2011 Architectural Exhibit Winners



Creating A World Class Education *In Virginia*

2011 Architectural Exhibit RENOVATION/ADDITION

Outstanding Accomplishment Award

Vienna Elementary School

Fairfax County Public Schools

BEERYRIO Architecture + Interiors





Jury Comments

- Excellent blend of the old with the new
- Enhancements throughout stimulate the learning process
- Excellent tie in with the school's community
- Structure fits cohesively with the existing historical area
- Community involvement in the design process
- Jury would like to have seen some teacher planning spaces



Main Exterior Image





Main Site Diagram





Community Environment

Site Plan - After

Historical Significance

Vienna Public School opened in 1872 and has since been a community fixture in the Town of Vienna situated across the street from the Vienna Town Hall.

The [original] school burned, but the original bell was saved and now hangs in our atrium. The school was rebuilt in the late 1920s. The design team was able to keep the "historic" look of the old part of the building and "marry" the new atrium entrance to create a pleasing design.

Site Plan - Before



In addition, the building has had lesser renovations and additions throughout the years. The outcome was that the building was disjointed and had no sense of flow or purpose for rooms. The renovation design has adeptly "pulled" these pieces together creating a unified whole and a sense of flow in our school.

As a Vienna landmark, our school will soon be recognized with a historical recognition by the Historical Society and the Town of Vienna.





Planning Process



Design Process

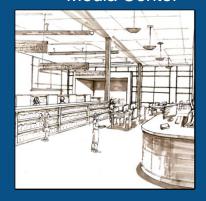
A collaborative design process engaged stakeholders from the community, central staff and at the school level. The school systems educational specifications were utilized as a benchmark with school input guiding the planning. As such a key iconic building in the community, interest in the design was very high. Design charrettes were conducted and public presentations to the community were held.

The new design of the building has enabled more effective utilization of spaces. Large, unusable spaces, were converted in classrooms, workrooms, and a little theater. The lighting, color choices, and ambience of the school is beautiful which builds a sense of pride and morale for the students and community.

Our entire physical plant has created an optimum learning environment with [high efficiency] heating, cooling, lighting and a positive, upbeat "feel."

> Jeanette M. Black Principal

Media Center







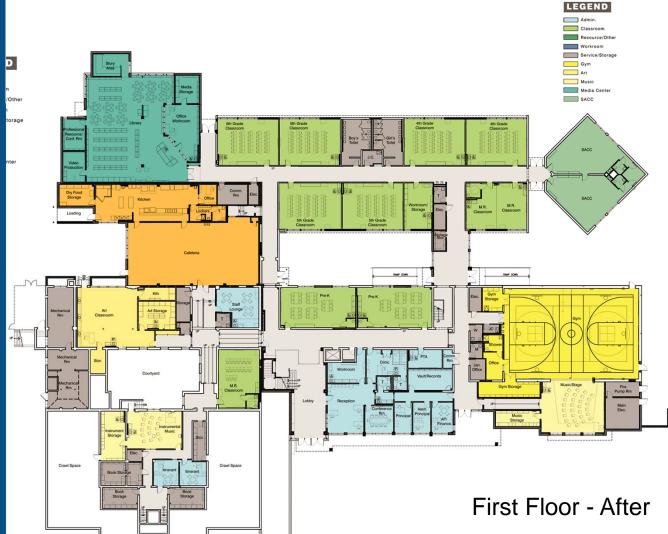
Learning Environment



Instructional Technology

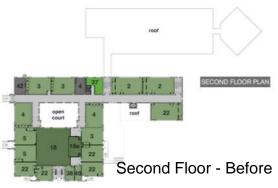
Each classroom and office space has wireless and LAN network capabilities and cable connections.

We are able to utilize our interactive whiteboards and projectors to provide [interactive] hands-on learning experiences for students. In addition, our cable TV systems allows us to broadcast our school-based news program that is run by the students, and educational TV programming.





Learning Environment



Collaboration Among Teachers, Students, and or Community Members.

Our new library and cafeteria are utilized as beautiful spaces for groups of teachers to work collaboratively with teaching teams, for PTA sponsored after school programs for students, and for community use in the evenings.





Learning Environment



Classroom - Before

Classroom - After



Learning Environment

Building design focuses on improving student achievement by reducing ambient noise, optimizing classroom acoustics, maximizing natural lighting, and improving air quality. Staff members help educators develop sustainable curricula by using features and systems of the school facility as teaching aids in order to educate students in the art and science of sustainable design.

In this regard, FCPS recently established new academic goals to include the expectation that students understand and model attributes that contribute to an effective and productive community and to the common good of all.

FCPS also set the expectation that students be skilled in environmental stewardship.

Display of Work

Each classroom has space, including bulletin boards and white boards, to display student work. In addition, wide halls are linked with cork strip for safely hanging student work while meeting safety and fire code requirements.

Large display cases are located in prominent places to provide additional space to showcase special events, art work, and historic memorabilia collected about the school..

A showpiece of our school are the tile borders in all of the halls. These individual tiles were created by students, staff, and members of the community.



Physical Environment

Water Use and Management

Plumbing systems are designed to minimize water consumption through use of lowflow fixtures and metering faucets.

Recycling

The School has a recycling programs for paper products, cans, and bottles. Construction waste materials were separated and recycled. Local recycled-content and rapidly renewable materials were used when readily available.

Indoor Air Quality

During renovations, indoor air quality (IAQ) is tested before construction in order establish a baseline and is monitored regularly to ensure that quality levels maintained. **During** renovations, FCPS observes more stringent IAQ standards than are required by the Environmental Protection Agency (EPA).

FCPS has adopted cleaning practices for FCPS facilities in order to minimize negative effects on IAQ and instituted the use of filtration buffers devices on vacuums, the use of special entryway mats at all entrances to prevent the spread of dust, the use of treated dust mops, and the use of microfiber cleaning cloths. In the near future, FCPS will phase in the use of Green Seal cleaning products and products with low volatile organic no compounds (VOC) as new commodities contracts are let.



Media Center - Before

Media Center - After





Physical Environment





Physical Environment



Entry - Before



Our atrium is beautiful! The two story entrance adds a sense of grandeur to our school and is commented upon by individuals in our community. Our school is truly proud of our building!

> Jeanette M. Black Principal



Entry - After









2011 Exhibition of School Planning and Architecture

Project Details

Project Name	Vienna Elementary School
City	Vienna
State	Virginia
District Name	Fairfax County Public Schools
Supt/President	Dr. Jack D. Dale
Occupancy Date	9/2010
Grades Housed	K-5
Capacity (Students)	421
Site Size (acres)	12.24 acres
Gross Area (sq. ft.)	16,654 SF additions, 51,313 SF renovations – 67,967 SF total
Per Occupant (pupil)	161 SF
gross/net please indicate	
Design and Build?	NO
f yes, Total Cost:	
Includes:	
f no,	
Site Development:	\$1,028,000.00
Building Construction:	\$9,428,000.00
Fixed Equipment:	\$637,000.00
Other:	
Total:	\$11,093,000.00



2011 Architectural Exhibit RENOVATION/ADDITION

Project of Distinction Award

Bellwood Elementary School

Chesterfield County Public Schools

BCWH Architects

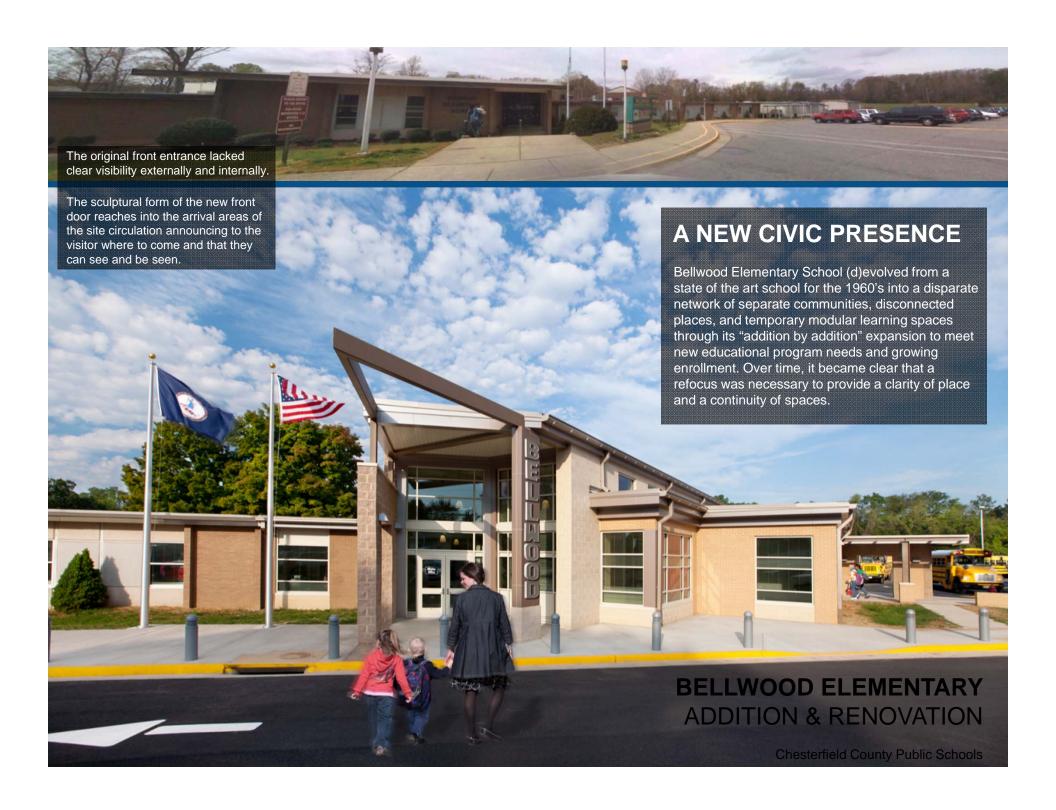




Jury Comments

- Excellent attention paid to the environment
- Design supports variety of learning styles and situations
- Location of a community office right in the building is excellent
- Provides flexibility of instruction
- Safety was taken into consideration in the design
- Good use of limited existing site







Additions from the 1970's and 80's extended the linear, L-shaped 60's plan to provide core classrooms in a rectangular shape followed by two octagonal structures. The additions extended corridors and created remote dead-ends that required the students and staff to retrace steps to common support areas.

The trailers added through the years further separated staff, students, and faculty and created a maze of spaces reached through routes that were unprotected from the weather and lacking good security management.

The site access for cars and buses shared the same routing. The morning and afternoon arrival and departure processes required a well rehearsed dance between parents and administrators.



CIVIC PRESENCE

The improved design replaces trailers with permanent space and takes advantage of the opportunity to connect old and new and enhance internal circulation.

This provides better internal relationships and eliminates many of the security and management issues of external circulation and remote access.

There are now separate public and staff parking areas surrounded by a new, independent bus loop.



PHYSICAL ENVIRONMENT: SAFETY AND EFFICIENCY

The approach to creating a more manageable building extended to the establishment of a new "front door" with view paths to all of the exterior vehicular areas from the new administrative suite. The general office staff now has a panoramic view of parents, children, and visitors from the time they come on to the site to the time they park in the newly expanded parking areas.

The energy saving double vestibule also creates a security control by locking the interior doors that connect directly to the school once the school day has started. This means the only access into the school is through a single door that leads from the vestibule into the main office waiting area.

Meanwhile, the new administrative suite allowed the existing office to be converted to two new classrooms, one of which places the civic partner organization, *Communities-in-Schools*, near the heart of the original building's public areas and the center of the academic communities.



The cramped administrative spaces had limited control over who could come and go without placing someone in the lobby.









AN INTERACTIVE ENVIRONMENT

The new connecting corridor joins old and new spaces as it extends from the bus loop through the new classroom wing to the existing gym, music, and art areas as well as to the added and original classrooms. The corridor creates an interactive space within itself with places for students and teachers to stop and connect along the way.

This corridor helped to achieve the goal of bringing students in and allowing them more than one route to their communities. Its structural elements of glass and thermal walls create areas along this connecting space that encourage and support independent experiences and learning outside the classroom.

Students can display their class projects and artwork on the walls along the corridors. Entrances to classrooms are enhanced with color and design elements.



Creating A World Class Education In Virginia







EXPERIENTIAL DESIGN

Students are meant to experience the new space as well as learn from it. The building itself serves as a tool to learn about the concepts of solar orientation, collection, storage, and shading through large glass walls on one side and a "trombe" or thermal wall on the other.

The relationship between inside and outside is clearly communicated visually and tactilely as the students move in, around, and through the space, feeling the solar effects.



A World Class Education In Virginia





LEARNING ENVIRONMENTS

The new and renovated classrooms are well equipped with built-in storage and instructional support features including interactive technology.

Teachers have arranged the classrooms to support both individual and small group based learning. The new and renovated classrooms are agile in their response to each style and have been organized in as many different ways as there are teachers.

Material colors and patterns invigorate without overstimulation and natural light filters in through large window walls, giving a richness and warmth to the learning environment.

One teacher, moving in and personalizing her classroom before students returned, was found by the principal sitting quietly, taking time to absorb the play of light and color.





MULTI-FUNCTIONALITY

The addition enclosed the formerly open site, creating a courtyard which provides an outdoor learning space filled with light and shaded by two large maple trees that were saved during construction.

The outdoor learning spaces are used for traditional instruction, recreation and play, socialization, and experimentation that includes gardens for both ornament and the growth of food.







Creating A World Class Education In Virginia





PROJECT IDENTIFICATION

OCCUPANCY DATE: Fall 2010

SITE SIZE: 19.5 Acres

STUDENT CAPACITY: 800 students

GRADES HOUSED: K-5

AREA OF BUILDING: 61,150 SF existing

16,370 SF addition

1,600 SF renovation

77,520 SF total

TOTAL PROJECT COST: \$3,497,000 Contract Amount

\$3,462,000 Final Cost (including scope increase)

COST PER SQFT: \$188.50 (Addition & Renovated Area)

COST PER STUDENT: \$11,293 (Addition & Renovated Area)

SPACE PER STUDENT: 97 SF (Total Building)



DESCRIPTIVE DATA

Bellwood Elementary School

Chesterfield County, VA

Dr. Marcus J. Newsome, Superintendent

Chesterfield County Public Schools



2011 Architectural Exhibit NEW CONSTRUCTION

Outstanding Accomplishment Award

Renaissance Academy

Virginia Beach City Public Schools

RRMM Architects





Jury Comments

- State of the art program support
- Excellent relationship within the community
- Inclusive planning process
- LEED Gold School
- Included native flora
- Designed to share with the community open 7 days a week
- Demonstrated an intensive planning process
- Excellent facility for the students and community at large



RENAISSANCE ACADEMY - a strong statement of a community caring for its land, its history and its at-risk youth.

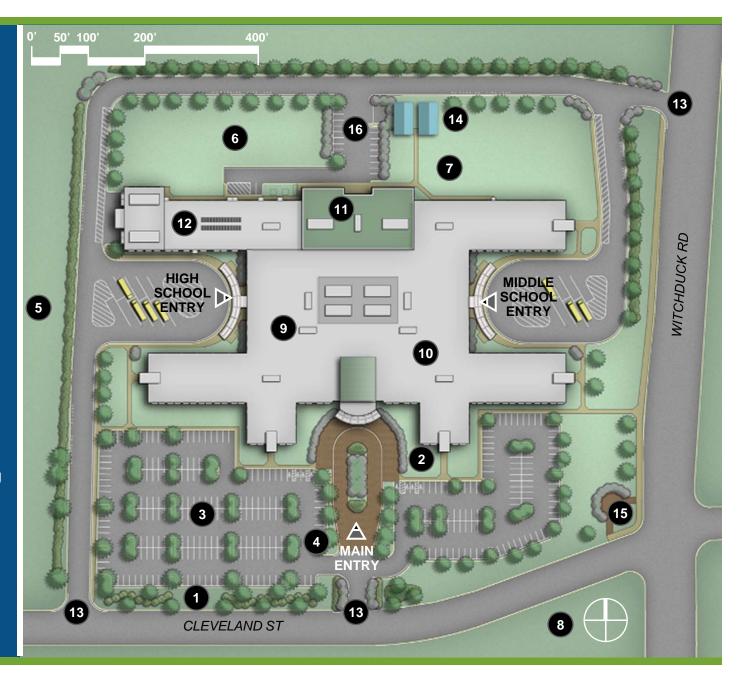
- CARING FOR ITS LAND: The past 70 years left this site full of hazardous materials. The Renaissance Academy project completely remediated and reclaimed the 27 acres. 90+% of all non-hazardous demolition debris was kept out of landfill and in the local economy. The site is now clean of toxic materials, removing a community burden. The project's attention to pervious surfaces lessens storm water runoff, alleviating backed up storm sewers and local flooding.
- CARING FOR ITS HISTORY: The Renaissance Academy project includes a 1,860 square foot museum dedicated to teaching the history of the Princess Anne County Training School, Virginia Beach's first African American public school which later became Union Kempsville High School. A first class exhibit, the museum is open to the public and is maintained by the City of Virginia Beach as one of Virginia Beach's historical focal points.
- CARING FOR ITS YOUTH: The Renaissance Academy project is a top-notch facility for academically and behaviorally challenged students, students who have traditionally received the worst of available facilities. With its abundant interior natural light, high indoor air quality and fully landscaped site, the Renaissance Academy project is an integral part in giving students the best environment for excelling and moving into a productive community life.





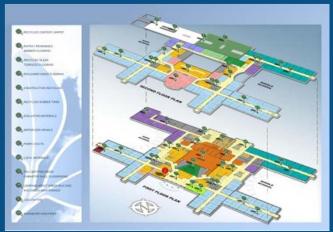
- 1. Bio Swale
- 2. Native Plants
- 3. Tree Islands
- 4. ULEV & Carpool Parking
- 5. No Light Spill Off Site
- 6. Geothermal Fields Whole Site
- 7. Rainwater Cisterns Underground
- 8. East-West Building Orientation
- 9. Sky Lights for Core Spaces
- 10. Reflective Roofing
- 11. Vegetated Roof
- 12. Solar Thermal Water Heating
- 13. Separation of Bus & Car Traffic
- 14. Educational Greenhouse
- 15. Union Kempsville Memorial
- 16. Service Area

Main Site Diagram





- Learning Environment
 - Teaching how our actions impact our surroundings
 - Using the building to teach how systems work
 - Demonstrating a bright and efficient building without being expensive





Educational Building Signage

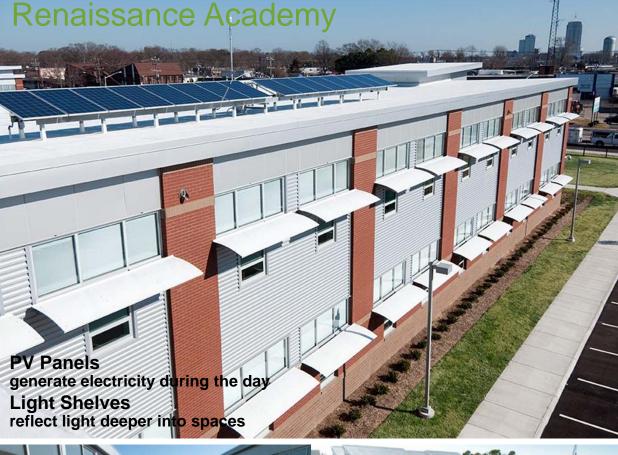








- Earned LEED Gold Certification from the U.S. Green Building Council.
- Sustainable features include:
 - Geothermal HVAC 522 wells, 400 feet deep each.
 - Daylit spaces, supplemented with dimming ballast electric lighting with photosensor & occupancy sensor controls.
 - Waterless urinals & rainwater collection used for toilet flushing
 - · Siphonic roof drain system
 - Photovoltaic power production
 - Solar thermal heating of kitchen water
 - Geothermal-tied kitchen refrigeration
 - New site is 30% more pervious than before
 - 16,000 SF of green roof & bioswales yielding in 41% less run-off than site's previous state
 - Initial data collected shows
 Renaissance Academy uses
 approximately 1/2 the electricity & 1/3
 the water of similar size modern
 schools in the district.









- Designed to share its amenities with the community.
- Trades Labs, Gymnasium, Schola, Greenhouse and Teaching Spaces are shared with the community from early in the morning to late at night, 7 days a week.







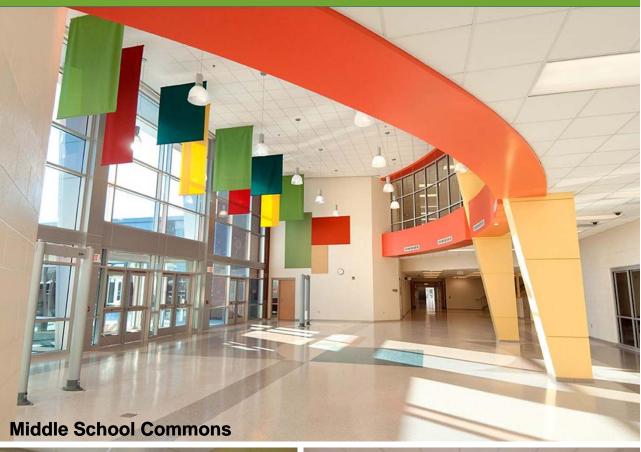






- Fully passively monitored from only a few regularly staffed positions
- Abundance of glass partitions and glass sidelights at all classrooms provides visibility
- Three security staff / information positions covering the three main entrances
- Main and auxiliary security offices monitor inside and outside of entire facility via CCTV
- Network integrates CCTV, fire safety, motion detectors and card access control to be monitored on- and off-site
- Strategically located security offices, lots of glass for visibility, and clear lines of sight from key intersections promote in the ease of monitoring the students, staff, and visitors in the building.





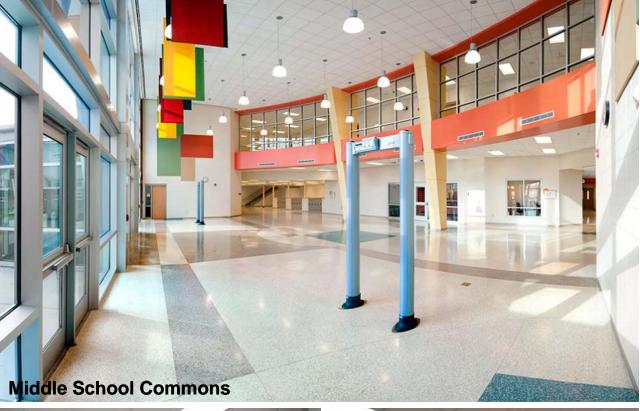






• To enhance the learning environment, the use of color and natural lighting throughout the building helps in promoting the well-being and health of the student's educational growth.



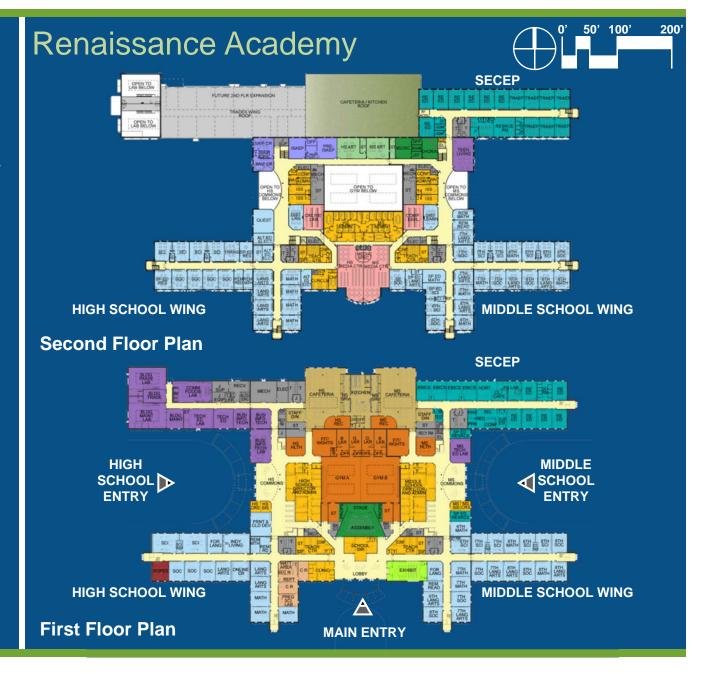








- 289,000sf Alternative Education Middle School / High School near Town Center in Virginia Beach.
- Integrates three main student groups with different needs in an bright, uplifting and environmentally appropriate facility.
- Three main users have autonomous wings while sharing larger facilities: gym, cafeteria, assembly, counseling, library, trades labs and others.
 - CLASSROOM / SCIENCE
 - ADMINISTRATION / CLINIC / GUIDANCE
 - TOILETS / MECHANICAL / ELECTRICAL / STORAGE
 - ROPES THERAPY
 - TRADES LAB
 - ALTERNATIVE EDUCATION
 - KITCHEN / DINING
 - PHYSICAL EDUCATION
 - UNION KEMPSVILLE EXHIBIT
 - AUDITORIUM / MUSIC
 - SPECIAL EDUCATION
 - ART
 - MEDIA CENTER
 - ISAEF





Renaissance Academy



A P.A.C.T.S. / U.K.H.S. Est. 1938

- Part of the project site included the first public African-American school in the region. The Princess Anne County Training School, renamed Union Kempsville High School, was originally built in 1938 by the African-American community for the local African-American youth. When de-segregation brought all students together, the local school system closed the school and located various other facilities on the site.
- With little of the historic school intact, the School Board decided to devote 2,000 SF within the new facility for the Union Kempsville Exhibit. The public accessible, museum quality exhibit displays artifacts and stories telling the African-American education experience to future generations.







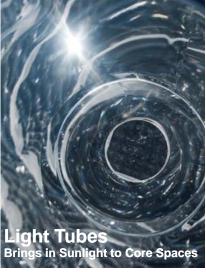






Renaissance Academy













2011 Exhibition of School Planning and Architecture

Project Details

Renaissance Academy
Virginia Beach
Virginia
Virginia Beach City Public Schools
Dr. James G. Merril, Superintendent
January 2010
6 - 12
1,600
27
289,000 SF
181 SF/ Student
1.10 (Net Area = Gross Less Walls)
Yes
\$60,000,000
Design, Permitting, Temp Student Relocation, Haz Mat
Abatement, Demolition, New Construction, FFE, Etc.



2011 Architectural Exhibit NEW CONSTRUCTION

Project of Distinction Award

Eastern Montgomery Elementary School

Montgomery County Public Schools

Spectrum Design, PC





Jury Comments

- Bright, accessible building that invites students to become engaged in the learning process
- Building will facilitate interaction and collaboration in instruction...valuable in the 21st century classroom
- Designed with good technology integration
- Considers safety of users
- Designed to be an integral part of the community
- Planning process included all partners and users
- Jury would like to have seen wireless capabilities







- 1 main entry
- 2 visitor parking
- 3 faculty / staff parking
- 4 parent drop-off
- 5 multipurpose fields
- 6 bus loop / parking
- 7 ball field
- 8 bio-retention
- 9 stormwater management area
- 10 covered porch
- 11 grass play area
- 12 mulch play area





Gymnasium

Community Environment

Located in picturesque Southwest Virginia, Eastern Montgomery Elementary School was built to serve two rural communities whose schools were too small and too outdated to be renovated. Prior to the design, an extensive planning phase was conducted. Representative groups of teachers, students and community members collaborated to identify the goals for the project. Many spaces were designed for shared use with the school, the County and communitybased non-profit organizations. The building was designed with the goal of serving the community's collective needs. Office space is provided for community service and outreach programs. The Parks and Recreation Department has dedicated space to operate their recreation and wellness programs.





Cafetorium

Community Environment (cont'd)

The Cafetorium was designed for flexibility. It allows the full student body to be seated for performances. Appropriately sized storage rooms are adjacent to this space for table and chair storage. Additional rooms for after-school programs are also within the Cafetorium to support those programs. The stage is accessible and located adjacent to Music for staging of school and community performances. Significant daylighting as well as large windows that view into the courtyard for outside dining. The teachers' lounge is adjacent to the Cafetorium but has its own entry from the corridor. The teachers can observe the students while having lunch even though they are not on duty.





Pre-K – 1st Grade Classrooms

Learning Environment

The school system did a very unusual thing, they asked that all classrooms exceed the state recommendations for classroom size. They are in the range of 1,000 -1,200 square feet. This was needed in their opinion to make room for additional equipment in the classrooms, such as computers and much needed storage. 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. Power and data raceways installed along the perimeter of the room serve numerous computer stations in each classroom.

Based on direct feedback from teachers, each classroom was designed to utilize flexible lighting as well as natural daylighting. Each classroom has large operable windows. A window seat makes an inviting reading area and provides storage beneath. 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.





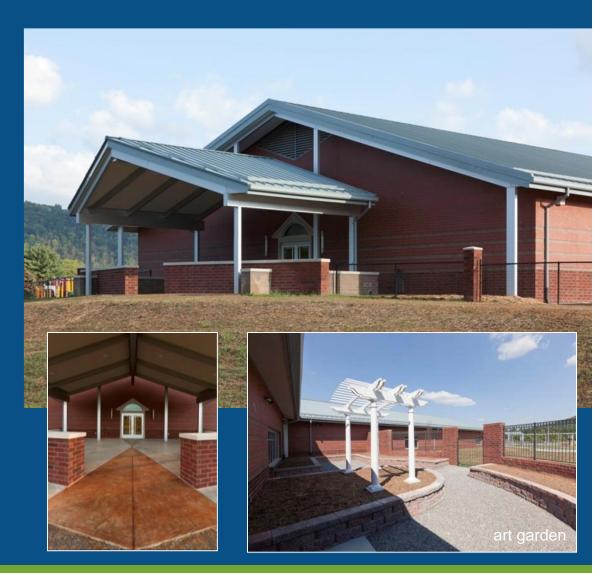


Outdoor Classroom & Art Garden

Learning Environment (cont'd)

There are a total of six covered spaces located at each grade level serving as outdoor classrooms. The spaces are large enough for an entire class to have activities in any weather condition. This provides a much needed connection with the outside environment.

An enclosed courtyard is located adjacent to the art rooms, giving the students additional opportunity to take their work outside. Raised planting beds are located where students can observe natural elements as well as display student sculptures.





Common Spaces

Physical Environment

Several concepts were explored for the best circulation system, but the one chosen by the staff was an 'X' configuration that allowed the Administrative Suite, Media Center, Cafetorium and Gymnasium to be located all around a central core. Once one is at this core, all major areas used by the students and community are easily and quickly accessed. There are two neighborhoods of classrooms and teacher support areas. One for pre-school to 2nd grade and one for 3rd to 5th grade. Two Art rooms and two Music rooms are provided as well.

The use of numerous materials and colors, various architectural elements, such as decorative columns, art walls and floor patterns create teaching opportunities for the students.









Front Lobby / Reception

Physical Environment (cont'd)

The Administrative Suite is located directly at the main entry because of the 'X' circulation plan which is centrally located and readily accessible to the school throughout. The Suite allows for separate entries into each of the Administration, Guidance and Clinic areas but allows for internal circulation among the three. Security is a growing concern and the areas at the 'X' all have glazed walls that not only allow for visual control but also allow for transparency throughout the facility which gives instant recognition of the type of space. The vestibules and waiting areas can all be locked down from controls at the reception desk. The Administrative Suite is designed to create an atmosphere of dignity, yet be inviting for the student and parent.





Art Room

Planning Process

Participants in planning process:

- Parents
- Students
- Teachers from all departments
- Representatives from the Community and Non-Profits
- School Board
- Administrators and Principals
- Custodial and Maintenance Staff

The designers continued to be engaged with the stakeholders throughout the two and a half year planning and construction period resulting in learning environments that reflect the educational goals.





Corridor

Planning Process (cont'd)

Timeline

Oct 2007: Initial meeting with educational steering committee

Nov 2007: Extensive interviews with the building users and community members

Dec 2007: Development of the Educational Program

Jan 2008: Approval of the Educational Program by School Board

<u>Jan – Aug 2008</u>: Building with follow up meetings with stakeholders to assure the design reflected the educational goals.

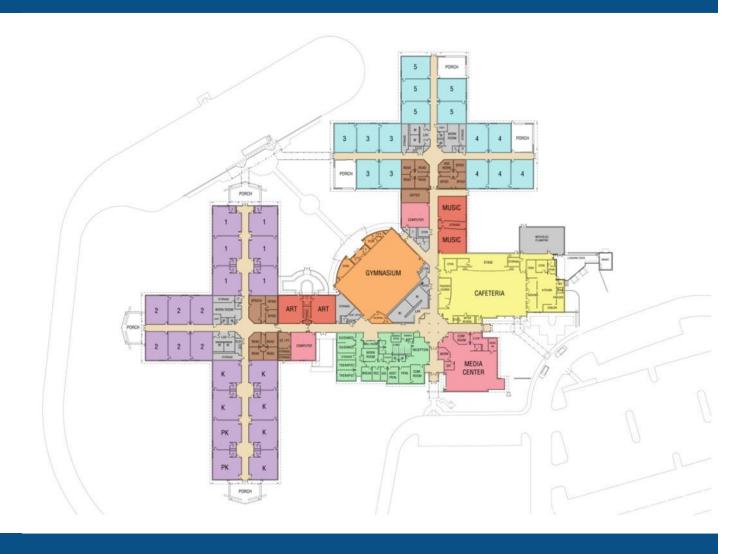
Nov 2008 – Apr 2010: Construction period with continuing input from staff and steering committee responsible for selection of school equipment and furnishings. Hardhat tours were given to keep planning participants engaged in the process.

<u>May – Aug 2010</u>: School move-in; Designers and stakeholders continue to meet on site to fine tune the educational spaces to meet the programming goals.





- circulation
- administration
- cafetorium
- media center
- gymnasium
- art & music
- resource
- support
- pre-k to second
- third to fifth





Administrative Suite

The glazed entry promotes an inviting feel while giving the administration direct visual control over all visitors entering the school. Electronic hardware provides added security for the school.

Professional work spaces and ample meeting areas allow the staff to interact with parents, students and the community.

A history wall celebrates the community's past, while connecting to today's students and their future.











Media Center

The Media Center is a focal point on both the exterior and interior. The stack area incorporates the vaulted roof form and the reading area is featured at the bottom of the vault. The reading area is glazed on three sides and takes full advantage of the beautiful views to the mountains and pastureland. The Media Center was designed to have a computer area that would accommodate a complete classroom of students. Reading tables for a classroom were also provided. The circulation desk has full view of the area as well as overview to the main circulation core. Support spaces include a conference room, a space for storage of 'computers on wheels', a student restroom, as well as an office and workroom for staff.









Support Spaces

When designing this school, teacher support spaces were a major concern. Workrooms were provided for each Pre-K – 2nd and 3rd – 5th grade neighborhoods, as well as the Administrative Suite. Large storage rooms are also in each neighborhood as well as the Administrative Suite and Custodial Suite. Throughout the building, accessible toilets were incorporated for teacher use only.

Toilets for students, located throughout the building, have a large number of fixtures so students can save time by not standing in line. This takes place in the core of the building as well as in the neighborhoods. Distribution of paper storage, sinks and cleaning equipment is also allowed by providing spaces for these needs throughout the building.







Outdoor Spaces

An outdoor dining area located immediately off of the Cafetorium offers children another opportunity to spend time outdoors. Multiple ballfields, playfields, and hard top surfaces were designed to give children ageappropriate areas to play. An example of this is a big wheel track for the preschool and kindergarten students.

A relief sculpture was commissioned for this school by regional artist, Betty Branch. It is located prominently outside of the Media Center in a wall constructed of native limestone.







2011 Exhibition of School Planning and Architecture

Project Details

Eastern Montgomery Elementary School
Elliston
Virginia
Montgomery County Public Schools
Brenda Blackburn, Superintendent
August 2010
Pre-K thru 5 th Grade
875 students
20.00 acres
111,057 SF
127 SF / Student
No
\$2,638,000
\$18,800,000
\$747,000
\$22,185,000

