

Alternative School Design

Why do we need to consider Unique School Sites?

Land



- There is a lack of available land
- The available land is smaller than typical school sites
- The parcels are not located near population centers

- Urban Centers are being created throughout FFX County (Tysons, Bailey's, Silver Line, Rte. 1)
- Goal is to locate schools in proximity to where the students live



Density

Funding



- The cost of the land is too high for the Capital Program to support without negatively affecting other projects and/or needs

What are Our best Options?

Buildings designed to fit within high-density development on limited sites



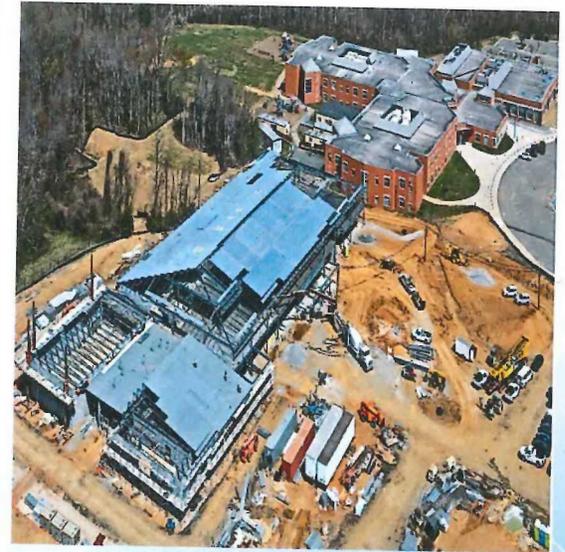
Vertical Design

Adaptive Re-Use



The conversion of an existing building to school use

Locating new facilities on an existing school site

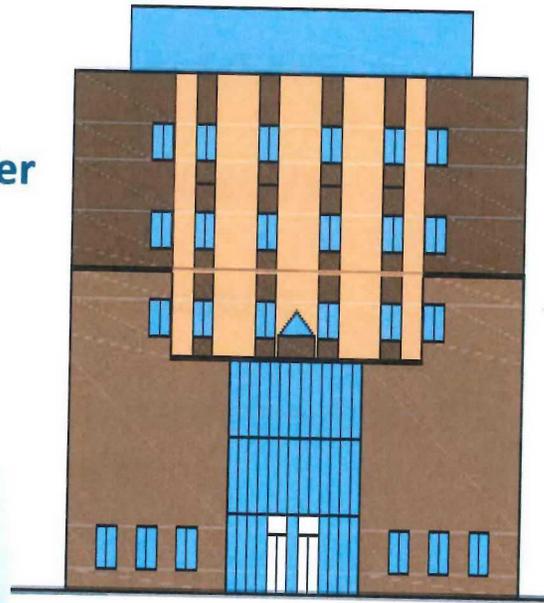


Co-Location

Vertical/Urban Design

Advantages

- Requires minimal acreage
- Is compatible with the higher density development w/in the county
- Enables the use of mass transit, thus reducing operational expenses
- Provides public facilities where none may exist



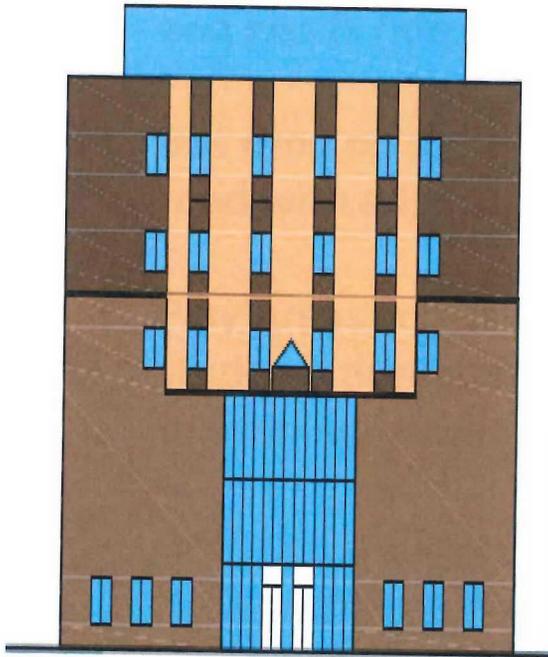
Disadvantages

- More expensive than Adaptive Re-Use or Co-Location
- Site Access may be limited
- Exterior Amenities may be reduced or provided in a non-traditional manner

FCPS Examples of Vertical/Urban Design

Tyson/Bailey's ES

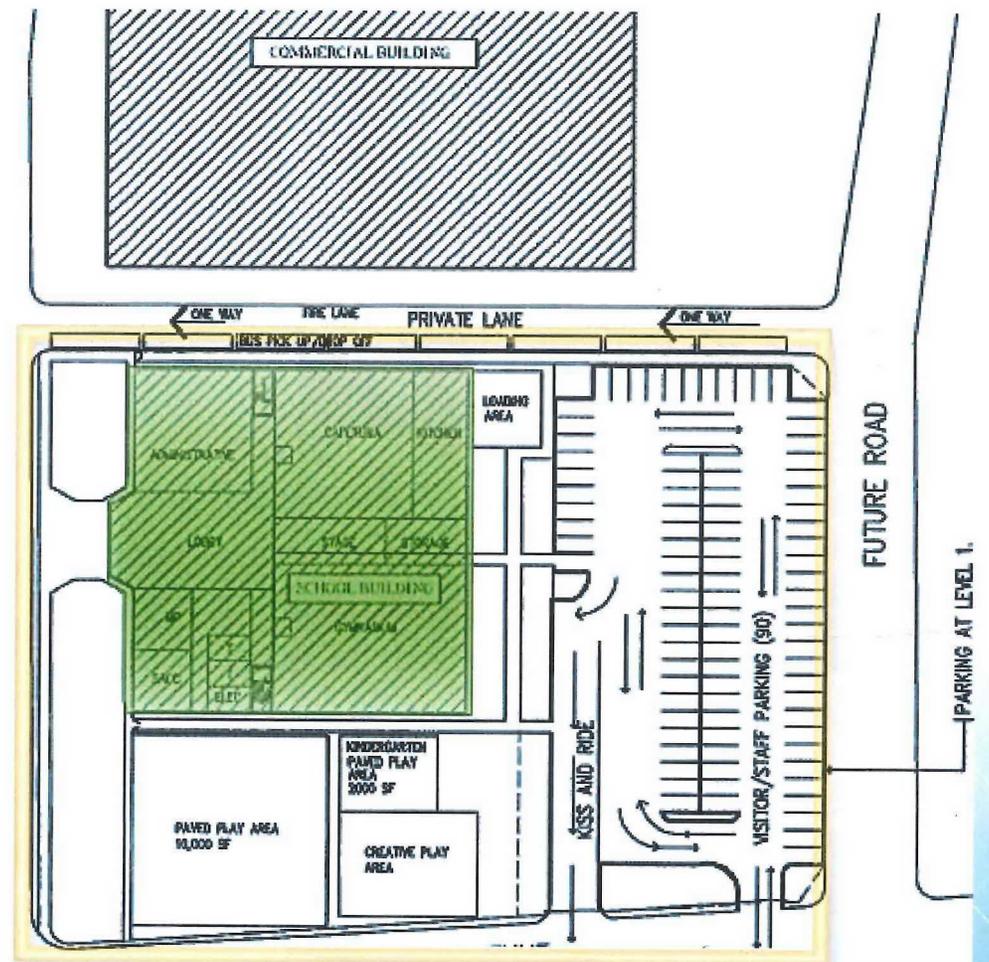
- 5 Story School
- 102,000 SQ FT
- 950 Students
- All spaces meet the ED Specs



FCPS Examples of Vertical/Urban Design

Tysons/Bailey's ES - Site

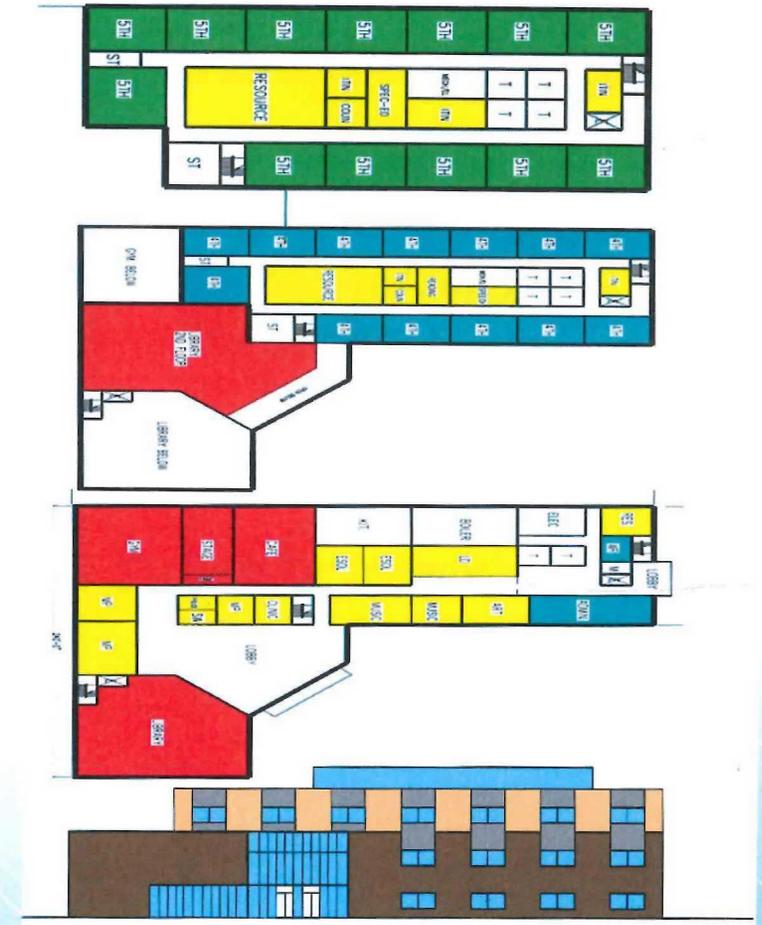
- 3.7 total Acres
- Parking Garage – with parking and kiss & ride on 1st level
- Bus drop on a shared private road with adjacent building
- Play Areas accessible to students during day and public in evening/weekends
- Enclosed walkway from building to top deck play field
- Multiple lanes of ingress/egress



FCPS Examples of Vertical/Urban Design

Vertical School/Public Library

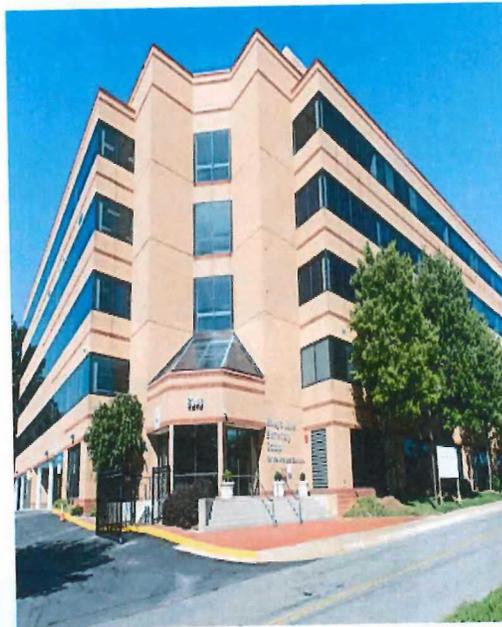
- Combines a public library and 3 story school
- School accommodates 700 students
- Library to be shared between students and the public
- Common areas w/in school such as gym, cafeteria, clinic and multipurpose rooms available to public
- Extensive wrap-around services such as social worker and community police officer



Adaptive Re-Use

Advantages

- Lower Construction Costs
- More Sustainable – as the carbon footprint is reduced
- Shorter Construction Timeline
- The facility is already part of the community

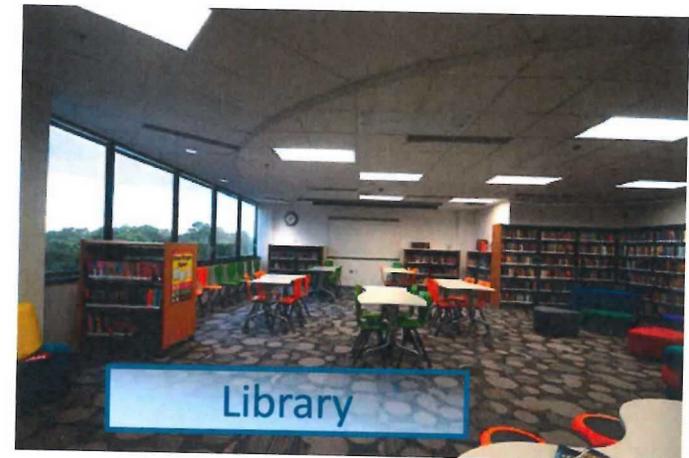
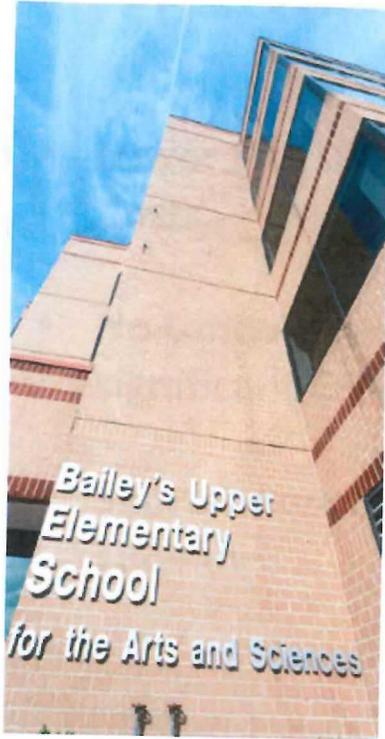


Disadvantages

- May need to compromise due to site/building limitations
- Site Access may be limited
- Exterior Amenities may be reduced or provided in a non-traditional manner

Adaptive Re-Use in Action

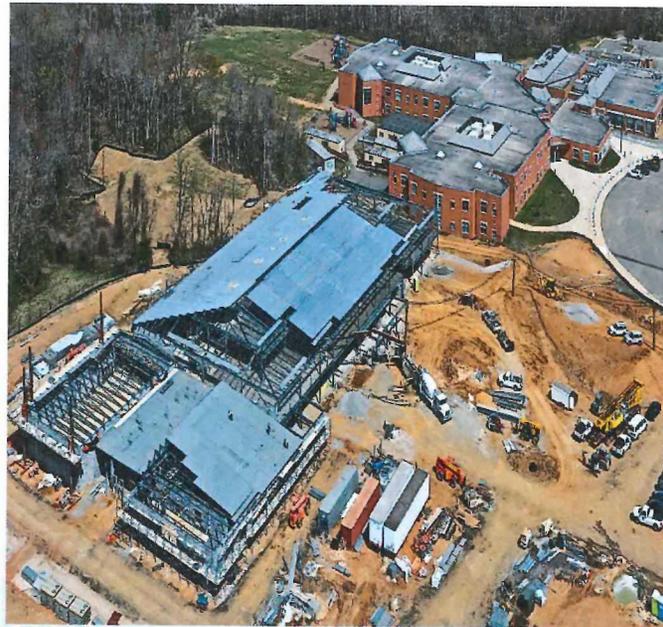
Bailey's Upper ES



Co-Location of Schools

Advantages

- Lower Site Development Costs
- No Land Acquisition – significant Capital Savings
- Shorter Construction Timeline
- More efficient for FCPS operations

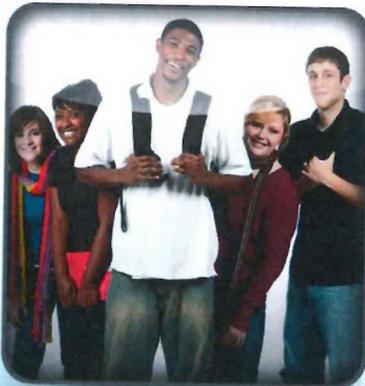


Disadvantages

- May lose 1 of 2 play fields
- Greater Site Density

Alternative Instruction & Facilities

As our demographics change, so do the instructional needs of the students. Oftentimes, these needs may best be met in an alternative location.



Instructional Needs

Alternative Location



One possibility we have explored is to convert former business sites to small instructional spaces to serve students as well as the community.

Virginia Tech converted sections of an abandoned mall to a math emporium and distance learning center. We believe similar models could be deployed throughout the county.



VA Tech Emporium

Sustainability

Sustainable Standards



Collaborative for High Performance Schools

FCPS is a member of CHPS

Also known as the ***Collaborative for High Performance Schools:***

- Standard was created by FCPS and vetted Nationally
- It establishes our sustainable design + construction practices and post occupancy requirements

For more than 40 years FCPS has been applying sustainable practices:

- Temperature Control Systems began in 1982
- High efficient lighting in 1990
- Geo-Thermal school in 2011
- LED lighted addition in 2010
- Solar Hot Water in 2006
- Storm Water Collaboration w/ FFX County
- Accentuated Classroom Acoustics
- Day lighting of Classrooms



Sustainable Practices

Global Sustainability

The most important hallmark of FCPS' Capital Program is the commitment to Global Sustainability.

This achieved through the adaptive re-use of facilities. Each renovation reduces the carbon effect of the building by 40 years. In addition, it conserves materials and reduces waste.

