

New wing of the Achievement Preparatory Academy Public Charter School, housing the Middle School.

Architectural Achievement

Dynamic Forms Enliven Charter School

by Steven K. Dickens, AIA, LEED AP

The Achievement Preparatory Academy charter school was founded to close the achievement gap between children from poorer versus wealthier neighborhoods in DC. Diving into that mission, the school opened in the Washington Highlands neighborhood, one of the poorest parts of the city, with a long history of high crime and poor educational performance. Physically remote from downtown DC, Washington Highlands saw fewer than 25% of its children graduate from high school as recently as 2008.

Via a combination of longer school days and the establishment of a strong culture that values learning, Achievement Prep has had impressive success. According to the website *Idealist.org*, "Although a majority of the children who come to Achievement Prep are 2-3 years behind grade level, since opening its doors in 2008, Achievement Prep scholars have been some of the highest performing children in the District of Columbia, managing to outperform many of their peers from more affluent and privileged backgrounds."

The original program, serving grades 4-8, was located in a former DC public school, a solidly built, C-shaped block. The front of the building faces a weary-looking public housing project across Wahler Place, SE. It is a rather plain modernist building, but thanks to its three-story height, symmetrical façade, and classically-inspired entrance surround, it reads as an anchor and local landmark. The

wings drop to two stories and their facades have a more informal, form-follows-function quality, with expressed stairs and a tall chimney.

A separate facility housing pre-kindergarten through 3rd grade was initially located a few blocks away. Having built a program and a reputation, the school determined in 2013 to consolidate to one campus by building a new Middle School and then renovating the former public school building to serve as the Elementary School. **Studio Twenty Seven Architecture**, which has considerable experience with charter schools, was called for the job.

The master plan developed by the architects called for the creation of a second three-story block, similar to the original school in many respects but clearly expressing the more lively spaces within, which in turn reflect the dynamic character of Achievement Prep's curriculum, methodology, and staff. Between the two buildings would be a naturally protected outdoor space: a commons that includes a playground for the Lower School students and a covered walkway connecting the buildings. The commons would be a welcome amenity under any circumstances—a void in tension between the two solid masses—but in Washington Highlands it takes on extra value as a secure space, separated from the surrounding streets and neighborhood.

Renovated building now housing the Achievement Prep Elementary School.



Project: Achievement Preparatory Academy PCS, 908 Wahler Place, SE, Washington, DC

Architects: **Studio Twenty Seven Architecture**

Landscape Architects: **Siteworks**

Structural Engineers: **Ehler Bryan, Inc.**

MEP Engineers: **Setty Associates**

Civil Engineers: **Christopher Consultants**

Acoustical Consultants: **Acoustical Design Collaborative, Ltd**

General Contractor: **MCN Build**

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Rendering showing the new Middle School at left and the renovated Elementary School at right, with the courtyard between them.

Courtesy of Studio Twenty Seven Architecture

A key facet of the Achievement Prep program is longer school days, allowing more time both in and out of the classroom. “Longer days demand an organized environment with diverse, stimulating spaces,” noted **Jacob Marzolf**, Studio Twenty Seven’s project designer. Architecturally, this translated into generous daylighting, mostly single-loaded corridors, ever-changing views to the outside, and a variety of spatial experiences within. Studio Twenty Seven’s *parti*, or organizing principle, for the new Middle School was to take “bites” away from the basic, blocky massing to express the different programmatic elements within and to provide windows for all spaces—on multiple sides where possible. Similar “subtractions” were planned to the original building, too, to bring daylight to the double-loaded corridors. Due to budgetary limitations, those changes to the original building didn’t happen, but the architects’ devotion to the idea is noteworthy.

The charter school’s goal to create community is rooted in the practical, if unfortunate, fact that many of the students do not enjoy stable lives at home, nor in their immediate neighborhood. Architecturally, the principal manifestation of the goal is the central commons space of the new Middle School, a dynamic space along the

grand stair that connects the three stories of the school. The main space, at the second floor, is two stories in height, with windows on two sides and a flexible-use homework area/lounge space. It extends both to the third floor via a large-riser stair/amphitheater, and down to the main entrance lobby on the first floor. Overlooking the space are catwalk corridors and a red-walled meeting room. The diagonals of the space are expressed on the exterior, thus animating the façade that faces the Elementary School.

A multipurpose room at the first floor is an architecturally calmer version of the central commons and serves many of the same informal purposes, in addition to being the cafeteria. It is also a double-height space, with part of its ceiling being the sloping underside of the grand stair. There are fewer windows to the outside and no through-circulation, but it is overlooked by windows into the second floor classroom corridor, which visually connect it into the rest of the facility. The gymnasium uses a different mix of the same architectural vocabulary to provide a third double-height space, this time focused on movement and action.

Another unusual aspect of Achievement Prep is that students have “ownership” of the classrooms. Each grade



Courtyard between the Elementary and Middle schools.

level has a “collaborative work space” approximately the size of a classroom, which has open-office workstations for each teacher and small meeting areas. They are located somewhat away from the classrooms, to emphasize the distinction. They encourage information sharing among the teachers and foster a sense of common purpose among the adults of Achievement Prep. One more nice touch is that, within the new building, classes are located with 4th grade at the bottom and 8th at the top, so that students literally rise as they advance.

All spaces in the new building including the gymnasium are daylit, some on more than one side. The classrooms face either northeast into a wooded vale or southwest into the central courtyard, in each case connecting with a calm outdoor area to maintain student focus. The exterior is brick veneer and glass, a palette drawn directly from the original building but with variations that clearly speak to a 21st-century vision of modernism, in contrast with the Elementary School’s pared-down, mid-20th-century aesthetic. The interior palette is mostly white and light gray, with accents of bright red matching the Achievement Prep logotype. (Readers will doubtless note that the students’ uniforms match the building. This obviously benefits architectural photographers, but it also is intended to help forge a sense of community.)

With construction costs of about \$300 per square foot, this was not a high-budget project (as a point of reference, that is about half

the budget for most of the new DC public libraries). Under these constraints, such a project doesn’t happen without some pain. Fairly late in the process, for example, each floor was reduced in height by about a foot to reduce the quantity of materials needed and the cubic feet of space to be air-conditioned and heated. Because windows are substantially more expensive than masonry veneer walls, the glazed area was carefully considered and reduced several times. Almost all the red accents are simply painted.

Yet smart planning by Studio Twenty Seven makes the most of all this. For example, red-painted walls, when seen through windows, can give the effect that the glass is tinted red. The use of vinyl flooring (perhaps the cheapest decent flooring available) in most spaces allowed for more expensive terrazzo on the grand stair and natural-finish wood on the amphitheater portion. The steel framing required for the building’s structure was strategically used to create separations between areas of the central commons and to provide visual depth, shadow lines, and interest to the window wall along the stair. In the entrance lobby, the diagonals of the steel—necessary for bracing—are enhanced by the placement of light fixtures and mechanical grilles in the ceiling and a sleek reception desk. When window sizes were reduced to meet the budget, Studio Twenty Seven added a subtle motif to the façade brickwork: areas in which header bricks protrude outward about an inch, casting shadows that break up the expanses of masonry.



Student Commons in the Middle School, with grand staircase/seating in the background.

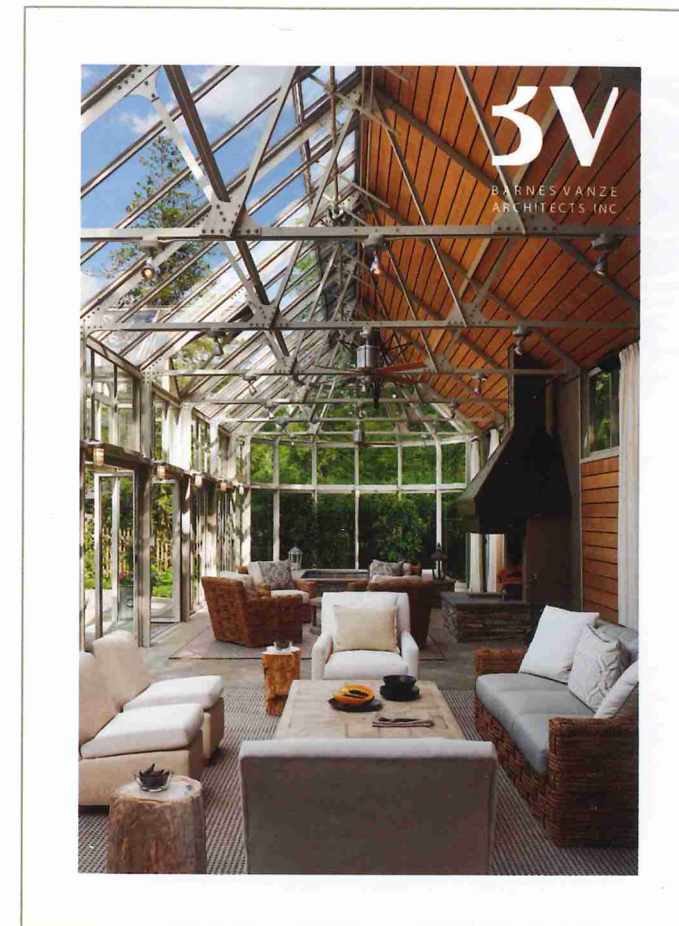

The project was designed to LEED Gold standards. There aren't any bravado sustainable features, but it is still an impressive accomplishment especially given the budget limitations. Special attention was paid to LEED points that relate to the character of the spaces, such as daylighting and views out, to provide stimulation for the students and faculty. Similarly, "bioretention facilities," also known as rain gardens, take care of most of the stormwater runoff, though green roofs, which are more expensive than rain gardens, were provided on two lower roofs that are visible from third-floor classrooms.

After the new building was completed, the older building was renovated to be the new Elementary School. The basic pre-existing configuration was maintained, with the teachers' "collaborative work spaces" occupying non-standard classroom-sized spaces. Studio Twenty Seven emphasized careful lighting in lieu of larger windows or the originally planned architectural "subtractions."

The Elementary School moved into the renovated building in fall 2016, finally unifying the campus. Achievement Prep's students are passing standardized tests at rates much higher than average for DC, especially in math and science. In some cases, their test scores match or exceed those from schools in more affluent areas, a ringing endorsement of the curriculum and a fulfillment of the school's mission. In addition, Washington Highlands now boasts its first piece of high-design, 21st-century architecture. 🏡

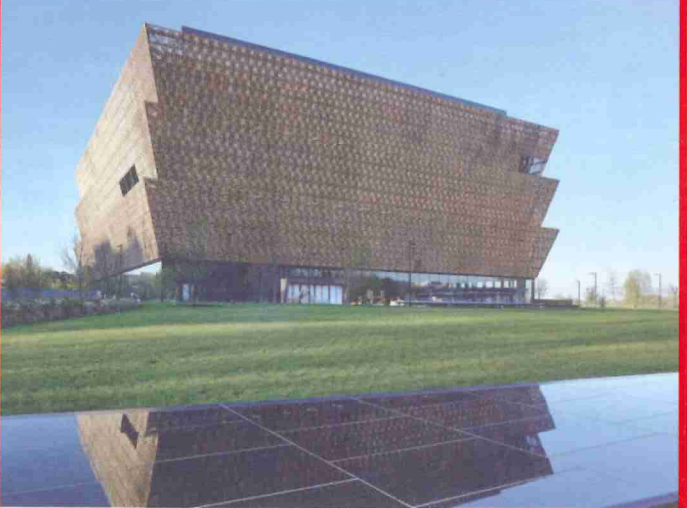


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