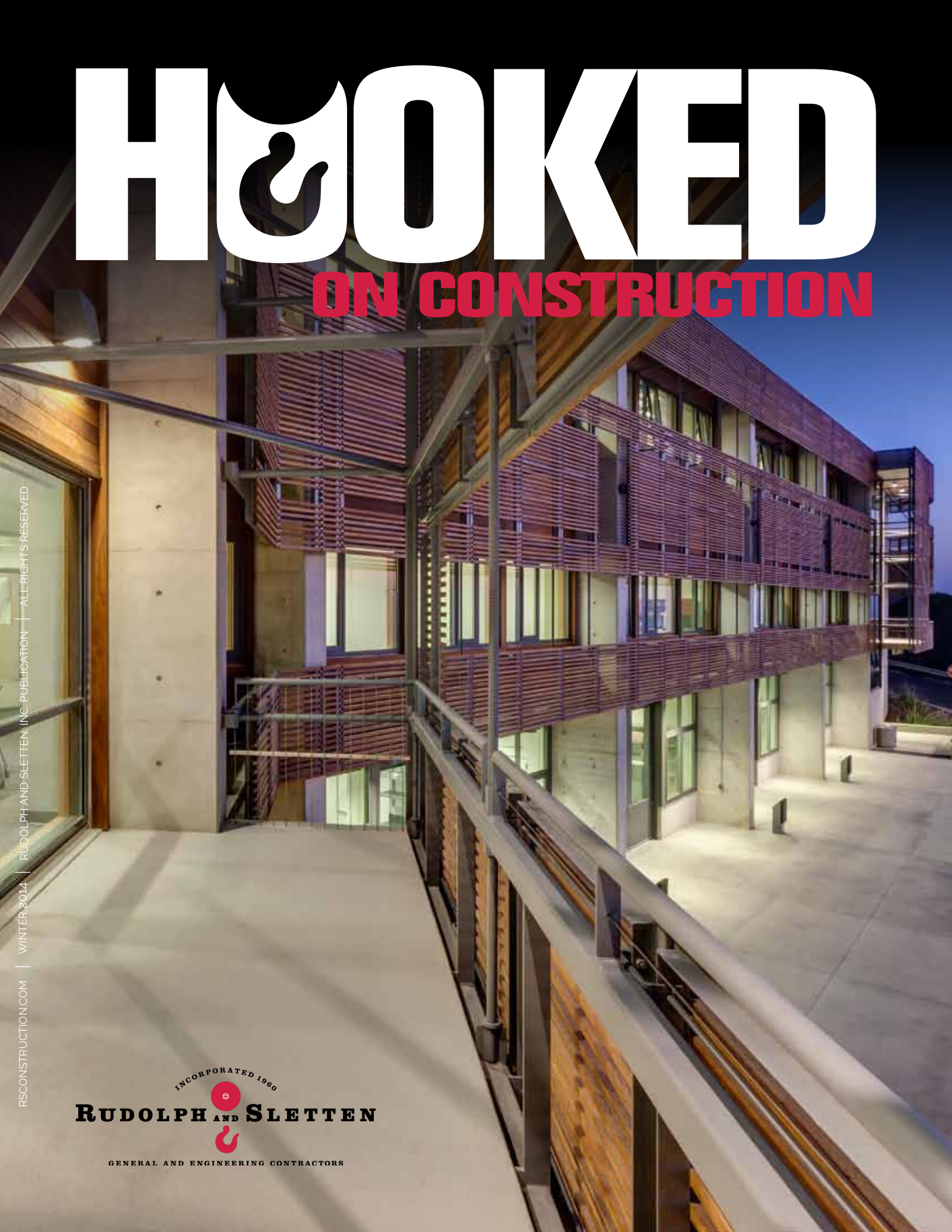
# HOOKED ON CONSTRUCTION



INCORPORATED 1960

RUDOLPH AND SLETTEN

GENERAL AND ENGINEERING CONTRACTORS

RSCONSTRUCTION.COM | WINTER 2014 | RUDOLPH AND SLETTEN, INC. PUBLICATION 


Over time, a lot of things may change — building materials, techniques and processes — but the most reliable raw materials on the job do not: a firm hand shake, an informative phone call, a realistic estimate, and an honest smile.

We invite you to build with us in this exciting time of change, not just building better environments, but partnerships. Bottom line is, we don't just build buildings — **we build relationships.**

COME FIND US!

WE'D LOVE TO CONNECT!

**LET'S BUILD**

rsconstruction.com

# CONTENTS

55K
gallon tank

24 DISPLAY
monitors

6 MONTHS
of construction

# OTTERLY EXCITED

## Sea Otters Dive into Their New Home at the Monterey Bay Aquarium

One of Monterey Bay Aquarium's most popular exhibits is once again open to the public! Rudolph and Sletten began construction on the Sea Otter Exhibit Remodel project back in September 2012. The exhibit was closed for 6 months and the otters' reintroduction to their renovated enclosure was eagerly awaited by the Aquarium's patrons and sea otter fans everywhere.

On March 23, 2013, the otters of Monterey Bay Aquarium were welcomed back by their adoring public. The Sea Otter Exhibit Remodel project, designed by EHDD Architecture, began in September 2012 and was closed for 6 months during the Aquarium's slower winter season. The reopening of the exhibit and return of the resident Sea Otters were eagerly awaited by the Aquarium's patrons and Sea Otter fans everywhere.

Rudolph and Sletten, the builders of Monterey Bay Aquarium back in 1984, installed the Sea Otter Exhibit as part of the original structure. The renovation includes updates to the 2-story, 55,000-gallon sea otter tank, support equipment, holding tank, roof top deck and surrounding non-public work space. As a part of the upgrades and efforts to create a more interactive and engaging experience for the Aquarium's visitors, 24 new displays above the viewing windows will announce to viewers which otters are in the exhibit, otter facts, as well as run video of behind the scenes work by the trainers. A high-definition webcam has also been installed and displays live feed of the otters online during operation hours.

The Monterey Bay Aquarium is the nation's leading aquarium for rescuing, raising and rehabilitating sea otters. The sea otter conservation program's role is to rescue, treat and release injured otters; raise and release stranded pups through their surrogate program; provide care for sea otters that can't return to the wild; and conduct scientific research. More than 600 sea otters have come through the program, including the five current sea otters on exhibit, Rosa, Abby, Kit, Gidget and Ivy.


# Edwards Lifesciences Headquarters Has a Pulse

Edwards Lifesciences, an innovator and the global leader in the science of heart valves and hemodynamic monitoring technologies, welcomes the completed expansion of a new Annex building and sustainable parking structure located on their headquarter's campus in Irvine, California.

A reflection of Edwards Lifesciences' commitment to helping patients, this development will assist the company in its efforts to help more patients worldwide who are critically ill or who undergo heart valve procedures.

Designed by architects HOK, the Annex project involved the demolition of an existing building and construction of a brand-new, 38,000sf office building inbetween two existing buildings on the headquarter's campus. The Annex is composed of 60 offices, 182 cubicles, 12 conference rooms, a kitchen and lounge areas.

In addition to the Annex, the expansion called for a separate project involving the demolition of an existing parking lot to make way for the construction of a new 366,000sf, 4-level, 1,206-stall parking structure, designed by LPA, Inc. architects. True to the owner's spirit of innovation, this parking structure boasts the unique features of an eco-friendly, 42,000sf photovoltaic system on the top level of the structure in addition vibrant "living wall" spanning along the east elevation.


**40 TONS**
**of steel**

**OVER 90FT**
**in length**

# Research and Treatment are Bridged

Children's Hospital Los Angeles' Sunset Pedestrian Bridge was opened during a vibrant dedication ceremony, March 19th, 2013.

A bridge addition allows 24-hour access for hospital personnel to easily commute between Children's Hospital Los Angeles's Saban Research Institute and the Marion and John E. Anderson Pavilion. Both the Saban Research Institute and the Anderson Pavilion are projects previously completed by Rudolph and Sletten.

The new path between these facilities physically "bridges the gap" between the critical research conducted at Saban Research Institute and the application and treatment of findings to patients at the Marion and John E. Anderson Pavilion.

Designed by Zimmer Gunsul Frasca Architects, the 92-foot, 40-ton bridge was constructed off-site October of 2012, then towed to and assembled on-site at its current location.

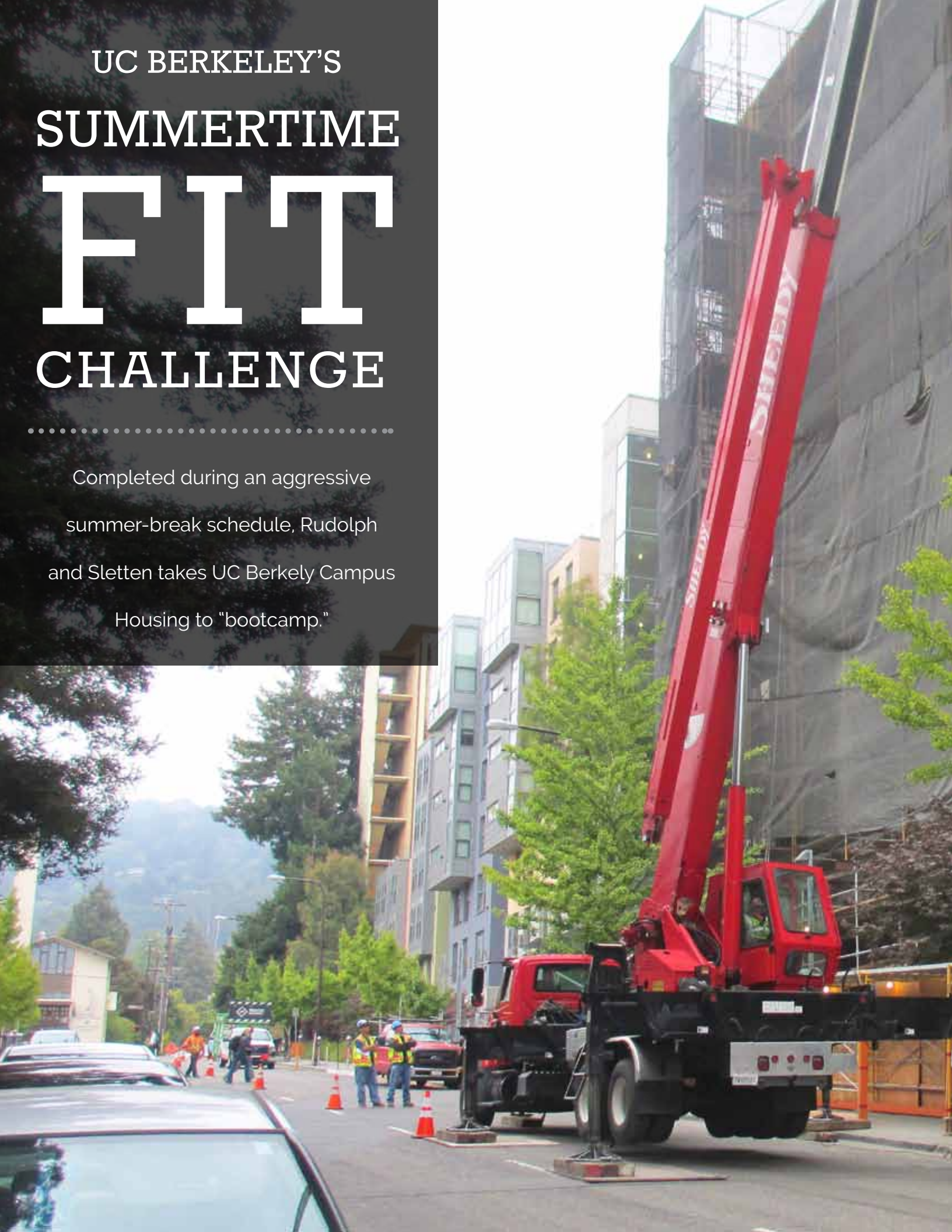
"As a prominent research hospital, our scientists and clinicians work side-by-side to bring the latest findings in the lab straight to the bedside and from the bedside back to the lab, so it's only fitting that now there is a physical link between the two institutions."

RICHARD D. CORDOVA, FACHE, PRESIDENT AND CEO OF CHILDREN'S HOSPITAL LOS ANGELES

UC BERKELEY'S

# SUMMERTIME FIT CHALLENGE

Completed during an aggressive summer-break schedule, Rudolph and Sletten takes UC Berkely Campus Housing to "bootcamp."



260+
person crew

440
interior
steel columns

500+
relocated
utilities

88 FLOORS
of interior work

5+ MILES
of rebar locating

OVER 550
exterior column sections

Schedule was the top priority for this project and also a major challenge.

The project scope involved the seismic enhancement of three residential housing units, each consisting of four, 9-story buildings equalling 12 buildings total, all to be upgraded during UC Berkeley's short summer break. Rudolph and Sletten was selected only three weeks prior to summer break, imposing an extremely fast-paced schedule regarding procurement of trade contractors and materials. Summer session students occupied the residence halls for two of the three months during construction, making project logistics that much more complicated.

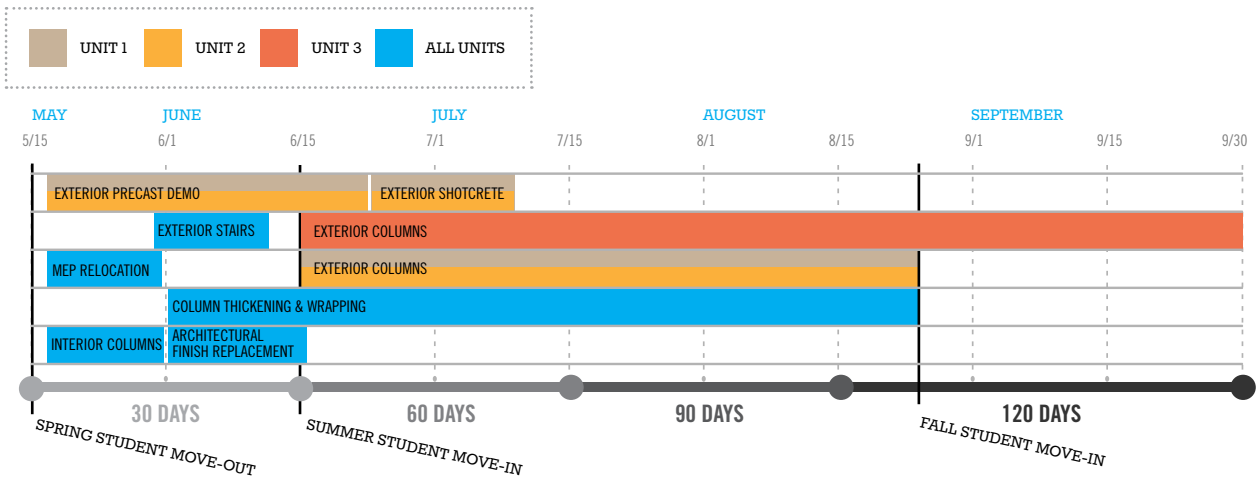
The initial phase, which consisted of the first 29 calendar days of the project, consisted of aggressive interior and egress stair scope of work. The interior work for each residence building included new interior footings at the ground/basement levels and five new tube steel columns at each floor, 440 total, to help shore or strengthen the structure's core. In order to perform this work, selective demolition took place to the ceilings, flooring, architectural décor/lighting and included the relocation of over 500 overhead utilities. The egress stair strengthening work occurred at each level of stairs at each of the buildings – nine flights per building, including the ground floor – where each landing was "pulled" back onto the building's structure. This work, including the reinstallation and finish of all architectural items, occurred within the 29 calendar days of the inital phase.

Concurrent with the initial phase, eight buildings had their 8-story architectural screen wall hand demolished from erected scaffold and adjacent to pedestrian public walkways. The first four floors at each location were replaced with a 2,000sf new shotcrete shear wall.

The second phase and the balance of the scope of work was the exterior column strengthening work. A unique "U" steel column bracket was fabricated from a 7/8" thick steel plate, grouting involved over 4,000 bags and was attached to the existing exterior concrete column pilasters. Each bracket was supported at its base by thickened concrete columns and fastened with strategic anchor placement, then coated with high-performance paint. An amazing 5,256 anchors were used, which included 20"-deep, 1" undercut anchors; 1" epoxy anchors and 1.5" through bolts. All needed to be cored on swing stages without hitting any rebar.

**If all the new steel column "U" brackets where laid on the ground from each building, the length would stretch over a mile.**

Material procurement, detailed scheduling (which included a dedicated, full-time architect and engineer *on-site*) and collaborative problem solving was required for this project to be successful. Being occupied two months out of the summer and working around the general public, safety was not overlooked by Rudolph and Sletten and was never second to the aggressive schedule.



# R&S OUTLOOK

## PROJECTS ON THE HORIZON


### Sacramento Valley Station, Intermodal Phase II

- Type: Transportation, historic structure revitalization
- Size: 60,000 gsf
- Location: Sacramento, CA
- LEED: Gold pursued
- Design: ZGF Architects




### University of California, San Francisco Health Science Instructional Research

- Type: Higher Education, remodel
- Size: 50,000 gsf
- Location: San Francisco, CA
- LEED: Gold pursued
- Design: Noll & Tam Architects




### Point Loma Nazarene University, Science Building Phase 1

- Type : Higher Education, new construction
- Size: 33,500 gsf
- Location: San Diego, CA
- LEED: Silver pursued
- Design: Carrier Johnson + Culture




### Univeristy of California, Los Angeles
**Teaching & Learning Center for Health Services**

- Type: Higher Education, new construction
- Size: 120,000 gsf
- Location: Los Angeles, CA
- LEED: Gold pursued
- Design: SOM Architects




### Kaiser Permanente, Diamond Bar Phase II Medical Office Building

- Type: Healthcare, facility expansion
- Size: 35,000 gsf
- Location: Diamond Bar, CA
- Design: Perkins + Will Architects

# WAVES TO WINE

$13K RAISED
FOR MS RESEARCH

Terry Barnacal, R&S Roseville Project Manager, rode from San Francisco to Sonoma County this past September in a 2-day, 125-mile "Bike MS" fund raising event. Terry's team, "Team Green," has thus far raised nearly $13,000 towards the cause, with all proceeds going directly to the National Multiple Sclerosis Society. Every donation will aid in assisting support programs, services and research that makes a huge difference to the people who must fight MS every day of their lives.

"What started as a personal challenge grew much larger as the build-up for the event approached. As I learned more about MS, I became more motivated to raise money to help battle the disease. Did you know that as close as 15 years ago there was no treatment for MS? It's events like this that advance the study and search for a cure. MS stops people from moving. The National MS Society exists to make sure it doesn't. The Society addresses the challenges of each person living with MS."

TERRY BARNACAL

# Rudolph and Sletten, Inc. is awarded Cal/OSHA's Golden Gate Partnership Recognition

## This site-specific Cal/OSHA award recognizes the "Best Of" in Injury and Illness Prevention Programs (IIPP) across the state of California.

Rudolph and Sletten took the initiative of reaching out to Cal/OSHA Consolation Service last May, requesting a full-service on-site visit to the San Bernardino Justice Center jobsite. The entire certification process consisted of three different site visits to evaluate Rudolph and Sletten's Injury and Illness Prevention Program on the San Bernardino Justice Center.

Alan Spears and San Bernardino's Superintendents, Lee Scott and Bill Rodgers, walked the 370,000sf job with the Cal/OSHA consultants. The Cal/OSHA objectives were to meet with company representatives, discuss the company's safety and health program management systems, talk to workers, and walk-around to evaluate the work area. After exploring the entire building, they found only a few minor corrections for the 7.1-acre site.

The team revised and restructured their entire IIPP with the intent on making the plan language easily understandable and cohesive for optimum comprehension by the Cal/OSHA Consultation Service. This effort by the Rudolph and Sletten Safety Department has successfully created an outline that can be easily followed for sister jobsites to utilize and implement for future Cal/OSHA submissions.

Jose Reyes, R&S Jobsite Safety Coordinator, produced the four-inch revised binder for review by the Cal/OSHA consultants. With clear outlining, structure and meticulous notes, Cal/OSHA was able to review all records within just a few days, confirming with the San Bernardino Justice Center team that they had earned the Golden Gate Partnership Award.

**An on-site presentation was held August 15th as the Cal/OSHA Consultation Service awarded the entire project team with the Golden Gate Partnership Recognition certificate.**

The Cal/OSHA certification process has now been streamlined and the IIPP documentation Cal/OSHA-formatted, thanks to the hard work and dedication of the San Bernardino Justice Center team. The SBJC team is now working towards their next milestone, the Voluntary Protection Program certificate, which is not only a State, but a nationally recognized award.

> This was a great opportunity to enhance our IIPP and strengthen our working relationship with Cal/OSHA.
>
> ALAN SPEARS, REGIONAL SAFETY MANAGER

SAN DIEGO COMMUNITY COLLEGE DISTRICT,
CESAR CHAVEZ EDUCATIONAL CENTER

UNIVERSITY OF CALIFORNIA, LOS ANGELES,
TEACHING AND LEARNING CENTER

# Shovels in the Dirt Turn Up Excitement and Signal Things to Come in Southern California

## Southern California higher education celebrated as Rudolph and Sletten dug their shovels in the ground, marking the construction commencment of two separate projects this past September 25th.

The San Diego Community College District's Cesar Chavez Educational Center will be a 73,075sf facility composed of 22 classrooms for vocational training, English as a Second Language, GED programs, Adult Education, Business Information Technology programs, Parent Education and Emeritus (55+) programs together under one roof.

Designed by architects Martinez + Cutri, the one-acre site is being constructed to meet the LEED Silver certification standards set by the United States Green Building Council, boasting sustainable features such as reducting water consumption by 40%, exceeding State building efficiency standards by at least 14% and providing easy access to public transportation, as well as designated parking for carpool and fuel efficiency vehicles.

Speakers at the event included Continuing Education President Anthony Beebe, Board of Trustees President Rich Grosch, Chancellor Constance M. Carroll and Robin Carvajal, Dean for the new campus. Speakers ddressed how this development will positively effect the community, as well as how it will honor the lessons and message of the late civil rights and political activist, Cesar Chavez.

A few miles up the coast was held an equally momentous celebration for the University of California, Los Angeles' Geffen School of Medicine, as an intimate gathering of 70 welcomed the school's newest project on the ground, the Teaching and Learning Center for Health Services.

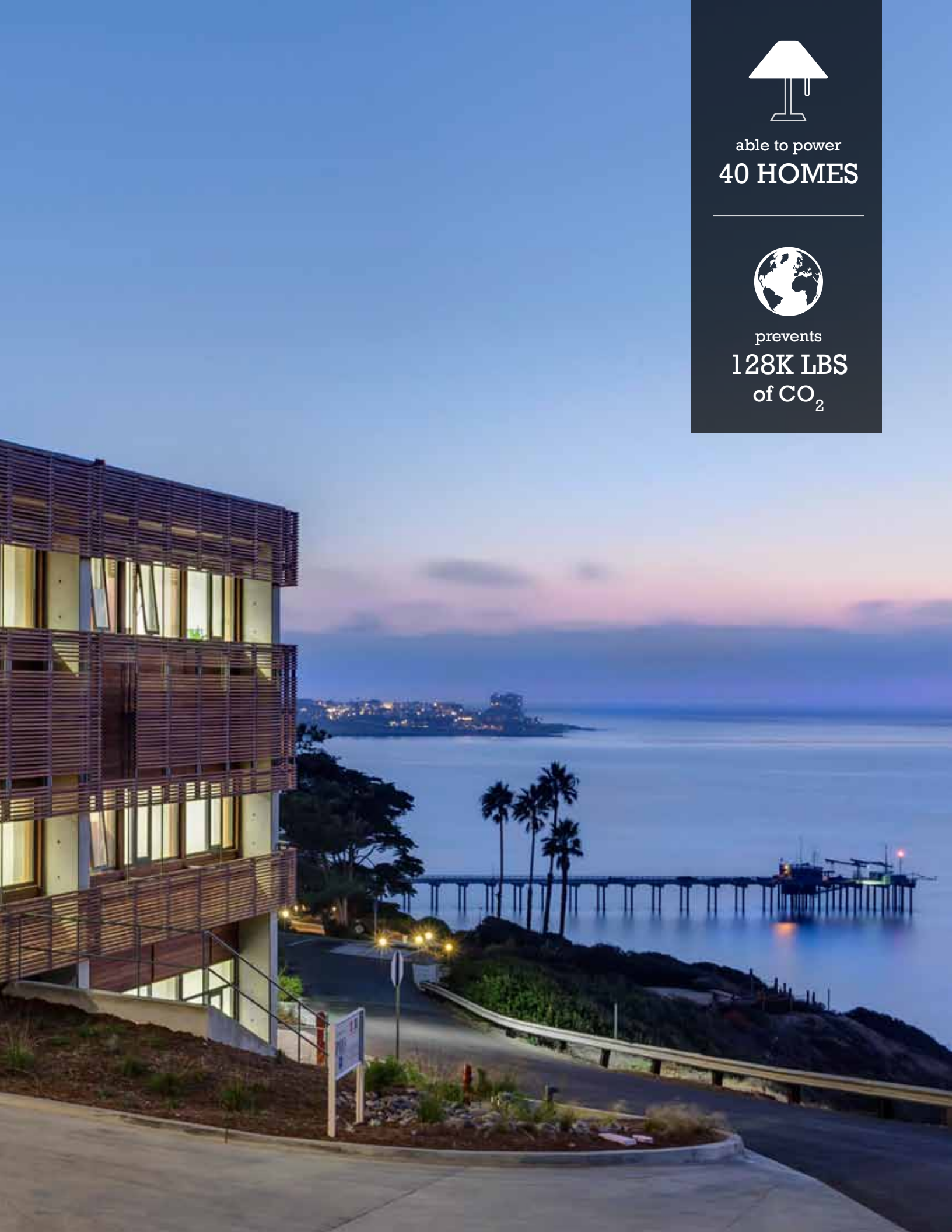
The 120,000sf, 6-story center will support a 220-seat lecture hall, two 200-seat multipurpose rooms, case study rooms, teaching labs and seminar rooms. Currently, the Geffen School of Medicine is dispersed into 11 buildings throughout the UCLA campus.

The Teaching and Learning Center's goal is to consolidate these facilities so education is more conducive to today's methods of team-based learning and medical care practices in response to the increasing presence of transparent and shared technologies for research and treatments. The architects of SOM designed the entire facility to nurture these collaborative structure trends, from the modular seating complete with flat-screens in the classrooms to creating stairways that act as "hubs" and invite activity.

With an anticipated construction completion date in 2016, the building will also be expertly constructed to meet the U.S. Green Building Council's LEED Gold certification requirements.

# Green Buildings for Blue Oceans

The LEED Platinum-registered MESOM laboratory provides an environment for coastal ecosystem biologists and oceanographers to work collaboratively on an integrated approach to understanding California's coastal waters.



able to power
**40 HOMES**

prevents
**128K LBS**
of $CO_2$

named a
SDG&E
Sustainable
Communities
Champion

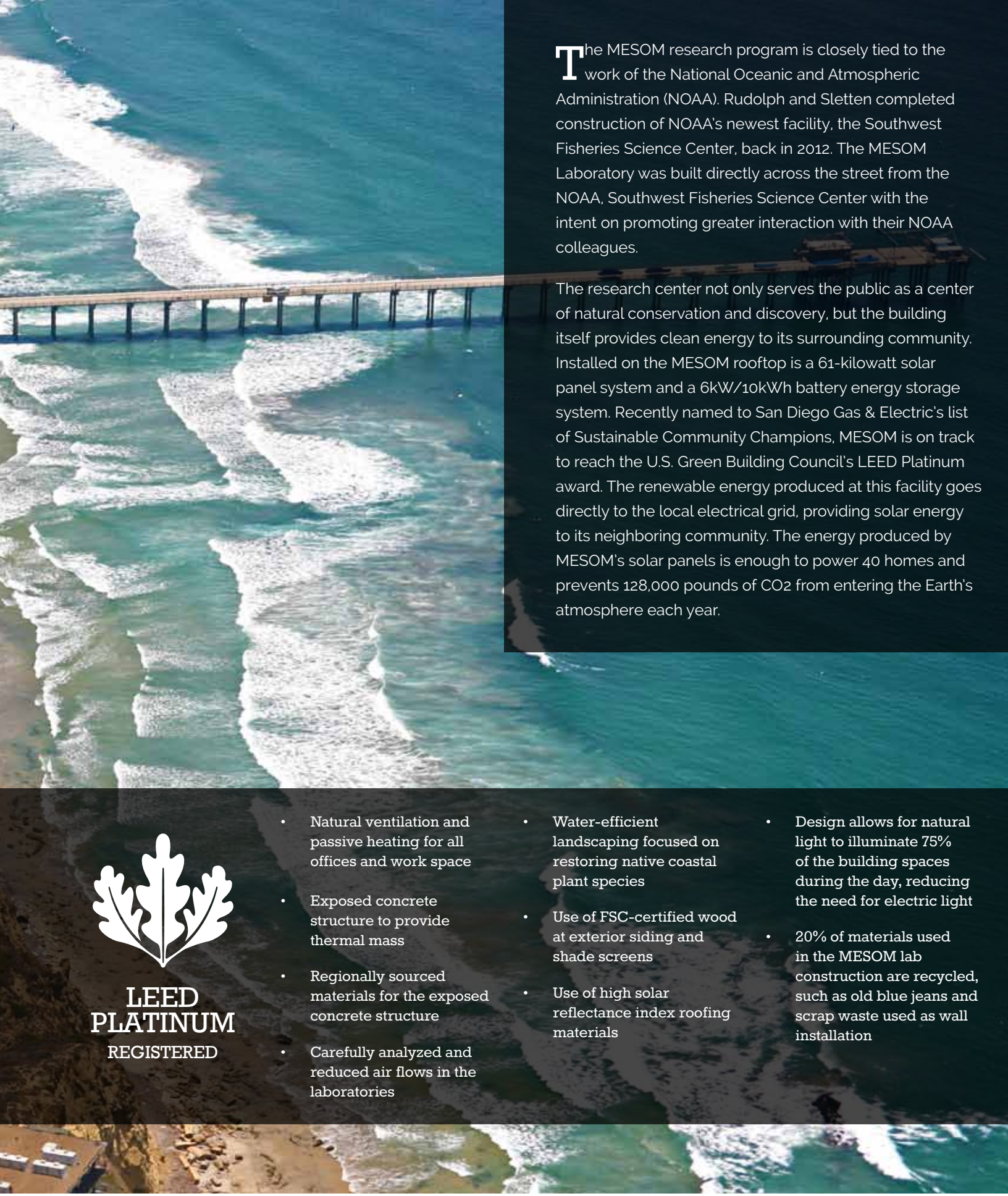
Appropriately nested on the breezy ocean cliffs of La Jolla, California, lies UC San Diego's newest research center for observation of the local marine ecology:

## Scripps Institute of Oceanography's (SIO) Marine Ecosystem Sensing, Observation and Modeling (MESOM) Laboratory

MESOM's principal focus is to develop more efficient and accurate instrumentation to measure physical and biochemical changes to provide the scientific foundations for California's coastal marine ecosystem forecasting. Work at MESOM will enable the research to become a model for understanding marine processes not only in California, but all of the world's oceans, producing useful information for resource managers, decision makers and the public to guide them through today's environmental challenges.

At the inception of the project, UCSD solicited the help of THA Architecture to design a facility that would enhance opportunities for collaborative research among the various disciplines at Scripps. These disciplines, having been previously dispersed among the UCSD campus, are now able to come together in the new 3-story, 40,000sf research center, which is composed of wet and dry laboratories, laboratory support rooms, open workspace, private offices, conference rooms and informal meeting areas.

a 61-kilowatt solar panel system provides power to neighboring community



The MESOM research program is closely tied to the work of the National Oceanic and Atmospheric Administration (NOAA). Rudolph and Sletten completed construction of NOAA's newest facility, the Southwest Fisheries Science Center, back in 2012. The MESOM Laboratory was built directly across the street from the NOAA, Southwest Fisheries Science Center with the intent on promoting greater interaction with their NOAA colleagues.

The research center not only serves the public as a center of natural conservation and discovery, but the building itself provides clean energy to its surrounding community. Installed on the MESOM rooftop is a 61-kilowatt solar panel system and a 6kW/10kWh battery energy storage system. Recently named to San Diego Gas & Electric's list of Sustainable Community Champions, MESOM is on track to reach the U.S. Green Building Council's LEED Platinum award. The renewable energy produced at this facility goes directly to the local electrical grid, providing solar energy to its neighboring community. The energy produced by MESOM's solar panels is enough to power 40 homes and prevents 128,000 pounds of $CO_2$ from entering the Earth's atmosphere each year.

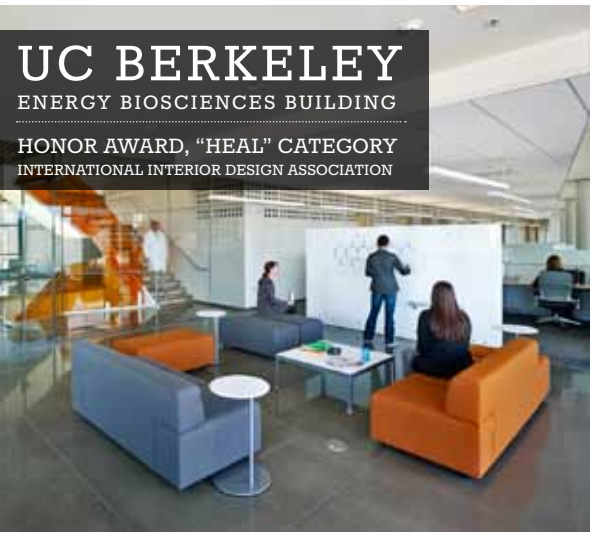
**LEED PLATINUM**
REGISTERED

- Natural ventilation and passive heating for all offices and work space
- Exposed concrete structure to provide thermal mass
- Regionally sourced materials for the exposed concrete structure
- Carefully analyzed and reduced air flows in the laboratories
- Water-efficient landscaping focused on restoring native coastal plant species
- Use of FSC-certified wood at exterior siding and shade screens
- Use of high solar reflectance index roofing materials
- Design allows for natural light to illuminate 75% of the building spaces during the day, reducing the need for electric light
- 20% of materials used in the MESOM lab construction are recycled, such as old blue jeans and scrap waste used as wall installation

# 2013 Awards

CORPORATE RANKINGS & PROJECT DISTINCTIONS

REAL ESTATE DEAL OF THE YEAR
GROSSMONT COLLEGE
STUDENT AND ADMINISTRATIVE SERVICES BUILDING & GRIFFIN CENTER
SAN DIEGO BUSINESS JOURNAL



UC BERKELEY
ENERGY BIOSCIENCES BUILDING
HONOR AWARD, "HEAL" CATEGORY
INTERNATIONAL INTERIOR DESIGN ASSOCIATION

D B I A
"MERIT" AWARD
SHARP REES-STEALY
DOWNTOWN MEDICAL CENTER


#3 TOP PROJECT START
GRATON RESORT & CASINO
ENR CALIFORNIA

# #7
TOP CONTRACTOR
# ENR
CALIFORNIA

#6 GENERAL CONTRACTOR
SAN DIEGO
DAILY TRANSCRIPT

#4 COMMERCIAL CONTRACTOR
SAN FRANCISCO
BUSINESS TIMES

#3 GENERAL CONTRACTOR
IN THE NORTH BAY
NORTH BAY
BUSINESS JOURNAL

#4 COMMERCIAL CONTRACTOR
SILICON VALLEY
BUSINESS JOURNAL

#7 GENERAL CONTRACTORS
IN THE U.S.
MODERN HEALTHCARE MAGAZINE

# Builders Bolt!

## TEAM R&S GATHERS FOR "FUN RUN" IN SANTA CLARA

> This was a great opportunity to get some exercise, give to our community, spend some time with our company "kin" outside of the office and finish the day on a few roller coasters!
>
> JOHN ELWOOD

John Elwood, Project Executive, rallied the Rudolph and Sletten troops for the Mission City Community Fund's 5K Mission City Run this past May 5th, 2013, at California's Great America in Santa Clara.

The Rudolph and Sletten team sported dry-fit shirts with OSHA-approved PPE colors (hard hats were optional)!

Net proceeds will benefit children, seniors and veterans within Silicon Valley through Mission City Community Fund's grant program. Over the years, the MCCF has supported hundreds of nonprofit organizations throughout Silicon Valley, and events like these enable them to expand and enhance their services to its citizens.


5K
race track

700+
runners

300+
spectators

$45K
raised for charity

# Hooked on Technology

SPOTLIGHT: TECHNOLOGY BEHIND OUR PRECONSTRUCTION SERVICES

We are a community of people who enjoy building technology and experiencing the way it is impacting our industry. Our love of innovation is what separated us from the pack over 50 years ago, and is what continues to allow us to thrive as leaders of the industry today.

By adapting to and leveraging new technologies, Rudolph and Sletten maintains a leading edge in quality standards and processes. As part of our commitment to finding new ways to improve efficiency, we are constantly refining our preconstruction services to offer the most innovative and cost-effective solutions in the industry.

## PRECONSTRUCTION SERVICES

- Cost Estimating and Modeling
- In-house Mechanical/Electrical Services
- Target Value Design
- Subcontractor Procurement
- Coordination of Subcontractor Input
- Value Analysis and Cost Studies
- Scheduling
- Site Logistics
- 3D Modeling
- 5D Estimating
- Design-Build Procurement
- Life Cycle Costing
- Constructibility Reviews

### VDC // VIRTUAL DESIGN & CONSTRUCTION

VDC is the management of integrated multi-disciplinary performance models (BIM) of the project, including the building or structure, manpower, workflow sequences and processes and overall organization of the design and construction.

### BIM // BUILDING INFORMATION MODELING

At R&S, our use of BIM technology involves the integration of separate 3D models (structural, architectural, MEP, etc.) for extracting and analyzing rich parametric data to simulate construction processes and predictability (cost avoidance, risks, savings, etc.). BIM methods, techniques and tools are designed to reduce inefficiencies throughout the design and construction process.

## MEET THE PRECON TEAM!

Technology is only as effective as the people utilizing it. Our preconstruction team has the experience, training and process infrastructure in place to ensure each project is geared for success.

We stay on top of the curve to ensure our team has all the tools they need to reinforce our reputation as pace-setters of our industry and navigate the ever-changing landscape of construction.

MICHAEL MOHRMAN
Vice President,
Preconstruction Services

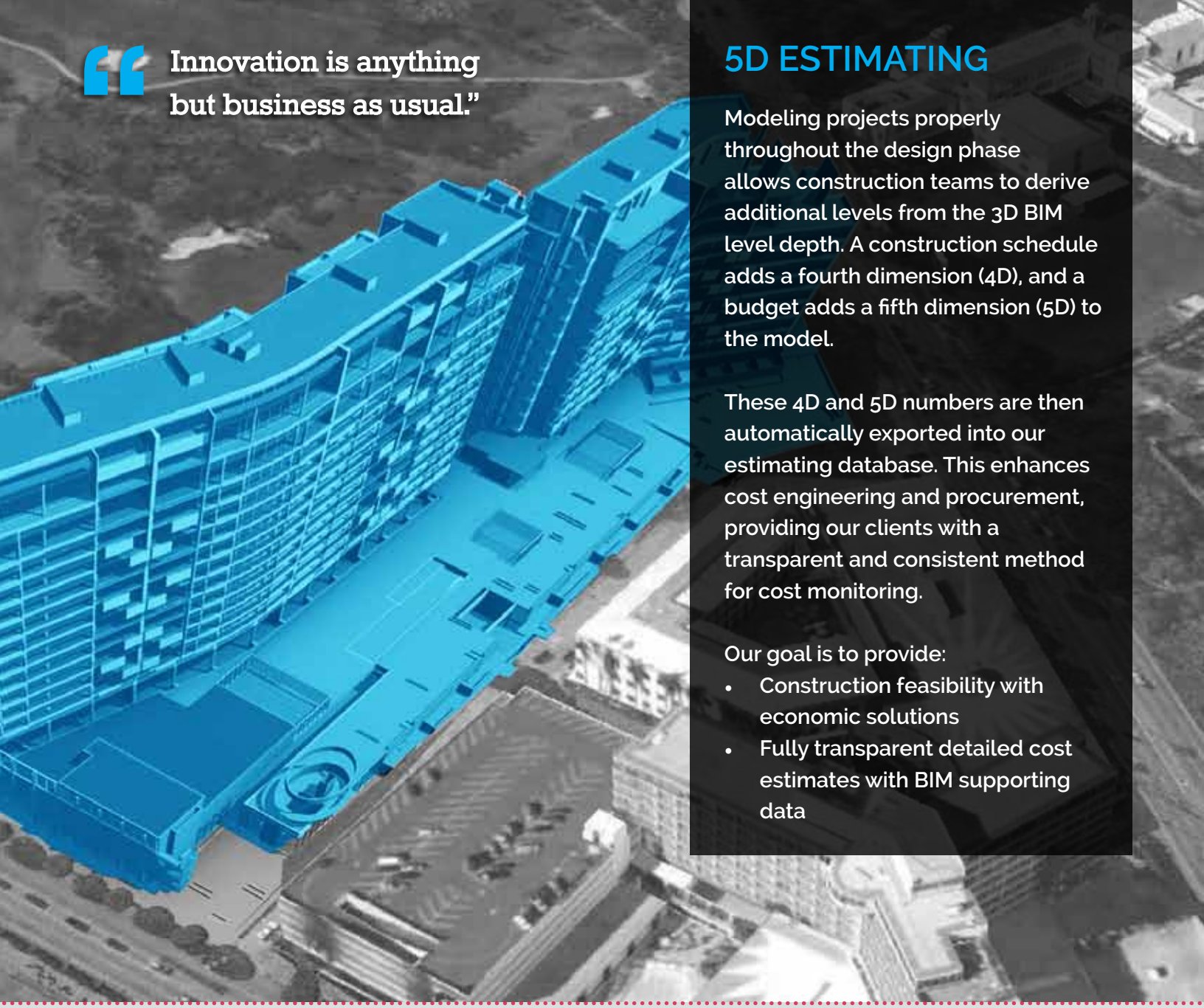
MICHAEL DETATA
Preconstruction Executive,
Northern California

DAVID JESME
Preconstruction Executive,
San Diego

ERIC LASCURAIN
Preconstruction Executive,
Los Angeles

PATRICK KRYZOSIAK
Virtual Design &
Construction Manager

The VDC team is a resource for identifying potential project challenges, providing alternative solutions and recommending implementation methods that will positively impact the project from the design through all construction project phases.



> Innovation is anything but business as usual."

## 5D ESTIMATING

Modeling projects properly throughout the design phase allows construction teams to derive additional levels from the 3D BIM level depth. A construction schedule adds a fourth dimension (4D), and a budget adds a fifth dimension (5D) to the model.

These 4D and 5D numbers are then automatically exported into our estimating database. This enhances cost engineering and procurement, providing our clients with a transparent and consistent method for cost monitoring.

Our goal is to provide:

- Construction feasibility with economic solutions
- Fully transparent detailed cost estimates with BIM supporting data

## BIM STATS

**50+**
**BIM**
PROJECTS

**$5.6**
**BILLION**
IN BIM APPLIED PROJECTS

**12+ SF**
**MILLION**
OF BIM PROJECTS

# HOOKED ON CONSTRUCTION

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