



Wyck Knox

*Principal-in-Charge
Project Manager*



Michelle Amt

Sustainability + Equity Leader



Rob Winstead

Educational Planner



Kristen Hill

Community Engagement



Ben Thompson

Project Architect



Maria Bninski

Project Architect



James Atkins

Architectural Designer



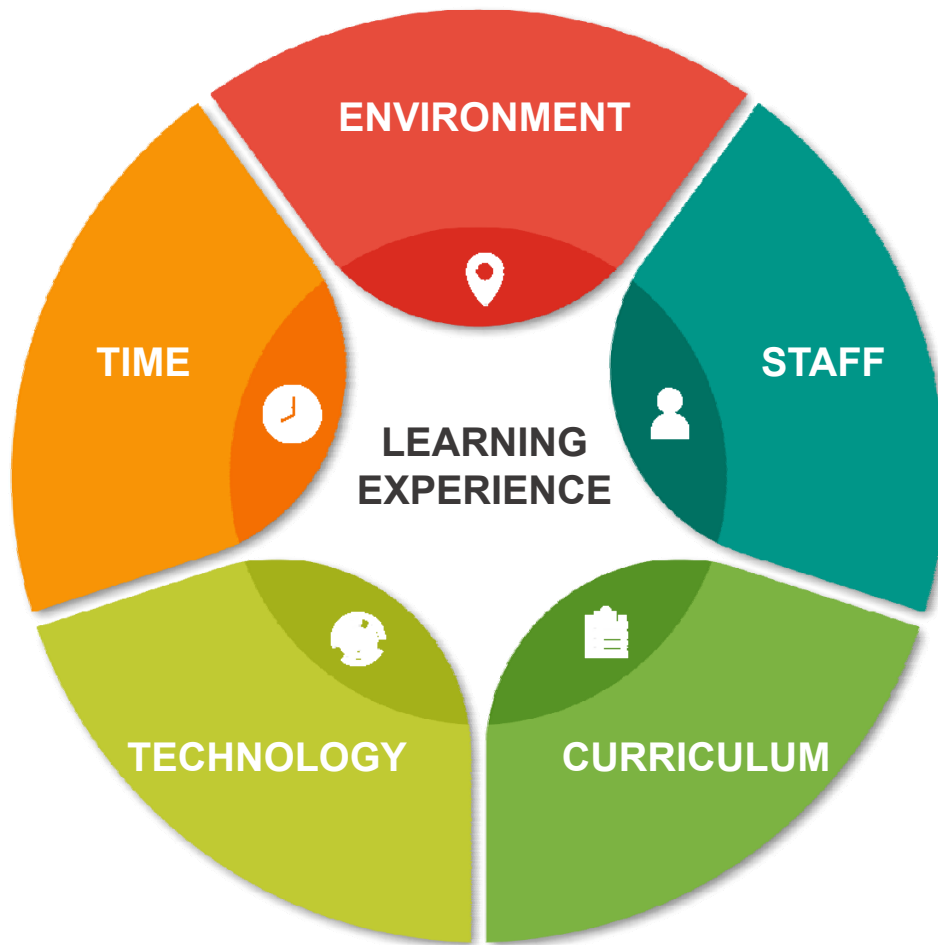
Joe Brookover

Architectural Designer



Robin Eshleman

Senior Project Facilitator



A change to any one of these elements influences the others and reshapes the learning experience.

What we do as designers of the environment is just one aspect – we can't do it alone

The environment is never neutral, it's either helping or hindering the mission.

Our designs are rooted in how we work.

We listen actively, engage thoughtfully, and thrive on collaboration.

Some of the project's best ideas will come from people not in this room right now — we can only find them with engagement and humility.



Our work comes from many voices and, as a result, has broad appeal

VMDO

05.21.2021
School Board
Retreat

Agenda – School Board retreat May 21, 2021

- 1** Overview of Project
Here's what we been asked to do and how we propose doing it.
- 2** Existing versus Ideal Conditions
Here's what you have from 1964 and what is happening now.
- 3** Engagement & Outreach
Here's how we'll learn what should happen in Charlottesville in 2021.
- 4** Sequencing
Here's different ways to get from here to there.
- 5** Capacity
Here's how many students we have and how many we should plan for.
- 6** Potential scopes of construction
Here's six different ways and their costs.



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today is the start of a
public process that we hope

Gets us to Yes!



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In 20 seconds or less...

**How do you define
success?**



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1 Overview of Project

*Here's what we been asked to do
and how we propose doing it.*



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CCS RECONFIGURATION


- *Why?*
- *What?*
- *When?*
- *How?*
- *Who?*

CCS RECONFIGURATION

-
- *Why?*
 - *What?*
 - *When?*
 - *How?*
 - *Who?*
- Project Purpose**

Project Purpose

**REQUEST FOR PROPOSAL (RFP)
PROFESSIONAL SERVICES**



Issue Date: December 18, 2019
RFP# CCS RECONFIGURATION A&E SERVICES/20-32

Title: CCS Reconfiguration A&E Services

Issuing Agency:
Public Works/ Facilities Development
325 4th St. NW
Charlottesville VA 22903

Department and/or Location Where Work Will Be Performed:
Charlottesville City Schools:
Buford Middle School
1000 Cherry Ave.
Charlottesville VA
22903
Walker Upper Elementary
1564 Dairy Rd.
Charlottesville VA
22903

Sealed Proposals Will Be Received Until 2:00 p.m. local prevailing time on January 30, 2020. Proposals received after the announced time and date for receipt will not be considered. **No telephoned, faxed, or emailed proposals will be considered.**

The face of the envelope or shipping container should be clearly marked in the lower left hand corner as follows:
RFP# CCS RECONFIGURATION A&E SERVICES/20-32
TITLE: CCS Reconfiguration A&E Services
OPEN: January 30, 2020

All Inquiries For Information Should Submitted in Writing and Be Directed To: Michael Goddard, Senior Project Manager at goddardm@charlottesville.org.

IF PROPOSALS ARE MAILED OR HAND-DELIVERED, SEND DIRECTLY TO ISSUING AGENCY SHOWN ABOVE.

OFFERORS HAND DELIVERING PROPOSALS CAN OBTAIN A MAP SHOWING THE CITY VISITOR PARKING LOCATION, ON THE CITY'S WEBSITE AT: WWW.CHARLOTTESVILLE.ORG/PURCHASING (CLICK ON CURRENT PROJECTS TO OBTAIN A MAP).

**TO RECEIVE A COMPLETE BID PACKAGE,
PLEASE VISIT OUR WEBPAGE AT
WWW.CHARLOTTESVILLE.ORG/PURCHASING
AND CLICK ON CURRENT PROJECTS.**

This public body does not discriminate against faith-based organizations in accordance with the Code of Virginia, § 2.2-4343.1 or against a bidder or offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment.

“Charlottesville City Schools (hereafter CCS) has determined the need to reconfigure their present allocation of grades in the elementary and middle schools in order to further academic and equity goals”

“...students in CCS transition ... to Walker Upper Elementary for grades five and six, and transition again to Buford Middle School for grades seven and eight before transitioning to Charlottesville High School for grade nine through twelve”

“Preschool is available to a limited number of income- eligible students within the neighborhood elementary schools


“Extensive consideration for wrap-around services as well as shared use”

“The interior of both Buford and Walker are dated”

“both have open campus layouts, which create security concerns”

“state-of-the-art educational space design”

CCS RECONFIGURATION

- 
- *Why?*
 - *What?*
 - *When?*
 - *How?*
 - *Who?*
- Project Scope**

Project Scope

“Based on these design documents and estimates, City Council will either allocate funding for further development and construction, or the project will be terminated.”



- “Plan and design building additions, renovations and/or new construction”
 - “located on the same parcels as the existing facilities”
 - “the existing facilities may, or may not, remain”
- “The general scope of the design and construction work will include, but is not limited to:
 - studying Charlottesville City Schools educational programs and goals as related to these facilities and developing a relevant design program;
 - facilitating public engagement;
 - developing conceptual, refined, and final architectural and engineering designs
 - presenting designs to appropriate review boards
 - preparing bid construction documents
 - providing construction administration services
 - coordinating...application to the U.S. Green Building Council for Leadership in Energy and Environmental Design (LEED™) certification”

CCS RECONFIGURATION

- *Why?*
- *What?*
- *When?*
- *How?*
- *Who?*



Project Schedule

1869

Earliest Charlottesville City
School Board Records

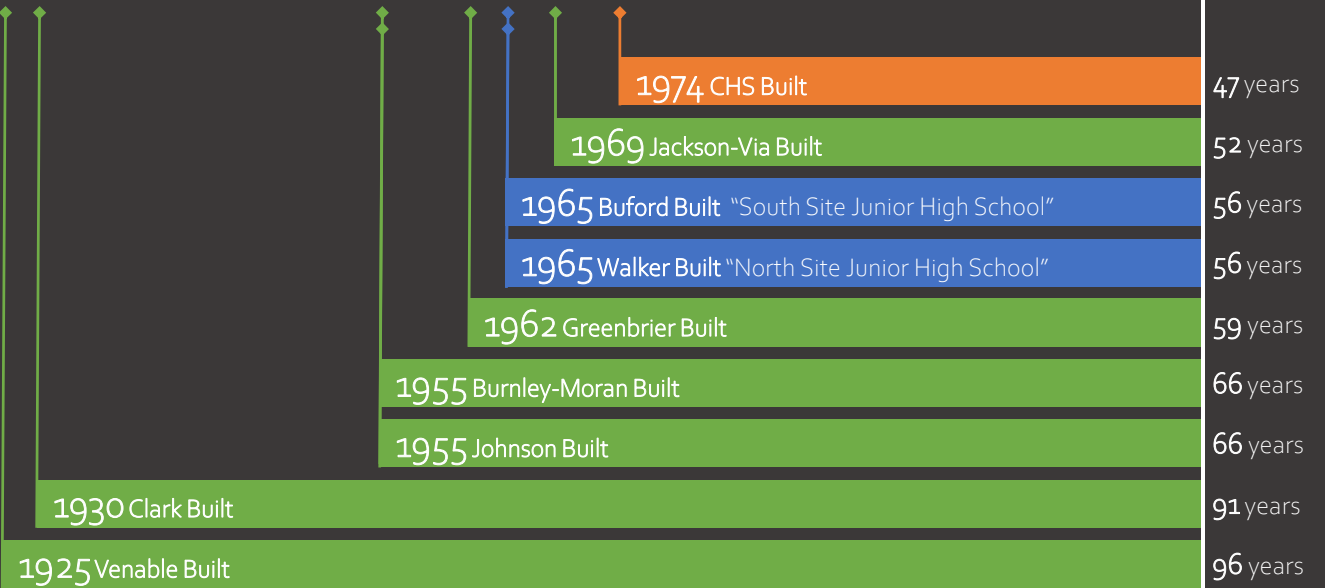
1954

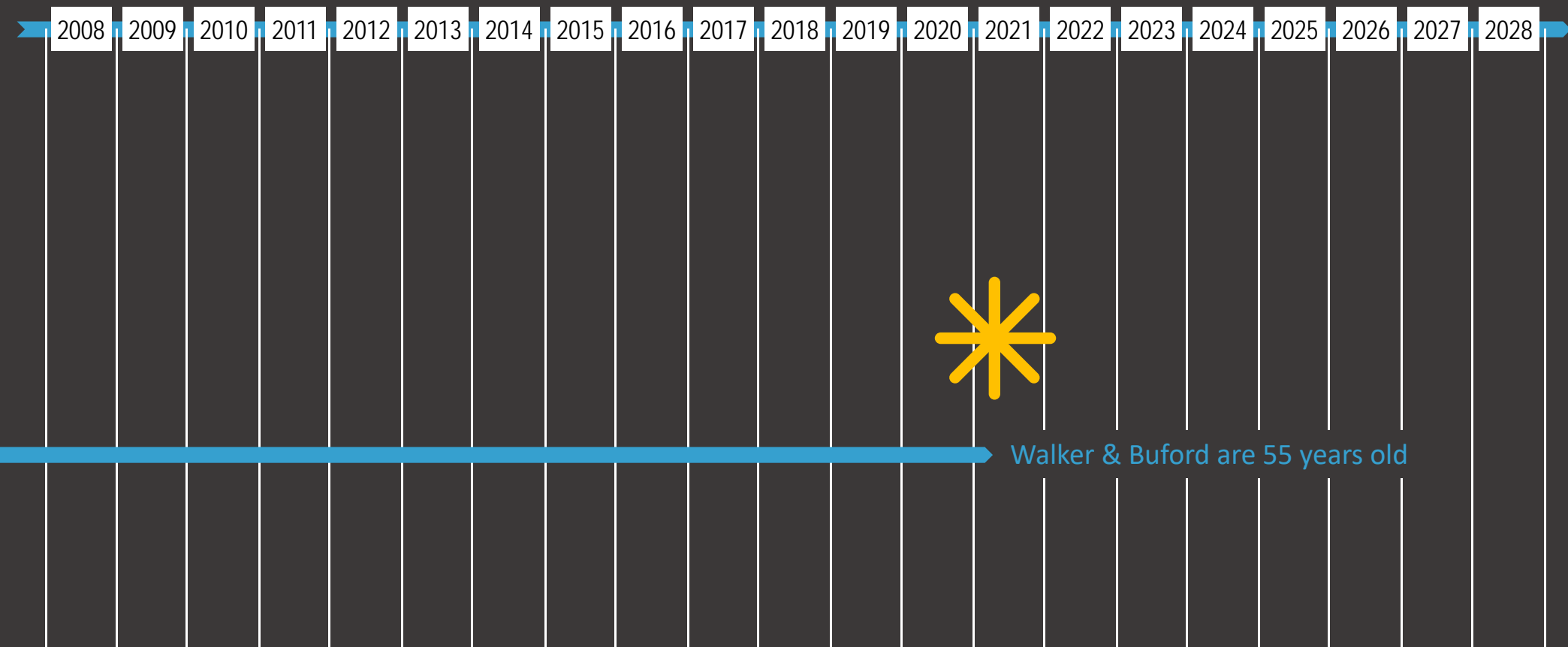
Brown vs Board Ruling

1966

Last CCS Facility Desegregated

2021





- Era 1: 1966 – 1988: Walker & Buford Junior Highs
- Era 2: 1988 – 2008: Reconfigured into Walker Upper Elementary & Buford Middle School
- Era 3: 2008 – 2027: Second Reconfiguration discussions / planning / construction

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

2020

20 years since last reconfiguration from 2 Junior Highs

efficiency

reconfiguration decision, 5th & 6th grades



3893

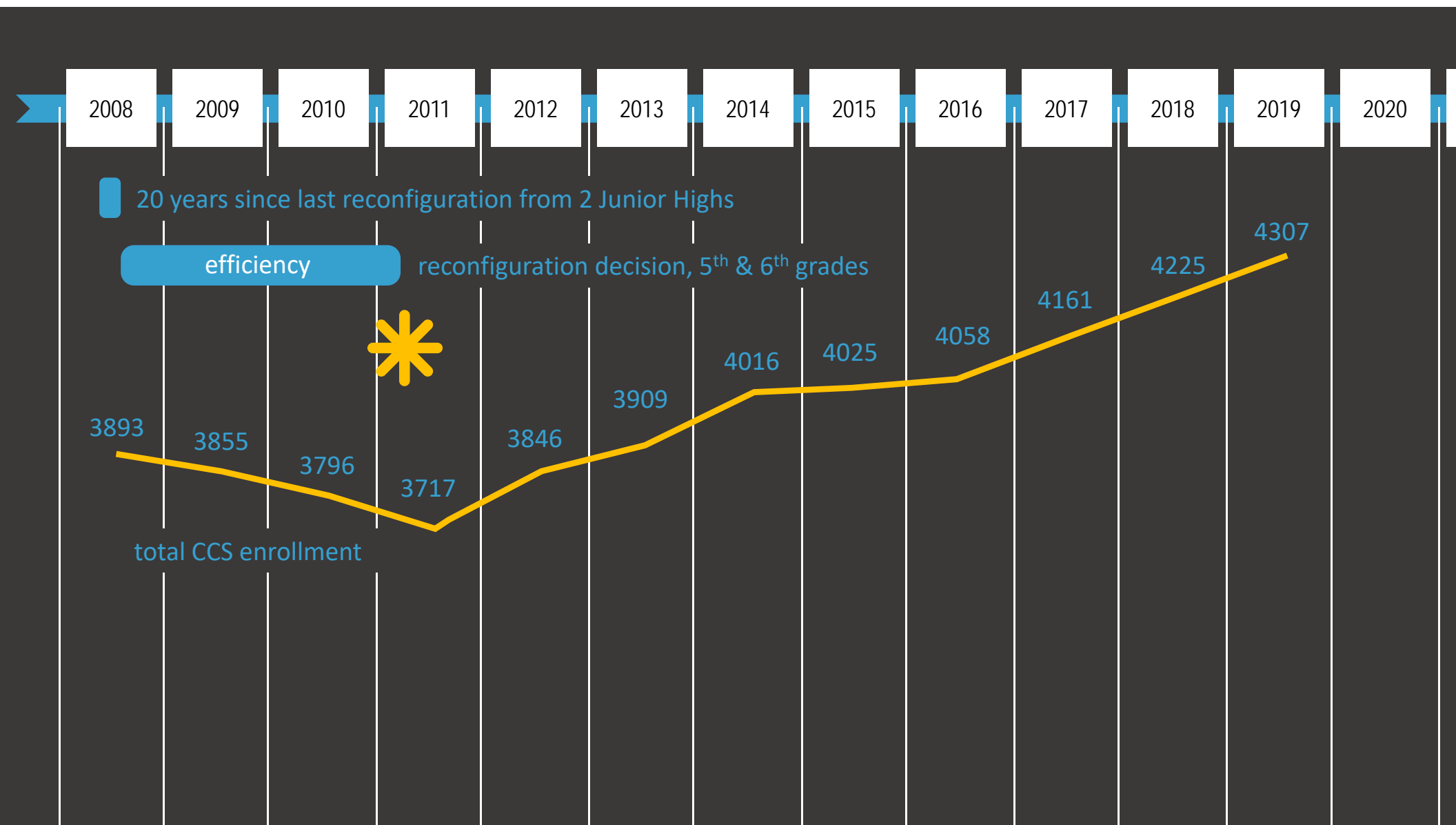
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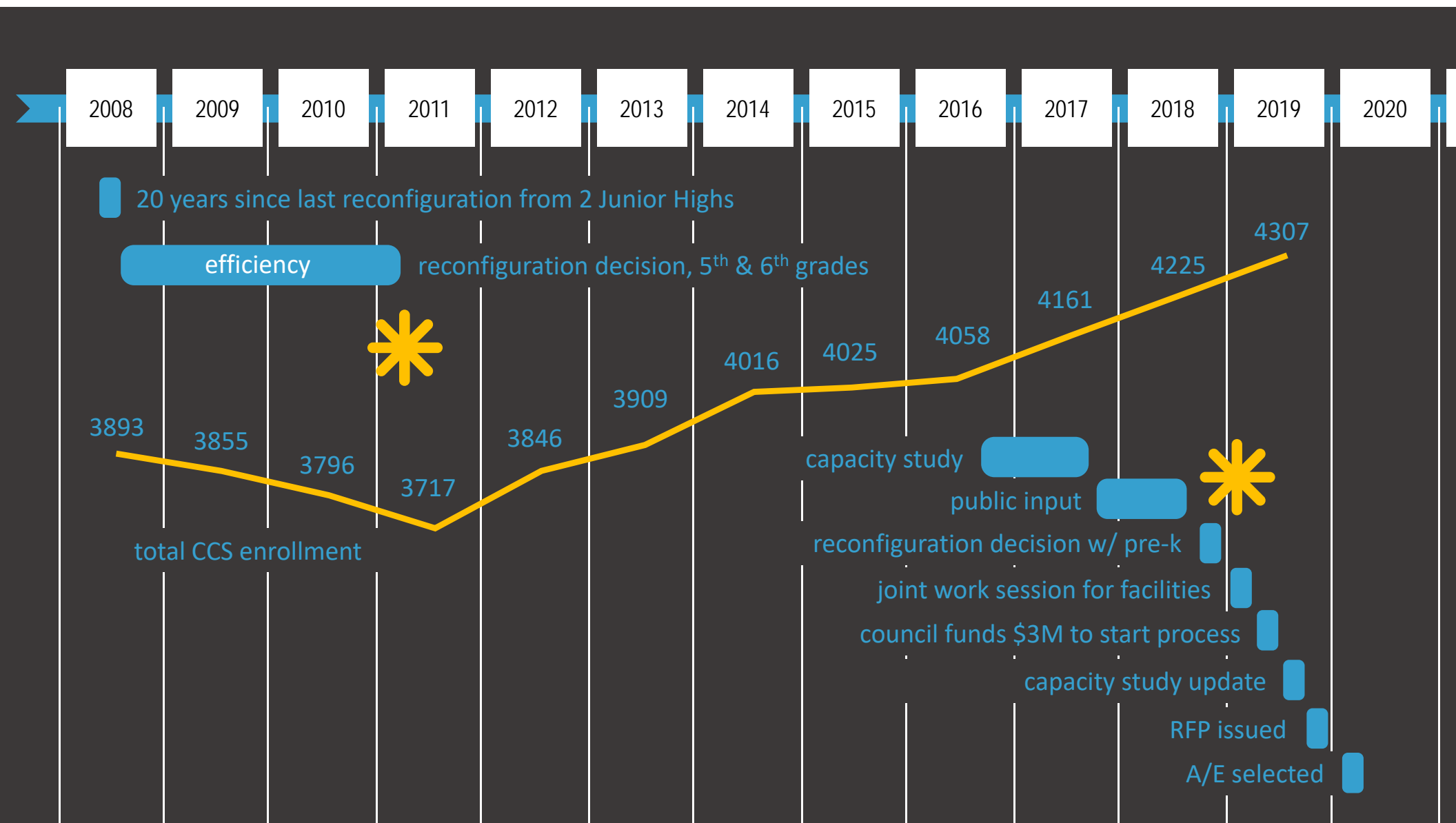
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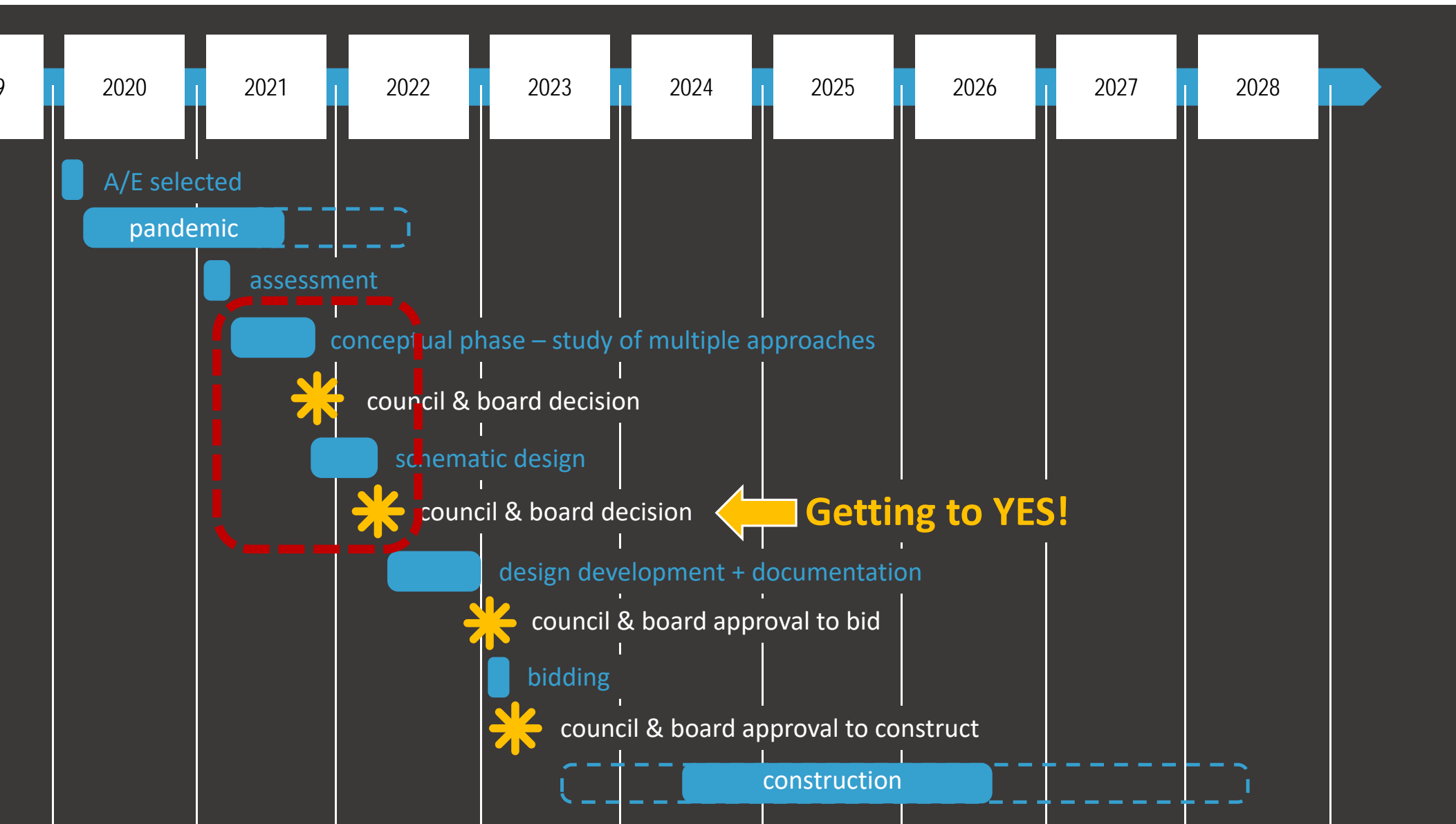
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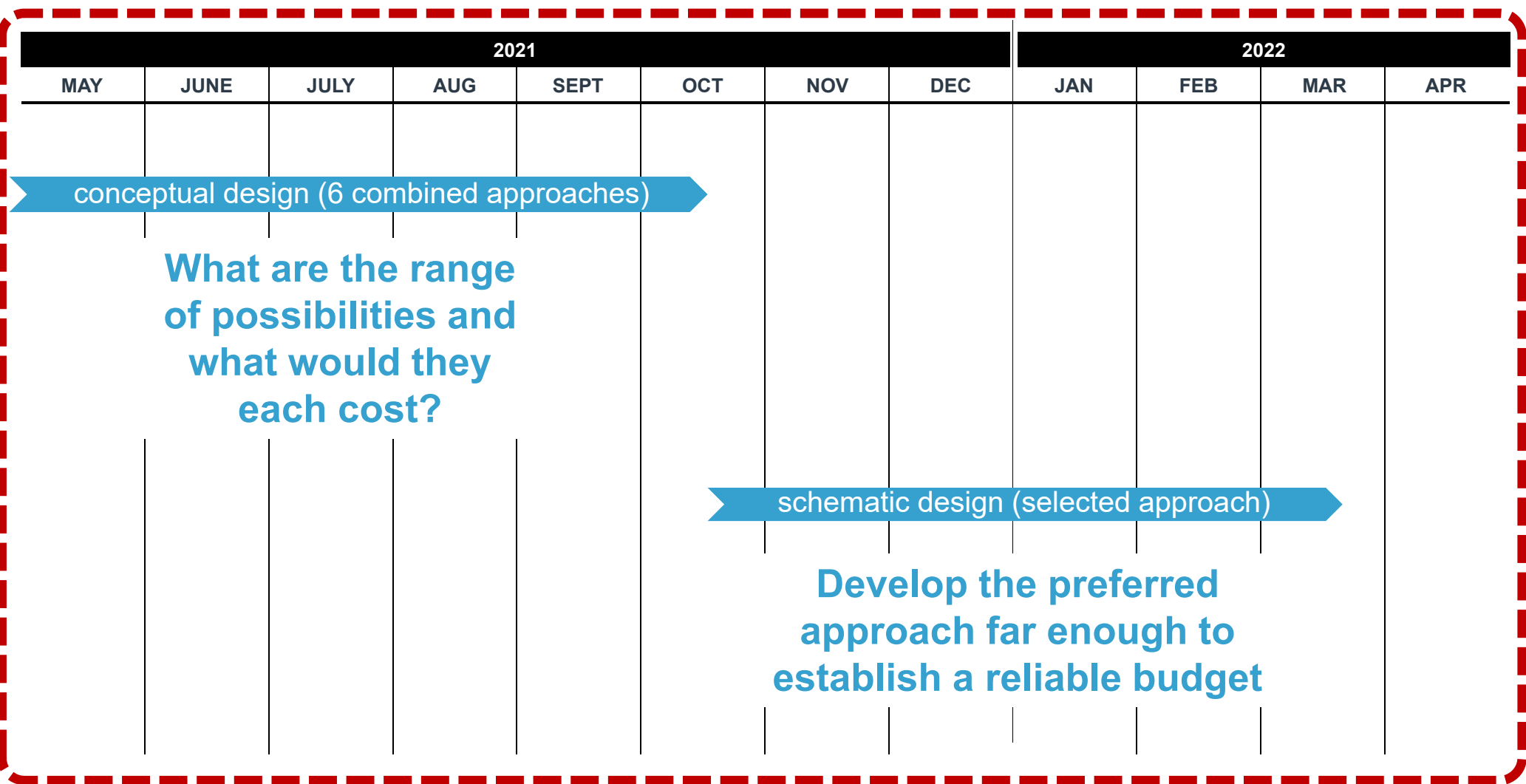
total CCS enrollment













What do you mean by multiple approaches?

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No demolition at all – only additions

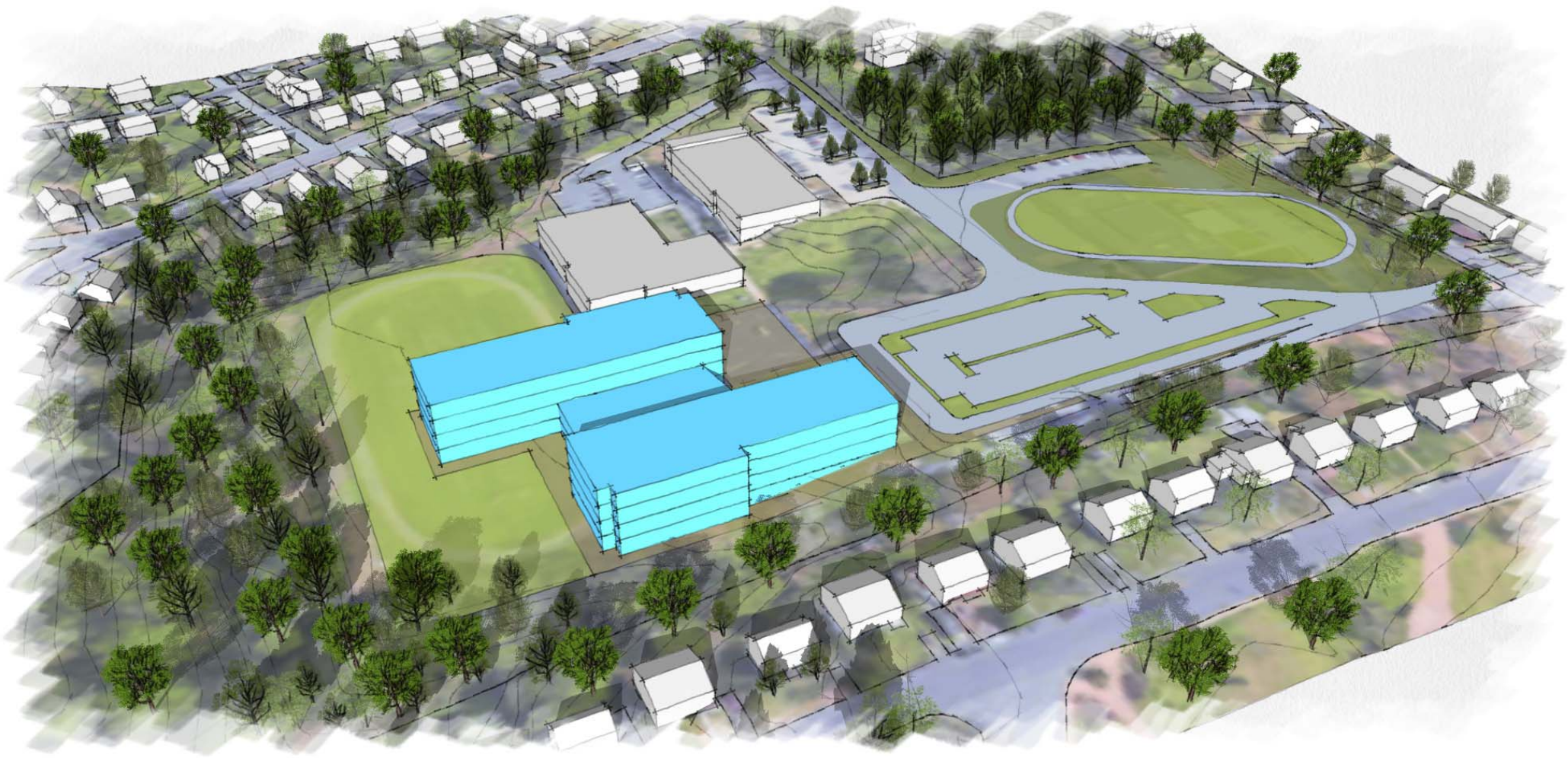


Partial demolition

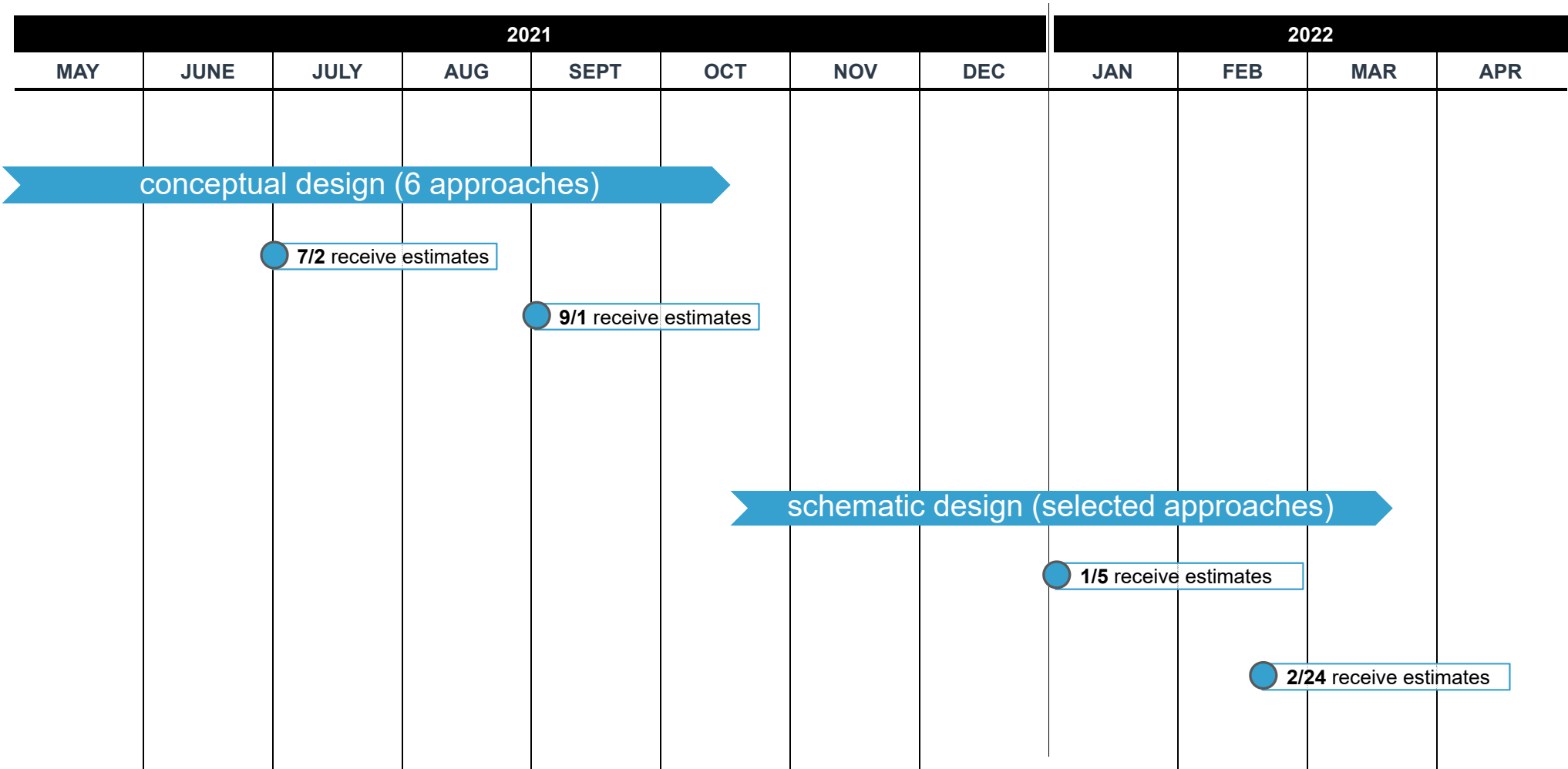
VMDO

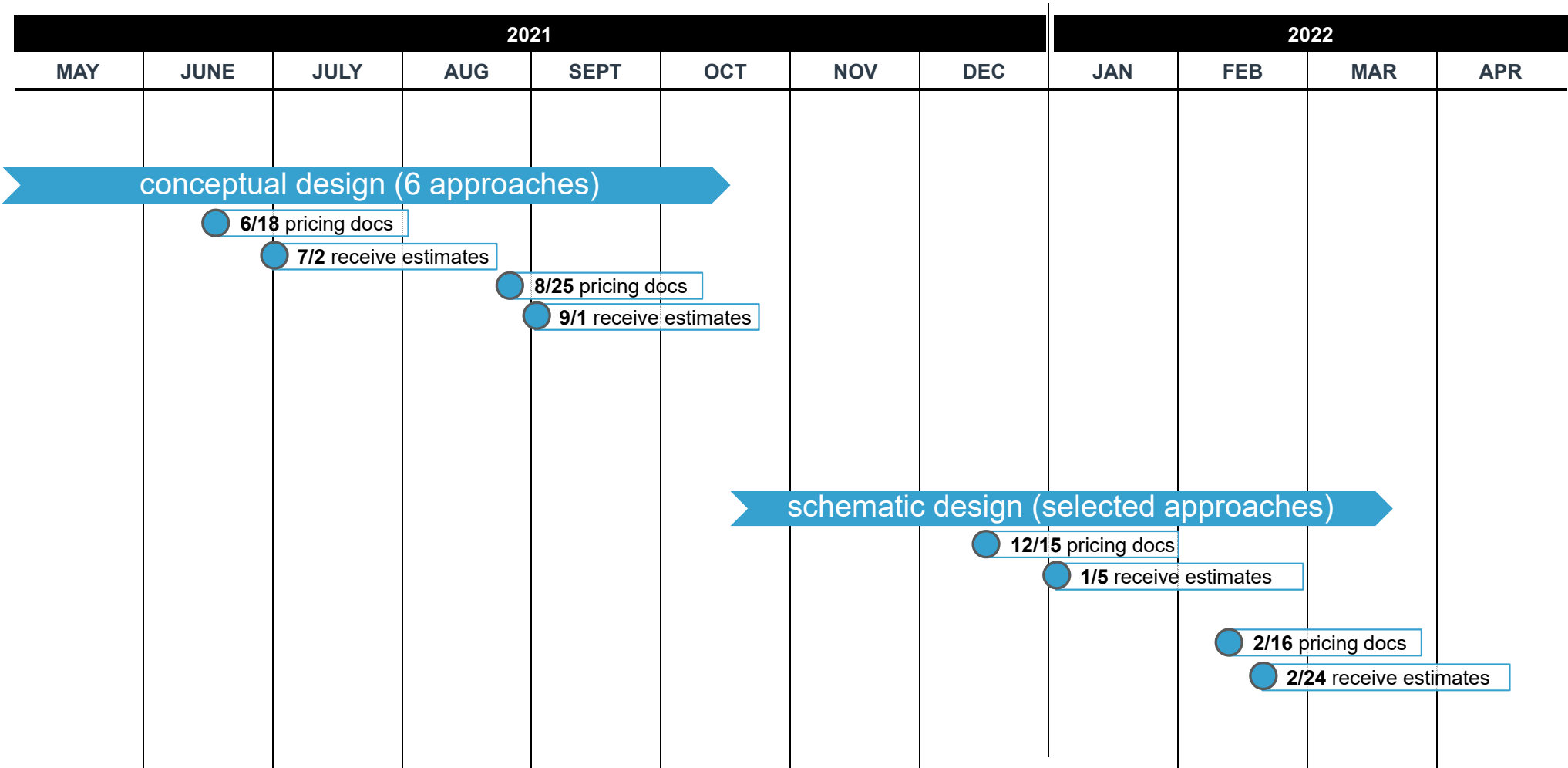
05.21.2021
School Board
Retreat

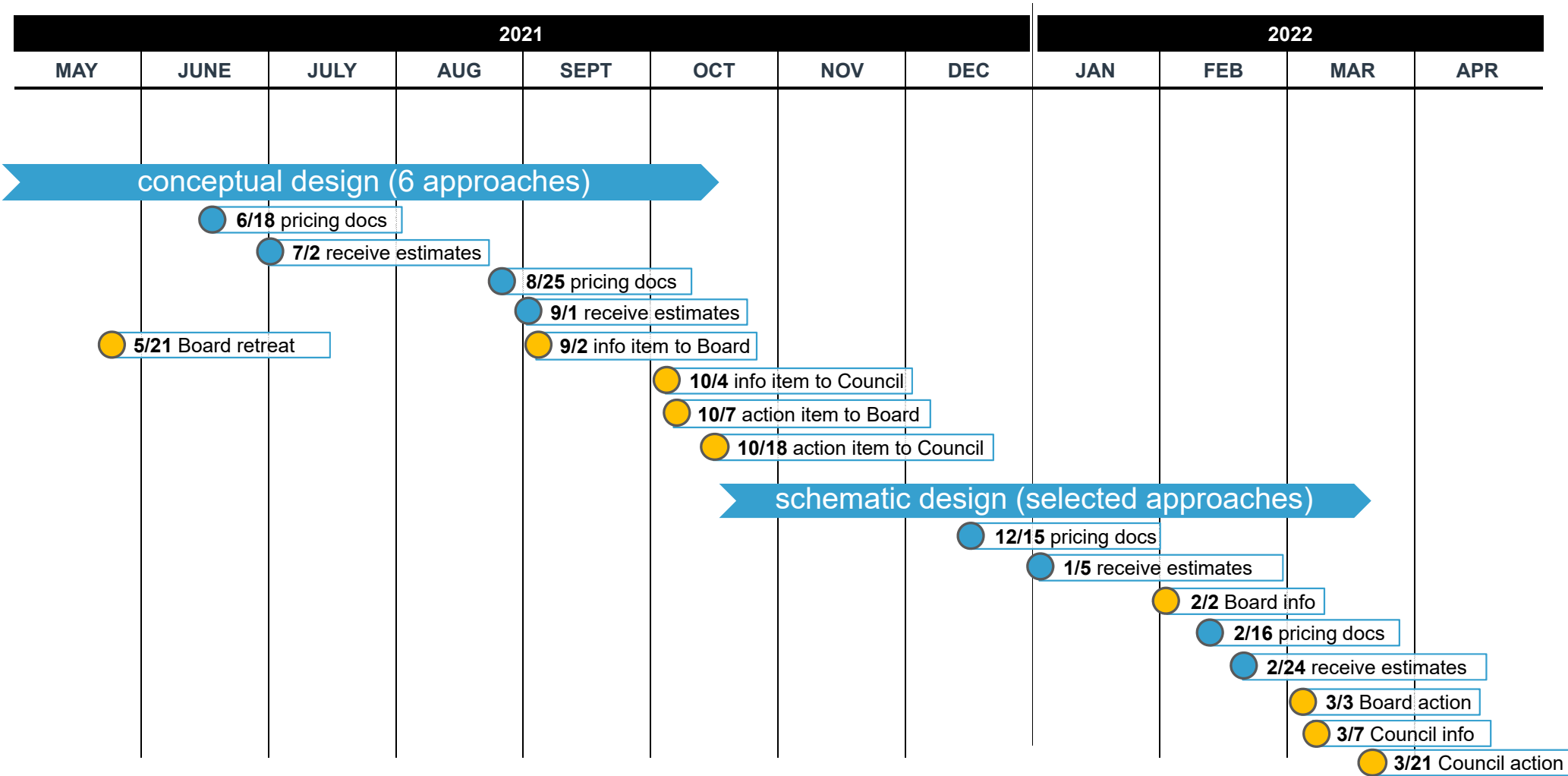
23



Full demolition and replacement







CCS RECONFIGURATION

- *Why?*
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- *When?*
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- *Who?*



Project Process

**Set a big table.
Put everything on it.
Invite everyone.**

**Never assume that we
know what a community
will or won't accept.**

**Show new work publicly
without advance copies.**

**Every solution we show
will be wrong.**



Allow the MB4 consultant to be the third party that gets it wrong until it's right

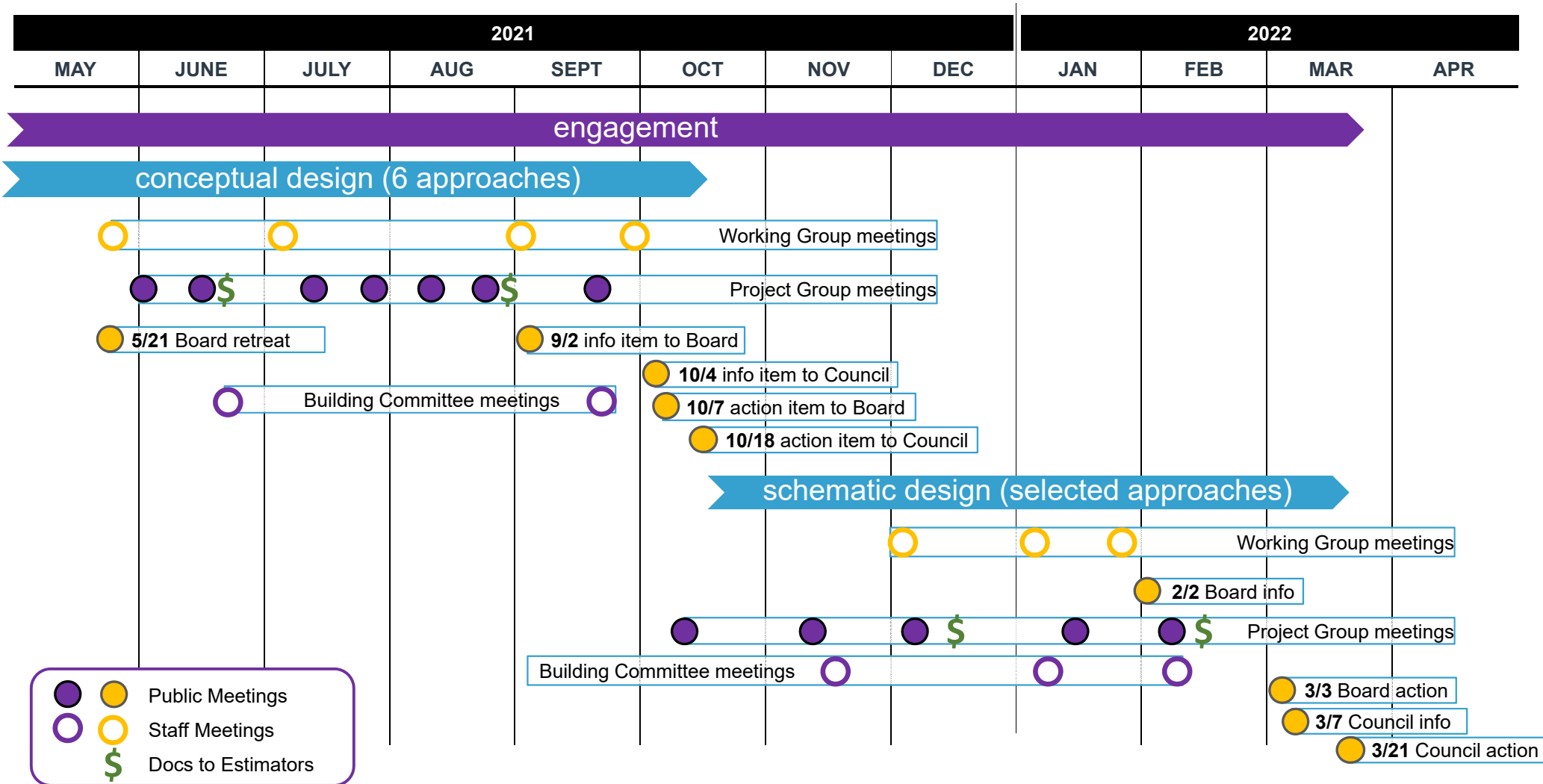
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School Board
Retreat

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Slide 29

MB4 fyi i changed "all" to "allow" in the slide title
Maria Bninski, 4/19/2021



How Leadership, Full Transparency & Decision Making all work together

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05.21.2021
School Board
Retreat

CCS RECONFIGURATION

- *Why?*
- *What?*
- *When?*
- *How?*



- *Who?*

Project People

STAFF

Working Group (Local Leaders)

Role: *Design the Process*

Closed discussions between Owner and Consultant

- What are the questions we should ask? How? When?
- Does feedback suggest changes to the approach?

Members

Meet once a month for an hour

PUBLIC

CCS Community Design Team (CDT) (Community)

Role: *Execute the Process*

Public discussions where potential solutions are first presented

- Present the issues, Ask the questions, Hear Hear people's voices.
- Meetings are recorded and published

Members

Meet twice a month for up to 3 hours

(Core group that commits to attendance; additional attendees from general public)

STAFF

Building Committee (Staff)

Role: *Inform the Process*

Non-public discussions, but all information presented & collected is made public

- Subject matter expertise
- More fine-grained than public cares about
- Design team can speak with individual members to collect info

Members

Meet once a month for an hour, plus as needed

Questions & Discussion

1 Overview of Project

2 Existing versus Ideal Conditions

3 Engagement & Outreach

4 Sequencing

5 Capacity

6 Potential scopes of construction



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2 Existing versus Ideal Conditions

*Here's what you have from 1964
and what is happening now.*



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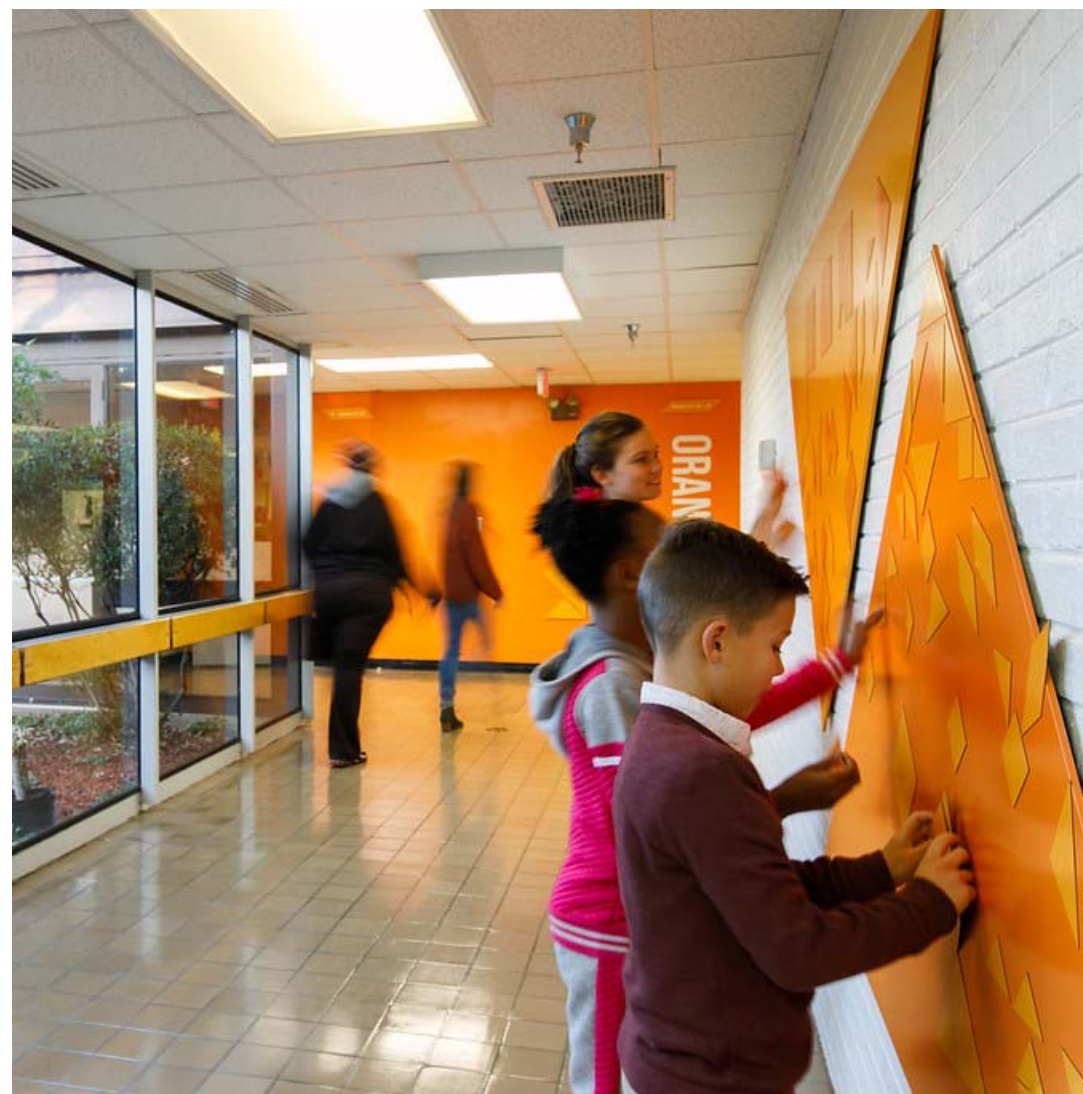
CCS Elementary Summer Projects











CCS School Modernizations – Elementary Summer Projects

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School Board
Retreat

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What does \$1 - \$1.25 million buy?

About 4,000 SF of medium renovation

New finishes, ceilings and lights

Casework

Furniture and Flat Screens everywhere

What doesn't \$1 - \$1.25 million buy?

Mechanical systems

More fresh air operable windows

Plumbing

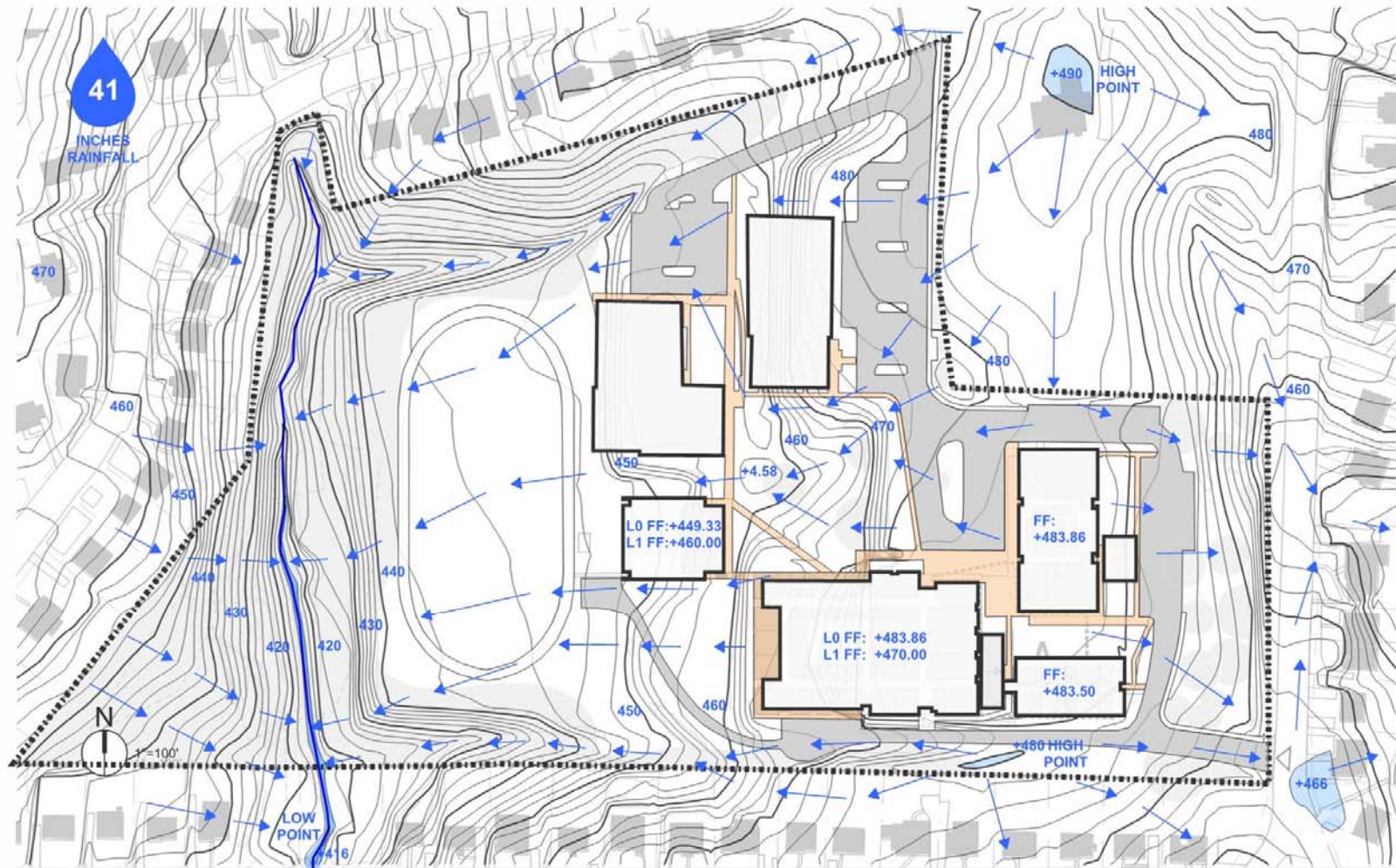
Envelope, energy upgrades or things
that reduce operating costs



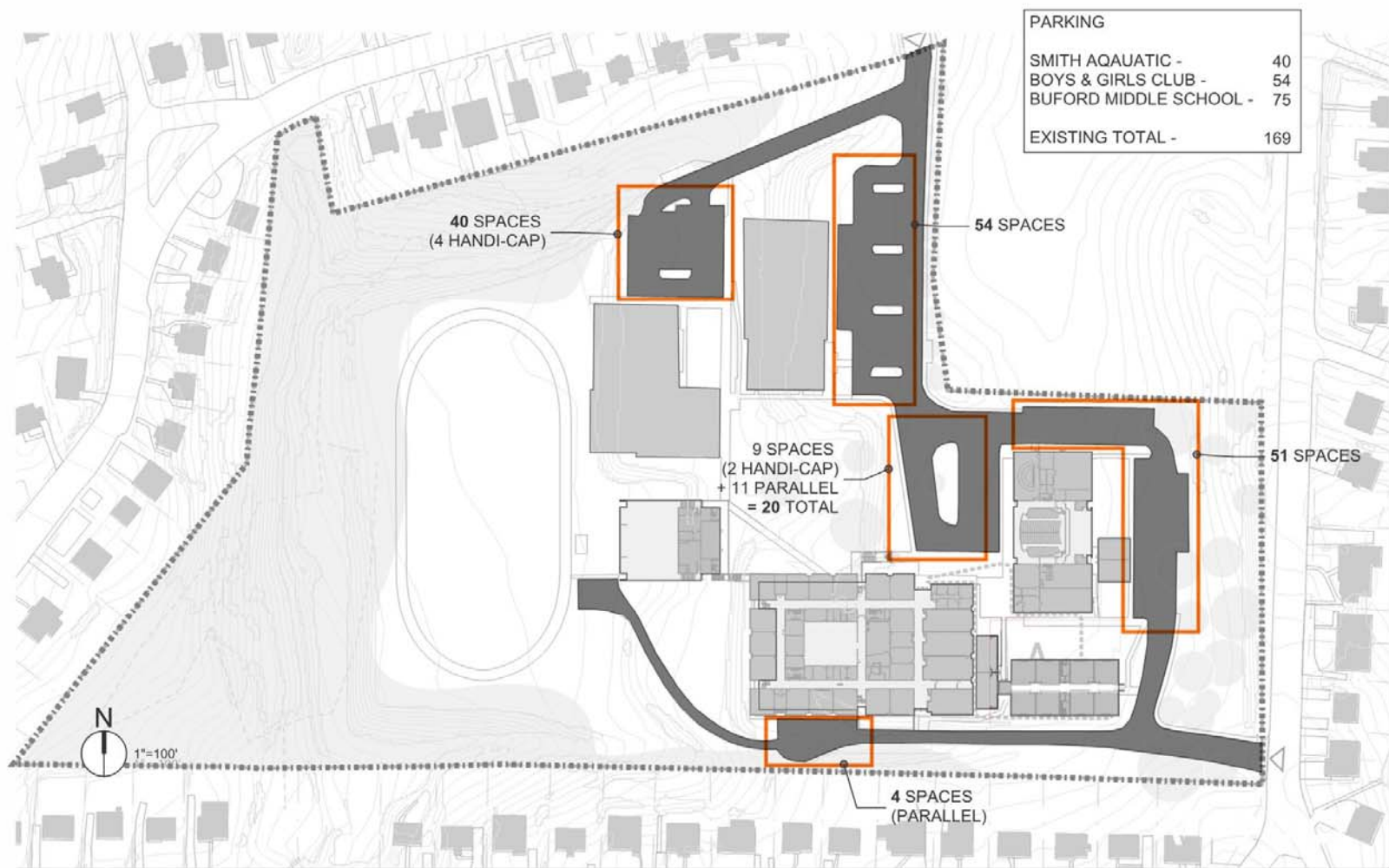
Buford & Walker Sites



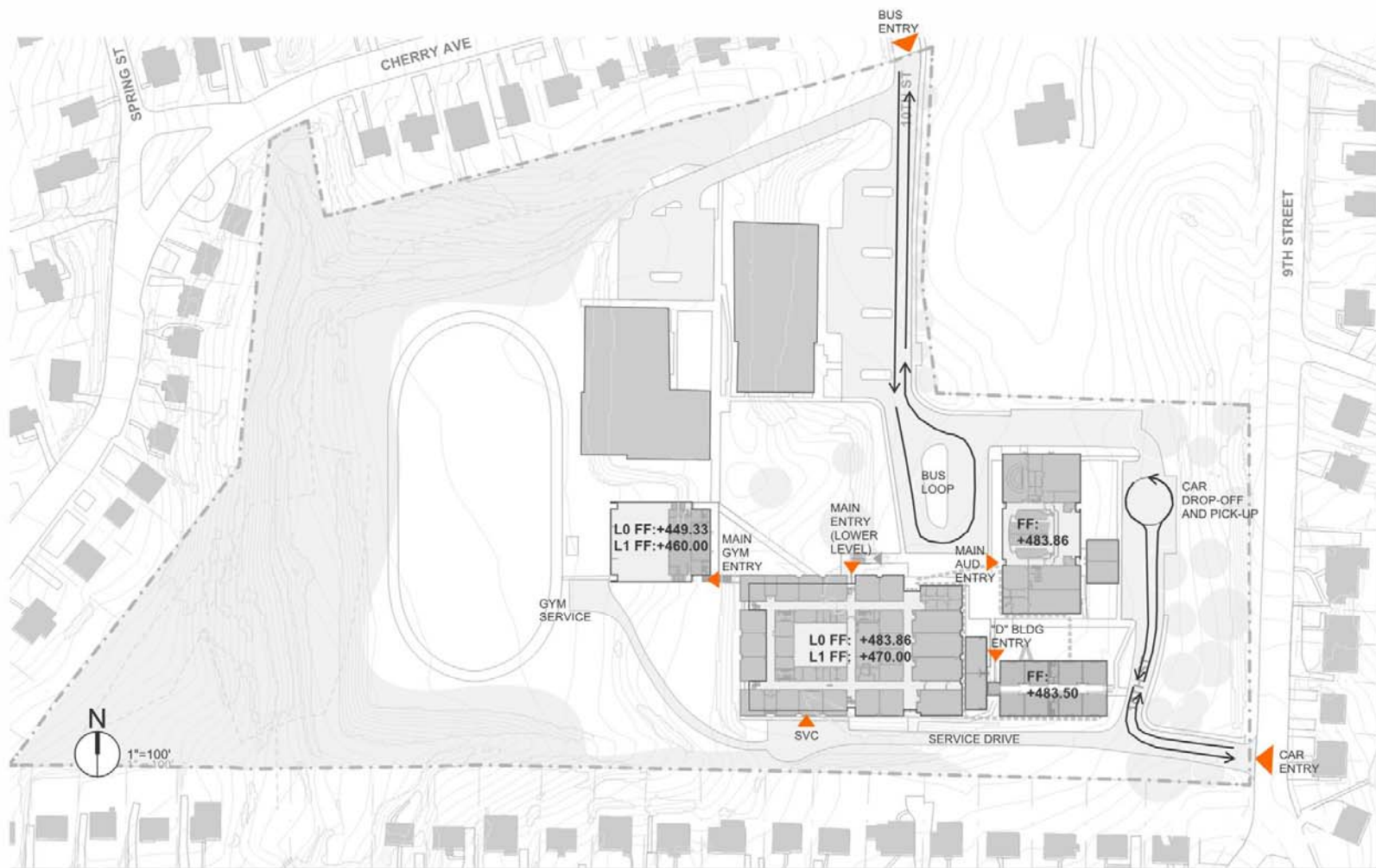
Buford Site – Existing Site Plan



Buford Site – Site Topography and Hydrology



Buford Site – Existing Parking



Buford Site – Site Access

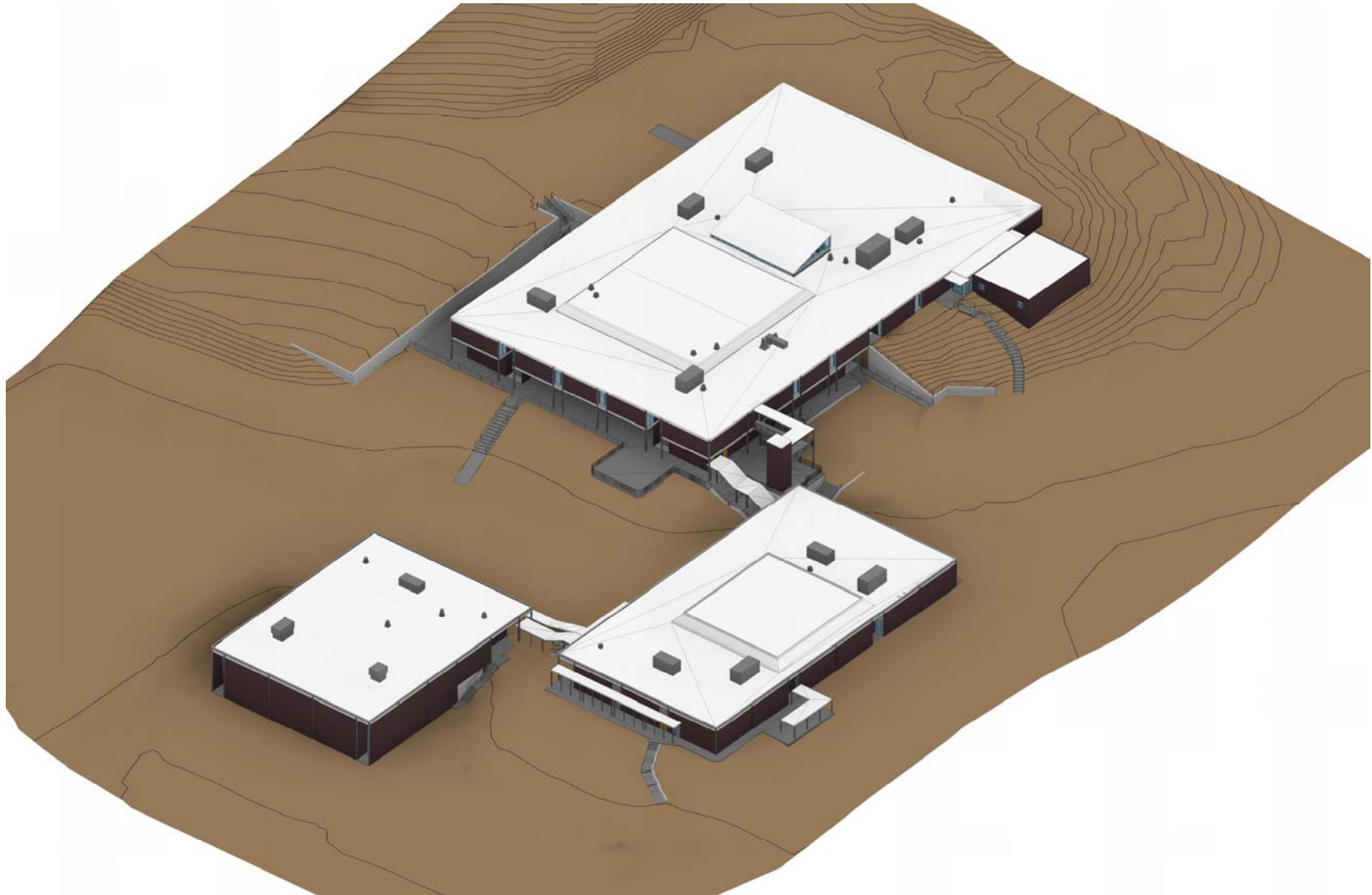
**VADO**

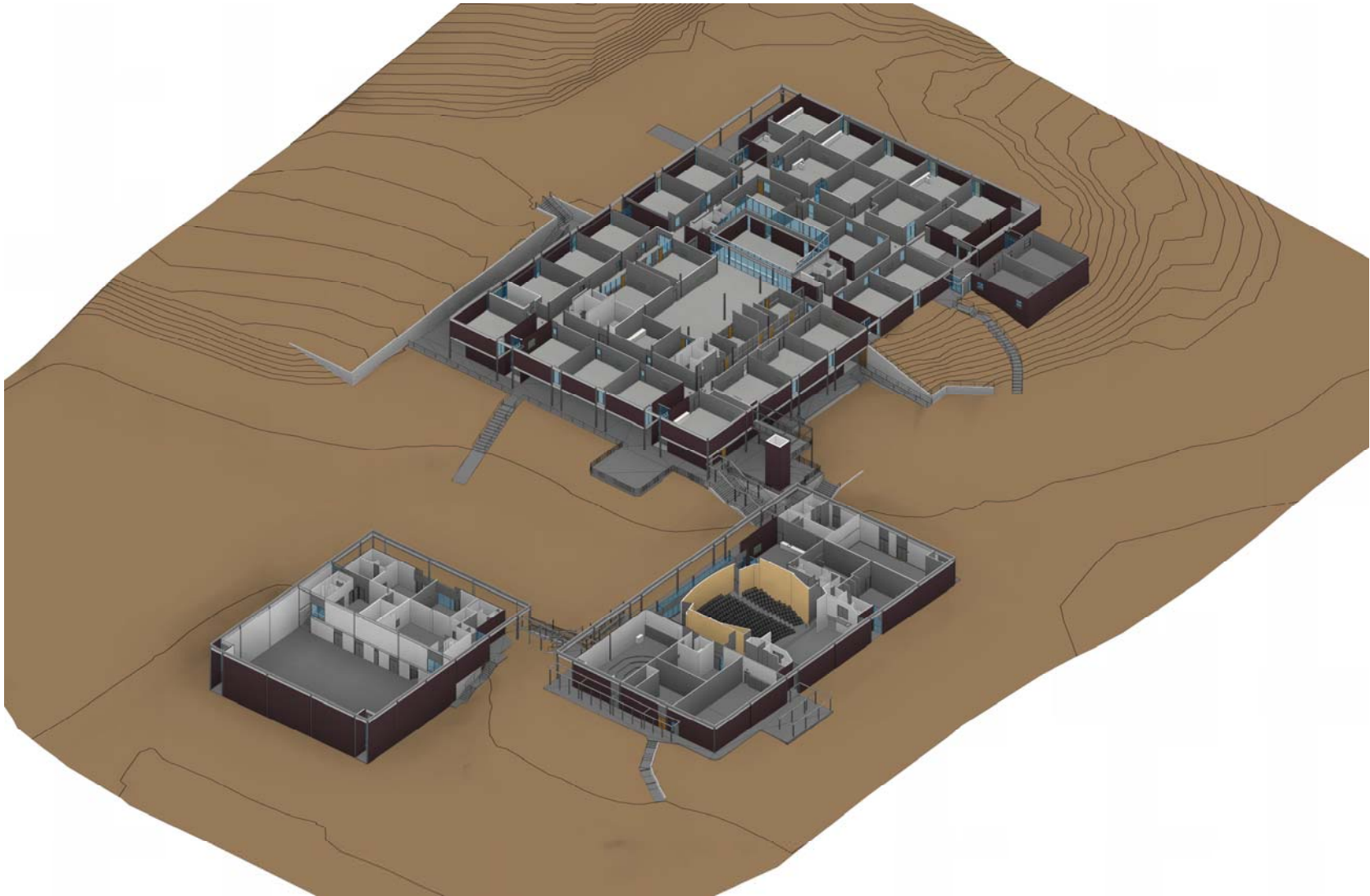
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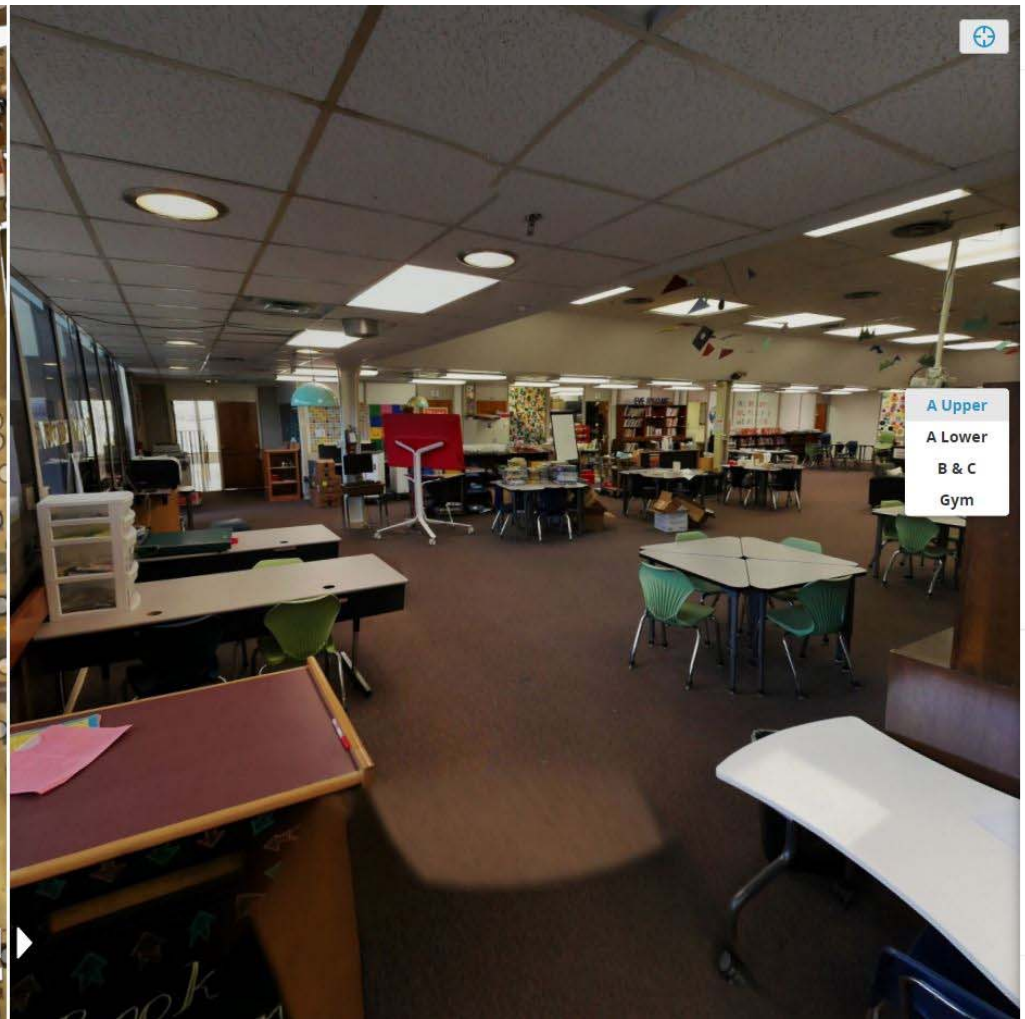
VADO

50

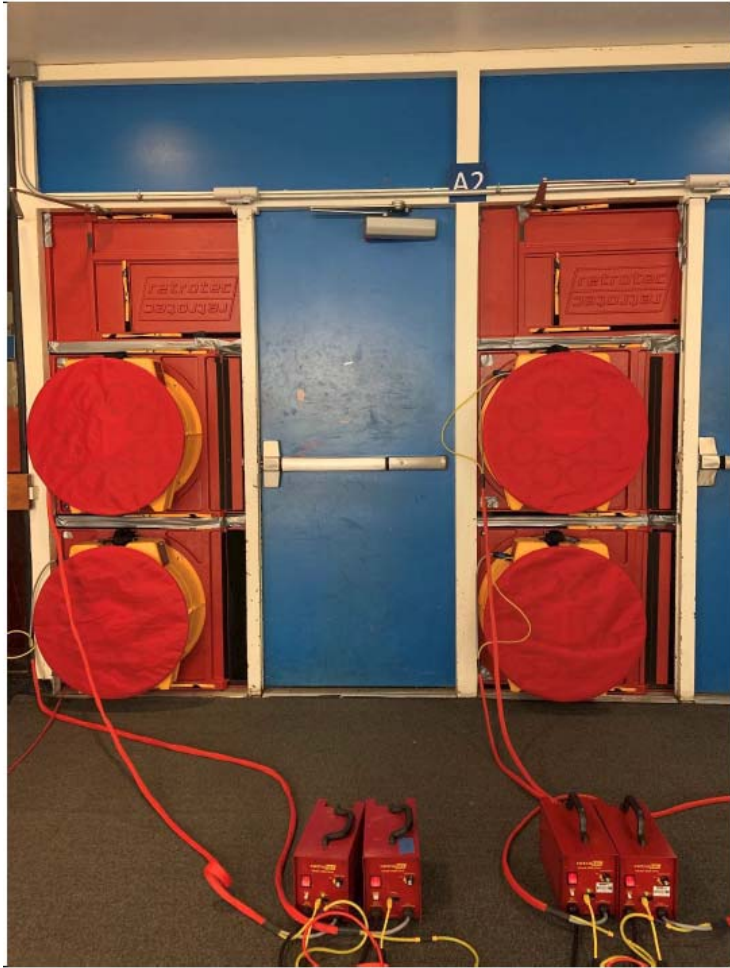








Click on a node, and pan around in 3D



Leaky buildings are bad.

They waste energy, have higher risk of mold + mildew, and have poorer air quality compared to airtight buildings.

Building	Test Results
Walker Building A	0.574 cfm/sf
Walker Building B	1.054 cfm/sf
Walker Building C	1.186 cfm/sf
Buford Building A	0.817 cfm/sf
Buford Building B	1.144 cfm/sf
Buford Building C	1.034 cfm/sf
Buford Building D	0.796 cfm/sf

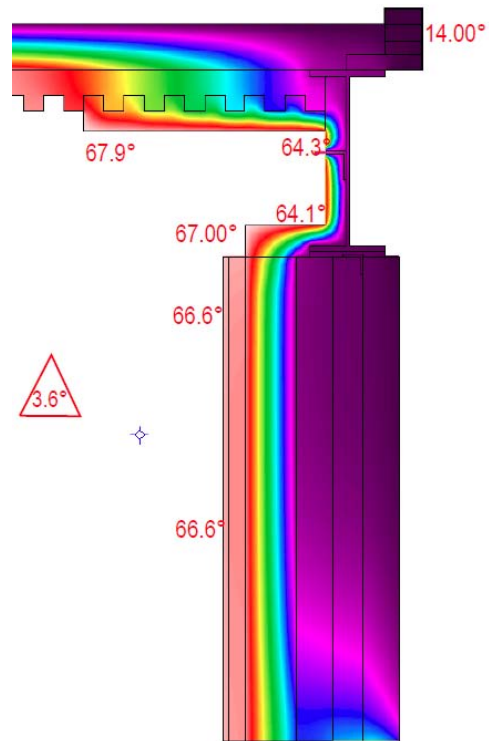
Code Minimum:
0.40 cfm/sf @75 Pa

VMDO Target:
<0.15 cfm/sf @75 Pa

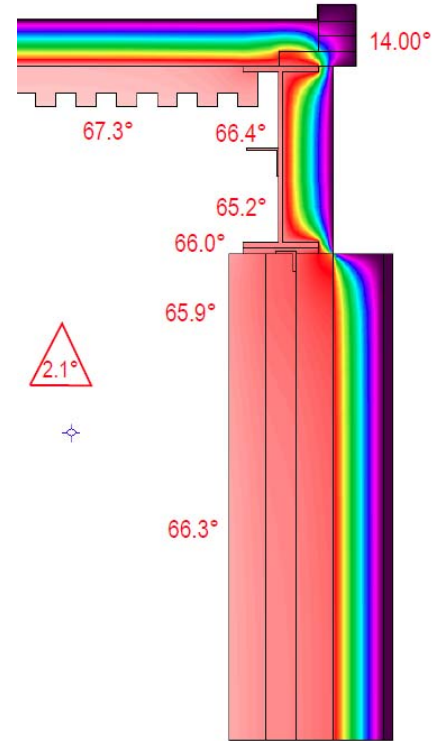
Infrared	Normal	Location	Notes
 <p>68.0 °F 75.5 64.0 FLIR</p>			<p>Above ceiling showing deck and structural steel. Adding insulation may help mitigate thermal leakage.</p>
 <p>50.4 °F 58.2 48.2 FLIR</p>			<p>Light can be seen in image of double doors. Weatherstripping would help mitigate thermal leakage</p>
 <p>50.4 °F 55.7 48.1 FLIR</p>			<p>Detail of storefront windows. No action recommended.</p>



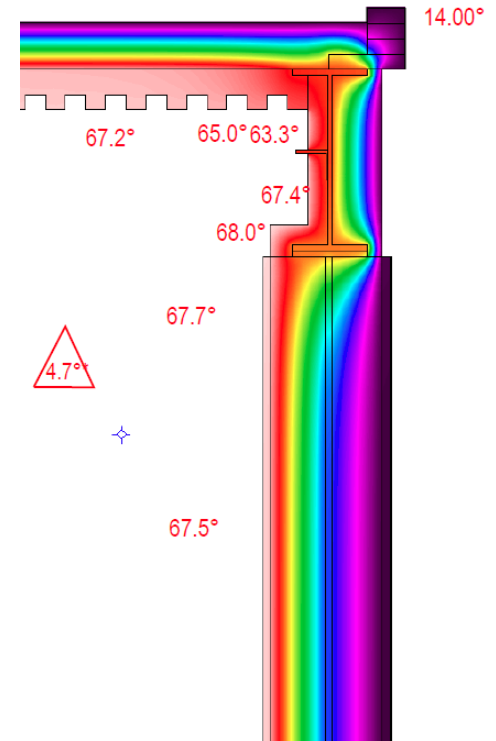
Existing Exterior Wall



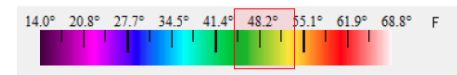
Upgrading from Interior



Upgrading from Exterior



Demo Brick/New Infill



Buford Campus

Replacements		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EQUIPMENT	Boilers	\$25,000						\$25,000			
	Cooling tower								\$30,000		
	Air handlers	\$30,000									
	Rooftop makeup air	\$280,000									
	Console heat pumps	\$175,000									
INFRASTRUCTURE	Hot water pumps / exchanger	\$108,350									
	Cold water pumps / exchanger	\$108,350									
	Steel pipe loop	\$315,200									
	Lighting (T12s)				\$1,700,000						
	Circuit breaker panels	\$25,000									
	Fire alarm system	\$352,000									

Buford Campus (cont'd)

Actions		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EXTERIOR	Replace roof		\$1,120,000								
	Repointing brick	\$25,000									
	Replace loose lintels	\$85,000									
	Repair concrete spalling	\$60,000									
	Exterior painting									\$15,000	
	Replace windows	\$252,000									
Subtotal (Envelope)		\$1,868,400	\$1,120,000		\$1,700,000			\$25,000	\$30,000	\$15,000	
% Escalation			3%	3%	3%	3%	3%	3%	3%	3%	3%
Total		\$1,840,900	\$1,188,208		\$1,913,365			\$30,747	\$38,003	\$19,572	

10-year Look Ahead: \$5,030,794

Walker Campus

Replacements		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EQUIPMENT	Boilers	\$25,000						\$25,000			
	Cooling tower								\$30,000		
	Air handlers	\$20,000									
	Rooftop makeup air	\$260,000									
	Console heat pumps	\$162,000									
INFRASTRUCTURE	Hot water pumps / exchanger	\$108,350									
	Cold water pumps / exchanger	\$108,350									
	Steel pipe loop	\$315,200									
	Lighting (T12s)				\$1,700,000						
	Circuit breaker panels	\$25,000									
	Fire alarm system	\$352,000									

Walker Campus (cont'd)

Replacements		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EXTERIOR	Replace roof					\$1,050,000					
	Repointing brick	\$20,000									
	Replace loose lintels	\$70,000									
	Repair concrete spalling	\$45,000									
	Replace exterior sealants	\$10,000								\$10,000	
	Exterior painting	\$12,500					\$12,500				
	Replace windows	\$252,000									
Subtotal (Envelope)		\$1,785,400			\$1,700,000	\$1,050,000	\$12,500	\$25,000	\$30,000	\$10,000	
% Escalation			3%	3%	3%	3%	3%	3%	3%	3%	3%
Total		\$1,785,400			\$1,913,365	\$1,217,238	\$14,926	\$30,747	\$38,003	\$13,048	

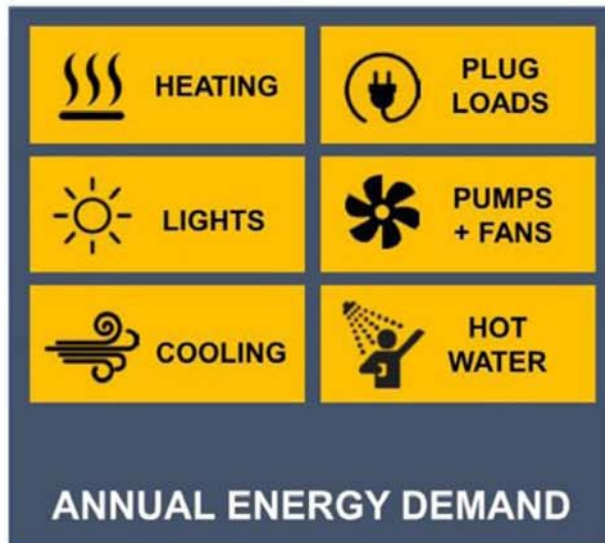
10-year Look Ahead: \$5,012,726

Required Maintenance

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$$\frac{\text{ANNUAL ENERGY DEMAND}}{\text{GROSS BUILDING AREA}} = \text{ENERGY USE INTENSITY (EUI)}$$

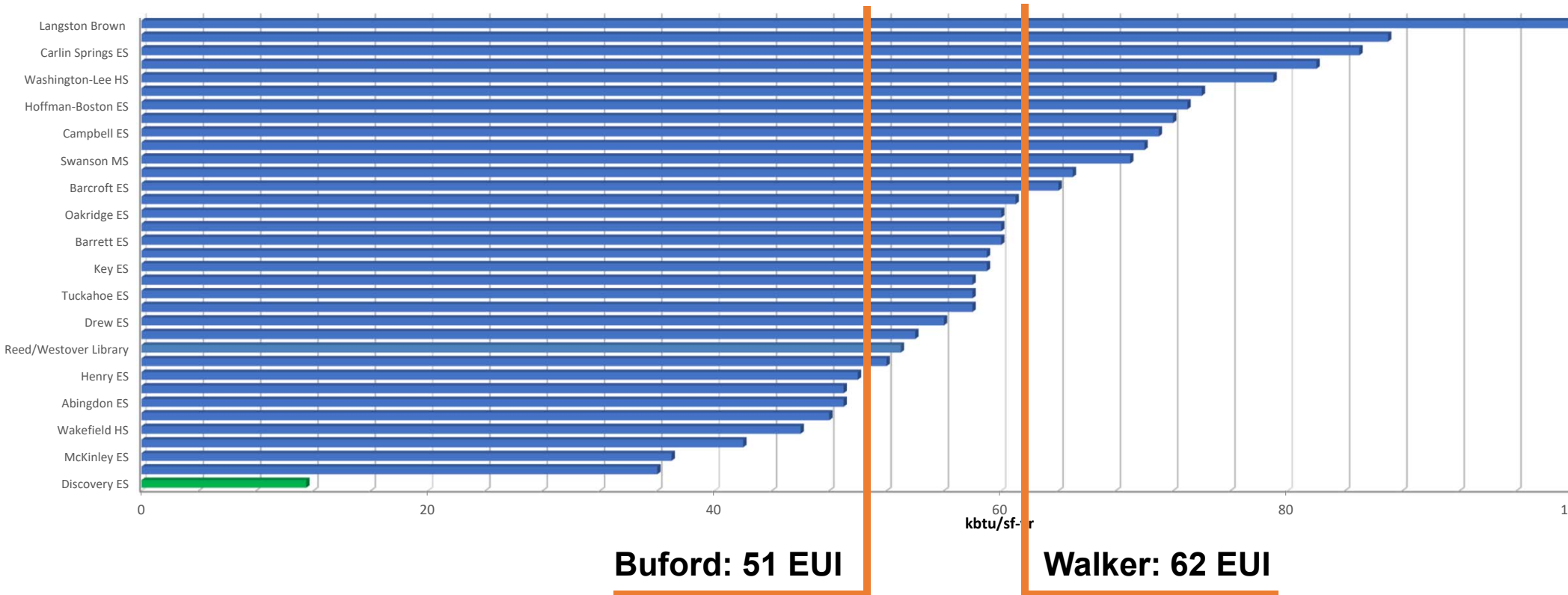
kBTU/sf/year

What's an EUI?

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Arlington Public Schools - 2017 Energy Consumption (EUI)



Energy Use Intensity (ZE Target: <25 EUI)

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Retreat

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Required Maintenance (2021-2031)

Walker	\$5,012,726
Buford	\$5,030,794
Total:	\$10,043,520

\$11,243,500

Cost to maintain Walker/Buford as-is

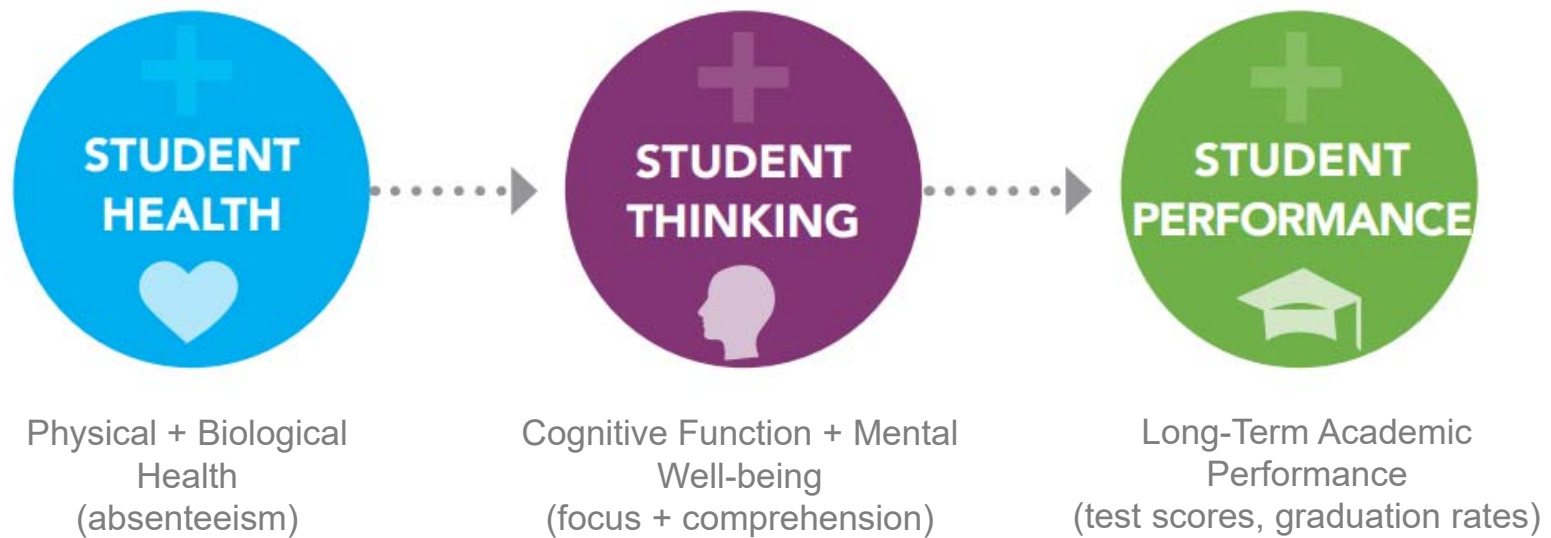
Does not address teaching space quality, asbestos mitigation, nor seismic/accessibility/fire protection/IT improvements.

Utility Costs

	Energy Use Intensity (EUI)	Est. Combined Annual Energy Cost	Projected Annual Savings	Projected 10-year savings (2027-2037)
Existing (Buford/Walker)	50/58	\$300,000 (actual)	none	none
Minor Renovation	44/46	\$260,000	\$40,000/year	\$400,000
Major Renovation	28/30	\$180,000	\$120,000/year	\$1,200,000
New Construction	16/18	\$110,000	\$190,000/year	\$1,900,000

Why do more than just maintain?

The design + operation of school buildings directly affects:



Source: <https://schools.forhealth.org/wp-content/uploads/2020/02/DEC2019-Schools-for-Health.pdf>



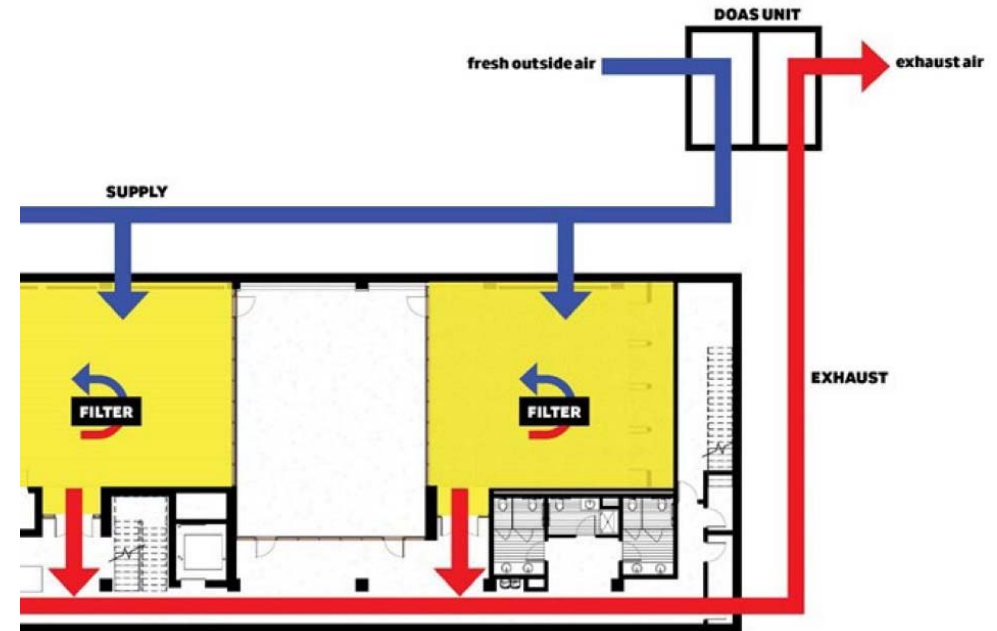
Air quality = learning quality

Good indoor air quality can improve performance and reduce absenteeism in students, teachers + staff.

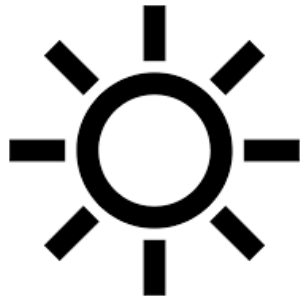
Source: Wargocki, P., D.P. Wyon, et al. 2000. "The effects of outdoor air supply rate in an office on perceived air quality, sick building syndrome (SBS) symptoms and productivity." *Indoor Air* 10(4):222-236.



Current Buford/Walker: ASHRAE 62.1 OA, filtered at unit, supplied from rooftop makeup air units; <MERV-8 filters @ classroom console units.



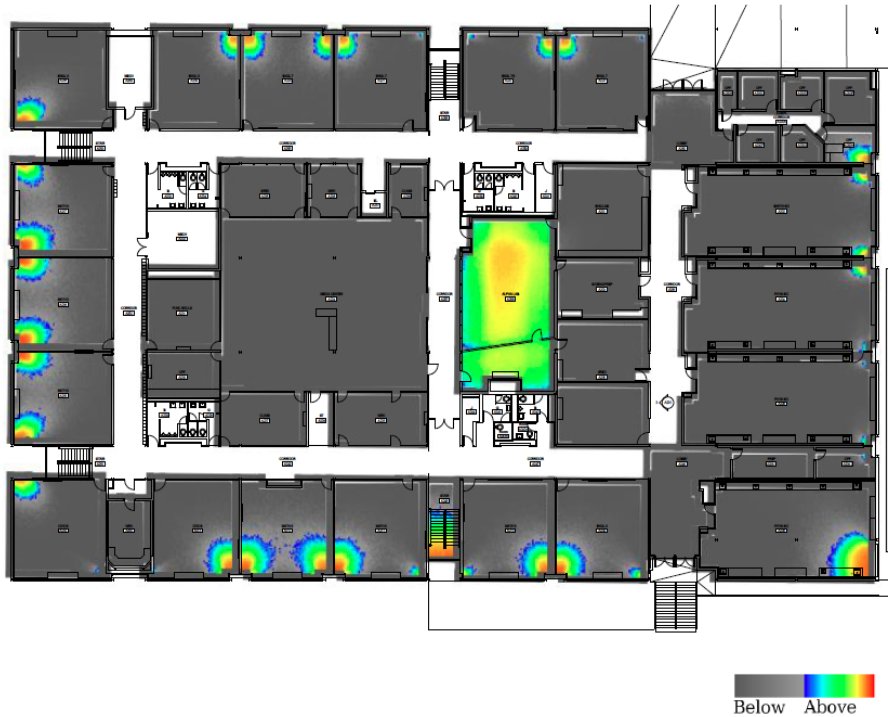
Best Practice: Filtered outdoor air supplied from Dedicated Outdoor Air System (DOAS) at +30% code; MERV-13 filtration @ classroom



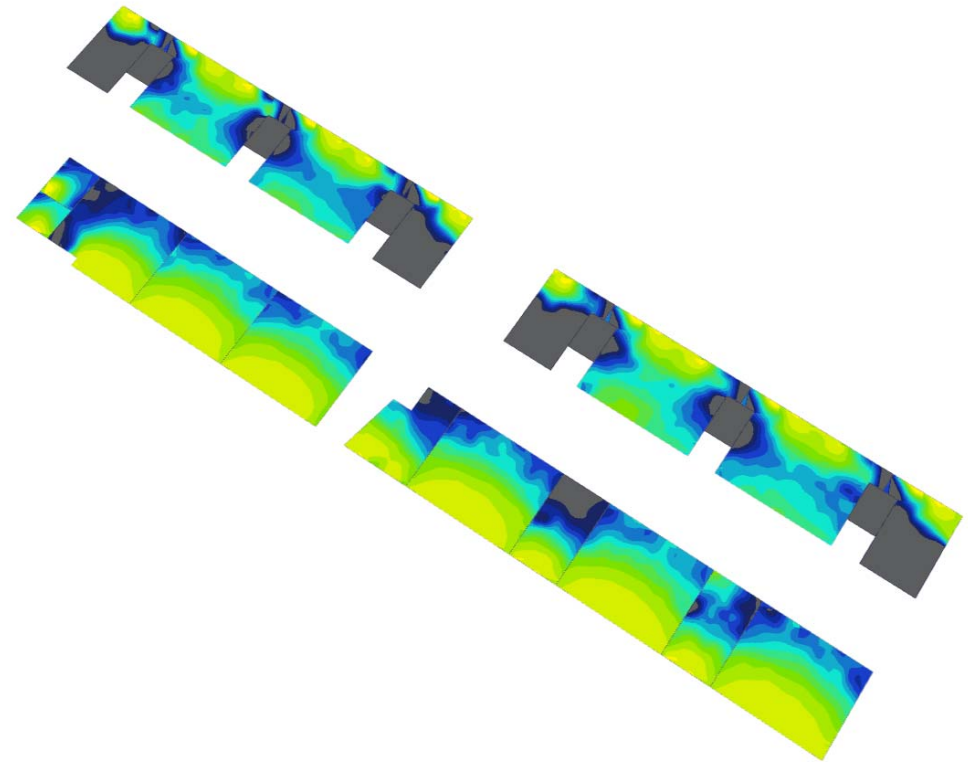
Daylight matters.

Access to daylighting and views significantly influences both test scores and stress levels.

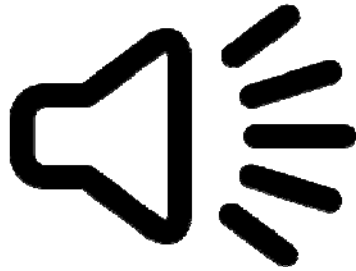
Source: Heshong, L., I. Elzeyadi, C. Knecht. 2002. "Daylighting in Schools: An Investigation into the Relationship between Daylighting and Human Performance" Carolina Energy Commission, Sacramento.



Current Buford/Walker: 10% Spatial Daylight Autonomy (300/50%)



Best Practice: 55-75% Spatial Daylight Autonomy



Noise makes it hard to learn.

Students under 15 years old have more difficulty with complex listening tasks.

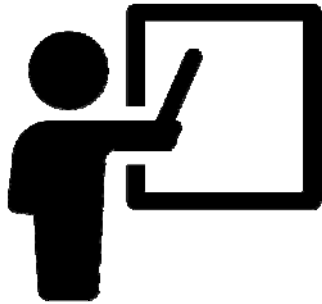
Source: Nelson, P. B., Sacks, J., & Hinckley, J. (2009). Auralizing adult-child listening differences. *The Journal of the Acoustical Society of America*, 126, 2192



Current Buford/Walker:
 HVAC Noise: 60-69 decibels (high fan mode)
 Ceilings: Noise Reduction Class (NRC) Rating 0.55



Best Practice:
 HVAC Noise: 34-39 decibels (high fan mode)
 Ceilings: Noise Reduction Class (NRC) Rating 0.80



Teachers care.

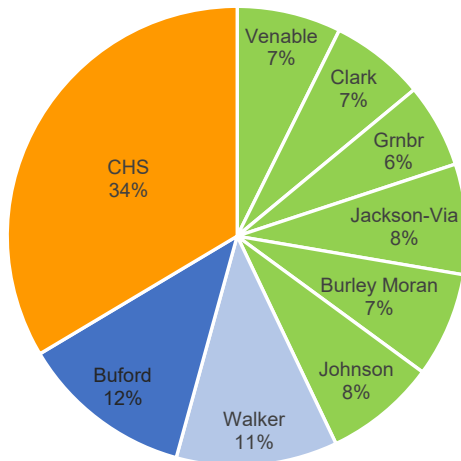
Better facilities attract, support and retain better teachers.

Source: Schneider, M. "Public school facilities and teaching: Washington, DC and Chicago." 21st Century School Fund, Washington, D.C.



Promises matter.

The City has committed to reduce its greenhouse gas emissions by 45% from 2011 levels by 2030.



Buford and Walker represent ~23% of total square footage of CCS learning environments.

This is the only significant efficiency CCS upgrade project between now and 2030.

Then and Now

Then

Traditional Learning Environments

Now

21st Century Learning Environments



Then and Now

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School Board
Retreat

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Then

Traditional Learning Environments

- Different students taught in similar ways

Now

21st Century Learning Environments

- Embrace diversity with differentiated pedagogical practice



Then

Traditional Learning Environments

- Different students taught in similar ways
- Curriculum centered (standardized)

Now

21st Century Learning Environments

- Embrace diversity with differentiated pedagogical practice
- Learner Centered (personalized educational experiences)



Then

Traditional Learning Environments

- Different students taught in similar ways
- Curriculum centered (standardized)
- Buildings of the past: Aged, Poor lighting / air quality

Now

21st Century Learning Environments

- Embrace diversity with differentiated pedagogical practice
- Learner Centered (personalized educational experiences)
- Buildings today: Sustainable + Promote Health + Wellness

2020-2021

Then

Traditional Learning Environments

- Different students taught in similar ways
- Curriculum centered (standardized)
- Buildings of the past: Aged, Poor lighting / air quality
- Furniture & Technology: Stationary / Fixed

Now

21st Century Learning Environments

- Embrace diversity with differentiated pedagogical practice
- Learner Centered (personalized educational experiences)
- Buildings today: Sustainable + Promote Health + Wellness
- Furniture & Technology: Adaptable + Flexible



Then

Traditional Learning Environments

- Different students taught in similar ways
- Curriculum centered (standardized)
- Buildings of the past: Aged, Poor lighting / air quality
- Furniture & Technology: Stationary / Fixed
- Learning environments – Isolated + Interactive

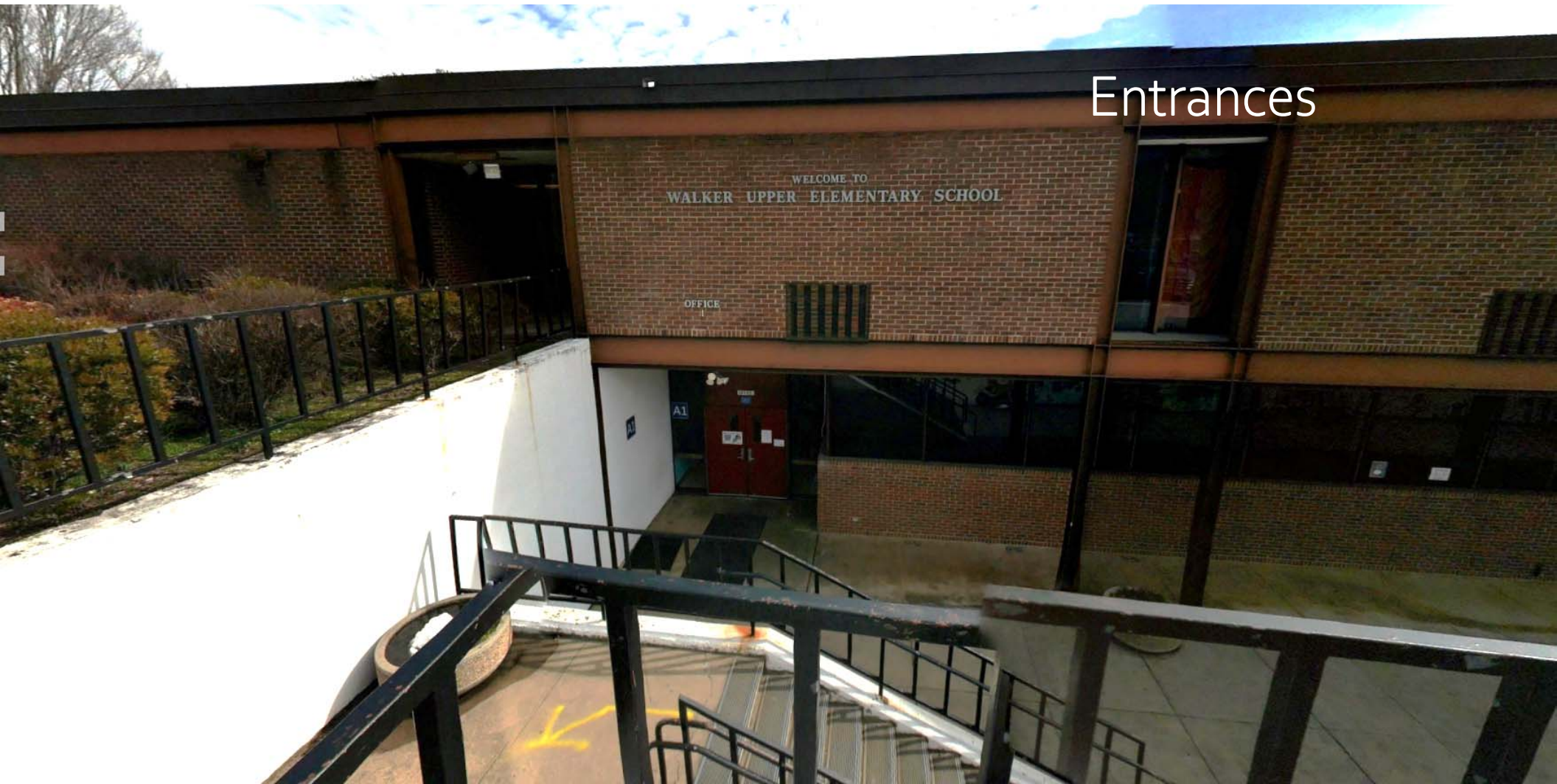
Now

21st Century Learning Environments

- Embrace diversity with differentiated pedagogical practice
- Learner Centered (personalized educational experiences)
- Buildings that are sustainable & promote Health + Wellness
- Furniture & Technology: Adaptable + Flexible
- Learning environments – Connected + Participatory

**What kind of learning environments
do we dream about for our kids
TODAY?**

Entrances



Extremely difficult to find, and down in a pit!

VMDO



Entrances

Visible, Accessible + Sense of identity

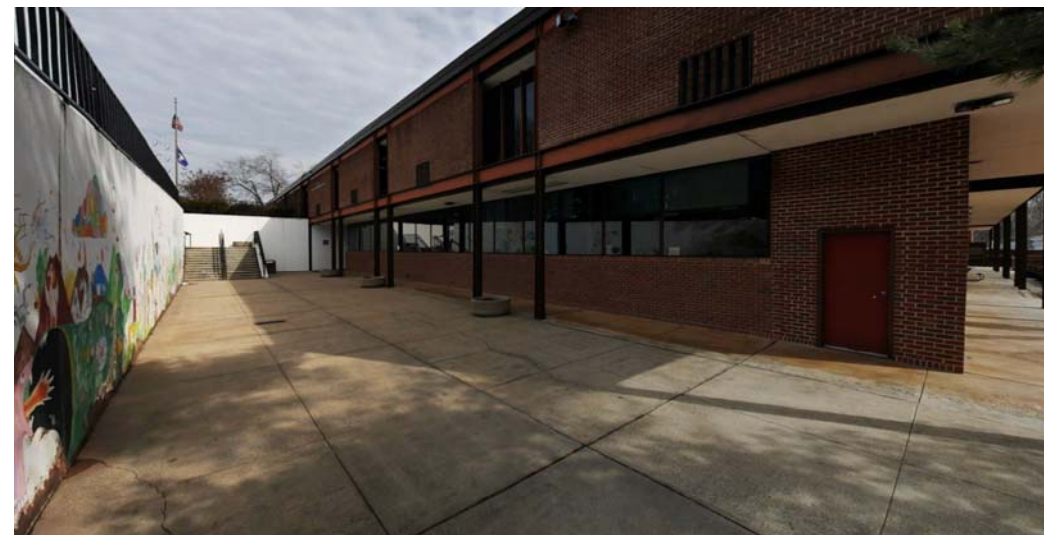
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Unsafe and uninviting conditions



Outdoor spaces



Outdoor spaces



Outdoor Learning - Useful, Active + Inspiring

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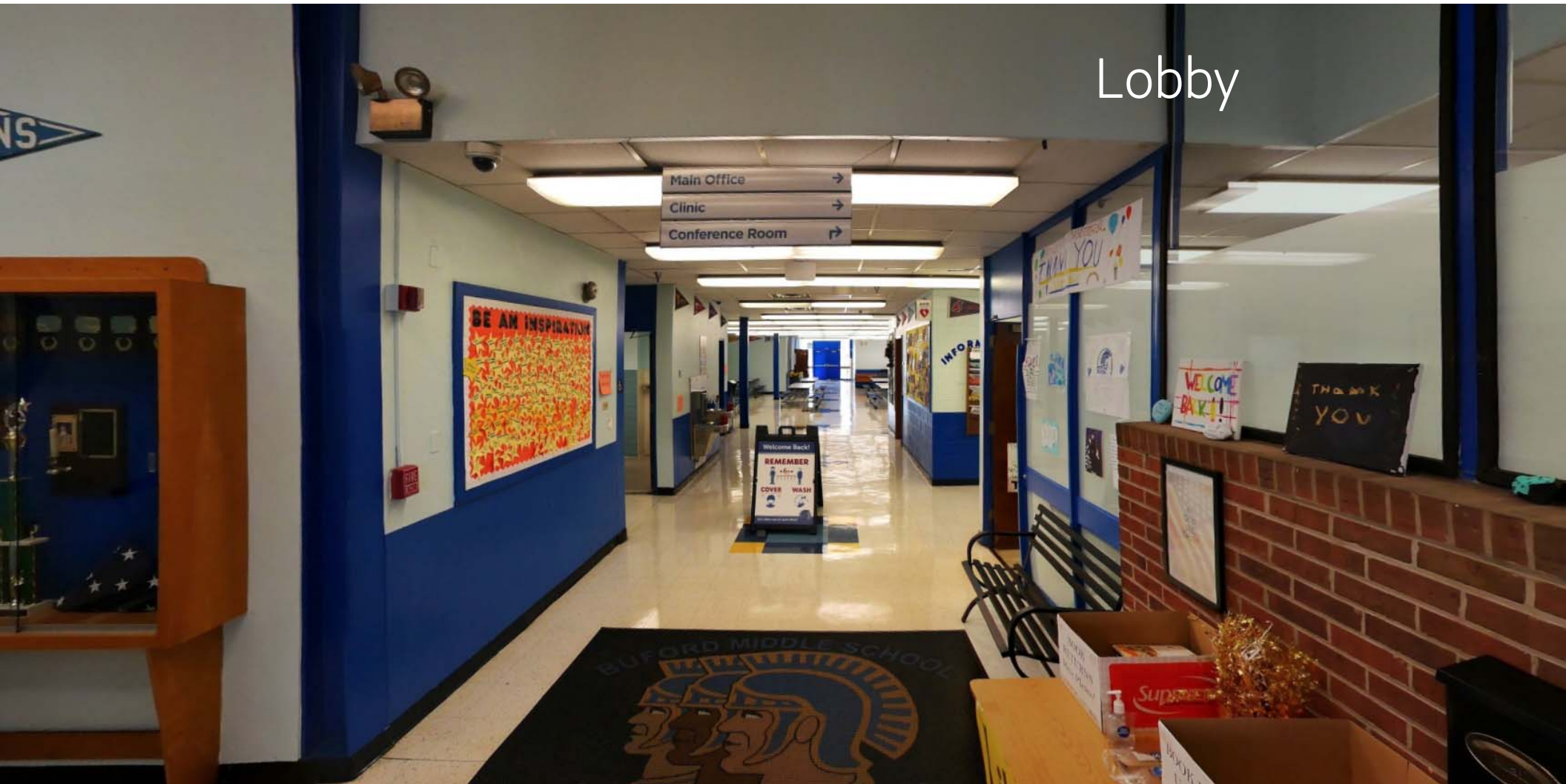
87



Outdoor spaces

Outdoor Learning - Useful, Active + Inspiring

VMDO



Lobby

Cramped, uninspiring, dimly lit

VMDO



Lobby

Visible + Accessible, Welcoming Community

VMDO

Corridors



Monotonous, lack of orientation & connection to classrooms

VMDO

Corridors



Make learning everywhere and part of school culture

VMDO



Corridors

Useful + Interactive. Color + Graphics as wayfinding

VMDO

Classroom



Dimly lit, minimal daylight & views, stationary furniture

VMD O



Classroom

Flexible + Adaptable

VMDO



Community space isolated from classrooms and corridor

VMDO



Library

Media Center - Flexible, adaptable, age-appropriate scale

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Library

Open / Shared Media along circulation path

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Library

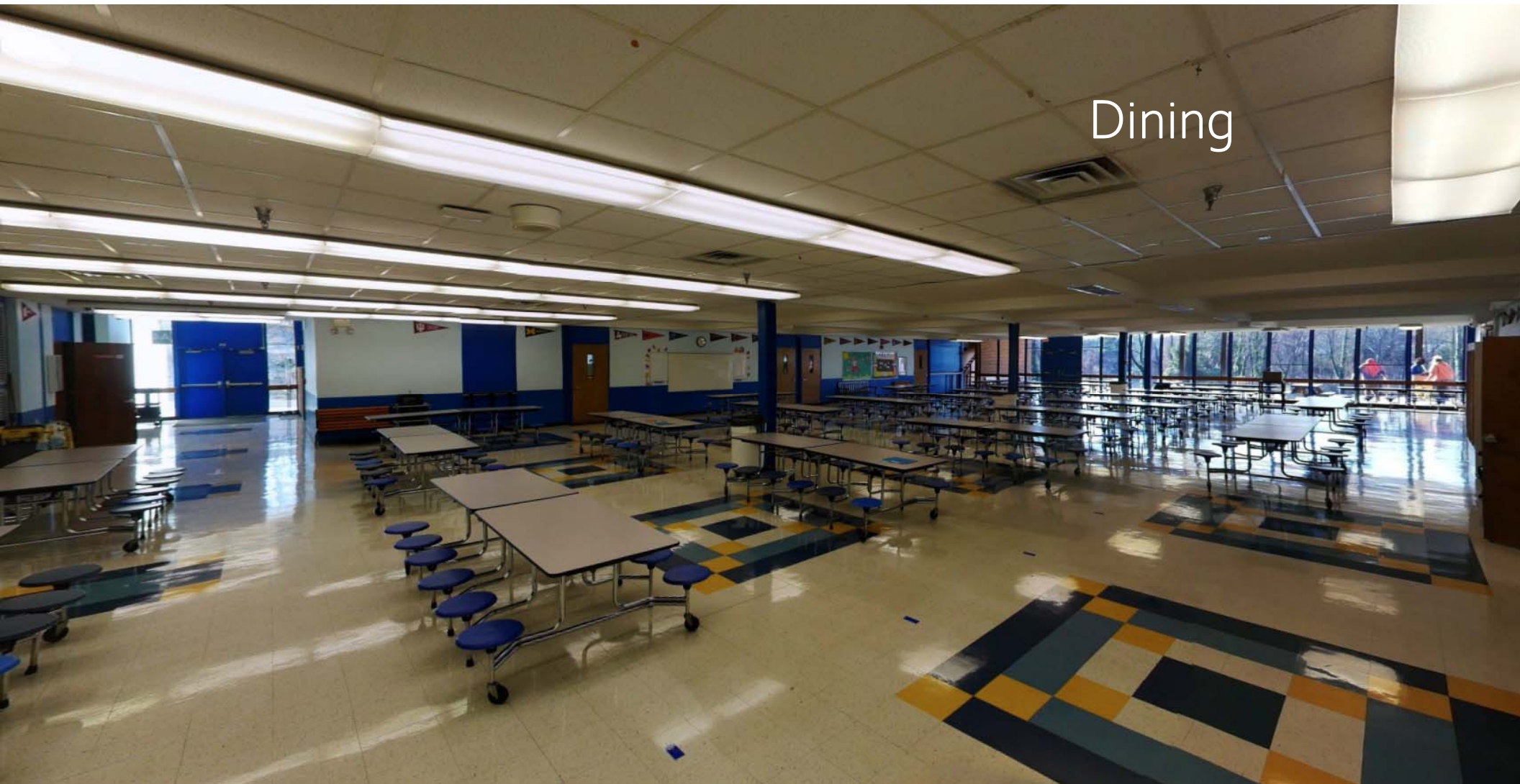


Distributed Media Commons within learning communities

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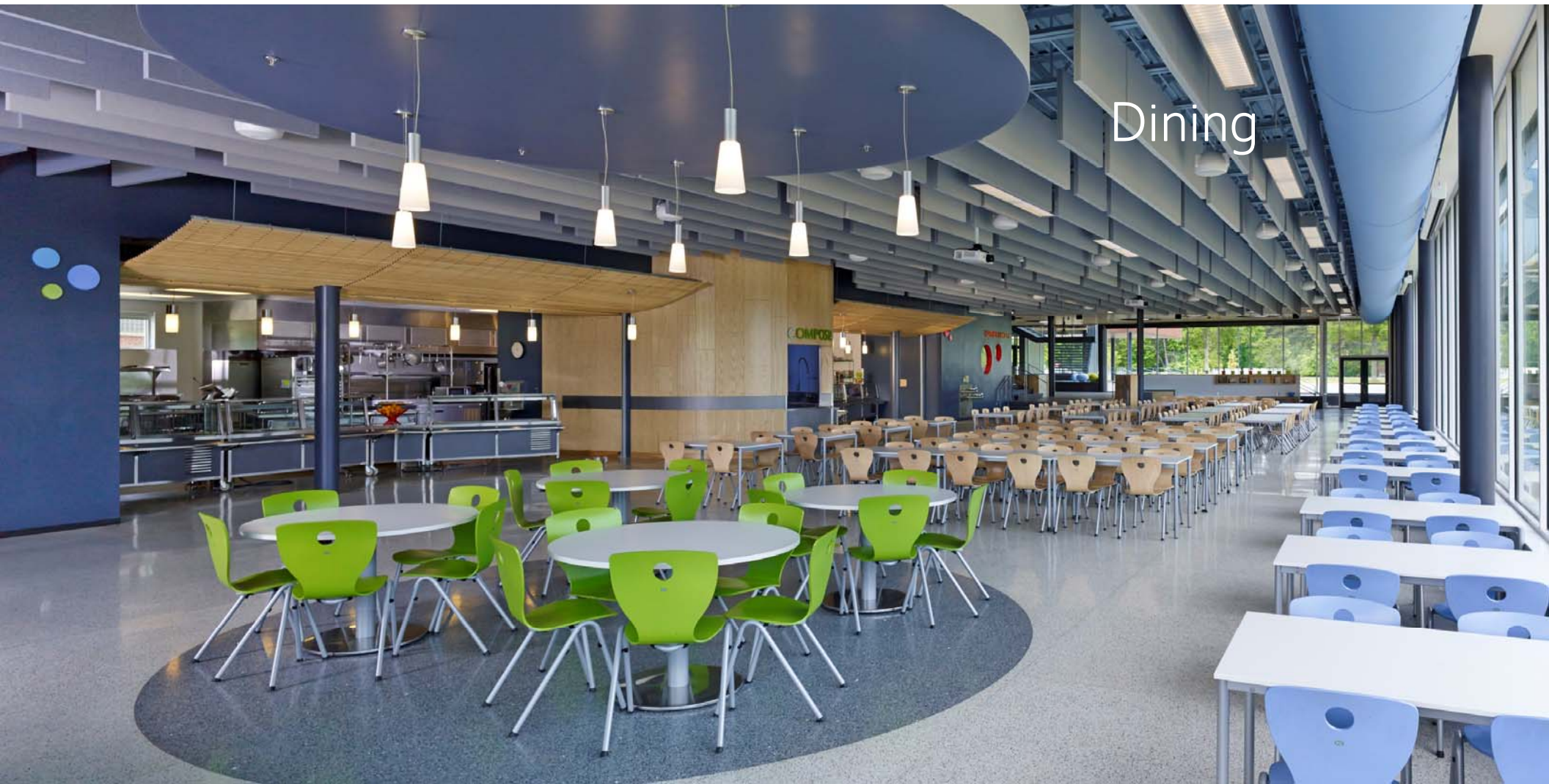
Dining

Traditional cafeteria-style seating, poor acoustics

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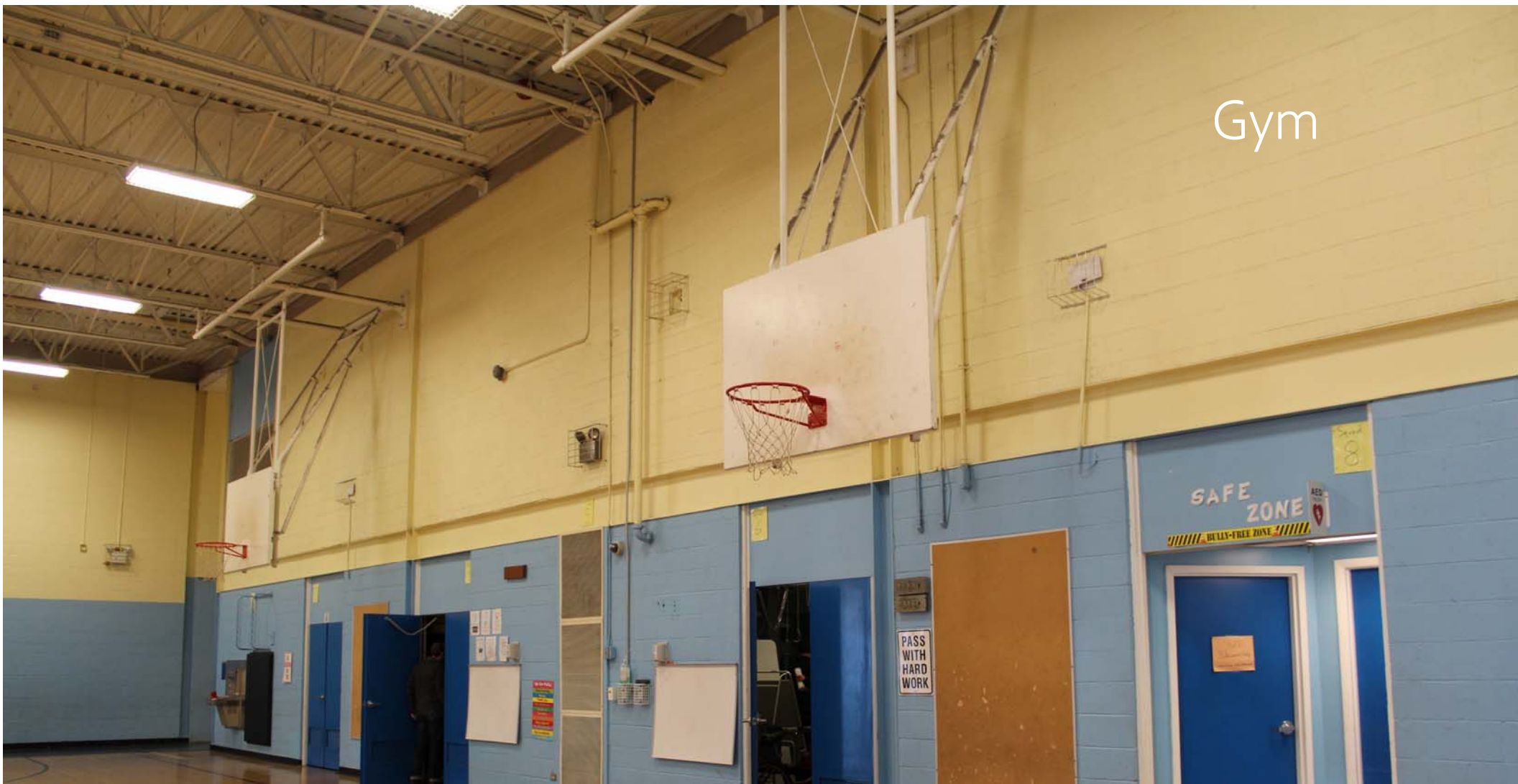
Dining

Varied seating options, acoustically designed, education focus

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Gym

Outdated facility – undersized, outdated

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Gym

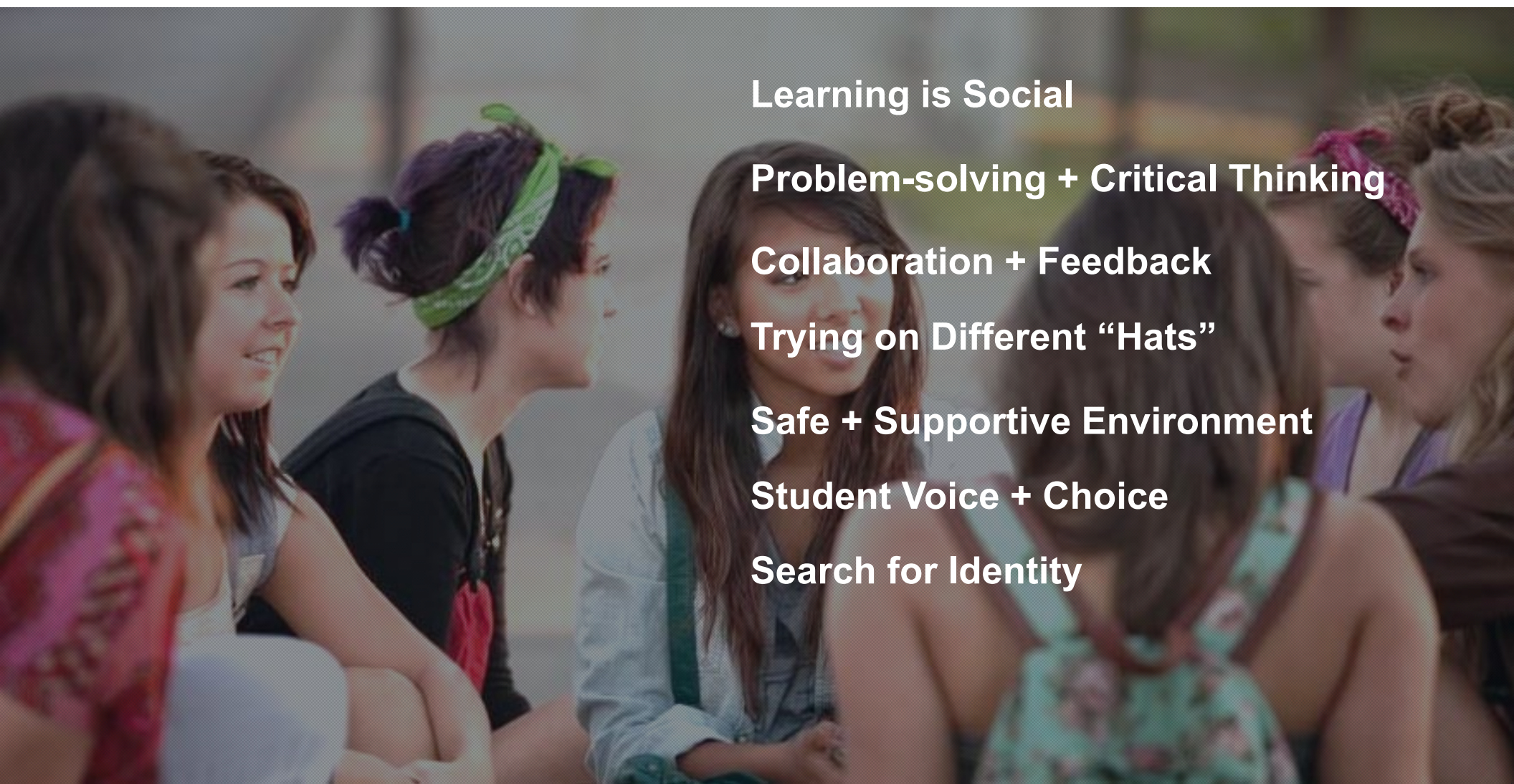
Light, spacious, playful

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Designing for the Adolescent Learner
Designing for the Early Learner



Learning is Social

Problem-solving + Critical Thinking

Collaboration + Feedback

Trying on Different “Hats”

Safe + Supportive Environment

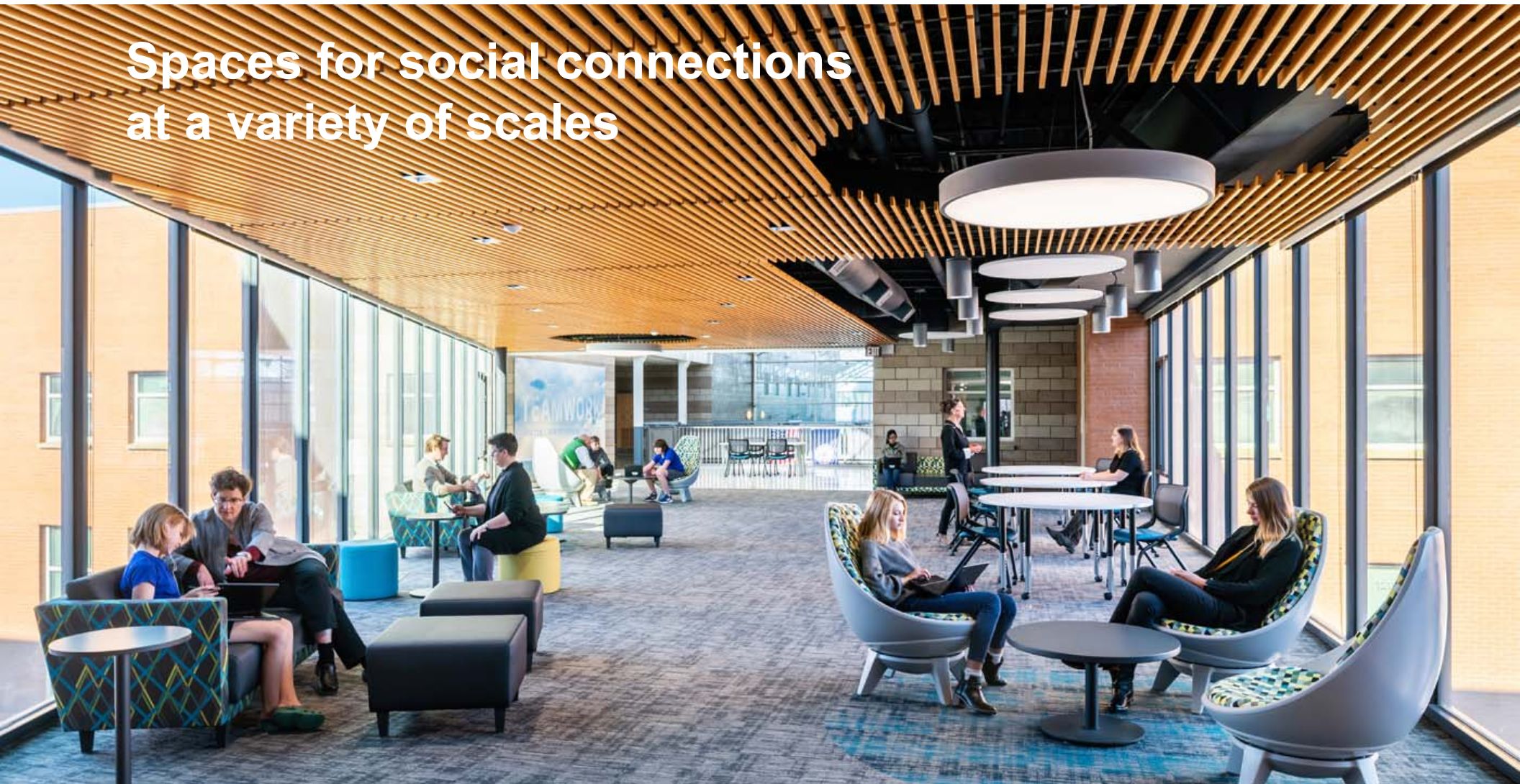
Student Voice + Choice

Search for Identity

A photograph of a modern middle school interior. The room features large glass windows that look out onto a green landscape. Inside, there are several blue armchairs and tables. A few students are visible: one is sitting at a table on the left, another is sitting on a blue armchair on the right, and two others are standing near the center. The ceiling has exposed wooden beams. The overall atmosphere is bright and open.

How might the design of
a middle school support
the needs of the
adolescent learner?

Spaces for social connections at a variety of scales

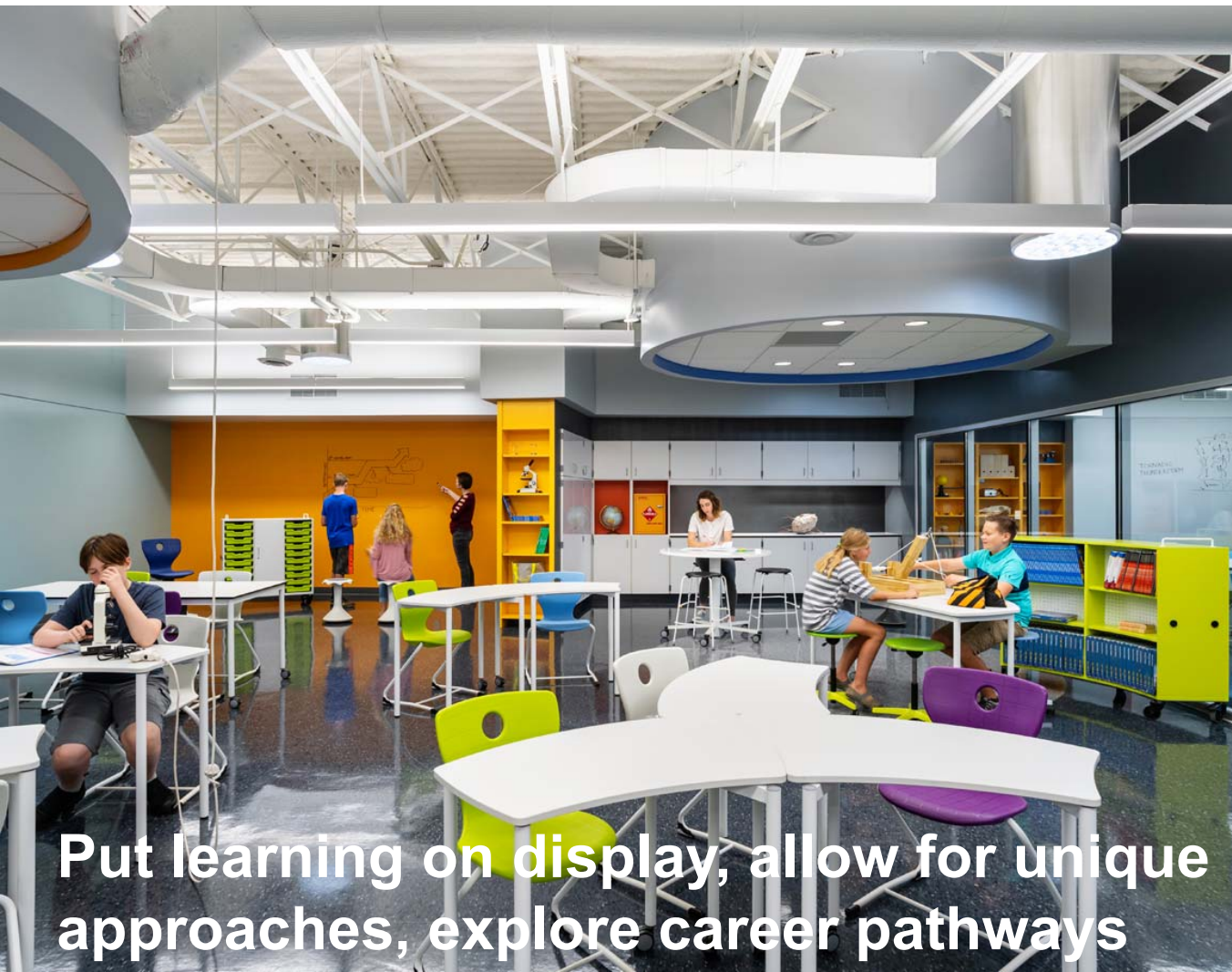


Learning is social – “see-and-be-seen”

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Put learning on display, allow for unique approaches, explore career pathways

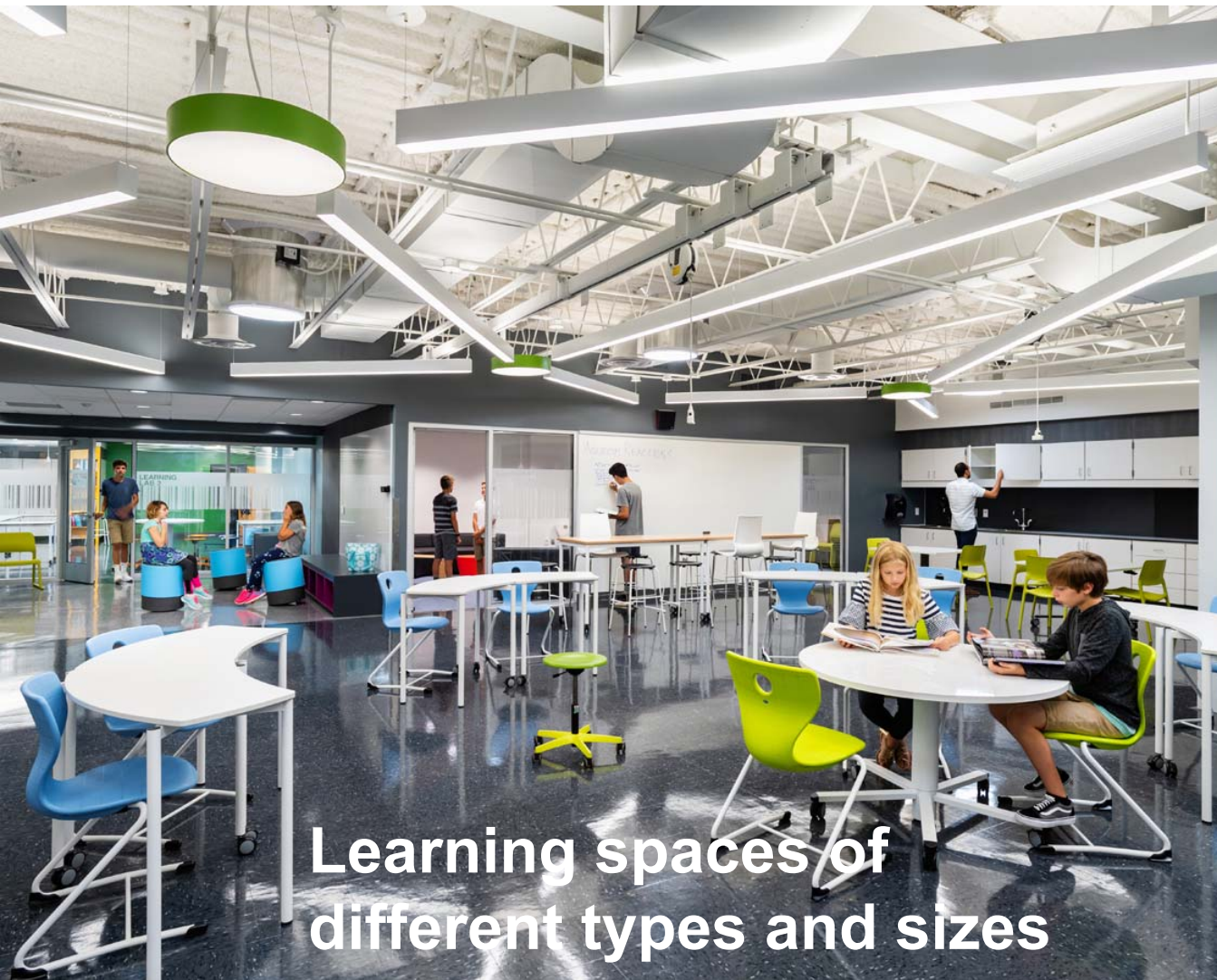


Self-directed learning environments – try on different “hats”

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Learning spaces of
different types and sizes

Student voice + choice



Flexible
equipment



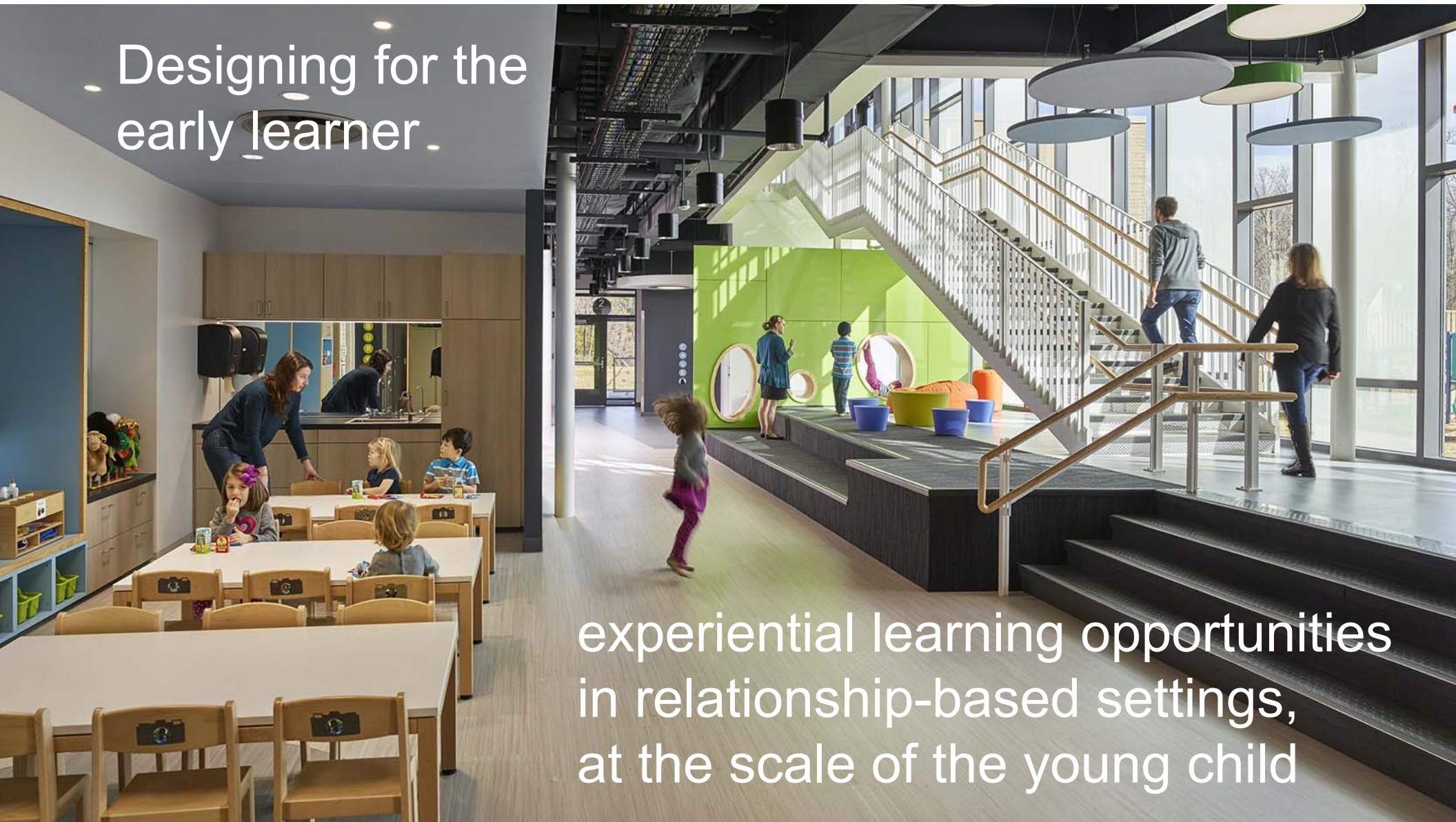
Flexible
furniture

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Designing for the
early learner.

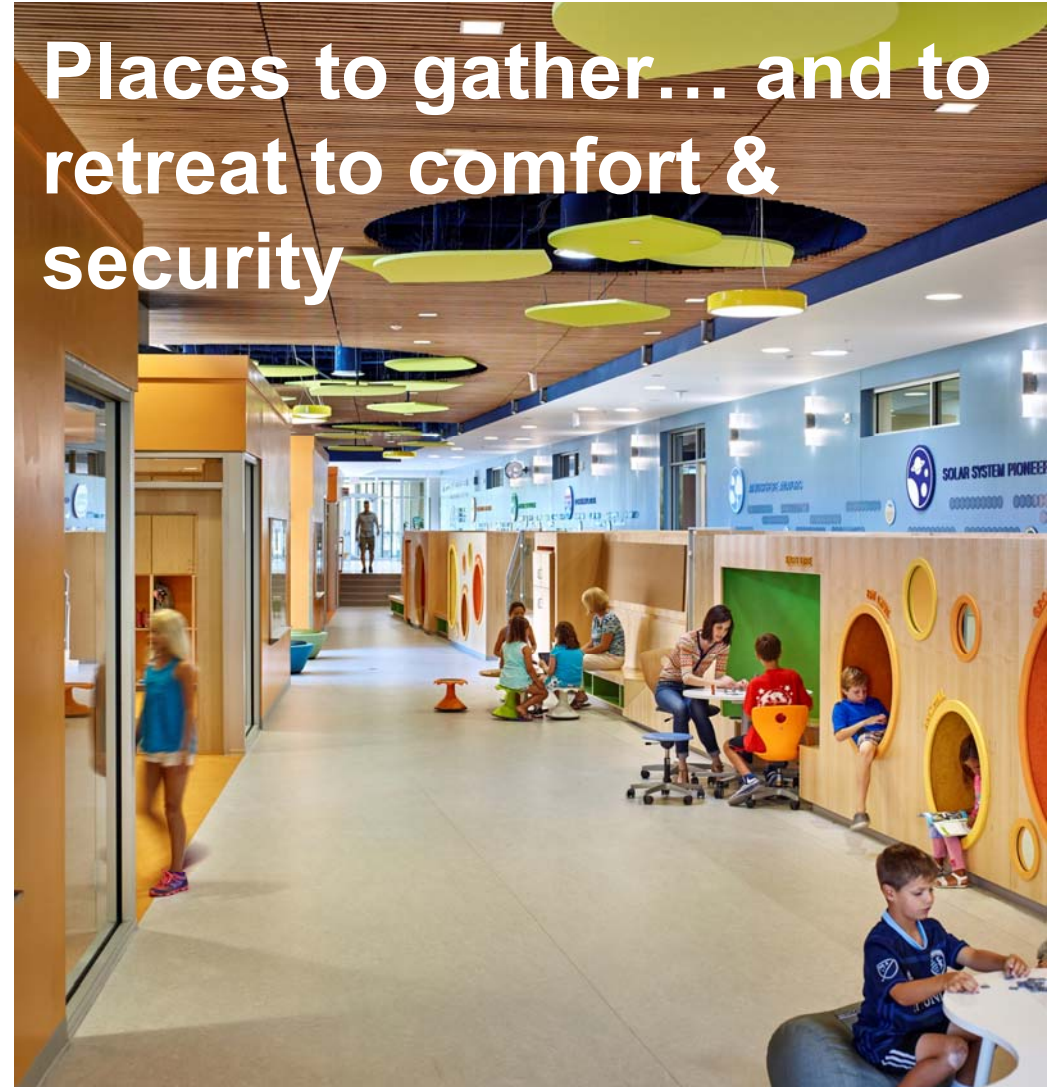


experiential learning opportunities
in relationship-based settings,
at the scale of the young child

Places to learn
through play and
exploration



Places to gather... and to
retreat to comfort &
security



Spatial Variety: support the continuum of exploration & retreat

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Comfortable home bases



Community hearths with incremental connections to a learning neighborhood





NATURE FRIENDS PROGRAM

Every preschooler needs access to nature play
for healthy development



Charlotteville City Schools

September 25, 2018 · 🌐

Educating the whole child requires time for creative play. Thanks, Wildrock, for hosting our youngest learners. The rain did not stop our Jackson-Via Elementary School jackrabbits!



Wellness & learning through outdoor play

VADO

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Buildings that allow flow
between outdoor and
indoor curricular space

Use of outdoor space made easy for educators & children

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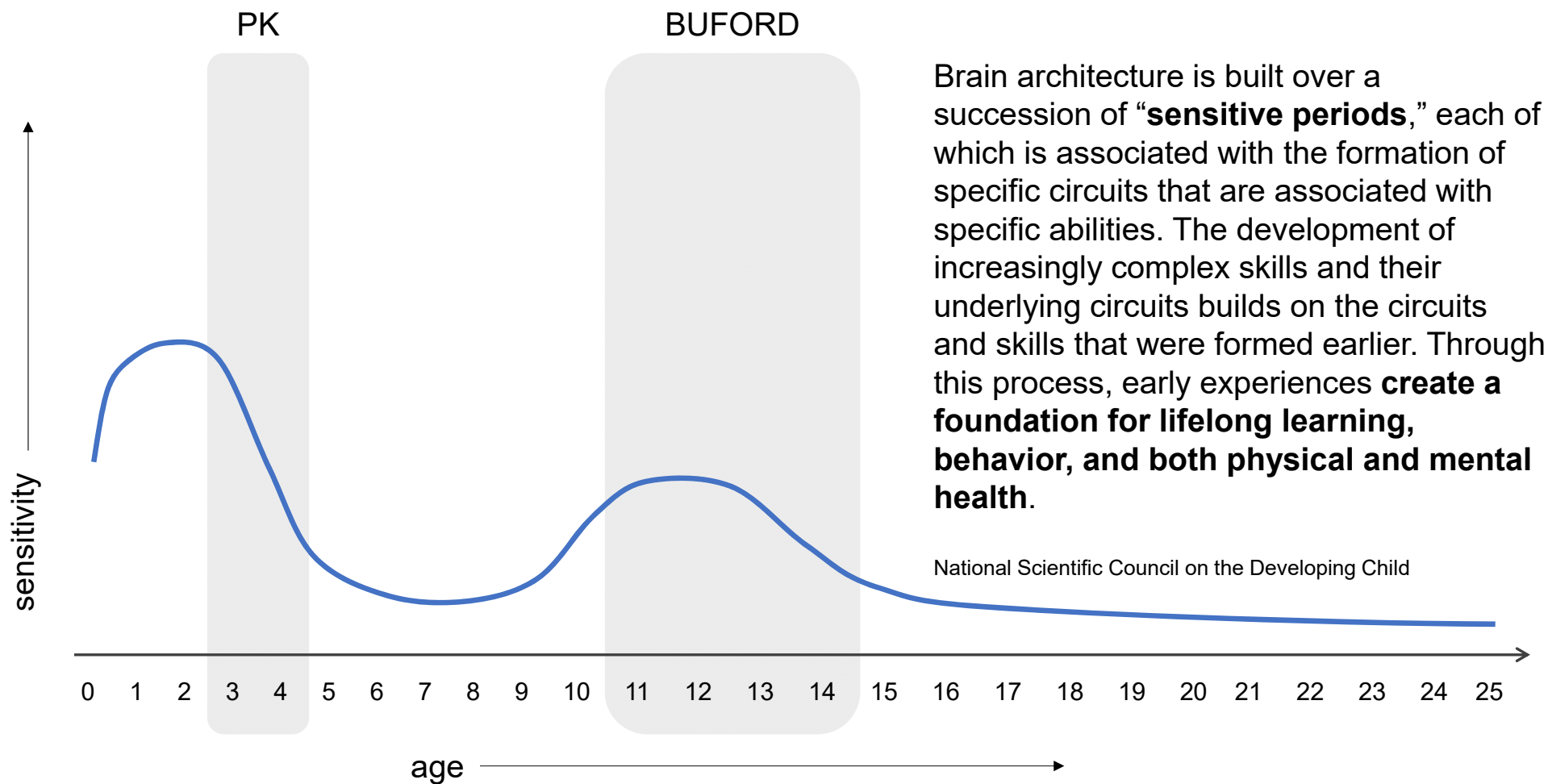
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A photograph of a classroom interior. The room features a grid-patterned ceiling with fluorescent lighting. In the center, a projector is suspended from the ceiling. The floor is covered with wooden desks and black chairs. On the left, there is a green wall with a whiteboard and a calendar. On the right, there is a red wall and a whiteboard. The room is filled with various educational materials and supplies.

**“We shape our buildings,
and afterwards
our buildings shape us.”**

- Winston Churchill



The two biggest windows of opportunity for ALL students



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Retreat

Questions & Discussion

- 1 Overview of Project
- 2 Existing versus Ideal Conditions
- 3 Engagement & Outreach
- 4 Sequencing
- 5 Capacity
- 6 Potential scopes of construction



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3 Engagement & Outreach

*Here's how we'll learn what should happen
in Charlottesville in 2021.*



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UNCERTAINTY / PATTERNS / INSIGHTS

CLARITY / FOCUS



RESEARCH

CONCEPT PROTOTYPE

DESIGN

Process – what we want now...

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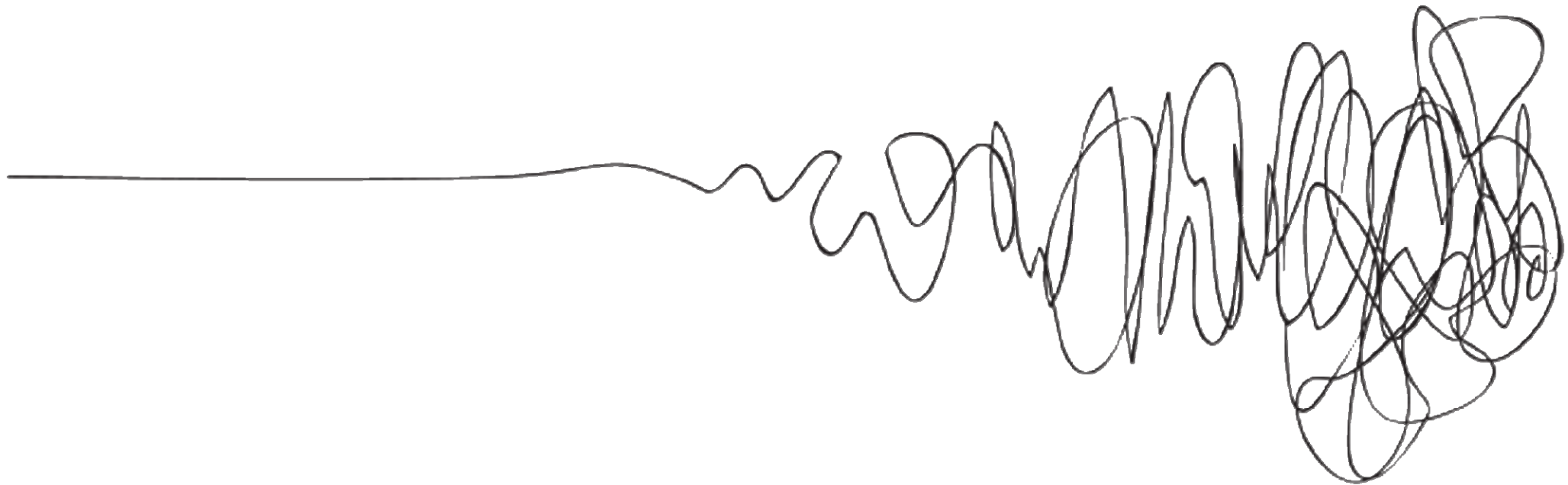
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DESIGN

CONCEPT PROTOTYPE

RESEARCH



CLARITY / FOCUS

UNCERTAINTY / PATTERNS / ASPECTS

... if we want to avoid this later

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STAFF

Working Group (Local Leaders)

Role: *Design the Process*

Closed discussions between Owner and Consultant

- What are the questions we should ask? How? When?
- Does feedback suggest changes to the approach?

Members

Meet once a month for an hour

PUBLIC

CCS Community Design Team (CDT) (Community)

Role: *Execute the Process*

Public discussions where potential solutions are first presented

- Present the issues, Ask the questions, Hear Hear people's voices.
- Meetings are recorded and published

Members

Meet twice a month for up to 3 hours

(Core group that commits to attendance; additional attendees from general public)

STAFF

Building Committee (Staff)

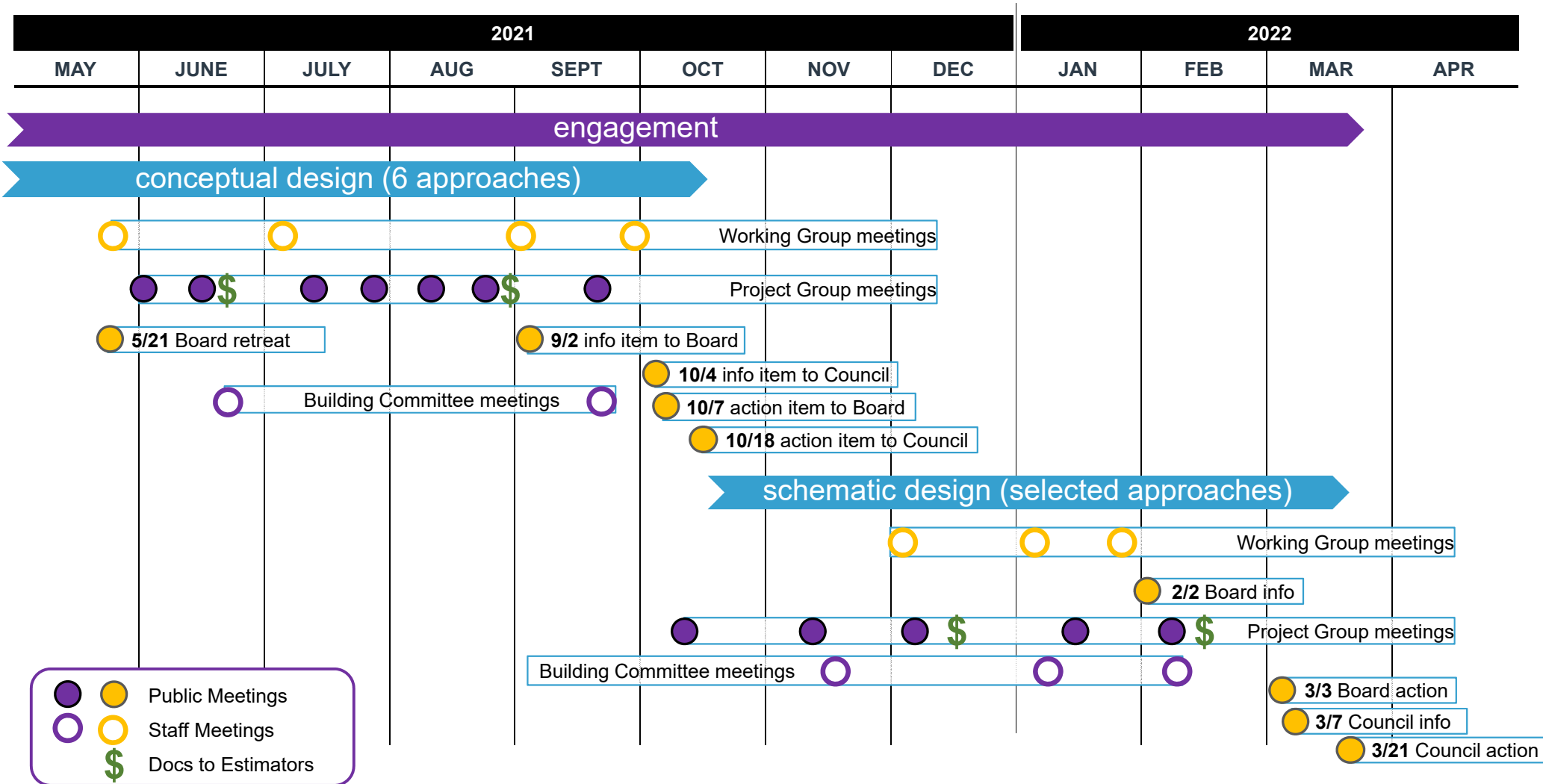
Role: *Inform the Process*

Non-public discussions, but all information presented & collected is made public

- Subject matter expertise
- More fine-grained than public cares about
- Design team can speak with individual members to collect info

Members

Meet once a month for an hour, plus as needed



Schedule: revised 5/19

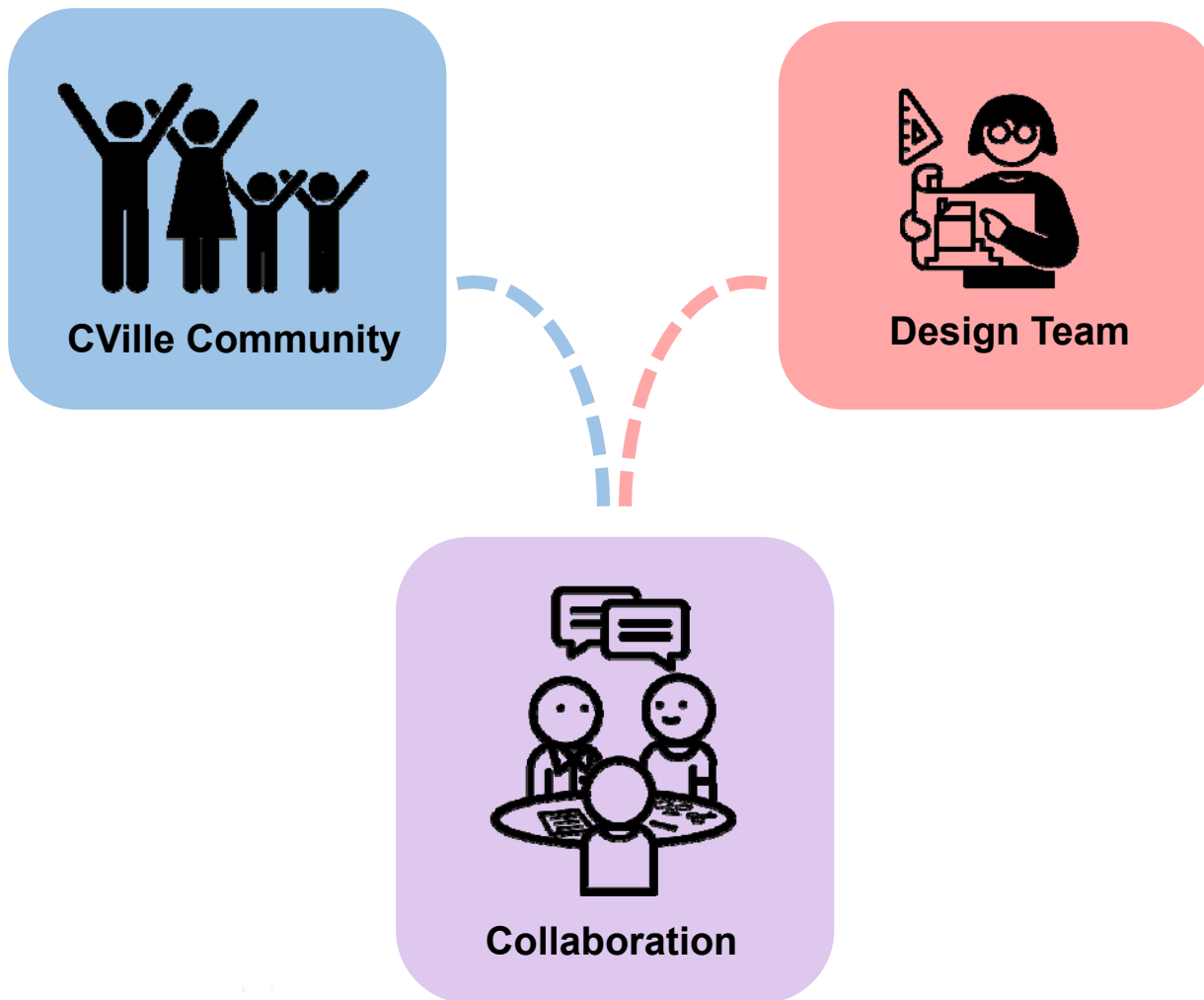


Community Vision, Priorities and Values

**Scope &
Constraints**

Budget, Site,
Capacity,
Construction time,
Existing conditions,
Etc.

Design Concept(s)



CDT Meeting Typical Agenda

1. Opening Question

Responses open to all public participants

3. What We Heard

Recap of engagement responses since the last time we met

2. Design Process

Where we are in the overall design & construction process

4. Design Updates

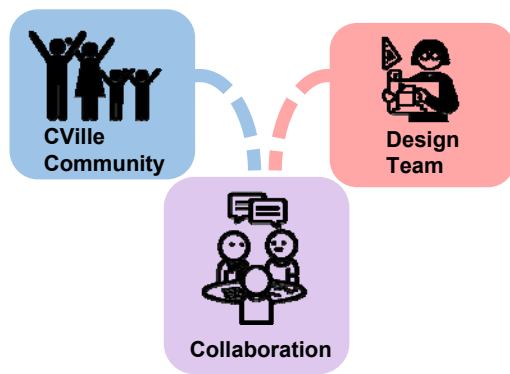
Update on design work that has evolved since the last meeting taking a deep dive on a particular issue (capacity, programming, etc.) each meeting

5. Charrette

Participants will collaborate to workshop design challenges

6. Open Forum

Open comment period for participants



CDT Typical Agenda

1. Opening Question

3. What We Heard

2. Design Process

4. Design Updates

5. Charrette

6. Open Forum

CDT Proposed Meeting 1

1. Opening Question

"What are your greatest hopes & fears for this project?"

3. Reconfiguration History & Context

Where are we in the arc of CCS history? What conversations about reconfiguration have happened to date?

2. Design Process

Introduce the process, scope, schedule and charge

4. Phasing (construction sequence) options

Brief introduction to the variety of scenarios construction phasing could take

5. Get Involved

What are ways you can be involved in the process?
Who should we be talking to?
What should we be learning about CCS?

6. Open Forum

Open comment period for participants

CDT Meeting 1

Engagement Activities

1. Opening Question

"What are your greatest hopes & fears for this project?"

"Get Involved!" survey

3. Reconfiguration History & Context

Where are we in the arc of CCS history? What conversations about reconfiguration have happened to date?

Family scavenger hunt activity

2. Design Process

Introduce the process, scope, schedule and charge

Short informational video

4. Phasing (construction sequence) options

Brief introduction to the variety of scenarios construction phasing could take

Short informational video

5. Get Involved

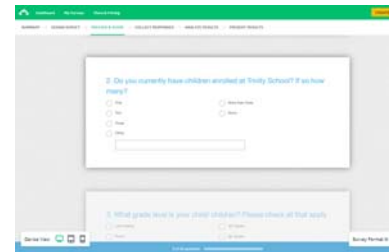
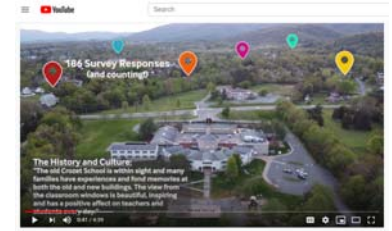
What are ways you can be involved in the process?
Who should we be talking to?
What should we be learning about CCS?

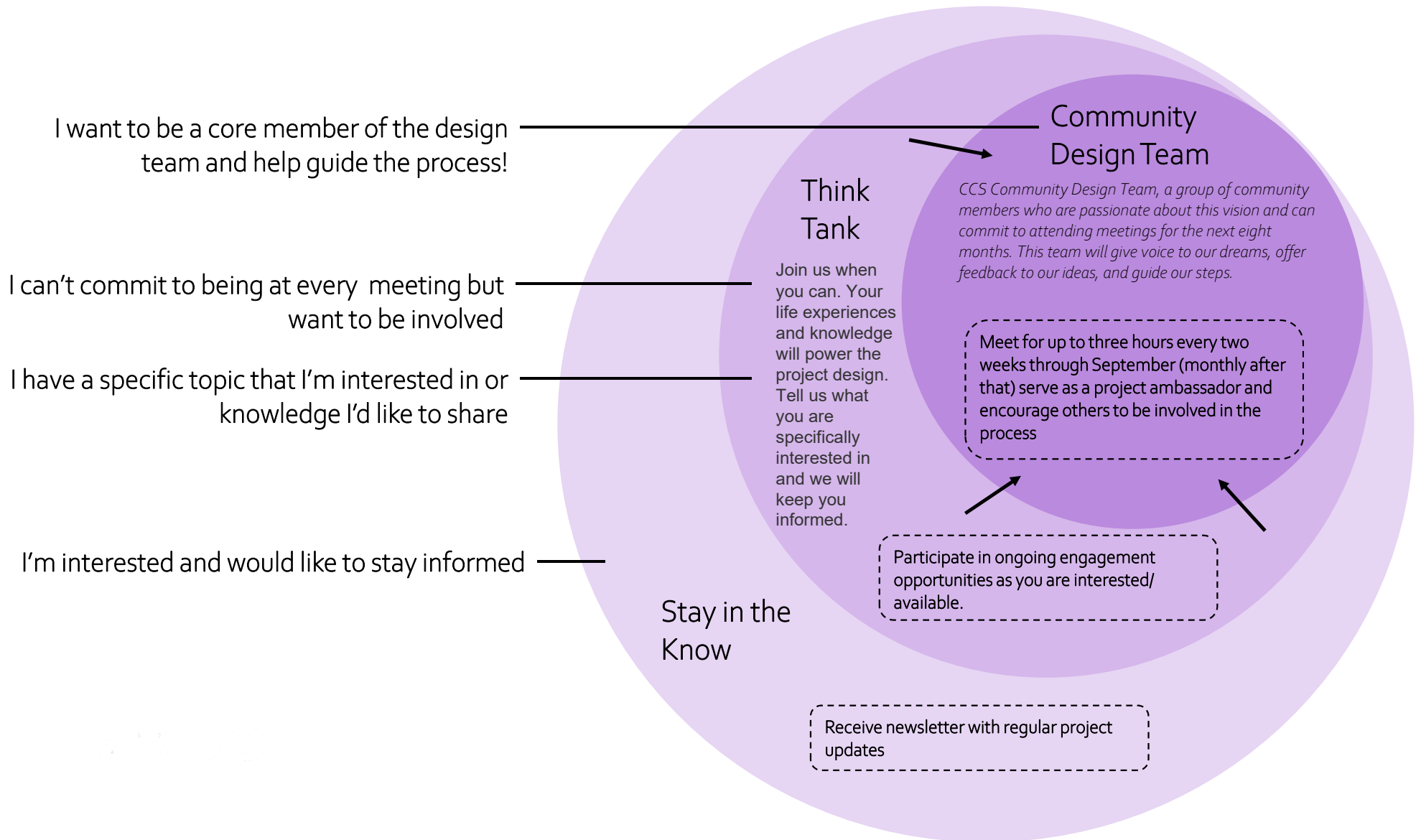
"Get Involved!" survey

6. Open Forum

Open comment period for participants

Open Zoom interviews, Call-in
phone comment voice mail box





CCS Community Design Team (CDT) (Community)

Role: *Execute the Process*

Public discussions where potential solutions are first presented

- Present the issues, Ask the questions, Hear people's voices.
- Meetings are recorded and published

Members—Appointed

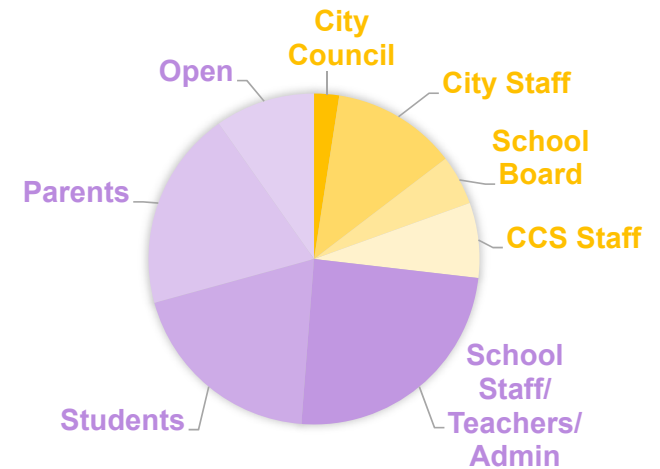
CCS

- Lisa Torres & Jennifer McKeever? (School Board)
- 2 CCS Community-facing staff (Family Engagement, PBIS, Adult Learning, etc.)
- 1 CCS Facilities

City

- Nikuyah Walker (City Council)
- Todd Brown (Parks & Recreation)
- Alex Ikefuna (Neighborhood Development Services)
- Sue Moffett (Social Services)
- Kaki Dimock (Human Services)
- Mike Goddard (Public Works)

= 11 representatives



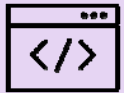
Members—Open Application

- 8 Students (students entering 7th grade and below are encouraged to apply as a pair with a parent)
- 8 Parents
- 10 Teachers/ school staff/admin
- 6 Open

= +/-30 representatives

Launching Monday, 5/24

A variety of accessible information and engagement opportunities



Short Video



Survey

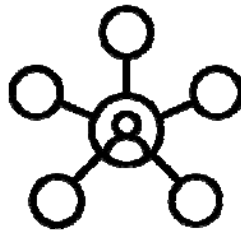


Forward-able email template



Translation text line

Leverage networks to make personalized recommendations

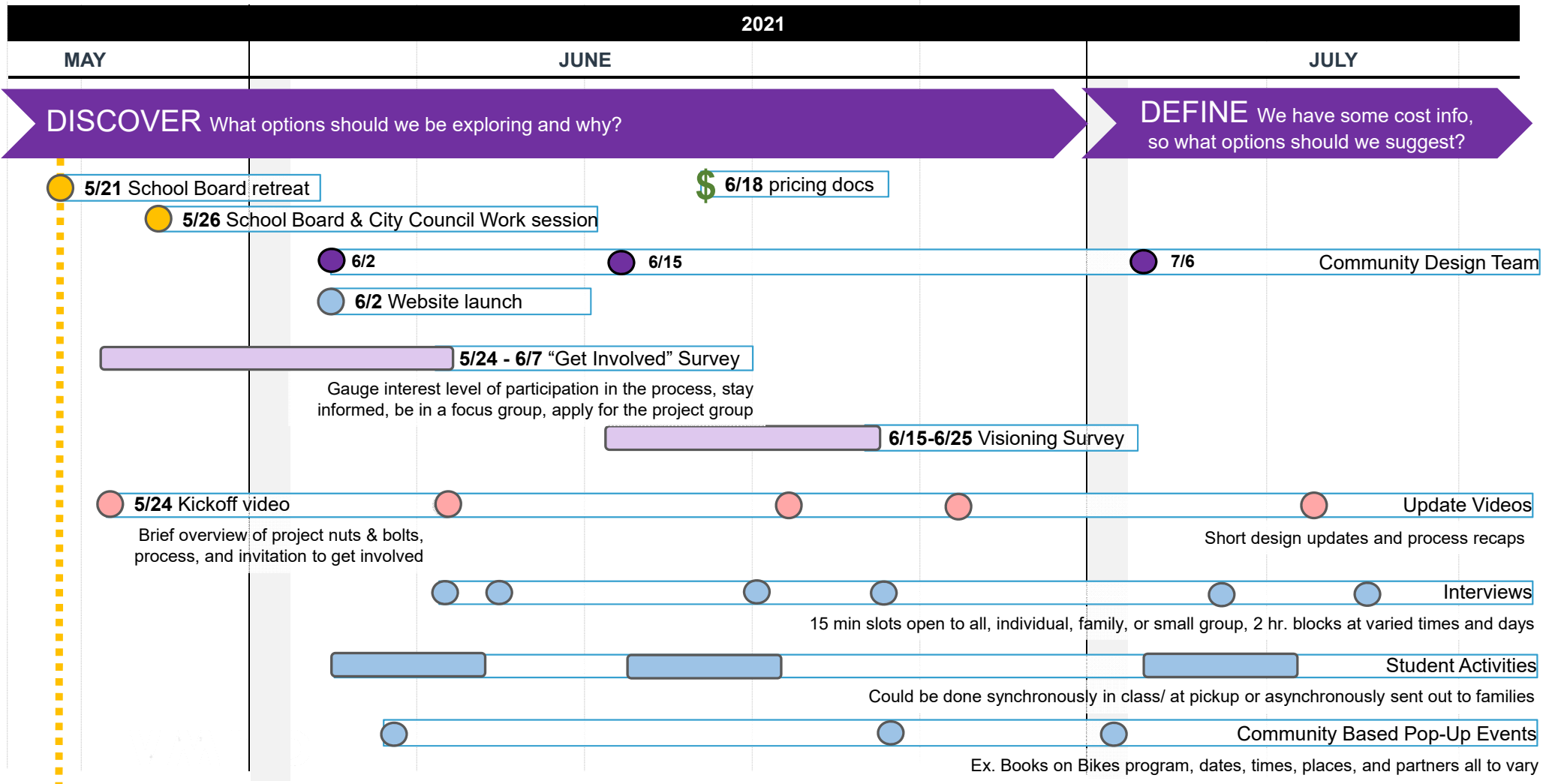


Working Group, School board, City Council, CCS Staff, City Staff, Principals, Teachers, Partner Organizations, Local Leaders

Cville Community

CCS Community

Buford, Walker, & Pre-K Communities



Schedule: revised 5/19

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Questions & Discussion

- 1 Overview of Project
- 2 Existing versus Ideal Conditions
- 3 Engagement & Outreach
- 4 Sequencing
- 5 Capacity
- 6 Potential scopes of construction



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4 Sequencing

*Here's different ways
to get from here to there.*



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CCS Reconfiguration

Designing the Construction Experience

Every Learner.
Every Day.
Everyone.

+



CCS Reconfiguration

Designing the Construction Experience

Reconfiguration Sequence Planning: *Example* Defining Questions

- **Simultaneous Construction?** Will any projects be constructed simultaneously?
- **Sequence?** Which project(s) should happen first?
- **Schedule?** How much of a priority is it to achieve the shortest possible construction duration?
- **New Construction? Renovation? Addition?** Will the existing school buildings at Buford be renovated, demolished, or some combination of the two? At Walker?
- **Occupied Construction?** Will any or all of the buildings at Buford or at Walker be occupied during construction?
- **Scale of temporary facilities?** Across the full scope of construction associated with the CCS reconfiguration, how many cohort-scale temporary facilities are allowable, if any?
- **Temporaries – location & occupants?** Will the sites undergoing construction house temporary modular learning spaces? What other site is feasible and acceptable to house these temporary facilities? Which grades should inhabit them?

A

FASTEST CULTURE

Optimized for schedule - Gets final grade level configurations together before construction starts

B

MINIMIZE STUDENT TRANSITIONS

Avoids unnecessary campus transitions for learners, avoids student-occupied construction sites

C

MINIMIZE RELOCATABLES

Optimized for minimal use of temporary modular facilities during construction

D

MINIMIZE STAFF TRANSITIONS

No interim grade level transitions; each grade level (if moving) only changes sites one time

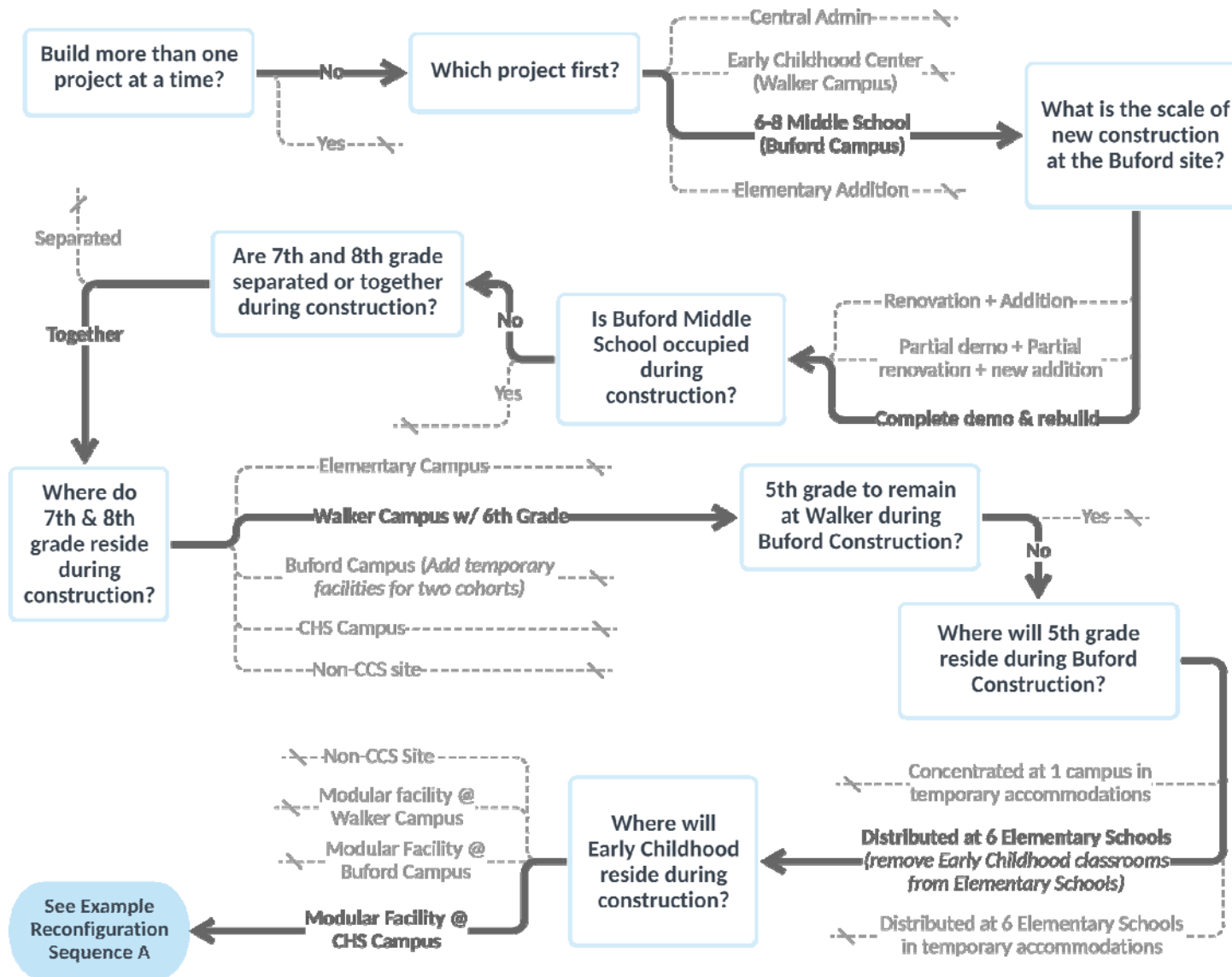
E

A LITTLE OF EACH

One example that requires some relocatables, some occupied + unoccupied construction, and some early culture building



FASTEST CULTURE



A

**Build more than one
project at a time?**

No

Yes

Separated

A

Which project first?

Central Admin-----

Early Childhood Center
(Walker Campus)

**6-8 Middle School
(Buford Campus)**

Elementary Addition-----

Childhood Center
(K-12 Campus)

Middle School
(K-12 Campus)

Elementary Addition

**What is the scale of
new construction
at the Buford site?**

Renovation + Addition

Partial demo + Partial
renovation + new addition

Complete demo & rebuild

A

(Buford Campus)

new construction
at the Buford

Elementary Addition

**Is Buford Middle
School occupied
during
construction?**

No

Yes

Renovation + Addition

Partial demo + Partial
renovation + new addition

Complete demo & rebuild

5th grade to remain

A

~~Separated~~

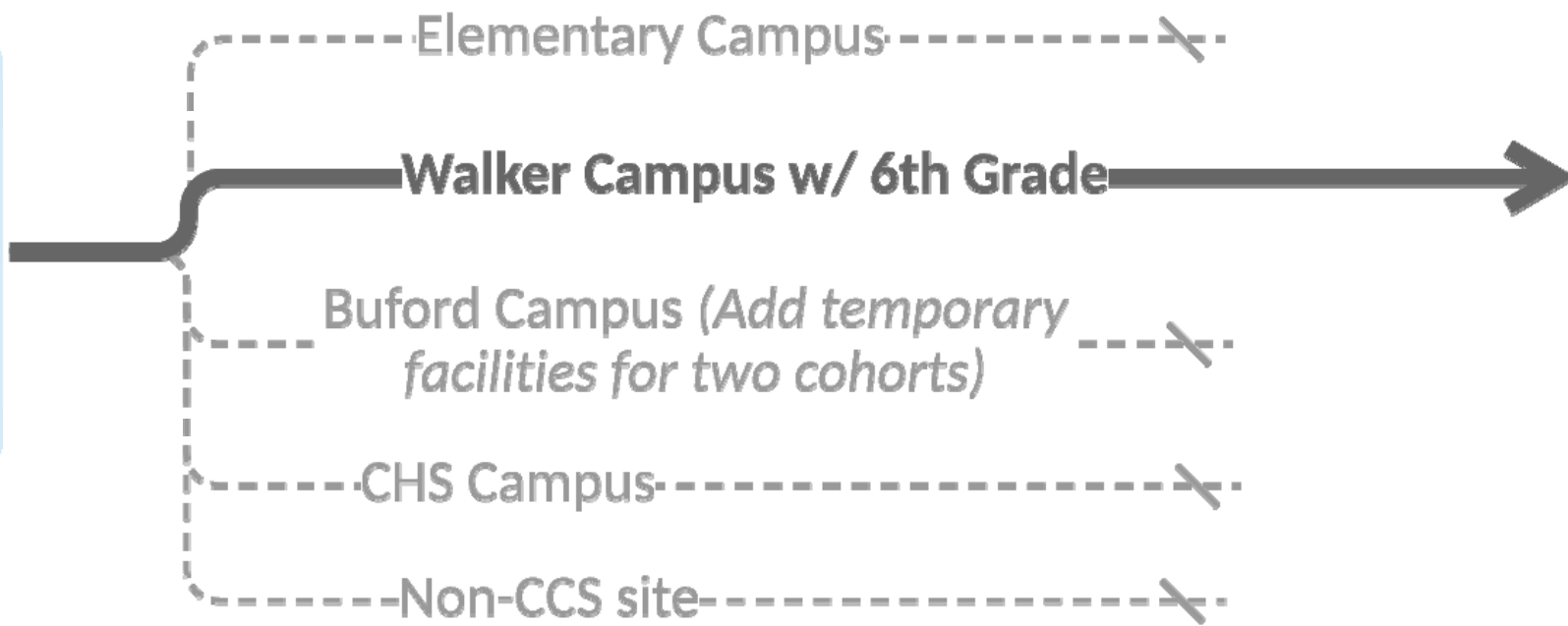
Together

Are 7th and 8th grade
separated or together
during construction?

A

Together
↓

Where do
7th & 8th
grade reside
during
construction?



during construction:

No
Yes

Is Buford Middle School occupied during construction?

A

Is Buford Middle School occupied during construction?

Renovation + Addition

Partial demo + Partial renovation + new addition

Complete demo & rebuild

5th grade to remain at Walker during Buford Construction?

Yes

No

Where will 5th grade reside during Buford

A

Where will 5th grade
reside during Buford
Construction?

~~Concentrated at 1 campus in
temporary accommodations~~

Distributed at 6 Elementary Schools
*(remove Early Childhood classrooms
from Elementary Schools)*

~~Distributed at 6 Elementary Schools
in temporary accommodations~~

A

- ~~Non-CCS Site~~
- ~~Modular facility @ Walker Campus~~
- ~~Modular Facility @ Buford Campus~~

**Modular Facility @
CHS Campus**

**Where will
Early Childhood
reside during
construction?**

Non-CCS Site

Modular facility
Walker Campus

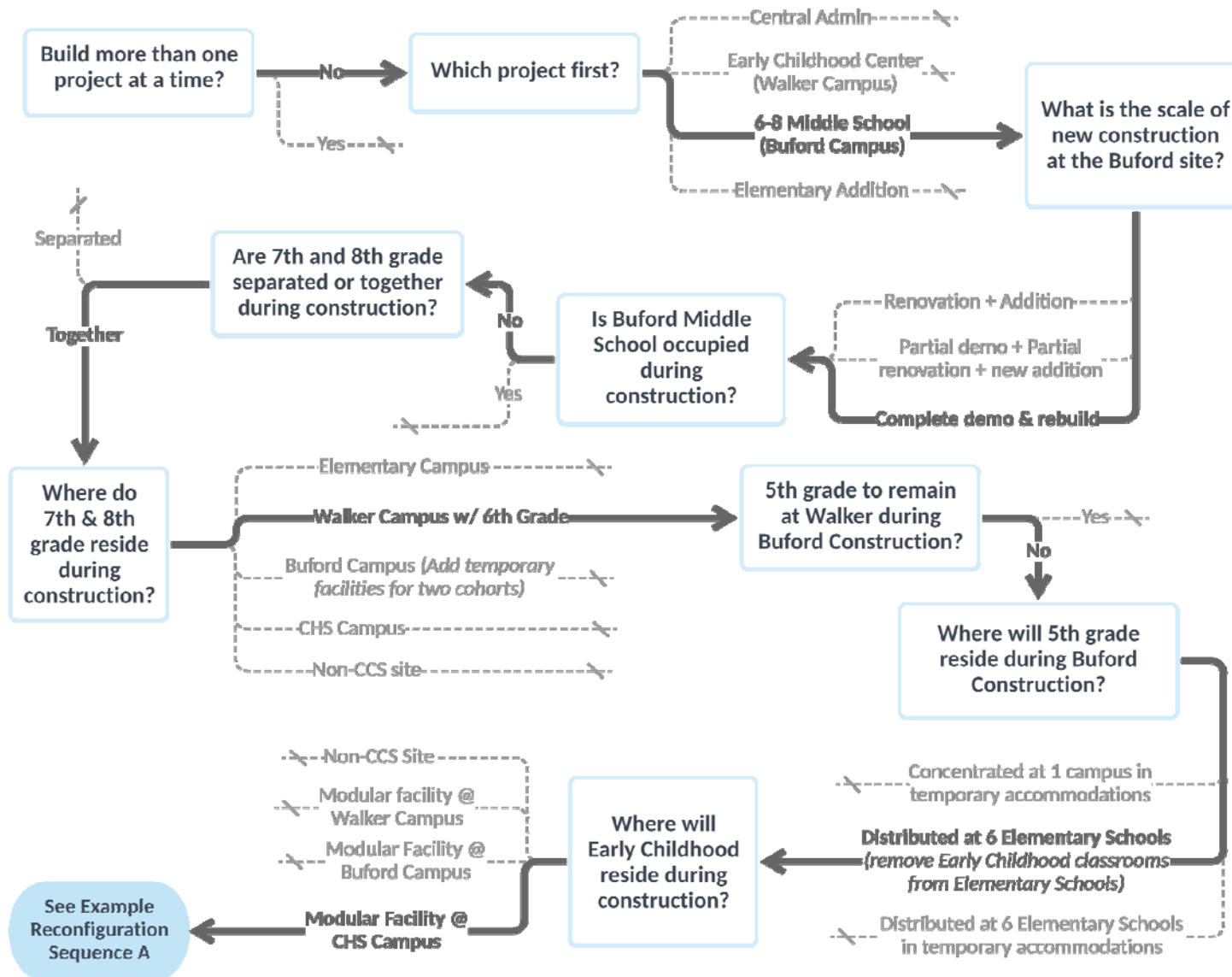
Modular Facility
Buford Campus

Modular Facility
CHS Campus

**See Example
Reconfiguration
Sequence A**

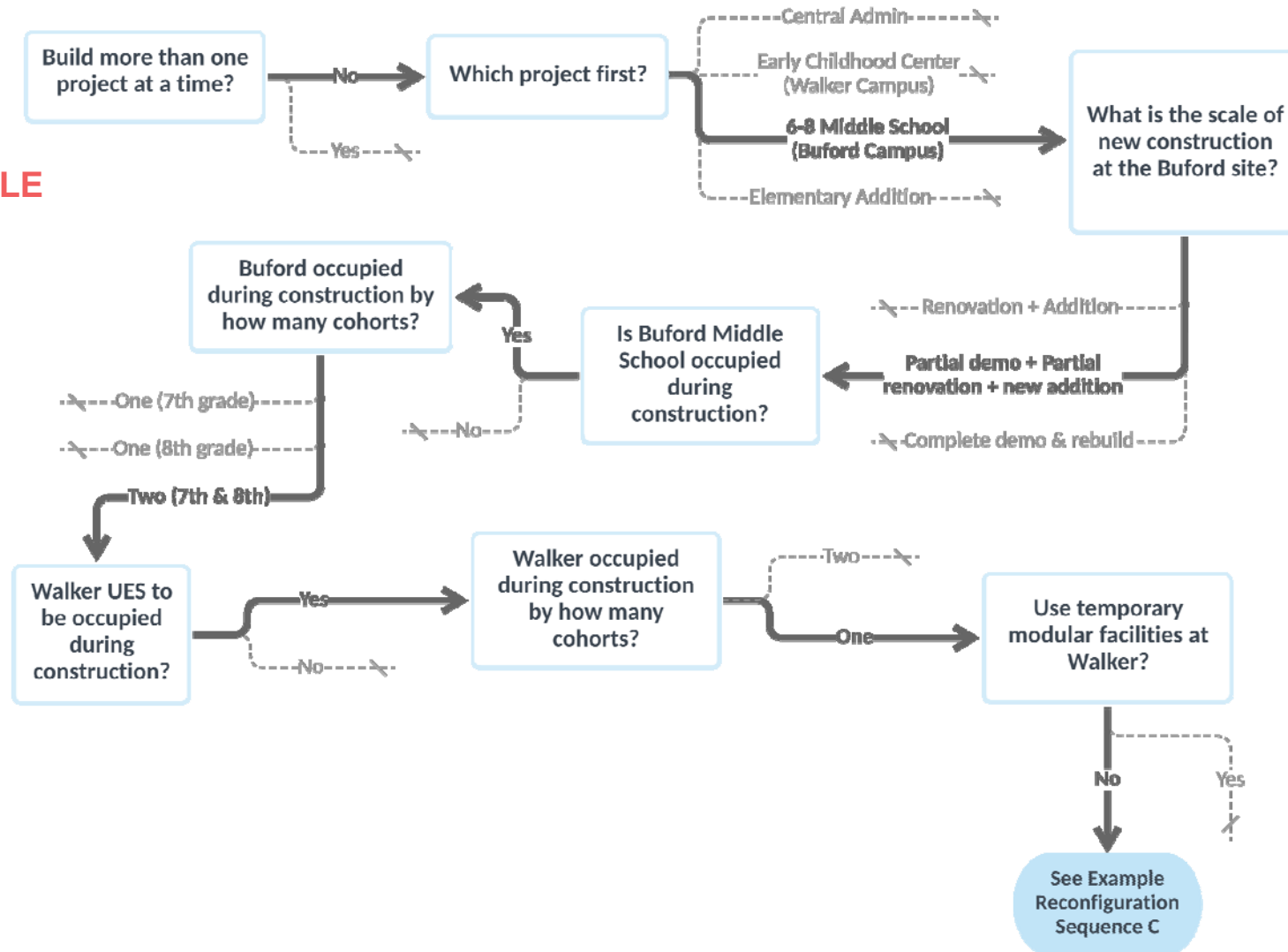


FASTEST CULTURE





MINIMIZE RELOCATABLE S



A

FASTEST CULTURE

Optimized for schedule - Gets final grade level configurations together before construction starts

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MINIMIZE STAFF TRANSITIONS

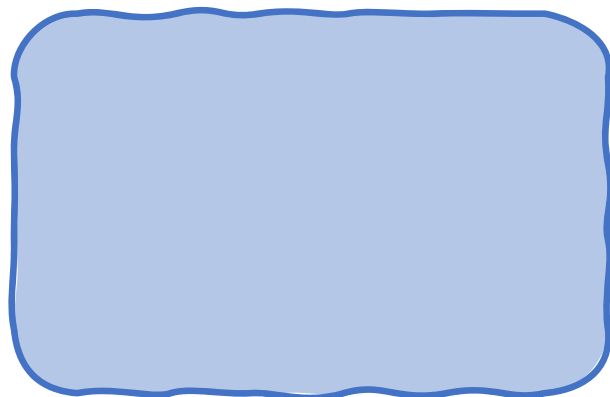
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E

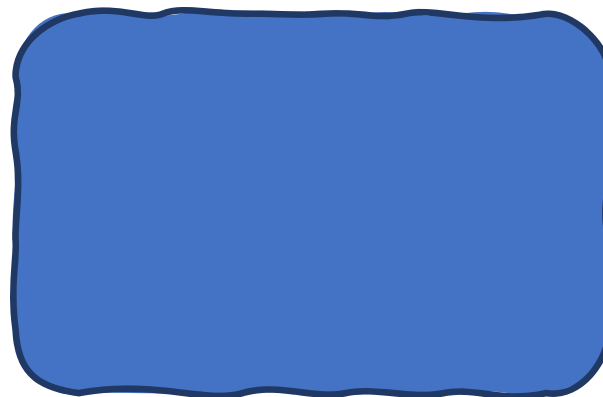
A LITTLE OF EACH

One example that requires some relocatables, some occupied + unoccupied construction, and some early culture building

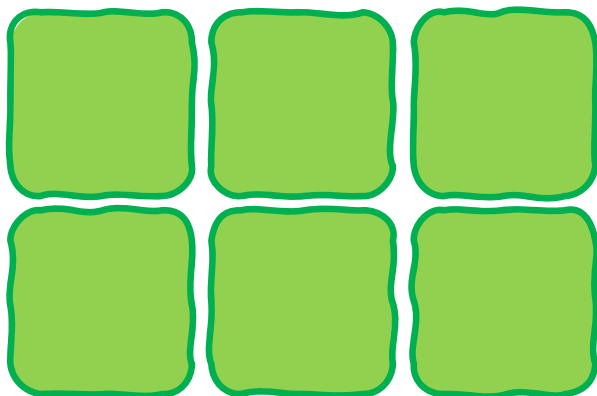
Walker School Site



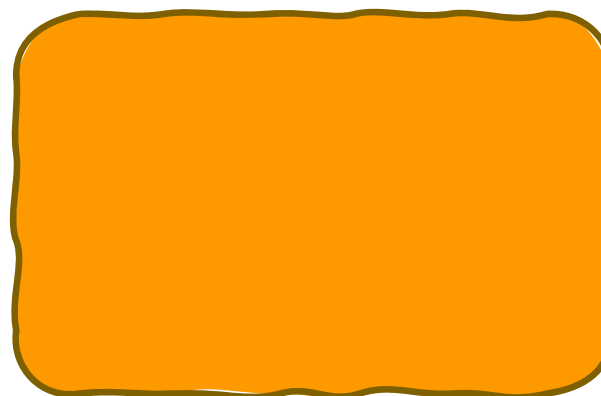
Buford School Site



Elementary School Sites

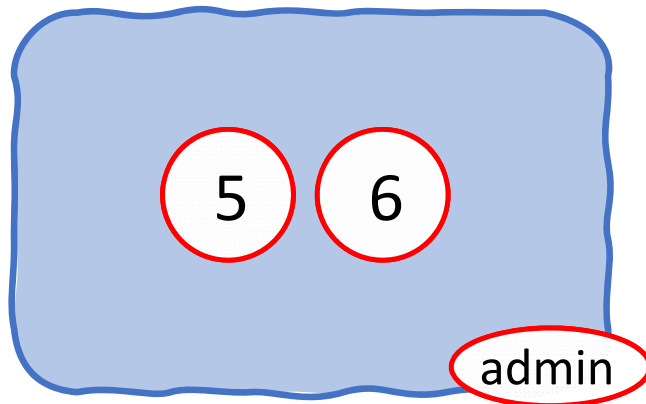


CHS Site

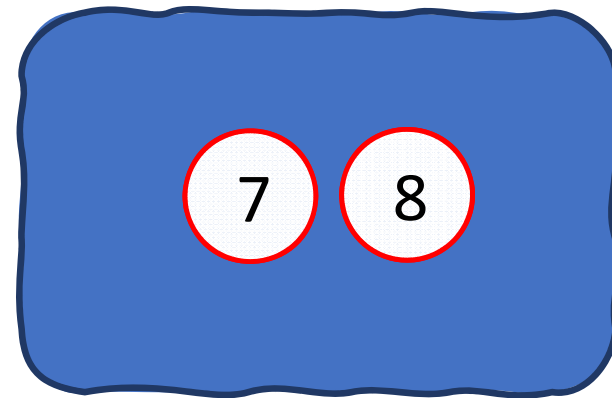


9 sites and 4 groupings of grades

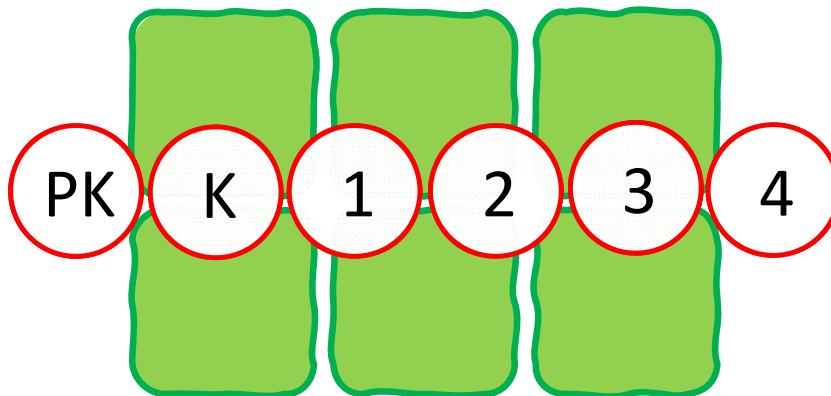
Walker School Site



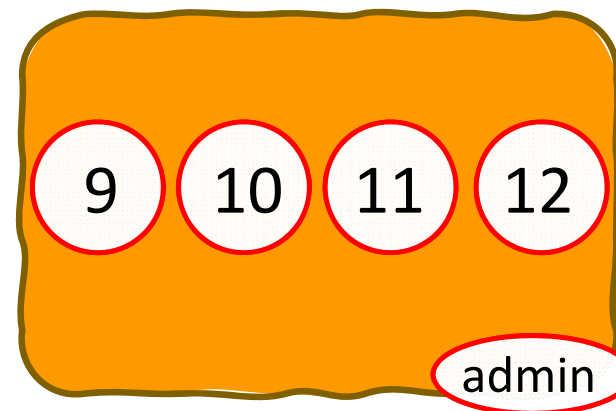
Buford School Site



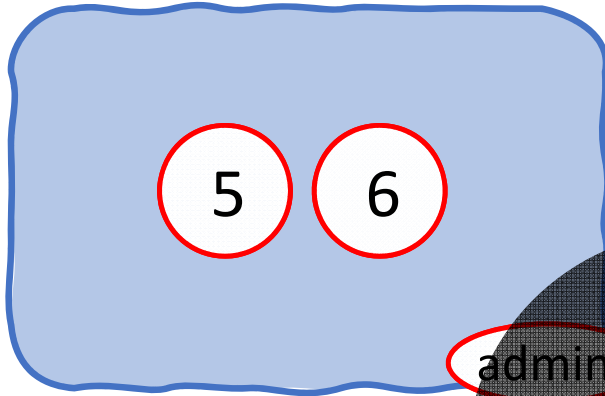
Elementary School Sites



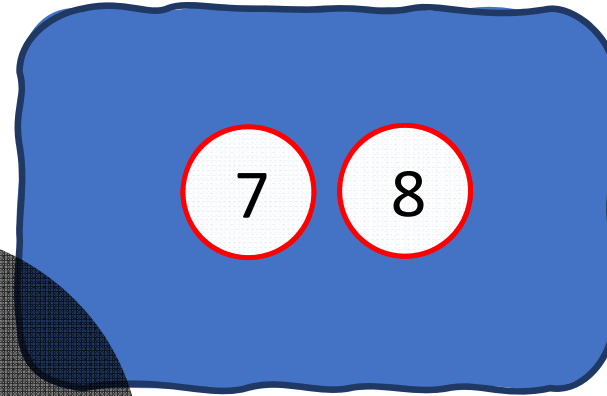
CHS Site



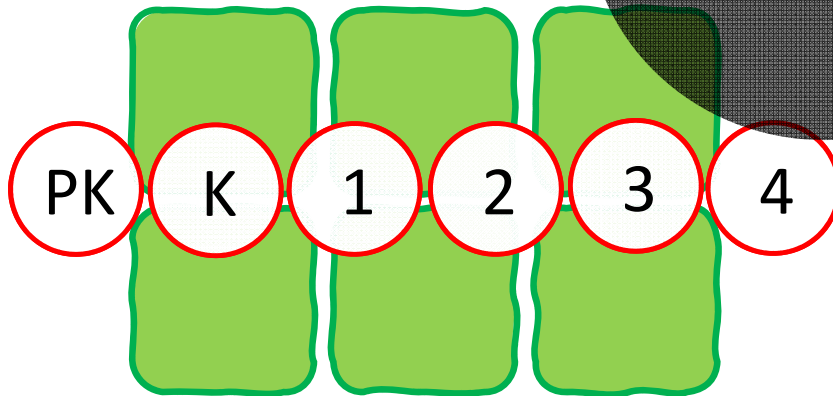
Walker School Site



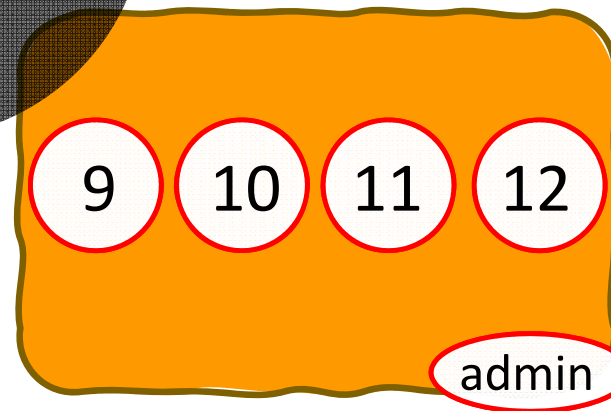
Buford School Site



Elementary School Sites

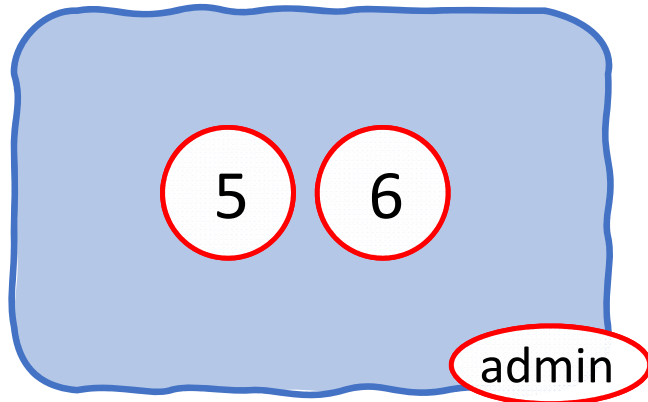


CHS Site

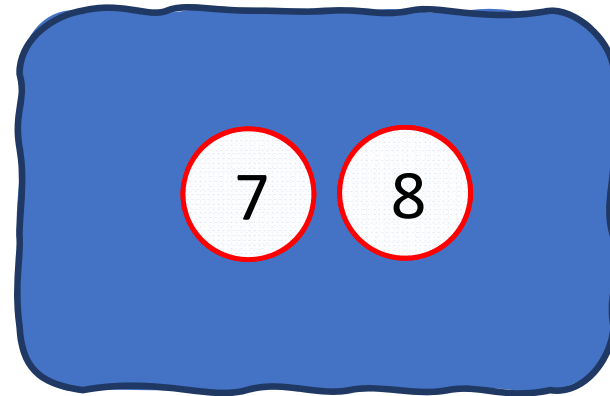


A

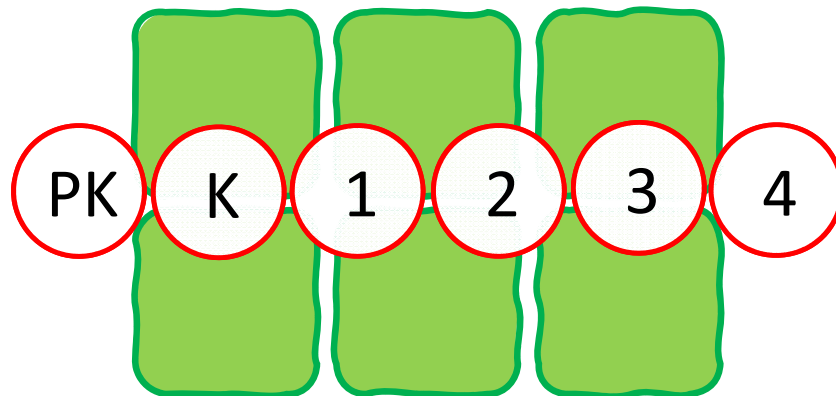
Walker School Site



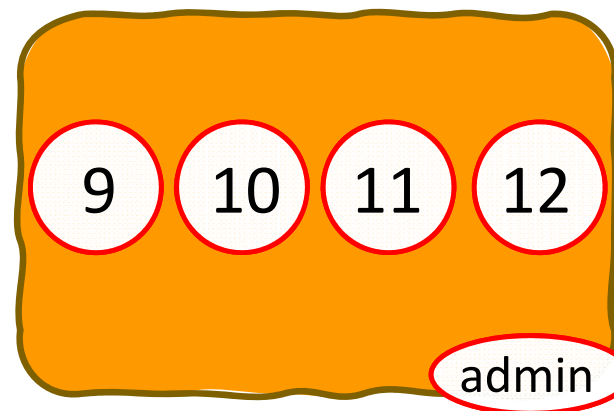
Buford School Site



Elementary School Sites



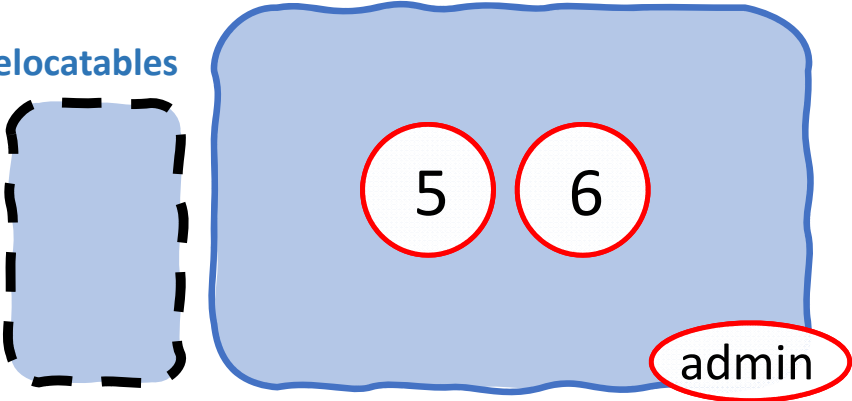
CHS Site



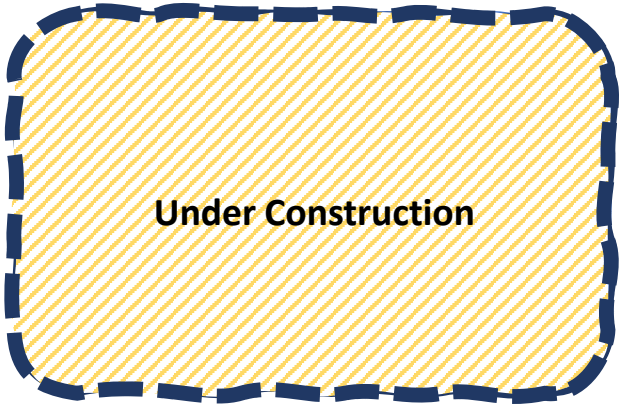
A

Walker School Site

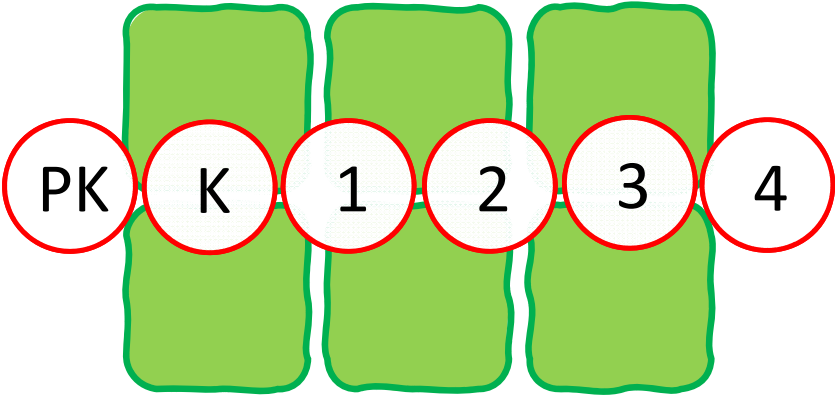
relocatables



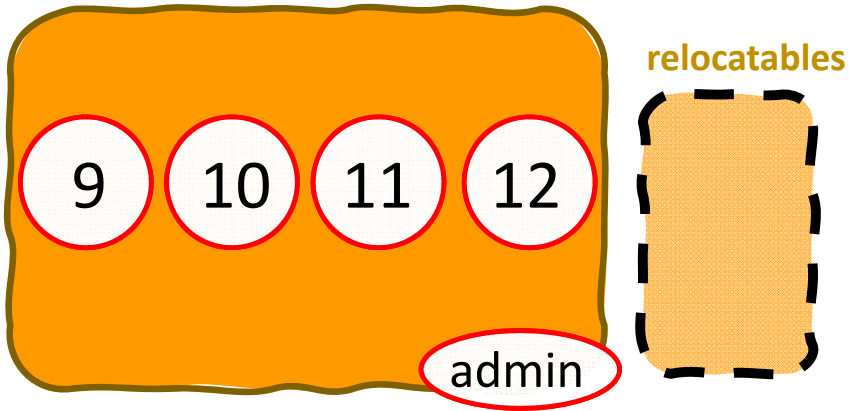
Buford School Site



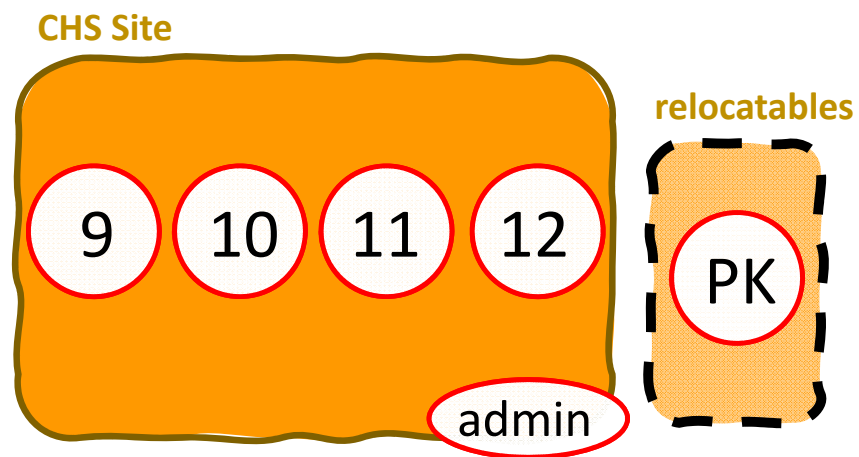
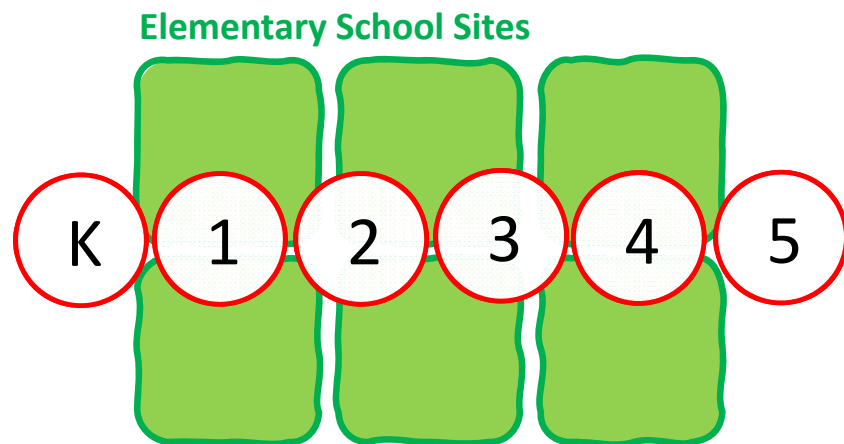
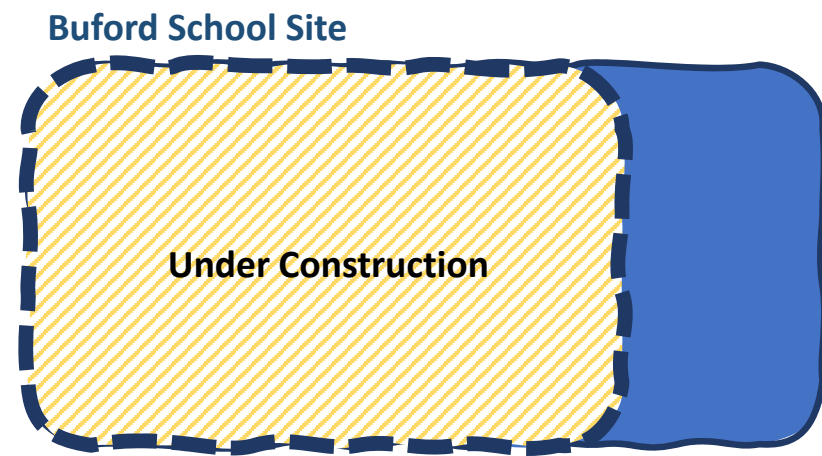
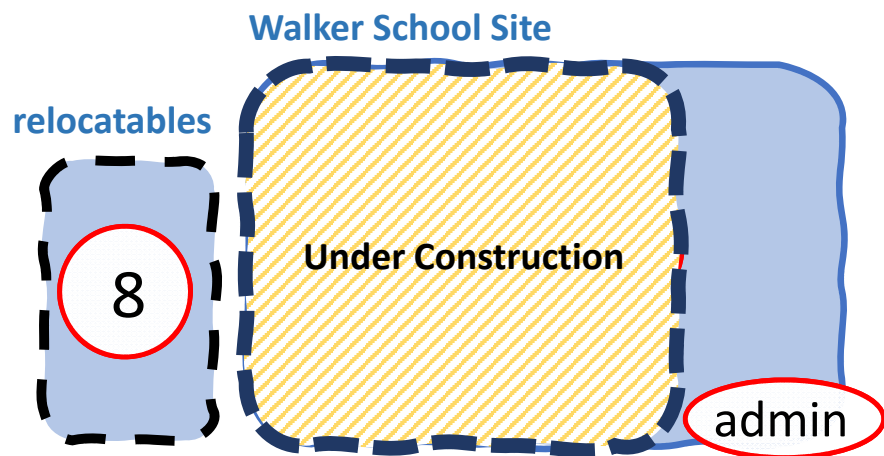
Elementary School Sites



CHS Site

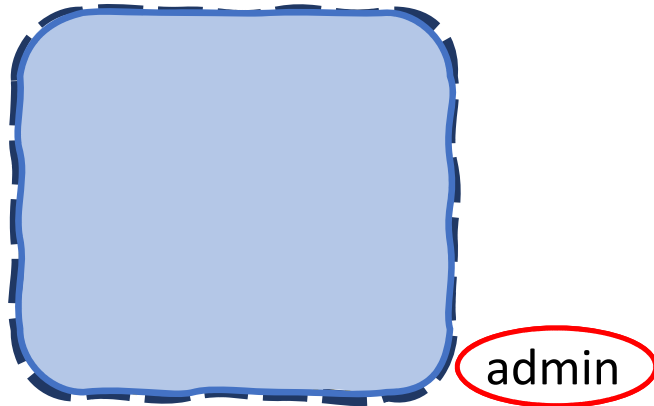


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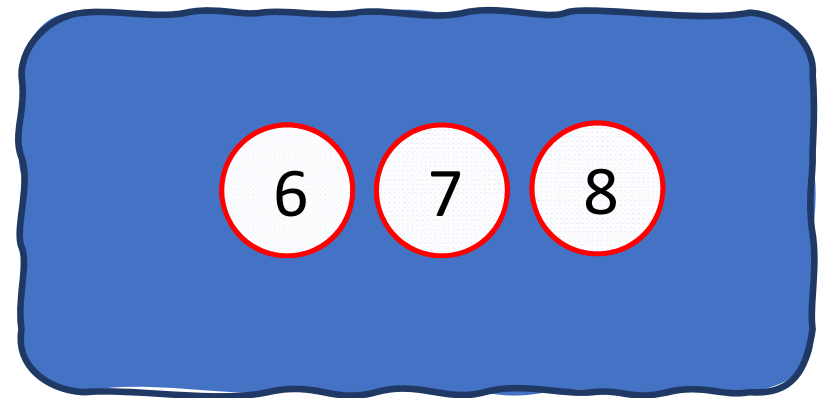


A

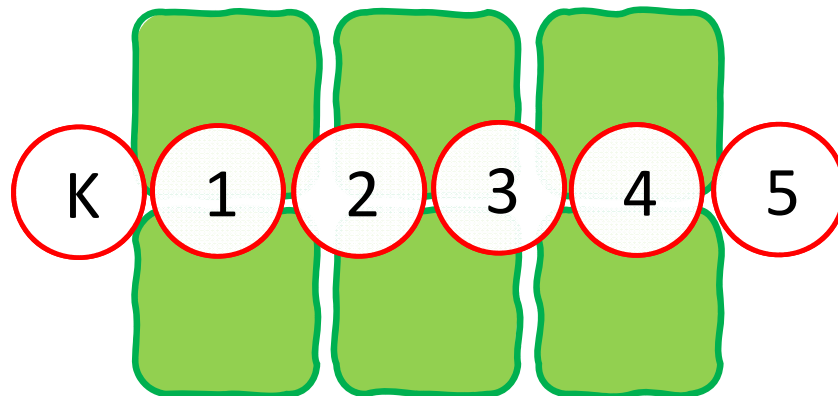
Walker School Site



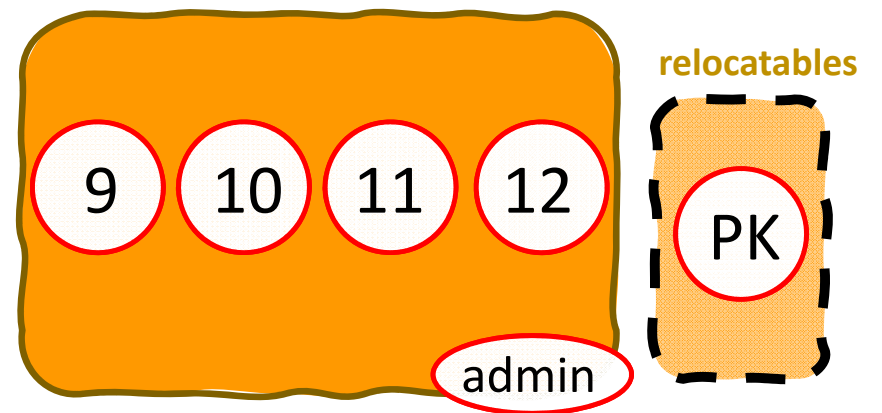
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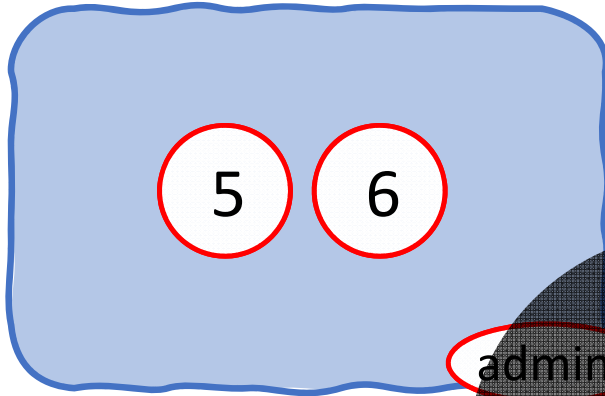
Elementary School Sites



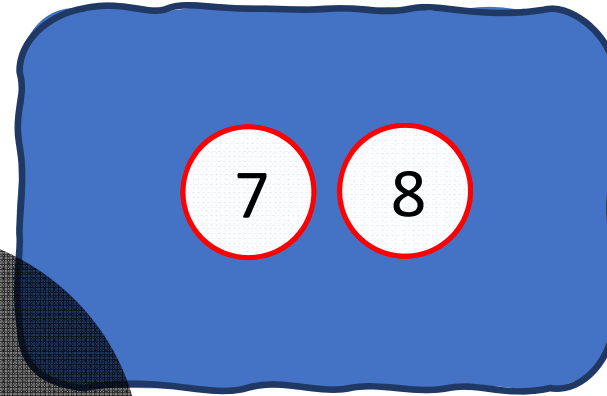
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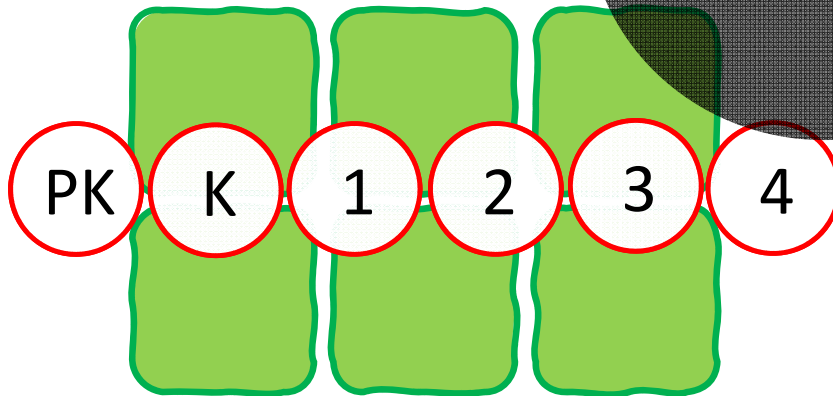
Walker School Site



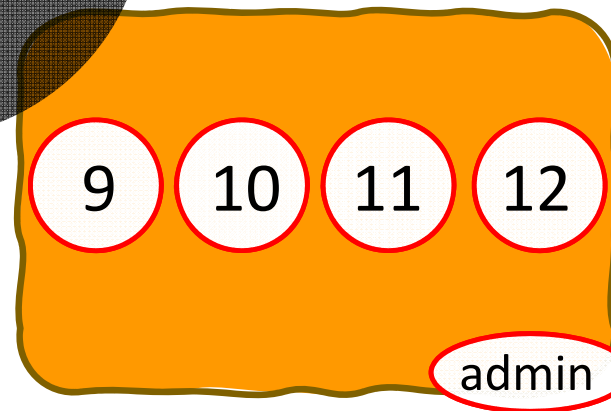
Buford School Site



Elementary School Sites



CHS Site



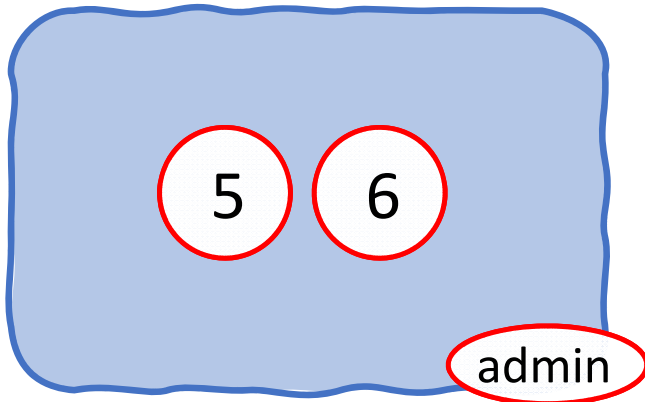
Minimize Student Transitions

VMDO

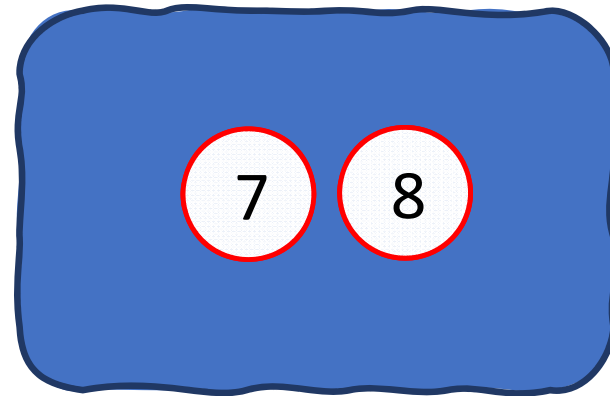
05.21.2021
School Board
Retreat

B

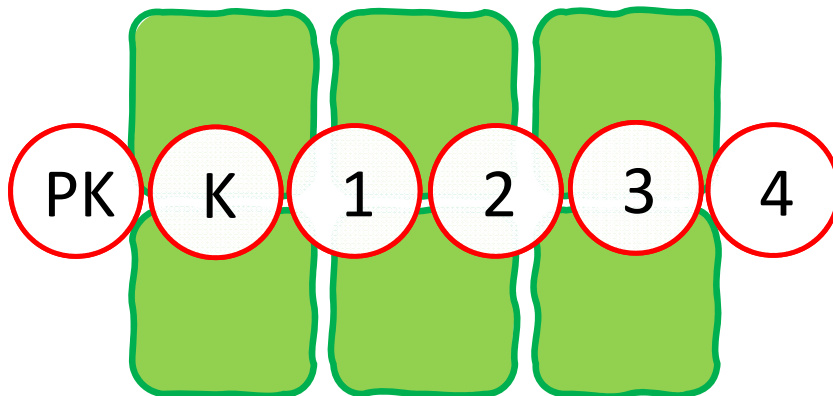
Walker School Site



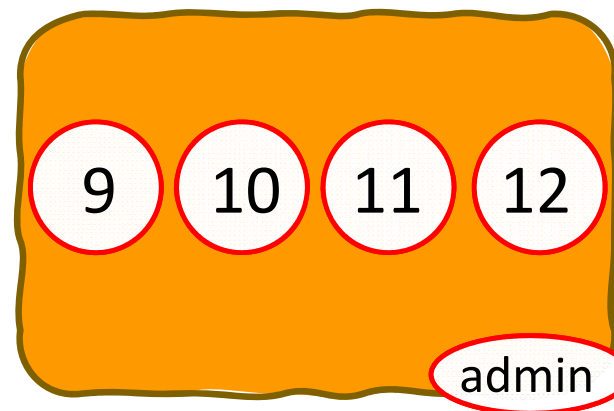
Buford School Site



Elementary School Sites



CHS Site



Minimize Student Transitions

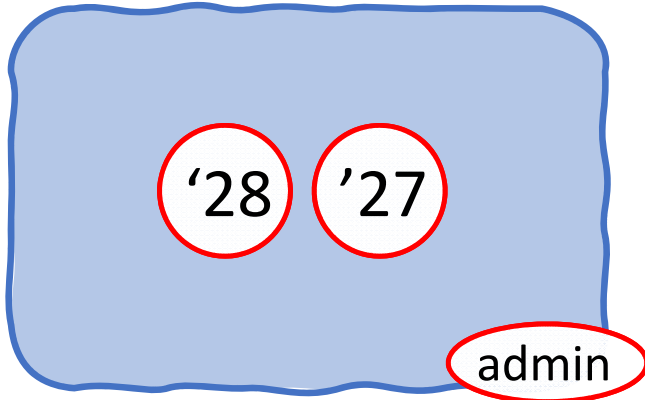
VMDO

05.21.2021
School Board
Retreat

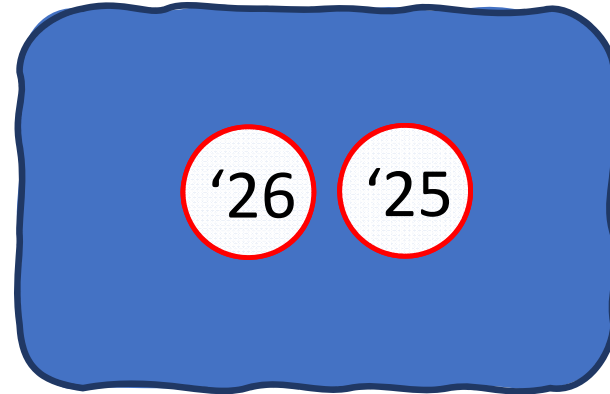
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B

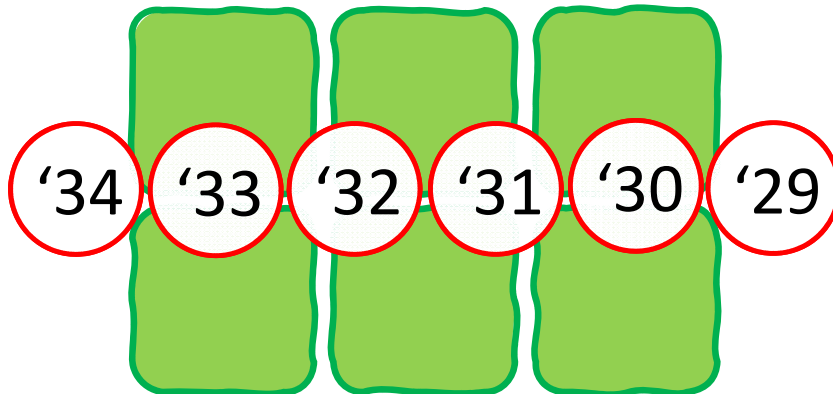
Walker School Site



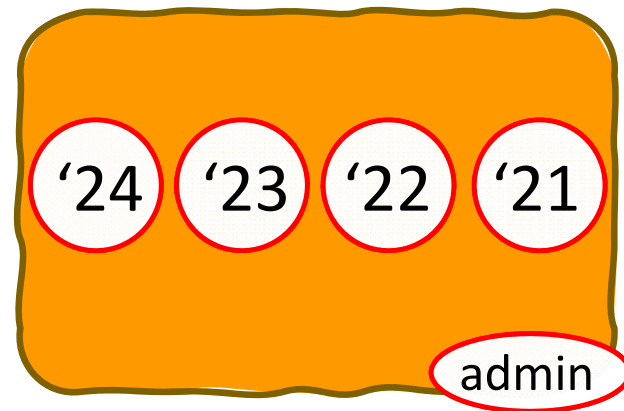
Buford School Site



Elementary School Sites



CHS Site



Minimize Student Transitions

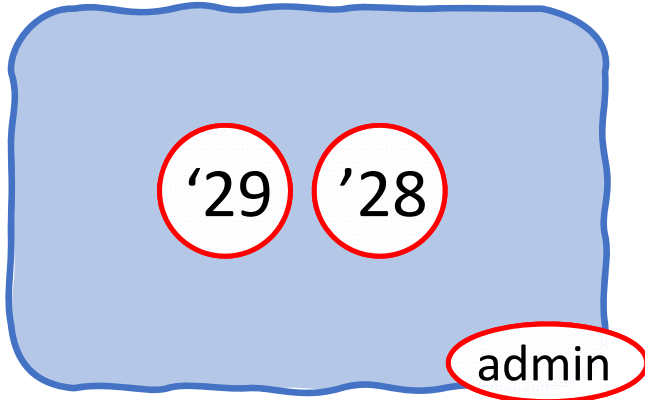
VADO

05.21.2021
School Board
Retreat

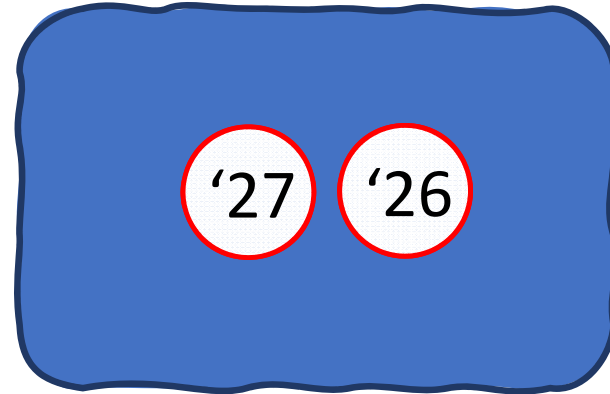
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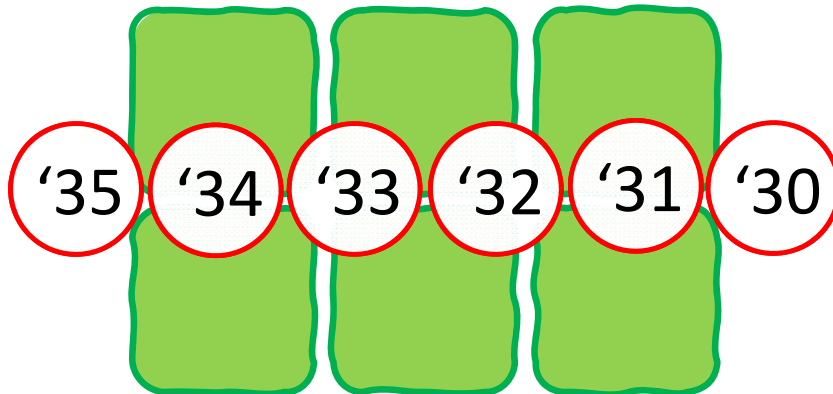
Walker School Site



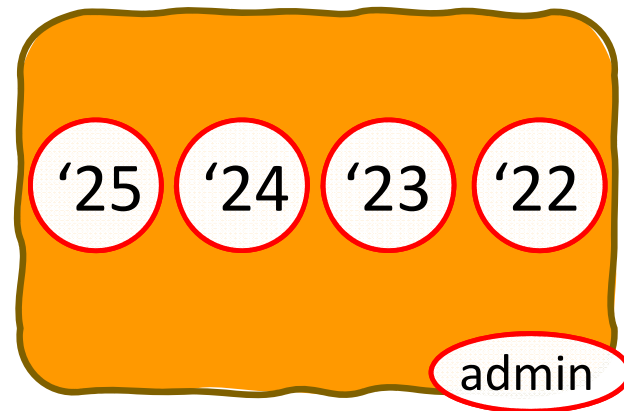
Buford School Site



Elementary School Sites



CHS Site



Minimize Student Transitions

VADO

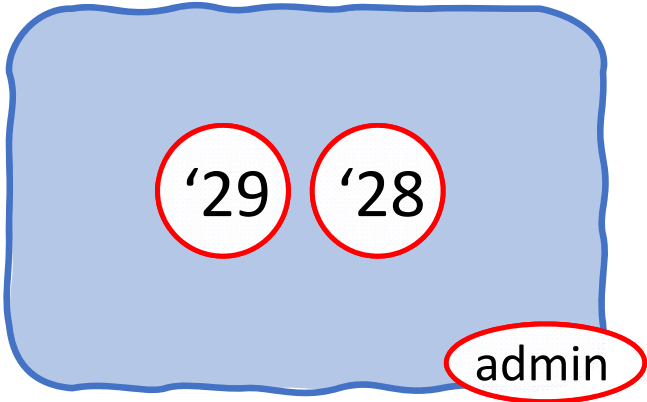
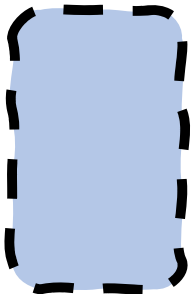
05.21.2021
School Board
Retreat

162

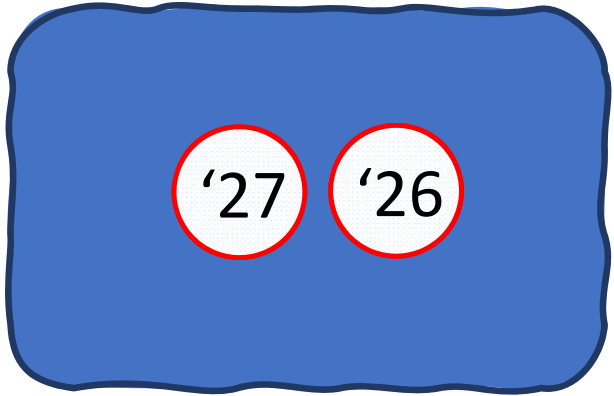
B

Walker School Site Grades 5-7

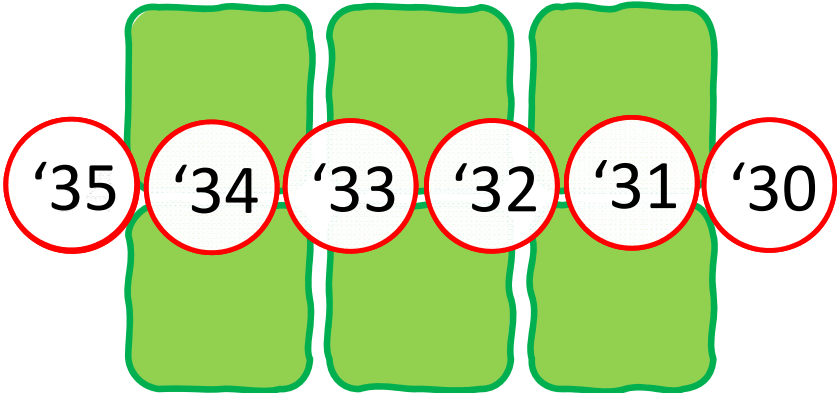
relocatables



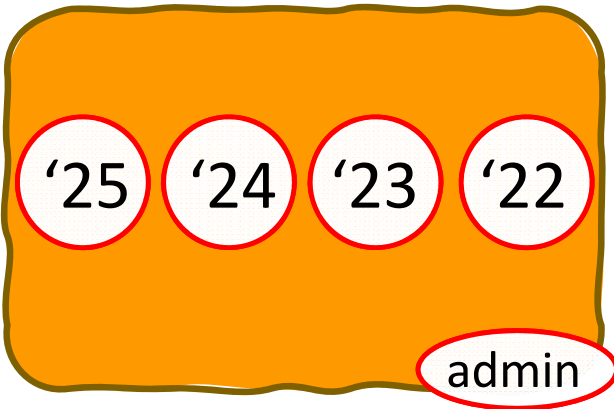
Buford School Site



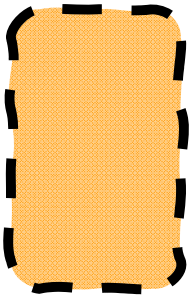
Elementary School Sites Grades PK-4



CHS Site Grades 9-12 / Grade 8



relocatables



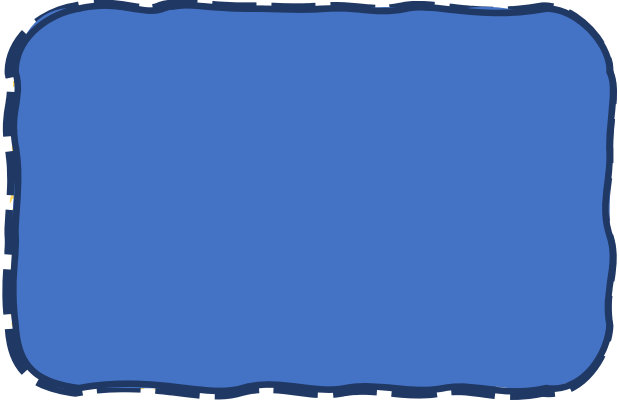
B

Walker School Site Grades 5-7

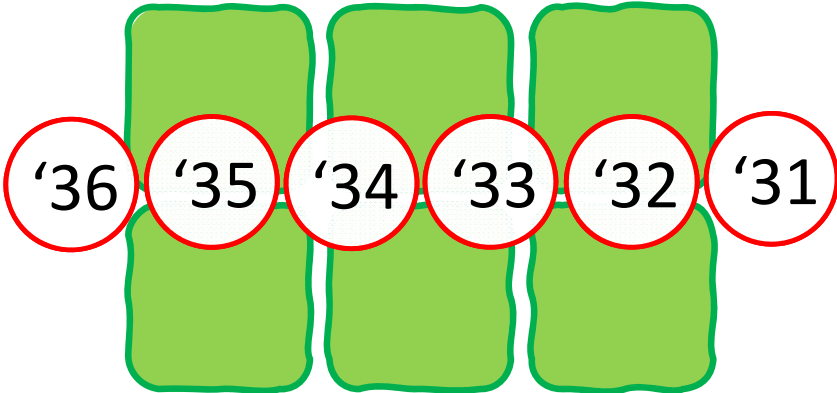
relocatables



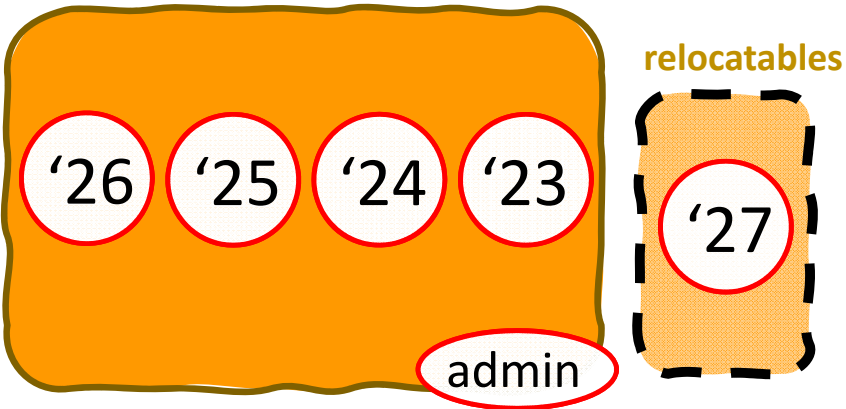
Buford School Site



Elementary School Sites Grades PK-4



CHS Site Grades 9-12 / Grade 8



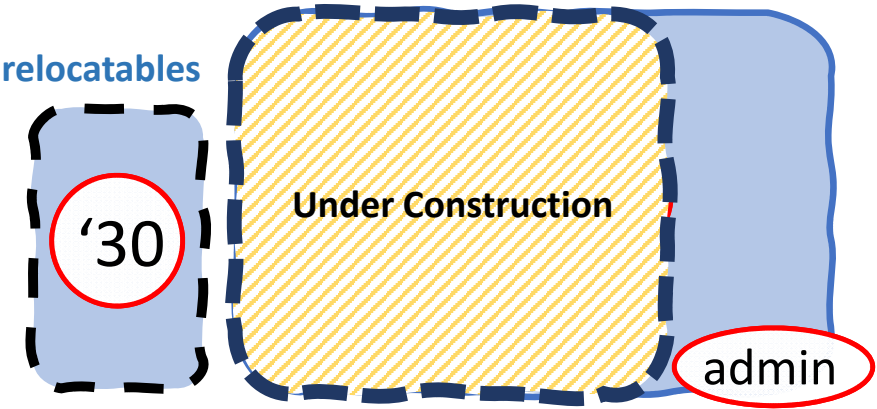
Minimize Student Transitions



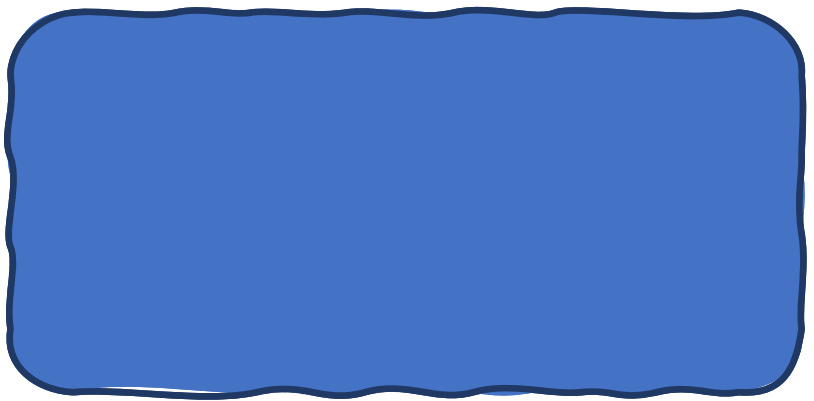
05.21.2021
School Board
Retreat

B

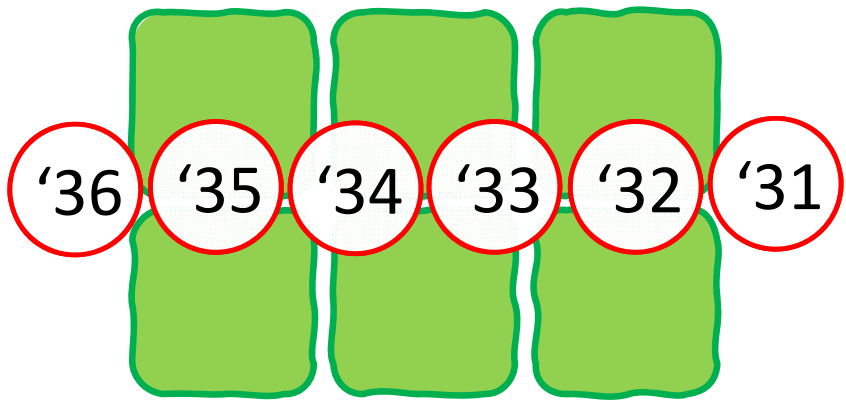
Walker School Site Grades 5-7



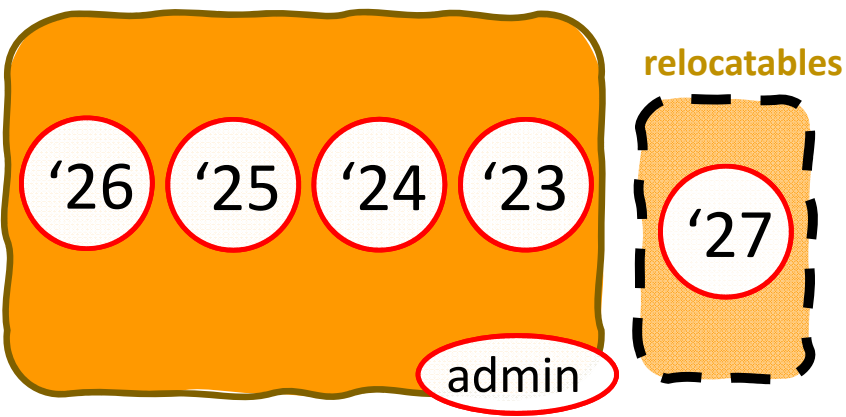
Buford School Site Grades 6-8



Elementary School Sites Grades K-4



CHS Site Grades 9-12 / Grade 8



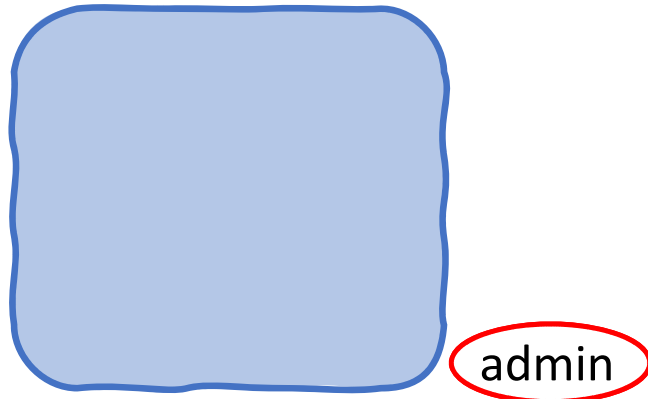
Minimize Student Transitions



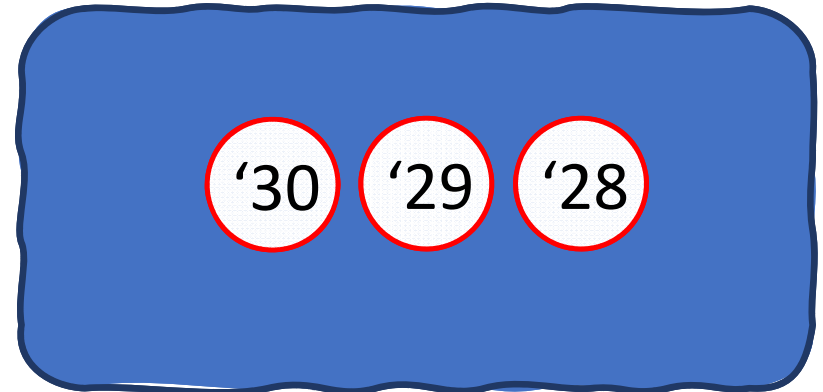
05.21.2021
School Board
Retreat

B

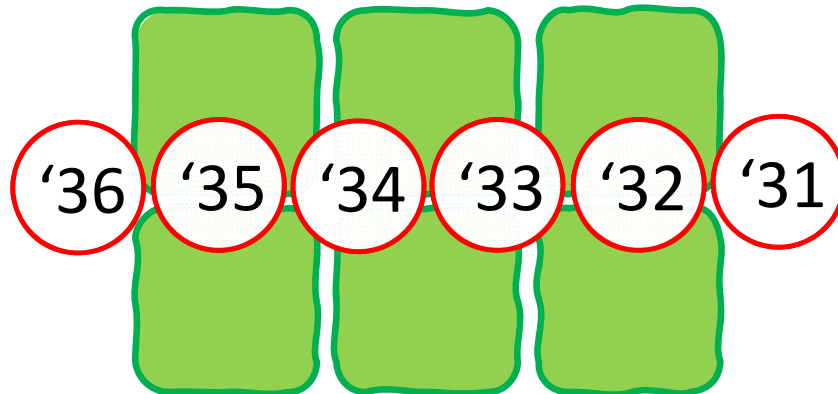
Walker School Site Pre-K + Admin



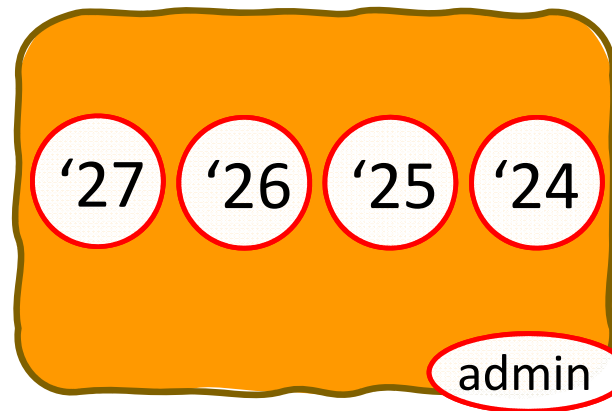
Buford School Site Grades 6-8



Elementary School Sites Grades K-5

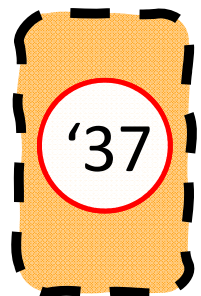


CHS Site Grades 9-12



Pre-K

relocatables



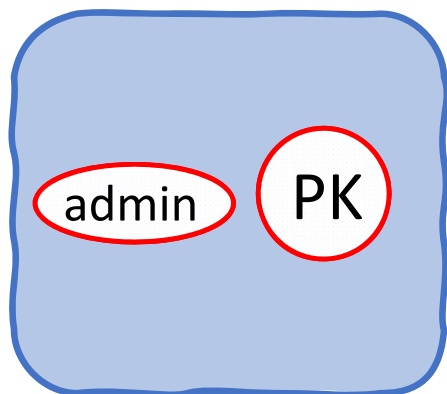
Minimize Student Transitions

VMDO

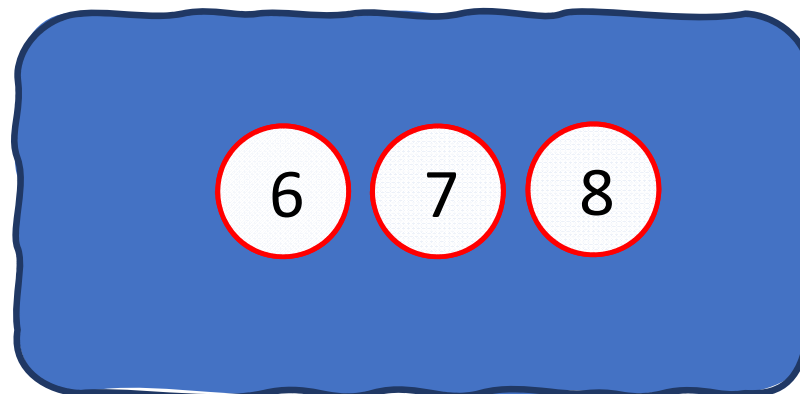
05.21.2021
School Board
Retreat

B

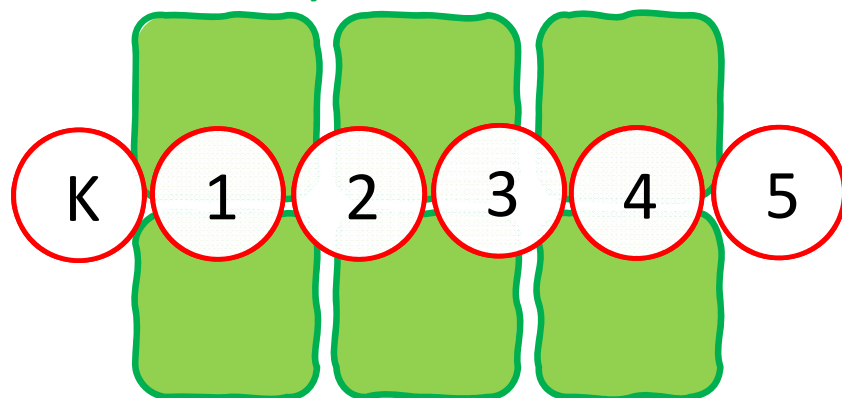
Walker School Site



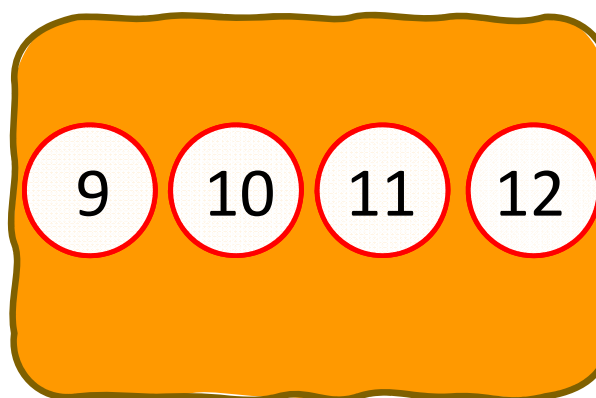
Buford School Site



Elementary School Sites



CHS Site

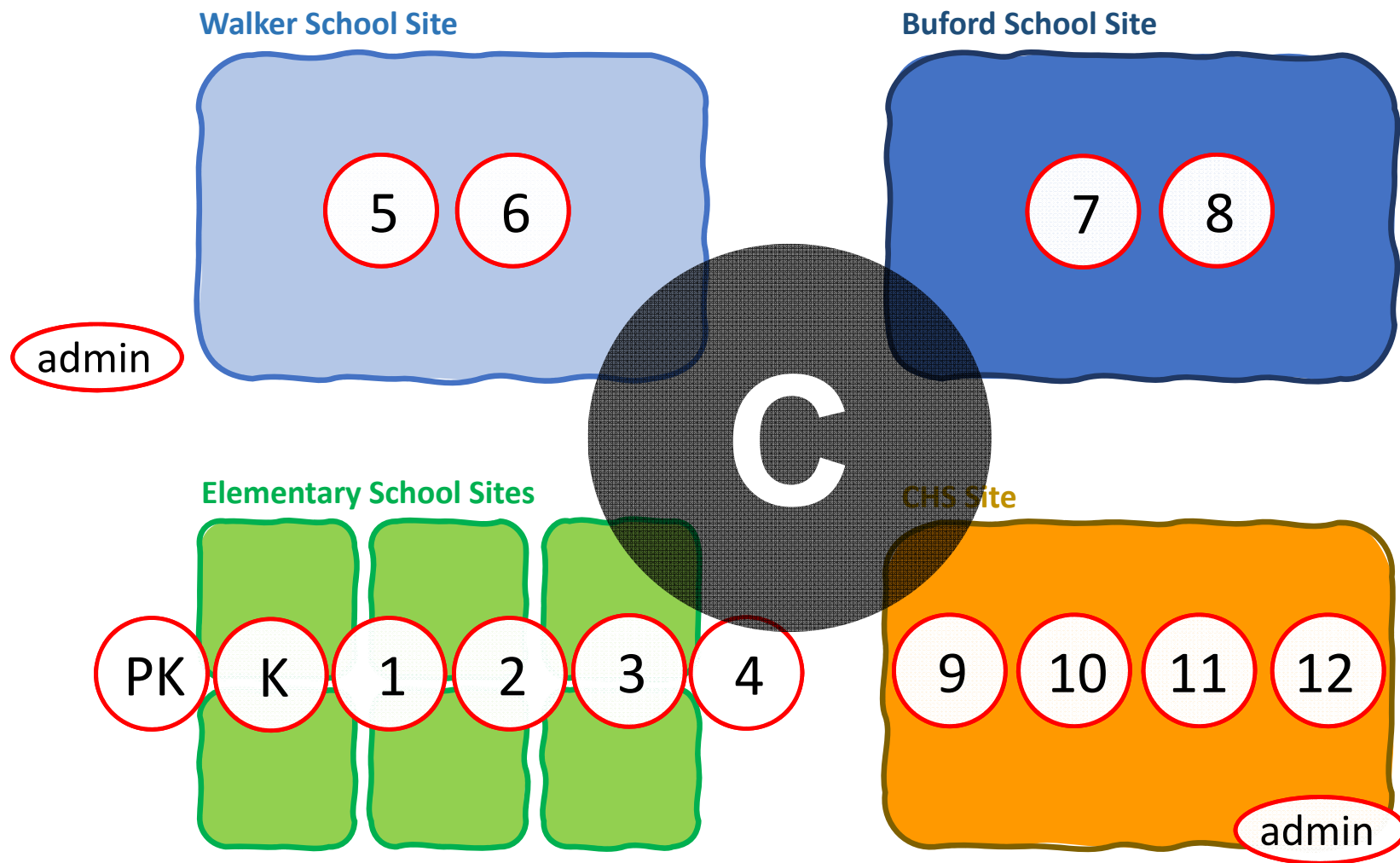


Minimize Student Transitions

VADO

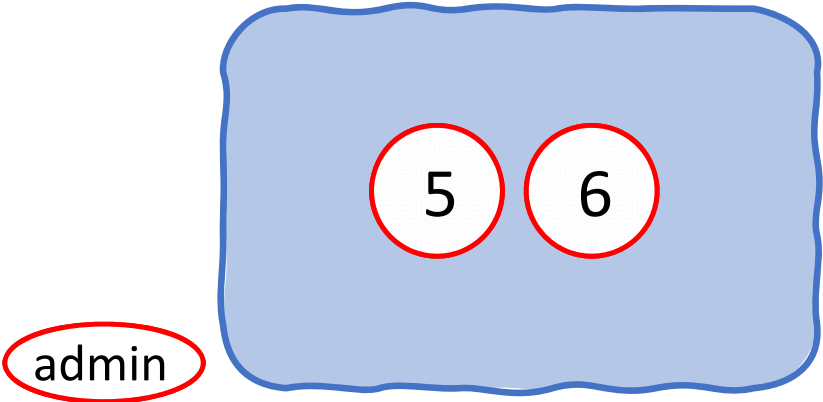
05.21.2021
School Board
Retreat

167

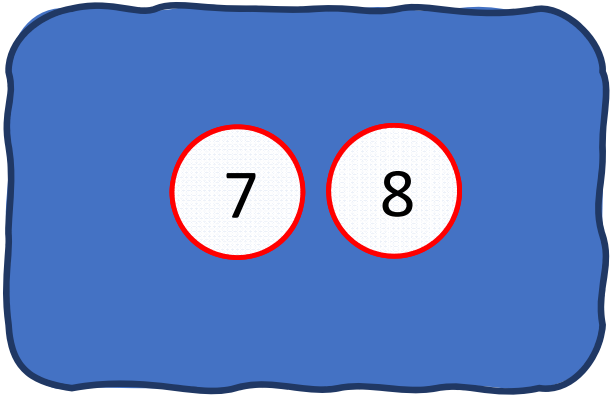


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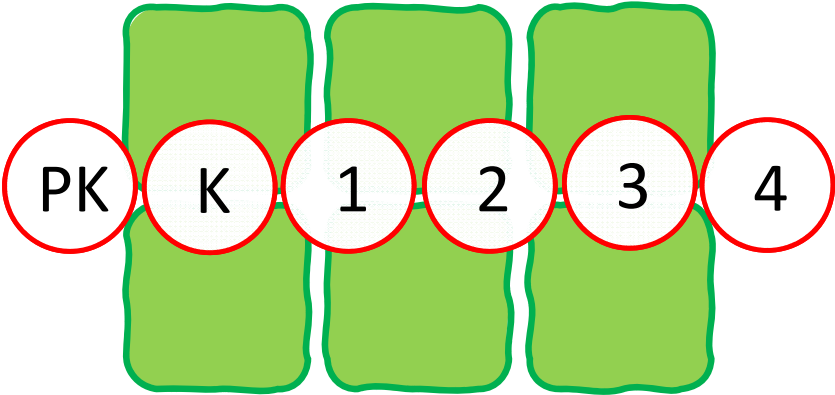
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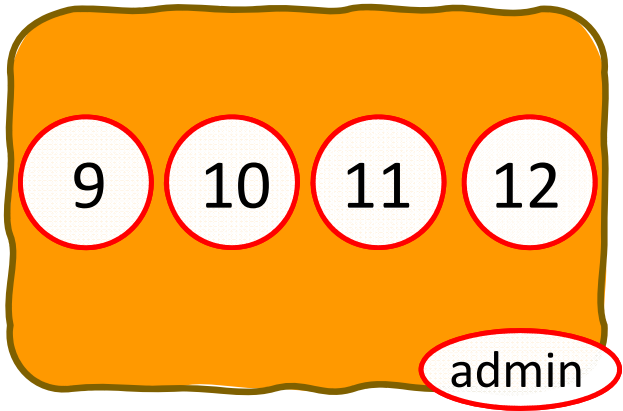
Buford School Site



Elementary School Sites

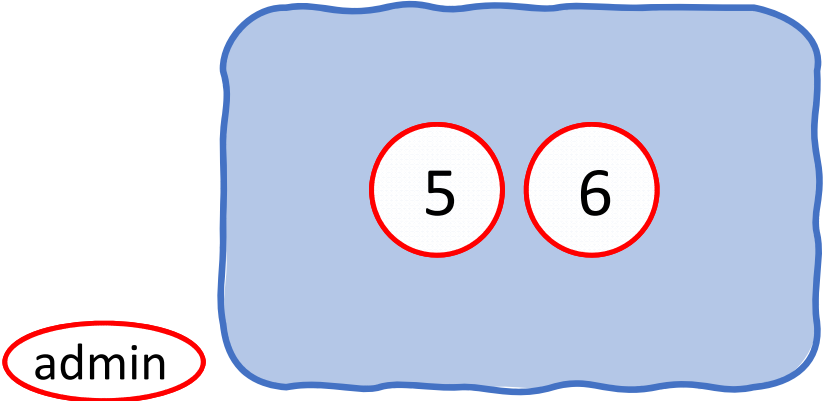


CHS Site

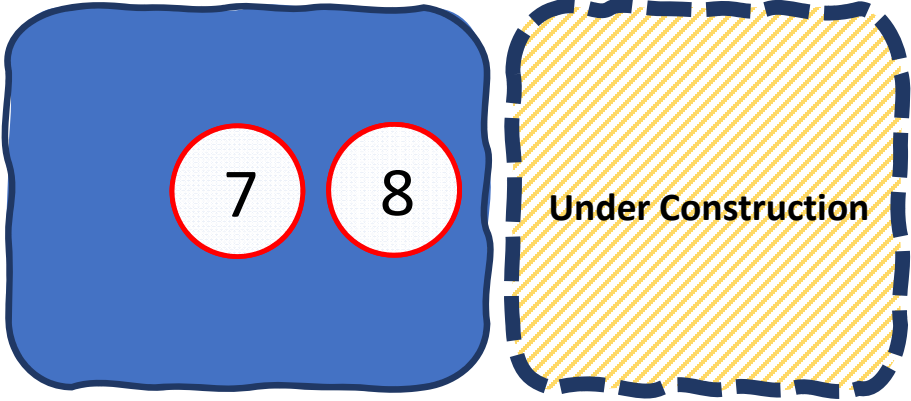


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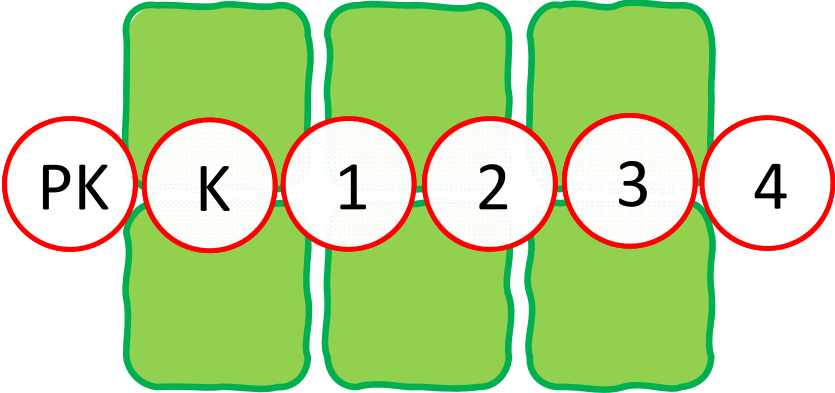
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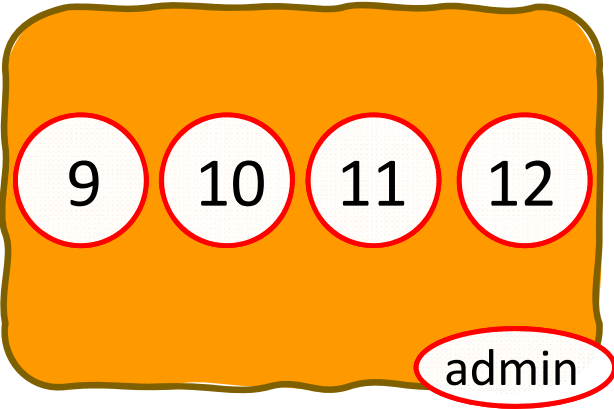
Buford School Site



Elementary School Sites

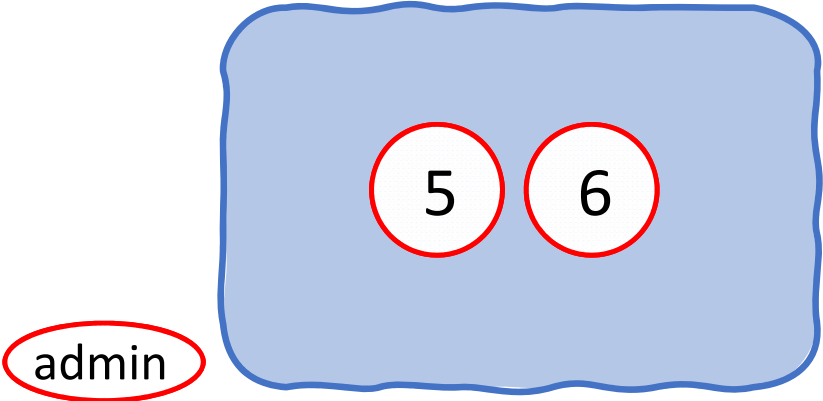


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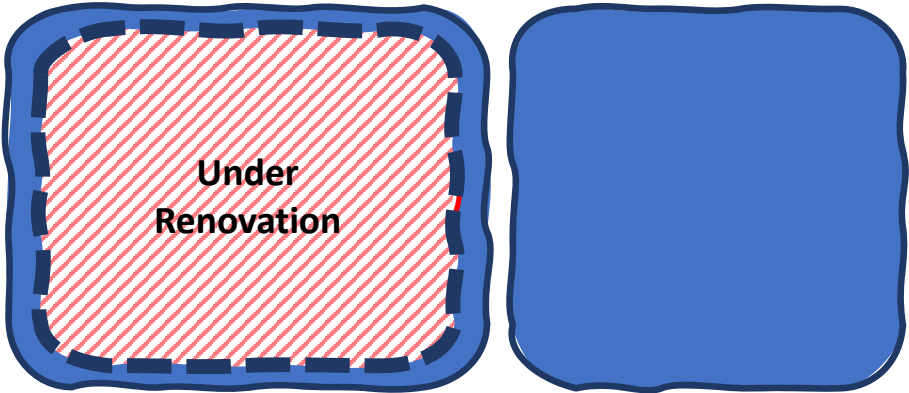


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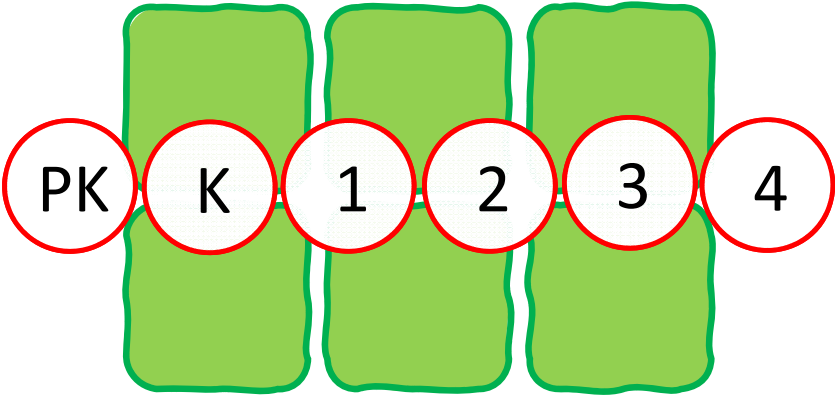
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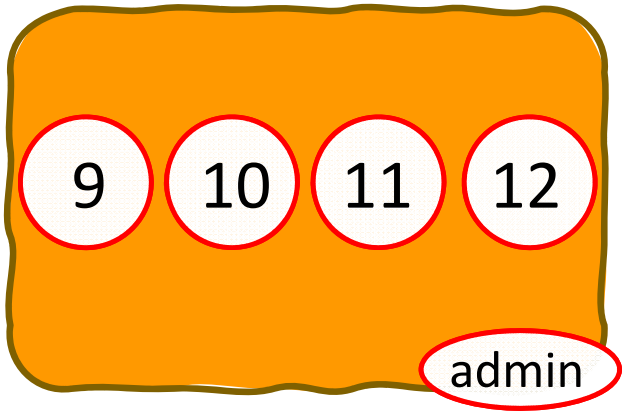
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Elementary School Sites

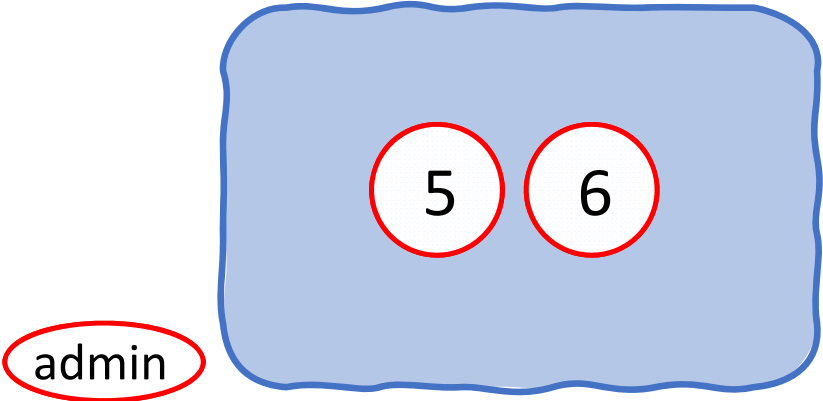


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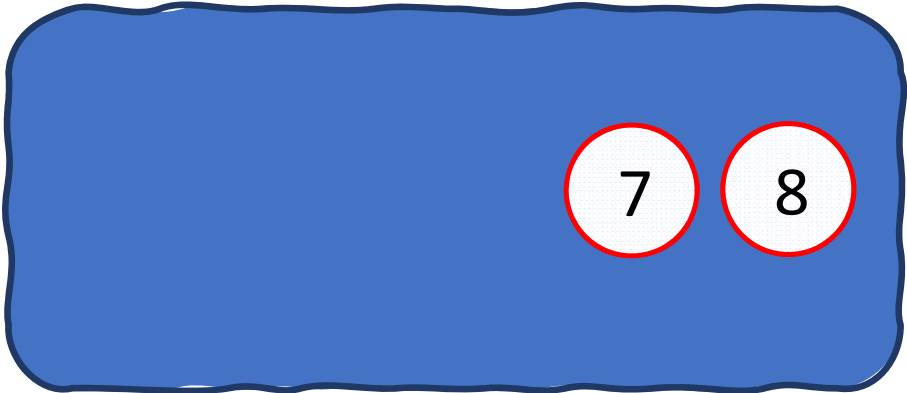


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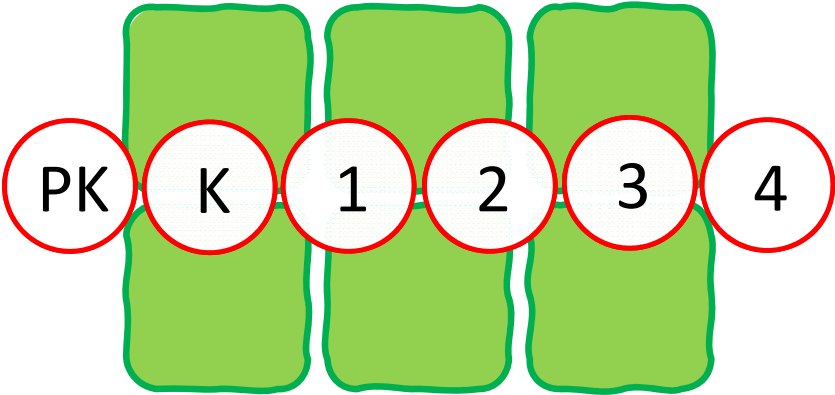
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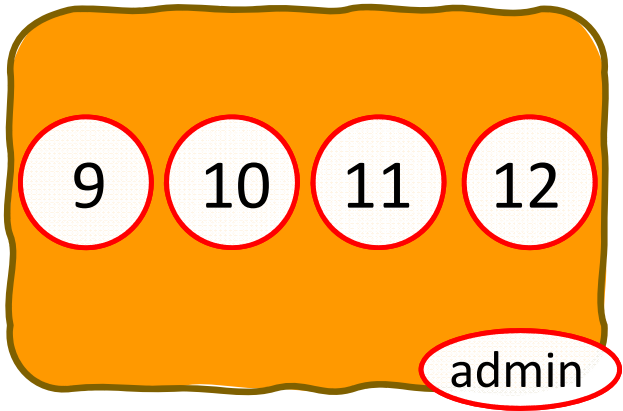
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Elementary School Sites

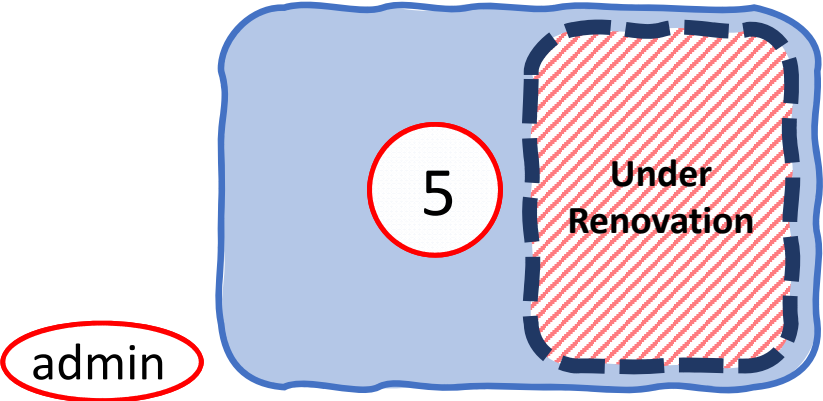


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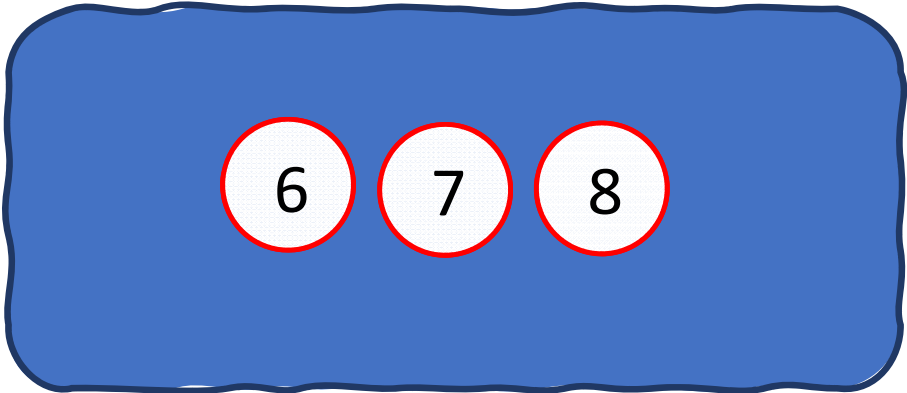


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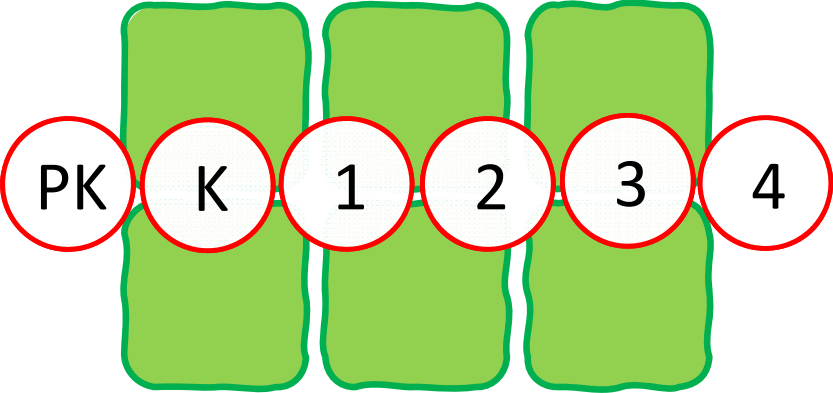
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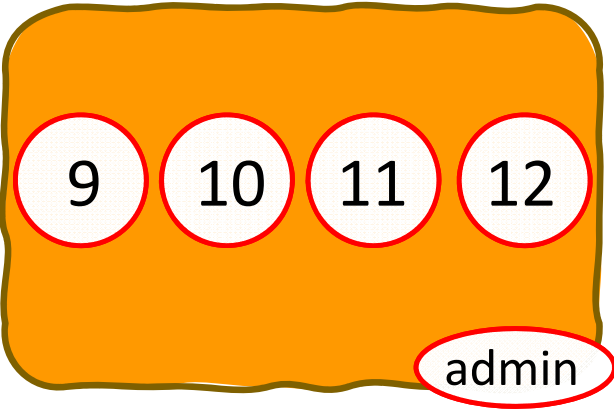
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Elementary School Sites

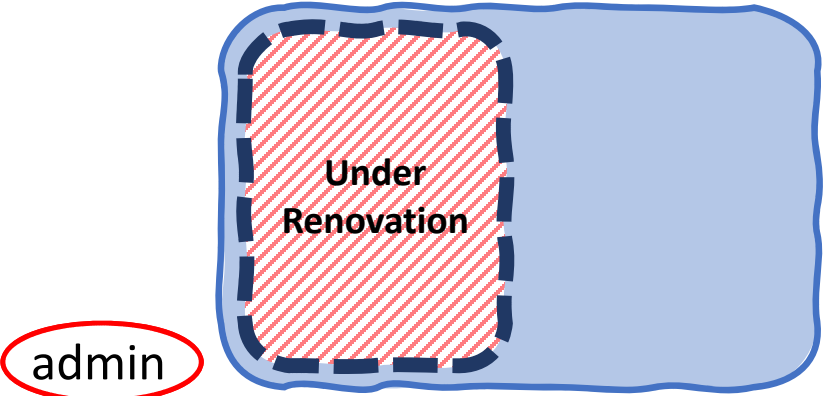


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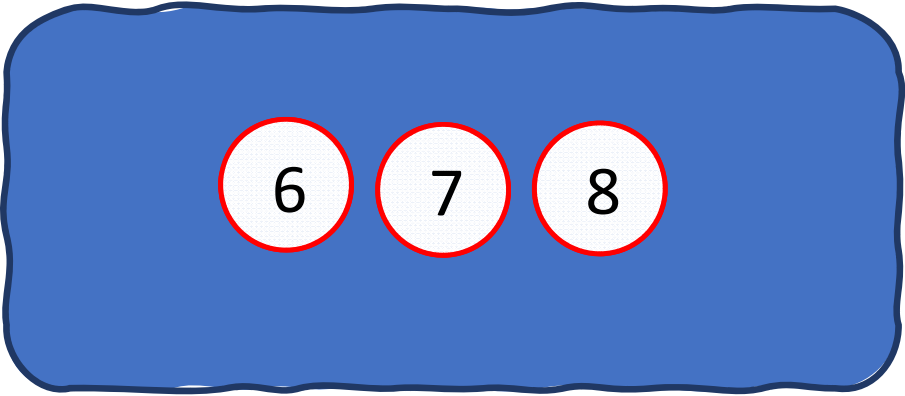


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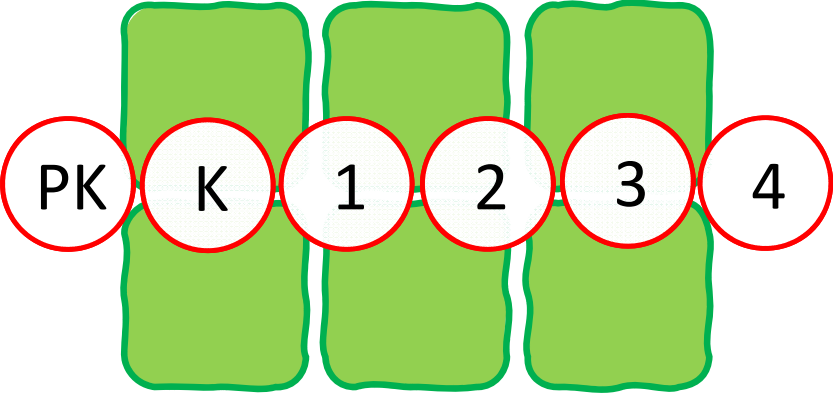
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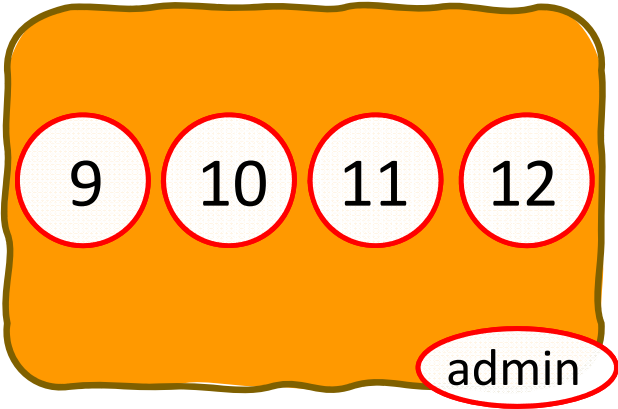
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Elementary School Sites



CHS Site



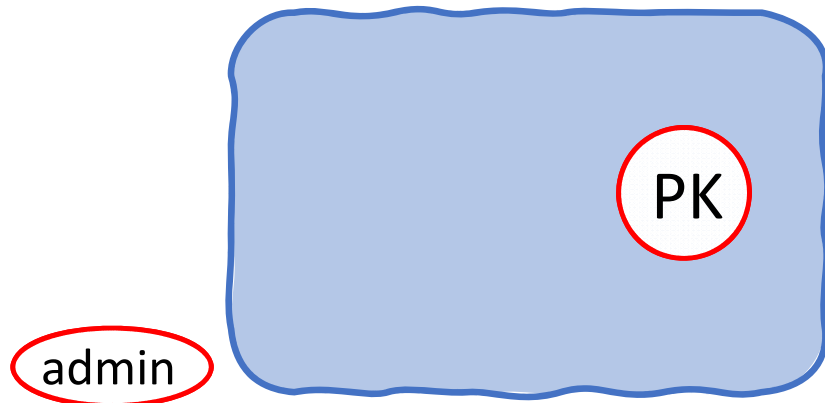
Minimize Relocatables

VMDO

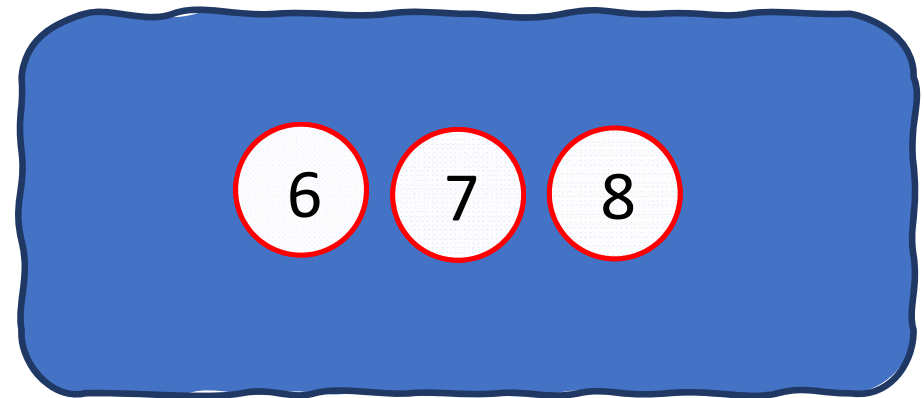
05.21.2021
School Board
Retreat

C

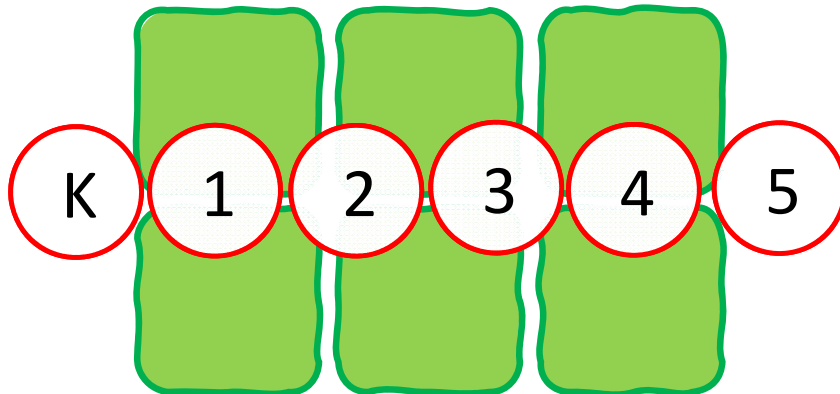
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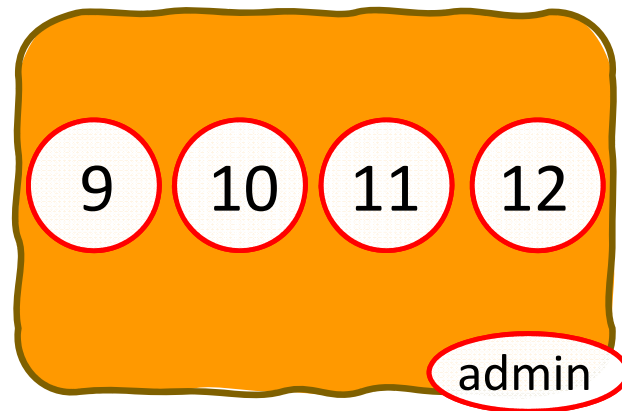
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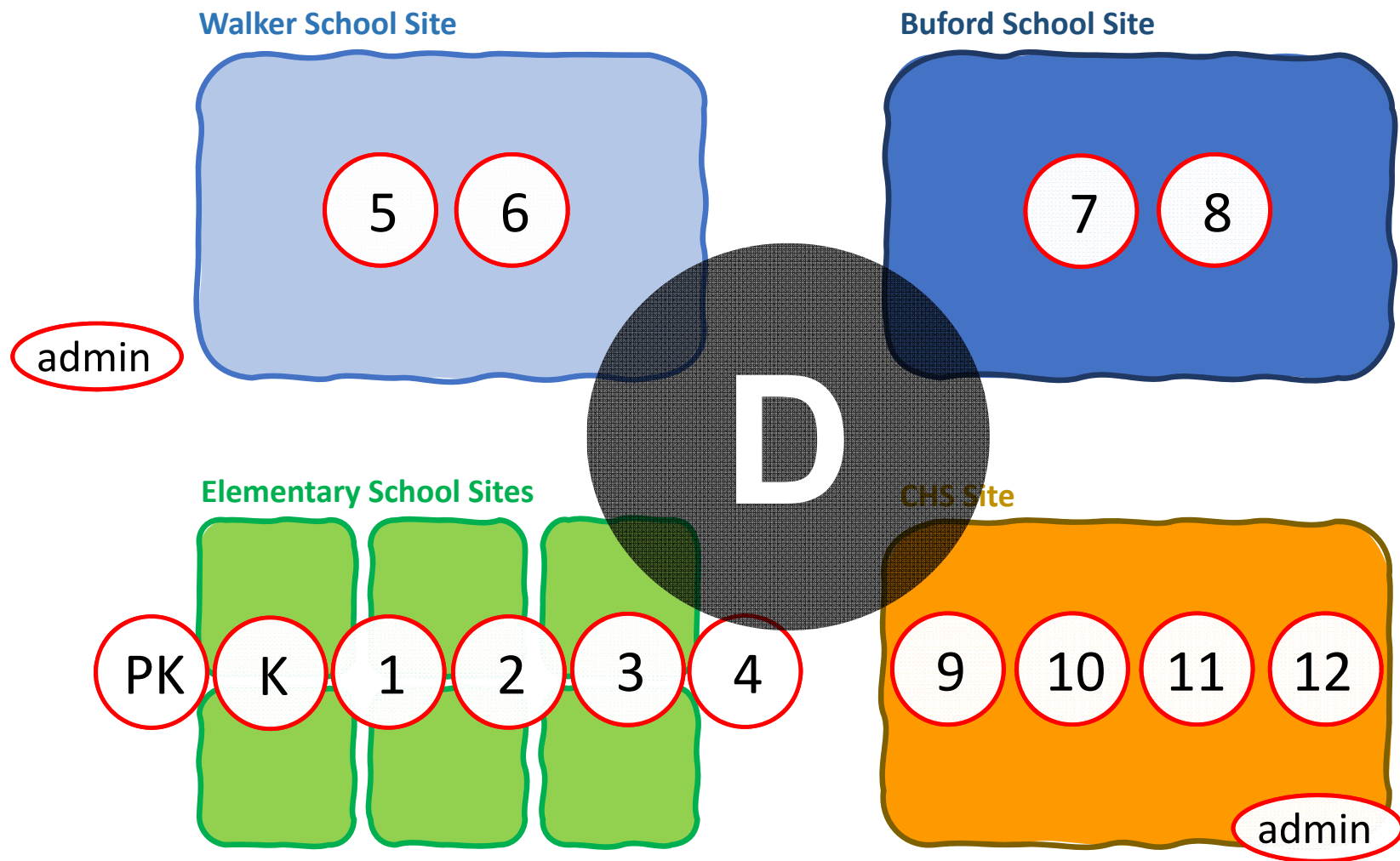


Elementary School Sites



CHS Site





Minimize Staff Transitions

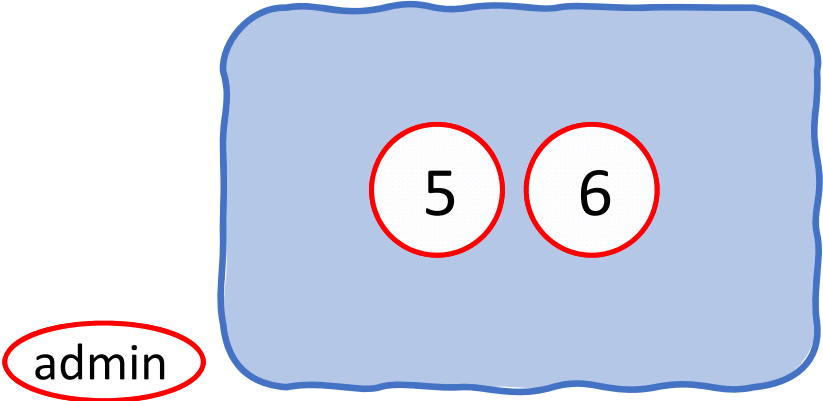
VADO

05.21.2021
School Board
Retreat

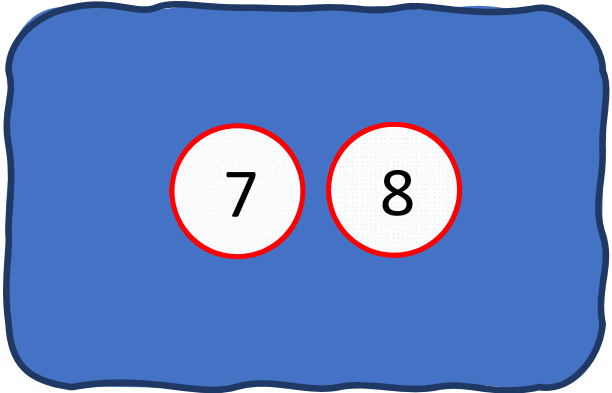
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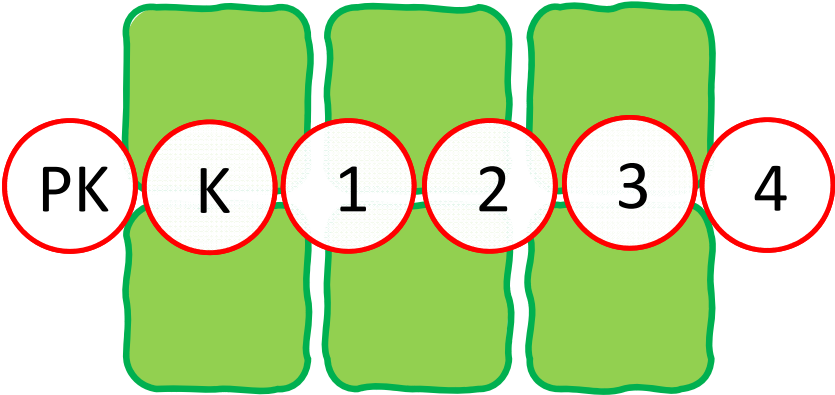
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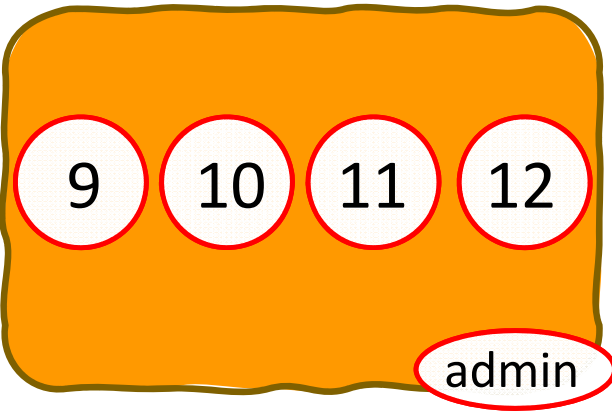
Buford School Site



Elementary School Sites

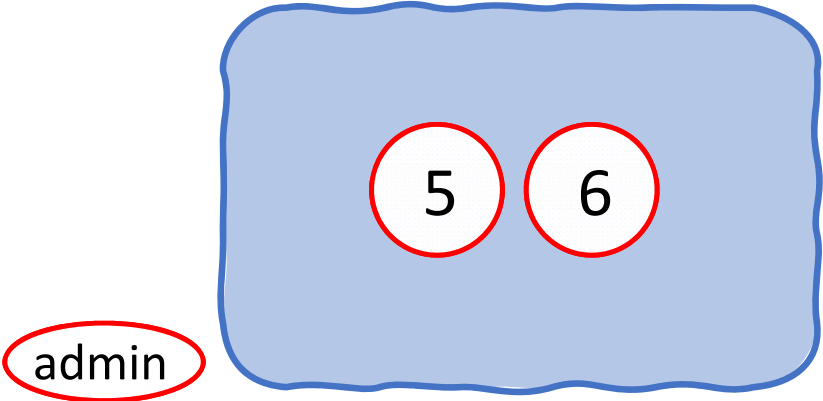


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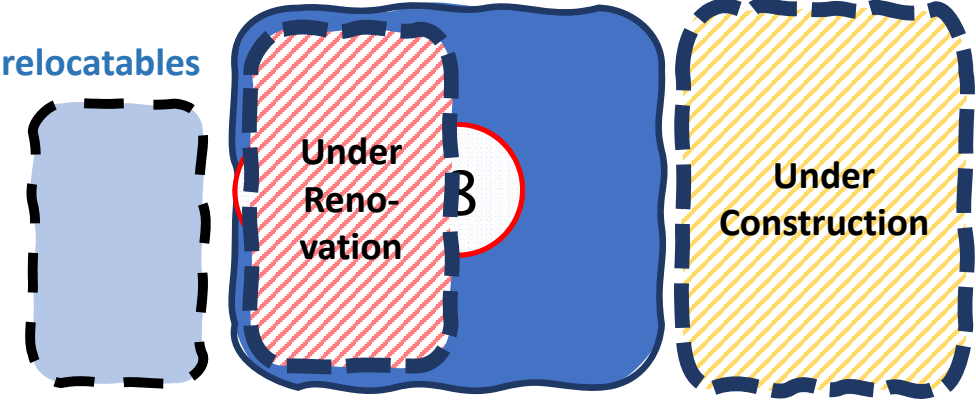


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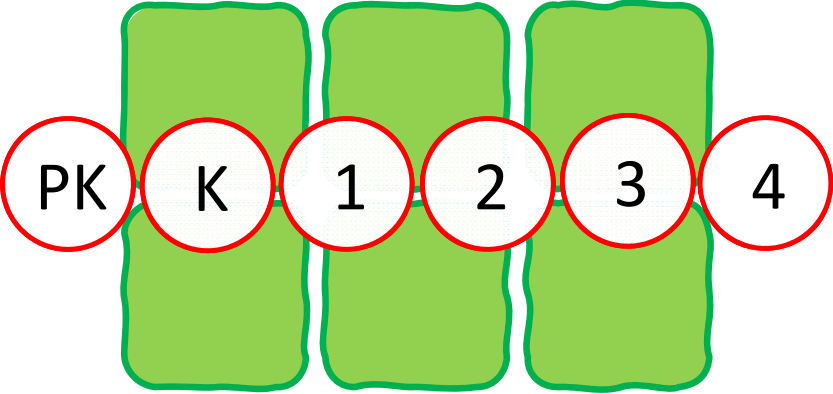
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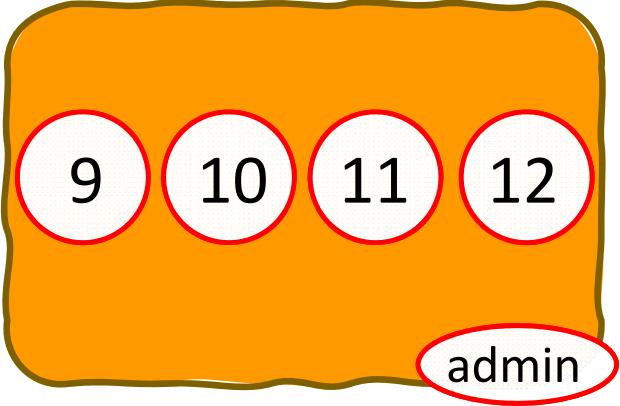
Buford School Site



Elementary School Sites

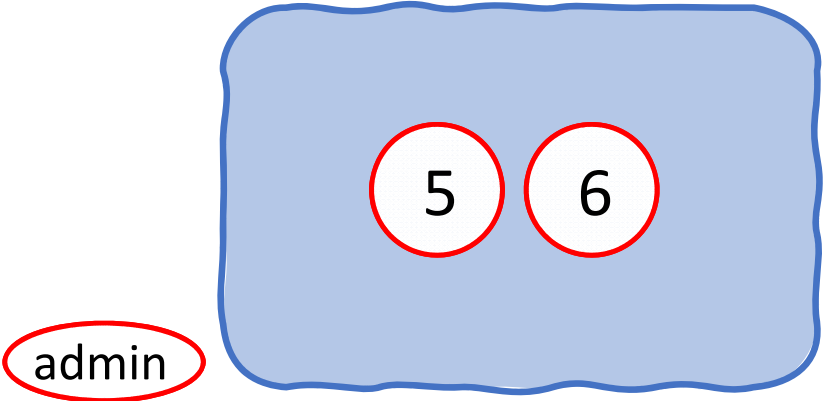


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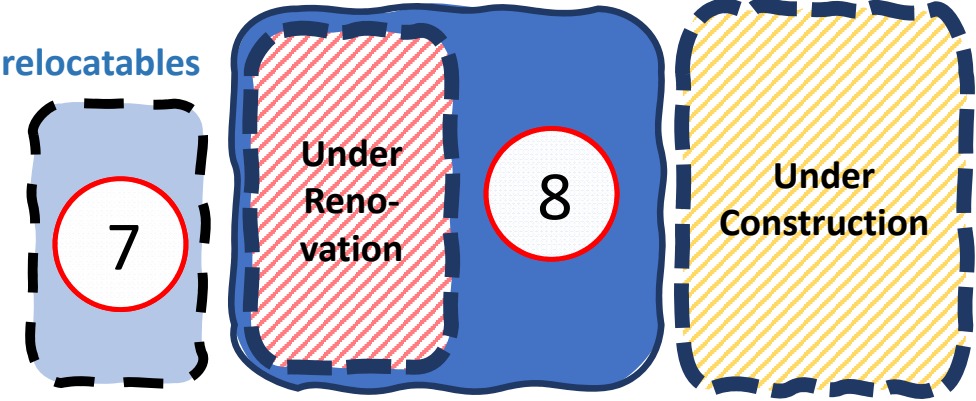


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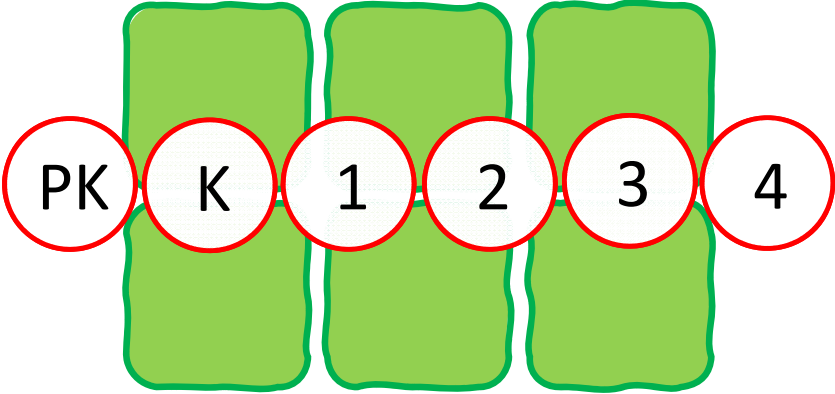
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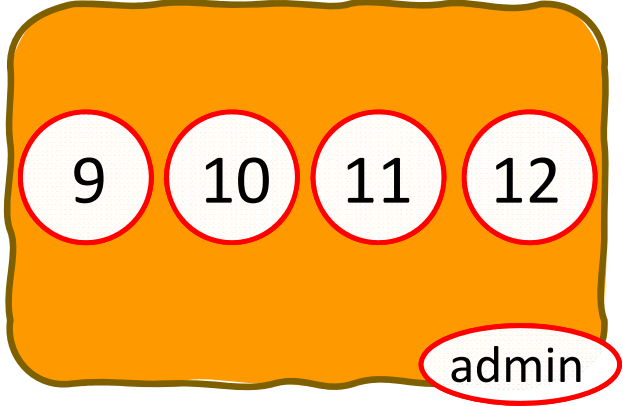
Buford School Site



Elementary School Sites



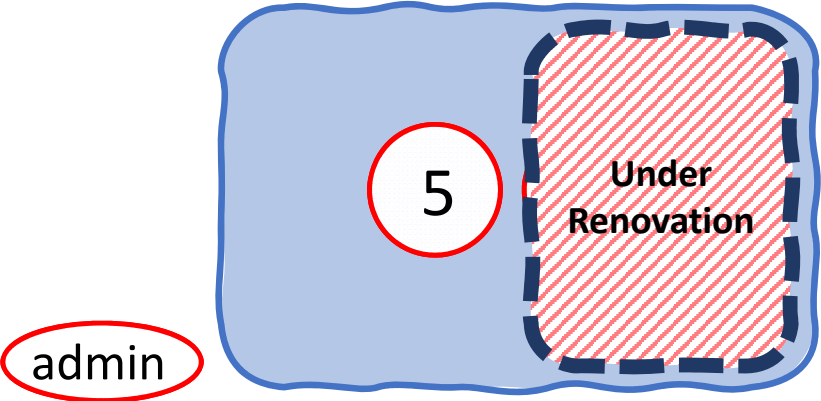
CHS Site



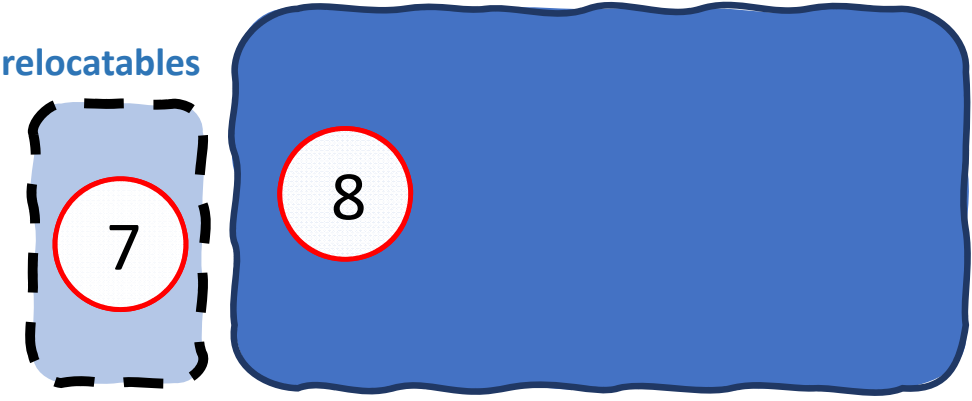
Minimize Staff Transitions

D

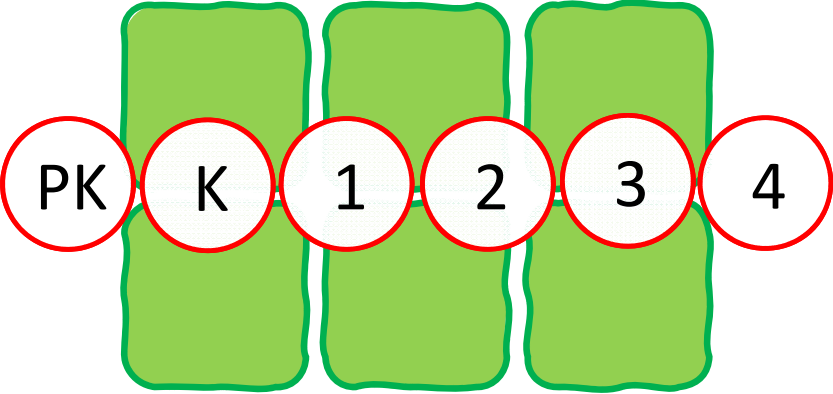
Walker School Site



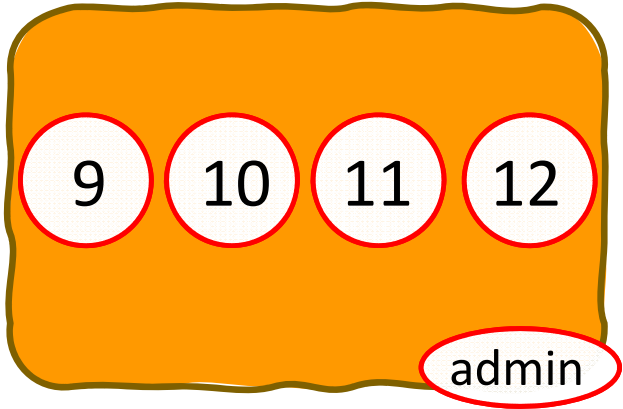
Buford School Site



Elementary School Sites

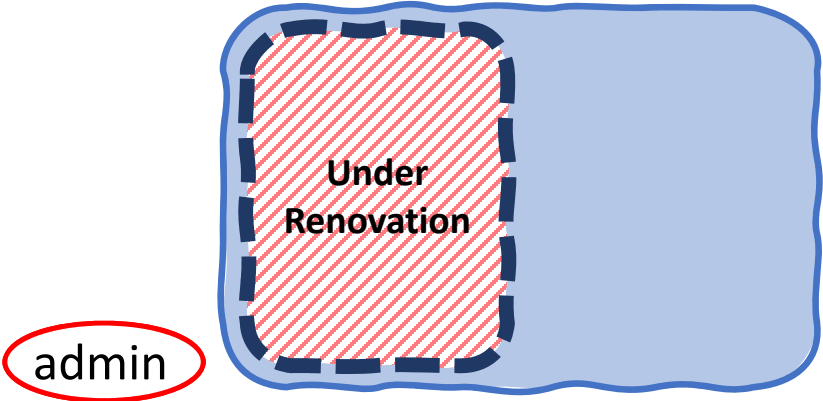


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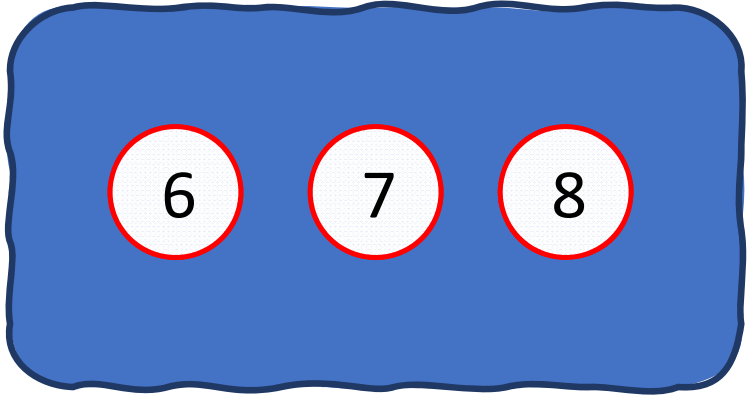


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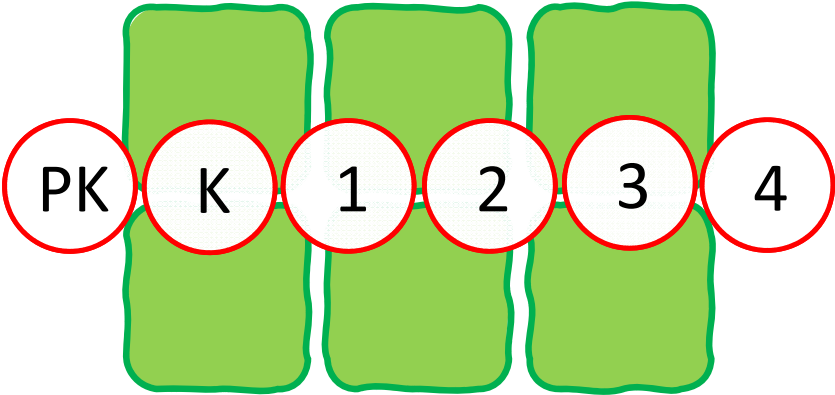
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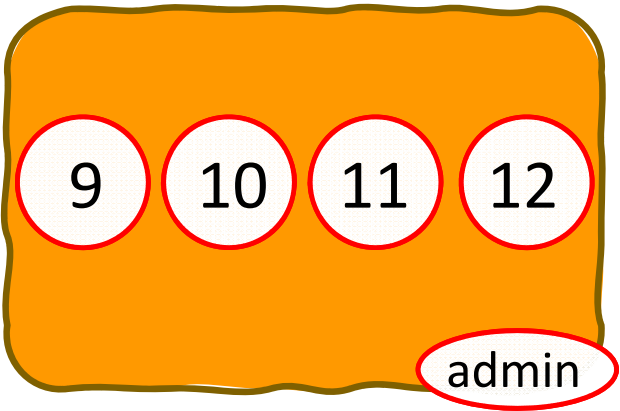
Buford School Site



Elementary School Sites



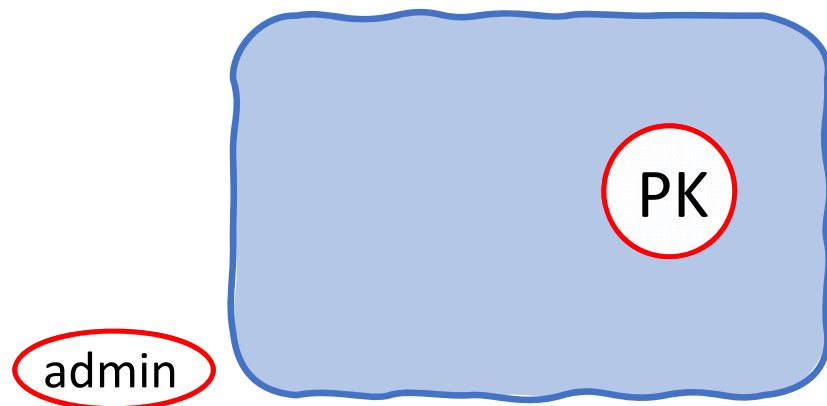
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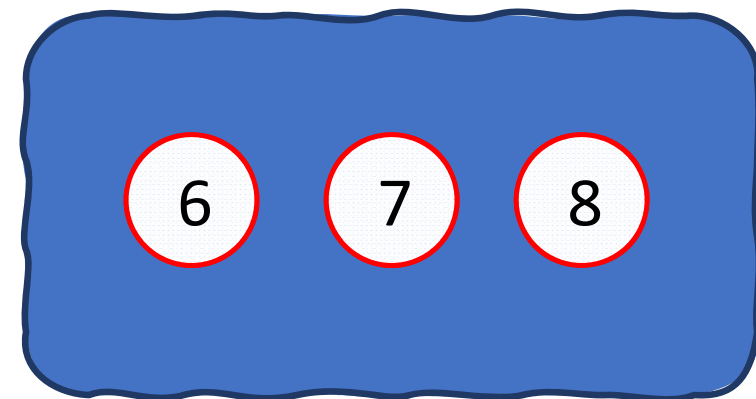
Minimize Staff Transitions

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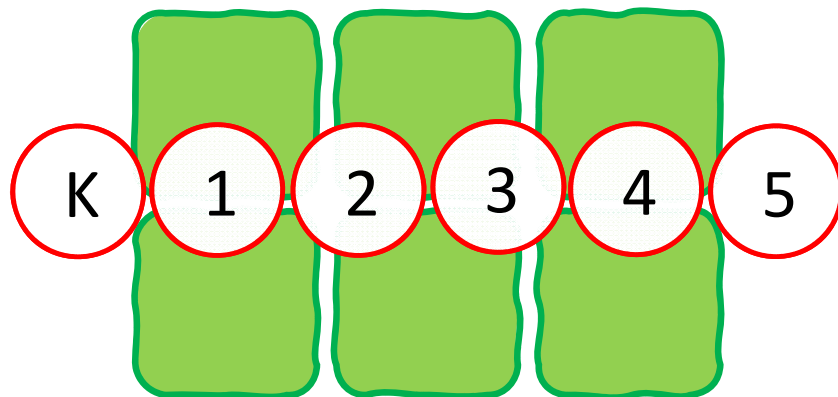
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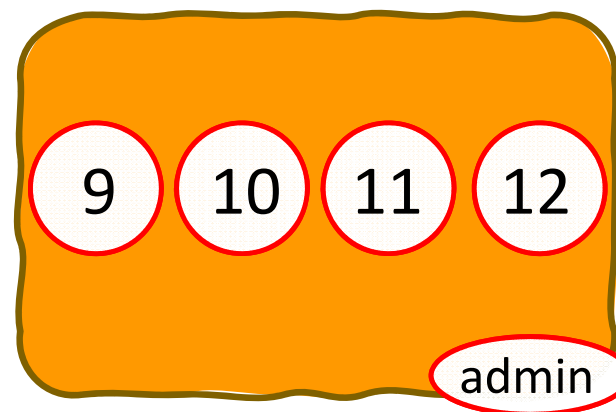
Buford School Site



Elementary School Sites



CHS Site



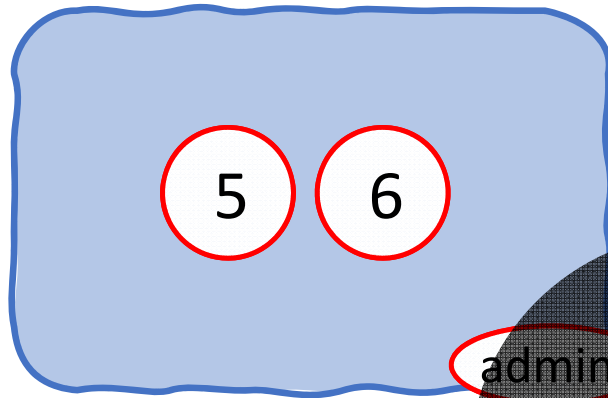
Minimize Staff Transitions

VADO

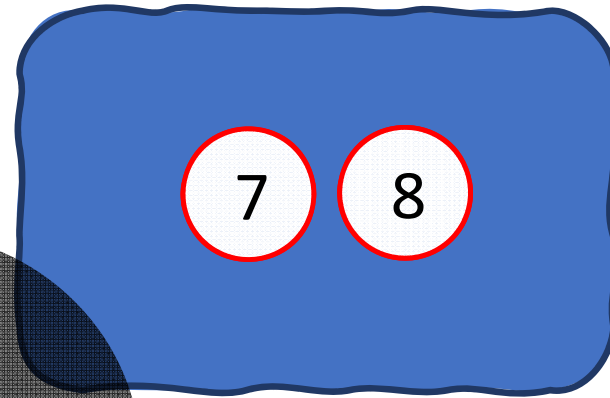
05.21.2021
School Board
Retreat

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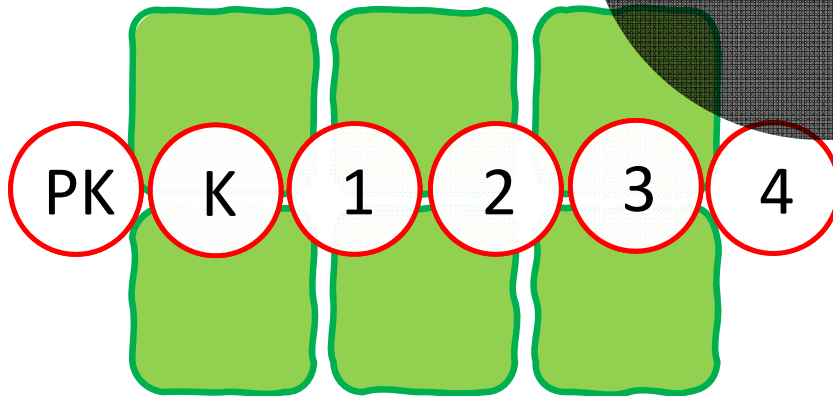
Walker School Site



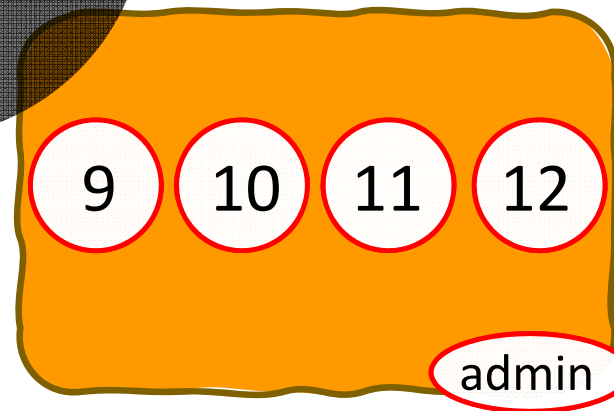
Buford School Site



Elementary School Sites



CHS Site



A Little of Each

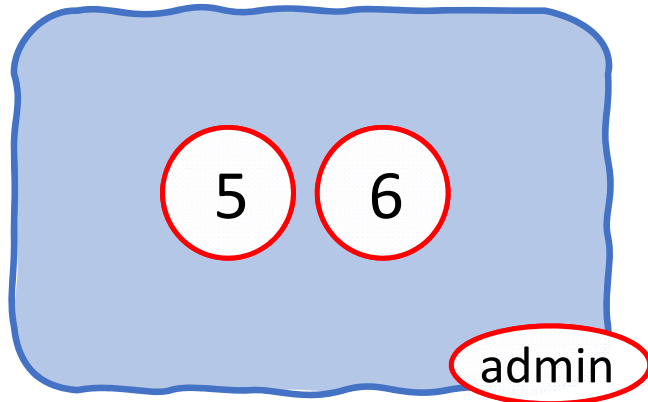
VMDO

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School Board
Retreat

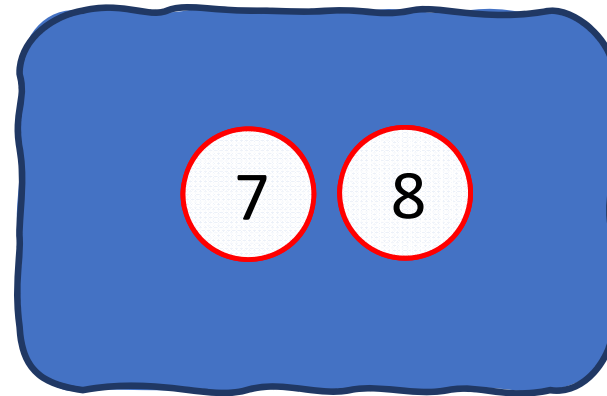
183

E

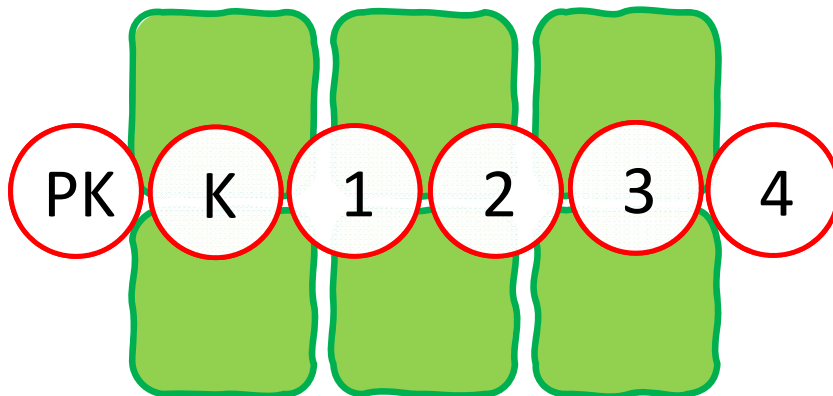
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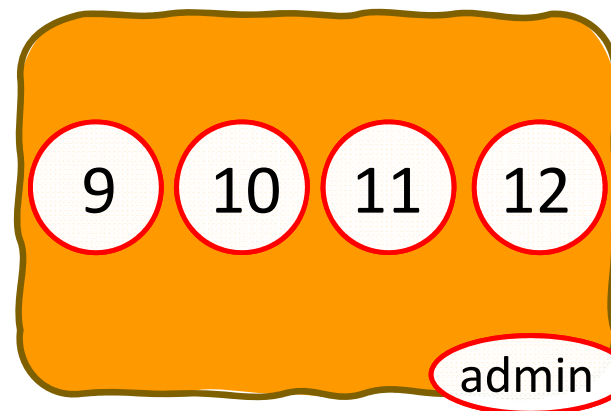
Buford School Site



Elementary School Sites



CHS Site

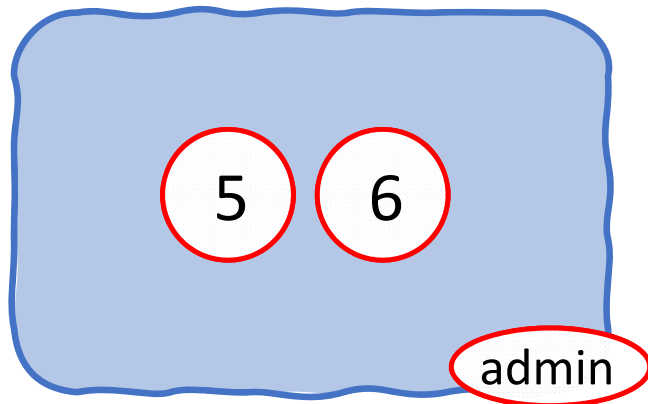


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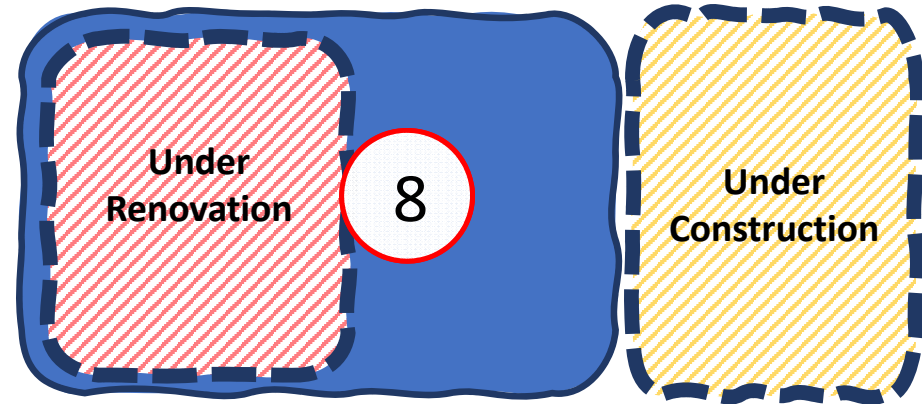
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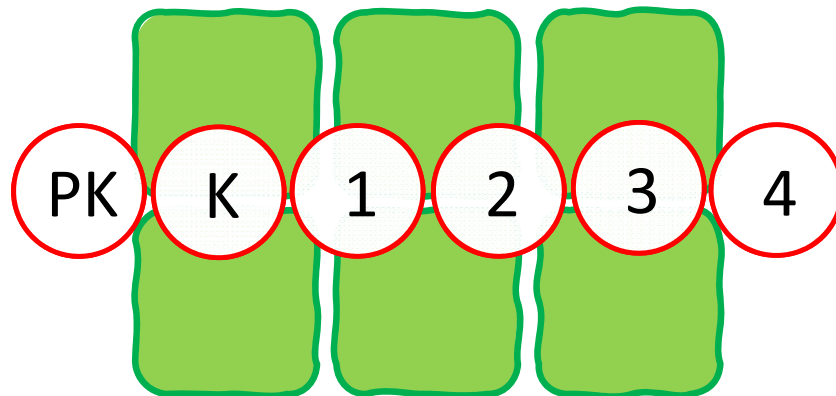
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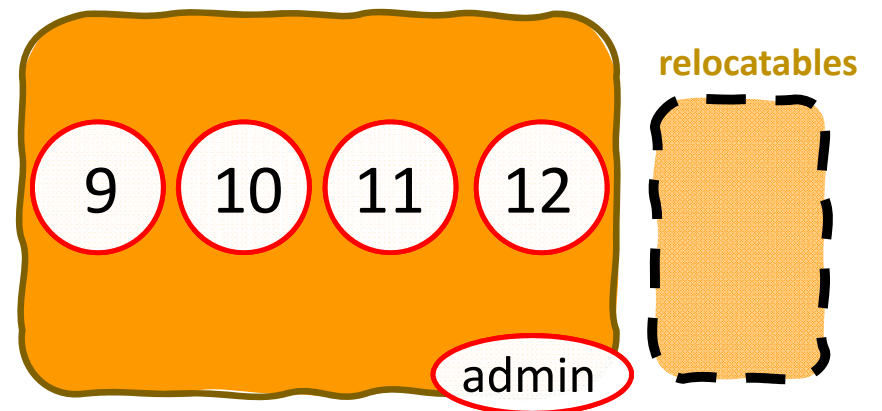
Buford School Site



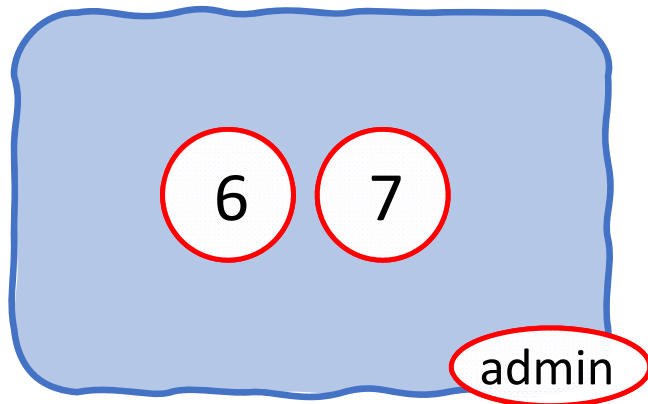
Elementary School Sites



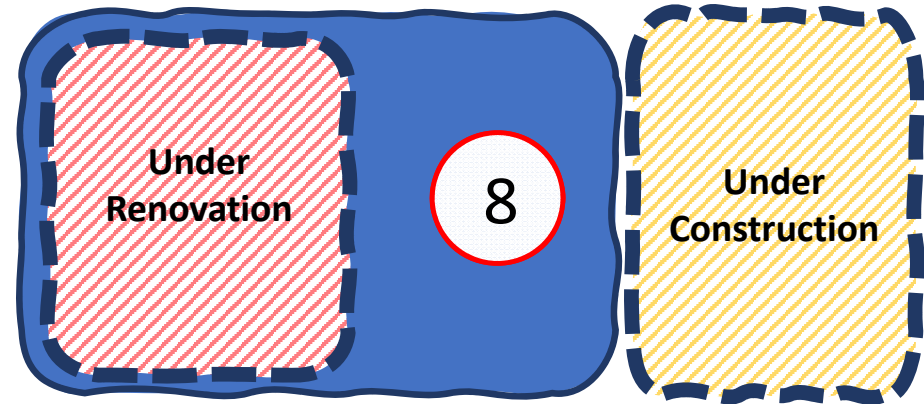
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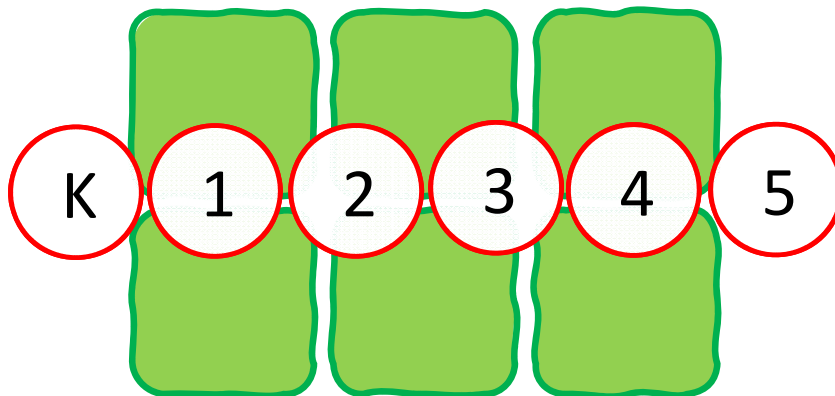
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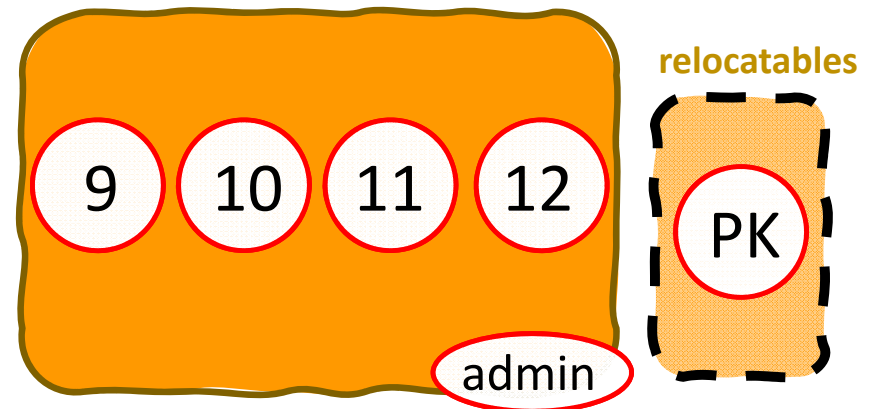
Buford School Site



Elementary School Sites

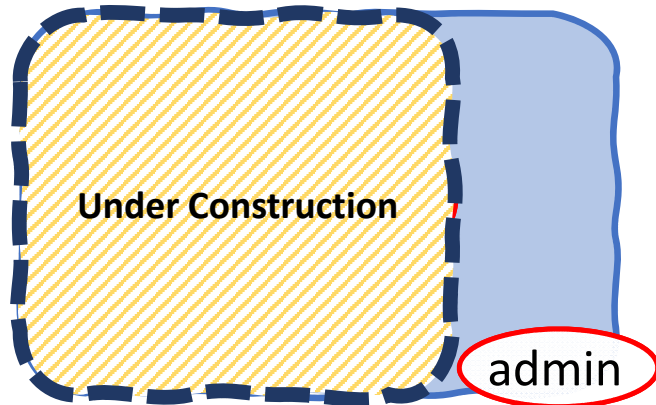


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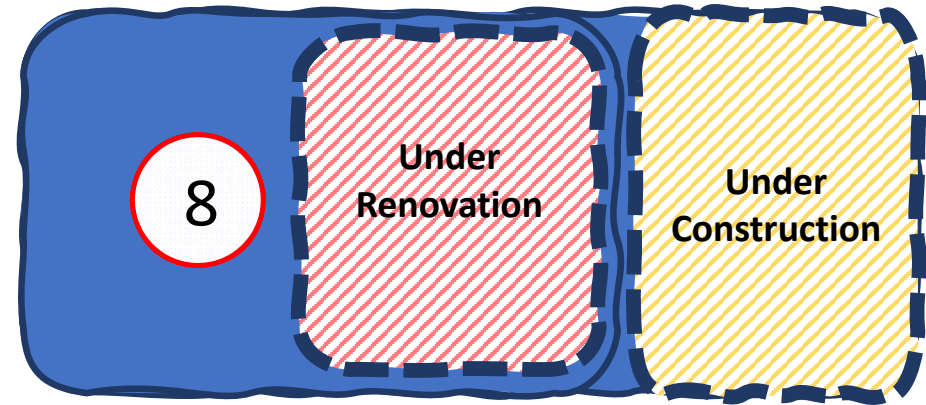


E

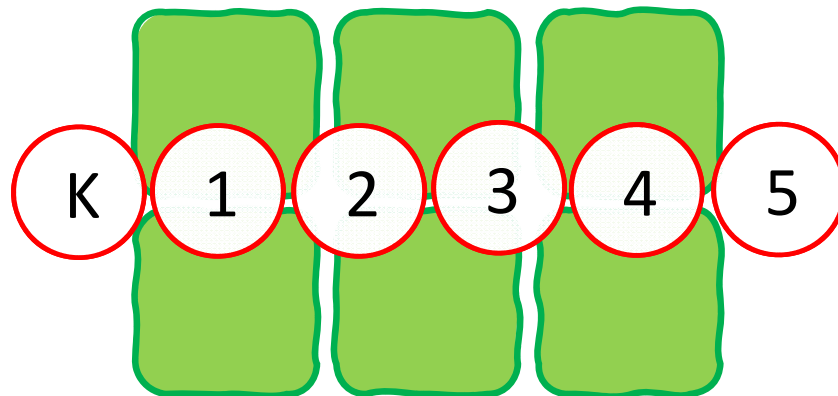
Walker School Site



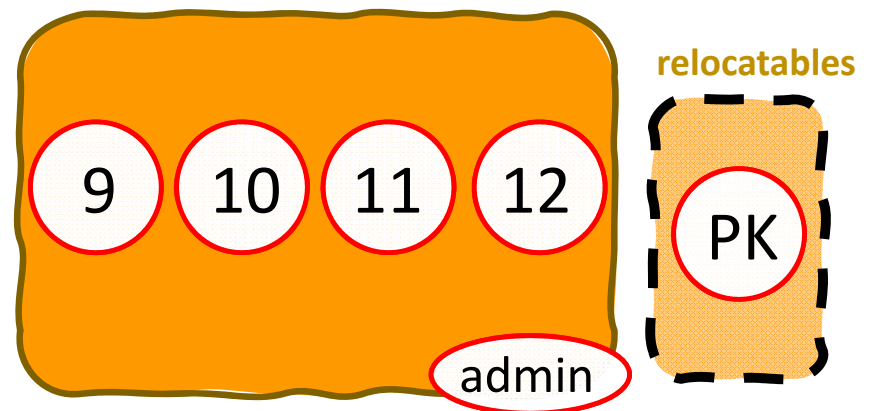
Buford School Site



Elementary School Sites



CHS Site



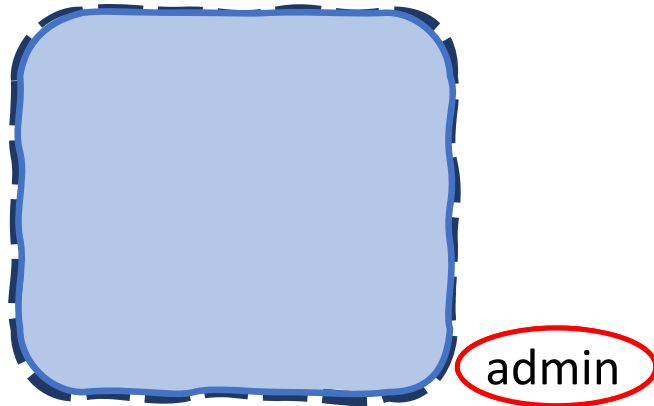
A Little of Each

VADO

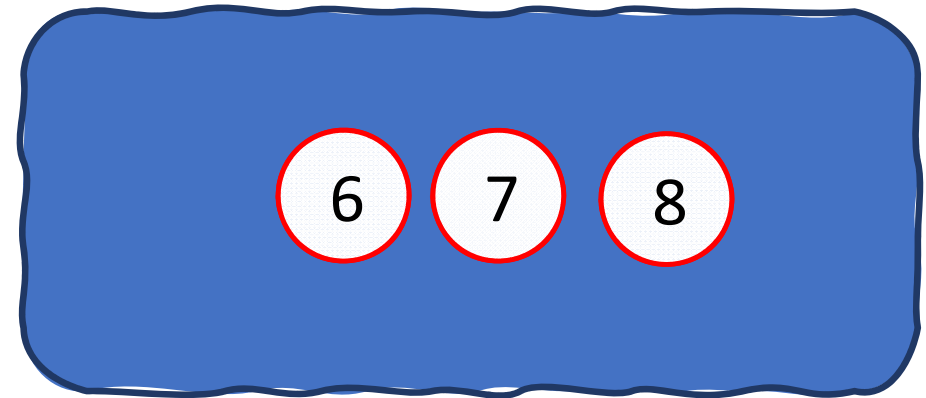
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School Board
Retreat

E

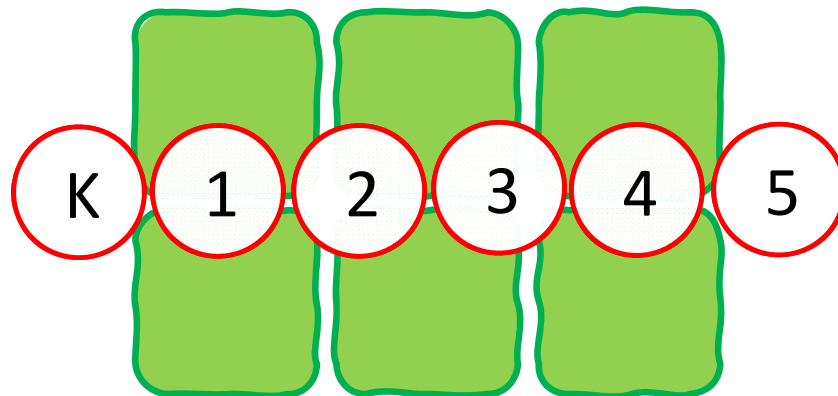
Walker School Site



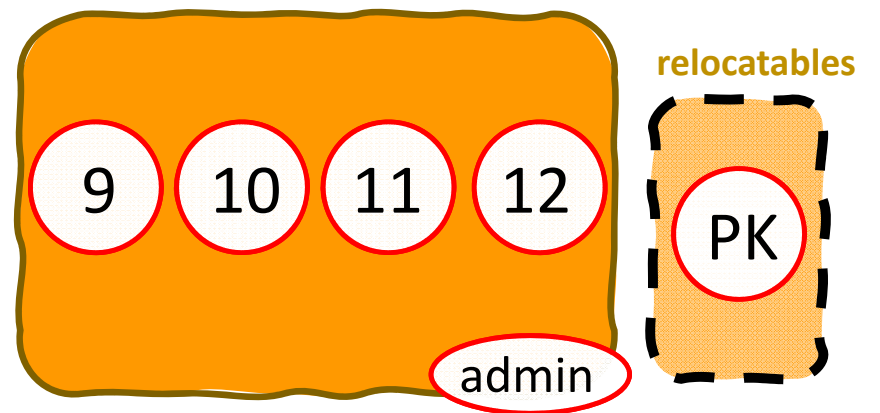
Buford School Site



Elementary School Sites

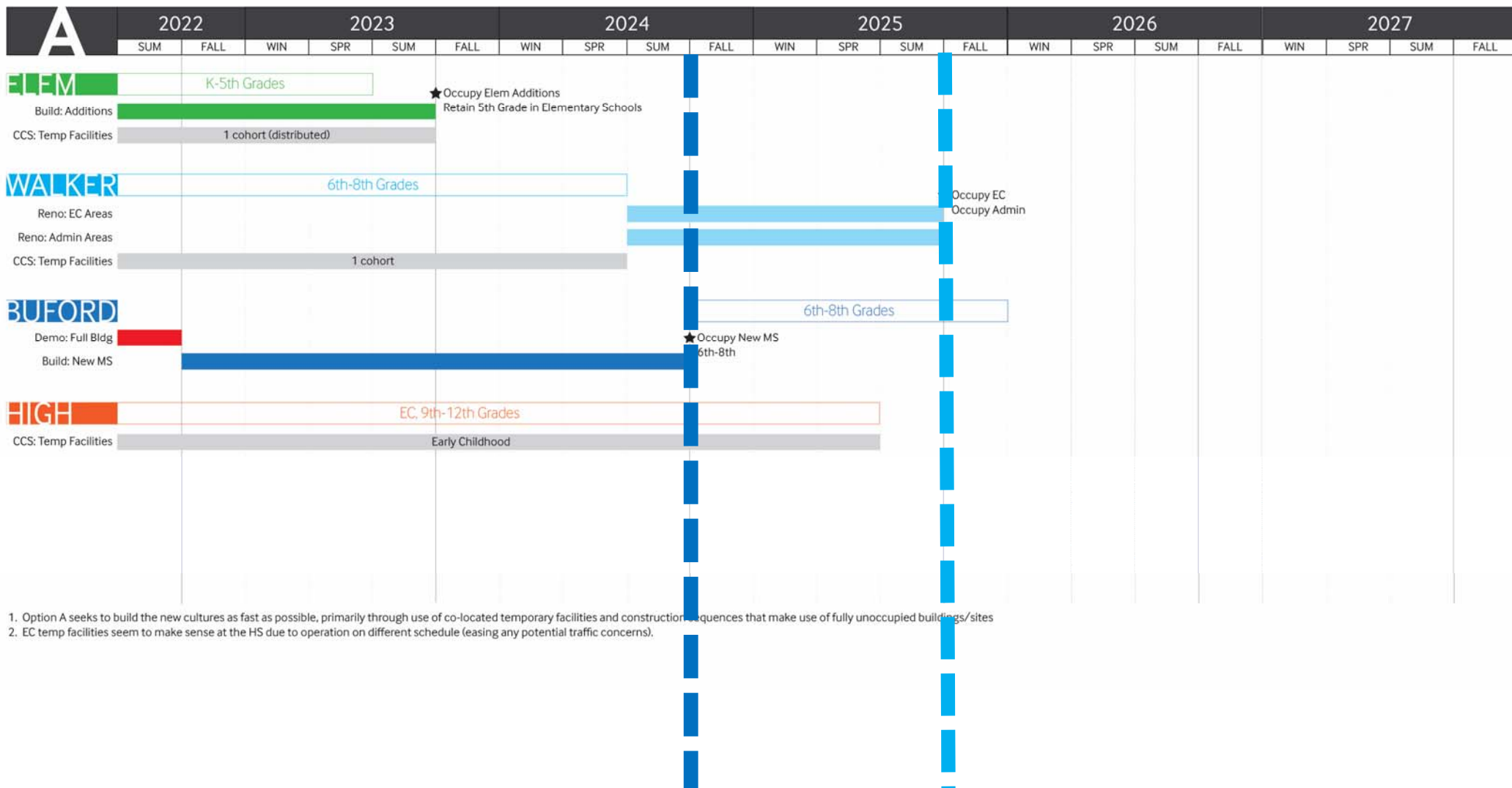


CHS Site

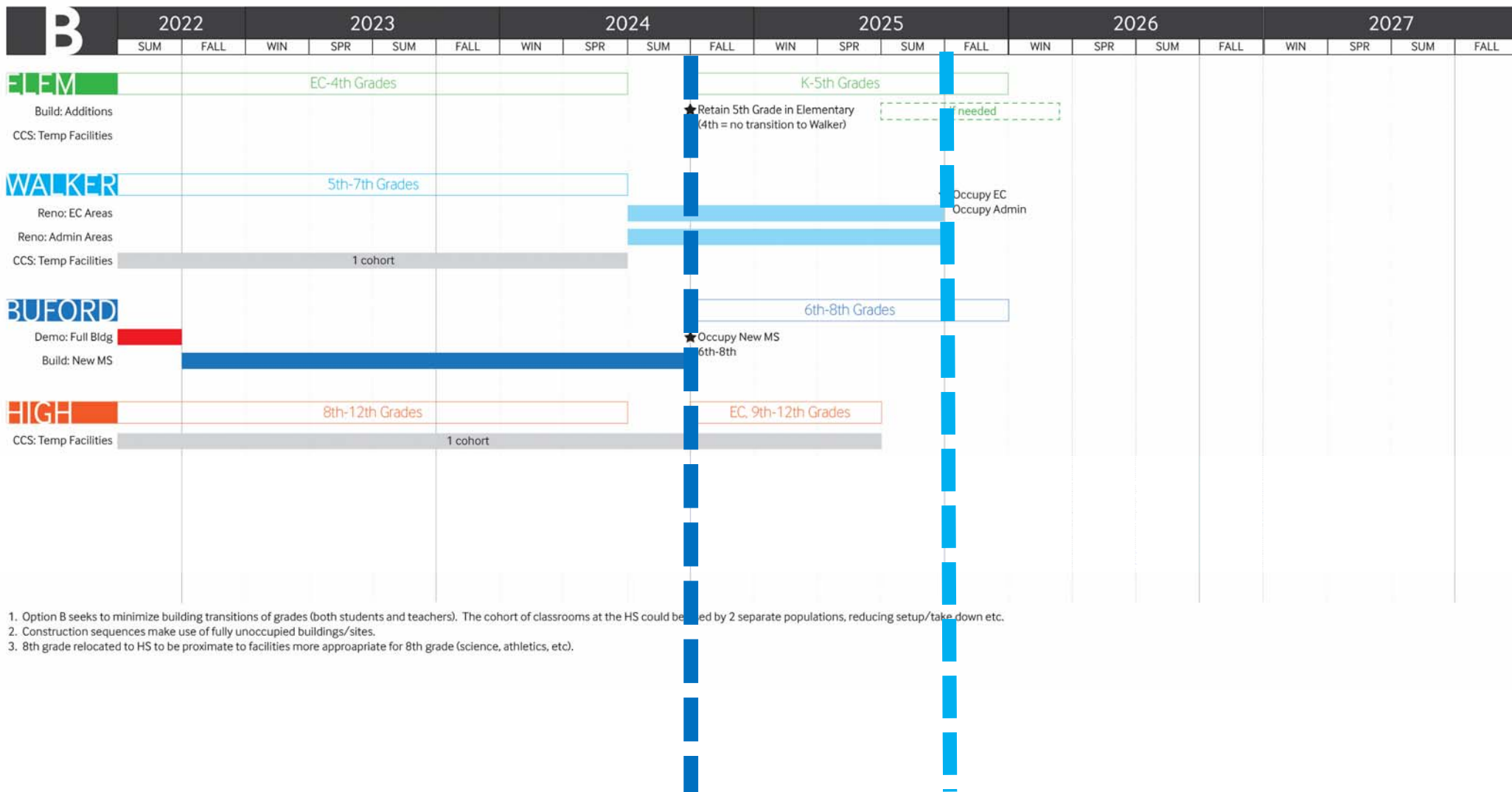


A Little of Each

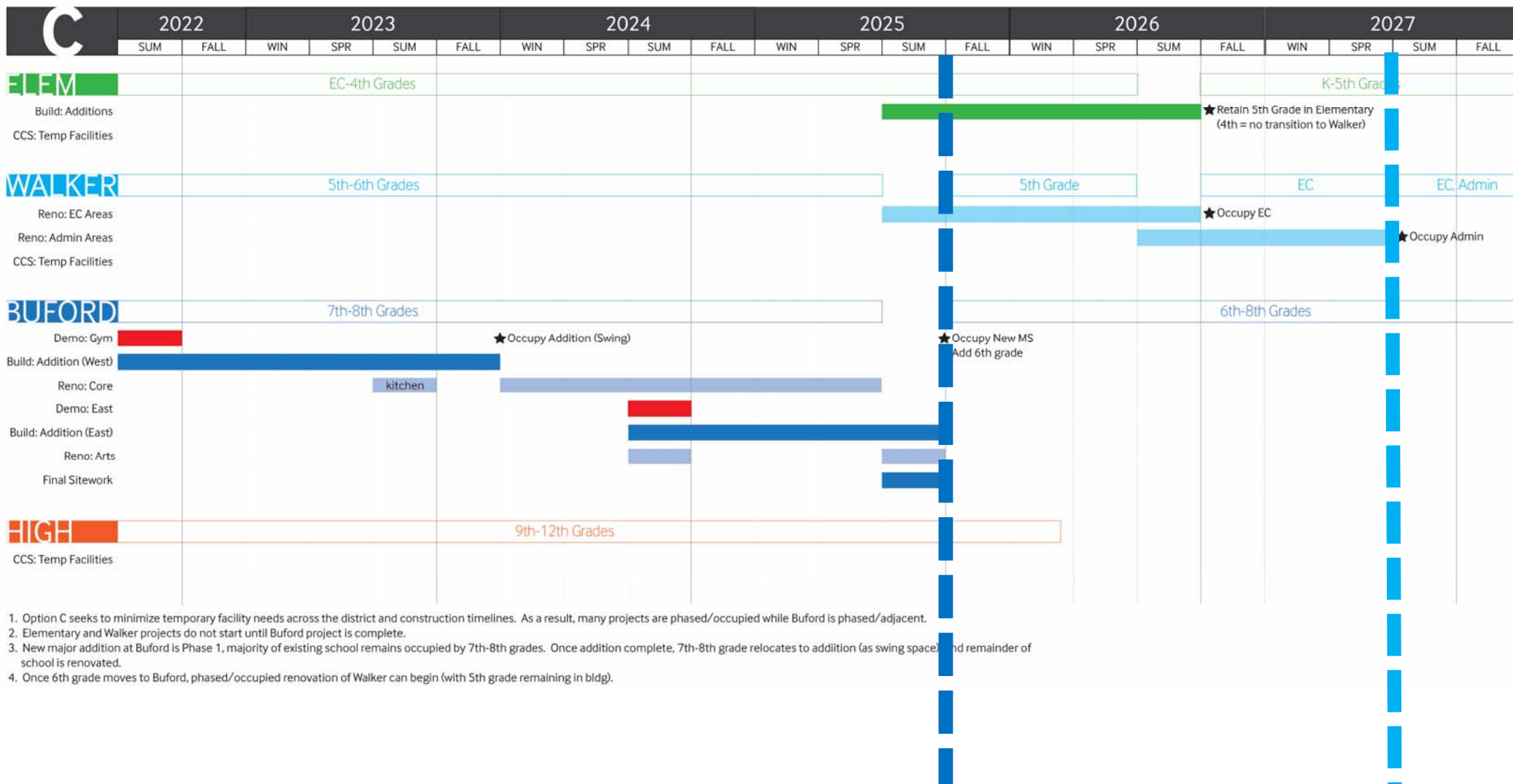
VMDO



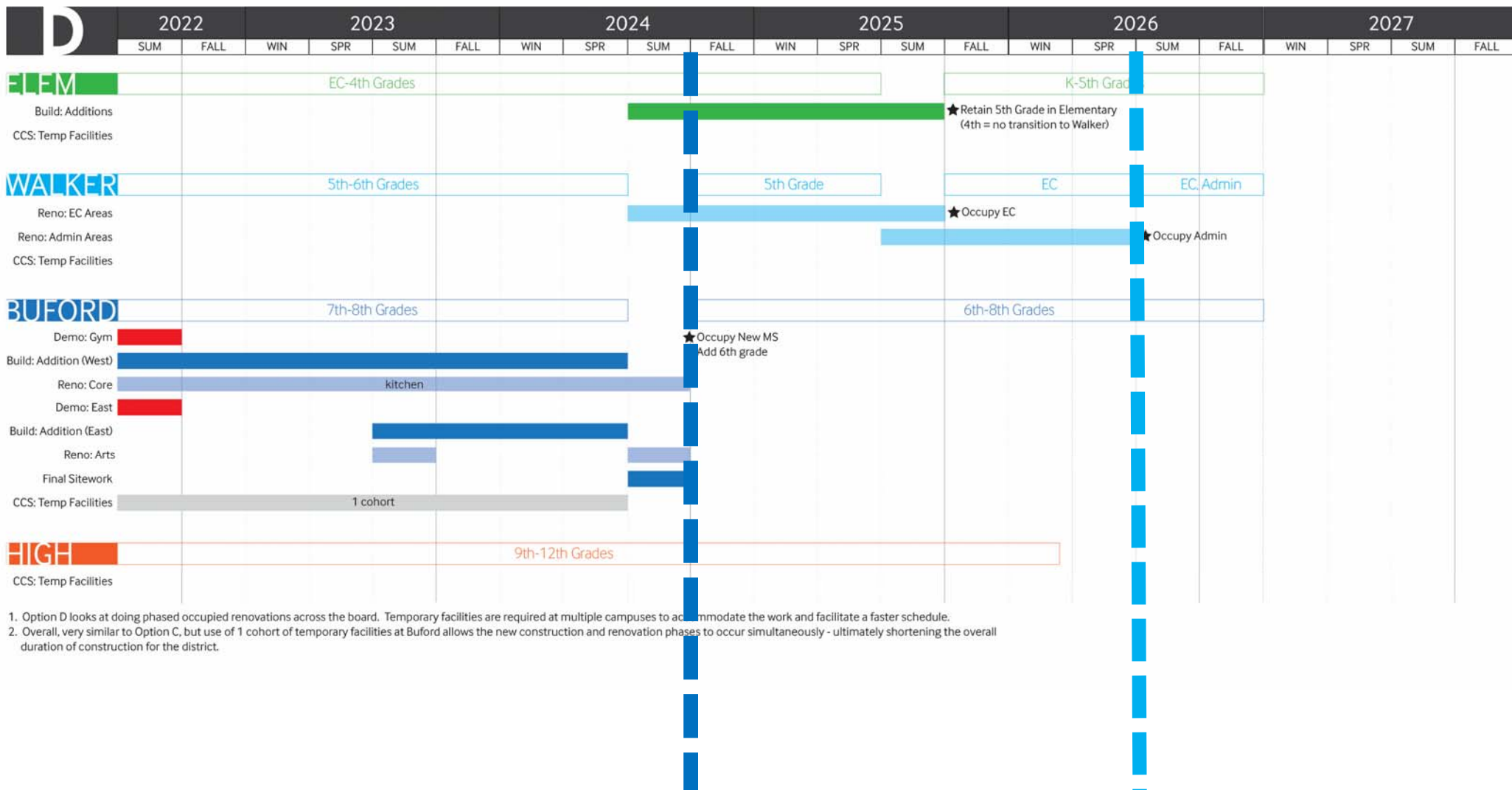
Fastest Culture: Fall of 2025



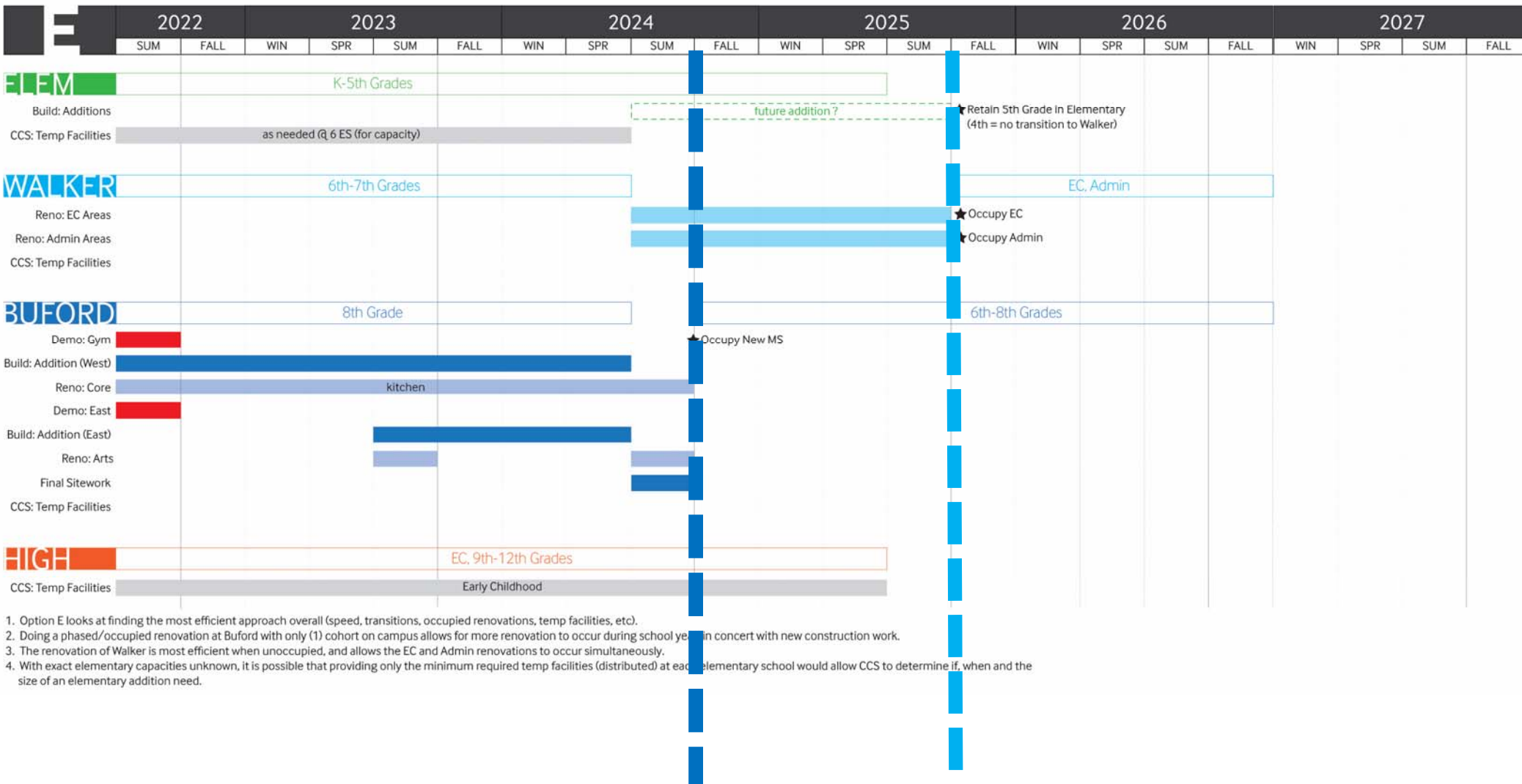
Minimize Student Transitions: Fall of 2025



Minimize Relocatables: Summer of 2027



Minimum Staff Transitions: Summer of 2026



1. Option E looks at finding the most efficient approach overall (speed, transitions, occupied renovations, temp facilities, etc).
2. Doing a phased/occupied renovation at Buford with only (1) cohort on campus allows for more renovation to occur during school year in concert with new construction work.
3. The renovation of Walker is most efficient when unoccupied, and allows the EC and Admin renovations to occur simultaneously.
4. With exact elementary capacities unknown, it is possible that providing only the minimum required temp facilities (distributed) at each elementary school would allow CCS to determine if, when and the size of an elementary addition need.

	A Fastest CULTURE	B Minimize STUDENT TRANSITION S	C Minimize RELOCATABLES	D Minimize STAFF TRANSITIONS	E LITTLE of EACH
Duration	54 mo. (Fall 2025)	54 mo. (Fall 2025)	78 mo. (Fall 2027)	66 mo. (Fall 2026)	54 mo. (Fall 2025)
Occupied					
Buford	no	no	yes	yes	yes
Walker	no	no	yes	yes	no
Relocatables # of cohorts	2	2	0	1	1

1. Duration assumes completion of reconfiguration projects at Buford + Walker
2. Occupied relates to presence to students/learning on same site with ongoing construction activities
3. Relocatables defines the number of grade-level cohorts of space that would be temporarily needed to accommodate construction activities.

Questions & Discussion

- 1 Overview of Project
- 2 Existing versus Ideal Conditions
- 3 Engagement & Outreach
- 4 Sequencing**
- 5 Capacity
- 6 Potential scopes of construction



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5 Capacity

*Here's how many students we have now
and how many we should plan for.*



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Reconfiguration, Capacity & Enrollment

- What are the key concepts?
- What's at stake when planning facility capacity?
- What was going on with capacity back in 2016?
- Does the PK/5th grade swap work?
- What about future growth?
- What enrollments do we plan for at the 6-8 Middle School?
- What enrollments do we plan for at the Early Childhood Center?

Facility Capacity

How many students can the facility accommodate?

- We identified a student capacity for each CCS facility, derived from VDOE standards and CCS curriculum & instruction practices

Enrollment

How many students are coming?

Two basic factors:

1. Cville school-aged population
2. Participation Rates

We're in a moment where every part of this is in flux.
The pandemic has upended where people work, learn, and live.

1. Cville school-aged population growth

- Charlottesville birth rates have been declining since 2015.
- Remote work during COVID sparked new population migration patterns. Charlottesville may experience migration-related growth – but the potential scale & duration are not known.
 - City population growth from in-migration is related to the availability of **additional residential units** –residential construction and major renovation are useful indicators.
 - The **Albemarle County** is currently developing residential units at a much higher rate than the City
 - When City demographic trends change, they **can change fast** – a small city experiencing the forces of a proportionally large metro area

We've
collaborated with



to learn about this

Many unknowns, but no immediate signals of growth

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2. Participation Rates

- **We don't currently have strong demographic tools to quantify the total eligible population**
- **Therefore participation rates can't be accurately calculated.**
- **However, historical CCS "Cohort Growth" helps us understand differential levels of participation across the CCS grade levels for those who do enter the system**

What's at stake?

Why does this matter for today's conversation?

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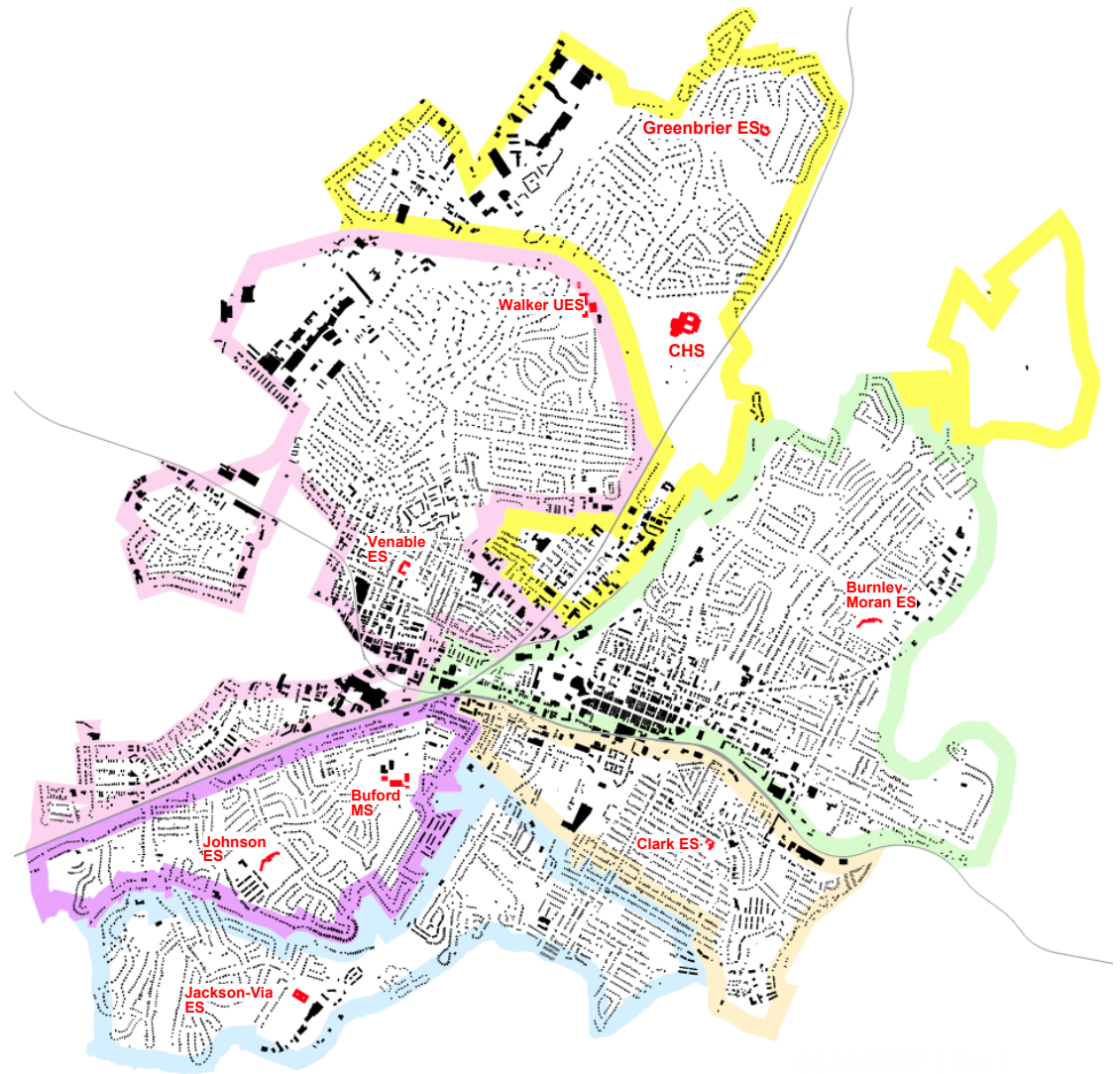
Last time we had a public conversation about Reconfiguration, it was in the context of the 2016-17 Capacity Study.

Today it is in the context of a project focused on **equity and academics**.

While the enrollment growth trends of the 2010s have cooled, capacity will remain an important topic in Reconfiguration planning.

How many students to build for now?

The answer has a significant impact on project cost, and how soon additional builds might be needed.



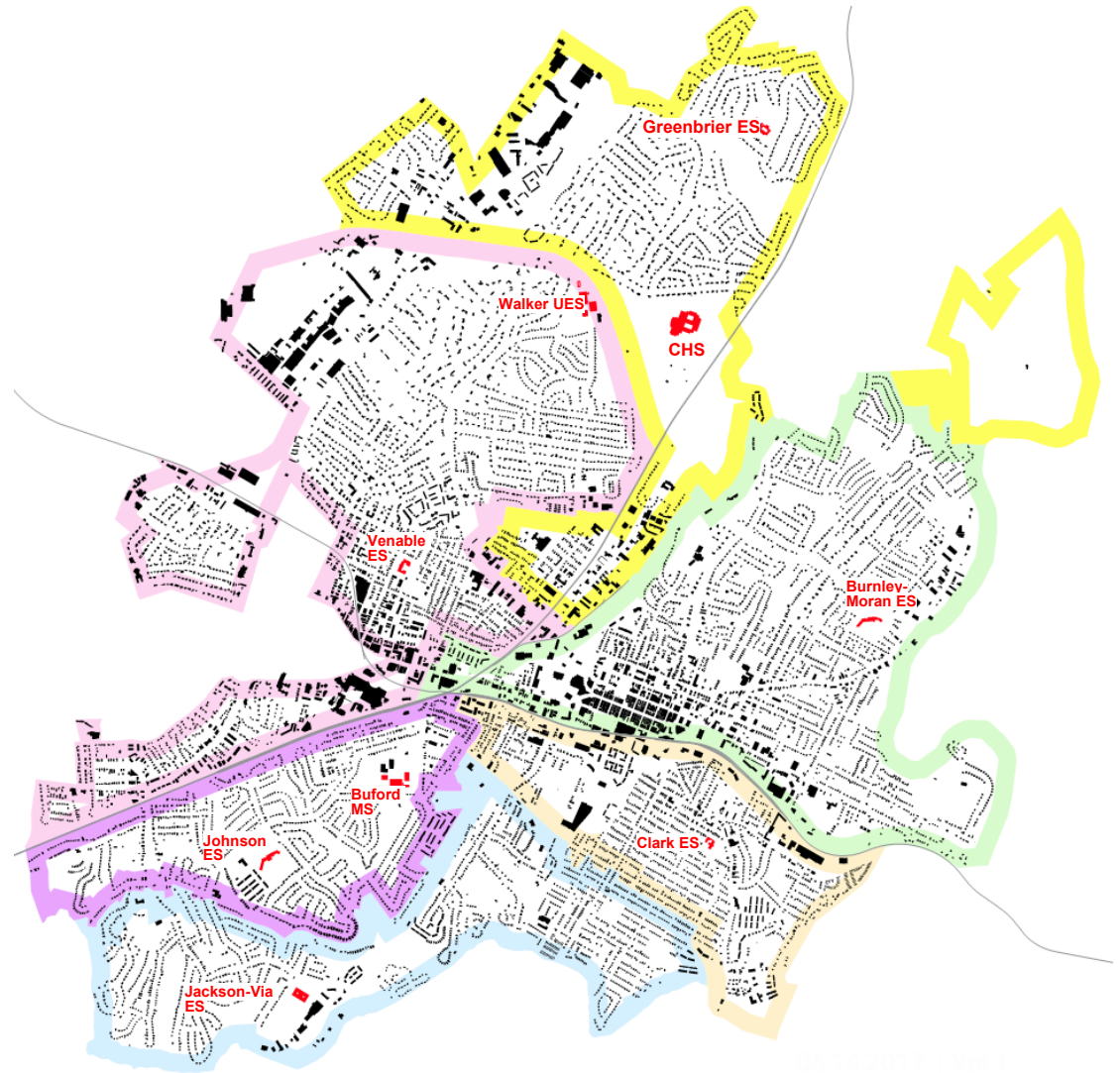
Building for growth **now**:

Pro

- Cost efficiencies (Construction & Overhead)
- More design flexibility
- Avoid school & community construction fatigue

Con

- Costs money now
- Operational costs start day 1 for square footage needed in future
- Facility oversized if growth does not materialize



If you build for more than today's enrollments...

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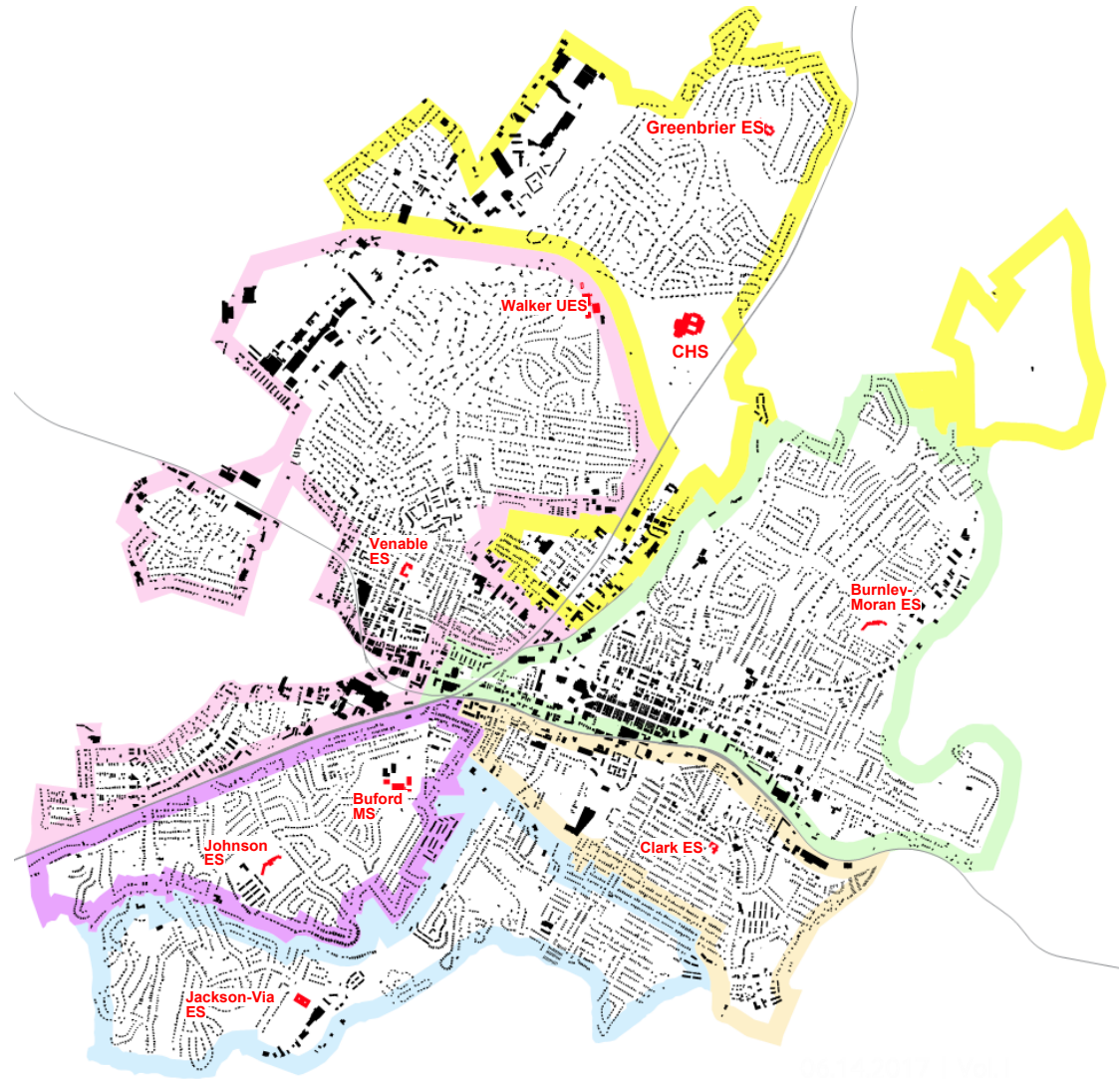
Building for growth later:

Pro

- Focuses available funding on core project goals (facilities supporting academics & equity)
- Community enrollment response to new projects & post-pandemic conditions will be better known

Con

- Exposure to inflationary construction cost forces
- Less efficiency in overhead & construction costs (more, smaller projects vs. 1 bigger project)
- More living through more construction
- Potential for student years on an overfull campus before capacity addition(s) complete



If you build for today's enrollments...

Land is a limited resource.

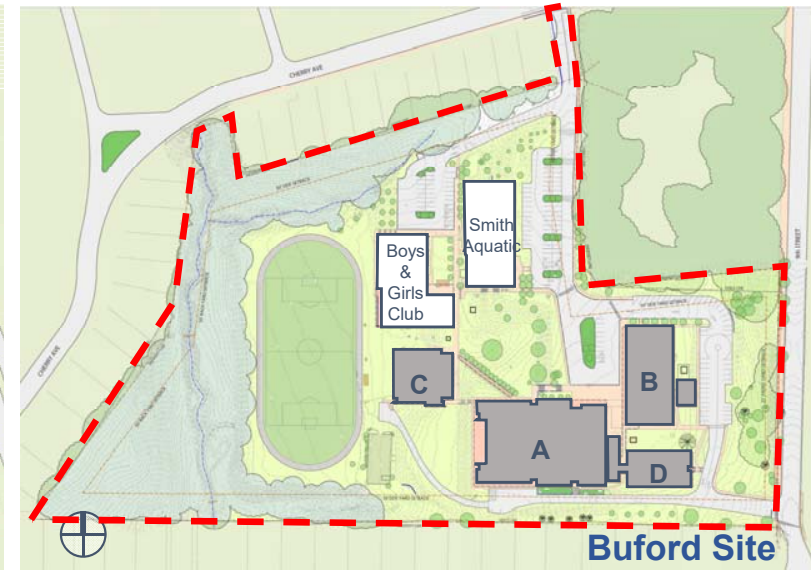
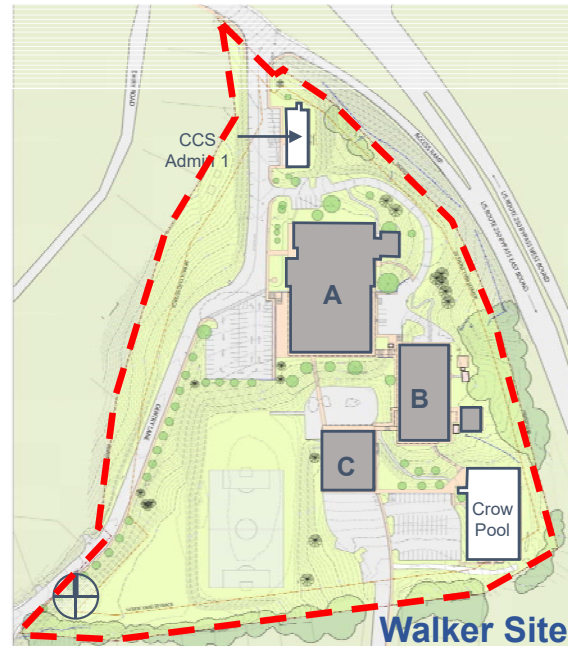
Need to think about TWO capacity targets:

1. Project Capacity

How many to build for now?

2. Masterplan Capacity

At sites undergoing changes now, what opportunity for future growth should be built into the design?



Impact: what future possibilities are built in (or not)?

Now for a little context:

What was going on with capacity back in 2016?

In 2016...



1986 - 2011

Average Annual growth



2011 - 2016

Average Annual growth

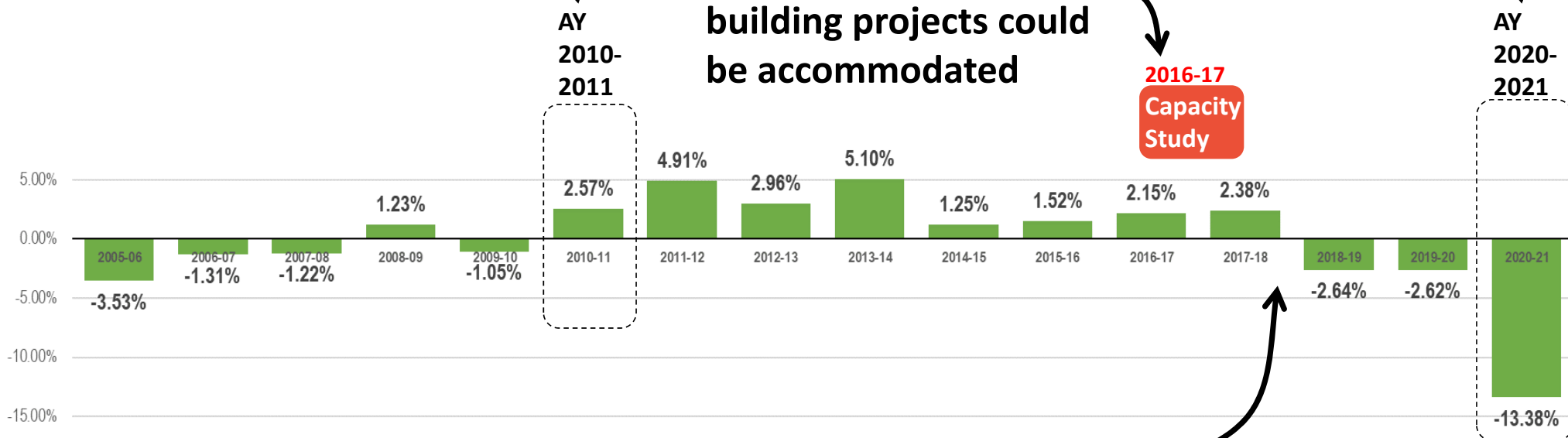
- In 2016, dramatic growth had been occurring at the **elementary** level since 2011.
- This was a reversal of the prior overall trend of slow enrollment decline
- A Capacity Study was initiated by CCS & the City Facilities Department to look at the question of school facilities impact if this growth became the “new normal” for the system



Beginning of growth trend

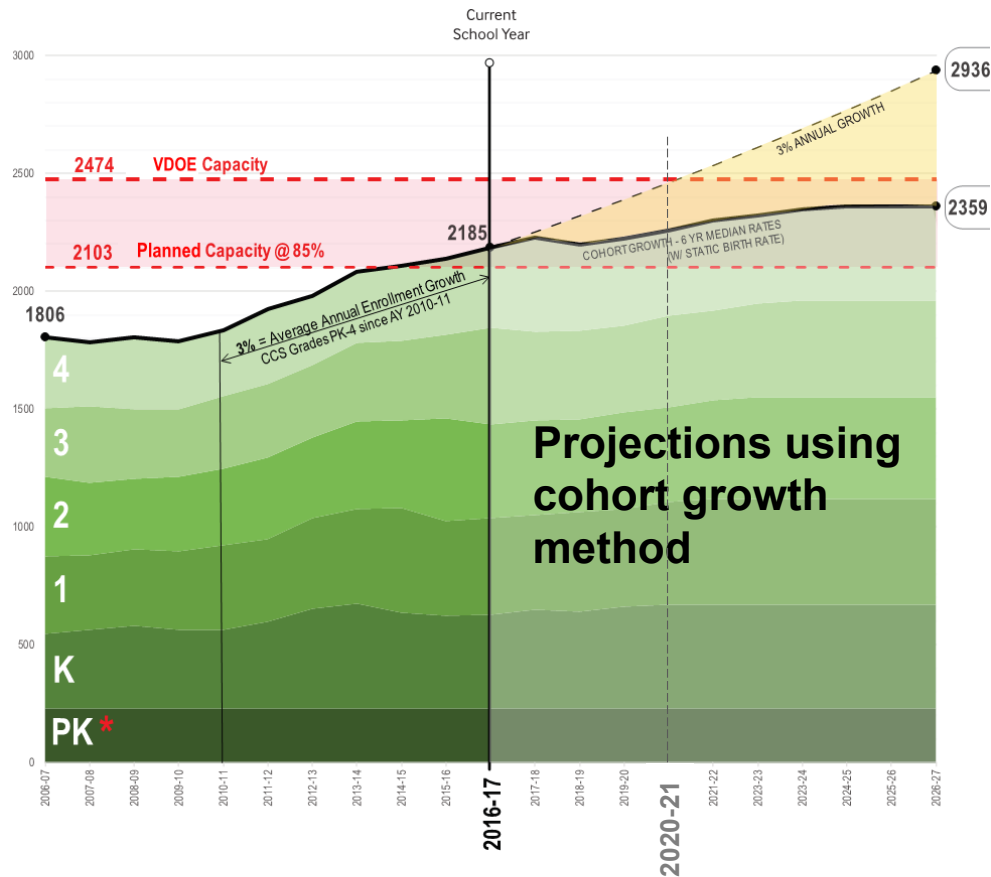
Study identified how many pupils fit at each CCS facility, and where potential capacity building projects could be accommodated

Now



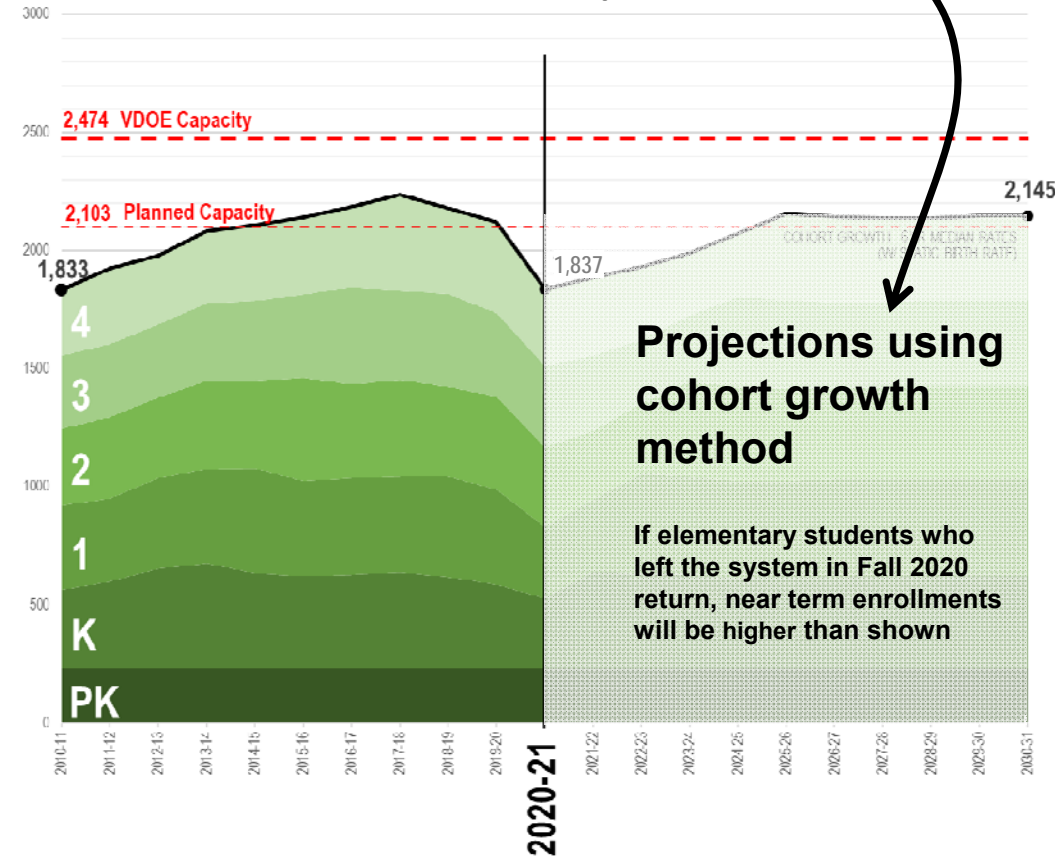
With the growth trend cooling around the time the Capacity Study was completed, CCS adopted a “**Watch and Wait**” approach.

In 2016...



Now.

More uncertain than ever; models one potential scenario



Here's what that looks like in enrollment numbers

VADO

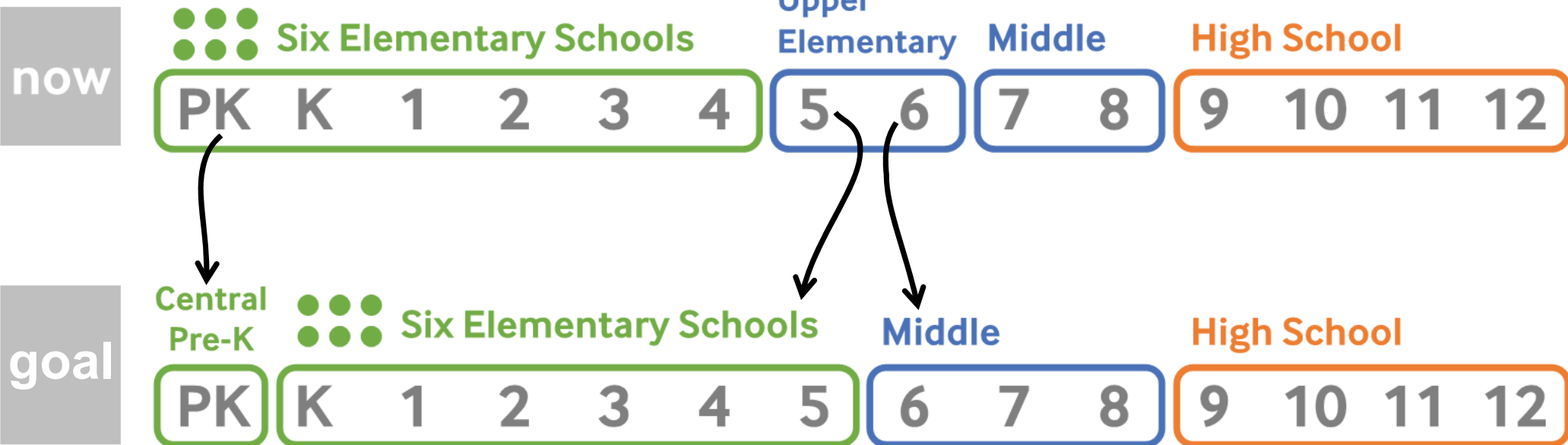
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Reconfiguration & **Elementary** Capacity

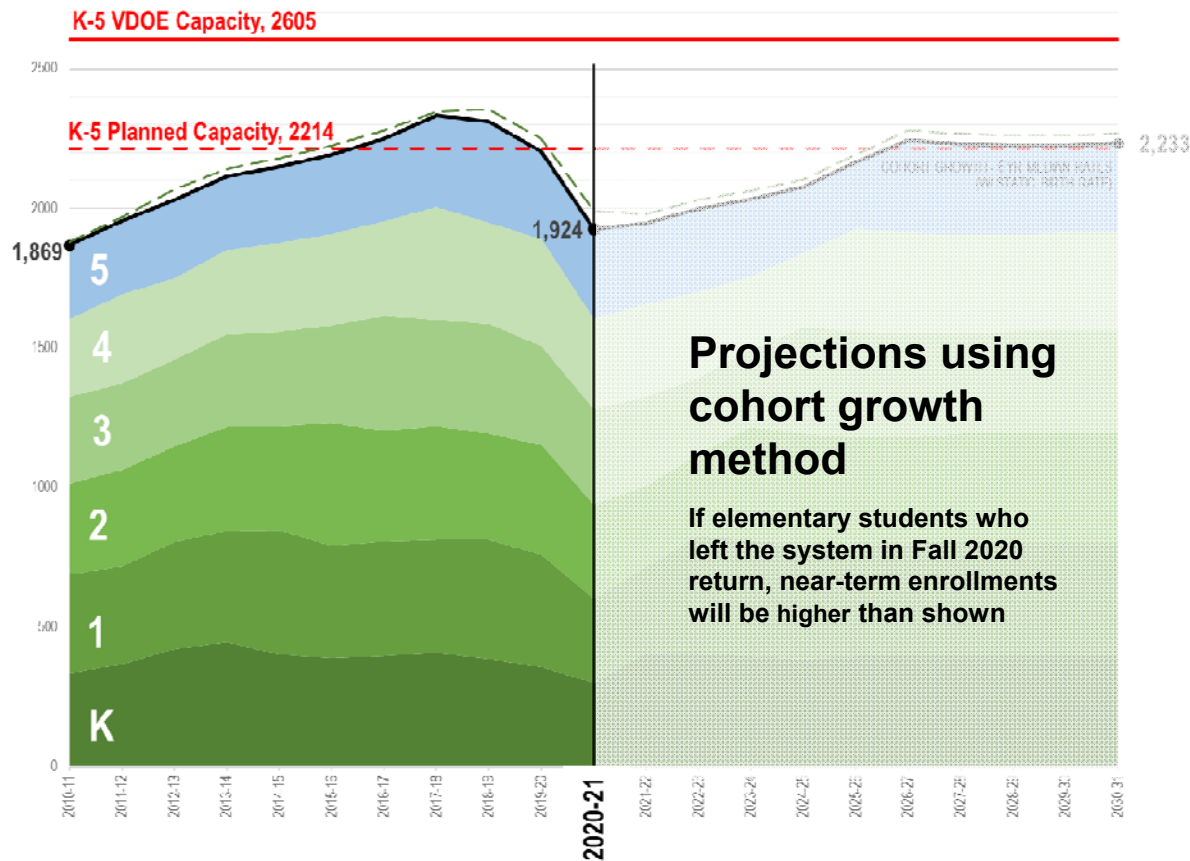
Now: Reconfiguration & Elementary Capacity

Does the Pre-K / 5th grade swap fit?



Yes, for now.

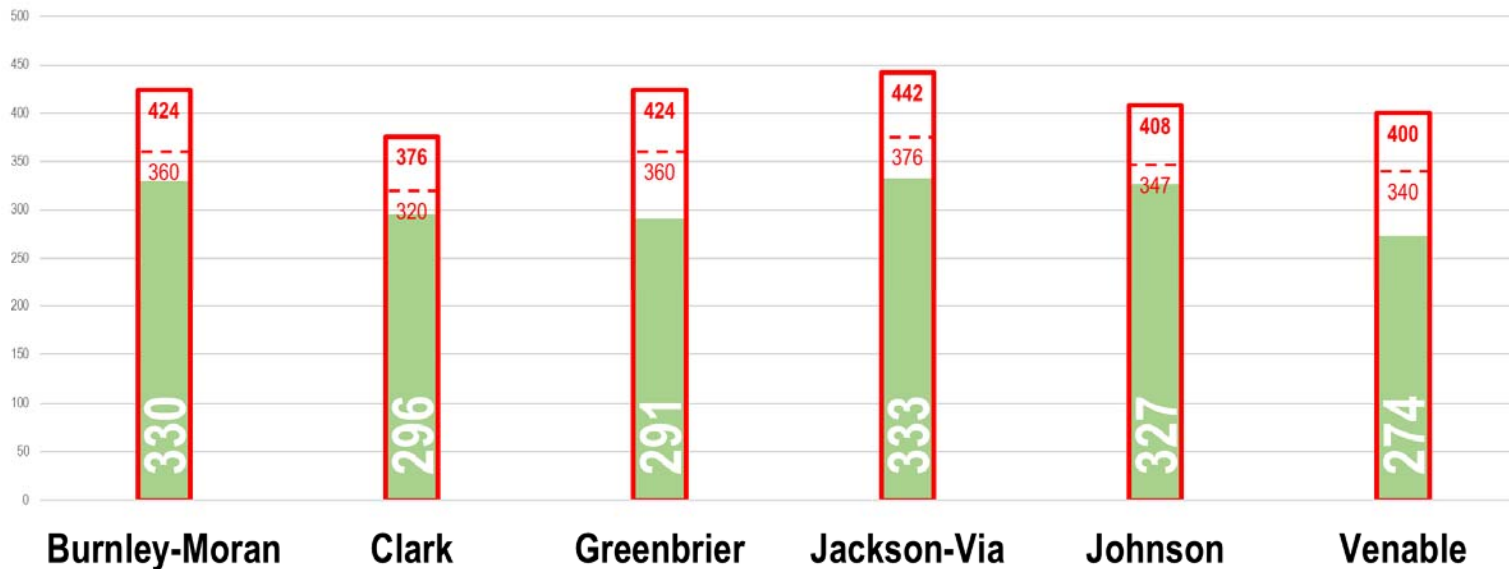
If Pre-K & 5th swapped today...



CCS K-5th
Systemwide Capacity +
Enrollments

What about the individual school level?

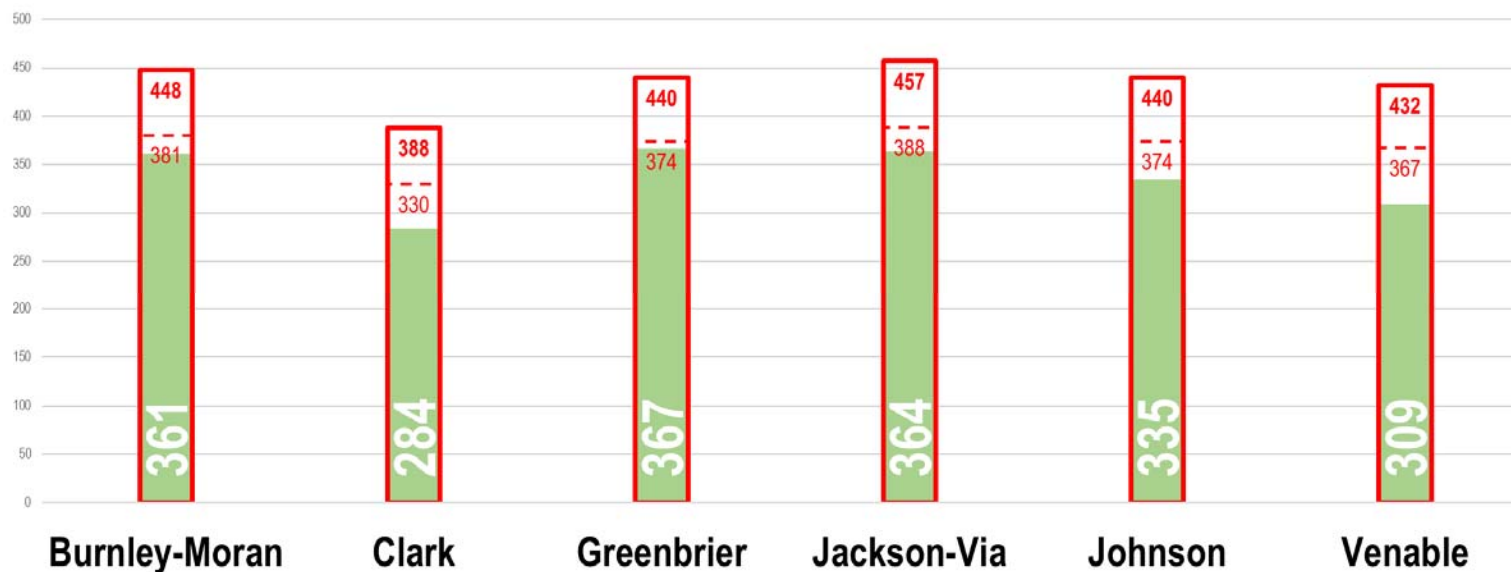
Today's Enrollments (virtual & in-person)...



CCS PK-4th
School
Capacity +
Enrollments

Yes, for now.

If Pre-K & 5th swapped today...



CCS K-5th School Capacity + Enrollments

- School capacities grow when classrooms formerly used for early childhood programs (at 1:16) become elementary classrooms
- Uses a hypothetical 5th grade class size: "If all last year's 4th graders had stayed..."

What about future elementary enrollment growth?

CCS has already done its homework & identified growth options during the 2016-17 Capacity Study.

2 options selected by the Charlottesville School Board for public consideration.

A

●●●● Six Elementary Schools
(Three small + three bigger)

K 1 2 3 4 5

- Johnson, Jackson-Via, & Burnley-Moran campuses were identified as feasible sites for additions
- Scalable according to need; can be implemented at once or one at a time.

B

●●●●● Seven Elementary Schools

K 1 2 3 4 5

- Space for a future facility could be master planned into the Walker site

Both incremental and large options were identified

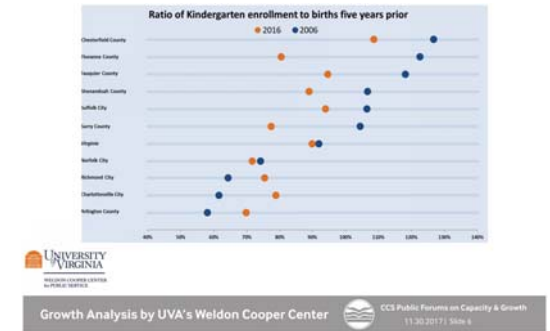
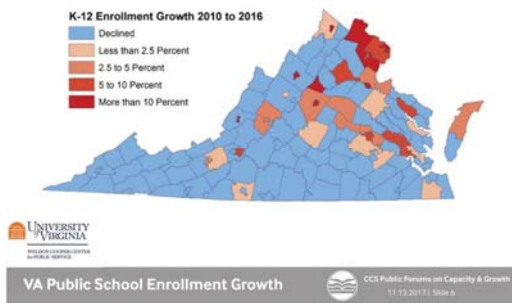
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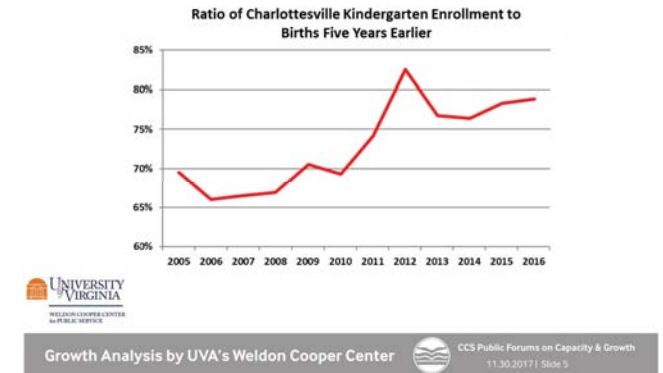
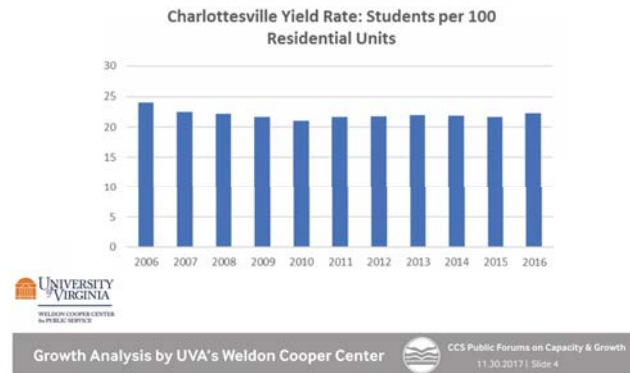
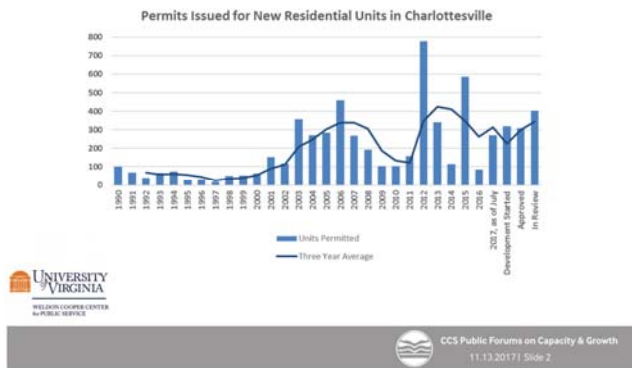
216

**How can we be ready to act
on elementary capacity at the
right moment?**

The 2016-17 CCS
Capacity Study identified
metrics that can be used
to track significant
factors that fueled the
CCS enrollment growth.



Graphs produced by UVA Weldon Cooper Center
Demographics Research Group as part of the 2016-17 CCS
Capacity Study.



Forecasting is never perfect – but we've got some good tools

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Potential approach:

Formalize the “Watch and Wait” Plan, and issue it as part of the Reconfiguration Process

The Impact of Housing
Development on Student Enrollment
in the City of Charlottesville

Prepared for Charlottesville City Public Schools | Charlottesville, VA
July 12, 2017



- **Identify metrics that will be monitored together annually**
 - CCS Enrollment
 - Geocoded Annual Charlottesville Birth Counts
 - Residential Unit Construction & Significant Renovation (enables population growth through in-migration) + Building Permit “pipeline”
 - “Student Yield Rates” by residential unit type by school district
- ← • **Commit to an annual review of these metrics by City and Schools staff, to connect the dots between planning & zoning, residential development, City population, and enrollments**
- **Identify action thresholds, and a process for next steps to initiate a capacity project once the action threshold is reached.**

Potential step, for internal clarity and external communication

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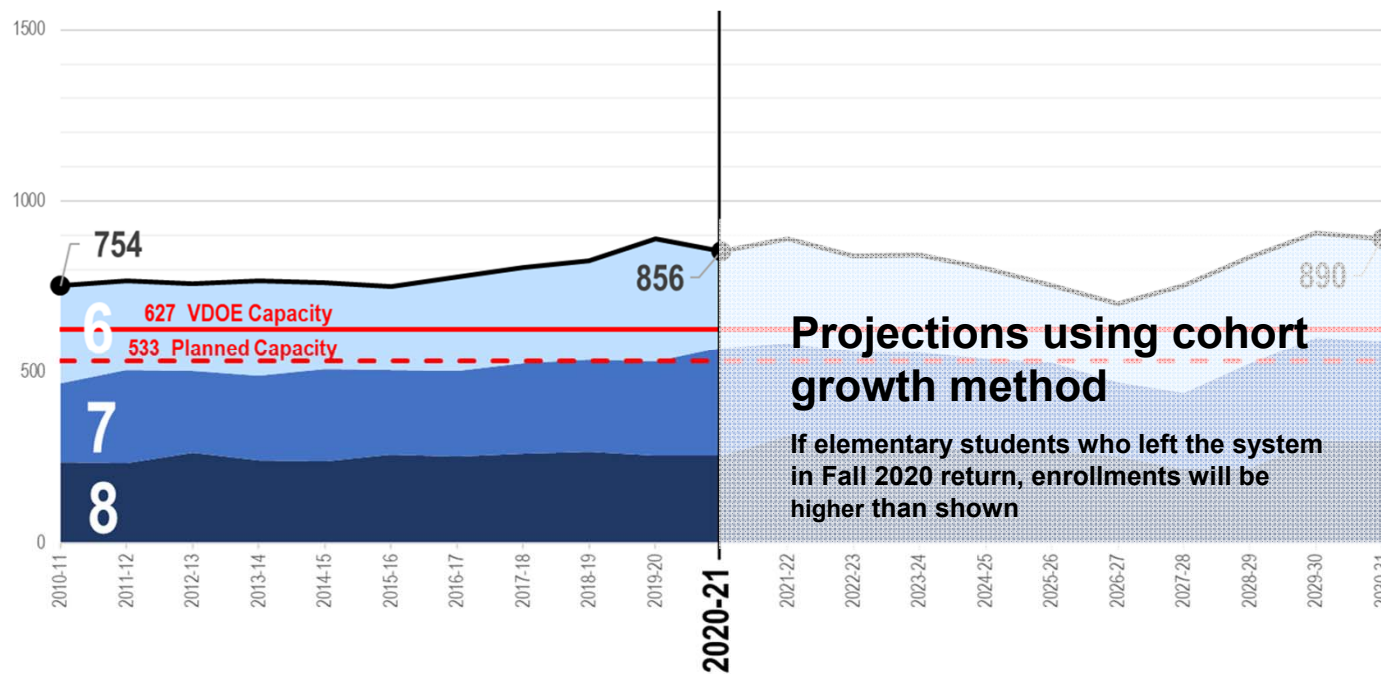
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Reconfiguration & 6-8 Middle School Capacity

Existing Buford Campus Capacity

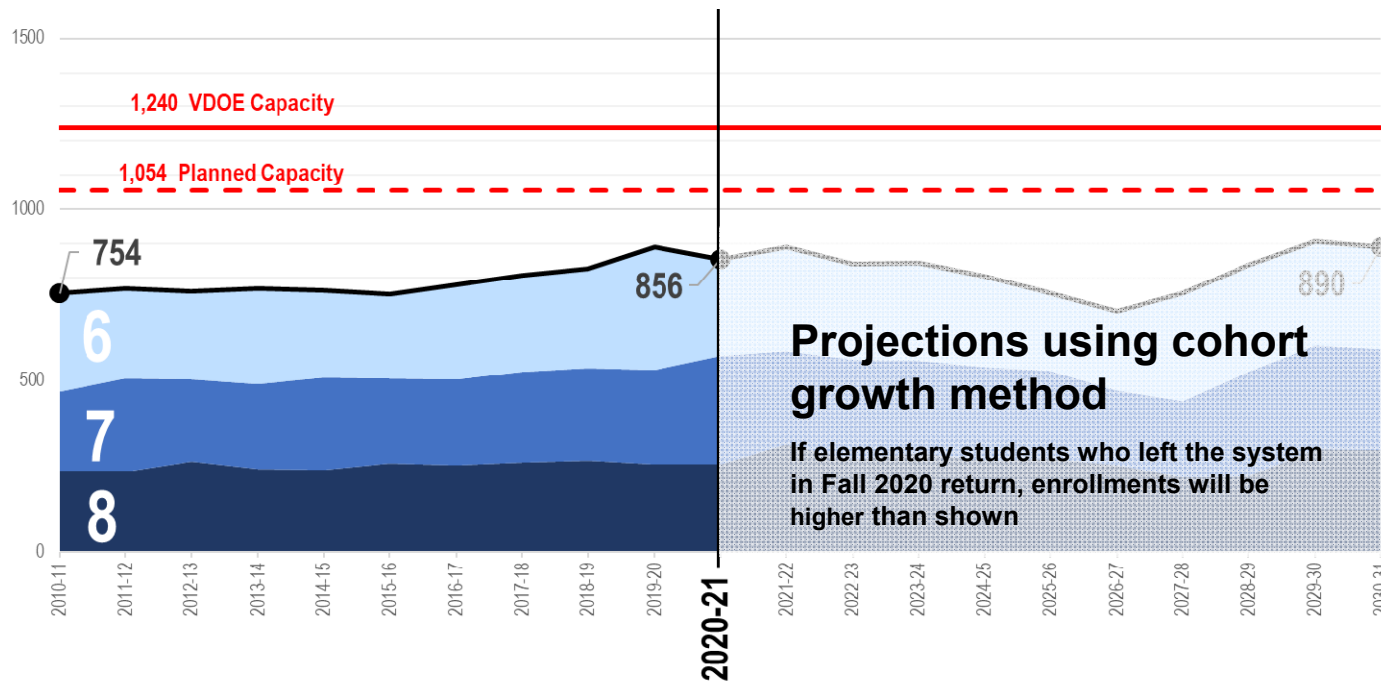
533 Pupil Planned Capacity (85% Utilization)



Proposed Buford Campus Capacity

1240 VDOE Capacity / 1054 Planned Capacity (85% Utilization)

(Option shown at 2017 Public Forums)



- Proposed Planned Capacity allows for 23% growth from today's 6-8 enrollments
- When it was proposed in 2017, the proposed Functional Capacity represented 35% growth (6-8 CCS enrollment was 779)

Here's the 1,054 Planned Capacity w/ today's enrollments

CCS Gr 6-8 Enrollment + Growth since 2005



+2.66%

5 year average growth rate

8 years to reach proposed functional capacity at this rate

+1.32%

10 year average growth rate

16 years to reach proposed functional capacity at this rate

-0.49%

15 year average growth rate

Never reach proposed functional capacity at this rate

Some historical data for perspective

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When planning capacity for a 6-8 CCS facility, it's important to understand historic participation trends across the grade levels.

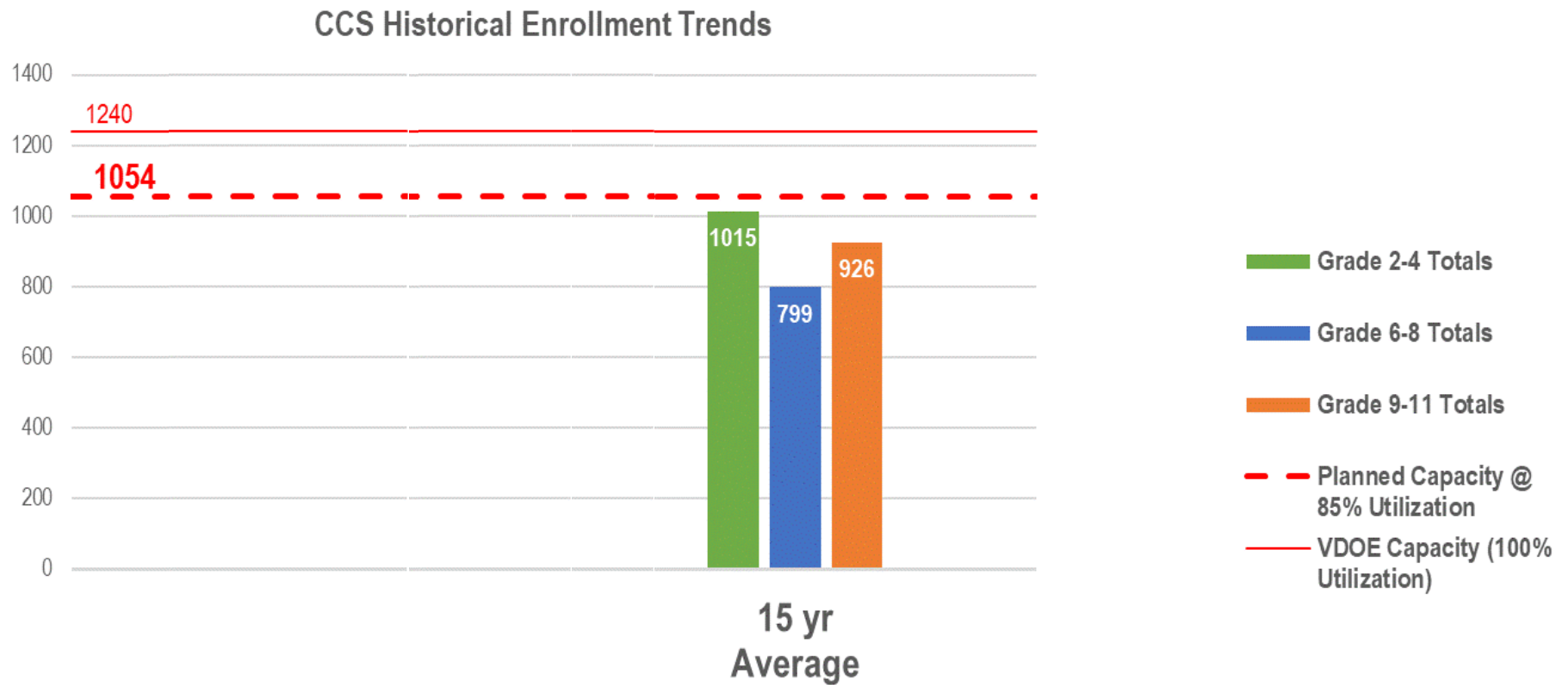
CCS Historic Cohort growth trends

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
(6) Elementary Schools	1	107.3%	104.8%	104.1%	95.0%	97.8%	98.6%	104.1%	102.3%	104.4%	103.6%	84.5%
	2	97.3%	96.9%	98.0%	96.9%	95.3%	98.4%	96.1%	99.5%	93.6%	92.5%	84.5%
	3	98.1%	95.4%	89.8%	96.5%	89.8%	93.7%	95.8%	95.0%	96.8%	93.4%	87.2%
	4	97.5%	102.9%	93.9%	97.7%	95.2%	99.1%	95.0%	99.3%	95.2%	97.2%	91.3%
Walker	5	92.1%	95.3%	88.1%	90.1%	90.4%	90.8%	89.7%	96.2%	89.7%	86.9%	82.9%
	6	99.3%	98.9%	97.3%	99.6%	97.0%	92.3%	96.2%	95.6%	89.0%	98.6%	90.2%
Buford	7	88.5%	95.1%	91.3%	96.1%	96.4%	97.3%	100.0%	96.4%	95.4%	94.5%	88.2%
	8	97.1%	100.9%	96.3%	100.4%	96.8%	95.9%	101.6%	103.2%	100.4%	94.8%	92.9%
CHS	9	127.1%	133.3%	136.6%	135.0%	128.9%	137.2%	135.5%	135.7%	133.8%	127.4%	120.5%
	10	90.2%	97.5%	95.9%	93.4%	96.6%	90.1%	90.2%	86.6%	88.9%	92.8%	93.1%
	11	83.5%	90.0%	89.1%	88.4%	81.1%	84.5%	89.7%	88.2%	92.8%	93.8%	86.2%
	12	102.3%	109.1%	103.5%	102.5%	106.0%	110.0%	100.7%	105.2%	100.4%	100.7%	91.2%

Cohort sizes consistently shrink in the transition out of elementary into 5th grade at Walker

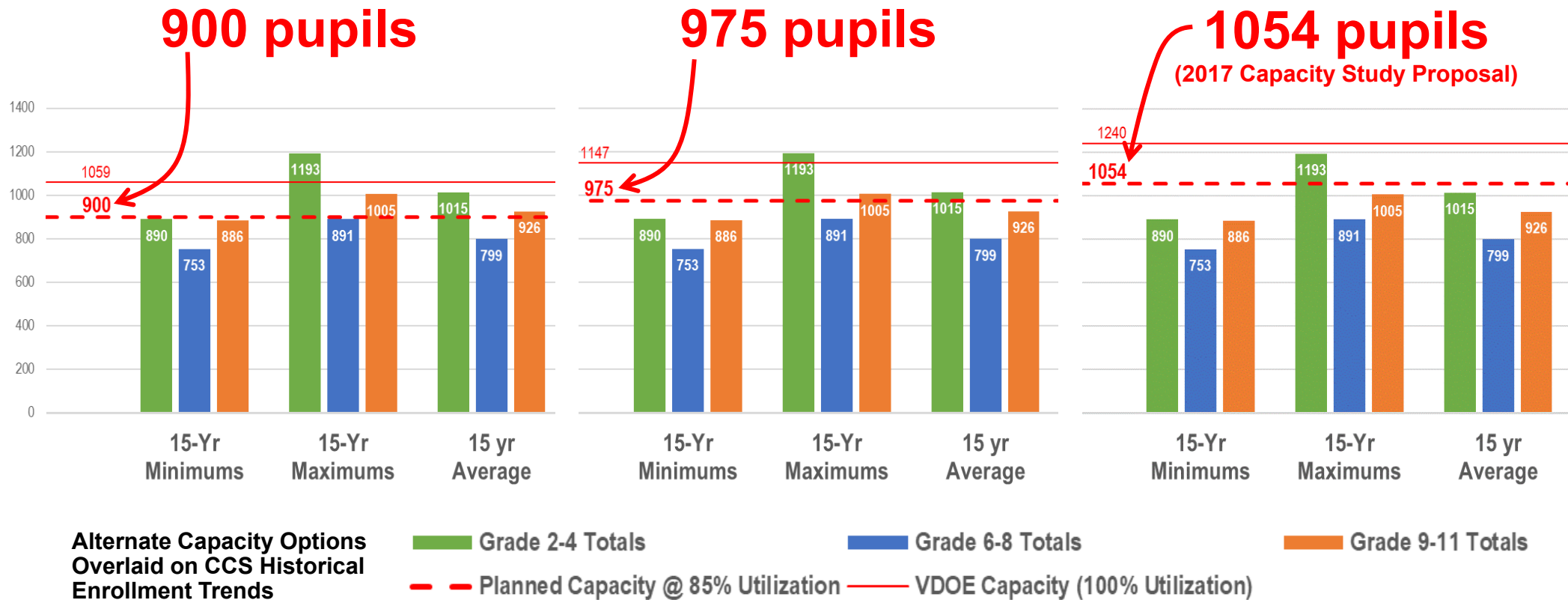
Cohort sizes consistently grow when they transition to CHS in 9th grade

What if grade 6-8 participation increases?



3-year cohorts from ES + HS used as a test – Max, Min, Avg

6-8 Middle School Alternate Capacity Options



Alternate capacities overlaid on the same enrollment data

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Early Childhood Center Capacity

Capacity & Enrollment...

A Little Different at the Early Childhood Level

Enrollment

- Eligibility is not citywide – it's based on qualifying factors to prioritize young children with the highest need.
- Enrollments are based on available space & waitlists are sometimes used.

Capacity

- There can be big swings in the capacity of a facility based on who is served

1 : 12 12 children per 3-year-old Classroom

1 : 16 16 children per 4-year-old Classroom

1 : 8 8 children per Self-Contained Special Ed Classroom
(CCS goal is inclusion, has been reducing use of these "SCSE" classrooms)



Enrollment Trends

Pre-K enrollment has varied between 200-250 students. 209 average.

The program has typically operated **18-20 classrooms**.

2019-20 enrollment: **212**

- PK students with disabilities: 38
- **18 classrooms**

2020-21 enrollment: **264 - 279**

- PK students w/ disabilities: 17-32
- **20 classrooms**



CCS Early Childhood Center: How Many Classrooms?

Must Do

Maintain the existing scope of services

20 classrooms

13 : 1 avg = 260; @ 90% utilization = **234**

15 : 1 avg = 300; @ 90% utilization = **270**

Should Do

Build in some growth, anticipating increased demand

26 classrooms

13 : 1 avg = 338; @ 90% utilization = **304**

15 : 1 avg = 390; @ 90% utilization = **351**

Would Do

Increase the 3-year-old program size to match the 4-year old program, providing a two-year sequence for all enrollees (improves outcomes)

32 classrooms

13 : 1 avg = 416; @ 90% utilization = **374**

15 : 1 avg = 480; @ 90% utilization = **432**

Now

Reconfiguration Project Capacities

- How many students to we **want to** build for now?
- How many **can** we build for now, given constraints?

Next

Masterplan Capacities

- What kind of growth should we plan for when we design during Reconfiguration?
- Does some of what we want to do now get moved to a “next phase”?

Questions & Discussion

- 1 Overview of Project
- 2 Existing versus Ideal Conditions
- 3 Engagement & Outreach
- 4 Sequencing
- 5 Capacity**
- 6 Potential scopes of construction



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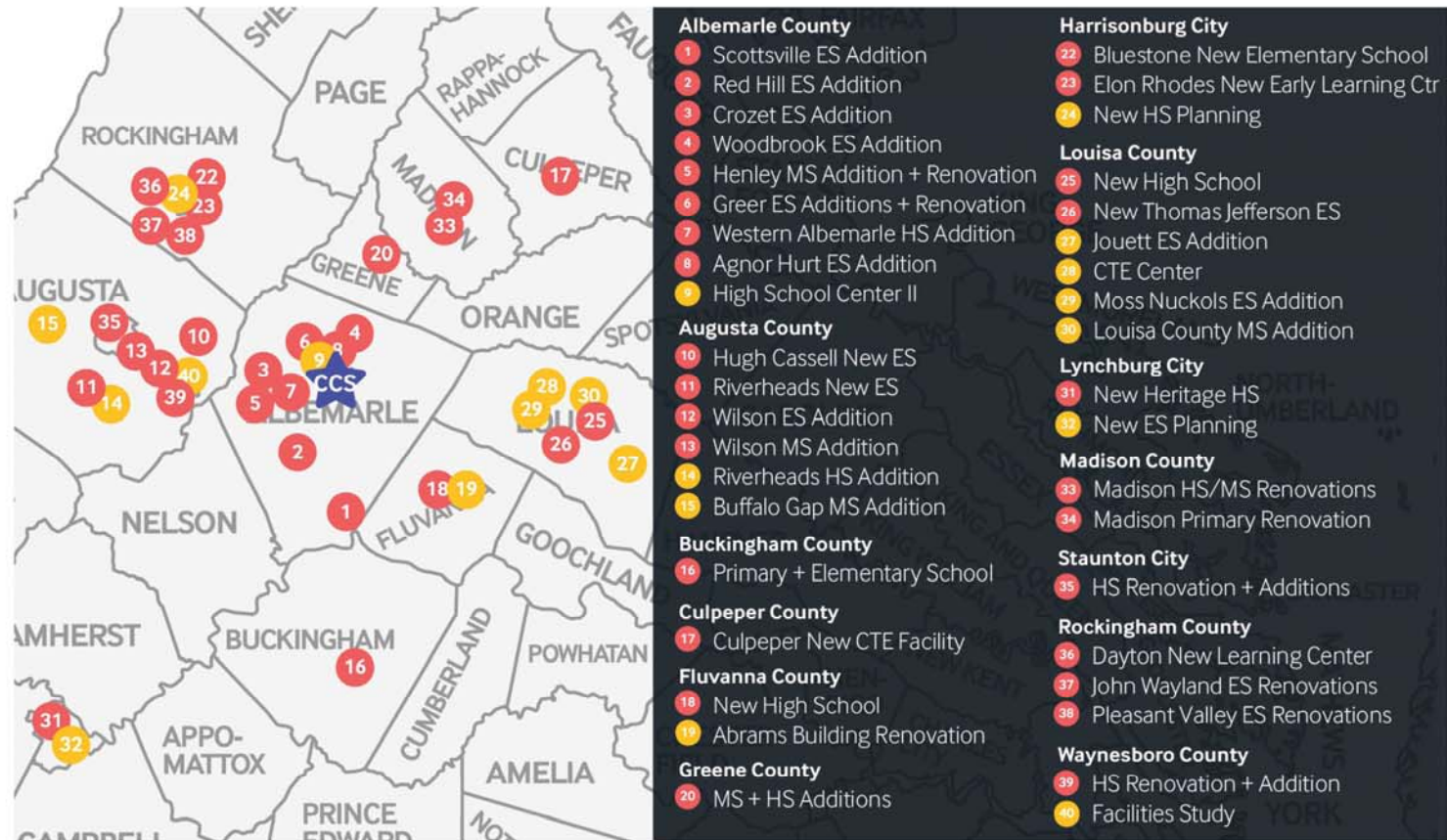
6 Potential Scopes of Construction

Here's six different ways and their costs.



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Recent and planned
public school
construction projects
in neighboring
districts represent
over \$700 M
of investment
in public school
facilities since 2011.



● Projects in Planning ● Projects Completed or Under Construction

Proposed Capital Improvement Program FY 2022-2026

	<u>Proposed FY22</u>	<u>Projected FY23</u>	<u>Projected FY24</u>	<u>Projected FY25</u>	<u>Projected FY26</u>	<u>5 Year Total</u>
Revenues						
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Contribution from Albemarle County (CATEC)	90,000	62,500	0	0	0	152,500
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PEG Fee Revenue	40,000	40,000	40,000	40,000	40,000	200,000
VDOT - Rev Share East High Signalization	500,000	0	0	0	0	500,000
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TOTAL AVAILABLE REVENUES	\$27,866,913	\$26,353,931	\$20,155,285	\$66,783,891	\$18,783,891	\$159,943,911

Expenditures

BONDABLE PROJECTS

EDUCATION	<u>Proposed FY22</u>	<u>Projected FY23</u>	<u>Projected FY24</u>	<u>Projected FY25</u>	<u>Projected FY26</u>	<u>5 Year Total</u>
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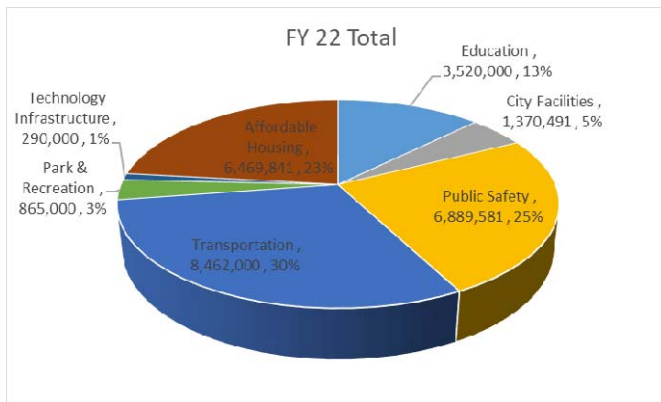
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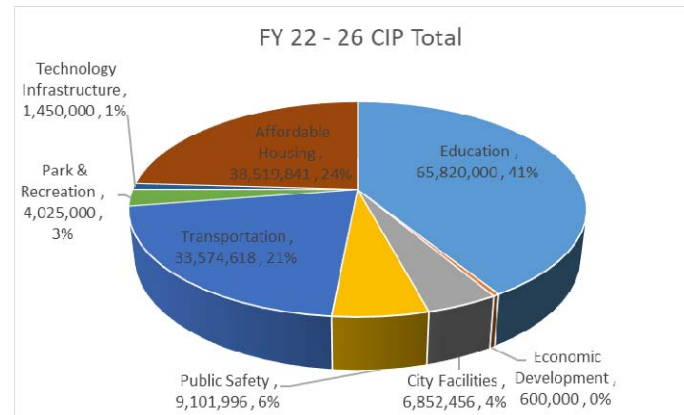
FY 2022 Capital Improvement Program



Education: 13%
\$3,520,000

Large Cap Maint: \$1.96M
Elem Modernization: \$1.25M

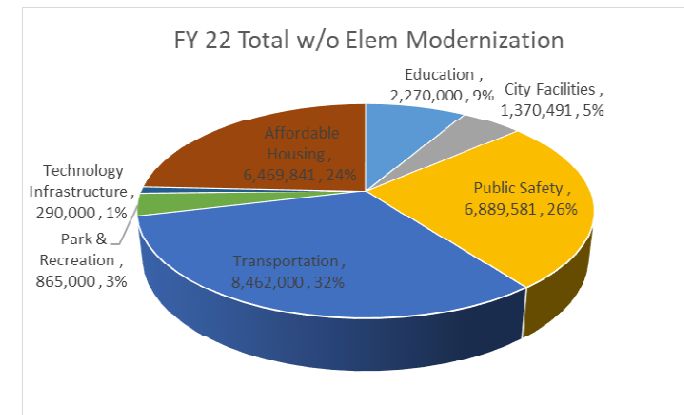
FY 2022-2026 Capital Improvement Program



Education: 41%
\$68,820,000

Large Cap Maint: \$11.07M
Elem Modernization: \$3.75M
Reconfiguration: \$50.00M

FY 2022 Capital Improvement Program w/o Elementary Modernization



Education: 9%
\$2,270,000

Large Cap Maint: \$1.96M

2016 total to schools: \$1.52M
2017 total to schools: \$1.72M

Central PreK

ESTIMATED COST: \$ 15M - \$ 20M | 45,600 SF
FUNCTIONAL CAPACITY: 258 | MAXIMUM CAPACITY: 304

Considerations:

- Single project helps capacity at all elementary schools, adding 340 seats of functional capacity to grades K-4: 111 additional Functional Capacity (due to K-4 class sizes being larger than PreK class sizes) + 230 PK students relocated.
- New PreK facility and grounds would be designed specifically for early childhood needs and development
- Opportunity to provide wraparound services and aftercare

6-8 Campus

ESTIMATED COST: \$45M - \$60M | 187,000 Total Building SF*
FUNCTIONAL CAPACITY: 1,054 | MAXIMUM CAPACITY: 1,240

Considerations:

- Eliminates a school transition for students, with 5th grade moved to the elementary schools
- Typical middle school grade configuration
- If at Buford, then provides options for re-purposing Walker (possible Central PreK, and/or consolidated CCS Admin)

* Project size and cost range shown are for example project at Buford, and include renovation of existing school

Central PreK

ESTIMATED COST: \$ 15M - \$ 20M | 45,600 SF
FUNCTIONAL CAPACITY: 258 | MAXIMUM CAPACITY: 304

6-8 Campus

ESTIMATED COST: \$45M - \$60M | 187,000 Total Building SF*
FUNCTIONAL CAPACITY: 1,054 | MAXIMUM CAPACITY: 1,240

2020 construction dollars: **\$60.0M - \$80.0M**

Start construction 2023 (escalate to 2024): **\$68.6M - \$91.8M**

Start construction 2024 (escalate to 2025): **\$71.3M - \$95.0M**

Planning assumptions in each option

Cost of new construction:	\$320 / gsf
Cost of renovation at Buford:	\$200 / gsf
Cost of renovation at Walker:	\$225 / gsf
Cost of demolition:	\$13.50 / gsf
Soft costs:	27.5% * (doesn't include relocatables)
Annual inflation:	3.5%
Construction start:	Summer 2023
Escalate Buford to:	Summer 2024
Escalate Walker to:	Summer 2025 / 2026*
Utilization rate:	85% * (90% at PK)
Square foot per student:	150 (planned capacity)
Students per teaching station:	25:1 MS / 14:1 PK



Math exercise, not a design exercise

What changes in each option

MS planned capacity **900 – 1050**

MS VDOE capacity **1059 – 1235**

Total number of PK classrooms **18 – 20**

Total project costs: **\$48.5M - \$98.6M**
(but all start construction 2023)

How much you keep as is?

How much you renovate?

How much you build new?



Math exercise, not a design exercise

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05.21.2021
School Board
Retreat

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Not for today's discussion, but...

MS planned capacity **900 – 1050**

MS VDOE capacity **1059 – 1235**

Total number of PK classrooms **18 – 20**

...You can also change capacity by changing these factors:

Utilization rate: **85% *** (90% at PK)

Square foot per student: **150** (planned capacity)

Students per teaching station: **25:1 MS / 14:1 PK**



Potential Scopes



VMDO

Buford

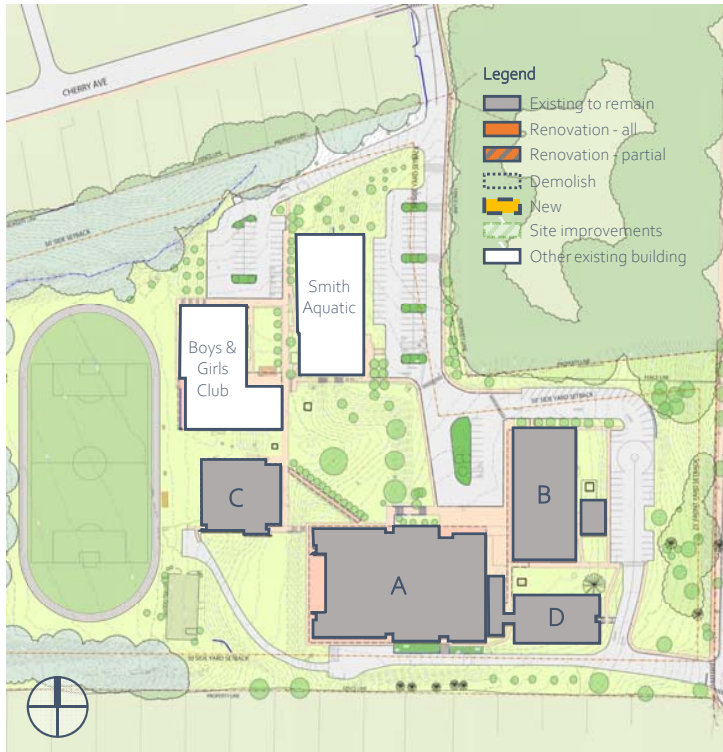
Planned capacity
533

VDOE capacity
627

2019-20
enrollment
531

Area
101,856 total

EUI
50 kBTU/sf/yr



Walker

Planned capacity
574

VDOE capacity
675

2019-20
enrollment
673

Area
91,400 total

EUI
51 kBTU/sf/yr



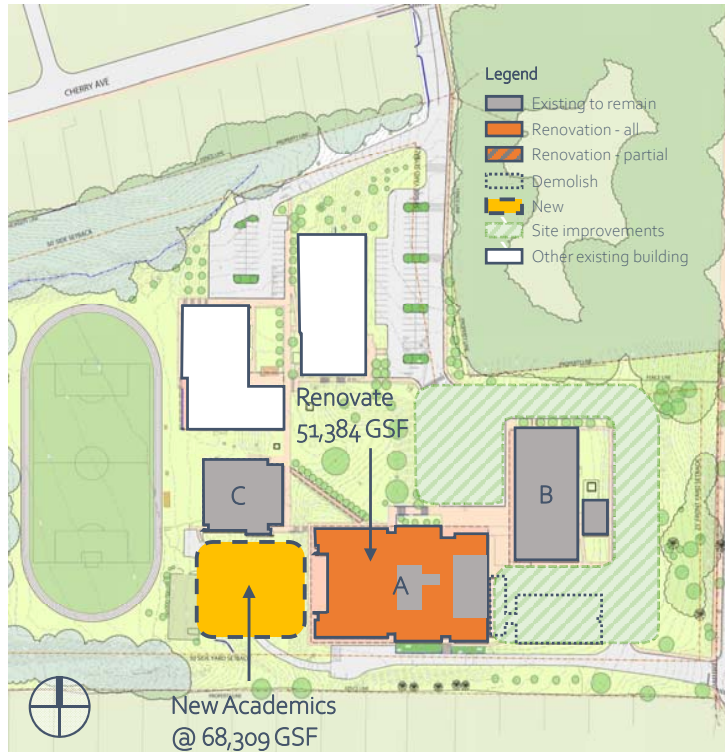
Buford

Planned capacity
900

VDOE capacity
1,059

Area
39,157 as-is
51,384 reno
68,309 new
158,850 total

Cost
\$48.5m



Big Idea

- Build just enough classrooms to accommodate 6, 7, 8 at current sizes
- Renovate all of "A" except for new labs
- More parking by demolishing "D"

Walker

Cost
\$0



Big Idea

- Leave everything as-is.
- Keep 5th grade by itself
or
- Move Pre-K into spaces not designed for them
- Remaining space for Central Admin and/or wrap-around services

Option A.1: **\$48.5m** (\$50.2m if Buford starts in 2024)

VMDO

05.21.2021
School Board
Retreat

250

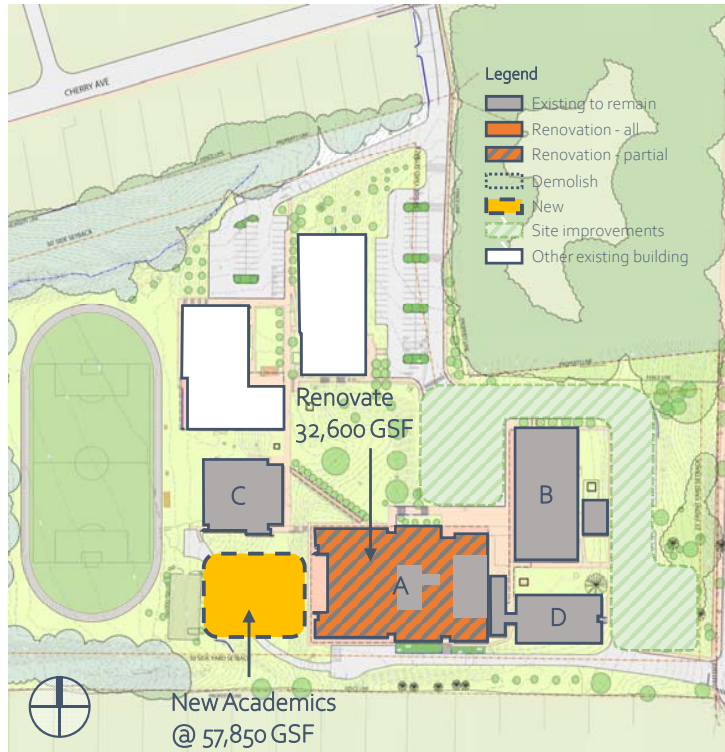
Buford

Planned capacity
900

VDOE capacity
1,059

Area
68,400 as-is
32,600 reno
57,850 new
158,850 total

Cost
\$37.5m



Big Idea

- Build just enough classrooms to accommodate 6, 7, 8 at current sizes
- Renovate upper level of "A" only, except for new labs
- Parking stays as-is.

Walker

Planned capacity
280

VDOE capacity
311

Area
50,400 as-is
41,000 reno
0 new
91,400 total

Cost
\$14.7m



Big Idea

- Provide 18 Pre-K classrooms
- Renovate upper level of "A" only
- Remaining space for Central Admin and/or wrap-around services
- Walker starts 2 years after Buford starts

Option A.2: **\$52.2m** (\$54.1m if Buford starts in 2024 & Walker in 2026)

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05.21.2021
School Board
Retreat

251

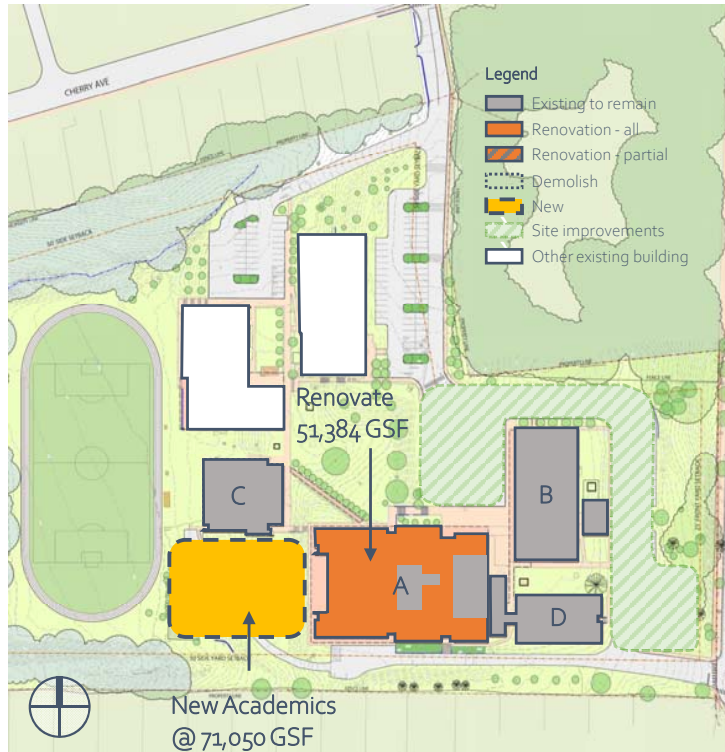
Buford

Planned capacity
975

VDOE capacity
1,147

Area
49,616 as-is
51,384 reno
71,050 new
158,850 total

Cost
\$48.8m



Big Idea

- Build more classrooms to accommodate 6, 7, 8 with some growth
- Renovate all of "A", except for new labs
- Parking stays as-is.

Walker

Planned capacity
280

VDOE capacity
311

Area
31,400 as-is
60,000 reno
0 new
91,400 total

Cost
\$21.2m



Big Idea

- Provide 20 Pre-K classrooms
- Renovate all of "A"
- Remaining space for Central Admin and/or wrap-around services
- Walker starts 2 years after Buford starts

Option B.1: **\$70.0m** (\$72.4m if Buford starts in 2024 & Walker in 2026)

VMDO

05.21.2021
School Board
Retreat

252

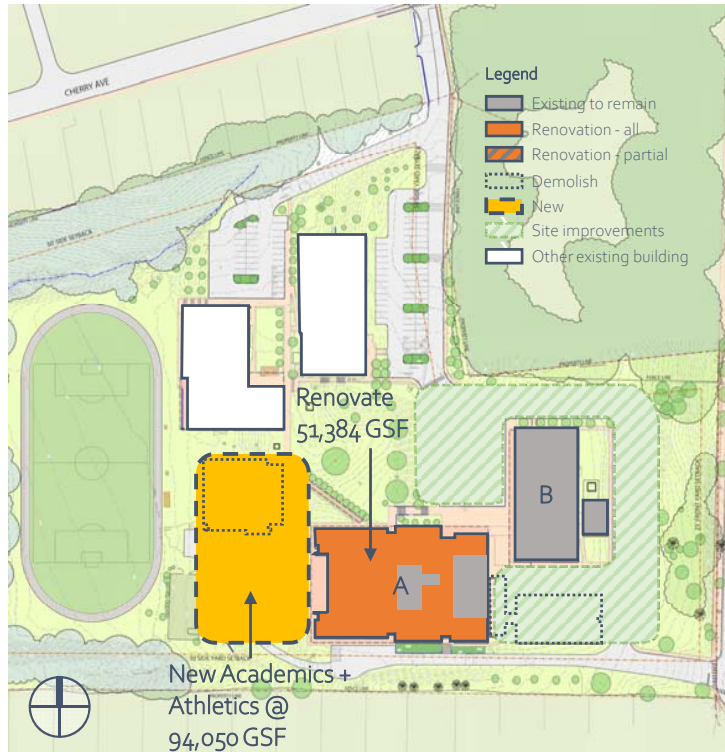
Buford

Planned capacity
975

VDOE capacity
1,147

Area
24,916 as-is
51,384 reno
95,750 new
172,050 total

Cost
\$61.8m



Big Idea

- Build more classrooms to accommodate 6, 7, 8 with some growth
- Renovate all of "A", except for new labs
- More parking by demolishing "D"
- New Gym / multi-purpose space

Walker

Planned capacity
280

VDOE capacity
311

Area
50,400 as-is
41,000 reno
0 new
91,400 total

Cost
\$14.7m



Big Idea

- Provide 18 Pre-K classrooms
- Renovate upper level of "A" only
- Remaining space for Central Admin and/or wrap-around services
- Walker starts 2 years after Buford starts

Option B.2: **\$76.6m** (\$79.3m if Buford starts in 2024 & Walker in 2026)

VMDO

05.21.2021
School Board
Retreat

253

Buford

Planned capacity
975

VDOE capacity
1,147

Area
49,616 as-is
51,384 reno
71,050 new
158,850 total

Cost
\$48.8m



Big Idea

- Build more classrooms to accommodate 6, 7, 8 with some growth
- Renovate all of "A", except for new labs
- Parking stays as-is.

Walker

Planned capacity
280

VDOE capacity
311

Area
78,400 as-is
13,000 reno
46,000 new
137,400 total

Cost
\$28.5m



Big Idea

- 20 classrooms in new Pre-K addition
- Renovate Gym as Pre-K movement space
- Remaining space for Central Admin and/or wrap-around services
- Walker starts simultaneously with Buford
- Completed project provides swing space in "A".

Option B.3 **\$77.3m** (\$80.0m if both projects start in 2024)

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05.21.2021
School Board
Retreat

254

Buford

Planned capacity
1,050

VDOE capacity
1,235

Area
0 as-is
51,384 reno
125,250 new
185,250 total

Cost
\$74.4m



Big Idea

- Build more classrooms to accommodate 6, 7, 8 with desired capacity for growth
- Renovate all of "A", except for new labs
- Major expansion of Parking.
- Every square foot is "new".

Walker

Planned capacity
280

VDOE capacity
311

Area
91,400 as-is
0 reno
49,000 new
140,400 total

Cost
\$24.2m



Big Idea

- 20 classrooms in new Pre-K
- Remaining space for Central Admin and/or wrap-around services
- Walker starts simultaneously with Buford
- Completed project provides swing space in "A".
- Loss of Crow (and operating costs)

Option C.1 **\$98.6m** (\$102.1m if both projects start in 2024)

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05.21.2021
School Board
Retreat

255

Option A.1 - \$48.5m

Buford: 900 students
Walker: 5th Grade remains, or sub-standard Pre-K



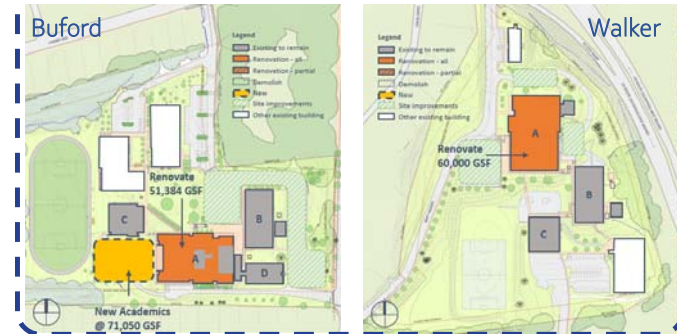
Option A.2 - \$52.2m

Buford: 900 students
Walker: 18 Pre-K classrooms



Option B.1 - \$70.0m

Buford: 975 students
Walker: 20 Pre-K classrooms



Option B.2 - \$76.6m

Buford: 975 students
Walker: 18 Pre-K classrooms



Option B.3 - \$77.3m

Buford: 975 students
Walker: 20 Pre-K classrooms



Option C.1 - \$98.6m

Buford: 1,050 students
Walker: 20 Pre-K classrooms



Cost Summary

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05.21.2021
School Board
Retreat

Questions & Discussion

- 1 Overview of Project
- 2 Existing versus Ideal Conditions
- 3 Engagement & Outreach
- 4 Sequencing
- 5 Capacity
- 6** Potential scopes of construction



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Dot Democracy



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Getting us from here to there

Complexity?

Building consensus

**Apprehension
?**

School Board / City Council / Community

Getting us to Yes.. together

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Questions & Discussion

- 1 Overview of Project
- 2 Existing versus Ideal Conditions
- 3 Engagement & Outreach
- 4 Sequencing
- 5 Capacity
- 6** Potential scopes of construction



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