

Magnolia Speech School

MADISON, MISSISSIPPI



JAMES D. MACCONNELL AWARD

A NEW CHAPTER

Since 1956, Magnolia Speech School has been a steadfast cornerstone, serving not only the local community but also children throughout Mississippi and beyond. A special purpose school serving children with communicative disorders and other sensory needs, Magnolia Speech School in Madison, MS was in urgent need of a new facility to expand services and support more children. In close collaboration with a diverse group of stakeholders, the project team designed a new 30,000 SF school for Magnolia, providing a dynamic network of modernized spaces for teaching, learning, and support to foster enhanced learning for their unique student population. In addition to traditional educational needs, this new facility features an outpatient clinic and multipurpose room to serve and engage the broader community.

Following a series of intensive visioning workshops to gather and prioritize the school's needs and aspirations, the design team developed a plan that organizes the program into three efficient wings, creating a protected exterior space for play and outdoor classrooms. The north wing is comprised of 13 classrooms, a multifunctional art/music room, a computer lab, and a panoramic library that is nestled into the existing tree line eliciting a "treehouse in the woods" effect. The central wing houses the administrative offices, main entry lobby, and clinic, while the south wing hosts a lunchroom and a large, multipurpose room.

This new school is not just about facility upgrades or program expansion—it is a curricular and cultural transformation that encourages teaching and learning to happen everywhere. Previously strained by aging infrastructure and insufficient space, Magnolia now shines as a clear and multifaceted commitment to equity that is prepared to better serve and support more students with an even wider variety of neurological needs.



SCOPE OF WORK AND BUDGET

OWNER
Magnolia Speech School

LOCATION
Madison, MS

PROJECT TYPE
New Construction

BUILDING AREA
29,838 SF

PROJECT COST
\$13,000,000

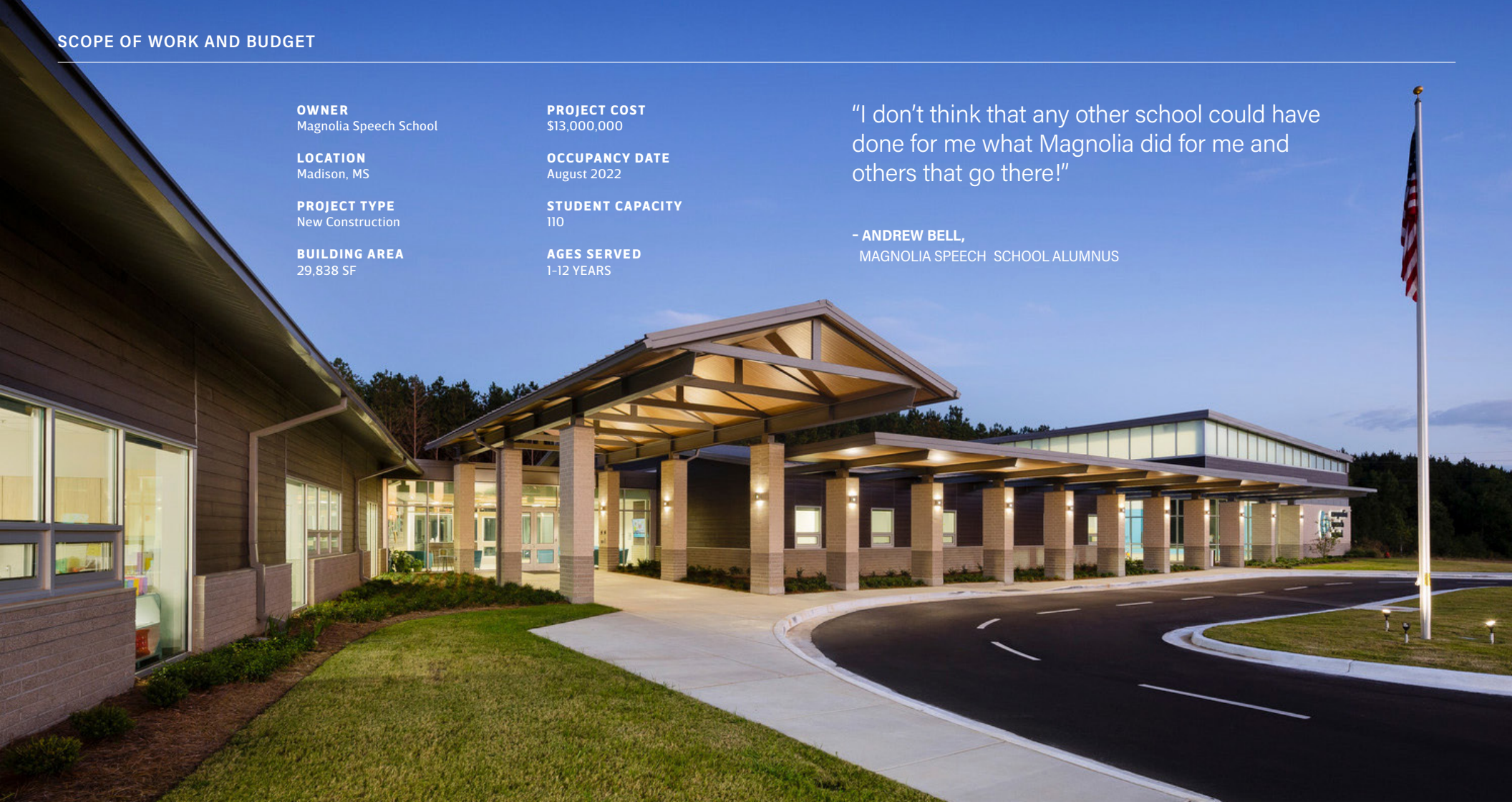
OCCUPANCY DATE
August 2022

STUDENT CAPACITY
110

AGES SERVED
1-12 YEARS

"I don't think that any other school could have done for me what Magnolia did for me and others that go there!"

- ANDREW BELL,
MAGNOLIA SPEECH SCHOOL ALUMNUS



Magnolia Speech School at a glance:



1956
Year Established



82
Counties Served



70
Students Served



76%
of students have communication disorders



24%
of students have hearing disorders



35
Staff
*More than 90% holding Masters degrees or higher



4
Programs Offered



6
Disorders Addressed

UNDERSTANDING THE COMMUNITY

Elizabeth "Libba" Matthews' world changed after the birth of her son, Keith. Recognizing his deafness, she sought answers for his education. Dissatisfied with the suggestion of sign language, Matthews desired an approach focused on listening and speaking. A doctor pointed her towards the Central Institute for the Deaf (CID) in St. Louis. This move proved pivotal. Not only did Keith thrive, but Matthews' dedication caught the staff's eye. Offered a work-study program, she immersed herself in the school's methods for teaching deaf children.

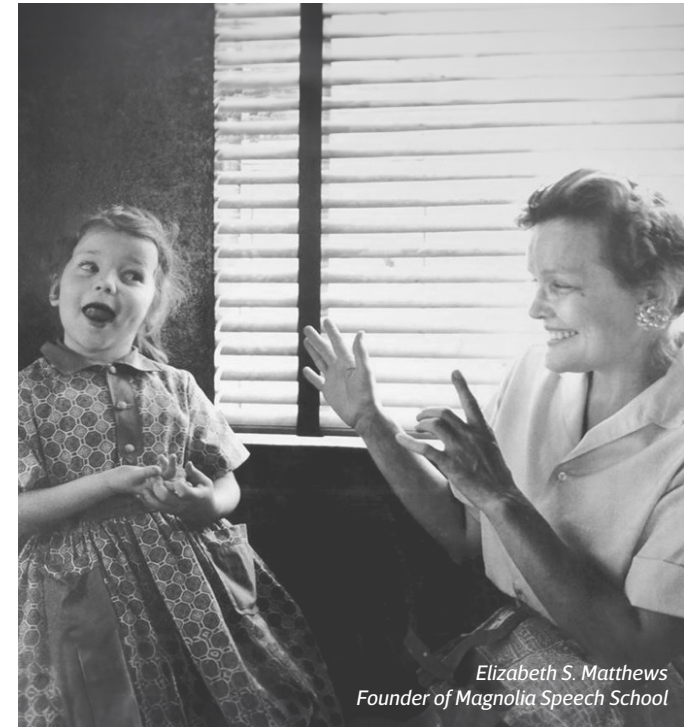
Returning to Jackson, Matthews' passion led her to found the Magnolia Speech School in 1956, starting with a single class of seven students in her own living room. The school's success necessitated constant expansion as it welcomed more children with diverse communication needs. The institution's building has been situated in a secluded area in Jackson since 1974. The 47-year-old building had undergone some changes over the years, but it soon fell behind in adequately serving students with frequent maintenance needs, inefficient heating and cooling, and lagging technology.

Today, Magnolia caters to children from ages 1-12. From expressive language disorders to hearing loss, the school equips students with the tools to transition to mainstream education. Every child is seen as unique, with an average enrollment lasting 2-5 years depending on their individual progress.

Visibility in the Community

Positioned near the interstate and on a busier thoroughfare, the new Madison location provides the school with greater visibility compared to its former, more secluded site in Jackson.

To ensure a convenient location for everyone, Magnolia considered a survey of its students' residences and staff commutes. While most students hail from the metro Jackson area, the school also recognized and responded to a trend of families relocating to the Madison area specifically to enroll their children.



*Elizabeth S. Matthews
Founder of Magnolia Speech School*

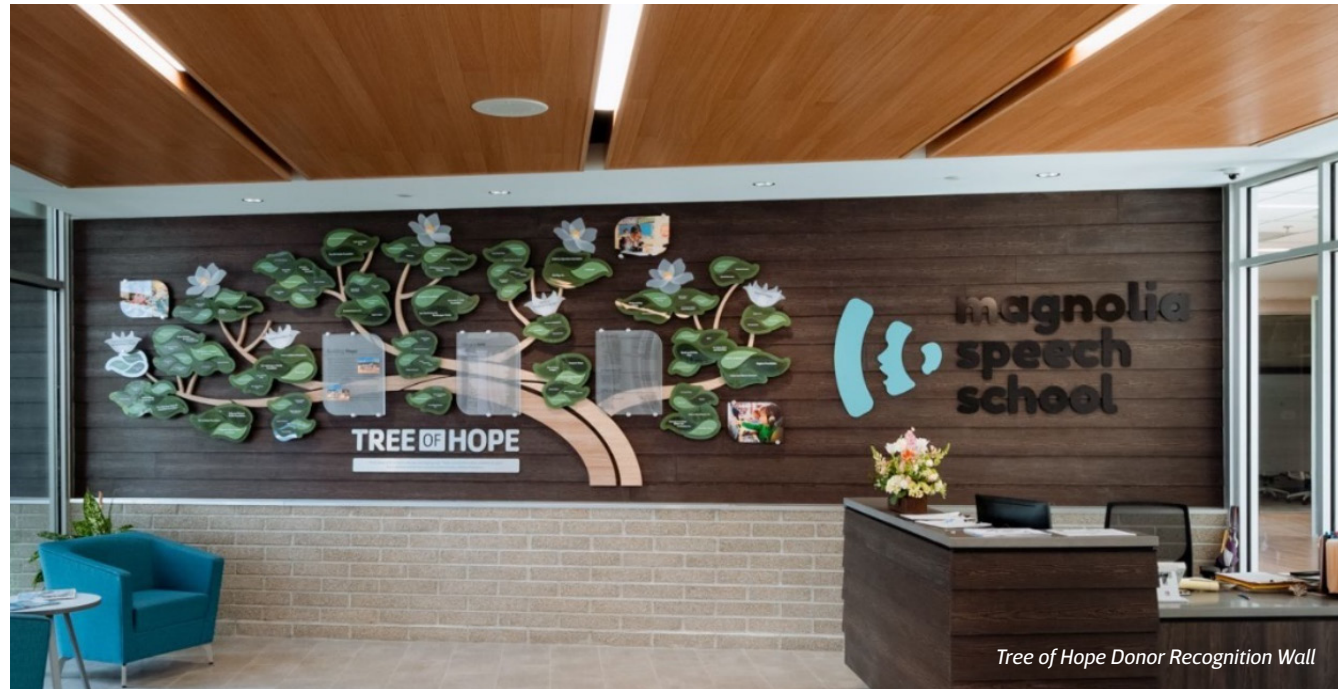


"We are thrilled to establish the new school in Madison. This location makes us more accessible to families and makes our work more visible in the community. The new school allows us to offer updated resources and technology to students and families who need our specialized and unique instruction.

- VALERIE LINN // EXECUTIVE DIRECTOR

BUILDING HOPE

Magnolia Speech School secured funding for their new facility through a capital campaign called "Building Hope." Launched in 2018, the campaign garnered community support through donations and pledges. This public fundraising initiative, alongside the Children's Promise Act, allowed them to raise over \$12 million by 2023. These funds covered the construction and furnishing of the new 30,000 square foot state-of-the-art school. Visualizations and renderings were created by the project team to generate excitement and to capture donors' imaginations and inspire their contributions. These assets showcased the school's functionality, beauty, and positive impact on students. Donors to the capital campaign later received recognition on the "Tree of Hope" donor wall in the new school lobby, designed to resemble a Southern Magnolia tree, reinforcing the school's brand.



Tree of Hope Donor Recognition Wall



View the video fly-through of the project, created to support the school's capital campaign.



Groundbreaking

CHALLENGES



Neurologically Diverse Student Needs

Magnolia is not a typical school—or even a typical deaf school. The former building lacked any semblance of flow or logical clarity, fighting all manners of progress at every turn. Hosting a student population with such a wide range of neurological disorders required meaningful design and structure that could positively impact each child. Rejuvenating the existing building would not suffice—it needed to be designed from scratch for the needs of this diverse student population.

Mixed Signals

A building can communicate successful cognitive signaling through varied sensory and pre-cognitive cues—using daylight, lighting, color, pattern, scale, acoustics—to help inform children (and adults!) what kind of behavior is expected of them in each space. The former school lacked these clear cognitive signals, amplifying anxiety and distraction when transitioning from space to space within the building.

The Human Geometries of Learning

Learning needs to happen everywhere at Magnolia because these students must not only overcome disabilities—they are also working to overcome and close the gap on delays in development. Tragically, the former school discouraged this type of more organic development and habitually overwhelmed students by forcing them into the outdated, one-size-fits-all model of conventional school programs. All spaces must provide a variety of geometries for students to make their own situational choices about learning and socializing.

OPPORTUNITIES



A Connection to the Outdoors

The extreme shift from a dense, urban site to a rural setting nestled next to a piney woods presented an opportunity to capitalize on the calming effect of nature to nurture mental well-being, maximize cognitive development, and positively impact learning outcomes. The library, designed to emulate the serenity of a treehouse, features panoramic windows that beckon the eye to the surrounding landscape and gracefully blur the line between indoor and outdoor learning.

Maximizing Predictability, Minimizing Stressors

The enemy of anxiety is predictability. If students understand what will happen next in transition, they can consider what behavior is expected in that situation, they can then begin to plan how to react and respond, removing—or at least minimizing—the often crippling barrier of anxiety. For example, being able to proactively visualize the transition from the classroom to the playground allows students to prepare themselves for that environment and determine where they would like to socially position themselves ahead of time.

Clarity in Transition

Transitional spaces were designed with equal care, featuring visual cues and connections to promote ease of movement and reduced congestion in high traffic areas. Features like flared corridors and strategically placed glazing enhance visibility and safety, facilitating a smoother flow throughout the day. Flooring transitions can signal to students that a change in skill or behavior is required, encouraging them to begin preparing for the next step in their day.

OPPORTUNITIES



Increased Visibility in the Community

Magnolia's relocation renders the building more accessible to its families and affords more opportunities to promote their mission, work, and services within the local community. The facilities allow the school to extend their impact and cater updated information, resources, and technology to both students and the general public who rely on their unique specialties.

Design that Supports Learning + Socializing *Everywhere!*

Design that encourages the right tone of social behavior—the way students interact with their peers and teachers—requires intentionality and extra care. This is especially true of active, collaborative learning spaces. The design team took care to seamlessly weave communal spaces into the deepest fabric of the design to facilitate and enhance social interactions, encourage relationship-building, and foster a sense of community. It is specifically important to offer this student

population choice between various levels of social risk within these spaces; their appetite is apt to vary from space to space, day to day, hour to hour, and minute to minute. Whether it be a welcoming common lounge area or an inviting "treehouse in the woods" library, each on-campus experience is meticulously crafted to promote social learning and experimentation, elevating Magnolia from a place for learning to a place for thriving.

LEARNING FOR ALL

Design for Equitable Communities

The design of Magnolia Speech School embodies a multifaceted commitment to equity with a widespread impact. By expanding services to reach more children with communicative disorders and sensory needs, the project allows the school to address both immediate and broader community needs. The addition of an outpatient clinic and multipurpose room serves not only students but also community members in the surrounding area, contributing to a more diverse, accessible, and just community.

By facilitating intentional collaboration amongst key stakeholders, teachers, therapists, and students with varied needs, the design embodies and promotes social equity and inclusivity. Specialized spaces such as the Art/Music room, Computer Room, and Library cater to diverse learning styles, breaking down common barriers to education and interaction.

Design for Well-being

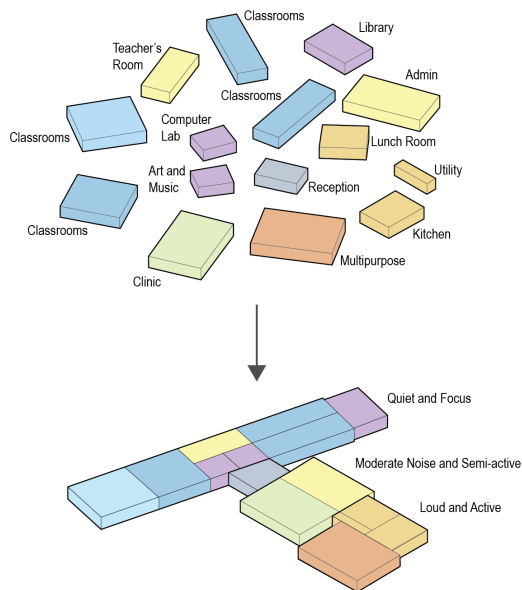
Sensitivity to well-being and an awareness of human ability is woven into the design of every space. The "treehouse in the woods" Library and the Multipurpose Room offer platforms for heightened interaction, fostering a sense of belonging and engagement among students, educators, and visitors. The outpatient clinic showcases a potential role in supporting community health during times of need, further enhancing the school's long-term resilience. The new Magnolia Speech School facilities not only enrich and encourage learning, they also reinforce a commitment to building an inclusive, connected, and resilient community.



PROGRAM AND PLAN

A thoughtful programming strategy organized the facility into three wings based on sensory activity—the Classroom Wing, the Clinic/Admin wing, and the Assembly Wing. This promotes more than wayfinding and security – it zones the building into “quiet” and “noisy” spaces that protect learning spaces from visual and auditory over-stimulation and afford students the opportunity to cut loose and act like kids when they are not tied to a classroom.

From the drop-off area to the classrooms, playground, and transition spaces, the design team envisioned every area within Magnolia Speech School as a potential learning environment. The language arts classrooms are bathed in natural light with carefully placed windows and recessed, indirect lighting to reduce shadowing and glare. Classrooms are separated by high performance acoustical wall assemblies to reduce sound transmission between learning spaces.



LEARNING ENVIRONMENTS

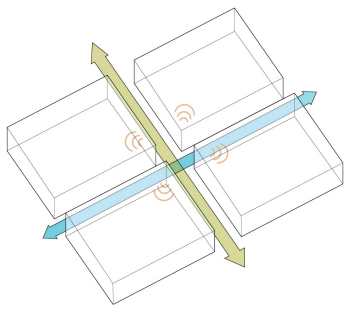


TRANSITIONS

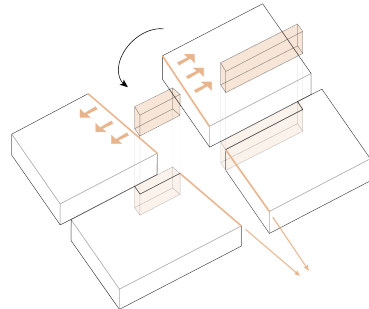
Childhood education presents a labyrinth of transitions - from space to space by hour and day, and from level to level as children grow. While change can be challenging for all children, these transitions can be particularly difficult for Magnolia's kids, given their wider range of sensory and neuro-developmental risk factors. Understanding how easily these

transitions can disrupt moods, lessons, and behavior, the design team took great care in crafting entries, corridors, and other connecting spaces to clarify movement, ease traffic flow, and inform behavior. Especially in high-traffic areas, this strategy helps reduce stress by promoting visual connectivity and supporting executive function. Features like flared

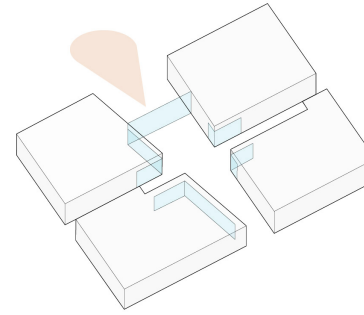
corridors, chamfered corners, and open glazing walls do more than eliminate blind corners - they promote a calming sense of predictability and foster community.



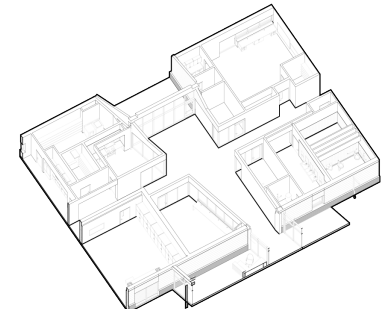
INTERSECT



WIDEN

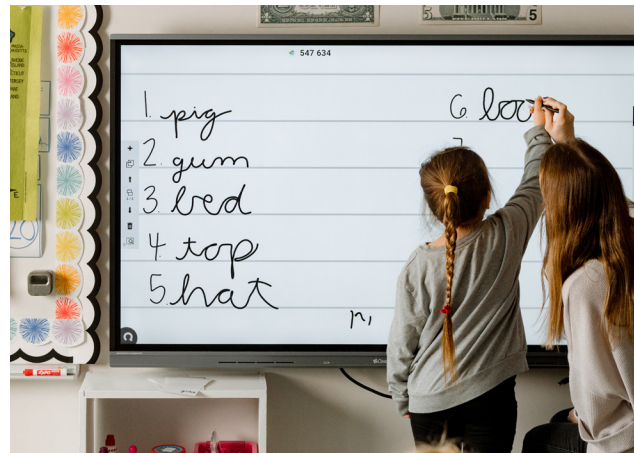
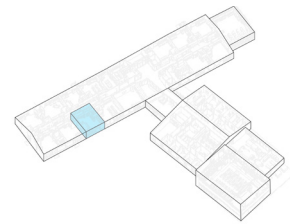
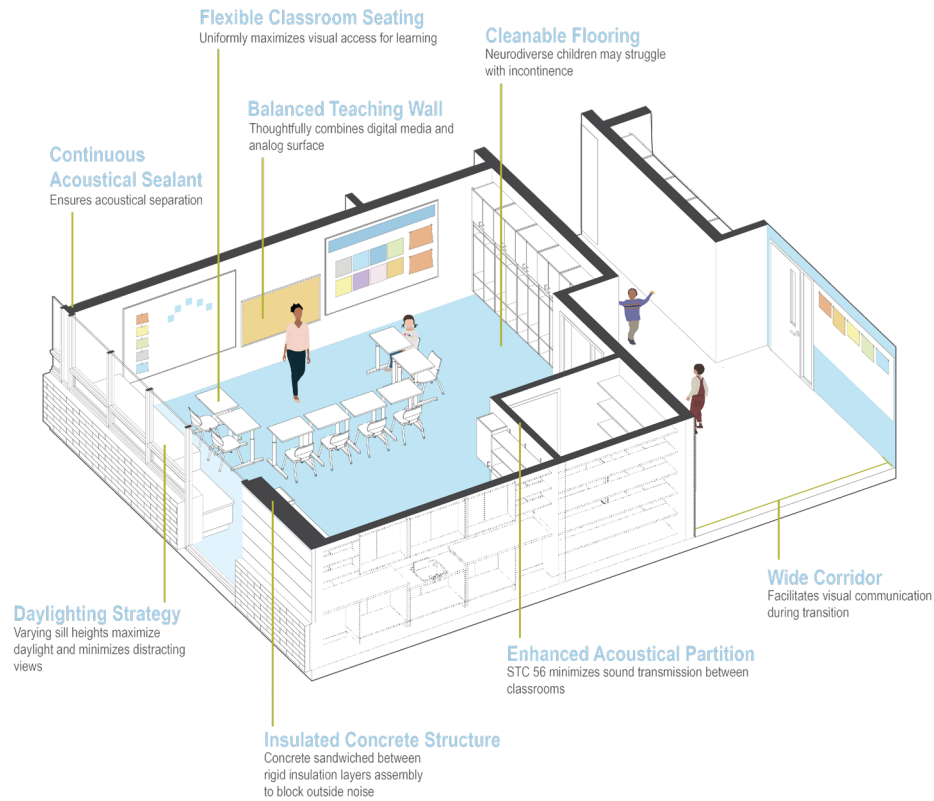


VISIBILITY



CLASSROOMS

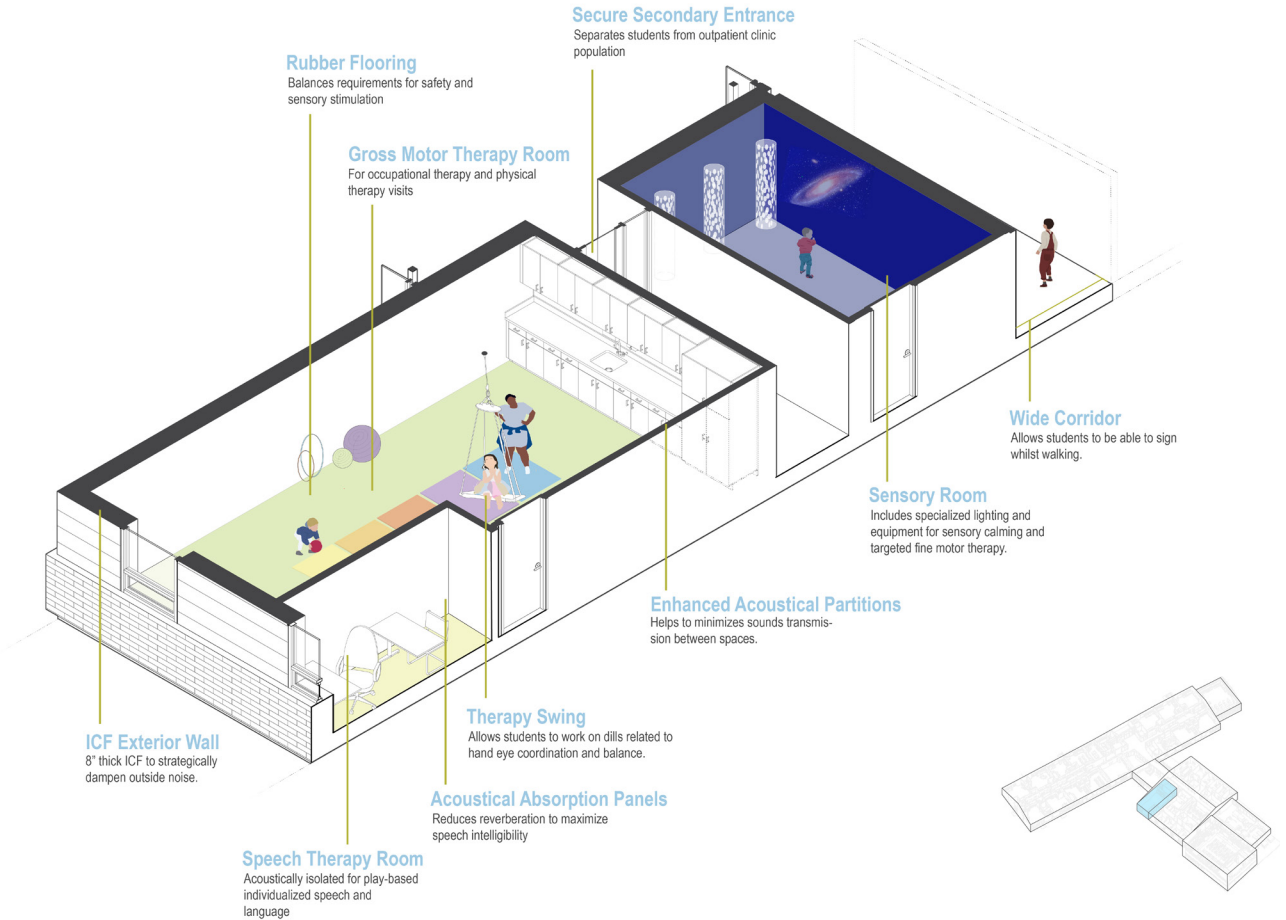
Classrooms are designed to balance children’s need for sensory stimulation with teachers’ desire for sensory focus. Generous, floor-to-ceiling windows with views to nature and adjoining play spaces were located at the back of each classroom, far from teaching surfaces, allowing ample daylight while minimizing visual distraction. Acoustical strategy in all learning spaces pursued a similar “signal to noise” approach to balancing sensory stimulation with auditory clarity required for language acquisition. Absorptive wall and ceiling surfaces were specified and configured to target Reverberation Time of .4 seconds or less. Partitions separating classrooms from one another and from circulation spaces were designed to exceed STC 50, and to help ensure background noise levels below NC 30. Mechanical systems were designed to optimize thermal comfort and controllability while locating plenum equipment as far as practical from teaching and learning spaces.



CLINIC

A well-integrated range of therapeutic disciplines forms an essential tool in helping Magnolia's kids pursue developmental and educational goals built into their individualized plans. The new building's clinic provides dedicated spaces for assessment and remediation of developmental delays from speech, hearing, occupational, and physical therapists, with offices, work and conference spaces organized to promote collaboration across disciplines. This team approach has been shown to improve outcomes, but also provides a more rational and predictable environment for children and their families to navigate, particularly during stressful first-time visits.

While the whole emphasizes connection, it is critical for the clinic's diverse components to be well separated - not just acoustically to provide accurate assessments, but visually to prevent distraction. Therapy sessions with toddlers can be especially noisy, as skilled clinicians routinely use animated reactions to reinforce correct responses and developmental breakthroughs. Providing the necessary acoustical separation required comprehensive design strategies not only in specifying and detailing wall and ceiling assemblies, but to eliminate flanking paths in mechanical systems.



LEARNING WITH NATURE

Designing for the physical environment

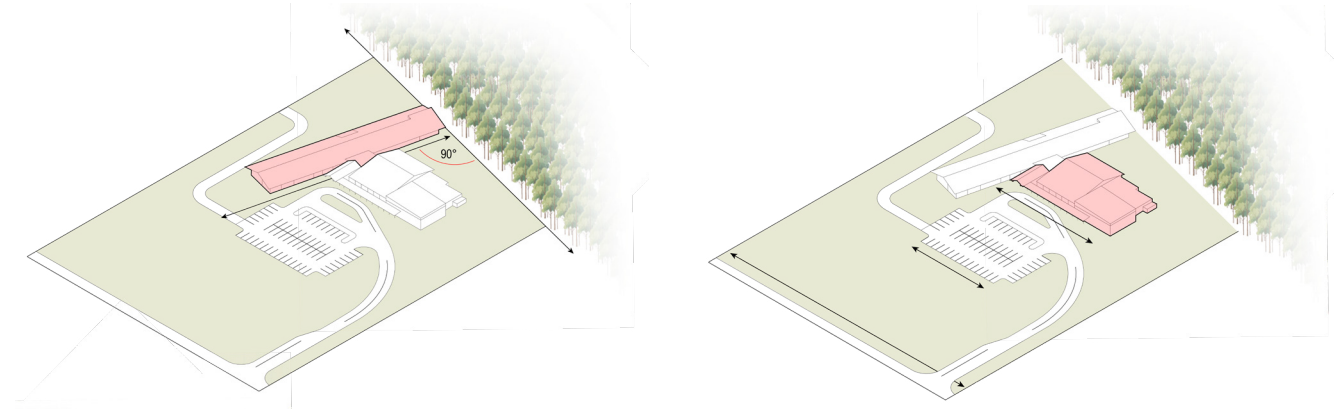
The school is strategically sited as far from the busy road as possible, maximizing acoustic separation and engaging the pine forest. The forest line and building perimeter create an outdoor play area, providing a safe and engaging experience for students. This proximity also offers a peaceful visual connection to the forest from the corridors, offices, cafeteria, and classrooms.

A feature library caps the end of Magnolia's classroom wing, puncturing the forest edge of mature pines. The effect is a glass room that emulates a mystical clearing in the trees – a real-life storybook setting. The design features an overhead arrangement of blue and white acoustical clouds, with carpet patterns that evoke mossy paths between bookshelves.



SITE CONTEXT

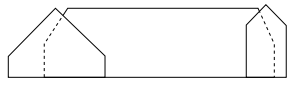
The project sits at the crossroads of rural and suburban environments, situated just north of Jackson, MS, along Bozeman Road, a busy artery connected to Interstate 55. Here, the landscape unfolds in a blend of sprawling crop fields, orderly pine logging forests, and single-story residences set on generous plots, interspersed with clusters of churches. Magnolia Speech School nestles within one of these clusters, encircled by churches and a backing up to a pine forest, where trees stand in precise linear rows. The building massing and material palette of cement fiber board, masonry, wood and metal harmonizes with the surrounding churches and residences by incorporating their familiar traditional forms and materials. These elements are reinterpreted and rearranged creating a modern environment suitable for a state-of-the-art clinic and teaching program. This approach ensures the school remains both approachable and familiar, blending seamlessly with its context while meeting contemporary needs.



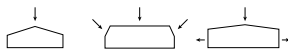
EXISTING HOLY TRINITY ANGLICAN CHURCH



THREE FORMS



RE-ARRANGE



SCALE TO PROGRAM



WELLNESS

At Magnolia Speech School, the concept of wellness takes on a unique significance. Here, the founding principles of the school's mission extend far beyond mere physical and environmental considerations of wellness. Magnolia embraces a holistic understanding of wellness that encompasses the many needs of neurodiverse students within an inclusive space.

Neurodivergent disorders, prevalent across the student body, are not bounded by race, economic status, or geography. In this learning environment, each student navigates their own unique set of challenges and relationships with hearing and speech, presenting a distinct set of design challenges that go beyond those often encountered in typical educational settings.

To meet these challenges, the architectural design employs informative design strategies aimed at creating an environment that not only accommodates but enhances the holistic wellness of its students. By anticipating and addressing potential limiting factors inherent in traditional learning environments, the school ensures its spaces are truly assistive in nature.

This assistance extends beyond the academic realm to encompass physical and occupational therapy, as well as specialized clinician spaces. Such programming is integral to meeting the diverse learning needs of Magnolia students.

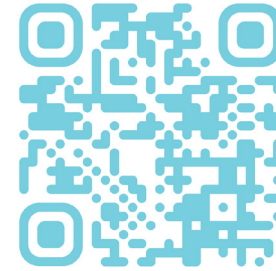
The architecture of the school plays a crucial role in supporting students' well-being. Design elements such as varying ceiling heights, ample corridor widths, natural lighting, and open-corner intersections are carefully considered to provide subconscious visual and social cues that aid students in navigating different language learning activities. By fostering an environment of predictability, the school cultivates an atmosphere conducive to focused learning across academic, social, and neurological domains.

Many students who enter the Magnolia community have previously faced adversity in traditional learning environments. Rebuilding their confidence and redefining their relationship with school and learning is, therefore, paramount to their success both within the school and as they eventually transition back into mainstream educational settings. Through its holistic approach to wellness and education, Magnolia not only supports and empowers its students to overcome challenges but equips them with the tools they need to thrive in all aspects of life.

From students and teachers to families and the broader community, the Magnolia experience was crafted to exude supportive assurance from the often-stressful initial visit with an embracing, natural warmth that never goes away.

WHAT DOES HOPE SOUND LIKE?

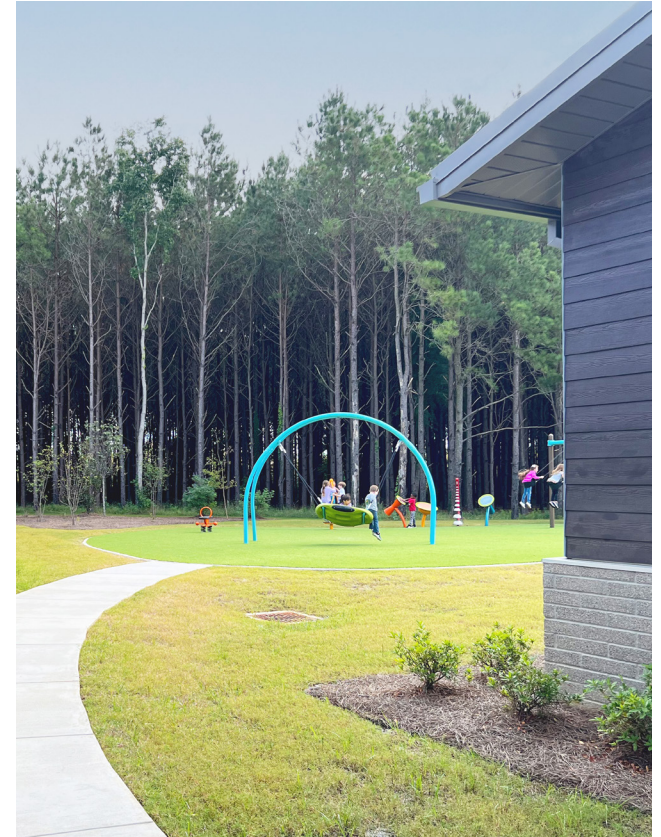
Despite an apraxia of speech diagnosis, Jane Helen is becoming a great conversationalist! Listen to her practice Association Method drills – a specialized teaching method used in speech therapy.



OUTDOOR LEARNING



Interspersing visual and physical connections to the surrounding landscape throughout the building promotes health and resilience as a priority within the Magnolia community. Incorporating principles of biophilic design, forest integration, and outdoor learning spaces nurture mental well-being and cognitive development. The forest and nature trail have become an essential part of the school's curriculum.



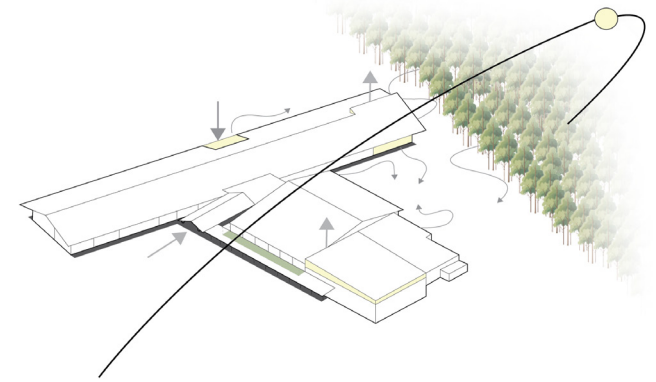
SUSTAINABILITY

Magnolia Speech School features design elements positioned to enhance human, environmental, and economic sustainability.

Human sustainability considers the inhabitants of the building – in this case, students with communicative disorders and sensory needs as well as their specialized support staff. Highly efficient mechanical systems provide excellent indoor air quality and help students maintain focus by reducing background noise that grossly interferes with teaching and learning. Recessed LED lighting with ample horizontal distribution disperses light on the student and teachers faces to ensure highly specific teaching methods are utilized. Language arts classrooms are surrounded by enhanced acoustical partitions with an STC of 56 to reduce sound transmission between spaces. Continuous acoustical sealant around partition at the floors and ceilings seal any tiny gaps where sound could travel. By sculpting the building to maximize natural daylight and northern light, the design creates a balanced, glare-free environment. This is crucial since sight plays such an important role for this student population.

Environmental sustainability strategies include the use of highly efficient LED lighting throughout the building and site along with native plantings around the school that are also safe around children. The efficient exterior envelope is constructed of insulated concrete form (ICF) walls which provide an R-Value of greater than 24, well above the required minimum, while also providing superior acoustical separation from outdoor noise. Substantial roof overhangs on the classroom wings, sizeable roof canopies in front of primary entries, and strategically placed fritted glass (glass embedded with a pattern to diffuse light) help reduce solar heat gain to the interior.

Economic sustainability goals supported preferred design decisions to utilize massive ICF walls and a standing seam metal roof for durability in response to severe weather that frequently impacts this area. This serendipitous benefit will support Magnolia in reducing longterm maintenance, thus reducing operating costs.



A meandering path through the pine forest extends learning spaces beyond the building footprint and provides an opportune and accessible environment to immerse students in the calmness of nature on a daily basis.



Site-responsive overhangs provide sun protection along the classroom wing and generous entry canopies double as sun shading elements for the clinic and Multipurpose Room during the harshest afternoon exposures.



Insulated concrete walls enhance the efficiency of the exterior envelope, while a durable selection of exterior materials prioritizes resilience in severe weather conditions.

WHERE HOPE SPEAKS

Achieving Educational Goals

Magnolia Speech School exists to identify and address developmental needs that prevent neuro-diverse children from reaching their fullest potential. The school's teachers and clinicians work together to address their students' complex needs by implementing targeted, individualized plans around language arts and wider developmental goals. Inspired by their coordinated rigor, the design team worked throughout all phases to conceive and then deliver an equally well-coordinated building, composed of highly-purposed and well-appointed spaces for learning and play. Consistent with its high purpose, the new facility aims to be far more than merely effective. This is a nurturing place where lives are transformed and futures enabled.

There is a specific set of criteria that Magnolia requires before a child graduates, one being that the child is reading with age-appropriate fluency and comprehension. Nestled into the mysterious embrace of Mississippi pine barren, Magnolia's new library is more than a place where kids learn to read. It's where they come to love story. The new Magnolia Speech School is more than a transition school, more than a place to "close the gap" for children and their families. Equipped with this new facility, Magnolia's dedicated staff finally has a nurturing environment and specialized tools worthy of their exceptional mission and skills.



Achieving School District Goals

Magnolia Speech School is a non-profit, non-public, special-purpose school and is not affiliated with any specific school district. However, they are accredited by the Mississippi Department of Education, so they must comply with certain educational requirements. All of our students have a Service Plan (directly patterned after an IEP) that requires students meet specific educational objectives and goals. Magnolia also conducts annual assessments to measure the progress of the students. The project provides an exceptional setting for the students to listen and to learn. The design of smaller classrooms allows for more intensive and therapeutic instruction.

Achieving Community Goals

After families watch their children achieve educational goals at Magnolia, they return to their local communities as contributing members. Through the use of cochlear implants, Magnolia teaches deaf children to listen and speak. This allows

deaf children the freedom to pursue any profession or vocation in a listening and speaking world. Magnolia is the only school of its kind in Mississippi and throughout the southeast providing these specialized services and education. Families move from other states to afford their children this method of learning. Magnolia also helps others from near and far recognize early signs of disorders that impact speech, language, and hearing by hosting free speech, language, hearing, & dyslexia screenings for the public. No matter where the families come from, whether it be nearby or thousands of miles away, these students return to their communities with the skills they need to succeed in life.

Achieving Financial Goals

As a non-public, non-profit, special-purpose school, Magnolia relied on donations through a highly successful "Building Hope" capital campaign and foundations to help build the school. An exceptional school had to be delivered on a

limited budget with a specific timeline (as soon as possible!). Additionally, Magnolia began fundraising during the COVID-19 pandemic. There were special considerations made for ordering materials during the supply chain constraints. As with all schools, but particularly with their non-profit, highly specialized school, it was required that the building be efficient in all areas to control operational costs, which was achieved.

Unintended Results

There were several unintended positive results, including in recruiting staff as the new school has helped attract higher educated and more qualified staff. Other outcomes include an increase in donations, community support and volunteer activities. Magnolia is now seen as a model by other special-purpose schools as the school is regularly contacted for tours and design information.





"Our daughter was diagnosed with apraxia of speech, a condition that makes it difficult to speak. Luckily ***we found a school built just for children like her*** — Magnolia Speech School. The specialized classroom instruction and speech therapy services she receives have helped her become a confident, happy girl as well as a great conversationalist!"

- SCOTT & MAGGIE JONES,
MAGNOLIA SPEECH SCHOOL PARENTS



"Our son's frustration with being unable to speak is long forgotten. He is making friends, telling jokes, expressing his feelings, and most importantly, being a talkative little boy."

- MAGNOLIA SPEECH SCHOOL PARENT



"Every night before our son goes to sleep, we say we love him and he says "I love you Mom and Dad." We waited so long to hear those words."

- MAGNOLIA SPEECH SCHOOL PARENTS



**magnolia
speech
school**

"Magnolia Speech School gave our child a future. I look at my son now and he is flourishing. We believe in Magnolia because they create miracles."

- LYDIA AND ERIC BALFOUR,
MAGNOLIA SPEECH SCHOOL PARENTS