Stoughton Elementary School Building Committee

Stoughton District School Office Conference room
Stoughton, Massachusetts 02072

May 11, 2023
7:00 pm

Call to Order

Chair T J Recupero commenced a call to order the meeting of the Stoughton Elementary School Building Committee at 7:01 pm on May 11, 2023 in Stoughton District School Conference room, Stoughton, Massachusetts.

Roll Call

The following voting members were present: Dr. Thomas Raab, Jake Dore, Katie Monahan, Joe Buckley, Melissa Lynch, Joyce Husseini, T J Recupero, Steve Cavey

Absent: Eileen Sprague, Dianne Dolan

Present from Compass Project Management, Inc.: Domenic Tiberi and Tim Bonfatti
Present from Drummey Rosanne Anderson: Courtney Southwick and Carl Franceschi
Present from Stoughton School Dept:
Present from the Stoughton Community: Katherine Weiss
Present from the town hall of Stoughton: Fran Bruttaniti
School Committee Member: Armando Barbosa

1. **Public Participation**

   First order business is public participation. This is the point in the meeting where we invite people to address the committee with any questions or comments. Not something we can talk about substantially or substantively at this meeting, but certainly something that if it warrants, we could put on a future agenda for discussion.

   No Comment

2. **Vendor Invoice Package**

Vertex reviewed the invoices that associated with the vendor invoice package as listed below:

Stoughton South Elementary School
Expenditures - 4/30/23

Pd. For Appr.	Vendor Name	Inv no.	Invoice Date	LN	MSBA CODE	MSBA Desc	Invoice LN Amount	Total All Inv Lines
2023.04	*NEW Invoices Recommended for Payment this Period*							
2023.04	Vertex	OPM 119-10	4/30/23	S	00010000	OPM - Feasibility Study	9,631.50	9,631.50
2023.04	DRA	0000004	4/30/23	S	00020000	A&E - Feasibility Study	21,000.00	21,000.00
			Total NEW invoices RECOMMENDED for PAYMENT this month:				*30,631.50*	*30,631.50*

MOTION to approve vendor invoice package for the amount $ 30,631.50.

Moved Joyce Husseini Seconded Jake Dore Vote: 10-0 approved

Committee sign off invoice package.

3. Meeting Minutes

MOTION
Motion to accept the minutes for South School Building Committee for April 12, 2023

Moved Melissa Lynch Seconded Katie Monahan Abstained (Steve Cavey)

Vote: 9-0

Motion to accept the minutes for South School Building Committee for April 26, 2023

Moved Melissa Lynch Seconded Katie Monahan Abstained (Steve Cavey)

Vote: 9-0

4. Preferred Schematic Submission extension

District and DRA have submitted the PDP. Some follow up items have been addressed to the MSBA. Mr. Recupero discussed the proposal to extend the time for the next submission.

Discussion regarding the next submission and new members of school committee. (TJR) proposed presenting to both SBC and SC extending out the schedule approximately three weeks. This would

give time for both the current school committee to be updated and better informed to make decision on consolidation. Also it would provide further time to get more feedback from the community going forward on the preferred option; including consolidation.

5. Presentation Slides (School Committee update)

Reviewed time line with extension (slide 2,3)

School Committee meeting May 23, 2023 Goal is to settle on a site

School Committee meeting June 13, 2023 presentation by Matt Cropper (Report will be sent separately) Report will show how the District will possible look with options and what is optimal in a consolidation process.

July/August School Committee meeting will determine preferred option with input for school building committee.

Information to be provided:
Cost and tax Impact
Decision on preferred option for new elementary school
Plan for Wilkins Elementary School usage.
Study for existing South Elementary School to be developed

Reviewed topics Consolidation (slide 4,5,6)

(Rebalancing of District noting the four preliminary options)

(slide 10,11,12)
Look at the factors for redistricting.
Utilization for space usage
Demographics (racial and economic)
LEP (Limited English student) percentages
Impact on the number of students upon final decision

District map (heat zone) showing student density of enrolment throughout the District (Boundary Options slide 13,14,15,16,17)

Enrollment utilization study information (Cropper) (slide 7,8)

New configuration noted option utilization and how all fall into within the average. Student impact shown in distribution within the Cropper report.

Katherine Wiess noted main goal is the possible options in the future. Understand that schools in the future might change due to student enrollment and education goals.
Note: Redistricting most recently happen twenty years ago

TJ Recupero noted ultimate decision is the school committee to go forward with consolidation.

Timeline projecting future school turn over (slide 3)

Future addition and renovation in design for new school. DRA will follow up with a study. It is required as part of the design.

TJ discussed meeting with the town manager and his support. Discussed how do we pay for the project; debt financing; and maintain the town bond rating.

Matrix on options is completed. (slide 23,24,25,26,27,28)
Reviewed matrix that had been presented at last meeting. DRA will print out form and review comments that require addressing. Flexibility when we need more classroom space
Community use beyond the school year! Better allocation of resources

MSBA requires green building. Two additional points can be attained for reimbursement for the elementary school project. Elementary School will go for LEED certification. Note Stoughton is a Stretch Code community.

The PSR will have a goal to be Net Zero ready. Design strategy will incorporate passive house process**. See information on the following (slide 29,30,31,32,33,34,35,36,37,38,39,40)**

6. **New Business**

Community Outreach:
Updated web site that allows the community to forward questions has been activated.

MSBA Model School program discussion to consider for the elementary school. Note that there is no longer any incentive % points through the MSBA. Also, would be difficult to follow education plan as written for the new elementary school.

Discussed energy incentives Path One program. Project will sign up for the program and design to take advantage of the reimbursement.

7. **Adjournment**
MOTION to adjourn 8:35 PM

Vote: 10-0 Approve

Next meeting April 26, 2023 – 7:00pm

Minutes prepared by: Dom Tiberi

Community Forum:
June 1 @ 6pm
Gibbons Elementary School

May 11, 2023

- Project Timeline/ Decision
- Options Recap – Review Criteria Matrix
- Consolidation Impacts
- Sustainability Goals
- Communication & Community Awareness

The New Elementary School | stoughton.ma

School Building Committee

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SCHOOL COMMITTEE timeline

May | June | July | August

School Building Committee

SBC Goal: select preferred design option

School Committee

*SC Goal: Determine **5 or 4 schools** with redistricting*

★ ***5/23/2023***

- Educational impacts – consolidation
- Social / emotional impacts- consolidation

★ ***6/13/2023***

- Preliminary cost information/ tax impacts
- Operational impacts – consolidation
- Community Considerations - consolidation
- Preliminary Evaluation – both options

★ ***July (tbd)***

★ ***August (tbd)***

- Plan for Wilkins
- Plan for South
- **SC to VOTE Preferred Option**

Submit To MSBA 8/31/23

https://www.stoughtonschools.org

★ ***Meetings held at District Office***

Massachusetts School Building Authority
Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

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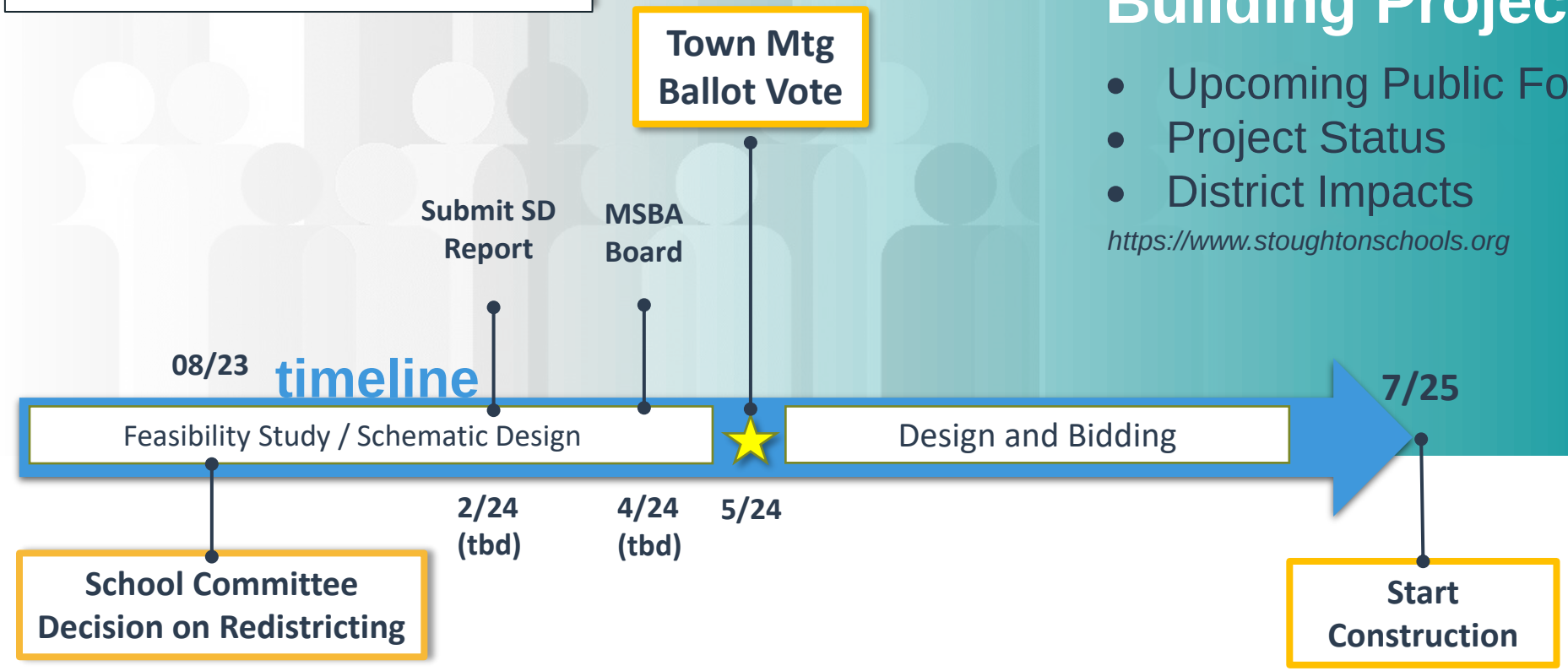
Community Forum:
June 1 @ 6pm
Gibbons Elementary School

Check out the

New Elementary School Building Project Webpage!

- Upcoming Public Forums
- Project Status
- District Impacts

https://www.stoughtonschools.org



The New Elementary School Project

Should Stoughton Consolidate & Re-District their Elementary Schools?

School Committee to Decide Summer 2023

District **Consolidation/ Redistricting Impacts**

5 schools to 4 schools

- ✓ Maximize state reimbursement for Stoughton residents
- ✓ A larger school is more energy efficient & flexible
- ✓ More elementary students benefit from the new larger school
- ✓ Rebalance students to reduce pockets of overcrowding
- ✓ Ongoing Improvements at Dawe, Gibbons, and Hansen
- ✓ New School can provide Community-wide amenities & program spaces
- ✓ Reduce overall District costs in the long run

Suggestions?
Check out the website!
Email us at
NewElementarySchool@stoughtonschools.org

Sugestões?
Confira o site!
Envie-nos um e-mail para
NewElementarySchool@stoughtonschools.org

Community Forum:
June 1 @ 6pm
Gibbons Elementary School

https://www.stoughtonschools.org

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KEY CONSIDERATIONS:

Rebalance the District

- Utilization
- Demographics
- LEP Status
- Students Impacted

STUDENT IMPACT ESTIMATES: DRAFT PRELIMINARY OPTIONS		
Option	**Total K-5th Live-In Students Impacted**	**Percent K-5th Live-In Students Impacted**
Option 1	638	41.1%
Option 2	581	37.4%
Option 3	638	41.1%
Option 4	556	35.8%

Current statistics are also reported in addition to the options. The data indicates that all options that have been drafted, provide a balance of utilization and demographics among schools. All options impact a relatively similar number of students. These serve as a proof of concept to align with long range facility, plans, and a more comprehensive review of boundaries. There are other alternatives that could be considered along with potential changes based off public input and other local stakeholder input.
These should be considered preliminary and final boundaries should be evaluated in a more comprehensive process once the facility planning effort is complete.

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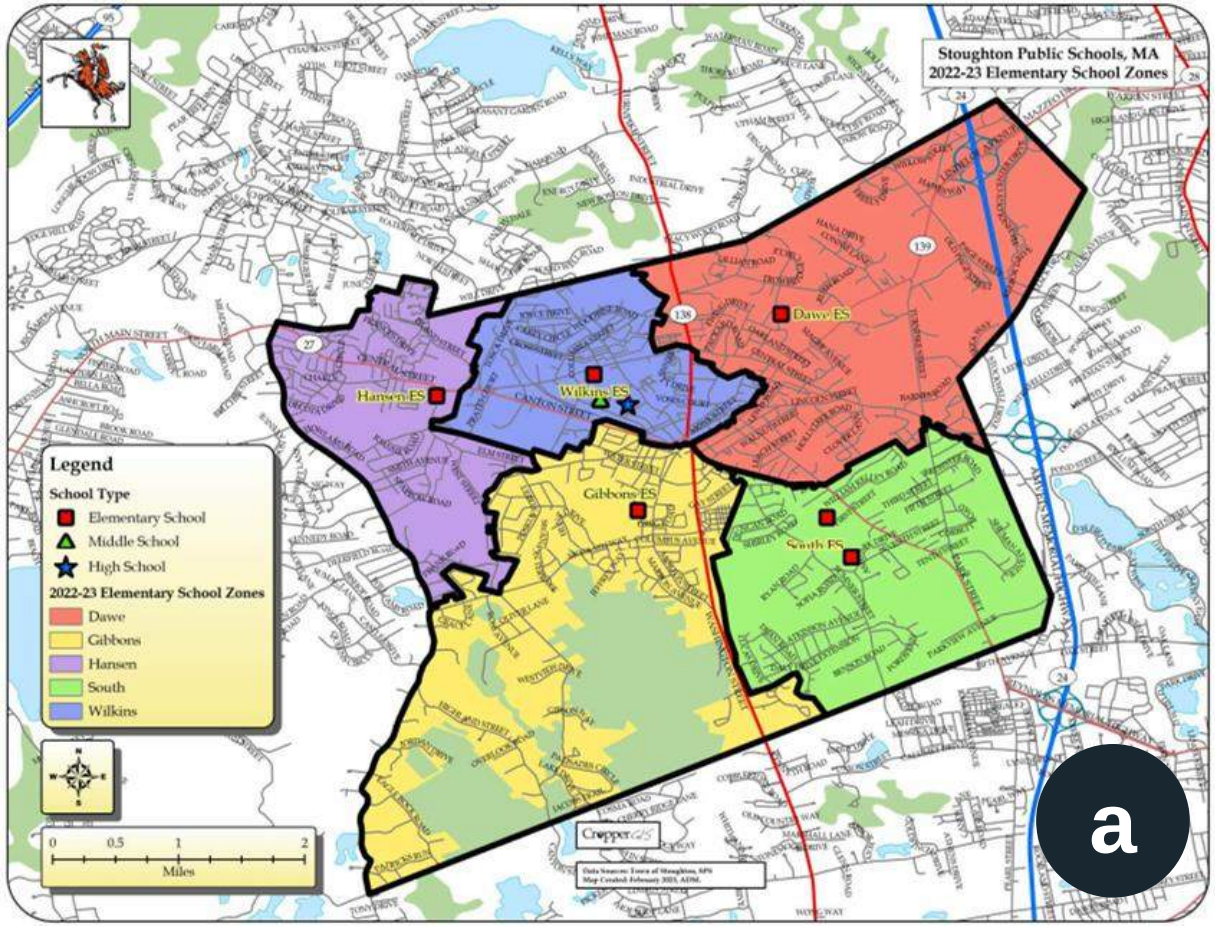
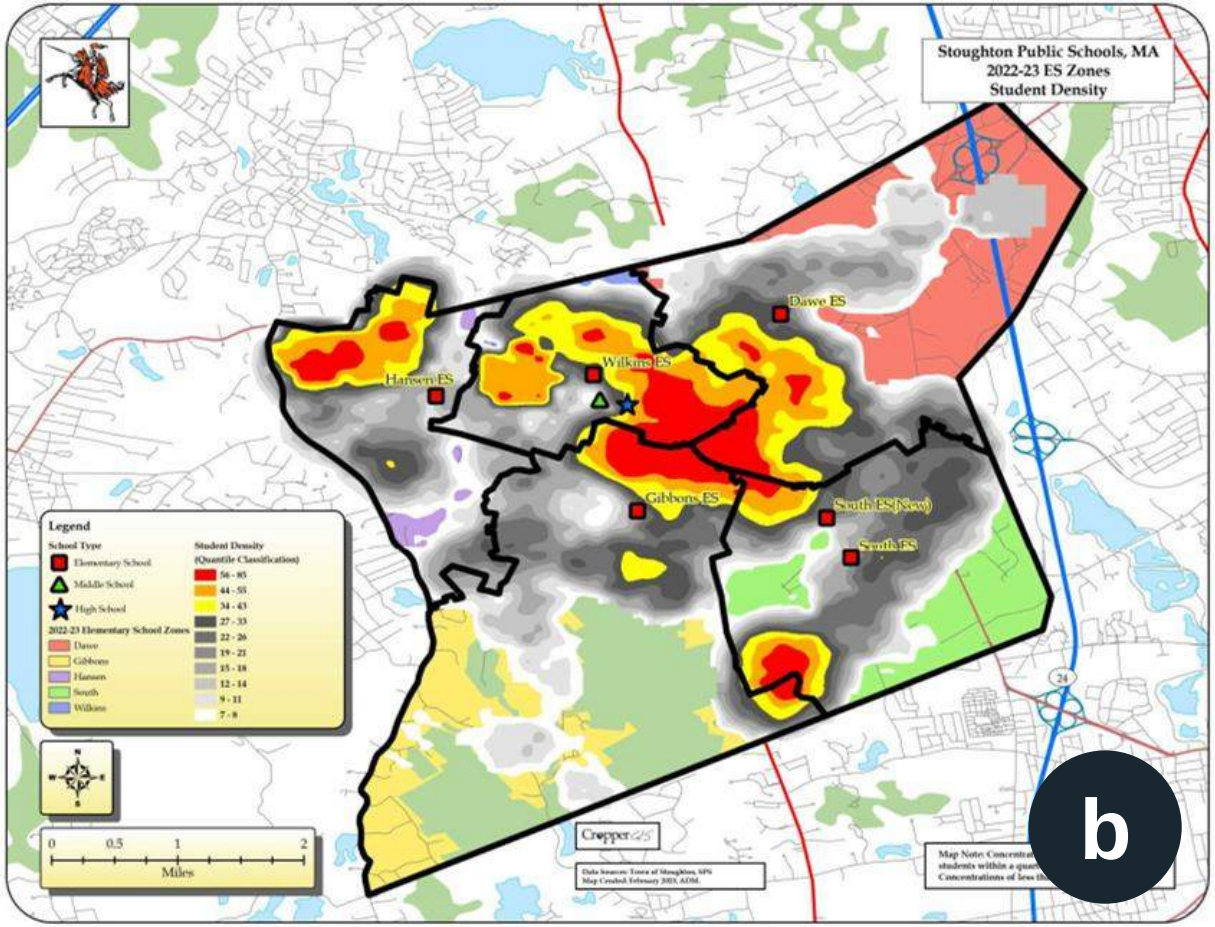
The New Elementary School Project

Should Stoughton Consolidate & Re-District their Elementary Schools?

School Committee to Decide Summer 2023





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ENROLLMENT & UTILIZATION

The following tables show current utilization by percentage based on current enrollment and 2022-23 building capacity. In comparison Options 1 - 4 estimate enrollment based on student live-in (students are assumed to attend the school to which they are zoned). Cells are color coded based on deviation from the standard percentage in each field. Percentages are rounded.

Within 10%
Between 10-15%
Over/Under15%

		2022-23 Enrollment and Utilization								
School Name	**Capacity**	**KF**	**1**	**2**	**3**	**4**	**5**	**Total Enrollment**	**Utilization**	**Trend**
Dawe ES	404	72	79	54	61	55	60	381	94.3%	▲
Gibbbons ES	348	54	59	57	60	67	52	349	100.3%	▬
Hansen ES	272	40	54	38	50	38	44	264	97.1%	▬
South ES	288	47	48	49	52	42	43	281	97.6%	▲
Wilkins ES	348	68	66	42	42	34	41	293	84.2%	▲
Total	**1660**	**281**	**306**	**240**	**265**	**236**	**240**	**1568**	**94.46%**	▲

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ELEMENTARY SCHOOL

Enrollment & Utilization

School Name	Option Capacity	Option 1 Estimated Enrollment								
		KF	1	2	3	4	5	Total Enrollment	Utilization	Trend
Dawe ES	404	79	77	54	65	55	54	384	95.0%	▲
Gibbons ES	348	62	70	62	48	50	42	334	96.0%	▲
Hansen ES	272	43	55	32	51	33	41	255	93.8%	▲
New ES	596	97	104	92	101	98	103	595	99.8%	▬
Wilkins ES										
Total	**1620**	**281**	**306**	**240**	**265**	**236**	**240**	**1568**	**96.79%**	▲

School Name	Option Capacity	Option 2 Estimated Enrollment								
		KF	1	2	3	4	5	Total Enrollment	Utilization	Trend
Dawe ES	404	84	77	59	49	51	50	370	91.6%	▲
Gibbons ES	348	57	70	53	51	63	56	350	100.6%	▬
Hansen ES	272	45	50	34	62	36	46	273	100.4%	▬
New ES	596	95	109	94	103	86	88	575	96.5%	▲
Wilkins ES										
Total	**1620**	**281**	**306**	**240**	**265**	**236**	**240**	**1568**	**96.79%**	▲

School Name	Option Capacity	Option 3 Estimated Enrollment								
		KF	1	2	3	4	5	Total Enrollment	Utilization	Trend
Dawe ES	404	77	74	52	64	54	52	409	101.2%	▲
Gibbons ES	348	64	73	64	49	51	44	309	88.8%	▲
Hansen ES	272	43	55	32	51	33	41	255	93.8%	▲
New ES	596	97	104	92	101	98	103	595	99.8%	▬
Wilkins ES										
Total	**1620**	**281**	**306**	**240**	**265**	**236**	**240**	**1568**	**96.79%**	▲

School Name	Option Capacity	Option 4 Estimated Enrollment								
		KF	1	2	3	4	5	Total Enrollment	Utilization	Trend
Dawe ES	404	94	89	69	61	56	51	420	104.0%	▲
Gibbons ES	348	57	70	53	51	63	56	350	100.6%	▬
Hansen ES	272	45	50	34	62	36	46	273	100.4%	▬
New ES	596	85	97	84	91	81	87	525	88.1%	▲
Wilkins ES										
Total	**1620**	**281**	**306**	**240**	**265**	**236**	**240**	**1568**	**96.79%**	▲

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School Name	2022-23 Enrolled LEP Status			LEP Status Option 1			LEP Status Option 2		
	0	1	4	0	1	4	0	1	4
Dawe ES	88%	12%	1%	88%	12%	0%	84%	16%	0%
Gibbons ES	90%	10%	1%	78%	21%	1%	89%	10%	1%
Hansen ES	93%	6%	0%	90%	9%	0%	89%	10%	0%
South ES	92%	8%	0%	90%	9%	0%	87%	13%	0%
Wilkins ES	73%	27%	0%						
Total	87%	13%	0%	87%	13%	0%	87%	13%	0%

ELEMENTARY SCHOOL LEP Status

School Name	LEP Status Option 3			LEP Status Option 4		
	0	1	4	0	1	4
Dawe ES	88%	12%	0%	84%	16%	0%
Gibbons ES	79%	21%	1%	89%	10%	1%
Hansen ES	90%	9%	0%	89%	10%	0%
New ES	90%	9%	0%	87%	13%	0%
Wilkins ES						
Total	87%	13%	0%	87%	13%	0%

LEP =Limited English Proficiency
0 = Can perform ordinary school work in English
1 = Can NOT perform ordinary school work in English
4 = Can NOT perform ordinary school work in English but opted out of the program.

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ELEMENTARY SCHOOL

Estimated Student Impacts

ES Zone 2022-23	ES Option 1	Total 2022-23 K-5th Live-In Students
Dawe	Dawe	231
Dawe	South	122
Gibbons	Gibbons	162
Gibbons	South	184
Hansen	Gibbons	32
Hansen	Hansen	233
South	New ES	289
Wilkins	Dawe	143
Wilkins	Gibbons	137
Wilkins	Hansen	20

ES Zone 2022-23	ES Option 2	Total 2022-23 K-5th Live-In Students
Dawe	Dawe	167
Dawe	South	186
Gibbons	Gibbons	283
Gibbons	South	63
Hansen	Gibbons	32
Hansen	Hansen	233
South	New ES	289
Wilkins	Dawe	193
Wilkins	Gibbons	32
Wilkins	Hansen	38
Wilkins	South	37

ES Zone 2022-23	ES Option 3	Total 2022-23 K-5th Live-In Students
Dawe	Dawe	231
Dawe	South	122
Gibbons	Gibbons	162
Gibbons	South	184
Hansen	Gibbons	32
Hansen	Hansen	233
South	New ES	289
Wilkins	Dawe	132
Wilkins	Gibbons	148
Wilkins	Hansen	20

ES Zone 2022-23	ES Option 4	Total 2022-23 K-5th Live-In Students
Dawe	Dawe	192
Dawe	South	161
Gibbons	Gibbons	283
Gibbons	South	63
Hansen	Gibbons	32
Hansen	Hansen	233
South	New ES	289
Wilkins	Dawe	218
Wilkins	Gibbons	32
Wilkins	Hansen	38
Wilkins	South	12

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ELEMENTARY SCHOOL Free & Reduced Meals Analysis

School Name	2022-23 Enrolled Free and Reduced Meals		
	Free	Reduced	Paid
Dawe ES	38%	2%	60%
Gibbons ES	38%	4%	58%
Hansen ES	40%	2%	58%
South ES	29%	3%	68%
Wilkins ES	59%	1%	40%
Total	41%	2%	57%

School Name	Free and Reduced Meals Option 1			Free and Reduced Meals Option 2		
	Free	Reduced	Paid	Free	Reduced	Paid
Dawe ES	43%	1%	56%	44%	1%	55%
Gibbons ES	52%	3%	45%	34%	3%	62%
Hansen ES	45%	1%	53%	49%	1%	49%
New ES	31%	3%	66%	39%	3%	58%
Wilkins ES						
Total	41%	2%	57%	41%	2%	57%

School Name	Free and Reduced Meals Option 3			Free and Reduced Meals Option 4		
	Free	Reduced	Paid	Free	Reduced	Paid
Dawe ES	43%	1%	56%	45%	1%	54%
Gibbons ES	52%	3%	45%	34%	3%	62%
Hansen ES	45%	1%	53%	49%	1%	49%
New ES	31%	3%	66%	37%	3%	60%
Wilkins ES						
Total	41%	2%	57%	41%	2%	57%

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ELEMENTARY SCHOOL

Demographics Statistics

School Name	2022-23 Enrolled Race/Ethnicity			
	Black/African American	White	Hispanic	Other
Dawe ES	23%	51%	18%	9%
Gibbons ES	21%	52%	17%	10%
Hansen ES	19%	51%	16%	15%
South ES	18%	50%	12%	20%
Wilkins ES	19%	47%	24%	11%
Total	20%	50%	17%	13%

School Name	Race/Ethnicity Option 1				Race/Ethnicity Option 2			
	Black/African American	White	Hispanic	Other	Black/African American	White	Hispanic	Other
Dawe ES	23%	48%	18%	11%	19%	48%	20%	12%
Gibbons ES	17%	49%	22%	11%	16%	58%	16%	10%
Hansen ES	20%	48%	18%	14%	25%	42%	17%	15%
New ES	19%	53%	14%	14%	20%	50%	16%	13%
Wilkins ES								
Total	20%	50%	17%	13%	20%	50%	17%	13%

School Name	Race/Ethnicity Option 3				Race/Ethnicity Option 4			
	Black/African American	White	Hispanic	Other	Black/African American	White	Hispanic	Other
Dawe ES	23%	48%	18%	11%	19%	48%	21%	12%
Gibbons ES	17%	50%	23%	11%	16%	58%	16%	10%
Hansen ES	20%	48%	18%	14%	25%	42%	17%	15%
New ES	19%	53%	14%	14%	21%	50%	15%	14%
Wilkins ES								
Total	20%	50%	17%	13%	20%	50%	17%	13%

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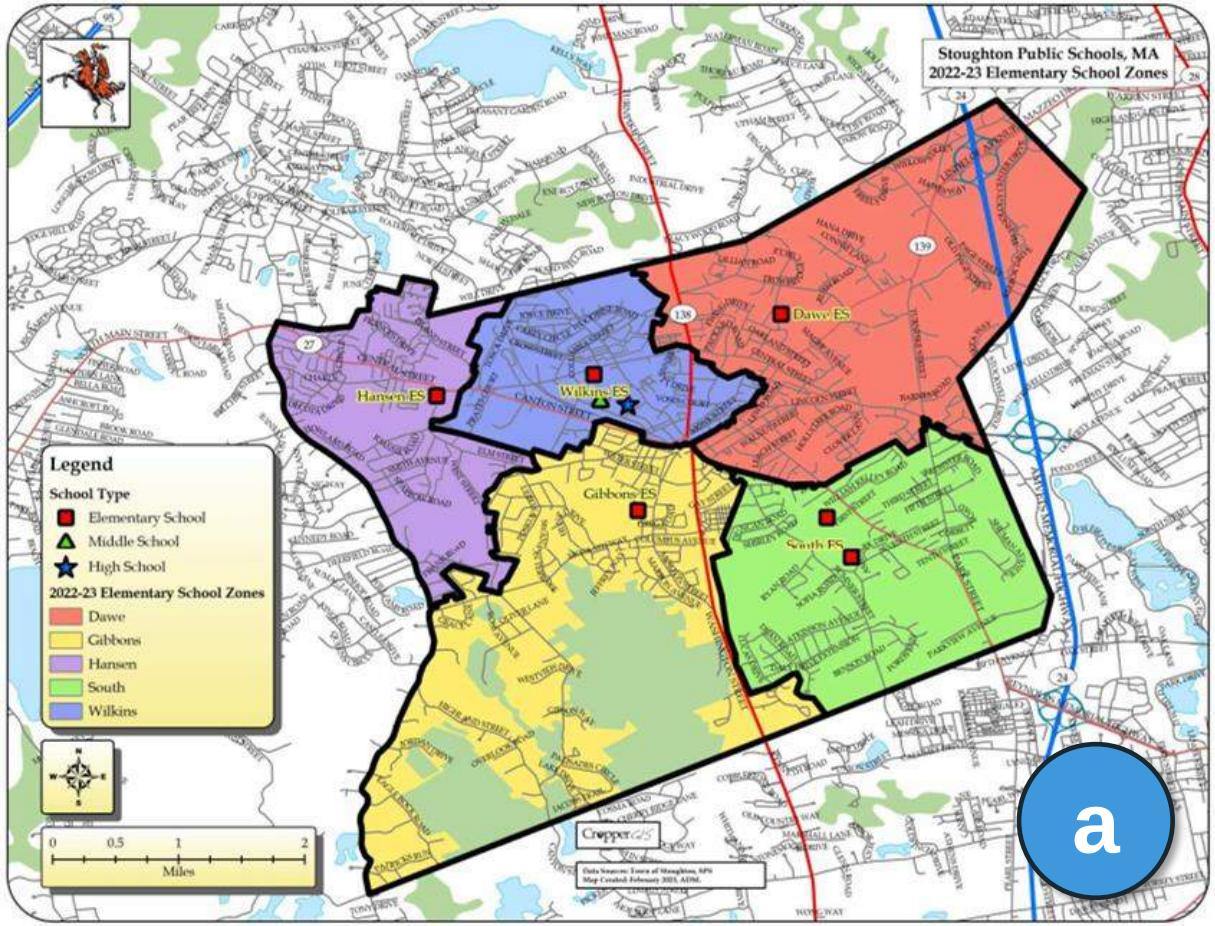
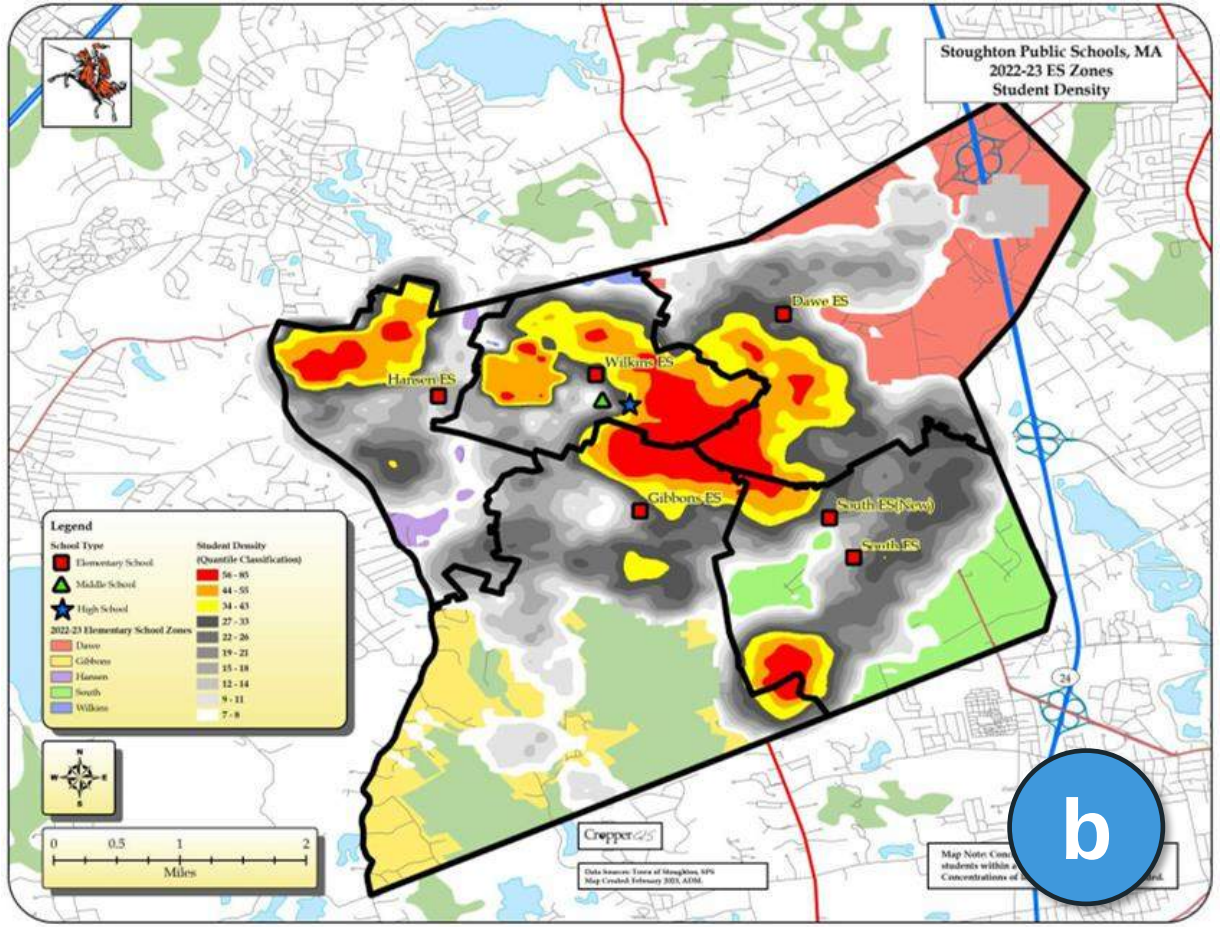
DRAFT PRELIMINARY ***Existing District Boundaries***





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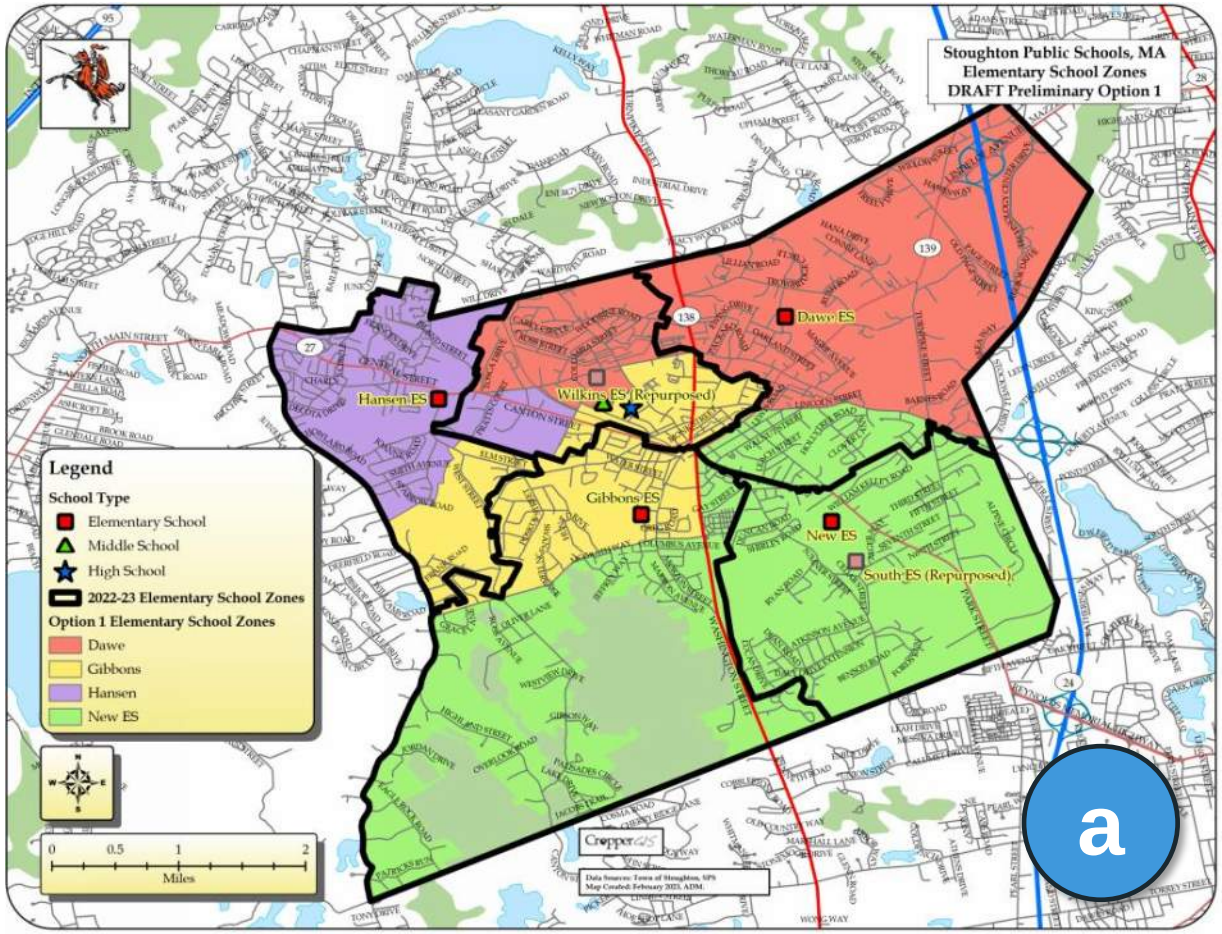
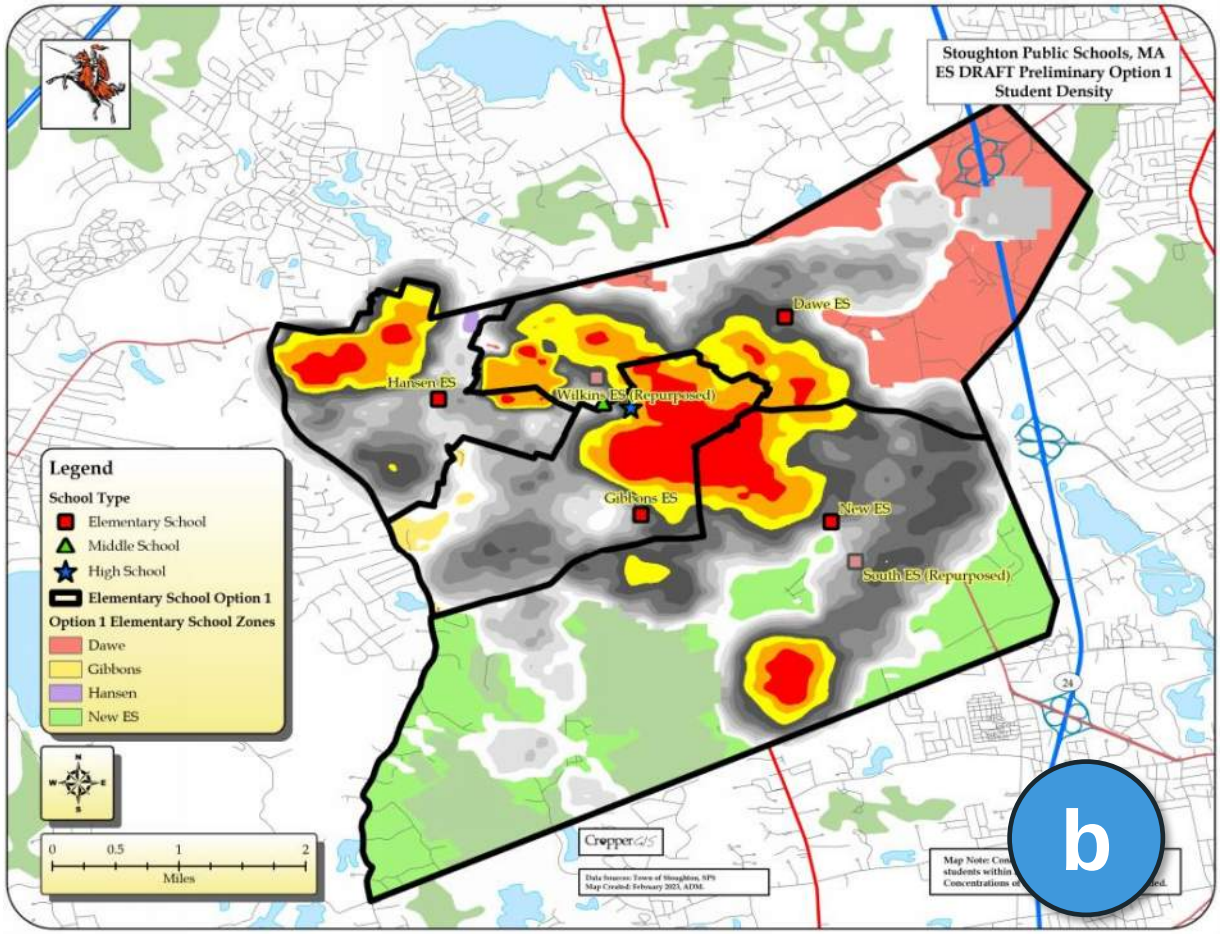
DRAFT PRELIMINARY ***OPTION 1***





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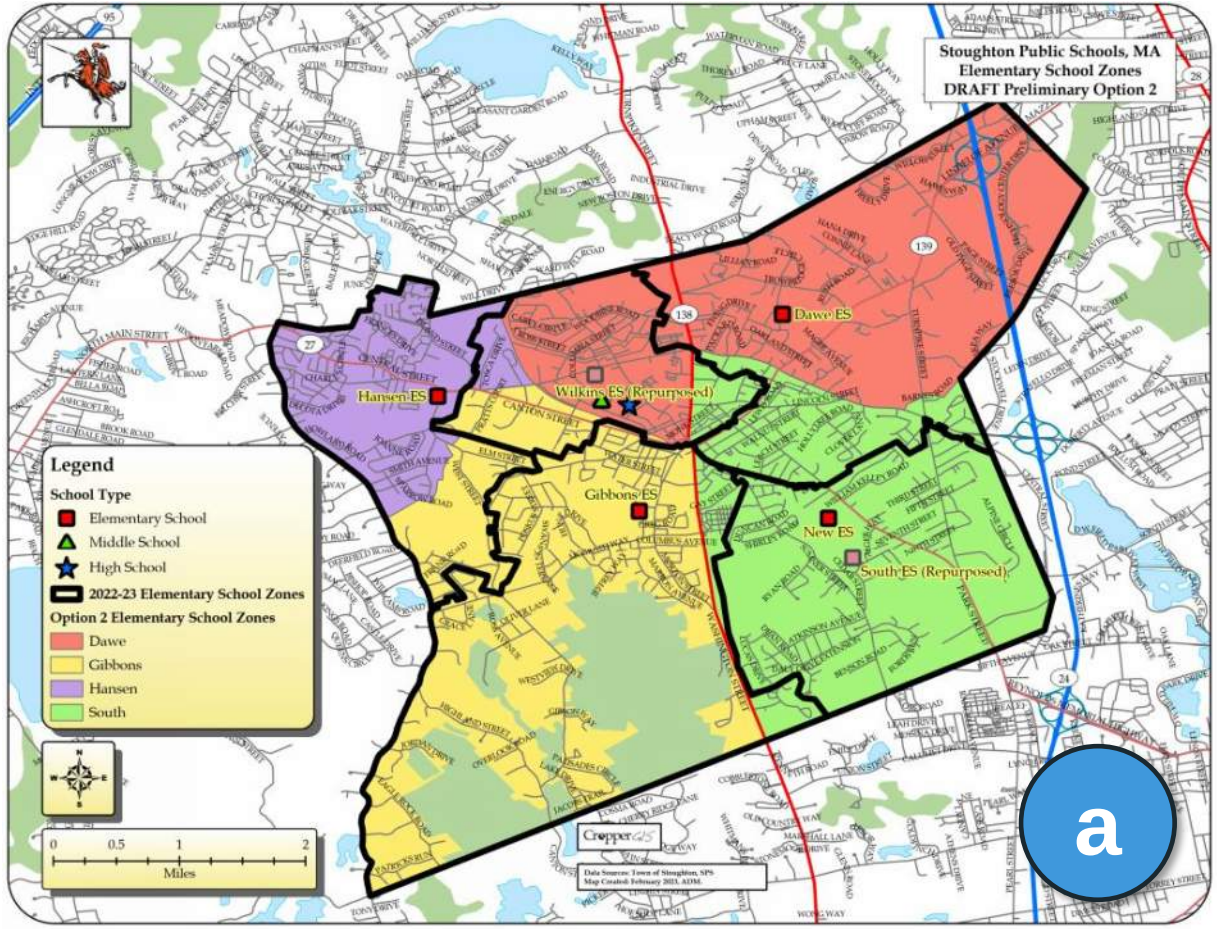

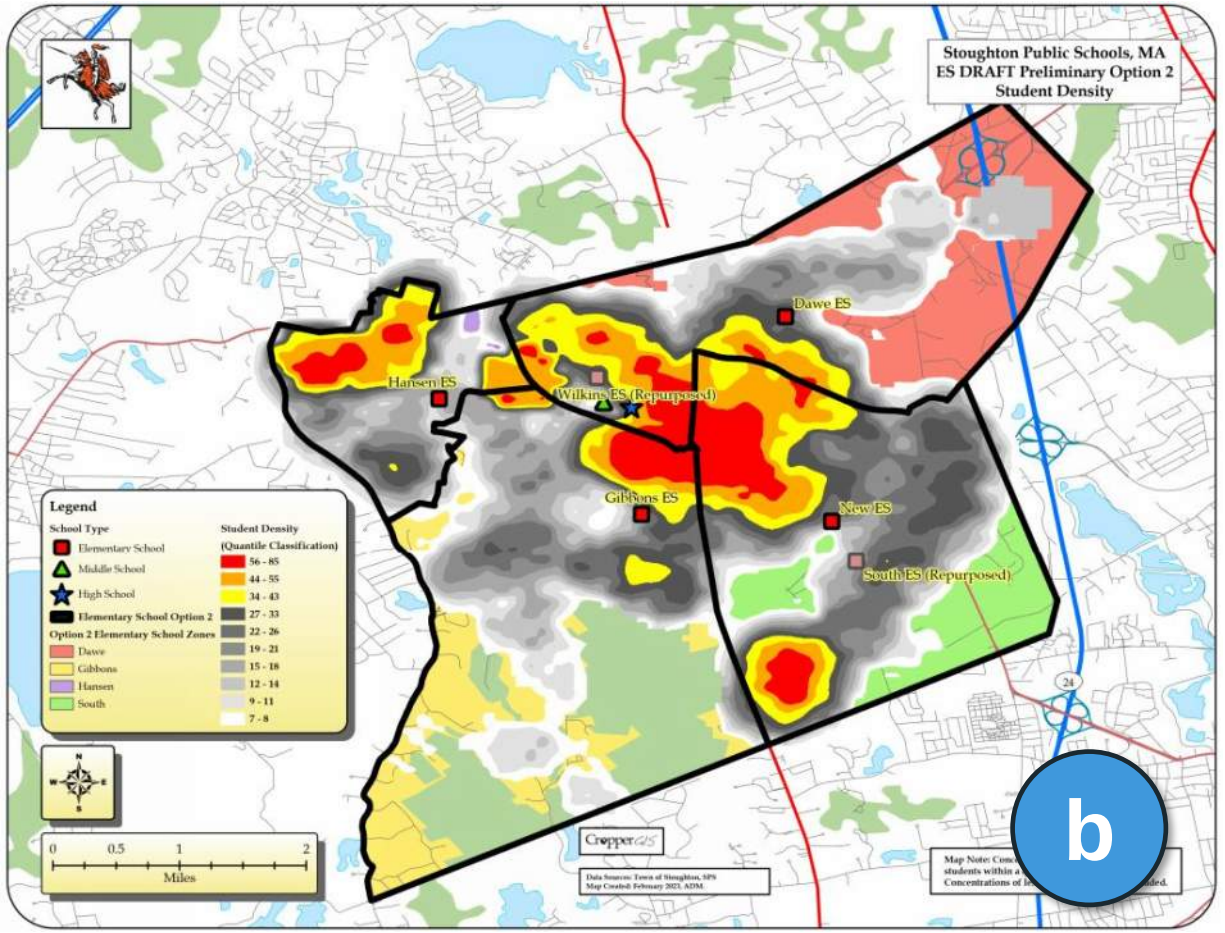

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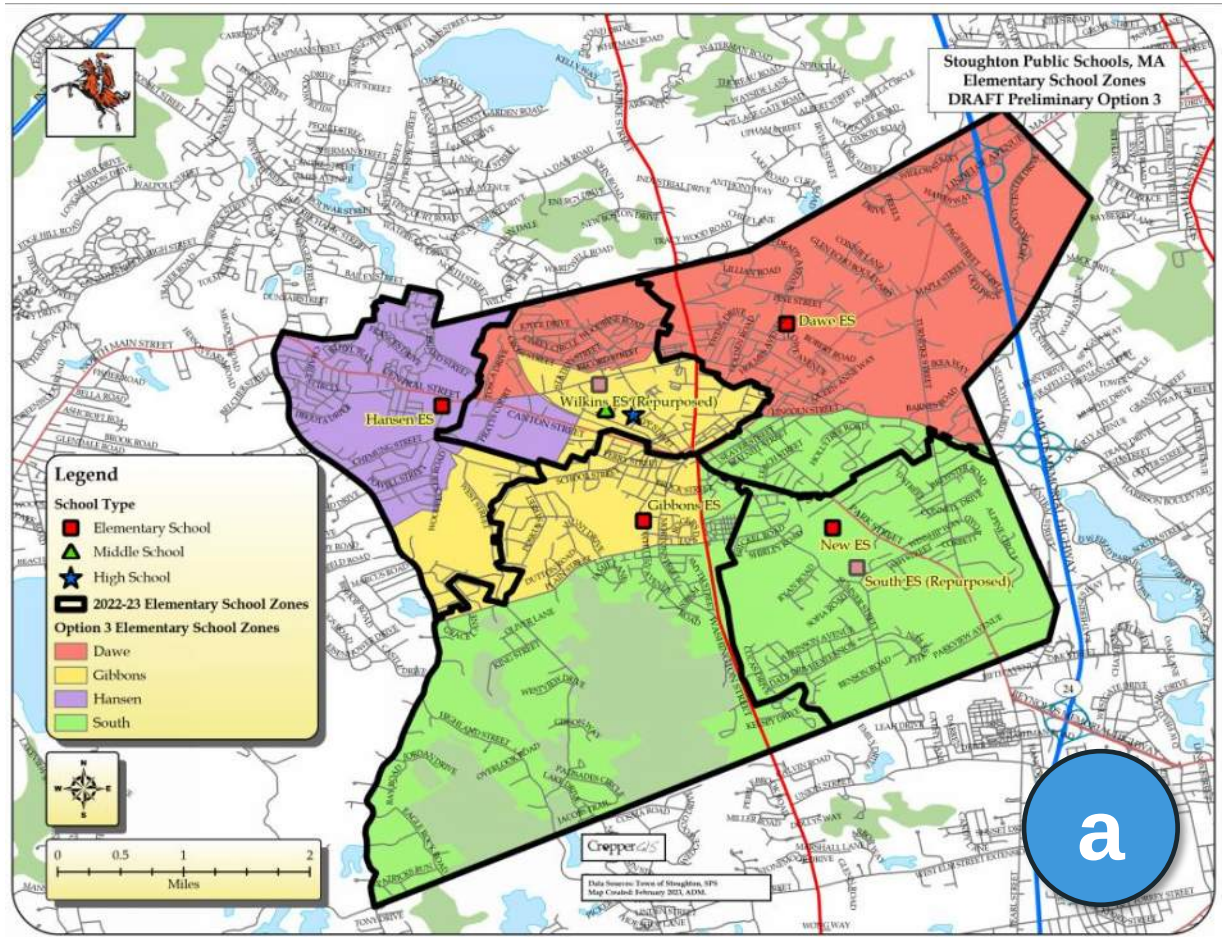

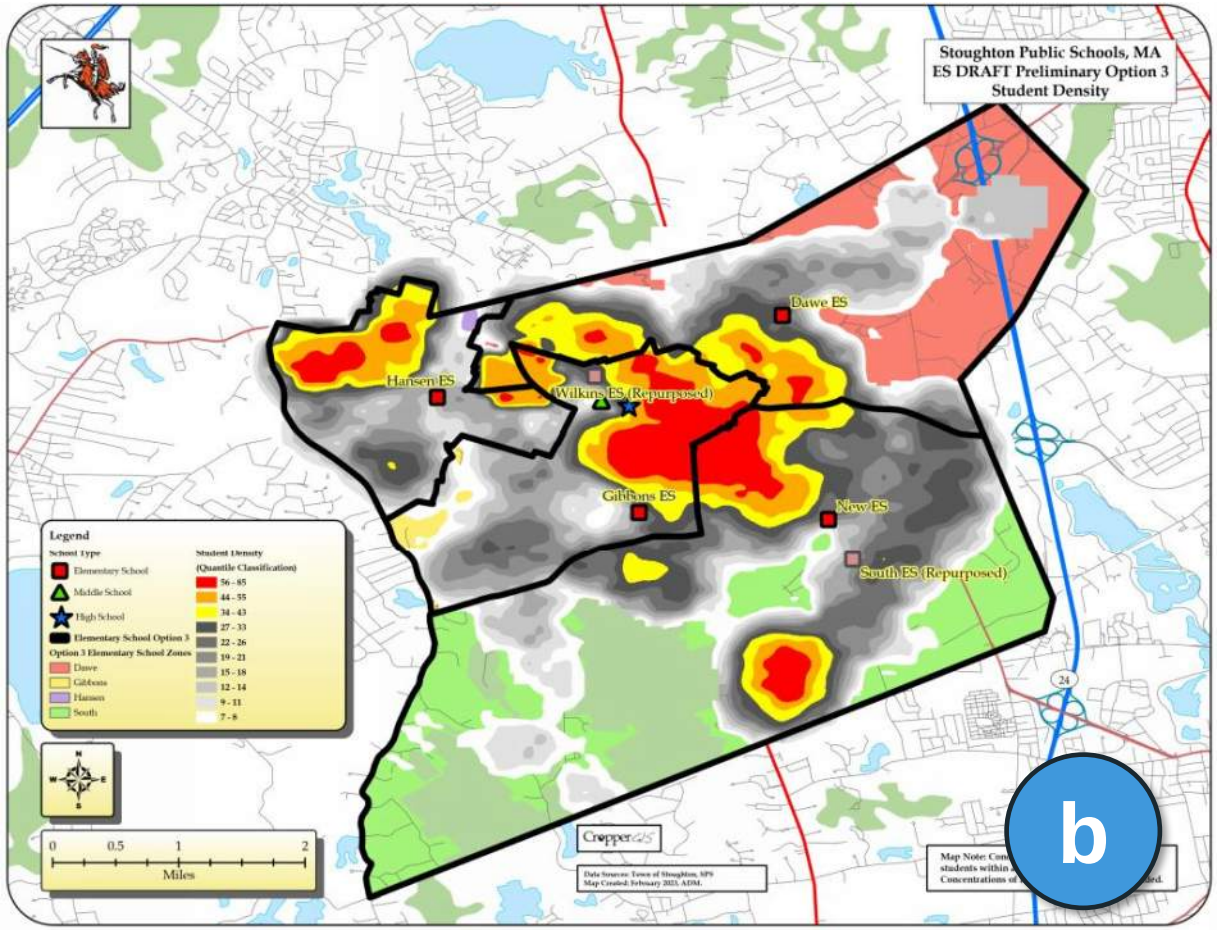

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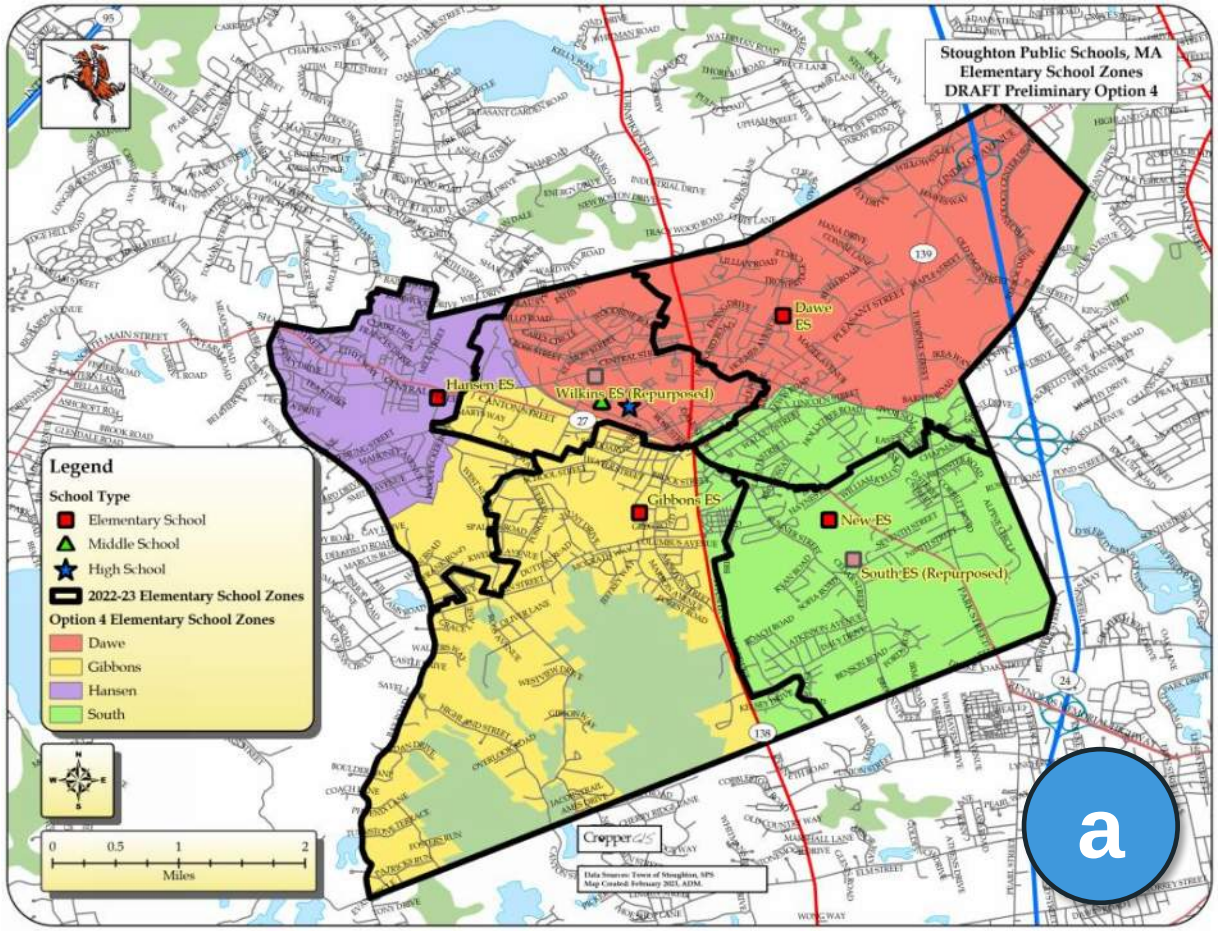
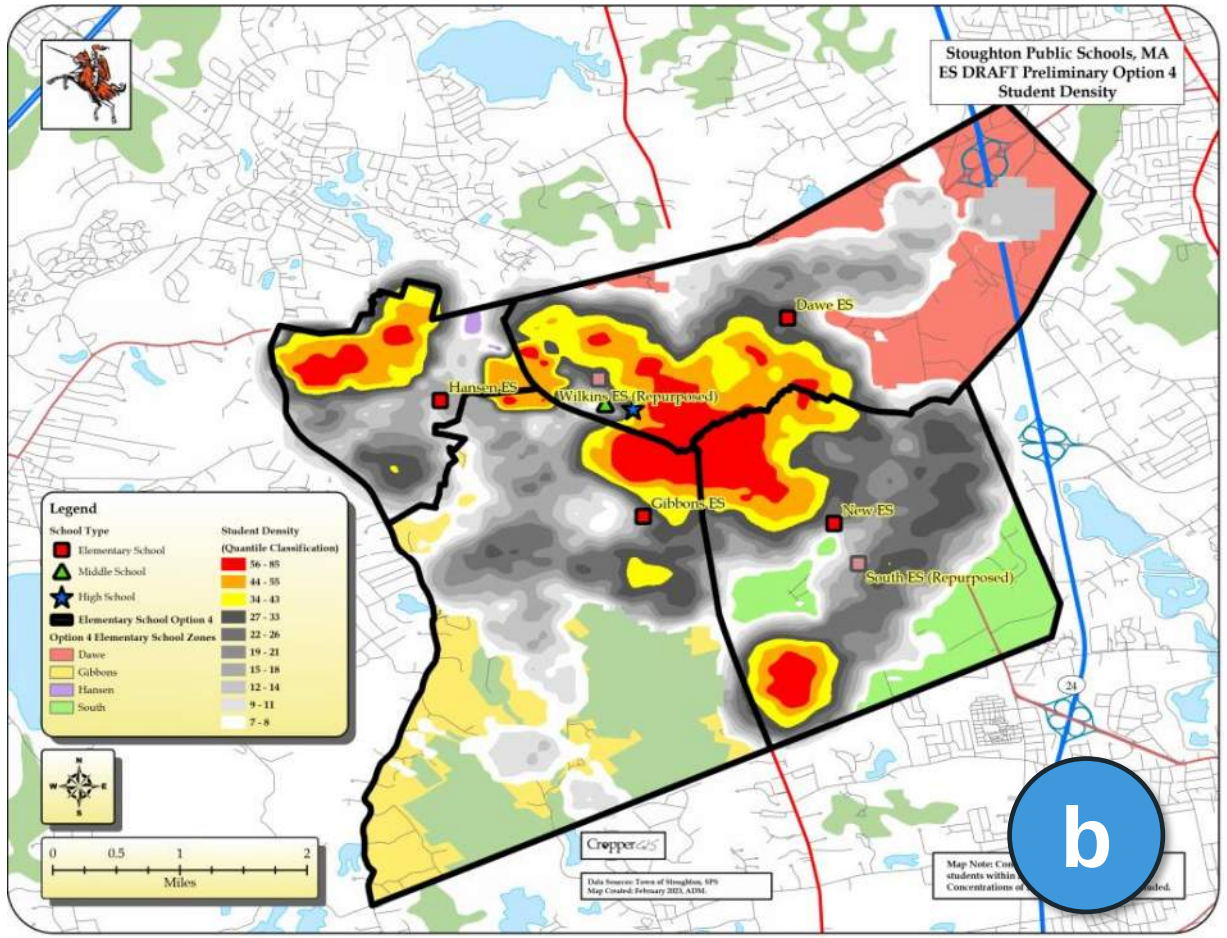
DRAFT PRELIMINARY ***OPTION 4***





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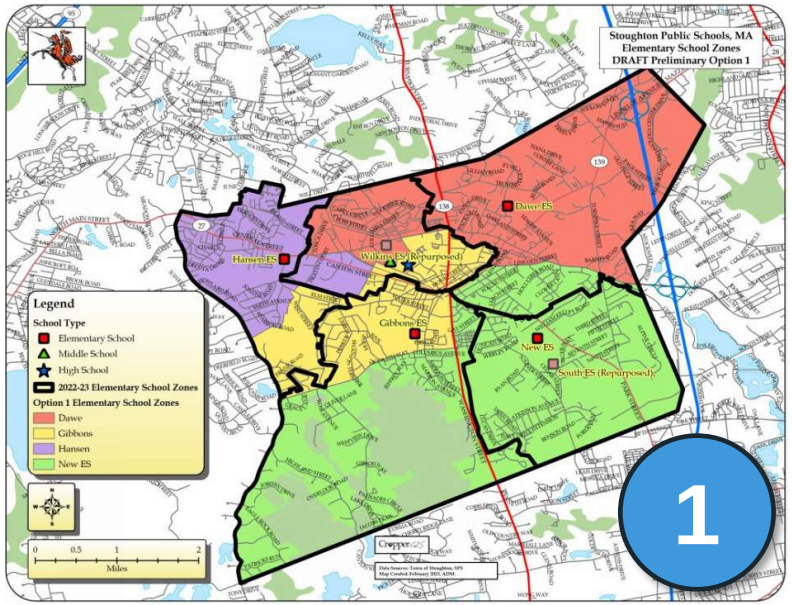
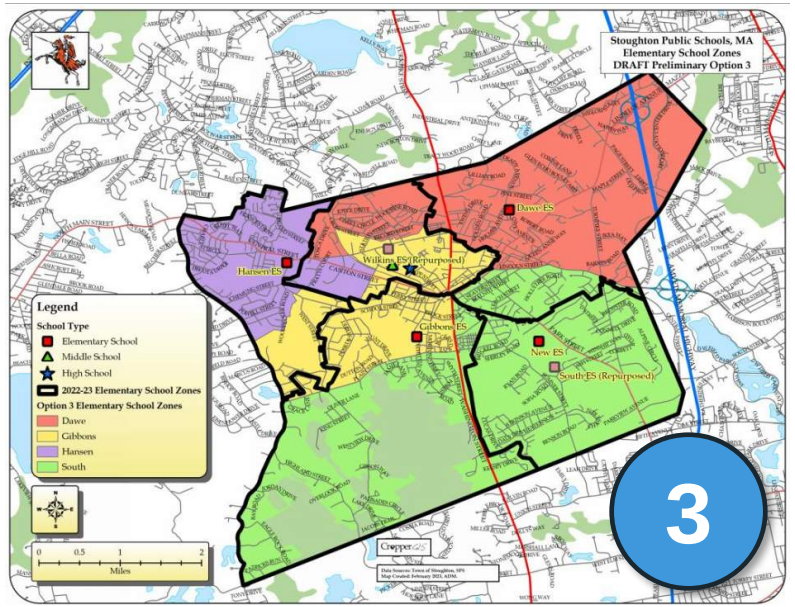
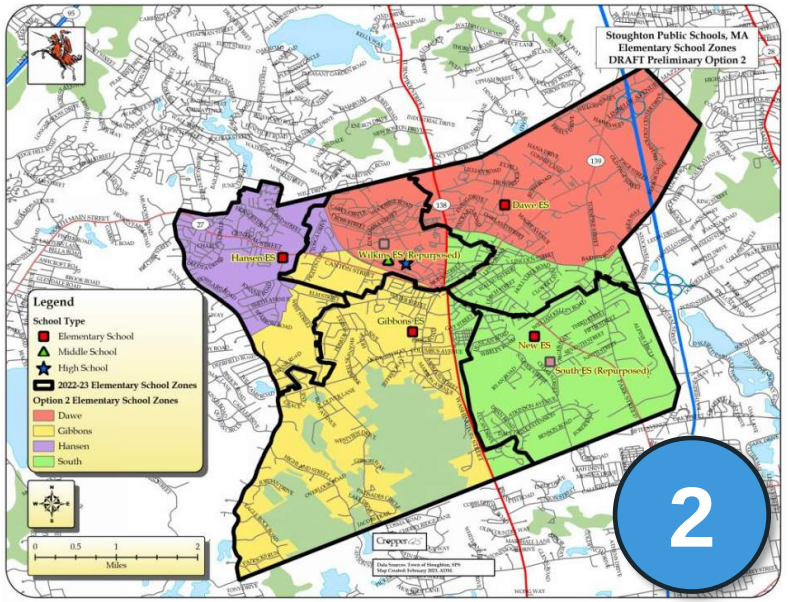
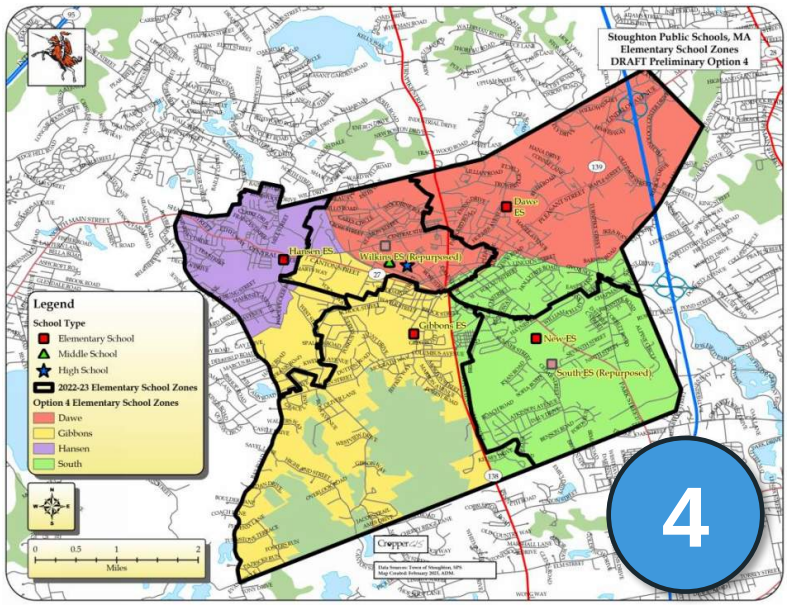








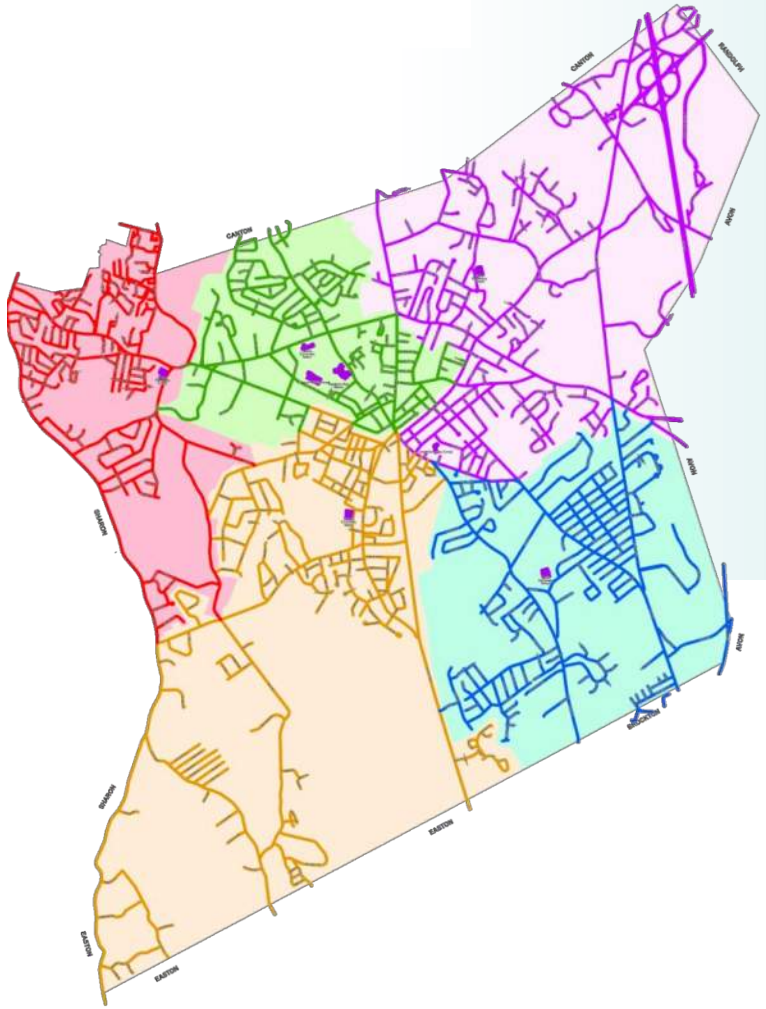
DRAFT

PRELIMINARY

OPTIONS

The New Elementary School Project

Consolidation Considerations

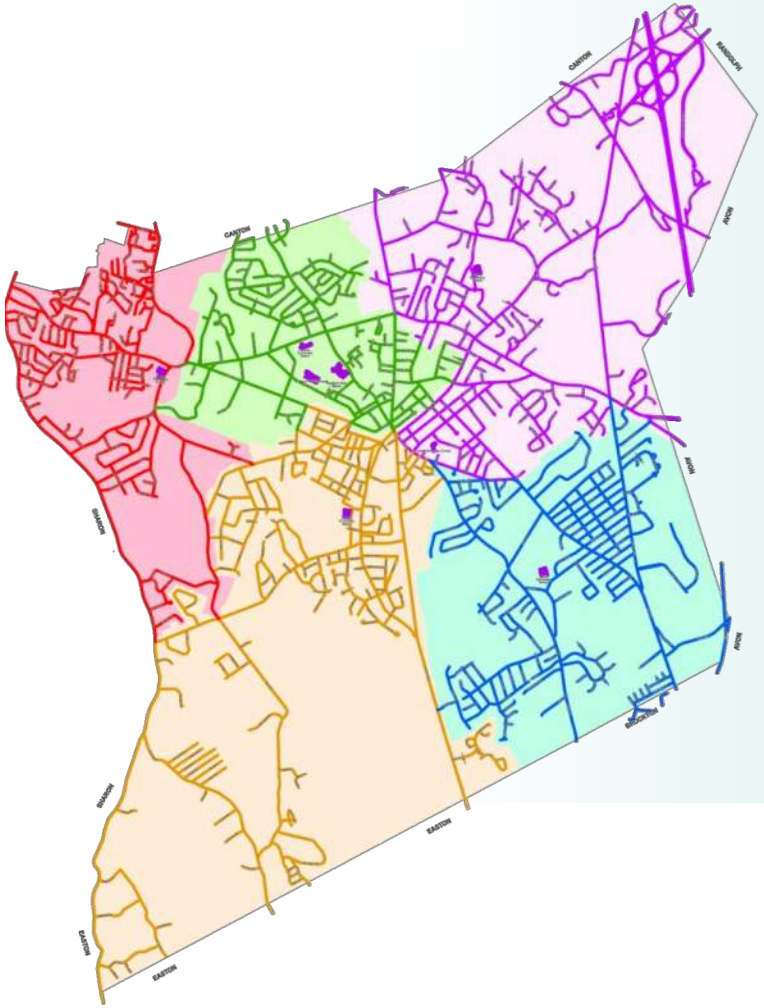


5 schools vs. 4 schools

- Operational Considerations – District Level
- Educational Considerations – School Level
- Project Impacts

The New Elementary School Project

District **Educational** Considerations



5 schools vs. 4 schools

- Flexibility with population ‘bubbles’
- Greater access to special education programs
- Small School (replacement) vs. Larger School (consolidated)
- Size of Assembly Spaces – After School Programming
- Impacts to New Elementary School Students
- Impacts to Other Schools (Dawe-Gibbons-Hansen)

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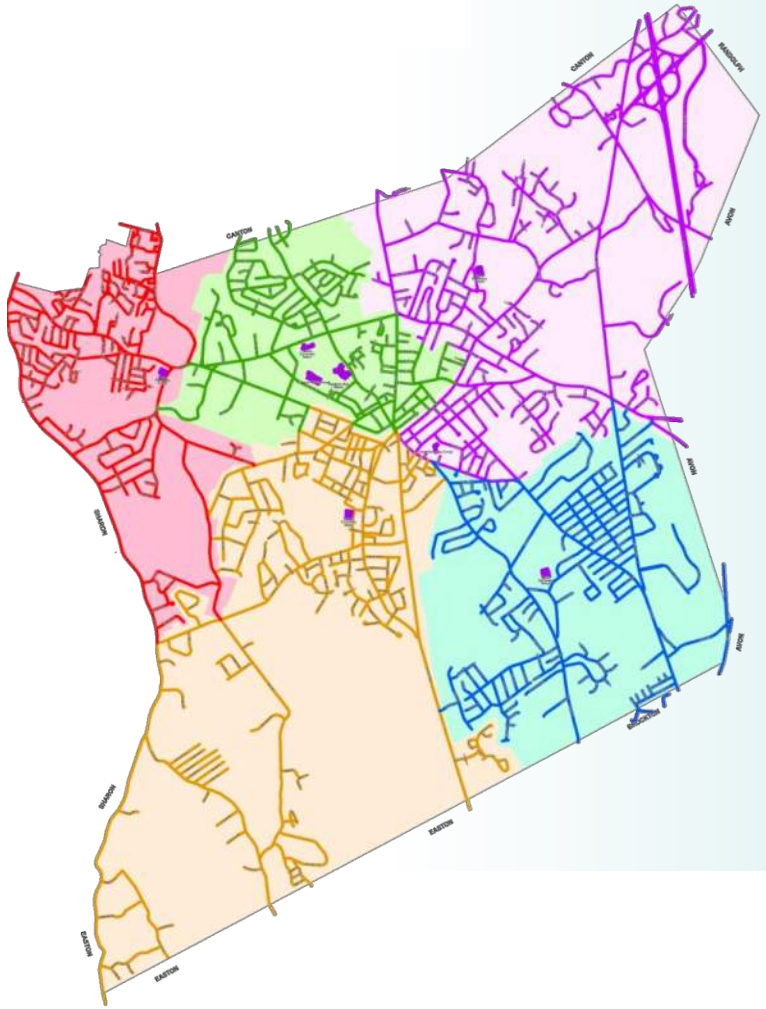
The New Elementary School Project

District **Operational** Considerations

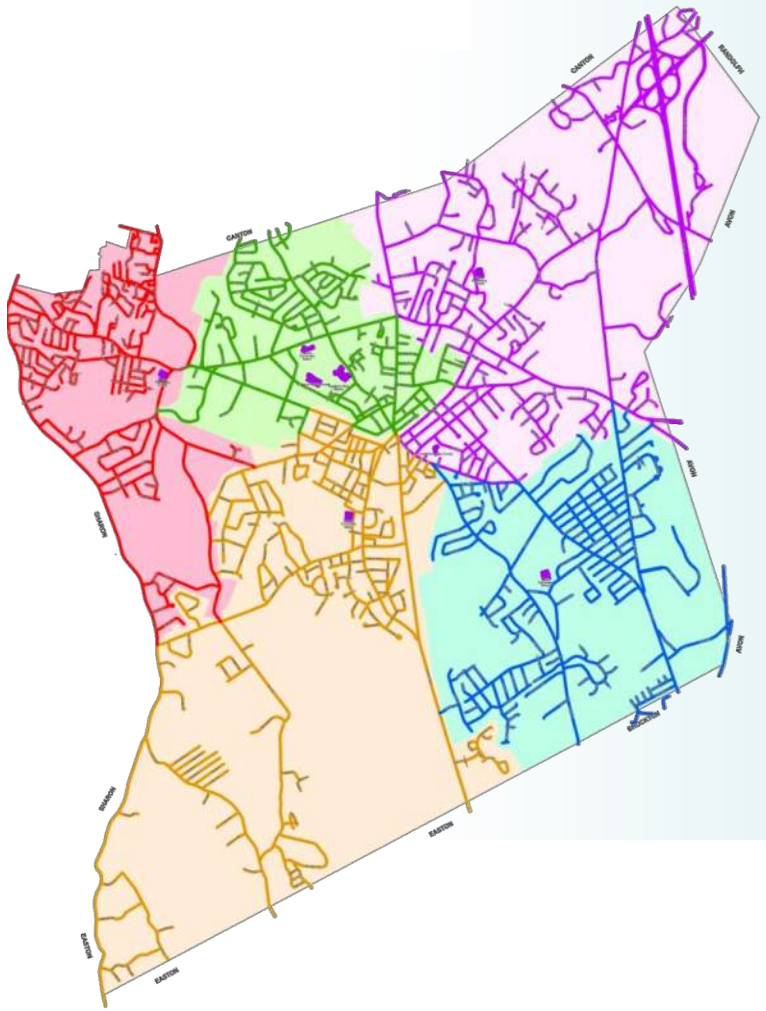


5 schools vs. 4 schools

- Maintenance/Operating Costs
- Travel between schools
- Shared Resources
- Reduced cost of multiple Resources

The New Elementary School Project

District **Community** Considerations



5 schools vs. 4 schools

- Reduced construction ‘cost per student’ for a new building
- State Reimbursement $$ available to impact a greater number of students
- Community Amenities

EVALUATION CRITERIA | school building committee

- **Ed Plan Accommodation - Compliance w/ Vision**
- **Disruption - Impact on Students**
- **Project Cost - Reimbursable Cost - Temporary Costs - Long-term Value**
- **Learning Commons as Heart of School**
- **Separation of Age Groups Scale**
- **Learning Neighborhoods Flexibility of Space**
- **Community Use / Expansion**
- **Potential Operating Costs - Maintenance**
- **Site Access Safety, Site Security & Traffic Flow – Separation of Adults from Students**
- **Circulation Final Site layout - Use of Exterior Space**
  Site amenities
- **Impact to Abutters Civic Image / Aesthetics 'Street Appeal'**
- **Construction Duration** - PHASING

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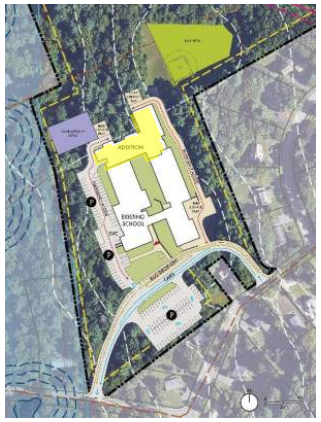
OPTIONS| overview

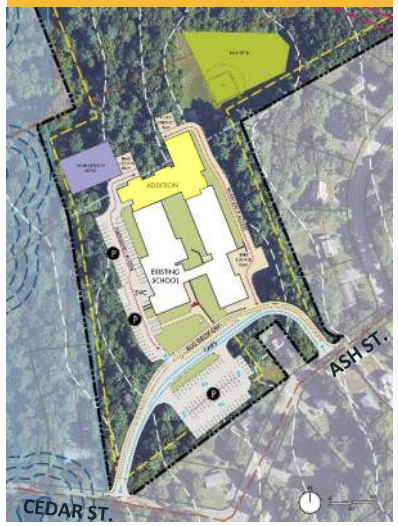
Base Repair	AR 1	AR 2	NC 1 – 1A	NC 2 – 2A	NC 3 – 3A	NC 4– 4A
						
Base Repair Site Area: 7 acres	REPLACEMENT Project Area: 12 acres	CONSOLIDATION Project Area: 12 acres	REPLACEMENT & CONSOLIDATION Project Area: 27 acres			CONSOLIDATION Project Area: 12 acres
	add/ reno		new construction			

The New Elementary School Project

REPLACEMENT
Project Area:
12 acres

REPLACEMENT & CONSOLIDATION (both enrollments)
Project Area: 27 acres

site plans



NC 1 – 1A

‘the pinwheel’

NC 2 – 2A

‘the arc’

NC 3 – 3A

‘the tee’

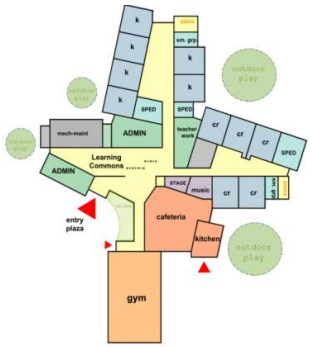
program key

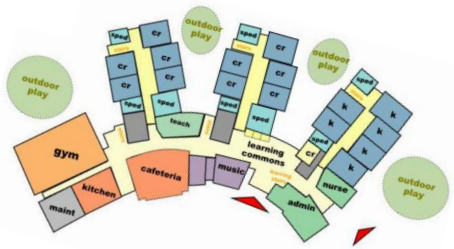
- LIBRARY / MEDIA
- GYMNASIUM
- CLASSROOMS
- SPECIAL EDUCATION
- BREAKOUT
- SPECIALS (Art/Music/STEM)
- ADMIN/TEACHER SUPPORT
- CAFETERIA & KITCHEN
- CUST / IT / MAINT
- OUTDOOR LEARNING

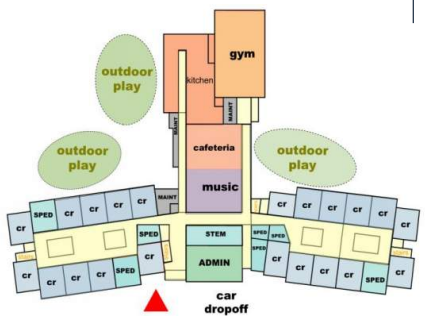
floor plans

Addition - Renovation

New Construction: Line Lumber Site







OPTIONS| overview

https://www.stoughtonschools.org

OPTIONS | base repair & addition-renovation

AR-1

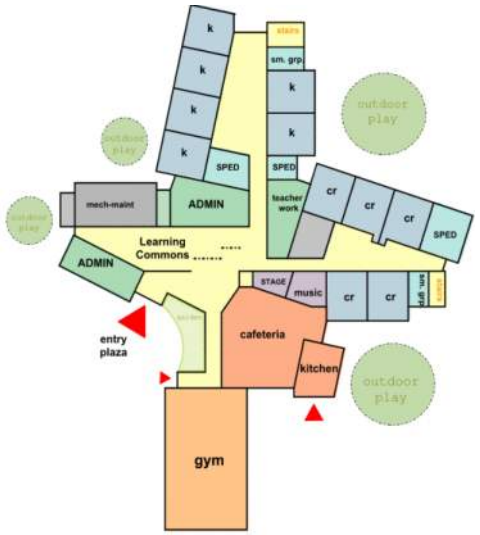
REPLACEMENT

AR-2

CONSOLIDATION

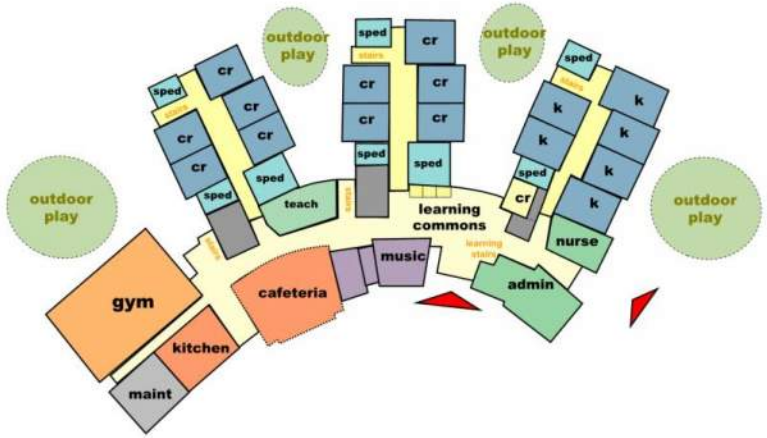
- LIBRARY / MEDIA
- GYMNASIUM
- CLASSROOMS
- SPECIAL EDUCATION
- BREAKOUT
- SPECIALS (Art/Music/STEM)
- ADMIN/TEACHER SUPPORT
- CAFETERIA & KITCHEN
- CUST / IT / MAINT
- OUTDOOR LEARNING

OPTIONS| new construction



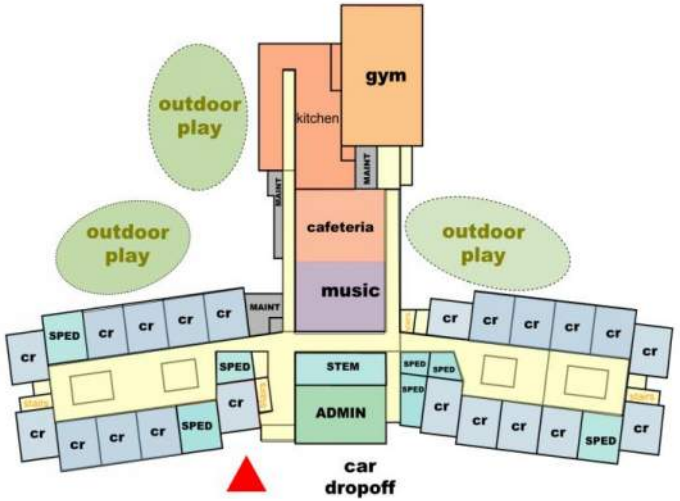
NC
1 – 1A

the pinwheel



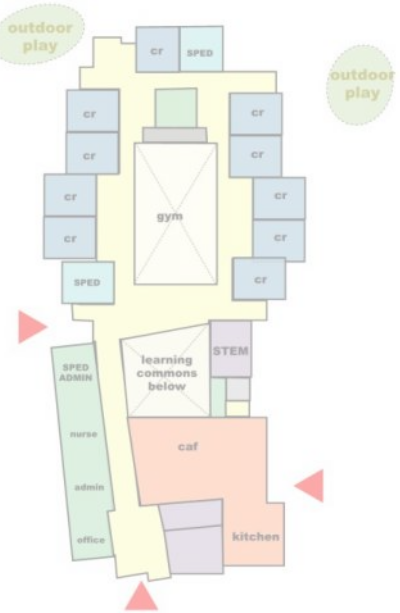
NC
2 – 2A

the arc



NC
3 – 3A

the tee



NC
4– 4A

compact

- LIBRARY / MEDIA
- GYMNASIUM
- CLASSROOMS
- SPECIAL EDUCATION
- BREAKOUT
- SPECIALS (Art/Music/STEM)
- ADMIN/TEACHER SUPPORT
- CAFETERIA & KITCHEN
- CUST / IT / MAINT
- OUTDOOR LEARNING

MA | recent elementary school sizes

- Data gathered from MSBA since 2019

- Minimum school size: 315 students
- Average School Size: 630 students
- Maximum school size: 1000 students

SOURCE: *MSBA website; Board meetings, 2019 -2022. All Elementary school projects with approved Project Scope & Budget Agreements*.

District	School	Enrollment	Note
Brookline	Pierce	725	
Winchester	Lynch	520	
Amherst	**Ft River**	**575**	**consolidation**
Maynard	Green	395	
Hingham	Foster	605	
Lawrence	**Leahy**	**1000**	
Medfield	Dale	575	
Peabody	Welch	390	A/R
Randolph	**Lyons**	**315**	
Westfield	Franklin	395	
Wellesley	**Hardy**	**365**	**consolidation**
Fitchburg	**Crocker**	**845**	**consolidation**
Swampscott	**Hadley**	**900**	**consolidation**
Andover	West	925	
Westwood	**Hanlon**	**560**	**consolidation**
Groton	Roche	645	
Ashland	Mindess	635	
Gloucester	**East**	**440**	**consolidation**
Springfield	**Deberry**	**800**	**consolidation**
Acton-Box	**Douglas**	**990**	**consolidation**
Easton	**Center**	**760**	**consolidation**
Rockland	**Jefferson**	**760**	**consolidation**
Amesbury	Amesbury	425	
B-R	Mitchell	740	
Gardner	**Waterford**	**925**	**consolidation**
Millbury	Shaw	550	
W. Springfield	Coburn	585	
Marblehead	**Gerry**	**450**	**consolidation**
Tewksbury	**Trahan**	**790**	**consolidation**
Westboro	Fales	400	
Average		**630**	students
Median		595	students

Proposed New Stoughton Elementary School

Consolidation Option:

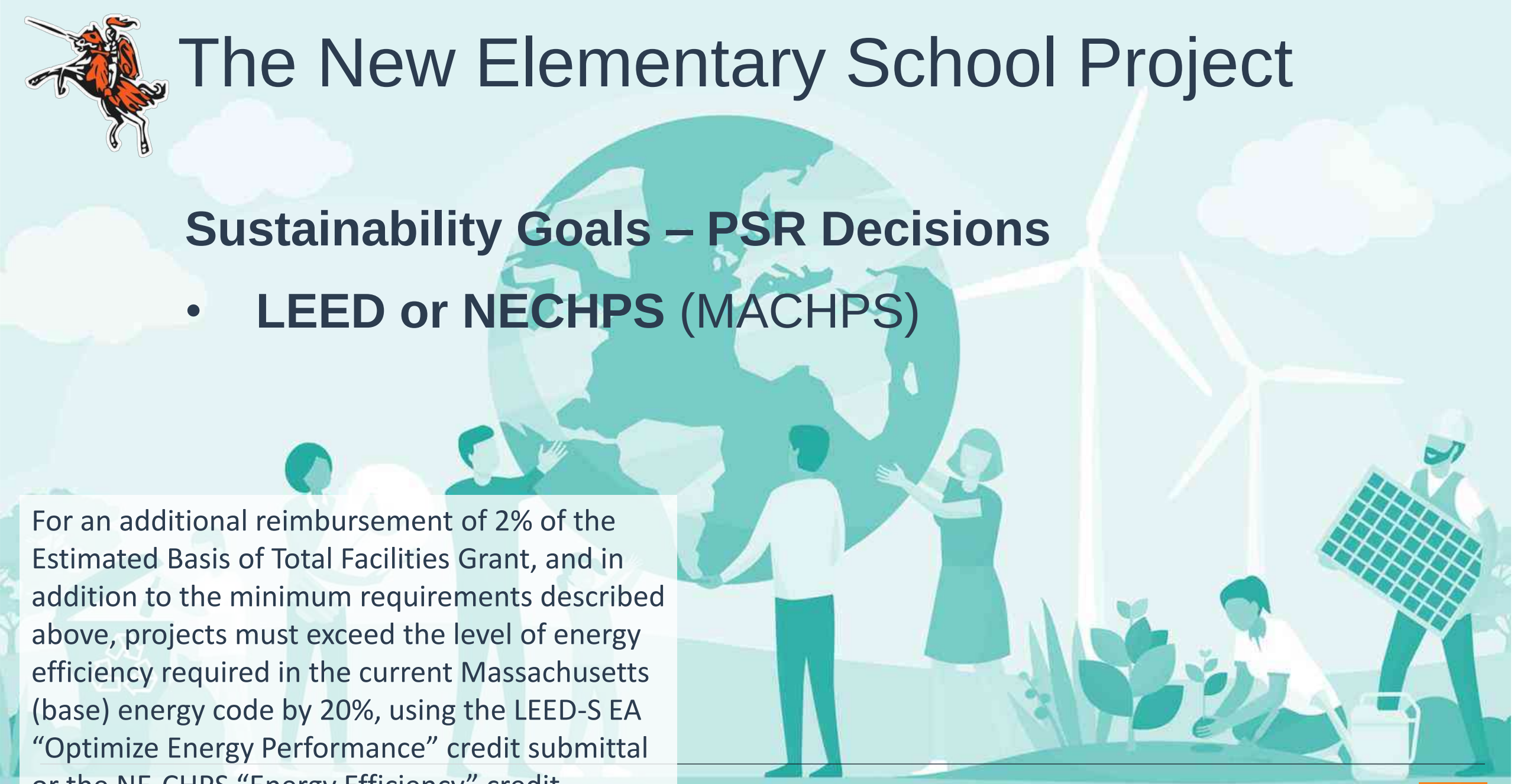
515 student design enrollment

600+/- student capacity

The New Elementary School Project

Sustainability Goals – PSR Decisions

- **LEED or NECHPS** (MACHPS)



For an additional reimbursement of 2% of the Estimated Basis of Total Facilities Grant, and in addition to the minimum requirements described above, projects must exceed the level of energy efficiency required in the current Massachusetts (base) energy code by 20%, using the LEED-S EA "Optimize Energy Performance" credit submittal or the NE-CHPS "Energy Efficiency" credit submittal to demonstrate that performance.

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penn brook elementary | k-6 school

sustainable strategies

student gardens

located with access to kitchen to allow student food production to be integrated into the menu
A cistern collects rainwater from the cafeteria roof for watering the gardens

rainwater collection

collects graywater from roofs for student gardens and student wing toilet rooms

Significantly reduces impervious surfaces on site - minimized stormwater structures required

photovoltaics

system reduces overall building demand on local utility company

roof garden

Insulating, reduces water runoff and heat island effect

solar orientation

allows exposure for classrooms & pv facing south on the cafeteria roof

fresh air sensors

classrooms have wall lights that turn green when outside conditions are optimal for opening windows

White roof minimizes heat island effect – minimizing utility bills

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focus on **wellness**

being mindful about material selection

- **indoor air quality**
- **low emitting – no VOC materials**
- **cradle to cradle materials**
- **low carbon offsets**
- **red list free materials when possible**

Experience with :

- Living Building Challenge
- WELL
- Fitwel
- LEED
- MA CHPS

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MA Stretch Code Communities

Which code applies to my project?
It depends on where the project is located.

Under the 10th edition MA Energy Code,
each muncipality follows one of three possible codes:

Base Code

Applies in non-Green Communities
(~50 MA municipalities)

IECC 2021
+ MA amendments

Stretch Code

Applies in all
MA Green Communities
(over 300 MA municipalities)

IECC 2021
+ MA amendments
+ Stretch Code amendments

Specialized Code

Municipalities must vote to opt in to the Specialized Code. The code takes effect 6-11 months after adoption.

IECC 2021
+ MA amendments
+ Stretch Code amendments
+Specialized Code appendices

Thornton Tomasetti

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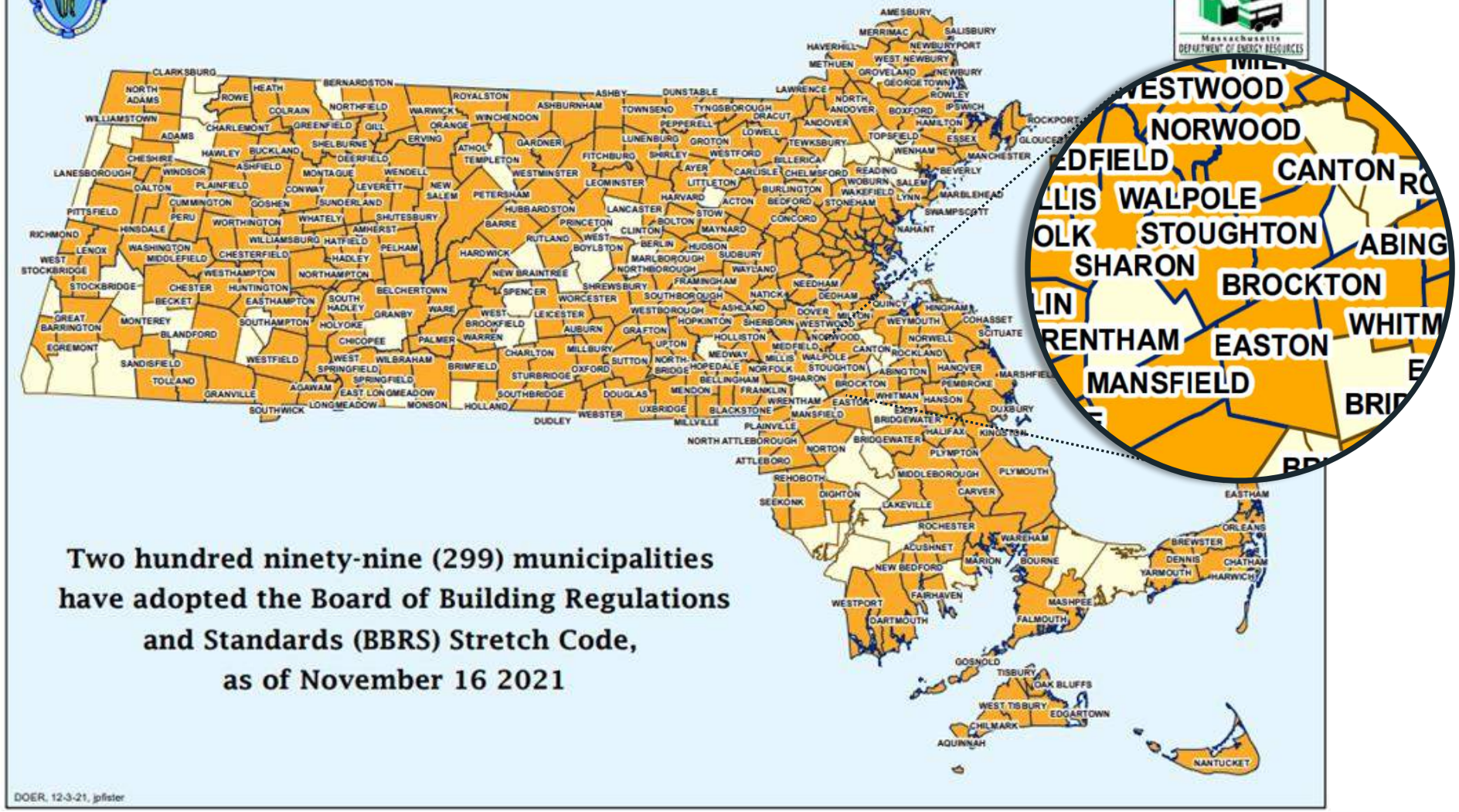
Stretch Code Adoption, by Community



Federal and state standards continue to require increasing levels of energy efficiency with a goal of “Zero Net Energy Buildings” by 2030.

What is a net zero building?

A net zero building is extremely efficient and gets all of its energy from renewable sources, either producing all of its energy onsite or purchasing renewable energy from other sources.

Why net zero buildings?

In Massachusetts and across the United States, the building sector accounts for a big slice of our carbon pollution. By building net zero buildings, we can have a huge impact on reducing our pollution as a state, country, and planet.

The international scientific consensus is that all buildings must be net zero by 2050.

avoid systems that use **fossil fuels**

consider the application of **geothermal** and/or air source heat pumps

apply **energy recovery** units

fully utilize CO2 based **demand control** ventilation strategies

utilize **heat pump** domestic water heaters

apply **solar domestic hot water** heaters

LED lighting current design is *0.4 Watts/Sq. Ft.*

efficiency & sustainability

Manchester Memorial Elementary School - JCJ

37.7% cost savings

- **Constructed in 2021**
- **LEED-S v4 Gold**

40%+ indoor water savings, native vegetation, bicycle storage, rooftop outdoor classroom, low emitting and sustainable materials, full-cutoff lighting, daylighting and views

Caleb Dustin Hunking School - JCJ

38.5% cost savings

- **Constructed in 2016**
- **LEED-S v3 Silver**

Rooftop patio classroom showcasing white and green roof and weather stations, bioswale, low emitting materials, regional materials with high recycled content, lighting control, daylighting and views

VvS | Architects & Consultants

Timeline for Code Changes

Base Code (IECC 2021)

- New construction in towns & cities not a green community
- **52 communities**

Expected from BBRS: **July 2023**

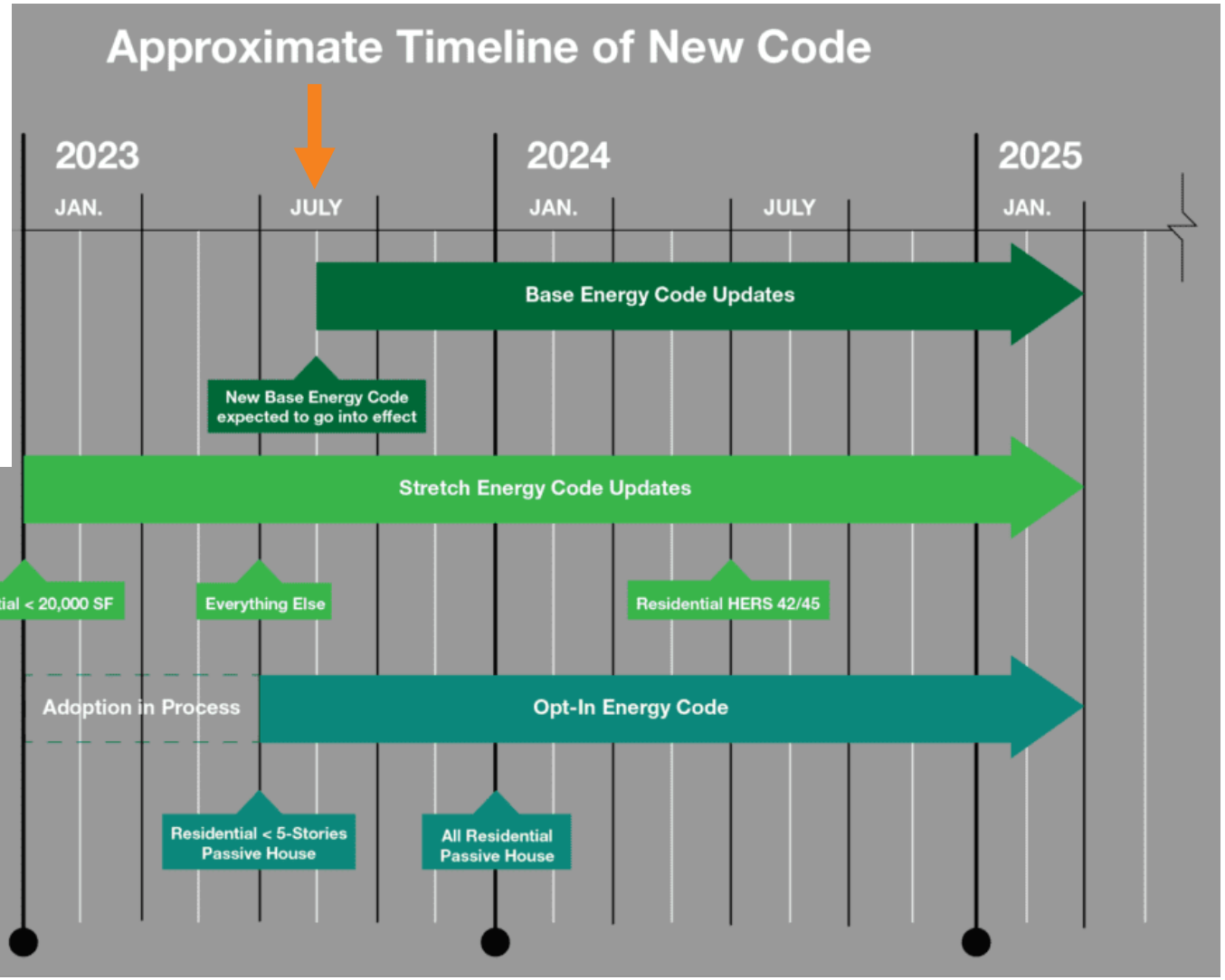
Stretch Code (2023 update)

- New construction in towns & cities that are a green or stretch community
- **299 communities**

Residential : Jan 2023
Commercial: July 2023

Specialized Code ("Net-Zero")

- New Construction in towns & cities that vote to opt-in to this code
- **Effective date:** Typically 6-11 months after Town/City vote



LEED

Leadership in Energy & Environmental Design

LEED Scorecard

Gold 0/110

INTEGRATIVE PROCESS	0 / 1
LOCATION AND TRANSPORTATION	0 / 16
SUSTAINABLE SITES	0 / 10
WATER EFFICIENCY	0 / 11
ENERGY & ATMOSPHERE	0 / 33
MATERIALS & RESOURCES	0 / 13
INDOOR ENVIRONMENTAL QUALITY	0 / 16
INNOVATION	0 / 6
REGIONAL PRIORITY CREDITS	0 / 4

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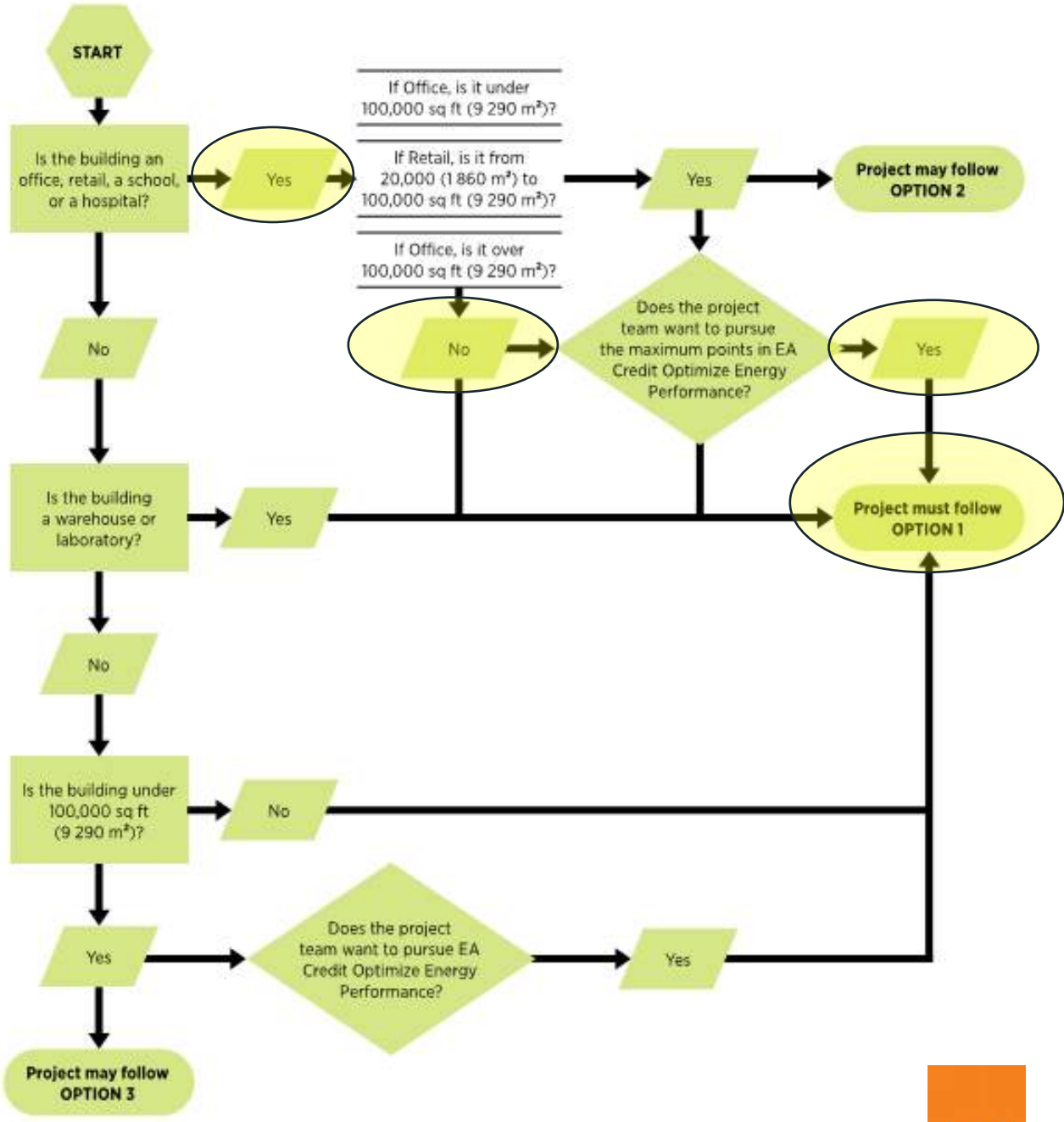
LEED

Leadership in Energy & Environmental Design

Building Energy Performance

Assessment & Paths



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LEED

Leadership in Energy & Environmental Design

Using LEED-S, for no additional reimbursement, achieve a minimum of “Certified,” including a minimum total of three points (from seven points available) from the following three categories:

- MR Building Product Disclosure and Optimization - Material Ingredients
- IEQ - Low Emitting Materials
- IEQ – Indoor Air Quality Assessment OR;

MA-CHPS

Massachusetts Collaborative for High Performance Schools

2020 COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS CHPS VERIFIED

Using NE-CHPS, for no additional reimbursement, achieve a minimum of “Verified”, including a minimum total of five points (from ten points available) from the following four categories:

- EQ 5.1.3 Indoor Air Quality Management – Building Flush Out
- EQ 7.0 Low Emitting Materials
- EQ 7.1 Additional Low Emitting Materials
- MW 10.1 Health Product Information Reporting

AND; Exceed the level of energy efficiency required in the current Massachusetts (base) energy code by 10%, using the LEED-S EA “Optimize Energy Performance” credit submittal or the NE-CHPS “Energy Efficiency” credit submittal to demonstrate that performance.

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The New Elementary School Project

End of Presentation

Thank You