

# Profiles in Architecture

January 2018 Edition



**Why Masonry?**

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Concrete Masonry Association of California and Nevada



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Western Christian School: HMC Architects  
Photography: HMC Architects



# High Tech Elementary North County

San Marcos, California

## ARCHITECT:

**Studio E Architects**

2258 First Avenue  
San Diego, CA 92101

John Sheehan, AIA

*Principal-in-Charge*

## STRUCTURAL ENGINEER:

KPFF Consulting Engineers

## GENERAL CONTRACTOR:

Bycor General Contractors

## MASONRY CONTRACTOR:

Lyons and Son Masonry, Inc.

## BLOCK PRODUCER:

RCP Block & Brick, Inc.

## OWNER:

High Tech Learning

## ©PHOTOGRAPHY:

Darren Bradley Photography



**Architect's Commentary:** High Tech Elementary North County (HTENC) is the third and final school of the High Tech Campus in San Marcos, CA. Completed in the fall of 2014, the K-5 public charter school joined the middle and high schools built in prior phases. HTENC serves 460 students who spend their day immersed in High Tech's unique methods built around a hands-on project-based approach to learning. The campus has become so popular that students are entered into a lottery for enrollment. High Tech learning operates two other K-12 campuses in San Diego County.

**Why Masonry?** All three schools were built using a mix of tan and brown hued concrete masonry units (CMUs) – colors directly inspired by the local boulder strewn hills. The CMUs offered a cohesive signature appearance for the campus and were a practical choice for buildings that endure hard and heavy use. In most instances the concrete masonry units are exposed in classroom interiors, furthering one of the school's stated goals to create a "building-as-learning" opportunity for students.

CMUs were utilized elsewhere in the project, including walls that surround the campus to provide a secure and maintenance free perimeter. They also provided the perfect choice for the raised bio-filtration planters located around the building's perimeter. Roof runoff is directed to these planters where specific plants and an engineered soil matrix remove potentially harmful pollutants. Permeable concrete pavers were used in about fifty percent of the parking stalls and in a large sunken performance plaza. The plaza cleverly doubles as a retention basin which holds runoff and slowly releases it into the storm water system after a heavy rain. This innovative element won high praise from both school administration and City Planning and Building departments for its integration into the site plan.





## Western Christian School Claremont, California

**ARCHITECT:**  
**HMC Architects**  
3546 Concours Street  
Ontario, CA 91764

Andrew Thompson  
*Principal-in-Charge*

**STRUCTURAL ENGINEER:**  
Bushra Tasi Inc.  
Consulting Structural Engineers  
**GENERAL CONTRACTOR:**  
Commerce Construction, CO., L.P.  
**MASONRY CONTRACTOR:**  
Cornerstone Masonry  
**BLOCK PRODUCER:**  
ORCO Block and Hardscape  
**OWNER:**  
Western Christian Schools  
**©PHOTOGRAPHY:**  
Chris Grant, HMC Architects



**ARCHITECT'S COMMENTARY:** Western Christian School challenged our team to design a much needed multipurpose building and pool building, along with playfield upgrades and a handful of site improvements - all while keeping within the budget and staying true to Western Christian School's mission to provide a distinctive education.

**WHY MASONRY?** The exterior materials were selected in response to the natural environment: the context of Western Christian School's suburban neighborhood and the residential scale of the school and its surroundings. Concrete masonry units (CMUs) were carefully chosen for their natural, earthy quality, durability and efficiency in construction of this type of a larger building. Selecting CMU also provided a great fire rating resistance next to existing structures on this thirty-plus-year-old campus. Varying bands and stripes of splitface and precision CMU finishes were selected to wrap the multipurpose and pool buildings. This type of banding provided a cost effective way of adding a fun design in an educational setting while breaking down the building scale for the K-8 students.







## Steinberg Diagnostic Medical Imaging Center

Las Vegas, Nevada

### ARCHITECT:

**IN2IT Architecture**

5135 South Durango Drive, Suite 103  
Las Vegas, NV 89113

Larry Staples, AIA, President  
*Principal-in-Charge*

### STRUCTURAL ENGINEER:

Wright Engineers

### GENERAL CONTRACTOR:

Affordable Concepts, Inc.

### MASONRY CONTRACTOR:

Hirschi Masonry, LLC

### BLOCK PRODUCER:

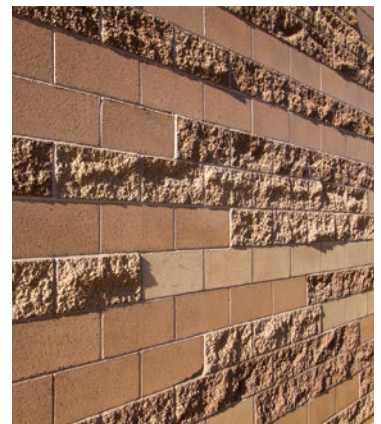
Superlite (an Oldcastle Company)

### OWNER:

Steinberg Diagnostic  
Medical Imaging Centers

### ©PHOTOGRAPHY:

Ed Taube, Taube Photography



**ARCHITECT'S COMMENTARY:** The SDMI mission is to "Deliver an EXCEPTIONAL patient experience and accurate results through compassion and cutting edge technology". In order to accomplish this mission, it was necessary to completely remodel the dated existing building, both inside and out, to create an environment appropriate for a compassionate yet state-of-the-art patient experience.

**WHY MASONRY?** The MRI expansion is designed utilizing tall mass to both screen the rooftop mechanical and provide an additional radiation barrier. Architectural concrete masonry units (CMUs) are both the structural and visual anchor of the design. A taller entry volume is at the intersection between the existing building and MRI expansion to visually anchor the new entry, allowing for a higher ceiling

and clerestory daylight to penetrate into the lobby space. The deep overhang of the entry canopy allows for protection of the entry and its clerestory windows from the harsh summer sun. SDMI's corporate desert palette is found in the horizontal exterior insulation and finish system bands wrapping around the building, thus providing visual movement to contrast with the mass of the MRI CMUs. The existing building used load-bearing exterior wall framing which had to remain, so design of the new banding and CMU accent panels incorporates the recesses and jogs of the existing façade.







## Pinacate Middle School, Academic Core Building Perris, California

### ARCHITECT:

**PJHM Architects, Inc.**

24461 Ridge Route Drive, Suite 100  
Laguna Hills, CA 92653

Thomas W. Kruse, Principal Architect  
*Architect of Record*

### STRUCTURAL ENGINEER:

STB Structural Engineers, Inc.

### GENERAL CONTRACTOR:

Paul C. Miller Construction Co., Inc.

### MASONRY CONTRACTOR:

Kretschmar & Smith, Inc.

### BLOCK PRODUCER:

Angelus Block Company, Inc.

### OWNER:

Perris Union High School District

### ©PHOTOGRAPHY:

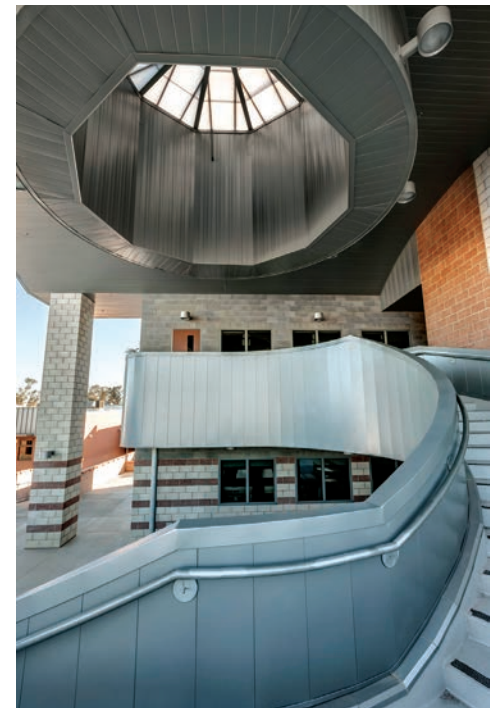
Brett Moore, RMA Architectural Photography

**ARCHITECT'S COMMENTARY:** The Academic Core Building is the final phase of a five-year campus transformation and provides 14 new classrooms and various indoor and outdoor student study areas to the heart of the Pinacate Middle School campus. Totalling 24,150 square-feet and adding 14 new teaching stations to the campus, the building accommodates just over 400 students with classrooms specializing in science, special education and core curriculum. Additionally, the project completes the remaining site improvements by adding site walls, basketball courts and turf playfields. The Academic Core building, like the previously phased buildings, was carefully detailed to be distinct in its own right, but also complement surrounding campus architecture and harmonize with the surrounding environment.



**WHY MASONRY?** The design of the building showcases 8x8x16 inch and 12x8x16 inch concrete masonry units (CMUs), as they exhibit strong proportions, strength, durability and are a low-maintenance material. Color and texture sections consist of gray, slate, glacier white and auburn precision units, as well as auburn burnished units. The building features a traditional running bond pattern throughout, with color and texture changes to create horizontal banding and define building mass. Additionally, retaining walls feature auburn burnished units with auburn precision caps of varying widths. The non-concentric barrel-shaped, standing seam metal roof spans the entirety of the building and selectively wraps down exterior walls. Drought tolerant landscaping helps to complement the building's CMU color selections and provide much needed shade for outdoor learning environments.

The building utilizes concrete masonry unit mass walls for envelope design and executes fundamental design strategies to combat strong sun angles. Other strategies in utilization include building orientation (positioned due east/west azimuth) to minimize early morning and late afternoon exposure, diligent placement of windows that avoid east/west façades, deeply recessed openings and entry ways and louvered outriggers to help protect window exposure.





**William N. Pennington**  
**Boys & Girls Club of**  
**Truckee Meadows**  
Reno, Nevada

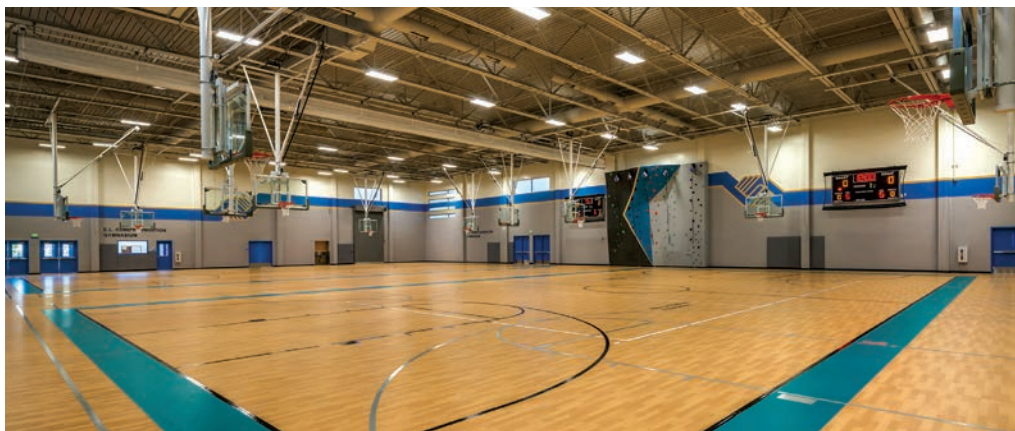
**ARCHITECT:**  
**Architectural Design Group**  
9025 Spanish Trail Drive  
Sparks, Nevada 89441

Rob Fabri, AIA  
*Principal-in-Charge*

Sam Updike  
*Partner*

**STRUCTURAL ENGINEER:**  
Aesthetic Engineering  
**GENERAL CONTRACTOR:**  
United Construction  
**MASONRY CONTRACTOR:**  
Silver State Masonry  
**BLOCK PRODUCER:**  
Basalite Concrete Products, LLC

**OWNER:**  
Boys & Girls Club of Truckee Meadows  
**©PHOTOGRAPHY:**  
Vance Fox Photography

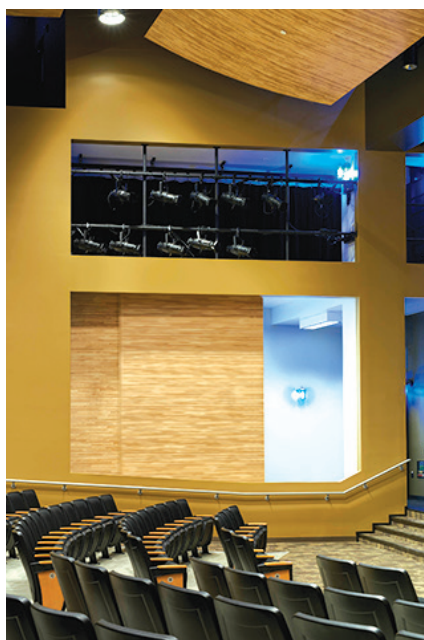


**ARCHITECT'S COMMENTARY:** The Boys & Girls Club of Truckee Meadows is the leading non-profit youth services agency in northern Nevada. Before the design process even began, the Reno City Council voted unanimously to donate the formerly abandoned YMCA site to the Boys & Girls Club of Truckee Meadows. With multiple fundraising events and a major donor, William N. Pennington, the project was underway. From the contractors to the design team and anyone involved in this project, time and materials were donated to bring the building into budget so the local youth would have the support they need to continue to grow and be healthy.

**WHY MASONRY?** Boys & Girls Club facilities in general take abuse from the amount of traffic that is generated by the community. The facility serves up to 5,000 youth annually with various other groups using it daily. This made the selection of concrete masonry units (CMUs) for durability, aesthetics, sustainability and low maintenance the only choice.

All efforts were made to be sustainable, beginning with the site. The YMCA building was demolished and all metal was recycled. Building on an infill lot was an adaptive reuse of the site, and a storm water pollution prevention plan was implemented. Landscaping consisted of drought tolerant plants and artificial turf. Major building materials were located within 500 miles of the construction site and contained recycled content. The single-ply roofing membrane is in compliance with the heat island effect, and site lighting is within the dark sky requirements. The facility has incorporated PV panels on the roof and covered parking areas. On the interior of the building, low-emitting materials were used throughout. Low-flow fixtures with automatic flush valves were provided, and tubular skylights were used to reduce the electrical demand. All lighting in the facility is LED to reduce operating costs.





**ARCHITECT’S COMMENTARY:** Situated on 53.5 acres of land, Pioneer Valley High School is one of Santa Maria Joint Union High School District’s largest campuses. The 298-seat performing arts center is the newest addition to the school and it features a full fly tower stage, lobby, dressing room, lighting/AV control booth, three teaching stations and an outdoor staging area.

The design of the new building has both a secured student access point and a separate public entrance, which allows for monitoring of each entry into the facility. Performing arts teachers, music teachers, community members and staff were all part of the decision making process, ensuring that everyone’s opinion was considered for the new design. The new Performing Arts Center is the heart of the District’s theater program.

**WHY MASONRY?** Masonry was chosen as the primary construction material because of its durability, sophisticated style and its ability to give the building its own sense of identity, while complementing the established architectural vocabulary of the campus. Additionally, the density of the masonry provides outstanding acoustical value. The concrete masonry unit structure is accented with the use of curtain wall glass on the front of the building, creating balance in the building’s form and transparency for the main entry and lobby area.

## Pioneer Valley High School Performing Arts Center Santa Maria, California

**ARCHITECT:**  
**BCA Architects**  
505 South Market Street  
San Jose, CA 95113

Paul Bunton, CEO  
Brian Whitmore, President  
*Principals-in-Charge*

**STRUCTURAL ENGINEER:**  
Stork, Wolfe & Associates  
**GENERAL CONTRACTOR:**  
Vernon Edwards Constructors, Inc.  
**MASONRY CONTRACTOR:**  
McCurley and Day Masonry, Inc.  
**BLOCK PRODUCER:**  
Air Vol Block, Inc.  
**OWNER:**  
Santa Maria Joint Union High School District  
**©PHOTOGRAPHY:**  
John Sutton Photography





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2019

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masonry industry in California and  
Nevada by:*

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- Protecting and advancing the interests of the concrete masonry industry.
- Developing new and existing markets for concrete masonry products.
- Coordinating Members' efforts in solving common challenges within the masonry industry.

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