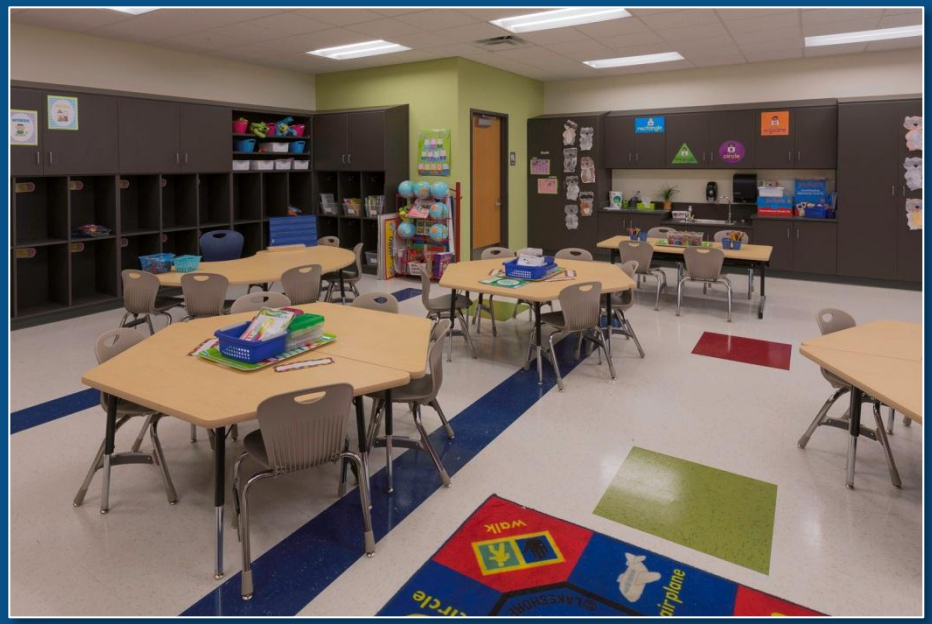
2013 Architectural Exhibit Overview of Submissions

Burlington Elementary School Classroom Addition

Burlington Elementary School Classroom Addition



typical classroom

Each classroom is fitted with an interactive SmartBoard, video capabilities, occupancy sensors and adjustable lighting levels. Additionally, each classroom is served by its own heat pump, allowing for individualized temperature control. The casework is extensive with individual spaces for each student's personal belongings. There is an abundance of additional casework for teacher storage which includes a sink with a drinking fountain.

Burlington Elementary School Classroom Addition

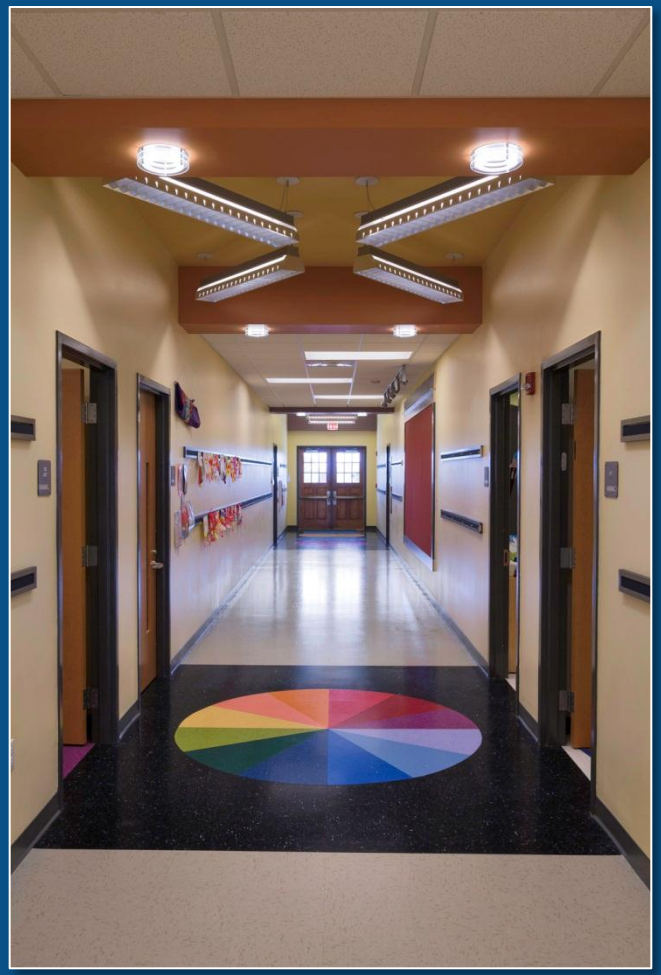
Each classroom was designed to utilize flexible lighting as well as natural daylighting.

Each classroom has large operable windows.

music classroom

Burlington Elementary School Classroom Addition

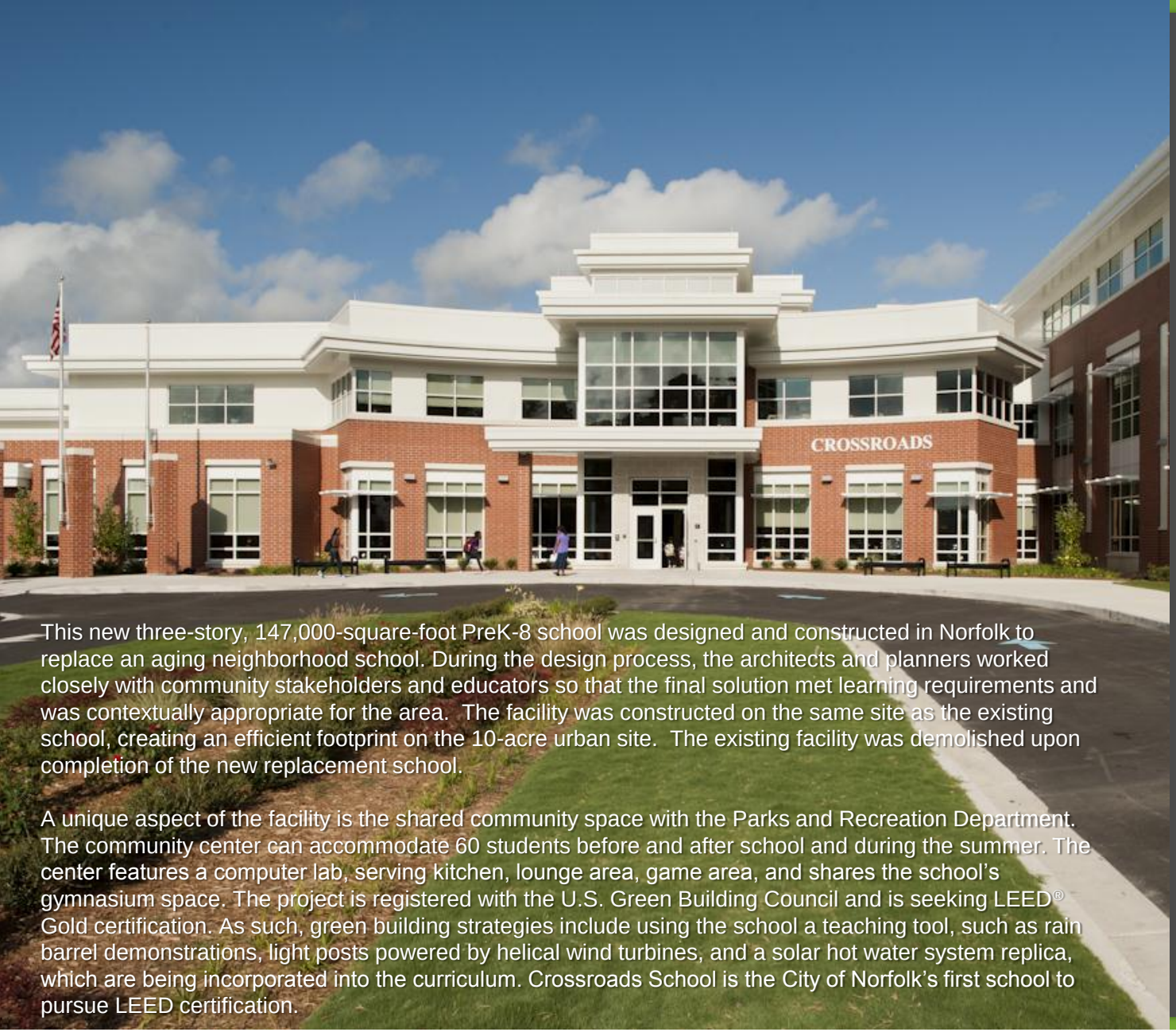
Art walls and floor patterns located in the corridors create teaching opportunities for the students.



art classroom corridor

art wall in corridor

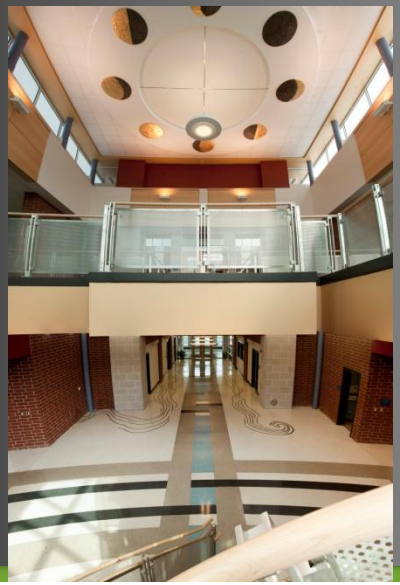
Crossroads PreK-8 School



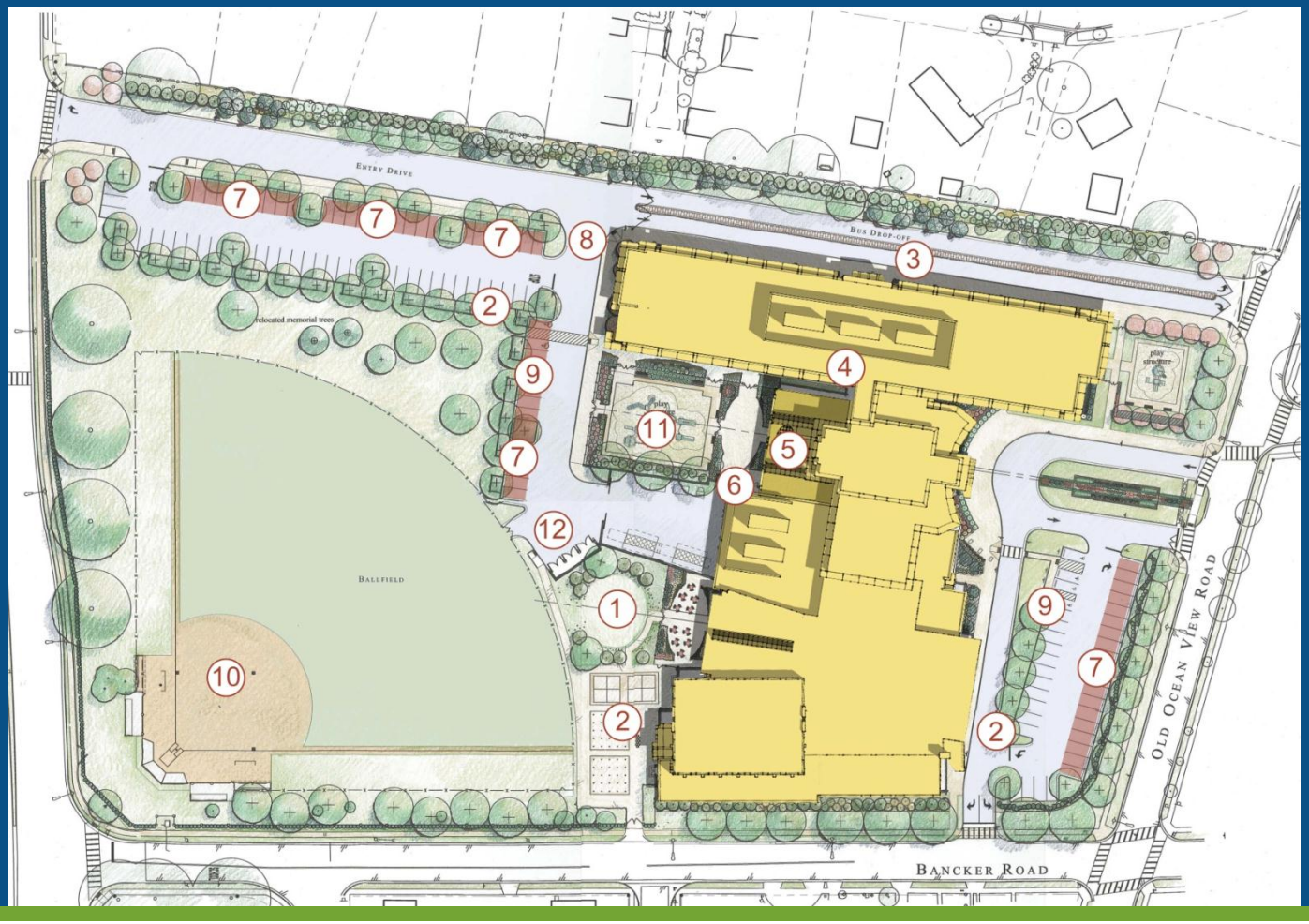
This new three-story, 147,000-square-foot PreK-8 school was designed and constructed in Norfolk to replace an aging neighborhood school. During the design process, the architects and planners worked closely with community stakeholders and educators so that the final solution met learning requirements and was contextually appropriate for the area. The facility was constructed on the same site as the existing school, creating an efficient footprint on the 10-acre urban site. The existing facility was demolished upon completion of the new replacement school.

A unique aspect of the facility is the shared community space with the Parks and Recreation Department. The community center can accommodate 60 students before and after school and during the summer. The center features a computer lab, serving kitchen, lounge area, game area, and shares the school's gymnasium space. The project is registered with the U.S. Green Building Council and is seeking LEED® Gold certification. As such, green building strategies include using the school a teaching tool, such as rain barrel demonstrations, light posts powered by helical wind turbines, and a solar hot water system replica, which are being incorporated into the curriculum. Crossroads School is the City of Norfolk's first school to pursue LEED certification.

The City of Norfolk allocates a percentage of a project's budget to include public art in the design of new facilities. The image below demonstrates how the artist's concept was integrated into the building design through the intricate floor pattern in the main entry lobby that represents the tidal influence of the Chesapeake Bay. The art on the ceiling details the phases of the moon that serves as both an educational and design feature.

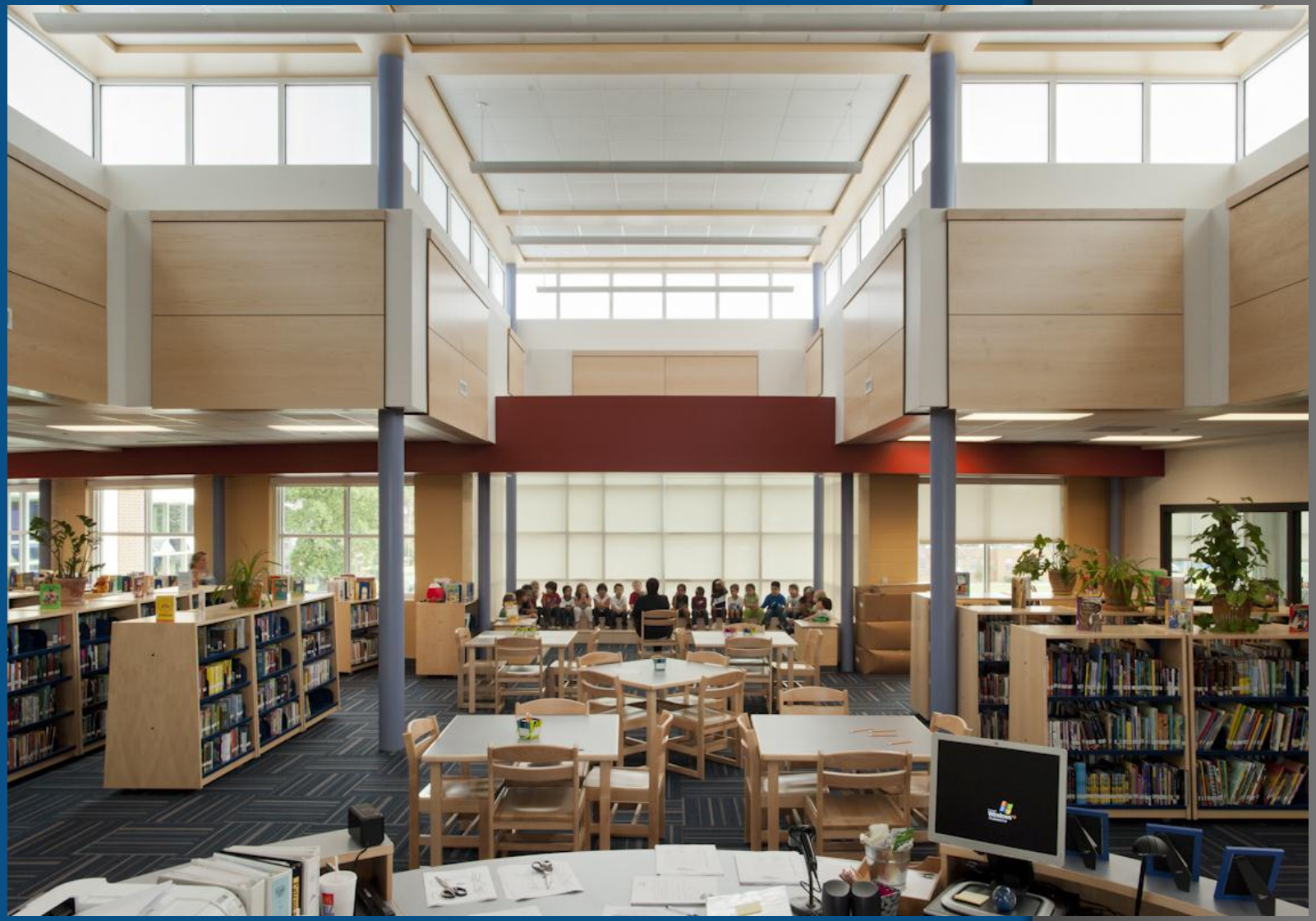




SUSTAINABLE SITE FEATURES

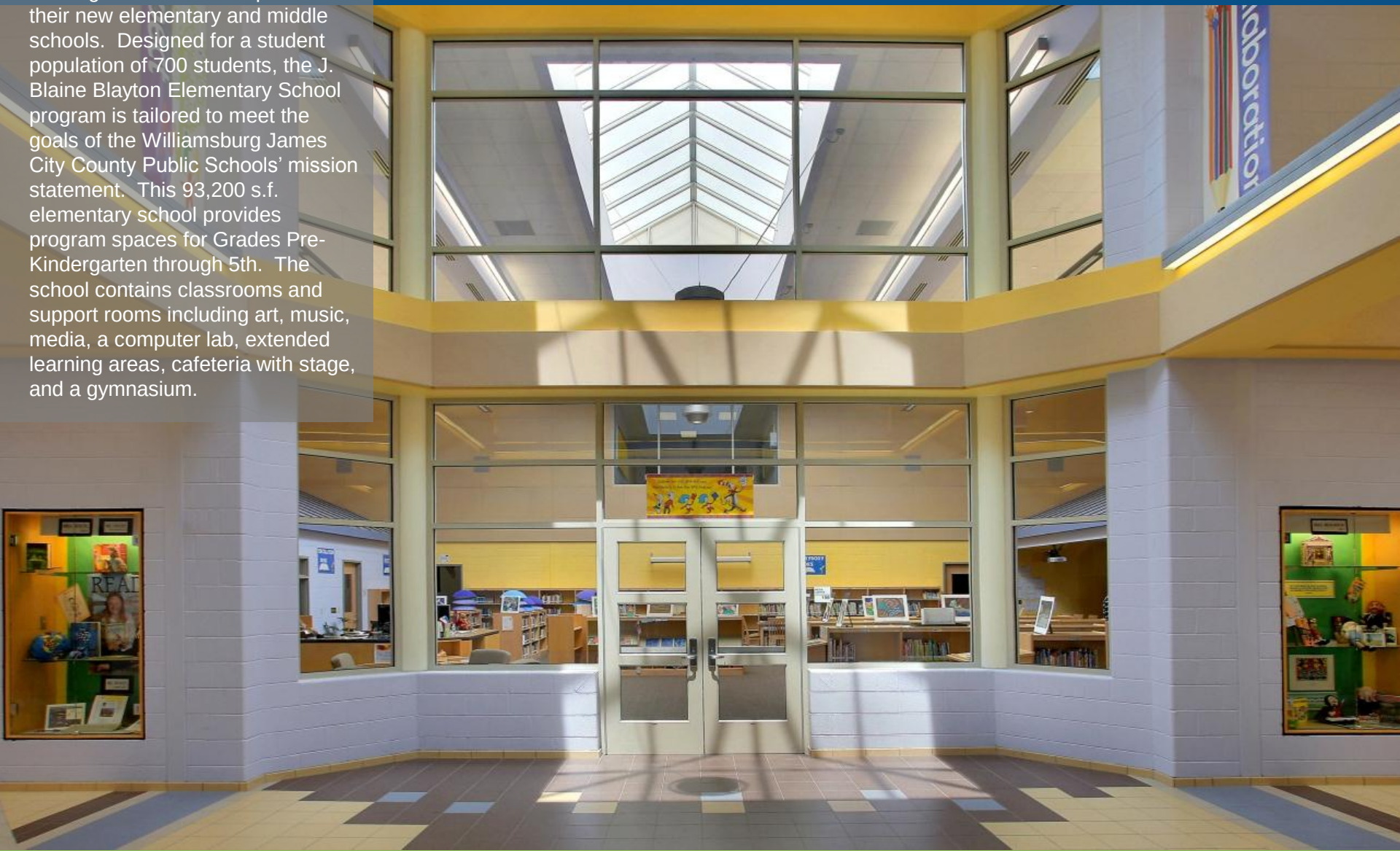
1 Hybrid wind/solar site lights
1 Bike racks
2 Oversized piping for rainwater harvesting
3 Solar hot water panels
4 Green roof
5 Rain barrels
6 Permeable pavement
7 Drop off for low-emitting and fuel efficient vehicles
8 Parking for low-emitting and fuel efficient vehicles
9 Irrigation by rainwater
10 School garden
11 Recycling storage



J. Blaine Blayton Elementary School

J. Blaine Blayton Elementary School

In the Fall of 2010 Williamsburg James City County opened an exciting educational campus for their new elementary and middle schools. Designed for a student population of 700 students, the J. Blaine Blayton Elementary School program is tailored to meet the goals of the Williamsburg James City County Public Schools' mission statement. This 93,200 s.f. elementary school provides program spaces for Grades Pre-Kindergarten through 5th. The school contains classrooms and support rooms including art, music, media, a computer lab, extended learning areas, cafeteria with stage, and a gymnasium.



Landscaped pathway to Middle School

Educational Campus

A landscaped pathway between the two schools creates the awareness that both schools operate as part of a larger family community. The middle school has an auditorium that both schools and the community can use. Sharing the site also allowed substantial financial savings; the project bid at 20% below the estimated budget. The results are two wonderful, new schools organized on a thoughtful academic campus that will serve the Williamsburg community well for many years.

Sustainable Design

Both schools benefit from many sustainable features including a geothermal well field. An environmental learning zone, consisting of a pond and deck space, is located along the connecting pathway to ball fields.

Additional Features include:

- Porous concrete in parking areas
- Bio-retention areas
- Energy Star reflective roof membrane (reduce heat island effect)
- Highly water efficient plumbing fixtures
- Reduce energy usage by over 20%
  - geothermal mechanical system
  - efficient light fixtures
  - daylighting
  - high r-value, tight building envelope / use of spray foam insulation
  - high performance glazing
- Use of recycled materials
- Use of regional materials
- Carbon Dioxide monitoring

Exterior environmental learning space

Large outdoor ball fields

Student bus entry with canopy reflects civic presence for community

Outdoor play area is easily supervised from interior

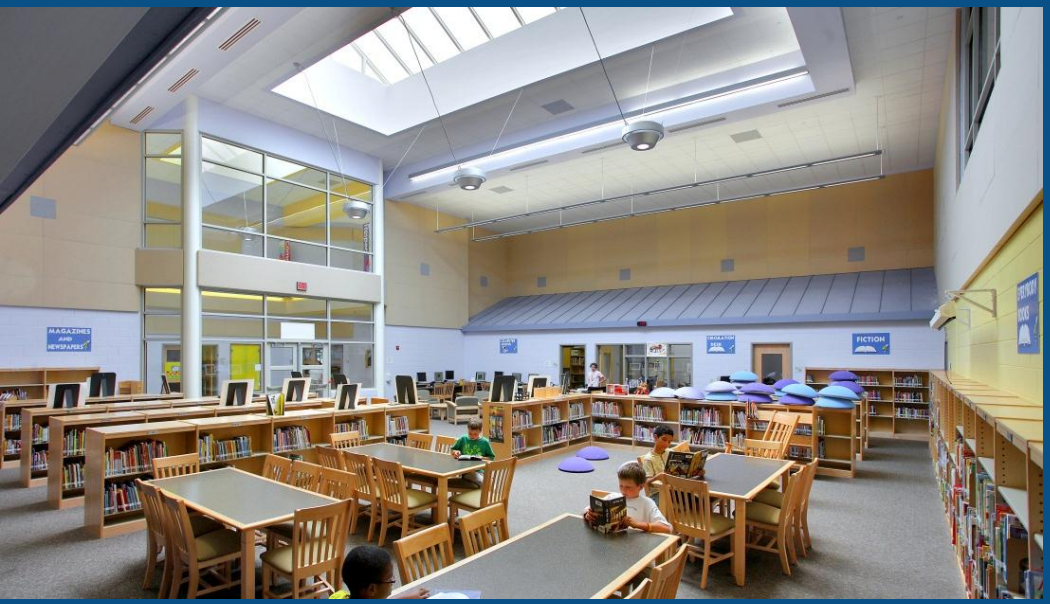
Controlled visitor entry

Main Street displays student work for personalized learning environment

Dining with stage and acoustical "clouds" creates optimized performance environment

Use of color, light, and space to enhance learning

Typical Classroom



Library infuses instructional technology for a dynamic educational space

This campus provides flexible, shared learning environments for different age groups. These learning areas are situated so that the interaction between elementary and middle school students is limited and well supervised. This allowed for a campus that reflects the unique needs of the Williamsburg-James City County community.

Graham Road Elementary School

Originally constructed in the 1950s, this school required a reconversion from an administrative building, back to a school facility to accommodate increased enrollment and student needs. Comprehensive renovations and additions to the outdated building were completed creating a colorful, vibrant, and rejuvenated school. The gentle slopes of the topography were used to create a covered pedestrian bridge to the second floor of the school at the back entryway where busses drop off and collect students. This change now provides access points on both levels.

Graham Road Elementary School

PHYSICAL ENVIRONMENT AND SUSTAINABILITY

Colonial red corrugated metal siding, complementary face brick, and hunter green curtain wall provide an attractive and gentle transition between the residential community and the adjacent commercial centers. Design of a white cool roof, lighting occupancy sensors, and water-saving devices were intentionally included to save energy. Additionally, the parking area incorporated pervious pavement to assist in addressing storm water management.

COMMUNITY INVOLVMENT AND USE

The school partners with several community organizations requiring consideration and input on the intent of public spaces from the perspective of multiple end users. Based on feedback, the team ensured that the design of the two story lobby and adjacent meeting rooms provide a variety of spaces to support both school and community activities.

Great Neck Middle School

Great Neck Middle School

Virginia Beach, Virginia

Category: New Construction for Middle (6-8)

Exterior Rendering

Exterior Photograph

TYPICAL CLASSROOM

The typical classroom is designed to allow flexible learning configurations. The implied "front of classroom' has a Smartboard for digital use and for projected images, along with marker boards and teacher panels. Secondary walls have white boards and tack boards to allow flexible setup of instructional delivery. Student furniture was selected to complement the need for flexible and varied learning settings for group / individual project needs. The typical classroom for GNMS were designed to support a variety of learning styles and methods of delivering instruction; easy adaptation for future changes in the continually-evolving educational delivery systems; and overall, enabling all learners to be successful. Numerous pre-design meetings with the Virginia Beach City Public Schools, their stakeholders, staff and students ensured the design reflects the VBCPS desired learning program.

The arrangement of classrooms is such that one team of teachers is on each side of the commons area, so students don't have far to travel to their core classes and it allows teachers to work together for academic success. In the future if academic philosophy changes to a departments approach, the arrangement of spaces accommodate changes because the science labs are centrally located and share prep rooms.

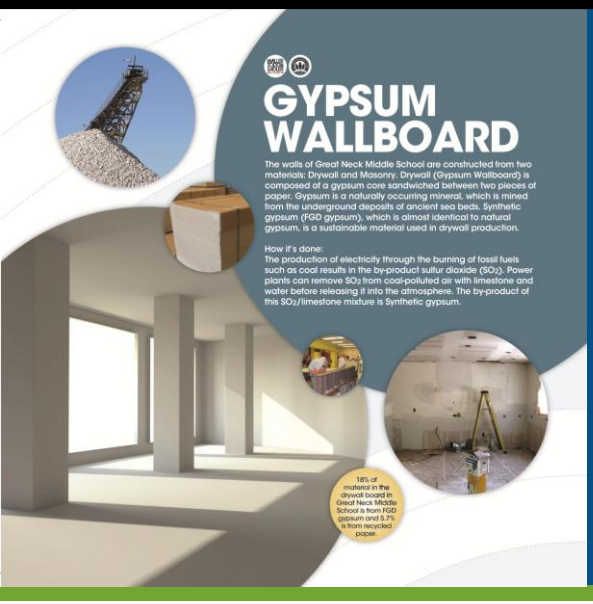
The student centered learning area (commons area) were designed to allow for breakout learning, individually or in small groups. Due to the location with adjacent classrooms direct oversight, student can utilize this space during class time, while still being supervised by teachers. The location allows for collaboration between students from different classrooms also. The flexibility of these spaces supports a variety of learning styles and methods for delivering instruction; a "learning anytime, anywhere" philosophy; easy adaptation for future changes in the continually-evolving educational delivery systems; reflects the VBCPS desired learning program; and overall, enables all learners to be successful.

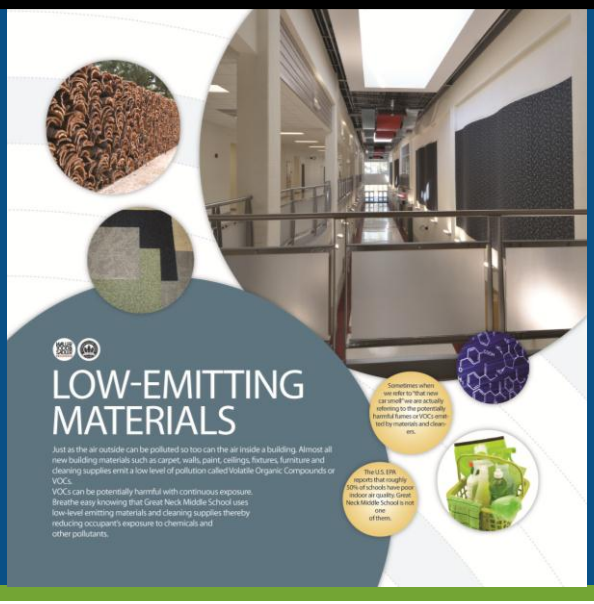
A mini-charrette was planned into the design progress to set-aside an opportunity for the architect, students and staff to design specialized learning and display spaces in each commons space on all three floors of the academic wing.

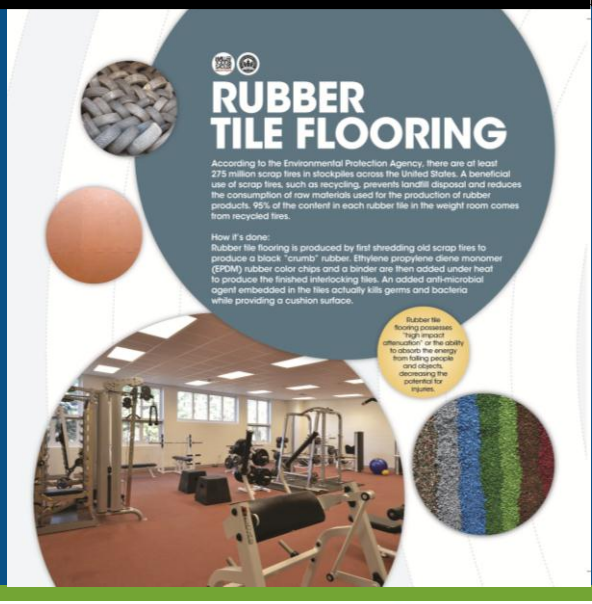
STUDENT CENTERED LEARNING AREA

Sustainable Design: The facility was designed to achieve a LEED for Schools Gold rating. The sustainable features employed reflect a long-term commitment on the part of VBCPS to provide their community with a facility that is forward looking, identifiable as a focal point of education and community use, and helps to preserve precious natural resources. Some of these features include renewable/recycled materials, durable materials, local materials, rainwater harvesting for water closet flushing and irrigation, solar water systems, reflective roof systems, syphonic roof drainage, biogardens, permeable pavements, heat island reducing pavements, high-efficiency mechanical systems, daylighting, occupancy sensors for lighting, LED exterior lighting and shielded exterior lights to reduce light pollution. Many of these features are integrated into a school-wide software data system to be utilized as a tool for learning and to measure current and future performance of the building.

Physical Environment. Great Neck Middle School is designed as a high performance "Green" school, taking advantage of certain solar orientations, while providing a welcoming presentation to the Great Neck Road corridor. The building footprint has been designed to maximize open space and to minimize impervious surfaces. Landscape was designed to promote neighborhood views and buffers of natural planting materials. The intent of the design is to be in harmony with its surroundings and the spirit and purposes of the guidelines. Site amenities and school orientation were developed through dialogue with surrounding neighborhood input. The design team improved the existing connections to both the Meadow Ridge and Green Hill neighborhoods with bike racks and wide sidewalks to encourage riding and walking. The surrounding landscaping at GNMS is designed with plants and trees native to Virginia which are drought and climate tolerant meaning they can survive on rainfall alone and do not require additional irrigation from sprinklers which utilize precious drinking water.







LANDSCAPE VEGETATION

Habitat and Vegetation Protection and Enhancement. The site's landscaping is designed to strengthen the surrounding eco-system and enhance the sense of place within the City's unique coastal environment. The landscaping incorporates plants and trees native to Virginia which are drought and climate tolerant. These in turn provide a natural habitat to insects, birds and butterflies native to the area. This strengthens the local eco-system and enhances our sense of place to the unique coastal Virginia environment.

All existing trees not within the construction footprint of the school, parking, roads, and athletic fields were protected by extensive tree preservation specifications. Tree preservation plans and specifications required that an ISA Certified Arborist be retained to oversee impacts to existing trees and their critical root zones. Six feet high chain-link tree protection fencing was incorporated to protect critical root zones from heavy equipment compaction and root severance by grading activities. Large existing shade trees along Great Neck Road were preserved by strategically locating the new football/soccer stadium and track away from the drip-line of the trees, ensuring continued growth of these mature trees.

"We're providing an asset to the community and something everyone can be proud of." - Anthony L. Arnold, Director of Facilities, Planning and Construction

COMMUNITY INVOLVEMENT AND ENVIRONMENT. The Great Neck Middle School site plan was designed to preserve open space. The landscaping consists primarily of open grassed fields with well placed foundation plantings around the school, landscaped parking islands and mature landscape buffers to facilitate privacy with adjacent neighbors.

Design features that incorporate and enhance the local community:

- A building footprint designed to maximize open space and to minimize impervious space.
- Landscape design that harmonizes and connects with the surrounding neighborhood while maintaining the area's natural features and habitats.
- Not only neighborhood friendly, but environmentally friendly and in harmony with its surroundings.

Lois S. Hornsby Middle School

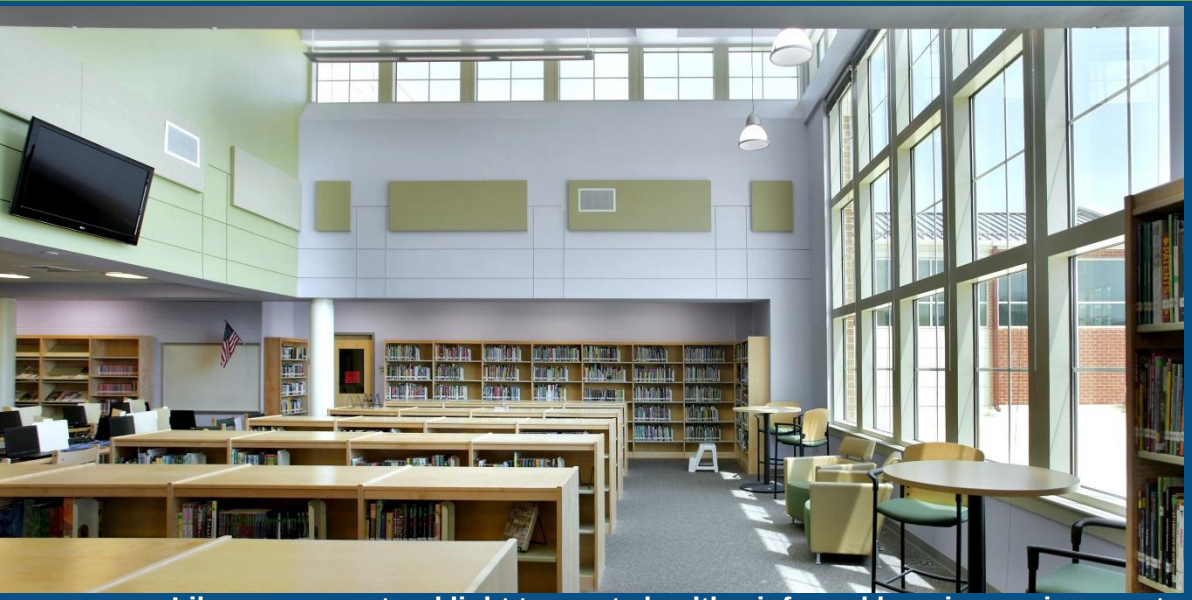
Lois S. Hornsby Middle School

In the Fall of 2010 Williamsburg James City County opened an exciting educational campus for their new elementary and middle schools. Designed for a student population of 800 students, the Lois S. Hornsby Middle School program is tailored to meet the goals of the Williamsburg James City County Public Schools' mission statement. This 145,450 s.f. middle school provides program spaces for Grades 6th through 8th. Each grade is divided into two teaching teams. The middle school philosophy of team grouping fosters an atmosphere of cohesiveness by grade level that is reinforced by the building design.

View of theater and Main Street, showing the importance of the educational mission.

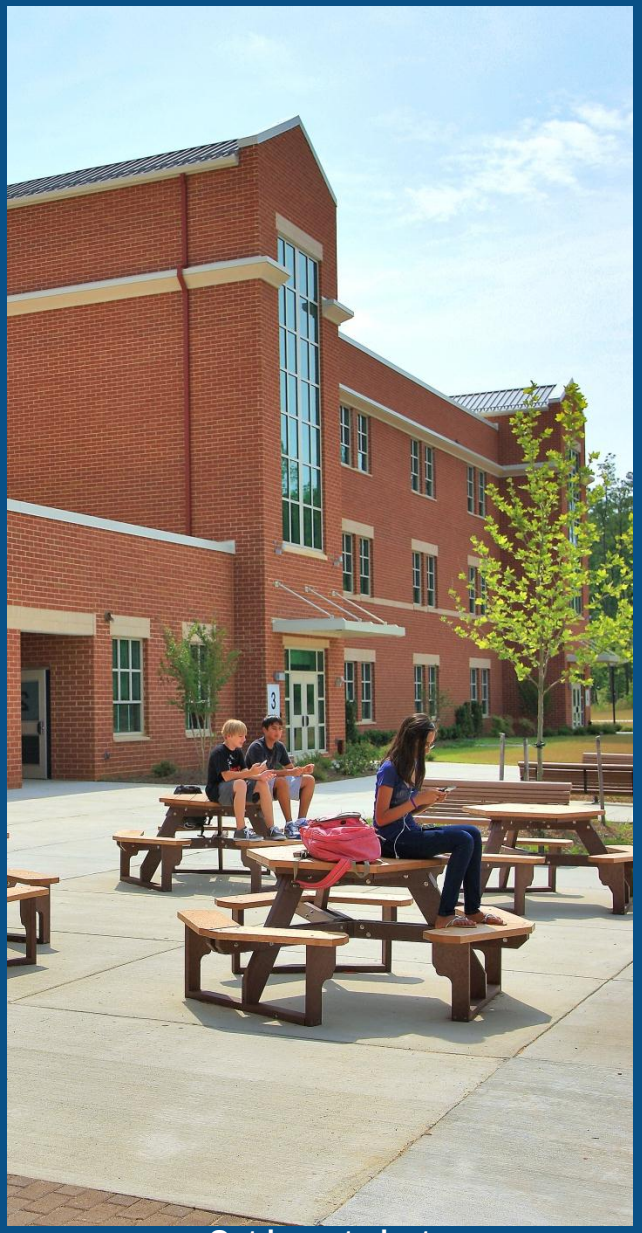
Optimized theater space

Classrooms use natural light to enhance learning



Library uses natural light to create healthy, informal learning environments

Cafeteria creates easy supervision with a transparent environment



Outdoor student common area

HOPEWELL HIGH SCHOOL

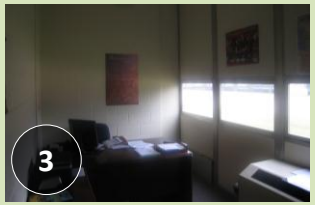
With its last renovation in 1986, Hopewell High School needed a face lift and major building system upgrades, including accessibility improvements, new fire sprinkler system, HVAC (Geothermal closed loop water source heat pump system), new lighting and technology infrastructure (cable trays/conduits). The new addition included: gym lobby/ public toilets/ ticket booth/ team locker rooms/ concessions to alleviate existing congestion issues. A new enclosed connector link between the Auditorium and Gymnasium was also provided.

before

after

HOPEWELL HIGH SCHOOL

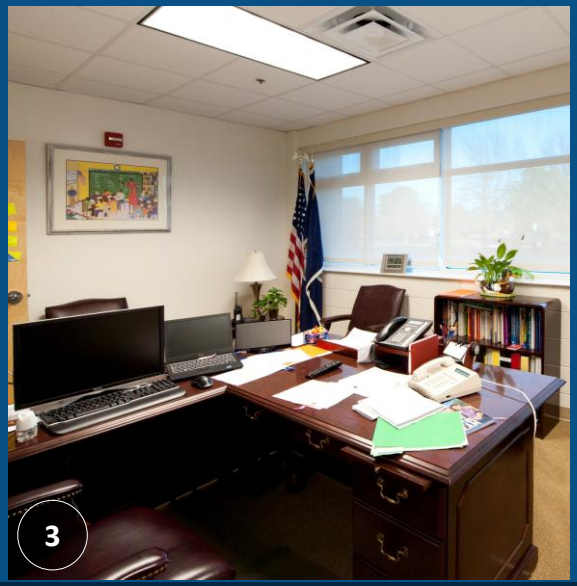
before



Interior Renovation

after

1. Admin Reception
2. Teachers
3. Principal's Office
4. Elevator
5. Mor Stai



HOPEWELL HIGH SCHOOL

cefpi where great schools begin Virginia Chapter

Prepare to Learn – Learn to Prepare

VEFP Virginia Educational Facility Planners

Thomas Edison High School Modernization

Thomas Edison High School Modernization ALEXANDRIA, VA

STREET PRESENCE: Main Entrance - After

Main Entrance - Before

Parent Drop Off Entrance - Before

Parent Drop Off Entrance - After

CREATING A DEFINED ENTRY

The prominence of the existing main entry is strengthened with an addition that increases visibility while introducing new materials that blend with the school's existing exterior palette. New glass facades, which contrast the existing masonry, provide a welcoming experience with glimpses of activities within the building while introducing more natural light into the building's interior.

As a part of the wrestling and fitness addition, a new canopy provides shelter for the parent drop-off loop and connects directly into the main corridor.

ENHANCED LEARNING ENVIRONMENT

Unique learning opportunities were integrated into the design of the high school. Murals of Thomas A. Edison located in the main lobby stair and at the auditorium lobby inspire students to research his life and accomplishments.

"I found the [architects] to be very knowledgeable and attentive to the owner's needs. The design made quite a positive and dramatic change in the building appearance and function."

- David Printz, Coordinator of Capital Projects, FCPS

Hallway - Before

COMMUNITY SPACES

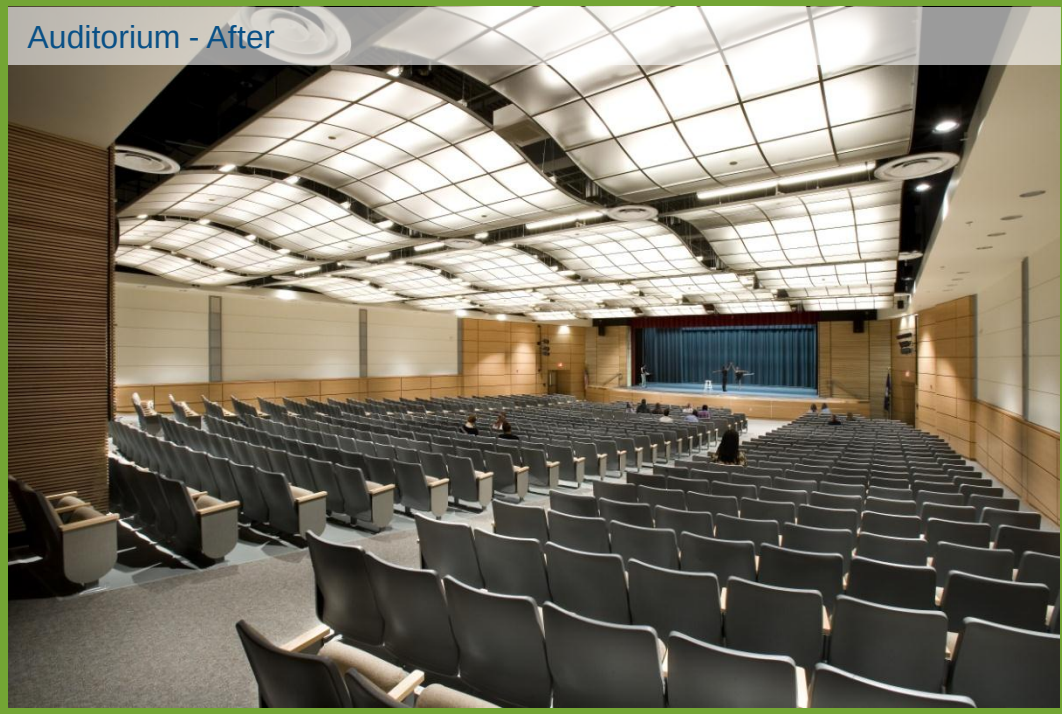
The auditorium, main gym and cafeteria are the largest spaces the school shares with the community. As a result of the renovation, the auditorium seats 750 and offers a proscenium stage, multi-level lighting systems and enhanced A/V. In addition to physical upgrades, the gymnasium seating capacity is increased to 880. The cafeteria, in addition to finishes and enhanced daylighting, is able to subdivide with each area holding 320.

Cafeteria - Before

Gymnasium - Before

Auditorium - Before

Auditorium - After

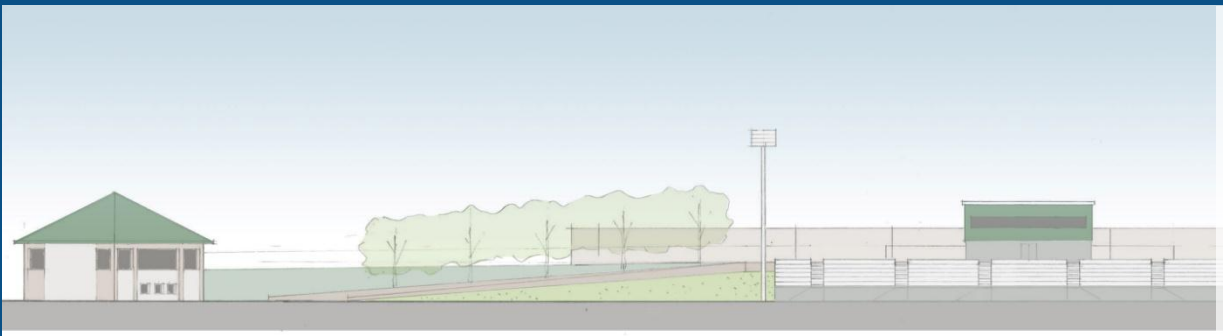


Cafeteria - After

Gymnasium – After

Athletic Complex Renovation – Greene County Public Schools

Shaping the Land



Designers took advantage of the natural slopes to “terra-form” the site rather than infill it. The solution, aside from being much more sustainable, is also more elegant, and resulted in significant cost savings.

Added value

The design created a new press box building, which also serves as bathrooms and concessions stand.

By shaping the site, designers provided access to both floors of the building without an elevator, resulting in additional cost savings.

The whole complex was shaped to frame views of surrounding mountains, making them an integral part of the experience, rather than merely a backdrop.

ARCHITECTURAL AWARDS

Elementary Schools Renovation

Stenwood Elementary School

Fairfax County Public Schools

Andrea Shaw

Perkins Eastman

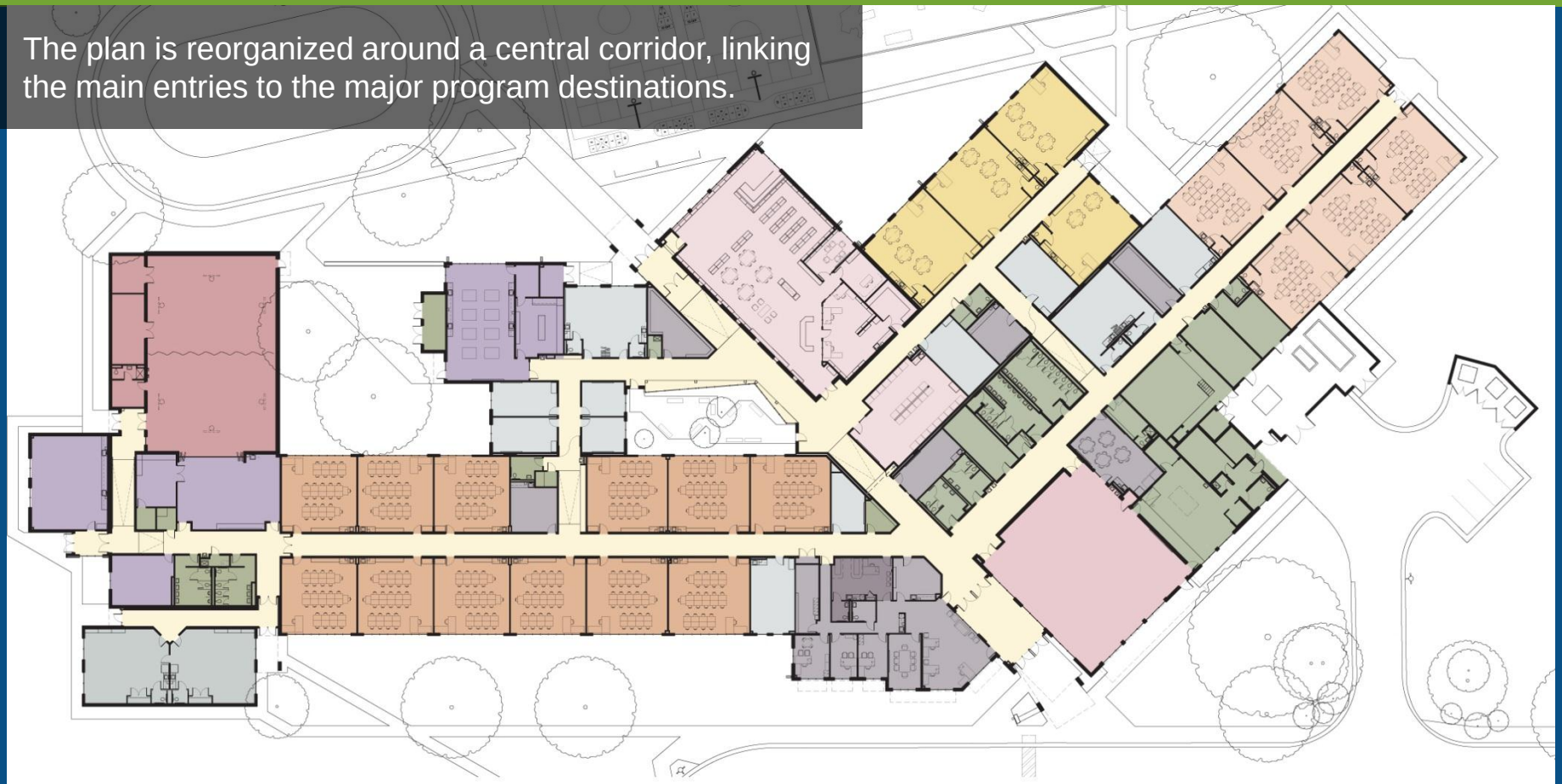
This comprehensive modernization and expansion of a modest 1960's building transforms the school into a bright, open, and inviting learning environment. The boomerang-shaped single story building was reorganized with additions that straddle the existing structure to engage the landscape with outdoor classrooms and a central courtyard. A generous new main corridor connects the front of the site with the rear, allowing bus drop-off and parent traffic to be separated, but directly connected. New spaces for the Media Center and Administrative suite punctuate the new connection, while new classrooms for Pre-K, Kindergarten, and Art weave across it to form integral and accessible outdoor spaces.

The corridor becomes an extended learning area as it wraps the courtyard.

Site Plan

Additions are arranged to form outdoor learning environments such as the Arts Patio and Courtyard. Low impact site strategies include rain gardens for storm water management.

The plan is reorganized around a central corridor, linking the main entries to the major program destinations.



Floor Plan

FLOOR PLAN LEGEND

- Circulation
- Kindergarten/Pre-School
- Grades 1-2
- Grades 3-6
- Special Ed./Instructional Support
- Before/After School
- Music & Art
- Media Center/Comp. Lab
- Cafeteria
- Gymnasium
- Admin./Teacher Support
- Clinic
- Building Support

Before

After

A sheltered porch marks the revitalized front entry, where deep overhangs provide plenty of space to wait and the large windows of the administrative offices and cafeteria improve security and visibility to the site.

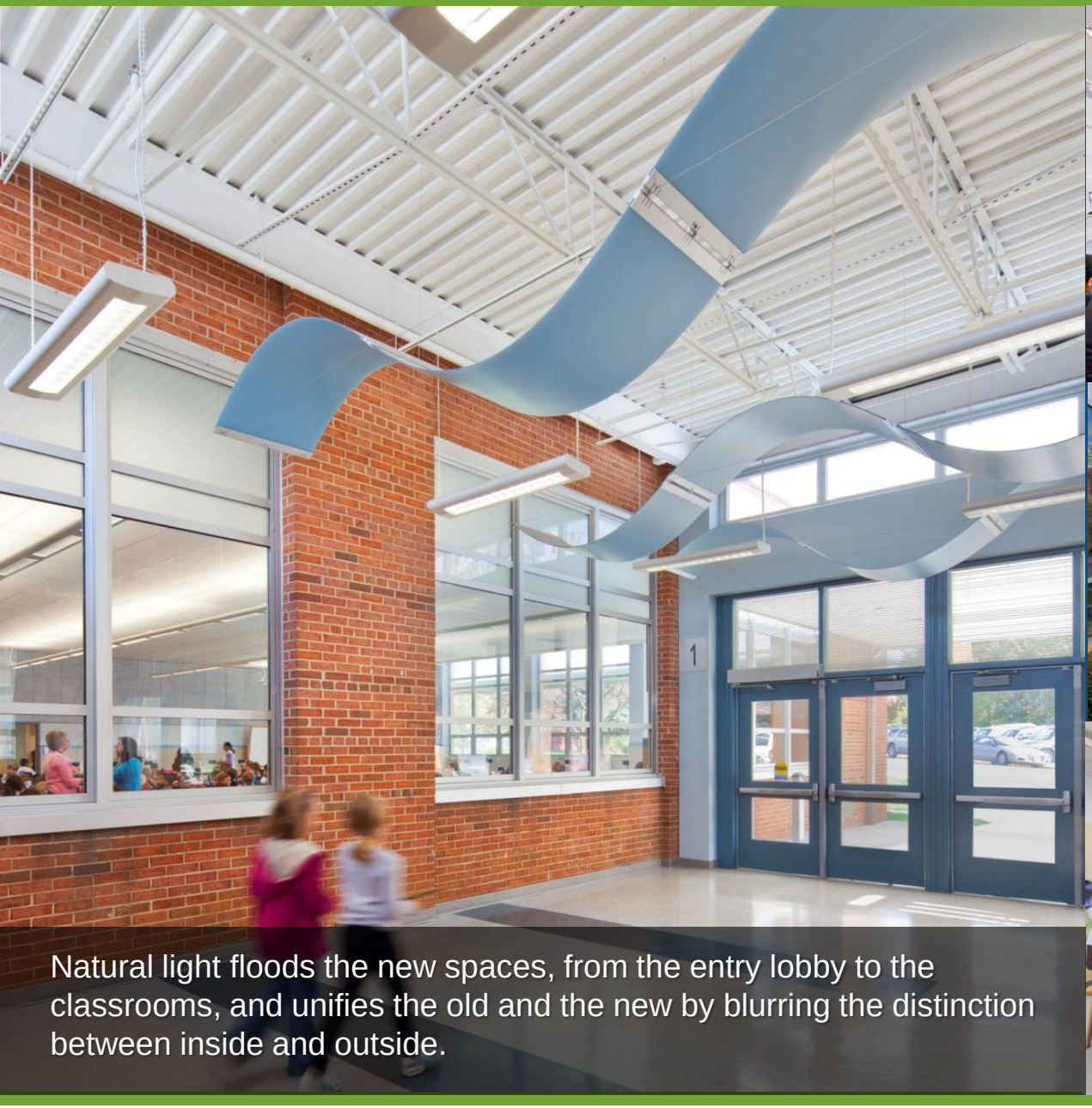
Media Center and Rear Entry Addition

The Media Center overlooks the rear yard, where a secondary entrance addresses the approach from the neighborhood, and provides access to the fields and playgrounds.

Cafeteria

After

Once a dreary, disconnected space, the **Cafeteria** is transformed into an active and vibrant space with substantial new windows, an updated lighting scheme, and playful new finishes. Existing exterior windows are retained as interior glazing to enliven adjacent corridors.



Natural light floods the new spaces, from the entry lobby to the classrooms, and unifies the old and the new by blurring the distinction between inside and outside.

Classroom

Outdoor Classroom

Art Classroom

Descriptive Data

- size of site (acres): **9.9 acres**
- student capacity*: **500, grades preK-6**
- area of building (SF): **70,109 GSF**
- total project cost**($): **$8.35M**
- cost per square feet (SF/S): **$119/SF**
- cost per student ($/student): **$16,700/student**
- space per student (SF/student): **140 SF/student**

Identification

- **Stenwood Elementary School, Vienna, Virginia**
- Owner: **Fairfax County Public Schools**
- Owner's representative: **Mark Hilty**
- design firm: **Perkins Eastman, Sean O'Donnell, Brian Donnelly, Andrea Shaw**
- educational planner: **none**
- landscape architect: **William H. Gordon Associates**
- engineer(s): **William H. Gordon Associates (civil), Ehlert/Bryan (structural), Strickler Associates (MPE)**
- Builder: **Sigal Construction**
- Photographer: **Perkins Eastman**

Perkins Eastman

Elementary Schools

New

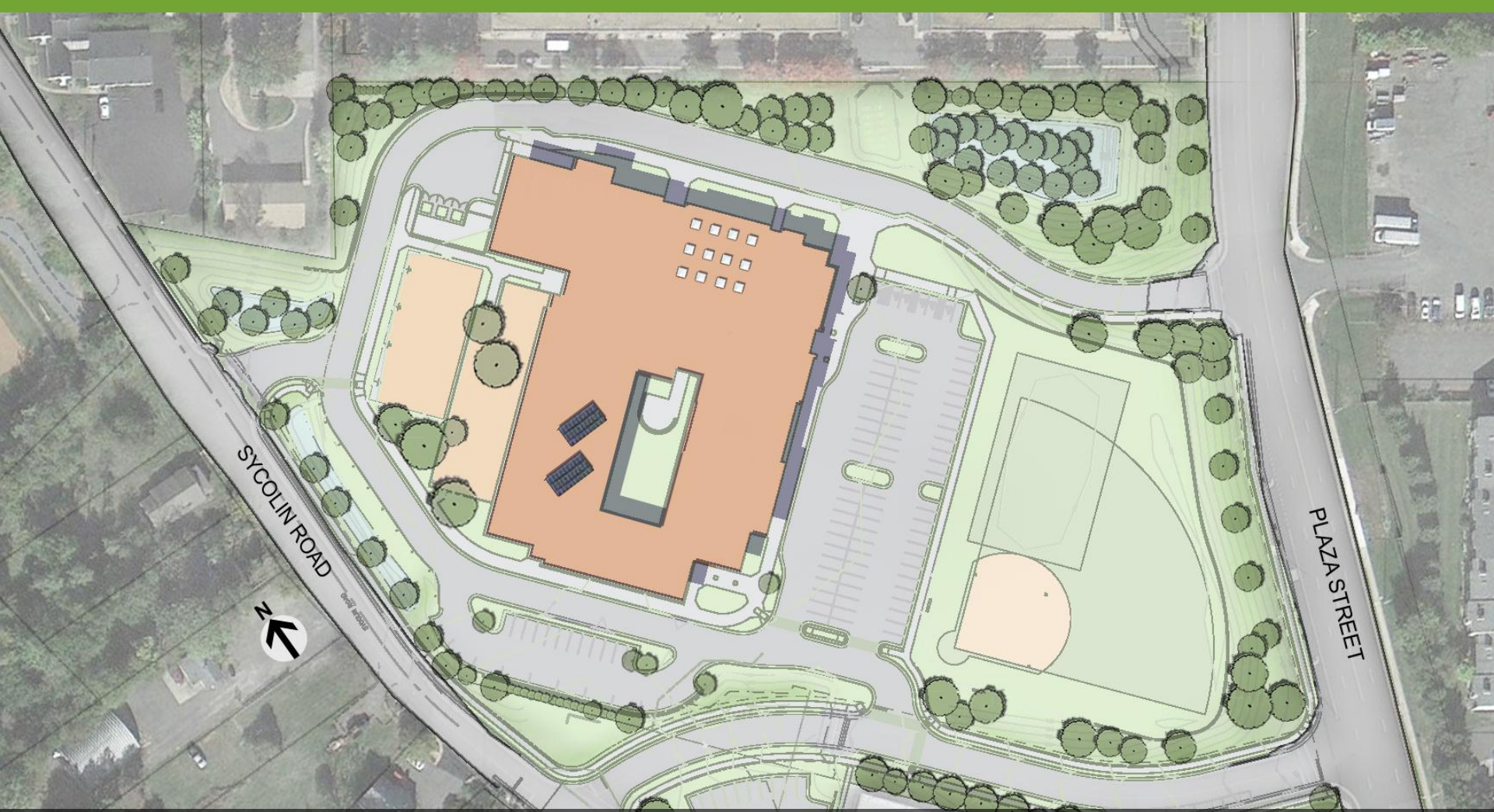
Frederick Douglass Elementary School

Loudoun County Public Schools

Brian Donnelly

Perkins Eastman

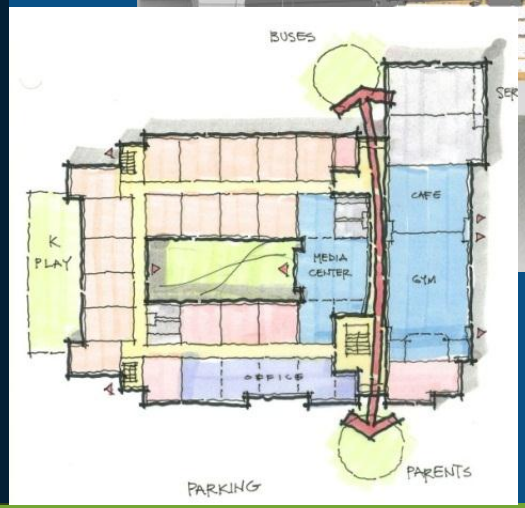
Based on a two-story model for 875 students developed by the client, this project benefits from incremental modifications intended to improve the operation, constructability and performance of the prototype building, while knitting it more closely to its neighborhood context. Located on the edge of a historic district, where a segregated school was previously built, the new building includes an interactive display that both honors and memorializes the history of the site and the local residents – a unique resource that is shared with the entire school system over the internet.

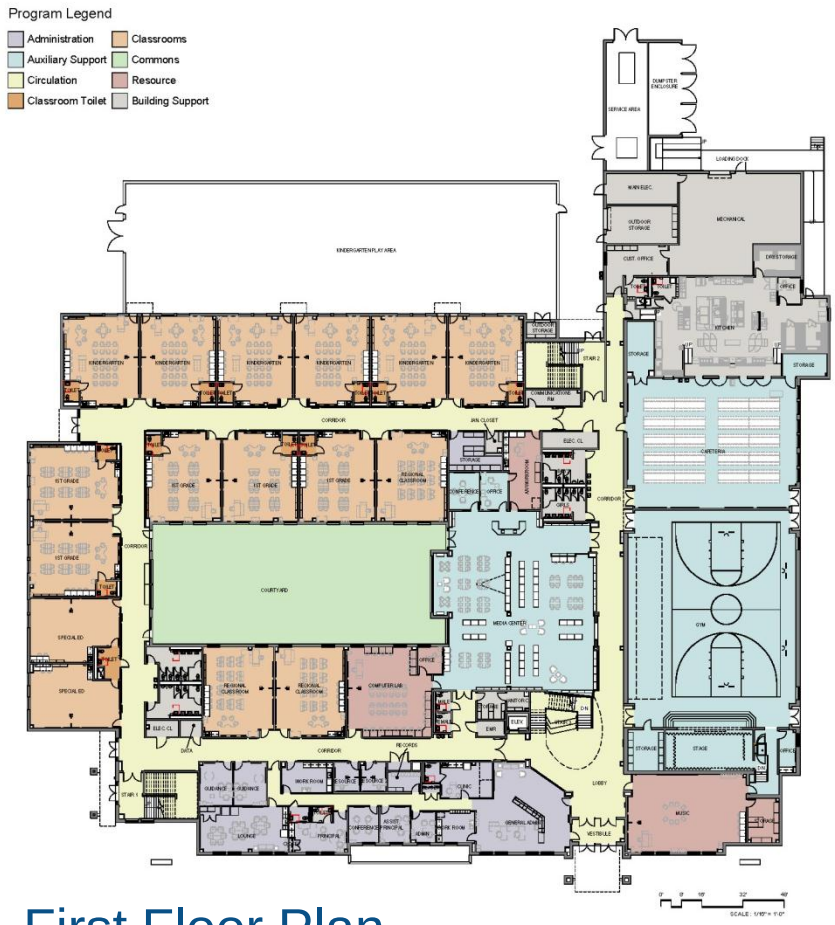


The school building is Designed to Earn the Energy Star, and includes several sustainable design features: photovoltaic power for the site lighting, solar hot water, light diffusing skylights and clerestory in the gym, and abundant daylight in every classroom.

Through a process of rigorous critique and evaluation, several significant modifications were made to the prototype:

- The details and composition of the elevations were modified to more closely resemble the Federal Style, which is characteristic of the town, and **more historically familiar**,
- **Classroom sizes and shapes** were standardized with uniform locations of equipment and casework, and a more efficient structural system.
- The **Media Center was relocated** to the welcoming heart of the school, and **interior glazing** added to make it more visible,
- The **Entry lobby and monumental stair** were redesigned to be lighter, more transparent and more sculptural,
- A **Memorial Display** was added to connect the school to its history and community.



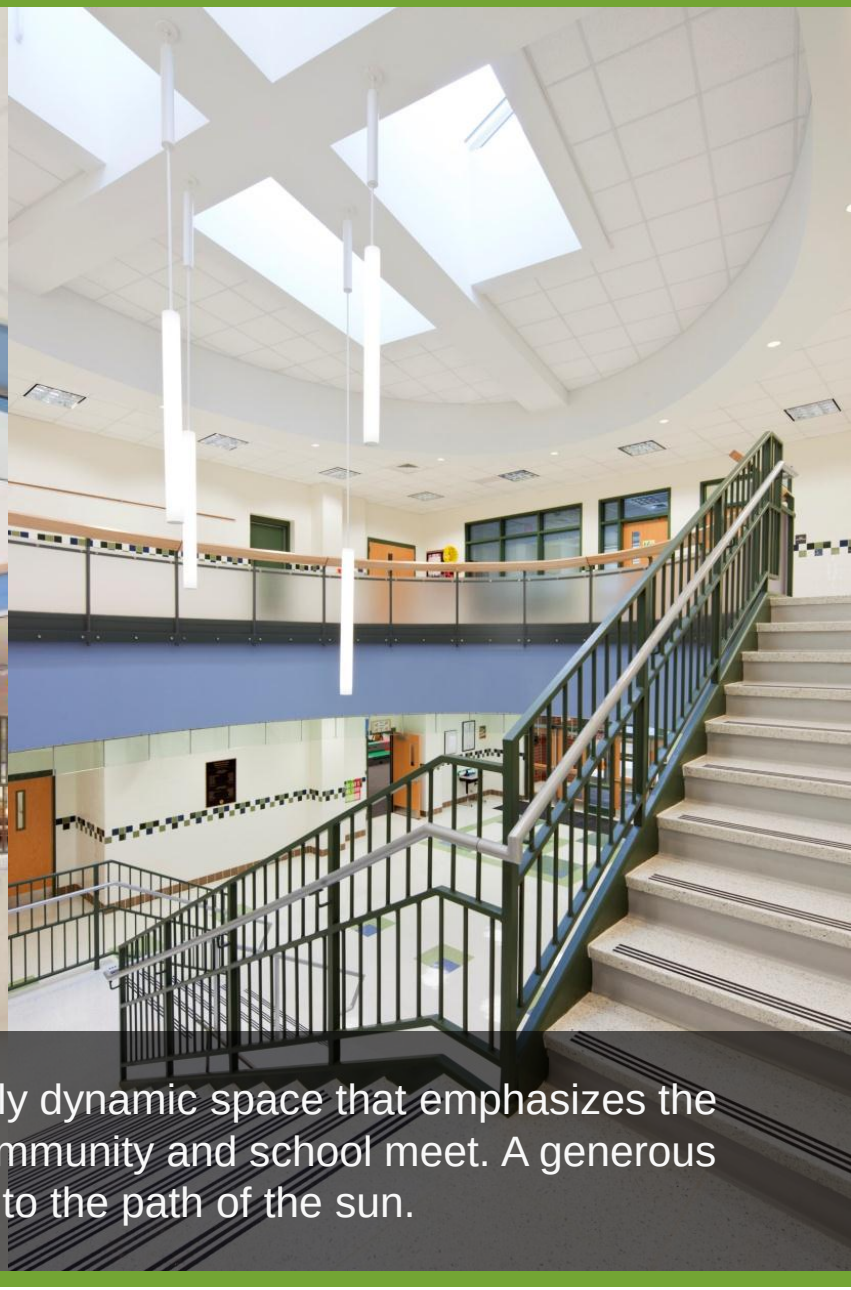


First Floor Plan

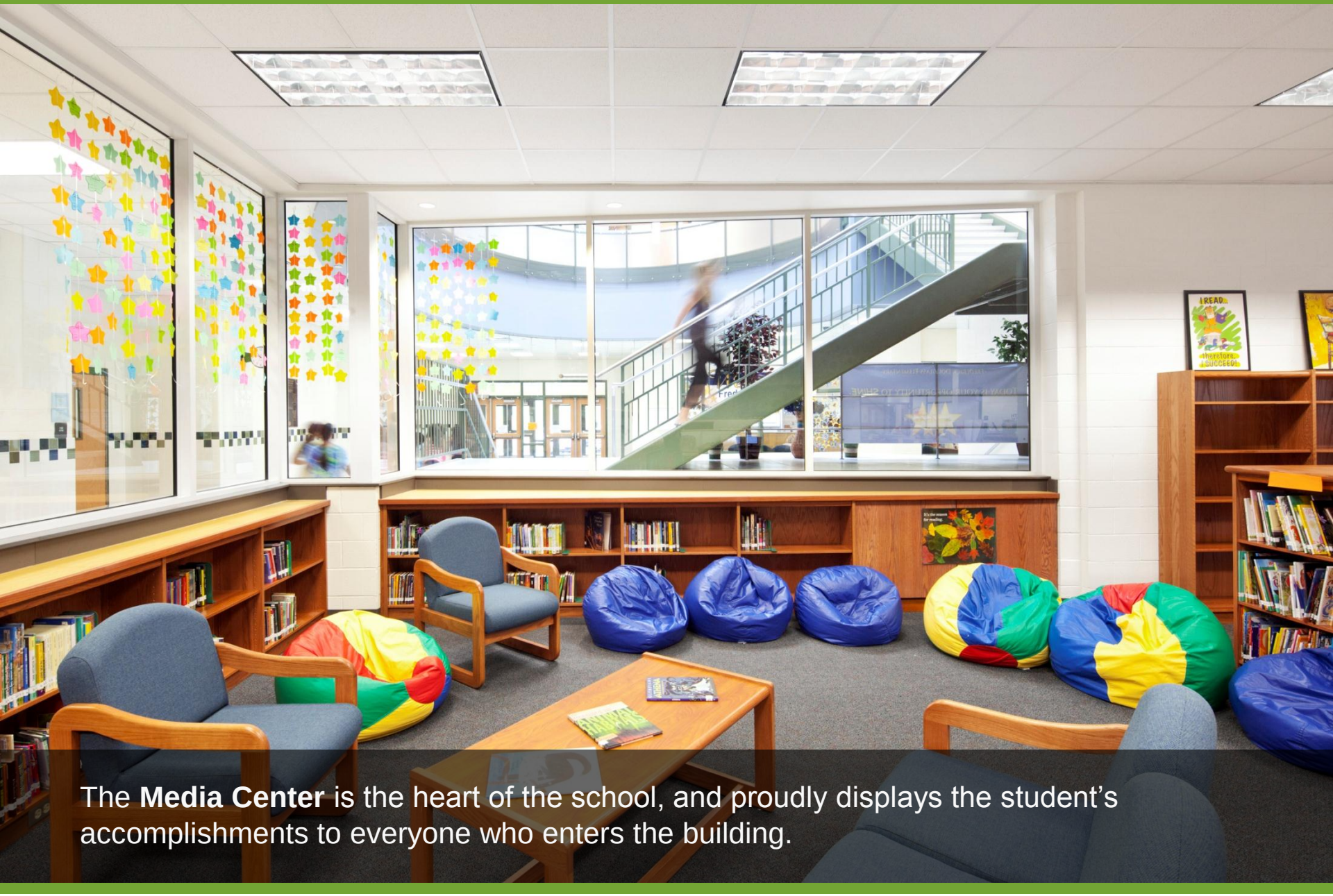
Second Floor Plan

Interactive Memorial Display

Designed in collaboration with the school administration and the local Black History Committee, this learning resource documents and honors the community's struggle for equality of opportunity. Beginning with the school's namesake, a fixed timeline traces the local history of the civil rights movement. Interactive touch-screens provide greater depth and national context. The content developed for the display is available to all of the county's schools through the internet.



The bright and welcoming **Entry Lobby** is a uniquely dynamic space that emphasizes the idea of *connections* at the crossroads where the community and school meet. A generous skylight animates the space and orients the interior to the path of the sun.



The **Media Center** is the heart of the school, and proudly displays the student's accomplishments to everyone who enters the building.

Descriptive Data

- size of site (acres): **9.0 acres**
- student capacity*: **875, grades K-5**
- area of building (SF): **100,321 GSF**
- total project cost**($): **$21.9M**
- cost per square feet (SF/S): **$218.30/SF**
- cost per student ($/student): **$25,028/student**
- space per student (SF/student): **115 SF/student**

Identification

- **Frederick Douglass Elementary School, Leesburg, Virginia**
- Owner: **Loudoun County Public Schools**
- Owner's Representative: **Kevin Lewis, Sara Howard-O'Brien**
- Design Firm: **Perkins Eastman, Sean O'Donnell, Brian Donnelly**
- Engineer(s): **Bowman Consulting, civil; Ehlert Bryan, structural; Strickler Associates, MPE**
- Builder: **Branch & Associates, Inc.**
- Photographer: **Perkins Eastman**

Perkins Eastman

Secondary Schools

Renovation

Warren County Middle School

Warren County Public Schools

Ballou Justice Upton Architects

A Community Landmark

Warren County Middle School

Warren County, Virginia

A school rich in history restored for the future…the ultimate in sustainability

cefpi where great schools begin Virginia Chapter

Prepare to Learn – Learn to Prepare

VEFP Virginia Educational Facility Planners

SIDE ADDITION - NEW MAIN ENTRANCE

SITE PLAN

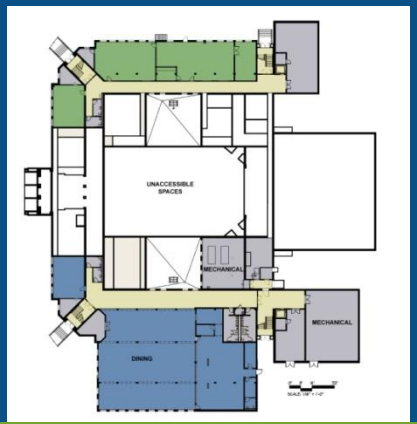
As a Community Landmark with historical significance, the restoration of the original high school, built in 1940, merits respect and sensitivity to its original character.

Additionally, the expansion of the school required design that is compatible with, but distinguished from and subservient to the historic building.

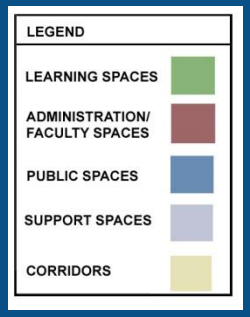
The reuse and revitalization of the school promotes sustainability.

FLOOR PLAN
2ND FLOOR

FLOOR PLAN
1ST FLOOR



FLOOR PLAN
BASEMENT



Transformation of the facility for use as a new middle school necessitated programming, planning and design focused on improved flexibility & accessibility, technological advances, energy efficiency, enhanced indoor air quality & acoustics, improved circulation & life safety features and security.

High performing strategies have been implemented throughout the facility to include:

- New courtyards allow for optimal learning spaces, encouraging collaboration and flexibility for multiple uses
- Windows and clerestories provide an abundance of natural light
- Efficient HVAC and lighting systems, and white roof promote energy savings
- Low flow, sensor activated plumbing fixtures

Safety and security is maintained with the orientation of the new Main Entrance, which provides controlled access during and after school hours.

The new Main Entrance/Atrium serves as a “Learning Street – Social Artery” providing connectivity through the school and also allowing for social learning. Display cases are arranged for display of student and teacher works.

Natural light is predominant, streaming from clerestories and windows. High performing materials & finishes are used for optimal operations and maintenance.

NEW MAIN ENTRANCE - ATRIUM

NEW ADMINSTRATIVE SUITE

Design of the Administrative Suite subtly enhances security and safety with use of full window walls giving efficient visual monitoring and observation *(“eyes on the street”)*; as well as the strategic placement of the space adjacent to the main entrance, between the public and student areas, giving staff access control through a secure point of entry.

RESTORED SCIENCE CLASSROOM

RENOVATED EXISTING CORRIDOR

"In order to appreciate where our future generation of students are going, we need to know where we have been."

Mrs. Pam McInnis,
Superintendent

Historic tax credits were obtained for qualifying portions of the project which included preservation of the original Building Exterior, Entrance Lobby, a Science Lab and a General Classroom.

Civic presence has been preserved and strengthened by retention and refurbishment of major spaces within the original building according to the requirements of the Department of Historic Resources, including restoration of existing classroom wood floors & trim throughout the building; upgrading of light levels in existing corridors; and maintaining many of the existing building materials.

In addition, the Restored Science Classroom functions as a teaching tool, showing students how instruction has evolved and advanced in comparison to the new renovated science classrooms.

BEFORE

Renovation of existing public spaces provided the opportunity to enhance the technological infrastructure in conjunction with educational objectives, increase spatial efficiency, and upgrade materials & finishes.

Dynamic and flexible spaces that increase student productivity, focus and positive socialization are achieved through dispersed technology *(100% wireless connectivity)* throughout the school. Examples of the implemented instructional technology include: Interactive Smart Boards in all classrooms; Mobile Location Cart for live broadcasts; and a Media Cast Media Management System.

Technology access is at their fingertips.

ART CLASSROOM

BEFORE

The renovation of existing classrooms accommodates the current program allowing for flexible instructional spaces that may evolve into multiple learning studios in the future.

Light, color and space create a fresh, stimulating learning environment . Enhancements include the installation of new window treatments, allowing outside visibility, while maintaining optimal day-lighting levels; reorganization of spatial relationships; and the blending of existing & new finishes.

SCIENCE CLASSROOM

Descriptive Data

Size of Site (Acres):	15.26 acres
Student Capacity:	658
Area of Building:	168,883 sq. ft.
Total Project Cost:	$18,231,488.31
Cost/Square Foot:	$107.95
Cost/Student:	$27,707.42
Space/Student:	256 sq. ft.

ATRIUM

Project Identification

Name & Location of Project:
Warren County Middle School
Warren County, Virginia

Owner:
Mrs. Pamela McInnis(Superintendent)
Dr. Lou Justis (Assistant Superintendent)
Warren County Public Schools

Presenting Firm:
Ballou Justice Upton Architects
2402 N. Parham Road
Richmond, Virginia 23229
Phone: 804-270-0909
Fax: 804-346-3301
Billy E. Upton, AIA, REFP – Principal in Charge
Dave Boddy, AIA, REFP – Educational Facility Planner
Jack Moye, Ed.D. – Educational Facility Planner
Fred Hughes, AIA, LEED AP – Director of Architecture
Eddie Evans, AIA – Project Manager
Dian Paulin, ASID – Interior Designer

Project Consultants:
Simmons Rockecharlie & Prince (MEP Engineering)
Patton Harris Rust & Associates (Civil Engineering)
Alpha Corporation (Structural Engineering)

General Contractor:
Lantz Construction Co. of Winchester, Inc.
Winchester, VA

Secondary Schools

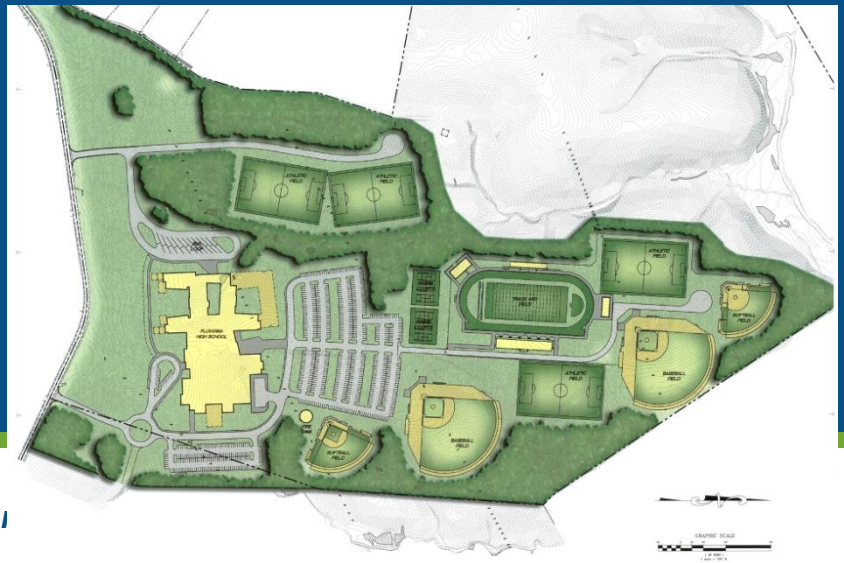
New

Fluvanna High School
Fluvanna County Public Schools

BCWH Architecture Interiors Planning

FLUVANNA COUNTY HIGH SCHOOI

County and school leaders pursued the design of Fluvanna County's new high school as a center piece of the future development of the County and its facilities. The site is part of a 1000 acre plot of land acquired by the Board of Supervisors more than a decade ago with the intent of providing for the education, recreation and business of all residents. Located near the historic Rivanna River, the site is very nearly at the geographic center of the County.



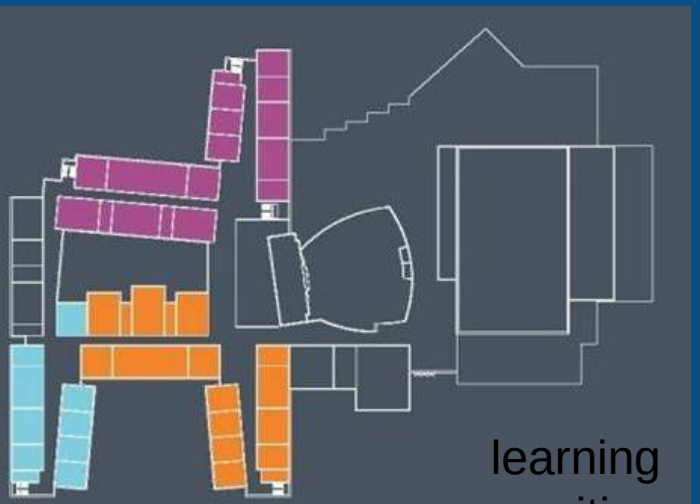
CIVIC PRESENCE

County representatives spoke of their vision of the new school in terms like “sleek and modern” and “environmentally responsive” while stating above all that it would exude the pride and respect the community has for its citizens and their future. The auditorium, gym, fitness center and meeting spaces welcome the community into what can truly be described as a civic center serving all.

Learning environment

The organization of the building celebrates and encourages independence and interaction among students. Technology within Fluvanna High School supports collaboration rather than isolating individuals from one another.

Each learning community provides a variety of collaboration spaces for students and teachers to use for project-based learning outside of the “typical” classroom space. Project libraries and conference spaces are located near assistant principal offices and student lockers to allow for collaborative opportunities to expand into circulation areas where individuals and small groups can meet comfortably and team.



learning communities

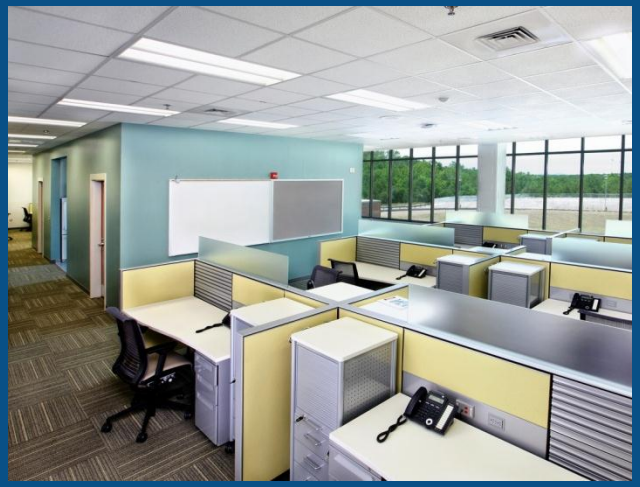
- COMMUNICATIONS + GLOBAL STUDIES COMMUNITY
- APPLIED ARTS + SCIENCES COMMUNITY
- HEALTH + HUMAN SERVICES COMMUNITY

Educational community

The functional and efficient main administration suite supports individual work and conferencing spaces, equipped with integrated furniture systems designed for ergonomic comfort and design elegance. Assistant principals are located throughout the learning communities, encouraging a tighter connection, cooperation, and interaction with students and faculty.

Teachers enjoy a highly professional office suite located within each learning community. These suites contain individual work space, teaming areas, storage, and utility support designed to encourage inter-disciplinary cooperation and collaboration.

While the new Fluvanna High School is equipped with state of the art technology and integrated security systems aimed at protection of the community and its children, the real security is established by the feeling that comes with freedom to explore and control your own destiny in the learning communities.

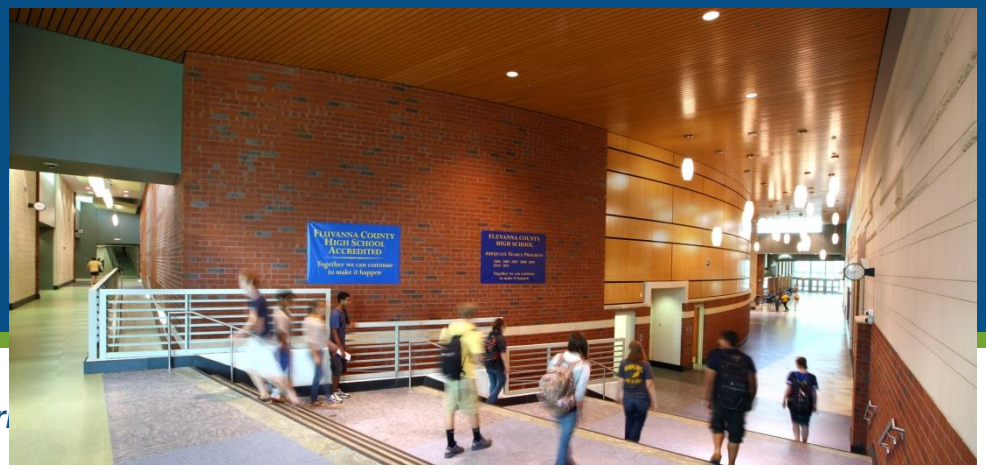


building floor plan

Subtle security

Visitors are welcomed at the front door and guided through the entrance to the general office as the only choice upon entering the building. The major security focus of the building is visibility access throughout to monitor who is in the building and what is happening. This is maintained by digital video and camera systems but also by an expanse of glass and transparency in all circulation and program spaces.

Building occupants are secure in their ability to see around them and know that they can be seen by someone nearby.

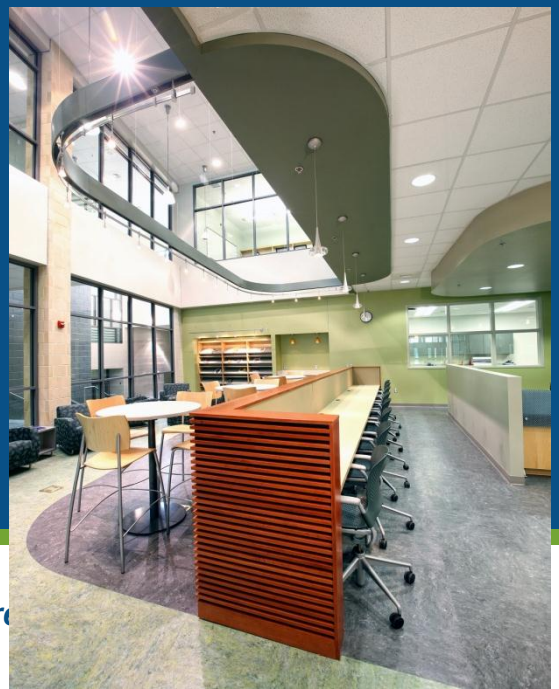


Fluvanna County's new high school combines a comprehensive approach to real world experiences. With a focus on flexible learning for all students, there are a variety of spaces arranged for lecture, seminar, small group, large group, project-based, and independent exploration. All elements of the interior environment, from comfort and illumination to color and technology, support the learning experience while giving teachers and students a clear picture of how the building works effectively and efficiently.

All spaces are enhanced by an abundance of natural light with passive devices to both shade and project into the building. The occupancy and illumination sensors in each space automatically adjust light levels based on natural light contribution. Sensors also adjust heating and cooling to the number of people in the space, maximizing comfort and energy efficiency.

Every learning space is equipped with acoustic treatment that reduces ambient noise while a distributed sound enhancement system assures that all students can hear instruction properly. Projection systems in each space provide presentation and interactive capabilities in a single unit, eliminating the expense and encumbrance of a projector and interactive board. Any notes or illustrations applied to the standard marker board can be downloaded with a simple stroke of the keyboard, making traditional note-taking even easier. This system allows

Physical environment

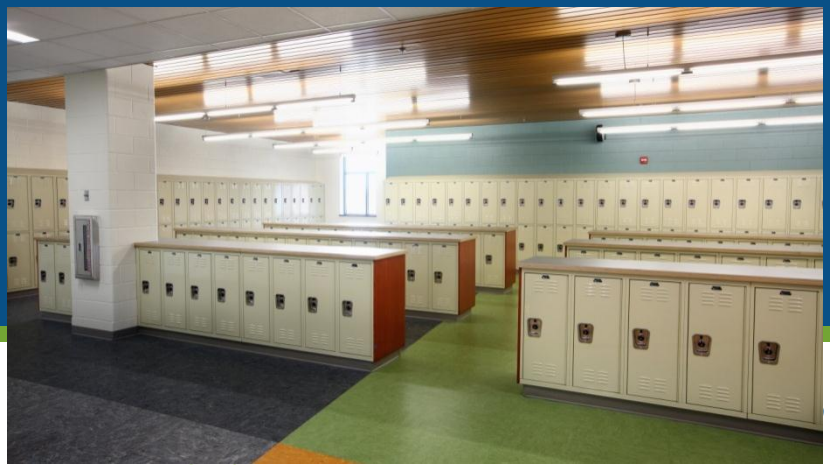


cefpi where great schools begin Virginia Chapter

Pr

Physical environment

Just as technology and comfort are an important background to the learning environment, color and texture are thoughtfully spread throughout the building to invigorate space and give a sense of place to all who pass through the new school. The patterns used in the environmentally-respectful linoleum flooring combine with natural colors to elicit the heritage of an advanced agronomic community. The patchwork of color and grid remind the visitor of the planted fields viewed from a flyover, a common sight in the County of Fluvanna.



Multi-functionality

All classrooms, multi-purpose spaces, project libraries, as well as the tiered seminar labs have flexibility to adjust based on group size, activity, and functional needs. The flexible furniture arrangements are designed for reconfiguration from single user to multiple users in group activities without special assistance from building operators.

Classrooms and project libraries are easily modified from de-centralized teaching and heavy group work to lecture-style within minutes. Each of the double-sized, technology-rich project libraries are set up for ease of division with stacking, retractable walls so groups from 25 to 75 can be accommodated.

The building is also designed to accommodate expansion as the population demands. When students entered in the fall of 2012, the capacity was 1630 (including the integrated career and technical education suites). The core facilities are designed to allow expansion to 1800 with the simple addition of classroom space. The master plan for the building and site prepares for an ultimate enrollment of 2500 should Fluvanna need and desire to maintain a single high school.

Sustainable design

The new Fluvanna High School is predicted to use only two-thirds of the energy consumed by an average building of this scale. From the outset of the project, school and County leadership committed to set an example with Fluvanna High School by demonstrating how new construction can respect and celebrate the environment and natural resources that the community enjoys. Energy systems are managed with fully automated, smart technology that allows the lighting and HVAC to recognize occupancy and adjust accordingly to save energy. Lighting is further controlled with dimming and illumination through automatic sensors that adjust to maximize natural light and minimize artificial light throughout the day.

Orientation was the first step in relating building and site, taking advantage of solar and wind impacts while protecting the natural resources and life on the rural site. The building envelope is highly insulated and incorporates window shading and light control devices that bounce light further into the space without creating glare. The site design maintains and restores meadow areas where possible and collects rain to provide the limited amount of irrigation necessary to sustain new and existing plants. Artificial turf was used in the stadium to minimize impact on natural turf fields and to conserve water as it is unnecessary for maintenance. The school science curriculum will include offerings highlighting the school and site design, as well as energy, light and sound management systems. Both the building and site are designed and currently on track to meet LEED Silver certification.

Descriptive data

site size:
165 (includes land for future elementary school)

student capacity:
1630
core facilities are designed to allow expansion to 1800
masterplanned for ultimate enrollment of 2500

area of building:
314,389 SF

total project cost:
$60,090,373

cost per square foot:
$191

cost per student:
$36,865

space per student:
192.87 SF

BCWH ARCHITECTURE INTERIORS PLANNING

project title & location:

New Fluvanna County High School
Fluvanna County, Virginia

owner:

Fluvanna County Public Schools
Gena Keller, Superintendent

design firm:

BCWH Architects

project design team:

Principal-In-Charge	Roger D. Richardson, AIA, REFP
Project Manager	Jeanne Santangelo, AIA, LEEDAP
Project Architect	Chris Harrison, LEED Green Associate
Staff Architect	Kylan Shirley, LEEDAP & Carla Pillsbury, LEEDAP
Interior Designer	Shannon Vivier, CID, IIDA, LEEDAP; Erin Richardson, Associate IIDA; Ashley Odom, LEEDAP
Construction Admin	Lisa Morris, Brandon Whitton

engineers:

Education & Technology	Eperitus
Civil & Landscape	Timmons Group
Structural	Stroud Pence & Associates
MEP	Obenchain, Linkous, Daniels and Sowick
Food Service	Food Service Consultants

builder:

Nielson Builders

photographer:

General Education

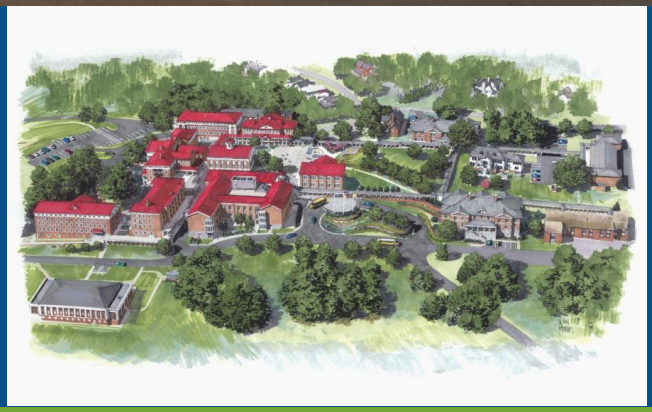
Projects

The Virginia School for the Deaf and the Blind
Staunton, Virginia

Ballou Justice Upton Architects

The Virginia School for the Deaf and the Blind

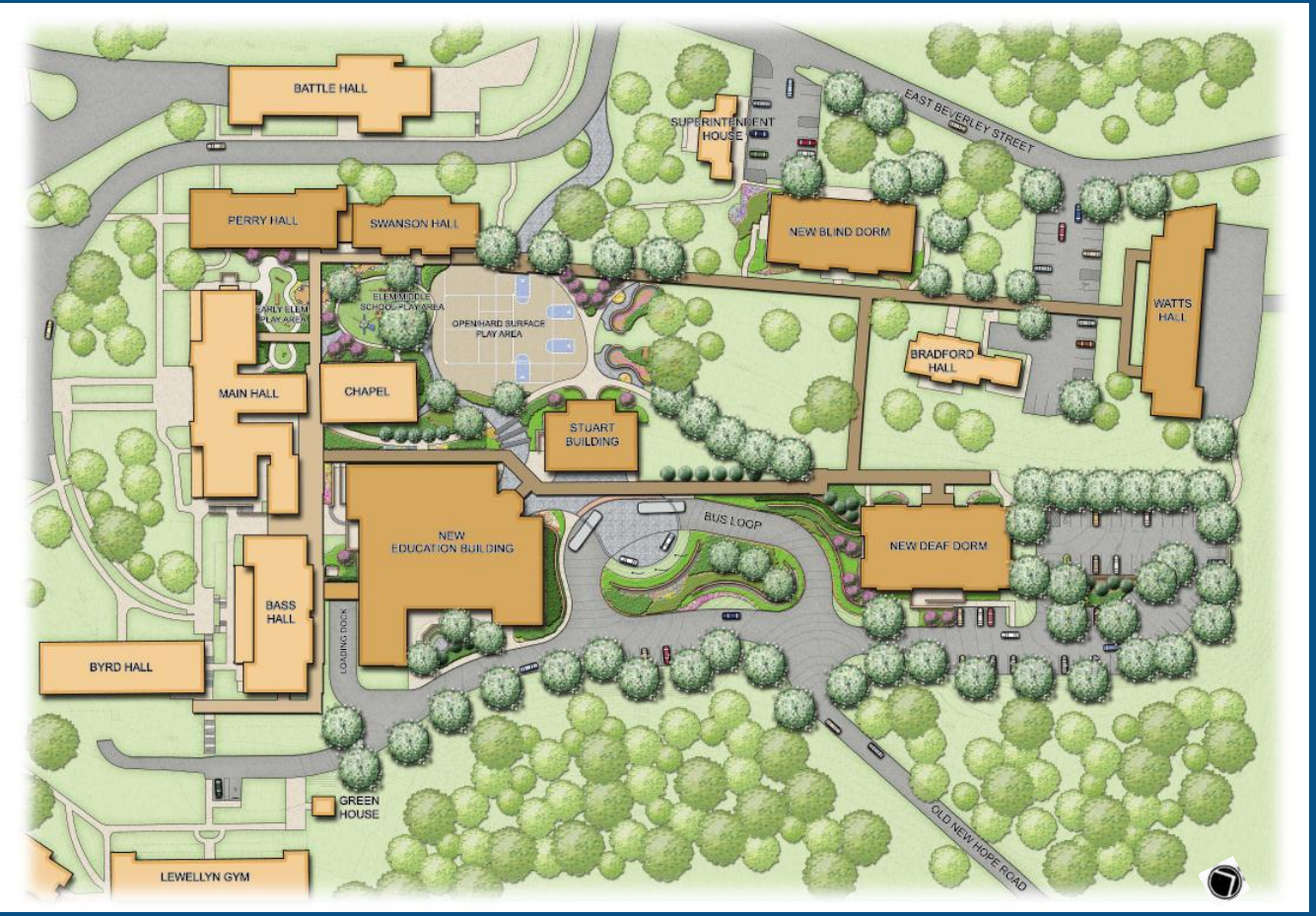
Staunton, Virginia



cefpi where great schools begin Virginia Chapter

Prepare to Learn – Learn to Prepare

VEFP Virginia Educational Facility Planners



SITE PLAN

The Virginia School for the Deaf and Blind celebrates more than 170 years of continued excellence in educating deaf and blind children.

This project consolidated the two existing Virginia Schools for the Deaf and Blind to the existing VSDB Campus in Staunton, Virginia.

The consolidated program serves students who are deaf, hard of hearing, blind, visually impaired, deaf-blind, students with sensory-impaired multiple disabilities, and deaf-students with emotional disabilities, ages 2-21, inclusive.

The comprehensive campus consolidation project includes construction of a new bus loop, new playgrounds, new Maintenance Facility, new Education Building, (2) new Dormitories and renovation of Watts Hall, Stuart Building, Peery Hall and Swanson Hall.

After

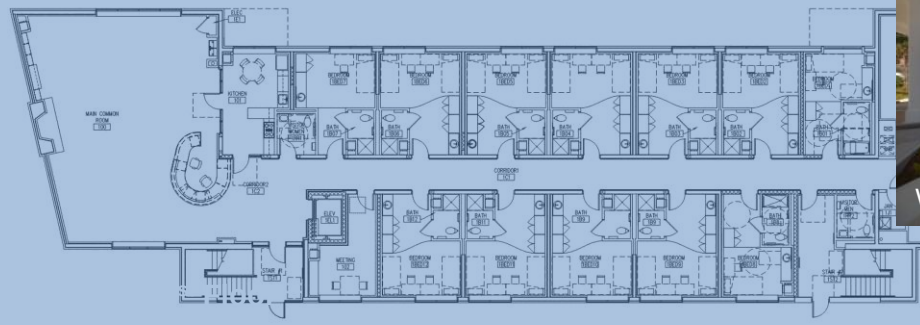

Before

Through collaboration between VSDB, Department of General Services, Department of Education and the Design Team, a process was implemented to identify program needs and place them in appropriate existing or new space, including:

- Administrative Services
- Educational & Institutional Services
- Student & Parent Support Services
- Professional Development & Outreach Services
- Library Media Services
- Technology Services
- Student Center
- Athletic Fields and Age Appropriate Gathering/ Playground Outdoor Space
- Maintenance Grounds and Housekeeping Services
- Security Services
- Coordinated Parking and Pedestrian Circulation

Phasing was very complex as all of construction was completed while the school remained in operation.

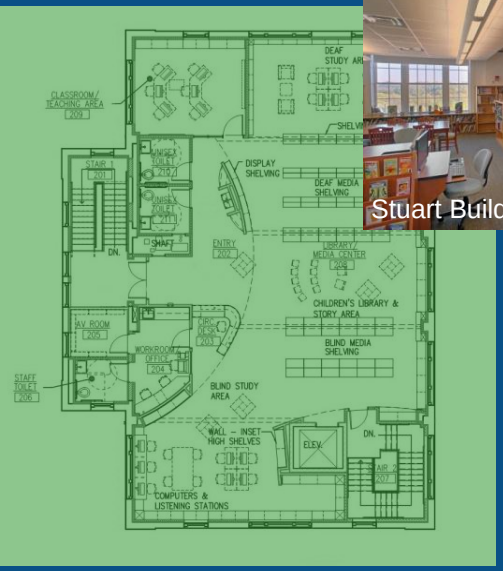
Watts Hall – 1st Floor



The learning environment designs resulted from a systematic programming and planning process, involving all stakeholders, which enriched the overall design process.

The programming and planning exercises provided a renewal of the campus organization by function with distinct and separate buildings providing the desired separation of the educational, residential and community activities on campus.

Overall, the learning environments emphasize the sense of advancement for students as they move through their grade levels. The classrooms in the new and renovated buildings were specifically designed to meet student learning needs utilizing the most advanced audio-visual equipment and disability tailored computer applications.

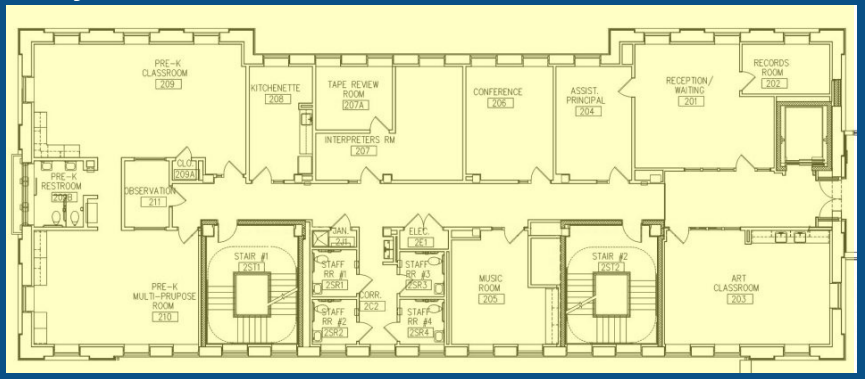


Stuart Building – 2nd Floor

VSDB Vision:

"VSDB exists to provide an environment which fosters self-confident students who are contributing citizens and life-long learners and to be a resource of excellence for the communities of Virginia who serve students with deafness and or blindness."

Peery Hall – 2nd Floor



After

cefpi where great schools begin Virginia Chapter

Prepare to Learn – Learn to Prepare

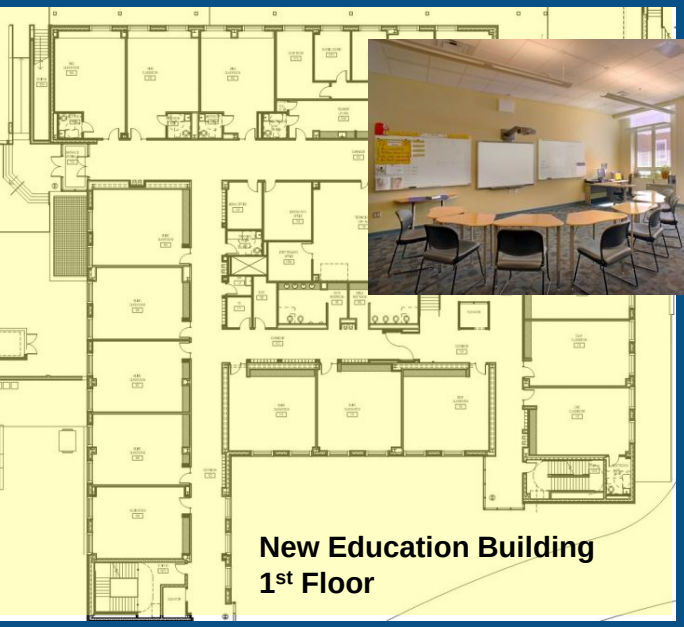
VEFP Virginia Educational Facility Planners

New Deaf Dormitory
1st Floor

***LEED Silver Certified**

New Blind Dormitory – 1st Floor

***LEED Silver Certified**



New Education Building
1st Floor

***Target - LEED Silver Certification**

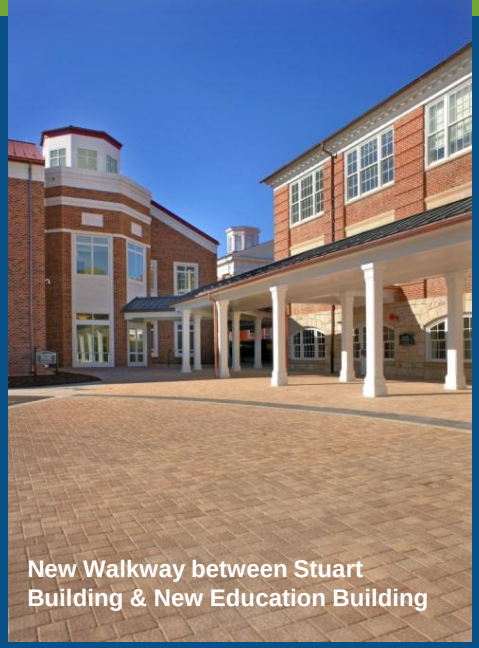
The comprehensive campus design:

- Provides collaboration spaces for problem-solving
- Integrates technology that is centered around the needs of the student population; latest classroom AV systems & controls; Smart boards & software suites engage students in hands-on, interactive style; IP controlled notification system is installed in each classroom and throughout the campus for safety and security
- Allows for flexibility & adaptability to changing needs
- Promotes value as a life-long learner
- Enhances teaching & learning – while accommodating the diverse student needs
- Provides for health, safety and security
- Maximizes supervision and encourages healthy interaction among students, teachers and administration

New Bus Loop/Covered Walkway

New Bus Loop/View of New Deaf Dormitory

New Education Building



New Walkway between Stuart Building & New Education Building

New Play Area

During the programming and planning process it was determined that suitable buildings would be rehabilitated and new buildings constructed to provide appropriate separation and secure boundaries for the newly defined campus.

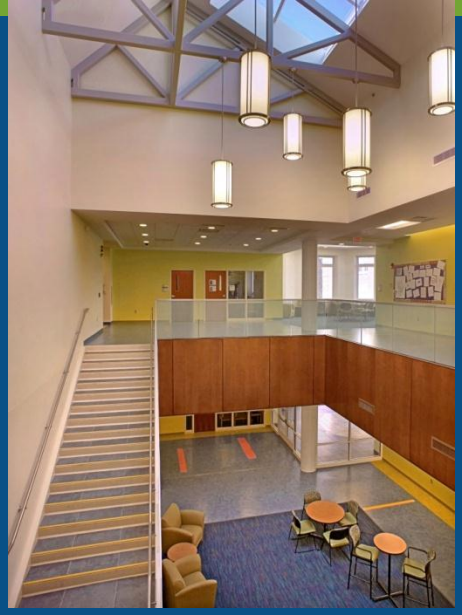
The resulting re-organization of the campus brings together the teaching, living and recreation spaces to the center of campus, allowing for significantly easier student access to all facilities.

Students can navigate to all needed facilities via ADA compliant covered walkways. New playgrounds, a new outdoor teaching amphitheater, and a new greenhouse provide ample opportunity for all students to enjoy outdoor activities.

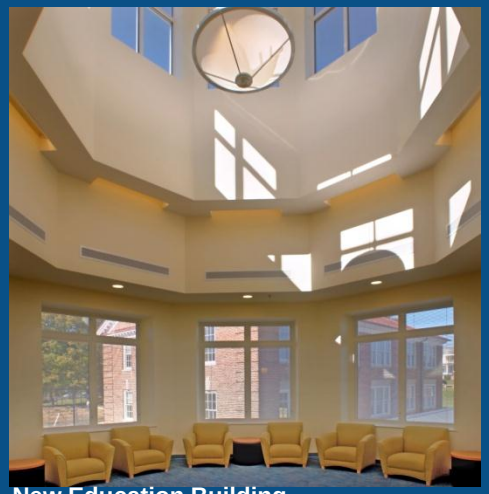
Stuart Building – New Media Center

Stuart Building – New Student Center

New Deaf Dormitory - Lounge



New Education Building



New Education Building

The renovations and new construction reflect designs based on the differing needs of the students.

The new Deaf Dormitory, as well as the new Education Building feature central open spaces to allow deaf students to communicate by signing.

The new Blind Dormitory has been designed with efficient adjacencies for student movement.

The long vacated Stuart Building was selected by the design team to serve as the hub of the new campus. The building was programmed and renovated to serve as the new Student Center and new Media Center, with close proximity to administration, academic and dormitory buildings. The Stuart Building is a favored destination for all students.

From the 3rd Floor Media Center, the site capitalizes on the beautiful views of the Blue Ridge Mountains. The new Media Center was included in American Libraries Magazine as one of the Reclamations and Renovations 2011 Design Showcase projects.

The overall campus design compliments the landscape and the surrounding community. The new construction was carefully designed to relate to the overall architectural style, language and fabric of existing monumental buildings on campus, including those listed on the Virginia Landmarks Register and the National Register of Historic Places.

The beauty of the campus is a source of pride for the students, staff and the surrounding community. VSDB recently won a Preservation Award for Institutional Heritage from the Historic Staunton Foundation. Additionally, the campus has been awarded LEED certification for the New Deaf Dormitory and the New Blind Dormitory; the New Educational Building is targeted for LEED certification as well.

Descriptive Data

Size of Site (Acres):	75 Acres
Student Capacity:	122
Area of Buildings:	265,318 square feet – New Construction and Renovations
Total Project Cost:	$58,956,000

** This Consolidation Project is specialized in nature and a significant amount of funding was expended for complete infrastructure and utility upgrade. Therefore, it is not feasible to compute the Cost/Square Foot, Cost/Student or Space/Student.*

Project Identification

Name & Location of Project:	The Virginia School for the Deaf and the Blind Staunton, Virginia
Owner:	Dr. Nancy Armstrong (Superintendent) The Virginia School for the Deaf and the Blind
Presenting Firm:	Ballou Justice Upton Architects Einhorn Yaffee Prescott – Associated Firm 2402 N. Parham Road Richmond, Virginia 23229 Phone: 804-270-0909 Fax: 804-346-3301 Ken Bunch, AIA – Principal in Charge
Project Consultants:	Wiley + Wilson – Mechanical, Electrical & Plumbing Engineers Keast & Hood – Structural Engineers Draper Aden Associates – Civil Engineers Educational Systems Planning – Technology Consultants Higgins & Gerstenmaier – Landscape Architects
General Contractor:	Kjellstrom & Lee
Photographer:	James Adcock Photography