Rodriguez Elementary School

San Marcos Consolidated Independent School District

2020 Submission - James D. MacConnell Award

"Rodriguez Elementary is a welcoming place for all learners."

Kash Greathouse, Principal

Contents

Executive Summary

Planning for Student Growth & Community Needs

Facing the enrollment challenges of a fast growth school district, the community engaged in bond planning workshops that included community leaders, local business owners, administrators, parents, teachers, and students. The stakeholders were clear that they wanted something new, they wanted a school that engaged the community and maximized learning for all. With an overwhelming 74% voter support for the bond, the project took shape rethinking planning around student centered learning and connections within a community hub.
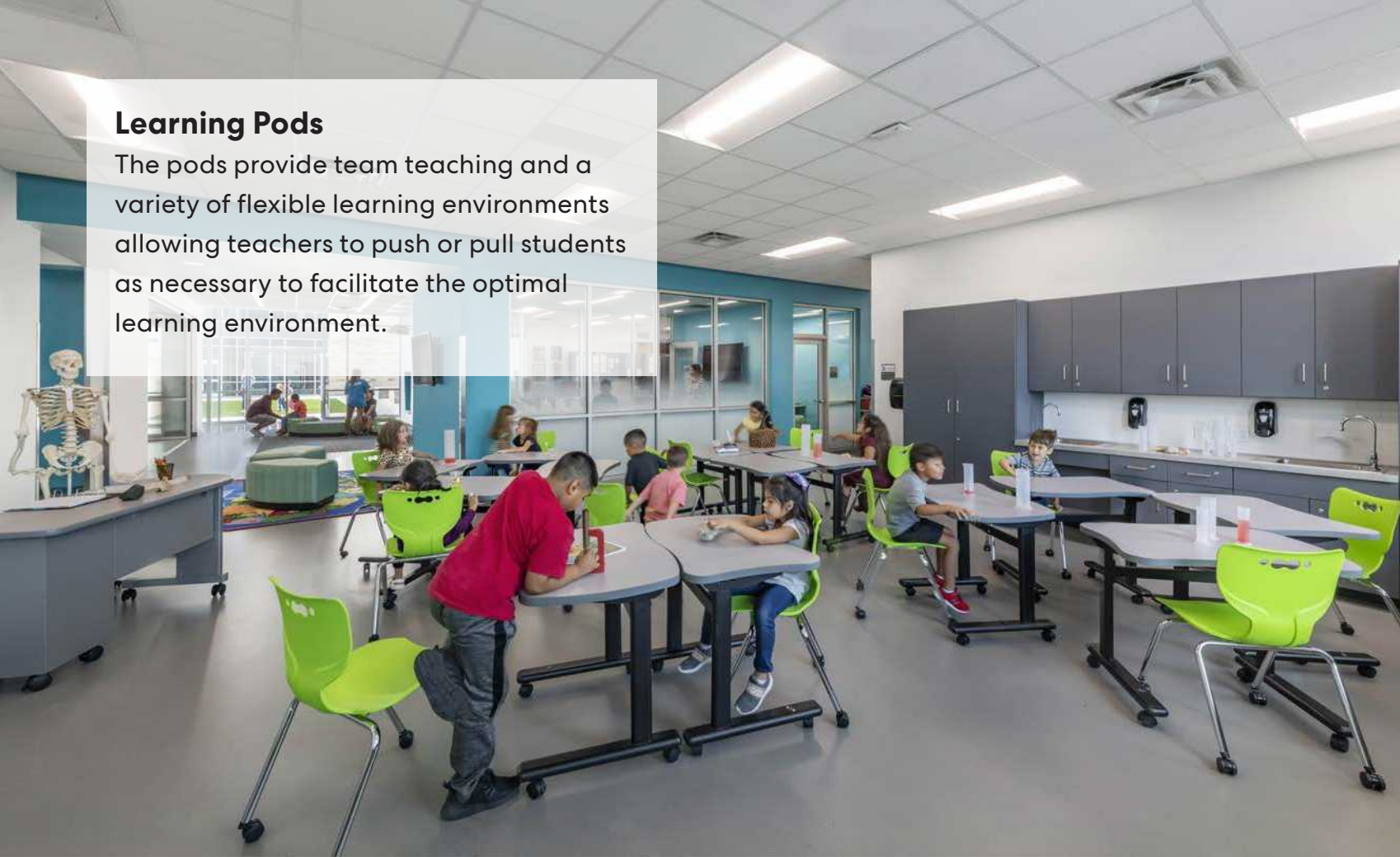
The design of Rodriguez Elementary School presents a custom solution to support the district's forward-thinking approach to providing innovative curricula of project-based learning. Collaborative learning pods serve as co-teaching spaces with small group breakout areas that connect to the classrooms and provide high acoustical environments to foster the sound recognition necessary for early development. These classroom learning pods and common spaces open to split-level outdoor courtyards that encourage both learning and play.

Learning Pods

The pods provide team teaching and a variety of flexible learning environments allowing teachers to push or pull students as necessary to facilitate the optimal learning environment.

Outdoor Learning
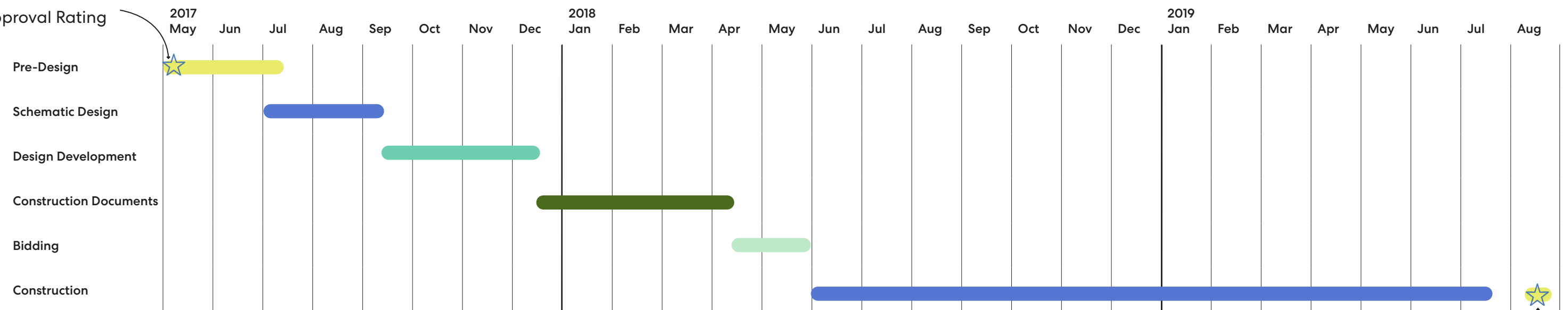
With transparent connections to each learning pod, outdoor learning areas provide daylight and secure access to outdoor activities. Art, Science and Robotics can extend out to the secured courtyard for use throughout the teaching day.

Site

The building responds to the site's 35-foot elevation change with a split-level media center that connects the upper and lower learning courtyards.

Bond Passes with 74%
Approval Rating

	2017 May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2018 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2019 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug

Pre-Design

Schematic Design

Design Development

Construction Documents

Bidding

Construction

First Day
of School

Client:
San Marcos Consolidated Independent School District

Location:
San Marcos, Texas

Completion Date: August 2019

Grades: K-5

Student Capacity: 650 students

Current Enrollment: 400 students

Building Area: 93,700 square feet

Site Area: 12.5 acres

Budget: $24,6000,000

Bid: $23,500,000

Final Cost: $23,500,000

Cost/Sqft: $250

Scope & Budget

School & Community Engagement

"What I've seen in the past is that libraries can become isolated and this is the community hub."
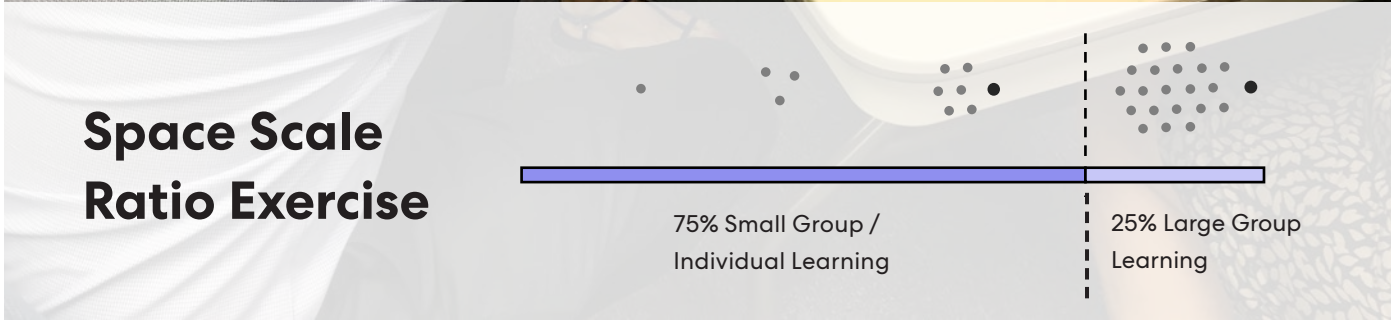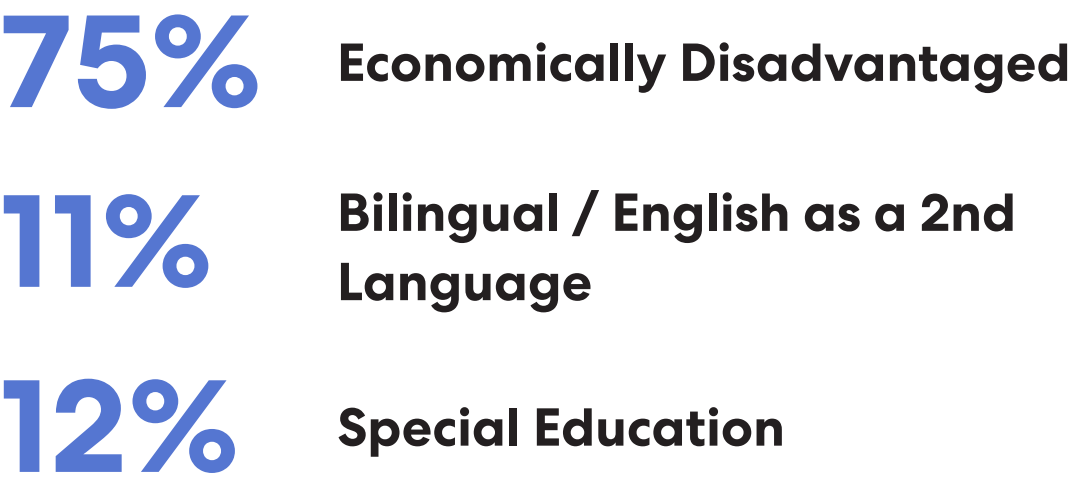
Michael Cardona, Superintendent

The Community

Visioning included the voice of the entire San Marcos Community, including students, parents, the developer, administration, and the highest performing teachers. The single focus - to connect planning and design to **proven learning strategies to overcome challenges and achieve student success.**

Space Scale Ratio Exercise

75% Small Group / Individual Learning

25% Large Group Learning

Demographic Challenges

75% **Economically Disadvantaged**

11% **Bilingual / English as a 2nd Language**

12% **Special Education**

Academic Priorities From Visioning

The conversation started with student needs, learning strategies, and academic drivers long before plans were drawn.

- Improve student literacy
- Retain teachers
- Encourage team teaching
- Social and emotional learning
- Project-based learning
- Small group interventions
- Individualized learning

Visioning and Engagement

During the first stakeholder visioning meeting, the participants selected the top three words from their perspective that should describe the future San Marcos Elementary School. To inspire thinking from multiple vantage points, the participants were then given a prompt to answer through the eyes of another community member such as taxpayers, children who may attend this school, bilingual students, children with special needs, etc. These were their responses:

|					
Individualized	Connected	Student centered	Bright	Technical	Comfortable
Collaborative	Authentic	Lecture based	Open pods	Innovative	Bold
High Tech	Supportive	Project based	Leadership	Clean	Global vision
Creative	Humble	Community center	Diverse	Interactive	Empowering
Accessible	Closed cells	Sustainable	Relationships	Connected	Impactful
Conservative	Rigorous	Partnerships	Transparent	Daylight	Nature
Inspiring	Decentralized	Welcoming	Connected	Familial	Modern
Engaging	Controlled	Efficient	Future focused	Flexible	Digital

Diagrams and adjacencies outlined creating student focused and supportive environments. →
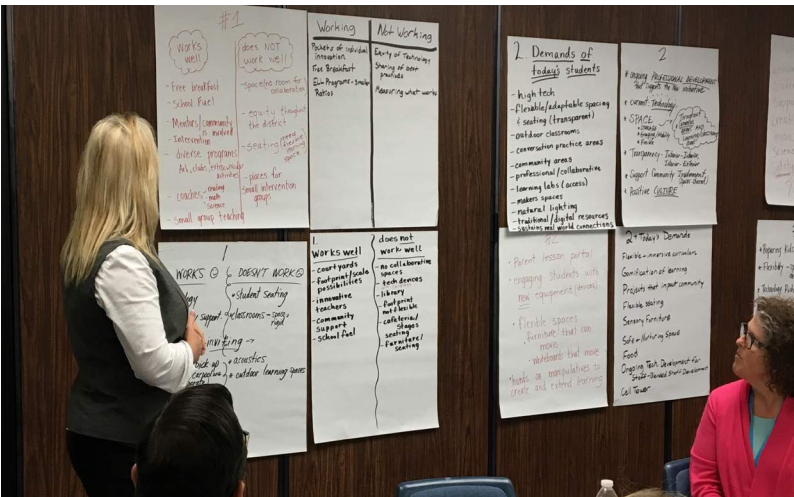
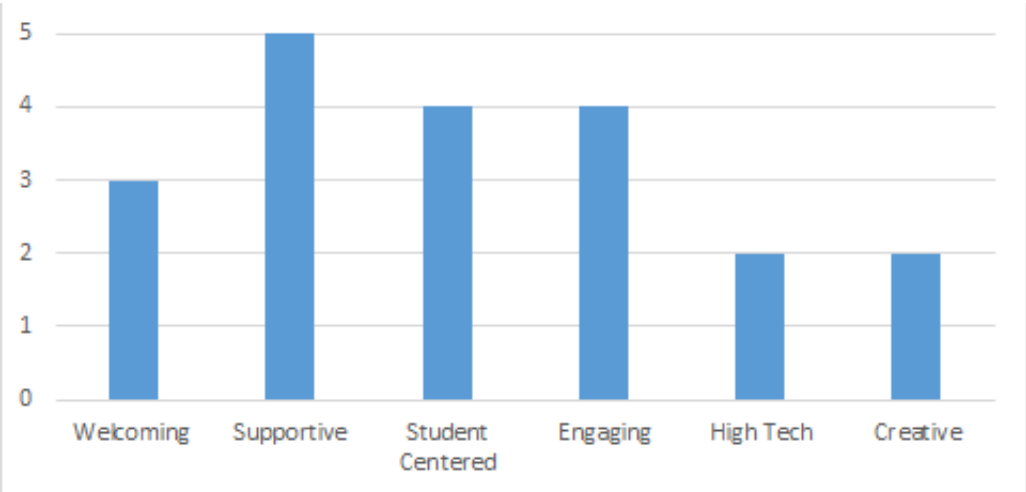# What will be the measure of success for the new elementary school?

Top Participant Words

1. Student centered
2. Engaging
3. Collaborative
4. Innovative
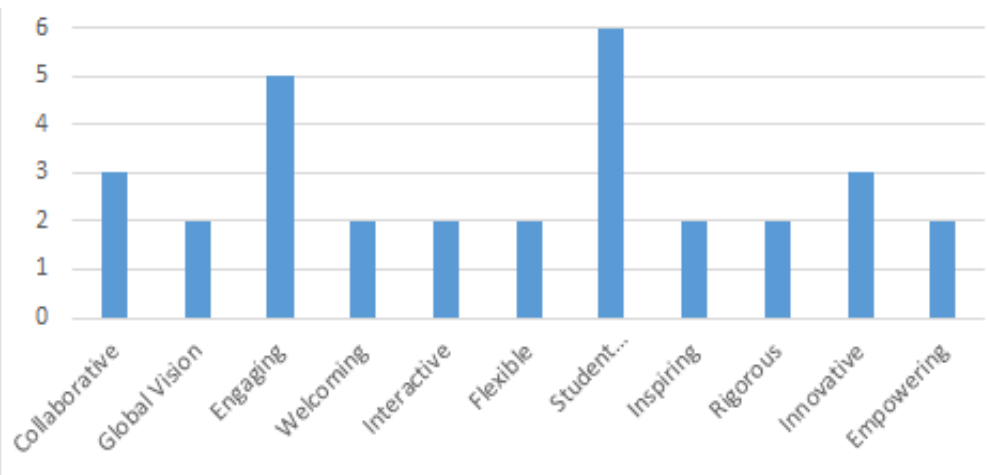
Top Words in Another Person's Shoes

1. Supportive
2. Student centered
3. Engaging
4. Welcoming

Creating Connections with All Communities

The design creates community connections by extending a welcoming front lawn for festivals and gatherings that can flow into the cafeteria and gym. Every public space is designed to flex and welcome community use. The Media Center and Maker Space host events, from large, small, and all-school gatherings and have the flexibility to meet all of the community's needs.

↓ The front lawn bridges the school to the community center, expanding the spaces available for public events.

↑ A community gathering hosted by Superintendent Michael Cardona in the Media Center.

↑ The Rodriguez family, the namesake of the school, leads local movements on improvements for the community.

↑ A local professional organization hosting a monthly meeting in the Maker Space.

Educational Environment

"Literacy is key to everything in any elementary school, or middle school and high school."

Michael Cardona, Superintendent

Dreaming of improving literacy for every child.

Educational Vision and Goals of the School

Vision

As one of the fastest growing communities in the U.S., San Marcos CISD leadership envisioned a new elementary school that would elevate the quality of education in the district, while providing a community hub and event space for the new development.

The District envisioned students in project-based learning environments with state-of-the-art technology. The school was to be innovative, supportive, sophisticated, and engaging.

Goals

- Build a community hub
- Alleviate overcrowding
- Provide flexible learning spaces to accommodate new and future teaching models
- Improve literacy rate
- Focus on student success

How the Educational Environment Supports the Curriculum

To create the student-focused learning environment, the design team worked closely with the district to outline the needs of the students and how our spaces can meet them:

Social, Emotional, and Physical Needs	Learning Spaces and Experience
Build Self Esteem	Performance and Display
Relationship Building	Small Learning Communities
Manage Emotions / Behaviors	Spaces to De-escalate
Build Cooperative Skills	Group Project Areas
Create Healthy Habits	Dining and Wellness Spaces
Concur Fear of New Environments	Safety and Security
Develop a Love of Learning	Stay Active and Engaged

How the Educational Environment Supports the Curriculum

Small Learning Communities

Collaborative learning pods establish small learning communities and serve as co-teaching spaces with smaller breakout areas that connect to the classrooms. The pods provide team teaching and a variety of learning environments, allowing teachers to push or pull students as necessary to facilitate the optimal learning environment for each child's needs.

Group Project Areas

Breakout areas can be found in a variety of forms easily supervised within each learning pod. Around the perimeter of the pods, spaces with mobile furniture can be rearranged as group sizes vary. At the center, transparent yet quieter rooms can be found for smaller-sized groups that need more focus.

Places to De-escalate

To support the emotional learning of students, small child-sized spaces to allow them to refocus their thoughts or meet one-on-one with a teacher or counselor. These spaces include reading nooks, writing booths built into the ends of central pod corridor, and the small group rooms in the center of the pods.

"There are little pods that you can read in, and there's a white board wall around it that you can write on."

Lydia Olavarrieta, 1st grader
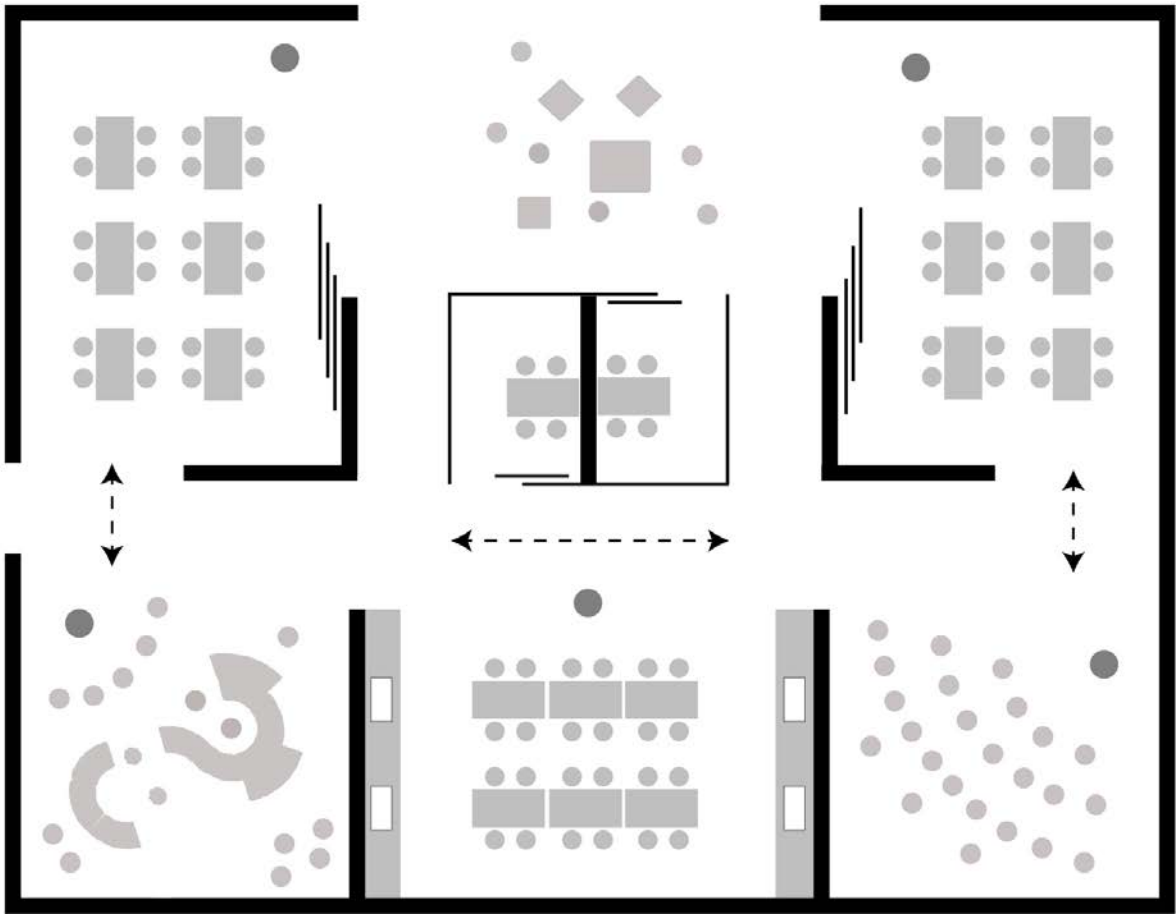
Upper Floor Plan

1   **Administration**

2   **Gym**

3   **Cafeteria**

4   **Media Center**

5   **Learning Pod**

6   **Teacher Planning Room**

7   **Special Education**

8   **Robotics Lab**

9   **Science / Art Classrooms**

A   **Science / Art Courtyard**

B   **Amphitheater**

C   **Culinary Courtyard**

NORTH

Lower Floor Plan

1 **Administration**

2 **Gym**

3 **Cafeteria**

4 **Media Center**

5 **Learning Pod**

6 **Teacher Planning Room**

7 **Special Education**

8 **Robotics Lab**

9 **Science / Art Classrooms**

A **Science / Art Courtyard**

B **Amphitheater**

C **Culinary Courtyard**

NORTH
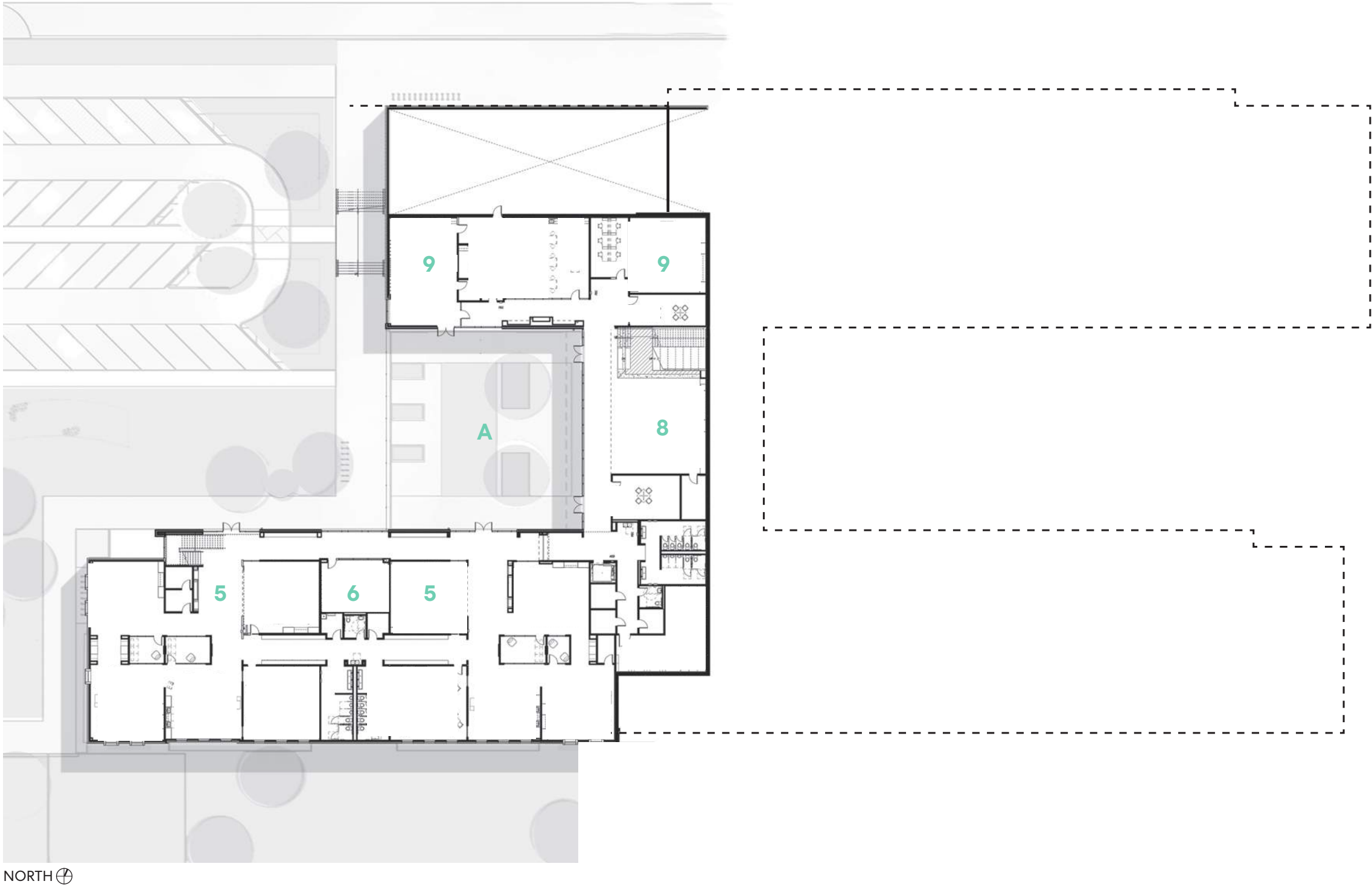
Adaptable and Flexible

Performance and Display

Performance, presentation, and display happen at several scales across the building. Each learning pod has a small presentation area near the small group zone and a large presentation area at the pod entry that spills into a classroom for grade level demonstrations. In addition, the media center and maker lab have even larger areas to present knowledge.

Stay Active and Engaged

To expand the flexibility of the learning pod space, each wing is directly connected to outdoor learning spaces. These spaces include an amphitheater for performance, a rain collection cistern for sustainability lessons, and a community garden for biology.

Dining and Wellness Spaces

The cafeteria and gym are connected to the upper courtyard creating a zone focused on wellness. The upper courtyard provides a tiered learning area with a sensory and community garden. The lower courtyard allows teachers to utilize the space for science and robotics curriculum and art classes.

Security

The school is arranged into public, media, and private zones safely containing public engagement into the front portions of the school. Security features include a secured vestibule, transparency throughout learning pods and shared spaces, fences around exterior spaces, and ample exterior lighting.

Flexible Spaces

Each learning pod is home to six varieties of learning spaces, giving teachers the ability to meet students' learning needs individually. The gym, cafeteria, media center, and maker space are designed to host everything from individual and group projects to community events.

Maker Space to Media Center

The maker space and media center are the most versatile spaces in the school. Creating connections with all communities, the Media Center hosts events, from large to small. They also host student performances, art displays, and robotics competitions.

"The two courtyards are just not meant to move people around or through, it's actually a place that learning could take place and learning does take place outside of the classroom."
Principal Kash Greathouse

Physical Environment

"The thing that makes Rodriguez special, in regards to any school I've been a part of or seen, is the environment that was thoughtfully planned from conception to creation. It is built for movement, to give students space, to give teachers and families space to learn."

Principal Kash Greathouse

Density

Rodriguez Elementary School is envisioned as a community hub for a new suburban development designed for density. A large portion of the development is dedicated to multifamily housing and homes with little to no green space. The school was designed to be the extended front yard of the community center – a place for festivals, gatherings and celebrations.

NORTH

1	**Elementary School**
2	**Community Park**
3	**Single Family Homes**
4	**Multifamily Housing**
5	**Commercial Development**
6	**Access to IH-35**

Site Analysis

The school is strategically located on an elevated plot of land in order to have a strong physical presence in the community. The 12-acre site slopes from northeast to the southwest with a 35-foot natural change in elevation providing expansive views to the west and creating high visibility from the Interstate.
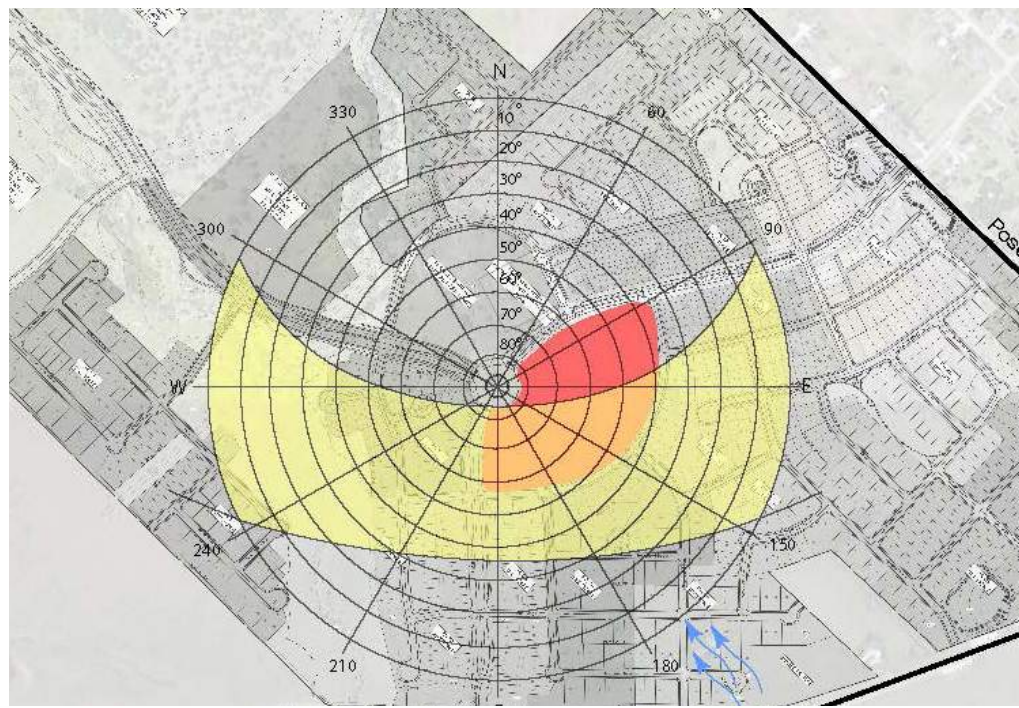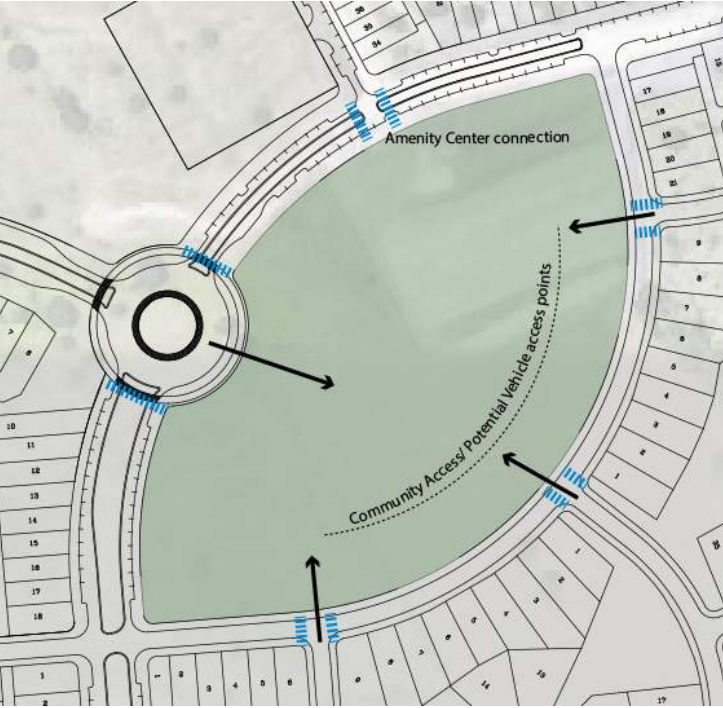

hydrology

views in

site slope

solar orientation

views out

existing pedestrian and vehicular access

Site Plan

The 93,700 square-foot school is positioned to cascade down the site by embracing the natural slope through embedding the building bars into the grade. The media center not only acts as a connector to the public and academic wings, but also connects the upper and lower educational courtyards via an internal learning stair.

1   **Public Lawn**

2   **Public Wing**

3   **Media Center Connector**

4   **Academic Wing**

5   **Play Fields**

6   **Upper Courtyard**

7   **Lower Courtyard**

NORTH

Site Adaptation

The elementary school's three-bar design embraces the elevation change by nesting into the ground plane. By deconstructing the interior bar, the split-level courtyards create secure zones for outdoor learning. Corridors with ample glazing wrap the courtyards to create a strong connection with nature and maximize the use of natural daylight. Grade level classrooms are clustered around shared spaces to promote team teaching and allow for scalable learning environments.
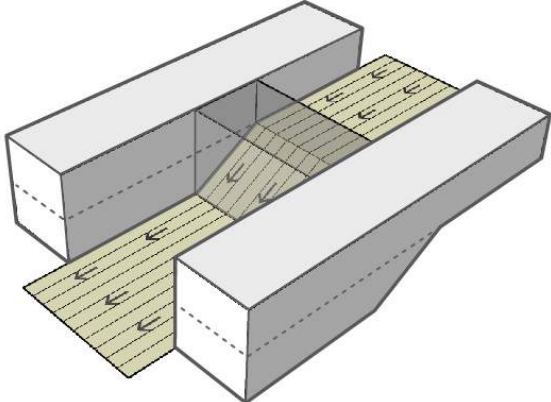
To incorporate functional circulation paths for students and visitors along the unusual topography, the design team placed the school's main entrance on the second floor, situating the youngest students' classrooms at the top, with upper grades on the lower level, along with the science and art classrooms.
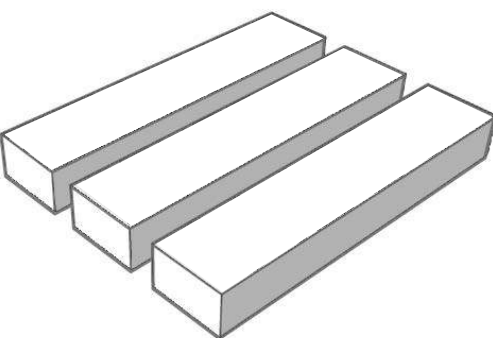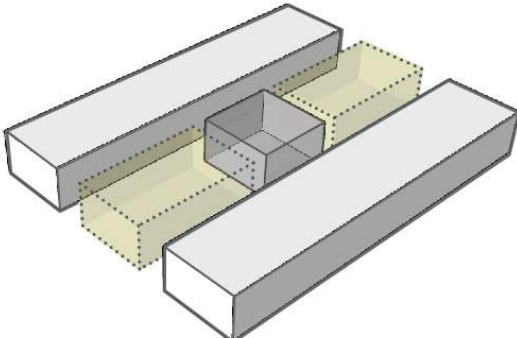
| Program | Courtyards | Site slope | Circulation |
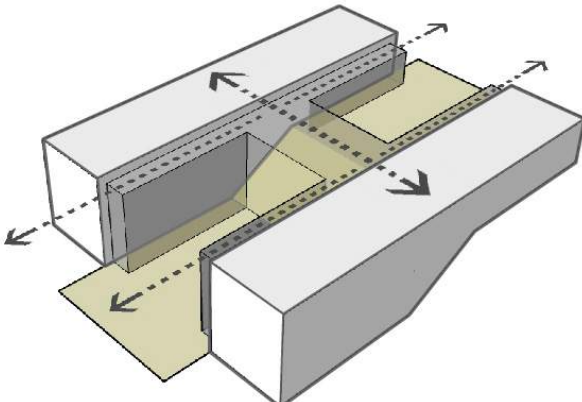
A dual-level library and media center functions as the heart of the facility and connects the two educational courtyards with a monumental staircase that allows students to flow freely from one section of the building to the next. The upper courtyard provides a tiered outdoor learning area and sensory garden, while the lower courtyard is an extension of the Science, Robotics, and Art classes.
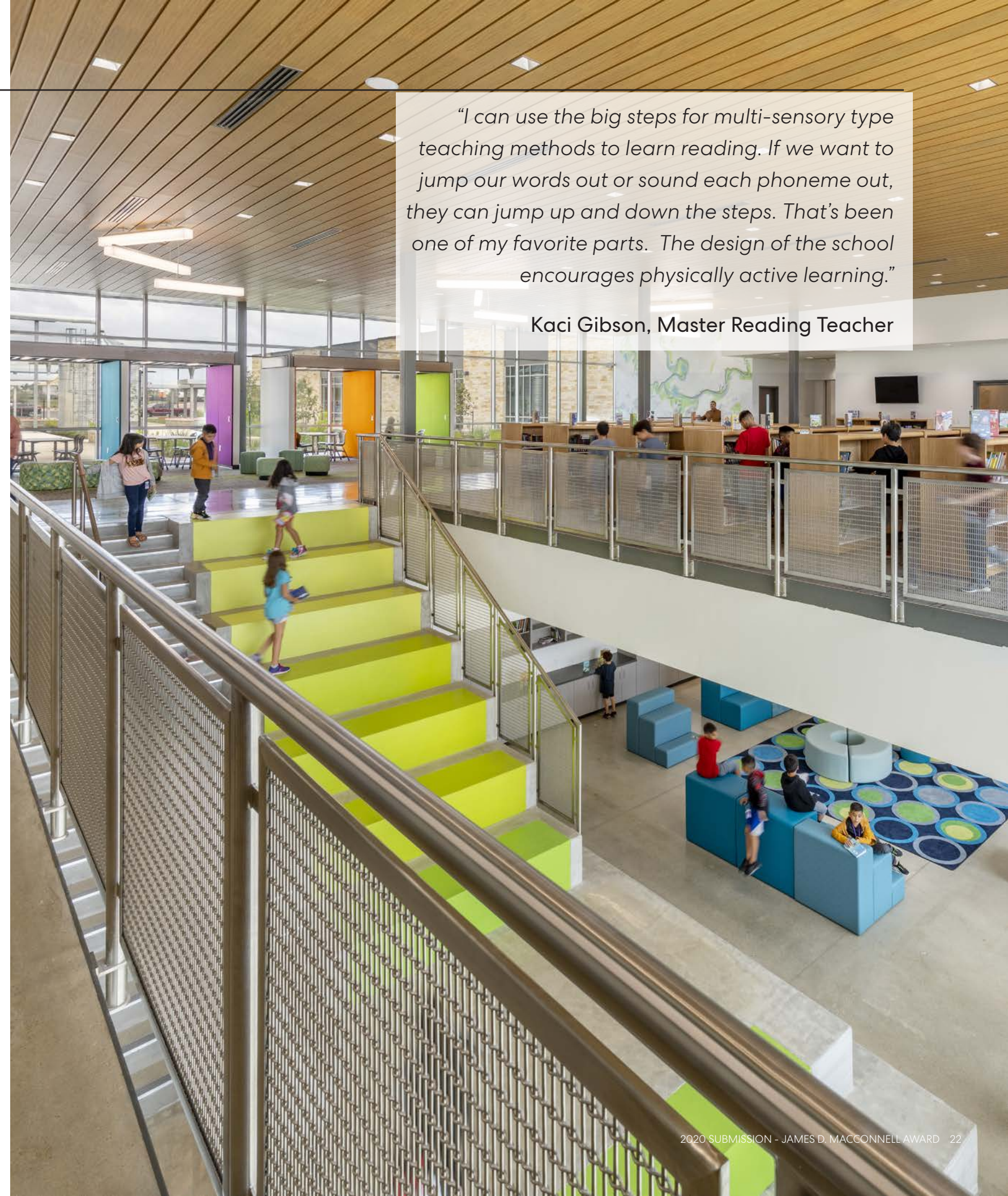
"I can use the big steps for multi-sensory type teaching methods to learn reading. If we want to jump our words out or sound each phoneme out, they can jump up and down the steps. That's been one of my favorite parts. The design of the school encourages physically active learning."

Kaci Gibson, Master Reading Teacher

Creating a strong interior to exterior connection is not limited to the learning courtyards but also includes public facing spaces, such as the cafeteria and gymnasium. Large overhangs protect expansive clerestory glazing that allow daylight deep into the spaces and is one feature that helps reduce the lighting power density by 40%.
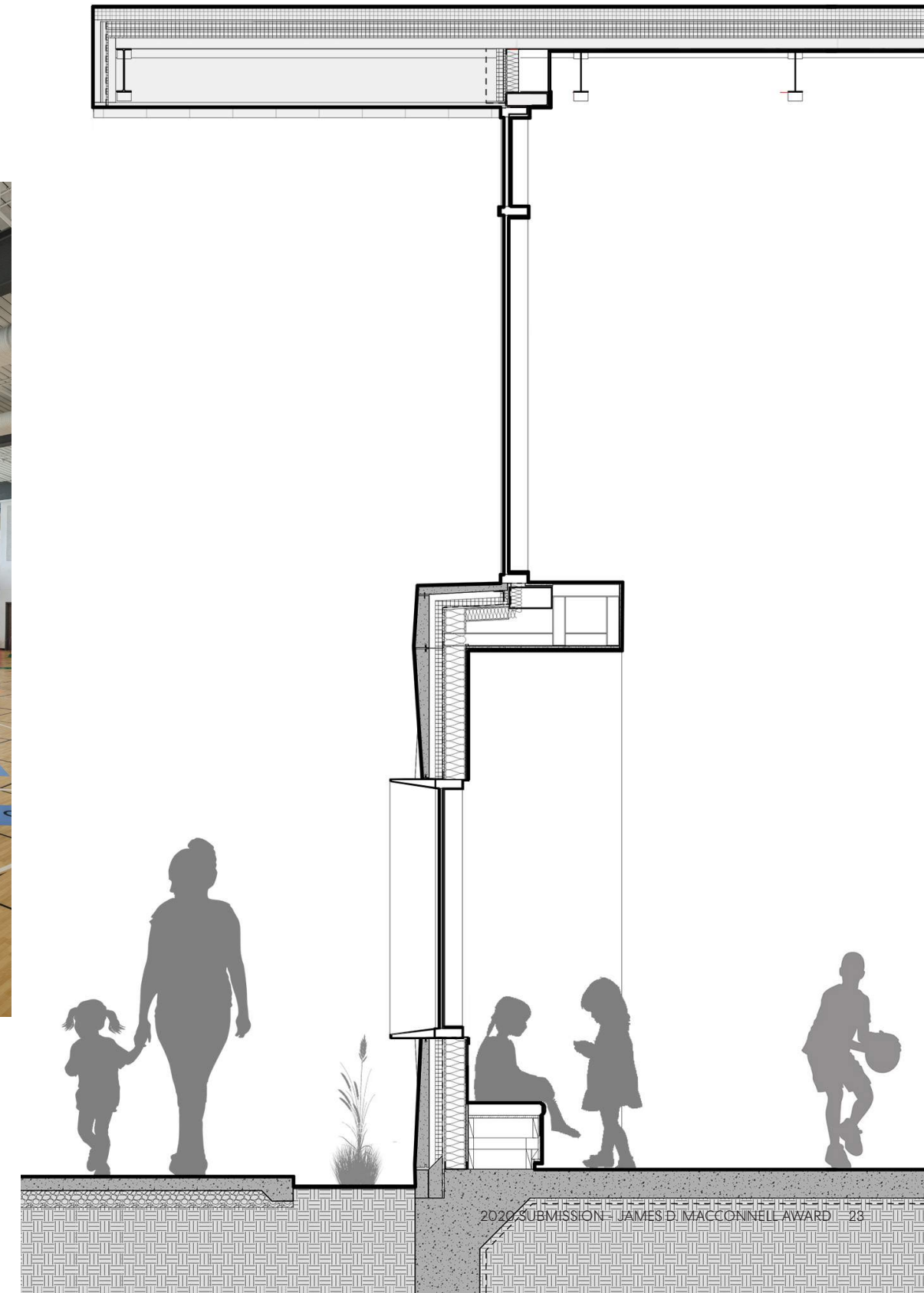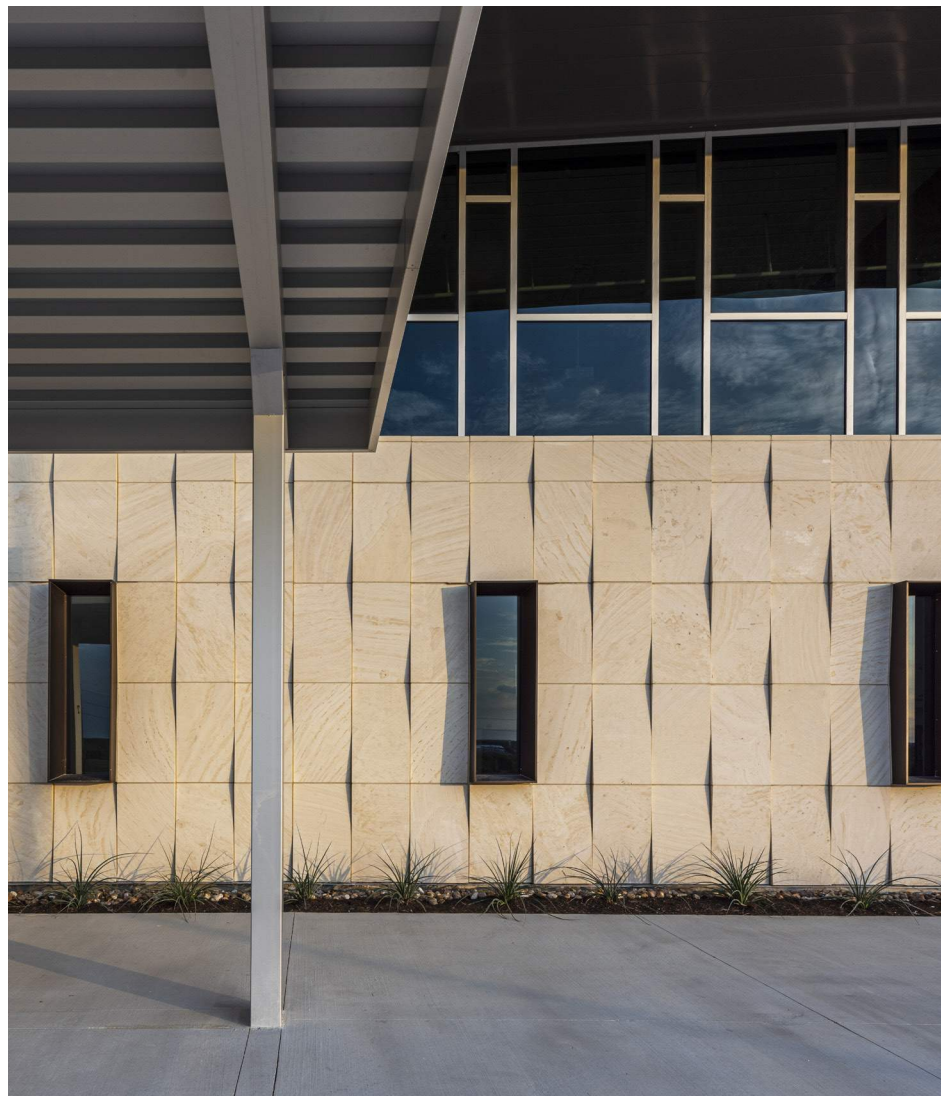
The color palette used throughout the school was inspired by the surrounding natural landscape, incorporating cool blues from the San Marcos Springs and warm earth tones from the Texas hill country. This nature-derived theme is utilized as a way-finding element for each grade level, providing vibrant colors that can help students identify their spaces. Custom wall graphics are displayed in the library and entry, highlighting the ecology of the San Marcos River.

The circulation path, bathed in natural light, uses color to identify each learning pod and connects the pods to outdoor learning spaces.

Amphitheater grading slows ground water flow and protects the building beyond a 100-year flood.

Interconnected gym and cafeteria allow for a large gathering area with access to restrooms and food for a temporary shelter.

Flexible classroom pods provide opportunities for social distancing.

Community garden promotes healthy eating and understanding of our food supply.

The 12.5-acre site is 56% green space.

12,000-gallon rainwater cistern provides irrigation for the courtyard.

Daylighting strategies reduce light power density by 40%.

Results of the Process & Project

Through the eyes of

the Student

"It's very open like there's not a hallway with doors. There's not a specific spot you have to be as long as you're around the area, and every grade has different colors so if you're in that color you are fine."

Julia Recio, 5th grader

the Educator

"The classroom pods lend themselves to be a more inclusive environment. You don't have to pull the kids out to provide additional support. There's a lot of opportunity to push-in to the classroom and work with students in their environment. The small group rooms are fantastic for this."

Kaci Gibson, Master Reading Teacher

the Administrator

"This building meets the needs of all kids. Children are social by nature, so I think this building allows and encourages that social aspect. It's about taking care of our community, which is ultimately about taking care of our kids."

Michael Cardona, Superintendent

Educational Specifications

Active and Engaged

The child's ability to move and create their own environment to learn is essential to success. The spaces throughout the school are designed to capture these changing needs throughout the day, the week, and the year, and as the child learns and grows, there is flexibility in the spaces that they use. This adaptable nature gives the child agency and keeps them active and engaged.

Community Hub

Heading into an elementary school can be a daunting prospect for any child. The School provides outreach to the greater community, not only by the building layout but also by the programs offered. It is a nurturing and safe environment for the child and their first steps into world of education and learning.

Support for All

Support is required for students as well as teachers. The layout of the classroom pods facilitates the students ability to move between activities and also allows teachers to have the flexibility to check-in and develop relationships with their peers. This multi-tiered support system creates strong connections

Learning at a Variety Scales

Student learning takes place while working individually in a reading nook, as a small group with a hands-on experiment, or as a collective listening to speaker. The school facilitates each of these opportunities for inquiry, exploration, and active learning not only indoors but outdoors as well.

Educational Visioning

The conversation started with student needs, learning strategies, and academic drivers long before plans were drawn.

Improve Student Literacy

- The primary student circulation path flows through the library encouraging interaction
- A variety of spaces accommodate different learning environments for the student to best serve their needs

Encourage Team Teaching

- Grade level pods centered around an open flex space improve sight lines to allow teachers to supervise multiple classes at time
- Scalable spaces allow for classrooms to expand in size or join together
- Teacher planning areas for team strategies and mentorship

Project Based Learning

- Specialty spaces are provided for leading STEM project based learning such as the robotics lab, green screen room, VR lab, and outdoor learning areas
- Group project collaboration spaces and presentations spaces put student work on display

Social and Emotional Learning

- Students develop emotional intelligence and social skills through project based learning, and the group engagement spaces (gym, cafeteria, robotics lab, community garden).
- Small spaces accommodate private de-escalation or individualized learning with teachers and counselors (reading nooks, writing nooks, small group spaces and the teacher planning rooms)

1

WORKS ☺ ← → DOESN'T WORK ☹

*technology   *student seating

*community support- *classrooms - space,
    TX State.   rigid

← inviting →

dropoff/pick-up   *acoustics
(bus, carpool are *outdoor learning spaces
separate)

2

* ongoing PROFESSIONAL DEVELOPMENT
    that supports the new initiative
* current Technology
* SPACE   Throughout
    *STORAGE   Common
    *Grouping/Mobility   areas AND
    *Flexible   learning/classrooms
                           areas
* Transparency - Interior-Interior,
                 Interior- Exterior
* Support Community Involvement
                    (spaces shared)
* Positive CULTURE
* SOUND FOR CLASSROOMS

3

*Preparing Kids for what's to come!
* Flexibility - spaces, teachers, curriculum
                environment
* Technology- Rich
* Collaboration
* Engagement
* Inspiring
* Flipped Roles- Students as Teachers
* Safety Awareness

4 → Next, Next

Welcoming Environment
Social + Emotional Support Systems
Staff flexibility w/ PD + collaboration
Highly Immersive Audio-Visual-Tactile
Experiences
Augmented/Virtual Reality
~~Visably~~ Progressive-Sustainable
Visibly