

ASSOCIATION FOR
**LEARNING
ENVIRONMENTS**

CHICAGO

LearningSCAPES 2023

BRIAN REGAN
APRIL 7

BIGGER

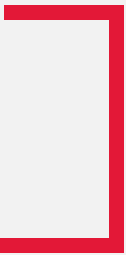
ISN'T ALWAYS

BETTER

Tips for building
smarter schools



WHO
WE ARE



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Kristine Eager
Superintendent
Waltham CCSD#185, North Utica, IL



Agenda

How did we get here?

Is there a better way?

Smart school case studies



HOW DID WE GET HERE?



federal requirements



TITLE I

dedicated services for low income

TITLE IX

equitable programs by gender

PUBLIC LAW 94-142

free education for each child with disability

MANDATED LUNCH PROGRAMS

AMERICANS WITH DISABILITIES ACT



educational practice / methods



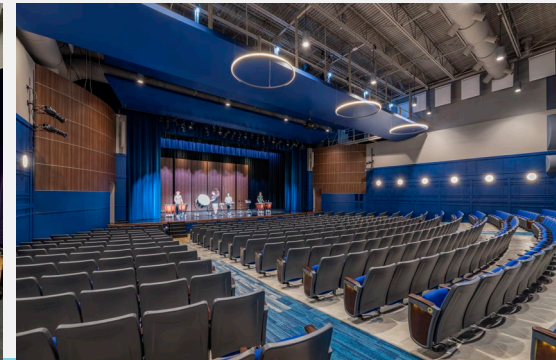
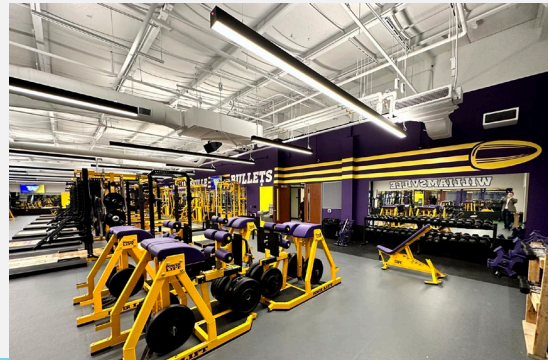
educational practice / methods

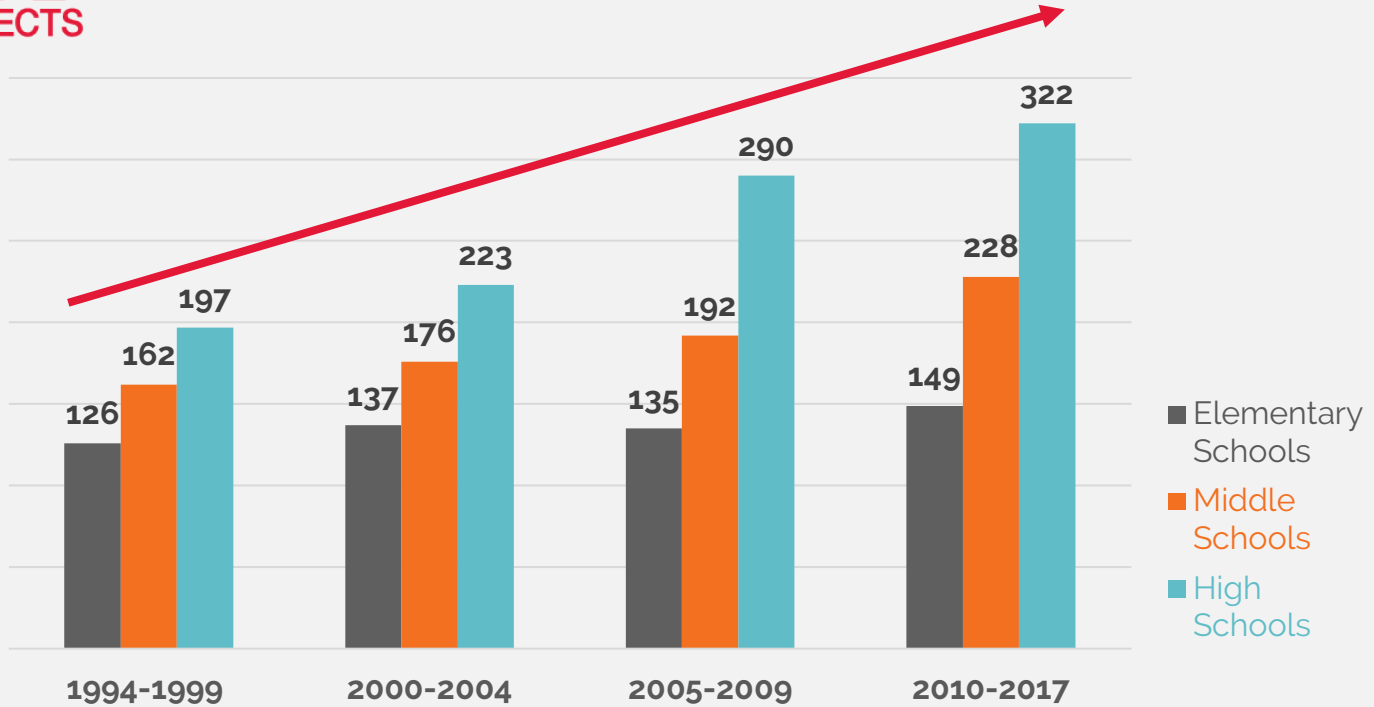


keepin' up with the "Joneses"



the "Joneses"

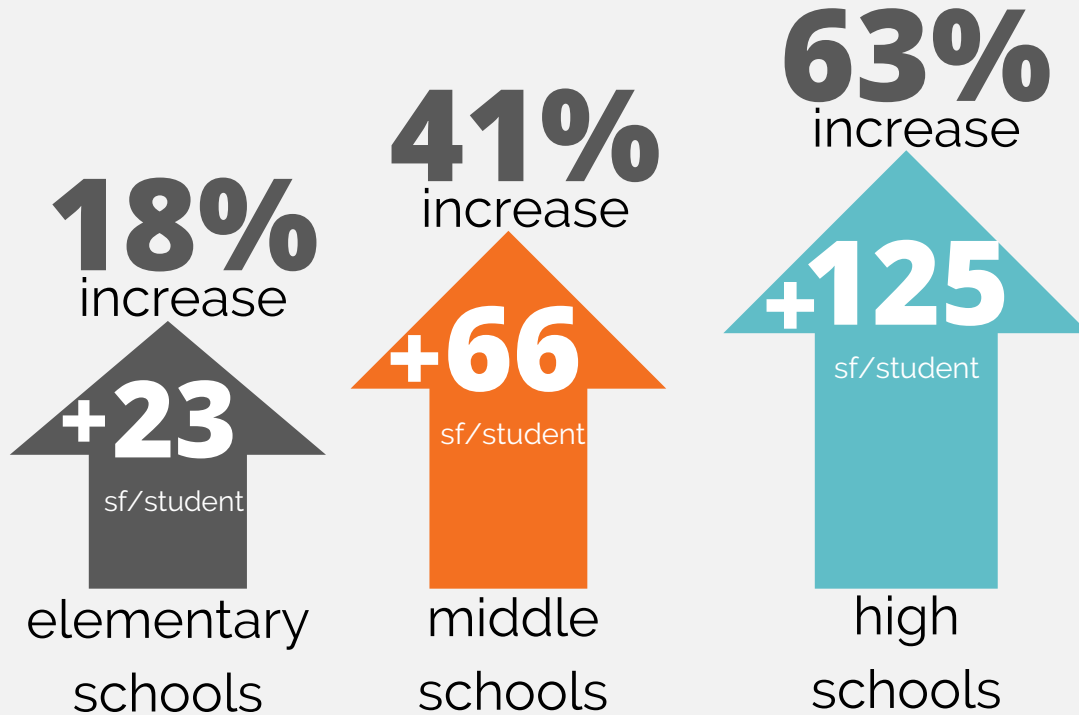




CHANGE IN AVG SF/STUDENT

new construction from 1994 – 2019



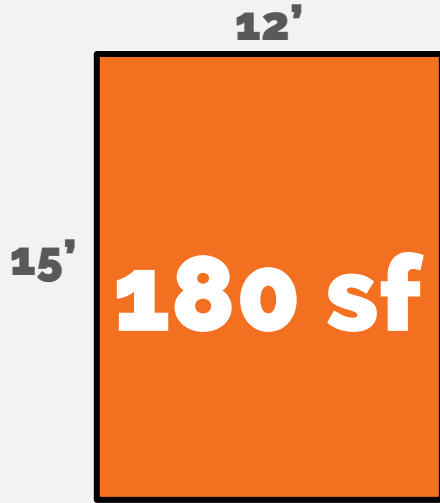


CHANGE IN AVG SF/STUDENT

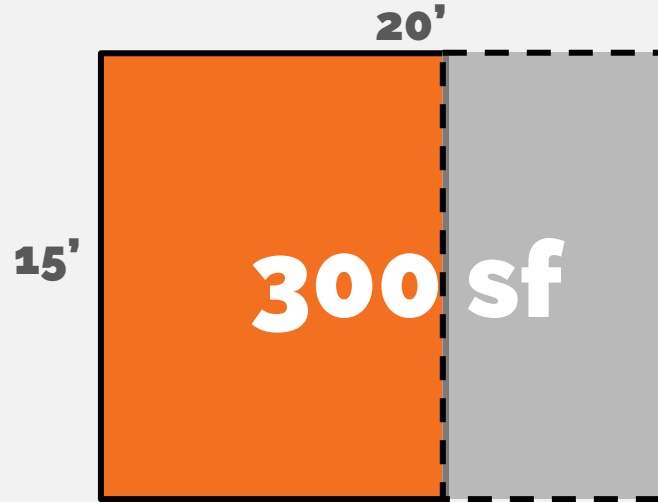
new construction from 1994 – 2019*

*To-date there are 746 individual survey entries. Each individual entry is representative of a completed construction project, with 219 being classified as new construction. Survey by 4M Educational Services.





1994



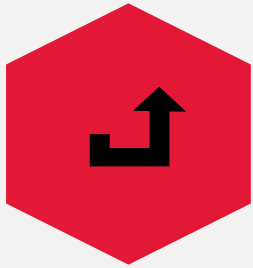
2019

CHANGE IN AVG SF/STUDENT

new construction from 1994 – 2019*



positive effects



more
program
space



inclusion
and
equity

negative effects



higher first
and life cycle
costs



high
travel time /
lost educational time



disengaged
culture



ADDED COST



new construction

For every 1000 SF added

\$450,000+

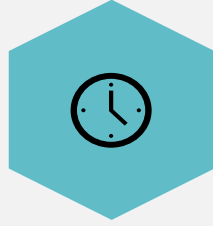
additional first
costs

\$1500+

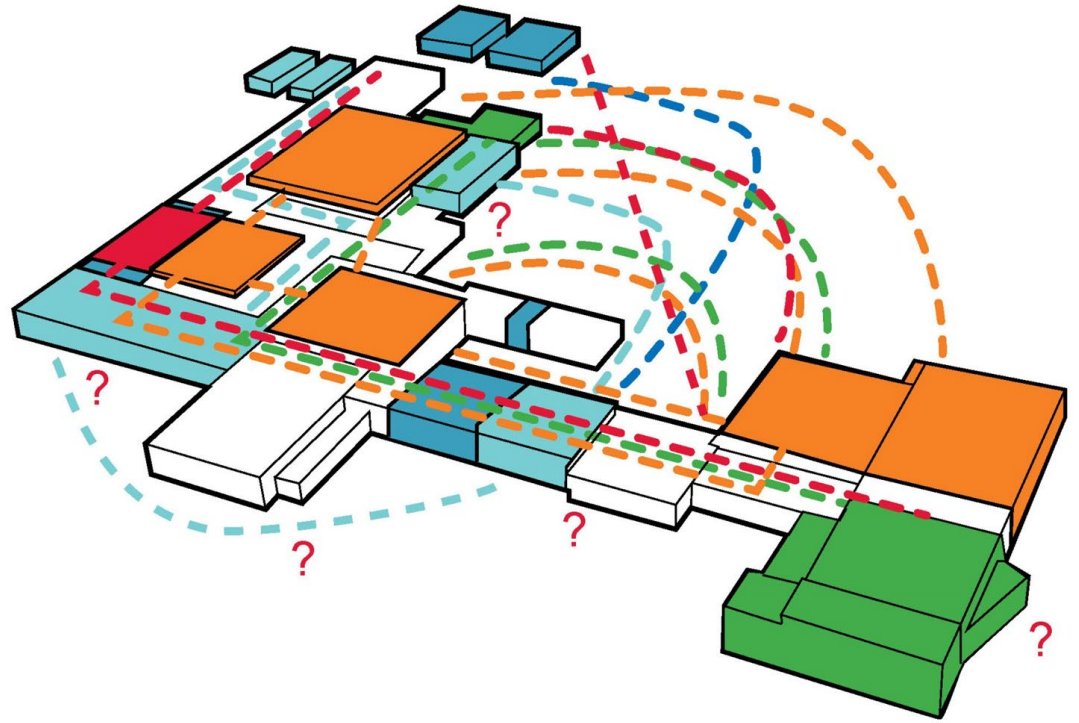
average
additional costs
every year



1/4 MILE WALK



through building





DISENGAGED

culture



IS THERE A ↓
**BETTER
WAY?**



WHAT

should we **BUILD?**



should we **BUILD?**

WHY???



SMARTER PLANNING

1 Assign space by kid not by adult

2 Make sure EVERY space has a function between 8-3, M-F

3 Find programs that are underserved individually but compatible

4 Avoid uniformity disguised as equity



**MORE
CHAIRS**
than students



the problem: crowded classrooms

WHAT? →

Design bigger
classrooms

WHY? →

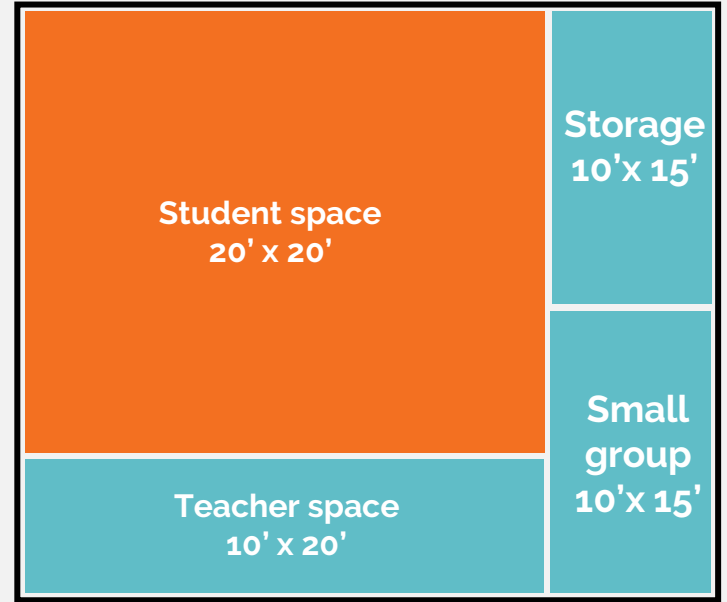
There is so much
stuff in the room

- Desks for the biggest class
- Teacher storage
- Area for small group work

WHY??

WHY??? →

Understand what is
taking up space and
make space for it



Existing 30x30 classroom usage



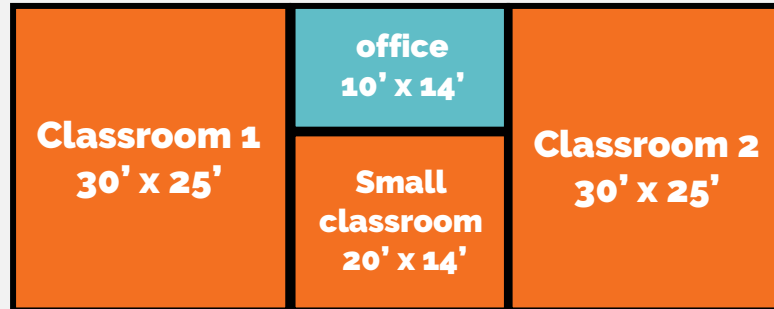
WHAT

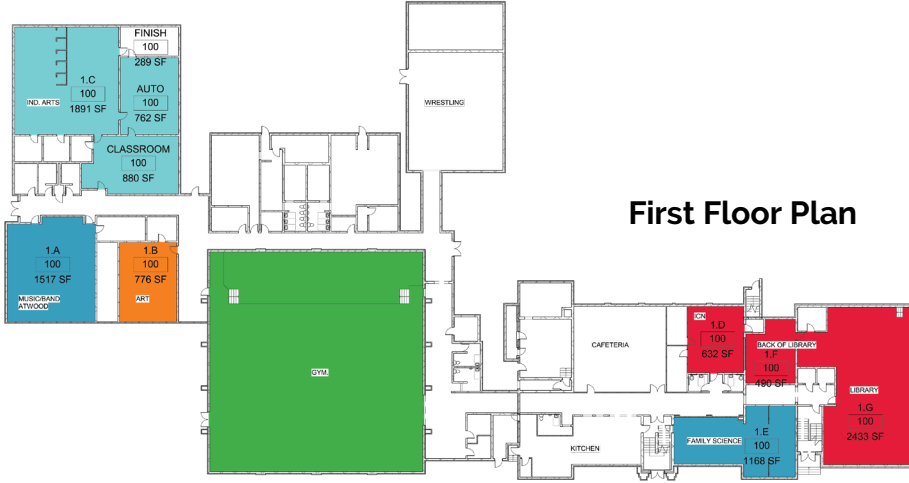
should we BUILD?



WHY

should we BUILD?





- NOT USED
- USED LESS THAN 50%
- ABOVE 1/2 CAPACITY MOST OF THE DAY
- NEVER BELOW 1/2 CAPACITY FOR 1/3 OF THE DAY
- LESS THAN 1/2 CAPACITY ALL DAY
- ADMIN/STAFF

Second Floor Plan

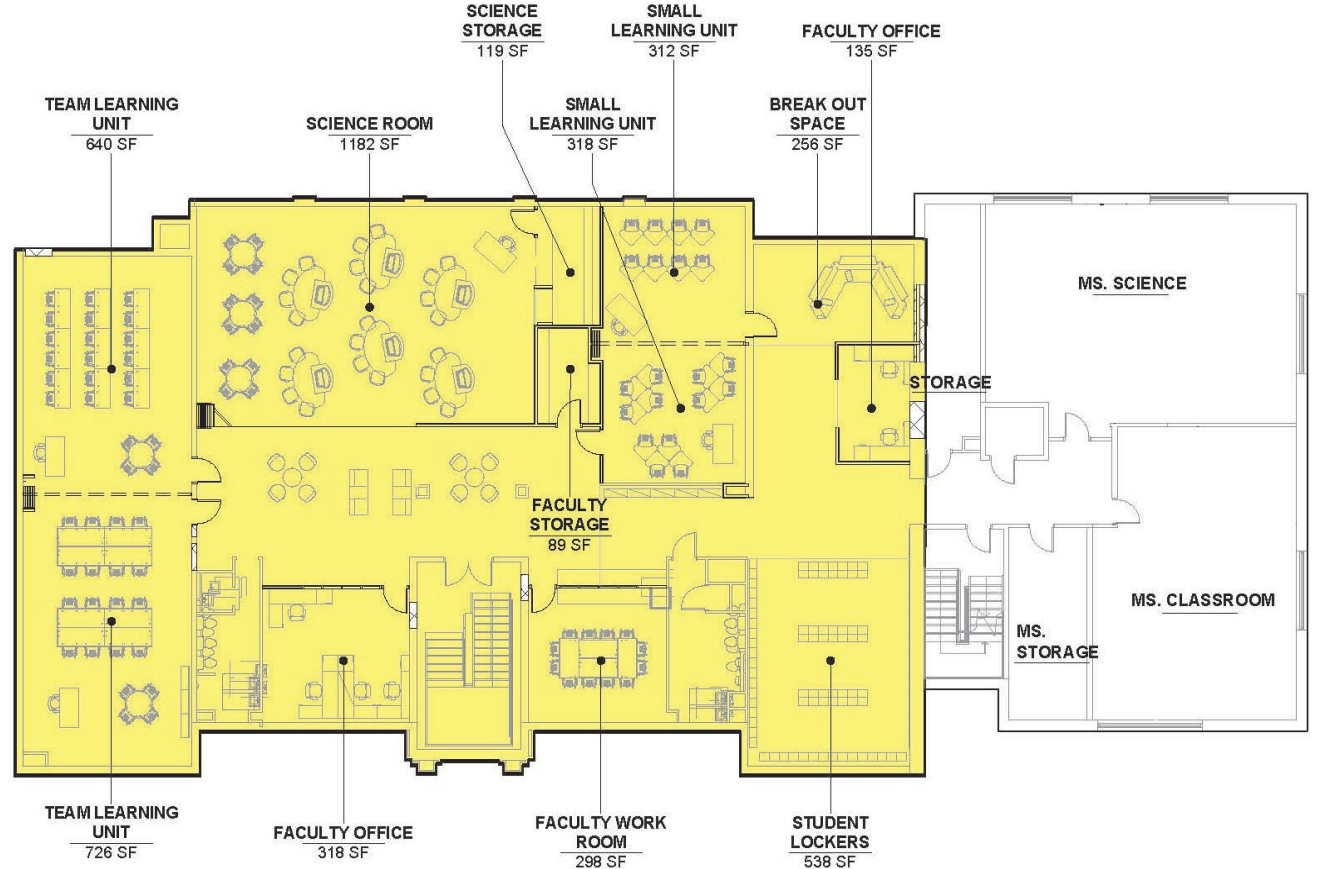


Third Floor Plan



avoided
20,000 SF of
additional
space

new
floorplan



Saved \$5 million in first costs and \$30,000 of O/M costs every year



**RECONFIGURED EXISTING
SQUARE FOOTAGE (SF) WITH
BETTER GRADE ALIGNMENT**



**DECREASED SQUARE
FOOTAGE BY 20,000 SF**



smart schools



CASE STUDIES



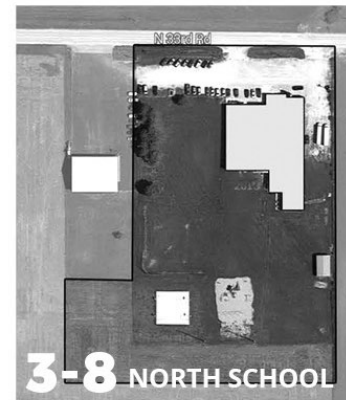
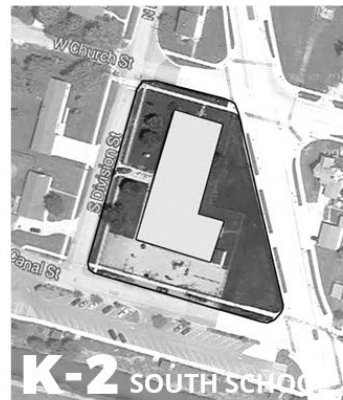
WALTHAM

K-8 SCHOOL



the challenge

- **Two separate schools** serving a small (less than 250), rural student population
- Both campuses needed extensive HLS updates
- Lacked future-focused spaces
- Shared faculty had to travel between schools



EXISTING SITE PLANS

existing two campuses

37,228 SF | **165 SF/STUDENT**



WHAT

should we **BUILD**?



- » Full size classrooms for K-8 based on adults
- » Kitchen
- » Cafeteria
- » Media center
- » Gymnasium
- » Art and music classrooms
- » Science classrooms
- » "Extra" classrooms



Proposed One Campus

38,000 SF

169 SF/ STUDENT

WALTHAM SCHOOL

Grades: K-8 SF: 38,000 Enrollment: 225

- More sf than both schools combined
- No breakout space
- No dividable gym
- No stage space
- No space for shared and collaborative teaching methods

One Building (K-8th)			
Department	Space	Area (SF)	Capacity
Administration			
Reception		300	
Office		180	
Office		115	
Office		115	
Teacher work room		300	
Conference		225	
Nurse		225	
		1460	
Auxiliary			
Gymnasium		6000	
Kitchen		1000	
Library		1200	
Locker Rooms		500	
Cafeteria		1500	
		10200	
Classroom			
Kindergarten		900	25
First		850	25
Second		850	25
Third		750	25
Fourth		750	25
Fifth		750	25
Language		750	25
Social Studies		750	25
Math		750	25
Reading		750	25
Flex Classroom		750	25
Special Education		500	15
Art		1000	0
Music		1000	0
Science		1000	25
		12100	315

Support		
Men		160
Women		160
Men		160
Women		160
Men		100
Women		100
Mechanical		500
Storage		750
Maintenance		400
Secure Main Entry		200
SE staff offices		0
Stage		0
Faculty Storage		0
Speech		150
Break out space		0
Collaboration space		0
		2840
Circulation		
Corridors		11400
		11400
TOTAL	38000	221
		<i>70% use</i>



WHY?

fix what's broken

- » Dated learning environments
- » Two separate school to maintain
- » Failing buildings

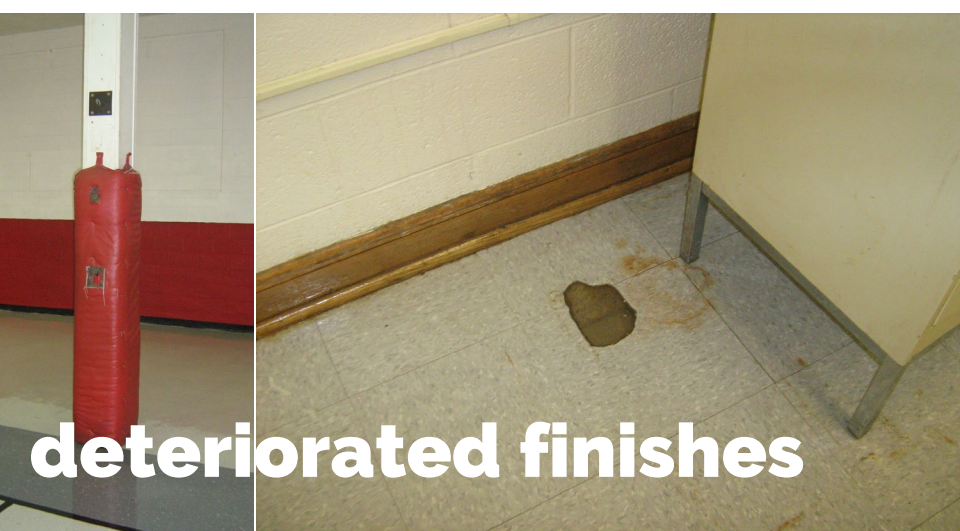




dated learning spaces



water damage



deteriorated finishes



failing envelope

WHY?

we need more space

- » Reduce travel time for teachers
- » Create future-focused & individualized instruction
- » Prove that small, rural education can be high quality
- » Provide a cafeteria / kitchen



WHY??...

innovation / smarter design

- » Create a warm & welcoming culture
- » Provide radically collaborative spaces to solve multiple problems
- » Use ALL space by nearly eliminating non-instructional spaces (hallways, cafeteria, kitchen)



the solution

1 Assign space by kid not by adult

- New, smaller single K-8 school
- **Nearly eliminate non-instructional space** (hallways, cafeteria, kitchen)
- Tighter footprint with increased future-focused program space.
- Highly collaborative & flexible learning studios

5000 sf smaller
than the "what" solution

13% less space
138 sf/student



2

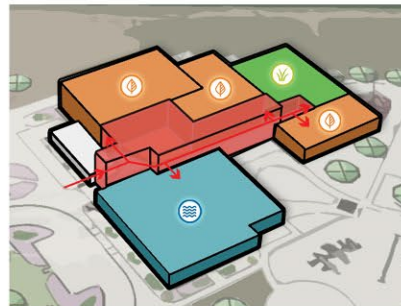
Make sure EVERY space has a function between 8-3, M-F



FOREST



- MUSIC
- CAMPGROUND
- GYMNASIUM



RIVER

- K-5 COMMONS
- K-5 CLASSROOMS



MEADOW

- 6-8 COMMONS
- 6-8 CLASSROOMS
- INNOVATION STATION



K-5 commons

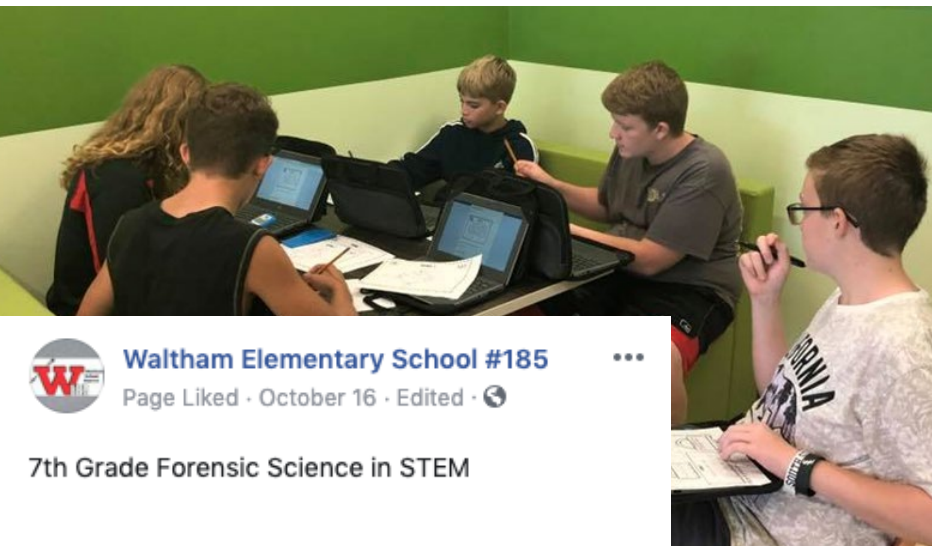
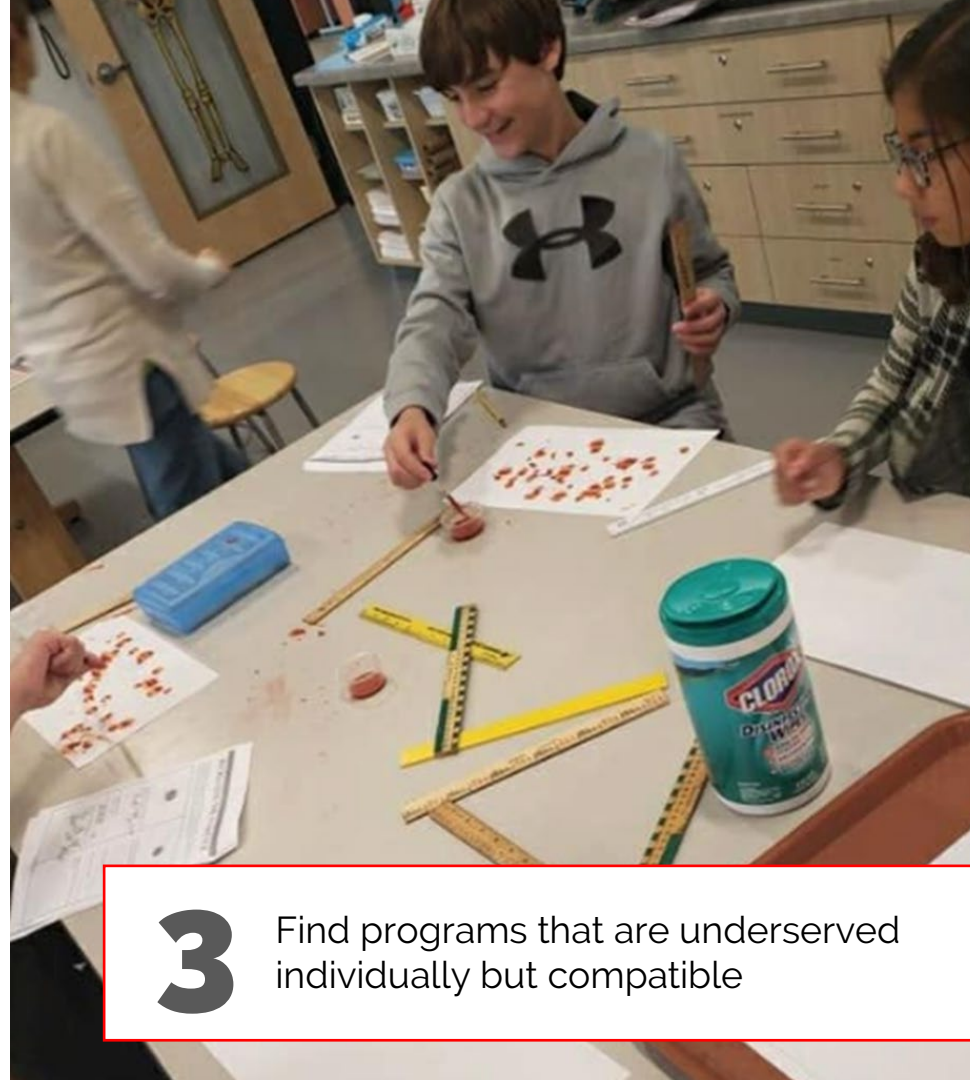
2 Make sure EVERY space has a function between 8-3, M-F



K-1 classrooms



6-8 commons



Waltham Elementary School #185

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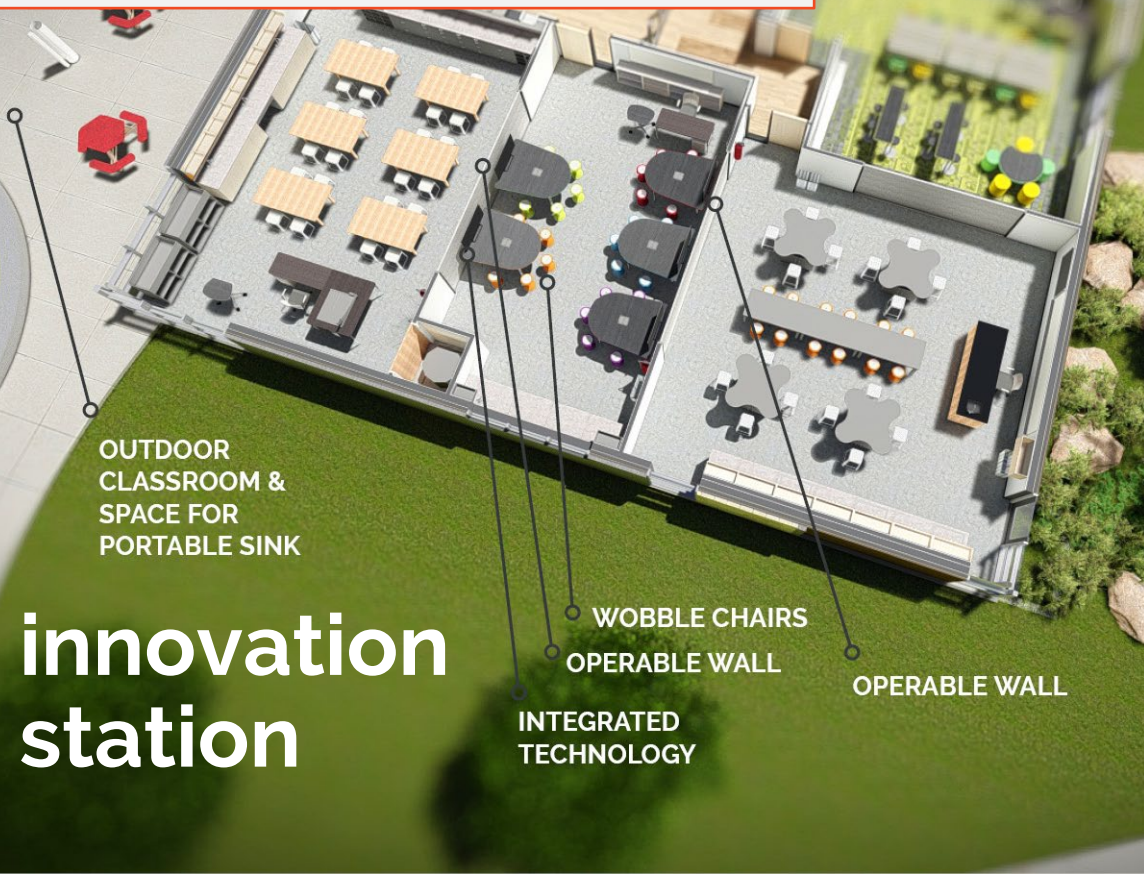
7th Grade Forensic Science in STEM

3

Find programs that are underserved individually but compatible

4

Avoid uniformity disguised as equity



OUTDOOR
CLASSROOM &
SPACE FOR
PORTABLE SINK

WOBBLE CHAIRS
OPERABLE WALL
INTEGRATED
TECHNOLOGY

OPERABLE WALL

innovation
station

radically
collaborative
spaces

Working with limited resources, the team focused on providing radically collaborative environments, like the **combined Art / STEM Innovation Station**.





innovation station

4

Avoid uniformity disguised as equity



shared spaces





distributive dining



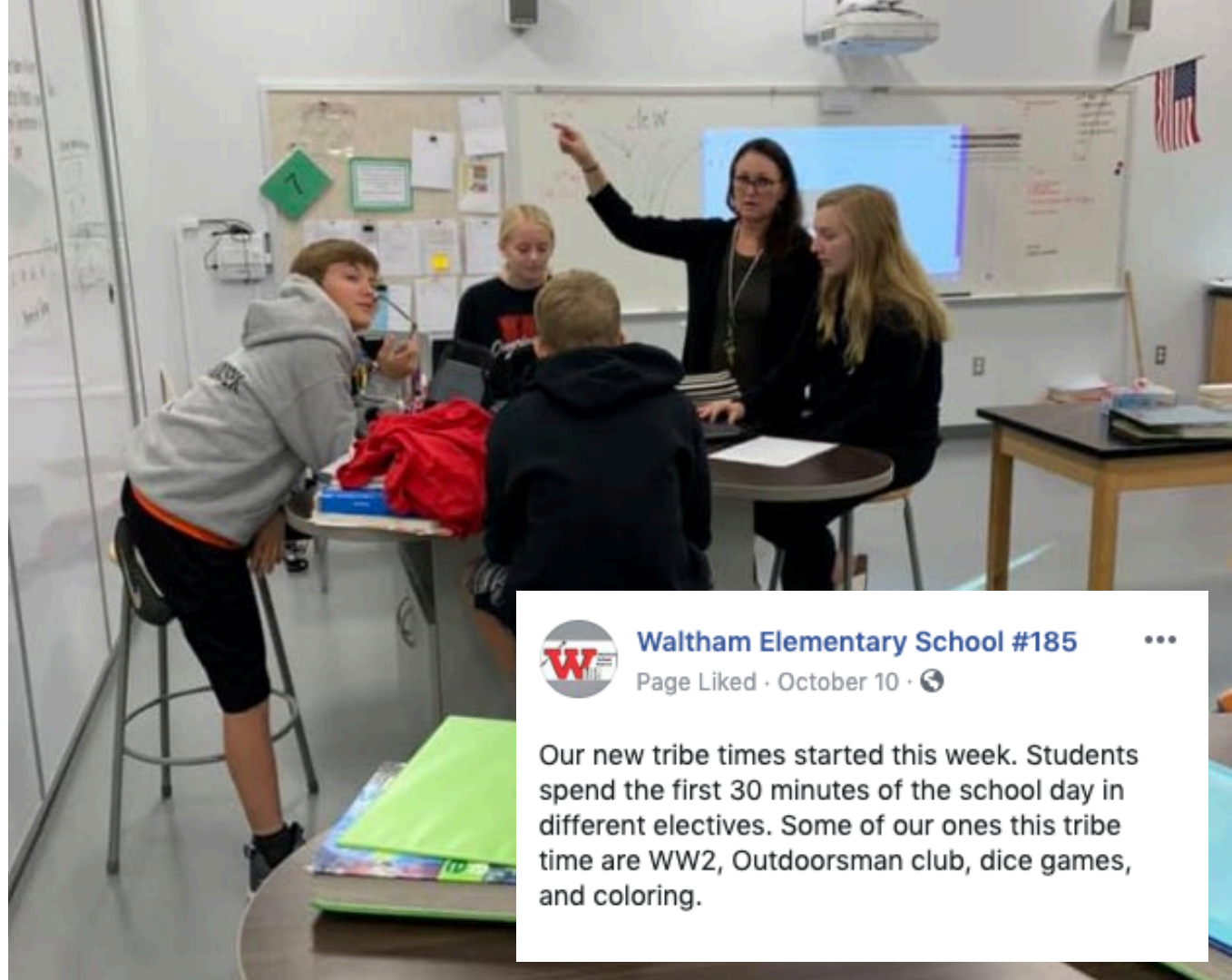
what's **for lunch?**

Instead of investing in on-site food preparation and storage, the design allows a variety of healthy, catered lunches to be stored and distributed to the various areas of the school building, allowing the educational team and students to approach nutrition on their own schedule.

I love the colors. I love the openess. It's very kid-friendly, and it brings in future focused learning, which is our goal.

— District Special Education Teacher





Waltham Elementary School #185



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Our new tribe times started this week. Students spend the first 30 minutes of the school day in different electives. Some of our ones this tribe time are WW2, Outdoorsman club, dice games, and coloring.

FOREST



- CAMPGROUND
- GYMNASIUM
- MUSIC



Award of Merit

Exhibition of
Educational
Environments:
IASB/IASA/IASBO



Conclusion

How did we get here?

Is there a better way?

Smart school case studies





BLDD
ARCHITECTS



LearningSCAPES 2023

THANK YOU!