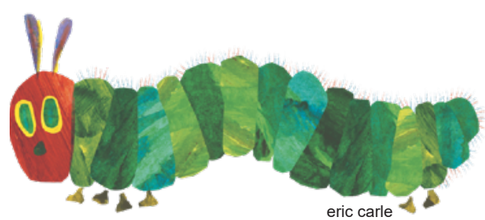


MILLBROOK EARLY LEARNING CENTER

WAKE COUNTY PUBLIC SCHOOL SYSTEM

the caterpillars at millbrook

we grow, learn, and transform...



QUICK SPECS

OWNER | **WAKE COUNTY PUBLIC SCHOOL SYSTEM**

AGES SERVED | **3-5**

COST TO FAMILIES | **$0**

DAYLIT CLASSROOMS | **8**

STUDENTS SERVED | **132**

BUILDING FOOTPRINT | **25,730 SQ FT**

AREA PER STUDENT | **189 SQ FT**

OUTDOOR PLAY AREA | **31,000 SQ FT**

RESTORED WETLAND | **40,000 SQ FT**

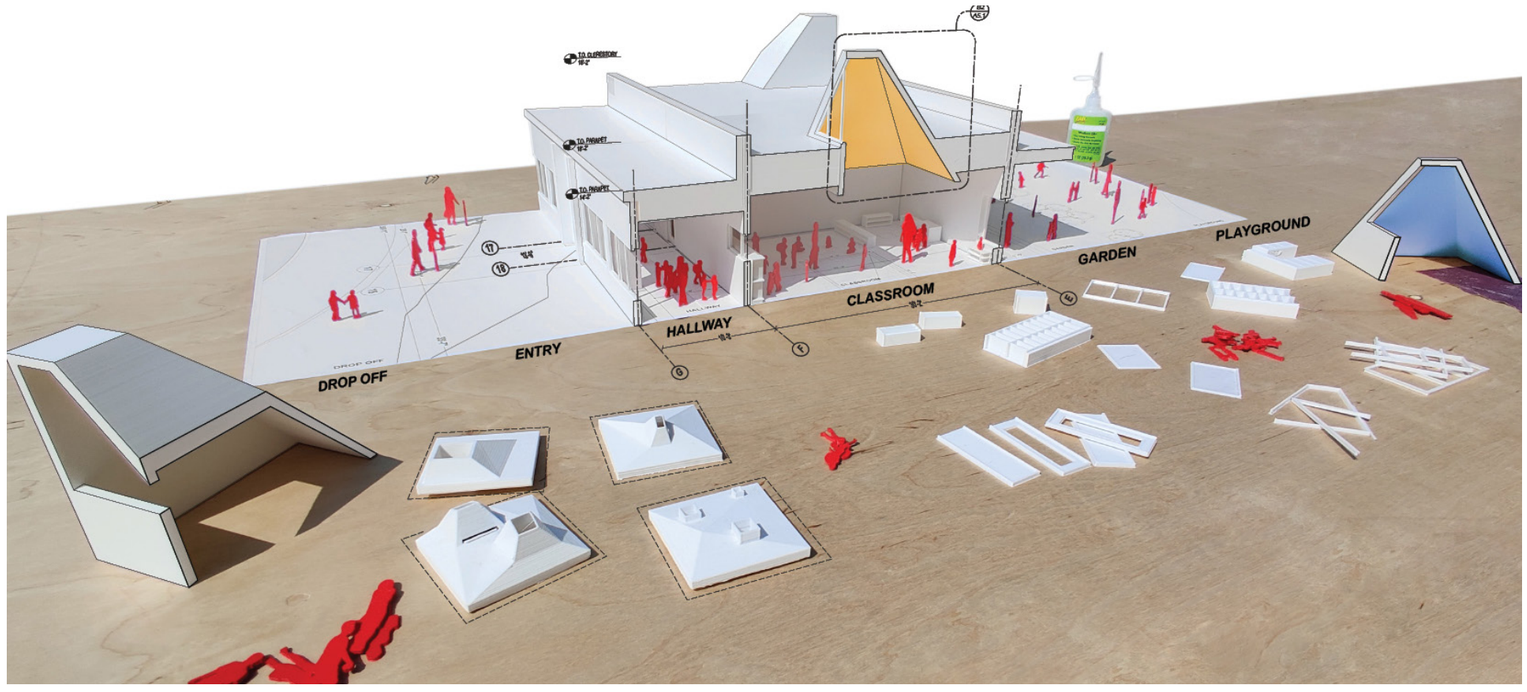
BUDGET OVERVIEW

DEMOLISH BUILDINGS | **$500,000**

RESTORED WETLAND | **$1,500,000**

OUTDOOR PLAY AREA PLANTS, SURFACES, EQUIPMENT | **$2,000,000**

NEW PRE-K BUILDING | **$10,600,000 / 25,730 SQ FT = $411 SQ FT**



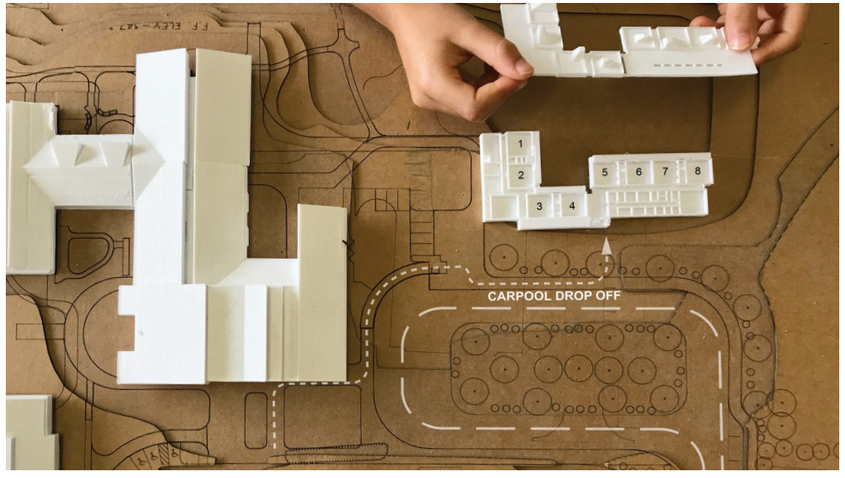
1 | EXECUTIVE SUMMARY:

Co-located on the Millbrook Elementary campus, this Early Learning Center is the **first freestanding public preschool** in WCPSS, setting a new standard for early childhood environments. Eight daylit classrooms are arranged around a central outdoor play landscape, creating a continuous connection between indoor and outdoor learning while prioritizing safety, visibility, and exploration.

The design responds to **North Carolina's Early Childhood Action Plan** by supporting not only education, but also food security, emotional well-being, and access to services. Exceeding local Pre-K standards and meeting Five Star Daycare requirements, the facility establishes a high-quality, flexible learning environment for diverse needs.

At its core, the project is driven by a commitment to equity. Strategically located to serve a high concentration of low-income and special needs students, the center expands access to high-quality early education at a critical developmental stage. Flexible learning environments support a wide range of abilities, responding to a more than **30% increase** in demand for early childhood special education services since 2019.

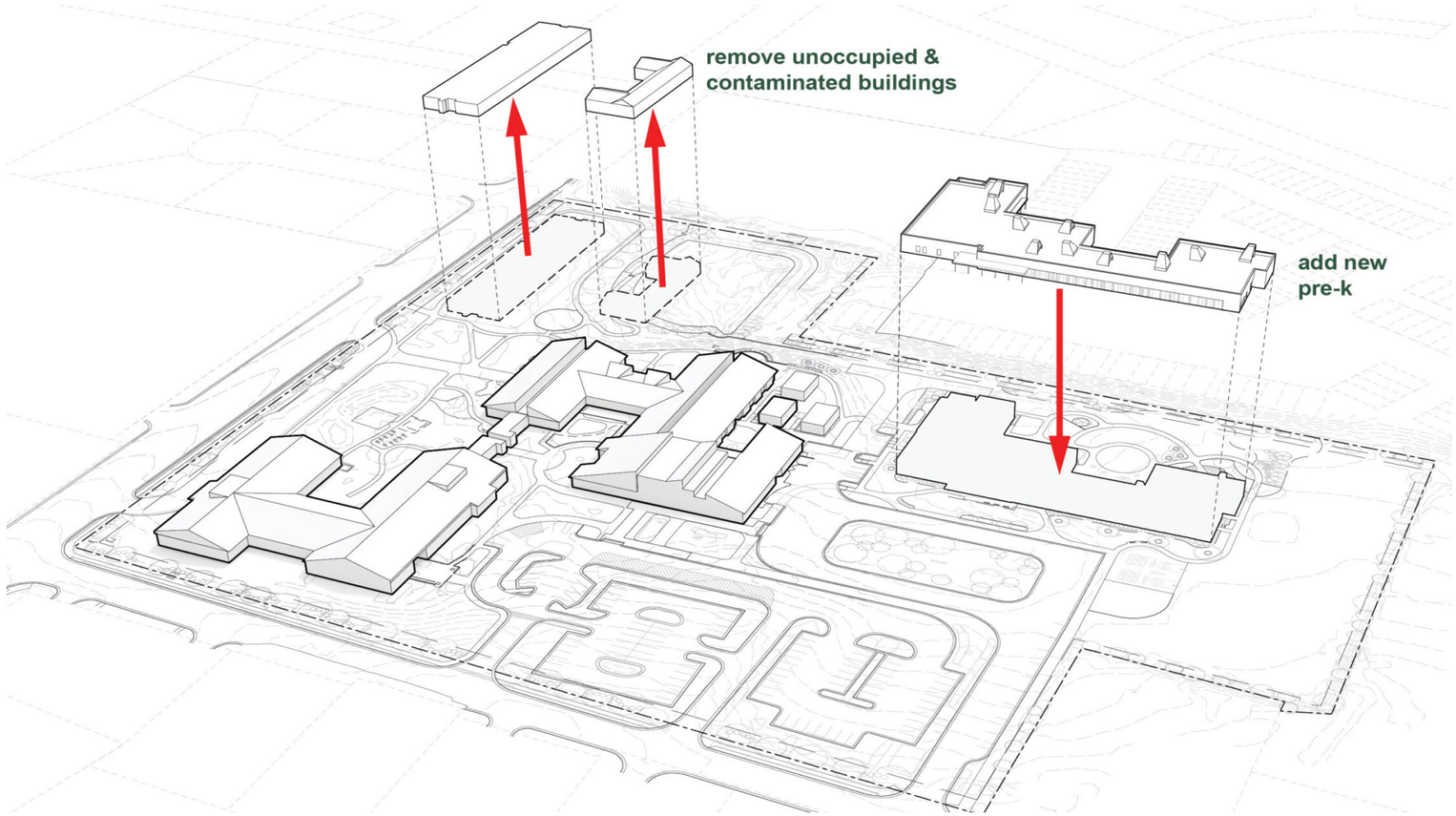
The outdoor play environment functions as an extension of the classroom—supporting unstructured play, social development, and connection to nature. Carefully scaled spaces, natural materials, and abundant daylight contribute to a calming, inclusive atmosphere that supports both students and educators—serving as a replicable model for future early learning facilities across a growing public school system.



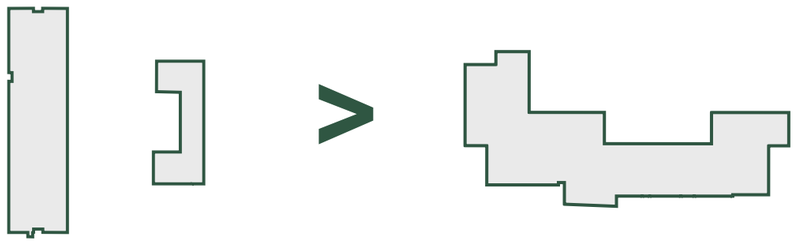


"The Early Learning Center is an inviting environment for families and children. This is a wonderful way to introduce families to the school system so they can be an active partner in their child's educational journey."

Sherry Williams
Director, Millbrook Early Learning Center



NO INCREASE IN IMPERVIOUS SURFACE ON CAMPUS



DEMOLITION
26,091 SF

NEW CONSTRUCTION
25,730 SF

2 | SCOPE OF WORK AND BUDGET

OVERVIEW

demolish contaminated and unoccupied buildings

new standalone pre-K building

new playgrounds for pre-K and elementary schools

walking track

wetland to filter 100% of site water

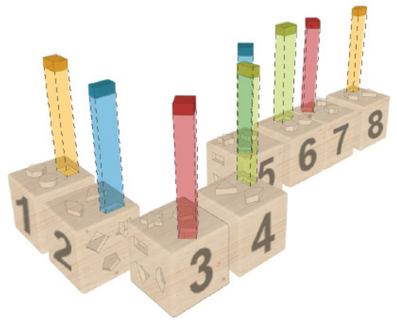
The Early Learning Center construction included 8 classrooms with direct outdoor access to an age-appropriate play area, a 9th classroom for new student evaluation, and the first on-site pre-k staff offices in Wake County.

The project scope included demolishing and removing two contaminated and unoccupied buildings. In addition to the new pre-K building, the construction scope included new playgrounds and play fields at the existing school, as well as the installation of a wetland area and new stormwater control measures. The design team worked with school staff to include a learning pathway and outdoor classroom as part of the wetland scheme, tailored to Millbrook Elementary's environmental focus. The new building was also sited to take advantage of existing bus and carpool lanes, eliminating the need for new vehicle circulation.

Each classroom includes an attached observation room and a unique skylight. The classrooms are arranged in pods of two, each with a window seat, individual bathrooms, and outdoor storage. Every classroom has a unique skylight, enhancing the learning environment and fostering a sense of place where students can connect with educators.

The project budget was $14,600,000. It was publicly bid and awarded to the lowest-bid construction manager. The elementary school campus remained active during construction, requiring careful planning and sequencing of project areas to ensure existing students still had a safe place to play.





EIGHT CLASSROOM CONCEPT WITH SKYLIGHTS

WAKE COUNTY

no freestanding pre-k

127 pre-k classrooms distributed amongst
wcpss elementary schools

only 36 public pre-k sites

class size: 28 students

less than 50% public pre-k need met

WCPSS SCHOOL DISTRICT 6

ultimate location for pre-k

demonstrated pre-k and daycare need

existing centrally located site in Wake County

census block demographics include high number of low income families

median income 20% below raleigh average

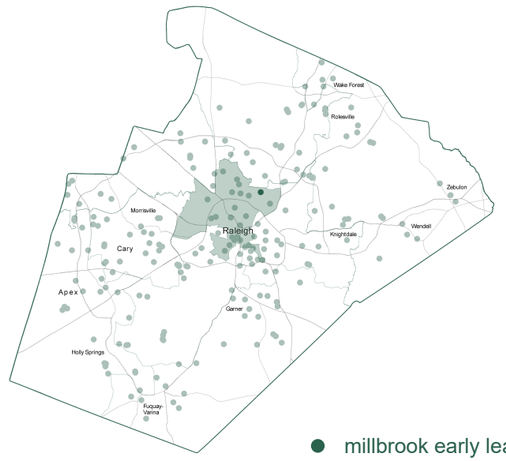
MILLBROOK EARLY LEARNING CENTER

+ 8 additional classrooms (+22%)

class size: 16 students

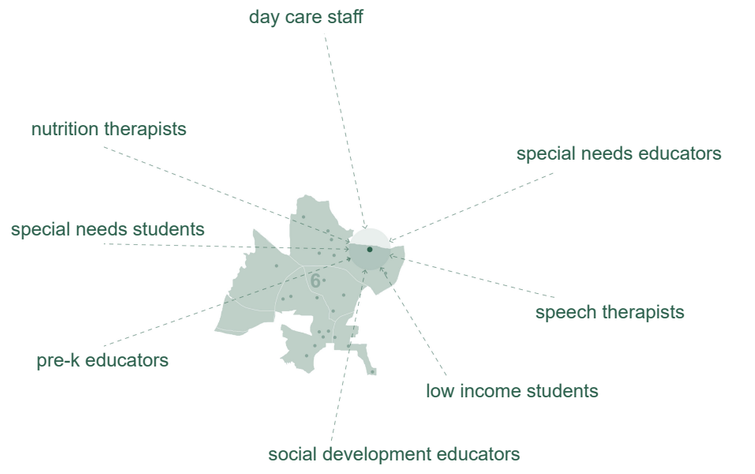
offices and observation space for specialized early learning educators

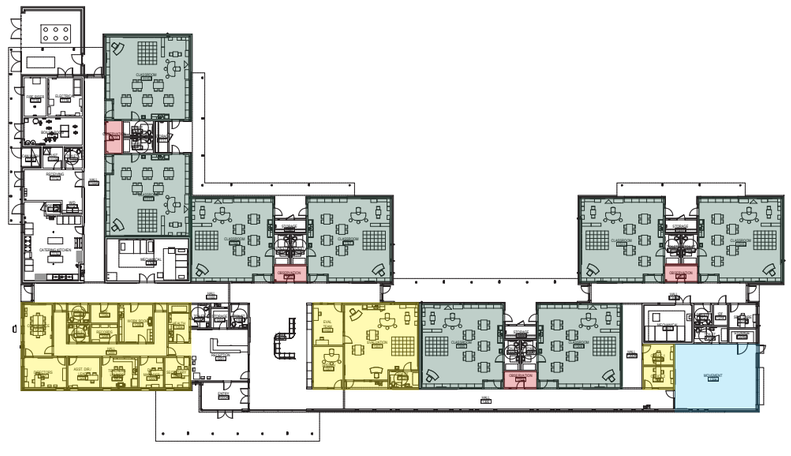
dedicated room for community outreach



millbrook early learning center

wcpss elementary school





pre-k classrooms

educator offices + evaluation

observation rooms

community/movement room

3 | SCHOOL + COMMUNITY RESEARCH AND ENGAGEMENT: CONTEXT

A purpose-built public preschool that transforms fragmented early education into an equitable, centralized model supporting the full spectrum of child development.

Previously, pre-K education in Wake County was distributed across 67 elementary schools, limiting the ability to provide specialized and consistent care for more than 3,500 students. With only a few classrooms per site, children, particularly those with special needs, lacked access to coordinated services, while educators and specialists were required to travel between schools, reducing the effectiveness of support.

This Early Learning Center consolidates those resources into a single, purpose-designed facility, enabling integrated delivery of education, speech and emotional therapies, and family support services. Developed in response to North Carolina's Early Childhood Action Plan and shaped by years of educator feedback, the project establishes a new model for accessible, high-quality early learning. Title I funding further ensures that underserved and at-need populations are prioritized.

Located on the Millbrook Elementary campus in central Raleigh, the site was selected for its proximity to working families and high concentration of need. As the first of four planned centers, it serves as a prototype for scalable implementation across a rapidly growing district of more than 200 schools.

The determined location for the standalone pre-K building depended on years of data and research by the early education staff, teachers, and community members to select a location with maximum impact.

Now operating at full capacity with 132 students, the center demonstrates both the urgency and impact of investing in early childhood infrastructure, creating a foundation for lifelong learning while redefining how public systems can support their youngest learners.

3 | SCHOOL + COMMUNITY RESEARCH AND ENGAGEMENT: PROCESS

OVERVIEW

Design team met weekly with directors of pre-K education to review plans and design considering this was a new prototype for the school district.

held 4 meetings with pre-K educators and staff

held bi-weekly meetings with wcpss planning staff to address integration of school system standards

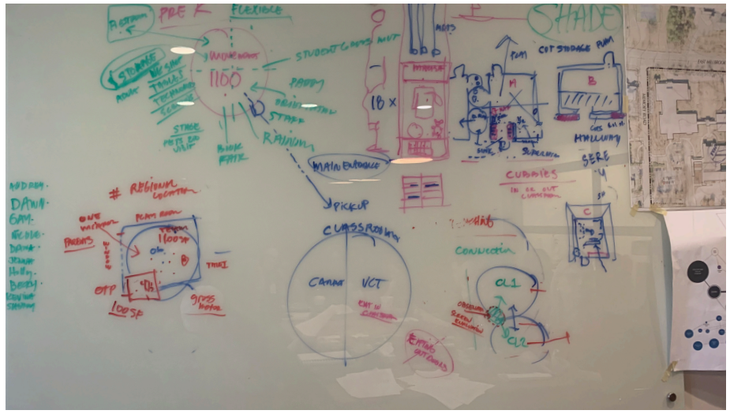
2 meetings with city planning prior to permitting

multiple presentations to the wcpss school board

visited 5 other pre-K facilities in the state to learn understand ideas that worked and did not, resulting in a research catalog



Early learning vision board is created with educators



Sketches of ideas and feedback from teachers and staff



Early stage feedback from City Planning and County Facilities staff.



Educators provide feedback on finishes and materials for durability.



Visiting established pre-K programs in the state for precedent research





On site with current educators and board members - Understanding the assets of the site and sharing potential building locations. Aligning the new building to the learning focus of Millbrook Elementary was another influence on the new construction.



Site models and program pieces were used to gain feedback from pre-K teachers. Educators and staff encouraged new ideas and multiple options to influence the design.



Generating excitement about their new space and encouraging teachers to visualize how they might set up their new classroom teaching spaces.





high-quality early learning



food equity



safe & nurtured



natural play + learning



Source: *ncdhhs*



VICINITY PLAN

3 | SCHOOL + COMMUNITY RESEARCH AND ENGAGEMENT: EXHIBITS

The North Carolina Early Childhood Action Plan centers on three themes: that North Carolina's young children are healthy, grow up safe and nurtured, and are well-supported to learn and succeed. It provides a framework for galvanizing coordinated action across public and private stakeholders throughout North Carolina and centers around making measurable changes in early childhood outcomes. It includes 10 data-informed goals and will continue to grow and develop over time.

The Early Childhood Action Plan ensures that North Carolina schools develop with equitable learning in mind. This project, in particular, was essential to WCPSS as it will inform the future of early childhood education. As a new early childhood school typology, the Millbrook Early Learning Center aligns with the Early Childhood Action Plan Framework by addressing the following themes through design:

Goal 3: Food Security

Goal 5: Safe and Secure Relationships

Goal 7: Social-Emotional Health and Resilience

Goal 8: High Quality Learning

Goal 9: On Track for School Success

Goal 10: Reading at Grade Level

DIVERSITY, EQUITY, + INCLUSION

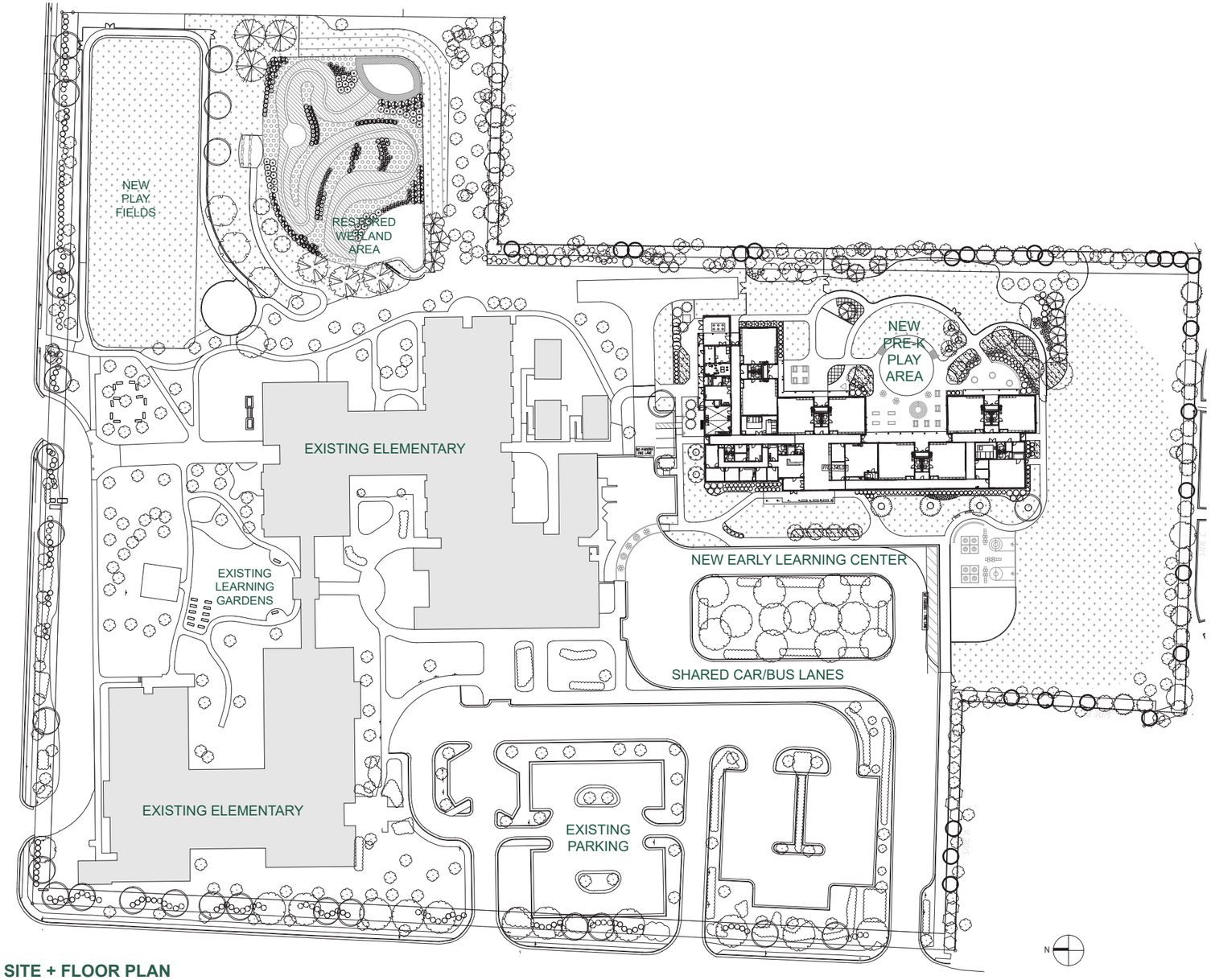
The Early Learning Center utilizes Title I funding, meaning it serves children and families in need of academic and economic support. In addition, the Early Learning Center provides a centralized, dedicated office space for early learning educators.

By centralizing pre-K in a freestanding building, special needs and social development educators and speech therapists can spend more time serving students in need, rather than commuting to distributed pre-K classrooms across the county school district.

The design process reflected the Title I mission of providing an equitable space for children, regardless of socioeconomic status, to succeed in early and higher education. The pre-k staff was involved from the beginning of the process, from site selection to classroom construction. This is a new school type for Wake County, so building innovation into the walls of each classroom was critical for future developments of the typology. The inclusion of all user groups in key decision processes guaranteed representation and advocacy for all students and educators.

"This project is setting a new standard for educational design. What was once a simple parking lot has been transformed into a vibrant pre-kindergarten facility, complete with outdoor classrooms that seamlessly integrate with the natural landscape. This project beautifully demonstrates what is possible when creating an inviting and inspiring space for our youngest learners while prioritizing both safety and transparency."

Sir Walter Raleigh Awards Jury



SITE + FLOOR PLAN

4 | PHYSICAL ENVIRONMENT: CONTEXT

Millbrook Magnet Elementary is an environmentally focused magnet school in central Raleigh. It consists of two main educational buildings, with learning gardens, sensory gardens, and two pre-k classrooms.

Millbrook Magnet Elementary lacked a separate pre-k center, meaning these two classrooms had to serve all early learning students in the area, regardless of special income, emotional, daycare, and academic needs. This scenario is common amongst all public elementary schools in Wake County.

The new pre-k fits into the Millbrook campus, which is located in a growing area bounded by a mix of multifamily housing and businesses. The area is largely populated by working families with a critical need for daycare and afterschool care and is centrally located within the city of Raleigh and Wake County. The new Early Learning Center replaces two unoccupiable buildings, which were removed and replaced by a wetland area open for environmental educational opportunities.

The new building is located on a flat site for seamless outdoor learning opportunities. It is placed to take advantage of existing nutrition services in the elementary school. Food is prepared and distributed to a small warming kitchen and then to each Pre-K classroom for breakfast and lunch. The siting also allows the Early Learning Center to take advantage of existing bus and car drop off lines and leaves all existing parking in place.

The building's plan allows all classrooms to share a singular large garden and play area. This creates a sense of community among students and a sense of security and care in which students can learn and grow. The play area is bounded by quiet residential streets, which are separated from the campus by a mature vegetated buffer zone.





“[Millbrook Early Leaning Center] gives me a lot of hope for not only my child but for other children that are going to be entering preschool and entering the public school system in our county”

Ms. Aaron
Millbrook Early Learning Parent



“Through an economy of means, familiar construction materials are elevated into a thoughtful and engaging environment for young learners. Natural light, outdoor connections, and carefully composed moments work together to support curiosity, comfort, and discovery throughout the day.”

AIAT Design Jury, Community Impact Through Design Award 2026

4 | PHYSICAL ENVIRONMENT: RESPONSE

INSPIRATION, MOTIVATION + INNOVATION

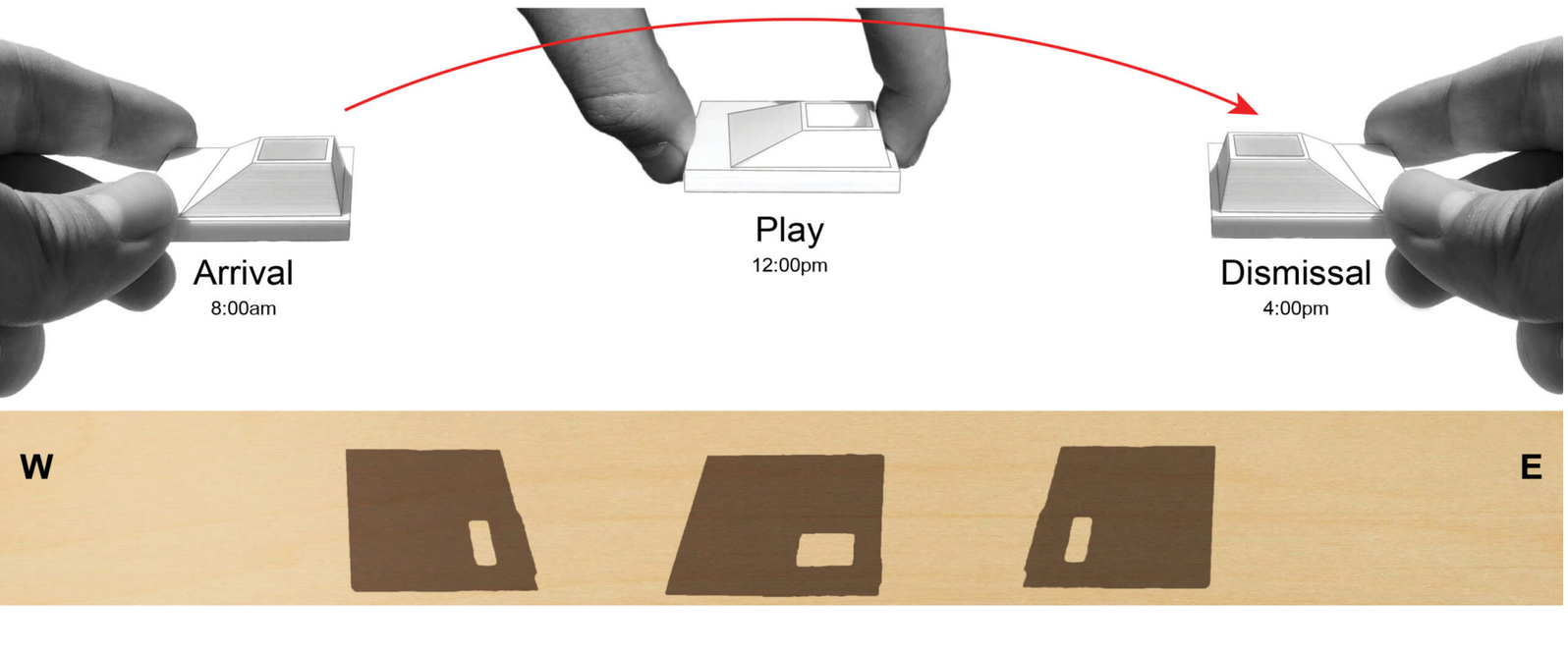
The entry sequence of the learning center is designed to invite early learners as they engage in learning outside of home, and away from their parents for the first time. The multicolored facade greets students from the car and bus approach, while a skylight creates a welcoming lobby for students to greet teachers and classmates, and eases the difficulty of leaving home for students with emotional needs.

The apertures in classrooms create a sense of center, bringing together all members in the classroom. The unique appearance of each room creates a sense of belonging and a tie to the children’s first learning space. On darker mornings and evening, the apertures glow from within, signaling the safe space within to students who have the most need for daycare services.

DIVERSITY, EQUITY, + INCLUSION

By placing the building on a flat grade, all classrooms share the same ground plane, making access between inside and out seamless for children of all abilities, including special education. The proximity to the existing bus dropoff also means that some children can ride the bus with siblings, increasing flexibility for students with unique home situations. This also makes early learning possible for students needing the transportation network typical of the public school system. By the same hand, affordable daycare and afterschool care are available, critical in an area with a high density of Title 1 families.

The inclusion of offices for special needs, speech, academic, and social therapists into the program boosts the learning potential for a greater range of students than possible with the typical dispersed pre-k model. Additionally, softly curving furniture, both inside and out contributes to a safe and comfortable environment for students needing greater social comfort in a new environment.





4 | PHYSICAL ENVIRONMENT:
SUSTAINABILITY + WELLNESS

The project extends campus-wide wellness at Millbrook Elementary through new playgrounds, a playfield, and a wetland education area with an outdoor classroom accessible to all grade levels, reinforcing environmental learning.

Within the Early Learning Center, age-appropriate play areas, specialized care spaces, and abundant daylight create an engaging pre-K environment. Design strategies emphasize early environmental awareness through solar studies and safe, direct connections to the outdoors. Glare analysis ensures visual comfort while maintaining strong daylighting.

Sustainable strategies reduce resource use and environmental impact. Meals are prepared in the existing school cafeteria, eliminating the need for a separate kitchen. Low-flow fixtures and an air-cooled chiller further reduce water consumption, addressing the absence of on-site rainwater collection.



"The vision of the Early Learning Center is to be recognized as a high-quality, collaborative early learning environment that empowers each individual student to thrive and achieve their full potential through data-driven decision-making, hands-on developmentally appropriate experiences, and meaningful engagement."

Wake County Public School System

5 | EDUCATIONAL ENVIRONMENT

5 | EDUCATIONAL ENVIRONMENT: CONTEXT

The early learning center responds to the increasing need for special education in early learning, which has increased by over 30% since 2019. The early learning center is located to serve the highest number of low income and special needs children as possible, and to serve as a model for future early learning in a growing public school system. Securing and utilizing Title 1 funding was a key component of the school's location and student base.

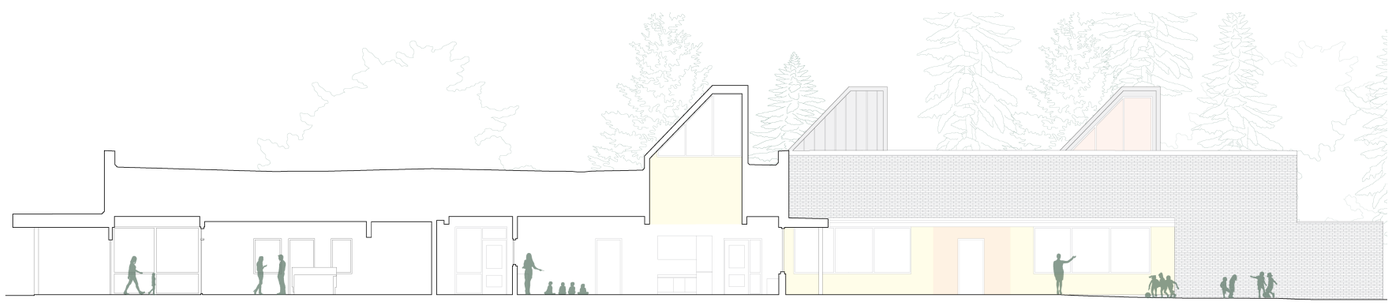
The center also aims to address staff commuting issues caused by the distribution of pre-k centers at elementary schools throughout the county. By consolidating more pre-k students into one location, children with varying needs can be served, and affordable daycare services can be provided without spreading educators thinly across the county.

The Early Learning Center is designed to work towards the goals of the NC Governors Early Childhood Action Plan, from its siting, plan form, program, and individual classroom design.









TRANSVERSE SECTION THROUGH LOBBY, CLASSROOM, AND PLAY AREA

5 | EDUCATIONAL ENVIRONMENT: RESPONSE

The goal of the Early Learning educators was to provide an exceptional educational experience for all children in an inclusive, safe, and stimulating learning environment that builds a foundation for lifelong learning and effectively supports the diverse needs of the children and families served by the building. The design team was charged with creating a positive, safe, welcoming, and inclusive building to foster a sense of belonging for all children. The building was designed to exceed the requirements of the Five-Star Daycare program.

A clear building plan creates a sense of security; as children move into the space, each layer increases their ability to learn and socialize successfully. The recognizable facade welcomes early learners, and then a single hallway simplifies navigating to each classroom. Each classroom feels special, with a unique skylight orientation and color. Finally, all the students share a large outdoor space, wrapped by familiar classrooms and clear indicators of entry.

The building integrates teaching and observation spaces, allowing for the identification of student needs—something that was not possible in previous pre-k facilities in the county. The Early Learning Center is poised to meet special needs if they are identified.

Teachers have permanent spaces to prepare their lessons. Classrooms are tailored for Title 1 students, special needs students, and a mix of both groups. Interior spaces have been adapted to include bright places for indoor play and socialization when outdoor play is unavailable. The roof apertures reflect outdoor conditions in the classrooms, creating a sense of security and awareness. This connection to nature parallels the curriculum of Millbrook Elementary.

The educational spaces are innovative because they are grouped in pods and share an observation room amenity. The observation room allows parents and early learning staff to evaluate students without disturbing the students in the classroom. The teachers can teach in a team or as a separate classroom. This layout allows for flexibility. Each classroom provides 50% more natural light than the NC Department of Public Instruction requires. Natural light in the early learning classroom was a highly desired characteristic of the early learning staff.

5 | EDUCATIONAL ENVIRONMENT: CONNECTIONS

The building is designed around the spatial and developmental needs of early learners, prioritizing access to outdoor space and shared environments. A single-loaded plan organizes classrooms along a central outdoor learning landscape, creating a strong sense of enclosure and community. This approach intentionally sacrifices efficiency to foster connection—avoiding the separation typical of double-loaded corridors and instead supporting social interaction and collaborative development.

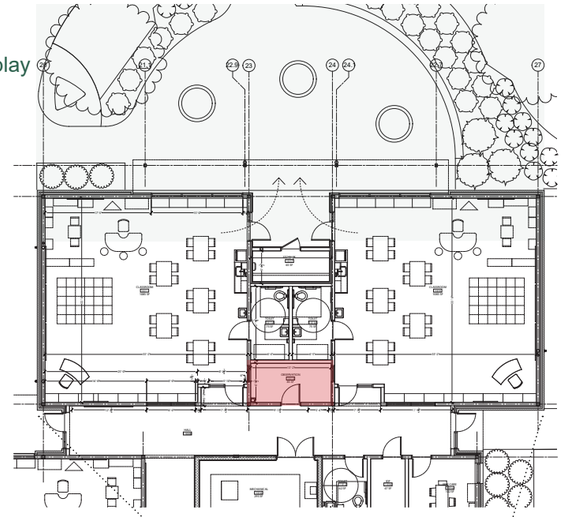
Each classroom is enriched with a dedicated skylight, a large window seat, and an in-room bathroom, providing comfort, autonomy, and consistent access to daylight. Classrooms are paired into pods of two, strengthening relationships between small groups of students as they transition between indoor and outdoor learning.

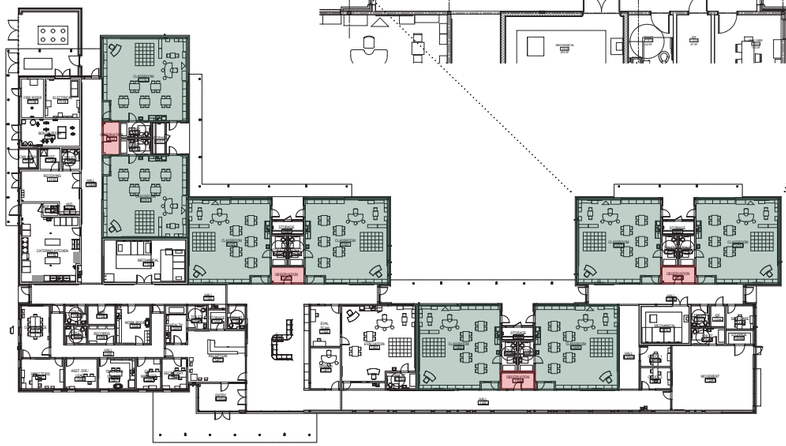
Shared observation spaces within each pod support educators in monitoring development and identifying student needs early, reinforcing the building's role as both a learning environment and a tool for assessment and care.

connection to outdoors / play

observation rooms

pre-k classrooms



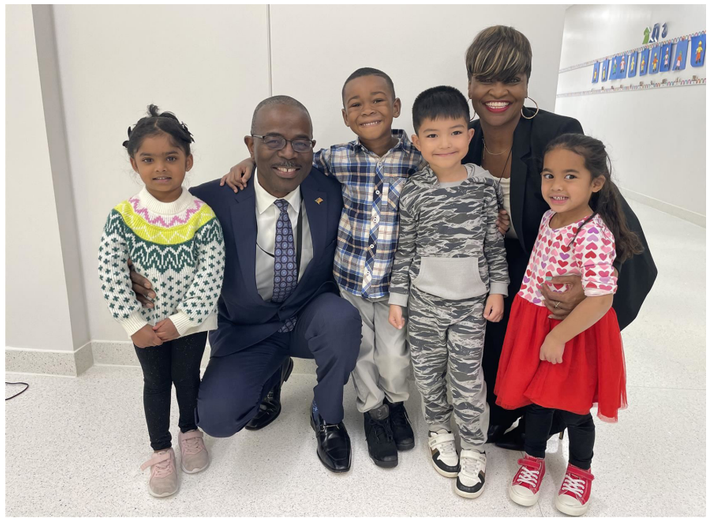












Oh wow, this is a great article. You and your team were a huge part of its success. Thank you for the creativity, patience and love you and your team bring to every project. This is what it’s all about!!!🥰🥰🥰🥰

6 | RESULTS:
ACHIEVEMENT OF EDUCATIONAL GOALS

The Early Learning Center was created to serve 3-5 year-olds with greater needs than the existing system of public pre-k classrooms could serve. Parents have seen their children’s academic and social skills grow since their time at the Center. The goal of creating an “equal playing field” has been achieved, as students with Title 1 financial need have access to after-school care, speech therapy, emotional support, and academic support.

Early Childhood Action Plan’s goals:

Goal 3: Food Security:
Free breakfast and lunch are distributed to students’ classrooms each day

Goal 5: Safe and Secure Relationships:
Full time early learning and special needs educators create a sense of security and permanence amongst students, leading to strong relationships.

Goal 7: Social-Emotional Health and Resilience:
Collaborative social lobby, shared outdoor play area, grouped classrooms, access to emotional and behavior therapists on site ensure safe social and emotional development.

Goal 8: High Quality Learning:
Dedicated office space for pre-k staff at a single location, eliminating travel time for educators and providing a high-quality working environment that aligns with WCPSS recruitment efforts for the best early educators. Classroom size is half the county pre-k average.

Goal 9: On Track for School Success:
Students’ needs can be clearly identified and served at the Early Learning Center, ensuring that no child is left behind in this critical developmental stage. Affordable daycare programs on site mean that more students of working families are able to be served by early learning.

Goal 10: Reading at Grade Level:
Student needs can be identified before students fall behind.





6 | RESULTS:

ACHIEVEMENT OF SCHOOL DISTRICT GOALS

County Commissioners, Board Members, and WCPSS facilities staff gathered at the Early Learning Center ribbon-cutting ceremony. Many were impressed by the space, discussed the future of early learning in the county, and emphasized the long-term impacts of Pre-K education on all of these students. The impact will be exponential.

WCPSS and the architect have already led multiple tours of the building at the request of surrounding Public School systems that are eager to start or are in the process of building their own Early Learning Centers. This building is a model and prototype for the growth of Early Learning in our State.

ACHIEVEMENT OF COMMUNITY GOALS

The demand for Wake County's public school enrollment is the highest in North Carolina and growing rapidly. The need for special services at the pre-k level has grown by over 30% in the last 5 years. Wake County has succeeded in aligning this project with the goals of the Governors Early Learning Agenda while adding to the total enrollment of pre-k students and efficiently redistributing early learning resources through the addition of 8 pre-k classrooms and dedicated office space centrally located for pre-k specialized instructors that serve special needs students at the Millbrook Early Learning Center in addition to students throughout the county.



Oh my, this fills my heart!! This just reminded me why I do what I do everyday!! I hate I missed this. Looking at all the smiles in that room is so special. You did great guys. This is a space is so special. The day before the ribbon cutting Dawn was telling me how she loved the way it makes her feel driving up to the front door of your building. She said it was warm and inviting, which is what these kids need. She also told me how she absolutely LOVEs the lobby, she loves the light in the rooms, how visible it is through out the building and the connection from the inside to the outside. KHA is going places and I love what you are doing for WCPSS. You are putting a mark in our school system and I appreciate everything you do for us!!!! Thank you and I can't wait to be having this very same conversation at the Fuquay Varina completion. 😊😊😊

Elizabeth Sharpe
WCPSS Head of Design and Construction

Design Results align with the Early Learning Center's Mission and Guiding Principles:

"To provide an exceptional educational experience for all children in an inclusive, safe, and stimulating learning environment that builds a foundation for life-long learning and effectively supports the diverse needs of the children and families we serve."

- All children deserve an opportunity to grow, learn, and thrive.
- A positive, safe, welcoming, and inclusive school environment fosters a sense of belonging for all children.
- The whole-child approach supports and nurtures a child's development and learning in all areas (social and emotional, cognitive, health, and physical).
- Evidence-based practices provide positive learning outcomes for students and families.
- High-quality childcare programs include quality facilities, highly qualified staff, stimulating learning opportunities, and positive relationship building.
- Parental involvement extends a child's learning opportunities and creates a more positive learning experience.

FINANCIAL RESOURCEFULNESS

This project was completed for the Wake County Public School System and was bid through a public bid, awarded to the lowest bidding contractor. In addition to the cost of a new building, the project budget included many site upgrades specifically designed to enhance and provide additional environmental educational opportunities to the existing magnet elementary school.

A cost-saving advantage was sharing the existing cafeteria space within Millbrook Magnet Elementary. This measure allowed for more instructional space in the Early Learning Center. The food is prepared in the elementary school kitchen and distributed to all of the Pre-K classrooms for breakfast and lunch.

Color was used as a design tool, avoiding costly and complex detailing. The simplicity of the building envelope and siting allowed for the implementation of a light monitor in each classroom and the lobby. Exterior materials were cost-effective and placed with the highest impact possible, creating a welcoming facade for students being dropped off.

WELLNESS

This project included upgrades to Millbrook Elementary's outdoor play areas and expanded their environmental learning capacity to include the wetlands on the site. This was done by constructing learning pathways and a new outdoor classroom.

The design was completed in accordance with Five-Star Daycare standards and the NC Governors' Early Learning Agenda. Access to after school care was especially important for the Early Learning Center due to its focus on serving Title 1 families.

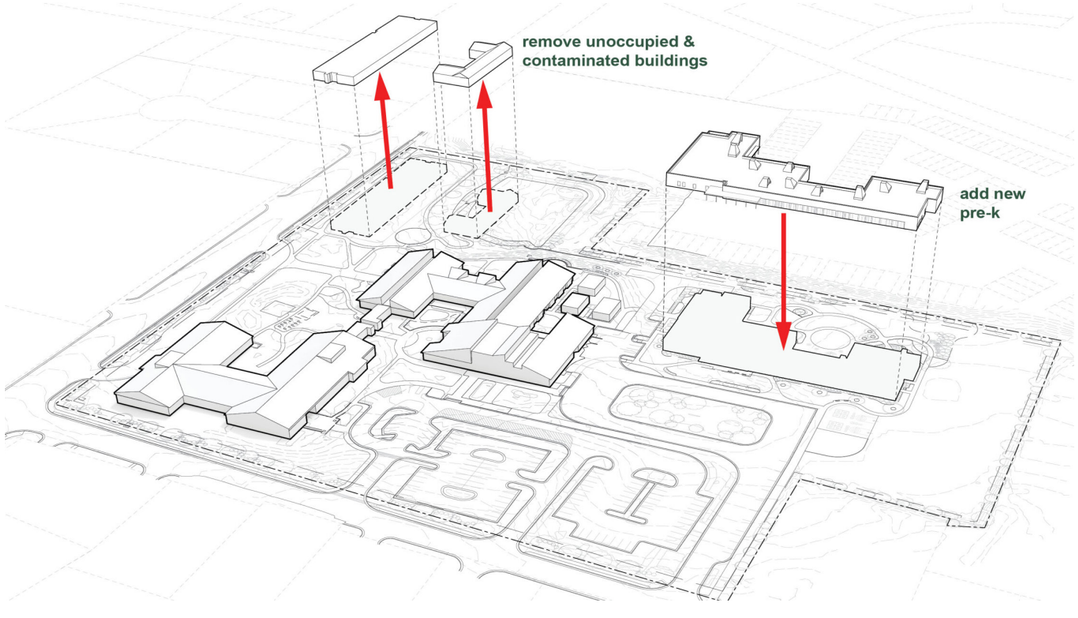
6 | UNINTENDED RESULTS:

WCPSS DESIGN FEEDBACK

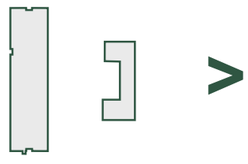
Elizabeth Sharpe, Head of Design and Construction at the Wake County Public School System, was influential in the entire design process for the Early Learning Center. Her feedback regarding the design of the spaces clearly impacted the creation of a successful project. She serves as just one of many inside voices testifying to the reception of the Center by early learning educators, families, and early learners.

Another unintended result is a community outdoor play space that anchors the surrounding neighborhood and provides children with exposure to sustainable site strategies.

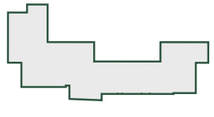




NO INCREASE IN IMPERVIOUS SURFACE ON CAMPUS



DEMOLITION
26,091 SF



NEW CONSTRUCTION
25,730 SF

6 | RESULTS: SUSTAINABILITY

Located on an existing elementary school campus, the project minimizes its footprint by replacing uninhabitable structures and leveraging shared infrastructure, including carpool, bus, and parking systems. By integrating with existing campus resources such as nutrition services and playgrounds, the design significantly reduces the environmental impact of new construction.

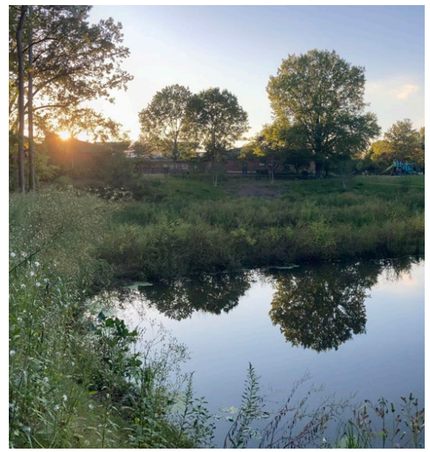
Stormwater strategies enhance site performance without increasing runoff. A new wetland and retention pond improve water management while supporting environmental education, offering students direct engagement with natural systems and reinforcing the school's broader learning mission.

Within the constraints of a public school budget, the project prioritizes practical and impactful water conservation strategies. Low-flow plumbing fixtures are used throughout, and a high-efficiency air-cooled chiller reduces freshwater consumption by eliminating the need for a cooling tower—an important consideration in the absence of reclaimed water infrastructure.

100% of the Millbrook Elementary site now drains to and is filtered by a new wetland area with educational opportunities

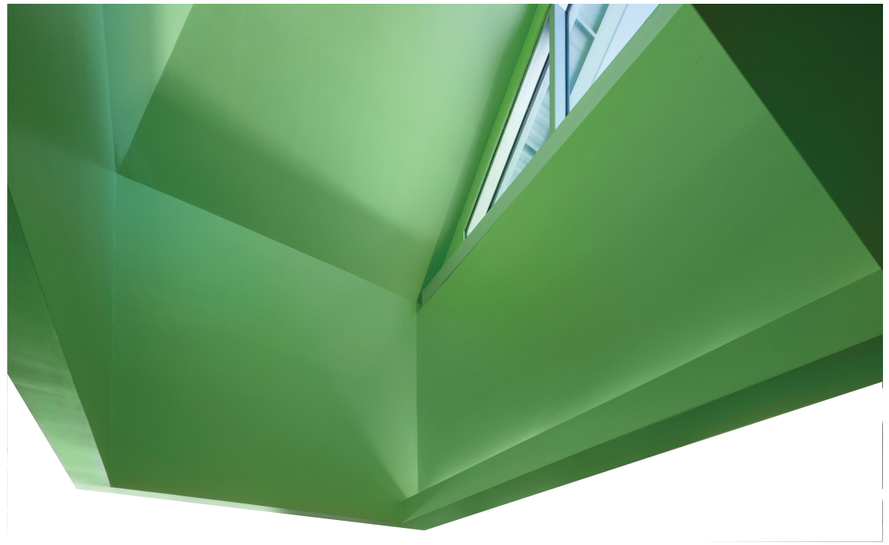
Outdoor play and learning spaces exceed Five-Star Daycare rating by 60%

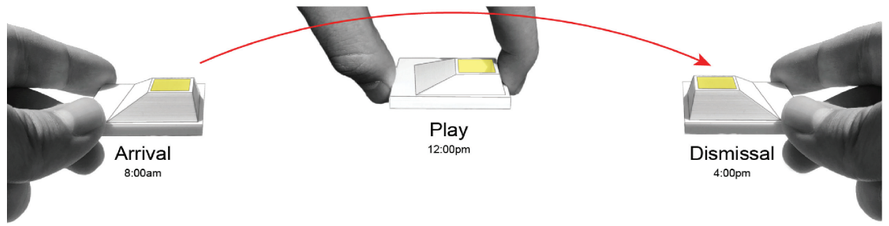
Daylighting in classrooms reinforces learning environment and creates a sense of connection to the environment throughout the day.

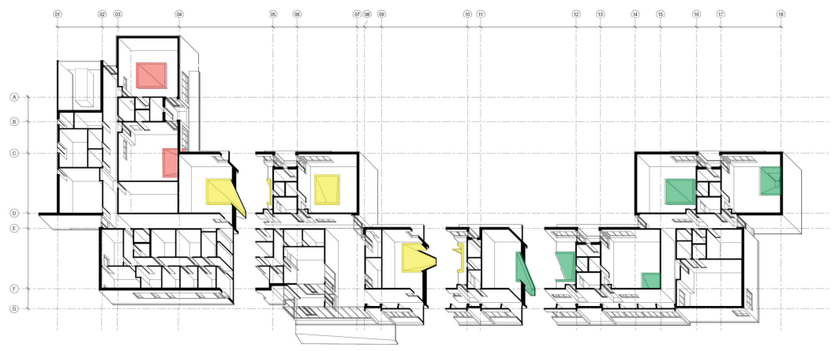


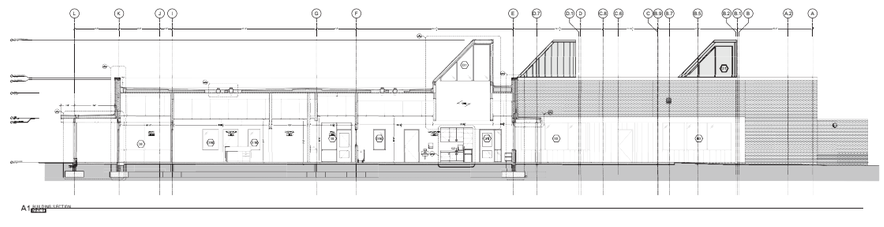







Arrival
8:00am
Play
12:00pm
Dismissal
4:00pm




A1 BUILDING SECTION



