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Profiles in Architecture**CORONADO MIDDLE SCHOOL***CORONADO, CALIFORNIA*

Completed in the fall of 2001, the Coronado Middle School is a two-story, 72,000 square-foot facility of concrete masonry units, steel, and full face brick for sixth, seventh, and eighth grade students in this historic seaside community. The site is limited to three and one-half acres, a standard city block.

The three-building complex, which is designed around a landscaped, central courtyard, was planned to accommodate a maximum enrollment of 750 students. Both two-story buildings are accessed by covered stairways and linked with bridges at the second floor. All exterior walls are comprised of concrete masonry units clad in full face brick up to the second-story windowsills. Concrete masonry units are also used for many of the interior dividing partitions between classrooms, where structural shear elements are required. Reinforced concrete masonry walls with brick facing were selected as the primary structural system for reasons of both durability and seismic integrity.

Other design features include:

- Clusters of classrooms, laboratories, and small group study areas provide each grade level with their own unique identity.
- The school library/resource center is centrally located adjacent to the courtyard and features a large skylight to provide natural daylight into the resource and study area.
- A covered lunch shelter with its own large skylight, reflects the form and scale of the library across the courtyard space.

- A large multipurpose room is designed to accommodate after hours use by the community. A raised stage provides space for both musical instruction and performance.
- A lighted, recreational playfield at the south end of the site is shared by the District with the residents of the community as a venue for multiple sports activities.

The design of the Coronado Middle School was carefully planned to capture and reflect the unique character of the Coronado Community, as well as the scale of the surrounding neighborhood.

ARCHITECT:

Architects Mosher Drew Watson Ferguson
4206 West Point Loma Blvd., Suite 200
San Diego, CA 92110

Larry Hoeksema, AIA, President
Principal

STRUCTURAL ENGINEER:

Atkinson, Johnson, & Spurrier

GENERAL CONTRACTOR:

Douglas E. Barnhart

OWNER:

Coronado Unified School District



Brad Anderson, Architectural Photography, Inc.

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Profiles in Architecture**SAINT GEORGE GREEK ORTHODOX CHURCH***DOWNEY, CALIFORNIA*

The form of the church was dictated by the form of the Greek liturgy. For its sacred and dramatic impact, this demanded a nave that was in effect a wide open stage. It is reserved for the public moment of the mass by the priesthood.

The design of the church is a domed Christian centralized plan. It is a square within a rectangle that is itself a square. The semi-spherical, 34-foot diameter dome rises to 56 feet and is penetrated by 24 windows and topped with a four-foot tall cross. It rests on a steel frame, which rests on four cross-shaped 12-inch concrete masonry walls. The domed roofs are patina colored copper and the sloping roofs are red clay mission tile.

This sanctuary is 10,107 square feet with a total seating capacity in the nave and transepts of 385 people. Solid grouted, steel reinforced split-faced and precision white concrete masonry units in 8-inch and 12-inch thickness are utilized throughout the structure creating radial transept forms with a 16-foot radius that are juxtaposed with the radial roof forms for the nave doors. To the rear of the structure the apse's 10-foot radial form defines the altar within.

The primary lateral force resisting system consists of orthogonal 12-inch wide concrete masonry shear walls symmetrically located near each building corner. The column-free steel framed roof connects to the orthogonal

shear walls, providing a logical load path for distribution of seismic forces. Dramatic arched wall openings were creatively designed and constructed with custom-cut concrete masonry block.

Continuous special inspection and material testing were implemented to insure quality construction that would endure for decades.

ARCHITECT:

Grillias . Pirc . Rosier . Alves
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Sam Grillias, AIA-E
Principal

STRUCTURAL ENGINEER:
KNA Structural Engineering Consultants

GENERAL CONTRACTOR:
Norse Construction

OWNER:
Saint George Greek Orthodox Church



Photographer: Sotiros P. Grillias

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SALVATION ARMY, RAY AND JOAN KROC COMMUNITY CENTER

SAN DIEGO, CALIFORNIA

The Salvation Army wanted to build a first class multi-use facility to be used by approximately 1,500 individuals each year. This facility needed to be durable, low maintenance, energy efficient and cost effective. Through the generous donation of Ray and Joan Kroc, the Salvation Army chose to build The Ray and Joan Kroc Corps Community Center in the eastern portion of San Diego in the community of Rolando on a 450,000 square-foot site of what was once an abandoned grocery store and home center.

This 195,000 square-foot multi-story, state-of-the-art facility includes several lobbies, a performing arts and visual arts center including a 600 seat theater, rehearsal rooms, facilities for photography, ceramics, video and studio production labs. Additionally the project has a computer research library and learning center, worship center, gymnasium with locker room, indoor heated pool, outdoor heated competition pool with bleachers, ice skating rink, skateboard park, climbing wall, outdoor sports fields, and Salvation Army social and human services program facilities, which include a daycare center accommodating 120 children and family services offices offering materials and counseling to families in need.

Concrete masonry block, meeting the criteria and needs of this project was the building material of choice. A decorative colored masonry wainscot built of concrete masonry

veneer tied to the metal building studs was used on the building exteriors to a height of 7'4" to help discourage vandalism and graffiti. Exterior trellis columns are made from colored concrete masonry block, which support a wood and metal vine trellis that defines the exterior circulation pathways of the project. Concrete masonry veneer was brought inside many of the building lobbies and is utilized as a finish material in the ice rink and gymnasium locker room and pool areas.

ARCHITECT:

Austin Veum Robbins Partners
600 West Broadway, Suite 200
San Diego, CA 92101

Douglas H. Austin, FAIA
Chris Veum
David Stellar, AIA
Randy Robbins, AIA
Randi Stellar
Design Team

STRUCTURAL ENGINEER:

John A. Martin Associates

CONTRACTOR

Roel Construction

OWNER:

The Salvation Army, San Diego Branch



Photographer: RMA Photography

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UNIVERSITY OF CALIFORNIA, IRVINE JOHN V. CROUL HALL

IRVINE, CALIFORNIA

The Croul Hall siting creates a strong quad statement when combined with the three existing earlier buildings of the School of Physical Sciences at the University of California, Irvine. Internally, the layout of the facility promotes the interaction of researchers by providing meeting spaces adjacent to a 3-story atrium overlooking the quad. This 66,500 square-foot building complete with full basement is the new home of the Department of Earth System Science, a heterogeneous group of scientists that includes biologists, chemists, engineers, mathematicians, and physicists.

The roof is designed and constructed to enable high altitude balloon launches to conduct experiments in Atmospheric Chemistry. There is a Linear Accelerator Mass Spectrometry lab located in the basement (slab on grade, where there is the least amount of vibration). The building structure is a gravity load bearing cast-in-place concrete frame with concrete masonry unit walls providing lateral load resistance. This combined system is designed to meet a vibration specification of Maximum RMS velocity of 2,000 micro-inches per second, a fairly strict criterion important in laboratory buildings where sensitive equipment is housed.

The concrete masonry manufacturer and R&R Masonry worked diligently with the University, Hensel Phelps Construction Company and Carrier Johnson to create a palette of CMU that would meet the University's aesthetic goals. The building has a well defined base, middle and top, a classic architectural tripartite scheme. While the top is defined by ribbon windows and a concrete overhang, it is the masonry that defines the base and middle. Standard

burnished "Champagne" units are the predominant material of the middle. The base is made of split face units of a charcoal color. These units have a custom blend of white pumice and red volcanic aggregate. This aggregate mix, while not so noticeable in the split-face units, stands out where this same block is used in a burnished version in the 45-foot high accent walls that bracket the glass atrium entry.

ARCHITECTS

Carrier Johnson, Executive Architect
2600 Michelson Drive, Suite 400
Irvine, CA 92612

Mark Loxsom
Associate Principal

EHDD Architecture, Design Architect
500 Treat Avenue, Suite 201
San Francisco, CA 94110

Charles Davis
Design Architect

STRUCTURAL ENGINEER
BFL Owen & Associates

CONTRACTORS:
R & R Masonry
Hensel Phelps Construction Company

OWNER:
The Regents of the
University of California, Irvine

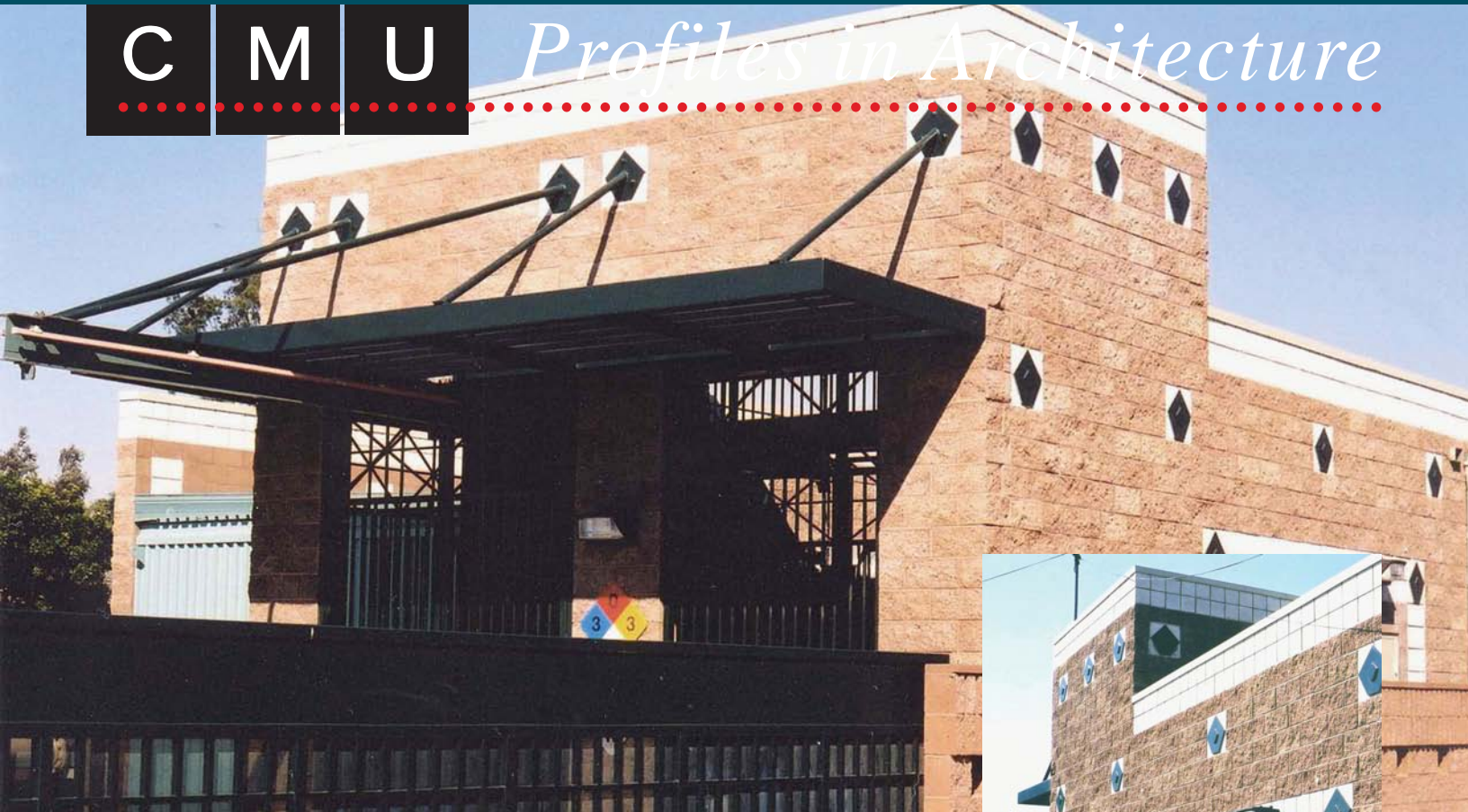


Photographers: Heliphoto

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Profiles in Architecture**WATER WELLS NOS. 3A & 5 PUMPING FACILITIES***HUNTINGTON BEACH, CALIFORNIA*

The City of Huntington Beach has embarked on a program to improve the reliability and safety of City-owned and operated water wells and reservoirs. This project involved the development of two pumping facilities, Water Wells 3A and 5, into "model" facilities that could serve as prototypes for City-wide water well upgrades. Facility development included a study by the City to evaluate alternate approaches to water treatment. Ultimately, the City chose to stay with gaseous chlorine as the preferred method of water disinfection. Improving reliability and safety of the chlorination process through the use of passive total containment vessels and other measures was incorporated into project design.

An additional consideration in the development of design for Well 3A was its location within a City Redevelopment Zone. City concerns included improving neighborhood aesthetics and enhancing the overall community image, as well as supplying vital services to residents.

Selection of concrete masonry block as the preferred building material was a natural due to its flexibility and variety, as well as the architectural aesthetics associated with its rich colors and textures. Concrete masonry block also offered the durability, fire resistance and sound attenuation necessary for this type of facility. In addition, it provides ease of maintenance, an important consideration for public works projects.

Both Well 3A and 5 feature split-face concrete masonry units containing two colors that are infused with deep, pleasing tones of complimentary colors throughout the exposed surfaces. This rich base is a perfect background for architectural detailing achieved through the use of additional color and various block types.

Only three distinct colors were used for the building and perimeter masonry fence. However, differing finishes and block types allowed color variations to appear richer without creating visual chaos. Block finishes used include precision, split-face, burnished, scored precision, and scored split face. Additional fenestration detail was added to the buildings through the use of shaped and painted steel plates, equipment sunscreens, metal roofing, siding, and wrought iron gates and security features.

ARCHITECT:

Cash & Associates
5772 Bolsa Avenue, Suite 100
Huntington Beach, CA 92649

Randy H. Mason, P.E.
Principal-in-Charge

David R. Bachle, AIA
*Project Manager, Architect of Record,
and Design Architect*

STRUCTURAL ENGINEER:
Christopher Mansour, P.E.
Cash & Associates

GENERAL CONTRACTOR:
Schuler Engineers Corporation

Butier, Construction Manager

OWNER:
City of Huntington Beach, California,
Public Works Department



Photographer: David Bachle

CMACN



Continuing Education seminar providing four Health Safety and Welfare Credits

Sustainable Schools and Public Buildings Concrete Masonry's Contribution

For Architects, Specifiers, City and County Building Professionals

Keynote Speakers: **Christopher M. Huckabee, AIA - CEO, Huckabee, Inc.**
Stephan Castellanos, FAIA, The State Architect
Panama Bartholomy, Sustainability Coordinator,
Division of The State Architect



Juan Deanza Elementary School
Hawthorne, California

Flewelling & Moody Architects
141 S. Lake Avenue, Second Floor
Pasadena, CA 91101

The purpose of the seminar is to inform and educate the designing and specifying community and to facilitate the growth and excellence in sustainable public buildings.

The topics will include, but are not limited to:

- Sustainable Public Buildings and California's Commitment
- The United States Green Building Council, LEED and CHPS
- Understanding High Performance Schools - An Overview
- Characteristics of a High Performance School
 - Indoor Air Quality
 - HVAC for Performance
 - Daylighting
 - Building Enclosure and Insulation
 - Interior Material Selection for Success
 - Commissioning and Maintenance Issues



William Loyd Jones Architect
723 Ocean Front Walk
Venice, CA 90291

Photos by Art Gray



Cost of the seminar is \$95.00

Included in the seminar are:

Four Health Safety and Welfare credits

Binder containing:

Speaker notes

publications on:

- Clear water repellent treatments for concrete masonry
- Mold
- Fire safety
- Fire resistance of concrete masonry
- Sound transmission ratings of concrete masonry assemblies

Continental breakfast and lunch

For each registration, CMACN is donating \$30.00 to the victims of the California wild fires.

Christopher M. Huckabee, AIA - CEO, Huckabee, Inc. is a national speaker on the topics of mold, masonry, sustainability and high performance school design. Mr. Huckabee has been published in every major school design magazine and has recently completed a book on high performance design that will publish in late 2003. He is a member of the Sustainable Buildings Industry Council and a founding member of the High Performance Schools Council.

Stephan Castellanos, FAIA, The State Architect

Panama Bartholomy, Sustainability Coordinator, Division of the State Architect

Seminar Locations and Times

All seminars will observe the following schedule:

Continental Breakfast	8:00 a.m. - 8:30 a.m.
DSA Speaker	8:30 a.m. - 9:30 a.m.
Break	9:30 a.m. - 9:45 a.m.
Christopher Huckabee	9:45 a.m. - 12:00 p.m.
Lunch and Round Table	12:00 p.m. - 2:00 p.m.



Please choose one of the following locations

January

Los Angeles
Tuesday January 27, 2004
 The New Otani Hotel
 120 S. Los Angeles Street
 Los Angeles, CA 90012
 (213) 629-1200

Ontario
Wednesday January 28, 2004
 Doubletree Hotel, Ontario Airport
 222 N. Vinyard Avenue
 Ontario, CA 91764
 (909) 937-0900

Costa Mesa
Thursday January 29, 2004
 Hilton Costa Mesa
 3050 Bristol Street
 Costa Mesa, CA 92626
 (714) 540-7000

San Diego
Friday January 30, 2004
 Holiday Inn, Mission Valley Stadium
 3805 Murphy Canyon Road
 San Diego, CA 92123
 (858) 278-9300



February

Sacramento
Tuesday February 17, 2004
 Red Lion Hotel
 1401 Arden Way
 Sacramento, CA 95815
 (916) 922-8041

San Francisco
Wednesday February 18, 2004
 AIA San Francisco Chapter
 130 Sutter Street, Suite 600
 San Francisco, CA 94104-4021
 (415) 362-7397

Fresno
Thursday February 19, 2004
 Ramada Inn
 324 E. Shaw Avenue
 Fresno, CA 93710
 (559) 224-4040

San Luis Obispo
Friday February 20, 2004
 California Polytechnic State University
 San Luis Obispo
 Performing Arts Center "Pavilion"
 San Luis Obispo, CA 93407

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My check payable to CMACN in the amount of \$95.00 is enclosed.

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Photos by David Hewitt and
 Ann Garrison



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Profiles in Architecture

Announcing a call for entries for the 2004 CMACN/AIACC Concrete Masonry Design Awards.

Please look for your call-for-entry brochure for this prestigious competition in the mail and on the CMACN and AIACC web sites prior to February 15th, 2004. You may also contact the CMACN office at (916) 722-1700 or info@cmacn.org to request a submittal binder.

Cost \$100

Our tentative calendar for this event is as follows:

Closing date for request for submittal binders:

March 31, 2004

Closing date for receipt of submittal binders:

April 30, 2004

Jury Meeting in San Francisco:

May 13-14 2004

Award winners notified:

May 17, 2004

Winning projects entered in the NCMA Concrete

Masonry Design of Excellence Awards:

July 15, 2004

Concrete Masonry Design Awards Banquet TBA:

October 2004

Errata:

The address of the Architect for the project, Fire Station No. 126, Los Angeles County Fire Department, Santa Clarita, California, was inadvertently left out of our October 2003 issue. The correct address is as follows:

William Loyd Jones, Architect
723 Ocean Front Walk
Venice, CA 90291

We apologize for any inconvenience this may have caused.

ARCHITECTURAL CONCRETE MASONRY

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Lemon Grove, CA 91946

Concrete Masonry Association of California and Nevada (CMACN), a nonprofit professional organization established in October 1977, is committed to strengthening the masonry industry in California and Nevada by providing:

- *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

Tel: (916) 722-1700
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Email: info@cmacn.org
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JANUARY 2004

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