

BALDERSTON LOWER SCHOOL

AT WILLIAM PENN CHARTER SCHOOL

Philadelphia, PA



Richard A. Balderston OPC '69 Lower School

GOOD EDUCATION
IS BETTER THAN MORE

The new Balderston Lower School blends contextual materials and natural landscape with a forward-looking architectural language that incorporates cues like red doors to signify welcome for the school community's youngest learners.

EXECUTIVE SUMMARY

How can a building embody the values of our school? This question guided the design of the new Balderston Lower School at William Penn Charter School. The narrative weaving pedagogy, culture, history, and place became the driving force behind the programming, planning, and design of the project.

The project completes the final phase of William Penn Charter's ten-year campus master plan through the co-location of all students from Pre-K through Fifth Grade under one roof. Designed to align with both Reggio Emilia educational philosophy and Quaker principles, the building fosters curiosity, community, stewardship, and connection to nature while embodying the Quaker ideal of simplicity.

The new Lower School establishes a safe and nurturing environment for the school's youngest learners while maintaining strong visual and physical connections to the broader campus community. Through the integration of daylight, biophilic forms and materials, landscape elements, and moments of discovery, the project seeks to inspire wonder and delight in everyday learning experiences.

Architecturally, the design embraces a contemporary expression while paying homage to the historic Colonial Revival character of the existing campus, creating a dialogue between past and present that reinforces Penn Charter's balance of tradition and modernity. Contextually, the school serves as an architectural metaphor for the Wissahickon Valley watershed in which it resides, echoing its landscape and natural systems in built form.

SCOPE OF WORK & BUDGET

The Balderston Lower School comprises 78,000 SF of interior space on approximately three acres of the campus. As the final phase of a sequence of campus, the \$56M Lower School replaces outdated 1950s-era facilities and an off-campus church basement previously occupied by the school's youngest students.

- Owner
William Penn Charter School
- Site Area
3 Acres
- Grades Served
Pre-K - 5th Grade
- Student Capacity
350
- Construction Cost
\$56M
- Occupancy Date
September 2025

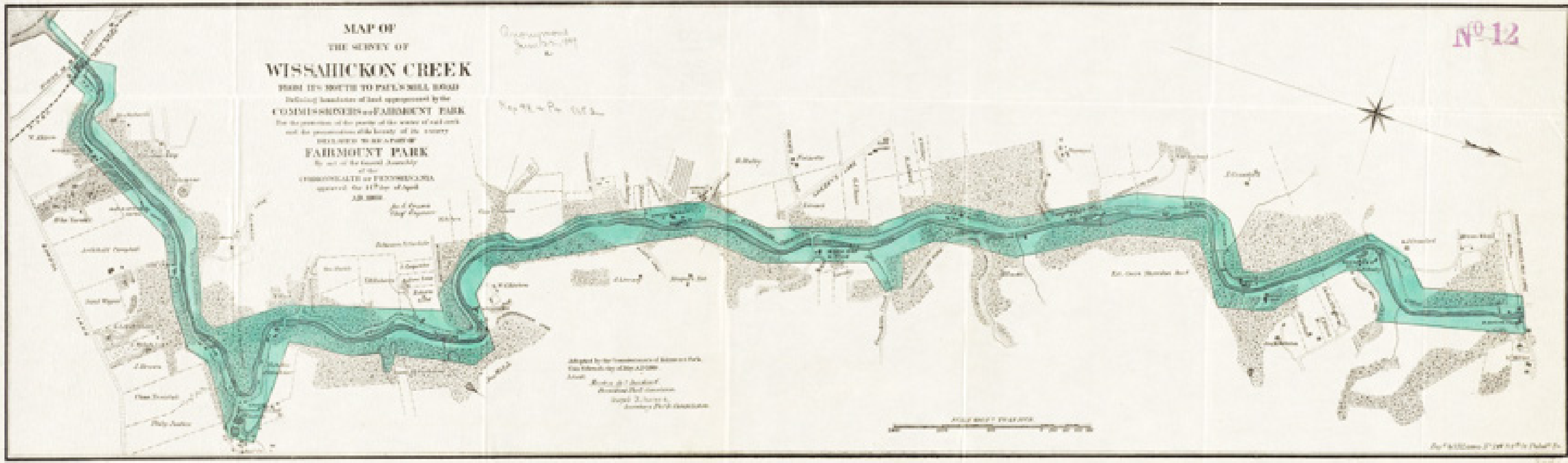
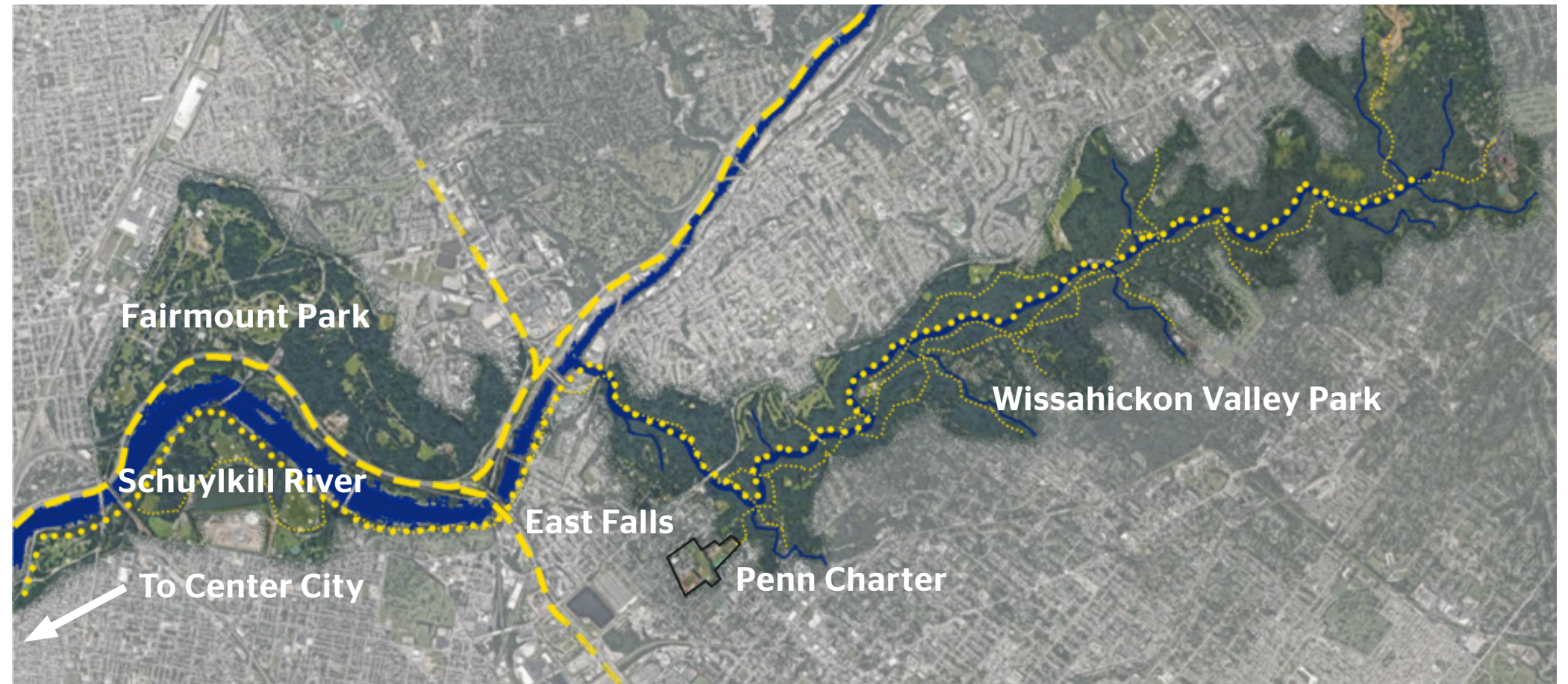


How can a building embody the values of our school?

SCHOOL & COMMUNITY RESEARCH AND ENGAGEMENT

CONTEXT

The William Penn Charter School community is defined by a culture of partnership, stewardship, and service rooted in Quaker principles and strengthened by generations of students, educators, families, alumni, trustees, and neighbors. Located within Philadelphia's East Falls neighborhood along the edge of the Wissahickon watershed, the Lower School serves a racially, ethnically, and financially diverse student body drawn from across the Greater Philadelphia region, with 40% receiving tuition aid.



PROGRAMMING

For the programming and planning of the new Lower School, the design team engaged several stakeholder groups:

- A small working group consisting of school leadership, key administrators, trustees, and facilities management.
- A focused programming committee balancing educators with varying specialties and tenures.
- A larger steering committee including faculty, facilities staff, students, and alumni.
- Neighbors and community members invited to participate in public meetings.

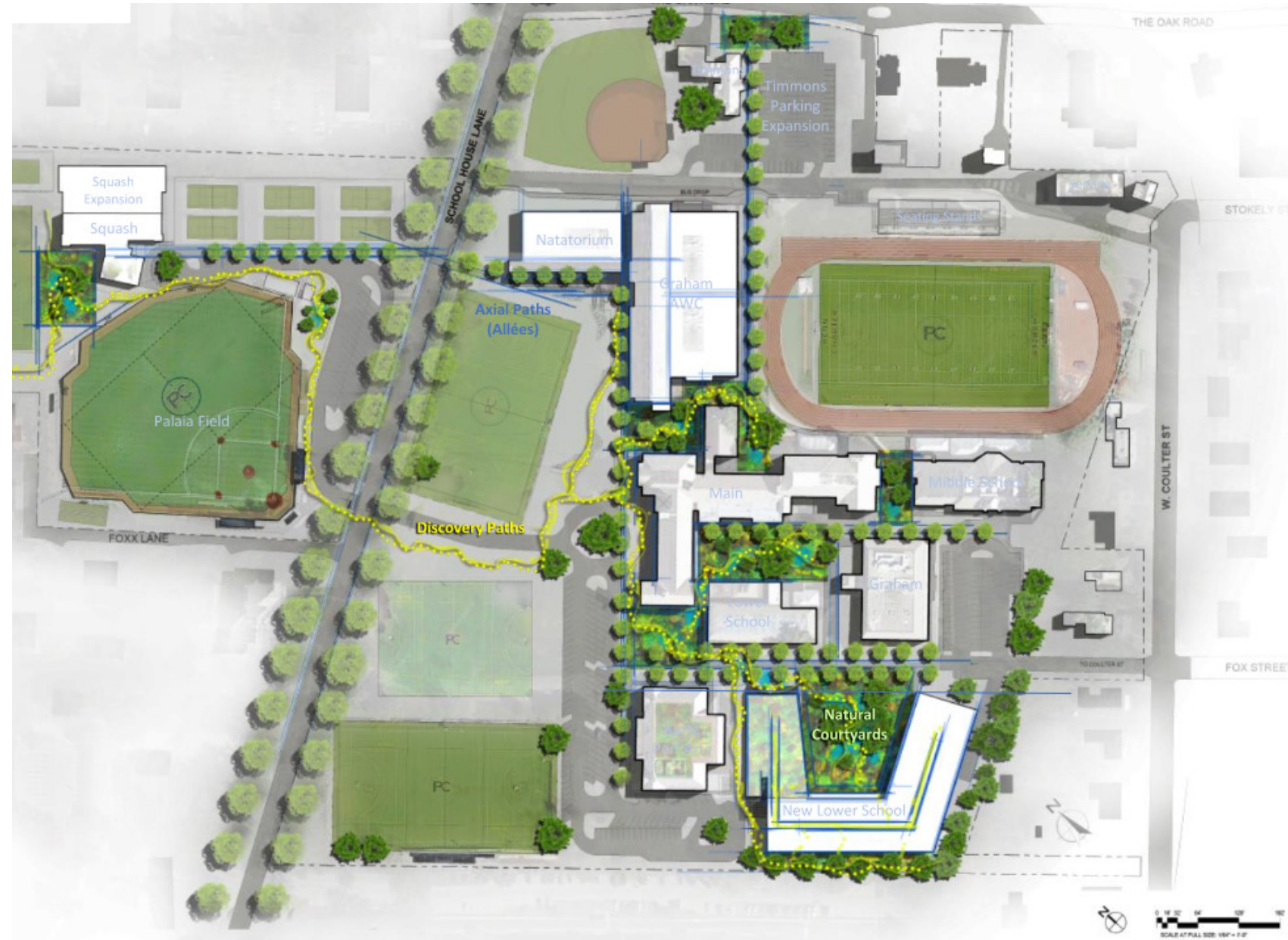
CHALLENGES

Perhaps the greatest challenge to the project's success was the Covid-19 pandemic, which impacted the ability to conduct face-to-face meetings and placed extraordinary demands on families and educators. Discussions requiring trust and clear communication often had to occur through virtual channels during a period of remote learning, social distancing, and isolation. To account for these limitations, the design team established a cadence of more frequent and intensive interaction with stakeholders, sharing ideas earlier and in less-polished forms than would typically occur during a conventional design process.

Programming discussions for the Lower School had begun during campus master planning in 2017, but detailed design coincided with the pandemic's peak impact on the school community. Teachers, students, and caregivers—already exhausted by outdated learning environments and social disconnection—became energized by the vision of a new school community.

ASSETS

The school's centuries-long legacy provided a clear set of goals and principles to guide the project beyond the need for additional space. A passionate and engaged stakeholder group—including students, teachers, caregivers, alumni, and donors—supported the process financially and philosophically. The success of two previously completed campus projects by the same design team also engendered trust and allowed for the development of ambitious planning and design ideas.



The 2015 Master Plan was updated to reflect a ten year path of implementation and recognition that future growth would also need to be considered.

A pivotal moment occurred when Lower School Director Marcy Sosa articulated that “One of the silver linings of the pandemic is our understanding of the value of community; this building should not just foster connection but actually embody it.”

VISIONING

The visioning process began with remote listening sessions facilitated by the design team involving the working group and programming committee. Teachers were invited to describe their experiences at Penn Charter, articulate deficiencies in the existing facilities, and imagine what the new school could become. School leaders prioritized institutional goals, identified operational challenges, and discussed future needs.

CONCEPT DEVELOPMENT

The design team responded with conceptual ideas, precedent imagery, and sketches that evolved through regular feedback from the steering committee and broader school community.



QUAKER PRINCIPLES

A foundational Quaker principle is consensus-building—a process rooted in collective agreement and discernment rather than voting or compromise. While slower than traditional decision-making, this approach ensured stakeholders felt heard and invested in the outcome.

- Every meeting and workshop began with a period of silence, allowing reflection and focus during the challenges of virtual collaboration.
- The Clerk of the Board participated in most meetings, serving not as a conventional chairperson but as a facilitator who synthesized discussion and provided contextual guidance to the design team.
- The Quaker principles often identified by the acronym “S.P.I.C.E.S.” (simplicity, peace, integrity, community, equality, stewardship) reinforced equality by emphasizing that all participants, regardless of position or background, held equal value in the decision-making process.

The Activity Room provides seamless transition from interior to exterior for gathering, recreation, and physical activity. The entire Lower School division can gather both inside the Activity Room and out in the amphitheater, making it truly a representation of community and flexibility at Penn Charter.

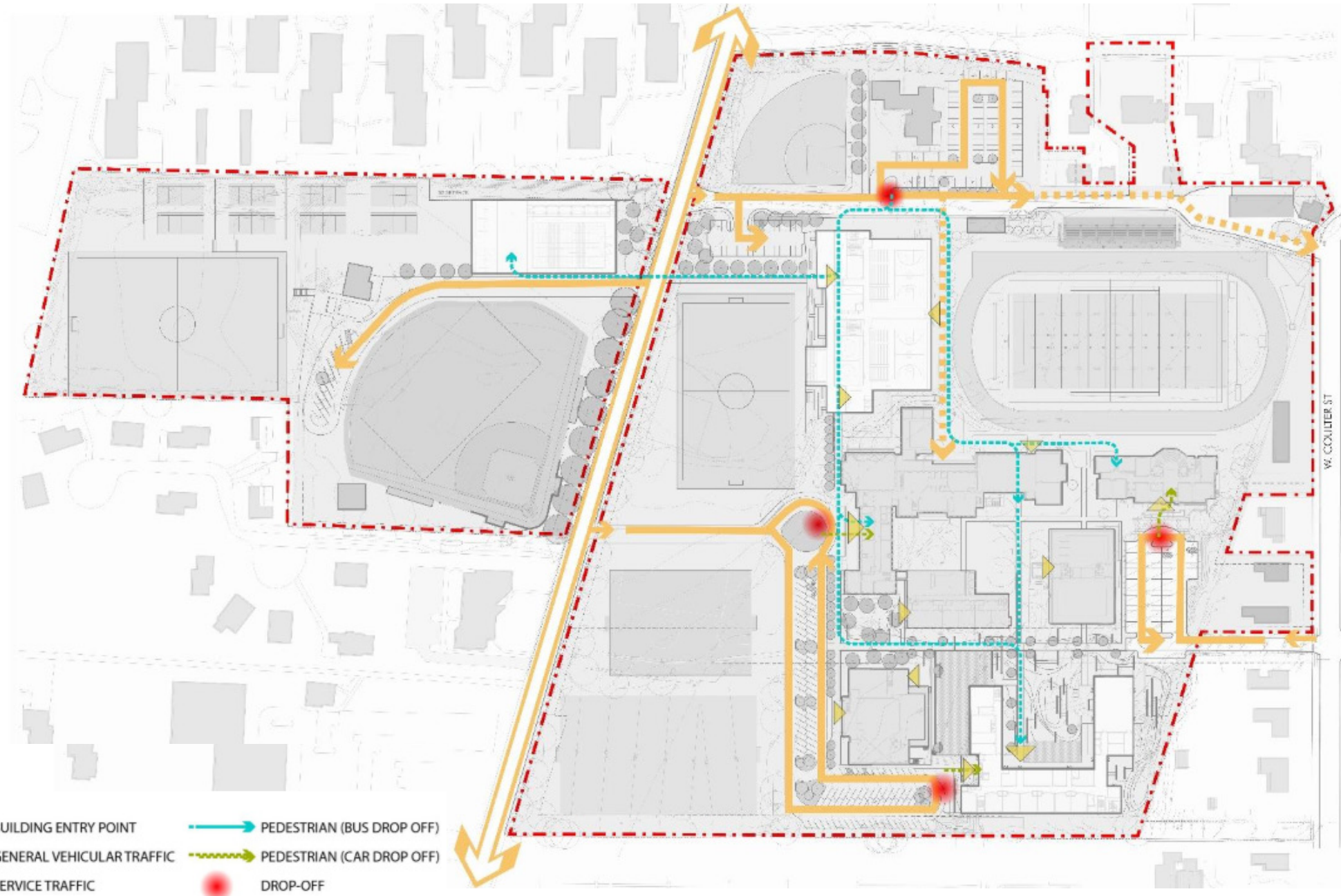
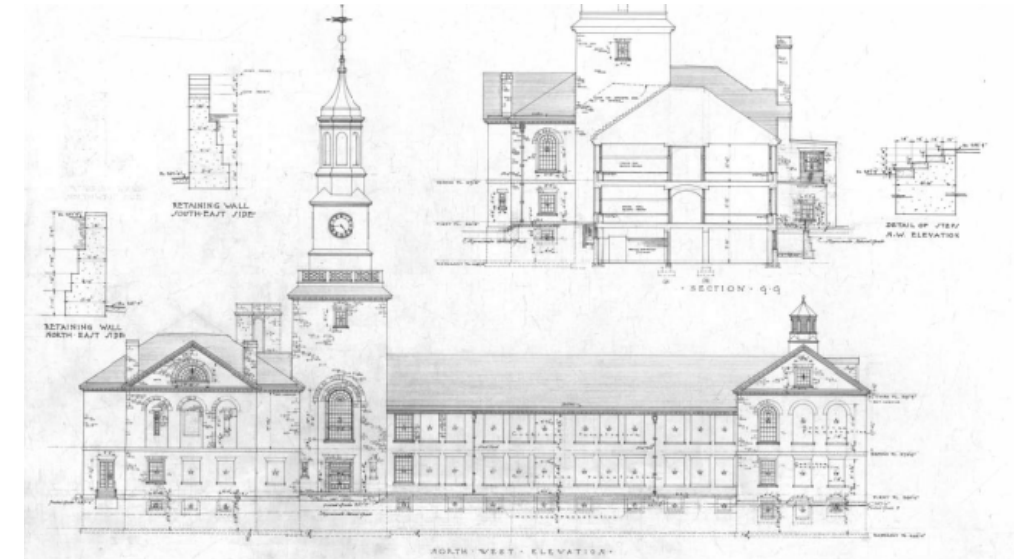


PHYSICAL ENVIRONMENT

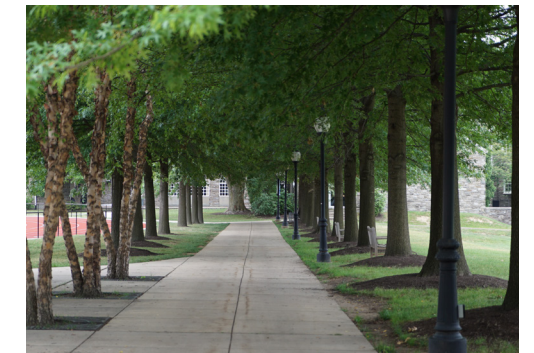
CONTEXT

William Penn Charter School is located within the East Falls section of Philadelphia, a landscape shaped by the Schuylkill River, Fairmount Park, and the Wissahickon watershed. Though the school's origins date to 1682, it relocated to the current 46-acre campus in 1925. The campus is defined by formal landscapes, tree-lined pathways, open athletic fields, and Colonial Revival architecture characterized by Wissahickon Schist, slate roofs, and white-trimmed windows that reflect Quaker ideals of simplicity.

The new Lower School occupies approximately three acres in the southern corner of campus, replacing a former playground, parking lot, and field house. The surrounding neighborhood consists primarily of residential development and institutional uses, including university housing.



Existing outdoor learning spaces were limited.



Existing formal walkways and allees.



Existing lower school entrance.



The existing "Chigwell Close" was the only naturalistic landscape example on the campus.



The original 1925 campus buildings show Colonial Revival architecture with a distinctly simple Quaker interpretation.

“The power of teaching, learning, and the student-teacher relationship has always been at the heart of the Penn Charter experience, and we see that reflected in this building.”

-Karen Warren Coleman, Head of School



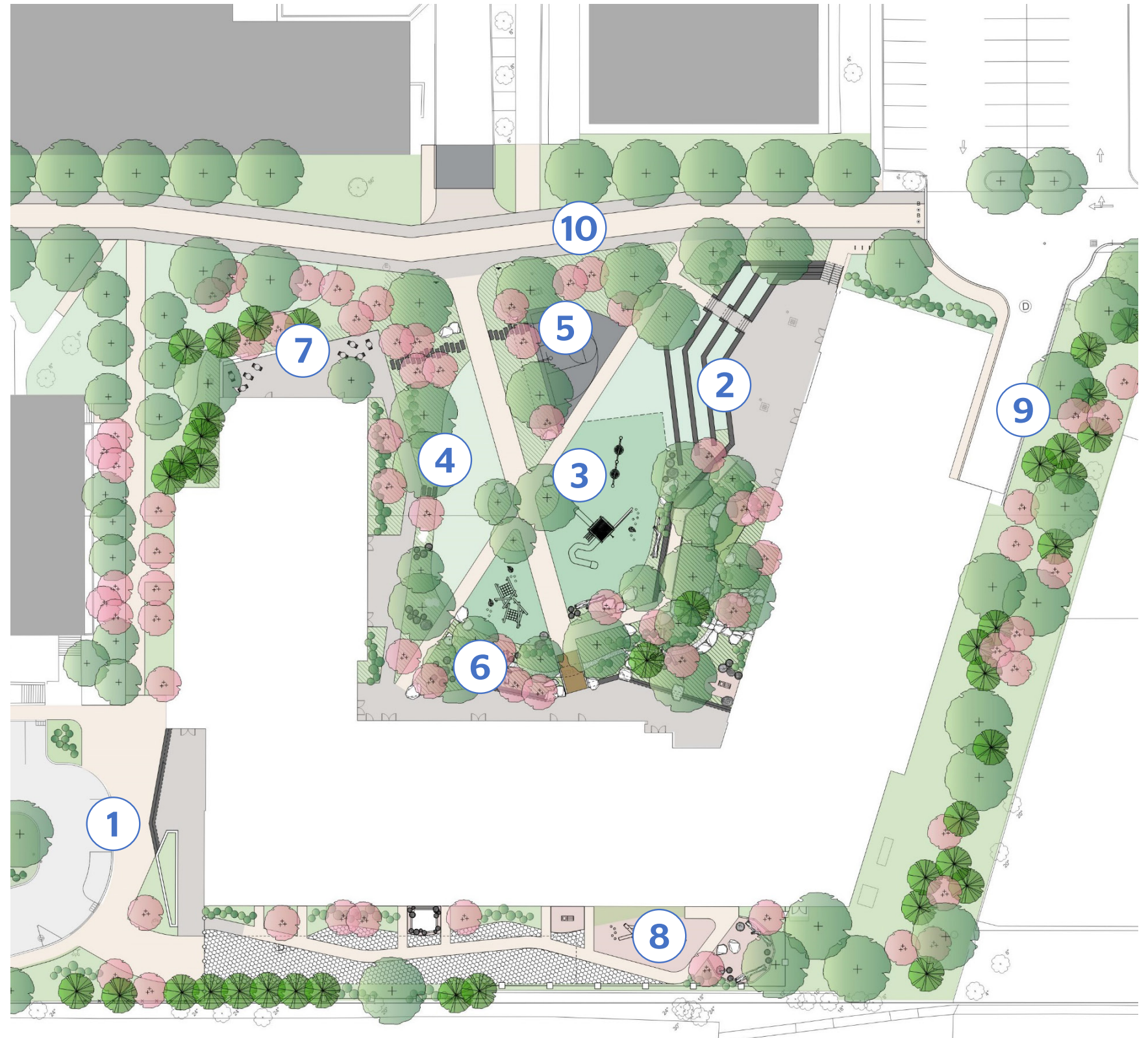
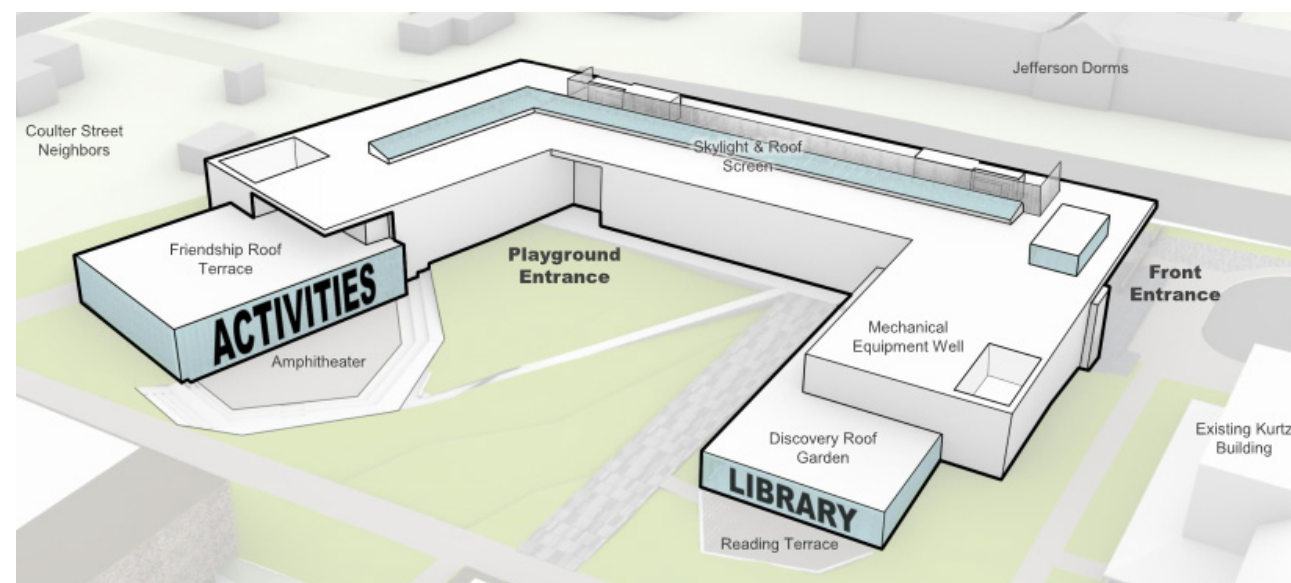
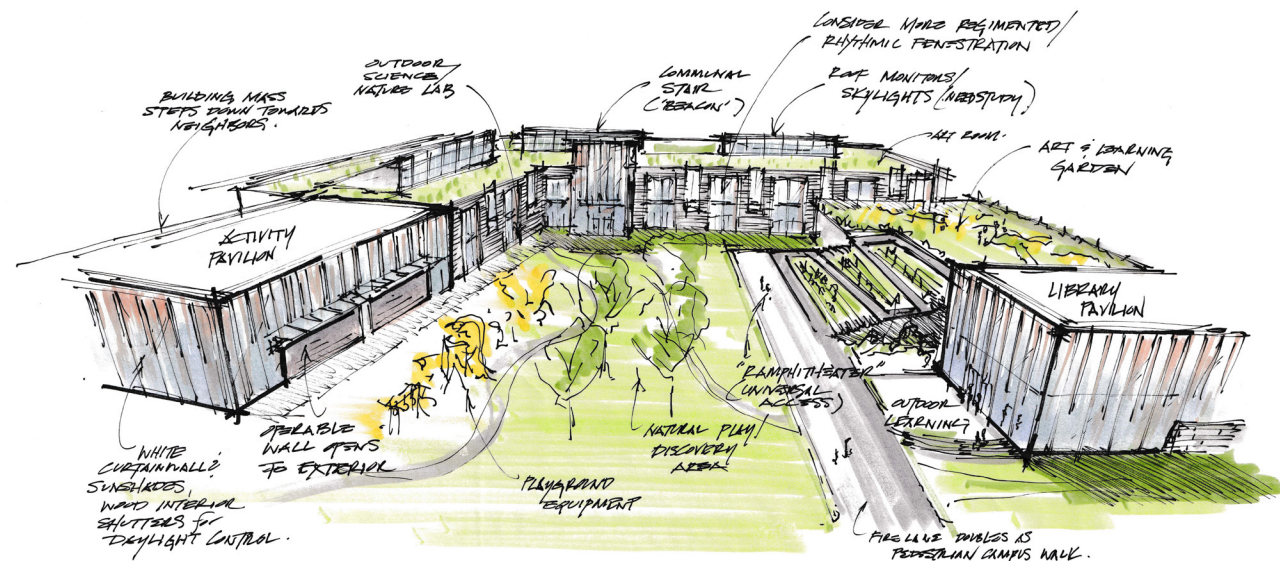
Outdoor spaces for gathering, exploring, and playing will evolve over time as the landscape matures into a learning forest.

RESPONSE

Quaker values and sensitivity to the surrounding neighborhood guided the planning, massing, landscape, and interior design of the project. Early in the process, it was decided to limit the building to two stories to reduce community impact and foster stronger connections between age groups.

The two-story U-shaped building establishes a strong relationship between architecture, landscape, and community by framing a central courtyard that serves as the social and experiential heart of the project. Over time, this outdoor space is envisioned to evolve into a more naturalistic “learning forest” as trees and landscape mature.

The blending of nature, play, indoor, and outdoor spaces was fundamental to the design concept and directly informed by Reggio Emilia philosophy, which views the learning environment itself as a teacher. The playgrounds, both within the courtyard and adjacent to classrooms for the youngest students, provide spaces for activity and reflection while accommodating different learning styles and social dispositions. Teachers and administrators embraced naturalistic play elements with perceived risk while balancing durability and safety.



KEY

1. Drop Off
2. Amphitheater
3. Courtyard Playground
4. Alternative Play
5. Basketball Court
6. Cistern with "Stream Bed"
7. Reading Terrace
8. Junior Playground
9. Loading / Service Entrance
10. Fire Lane



First Floor Plan



Second Floor Plan



The facility strengthens the broader campus community by encouraging interaction between age groups and positioning the Lower School as an inviting enclave connected to adjacent campus buildings. Glass-enclosed volumes housing the library and activity room anchor either end of the courtyard and serve as visual beacons connecting the Lower School to the larger Penn Charter community. These spaces symbolize the equal value Quaker education places on community gathering and quiet reflection. Rooftop terraces above these volumes provide additional outdoor learning and gathering environments.

The exterior architecture balances contextual sensitivity with contemporary expression. The project incorporates the same brick palette as the recently completed Graham Athletic & Wellness Center, complemented by Wissahickon Schist at the main entrance to reinforce continuity with the historic campus fabric. Large expanses of high-performance glazing maximize daylight while maintaining energy efficiency and visual openness.

The building references historic campus architecture through white-framed windows, trim, and sunshades that reinterpret the simplicity of traditional wood windows, eaves, and pediments in a contemporary expression.

A high-performance window system reduces solar heat gain while bringing ample daylight into classrooms and gathering spaces. Operable awning windows allow fresh air into the building, while bird-safe ceramic fritted glass reflects Penn Charter's commitment to stewardship. The project is pursuing LEED Silver Certification through responsible material selection, energy-efficient systems, and sustainable design strategies.

Two key entrance points, the Lobby and the Link, feature a dynamic sculpture that is adapted from a mural to which all students contributed in the old Lower School. Individual butterflies, organized into dandelion-like clusters being spread by the wind, symbolize the movement, diversity, and transformation of young students during their time at Penn Charter.

“Everyone’s class is seen, and every teacher is seen, and that makes a difference in a student’s sense of belonging and community. No one’s hidden in this building. We’re all very present.”

-Brooke Giles, Teacher

The Library, anchoring one end of the building plan, evokes the wonder. The interior design concept is envisioned as “Page 2” of “Where The Wild Things Are”, the start of Max’s journey and the moment that his bedroom begins to transform into a forest through the power of imagination.

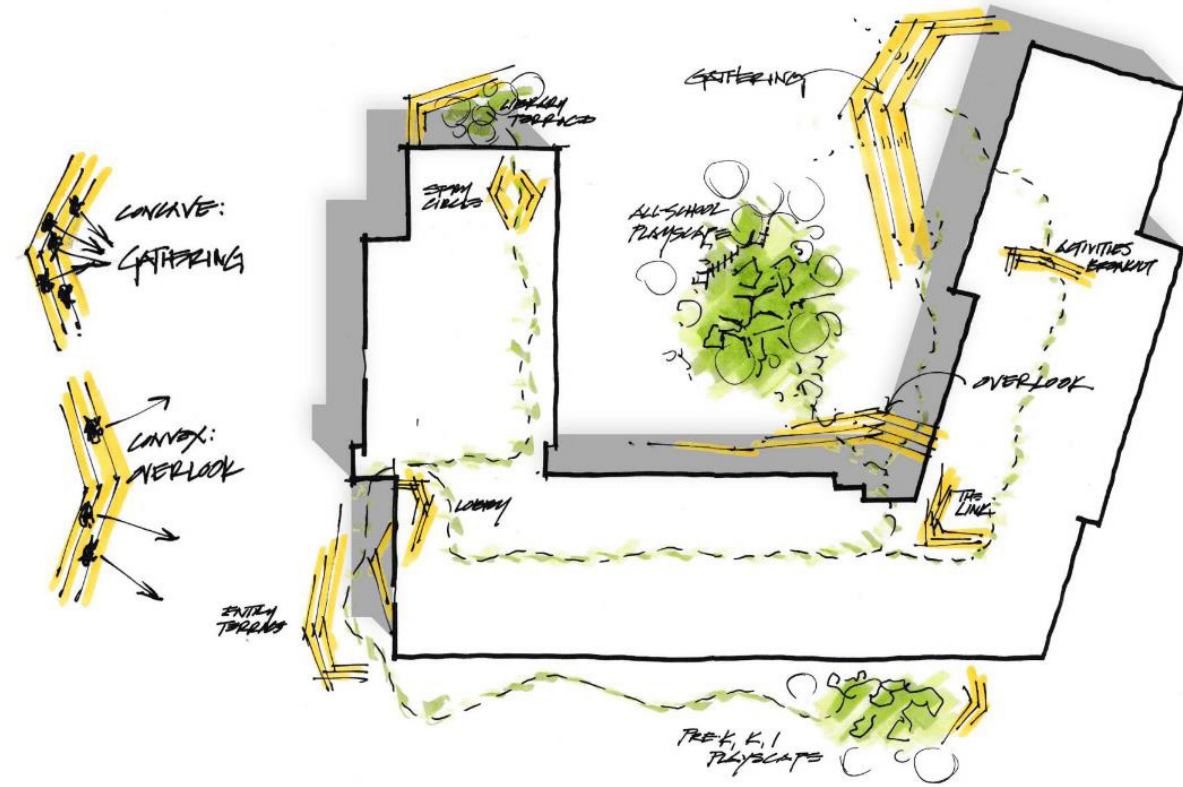


EDUCATIONAL ENVIRONMENT

CONTEXT

The existing 1950s-era Lower School facilities, though beloved by the community, were outdated and overcrowded. Increased class sizes and expanded programming had forced many learning environments into converted storage and basement spaces with inadequate daylight, ventilation, acoustics, and environmental quality.

Outdoor learning space was limited and disconnected, often requiring students and teachers to cross roads or parking lots between programs. One beloved outdoor area, Chigwell Close—with its artificial stream and naturalistic planting—became an important precedent for the immersive landscape experiences educators hoped to expand through the new project.



The existing Lower School, designed for half the student population in the 1950s, was cramped, outdated, and disconnected from the outdoors.

The reimagined outdoor learning environment includes a “busy river” fed by captured rainwater with multiple points of interaction for students and teachers.

RESPONSE

Quaker principles and Reggio Emilia pedagogy guided the development of the educational environments throughout the building and landscape. The decision to maintain a two-story building fostered greater interaction between age groups and strengthened the sense of community. The Quaker concept of “inner light guiding one’s path” was interpreted architecturally through a dramatic linear skylight running nearly the full length of the building.

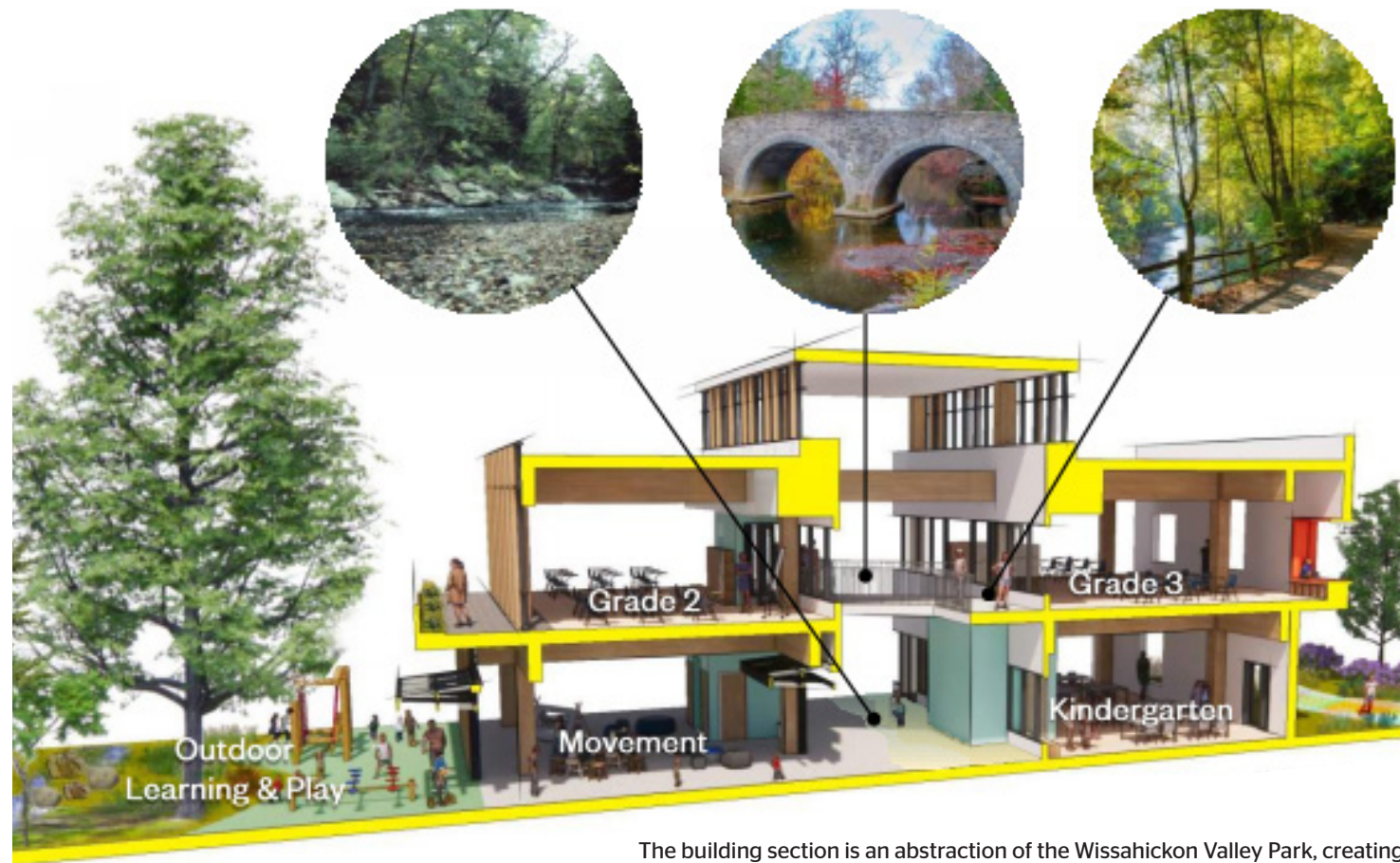
The organization of the school is inspired by the experience of traversing the Wissahickon Valley Park. The meandering central spine acts as an abstraction of the river valley itself, while layers of circulation and gathering spaces evoke geological stratification and the layered process of learning. Dramatic bridges crossing the skylit spine provide breakout spaces and visual connections between younger and older students, reinforcing the sense of community identified as a central educational goal.



A map of the Wissahickon adorns the two-story circulation spine. Bridges at the upper level connect students and make activity visible between levels.



A two-story circulation spine features live plants, biophilic materials, and a continuous skylight flooding the school with light.



The building section is an abstraction of the Wissahickon Valley Park, creating opportunity for discovery and fostering a sense of community.



Each upper grade level features a shared “bridge” with breakout space and entrances to classrooms.

The primary pathway cascades from the library to the activity room at the site's lowest point, while interstitial spaces such as Friendship Hall, the Link, and caregiver gathering areas support flexible learning and social activities. Biophilic design elements—including “leaf ceilings,” “tree trunk columns,” interior planting, and reading nooks—bring nature into the building while creating moments of delight and refuge.

Extensive display areas celebrate student work throughout the primary circulation spine, reinforcing visibility, creativity, and community pride.



Friendship Hall, with its lush and immersive interior design, provides flexible learning zones that double as a welcoming space for caregivers and families.



Roof terraces offer adaptable space and immediate access to the outdoors for upper level students.



The "busy river" has become among the most popular features of the exterior.



Outdoor play and learning areas are directly accessible from ground level classrooms.

OUTDOOR LEARNING

The U-shaped building footprint creates a central courtyard that serves as the primary outdoor learning environment for older students. It includes naturalistic playground equipment, a basketball court, reading terraces, a student-controlled "busy river" fed by captured rainwater, mud kitchens, and an amphitheater capable of hosting the entire Lower School community. Despite grade changes exceeding ten feet, the entire outdoor environment remains fully accessible.

A smaller outdoor learning environment directly connected to Pre-K, Kindergarten, and Grade 1 classrooms provides a protected space for younger students with mud kitchens, gathering areas, and sculptural play elements.

Rooftop terraces offer additional opportunities for outdoor learning and flexibility. One terrace directly supports the science curriculum through raised planting beds and outdoor experimentation space, while the other provides flexible gathering and learning space adjacent to fifth-grade classrooms.

The library and activity room act as beacons, framing the primary outdoor play spaces.



"Because it's easier to collaborate - to connect with each other - we're hoping this new environment inspires teachers to pursue new ideas and new projects in support of our students."

-Thu-Gga Morris, Lower School Director

GRADE LEVEL CLASSROOMS AND SPECIALS

Classroom design emphasized flexibility and accessibility, with learning environments tailored to varying levels of activity and independence. Interior glazing supports visibility, openness, and safety while preserving focus and security. Furniture selections support student choice and accommodate varying ages and learning styles. Secondary “ghost corridors” between classrooms encourage co-teaching and fluid movement.

For the youngest learners, specialized “Studio” and “Discovery” spaces support project-based learning focused on art and movement with direct access to outdoor environments.

Specials classrooms—including Music, Science, Art, Woodshop, Language & Culture, Health, Wellness and Sexuality, Physical Education, Innovation and Design, and Friendship Group—were designed with shared goals of visibility, interdisciplinary learning, connection between age groups, and equitable access.



The Balderston Lower School is designed for project-based learning with flexible classroom layouts that are supported by ample daylight and storage space.



The activity room is flexible for PE and all-school functions, while also being directly connected to outdoor spaces.



Furniture solutions are a key component of making spaces multi-modal and adaptable as programs evolve.

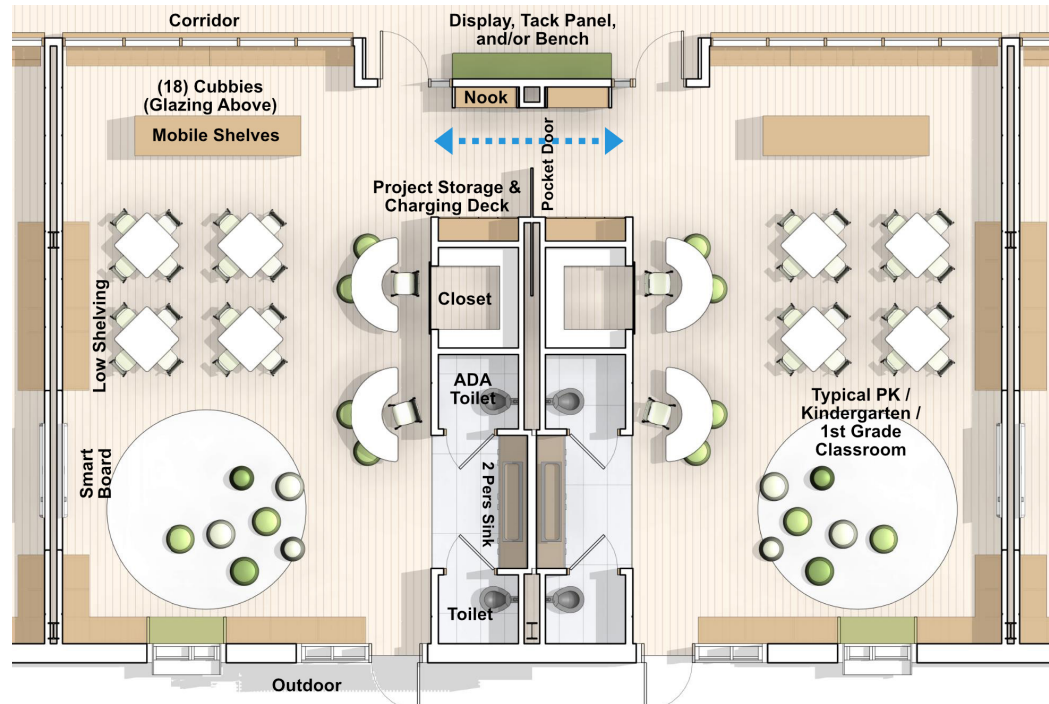
“Students feel like they can solve the problem because they see the tools that are readily accessible for them... it builds resiliency within them.”

-Dan Stahl, Innovation & Design Teacher

Innovation & Design brings an interdisciplinary maker space to heart of the school, visible from the entrance lobby.



TYPICAL PRE-K - FIRST GRADE CLASSROOM



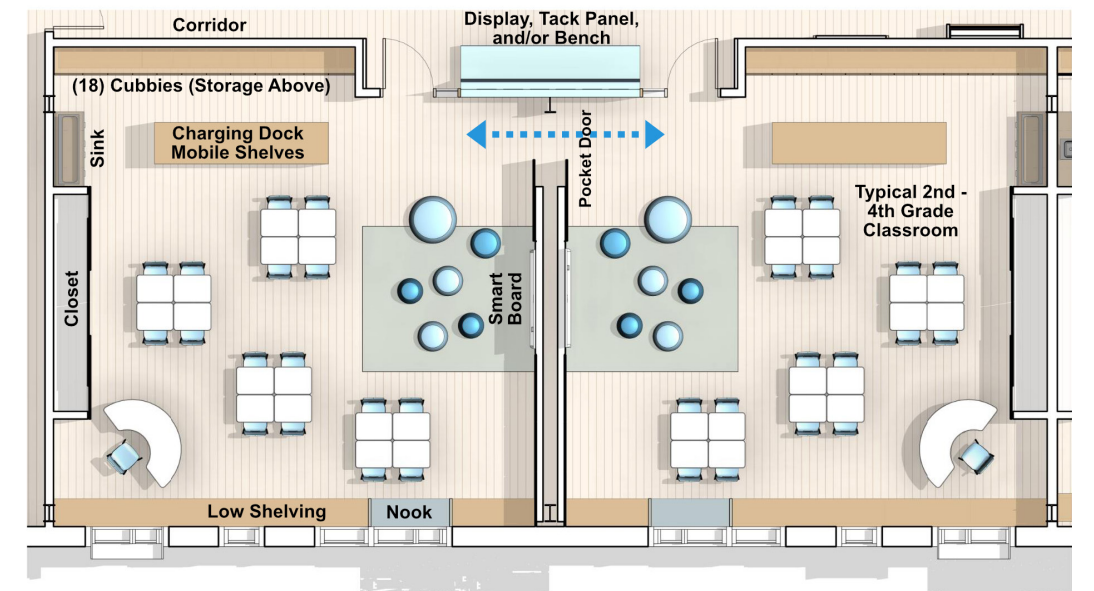
The Pre-K, K, and First Grade classrooms feature direct access to outdoor spaces and biophilic materials and elements to inspire a deep connection to nature.



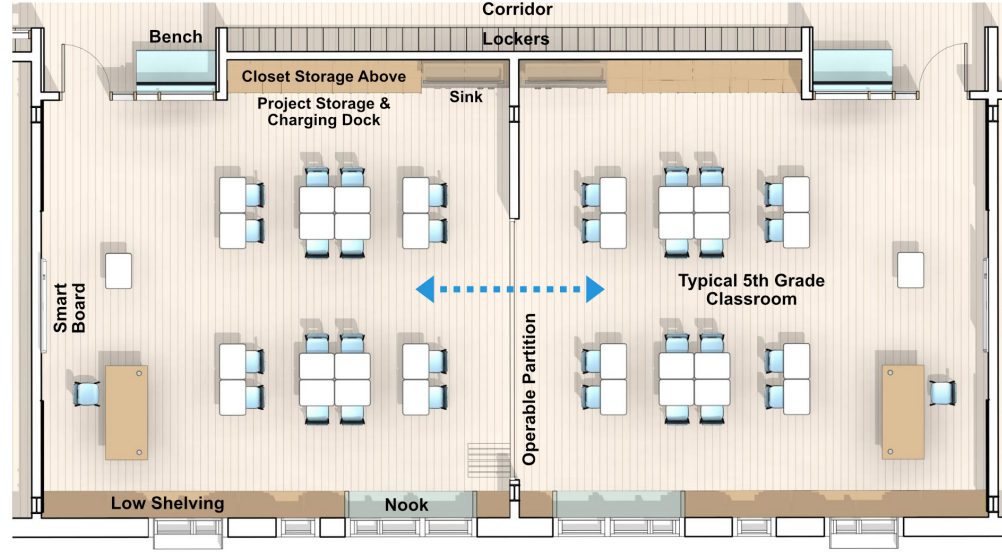


Second through Fourth Grade classrooms are augmented by non-classroom zones for independent reading, learning, and reflection.

TYPICAL SECOND-FOURTH GRADE CLASSROOM



TYPICAL FIFTH GRADE CLASSROOM



Fifth Grade classrooms feature large operable walls, allowing teachers and students to literally connect spaces together. The seamless flow between spaces encourages co-teaching, project-based learning, and interdisciplinary educational approaches.

DESIGN FOR LEARNING

The design supports a wide variety of learning and teaching styles. Shared breakout spaces, bridges, gathering zones, and interstitial learning areas support experiences ranging from independent reflection to collaborative group work.

Flexibility and adaptability were central design drivers. Consistent classroom planning strategies allow spaces to evolve alongside future educational needs, technologies, and pedagogical approaches. Specialized classrooms respond to unique programmatic requirements while maintaining alignment with the broader educational vision.

Innovative aspects of the educational environment include the integration of biophilic learning experiences throughout the building, visual connectivity across grade levels, rooftop educational spaces, and the transformation of circulation into active learning space. The central skylit spine functions not simply as a corridor, but as a dynamic social and educational landscape encouraging interaction, movement, creativity, and community-building.

The Link includes an open forum for learning and gathering, as well as being a primary access point to the rest of campus. The stair wraps and activates the space while real, live trees and plants create a calming effect. Overlooking the space is the Friendship Group Room, where students learn how Quaker principles can be applied to real-world conflict and social challenges.





The Activity Room supports all kinds of uses, from PE class to all-school meetings and performances.

RESULTS

EDUCATIONAL GOALS AND OBJECTIVES

The project successfully fulfills Penn Charter's goal of unifying all Lower School programs—from Pre-K through Grade 5—within a single immersive educational environment. The building supports Reggio Emilia pedagogy through experiential learning opportunities, flexible classrooms, collaborative spaces, direct access to nature, and environments that encourage creativity, inquiry-based learning, and independence.

SCHOOL GOALS

The Lower School advances Penn Charter's broader institutional goals by reinforcing Quaker values through architecture and planning. The project promotes community, equality, peacefulness, stewardship, simplicity, reflection, and inclusiveness while establishing a contemporary architectural identity respectful of the historic campus context.

COMMUNITY GOALS

The project strengthens community by creating spaces that encourage interaction across age groups and between students, faculty, families, and visitors. Accessible outdoor environments, welcoming architecture, and highly visible communal spaces reinforce the Lower School's role as an integral part of the larger Penn Charter community.

UNINTENDED RESULTS AND ACHIEVEMENTS

One unexpected outcome of the project has been the extent to which circulation and interstitial spaces have become active centers of learning and social engagement. Areas originally conceived as connective spaces now function as breakout learning environments, gathering spaces, and informal interaction zones that strengthen school community.

One instructive moment for the design team occurred after opening, when a science class commandeered an overlook within the “Link” space to test parachutes designed in Innovation and Design while measuring gravity and air pressure. Additionally, strong visual and physical connections between grade levels have fostered mentorship, awareness, and a stronger sense of shared identity among students of different ages.



VALUE AND STEWARDSHIP

The project demonstrates stewardship of financial resources through durable material selection, energy-efficient systems, adaptable planning strategies, and flexible educational environments capable of accommodating future pedagogical evolution without significant renovation. The simplicity and consistency of classroom planning also support long-term operational efficiency.



SUSTAINABILITY AND WELLNESS OUTCOMES

The project's sustainability and wellness outcomes are reflected through its pursuit of LEED Silver Certification and its emphasis on daylight, fresh air, outdoor learning, energy performance, accessibility, and biophilic design. Operable windows, high-performance glazing, bird-safe fritted glass, extensive planting, and seamless connections to nature collectively create a healthier and more engaging environment for students and educators.





Welcome to the
Richard A. Balderson
OPC '69 Lower School

The thoughtful design of the Lower School “gives you a glimpse of the magic of what’s taking place.”
- Thu-Nga Morris, Lower School Director