

REPRESENTATIVE LEED / SUSTAINABLE DESIGN EXPERIENCE



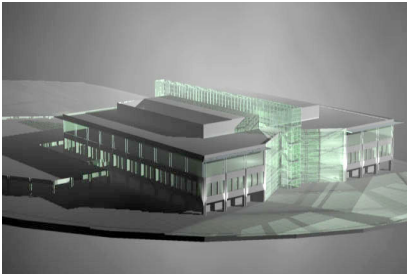
JAMA is committed to energy efficient and environmentally sensitive designs and construction methods. Our design team is encouraged to find innovative ways to protect the environment while saving energy costs, maintenance costs and construction costs during the design of sites, roadways and structures. JAMA is using the following methodology when evaluating the efficiency of our designs; utilization of existing structures, reduction of material use, selection of low-impact, resource efficient, recycled materials and maximizing design for durability and adaptability.

- **University of San Diego – Hahn University Center New Addition (LEED Silver)**
 San Diego, California
 New Construction has 55,000 square feet
 Renovation has 75,000 square feet / Construction Cost: \$33,000,000 / This project includes a 4-story mixed-use building with approximately 112' x 112' with a 45' x 45' opening in the center of the building at the upper 2 floors and roof. The roof is designed as a flat, 'green' roof for planted areas.
- **Santa Barbara Airport New Terminal (LEED Gold Certification probable)**
 Santa Barbara, California
 Construction Cost: \$63,000,000 / Completion 2011
 New 67,000 square foot terminal building with 2-stories, and third level penthouse-type space and passenger loading bridges. The original 1942 terminal building is renovated to provide modern passenger service enhancements.
- **LAX Tom Bradley International Terminal Expansion (LEED Certification probable)**
 Los Angeles, California
 The Midfield Concourse, located behind the Bradley Terminal is for domestic and international flights. The structure measures between 500,000 and 600,000 square feet to accommodate nine Airbus A-380 jumbo jets. The terminal's rhythmic, sloping glass and steel roofs, evoke the breaking waves of the nearby ocean. The building's flat-seam stainless steel canopy stretches over several column-free structures. A new two-level arched bridge crosses a new taxiway, connecting passengers to the concourse from the Bradley Terminal. The bridge's design refers to the airport's 1961 Theme Building iconic parabolic arches. Completion: 2013
- **UC Irvine School of the Arts (LEED Silver)**
 Irvine, California
 This new 60,417 square foot building includes four 5-story buildings. The project also includes a 4,500 square foot addition to the existing Production Studio.
- **2000 Avenue of the Stars Office Building**
 Century City, California
 12-stories / 858,700 square feet / 57,000 square feet – retail
 \$275,000,000 / Completed 2006
- **Caltech Annenberg Center for Information Science Technology (LEED – Gold Level probable)**
 Pasadena, California
 The 50,000 square foot academic building, currently under construction, balances the technically refined steel and glass curtain-wall system, environmentally innovative mechanical systems and site-specific color palette. The building sensitively positions itself within the surrounding garden-like setting of the campus.

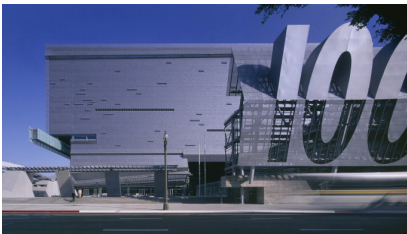
REPRESENTATIVE LEED / SUSTAINABLE DESIGN EXPERIENCE



Caltech Cahill Center for Astronomy and Astrophysics



California Regional Forensic Science Institute, Los Angeles County



Caltrans District 7 Headquarters

- **Caltech Cahill Center for Astronomy and Astrophysics (LEED – Gold Level)**
Pasadena, California
The project consists of 3-stories above grade and 2-stories below grade and 100,000 square feet which includes laboratories, lecture hall, classrooms, remote observing rooms, library, conference rooms, and administration offices.
- **Los Angeles Crime Laboratory / California Regional Forensic Science Institute (LEED Silver)**
Los Angeles, California
This project consists of a new Forensic Science and DNA Crime Labs for joint use of the L.A. County Sheriff’s Department, L.A. Police Department and the California State University of Los Angeles. The 5-story facility is 209,000 square feet with highly sophisticated mechanical, plumbing, electrical, and security systems.
- **California Department of Transportation (Caltrans) District 7 Headquarters (LEED Silver)**
Los Angeles, California
716,200 square feet / 14-stories / 1,142 parking spaces
Project consists of a new State office building of 716,200 gross square feet plus parking for 1,142 vehicles for Caltrans District 7.
- **Glorietta Bay Civic Center – Coronado City Hall Expansion**
Coronado, California
\$13,000,000 / 66,000 square feet / This project includes a pool building, community center, and new city hall expansion.
- **LAUSD Central High School #15**
Los Angeles, California
Three 3-story academic buildings, one 2-story administration / library building / kitchen / multi-purpose building / gymnasium, shower and locker building / lunch shelter / auto-shop accommodating 1539-seats / 57 classrooms within 160,000 sq ft building area / Construction cost \$50 million
- **Cooper Union Academic Building (LEED – Gold Level probable)**
New York, New York
165,000 square feet / Construction Cost: \$74,000,000
This new structure includes labs, and academic building, classrooms, offices and student lounges. Geometry of building is expressive and unique.
- **9919 Jefferson Office Building**
Culver City, California
132,000 square feet / Completion 2010

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Caltrans District 7 Headquarters

- **Loyola Marymount University - William H. Hannon Library (LEED Certified Silver)**
 Los Angeles, California
 3-stories / 88,000 square feet / Construction Cost \$55,000,000
 The 88,000 square foot, 3-story building offers the most advanced technologies of today's digital libraries, combined with the materials and services of traditional libraries. A state-of-the-art automated storage and retrieval system, utilizing robotics, provides high density storage for nearly 1.5 million items. This efficient use of space allows for 580 individual reading stations and over 100 collaborative study rooms, as well as a computer lab, café and other special spaces designated for music and video materials.
- **University of Arizona – Institute for Biomedical Science and Biotechnology, Building Phase I**
 Tucson, Arizona
 This \$46,000,000 project consists of a 170,500 square foot multi-story biomedical and biotechnology research facility which includes 29,500 square feet of vivarium space. This facility houses flexible lab research and support space.
- **City of Gilroy Library Renovation and Expansion**
 Gilroy, California
 This new Spanish style community library and data support facility incorporates sustainable architectural design. The building is a two-story concrete shear wall building. The large centrally located atrium and mechanical requirements created challenges and irregularities in the structure. The building is 53,231 sq feet designed to the 1998 CBC Volume 2.
- **City of Santa Monica 415 Pacific Coast Highway Pool Renovation**
 Santa Monica, California
 Completed renovations to the existing 2,277 sq ft pool and added a new surge chamber.
- **Alfred A. Arraj United States Federal Courthouse Annex**
 Denver, Colorado
 Cost: \$85,000,000 / Completed 2002
A case-study of LEED for the GSA, this project is a model of sustainability symbolizing a renewed environmental awareness for the 21st century. Complete structural and civil engineering services including blast security design for this two-story pavilion building and 325,000 square foot, 10-story building which houses ten district, four magistrate courts, and a special proceedings courtroom.

REPRESENTATIVE LEED / SUSTAINABLE DESIGN EXPERIENCE



Caltrans District 11 Headquarters



Los Angeles Metro Jail Facility

- **Riverside County District Attorney Office Building and Parking Structure**
 Riverside, California
 This new \$140 million, six-story office building and eight-level parking structure is located in the governmental center of downtown Riverside. The 218,000 square foot office building is clad in precast concrete and glass and utilizes a domed atrium space to define the entry and provide a focus for the employee roof garden. The 650 stall parking structure is clad in precast concrete tying into the urban environment. The project is expected to earn LEED certification when completed in 2010.
- **Santa Monica City College New Liberal Arts Building**
 Santa Monica California
 31,000 square feet / 2-stories
- **Calabasas Civic Center Plaza (LEED Certified – Gold Level probable)**
 Calabasas, California
 This new project includes a 26,000 square foot City Hall, 28,000 Library and Assembly Hall, and a 90,000 square foot sub grade parking structure consisting of 256 spaces.
- **Metro Jail Facility – (LEED Certified Silver)**
 Los Angeles, California
 Completion Date: 2008
 This project is a new 512-bed, 179,000 square foot central jail facility in downtown Los Angeles. It is co-located with the Emergency Operations Center / LAFD Dispatch / LAPD Operations Center, Fire Station No. 4 and the Metro Bomb Squad Building in a "Campus Setting Design" site plan.
- **Caltrans District 11 Headquarters (LEED Certified - Silver Equivalency Rating)**
 San Diego, California
 Completion Date: 2006
 The 3-building complex is 300,000 square feet and includes a 3-story, 4-story, and 5-story steel-framed structure utilizing special moment resisting frames for its lateral system and has a composite deck and steel frame. The foundation is a concrete pile-supported, structural slab-on-grade consisting of grade beams to resist sliding and overturning forces. This project also includes a monumental steel trellis standing over 60-feet high and covering over 3,000 square feet.

 - This project accommodated sustainable design through flexible designs, natural strategies for water resources, energy modeling, construction recycling, building materials selection, sustainable design practices, and energy efficiency space conditioning, lighting design and distribution.

REPRESENTATIVE LEED / SUSTAINABLE DESIGN EXPERIENCE



Lloyd D. George Federal Building and U.S. Courthouse

- **Lloyd D. George Federal Building and U.S. Courthouse**
 Las Vegas, Nevada
 8 stories / 6 acre site / Completed 2000
 The new Federal Building is located on a six-acre site in downtown Las Vegas, and was occupied in the spring of 2000. The project contains 410,000 square feet of space to satisfy the Courts' 10- to 30-year facility requirements. The eight-story building houses ten (10) courtrooms and judges chambers, plus other court-related agencies and support functions.

 - The building design criteria was created to meet stringent energy efficient guidelines. Included within this criteria is the entrance of the building and a large canopy over the plaza level which is made of structural steel and contains large, energy efficient sunscreens.
 - Air-Side Economizer: System uses outside air, if it is cool enough (55°F - 72°F), to reduce temperatures in the building. This energy saving system allows for partial or total natural cooling of building depending on the outside temperatures.
 - VAV (Variable Air Volume) System: Utilizes a damper to reduce fan horsepower, and thus save energy, when building occupancy is reduced during non-working hours.
 - Second Air System for 24-hour areas: Usually only approximately five-percent of a building is used for all 24 hours of the day. The second air system allows these occupied areas to remain cool, while saving energy in the unoccupied areas.

- **Morgan Hill Aquatics Center (LEED Certified)**
 Morgan Hill, California
 Completed design for the pool portion of the project only. This included four pools: 50-meter, all-deep competition pool; 5,000 square foot zero-depth-edge activity pool, 6-lane lap / instructional pool, and splash play area for tots.

- **Capitol Mall East End Complex and Parking Structure**
 Sacramento, California
 The complex is comprised of five office buildings totaling 1,470,000 gross square feet, five below grade parking structures, and retail located at the east end of Capitol Mall. The Capitol Mall East End Complex incorporates the latest "green construction" features, some of the project's environmentally friendly highlights include":

 - Thirty percent more energy efficient than required by Title 24 of the California Building Code.
 - Lower energy costs through the use of "smart" light controls, high-efficiency fluorescent lamps and window glazing, and open workstations designed to maximize the use of daylight.
 - Using building products containing recycled materials including recovered construction and demolition waste.

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- Reusing 30,000 square feet of gray marble in the ground floor lobbies (recovered from the historic Library and Courts Building)
 - Promoting clean air through alternative energy strategies that include recharging stations for electric vehicles, designated preferred parking for car pool and alternative fueled vehicles, and bicycle lockers and shower/locker facilities for bicycle commuters.
 - Conserving water and reducing sewage discharge by use of low flow irrigation systems and plumbing fixture flow restrictors.
 - Placing recycling centers on each floor to further encourage recycling of paper, glass, and aluminum.
 - By incorporating these and many other sustainable building design features, the Capitol Area East End Complex significantly exceed the building energy efficiency standards mandated by state law.
- **Los Angeles City College Physical Education Building**
Los Angeles, California
This 5-story, 102,500 square foot steel braced frame structure includes two gymnasiums (seating accommodates 499 and 349 fans), and one basketball arena which seats 950 fans. Special features include curved long span roof trusses and long span sloped steel wide flange trusses.