

Before



Context Map

Address: 2601 Cameron Mills Rd
 Zoning: R8
 Max Height: 40'
 Lot Size: 407,290SF

George Mason Elementary School was built in 1939, since then the building has had two major renovations in 1949 and 1977. Other minor renovations occurred in 1988, 1997 and 2005. In 2014, the school underwent a substantial expansion which included enlarging the cafeteria, adding two courtyards and four new classrooms. The school has a total square footage of 60,875 over the span of two floors. In 2019-2020, George Mason had an enrollment of 420 students and a measured capacity of 368 students. By 2029, the enrollment is expected to increase to 670 students.

Quick Facts

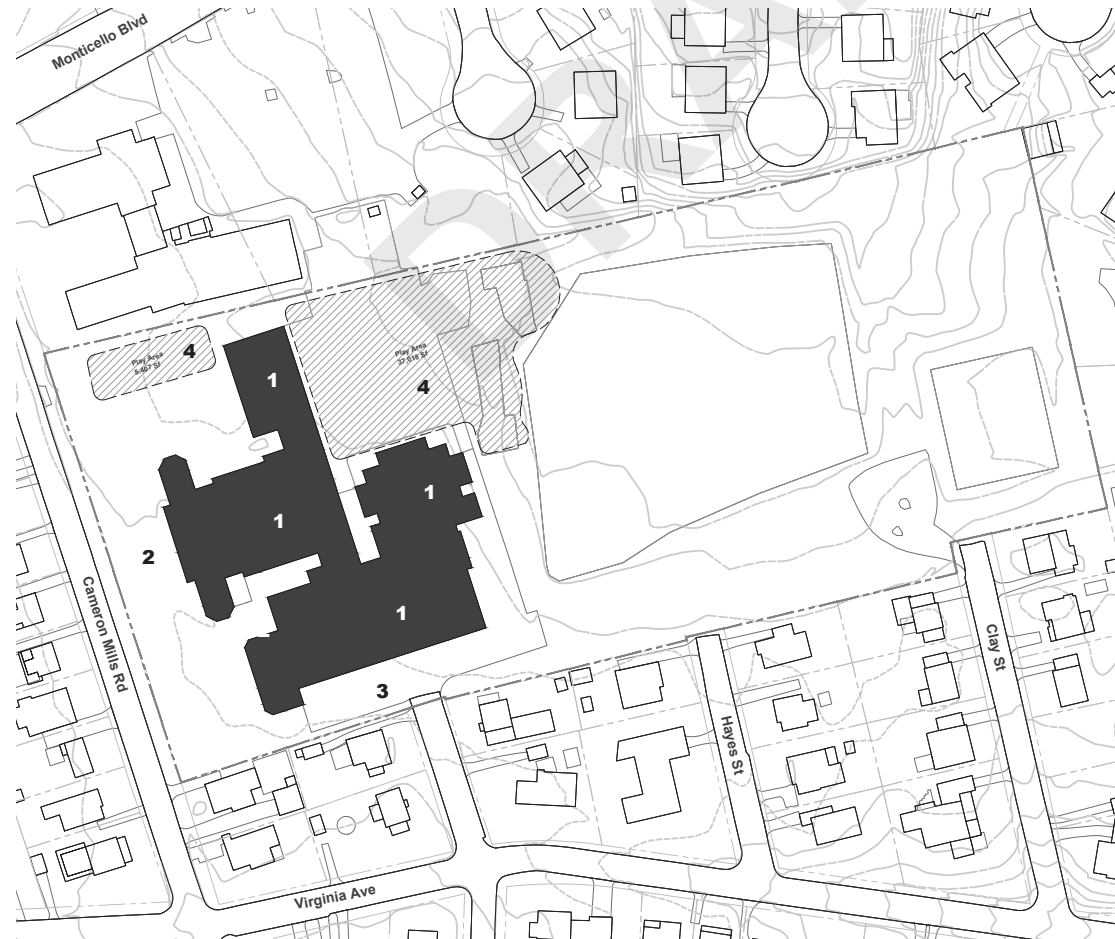
Year Built:	1939
Current Student Count:	420
Projected Student Count:	670
Existing SF:	60,875
Required SF:	100,815
% Deficit:	39.62
Undergone 5 previous phases of work.	

Due to the considerable educational learning environment inadequacies as well as size requirement deficiencies at George Mason, it is recommended ACPS consider demolition of the existing school (but for the original entry) and construction of a new school. This would both alleviate existing building assessment and organization issues while meeting the projected enrollment needs.

Primary core classroom deficit: 19,200 SF

Total building deficit: 39,940 SF or 39.62 %

Projected student capacity deficit: 250 Students

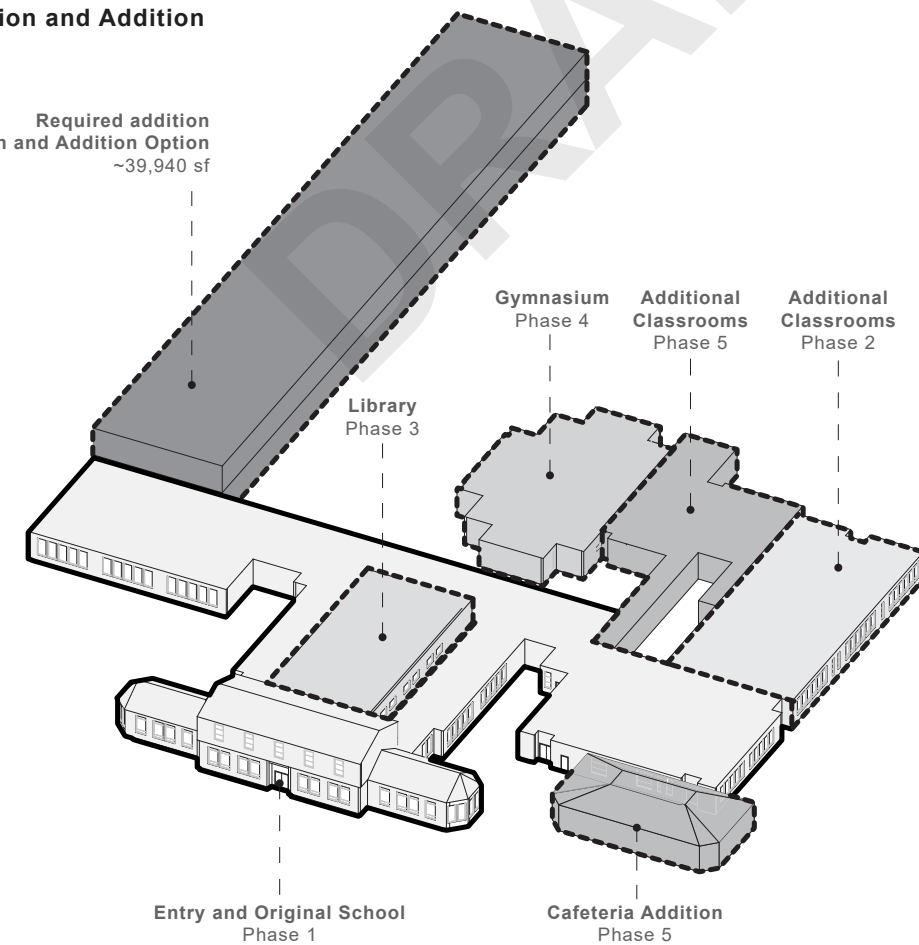


Site Plan

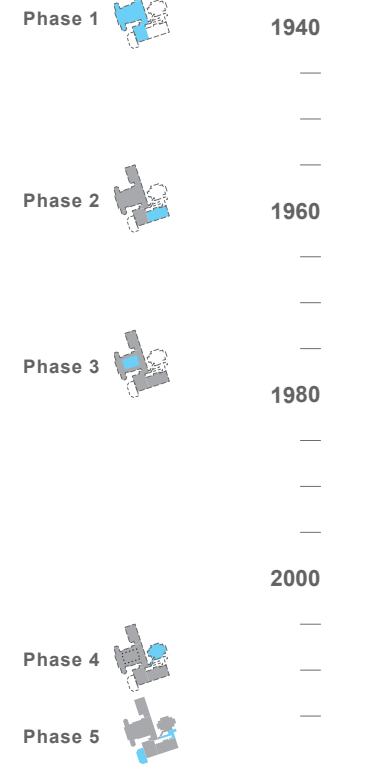
1. Insufficient area for required growth. Multiple additions built at different phases. All building systems need to be replaced.
2. No drop-off for cars and Buses, limited on-site parking.
3. Insufficient area for loading; limited turn-around space. 28 existing parking spaces.
4. Limited exterior play space bound by George Mason Park.

Renovation and Addition

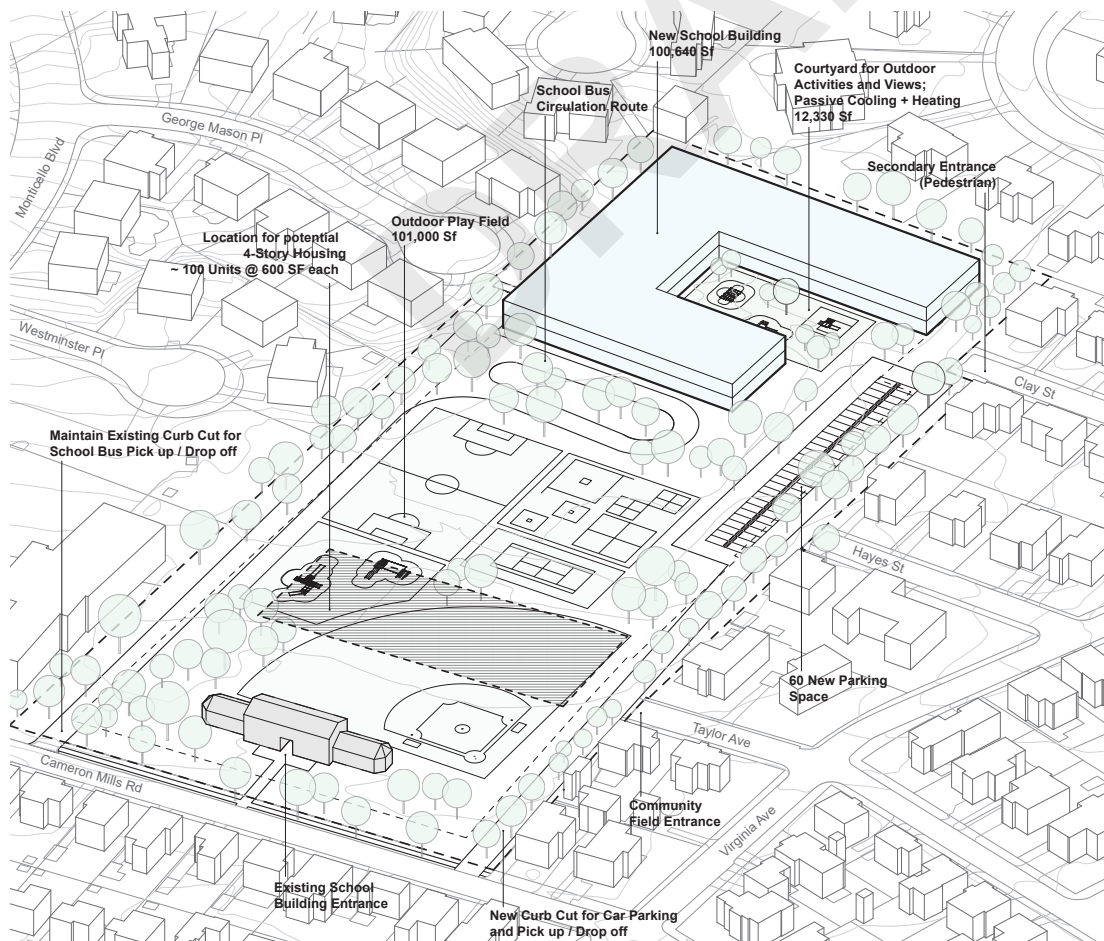
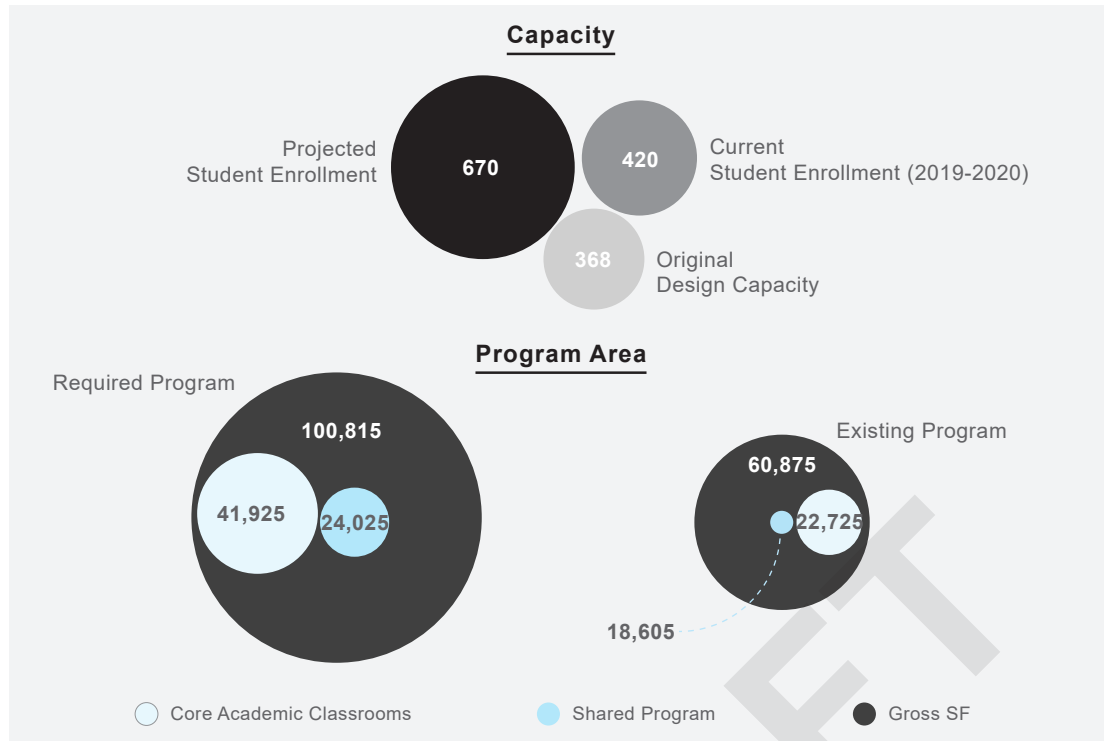
Required addition
 Renovation and Addition Option
 ~39,940 sf



History



After



Statistics

Capacity is student count Required Program" references ACPS Educational Specifications.

Shared Program Includes: Visual Arts, Music, Science, Media Center, Library, Physical Education, & Student Dining and Food Service.

Gross SF includes Administration, Custodial Services, and Building Services.

Site Plan

Separate bus and car vehicular access that is long enough to prevent street congestion.

Site design allows for safe student drop off, and direct pedestrian path from the new school building to the play fields without crossing vehicular traffic.

Location of the new building allows for construction to start while existing building is still in use. This eliminates any need for swing space.

Keeping the historic frontage continues the neighborhood building scale and aesthetic.

Site can accommodate a 4-story housing structure with ~100 units @ 600 sf each.

The approach for the masterplan options is to provide a clear contextual dialogue with the neighborhood fabric, accommodating the educational specification within an efficient and expandable footprint, provide direct site access and circulation that separates vehicular, bus, loading, and pedestrian traffic, maximize site open space which offer views and daylight to the school program, establish different sizes and types of exterior play spaces for all age groups, and achieving appropriate energy requirements which enhance the life cycle cost of the building and site.

In order to meet the Alexandria County Green Building Policy requirements, complete new building systems (MEP, envelope, site and infrastructure) would be required in a renovation scheme, which would result in higher construction cost and less annual savings compared to complete new construction. New construction would save you \$2.3M in MEP cost compared to renovation.

George Mason is 39,940 sf deficient of the Ed Spec Program and Building Area. This will require substantial construction to an existing building that is limited in expendability due to the fragmented nature of previously phased work. Savings can be gained by eliminating swing space if a new school at the north east end of the site is constructed and then demolishing the existing school except for the historic front, which can be given to the community for gathering events.

Anticipated school replacement cost: **TBD**

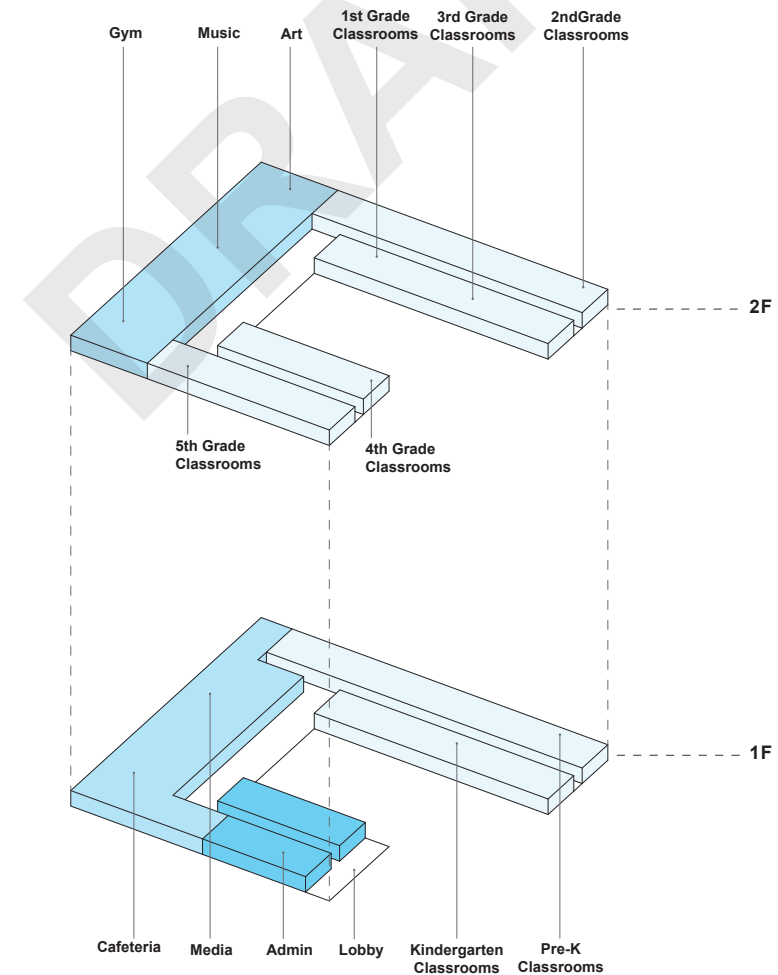
Anticipated swing space cost: **\$0.00**

Anticipated operational savings per year: **\$100,000.00**

Program Isometric

Legend

- Core Academic Classrooms
- Shared Program
- Admin



Quick Cost

New Building MEP	\$12.5-13.5M
Annual Savings:	\$100,000
Renovated MEP	\$14.8-15.3M
Annual Savings:	\$90,000

Notes

Program references ACPS Educational Specifications.

Shared Program Includes: Visual Arts, Music, Science, Media Center, Library, Physical Education, & Student Dining and Food Service.

Core Academic SF:	41,925
Visual Arts / Music SF:	3,875
Library SF:	4,050
Physical Education SF:	8,800
Dining SF:	7,300
Administration SF:	4,375
Support SF:	22,850

Before



Context Map

Address: 3600 Commonwealth Ave
 Zoning: RB
 Max Height: 45'
 Lot Size: 197,673 SF
 POS: 1,953,958 SF

Cora Kelly School for Math, Science and Technology is located in a quiet residential neighborhood in Alexandria. This school is dedicated to preparing its student for the 21st century through science, technology, engineering, and math (STEM). In 2019-2020, Cora Kelly's enrollment was 394 students with a measured capacity of 429. The enrollment projection indicates the school's population will increase 82.7 percent. By year 2029, the enrollment is expected to increase to 720 students.

Quick Facts

Year Built:	1955
Current Student Count:	394
Projected Student Count:	720
Existing SF:	76,840
Required SF:	114,464
Deficit:	32.87%

Primary core classroom deficit: 21,804 SF

Total building deficit: 37,624 SF or 32.87%

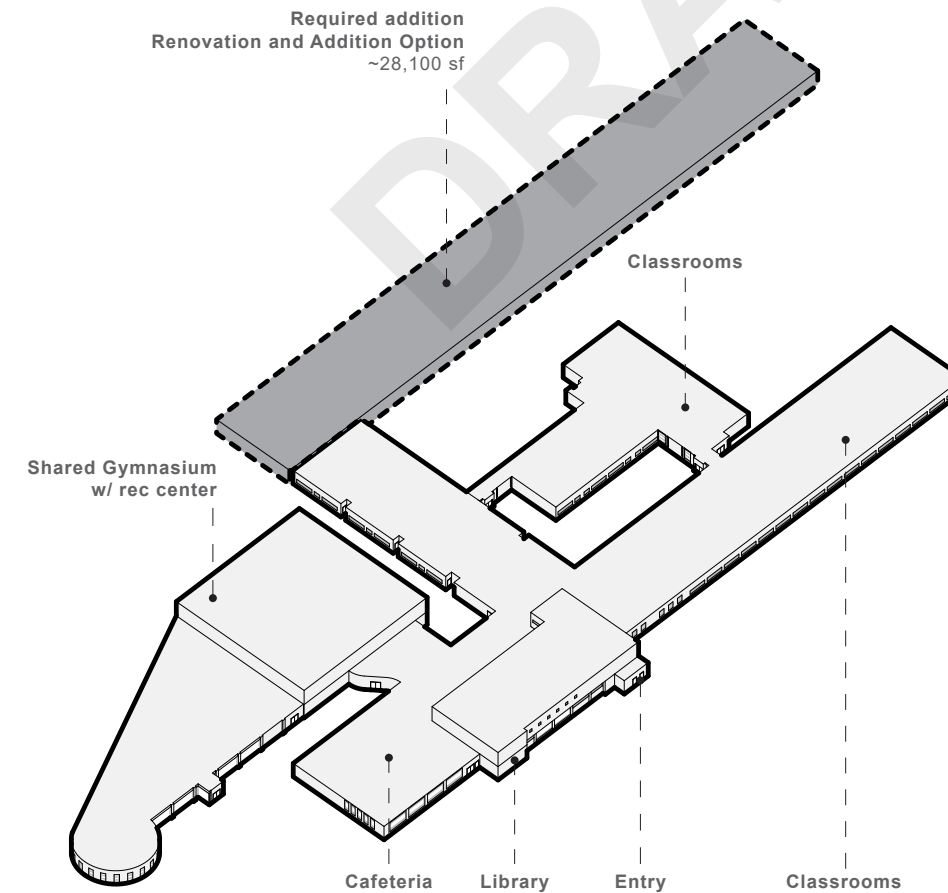
Projected student capacity deficit: 326 Students



Site Plan

1. Insufficient area for required growth.
2. Existing rec center limits siting of new construction or renovation.
3. Limited exterior play space.
4. Encroachment into POS.
5. No direct access from car drop off to school.
6. 72 Existing parking space.

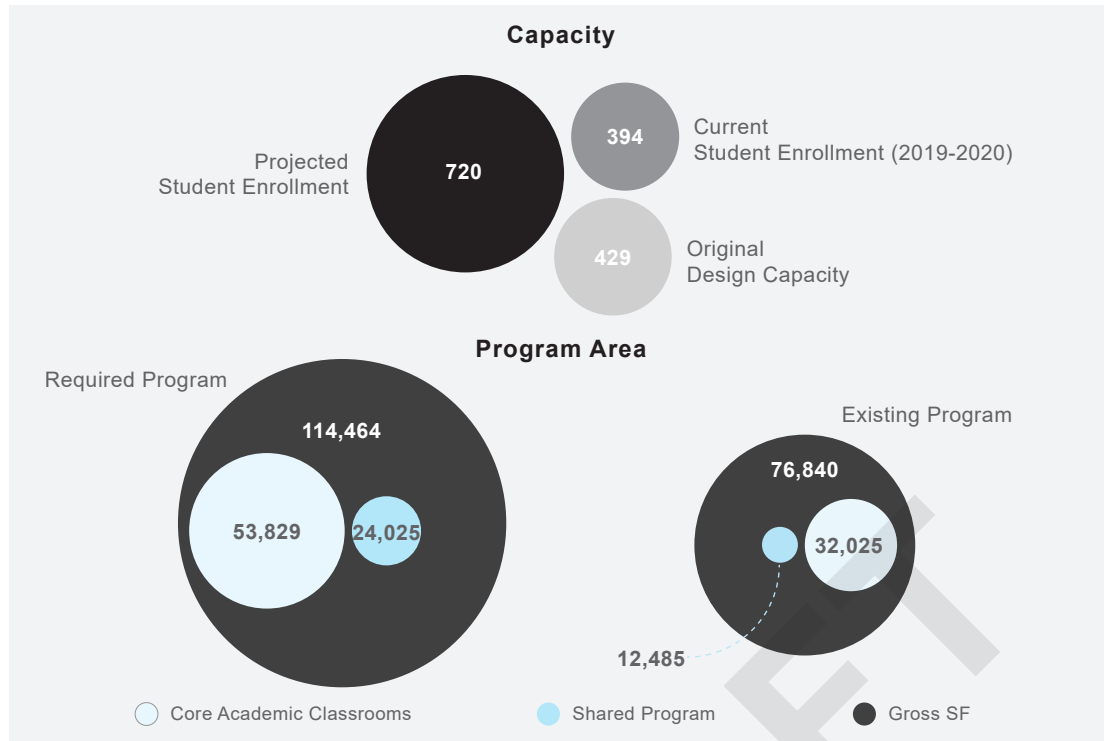
Renovation and Addition



History



After



Statistics

Capacity is student count

"Required Program" references ACPS Educational Specifications.

Shared Program Includes: Visual Arts, Music, Science, Media Center, Library, Student Dining and Food Services.

Gross SF includes Administration, Custodial Service, and Building Services.

The approach for the masterplan options is to provide a clear contextual dialogue with the neighborhood fabric, accommodating the educational specification within an efficient and expandable footprint, provide direct site access and circulation that separates vehicular, bus, loading, and pedestrian traffic, maximize site open space which offer views and daylight to the school program, establish different sizes and types of exterior play spaces for all age groups, and achieving appropriate energy requirements which enhance the life cycle cost of the building and site.

In order to meet the Alexandria County Green Building Policy requirements, complete new building systems (MEP, envelope, site and infrastructure) would be required in a renovation scheme, which would result in higher construction cost and less annual savings compared to complete new construction. New construction would save you \$2.3M in MEP Cost compared to renovation.

Cora Kelly is 37,000 sf deficient of the Ed Spec Program and Building Area. The existing building cannot structurally support a 2-story addition without complete demolition and reconstruction in the same massing, which is already spatially inefficient and limits exterior play space.

Anticipated school replacement cost: **TBD**

Anticipated swing space cost: **\$0**

Anticipated operational savings per year: **\$100,000.00**

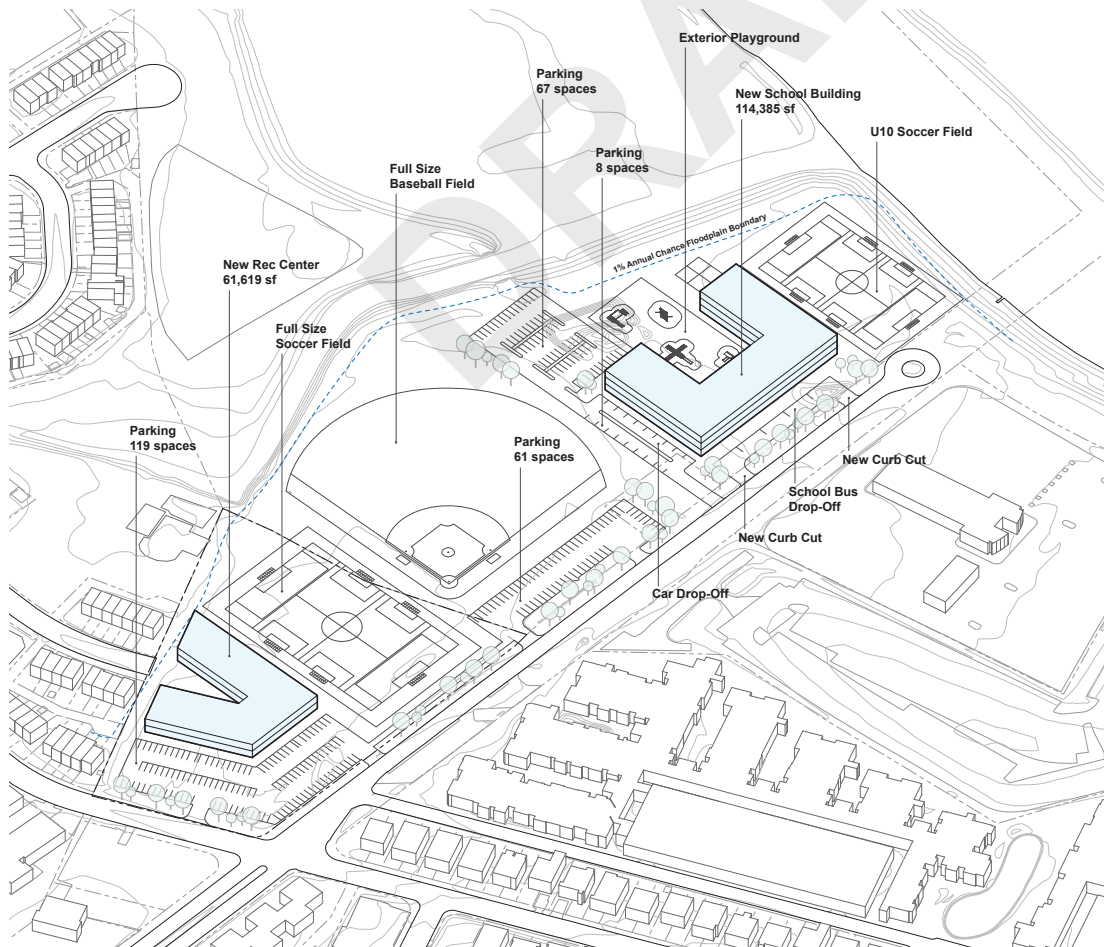
Quick Cost

New Building MEP: \$12.5-13.5M

Annual Savings: \$100,000

Renovated MEP: \$14.8-15.3M

Annual Savings: \$90,000



Site Plan

Complete separation between recreation use and school use.

New Recreation Center, fields and parking.

Complete new school construction to the north. This eliminates the need for swing space since the existing school would be used during construction of the new school.

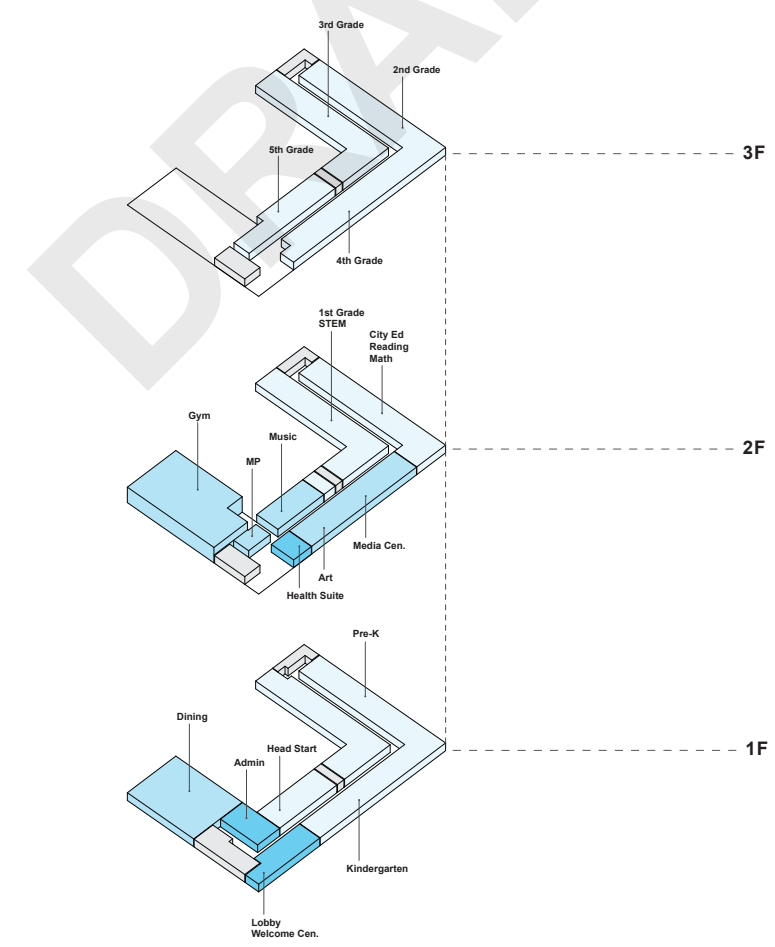
Separate bus and car vehicular access that is long enough to prevent street congestion.

Site design allows for safe student drop off, and direct pedestrian path from the new school building to the play fields without crossing vehicular traffic.

Shorter corridor lengths compared to existing school.

Courtyard design allows for private play and natural daylight into corridors and classrooms, and potential for passive cooling and heating

Program Isometric



Legend

- Core Academic Classrooms
- Shared Program
- Admin

Notes

Program references ACPS Educational Specifications.

Shared Program Includes: Visual Arts, Music, Science, Media Center, Library, Physical Education, & Student Dining and Food Service.

Core Academic SF:	53,829
Visual Arts / Music	3,875
Library SF:	4,050
Physical Education SF:	8,800
Student Dining SF:	7,300
Administration SF:	5,085
Support SF:	22,850