An urban environmental education center that brings nature to East Los Angeles inner-city children and families with few opportunities to leave the city and experience, learn and value nature; the Audubon Center at Debs Park is LEED Platinum-rated and embodies the Audubon Society’s environmental ideals, modeling sustainable design to the surrounding community and serving as a prototype for future Audubon centers.

Concrete masonry is an essential part of the Center’s passive, energy-saving sustainable strategies. The typical exterior wall assembly exposes 8” ground-face concrete masonry units on the interior, with 2” of rigid insulation on the outer face, beneath a protective stucco finish. The light-colored CMU reflect daylight deep into the building. Its thermal mass takes advantage of the diurnal swing in temperatures in Los Angeles; excess heat soaked up by the mass during the day is released and can be flushed through windows at night. The exterior insulation reduces heat gain or loss directly through the walls and stabilizes interior temperatures. The concrete masonry unit grout mix developed especially for this project substitutes fly ash for 50% of the Portland cement, reducing water use, carbon dioxide emissions and landfill waste.

The ground-faced concrete masonry unit is a handsome and durable finish material, suitable for a nature center. The building plan and elevations are designed on a concrete masonry unit module. Most wiring is either concealed behind cabinets or in a furred wainscot, both to minimize conduit within the CMU, and facilitate future electrical work without exposing conduit in public rooms.

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GENERAL CONTRACTOR:
T. G. Construction, Inc.

MASONRY CONTRACTOR:
Granstrom Masonry, Inc.

OWNER:
Los Angeles Audubon Center
MISSION CREEK PARK PAVILION
SAN FRANCISCO, CALIFORNIA

The design team was issued a straightforward building program with a complex set of design guidelines focused on the network of open space within the San Francisco’s ambitious new Mission Bay development. Anchoring a new park adjacent to Mission Creek along Mission Bay’s north edge, the program called for:

1. Café space with seating for 25
2. Public restrooms with separate access from the café and park
3. Support facilities for the concessionaire

In response to the Mission Bay Master Plan, the building, the first of its kind in Mission Bay, needed to be a seamless addition to the green space of the park, while providing a more urban element fronting the large plaza, which would come a vital link across the creek by footbridge and southward into the heart of Mission Bay.

The pavilion provides an enduring sheltered space for human gathering that is profoundly a part of its evolving setting over time: surrounded by reclaimed industrial zone in the short term, and against the backdrop of dense urban fabric in the future. The gritty, elegant, ground face concrete masonry units (CMUs) with anti-graffiti coating reinforces this design concept, while addressing cost and durability needs of public-serving buildings. The CMU wall also provides material continuity from outside to inside, while delivering a neutral framework for views through the building. The design – resolved by creating two fronts and two sides, but no real “back” – addresses a number of issues:

1. Future mid-rise housing directly adjacent to the park along Owens Street – essentially serving as a “front yard” to residents there
2. Orientation of primary patron seating northward to exploit city skyline views
3. Configuration of café space facing west to welcome visitors off the plaza
4. Location of a separate restroom entry facing the park

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OWNER:
Prologis

Photography: Richard Barns, Richard Barns Photography
The Center’s design juxtaposes modernism with its core of concrete masonry volumes and columns to give the patrons of its tough community a dignified, inspiring “civic living room.” It houses most of the public needs of the reformed residents of this largely homeless and indigent neighborhood. The project was a repeat collaboration between architect and satisfied client, an agency impressed by the achievement of design ideals of respect and pride, while on a tight budget. CMU played a central role in attaining these ideals.

In early phases of the project, wood-frame construction was briefly considered, but could not provide the same benefits that concrete masonry offered, namely speed of construction, durability, and the achievement of occupancy requirements with superior fire-rating. CMU needed less perimeter clearance, allowing us to use 10% more of the narrow lot.

No matter what kind of abuse the building takes, CMU makes it easy to keep the site clean and ready for the next community group. Construction took 14 months. The concrete masonry, both the frame and exterior finish, made it possible to complete the project in a short period of time.

The CMU columns are on a monumental scale - on the ground floor they relate to the pedestrian looking into the “living room,” while on the second balcony they attain an airy, permeable feeling, not normally associated with CMU. Bright colors encourage a level of transcendence. One patron, a formerly homeless man, gazed from a park across the street through the concrete masonry columns to the wall at the back of the second-floor balcony, saying in wonderment that he watched the colors play against the sky color throughout the day.
Pacific Palisades Gymnasium, a public/private partnership involving the city of Los Angeles and the Pacific Palisades community, presented a design challenge in its charge to deliver an inexpensive public building that would be low to no-maintenance, functional, and attractive. The solution was to employ inexpensive materials in creative ways to produce a building that reads as an abstract visual story. Concrete masonry units (CMUs) were supplemented with brick, glass and corrugated metal, delivering a durable and easy-to-clean recreational center with visual impact.

Planned to supplement an aging gym on the site, the new building comprises park offices and NCAA-regulation courts for basketball and volleyball. By setting CMUs on an inclined concrete stem wall, designers created a rising spiral office component. Around the perimeter of the gym glazed turquoise CMUs are suspended in undulating glass block corridor walls. The lighting effect in these corridors is dramatic – during the day, bright filtered sunlight streams in. At nighttime, the undulating glass block ribbons glow from within.

The rectangular facades of the gym are clad with corrugated metal siding horizontally banded grey and natural silver, which visually diminishes the height of the building and gives it a pedestrian scale.

Overall, the gym is a vivid and bold building whose identifying marks are six large elliptical window openings on its perimeter. The openings are abstract expressions of balls compressing against a surface. The bouncing ball metaphor seen in the glazing has a dual function, allowing light and view in and out. At nighttime these backlit oval windows reverse from dark to light further emphasizing their effect.
CLARK COUNTY DETENTION CENTER
LAS VEGAS, NEVADA

This urban detention center is located in downtown Las Vegas on the same exterior landscaped pedestrian corridor as the Clark County Justice Center and United States Courthouse. The complex explores a careful composition of required building elements and produces a welcome addition to the civic and urban fabric of downtown Las Vegas.

The design solution is a direct response to complex functional and urban design issues. The intent was to create a civic building that is not only an attractive and friendly addition to downtown Las Vegas, but also responds to the concerns of the client with regard to security, noise and cost. The result is a dynamic composition that meets its functional goals, while enhancing the urban character of this important civic center, breaking the stereotypical image of an urban jail.

The building’s mass is broken up by changing materials colors and massing articulations. These reflect various program components, such as administration segregation modules, dormitory modules, and exercise yards. The building’s base is articulated to create a pedestrian friendly scale along the sidewalk, and the materials and colors used in the design are inspired by a desert palette.

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General Contractor:
AF Construction Company

Masonry Contractor:
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Owner:
Clark County, Nevada
The new Department of Motor Vehicles is an improved Field Office for the community of San Ysidro. Built on a 3.39 acre site, this 14,656 square-foot office/service facility provides a healthier, more enjoyable environment for the employees and the DMV customers. The design is centered around sustainable features to enhance the user’s experience, while reducing the impact that the project has on the environment. The design of the DMV serves as an educational model for the individuals and future DMV offices.

The San Ysidro Department of Motor Vehicles is a leading example of a healthy building. This energy efficient facility combines the beauty of exposed building materials with the comfort of a clean environment. The project received LEED Gold Certification through the following measures.

Storm Water Drainage Filters: All catch basins contain filters to trap harmful particles keeping them from entering the public waterways.

High Efficiency Irrigation and Landscaping: Water use is reduced by 68% through an efficient irrigation system and drought resistant planting with low water use plants.

Non-Heat Island Roof: The roof is Energy Star rated and is highly reflective.

Water Use Reduction: Efficient plumbing fixtures reduce typical water use by 41%.

Energy Efficiency: A raised floor allows the building’s displacement ventilation system to efficiently serve the open office work area through underfloor air distribution. Overhead and underfloor ducts also distribute air to the public service area’s diffuser units. Rooftop photovoltaic panels compensate for 9% of the building’s energy load, helping exceed California Title 24 minimum requirements by 34% (40% by LEED standard).

Air Quality: All paints, sealants, adhesives, and carpeting contain minimal volatile organic compounds. Floor grates are installed at major entrances to trap outside dirt. These measures help to maintain a high quality of indoor air.

Recycled Materials: At least 5% of the building’s materials are recycled, including concrete masonry. The contractor recycled 60% of construction waste. Among other building materials, the concrete masonry was manufactured locally, reducing environmental impacts resulting from transportation.

Building Envelope: Concrete masonry serves as structure, thermal mass and finish material. West and south windows are tinted to minimize heat gain. Skylight, clerestory and northern windows maximize natural light, aiding in comfort.

Daylight and Views: Natural daylight is provided for 89% of regularly occupied spaces and outdoor views are achieved for 98%.

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MASONRY CONTRACTOR:
New Dimension Masonry, Inc.

OWNERS:
State of California Department of General Services
Department of Motor Vehicles
San Luis Obispo Regional (SLO) Airport ARFF Station No. 21 encompasses the replacement for the old airport Fire Station that fell victim to seismic challenges, and airport expansion. From the inception of the project, the Architect established project design goals of; minimizing emergency service response time, improving the quality of life for the Fire Department personnel located at the airport, and setting a progressive new “airfoil” design theme for other airport structures to follow. These goals were applied to every facet of the design, from aircraft noise attenuation, evacuation of diesel exhaust fumes, environmental filtration systems, the building’s orientation, natural light, natural ventilation, and the selection of sustainable energy saving materials.

The new SLO Station No. 21 includes three large apparatus bays for crash-rescue, structural, and EMS missions. Other features are: living, kitchen and dining areas, private dormitories for airport fire fighters, infectious disease control room, turnout room, physical fitness/exercise area, workshop/SCBA storage, equipped with emergency power, radio, and dispatch and data systems.

Important design contextual elements are the rolling California hills, aircraft forms, industrial aviation environment, and a busy existing passenger terminal. The Architect’s design theme provided an airport emergency service building that would enhance the aviation environment and be a progressive feature building for San Luis Obispo Regional Airport.

Concrete masonry was chosen for use throughout the majority of the project for complete exterior and interior use. Smooth and split-face integral color concrete masonry was used to sustain longevity for maintenance, thermal mass, and in particular, to provide sound attenuation from the busy and noisy jet aircraft airport environment. The considerable amount of integral color interior concrete masonry is lightly sandblasted with accentuated deep joints. The LEED AP Architect felt it was essential to use sustainable materials with low maintenance as feature architectural elements in the visionary “airfoil influenced design” of SLO Airport Station No. 21.

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MASONRY CONTRACTOR:
Curt J. Bailey Masonry

OWNER:
County of San Luis Obispo, Department of General Services
CDF / San Luis Obispo County Fire Department

Photography: Lawrence Enyart, FAIA, LEED AP
This project seeks to integrate into the existing Palm Desert Community Presbyterian Church campus by mediating between the 1968 concrete and glu-lam sanctuary and the Santa Rosa Mountains. To this end, concrete masonry units were used to establish both color and form for the building. The concrete masonry unit base consists of alternating bands of 12” deep burnished CMU and 13” deep shop-blast CMU. These alternating depths and finishes of concrete masonry create a heavily rusticated and shadowed base onto which the classroom and auditorium spaces are positioned. These volumes, arranged around a central corridor, push to the edge for their light source and pull away to create elevated planters. The roof lines were lifted towards the north to provide additional light and views for the classroom spaces. The roof to the far-east enclosing the auditorium was lifted to create a visual link to the sweeping roof of the existing sanctuary, while providing an acoustically sound interior.

Included in this 26,000 square foot, two-level building are eight new classrooms, an intimate 85-seat fine arts auditorium, a multi-purpose room (with stage and food preparation room) able to accommodate a 350-person banquet, praise services, or basketball, a youth fellowship room, library/gathering space, media room, volunteer room, computer room, 2,000 plus square feet of storage, and meeting room and offices for four staff members. Within a constrained site, the project was able to more than double the church’s total square footage and provide an additional 25 new parking spaces.
SAN DIMAS SHERIFF’S STATION
SAN DIMAS, CALIFORNIA

The building has been designed to fit comfortably with the vocabulary of materials in San Dimas. Masonry, employing both brick and concrete block, is a dominant theme in the City’s center area. Next-door is a County Fire Station to which the new facility strongly relates in its choice of brick block, and concrete roof tiles.

The budget, limited by recent escalation in costs, lead the design team to utilize a combination of split-face and precision concrete masonry units, and brick block. The building is designed to be a front door to the community, while providing an emergency operation center and a secure environment for the law enforcement personnel who serve within. Masonry provided the durability, security and warmth to bring these objectives together.

Atop the masonry walls and piers are wood trusses employing exposed bolted connections to support the rustic warm look of the building. The smallest details were considered from washers on timber connections in the shape of stars, to the carpet wainscot on corridor walls to provide years of scar free protection of the interior from the scuffling of law enforcement personnel bristling with equipment, radios, and gun belts.

Masonry provides a safe, but humane presence in the detention space where inmates are again provide for carefully to insure the safety of the jailers and inmates alike. The site accommodates the 28,000 square-foot station inclusive of the 5,200 square-foot lockup, 3,400 square-foot maintenance building, fuel island, and 220 cars.

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Project Designer

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GENERAL CONTRACTOR:
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MASONRY CONTRACTOR:
Royal Construction Engineers, Inc.
Contempo Construction

OWNER:
Los Angeles County Sheriff’s Department

Photography: Anthony O'Keefe, NDTSTICHLER Architecture
FIRE STATION NO. 126 LOS ANGELES COUNTY FIRE DEPARTMENT
SANTA CLARITA, CALIFORNIA

Located in the Civic Center of Santa Clarita, California, Fire Station 126 provides not only the fire service for this city, but also serves as the North Operations Bureau for the Los Angeles County Fire Department. Designed as a main headquarters, it includes accommodations for a battalion chief, ten firefighters and paramedics, as well as a deputy chief and staff.

Architectural elements are coordinated to provide the scale and stature of a true civic building. A mix of colored burnished concrete masonry anchors the building walls, colored plaster provides an accent and the terra cotta tile roof relates to the community theme.

Station offices and other active areas are separated from quiet dormitory areas by the drive through apparatus room. This room has an exposed steel structure, mechanical ducts, diesel exhaust system and suspended light fixtures, with electric bi-fold doors at each end. Large windows and skylights provide ample daylight for all building areas. In the dormitory, sleeping cubicles and single bathrooms assure privacy.

Color is a recurring theme in the city of Santa Clarita, for commercial, residential and civic buildings as well. Throughout the Fire Station 126 project, color is used as a link to the surrounding community with a 25% mix of burnished concrete masonry, in tones of red, gray, yellow and green, assembled in a random pattern established between the mason and architect. Masonry was exposed wherever possible: exterior wall base, structural columns and walls, entry tower and interior bearing walls, expressing architectural continuity inside and out. In this important civic project, colored concrete masonry units have been used in a unique way to provide a permanent, distinctive character within the Civic Center context.

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William Loyd Jones
Principal

STRUCTURAL ENGINEER:
Harold Epstein & Associates

GENERAL CONTRACTOR:
Select Construction

MASONRY CONTRACTOR:
Nibblink Masonry

OWNER:
County of Los Angeles Fire Department

Photography: Art Gray
LOS ANGELES PUBLIC LIBRARY, WILL AND ARIEL Durant Branch
HOLLYWOOD, CALIFORNIA

Situated prominently on a noisy, six-lane strip of Sunset Boulevard, the library serves a diverse urban community concerned equally with parking, maintenance, and symbolic presence. The design sides with commercial context, rakes up to distant mountains, and retains a certain institutional distinction.

Tall and hard-surfaced on the front, low and softly landscaped on the rear, the building confronts street scale and movement and answers problems of noise and durability. Reading areas border the sidewalk, engaging pedestrians and the lights and movement of cars through angled bays of sound resistant glass block. In lieu of the standard, hard to maintain planter, a concrete berm slopes to the sidewalk lessening building scale. The front rises as a plane, capped by strip-scale, three-dimensional dedication signage that reads in an evanescent, non-commercial way. The foyer links the corner plaza and rear parking entrances with a community room for use when the library is closed. CMU walls and concrete paving continue the exterior character of the sidewalk into the reading room.

Inside curving ceilings, supported by articulated columns and girders, evenly reflect daylight from south-facing skylights to provide sufficient reading light without electric illumination. At the far end of the building, a court opens to the sky continuing interior space outward. In the story telling room, a free form, structural glass window gives kids a wobbly view into the court.

Exposed concrete masonry supplies seismic resistance, noise abatement, and durable finish. Its 12" x 12" module and raked joints establish scale and texture. Used freely to form building walls, fences and planters, the “ground face” colored CMU initiated an earthy palette of concrete, metal siding, and painted steel elements that sets the building off from its commercial neighbors.

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GENERAL CONTRACTOR:
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MASONRY CONTRACTOR:
Moody Masonry and Concrete

OWNER:
Los Angeles Public Library

“ground face” colored CMU initiated an earthy palette of concrete, metal siding, and painted steel elements that sets the building off from its commercial neighbors.
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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.

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The 2008 Concrete Masonry Design Awards Banquet will be held on Friday, September 26, 2008, at the Four Seasons Hotel, Las Vegas, Nevada.

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