



Crabtree, Rohrbaugh & Associates

ELIZABETHTOWN AREA SCHOOL DISTRICT

CRA FACILITY STUDY PRESENTATION
September 10, 2024

STUDY CONTENTS



Geographical &
Population Overview



Projected Future
Enrollment (10 Years)



Building Capacity vs
Student Enrollment



Facility Conditions
Assessment



Educational Program
Overview



Analysis of Options

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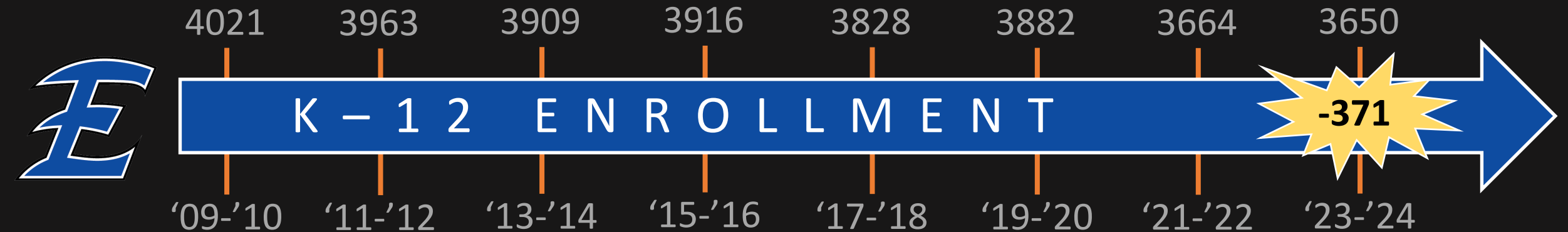
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ENROLLMENT - SUMMARY

- Over the last fifteen years the enrollment trend in Elizabethtown Area School District has been one of slow, but steady decline.
- Enrollment projections completed by Decision Insite, The Pennsylvania Department of Education, and Crabtree Rohrbaugh and Associates are all in agreement that enrollment will continue to decline.
- The decline in enrollment, even though there is growth in housing units, is likely due to a combination of factors including outmigration, an aging population, the affordability of homes, and housing that appeals to young singles and retirees.



BUILDING CAPACITY vs ENROLLMENT

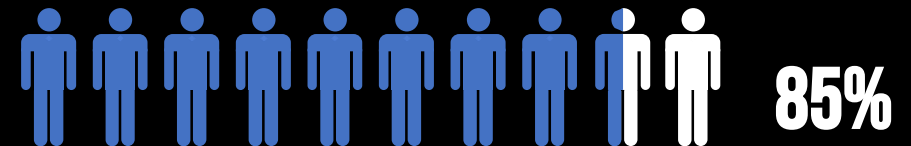
Are schools overcrowded or under-utilized?

1. Document current use of spaces to determine building capacity.
2. Identify undersized classrooms by PDE standards – 660 SF.
3. Determine recommended utilization rate for each building.
4. Compare Building Capacity to Projected Enrollment.

Max. Elementary
(PDE Guidelines)



Max. Secondary
(PDE Guidelines)



BUILDING CAPACITY vs ENROLLMENT



School	PDE Capacity	PDE Educational Capacity	Planned Capacity*
Bainbridge ES (K-2)	300	270	
East High St. ES (K-2)	650	585	
K-2 Total:	950	855	834
Bear Creek School (3-5)	975		
3-5 Total:	975	878	841
Middle School (6-8)	1409		
6-8 Total:	1409	1127	938
High School (9-12)	1554		
9-12 Total:	1554	1321	1286
District Total:	4888	4181	3899

- * Planned Capacity = 100% of the 5-year projected enrollment plus:
- Additional 10% at the elementary level
 - Additional 15% at the secondary level.

RECOMMENDATIONS – THROUGH 2028/29

K-2

- EASD should plan to **maintain** 834 seats to serve 758 kindergarten through second grade students. This is 88% of the current seating capacity and 3% under the targeted educational capacity of 90%.

3-5

- EASD should plan to **maintain** 841 seats to serve 765 third through fifth grade students. This is 79% of the current seating capacity and 11% under the educational capacity of 90%.

6-8

- EASD should plan to **maintain** 938 seats to serve 782 middle school students. This is 57% of the current seating capacity and 23% under the targeted educational capacity of 80%.

9-12

- EASD should plan to **maintain** 1286 seats to serve 1119 high school students. This is 79% of the current seating capacity and 6% under the targeted educational capacity of 85%.

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BAINBRIDGE ELEMENTARY SCHOOL

- 6 acre site; 44,285 sf building
- Originally constructed in 1934, with additions in 1958, 1963 and 1991.
- Additions and comprehensive renovations in 2018.



- Overall building is in very good condition.
- All finishes and building systems were replaced in 2018.
- Slate and asphalt shingle roof areas that were not replaced in 2018 should be replaced in the next 5 years.

EAST HIGH STREET ELEMENTARY SCHOOL

- 75,000 sf building
- Located on 89-acre MS/HS campus
- Originally constructed in 1963, with renovations and additions in 1963, 1991 and 2011.



- Plan for roof replacement within the next 5 years.
- HVAC system does not have dehumidification; cafeteria system is noisy with poor air flow.
- Domestic water heaters should be replaced in the next 5 years.
- Lighting fixtures should be replaced with LED for energy efficiency.
- Fire alarm – voice-based communication required per current code.
- Intercom system has been malfunctioning.
- Issues with pumping system for sanitary on lower level.

BEAR CREEK SCHOOL

- 35 acre site; 153,000 sf building
- Located adjacent to MS/HS campus
- Constructed in 2011.



- Plan for roof replacement and mechanical, electrical and plumbing system lifecycle upgrades within the next 10 years.
- Replace rooftop unit burners and compressors in the next 5 years.
- Replace domestic water heaters in the next 5 years.
- Fire alarm – voice-based communication required per current code.

MIDDLE/HIGH SCHOOL & DISTRICT OFFICE

- Located on an 89-acre campus
- 433,140 sf building
- Originally constructed in 1955, with renovations & additions in 1963, 1973, and 1997. Middle School Lower Level and gymnasiums renovated in 2021.



- Vehicular circulation is problematic during student drop-off and pick-up times.
- Exterior brick and concrete spalling and damage.
- Staining and deterioration of exterior insulated finish system (EIFS).
- Roof is in need of replacement. Roof insulation does not meet current energy codes.
- Exterior aluminum windows and storefront systems in need of replacement.
- Rusting exterior steel lintels should be sanded and repainted.
- Fire alarm system should be updated to meet current code.

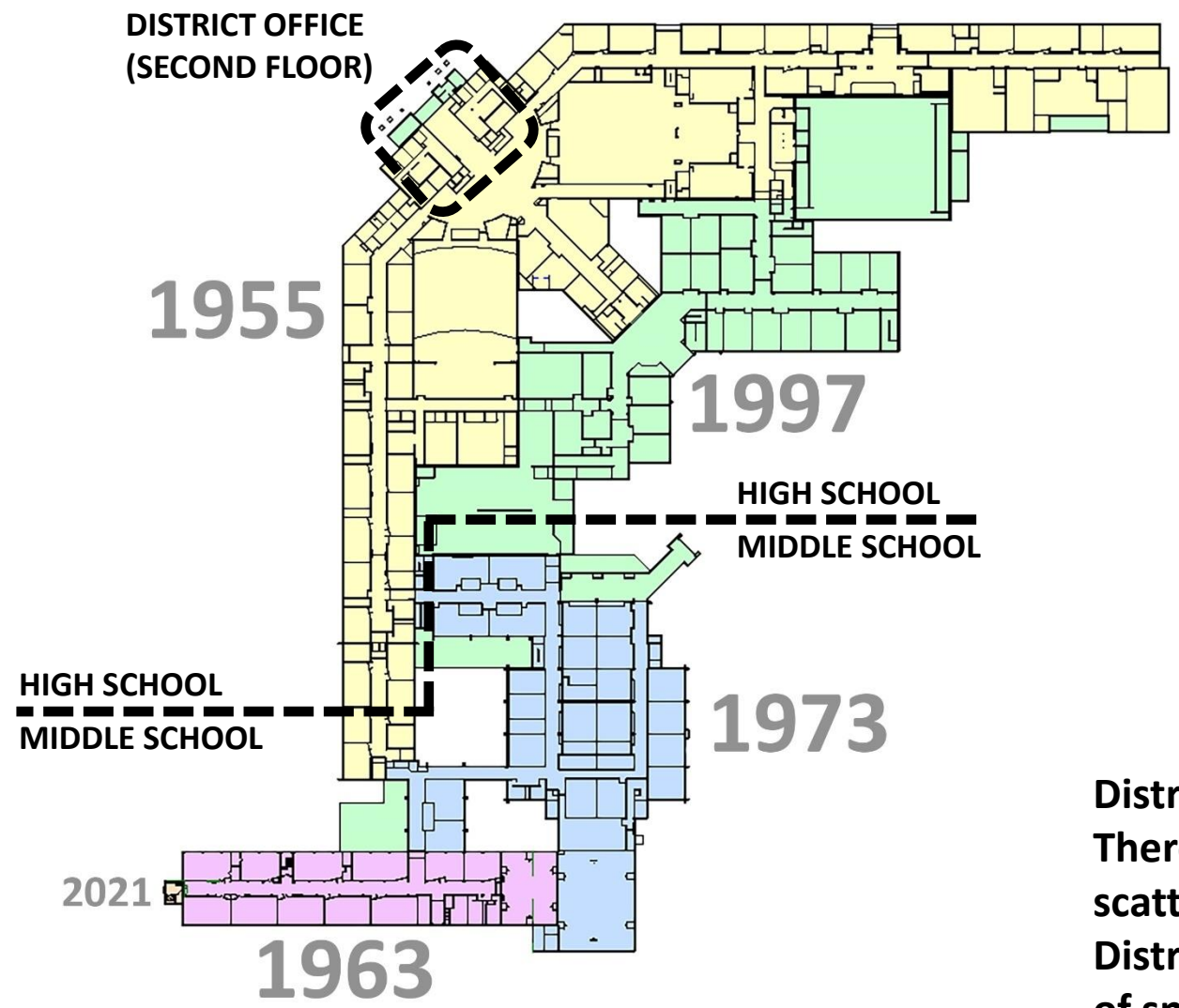
MIDDLE/HIGH SCHOOL & DISTRICT OFFICE

EXISTING FACILITY ASSESSMENT (CONTINUED)

- Interior finishes, casework and built-in equipment throughout the building are at the end of their expected life and should be replaced.
- HVAC systems and controls are beyond the end of their expected life and should be replaced. Crawl spaces required to be ventilated per code.
- Sanitary sewer and storm piping systems are in poor condition with many failures and ongoing issues. Piping should be replaced, which will be a significant undertaking due to difficult-to-access locations.
- Building should be provided with a sprinkler system. (Currently, only MS lower level is sprinkled.)
- Data cabling is a mix of older and newer cabling. Need purpose-built IT closets.

*** FACILITY IS BEYOND INCREMENTAL MAINTENANCE AND SHOULD BE COMPREHENSIVELY RENOVATED.**

EXISTING MIDDLE/HIGH SCHOOL & DISTRICT OFFICE



District Office is undersized. Therefore, the Administration is scattered in offices throughout the District's four facilities impacting use of space in the other buildings.

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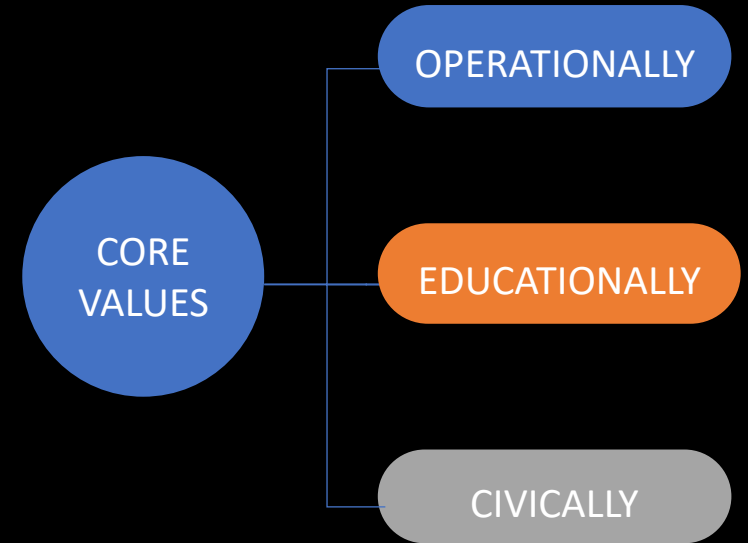
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GUIDING PRINCIPLES

How should the physical environment be constructed to support the Elizabethtown Area School District's 7 foundational pillars?



- Prioritize flexibility and adaptability
- Designed to support a holistic approach to education
- Campus should allow for learning beyond the classroom walls
- Designed for interdisciplinary approaches to learning.
- Support mental health/well being (daylighting, natural materials)
- Connection point bridging the community with the School District.

Thought Exchange community survey – community feedback.

VISIONING

Planning & Visioning workshop with District Administration

- What to **keep**?
(What currently works well?)
- What to **cut**?
(What needs to change?)
- What to **create**?
(What opportunities could be created that do not currently exist?)



EDUCATIONAL PROGRAM – NEW MS/HS BUILDING

Elizabethtown Area School District									
Elizabethtown Jr/Sr High School									
Building Space and Capacity					Proposed Program for Anticipated Enrollment of:		Assuming that the High School and Middle School run similar schedules and the location and adjacencies of instructional and support spaces that are appropriate to be shared can be and those spaces that should remain separate for developmental reasons are.		
					Current Enrollment:		2147		
		Quantity	Area	Subtotal	Total	PDE Capacity	Total	District Capacity as Scheduled	Total
1	CORE LEARNING & SUPPORT				65,150		1,850		1850
	Middle School				33,050				
	General Classrooms (Grade 6 ELA, SS, Math)	12	850	10,200		25	300	25	300
	General Classrooms (Grade 7 ELA, SS, Math)	12	850	10,200		25	300	25	300
	General Classrooms (Grade 8 ELA, SS, Math)	12	850	10,200		25	300	25	300
	World Languages (6-8)	1	850	850		25	25	25	25
	Health (6-8)	1	850	850		25	25	25	25
	Grade Level Storage Rooms	3	250	750					
	High School								
	Social Studies Classrooms +660 sf (HS)	9	850	7,650	32,100	25	225	25	225
	World Language Classrooms +660 sf (HS)	3	850	2,550		25	75	25	75
	Math Classrooms +660 sf (HS)	11	850	9,350		25	275	25	275
	English Classrooms +660 sf (HS)	10	850	8,500		25	250	25	250
	Health Classrooms +660 sf (HS)	2	850	1,700		25	50	25	50
	Jr. ROTC (HS)	1	850	850		25	25	25	25
	Dept. Storage Rooms	6	250	1,500					
2	SCIENCE				18,050		235		275
	Middle School				8,700				
	Flexible Science Labs (Grade 6, 7 and 8)	3	1,100	3,300		20	60	25	75
	Science Classrooms	6	850	5,100		25		25	
	Science Prep Rooms	1	300	300					
	High School								
	Chemistry Lab	3	1,100	3,300	9,350	20	60	25	75
	Prep Room	2	300	600					
	Flexible Science Lab (Biology, Earth & Space)	2	1,100	2,200		20	40	25	50
	Science Office Area	1	700	700					
	Science Classrooms +660 sf (HS)	3	850	2,550		25	75	25	75
3	SPECIAL EDUCATION AND SUPPORT SPACES				15,575		0		0
	Middle School				7,350				

PROGRAM – SUMMARY OF FINDINGS

Based on the preliminary program developed for a new Middle/High School and District Office, the new building was conceptually planned as follows:

Middle/High School:	368,000 sf
<u>District Administration Office (DAO):</u>	<u>17,000 sf</u>
Total:	385,000 sf

The existing MS/HS/DAO is currently 433,000 sf. (48,000 sf delta)

If an option is selected and the District chooses to move forward with a project, the program will continue to be refined during Schematic Design.

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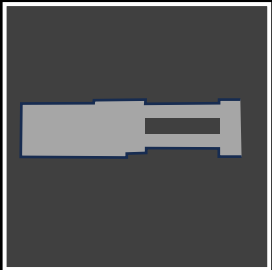
Analysis of Options

CONSTRUCTION OPTIONS



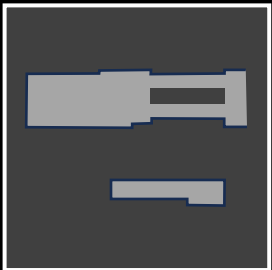
OPTION 1:

- Renovate the Existing Middle/High School & District Office.



OPTION 2:

- Build a New Middle/High School & District Office Building.
- Demolish the existing building.



OPTION 3:

- Build a New Middle/High School Building.
- Demolish the majority of the existing building.
- Convert a portion of the Existing Middle School to be the District Office.

EXISTING CAMPUS



ELIZABETHTOWN AREA
MIDDLE/ HIGH SCHOOL
& DAO

THOMPSON & JANE
HOOVER FIELDS

EAST HIGH STREET
ELEMENTARY SCHOOL

POTENTIAL SITE FOR
NEW MIDDLE/HIGH
SCHOOL BUILDING

CONSTRUCTION OPTIONS



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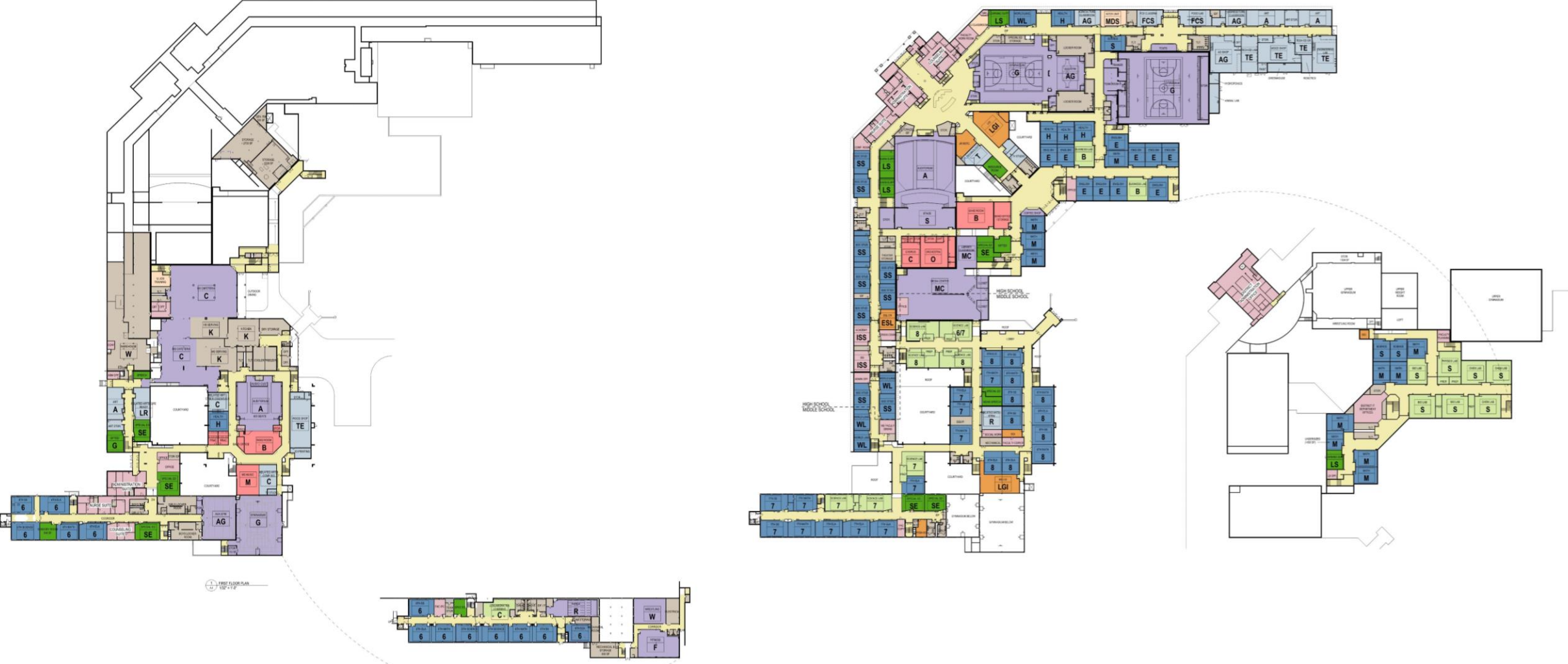


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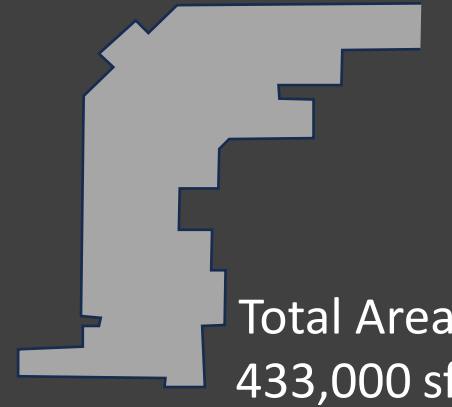
OPTION 1

- Budgeted cost/sf will allow for modest space reconfiguration.
- Overall building organization would remain unchanged.



OPTION 1 - SUMMARY

RENOVATE THE EXISTING MIDDLE/ HIGH SCHOOL & DISTRICT OFFICE BUILDING



Phased Occupied
Construction Duration:

4+ years

Project Cost Range:

\$150 M - \$165 M

Opportunities

- Slightly less cost to renovate vs. new construction.
- All-new HVAC systems, finishes, built-in equipment & furnishings.
- Upgraded to meet current code and modern educational standards.

Challenges

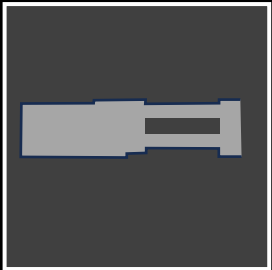
- Phased, occupied construction, portable classrooms, long duration.
- Challenging and costly renovation – potential for unforeseen conditions (change orders).
- Costs are driven by size of the building (new building could be smaller).
- Building organization is not ideal and would remain unchanged.
- Inefficiency of existing building envelope.
- Would not allow site vehicular circulation issues to be sufficiently addressed.

CONSTRUCTION OPTIONS



OPTION 1:

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OPTION 2:

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- Demolish the existing building.



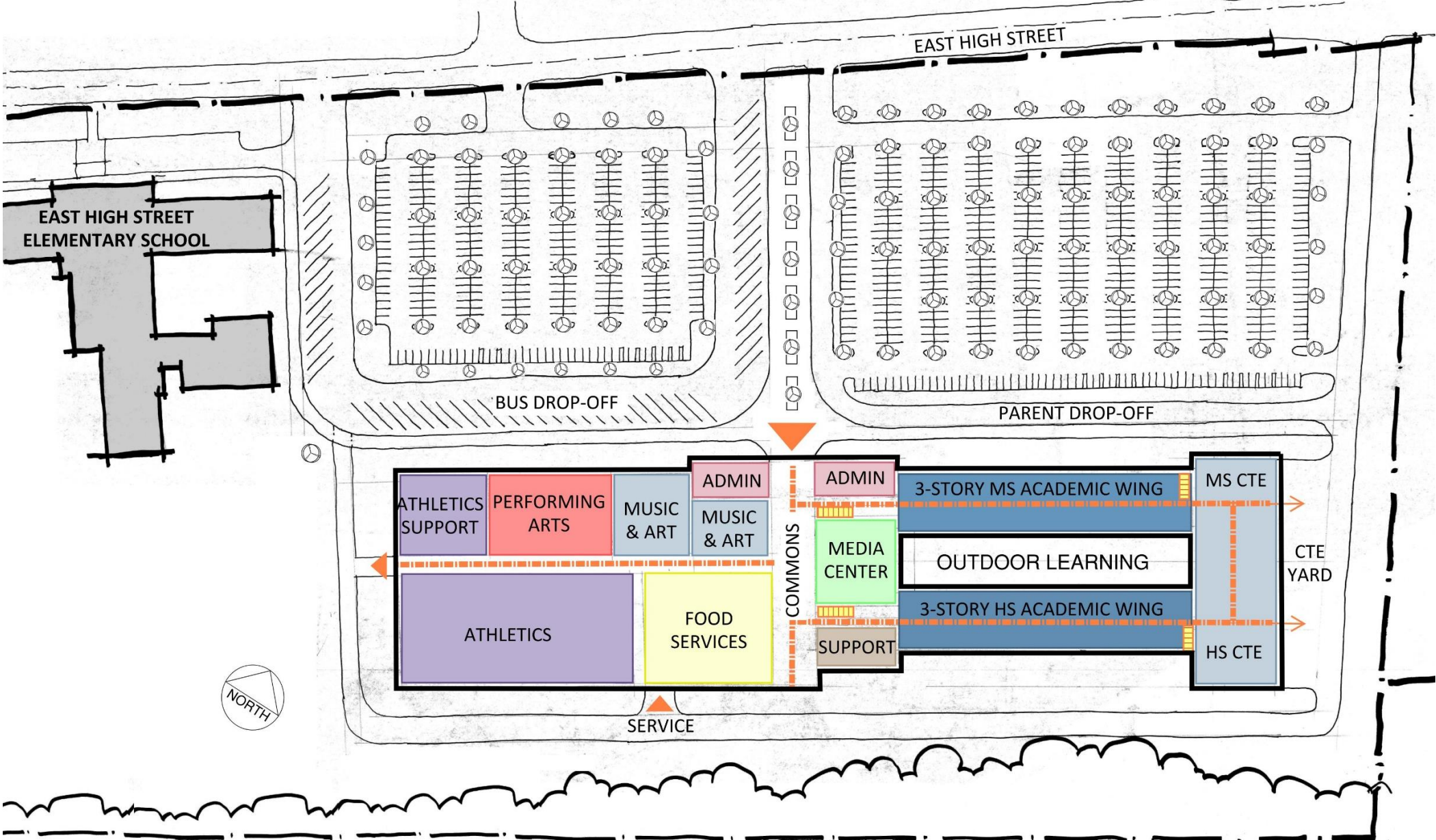
OPTION 3:

- Build a New Middle/High School Building.
- Demolish the majority of the existing building.
- Convert a portion of the Existing Middle School to be the District Office.

OPTION 2 – SITE PLAN



OPTION 2 – CONCEPTUAL BUILDING ORGANIZATION



OPTION 2 - SUMMARY

BUILD A NEW MIDDLE / HIGH SCHOOL
AND DISTRICT OFFICE BUILDING.

DEMOLISH THE EXISTING BUILDING.



Total Area
386,000 sf

Construction Duration:

3 years

Project Cost Range:

\$156 M - \$172 M

Opportunities

- Shorter construction duration.
- NO phased, occupied construction.
- New building has smaller footprint.
- Allows for improved building organization and desired adjacencies.
- State-of-the-art, high energy efficiency building = lower operating costs.
- Improved site traffic circulation.

Challenges

- Cost of new construction.
- Significant site development costs.
- Some impact to athletic fields during construction.

CONSTRUCTION OPTIONS



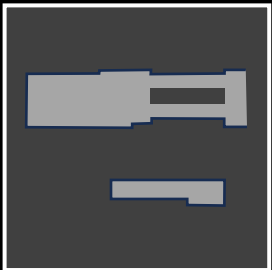
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OPTION 2:

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- Demolish the existing building.



OPTION 3:

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- Convert a portion of the Existing Middle School to be the District Office.

OPTION 3 – SITE PLAN



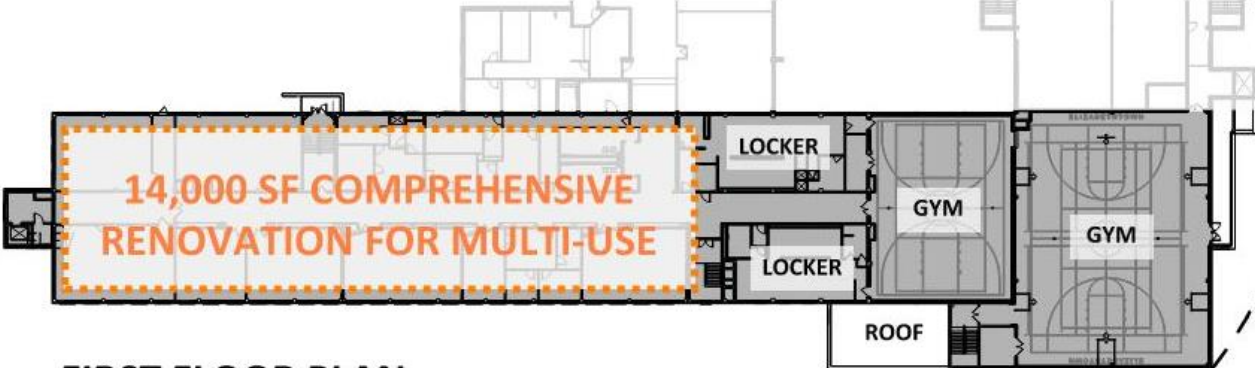
OPTION 3 – MS CONVERSION TO DISTRICT OFFICE

GROUND FLOOR AND FIRST FLOOR POTENTIAL PROGRAM OPPORTUNITIES:

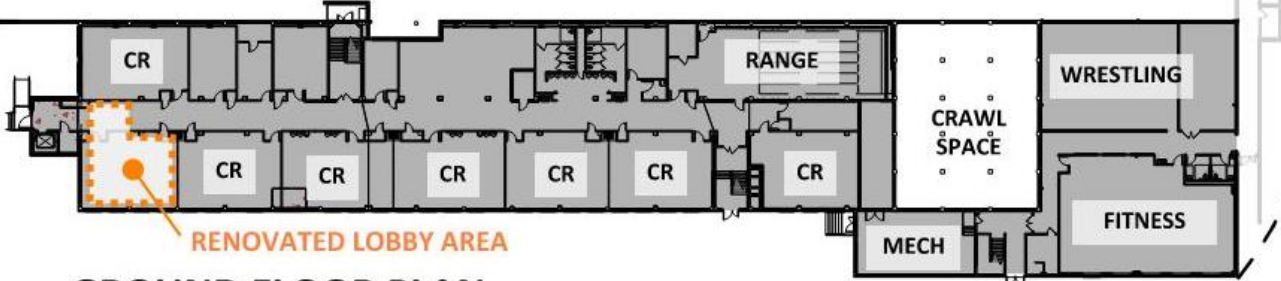
- Cyber and Alternative Education Programs
- Early Childhood Education and/or Care
- Staff Professional Development
- Community Meeting Space



SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN

OPTION 3 - SUMMARY

BUILD A NEW MIDDLE / HIGH SCHOOL BUILDING.

DEMOLISH MAJORITY OF EXISTING BUILDING.

CONVERT A PORTION OF THE EXISTING MIDDLE SCHOOL TO BE THE DISTRICT OFFICE.



Total Area
415,000 sf

Construction Duration:

3-4 years

Project Cost Range:

\$155 M - \$171 M

Opportunities

- NO phased, occupied construction.
- Allows for improved building organization and desired adjacencies.
- State-of-the-art, high energy efficiency building = lower operating costs.
- Improved site traffic circulation.
- Reduces new construction sf.
- Makes use of previous investment in Middle School lower level renovation.
- Renovated MS wing offers many additional program opportunities.

Challenges

- Cost of new construction.
- Significant site development costs.
- Some impact to athletic fields during construction.
- May need to find temporary accommodations for the DAO while renovations are occurring.

<p>OPTION</p> <p>1 RENOVATION</p>	<p>Construction Duration 4+ years</p> <p>Project Cost \$150 - \$165 M</p>	<p><i>Pro:</i> Slightly less cost than new construction.</p> <p><i>Con:</i> Phased, occupied construction. Long construction duration. Challenging and costly renovation. Sub-optimal building and site organization. Higher operating costs due to inefficiencies.</p>	
<p>OPTION</p> <p>2 NEW MS/HS/DAO</p>	<p>Construction Duration 3 years</p> <p>Project Cost \$156 - \$172 M</p>	<p><i>Pro:</i> State-of-the-art, energy efficient facility. Shorter construction duration. No phased, occupied construction. Improved building organization & adjacencies. Better site vehicular circulation.</p> <p><i>Con:</i> Cost of new construction & site development.</p>	
<p>OPTION</p> <p>3 NEW MS/HS SATELLITE DAO</p>	<p>Construction Duration 3-4 years</p> <p>Project Cost \$155 - \$171 M</p>	<p><i>Pro:</i> State-of-the-art, energy efficient facility. Shorter construction duration, minimal phasing. Improved building organization & adjacencies. Better site vehicular circulation. Additional educational program opportunities.</p> <p><i>Con:</i> Cost of new construction & site development.</p>	



Questions?



Crabtree, Rohrbaugh & Associates
www.cra-architects.com