

LAKE HIGHLANDS HIGH SCHOOL

2021 LEsolutions DESIGN AWARD



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EXECUTIVE SUMMARY

LAKE HIGHLANDS HIGH SCHOOL

LAKE HIGHLANDS EXECUTIVE SUMMARY

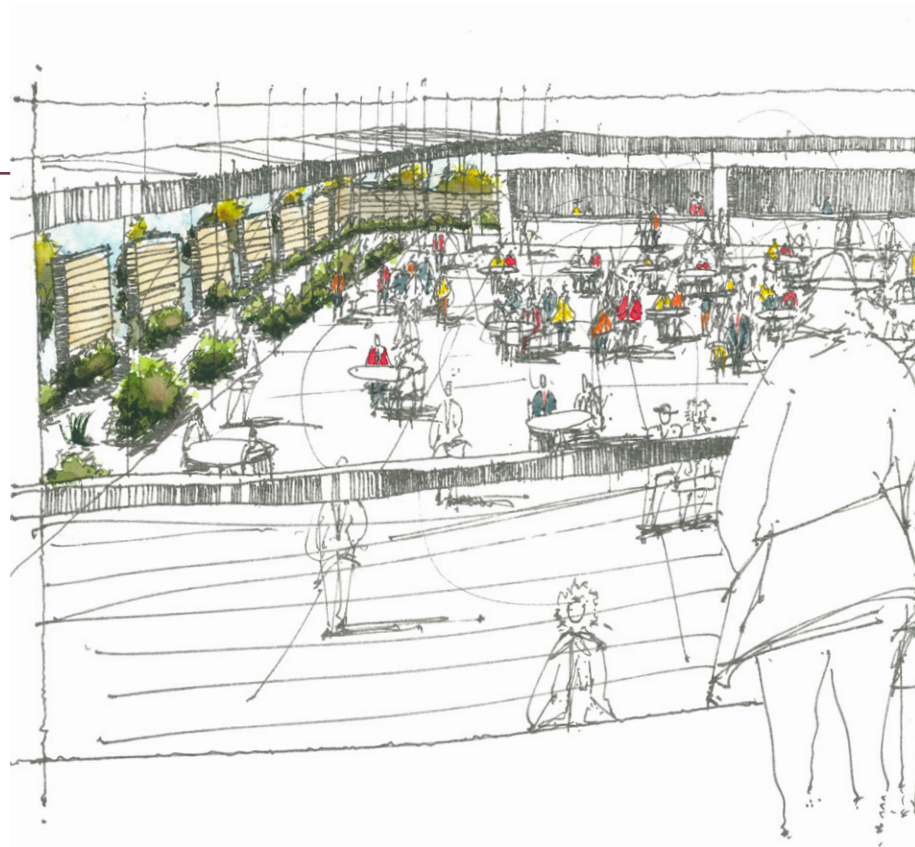
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“RE-IMAGINE CONNECTION”

Lake Highlands High School, like many schools, grew over decades of expansions, renovations, and additions. The organic growth of a school over so many years often leads to less than ideal building layouts, connections, disconnections, and spaces that are used in ways never intended. As the school grew, a new detached school was built, envisioned as a 9th grade center. Eventually this new detached facility was incorporated into the overall High School, with classes supporting all grade levels. Students have to navigate between these 2 distinct and separate buildings on a daily basis.

The growth of any school size is a function of the growth of the student body. As any group grows, Social Islands emerge. The existing Architecture of Lake Highlands High School not only facilitated these Social Islands, it often exacerbated them. The existing social Islands have encouraged students to self-segregate themselves by Race and socioeconomic status, leading to high rates of anxiety and depression among the student body.

“We created a connecting central Hub for students to gather for meals, for formal and informal learning opportunities, to study during passing periods, and a place for unplanned interactions and conversations.”







SCOPE + BUDGET

Location: Dallas, TX, 75238
Sector: Education
Category: Renovation/Major Addition

Construction Cost: \$31,500,000
Budget: \$32,100,000
Cost Per Square Foot: \$83.00/SF
Completion Date: 12.31.2020

GSF: Phase 1 - 50,000sf (MAC)
Phase 2 - 42,555sf Addition
Phase 3 - 56,000sf Renovation
Total Campus - 640,000 sf

SCHOOL + COMMUNITY ENGAGEMENT

LAKE HIGHLANDS HIGH SCHOOL

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LAKE HIGHLANDS DESIGN FOR EQUITABLE COMMUNITIES

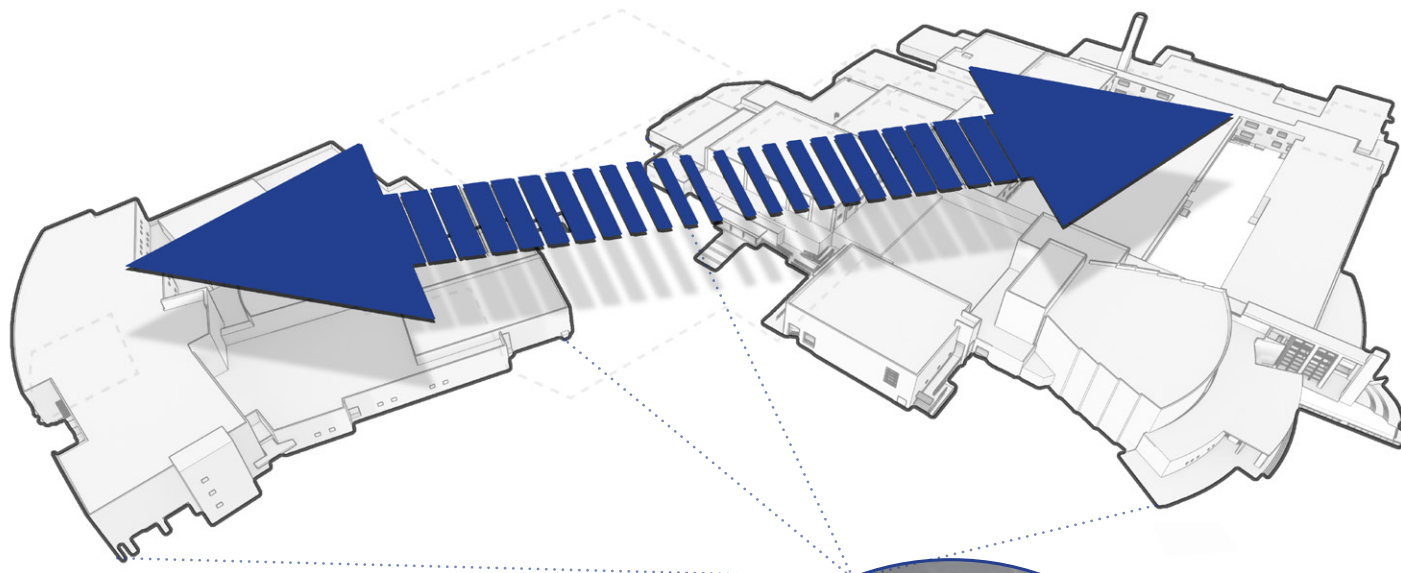
THE CLIENT'S ASK

Waves of young families have flocked to the leafy Lake Highlands neighborhood in recent years, stretching the limits of elementary schools. That pressure would eventually build up at the high school unless Richardson ISD acted. The design team was asked by Richardson Independent School District to respond to students' need for more enrichment spaces by adding 24 classrooms to a high school in a booming Dallas neighborhood.

Some saw the classroom addition as a chance to connect the main high school building with the former freshman center — a spine for a campus split in two by a fire lane. Yet conversations with community members revealed other obstacles to school unity that wouldn't be solved by linking the buildings with a block of classrooms or a corridor.

"Many times, what this process uncovers is the cultural needs of a school community,"

-Leonardo Gonzalez | Director of Education



STAKEHOLDER MEETING

LAKE HIGHLANDS SCHOOL + COMMUNITY ENGAGEMENT

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THE ACTUAL PROBLEM

“The existing social Islands have encouraged student’s to self-segregate themselves by race and socioeconomic status.”

During stakeholder meetings with Students, Teachers, Administrators, and Parents; it became clear that any new addition to the School had to address the issue of Social Islands. Through these meetings, it became evident that the single greatest Social Island (or in this case Social Islands) where the 3 Cafeterias that students could choose to eat in.

Through informal interviews with students, and site visits; the effects these Social Islands had on the student body during meal time became increasingly clear - they were self-segregating. Students could choose to eat in any of the 3 cafeterias, but instead, the dividing factor was the economic disparities between their classmates. Many students receive free meals, others reduced meals, while across campus other students were enjoying the luxury of meal delivery services.





LAKE HIGHLANDS SCHOOL + COMMUNITY ENGAGEMENT

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CLIENT PROFILE



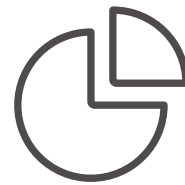
78%

Mental Health
3 in 4 High School students have reported experiencing anxiety or depression



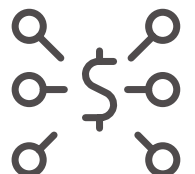
2,793+

Students 9-12
1 of 4 high schools serving the Richardson Independent School District



73%

Minority Enrollment
Total enrollment includes 49% female, 51% male



49%

Free Lunch Program
An additional 5% qualify for reduced lunch

EDUCATIONAL ENVIRONMENT

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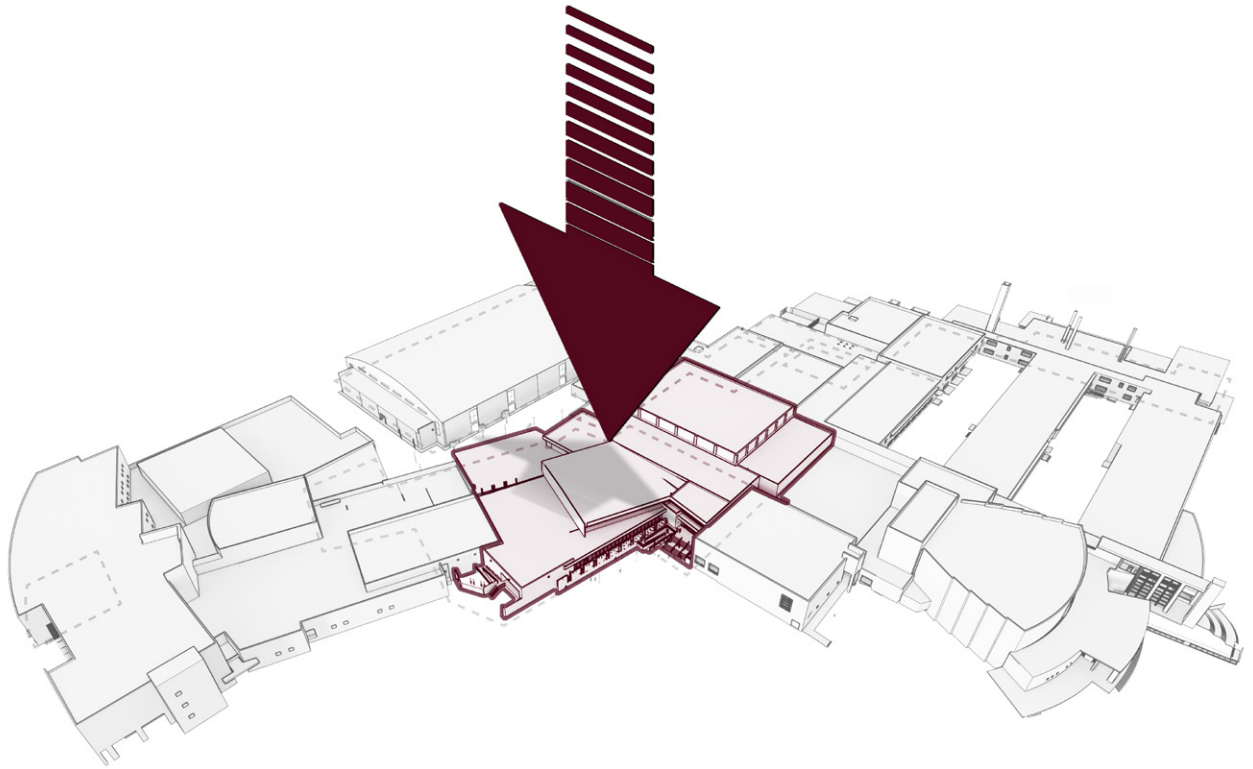
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**LAKE HIGHLANDS
EDUCATIONAL ENVIRONMENT**
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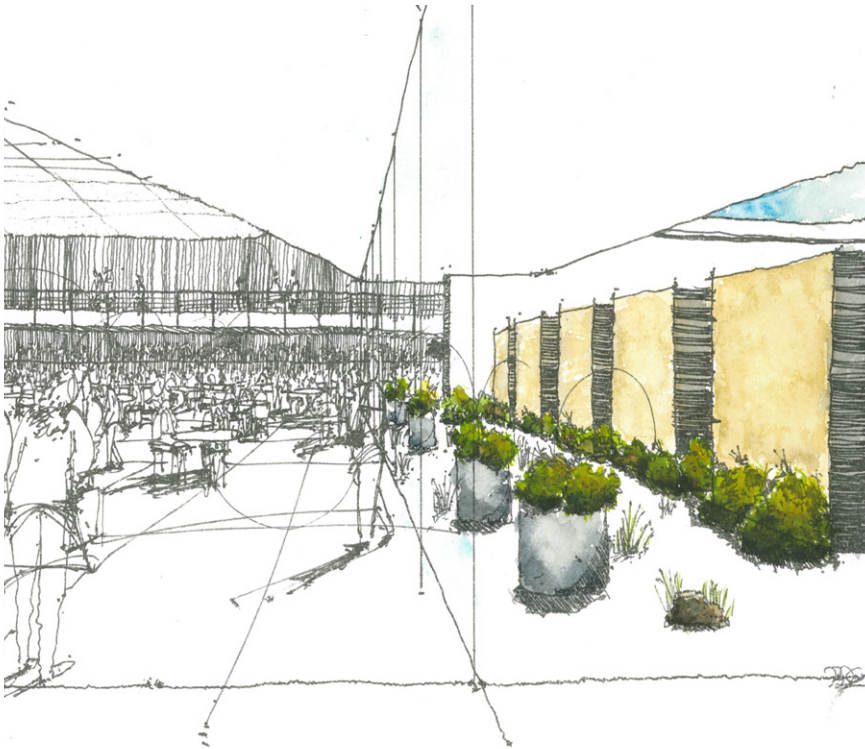
SOLUTION | COMMUNITY HUB

“A community HUB for students to gather for meals, for formal and informal learning opportunities, to study during passing periods, and a place for unplanned interactions and conversations.”

To do this, the design team challenged the district into thinking differently; instead of building an addition of 24 classrooms flanking a corridor, design a new Heart for the school. A central HUB for students to gather for meals, for formal and informal learning opportunities, to study during passing periods, and a place for unplanned interactions and conversations. Additionally, the HUB would provide the school a needed central community gather place for after-hours events for student and parents.



**LAKE HIGHLANDS
EDUCATIONAL ENVIRONMENT**
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SOLUTION

“Each student has individual and specific social needs, the dining area was crafted into several spaces varying in size and character. This allows for students to find their comfort zone, to tailor their dining experiences throughout the year and to match their emotional state to the experience they each need.”

The design team further impacted the experiences by designing choice into the dining program. The school embraced a new direction in providing students with choice in the seating arrangements by providing varying table sizes and types (round tables, high-top tables, booths, and even creating long steps for students to informally enjoy lunch sitting on steps overlooking the HUB.







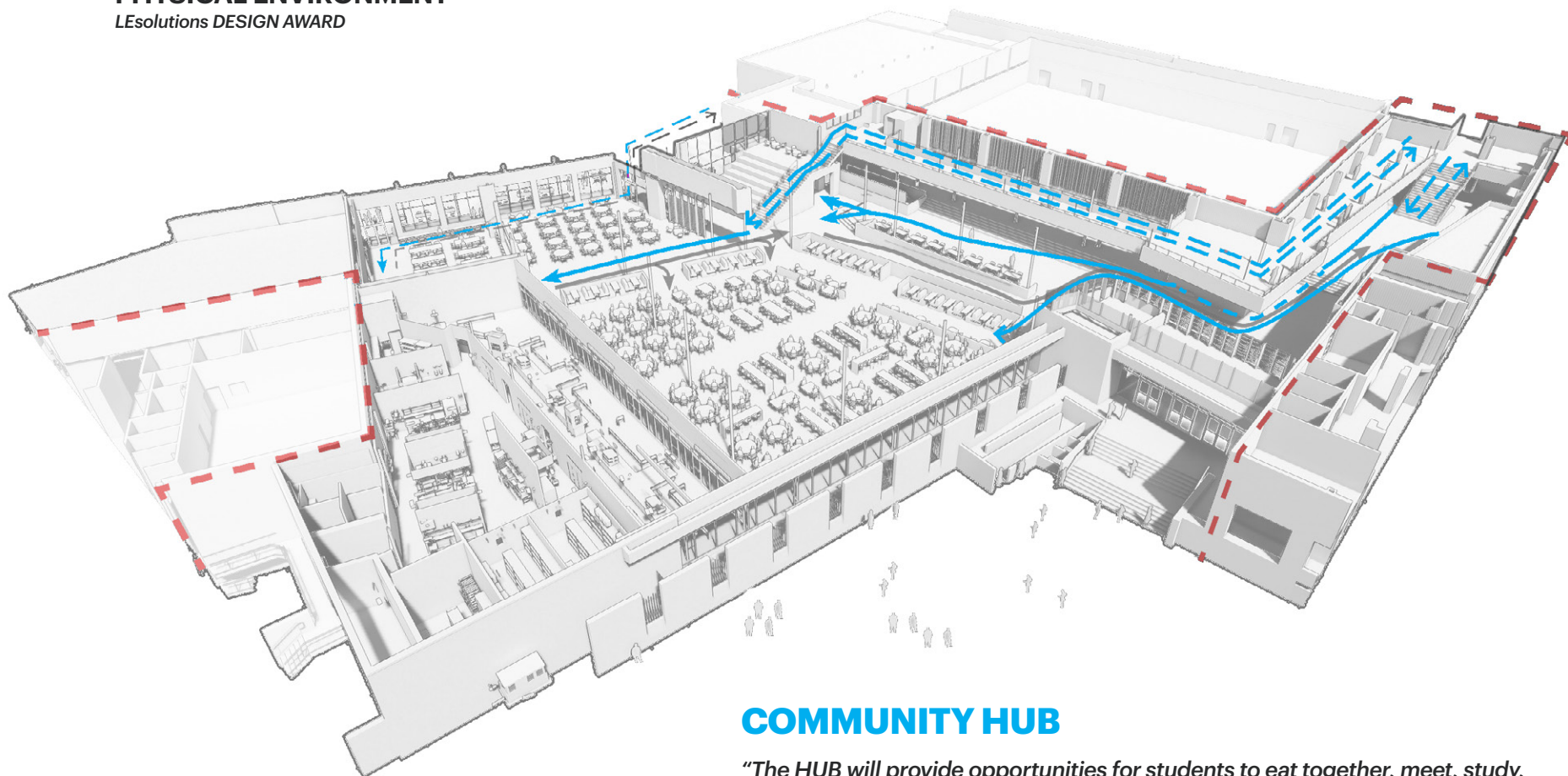
PHYSICAL ENVIRONMENT

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LAKE HIGHLANDS PHYSICAL ENVIRONMENT

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COMMUNITY HUB

"The HUB will provide opportunities for students to eat together, meet, study, collaborate, share stories, and learn from each other. As students circulate through and around the HUB, unplanned interactions and conversations can take place."

The design solution aims to create spaces that allow for these special moments of relationship building. By crafting a variety of scale and style of space in and around the HUB, impromptu interactions can flourish, or a quiet niche can be your (quiet) oasis. Though students may still split into their own cliques within the hub, they'll have more opportunities to cross paths and interact with peers from other social groups.

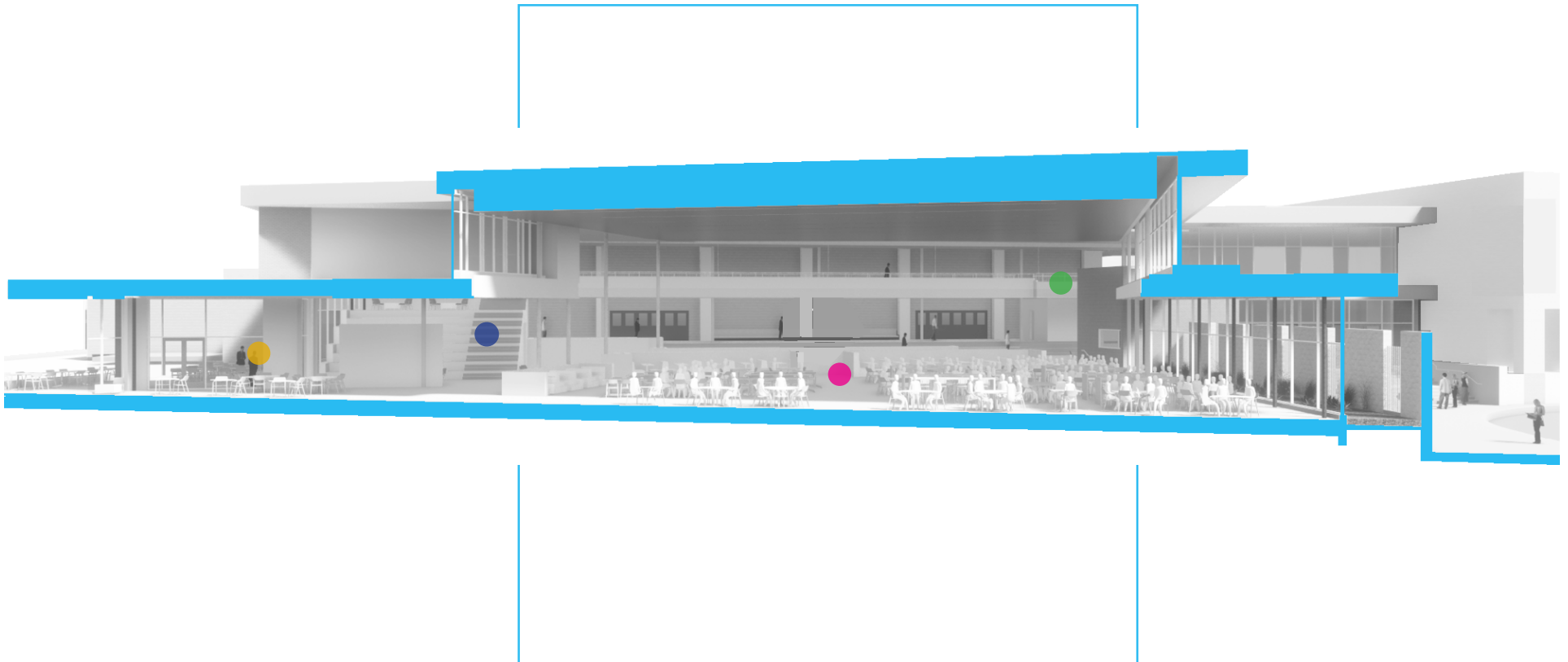
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- Open Variety Seating ●
- Learning Stair - Flexible Dining ●
- Library - Learning Commons ●
- Kitchen - Serving Line ●
- Flexible Social + Dining space ●
- Bridge Connector - 'Tree Perch' ●

**LAKE HIGHLANDS
PHYSICAL ENVIRONMENT**
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Open Variety Seating ● Learning Stair - Flexible Dining ● Flexible + Social Dining Space ● Bridge Connector - 'Tree Perch' ●





GYMNASIUM
RESTROOMS
BUILDING H
BUILDING L

GYM





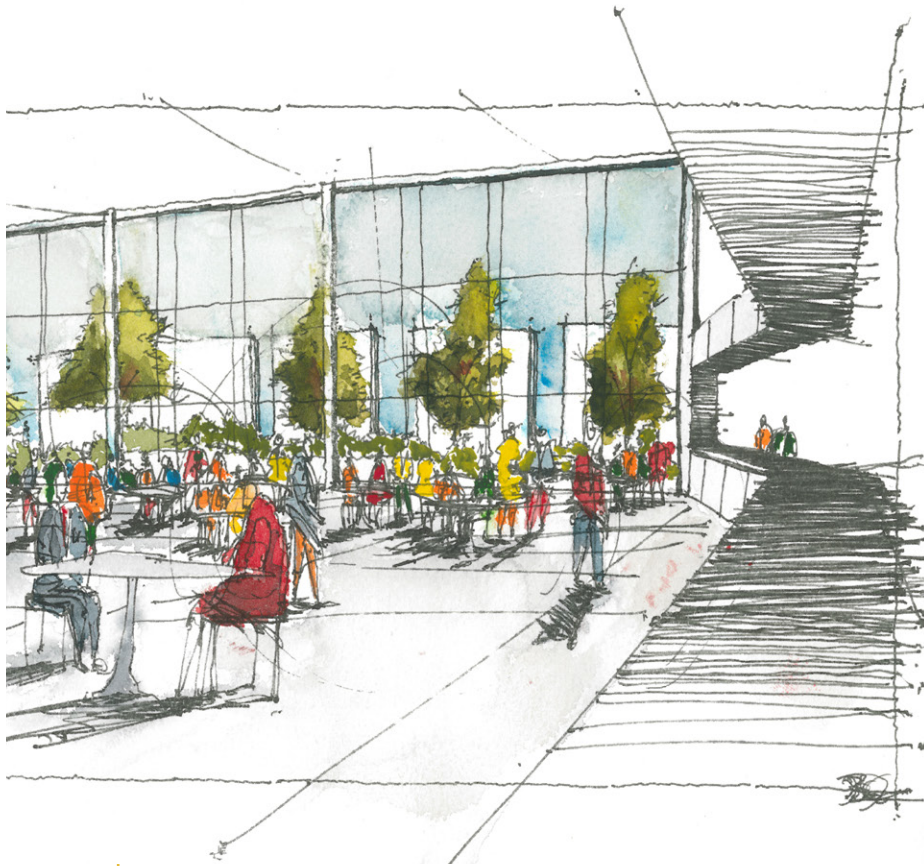
RESULTS OF THE PROCESS

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LAKE HIGHLANDS RESULTS OF THE PROCESS

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OUR RESULT

"Students all eat together in a single communal space regardless of age, race, or socioeconomic status. Students are noticeably happier, and there are no more fights at lunch. They love it so they take care of it. It's a perfect example of ownership."

The results are a transformed student culture. The project was completed in August of 2020 and students occupied the space the same month. After several interviews with the school principal and other faculty members unanimous reports show that the HUB did exactly what the school board and design team had hoped for.

One staff member commented on how well the circulation functions. "A hectic outdoor corridor has become the heartbeat of the school." The traversing experience is now an enjoyable one.

SUSTAINABILITY + WELLNESS

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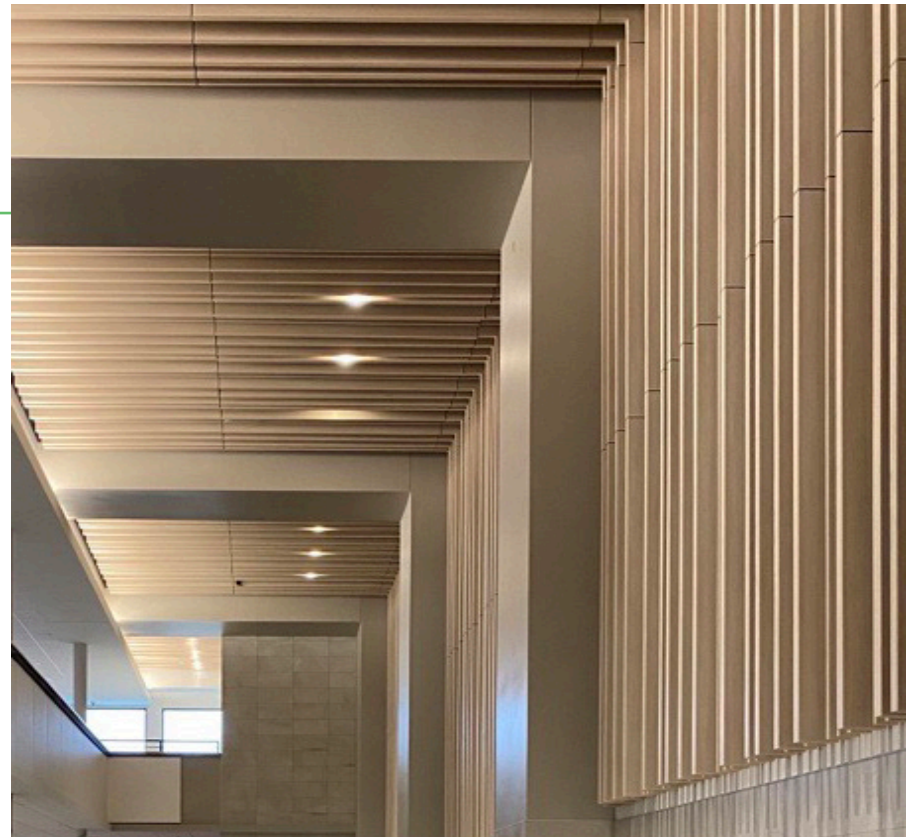
LAKE HIGHLANDS SUSTAINABILITY + WELLNESS

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ENERGY

“The HUB of Lake Highlands High School is projected to reduce energy consumption over a Zero Tool baseline campus by approximately 25%. ”

The design accomplishes this through the strategic orientation the main views out of the Cafeteria to the North, while providing deep overhangs and free-standing exterior walls at the South. These overhangs and exterior walls will block direct Southern light while allowing indirect light into the space. Through extensive use of natural light in the largest gathering and circulation spaces we are able to minimize the need for artificial lighting. But when necessary, all LED lighting will be used to achieve the required foot-candles, and to remain within all LPD limits.



LAKE HIGHLANDS SUSTAINABILITY + WELLNESS

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“The HUB will cultivate a space and an experience that embodies a healthy mind and body, providing ample visual and physical access to nature.”

Studies show a growing mental health crisis taking hold of our students at an alarming rate. Reports of stress and depression are more and more common as students try to navigate increasing pressure of school life. Additionally, lunch time in schools is notorious for creating difficult social moments for students as they build their self-image and grow in self-confidence.

The team incorporated design strategies aimed at stress reduction, including physical and visual connection to nature and an abundance of natural light, natural materials and biophilic elements. All locations in the HUB enjoy views to the exterior including, a courtyard, views of the sky and a strategically placed viewing garden adjacent the main dining area. This was designed to balance the district’s concern with maintenance of a landscaped area by creating a non-accessible space that is fully landscaped to maximize impact on students’ mental health.

