,733	1,732	\$ 113,045,196  274,260 SF	\$ 65,268
7	<b>Two Phases Summer Construction</b> N/A	<b>Renovation &amp; Modular</b> 306 Students; 45,909 GSF \$ 15,331,791	<b>Renovation &amp; Modular</b> 299 Students; 36,441 GSF \$ 11,736,510	<b>Renovation &amp; Modular</b> 243 Students, 36,481 GSF \$ 11,200,481	902	\$ 38,268,782  118,831 SF	\$ 42,427
7a	<b>Single Phase Summer Construction</b> N/A	<b>Repairs</b> \$ 13,937,992 30 Modulares \$ 4,717,137 \$ 18,655,129***	<b>Repairs</b> \$ 10,669,554 30 Modulares \$ 4,717,137 \$ 15,386,691***	<b>Repairs</b> \$ 10,182,256 30 Modulares \$ 4,717,137 \$ 14,899,393***	902	\$ 48,941,213  118,831 SF	\$ 54,259
8		<b>Mostly New</b> \$ 22,203,414	<b>Renovation &amp; Addition</b> \$ 24,109,260	<b>New School</b> \$ 26,919,504	902	\$ 73,232,178  160,921 SF	\$ 81,189

NOTE:

\*Construction cost estimated to construction start spring 2016.

\*\*Renovation cost for Historic Hardy School for reference only – not carried in final costs.

\*\*\*Modular cost will be reduced by redundant installation and phase out cost based on Final Master Plan sequence.

# PLAN SCENARIO 3

Hardy ES



**New School**  
536-Students  
81,722 GSF New  
(Historic Renovation)  
15,116 GSF Renovation

Hunnewell ES



**Renovation & Addition**  
425-Students  
47,613 GSF Addition  
22,687 GSF Renovation

Upham ES



**Close School**

# PLAN SCENARIO 5

Hardy ES



**Close School**

Hunnewell ES



**Renovation & Addition**  
425-Students  
47,613 GSF Addition  
22,687 GSF Renovation

Upham ES



**New School**  
536-Students  
81,722 GSF New

# PLAN SCENARIO 7A

Hardy ES



**Renovation & Modular**  
308 Students; 45,909 GSF

Hunnewell ES



**Renovation & Modular**  
330 Students; 36,441 GSF

Upham ES



**Renovation & Modular**  
264 Students; 36,481 GSF

# PLAN SCENARIO 8

Hardy ES



**Mostly New**  
308 Students; 55,153 GSF  
40,037 GSF New  
15,116 GSF Renovation

Hunnewell ES



**Renovation & Addition**  
330 Students; 58,245 GSF  
35,558 GSF New  
22,687 GSF Renovation

Upham ES



**New**  
264 Students; 47,523 GSF