WEST HIGH SCHOOL/MIDDLE SCHOOL

21

WEST

JAMES D. MACCONNELL AWARD SUBMITTAL

SCHOOLS ARE THE HEART AND SOUL OF A COMMUNITY.

They represent the road ahead—a beacon of hope and bright futures. We are not just rebuilding schools—we are dedicating ourselves to creating an environment that inspires.

WEST

Rise up, West ISD.

EXECUTIVE SUMMARY

"IF YOU WOKE UP ONE MORNING AND ALL YOUR BUILDINGS WERE GONE AND YOU HAD TO START OVER, WOULDYOU DO THINGS THE SAME?"

est, Texas is a popular stop on the highly traveled I-35 corridor on which it sits. A small town of just under 3,000, it's widely known in Texas for its eponymous festival, its Czech roots and its kolaches. Yet, in 2013, West became known for something else: **heartbreak.**

On a Wednesday night in April, an explosion at a nearby fertilizer plant caused loss of life and destroyed homes,

businesses and schools. West Independent School District lost three of its four campuses; West students and teachers found themselves displaced by tragedy.

Within 24 hours, engineers from the architectural team were surveying the damage. The firm had history with the district and personal roots in West. A phone call between colleagues: "It's all gone," set in motion an action plan to restore West ISD. One month later, the architectural team sent off plans for a temporary campus to be constructed while planning began for a permanent replacement. West ISD faced a hard question: do we reconstruct our beloved schools in the same way, or do we look to the future?

All eyes were on West, and students, teachers and administrators quickly became a symbol of **resiliency**, **hope and strength.**



A Plan to Rebuild

You can't have a school without a town, and you can't have a town without a school. This statement epitomizes West and was the driving force behind the school district's urgency to rebuild.

In West, the school is the heart and soul of the community. It influences quality of life, provides opportunity, evokes pride and fosters communion. **In today's competitive** educational climate, it also shapes a family's decision to uproot or stay in place.

West ISD understood this dynamic and made the decision to shift their approach to instruction by rebuilding their education system to meet the needs of modern learners.

"YOU CAN'T HAVE A TOWN WITHOUT A SCHOOL."

The <mark>"AHA" Mo</mark>ment

"At today's dollars, West ISD would not be able to rebuild three schools exactly as they were."

The high school, middle school and intermediate school were lost. As the district focused on evolving educational delivery, they quickly realized they could not rebuild three comprehensive campuses with available funds.

Creativity, foresight and an innovative spirit were required to deliver these new state-of-the-art facilities. The "aha" moment happened during a planning meeting: why not rebuild one campus?

As the dual-campus solution took shape, West ISD re-aligned grade levels to bring 6th through 12th grade into a single facility and move 5th grade into the elementary school.

The solution provided educational and economical value. It supported flexibility in use, creating an environment reminiscent of an old school house where students explored education in concert with one another. It also allowed for the incorporation of a civic component that would bring an already strong community, together.

GOALS + OUTCOMES

- Visioning revealed a desire to step boldly into the future. The team facilitated a return to normalcy with the district's "new normal" that focused on exciting, engaging and thoughtful educational opportunities.
- Three facilities were lost. Yet only one was re-constructed. Re-aligning grade-levels and proposing a dual-campus solution for 6th through 12th grade maximized educational and economic value.
- 3. The district wished to create an educational and civic icon for the community. The campus offers three functionally independent spaces: the high school, the middle school and a civic center that is accessible to the community.
- 4. Unique features such as an ICC 500 tornado shelter and ICF construction improve safety and sustainability.
- West ISD embraces the concept of life-long learning. Deeper connectivity between physical spaces improved interpersonal relationships between peers and educators. Flexible furniture and adaptable environments supported collaborative and multipurpose use.

TIMELINE

The architectural team led West ISD through an intensive assessment, visioning, planning and design process that started within 24 hours of the explosion. The timeline was monumental—encompassing delivery of a temporary campus and a new school in addition to a funding plan that required local, state and federal commitments.



April 2013 The architectural team's assessment is presented: damage to the schools is beyond repair and the facilities should be rebuilt.



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April 2013 A neighboring district opens its doors to West. Planning for a temporary campus begins; students will be back in West by August.



April 2013 The architectural team's engineers are on the ground within 24 hours to assess damage. An action plan to Restore West ISD is set in motion.



April 17, 2013 Three of West ISD's four schools are destroyed by an explosion at a nearby fertilizer plant. The district's stadium becomes a triage site.



August 2013 After months of data gathering and report generation, West receives news that FEMA will provide much needed funds to the project.



August 2013 Trojan Stadium is restored in time for the first game of the season. It served as a triage site for emergency responders following the explosion.



June 2013 The temporary campus is designed and manufactured. The middle school is demolished as installation begins for the temporary schools



May 2013

Planning begins for a permanent campus. West ISD and the architectural team look to the future to shape education for West students.

TIMELINE A new future

15 Months After

July 2014 West ISD hosts a groundbreaking ceremony for the new high school/middle school.



February 2014 The design of the new West High School / Middle School is revealed—a new vision for West takes shape.



December 2013 Demolition of West High School begins. Heartbroken, many of West's community members find the process difficult to watch.



August 2013 700 students begin the school year at the temporary campus, which features all of the amenities of an educational facility.





SCOPE OF WORK AND BUDGET

hen West High School / Middle School opened in August of 2016, it marked both an end and a beginning. A bittersweet farewell to a temporary campus that had become a home for so many students and teachers, a milestone in the community's efforts to rise up and a new beginning that would shape the future of education for students in West, Texas.



Budget

At the current day's dollars, it would cost an estimated \$120 million to repair or replace the elementary, intermediate and high schools as they were. It was not a feasible option for a district facing an estimated drop in property taxes due to damaged homes. As part of the budget process, **the architectural team spent countless hours** assessing the damaged facilities, exploring costs and design solutions, and researching requirements and documentation needs to receive federal assistance. The team shepherded the district through the arduous process.

The first hurdle was to secure funds for construction of the temporary campus. West received a grant from FEMA for the project; regional schools and businesses also chipped in, donating portables, school supplies, furniture and funds.

The following year, FEMA awarded West a larger grant for the high school / middle school. Combined with insurance funds and a grant from the Texas Education Agency, West was able to rebuild their schools—albeit, in a new way—at minimal cost to local taxpayers. When the final piece of the funding puzzle was secured, Superintendent David Truitt told his students and staff, **"All those projects, all those things we lost, we now have a plan to bring it all back!"**





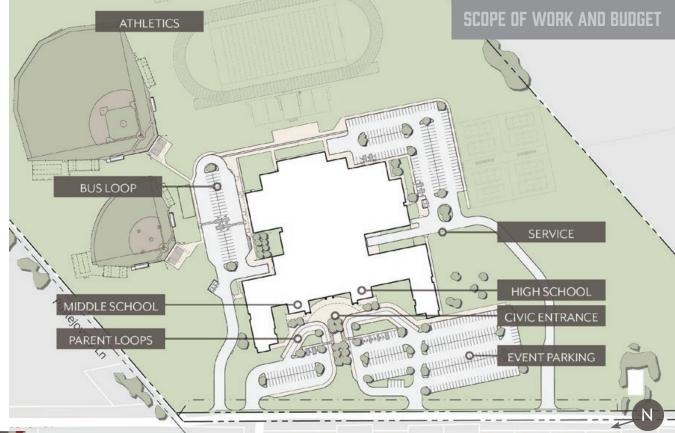
Scope of Work

West High School / Middle School is nearly symmetrical, designed to function as three independent facilities (high school, middle school and civic center) or to perform as a single secondary education campus in the future. The solution reinforces historic affection while allowing the district to step boldly into the future.

West High School / Middle School Grades 6-8 (middle school), 9-12 (high school 1,000 students 226,000 sf 56 acre site \$45 million construction cost Completed in August 2016







Modern features include:

- 2-story STEM lab / maker space
- 2-story Learning Resource Center
- Learning stairs
- Movable walls and writable surfaces in all learning spaces
- Collaborative living rooms / spill-out space
- 187-seat collegiate-style lecture hal
- Flexible rooms that transition into teacher planning and office space as educational delivery evolves
- Outdoor learning courtyards
- Learning on display and visual connectivity between learning and common areas

Other features include:

- ICF construction
- ICC 500 tornado shelter
- 1,000-seat competition arenc
- Two practice gymnasiums, weight room and competitive baseball / softball stadium*
- Fine arts suite
- Welding, agriculture and CTE labs
- 588-seat performance hall (balcony transitions into the 187-seat lecture hall with partitions and dropdown technology)



SCHOOL & COMMUNITY ENGAGEMENT

Rural Community, Progressive Education System

est, Texas is a predominantly Czech-German community. Located 120 miles north of Austin and 70 miles south of Dallas / Fort Worth, it's considered a rural town.

West embodies charm, history and strength. Its roots stretch for generations. It's known as a place for families, with good schools and even better character. Today, it's also quickly becoming known for its progressive approach to education.

The West Independent School District covers 126.6 square miles across West and neighboring small towns of Leroy, Tours, Gerald and Ross. It has an enrollment of approximately 1,300 students and is the largest employer in the city.



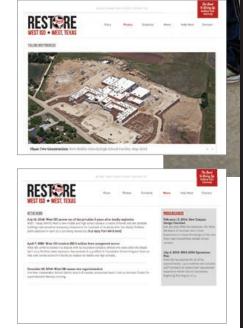
Community Stakeholders

"We put our heart and soul into designing what the kids needed to learn in the best manner."

The community of West was at stake. If the schools couldn't be rebuilt, if the school district and architects didn't get it right, **families would leave West** for better opportunities for their kids. It was a heavy task to place at the feet of West ISD—but the district rose to the challenge.

The Board of Trustees and the architectural team led a committee of curriculum leaders, educators, community members, students and administrators. They immersed themselves in discussions about instructional models, exploring traditional, project-based and highly progressive approaches to learning. The architectural team employed a visioning consultant to help further define the future of education in West.

Throughout the process, the architectural team developed a public campaign, Restore West ISD, to communicate with people in West and across the nation. A website housed news, milestone updates, construction photos, design presentations and information on how to support West ISD. A documentary film was also produced. Told from the perspective of five West students, it followed their journey from April 2013 to the first day of school in August 2016.





SCHOOL & COMMUNITY ENGAGEMENT

INDIRECT STAKEHOLDERS

The district and architectural team worked tirelessly to keep the project moving forward. It required collaboration and communication with a group of stakeholders outside the typical purview of school construction:

- FEMA
- Office of the Governor of Texas
- Local and State Elected Officials
- Texas Education Agency
- Insurance Agencies
- Texas Department of Insurance
- Texas Department of Emergency Management
- McClennan County

West ISD also received an outpouring of support. School districts, businesses and individuals from across Texas donated space, portables, school supplies, funds, sports equipment and other essentials. West ISD did not face their tragedy alone.



Construction begins on the temporary campus.

Challenges+Assets+Planning

The architectural team and committee faced two primary challenges: reinstating normalcy in the short term through the construction of a temporary campus and setting the right course for the long-term with the design of a permanent solution. Any decision made would be witnessed on a national level.

After the explosion, West was left with one operational campus: the elementary school. Students in kindergarten through 6th grade finished the year in the elementary school while students in 7th through 12th grade used a borrowed campus in nearby Connally ISD. As students settled in, the committee commenced planning to tackle the first challenge.

Reinstating normalcy with a temporary campus

"Our kids are West kids, and they are ready to return to their school in their town."

While the architectural team's engineers surveyed the damage, the architects developed a plan for a temporary campus that would bring kids back to West. It would be located on the 6-acre site of the existing middle school. The demolition, design, manufacturing and construction timeline was monumental—**the architectural team made the impossible, possible.**

The temporary campus enveloped the middle school gymnasium, one of the few structural elements deemed safe for repair. The 70,000 sf campus accommodated 700 students. It had classrooms, computer and science labs, administrative offices, a cafeteria, library, fine arts and life skills facilities. While 17 modular buildings were manufactured for West's purpose, others were donated. In August of 2013, West students and teachers returned to their hometown—grateful for Connally ISD's support but eager to re-establish a sense of normalcy.



The temporary campus was home to 700 West ISD middle school and high school students for three years. It was constructed on a 6-acre site.

" OUR KIDS ARE WEST KIDS."



Setting the right course with a permanent solution

By the end of April 2013, the architects and engineers concluded the assessment: the intermediate, middle and high school should be demolished. It was a hard decision. The schools weren't old, but the safety of students was paramount.

From the first 24 hours after the explosion, through the design of the temporary campus, to the creation of a publicawareness campaign, **the architectural team shepherded West through it all.** The next phase was to ask West: "Do you start over, or do you do things the same."

Visioning—West ISD hit the restart button. Their instructional model was traditional, but the district was eager to adopt a flexible, project-based approach. This decision came to fruition during a multi-day visioning session at Baylor University Research and Innovation Collaborative. The architectural team brought in a consultant who led discussions on student responsibility in learning, student-led learning, educator facilitation and the ways instruction happens formally and organically in 21st and 22nd century learning environments. After much discussion, the team entered the planning phase with learning goals that employed adaptability, customization, project-based instruction and cooperative learning.

Planning—It was at an early planning meeting that the "aha" moment happened. As part of the process, the team shaped the program, explored functional adjacencies and looked at design. Budget was top of mind; the district did not have the funds to cover the estimated \$120 million in work that would be required to rebuild three new schools from blank slates—not to mention, adopting a design that supported their new approach to instruction.

The discussion turned: **"What if we built two schools in one facility?"** A dual campus solution for 6th through 12th grade emerged (5th grade would align into the elementary school). A single facility would allow the district to channel funds to a maximum number of students. They could improve utilization of shared spaces such as dining, commons, athletics, STEM labs and the media center while also creating a central location where the community could gather—serving an important civic purpose.

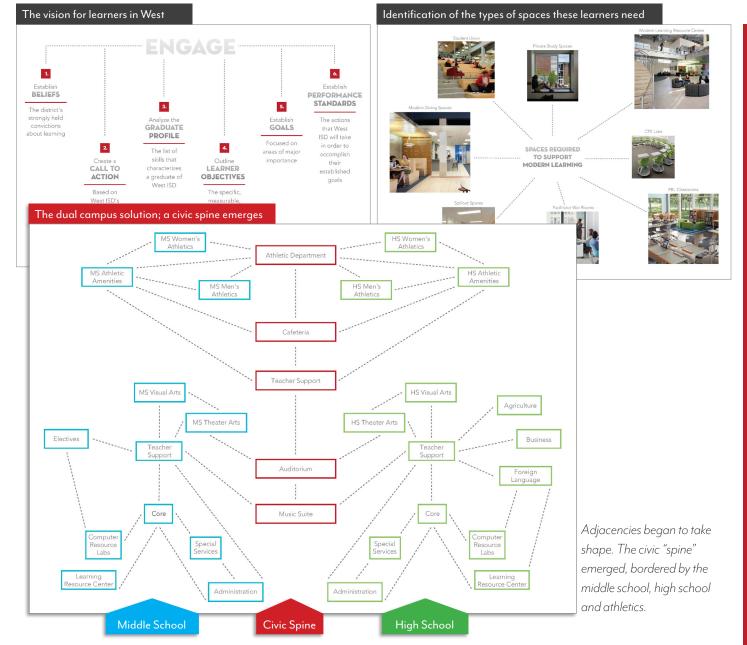
The solution fit the budget; it provided higher educational value; it allowed for long-term flexibility to adapt learning as it evolved; it promoted choice and customization in instruction; and it supported the adoption of an **immersive learning culture for students and educators.**

ADOPTING AN APPROACH BASED ON CUSTOMIZATION





EDUCATIONAL ENVIRONMENT



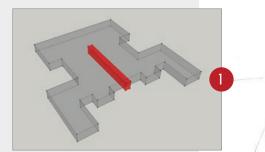
Creating an Immersive Learning Environment

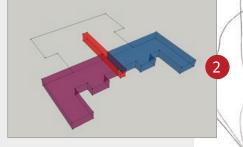
"This building represents an opportunity for our kids to learn collaboratively, to have spaces where they can get real-world experience. **Those things** were not available to them before."

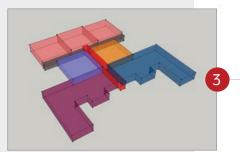
he planning process was intense. In their exploration, the team looked inward at their learner profile, beliefs and performance standards. From there, they looked at the types of spaces required for modern learning and how to incorporate a collegiate and professional experience.

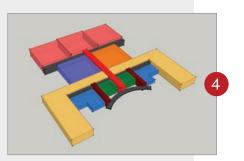
They identified key spaces, including:

- 1. Student Union
- 2. Private Study Areas
- 3. Modern Learning Resource Centers
- 4. CTE Labs
- 5. Project-based Learning Classrooms
- 6. Teacher / Facilitator Planning Rooms
- 7. Spill-out Space
- 8. Modern Dining Options
- 9. Collegiate-style Lecture Hall







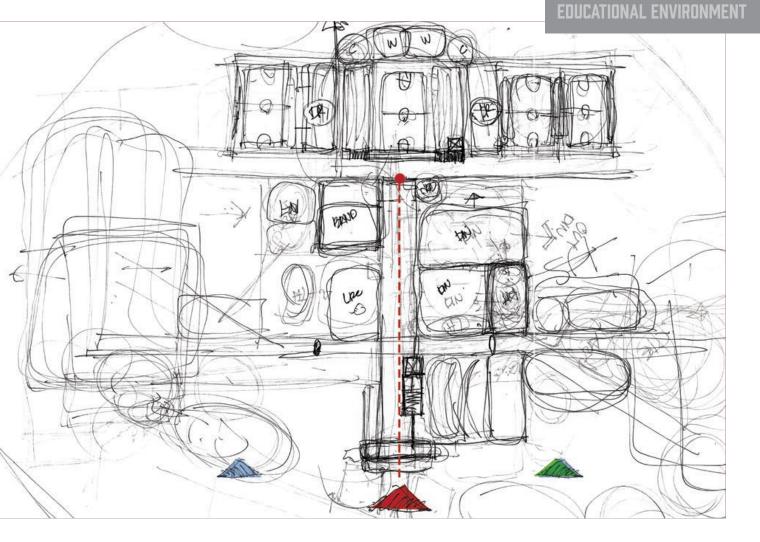


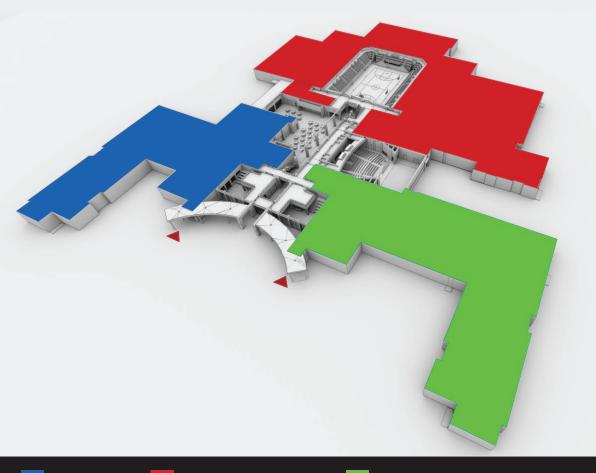
Optimum Use of Space

1. The civic spine emerged. West High School / Middle School is a pre-eminent pillar of the community—the new facility would be more than an educational institution to West, it would be a place where everybody could gather.

2. The high school and middle school academic wings took shape. Two facilities that act as independent entities with the potential to blend into one singular school house where learning is shared across grade-levels. Learning is on prominent display in this arrangement. **3.** The student union, performance hall and arena are used by the middle school, high school and public. The physical connectivity between spaces reinforces the shared nature of the campus. Athletics are located to the back with access to fields and storage.

4. The symmetry of the facility indicates learning is accessible by all. Spaces do not fight for dominance, they work in concert to achieve optimum use for student experience, current capacity, growth and opportunity for evolving pedagogy.





SPILL-OUT SPACE TEACHER OFFICE/PLANNING

EXPANDABLE CLASSROOMS

Middle School

Shared Amenities / Civic Spine

High School

Three Facilities—One Campus

The high school and middle school are functionally independent, featuring administrative suites in each wing. Within academic wings, classroom walls can be moved to create large-group settings; other rooms open into collaborative spill-out spaces for small-group and social engagement.

The schools enclose the civic spine, creating a community center. The student commons, pre-event space, performance hall and arena are fitted around the spine. Fine arts, agricultural science, welding and athletics are located in the back of the building.

SPILL-OUT SPACE **TEACHER OFFICE/PLANNING EXPANDABLE CLASSROOMS**

EDUCATIONAL ENVIRONMENT

A Bold Step into the Future

A Symbol of Unification

In West—like in many rural towns—the high school is the hub of the community. Throughout planning, the word "civic" emerged frequently. The high school / middle school would provide a modern educational environment for students and teachers while also acting as a point of civic engagement for the community. The design translated this vision.

A sweeping promenade arcs across all three entrances, symbolic of outreach, the "arms" open to the community. It's also a symbol of unification, bringing together learners of all ages and bridging the past with the future.

A civic influenced exterior yields to a progressive interior. Transparency, connectivity and collaboration are key themes.

"IT'S GOING TO FEEL LIKE HOME."

M. SUFICICIA

Engaging Learning Environments

"In the West educational model, teachers are considered learners too. The more they learned about the new building, the more they looked forward to using it."

West ISD adopted a project-based learning approach. The new school embodies the district's strong convictions about engaging and collaborative experiences and **peer-to-peer learning opportunities.**

The design supports deeper engagement between teachers, **pulling them out of isolation** and providing them a space that fosters connectivity and cross-teaming.

Throughout the campus, instructional space comes in a variety of shapes and sizes, providing students, teachers and administrators **choices for learning.**







"EVERYTHING IS MULTI-PURPOSE."

Diversity in Learning Spaces

"One of the coolest things about the new building is that one wall in every classroom has a white board. When the teachers turn on the projector for the first time, and the entire board lights up, it's going to be so cool for the kids to be able to see that."

The design offers a broad array of choice. Learning spaces are created to foster self-directed, independent and individualized instruction.

Academic wings are structured as interdisciplinary learning communities. Classroom walls are movable, creating large-group settings or opening into **collaborative spill-out spaces**. Both arrangements support a maker culture and cross-teaming between teachers and departments. Spill-out spaces feature soft seating and charging stations.

All classrooms and labs have large-scale writable surfaces including art rooms and the theater scene shop. Collaboration is encouraged at all times, at all levels of instruction.

In the art room, **sit-to-stand desks feature tilt tops.** In the classroom, desks adjust easily. Each space is equipped with the latest technology.

Academic wings feature teacher planning / work rooms that can transition into centralized office space as part of a dynamic scheduling approach.

An agriculture / welding lab, CTE classrooms, band hall and fine arts round out comprehensive offerings for all students.









PERFORM + INSTRUCT

A 588-seat performance hall **doubles as a collegiate-style lecture hall.** In the balcony, tablet arms extend from the chairs—each has its own power outlet—partitions enclose the space and two large-format projector screens drop down for easy instruction and presentation. The lecture hall accommodates 187 people.



Community and Shared Amenities

Upon walking through the civic entrance, the student union, dining, athletics and performance hall stretch straight through the "spine." These amenities are **shared between the schools and the community.**

Security vestibules at the entrance and between public and school spaces add a measure of safety while also keeping younger middle school students semi-isolated from older high school students.



The **modern dining space** features a variety of choices in seating, from an outdoor patio to standing height tables to a brightly colored nook with bar-height stools. The dual-purpose space is also used as a **pre-event area;** a concession stand is situated for public access during athletic activities and performances.

A wall of windows connects the student union with the competition gymnasium. The **state-of-the-art arena** is colored in Trojan red and black. Environmental graphics announce whose house you're in.

The **performance hall** is used for community events, fine arts and graduation, as well as instruction and district-wide training.

An **exterior courtyard** is used frequently by art students. The dining patio doubles as an outdoor classroom.







STEM Lab and Learning Resource Center

The STEM Lab and the Learning Resource Center sit adjacent to the academic wings. They are located at the entrance, providing high **visibility to learning** with views into the admin suite, student commons and classrooms.

The spaces are shared by middle and high school students and blend a collegiate aesthetic with bookstore / coffee house / Genius Bar functionality. They perform as maker spaces as well, providing students with choice in **pre-making, making and post-making** environments.

The first level of the STEM Lab adapts to a variety of purposes using flexible furniture and access to technology. Tiered seating in both spaces creates **learning stairs** that lead into learning lofts with movable tables and chairs. The lofts are connected through a semi-private bridge that overlooks the civic spine. Soft seating on the bridge creates a **comfortable and quiet study area**.









PHYSICAL ENVIRONMENT

est High School / Middle School blends modern and traditional materials. A juxtaposition of metal panel curtainwall with red brick and cast stone creates an iconic symbol of community that **bridges the past** with the future—literally and conceptually.

The entry curvature is reminiscent of the old high school a beloved space that was demolished following the explosion. The comparison was intentional, as it draws the community in with "open arms" and creates a comforting aesthetic.

The promenade leading up to the building features a brick path. The pavers are engraved with the names of alumni. The bricks were salvaged and re-laid, another subtle feature that hints at "home" for West students, teachers and alumni.

The front features extensive glass. The aesthetic is carried into the STEM Lab / Learning Resource Center and competition arena. It promotes connectivity and learning on display.



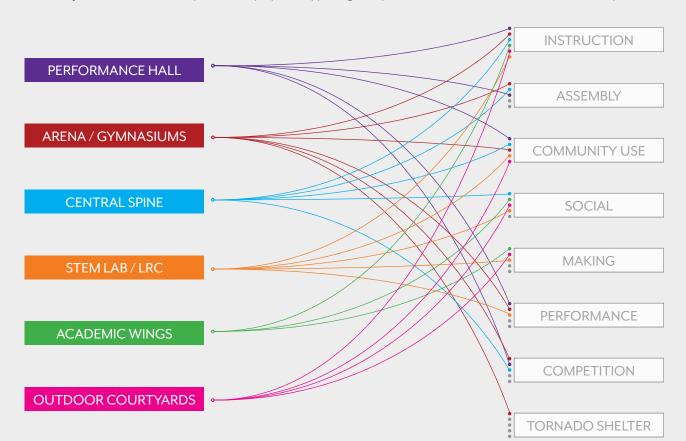
Designing Efficiencies

Space is not duplicated; it is shared. From the drives, to parking, to learning space, to amenities, to circulation, the program was designed to maximize costs, efficiency and adaptability.

Insulated Concrete Form (ICF) was selected as the main structural wall component. In addition to increased thermal mass, reduced utility costs and energy sustainability, the system is blast, wind and fire resistant. It also has exceptional acoustic performance leading to a cleaner and quieter learning environment.

Masonry and tile were used on the interior, creating a beautiful aesthetic and life-cycle durability.

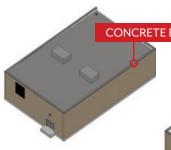
Other efficient and durable selections include energy efficient HVAC, single-ply white roof, daylighting, LED lighting, terrazzo flooring, shading devices and native landscaping.





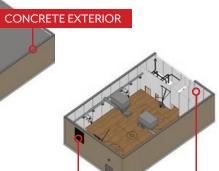
Efficiency in utilization—Each space is multipurpose, supporting use by the school district, students and the community.





REQUIRED RESTROOMS





NATURAL VENTILATION

TORNADO SHELTER EXTERIOR



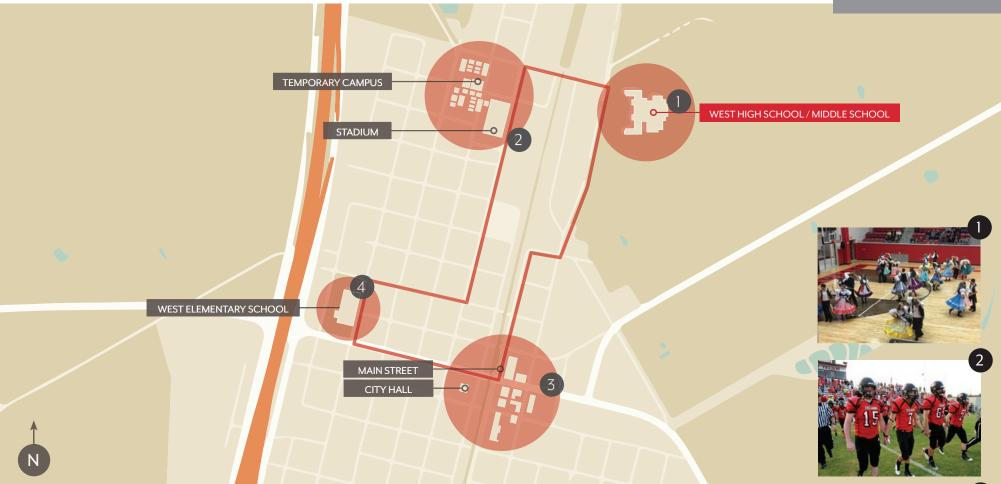


ICC 500 Tornado Shelter

West High School / Middle School features a tornado shelter designed to withstand an EF-5 tornado. It is the first ICC 500 tornado shelter funded by FEMA. To create a multipurpose space, the architectural and engineering team outfitted the middle school gymnasium.

The decision to include the shelter was driven by FEMA and the school district in consideration of upcoming regulations required for new schools in West ISD. The district also wanted to create a safe environment for students, having just lived through tragedy.

The shelter is made of 14-inch thick pre-cast concrete walls with 48-inch deep pre-cast concrete double tees.





Community Context

The High School / Middle School sits less than a mile from West's historic Main Street. It's central to the fabric of the community—not only as a place to nurture youth who may some day deepen their roots in West, Texas, but also as a rallying point of Trojan pride.

The space is used frequently by the community. The connectivity of the dining hall / student commons / pre-event space, performance hall and arena in the civic spine was intentional. West built a community together. They celebrate together. They learn together. They face tragedy together. **They rise up together.**

West High School / Middle School is more than a building to West and it was treated as such in every way possible.





RESULTS

he architectural team beyond expectation; West ISD school community. Their journey forged a path that benefits the students, educators and community for decades.

On the first day, "It was like this is really happening. We are really here in an actual building. It has all come together and there was just so much happiness." West High School / Middle School is a source of pride. Start to finish, the vision was realized through collaboration, trust and innovation. From the first 24 hours, to the first day of class, the architectural

The campus is used by the whole community for athletic tournaments, events, prom, community meetings and more. It is the center of West.

"The cost to maintain it. the cost to cool it, all those things will see a great benefit." Choice of material, means and method provide long-term economic efficiency.

The district invested in the building. Notably, in the selection of ICF as the selections for flooring and walls.

Programs expanded, and West embraced a more interactive approach to learning. Students are learning and teaching space that isn't used for instruction. Students now have the tools for an immersive education. They are capitalizing on "choice" and finding new freedoms to make instruction their own.

The facility's STEM and maker spaces allowed the district to expand STEM programs. The campus was designated a Texas STEM academy (one of only approx. 140 in Texas) and will serve as a learning lab and demonstration school for STEM education.

West High School moved up from bronze to silver in U.S. News and World Report's

the tragedy they endured, but for their shared resilience and belief that by investing in their kids, they could re-build



























