

2023 A4LE Virginia Chapter Conference

Building Bridges – Creating Connections

ARCHITECTURAL EXHIBITION & AWARDS

Jury Members

- **Dave Phelps**, AIA, is a senior project manager at SWBR Architecture, Engineering and Landscape Architecture, DPC in Rochester NY.
- **Megan White**, senior architect with BRPH in Melbourne, Florida.
- **Jessica Rodenberry**, *leads HKS' Education Studio in Florida.*
- **Michelle Carpenter**, Chief Strategy Officer Natural Pod | Creating better learning environments, together; A4LE board member as the SchoolsNEXT co-chair.
- **COORDINATION:** VDOE Office of Support Services

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Building Bridges – Creating Connections

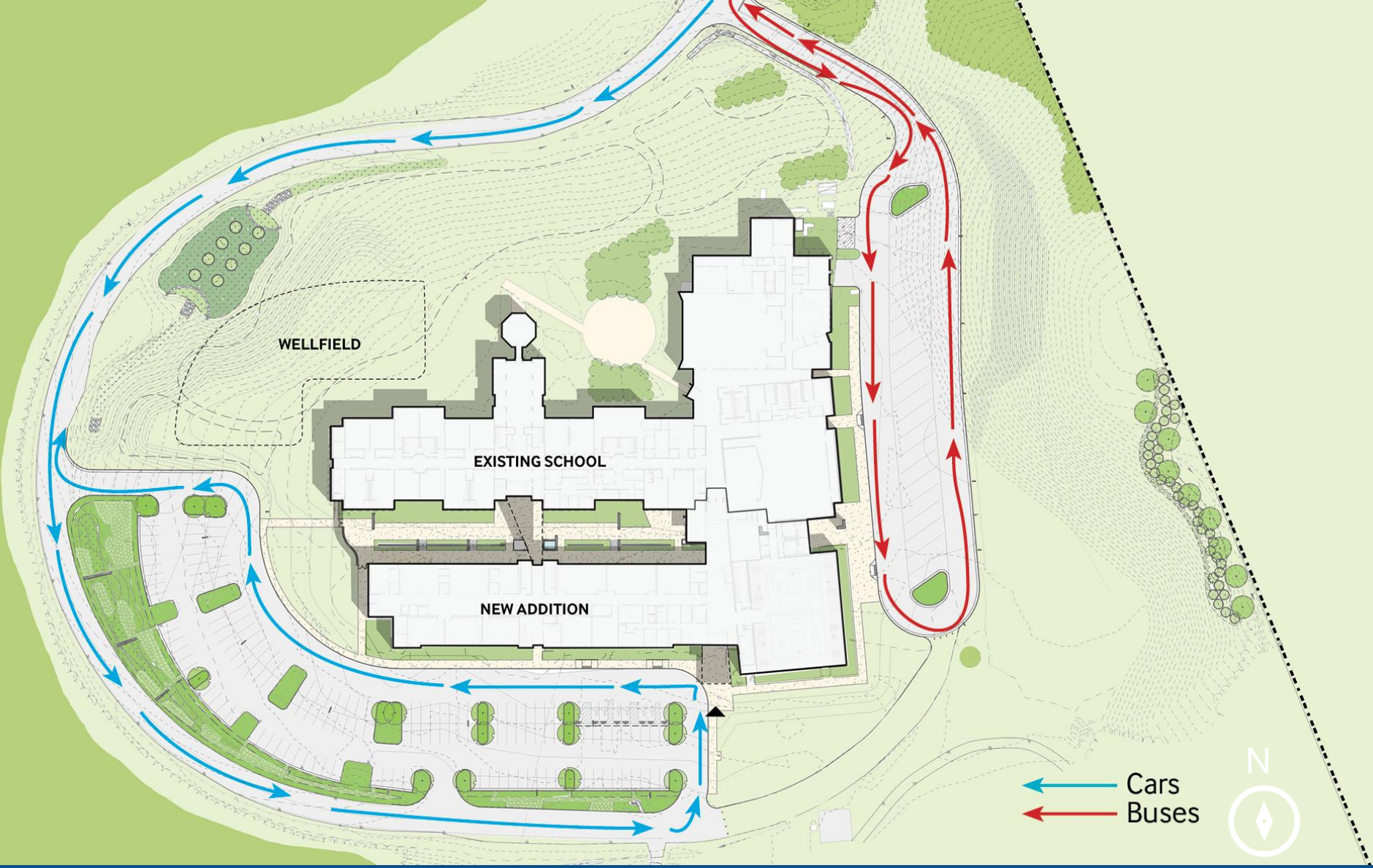
Renovation Projects

Jury Comments

- Nice use of spaces
- Embodies themes of conference
- Extended learning spaces in expanded corridor
- Classroom extension into learning courtyard

SILVER AWARD

- Forest Middle School
- Bedford County Public Schools
- VMDO Architects



Level 1 Floor Plan

- DEPARTMENT LEGEND
- ADMINISTRATION
 - ADMINISTRATION / TEACHER SUPPORT
 - ATHLETICS
 - B.O.H. / RESTROOM
 - CIRCULATION
 - CLASSROOM
 - CLINIC
 - DINING COMMONS
 - FOOD SERVICE
 - LIBRARY
 - MECHANICAL
 - MUSIC
 - P.E. / ATHLETICS
 - TEACHER SUPPORT















2023 A4LE Virginia Chapter Conference

Building Bridges – Creating Connections

Renovation Projects

Jury Comments

- Small but impactful changes
- Strong planning process
- Renovations opened up spaces
- Flexible spaces

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GOLD AWARD

- **Scottsville Elementary School**
- **Albermarle County Public Schools**
- **Grimm + Parker Architects**

The Planning Process

CLASSROOM / INSTRUCTIONAL SPACE



OUTDOOR LEARNING / CLASSROOM



GYMNASIUM / RECREATION



COLLABORATION ZONE / COMMONS



SCOTTVILLE ELEMENTARY SCHOOL ADDITIONS AND RENOVATIONS GUIDING PRINCIPLES FOR THE DESIGN

- To ensure the future expansion and renovations to Scottville Elementary School create a culture of learning that provides for our children's growth and helps them develop the love of learning, the design team has set forth these Guiding Principles.
- Please use this guide to identify how the design team has met and exceeded your goals, and feel free to use the cards provided to support your own Guiding Principles if you feel there is something the Design Team has missed that is not in our guidelines.
- 1. Safety and Security**
The school must be a place that provides protection from threats both internal and external, controlling access, maximizing visibility to improve passive supervision and disaster management and discourage loitering or other unsafe behaviors. The design should communicate security in subtle ways such that the students perceive the environment of safety one associated with a home rather than a fortress.
 - 2. Choice and Comfort**
The design must enhance our children's ability to learn by creating spaces that empower students to choose activities, settings, and furniture that match their learning styles and foster a special sense of "ownership" of their environment. The design should accommodate different learning styles with different spatial approaches—openness v. enclosure, collaborative v. individualized, stimulating v. focused, aesthetically lively v. quiet/contemplative.
 - 3. Project-Based, Problem-Based, and Passion-Based Learning**
Recognizing that students retain more of what they learn by doing, the school must provide spaces, amenities, and furnishings that facilitate hands-on activities that provide higher-order critical thinking, problem-solving, and experiences based on students' own interests.
 - 4. Making Everything**
The design should provide the tools learners need to become collaborative creators and shapers of knowledge content, rather than merely consumers of facts. There must be ample facilities for making both physical and digital projects.
 - 5. Mobility/Interactivity**
The design should focus on encouraging connectivity everywhere, so that learning and knowledge-sharing is not confined only to certain spaces, but can take place anywhere to maximize learning and teaching opportunities.
 - 6. Transparency**
The school should provide environments of visual and social connectivity that facilitate learning by sparking curiosity and engagement and fostering the free-flowing exchange of energy and creativity. When learners can see the work created by their peers, or those in other grades or special classes like art and music, they are inspired to learn more and do more.
 - 7. Inside and Outside Learning Environments**
Spaces of our most effective learning is done either simultaneously or naturally from art and exercise. The design must provide "seamless" connections between interior and exterior environments to maximize natural lighting and connection to nature, and to encourage opportunities for outdoor learning.
 - 8. Flexibility and Adaptability**
The design can best accommodate multiple styles of learning by minimizing the fixed elements that "lock-in" specific locations and approaches to teaching options in order for an equal of spaces that future change from hour to hour, week to week, year to year.
 - 9. Universal Design for Learning/Individualization**
The school must provide environments that ensure every student will be afforded the same opportunities to develop lifelong learning competencies through universal accessibility to all the new virtual amenities and spaces. The design should accommodate all students, regardless of ability.
 - 10. Evidence Sustainable Design**
The design must embrace energy-conscious design that not only reduces resource consumption in a healthy, sustainable way, but makes learning opportunities of these choices, and encourages a life-long attitude of responsible earth stewardship.
 - 11. Unified, Blended, and Inclusive**
The new school must be an inclusive hub for the broader community in which students feel united in their learning and growth. It must attempt to blend the new addition with the renovated existing school such that all learning environments are equally prepared to meet the challenges of next-generation learning. We recognize that students at Scottville Elementary come from different communities with important and distinct historical and cultural traditions, and the design should reflect and embrace these many traditions, so that all feel a sense of belonging and are provided to our schools' success.
 - 12. Fun!**
The renovated and expanded school must be a fun place to be, an environment that communicates the joy of life and learning and provides the setting for the creation of wonderful childhood memories. Students should be glad to come to Scottville Elementary each morning, and leave smiling forward to the next day!

Many stakeholders were enabled as decision makers in the design process through regular meetings with a selected Design Committee, presentations to the school board, and multiple meetings on site with the community, teachers, staff, parents, and students. In the concept phase the community gave feedback on what inspirational images and guiding principles resonated with them. In schematic design community members responded to initial layouts and helped the school form take shape. Blending the addition and the renovation became a crucial goal for the project for inclusivity amongst the students and the community.

RENOVATION | ADDITION



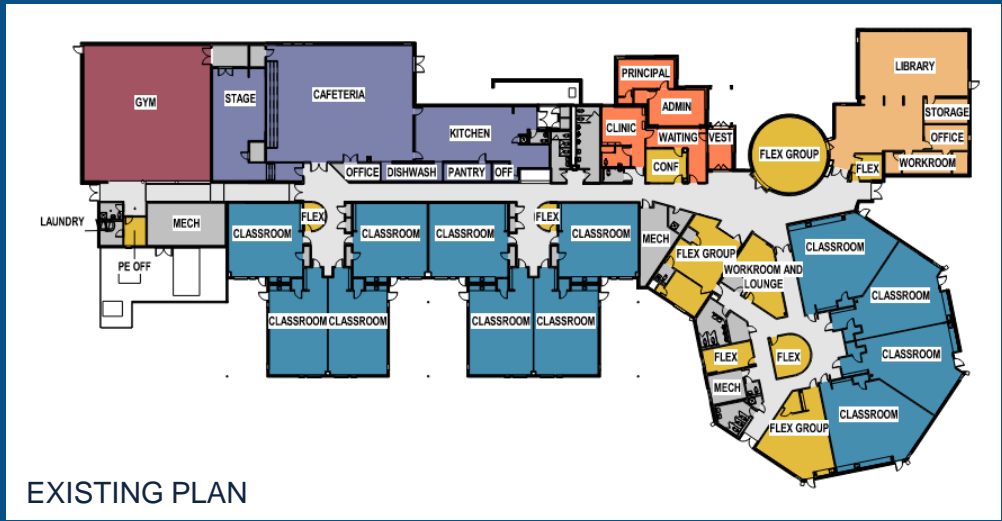


Site circulation was reorganized to separate car and bus traffic for safe drop off. Water across the site can now be used as a teaching tool through a stormwater pond, a bioretention garden, and a visible runnel that capitalized on an area of the existing site that was prone to flooding. All learning spaces have a direct connection to the outdoors and a site enhanced with expanded areas for natural play. The building engages the surrounding rural landscape to blend exterior and interior learning environments.

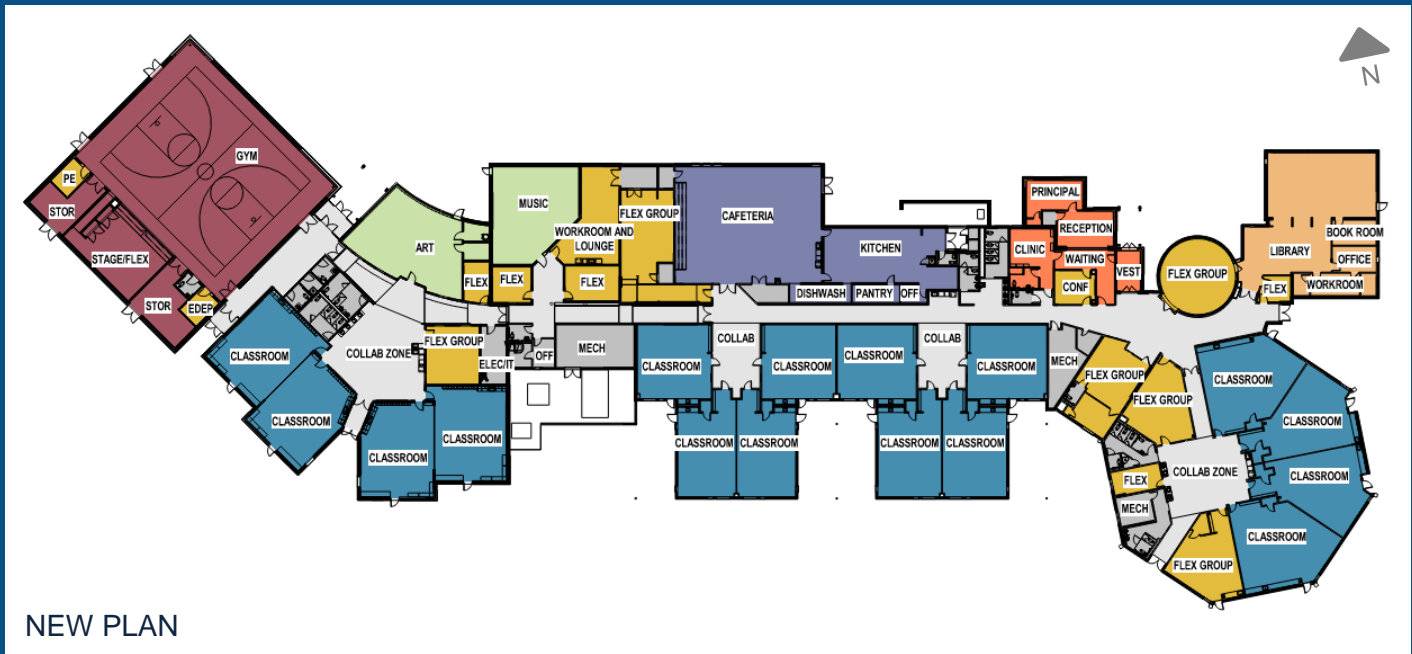


Erin Edgerton for the Daily Progress

Through a 17,000SF expansion and a 33,000SF renovation, the school was able to leave their mobile classrooms behind and combine in one integrated building. The central spine of the building was extended with classrooms organized into four pods that each now open into a collaborative zone for equitable learning environments at all grade levels PK-5.

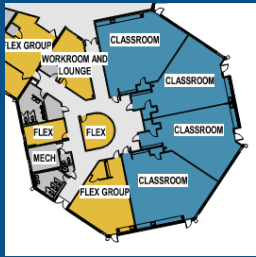


EXISTING PLAN

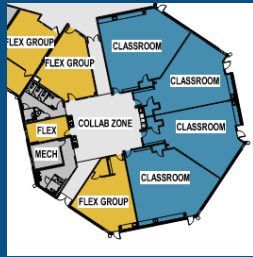


NEW PLAN

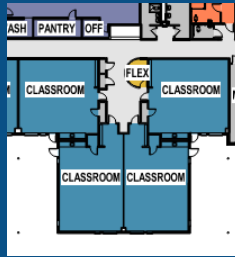
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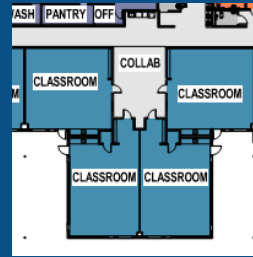
NEW



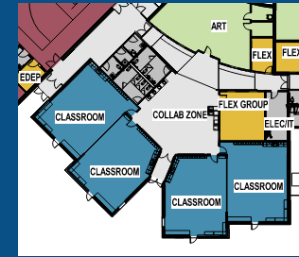
EXISTING



NEW



NEW



DEMOLITION



EXISTING

Circulation in the existing school was hindered by small rooms that blocked views to classroom doors so through renovation each learning pod gained a collaborative breakout area. These areas allow for flexible methods of teaching and empower student choice. Students can experience a variety of spaces throughout the day based on the idea of campfires, watering holes, and caves. Each learning pod was themed to regional Virginia geography and signage and color give each pod an identity.



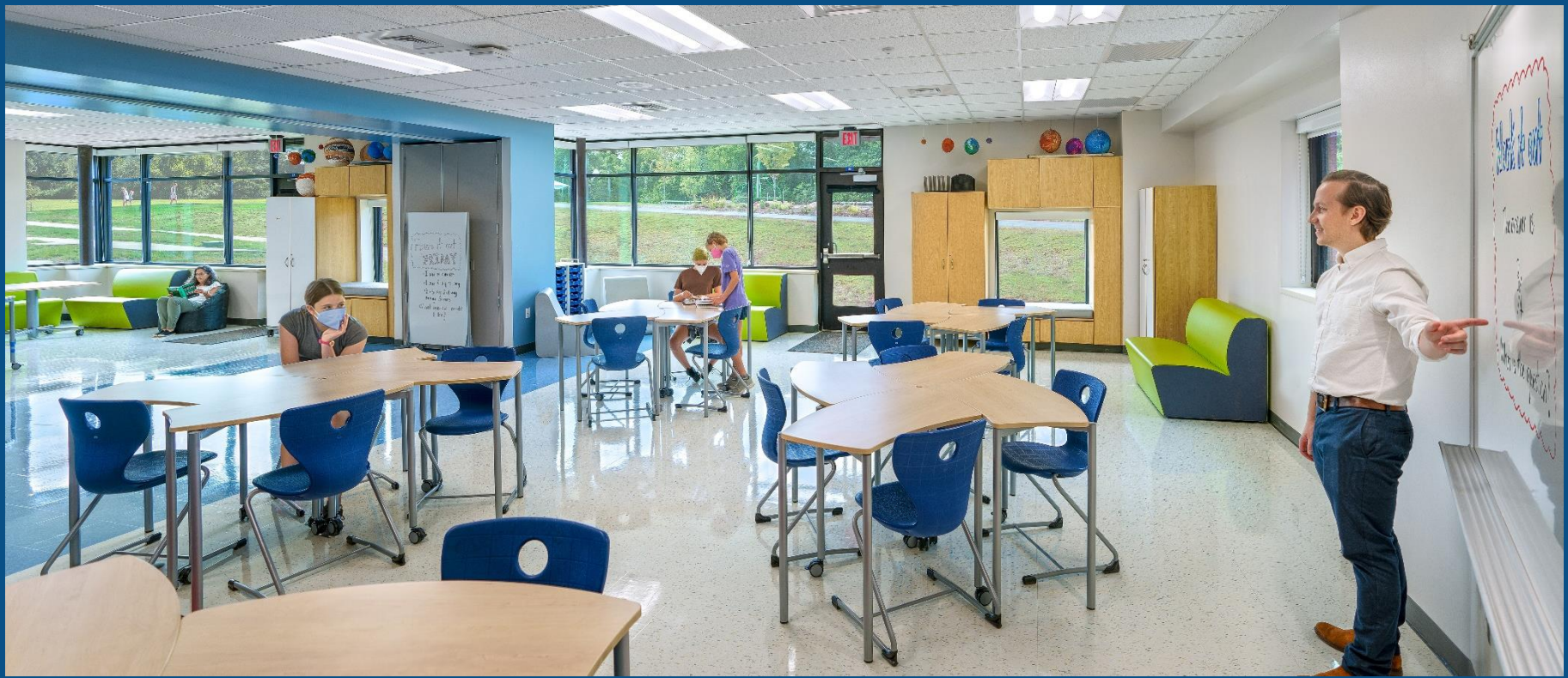
RENOVATION



RENOVATION



ADDITION



Flexibility is key to the addition as classroom pairs are divided with an operable partition. This allows to teachers to have the choice to team teach when large group projects are desired, but sound isolated separation when smaller classes are needed. White board surfacing on the partition allows for another teaching surfacing and interactivity with the wall when deployed.

OPERABLE PARTITION





NEW ENTRY

Transparency was crucial for the project to promote a connection to the outdoors and allow for daylighting with the whole spectrum of visible light for stimulation throughout the day. New openings were created in the existing building and the addition promotes visual connection while utilizing the material language of the existing building. Through curving the art room, the addition opens up to the site and allows the new entry to greet visitors into the building.



ART CLASSROOM



STUDENT NOOK



NEW GYM



MUSIC CLASSROOM



EXISTING GYM

The existing gym was severely undersized in comparison to other elementary schools in Albemarle County so the addition included a large gymnasium to serve student populations and also as a community asset. The arts are promoted in the renovated building by providing a dedicated space for music in the existing gym rather than in a mobile classroom.

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New Projects

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Building Bridges – Creating Connections

Elementary Schools -NEW

Jury Comments

- Flexibility, Transparency
- Great variety of learning spaces
- Sensitivity to the needs of neighboring community
- No defined corridors- rather active pathways
- Nice use of scale, lots going on, very vibrant design

- Cardinal Elementary School
- Arlington County Public Schools
 - VMDO Architects

The original task was to develop an addition a public school facility built as part of a 2009 expansion of the historic Reed School, which now serves as the Westover public library. Through a nine month engagement process, it quickly became clear that school grounds were very important to the surrounding neighborhood and preserving open space through the new design was critical.



In response, the final design demolished 75% of the existing two-story school and in its place built a four-story school structure for 725 students, doubling capacity while maintaining the same amount of open space. The remaining 25% of the existing school was renovated – with new and existing spaces all brought up to zero-energy specifications.

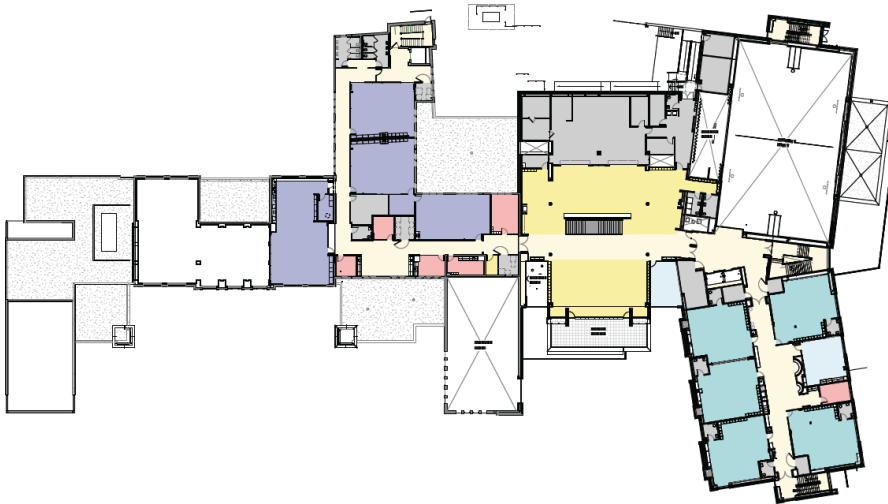
Zero-energy goals informed building massing, which stretches the classroom bar along the east/west axis for ideal orientation. A four-story massing to the north preserves green space while ensuring clear solar access to the roof. Inside, active and passive systems create learning environments filled with clean air, safe materials, abundant daylight, and views to the outdoors.

Floor Plan Legend

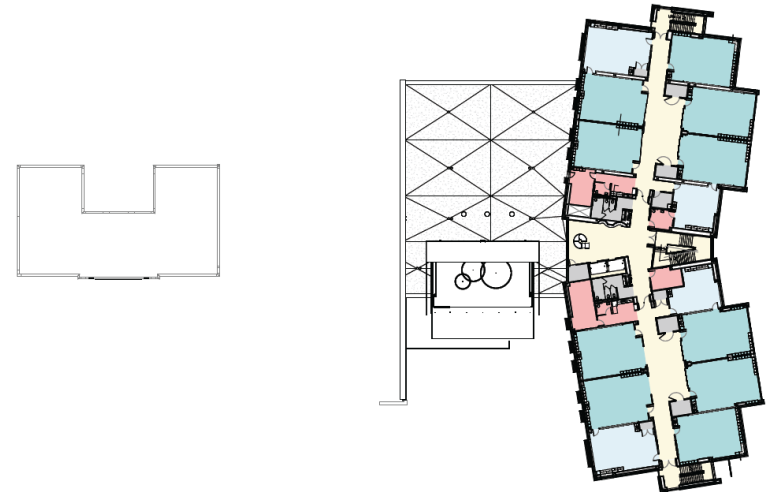
- Mechanical, Toilets, Storage
- Circulation, Breakout Space
- Library, Dining Commons
- Gym + Stage
- Small Group Instruction
- Classroom
- Art + Music
- Staff Support, Office, Admin.



Level 1



Level 2



Levels 3 + 4











Jury Comments

- Connection with the community in building facility
- Excellent placement of facility on site to maximize solar energy
- Flexible space created along corridors
- Use of industrial elements

SILVER AWARD

- Culpepper Ed. Center Technical School
- Culpepper County Public Schools
- RRMM Architects

CTEC Main Entrance



Culpeper County Public Schools, Culpeper County, The Town of Culpeper, Germanna Community College, and local businesses came together to develop the regional workforce by engaging students who excel in hands-on technical fields of study.





CTEC Floor Plan



OVERALL BUILDING ELEVATION - SOUTH

SCALE: 3/32"=1'0"



OVERALL BUILDING ELEVATION - WEST

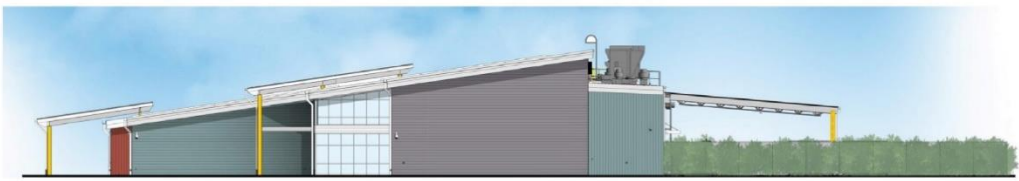
SCALE: 3/32"=1'0"

Several local trade businesses were fully invested in the CTEC project. This group was integrated into the design process in order to re-create real world work settings.



OVERALL BUILDING ELEVATION - NORTH

SCALE: 3/32"=1'0"



OVERALL BUILDING ELEVATION - EAST

SCALE: 3/32"=1'0"

CTEC Building Elevations

Dual Enrollment Program



+



GERMANNA
COMMUNITY COLLEGE

OUTDOOR TRADES LAB

MECHANICAL
ROOF

SOLAR PANELS
PROGRAMS REQUIRING
TALL SPACE

LIGHT TUBES
TOP LIT
MAIN CIRCULATION
& STUDENT WORK ZONES

PROGRAMS REQUIRING
LOWER SPACE

CTEC Building Section





Entrance / West End & Student Work Zone



Training Room

A flex space that is regularly reconfigured from two large classrooms to one very large training room.



East End Student Work Zone

Strategic daylighting allows an abundance of natural light. Transparency into classrooms promotes interest with different programs.

View From Southeast

Solar electric over-production will serve as an on-site carbon offset to CCPS's decision to utilize natural gas for a portion of the facility's energy need.

545 kW of CCPS-owned solar panels produce more electricity than the building uses. After a year of operation, CTEC is expected to be annual net positive electricity facility.



Construction documents required the solar array installer to participate in student curriculum. The desired result happened – the installer hired one of the students right after graduation!

Building orientation, daylighting, envelope & systems optimization cut energy consumption to less than half of a similar facility (2012 CBES).

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Secondary Schools -NEW

Jury Comments

- Extended learning areas
- Simple geometry used well
- Innovative use of double loaded corridor
- Collaborative spaces between grades

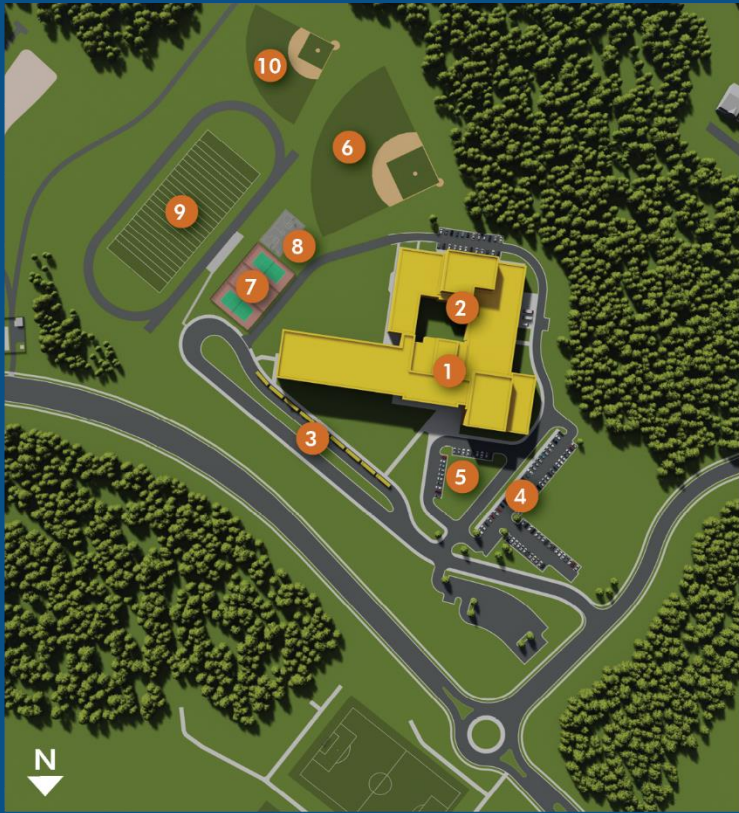
GOLD AWARD

- Potomac Shores Middle School
- Prince William County Public Schools
- MOSELEY ARCHITECTS

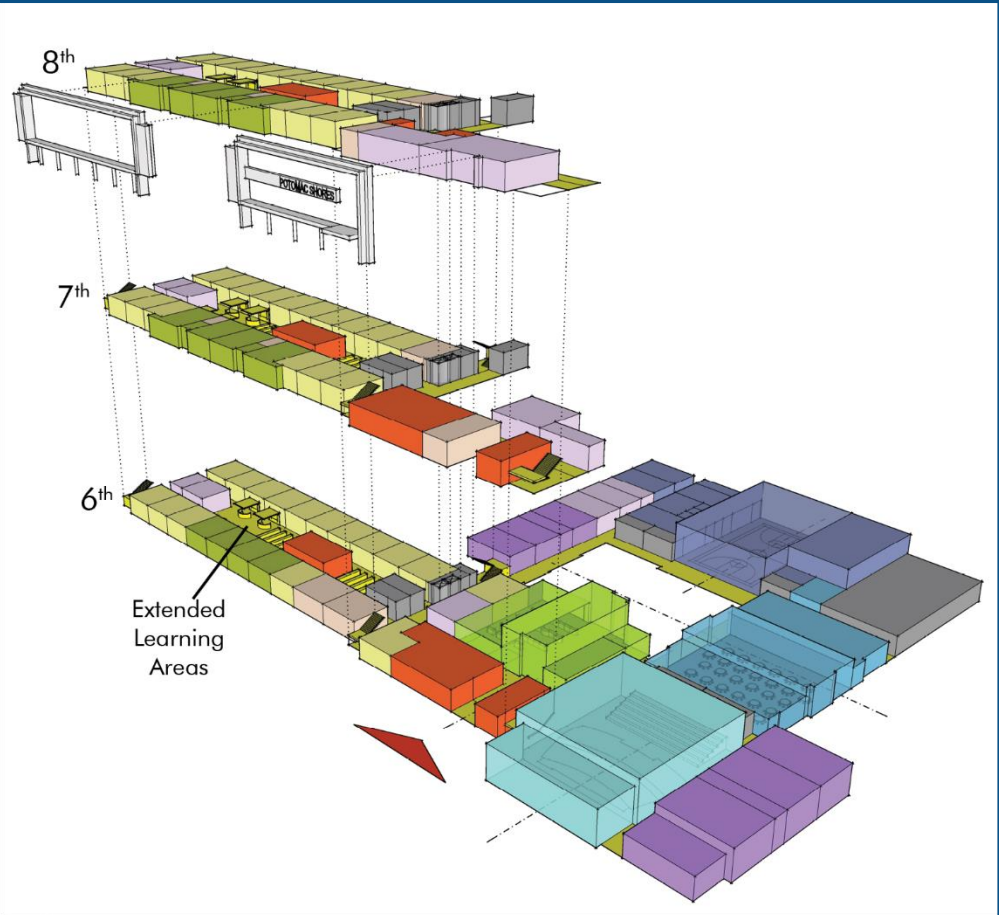


Potomac Shores School
Prince William County Public Schools

Building for Growth – Creating Communities



- | | | | |
|---|------------------------------|----|----------------------------|
| 1 | New School | 6 | Baseball |
| 2 | Outdoor Learning Environment | 7 | Tennis |
| 3 | Bus Parking and Loading | 8 | Basketball |
| 4 | Staff Parking | 9 | Football Stadium and Track |
| 5 | Visitor Parking | 10 | Softball |



Design Process

Shores Middle School signifies a major departure from Prince William County Public Schools (PWCPS) previous traditional school prototype to a modern learning environment designed for world-class education.

PWCPS' and the design team closely collaborated to re-imagine their middle school experience. With capacity for 1,450 students, the three-story configuration dedicates a floor level for each grade, allotting them their own distinctive classrooms, extended learning areas, maker spaces, and collaboration spaces.

Potomac Shores Middle School



Physical Environment

As students, staff, and visitors enter Potomac Shores Middle School, they are greeted by the two-story media center, which is the heart of the school for inspiration, learning and social connection.

The media center serves as a thoroughfare connecting the dining space to the courtyard and the academic spaces, which encourages students to utilize the media center throughout the day. The dynamic space is filled with natural light throughout the day, with shades incorporated to moderate the environmental factors and balance the daylighting brightness.

The design team collaborated with PWCPS to create a personalized environment with bold wall graphics featuring inspirational quotes layered together with the school name and logo.

Technology

To facilitate learning, instructional technology is infused throughout the building to provide modern teaching equipment and accommodate future technologies as they are brought on. The extended learning areas include smart boards and connection for laptops and other devices for small group interaction and project-based learning opportunities.

"This whole building is structured around the idea that, in the 21st century, in a working world, we have to have these spaces where people are able to work together, communicate, collaborate, and have those projects that they need to do together.

— Justin Wilk, PWCPS' Potomac Magisterial District School Board Member



Potomac Shores Middle School



Learning Environment

Each grade level academic wing is clustered around an extended learning area, maker spaces, and support functions.

The connected maker space allows students from different classes to collaborate on projects with teacher supervision. Located at the end of each academic wing, it includes a larger planning area that flows into the fabrication area which houses production equipment like 3D printers, laser cutters, and construction surfaces. Each maker space has direct access to an outdoor balcony for additional experiments, testing, and group discussion. Additionally, two small rooms for up to four students to collaborate in a quiet setting are adjacent, and natural light filters into the extended learning area through the maker space's large spans of glazing.

Distinct colors to coordinate with each grade level helps students feel a connection to their academic house. This is integrated into a colored accent wall and seating, with each grade level associated with red, yellow or blue.

Potomac Shores Middle School has a dedicated STEAM (science, technology, engineering, art, and math) lab centrally located in the school on the second and third floors. The lab consists of three connected spaces for preparation, production, and material storage.



Potomac Shores Middle School



Community Environment

Located in a new development in southeast Prince William County, Potomac Shores Middle School sits on a hill crest as the gateway to the community. Visible to the new community, the school serves as a focal point by imparting a sense of importance and dedication to the educational mission; students will be provided a student-centered education focused on collaboration, taking risks and empowering students to take ownership of their learning that is inclusive of every child's diverse and unique needs.

The design demonstrates a commitment to the community by locating the gymnasium at the perimeter of the school with secure, after-hours access and parking directly adjacent to the gymnasium. This space can be used by other community sports teams and civic groups.

The performance auditorium is unique to the middle school program. Located near to the main entrance, the auditorium is also accessible to public during after-hours events for meetings, presentations, and performances. The school's academic areas can be secured when the auditorium is in use.

Adjacent to the auditorium, is the cafeteria. This space can serve as a lobby or reception area for special community events hosted in the auditorium.



Potomac Shores Middle School



Responsible Design

Integrated in the welcoming environment, the design provides sight lines from the first and second floor for wayfinding and supervision. The front entrance features a security vestibule and monitored check-in for visitors during the day.

The courtyard allows students to dine, learn and socialize outside securely separated from the public. The administrative office has the ability to lock down each academic wing with a single control, as well as lowering motorized shades to limit visibility into open spaces, such as the media center and dining.

To contribute to energy efficiency, sunshades on the exterior of the building help to control the amount of natural light and decrease electrical lighting. The roofing, glazing, mechanical, electrical, and plumbing systems are selected to improve energy efficiency and work with the overall design that Potomac Shores Middle School received the Designed to Earn Energy Star rating.



Potomac Shores Middle School



Size of Site	52 acres
Student Capacity	1,450
Area of Building	197,000 SF
Total Project Cost	\$52,541,298
Cost Per Square Feet	\$267
Cost Per Student	\$36,235
Space Per Student	136 SF/student

Potomac Shores Middle School

Potomac Shores Middle School
DUMFRIES, VIRGINIA

School Division Prince William County Public Schools

Superintendent Dr. LaTanya McDade

Owner Contact John Mills, AIA

Design Firm Moseley Architects

Principal in Charge William Riggs, III, AIA

Project Designer Kenny Durrett

Project Manager Kenny Durrett

Construction Administrator Sumita Carpenter, AIA

Civil Engineer IMEG

**M/E/P, Structural, and Fire Protection
Engineering** Moseley Architects

Builder V.F. Pavone Construction Company

Photographer Hoachlander Davis Photography, Judy Davis



MOSELEYARCHITECTS