



by CHRIS SCHULTZ, AIA

Homework Yields High Marks



PROJECT José M. Lopez Middle School, San Antonio

CLIENT North East Independent School District

ARCHITECT Pfluger Associates Architects; Chumney & Associates

DESIGN TEAM Pfluger Associates Architects: Michelle Dudley, AIA; Kent Niemann, AIA; Brad Pfluger, AIA; Chumney & Associates: Frank Amaro, AIA

CONTRACTOR Joeris General Contractors

CONSULTANTS Pape-Dawson Engineers (civil); Alpha Consulting Engineers (structural); HMG & Associates (MEP); Cooper+Lochte Landscape Architecture (landscape); Combs Consulting Group (technology); Wiss, Janney, Elstner Associates (roofing); Robert Simpson & Associates (food service)

PHOTOGRAPHER Chris Cooper Photography

RESOURCES RECREATIONAL FACILITY AND PLAYGROUND

EQUIPMENT: The John F. Clark Company; **METAL**

MATERIALS: Trans-Tex; **RAILINGS AND HANDRAILS:** York

Metal Fabrication; LAMINATES: Pionite, Formica;

SOLID POLYMER FABRICATIONS: Corian; **TILE:** DalTile;

ATHLETIC SURFACING: Roppe Tuflex Sports Flooring;

WALL COVERINGS: Lanark Wallcovering (TRI-KES

Wallcovering Source); **PAINT:** Benjamin Moore;

SIGNAGE AND GRAPHICS: ASI Modulex; **STAGE EQUIPMENT:**

Texas Scenic Company; **SOUND CONDITIONED ROOMS:**

Wenger Corp.





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he North East Independent School District set several lofty learning objectives for the designers of its new prototypical middle school, José M. Lopez Middle School, in the fast-growing Stone Oak area of far-north San Antonio. Not only must the school be innovative in its design, but it should also incorporate state-of-the-art teaching philosophies and technologies, while allowing for additional enrollment growth without physical expansion. In addition, it should create distinctive learning communities for each grade level and allow after-hours use by the surrounding community while providing the control and security mandatory in today's educational environments. And, of course, the building and associated site improvements must fit on a restrictive site with challenging steep terrain, topography typical of the Hill Country.

Pfluger Associates Architects, along with associate architect Chumney and Associates, certainly did their homework. Prior to beginning design work, the architects analyzed other exemplary schools, curricula, schedules, and technologies. Two key concepts—team teaching and school-within-a-school—emerged. Team teaching brings together five core curricula (English, reading, math, social studies, and science) within a seven-period school day, leaving each teacher two periods for individual planning and team planning. The school-within-a-school concept aims to provide distinctive grade-level experiences within this 200,000-square-foot structure, a large facility that has been divided into a variety of individualized “places” as opposed to “spaces” for education. Although designed for 1,260 students, Lopez Middle School can accommodate a maximum of 1,600 pupils within its existing layout through creative scheduling and an additional floating team of teachers.

Concurrent with this educational modeling study, the design team undertook an extensive site analysis. Typical of many schools in the growth perimeter of San Antonio, the parcel was anything but flat. The site sloped more than 70 feet from its highest point at the southeast corner to a drainage easement along its northwest boundary, mirroring the contours of the adjacent arterial street. Since the steepest slopes lay to the east, the athletic fields were necessarily relegated to the western edge of the property. Topography further limited the amount of southern exposure and essentially mandated an extensive east-west orientation for the building.

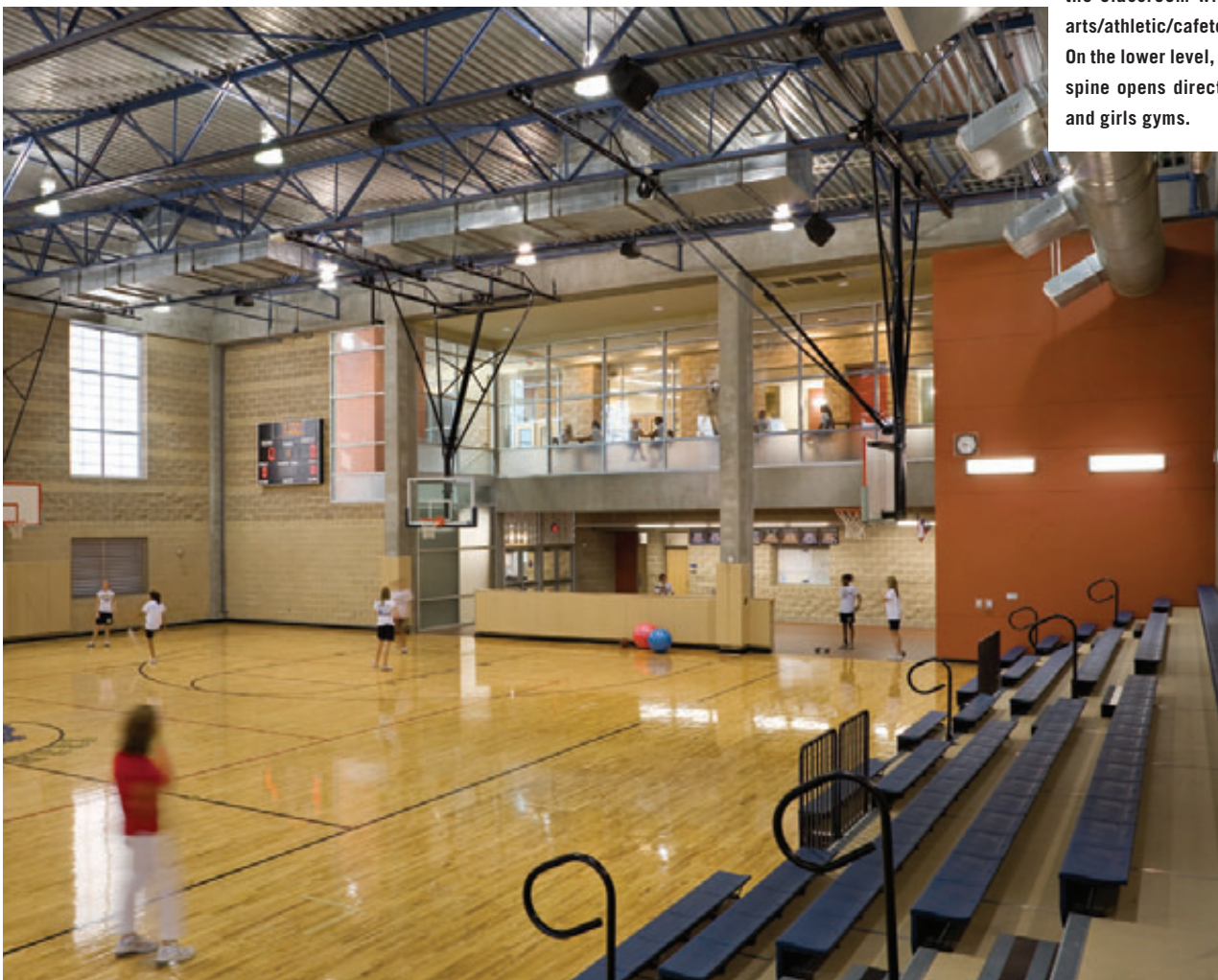
The *parti* that sprang from these analyses clearly illustrates the lessons learned. A central circulation spine runs parallel to the slope and stretches across almost the entire width of the site. Located to the east of the spine are the public spaces (a parking lot, the library, and the cafetorium) that can be accessed directly after hours, while to the west are the academic spaces (classrooms, gymnasiums, staff parking, school bus loading zones, and athletic fields). Near the spine's mid-point, the main entry lobby occupies a glass-enclosed cylinder with adjacent administrative offices as well as one central, secured activity court—an eloquent composition proving that security need not be aesthetically cumbersome or obtrusive. In the terraced courtyard, which follows the fall of the site, the circulation spine creates one of the school's most innovative and dramatic features—a transparent skybridge linking the classroom wing to the fine arts/athletics/cafetorium complex. Together, this composition of entry lobby, courtyard, and skybridge creates the signature look for



(preceding spread, clockwise from left) The architects devised a two-story entry rotunda in response to the topographic challenges of the hilly terrain. Adding drama to the composition, a glass-enclosed skybridge spans the courtyard. The single-story entrance obscures the 70-foot fall of the site.



(this spread, clockwise from far left) Clerestory along the corridors illuminates the interior. The transparent skybridge connects the classroom wing to the fine arts/athletic/cafetorium complex. On the lower level, the circulation spine opens directly to the boys and girls gyms.

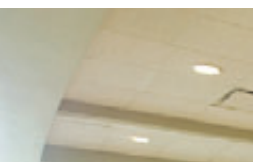




- FIRST FLOOR PLAN**
- 1 ENTRY ROTUNDA
 - 2 GRADE LEVEL HOUSE
 - 3 COLLABORATIVE LEARNING CENTER
 - 4 GYMNASIUM
 - 5 LOCKER ROOM
 - 6 WEIGHT ROOM
 - 7 CENTRAL PLANT
 - 8 SCIENCE



- SECOND FLOOR PLAN**
- 1 ENTRY ROTUNDA
 - 2 GRADE LEVEL HOUSE
 - 3 ADMINISTRATIVE OFFICES
 - 4 CLASSROOMS
 - 5 LIBRARY
 - 6 BRIDGE
 - 7 CAFETERIA
 - 8 KITCHEN
 - 9 MUSIC
 - 10 ART
 - 11 INDUSTRIAL TECHNOLOGY
 - 12 FAMILY & CONSUMER SCIENCE
 - 13 SPECIAL EDUCATION



(this page, from top) The cafeteria's protruding corner further brightens the day for students, faculty, and staff. Seen from the inside, the glass walls of the dining room look over the central courtyard. The library is among the after-hours public spaces open to the surrounding community.



Lopez Middle School. Furthermore, the decorative CMU-clad wall denoting the circulation spine also functions as a virtual retaining wall—science laboratories, locker rooms, mechanical spaces, and other areas not requiring natural lighting are burrowed into the hill behind the wall and under the library and cafeteria spaces above. Thus to the east of the spine, the school appears to be a one-story structure while to the west it is clearly two stories.

The *parti* also clearly illustrates the school-within-a-school concept by creating three distinctive classroom settings, here known as “academic houses,” one for each grade level. With its own unique color scheme both inside and out, each house contains classrooms for three teams, has a central conference, workroom, and resource area, and provides another innovative feature—a collaborative learning center. This double-height space – surrounded by three lower-level classrooms opening directly into it and four more upper level rooms with interior windows – is available to each team for individual discovery and group projects essential to middle school learning styles. Computer stations, specialized lockers for laptops, and audio-visual aids, as well as an adjacent computer classroom, all provide advanced technology capabilities for any team needing assistance. The learning center also has direct exterior access, with a small courtyard for alternative educational settings. In order to feel more self-contained, each academic house has ample circulation space with its own stairway and restroom facilities as well as an abundance of natural lighting and unique exterior views.

Across the skybridge, the arts/athletics complex offers similar clearness in organization. The cafeteria overlooks the central courtyard and has an after-hours entrance for use by the public. The fine arts complex – consisting of stage, drama, band, orchestra, choir, and arts classrooms – occupies the upper level to the east of the circulation spine while the double-height volumes of the boys and girls gymnasiums occupy the area to the west of the spine. On the lower level, the circulation spine becomes a flexible space opening directly into locker facilities, weight room, and gyms alike.

Stylistically, each programmed area has its own distinctive material palette and color scheme, which though clearly emphasizing its uniqueness and the school-within-a-school concept, does create an amalgamated exterior composition. And although the decorative CMU-clad wall of the circulation spine is very clear in plan graphics, in the third dimension it becomes less so and may have been used more effectively as an organizational datum for the various assemblages fronting it. These are relatively minor quibbles, and further refinement of this prototype may yield even stronger visual cohesiveness. The central courtyard does however suffer from a lack of landscaping, particularly the shading of trees and pendulant growth of shrubs and vines along foundation walls, though this may well have been limited by the project budget. On the interior, color manipulation, ample daylighting, and a relatively clean aesthetic yield spaces which indeed are more place-like and inviting than many other schools with seemingly endless, lifeless corridors and perfunctory classrooms.

All told, José Lopez Middle School proves that doing one’s homework does result in very high marks.

Chris Schultz, AIA, is a principal of Wills-Lipscomb/Schultz Architects in San Antonio.