

PHOENIXVILLE EARLY LEARNING CENTER AND MANAVON ELEMENTARY SCHOOL

Phoenixville Area School District
Phoenixville, Pennsylvania



2018 MACCONNELL AWARD SUBMISSION

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EXECUTIVE SUMMARY

With a philosophy of providing customized and personalized education to every student, the Phoenixville Area School District decided early in the visioning process that a primary goal for the new facility would be to create a focus on literacy and learning in a non-standard learning environment. In response, the design for the Early Learning Center and Elementary School places the media and technology center as an open “living room” concept at the core of the facility with all other functions radiating from it.

The new 152,500 SF Early Learning Center and Elementary School is designed to support two specific grade-grouping structures in a “school within a school.” The Early Learning Center includes a K-1 program serving the entire District while the Elementary School hosts a regional 2-5 program serving the local neighborhood and paralleling the program proposed in two other District 2-5 schools.

The school accommodates both groupings of grade structures by creating an environment in which every space in the facility is essentially a learning space. Learning studios, small group instruction areas and large group instruction areas provide spaces for individual, small-, medium- and large-group learning. Spaces traditionally used as corridors or hallways are designed to function as additional learning spaces, and even stairs are intended to be used as learning steps and to provide a dynamic instruction area. Learning spaces are divided with glazed openings that promote transparency, and barn doors between classrooms and small group instruction areas include writing surfaces to serve as work surfaces.



The design of the facility minimizes disruption to the existing site, a former golf course, and retains much of the original character of the topography. The new facility is sited away from the adjacent road to allow for green space between the building and the roadway. The design maintains old growth trees on site where possible and the facility will use the nearby creek and watershed for hands-on learning for students within the riparian buffer.

Striving for a smaller scale that is more residential than institutional, the exterior design incorporates elements suggestive of the latter, which include use of stone on the façade in combination with cementitious siding, and pitched roofs.

The mechanical system includes a water-sourced heat pump system utilizing a ground-coupled closed loop well field for the tempered water supply. Constructed utilizing steel-frame structure, the building incorporates a variety of materials including steel, concrete, masonry and glulam beams. Copious daylighting is provided throughout the building often times utilizing a bi-lateral daylighting approach. The project was completed as a design/bid/build project using multiple prime contractors.



Exterior view of the bus entry.

2 SCOPE OF WORK AND BUDGET

The new 152,000 SF Early Learning Center and Elementary School supports two grade structures in a “school within a school” format: K-1 in an Early Learning Center, and 2-5 as an Elementary School.

The two-story building consists of K-5 classroom spaces, Dining Area, Gymnasium, and central Media Center. Site improvements include multiple athletic fields for use by the entire K-12 complex and community (this facility is located on the same campus), asphalt roadways and pathways, concrete curbing and walks, and landscaping.

The building is structural steel framed with slab on grade concrete and concrete slab on composite steel deck on conventional spread footings. The roof structure consists of metal deck over a structural steel joist system, with a mixture of asphalt shingle and PVC roofing systems. The building’s exterior façade contains a mixture of stone masonry veneer, cementitious panels and siding, aluminum windows, storefront, and curtainwall systems.

As previously described, the facility design focuses on literacy and learning in a non-standard learning environment. The design places the media and technology center at the facility’s core with all other functions radiating from it.

The new design benefits from the existing comprehensive campus encompassing the middle and high schools. The “educational village” concept connects young students with the greater educational community and allows for the sharing of site resources.

The entire construction project including the building and the site was achieved for a total construction cost of approximately \$42,000,000. The building construction cost was approximately \$32,000,000 and the site construction cost was approximately \$10,000,000.



 Educational Village

3 SCHOOL + COMMUNITY ENGAGEMENT

THE PHOENIXVILLE COMMUNITY

Phoenixville Area School District

The Phoenixville Area School District is located in northern Chester County, Pennsylvania, several miles west of Valley Forge Park. The district includes three townships:

- Phoenixville Borough
- Schuylkill Township
- East Pikeland Township

Phoenixville, like many Pennsylvania towns around Philadelphia, was an old mill town that had seen better days. Phoenixville evolved from a village in the late 1600's called Manavon which had a population of about 400 people. At that time the area had a large population of Native Americans, the Lenape people, who farmed, hunted, and fished in the Schuylkill River. The Lenape were in the Iroquois Confederation, the group that met William Penn when he arrived in the Colony. The first European settlers arrived in the area in 1713.

As with many Pennsylvania towns located along waterways, Phoenixville emerged an iron town centered around the Phoenix Iron Works, which operated from the mid-1800s through 1976. After Phoenix Steel closed, as did some other smaller manufacturing firms in that general time frame, Phoenixville experienced some difficult economic times. However, Philadelphia's suburban growth soon helped revitalize the town and now Phoenixville is growing and prospering.

Phoenixville's growth and rejuvenation has made it a destination for restaurants, bars, and art. New developments have converted prior farms in the area and have allowed the area to become a major commuter area for Philadelphia-bound white collar workers and for employees of the financial and pharmaceutical giants located along routes 202 and 422.

The Phoenixville community is flourishing and requires schools of a higher level to help attract and maintain the population. Phoenixville Area School District has continued to keep up with this challenge. This building has become one of their flagship facilities.



Exterior view of the front entry.



STAKEHOLDERS IN THE PROJECT

Phoenixville Area School District founded a Design Committee comprised of District and elementary administrators, teachers, and reading specialists. The Design Team held planning and design workshops with the Design Committee to create a facility design that adequately met their needs. Planning was driven by deciding how the District wished to educate and then by determining a facility design that best responds to the desired educational program and site. The group met on multiple occasions with local community-based sports organizations to develop the playing field configurations. Meetings were also held with municipal and county library systems to determine how best to utilize the learning resource center as an evening and weekend community-based resource.

The stakeholders in the project consisted of a very large contingent. Students were involved as they are with every project. As one would suspect, teachers, building administrators and district administrators were also involved. The school Board members and interested citizens showed up regularly to work with the team to further the project and to encourage the use of sustainable techniques.

As the project evolved, additional stakeholders were brought into the project (as described above) to include a representation of the multitude of community athletic organizations that would potentially benefit from the playing fields being developed on the site. Further, the Chester County Library Organization became involved with the interest in making the building's media center a potential weekend and evening access point for their use.

PROJECT CHALLENGES

The first challenge focuses on the site acquisition. The acquisition process became very controversial resulting in the need to economize on the eventual site use. The resultant educational innovation became the condensed educational village consisting of this district-wide K-1 Center and the district-wide middle and high schools all on one campus. The Grade 2-5 portion of the building is the only component serving just a portion of the district. The shared resources in this educational village further support the holistic approach to education, transportation and athletics in this district.

The second challenge was the owner's requirement to create an environment focused on literacy. The resultant design concept provides for a wide-open media resource area, with books on display, enabling literacy to be "on display" at every passage the student makes through the building. The concept is further enhanced by the two sets of learning stairs linking the K-1 Media Resource Space to the Grade 2-5 Media Resource Space. Reading is metaphorically, visually and literally reinforced at every turn.

The third challenge was the District's desire to promote the multiple levels of social interaction required of tomorrow's students while providing spaces for remedial and special education. The intent was to do this without providing actual "Special Ed" spaces. The design response that is especially innovative resulting from this requirement is the small group instruction spaces linking every grouping of two classrooms as well as large single loaded corridors with teaching spaces integrated. These spaces provide for pullout/push-in instruction immediately at the student location. This eliminates the alienation of the student who leaves the classrooms for "Special Education" and instruction.

View from the reparian buffer showing the play area.





ABOVE: First-floor view from inside the media and literacy center.

AVAILABLE ASSETS

The greatest asset available to the team was the incredible educational program that was being developed by the District and Building Administration. The proposed literacy program became a center point for the developing concept. Further, the intent to eliminate specific Special Education and Learning support spaces and instead provide complete push-in programs using the Small Group Instruction spaces located between the classrooms was critical.

Since the building is comprised of two schools, the designer worked with two principals. Each had a slightly different view of their educational result. Thus the “spider leg” K-1 Center with Small Group Instruction located in the classroom wings vs the Large Group Instruction Center located in the 2-5 wing.

A larger asset included the direct connection to the Middle School/High School campus which provided for a continuous and shared bus loop between all facilities. This allowed for one side of the building to support the bus entry and the other to support the very extensive parent drop off loop required of a building housing potentially 1100 students.

Additionally, there is a natural watershed and stream running through part of the site. This stream is part of the outdoor science program for the site. Students will be planting 1000 trees along the banks of this stream in June 2018 to enhance the natural runoff patterns and to provide shading to temper the waters. From the stream to Route 29, the entire site is being preserved as green space for enjoyment by those in the educational community as well as the community at large.

VALUE OF PROCESS AND PROJECT TO THE COMMUNITY

The process allowed for the community to have tremendous input into the concept and into the final design. Many of the ideas provided by the many constituents can be found in the overall plan for the facility. The educational vision is clearly supported by the many unique aspects of this facility. The result is a building and site that form an incredible educational village with the middle school/high school site. Further, the preserved green space on the site as well as the multitude of athletic facilities will serve to enhance and support the communities desire to live in a leafy green suburb of Philadelphia for years to come.

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EDUCATIONAL ENVIRONMENT

EDUCATIONAL VISION + GOALS

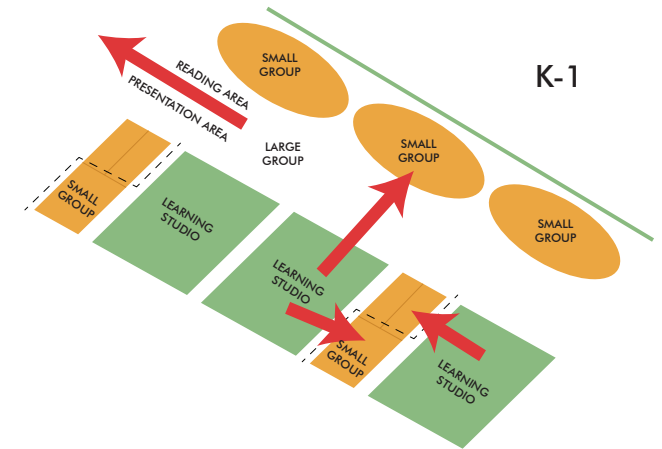
In keeping with their mission to provide personalized and customized education to all students, Phoenixville Area School District's main vision and primary goal was a focus on literacy and learning in a non-standard environment.

HOW THE ENVIRONMENT SUPPORTS THE CURRICULUM

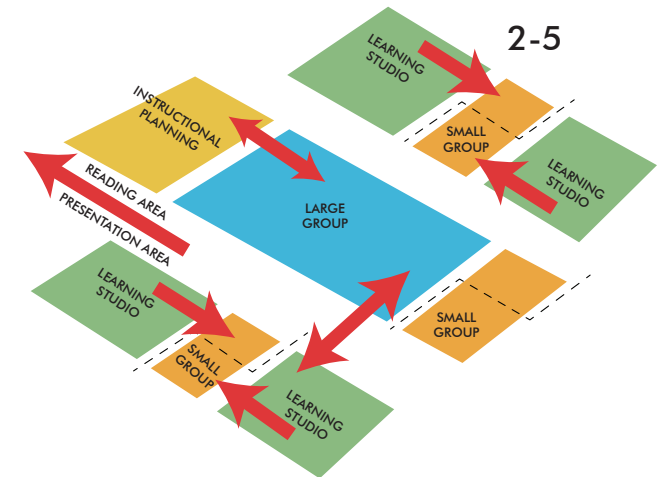
The focus on literacy is noted previously. The building design encourages that most lifelong of learning requirements: reading. There is no library, rather the entire center of the building is one large open book area encouraging students to pass by and through books thus; smelling, feeling, seeing books with every step. But further, this building is a bright, colorful, fun place to be. Students are stimulated by unique spaces at every turn. The hope is that through this open set of learning experiences that students will carry with them a desire to read and a desire to learn for the rest of their lives.

To reinforce the goal of a focus on literacy, users of the facility will not enter into a lobby, but will instead immediately find themselves in the centralized media and technology center, also thought of as the building's "living room." The ground floor learning resource center serves grades K-1 while the second floor serves grades 2-5. Both levels of the media and technology center are connected vertically by the Learning Stairs, a dynamic learning space.

The dining area is immediately adjacent to the media center and features a sliding glass wall to open up between the two spaces. This function is meant to add another sense to the balance of those associated with the books...that of the smell of food. The space is envisioned as a large living room in a child's house who constantly has the smell of his/her parent's kitchen as part of that experience.



ABOVE: K-1 learning environment. BELOW: 2-5 learning environment.






Circulation area activated as nontraditional learning space.



Learning studio with view into push-in space.



Circulation space serving as large group instruction area.

HOW THE ENVIRONMENT SUPPORTS MULTIPLE LEARNING + TEACHING STYLES

The building promotes multiple learning styles by providing an environment in which every space in the facility is essentially a learning space. There are virtually no specific circulation spaces. Learning studios, small group instruction areas and large group instruction areas provide spaces for individual, small-, medium- and large-group learning. Spaces traditionally used as corridors or hallways are designed to function as additional learning spaces, and even stairs are intended to be used as learning steps and to provide a dynamic instruction area. Every two instructional spaces share a break-out space used for specialist push-in instruction, group work, and collaboration.

Phoenixville Area Early Learning Center

ADAPTABILITY AND FLEXIBILITY

Since there are no true “hallways,” the building’s flexibility is incredible. Everything from the placement of furniture virtually everywhere that a child passes, to the incredible flexibility of the sliding barn doors between the learning studios and the small group instruction spaces provides for the highest degree of flexibility in function for every single space.

Confluence of all areas of circulation.



View of the learning stairs and into the media and literacy center.



FIRST FLOOR

- 1** GYMNASIUM
- 2** ADMINISTRATION
- 3** LEARNING SPACES*
EACH LEARNING SPACE AREA IS COMPRISED OF GROUP
LEARNING AREAS AND LEARNING STUDIOS (SEE INSET)
- 4** GROUP LEARNING AREA
- 5** LEARNING STUDIO
- 6** LEARNING RESOURCE CENTER
- 7** MUSIC
- 8** NURSE
- 9** SUPPORT
- 10** DINING



SECOND FLOOR

- 1** GYMNASIUM
- 2** ADMINISTRATION
- 3** LEARNING SPACES*
EACH LEARNING SPACE AREA IS COMPRISED OF GROUP
LEARNING AREAS AND LEARNING STUDIOS
(SEE INSET ON FIRST FLOOR PLAN)
- 4** LEARNING RESOURCE CENTER
- 5** ART
- 6** SUPPORT



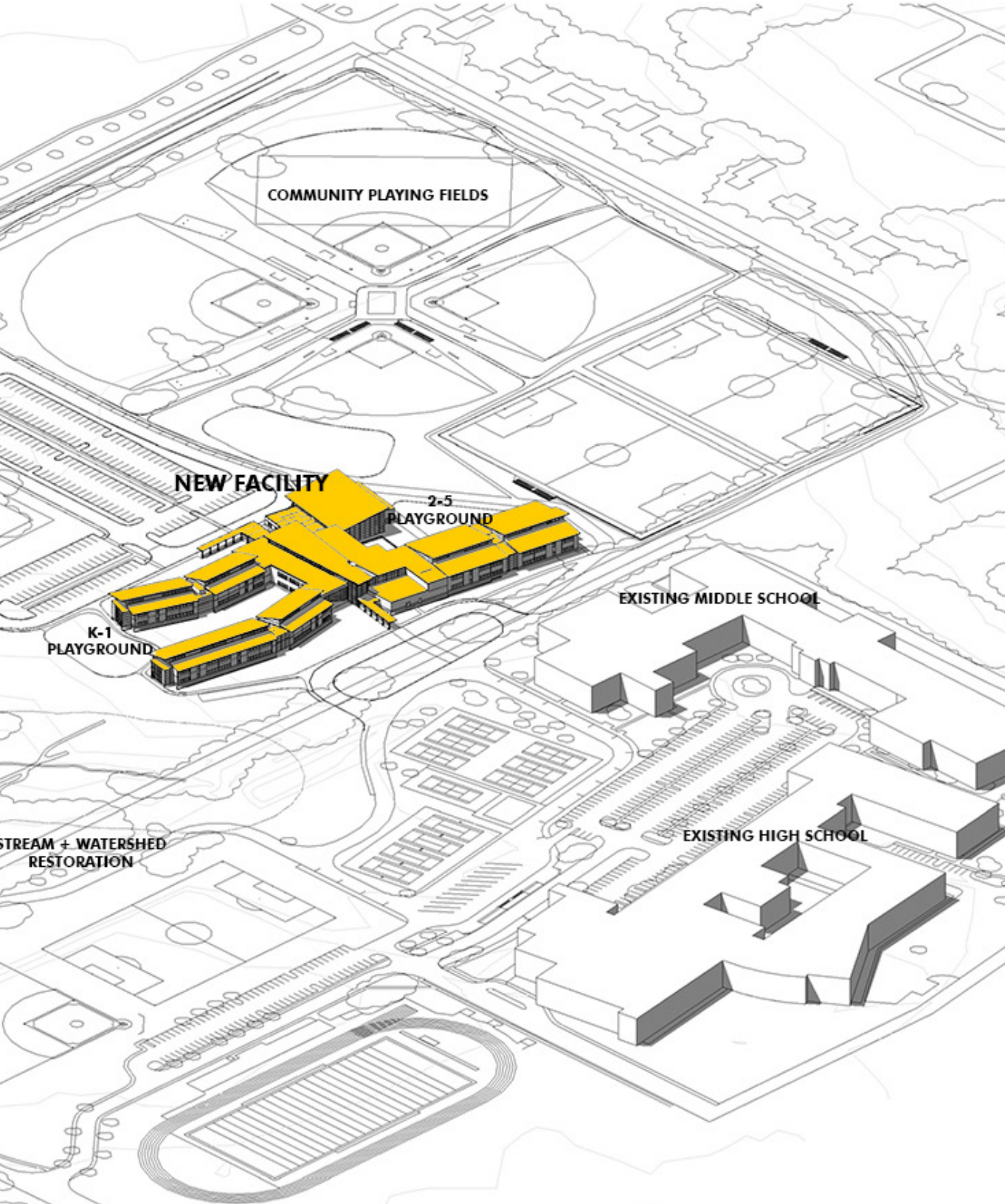
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PHYSICAL ENVIRONMENT

The design of the facility minimizes disruption to the existing site and retains much of the existing grading. The new facility is sited away from the adjacent road to allow for green space between the building and the roadway. The design maintains old growth trees on site where possible and the facility will use the nearby creek and watershed for hands-on learning within the riparian buffer. The design of the facility relates to the surrounding residential context through stone, cementitious siding, and pitched roofs, creating a visual consistency with its environment.

While this project was not a LEED project, it followed all sustainable guidelines and the team regularly reviewed the LEED Checklist to verify the continued commitment to sustainability. This project economized on site usage by sharing facilities with the secondary schools. The facility utilized certified wood and satisfied many of the recycled/renewable material requirements. The design team employed the following systems to achieve a fully sustainable facility: high-efficiency HVAC and control systems, bio swales throughout, roof monitors (allowing for bilateral daylight and reducing the need for artificial lighting), interior lighting utilizing automatic controls and occupancy sensors, and more.





HOW THE FACILITY FITS WITHIN THE LARGER CONTEXT OF THE COMMUNITY

The facility is situated within an “educational village,” capitalizing on assets available within the immediate educational community and promoting connectivity between the new facility and the existing middle and high schools.

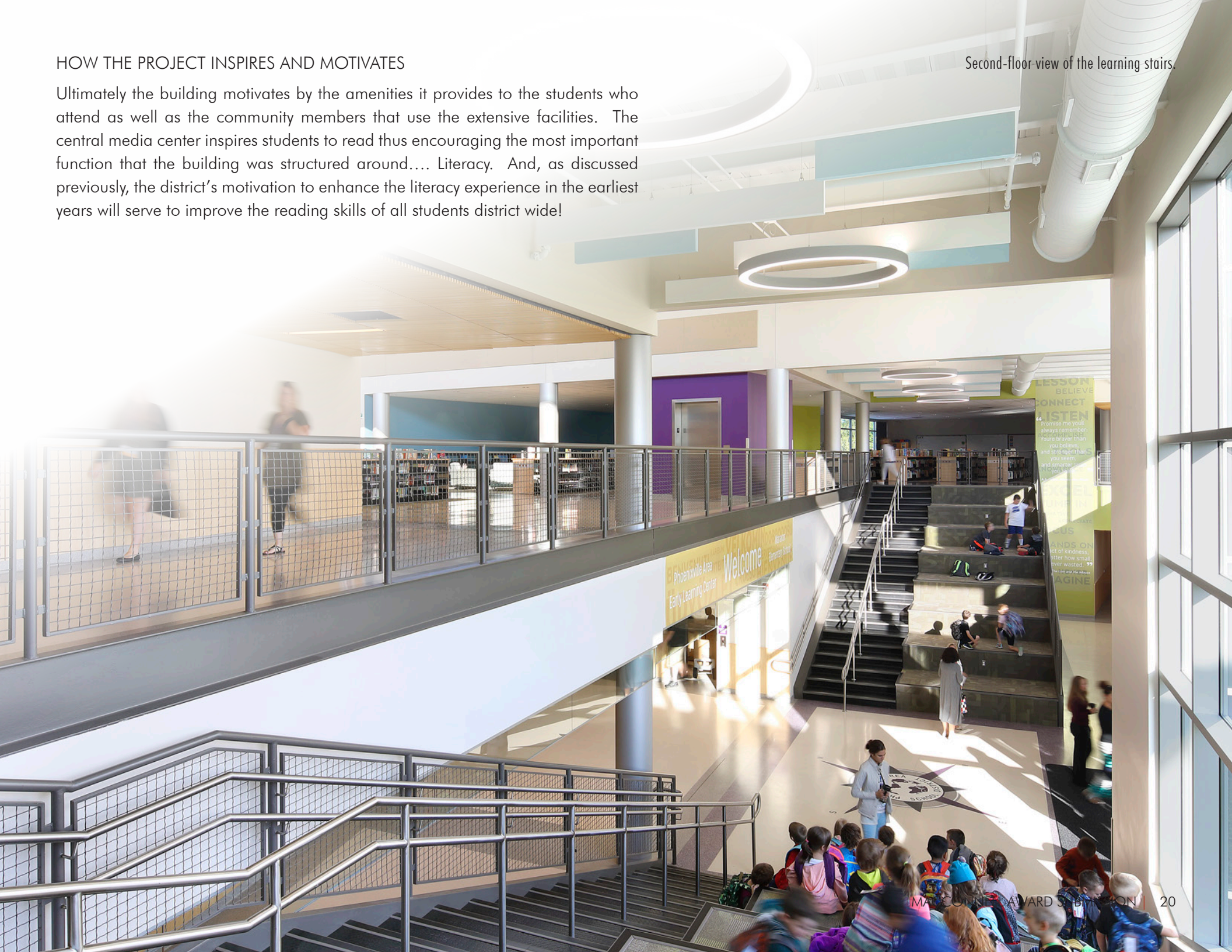
Further, the facility is located virtually in the center of the school district thus providing the perfect location for the K-1 Center. This equidistant travel opportunity allows for children from all reaches of the community to be served equally.

The design of the building, while a large facility, is broken down into smaller modules. Those modules are dressed in stone and cementitious siding to reflect the residential scale surrounding the facility. Upon entering the site, a long snaking driveway provides for transition through a green buffer prior to seeing the actual facility and its middle school and high school counterparts.

HOW THE PROJECT INSPIRES AND MOTIVATES

Ultimately the building motivates by the amenities it provides to the students who attend as well as the community members that use the extensive facilities. The central media center inspires students to read thus encouraging the most important function that the building was structured around.... Literacy. And, as discussed previously, the district's motivation to enhance the literacy experience in the earliest years will serve to improve the reading skills of all students district wide!

Second-floor-view of the learning stairs.



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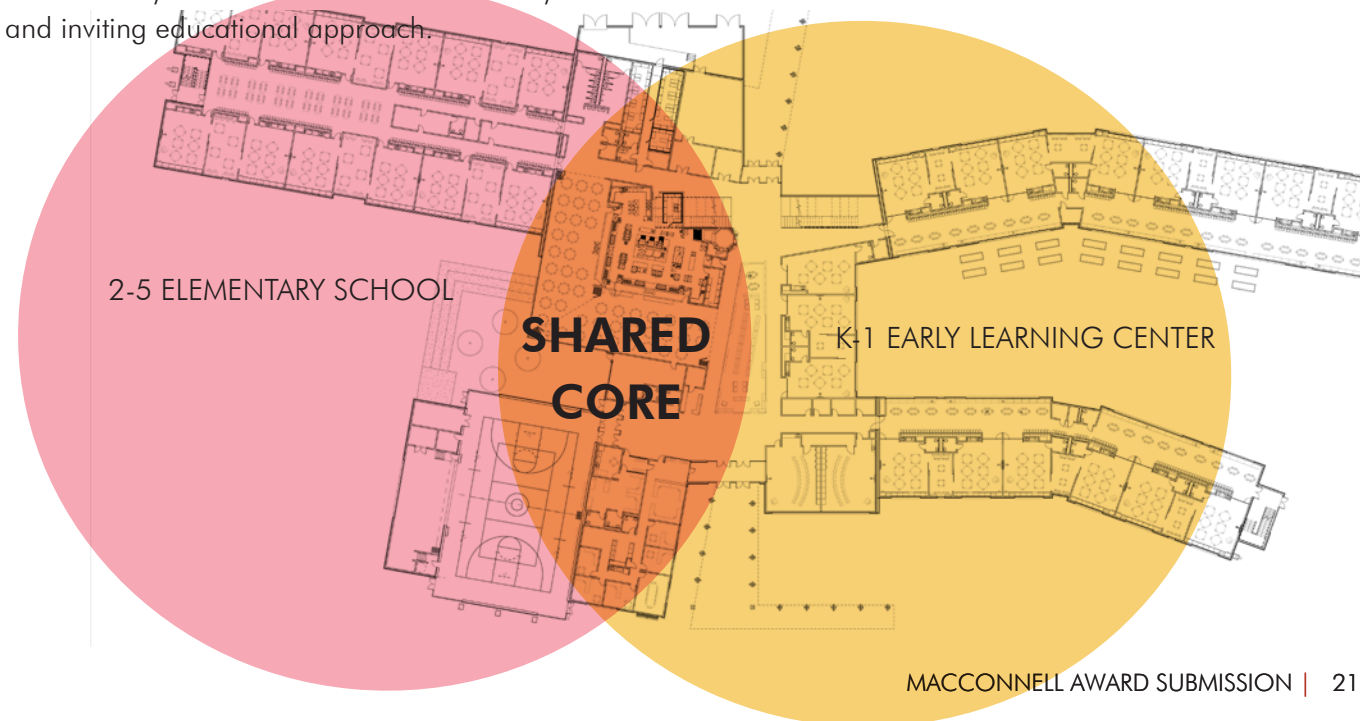
RESULTS OF THE PROCESS + PROJECT

HOW THE PROJECT ACHIEVES EDUCATIONAL GOALS AND OBJECTIVES

In response to the District's vision of a facility focused on literacy, the design for the Early Learning Center and Elementary School places the media and technology center as an open "living room" concept at the core of the facility with all other functions radiating from it. This shared core serves both a K-1 program and a 2-5 program.

Equity becomes the value by which education is delivered in this facility. Starting with the multiple social environments available to all students, the building allows for students to receive their instruction in any place throughout the facility rather than students with specific needs having to go to the "Learning Support Area". Every classroom has direct physical and visual access to any combination of small group and large group instruction spaces. Support programs are not provided with specific classrooms that create a stigma, instead the support instructors are provided with an office environment to do their paperwork and to call "home" and then they move to any of the above described spaces to provide specific support to the students in their location.

These unique approaches to the educational delivery combined with the "no hallway" concept of building encourage an open and inviting educational approach.





ABOVE: Gymnasium and stage.

HOW THE PROJECT ACHIEVES COMMUNITY AND SCHOOL DISTRICT GOALS

The building is a community focal point. The full-sized gymnasium is used regularly by community groups, the dining and media areas are open for community use and the incredible array of play areas and athletic fields serve to support the many recreational and athletic activities carried out by the community.

The preserved green space on the campus (while not officially preservation property) will provide a much needed “green space” in this rapidly growing community.

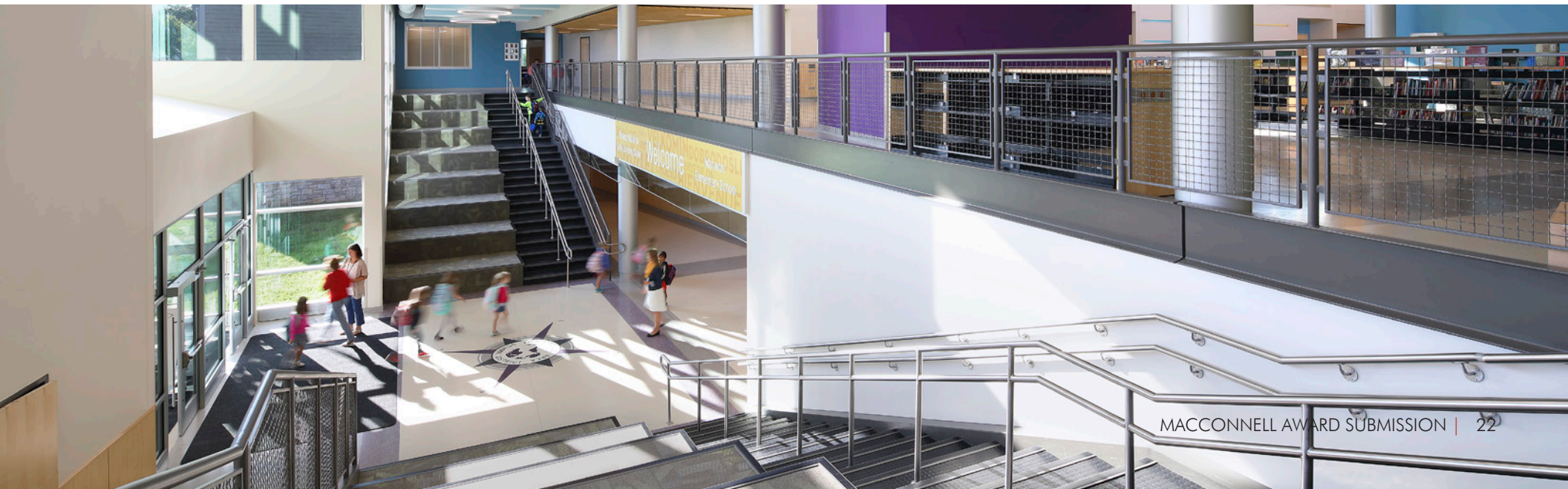
Further (and perhaps more pragmatically) the central K-1 Early Learning Center provides relief to the neighborhood schools located in other parts of the district by pulling Kindergarten and First grades out of those other buildings thus providing seating capacity in these other facilities.

UNINTENDED RESULTS

The building has been in operation for one year so faculty and staff are still learning how to use the multitude of flexible learning spaces. Once that use has had a longer time to develop we suspect that there will be unique educational experiences that arise.

The one tangible result thus far has been an increase in enrollment in the K-1 program. The district suspects that the incredible educational program connected to this dynamic facility is encouraging parents whose children were in charter and parochial schools to rediscover the public-school system!

BELOW: Interior view of entry from atop the learning stairs.



Second-floor view, looking into the media and literacy and arts center.



First-floor view from within the media and literacy center through the dining area.



Community. Ability. Respect. You can steer yourself any direction you choose. " Dr. Seuss, *Oh, The Places You'll Go*



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EDUCATIONAL SPECIFICATIONS

- Small class sizes
- Comprehensive literacy framework includes the RtII framework and targeted interventions
- State-of-the-art technology
- Highly qualified teaching staff—many who live in the Phoenixville community
- Dedicated early learning center focuses on our youngest learners, with all kindergarten and first grade students in one building
- Extensive support services—guidance counselors, nurses, physical, and occupational therapists, reading specialists, intervention specialists, and building-based school psychologists are all part of PASD staff
- Music, art, physical education, foreign language, and library are all integral parts of the grades K-5 curriculum
- Strong sense of community pride, spirit, and giving back
- Community service—"Paws" to Read, Jump Rope for Heart, Alex's Lemonade Stand, Recycling, Adopt a Family, Empty Bowls, Stockings for Kids, Chester County Food Bank Gardens, Veterans Day Tribute, Grandparents Day
- Learning extends well beyond the regular classroom:
 - Girls on the Run & STRIDE
 - Band, Choir, Orchestra
 - Odyssey of the Mind
 - Reading Olympics
 - Envirothon
 - Lego Club
 - K-Kids
 - Chess Club
 - Math 24
 - Art Club
 - Green Club
 - Phuture Phantoms

