Norman-Sims Elementary School

Austin Independent School District

EXECUTIVE SUMMARY

Welcome to G.W. Norman and Mary Jane Sims Elementary School in East Austin, Texas. Wendy Mills, proud Principal of Norman-Sims, originally declared that, in order to appropriately serve the needs of her students, "you have to love our kids and you have to know and love their families." Principal Mills understood that community voice, ownership, and participation would be key to the success of this project, not only for the community, but for the Austin School District as well.

Two schools were asked to share one vision and one campus—\$25 million dollars was dedicated to modernizing the 1960s campus that would serve pre-K to 5th grade. The modernized school celebrates this local community and allows students to experience the best in 21st century learning in a space that was customized and designed for them.

With the modernization, the new campus provides 20,000 square feet of new addition and 50,000 square feet of existing, renovated learning space, while providing a complete 70,000 square feet of learning studios, collaboration, and maker spaces. Over nine acres of outdoor learning space was developed and programmed to create a campus that reflected the resilience of the surrounding community and their hopes for this future generation.

SCHOOL + COMMUNITY ENGAGEMENT

COMMUNITY CONTEXT

Located in the heart of East Austin in a historically African American community, the Austin Independent School District was slated to close one of two schools—Norman Elementary School or Sims Elementary School. The neighborhood was facing all of the familiar issues and traumas of urban school districts in Texas and in many of our cities. In this case, the city was growing rapidly, the original community was being relocated due to gentrification, and charter schools began aggressive expansion—all leading to a decline in school population redistribution in school funding and the district's desire to close low enrollment schools. In a grassroots swell, the members of this community, old and new, fought for their neighborhood school to secure their rights to public education and their place in the city's culture and history.

At the turn of the last century, Mary Jane Sims and Granville Webster Norman were two African American educators that were pioneers in the state of Texas. It was important that their legacies became a part of the community fabric.

IDENTIFYING STAKEHOLDERS

Instead of closing one of the two schools, the district decided to merge the two schools into one. As the two schools were joined, the Norman School Principal brought together a team of advisors, teachers and administration from the two schools, parents, and local business community members, as well as community members that volunteered and had long time commitments to the school. Also part of weekly community visioning meetings were district representatives, from curriculum, and health and wellness.

Another important group of stakeholders were the students, and visioning sessions were completed with 4th and 5th graders who were wonderful representatives for the needs of their fellow students as well as for their teachers.

PROJECT CHALLENGES

Merging two schools into one—Norman Elementary was selected as the school for modernization due to its structural framework. Norman was comprised of concrete and steel construction. Sims Elementary was primarily wood, and the original structure was set at ceiling heights that were so much lower than the datums of today. The school shares ten acres of property with a City of Austin park—typical with public schools in Austin—construction was limited to the current building property lines. The original campus, built in the 1960s with its signature octagon, would have represented its own paradigm shift in education. With additions in the 1980s and 2000s, the existing campus did not meet any of the district's current requirements and education goals.

The existing conditions of the low slung, one-story building would have required a complete overhaul to bring the school up to the current education standards, and attract new students. The existing campus was only being used in parts and though well maintained each portion still very much looked and felt like the era within it was built. The front façade was unassuming, The entry and hallways were dated with the original old wood paneling, concrete block, folding partitions and old VCT floors. Classrooms had low ceilings and old light fixtures and very little natural daylight, and shared spaces like the cafetorium held little inspiration or ceremony for the young users.

The district knew that it had to rebuild trust with the community and the community wanted to be sure that their voices were being heard and the unique needs of their community were being met.

SCOPE OF WORK + BUDGET

Owner: Austin Independent School District Site Area: 10 acres Building Area: 74,059 square feet Construction Cost: \$22,721,785 Cost per Square Foot: \$307 / sf Square Feet per Pupil: 142 square feet Student Capacity: 522 students Occupancy Date: January 4, 2021 Grades Housed: Pre-K - 5



SCHOOL + COMMUNITY ENGAGEMENT



TEXAS STATE CAPITOL

AFRICAN AMERICAN HISTORY MEMORIAL

MORIAL SIMS ELEMENTARY

NORMAN ELEMENTARY

NORMAN-SIMS ELEMENTARY



So, how do we create the best learning environments?

How do we recognize and celebrate cultural identity and community?

Build self-esteem and belief?

How do we create a school that is by and for this East Austin community?

AVAILABLE ASSETS

The 10-acre site assigns 25% to the building, leaving 75% of the site to park area. This large land area means that the campus has a great microclimate with access to the prevailing winds from the southeast. Also existing were large heritage trees that were preserved. Trees to the west and south created shaded areas on campus, that enhanced outdoor learning areas.





Granville Webster Norman (1863–1938)

Through the decades, Granville Webster Norman instructed students at Manchaca Elementary, Wheatville School, and Gregory Town School (renamed for Edwin A. Blackshear in 1936). He taught in Austin ISD's segregated schools from 1896 to 1928. The end of his teaching career was spend at the original L.C. Anderson High School. Norman Elementary School was renamed for him when it was built in 1969.

VALUE OF PROCESS AND PROJECT TO COMMUNITY AT LARGE

The Norman-Sims Elementary School project was successful due to our collaborative approach with the students and staff and actively listening to their wants and needs. A series of interactive games and exercises takes us through the programming, conceptual, and schematic design phases of the project-these games are our toolkit from which we create. Our goal was to create a platform to allow communities to advocate for themselves to have their voices heard, to speak clearly not only about what they need, but also what they aspire to. We recognized that this process of design and construction as well as the shifts in pedagogy are unfamiliar for these communities. We also recognized that we had to appropriately educate and provide the tools and experiences that will help these communities access and create the types of spaces that they deserve.

The process itself must be equally engaging for the end users and the architects alike. Our goal is to gather stories, ask questions in different ways, retrieve unique aspects and desires, visions, and dreams around a community, help them articulate these goals, see themselves and their ideas represented, and allow them to participate actively and contribute meaningfully to the creative process. These games are designed to invoke the guiding principles of the district and, thereby, helping create and model the experiences, behaviors, and outcomes that we hope to achieve in these new learning environments.

For this process, the district and the school's visionary Principal, Wendy Mills, built a Community Advisory Team (CAT) that was truly representative of the community teachers, administrators, staff, parents from both schools, community volunteers, business owners, and district representatives were all involved in the creative process.

PLAY THEORY

Play Theory, our first game, is a word and image association game which asks participants to put aside the traditional complaints associated with existing campus—things like storage—and imagine the ideal campus. We ask them to think outside the box using non-traditional modifiers and descriptors to create personalized visions. Participants select cards that describe their vision, write that expression on a notecard, then share those individual visions with each other. Then, continuing to model the guiding principles from the district (the 6 Cs), they are asked to share a collective vision for their group by picking four cards with at least one word card and scribing that shared vision. Watching these exercises unfold is amazing to witness—it can truly be poetry in motion.





IMAGE EXTRAVAGANZA

The purpose of this exercise was to gauge reactions of participants by introducing them to a series of diverse images. Each participant was told to comment on what they liked and disliked on any of the images they chose to do so. A yellow Post-It represented a like, while red Post-Its represented a dislike. Participants could comment on the entire photo, or on specific elements that they were drawn to. There were over 120 images of classrooms, learning spaces, campuses, outdoors areas, and more. In summary:

- Participants appreciated images of modular furniture that allowed for quick and flexible transitions in the classroom setup.
- Participants, for the most part, were not concerned about the exterior of the building as they were more concerned with the individual interior spaces.
- A majority of participants were drawn to images that showed open seating spaces in walls that allowed a small private space for children to go during quiet activities.
- During the discussion, many participants liked the idea of unique hallway features that were fun and engaging for the children in their transitions i.e. a low-angled rock wall.
- Emphasis was placed on creating indoor and outdoor spaces and experiences that allowed nature to be a part of the design.

PRIORITIES

Where our previous games were more "big sky," this games takes the community back down to Earth and confronts them with the reality of managing expectations and working within a budget. Stickers are given to the Community Advisory Team (CAT) and they are asked to identify what elements are most important to them. We broke the elements out into three categories: indoor spaces, outdoor spaces, and the type of educational experience. For Norman-Sims, technology was one of the greatest needs as it is essential to the learning environment. Concept ideas that were the most important to this community and popular across the board included the importance of health and wellbeing, studentcentered learning, and parent integration.



GE EXTRAVAGANZA

a proiect likes and dislikes

WHAT'S ON MY SITE?

What's on My Site made people think through various solutions for their favorite street side pet peeves, such as carpool and bus drop-off. Everyone was tasked with thinking even more outside the box about the outdoor learning experience, helping to express a more integrated learning solution that moved seamlessly from inside to out.

WHO ARE THE PEOPLE IN YOUR NEIGHBORHOOD?

This exercise laid bare some of the more contextual issues—who are the people in your neighborhood? How do they contribute and how do you want them to contribute? How does that change over time? It was because of this exercise that we really understood the vulnerabilities of the student population, the needs of the community, and the realities of the impending future.

A DAY IN THE LIFE

"A Day in the Life" got the CAT members to talk about the flow of a traditional work day and to imagine the future and what an ideal flow of the day for a teacher, a student, or a parent would look like. Here, you see one teacher describing a fifth grade experience and going from math class problem solving concepts to the maker space to build the solution, or having a grandparent join them for lunch in the courtyard, or from the Principal taking advantage of new technology to sign students in effectively in the morning (no need for roll call), and being able to put that time back into the learning of the school day.

WHAT'S IN MY STUDIO?

The final game is specifically for our teachers. "What's in my Studio?" is truly that game that helps the teacher model her 21st century learning environment, creating the experience and modeling the behaviors that they might expect for their students and themselves. This exercise helps to show the role that furniture can play, but also to explore the changing classroom experience. Teachers were able to create learning environments that allowed students a variety of positions, captured the ideas around peer-to-peer and small group learning, provided quiet zones in classrooms, and fostered independence in teachers and students alike by moving out into the hallways and collaboration zones as well as outside on the Discovery Porch.

grows "A place that blooms to its full potential." -Renee like "Learning in small groups and put all the individual pieces together to form a bigger learn nicture Understand what the mural is about." -Kay "A place where children can hear listens teachers, as well as each other and not be like disturbed." -Elizabeth "Technology allowing children to be transform successful in the future." -Rick heals "Home is where we heal." -Aleza like "The ability to transition between subjects & flows activities without having to adjust my room. like Time is precious. -Timesha "Looking for an innovative school that will innovate focus on STEAM academic programs." -Yolanda soft "Open, Communal, Minimalistic, Flexible." -Wendy like smells "Make a statement & use every sense to learn." like -Sharenda "Much time is spent in school and educators need spaces to be a peace so nurtures that they can continue to do the best for like their students." -Betty

> "Understanding the ways in which we do things in order to understand culture, community, & tradition." -Shechem

discover

works

like

"Encouraging klds to have the mind set to enjoy their work & see the beauty within it." -Jennifer **4** secure, safe and transparent space where children learn not only through sechnology, but from collaboration as well.



⁴⁴ Innovative, flexibl spaces where children can explore and think socially, emotionally, and academically. **?**







SCHOOL + COMMUNITY ENGAGEMENT

KIDS WORKSHOP

That brings us to the kids themselves, our most important users. We were able to play some of the same games with them, and their knowledge and creativity was exactly what we needed. They know how they learn and what they like, they understand that their classmates come with different needs, they love their teachers and recognize what they need to be successful as well, and understand that the needs for them and their teachers are not just physical and functional, but mindful and spiritual as well.

At the end of the day, we gather all information, collect these stories of our shared discoveries and opinions, and begin documenting these experiences. This accountability is not just for the users, but for the architects as well. With this information, we have a way to ensure that we are following through on our visions and our decisions, but it is also the foundation of the story that will be shared through the process and revealed in the product, and be part of the post-occupancy.





EDUCATIONAL ENVIRONMENT

critical thinking collaboration creativity communication connection cultural proficiency

EDUCATIONAL VISION AND GOALS OF THE SCHOOL

The 6 Cs of 21st-Century Learning (Collaboration, Communication, Connection, Cultural Proficiency, Creativity, and Critical Thinking) are the guiding principles on which the Austin ISD district has developed a strategy for the transformation of the delivery of education and the total experience in their schools.

The Norman-Sims Campus Advisory Team (CAT) built upon those ideas with concepts around STEAM, (Science, Technology, Engineering, Arts, and Math) as well as health and wellbeing, social and emotional and student-centered learning, parent and community integration, interaction, and investment.

In a neighborhood with declining enrollment and active competition with charter schools, the design of the modernized Norman-Sims Elementary School showcases and celebrates the transformation of the educational environment and the commitment of the district to provide the best for all of its students. With the desire that the dated façade must be upgraded to improve curb appeal and that the new building should put STEAM on display, the CAT set the foundation in place as a catalyst for design.





DESCRIBE & ILLUSTRATE HOW THE ENVIRONMENT SUPPORTS THE CURRICULUM

How does the concept of STEAM translate to early childhood and elementary learning? For Norman-Sims, that translation is realized through the idea that the **joy of learning comes through discovery and play**. The idea that learning can happen anywhere allows the opportunity for collaboration and independent work to occur seamlessly between indoors and outdoors, between studios and hallways.

It was important to the community that the new building create a front door and give the neighborhood a sense that there was a real commitment to its new future. Principal Wendy Mills felt that the building should showcase STEM and STEAM in ways that are interactive, playful, and fun. The idea that collaboration around the 6 Cs and a space where all the energy of the school could be showcased came together in the concept of a Discovery Pavilion, a Discovery Porch, and a playground connecting the interior and exterior spaces.

Organizational studies would lead to the demolition of the oldest part of the building, which was not being used. The most logical solution was replacing the building with a two-story addition, allowing for an additional 16,913 square feet of space to be added to the campus, while the remaining north and south wings would be completely gutted.







DESCRIBE & ILLUSTRATE HOW THE ENVIRONMENT SUPPORTS THE CURRICULUM

Norman-Sims teachers shared their ideas about how students learned at the different grade levels which was translated into the way the spaces were designed and the student experience in the different neighborhoods. It also translated into the wayfinding graphics at the entry to each neighborhood. Working with the teachers helped generate a pedagogical diagram that inspired the learning neighborhood design. The relationship of the student to the tree and how it evolved at each age was linked to what students were learning at each phase. Early childhood at the ground level, discovering shapes and patterns, learning about "I and me." 1st and 2nd grades looking through the leaves and branches of the tree, learning to read and write, learning from each other, and the concept of "you and me." The 3rd through 5th grades are now looking over the canopy and learning more conceptual and abstract ideas with the more global focus of "us and we."

The first floor plan on the following page shows the learning neighborhoods with early childhood and SPED to the south and 1st and 2nd grade to the east with shared spaces in orange including the art room, music room, maker space, media center / library, and fitness on the ground floor as well as administration distributed throughout the neighborhoods. The 3rd, 4th, and 5th grade learning neighborhood on the second floor is accessed by the Discovery Stair. A second maker space for older grades also lives here.

Taking a closer look at the learning neighborhoods, the renovated early childhood wing features a swelling and sway of the traditional corridor to create the collaboration spaces, while shared restrooms connect the learning studios small and large group study rooms allow for tutoring and specialized instruction. In the 1st and 2nd grade, the collaboration area is more defined and central with all the studios and study rooms opening into the space and garage doors also extend the collaboration area into adjacent studios. Moveable partitions connect studios together to allow for co-teaching, while quiet spaces are defined in each classroom through the use of furniture and the incorporation of acoustical wall panels.

The second floor allows for visual access up and down the dynamic double height space of the Discovery Pavilion, and again group rooms, distributed collaboration spaces, shared restrooms and moveable partitions are featured in this space as well.

Not to be forgotten materiality and color were also played an important role in defining the learning environment with the principal and the community members preferring natural and neutral colors and tones and materials.



light through the branches looking up shadows on floor vertical experience of sun





under the shade looking through foliage contained in the branches horizontal experience of sun





nested volume higher experience of the sun





Α	entry
в	movable partition
С	collaboration
D	security

security



Α entry в movable partition С collaboration D

security

 \bigcirc SECOND FLOOR PLAN

DESCRIBE & ILLUSTRATE HOW THE ENVIRONMENT SUPPORTS THE CURRICULUM

The idea that learning can happen anywhere allows for the opportunity for collaboration and independent work to occur seamlessly between indoors and outdoors, between studios and hallways.

The insertion is that the Discovery Pavilion becomes the engine of invention and innovation of the newly modernized school. The two-story building is a new addition that is anchored at the north and south by learning neighborhoods in existing renovated spaces, with the third learning neighborhood on the second floor of the Discovery Pavilion. The ground floor houses a maker space, media center, art room, and music room. A community space is accessible off the main entry and opens up into the shared collaboration space of the Discovery Pavilion. The main servery and kitchen also opens up into the shared collaboration space while the fitness space and elementary-sized gym opens onto the Discovery Pavilion as well as to the Discovery Porch.



The Pavilion opens up to the second floor, allowing connectivity between the learning neighborhood and the main collaboration space. The Discovery Pavilion also connects directly and visually with the Discovery Porch. A double height window runs the length of the Pavilion and allows view to the outdoor learning environment, the Discovery Porch, Discovery Playground, and beyond. The Discovery Porch provides much needed shading for the east facing exposure of the Discovery Pavilion and is an integrated solution for shaded outdoor learning, dining, and play as it expands the spaces of the cafeteria and gym to the outdoors. The outdoor learning area includes traditional play areas for early childhood and elementary play.

A unique aspect of the outdoor learning solution for Norman-Sims is the learning trail. The learning trail features several learning stations that offer students the opportunity to explore as a group or on their own and to be active or passive in their play. An activity lawn that can also be used as a playfield creates the outer edge of the learning trail. A dry creek bio-swale along with rain water collection tanks allow for additional learning opportunities as sustainable design is actively integrated and is a very important aspect of needing to drain the site. The overall organization of the site allows for maximum supervision and views of students while allowing them the independence to explore and play on their own.

DESCRIBE & ILLUSTRATE HOW THE ENVIRONMENT IS ADAPTABLE AND FLEXIBLE

The Discovery Pavilion for dispersed dining has yielded one of the most adaptable and flexible new features—the entire school is able to eat lunch in a shorter amount of time, down from 2 hours to 1 hour and 15 minutes. The design of the space allows for easy, passive supervision by teachers and the added value of siblings being able to eat with each other.

The Discovery Stair is a dynamic element that connects the ground floor of the Discovery Pavilion to the second floor learning neighborhood. An equally dynamic form, a sculpted floor terrain, creates a unique social stair at the base of the main stair. Using a clearwood finish that ties together exhibit type elements in the space, this sculpted wood terrain goes from being a performance, collaboration, or resting area in the Discovery Pavilion to a story nook and bookshelf in the library media space.

The Discovery Porch works in tandem with the playground. Rather than have a separate outdoor covered basketball court, the Porch provides that area and provides much needed shade for both the building and players. The Porch increases its value by being used for multiple events and activities. It can support all school events like Art Day allowing younger and older students to come together to create something fun.

The double-sided stage sits between fitness and preschool dining. Through the use of two sectional doors, the stage can be opened to either space, or completely opened to allow natural daylight and views across the thickest part of the building.

Quiet spaces were incorporated into every classroom. 100 square feet of acoustical panel created a soft space for students, ensuring that every student had the opportunity to find the best environment for their learning.





neighborhood 2 / 1st, 2nd grades

neighborhood 3 / Discovery Pavilion / 3rd, 4th, 5th grades



welcome / entry





welcome / how we start the day



connection

library / media center / dynamic terrain / storybook holder



creativity

Discovery Pavilion / learning on display



Views to and from the maker space, study rooms, and collaboration areas allow for passive supervision but also encourages engagement across grade levels.

creativity

adaptability / dispersed dining / double-sided stage





to gymnasium

Two sectional doors allow the stage to be used from either the gymnasium space or the collaboration area. When both garage doors are open, this innovation allows for daylight and views across the widest part of the building.

creativity

neighborhood 3 / collaboration



5th grade collaboration zone and maker space. Garage doors at learning studio and maker space allow for an active and connected space.

connection



Learning studios are paired. They each share a restroom and, through the use of a moveable, writeable partition, allow for co-teaching. All studios incorporate a quiet zone through the use of 100 sf of acoustical panels.

connection

neighborhood 2 / 1st + 2nd grade learning studios



Unique classroom shapes create diverse learning layouts. Punched openings are replaced with vertical storefront providing great connections to the outdoors.

connection

students





The 1980s wing featured tan, concrete block walls, postmodern detailing, and glass block clerestory. Glass block was replaced with vision glass and an additional skylight was added to optimize natural daylight into this collaboration space.

connection



DESCRIBE & ILLUSTRATE HOW THE PROJECT INSPIRES AND MOTIVATES

The history wall showcases trailblazers of past and present while providing a mirror to showcase the future. Two existing columns support the images of the namesakes of the school, the original trailblazers, educators Granville Norman and Mary Jane Sims. The wall graphic behind showcases a map of east Austin and acknowledges the site of Sims Elementary while images of diverse engineers and entrepreneurs celebrate the presence of minority faces in STEM.









EXPLORE: STAY TRUE, BE YOURSELF



INNOVATE: DREAM BIG, FLY HIGH



BUILDING GRAPHICS

The building graphics were important in communicating the message of STEAM on both the exterior and interior of the building. CREATE and DISCOVER signaled on arrival that "something was happening here." The three learning neighborhoods received their own murals, which reflected the learning concepts for each grade level, and incorporated social and emotional phrases to inspire and energize all learners. The history mural at the entry brought all the concepts together and created a sense of identity for the whole community.

RESULTS OF THE PROCESS + PROJECT

SUSTAINABLE DESIGN

Designed to achieve LEED Silver, Norman-Sims Elementary School is anticipated to use 15% less energy, 53% less irrigation, and 31% less indoor water than a typical school. It includes multiple sustainable design strategies that also serve as onsite environmental educational opportunities for students, such as rainwater collection cisterns, extensive native and adaptive plantings, and rain gardens. More than 38% of the site was either protected from construction activity in order to maintain the health of existing heritage trees and special-status vegetation, or it was populated with restorative landscaping that establishes habitat and requires less water and maintenance.

The new school's carbon footprint was significantly reduced by the restoration and reuse of significant portions of the existing 60-year-old campus and its previous school buildings on site. Daylighting and views into existing classroom wings was significantly improved by replacing and adding windows. The 2005 south classroom wing originally had large horizontal kalwall windows, with limited the view out. These windows were replaced with vision glass that optimized the views to the outdoor learning spaces. In the renovated north classroom wing, which was originally constructed in the 1980s, windows were added and punched openings replaced with floor to ceiling storefront.

An extensive site assessment was completed detailing the demographics and history of the surrounding community, as well as the site's climate, hydrology, vegetation, and soils. Computational Fluid Dynamic (CFD) software and various massing studies were utilized to ensure that the campus' outdoor spaces would be shaded and well ventilated. The building form at the second floor was designed to optimize inherent shading opportunities from the vegetation and the building itself. On the east at the second floor library, the window angles and settings in the wall, along with the roof extension and vertical fin, avoided the harshest light from entering into the library in the early morning. As a result, when the space is typically occupied it can be used without shading devices, and natural light can penetrate through the space.





RESULTS OF THE PROCESS + PROJECT

	Dissatisfied		tisfi	ec
Quality Views		4.	79	
Furniture		4.6	9	
Color Selection		4.39		
Cafeteria Space	3.81			
Outdoor Space		4.39		
Restroom	3.75			
Library	3.75			
Material & Finishes	3.61			
Cleanliness		4		
Average	4	.13		

Overall Satisfaction

Norman Sims Elementary Overall: 95% occupant satisfaction (85% extremely satisfied)

Effect of environmental conditions on reported occupant productivity (thermal, lighting, acoustics) 76% occupant satisfaction

POST OCCUPANCY SURVEY

A Post-Occupancy Survey (POE) online survey was completed after six months of occupancy to gather the reflections of 5th grade students and teachers about the new building compared to the old school. Survey questions sought responses on the sustainable aspects of the building, the general experiences in the space, how students were being taught in the school, and their opinion about the concept of STEAM learning that is one of the defining aspects of the school.

Response to the POE was, in general, very favorable, with above average ratings for most of the features. Natural daylight, views, building color, furniture, and outdoor spaces were called out as some of the more positive aspects of the school.



