

2015 Exhibition of School Planning and Architecture

Wakefield High School

Category: New Construction

Arlington County Public Schools

Arlington, VA

Wakefield High School



Wakefield High School



Wakefield High School *Auditorium, Above* *Aquatics Center, Below*

Community Environment - The new Wakefield High School in Arlington, Virginia was designed to enhance learning opportunities for its students while also serving as a welcoming and accessible facility for community users. The facility was built to accommodate 2,100 students in 400,000 sf while also functioning as a community center. It is sited on a corner, allowing the new school to be both a literal and figurative gateway into Arlington County. While the classrooms, drama and music practice rooms, visual arts spaces, and science and technology labs are intended for the students, the new school also features a competition-level gym, pool, library/learning center, and an auditorium that are all designed for shared use with the public.



Wakefield High School

Dinwiddie St. Entrance, Above

Side Entrance, Below

Community Environment, Continued -

The building's geometry responds to both the existing street grid, with prominent facades highly visible along Dinwiddie and George Mason streets, and to the site's natural grid connecting the building to campus and neighborhood pedestrian paths.

The architecture of the new Wakefield High School expresses its interior organization outwardly. Major program elements of the building are identifiable in a series of boxes clad in differing materials—boxes of steel enclose the arts spaces and expanses of brick contain core functions. These materials reflect and blend with the architecture found throughout Arlington County, a hybrid of cozy neighborhoods of brick homes and vibrant urban centers of tall steel high rises.



Wakefield High School

Town Hall, Above

Courtyard, Below

Learning Environment - The new Wakefield High School is intended to remain a center for excellence in education, while offering a welcoming and open learning environment that offers the best in 21st century learning. Administrative spaces are distributed throughout the building to provide passive supervision and to encourage student/adult interaction. The signature space at the heart of the school is a unique Student Center comprising the Town Hall, library/learning center, cafeteria and main courtyard. The Student Center spans and connects the three major entries of the building, providing central circulation. Always buzzing with activity, the Student Center is a destination that draws people in to work collaboratively, share a meal, socialize, or study.



Wakefield High School *Science Classroom, Above Music Room, Below*

Learning Environment, Continued -

Other features of the academic program were incorporated into the design of the school. Specialty labs for the sciences are located within a unique aluminum clad building form to emphasize Wakefield's focus on equipping students with 21st century skills, including an emphasis on science and technology. A rain garden at the main entry is both an attractive landscape feature and teaching tool, highlighting important storm-water management functions. Other features include a performing arts complex grouped near the main entry of the school featuring a 635-seat proscenium theater/auditorium, a 180-seat studio theater, orchestra room, instrumental room, vocal room, and practice rooms. Both theaters can be used for music, dance, and drama.



Site Plans

Existing Site, Above *Replacement Site Plan, Below*

Physical Environment - The original Wakefield High School was determined to be too outmoded to be adapted to meet necessary programmatic, safety, and comfort requirements of a first-class environment for learning—and a new replacement facility was designed and built on a different portion of the same site allowing the existing school to remain in continuous service during construction.



Wakefield High School

Rain Garden and Landscaping

Physical Environment, Continued - The new school is designed to achieve LEED Gold certification and is one of the most energy-efficient public facilities in Arlington County, consuming 50% less energy than a typical building of its size. Sun shading and a highly reflective roof reduce the heating and cooling demands. Geothermal wells were installed as a final phase in the location of the demolished school and provide all heating and cooling for the new school upon completion. Fields of photovoltaic panels further relieve the school's energy usage, while solar hot water tubes provide all of the school's hot water. Harvested rainwater is used for irrigation and in toilets and urinals. The school features several types of bicycle storage to encourage alternative methods of transportation. The Town Hall features a Sustainability Monitor to allow students to monitor the school's live energy usage.



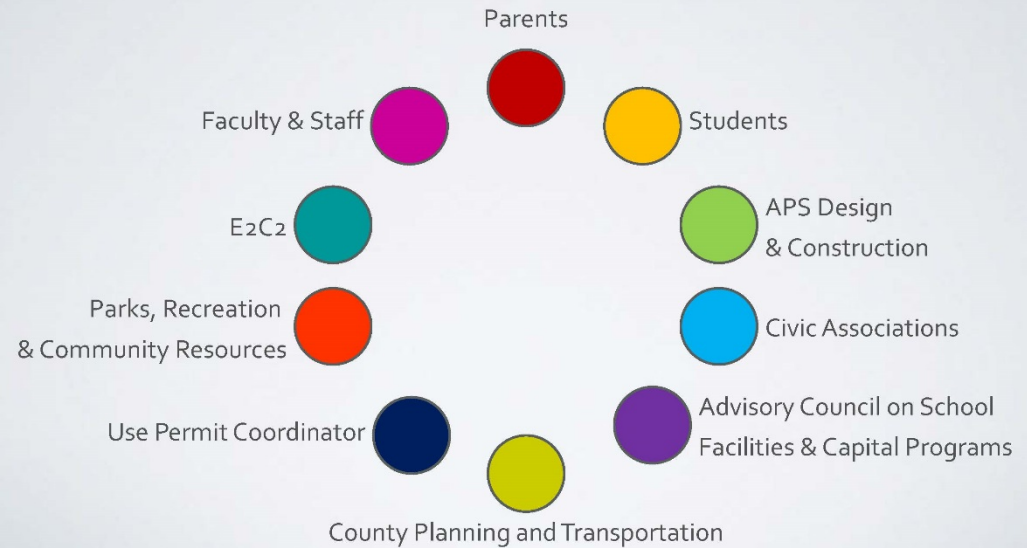
Wakefield High School

Process Committee Diagrams

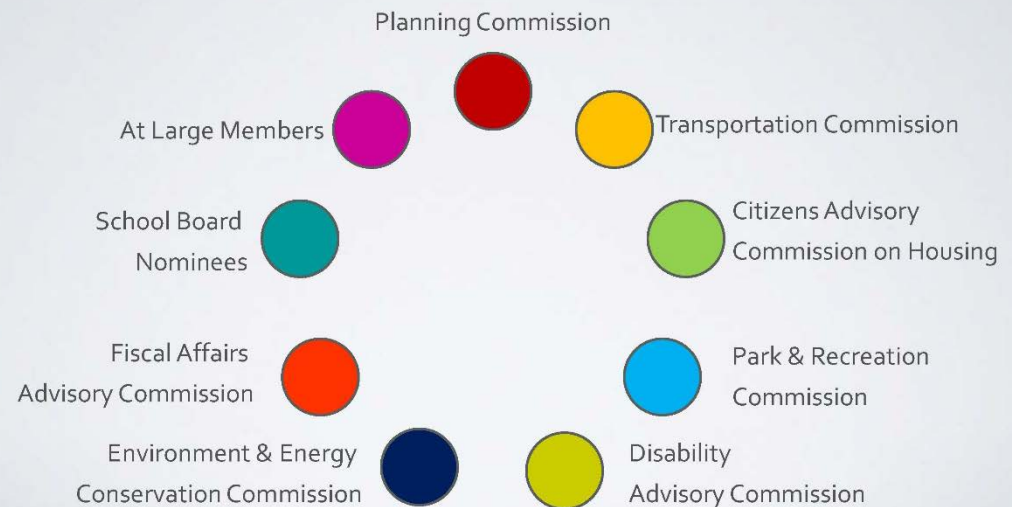
Planning Process - During the design process, the architectural team undertook a strategic planning process designed to engage multiple stakeholders, focus most heavily on community goals, and look for opportunities in under-utilized spaces to provide facilities to better serve student and community interests. The design team reported to two main committees during the process: the Building Level Planning Committee, consisting of parents, students, civic associations, and county representatives; and the Public Facilities Review Committee, consisting of various public commissions and school board nominees.

Process Committees

Building Level Planning Committee (BLPC)



Public Facilities Review Committee (PFRC)



Wakefield High School

Planning Process, Continued - In its final form, the new Wakefield High School has achieved the goals established through collaboration with the Building Level Planning Committee (BLPC), Public Facilities Review Board (PFRC), Arlington Public Schools, and Arlington County. Functions and spatial relationships serve complex needs of the community, while embodying a welcoming and open learning environment that expresses informality and connection with its surroundings.



Floor plan: 1st Level



Floor plan: 2nd Level



Floor plan: 3rd Level



Floor plan: Lower Level



Exhibition of School Planning and Architecture

Project Data

Submitting Firm :	Bowie Gridley Architects
Project Role	A/E Prime
Project Contact	Calvert S. Bowie
Title	Principal-in-charge
Address	1010 Wisconsin Ave, NW Suite 400
City, State or Province, Country	Washington, DC 20007
Phone	202.337.0888

Joint Partner Firm:	N/A
Project Role	N/A
Project Contact	N/A
Title	N/A
Address	N/A
City, State or Province, Country	N/A
Phone	N/A

Other Firm:	N/A
Project Role	N/A
Project Contact	N/A
Title	N/A
Address	N/A
City, State or Province, Country	N/A
Phone	N/A

Construction Firm:	Forrester Construction
Project Role	General Contractor
Project Contact	Rusty Russell
Title	Construction Site Manager
Address	12231 Parklawn Drive
City, State or Province, Country	Rockville, MD 20852
Phone	301-816-1700

Exhibition of School Planning and Architecture

Project Details

Project Name	Wakefield High School
City	Arlington
State	Virginia
District Name	Arlington County
Supt/President	Patrick K. Murphy, Superintendant
Occupancy Date	September 1, 2013
Grades Housed	9-12
Capacity(Students)	1,600
Site Size (acres)	37.5
Gross Area (sq. ft.)	404,000 gsf
Per Occupant(pupil)	252.5 gsf/pupil
gross/net please indicate	
Design and Build?	Yes
If yes, Total Cost:	\$99 Million
Includes:	
If no,	N/A
Site Development:	N/A
Building Construction:	N/A
Fixed Equipment:	N/A
Other:	N/A
Total:	

Supporting/Supplemental files/Images



Major Programs (arts, athletics, science, and learning centers) and vertical circulation are identified in the exterior design by the aluminum exterior treatments. The design of the replacement high school resolves the need for school and community use of the facility by providing varied landscapes and entries for athletics, academics, and public arrival within a unified structure.

Supporting/Supplemental files/Images



The competition gym floor is a story below the entrance level to provide separation between the players and spectators and opens to the existing playing field.

Supporting/Supplemental files/Images



The library is one of many new facilities that are open and accessible to the community.

Supporting/Supplemental files/Images

A formal façade creates a pedestrian scaled urban frontage, where a canopy and glass tower announce an entrance. Sunshades and layered planes of masonry add scale and interest.

