



PROFILES IN ARCHITECTURE

Why Masonry?
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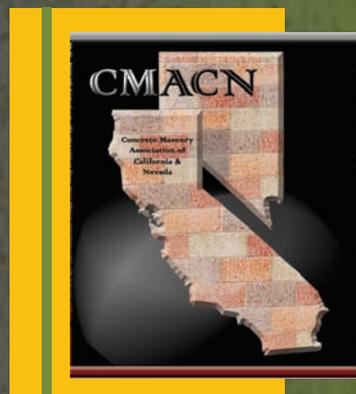
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Concrete masonry does not burn, melt, or warp, and is the ideal material for fire-resistant applications. Concrete masonry also resists mold, insects, and other pests that plague other building materials.



Encinitas Fire Station No. 3
Photo: ©Jay Dominy, Jay Dominy Photography



CHULA VISTA HIGH SCHOOL NEW PERFORMING ARTS CENTER AND LIBRARY BUILDINGS

CHULA VISTA, CALIFORNIA

ARCHITECT:

BCA Architects
624 Broadway, Suite 304
San Diego, CA 92101

Paul C. Bunton, AIA
Principal

STRUCTURAL ENGINEER:

Thornton Tomasetti
GENERAL CONTRACTOR:
Turner Construction Company
MASONRY CONTRACTOR:
New Dimension Masonry, Inc.

BLOCK PRODUCER:
ORCO Block Co., Inc.

OWNER:
Sweetwater Union High School District

Architect's Commentary: As phase I of the campus master plan, the new Performing Arts Center and Library for Chula Vista High School embodies the architect's commitment to partnering with our client to achieve excellence in design. These striking new modern structures on the CVHS campus provide much needed support to the high school's burgeoning athletic, performing arts and academic programs.

Why Masonry? The use of concrete masonry as the primary construction material was essential in establishing a sense of modern elegance and permanence, while addressing functional issues such as maintenance and durability. The concrete masonry units (CMUs), which contain recycled materials, were manufactured only 2.23 miles from the project site. CMUs provide thermal and

acoustic insulation, as well as increased thermal mass of the building, which contributed to the set energy efficiency project goal. Concrete masonry is a highly durable material, and is manufactured to resist local exposure conditions (including fire). It is probably the most versatile masonry product available, offering a rich variety of dimensions, aspect ratios, textures, colors and profiles as the basis of wall design.

The new buildings' designs combine striped split face CMU and cement plaster accents with glass curtain walls to create a dynamic tension between the solid and the transparent building forms that house the different functions. The use of pilasters, lintels and cornices make reference to Greek neo-classical architecture paying homage to the CVHS Spartan mascot. The alternating bands of split face CMU help draw the eye horizontally across the building. Horizontal curtain wall mullions align with the horizontal concrete masonry banding to visually connect the entire facade. The warm neutral earth tones of the CMU are complimented by the metallic color of the curtain wall window systems with greenish blue glass.

The architect worked with the Chula Vista Community to complete the campus master plan that will guide the next 20 years of growth and development of the High School campus. This first phase of work was embarked upon in an effort to bring this impacted 2,700 student, 70 year old campus into the 21st century. Functionality and sustainability were two driving factors that shaped the design of these two new buildings. Both the Performing Arts Center and Library, are seeking LEED Platinum and CHPS certification.



©Photography: John Sutton, John Sutton Photography



SIERRA NEVADA JOB CORPS CENTER

RENO, NEVADA

ARCHITECT:

Van Woert Bigotti Architects
1400 S. Virginia Street, Suite C
Reno, NV 89502

K. Brad Van Woert, III, AIA
Managing Principal

Angela Bigotti-Chavez, AIA
Design Principal

STRUCTURAL ENGINEER:
Hartman Engineers

GENERAL CONTRACTOR:
Reliable Contracting Group

MASONRY CONTRACTOR:
Peterson Masonry

BLOCK PRODUCER:
Basalite Concrete Products, LLC

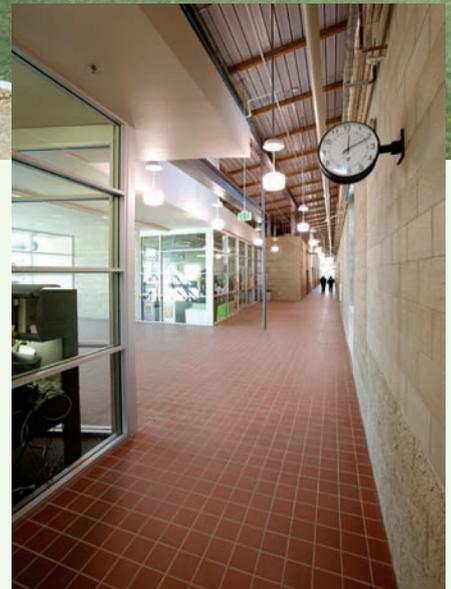
OWNER:
U. S. Department of Labor

Architect's Commentary: The Sierra Nevada Job Corps Center is located on a decommissioned Air Force Base, built in the Post World War II era, 12 miles north of Reno, Nevada in the high desert climate. Buildings for campus programs were located in very old unremarkable, unmaintained military facilities non-compliant with codes and ordinances.

The U. S. Department of Labor's project mission was to develop a new master plan for the 49-acre site with 9 new buildings that would enhance vocational, educational, and social skills programs. The construction budget was just over \$100/s.f. with over 124,000 gross square feet in 9 buildings.

Why Masonry? Given the concept of structure as architecture, the use of integral color Concrete Masonry Unit (CMU) construction is ideal. In addition, masonry provides all the desirable long-term characteristics for a Federal project such as permanence, efficient constructability, cost efficiency, low maintenance and vandal resistance. Concrete masonry is showcased outside and inside the buildings where its natural aesthetics compliment both exterior and interior design goals. The integral colors were selected to create varying palettes from building to building yet a cohesive aesthetic overall. Additionally, the Job Corps Center was intended to be a safe place and focal point for the surrounding community and the qualities of masonry provides strong presence and stability.

The design maintained the budget constraints by incorporating concepts that reflect the creative use of everyday industrial materials, such as the cost effective use of bearing wall Concrete Masonry construction and metal. Much of the construction is turned "inside out" exposing the structural, mechanical, and electrical systems to express an open view of architecture, in keeping with the predominant building trades program taught at the Job Corps Center.



©Photography: Angela Bigotti, AIA, large photo and insets 2 and 3
Greg Anderson, Greg Anderson Photography, inset 1

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ENCINITAS FIRE STATION No. 3

ENCINITAS, CALIFORNIA

ARCHITECT:

domusstudio architecture
2150 West Washington, Suite 303
San Diego, CA 92110

Wayne Holtan, AIA
Principal

STRUCTURAL ENGINEER:

Structural Engineering Solutions

GENERAL CONTRACTOR:

Har Construction, Inc.

MASONRY CONTRACTOR:

Williams & Sons Masonry, Inc.

BLOCK PRODUCER:

RCP Block & Brick, Inc.

OWNER:

City of Encinitas

Architect's Commentary: This Fire Station is located in the unique coastal community of Leucadia, which is a part of the city of Encinitas. A popular bumper sticker around town is "Keep Leucadia Funky". The old fire station was a converted 1940's stucco house that was "funky" in every way. The architects held a series of community workshops to solicit ideas on how something unique could be designed to replace the old building on the same residential site. The unusual roofs and the precision block give character to a utilitarian building that instantly has character and fits into the community. There is an ocean view from the second level where the firefighters' living space is located with a west facing deck. The solid handrail gives privacy for the deck above and forms the entry canopy for the public entering into the building below.

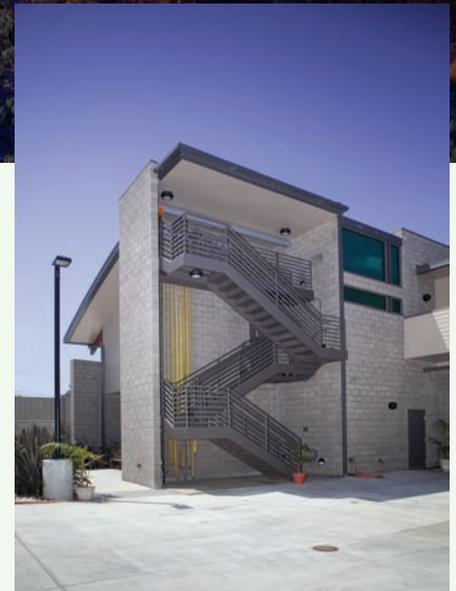
Why Masonry? Precision concrete masonry was selected for its simple, straightforward beauty and durability. The masonry is expressed and featured in almost every space both inside and outside the building. Concrete masonry is the perfect material for a fire house with its unmatched fire resistant qualities and its excellent durability even in an ocean-side environment.

Sustainable systems in place since construction started and for everyday use going forward at Fire Station No. 3, include erosion control measures, storm water management, low water use landscaping, and highly efficient irrigation and water heaters. The station features storage and collection areas for recyclables.

Architecturally, the station utilized recycled building materials and the use of regional materials, including the concrete masonry units. Low emitting/low VOC materials, finishes and coatings were used for the building's flooring, paints and sealants.

Energy efficiency is also evident in the lighting utilized at the station, including use of LED exit signs, compact fluorescent lighting fixtures and occupancy sensors, which automatically turn out lights in rooms when not in use.

The windows are tinted, dual glazed and operable for maximizing natural coastal breezes. Much of the fire station's furnishings prior to demolition have been refurbished for reuse in the kitchen and laundry areas.



©Photography: Jay Dominy, Jay Dominy Photography



PLATINUM PERFORMANCE

BUELLTON, CALIFORNIA

ARCHITECT:
Vladimir Milošević Architect
991 Longview Avenue
Pismo Beach, CA 93449

Vladimir Milošević
Principal

STRUCTURAL ENGINEER:
WC Engineering

GENERAL CONTRACTOR:
Rarig Construction, Inc.

MASONRY CONTRACTOR:
Santa Maria Masonry

BLOCK PRODUCER:
Air Vol Block, Inc.

OWNER:
Platinum Performance, Inc.

Architect's Commentary: The building was designed for Platinum Performance to house their corporate headquarters and processing facility for their products. The company provides nutritional products for animal as well as human consumption, although it is perhaps best known for the food supplements that strengthen and or heal joints in horses. The patented formulas they developed are proprietary and kept under strict surveillance from outsiders.

Their main customers are veterinarians and equestrian lovers, but their production is high tech and pharmaceutical in nature, so the design goal was to incorporate both agrarian and contemporary components.

LEED® certification was not applied for on the project, however, the materials used; the building orientation and form, natural light and ventilation, and electrical systems

prepared for solar panel connections were all considered to achieve and exemplify green architecture.

The two main functions were designed such that they could be built in phased construction if needed. The masonry portion is used for production, warehousing, shipping and receiving. The metal clad section includes the offices, product displays and reception. This health and wellness oriented company also included a child care room and a gym for the employees.

Why Masonry? A major concern was security, so masonry was an early candidate to enclose the production area due to its strength, durability and ability to dispell intrusion. Adding to that, the use of various integral finishes such as different colors and textures, smooth and split-face block, provide a one-step solution to structure and aesthetics. Neighboring structures had also used masonry and influenced the choice in keeping with compatible design.

Being the first company-built facility, this masonry structure provides a solid sense of rooted permanence and a base for the continuous development and growth the company is experiencing in its global market.



©Photography: Vladimir Milošević Architect



BRET HARTE AQUATIC CENTER

ANGELS CAMP, CALIFORNIA

ARCHITECT:

Two Rivers Architects
13405 Folsom Blvd., Building 300
Folsom, CA 95630

Lawrence R. Washington, AIA
Partner in Charge of Design

STRUCTURAL ENGINEER:

DKG Engineering, Inc.

GENERAL CONTRACTOR:

F & H Construction

MASONRY CONTRACTOR:

Brent Martin Masonry

BLOCK PRODUCER:

Calstone Company, Inc.

OWNER:

Bret Harte Union High School District

Architect's Commentary: Why Masonry? The Bret Harte Aquatic Center is sited in a mountain community that experiences large swings between day and nighttime temperatures. It is borderd on the south side by a residential neighborhood, thus requiring noise control from the pool's mechanical equipment and patrons' voices and activities. In addition, to temperature and noise control, the building material for this project needed to be economical, and sustainable and durable enough to withstand years of weather, exposure to a mold freindly environment, chemically treated pool water, patron abuse, and provide both exterior and interior finishes that would be beautiful and inviting. The logical material choice was concrete masonry.

Selected were 8"x8"x16" single scored, ground face concrete masonry units (CMUs) that are sophisticated, and most importantly fulfilled all the requirements of the project. The ground face of the CMUs also made the perfect base for thin set tile in the shower, locker and toilet areas.

To compliment the thermal mass process of the concrete masonry units and to contribute to controlling indoor moisture, clerestory windows and louvers, both in the walls and ceiling, are used to for natural ventilation and to draw moisture out of the building. The windows also add natural light throughout the entire building eliminating the need for electrical lighting during the day. Additionally, solar panels provide heating for the swimming pool and the domestic water for the showers.

The result is an aesthetically pleasing, functional, durable, and sustainable facility that will serve it's patrons and the surrounding community well.



©Photography: John Swain, John Swain Photography



19TH STREET RESIDENCE

HERMOSA BEACH, CALIFORNIA

ARCHITECT:

Dean Nota Architect
2465 Myrtle Avenue
Hermosa Beach, CA 90254

Dean Nota, FAIA

Principal

STRUCTURAL ENGINEER:

Palos Verdes Engineering

GENERAL CONTRACTOR:

Madans Construction

MASONRY CONTRACTOR:

Krikorian Concrete and Masonry

BLOCK PRODUCER:

Angelus Block Company, Inc.

OWNER:

Private Individual

Architect's Commentary: This project is located in Hermosa Beach, California, a small, suburban beach town on the western edge of Los Angeles. The small, narrow, twenty-five foot wide by seventy-six foot parcel is bordered by public streets on three sides, and located at the crest of a hill with panoramic views of the town and Pacific Ocean. A twenty-five foot height limit parallels the uphill slope of the site along its long, north-south axis.

The client requested a single-family residential program of 2,600 square feet to accommodate occasional visiting family and guests in an open, live-work environment, suitable for communal interaction or retreat to personal, private realms. The principal challenge was to fit an ambitious, residential program into a nineteen-foot wide by twenty-five foot high, sloping building envelope and provide privacy from the very public context of the surrounding streets.

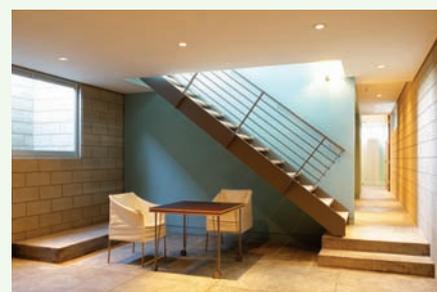
Why Masonry? Concrete Masonry construction is used to achieve multiple design goals:

- Exposed concrete masonry is a material found in the existing residential context of the surrounding beach community.
- Concrete block is used to create a strong horizontal base and a sense of permanence that bisects the vertical proportion of the street elevations to achieve a composition of smaller metal and wood elements at the upper floors, thereby reducing the perceived scale of the building.

The residence is organized on three levels; with the studio, two guestrooms and a bath on a semi-subterranean ground level - the master suite, entry and garage on the first floor - and the living, dining and kitchen on the second floor for the best view. A secluded stair leads to a small roof deck above the kitchen, opening to a panoramic view of the entire Santa Monica Bay.

The entry, placed at mid-lot, leads to a double height, circulation space that bisects the plan and section of the building. Within this space, a central stair links the programmatic elements of the building, while allowing light and air to filter down to the lower levels from clerestory windows and a central skylight above.

The material massing of the structure results from a strategy that begins at ground level with an outer, rectilinear, masonry layer that adjoins the site boundaries and extrudes from the subterranean retaining walls to create a strong horizontal base. This outer layer is strategically subtracted to create openings for skylights to the master bath and a roof terrace for the living room. The subtractive process also reveals a contrasting, inner layer of sloping wall planes, a glazed window wall and a continuous longitudinal folded roof. Additive wood clad projections and a structural steel terrace further break down the long planer elevation into an assemblage of articulated elements that seek to reduce the scale and massing of the new building.



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www.cmacn.org



2013

CMACN/AIACC CONCRETE MASONRY DESIGN AWARDS

Mark your calendar for the 2013 CMACN/AIACC Concrete Masonry Design Awards competition "Call for Entries".

The 2011 award winning projects can be viewed at www.cmacn.org.

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- Technical information on concrete masonry for design professionals.
- Protect and advance the interests of the concrete masonry industry.
- Develop new and existing markets for concrete masonry products.
- Coordinate members' efforts in solving common challenges within the masonry industry.

For further information contact us at:
Concrete Masonry Association
of California and Nevada
6060 Sunrise Vista Drive, Suite 1990
Citrus Heights, CA 95610-7004

Tel: (916) 722-1700
Fax: (916) 722-1819
Email: info@cmacn.org
Web Site: www.cmacn.org

