



# EDUCATION

ARCHITECTURE

2nd Edition

MARMON MOK | ARCHITECTURE



**EDUCATION**  
ARCHITECTURE

2nd Edition

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#### PHOTOGRAPHY

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*7-9 / Chris Cooper*

*11-13 / Paul Bardagiy, Leigh Christian*

*23 / Alan Harmon*

*25 / Montgomery Howard*

*33 / Greg Hursley*

*36, 101(top) / Dror Baldinger 47-49 / Mark Langford*

*79, 82-89 / Mark Menjivar*



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*"Marmon Mok architects designed exactly what the College had in mind as we continue to respond to an ever larger population of students in our service area....I was very pleased with the work completed by the team."*

**Jaqueline Claunch**, President  
ACCD Northwest Vista Campus

*"From a functional perspective, I have yet to see a more practical, well-designed elementary school floor plan.....Aesthetically speaking, one would be hard pressed to find a more majestic looking elementary school.."*

**Mark Rustan**, Principal  
NISD Bob Beard Elementary School

*"Marmon Mok made the two years of construction a complete pleasure. The completed campus has been visited by various districts because of the attractive and unique features that were built into the design. The entire team at Marmon Mok is to be commended on their professionalism and ability to deliver a beautiful designed quality campus."*

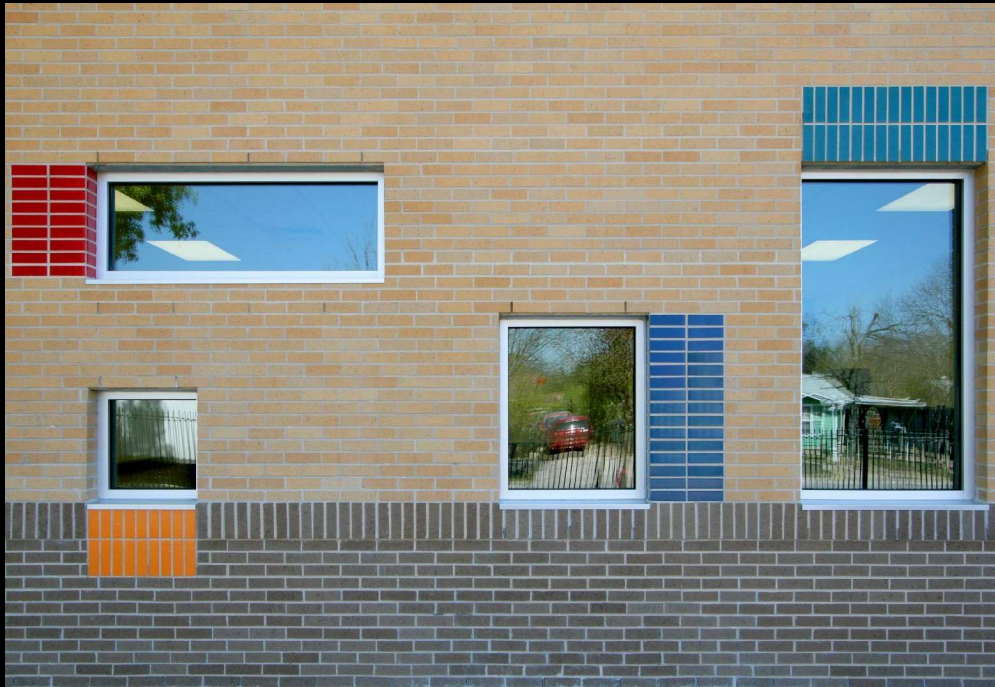
**Linda Aleman**, Principal  
HISD Morrill Elementary School

*" I was most impressed with the manner in which Marmon Mok involved me and our parents in the planning and design of all the projects.....I found the staff of Marmon Mok to be extremely talented and professional."*

**David Stelmazewski**, Principal  
HISD McCollum High School

*"Marmon Mok Architects has a steady and proven track record for assembling a team of highly qualified architectural and engineering experts to meet the needs of our District for projects in which they are involved."*

**Vernon L. Dunagin**, AIA, Exec. Director for Construction & Engineering  
Northside ISD



PRIMARY & SECONDARY

WILLIAM J. BRENNAN HIGH SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

2011 EXCELLENCE IN DESIGN AWARD |  
**TASA/TASB**

2011 GOLDEN TROWEL AWARD |  
SAN ANTONIO MASONRY CONTRACTORS ASSOC.

Marmon Mok designed this state-of-the-art high school for Northside Independent School District. The projected student core capacity is 3000 students, with the projected permanent student capacity at 2800 students.

The new school has more than 70 classrooms, 16 science labs, 15 computer labs, auto and building trades shops, cafeteria with outdoor dining, library, two gymnasiums and locker rooms, band, choral and orchestra rehearsal spaces, and a legitimate theater with a fly loft. The primary organizing element of the building's plan is the two-level east/west circulation corridor that links all of the major program areas: administration, fine arts, black box theater, gyms, locker rooms, cafeteria, and classroom wings. "Public" areas including, gyms, and administration are concentrated at the front of the school. The library occupies a prominent central location on the second level of the building.

Site development includes drives, sidewalks, parking for approximately 600 automobiles, service areas for loading and unloading, bus drop-offs, athletic facilities for track and field events, football, soccer, softball, baseball and tennis courts, as well as a paved area for marching band practice.









SANDRA DAY O'CONNOR HIGH SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

1999 CAUDILL AWARD - ARCHITECTURAL EXCELLENCE IN SCHOOL DESIGN |  
**TASA/TASB**

Located on a 175 acre site, 100 acres are master planned for a new district athletic center and a 660 student elementary school, with the remaining 75 acres designated for the 2400 student high school campus. This facility was developed in a rural area, near San Antonio in Helotes, Texas, a small Hill Country community.

To respect the rural nature of the community, fourteen buildings were developed on a Village concept with the Library / Technology Center at the heart of the school. Buildings which are accessible to the public, the Fine Arts Center, the Gymnasium, the Cafeteria, and the Library are located to the front of the campus, immediately adjacent to parking. Instructional buildings are developed around the Library.

The plan yielded a campus with 341,000 s.f. The project had an aggressive construction schedule of seventeen months, but the District identified early on that with the enrollment at their other high schools already exceeding their original design limits, it was essential that the project open for the Fall of 1998. This challenge was met by using pre-engineered structural frames and creating a schedule or phasing plan which allowed the fourteen buildings to begin at different times as the structural frames were delivered to the site. Geometry of the buildings were kept simple using metal roofs and split-face block, which reflected the character of the limestone buildings of the Texas Hill Country.











McCOLLUM HIGH SCHOOL ADDITIONS & RENOVATIONS  
HARLANDALE ISD | SAN ANTONIO, TEXAS

2007 CITATION AWARD |  
AMERICAN INSTITUTE OF ARCHITECTS SAN ANTONIO CHAPTER

"BEST OF 2006" EXCELLENCE AWARD IN K-12 DESIGN |  
TEXAS CONSTRUCTION MAGAZINE

Over years of expansion without a master plan, McCollum High School became a haphazard collection of buildings and infrastructure. Marmon Mok's master plan for redevelopment of the campus included implementing a "zocalo" (courtyard) as a spatial organizing element at the "heart" of the school organized major public buildings, created a flexible and multi-purpose environment in place of the old cafeteria, and provided community ties through culturally recognizable elements. Vibrant colors inside the new cafeteria, new classroom building and administration building call to mind bright "tapetes" (rugs) at the entrance and the length of corridors. Metal sombrillas (shades) are utilized for passive solar control on the east and south of the buildings. Materials including brick, metal and concrete create a unified whole with the existing campus and reflect local materials used throughout the community.







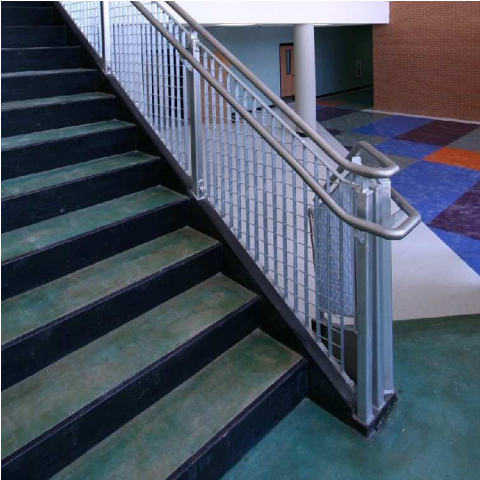














WHITTIER MIDDLE SCHOOL CAMPUS REPLACEMENT  
SAN ANTONIO ISD | SAN ANTONIO, TEXAS

The original building built in 1929 as a high school experienced major additions in the span of 50 years. The facility consists of approximately 98,000 s.f. of new permanent construction. This project included demolition of approximately 56,000 s.f. of existing construction, leaving the original classroom building and the spectator gymnasium. The new work included complete renovation of the original 1929 classroom building, renovation of the existing spectator gymnasium, and major addition of new space. The result is virtually an all new middle school campus for a permanent population of 900 students from 6th through 8th Grade.

A “portable village” was developed on the existing football field utilizing portable or temporary classroom buildings. It housed all students, faculty, staff, and campus operations during the construction period.

New construction utilizes face brick with CMU back-up at exterior locations, CMU corridor walls and partitions at other high-use areas, and steel stud framed gypsum board assemblies between classrooms and other interior spaces.





NEW BRAUNFELS MIDDLE SCHOOL RENOVATIONS & ADDITIONS  
NEW BRAUNFELS ISD | NEW BRAUNFELS, TEXAS

The New Braunfels Middle School Addition & Renovation project was a major construction and design challenge for a student population of 1,200. The major design challenge for this project was to pull a group of existing buildings together that range in age and style from the early 1950's to the late 1980's. New canopies and consistent materials and details throughout were used to help bring the campus together once again. Building additions include a 17,020 s.f. cafetorium / fine arts classroom addition and kitchen renovation, a 1,915 s.f. choir room addition to the existing fine arts building and a 3,560 s.f. classroom addition that tied the existing buildings together. Major building renovations include a 5,855 s.f. library renovation, interior renovations to the existing administration area, renovation of the existing wood & metal shop programs into two new science wet labs, a computer automation lab and new industrial technology shop. Minor building renovations include work done for the fine arts building, two secondary classroom buildings and the main classroom building. Major renovations to the 13.7 acre site include a new lighted parking lot to be used for faculty, staff & after hours activities, new covered parent pick-up and parking area, new bus drop off lane, new basketball play court, a fire lane access road, outdoor gathering spaces consisting of new hardscape and landscape areas, continuous canopies for covered circulation access throughout the campus and new HVAC systems.



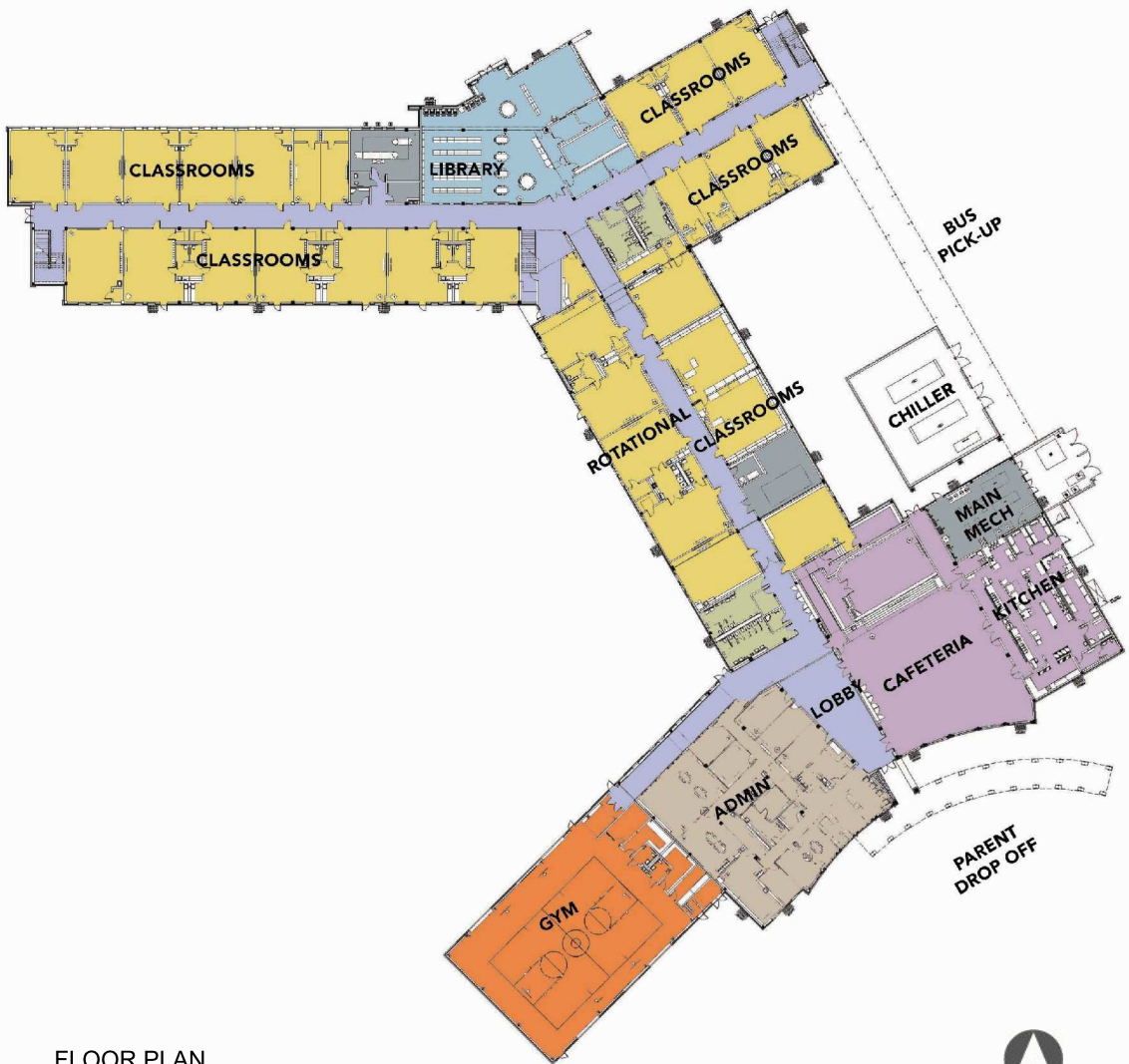
BOB BEARD ELEMENTARY SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

2007 AWARD FOR DESIGN, VALUE, & EDUCATIONAL APPROPRIATENESS |  
**TASA/TASB**

This 92,000 s.f. project consists of construction of an all-new elementary school campus for pre-kinder through the fifth grade. The building is designed for a permanent population of 800 students at opening, with core facilities planned for 990. The project includes a two-story classroom wing, administration, library, physical education, dining, kitchen and academic support spaces. Also, included is remotely monitored computer controlled environmental systems and networked technology capability. The 16-acre site has a regular shape, but includes a total elevation change of 65 feet and with portions not usable due to drainage issues. Development includes vehicle parking and circulation areas, separate covered bus and parent loading lanes, structured play areas and fields that accommodate "accessibility", separate facilities for kinder and pre-k and utility extensions for future temporary facilities.



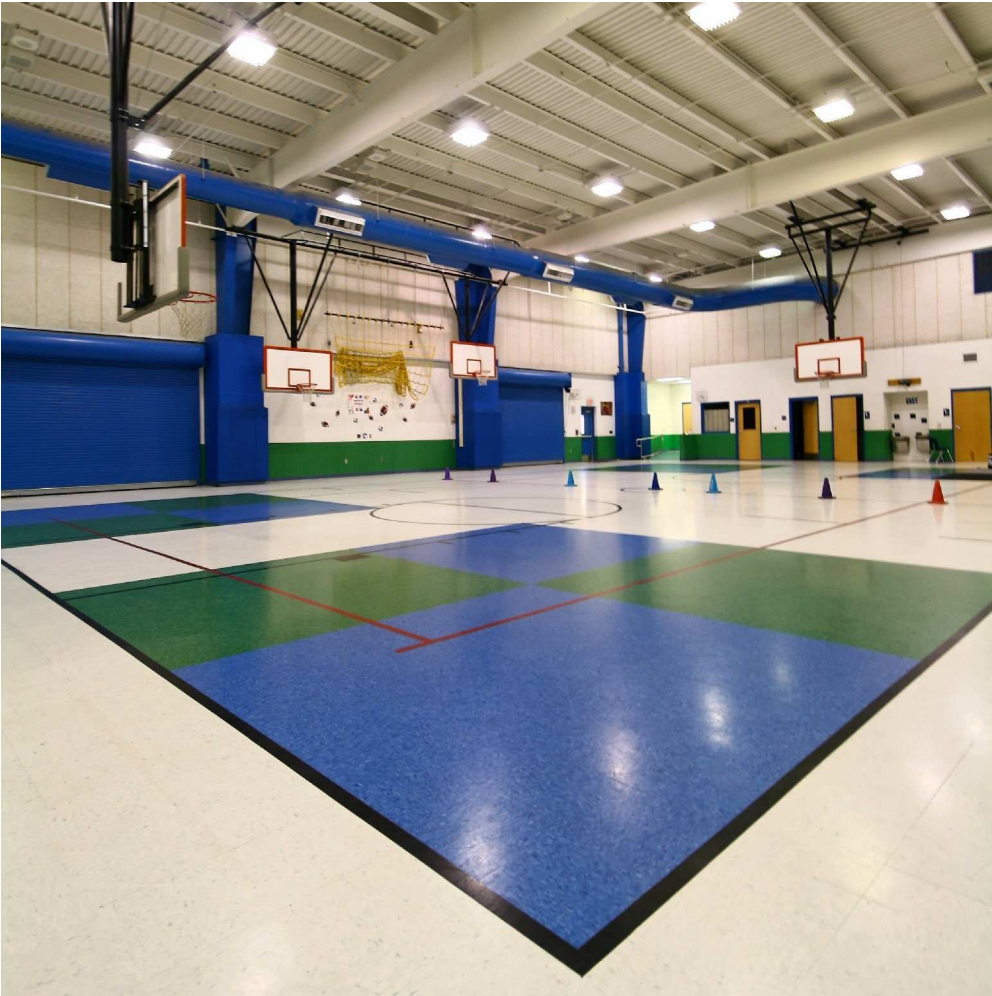




FLOOR PLAN









LEON SPRINGS ELEMENTARY SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

1992 CAUDILL AWARD - ARCHITECTURE EXCELLENCE IN SCHOOL DESIGN |  
**TASA/TASB**

1992 MERIT AWARD - ARCHITECTURAL DESIGN AND ACHIEVEMENT |  
AMERICAN INSTITUTE OF ARCHITECTS SAN ANTONIO CHAPTER

1992 GOVERNOR'S ENERGY AWARD |  
TEXAS SOCIETY OF ARCHITECTS ENERGY & MATERIAL RESOURCES COMMITTEE

1992 AWARD OF OUTSTANDING CONSTRUCTION |  
ASSOC. OF GENERAL CONTRACTORS - LOCAL LEVEL

1992 AWARD OF OUTSTANDING CONSTRUCTION |  
ASSOC. OF GENERAL CONTRACTORS - STATE LEVEL

Leon Springs Elementary School serves the children of Leon Springs, a Texas, historic community on the outskirts of San Antonio. Built on the site of an 1890 one-room house, the school embodies the spirit of Texas Hill Country in its architectural character and education program. It was the first project designed under the school district's newly adopted Design Guidelines and now as a prototype for new elementary schools.

Composed of masonry and wood structures with metal roofs, exterior walls of the school are split-face masonry block with windows trimmed in contrasting smooth-faced block and accentuated by ceramic tile medallions. Metal gable and hip roofs and canopies complete the regional design. The interiors of the school reflect the warm colors of the exterior. Corridor walls are provided with a painted wainscot and vinyl tile floors are enhanced by borders and geometric patterns. Within the two story entrance lobby, the floor pattern was designed with a patchwork quilt theme.



HAWTHORNE ELEMENTARY SCHOOL ADDITIONS & RENOVATIONS  
SAN ANTONIO ISD | SAN ANTONIO, TEXAS

The design of the new Hawthorne Elementary addition serves as a connection between two existing buildings. The new library is the center of the school, and is available for after-hours community use. The new addition also houses four special education classrooms and restrooms. The library was designed to take full advantage of natural light through the use of clerestory windows and large shaded expanses of glass on the southeast corner of the building. The space provides a very open and light-filled environment where children can learn. The new design adopts the same brick and detailing used on the original buildings. The exposed steel structure and canopies reflect the color of the existing building green roof tiles.









ROY CISNEROS ELEMENTARY CAMPUS REPLACEMENT  
EDGEWOOD ISD | SAN ANTONIO, TEXAS

2011 GOLDEN TROWEL AWARD |  
SAN ANTONIO MASONRY CONTRACTORS ASSOC.

The new Roy Cisneros Elementary School is an on-site campus replacement for the old Cenizo Park Elementary, located directly across the street from Rosedale Park on the west side of San Antonio. The original campus, originally built in 1953 experienced numerous additions and provided many challenges for replacement.

The new school provides new administrative offices, cafeteria & kitchen, library, gymnasium and classrooms. The building is oriented with the long axis east to west, exposing the classrooms and major areas to desirable northern and southern natural light. Cupolas above the gymnasium and cafeteria allow for additional light penetration.

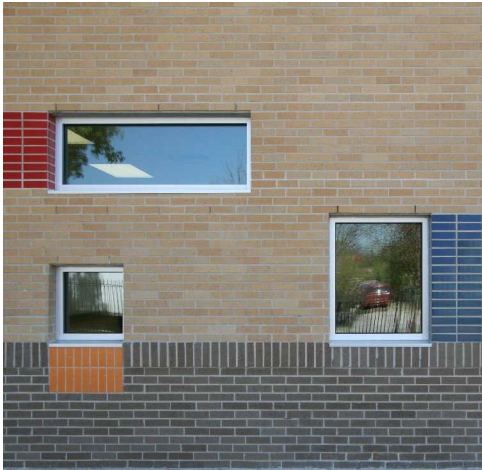
The school does not have a "back side", it was designed to respectfully address the neighborhood on all sides. The exterior design utilizes various geometric shapes and colors recognizable and appropriate for young children, including triangular canopies, square and rectangular windows, triangular downspouts, and primary color accents at the edges of windows and doors. The colorful "cube" reading area in the library is reminiscent of hole-and-peg learning toys that teach children about shape, size and color.























**BENJAMIN FRANKLIN ELEMENTARY SCHOOL  
SAN ANTONIO ISD | SAN ANTONIO, TEXAS**

**2006 HISTORIC PRESERVATION AWARD |  
SAN ANTONIO CONSERVATION SOCIETY**

**2006 AWARD FOR DESIGN AND PLANNING |  
TASA/TASB**

Marmon Mok designed a new 71,000 s.f. addition to Benjamin Franklin Elementary School that includes 30 new classrooms, cafeteria, gymnasium, library, computer laboratory and fine arts room. The original 1915 Mission Revival style administration building now houses a spacious library and administrative offices.

The San Antonio Conservation Society and National Trust for Historic Preservation have both recognized the San Antonio Independent School District for its commitment to adaptive reuse and preservation of its many historic schools. In 2006, the San Antonio Conservation Society awarded Benjamin Franklin Elementary School a Historic Preservation Award. Franklin Elementary also won the 2006 TASA/TASB Award Excellence in School Design for Design and Planning.









GREEN ELEMENTARY SCHOOL  
SAN ANTONIO ISD | SAN ANTONIO, TEXAS

2006 AWARD FOR DESIGN AND PLANNING, VALUE & EDUCATIONAL APPROPRIATENESS |  
**TASA/TASB**

This 350-student campus new elementary school addition and renovation included a major addition to the original ca. 1915 campus. The design includes a ten classroom, 2-story addition, a new library, a new cafeteria & kitchen, a new fine arts room, a new speech room and a new integrated P.E. facility. The character of the new building borrowed details from and respected the design of the original buildings to create a cohesive whole. Matching the brick and using limestone color block to imitate the existing cast stone window sills, coping and accents were used to integrate the new with the old. Window size and spacing were matched to compliment the original buildings. Brick patterning on the new building serves to accentuate the brick bond which was used on the original 1915 structure.











DR. MARTHA MEAD ELEMENTARY SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

2007 AWARD FOR EDUCATIONAL APPROPRIATENESS |  
**TASA/TASB**

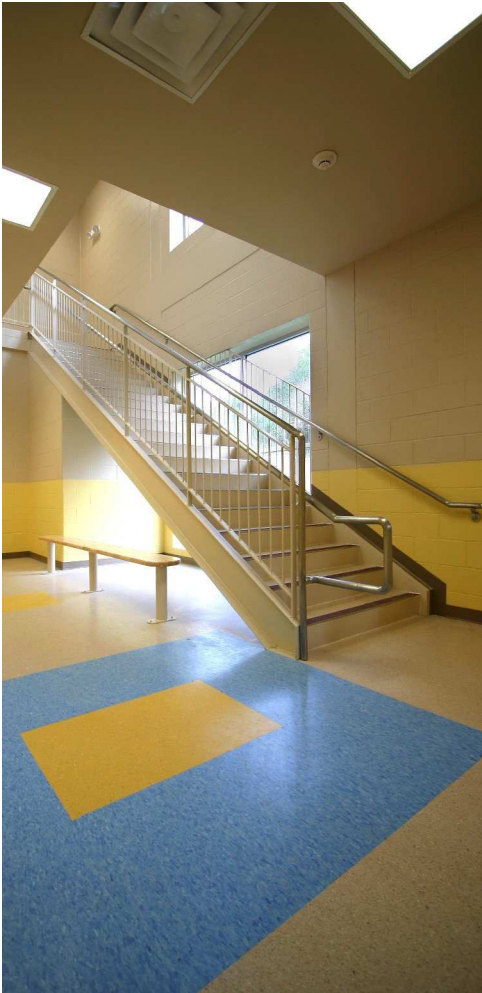
The 105,000 s.f. project consists of an all new elementary school campus for pre-kinder through the fifth grade. The building was designed for a permanent population of 800 students at opening and core capacity for 990. The project includes a pair of two-story classroom wings, administration wing, library wing, physical education gym, dining & kitchen facility and academic support space. Also included are remotely monitored computer controlled environmental systems with networked technology capability. The 15-acre site has an irregular shape, and 65' elevation change across the site which included vehicle parking and circulation areas, separate covered bus and parent loading lanes, structured play areas and fields that accommodate "accessibility", separate facilities for kinder and pre-k and utility extensions for future temporary facilities.











HIDDEN COVE ELEMENTARY SCHOOL  
SOUTHWEST ISD | SAN ANTONIO, TEXAS

2012 AWARD FOR VALUE | **TASA/TASB**

The project consisted of demolition of approximately 46,000 s.f. of existing school building and construction of approximately 57,000 s.f. of new building with new interior finishes for 26,000 s.f. of existing building to remain and accommodate a permanent population of 800 students from Pre-Kinder through the Fifth Grade. Facilities include classrooms, administration, library, physical education, dining, kitchen, and academic support spaces. Site development will include vehicle parking and circulation areas, structured play areas and play fields and storm drainage system.

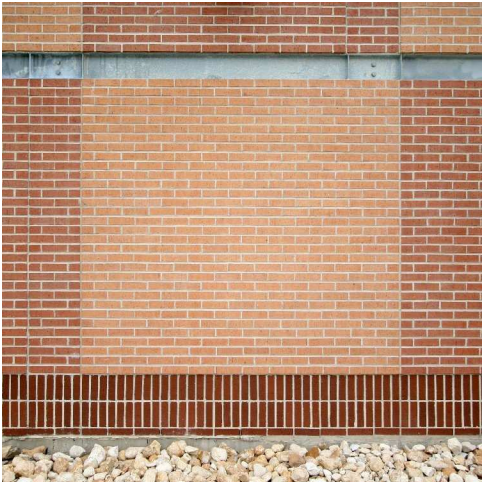
The new construction utilizes architectural concrete masonry unit veneer with standard CMU back-up at exterior locations. Interior partitions at student grouped toilets, and other high maintenance areas are CMU, with steel stud framed gypsum board assemblies in the Corridor, Library, Administration area, and at demising walls between classrooms. The foundation and floor construction is concrete. The roof framing includes concrete columns with steel. The roofing installed is a built-up type over rigid insulation on a fluted metal deck at the low sloped areas. Daylighting was introduced using translucent panel clerestories at the entry and corridors and sun light tubes in the new library. Other sustainable practices included re-using materials on site and offsite, previously and centrally located site, potable water reduction by 17%, construction waste management and the use of a cool roof.

















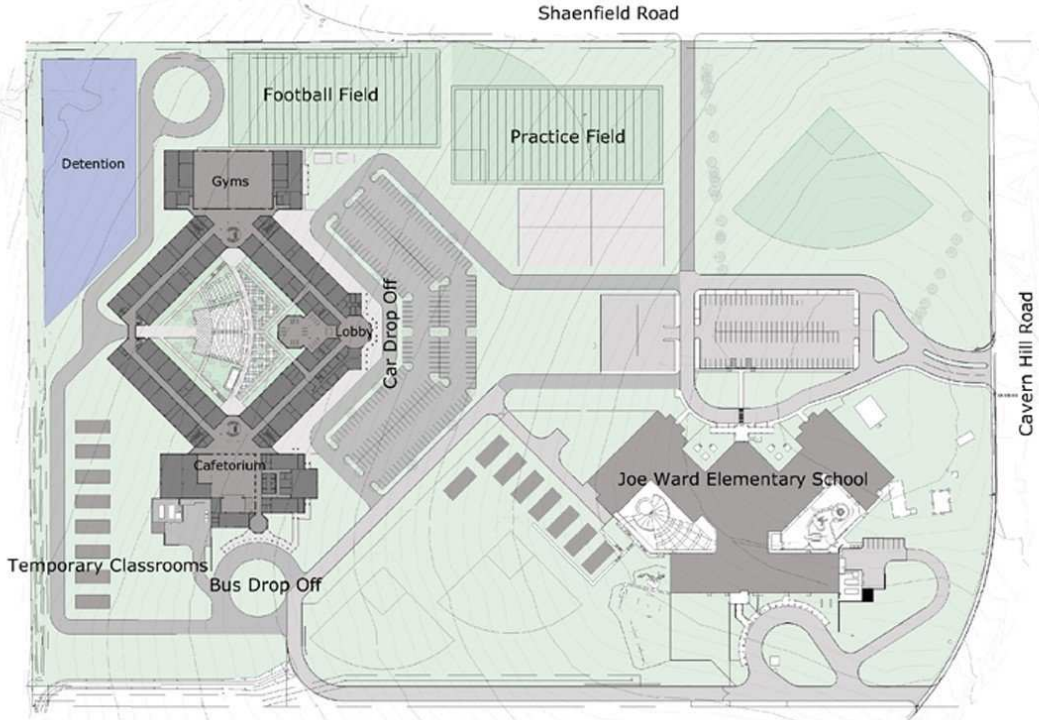
WALLACE B. JEFFERSON MIDDLE SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

This 200,082 s.f. project consists of construction of an all-new middle school campus for grade six through grade eight. The building is designed for a permanent population of 1,200 students at opening, with core facilities planned for 1,500. The project includes a two-story classroom and administration building, physical education gym, dining & kitchen facility and academic support spaces. Also included are remotely monitored computer controlled environmental systems with networked technology capability. The nearly 47-acre site has a regular shape and is shared by an existing elementary school campus. Development will include vehicle parking and circulation areas, separate covered bus and parent loading lanes, tennis courts and athletic fields that accommodate “accessibility,” and utility extensions for future temporary facilities.









Site Plan













JULIA NEWTON AUE ELEMENTARY SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

The 95,579 s.f. project consists of construction of a new elementary school campus for pre-kinder through the fifth grade site adapted from a previous project. The project includes a two story classroom wing, administration, library, physical education, dining, kitchen and academic support space. Also included is remotely monitored computer controlled environmental systems and networked technology capability. The 11.4 acre regularly shaped, gently sloping site is relatively small for suburban elementary campuses, but this efficient building plan made it possible for the standard program to work. The development included vehicle parking and circulation areas, separate covered bus and parent loading lanes, structured play areas and fields that accommodate "accessibility", separate facilities for Kinder and pre-K and utility extensions for future temporary facilities.













DR. JOHN M. FOLKS MIDDLE SCHOOL  
NORTHSIDE ISD | SAN ANTONIO, TEXAS

TEXAS CHPS DESIGNED AND RECOGNIZED

This Middle School project consists of construction of an all new campus for Grades 6-8, designed for a permanent population of 1200 students at opening with core facilities planned for 1500. The project includes a two story classroom and administration building, physical education gym, dining & kitchen facility and academic support spaces. Also are included remotely monitored computer controlled environmental systems with networked technology capability.

The nearly 35 acre site has a triangular shape. Development includes vehicle parking and circulation areas, separate covered bus and parent vehicle lanes, tennis and basketball courts, and fully accessible athletic fields, and utility extensions for future academic facilities.

This campus was designed to meet TX-CHPS and some of the sustainable practices include: Demonstration areas; school garden; light pollution reduction; reduction of potable water; limit stormwater runoff; reduce heat island through landscaping; 17% reduction in energy; storage and collection of recyclables; construction site waste management; materials recycled content; certified wood; environmentally preferable products; HVAC enhanced filtration; low emitting materials; mercury reduction; chemical and pollutant source control; improved acoustics and controllability of systems.





EDUCATION ARCHITECTURE









**We**  
our natural  
resources

The State of California has the most varied natural resources of any state in the United States. The State's natural resources are a source of pride and a source of wealth for the State.

The State's natural resources are a source of pride and a source of wealth for the State.

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The State's natural resources are a source of pride and a source of wealth for the State.

**OUR SCHOOL**

**ENVIRONMENTAL DESIGN**  
The school's design is environmentally sensitive and sustainable. The school's design is environmentally sensitive and sustainable.

**ENERGY EFFICIENCY**  
The school's design is energy efficient and sustainable. The school's design is energy efficient and sustainable.

**WATER EFFICIENCY**  
The school's design is water efficient and sustainable. The school's design is water efficient and sustainable.

**INDOOR AIR QUALITY**  
The school's design is designed to provide a healthy indoor environment. The school's design is designed to provide a healthy indoor environment.

**ACCESSIBILITY**  
The school's design is designed to be accessible to all students. The school's design is designed to be accessible to all students.

**WE ARE A HIGH PERFORMANCE SCHOOL**

**OUR LAND**

**Our school design is environmentally sensitive to the site.**

The school's design is environmentally sensitive and sustainable. The school's design is environmentally sensitive and sustainable.

The school's design is environmentally sensitive and sustainable. The school's design is environmentally sensitive and sustainable.













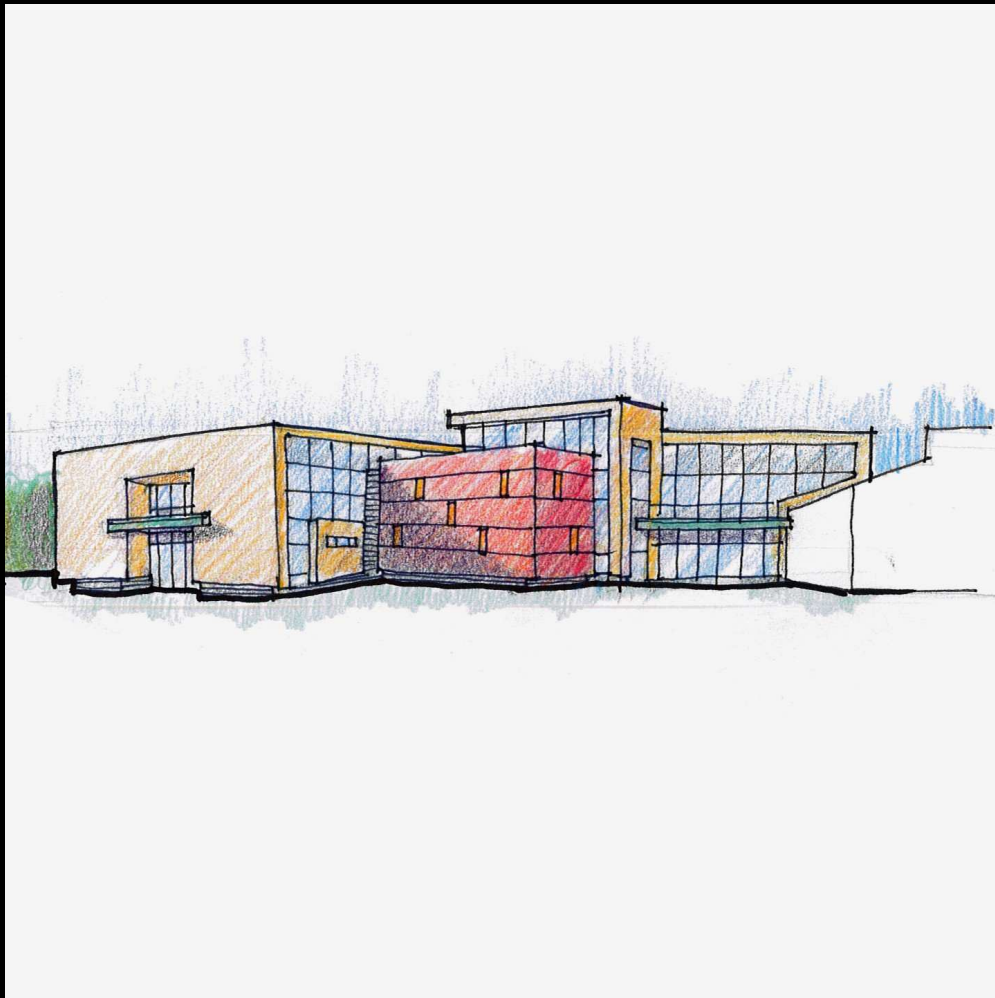






DR. JOHN M. FOLKS  
MIDDLE SCHOOL  
NORTHSIDE ISD  
9855

FIGURE LANE, NO PARKING, TOP AWAY ZONE





WORK IN PROGRESS

EISENHOWER MIDDLE SCHOOL  
NORTH EAST ISD | SAN ANTONIO, TEXAS

The original campus was designed by Marmon Mok in the early 1960's. The Middle School project consists of construction of: a new 27,800 s.f. 14 classroom addition to replace existing portables which will be relocated on the site; a new 27,900 s.f. competition Gym / Athletic Building; a new field-house, new parking and bus drop-off area; and the relocation of two tennis courts and one basketball court. In addition to the base program that was bond approved, the design project will include the conversion of the existing main Gymnasium into a combination Cafeteria Dining expansion and covered breezeway for improved campus access.

This campus will be designed utilizing sustainable practices which will target the following: Demonstration areas; school garden; light pollution reduction; reduction of potable water; limit stormwater runoff; reduce heat island through landscaping; 17% reduction in energy; storage and collection of recyclables; construction site waste management; materials recycled content; certified wood; environmentally preferable products; HVAC enhanced filtration; low emitting materials; mercury reduction; chemical and pollutant source control; improved acoustics and controllability of systems.









BONHAM ACADEMY  
SAN ANTONIO ISD | SAN ANTONIO, TEXAS

Bonham Academy, named after one of the defenders of the Alamo, is an internal charter school serving pk-8th grades, within the San Antonio ISD. The campus was originally built in 1889 and is situated in the King William Historic District and serves the historic King William and Lavaca neighborhoods. Subsequent additions and renovations were performed in 1910, 1996 and 2001. Under the 2011 Bond Program, Marmon Mok will add approximately 35,000 s.f. of new construction to accommodate a 660 population. The new 2 story addition will house 9 classrooms, faculty work center, 3 science classrooms, music, art, black box theatre, library and computer lab. The existing building will receive renovations to the kitchen & cafeteria, administration suite and the existing library on the second level will be converted to a special education classroom.

The character of the new building will borrow details from and respect the design of the original building to create a cohesive whole. Matching the brick, window size and spacing will compliment the original buildings. To pay homage to the historic, colorful, and festive culture of the city and neighborhood in which the school sits; to be a beacon for the community; and to accent the art component of the school's charter, a bright metal "curtain" composed of the neighborhood colors will envelop the Black Box Theater.

The school is being designed under LEED 2009 for schools and aiming for 52 points.



# EDUCATION ARCHITECTURE



FLOOR / SITE PLAN





EDUCATION ARCHITECTURE





HOLY CROSS OF SAN ANTONIO DEVELOPMENT PLAN  
BROTHERS OF THE HOLY CROSS | SAN ANTONIO, TEXAS

Marmon Mok prepared a development study for the Holy Cross of San Antonio, a private faith based secondary school campus serving grades 6-12 founded in 1957. The study looked at the option of total campus replacement to create a 21st century campus and a setting for innovation and learning. This included preparation of preliminary program and a cost estimate.

The end deliverable provided Holy Cross with a clear vision for guiding the phased development of the campus while accommodating an ultimate enrollment capacity of 750 students. The development study incorporated architectural design principles and guidelines which are complementary and will shape the architectural character of the campus by providing guidance with regard to massing, scale, form, materials and details for the campus architecture. It also established a framework that will assist Holy Cross in addressing utility infrastructure requirements.





$P(E) = \frac{\text{number of outcomes in event } (E)}{\text{number of outcomes in sample space}}$   
 $E = h\nu$   
 $E = \frac{hc}{\lambda}$   
 $b = \frac{L}{4\pi r^2}$   
 $\Delta\lambda = \frac{v}{c}$   
 $\geq \frac{\text{observation} - \text{mean}}{\text{standard deviation}}$   
 $L = \lim_{x \rightarrow a} f(x)$   
 $y = 2x^2 - 2x - 2$   
 $\text{average velocity} = \frac{\text{distance}}{\text{time}}$   
 $E_k = \frac{1}{2}mv^2$   
 $v = c \frac{\Delta\lambda}{\lambda}$   
 $E_k = \frac{3}{2}kT$   
 $A_{\text{trapezoid}} = \frac{1}{2}(a+b)h$   
 $\pi \approx 3.14$   
 $\text{Area of circle} = \pi r^2$   
 $\text{Area of sector} = \frac{1}{2}r^2\theta$   
 $\text{Area of segment} = \frac{1}{2}r^2(\theta - \sin\theta)$   
 $\sum \text{Interior Angles} = (n-2) \times 180^\circ$   
 $\text{Grade} = \frac{\text{Rise}}{\text{Run}}$   
 $\text{Hypotenuse}$   
 $\text{Opposite}$   
 $\text{Adjacent}$   
 $\sin \theta = \frac{O}{H}$   
 $\cos \theta = \frac{A}{H}$   
 $\tan \theta = \frac{O}{A}$   
 $A^2 + B^2 = C^2$   
 $\text{wave length}$   
 $\text{direction of wave propagation}$   
 $\text{L} = \text{Lamivudine}$   
 $d = \text{distance in meters}$   
 $\frac{d}{d \sin \theta} = \frac{L \sin \theta}{b \sin \theta}$   
 $b = \frac{L}{4\pi r^2}$   
 $\Delta = \text{apparent brightness}$   
 $\frac{1}{M^2}$   
 $\text{Chemical structures: L-amino acids, nucleotides, and various organic molecules.$

Image: FreeDigitalPhotos.net

HIGHER EDUCATION

PALO ALTO COLLEGE APPLIED SCIENCE AND TECHNOLOGY BUILDING  
ALAMO COLLEGES | SAN ANTONIO, TEXAS

2007 AWARD FOR DESIGN, EDUCATIONAL APPROPRIATENESS AND INNOVATION |  
**TASA/TASB**

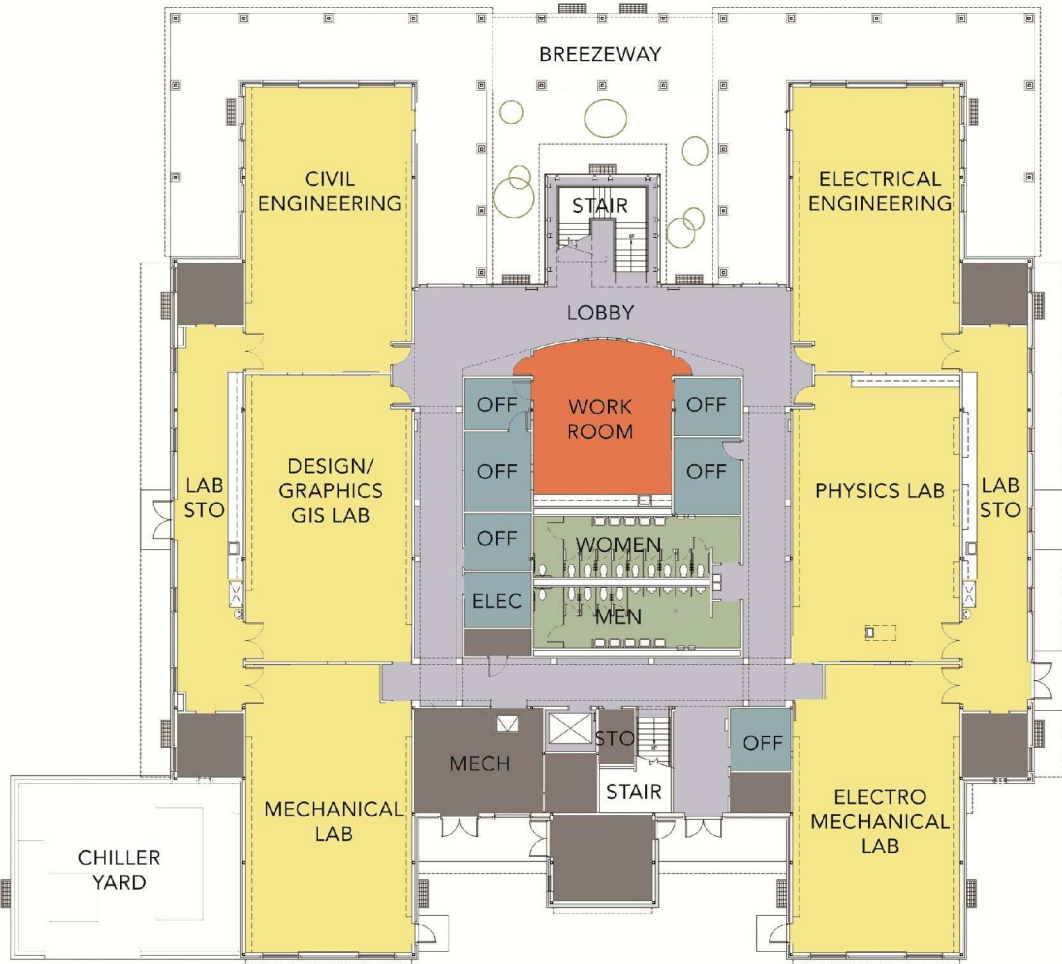
2009 ALAMO COLLEGES AWARD OF EXCELLENCE DESIGN RECOGNITION |  
**ALAMO COLLEGES**

The Applied Science and Technology Center is the largest major addition to date on the Palo Alto College Campus. It is located just west of what was the original campus core development and centrally located in the overall site. The design is intended to be harmonious with the existing context and utilizes masonry, metal roofs, stucco and architectural elements drawn from the original buildings.

As the name suggests, the focus of the program was to create a state of the art science and computer technology training facility. The 29,583 s.f. building includes specialized computer training labs, Civil Engineering, Mechanical Engineering, Electro-Mechanical, Physics, Electrical Engineering, Design/Graphics labs, general classrooms, administrative and faculty offices, and faculty support spaces. The academic program is intended to support partnerships with business and community beyond the campus.

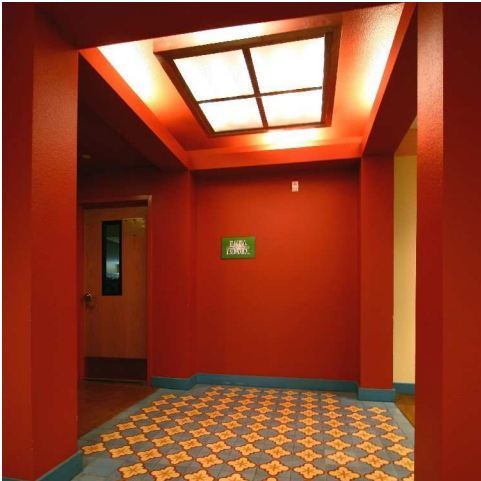






FLOOR PLAN





NORTHWEST VISTA COLLEGE ADVANCED TECHNOLOGY CENTER  
ALAMO COLLEGES | SAN ANTONIO, TEXAS

2007 AWARD FOR EXCELLENCE IN DESIGN |  
**TASA/TASB**

2009 ALAMO COLLEGES AWARD OF EXCELLENCE DESIGN RECOGNITION |  
**ALAMO COLLEGES**

The Advance Technology Center, or Community and Technology Center as it is referred to on campus, is the first major addition to the Northwest Vista college campus since completion of initial development in 1998. The design is intended to be harmonious with the existing campus context and utilizes masonry and architectural elements inspired from the original buildings.

As the name suggests, the focus of the program was to create a state of the art computer technology training facility. The 29,583 s.f. Building includes specialized computer training labs, general classrooms, administrative and faculty offices, and faculty support spaces. The academic program is intended to support partnerships with business and community beyond the campus. With that goal in mind, the building program included an aerobics room and a community room, each of which can be used for a multitude of functions from wellness training to meetings and entertainment.













FLOOR PLAN







SAN ANTONIO COLLEGE MASTER PLAN  
ALAMO COLLEGES | SAN ANTONIO, TEXAS

San Antonio College (SAC) was established as a University Junior College in September 1925, under the auspices of the University of Texas. Today, SAC is the largest of five Alamo Colleges in San Antonio, Texas and one of the largest single-campus community college in the United States, enrolling over 22,000 students.

The San Antonio College campus consists of approximately 70 acres of land located north of downtown San Antonio. Originally the main campus parcel was developed following the block pattern established by the residential neighborhood that preceded the development of the campus. Today, vehicular traffic and parking has been moved to the perimeter of the campus providing for a pedestrian campus core.

The new master plan provides for a student enrollment of 25,000 students by 2025. The plan created a new public entrance to the campus by developing a landscaped mall connecting the core of the campus to Main Street and to the Tobin Hill Historic District to the east. The academic buildings which define the new mall edges, as well as those defining the eastern campus edge with the historic district, reflect sustainable design principles.











PALO ALTO COLLEGE MASTER PLAN  
ALAMO COLLEGES | SAN ANTONIO, TEXAS

Palo Alto College (PAC) was established in 1983 through a bond issue passed by the Bexar County voters. The original campus, opened in January 1987, was build to accommodate 2,050 students on land inside 410 at Texas Highway 16. Consistent increases in enrollment have prompted much physical growth, specifically through the construction of new facilities for added classroom space as well as sports and recreation. The campus currently enrolls 8,300 students. The new master plan provides for a student enrollment of 25,000 students by 2025. The new plan incorporates a framework for future growth by arranging future buildings around a new Botanical Garden currently being constructed. A new grand entrance from Loop 410 access road will lead to a new future Administration Building and One-Stop shop. The arrangement of the future buildings follow a hierarchy of outdoor rooms from intimate courtyards to grand public spaces interconnected by shading trellises as initially established by the original mission style influenced campus. Parking is planned to be moved entirely to the perimeter of the campus to create a pedestrian accessible academic core.



ST PHILIP'S COLLEGE MASTER PLAN  
ALAMO COLLEGES | SAN ANTONIO, TEXAS

Founded in 1898, St. Philip's College (SPC) is a Historically Black College and a member of the Alamo Colleges. Marmon Mok provided a master plan for an ultimate build-out of the campus. The design process involved district and campus staff, faculty, students and community leaders. The final plan incorporates a city park which featured a: renovated historical building for the community; college heritage museum and creates a new "front door" to the campus. A convocation/conference center and recreation building flank either side of a boulevard leading to a new administration building and tower. The master plan analysis resulted in demolition of inefficient structures, development of a new academic buildings and additions/renovations of existing classrooms and laboratory spaces. The pedestrian campus core was expanded and enhanced by a new landscape corridor. Structured and surface parking was moved to the perimeter of the campus and vehicular access to the interior was restricted to service and maintenance.





### THE EDUCATION STUDIO

The Education Studio is led by Marmon Mok partner Bill Reeves, AIA, who has been with Marmon Mok for more than 28 years. Bill grew up in a family of educators and understands well the issues facing school districts, with his father being the Superintendent for the Woodsboro Independent School District in Woodsboro, Texas. Bill provides executive review leadership and support to the team during the design process.

In addition, Montgomery Howard, AIA, CEFPI has been with Marmon Mok for 11 years and has more than 25 years of experience in the planning and design of education facilities at all levels. As Associate Partner, Monty oversees the management and direction of the firm's school district projects, personally leading many of them. Monty also comes from a family of educators, including his grandfather who served as superintendent for several Texas school districts, and his parents who were educators at secondary and higher education levels.

Bill and Monty oversee a staff of senior architects, designers and construction administrators who have worked together over many years and have a proven track record with many school districts, Colleges and Universities in San Antonio and the surrounding area, including Northside Independent School District, San Antonio Independent School District, Harlandale Independent School District, New Braunfels Independent School District and Northeast Independent School District. School districts represent an important and valued segment of Marmon Mok's client base.

Throughout Marmon Mok's more than 50 years of educational design experience, the firm has focused its designs on the educational needs of the students, staff and faculty while incorporating the architectural vocabulary of the surrounding community, program of activities in the building, circulation, material maintenance, flexibility and comfort. Whether it is a multi-campus bond issue, addition and renovation to single campuses or the design of a prototype new campus, the Education Studio brings creative and unique solutions to the challenges presented by each individual project and school district.

**DESIGN AWARDS**

Marmon Mok has received more than 75 awards from the American Institute of Architects, professional organizations, community groups and the construction industry. The following awards have been won for our work in education and are recognized as the top design awards in the State of Texas.

**TASA/TASB DESIGN AWARDS PROGRAM**

Texas Association of School Administrators/  
Texas Association of School Boards Design Awards Program  
Excellence in Design Award  
William J. Brennan High School, Northside ISD

Excellence in Design, Educational Appropriateness, Innovation  
Applied Science & Technology Building  
Palo Alto Community College, Alamo Community College District

Excellence in Design Award  
Advanced Technology Center  
Northwest Vista Community College, Alamo Community College District

Value Award in Design, Educational Appropriateness  
Bob Beard Elementary School, Northside Independent School District

Educational Appropriateness Award  
Dr. Martha Mead Elementary School, Northside Independent School District

Excellence in School Design: Planning, Value & Educational Appropriateness  
Green Elementary School

Excellence in School Design: Design & Planning  
Benjamin Franklin Elementary School

The Caudill Award for Design Excellence  
Leon Springs Elementary School

The Caudill Award for Design Excellence  
Sandra Day O'Connor High School

## EDUCATION ARCHITECTURE

Benjamin Franklin Elementary School, San Antonio ISD  
San Antonio Conservation Society Historic Preservation Award for the Built Environment

### RECENT FIRM AND DESIGN AWARDS

- 2012** Lila Cockrell Theatre Renovation  
Associated General Contractors of America  
Alliant Build America Award
- 2011** Architecture Firm of the Year  
Associated General Contractors, San Antonio Chapter
- Texas Treasure Business Award  
Texas Historical Commission
- City of San Antonio Green Building Award  
Honorable Mention, Walzem Family YMCA
- San Antonio Business Journal Going Green Award  
Sustainable Expert – Edgar Farrera, AIA, LEED AP
- San Antonio Business Journal Going Green Award  
Leadership Non-Profit, Walzem Family YMCA
- 2010** Top 25 “Green” Design Firms  
Texas Construction Magazine
- Bexar County Juvenile Probation Office Building  
American Institute of Architects (AIA), San Antonio Texas Chapter  
Design Citation
- Architecture “Green” Firm of the Year  
San Antonio Business Journal
- City of San Antonio Green Building Award  
Honorable Mention, Trinity University Miller Residence Hall Renovation
- Ethics in Business Honoree  
Ecumenical Center for Religion and Health



Rec Management Innovative Architecture & Design Award  
Texas State University Student Recreation Center

NIRSA Outstanding Sports Facility Award  
Texas State University Student Recreation Center

### CLIENT SCHOOL DISTRICTS

Northside Independent School District

North East Independent School District

Harlandale Independent School District

San Antonio Independent School District

Edgewood Independent School District

Judson Independent School District

Southwest Independent School District

Schertz-Cibolo-Universal City Independent School District

New Braunfels Independent School District

### K-12 EXPERIENCE

K-12 education design is a major focus of our practice. We are constantly keeping abreast of trends, technology, curriculum changes, security and recreation that affect the designs in Texas educational programs. The following are recent examples of our experience:

- 2013 Dr. John M. Folks Middle School, Northside ISD
- 2013 Bonham Academy Addition and Renovations, San Antonio ISD
- 2012 Sandra Day O'Connor High School Addition, Northside ISD
- 2011 Hidden Cove Elementary School Additions and Renovations, Southwest ISD
- 2010 Dr. Pat Henderson Elementary School, Northside ISD
- 2010 William J. Brennan High School, Northside ISD
- 2008 Samuel Clemens High School HVAC Upgrades and Science Wing Addition, Schertz-Cibolo-Universal City ISD

## EDUCATION ARCHITECTURE

2008	J. Frank Dobie Junior High School HVAC Upgrades and Science Wing Addition, Schertz-Cibolo-Universal City ISD
2008	Cenizo Park Elementary School, Edgewood ISD
2007	Sandra Day O'Connor High School Ag Barn Expansion, Northside ISD
2007	Wallace B. Jefferson Middle School, Northside ISD
2007	Julia Newton Ave Elementary School, Northside ISD
2006	McCollum High School Additions and Renovations, Harlandale ISD
2006	Whittier Middle School Additions and Renovations, San Antonio ISD
2005	Mead (Horizon Hill Area) Elementary, Northside ISD
2004	New Braunfels Middle School Additions and Renovations, New Braunfels ISD
2004	Sandra Day O'Connor High School Additions and Renovations, Northside ISD
2004	Franklin Elementary Additions and Renovations, San Antonio ISD
2004	Green Elementary Additions and Renovations, San Antonio ISD
2004	Memorial Primary, Elementary, Intermediate Additions and Renovations, New Braunfels ISD
2003	McCollum High School Master Plan, Harlandale ISD
2003	Beard (Kyle Seale Area) Elementary, Northside ISD
2003	Navarro Achievement Center Management, San Antonio ISD
2002	Lamar Primary Additions and Renovations, New Braunfels ISD
2002	Nichols (Braun Road Area) Elementary, Northside ISD
2002	Carroll Elementary Additions and Renovations, San Antonio ISD
2002	Hawthorne Elementary Additions and Renovations, San Antonio ISD
2001	Forbes Elementary Additions and Renovations, San Antonio ISD
2000	Graebner Elementary Additions and Renovations, San Antonio ISD
1999	O'Connor High School, Northside ISD
1998	Madison High School Library, Northeast ISD
1998	MacArthur High School Performing Arts Center, Northeast ISD

### **SAN ANTONIO ISD 2004 BOND PROGRAM**

Marmon Mok was selected to be a team leader to oversee other architecture firms from design through construction:

2004	Harris Middle School Management
2003	Houston High School Management
2002	Cameron Elementary School Management
2000	Pfeiffer Elementary School Management
2000	Schenck Elementary School Management

**HIGHER EDUCATION EXPERIENCE****UNIVERSITIES**

- Texas A&M University
  - Student Recreation Center
- Texas A&M University – Kingsville
  - Recreation Sports Building & Natatorium
  - Residence Hall Study
  - Javelina Stadium Entrance Study
- Texas A&M University – San Antonio
  - Campus Master Plan
- Texas State University – San Marcos
  - Student Recreation Center Expansion/Renovation & Natatorium
- Abilene Christian University
  - Student Recreation Center Expansion/Renovation
- Our Lady of the Lake University
  - Centennial Hall
- St. Mary's University
  - Alkek School of Business
  - Alkek School of Business Phase II
  - Student Center
  - Student Center Remodel
- Trinity University
  - First Year Residence Hall Master Plan
  - Miller Hall Renovation
  - Calvert Hall Renovation
  - Winn Hall Renovation
  - Bell Center Renovation Study
  - Campus Signage & Wayfinding
  - Marrs McClean Science Building Renovation
  - Chemistry Building Renovation
  - Murchison Hall Renovation

UNIVERSITIES CONT'D

Texas Lutheran University	
Campus Master Plan	Jackson
Center for the Performing Arts	
Alumni & Student Center Renovation	
Hein Dining Hall	
Jackson Auditorium	
Fine Arts Building	
Langner Hall Renovation	
Krost Building	
Student Housing Remodel	
Moody Science Building Renovation	
The University of Texas at Austin	
Red & Charline McCombs Softball Stadium	
Music Building	
Disch-Faulk Baseball Stadium	
The University of Texas at Brownsville	
Science & Engineering Technology Building	
Thermal Energy Plant	
The University of Texas at El Paso	
Fine Arts Center	
The University of Texas Health Science Center at San Antonio	
McDermott Research Center	
The University of Texas - Pan American	
Student Union (Design/Build)	
The University of Texas at San Antonio	
Student Services Center Renovation	
University of the Incarnate Word	
Joeris Hall	
Alonso Ancira Tower Parking Garage	
Central Plant Upgrade	



**COLLEGES**

Palo Alto College, Alamo Colleges  
 Campus Master Plan  
 Applied Science and Technology Center  
 Central Plant Upgrade

Northwest Vista College, Alamo Colleges  
 Advanced Technology Center

San Antonio College, Alamo Colleges  
 Campus Master Plans  
 Campus Master Plan, First Responders Academy  
 Chance Academic Building  
 Central Plant Upgrade

St. Philip's College, Alamo Colleges  
 Campus Master Plan, MLK Campus  
 Campus Master Plan, Southwest Campus

Texas Southmost College  
 Campus Master Plan & Master Plan Updates  
 Gorgas Hall Renovation  
 Tandy Hall Renovation & Addition  
 Art Building Renovation  
 Gymnasium Renovation & Addition  
 North/South Classroom Building  
 Library Renovation & Addition  
 Central Plant  
 Site Improvements  
 Bookstore (Design/Build)

**TECHNICAL COLLEGES**

Texas State Technical College  
 Industrial Trades Building  
 Chemical  
 Instrumentation Building  
 Conference Center





**Marmon|Mok**