



Innovative Strategies to Optimize Value

By Tanner Backman

Extending the reach of the school facility and magnifying its value.

The value a school facility offers to the surrounding community is critical. Is the location central to optimal community use? Does the structure complement nearby buildings? Does it provide services that everyone can use, such as a community center, library, and recreational facilities?

Creative project teams can optimize the value of the school facility for students and the community by designing it into the flow of the community. They can often make a new building seem like a long-standing part of the community.

That was the approach project team leaders used to optimize Pelham Park Middle School in Pelham, Alabama, which serves 800 students in grades six to eight. Here are the challenges and insights the award-winning facility offers.

Design Challenges

The first design challenge for school facilities is to plan a rightsized facility that can accommodate the current student population while accurately anticipating future growth.

Security is another growing concern with school projects. They must include infrastructure to control and monitor everyone entering and exiting the building throughout the day—protocols that can be costly to implement.

Architecture and design are great opportunities to integrate the new project with the surrounding community. Encapsulating the spirit of the community means designing the building in a language that speaks to the community's traditions while also creating energy. Capturing the essence is essential for a public building like a school that acts as a



At night, Pelham Park Middle School's atrium is fully illuminated and serves as a beacon for the community.

CHIKALA/STOCK.ADOBE.COM

cultural centerpiece: the more natural the fit, the more enthusiasm for the project.

At Pelham Middle School, the atrium is a central feature that showcases the structural system, a visual effect that adds to the design's quality and interest. At night, this space becomes a strong focal point as the volume and structure are fully illuminated.

Strategies + Value

Budgetary concerns must be top of mind when leaders try to balance stewardship of community funds with the costs associated with adding a world-class facility to the surrounding area.

When project teams can recognize early on that cost will be an issue, it is easier to meet the client's needs and set priorities.

When project teams can recognize early on that cost will be an issue, it is easier to meet the client's needs and set priorities. In the later stages, established priorities are key when design teams must make tough decisions. Such decisions may include restricting expensive materials and high-end finishes to a showpiece atrium or grand staircase while making more practical, cost-conscious choices throughout the rest of the facility. Focusing the most eye-catching design pieces in high-traffic areas optimizes the value of that upgrade.

Outdoor views also optimize value by opening a space visually and connecting the interior with more expansive outdoor amenities like courtyards and surrounding flora. These spaces can extend the inside space, allowing for greater occupancy and making it



PHOTOS COURTESY OF GOODWYN MILLS CAWOOD

Pelham Park Middle School in Pelham, Alabama, is an award-winning facility designed to complement the "feel" of the community.

a multifunctional area. Whimsical touches like painted musical notes, equations, and literary quotes on walls and floors add unique and creative details to the space without costing much.

At Pelham, the facility contributes to the school's educational aspect by incorporating a series of educational graphics that are inset into the polished concrete floor and located close to their corresponding subjects. The project team studied the curriculum model so that the information would be relevant and could be used daily as the project includes depictions of the solar system, musical scales, and a world map.

Cost + Space

In most community-funded projects, budgets are prevailing considerations. Doing more with less is important, meaning any opportunities for materials and spaces to perform double duty present added value. For example, roof joists could be extended to guide water off the roof into an on-site reservoir, creating a waterfall effect when it rains, offering students invaluable lessons about water conservation and management.

Using available resources onsite for dual purposes and integrating with the surrounding landscape can

provide unique cost-saving opportunities; however, other opportunities can draw on the existing landscape and infrastructure for aesthetics.

For design teams, it is all about making what they have to work with go as far as possible. For example, concentrating banks of windows in locations with the best views reduces the cost of expensive glass while still creating connections to the outdoors and embracing a parklike setting in the adjacent courtyard. Also, strategic window locations can reduce the strain on systems that heat and cool the building.

At Pelham, exterior greenspace features two secure courtyards with an illuminated connecting area linking academic spaces to the gym and cafeteria. The structural system of the connecting space routes rainwater to concrete receptacles. The effect is a series of waterfalls that pour into a landscaped bioswale.

Unique Considerations

Some specific considerations related to schools and community centers come into play when planning a design. These considerations can also influence finding value. In particular, the flexibility associated with 21st-century learning methods lends itself to optimizing a single space's value by leveraging it for multiple uses.

Technology also plays a vital role when it comes to flexibility. Adaptable furniture and moveable electronics help create an environment where any room can be transformed for any use. In today's classrooms, students learn differently, which means educators must have flexible spaces that can cater to various learning styles.

Today's classrooms also cover more ground than in the past. Students and teachers share real-life experiences when it comes to preparing for the rigors of adult life.

To survive in this brave new world of pedagogy, teachers must have learning spaces that accommodate various learning styles, topics, and environments. Because today's schools are more than just academic classes, designers must consider how architecture will support those educational models and deliver those services to the community.

Insights in Application

Creativity is key in stretching basic materials to function in a unique way. Pushing constraints and incorporating the local surroundings will result in something distinctive, no matter what the budget. When the design decisions are based on good stewardship and a desire to create a pleasing environment for students, those values shine through in the space's look and feel.

Common materials like concrete, wood, and steel used in refined and creative ways can create an appearance of opulence in the space while staying within budget. When resources are limited, it helps to funnel the creative energy into one specific aspect, such as a grand staircase, atrium, or reception area that incorporates expensive designs and finishes.

These features can be juxtaposed with simpler, less expensive design



Pelham Park Middle School's media center has adaptable furniture and moveable electronics to transform the space for many uses.



The school's courtyards connect classrooms to the gym and cafeteria.

elements. For example, having a staircase with a board-formed concrete wall on one side, but a clean, modern textural wall that reflects light in interesting ways on the other. Such choices create a special feeling about the space, materials, and design.

Optimizing Value

Ultimately, through creativity, stakeholders and decision makers

can optimize the value of school facilities for the community and students. By integrating the building with the community fabric, designers can often create a powerful effect as a long-standing piece of the community.

Tanner Backman is with Goodwyn Mills Cawood, an architecture and engineering firm with offices located throughout the southeast United States. Email: tanner.backman@gmcnetwork.com