

**A Message from the President**

On November 28, 2001 a liaison was formed between the San Francisco Fire Department and the Structural Engineers Association of Northern California with the presentation of a one-day workshop: "Fire and Explosion: Structural Integrity of High-Rise Buildings." The purpose of the workshop was to raise the structural and life-safety awareness of fire fighters and fire command during search and rescue following disastrous terrorist events such as those of the World Trade Center in NYC and the Oklahoma City - Murrah Federal Building. The liaison will mean that SFFD will look to SEAONC for assistance with structural assessments when needed following future major disasters.



FDNY Search and Resue Efforts at WTC

The workshop included six speakers. I opened the workshop with a brief introduction about SEAONC to put the presentations and speakers into context for the SFFD attendees. Ron Hamburger, of ABS Consultants, started off the body of the presentations with a detailed account of the structural collapse of the World Trade Center and damage to neighboring buildings. He detailed the damage incurred by immediately neighboring buildings as well as buildings within several blocks of ground zero. Ron concluded with information about the study of the collapse by a joint group including ASCE / NCSEA / AISC / SFPE / NFPA and the fact that the analyses and evaluations of the event will continue for months to years.

The second presentation, by Jim Malley, was titled "Structural Design Criteria for High Rise Buildings" and included a history of high and mid rise construction methods utilized in the San Francisco Bay Area during the past 100 years. Jim pointed out how to identify the vintage of buildings and what type of con-

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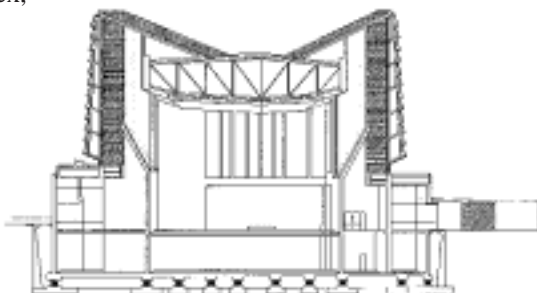
**January 8th Program**

**Los Angeles' New Base-Isolated Cathedral**

**Nabih Youssef & Associates**

by Jay Yin,, Program Committee

Our January program (which is also the annual joint session with the American Concrete Institute) will feature Mr. Nabih Youssef of Nabih Youssef & Associates presenting The Cathedral of Our Lady of the Angels. This new Cathedral complex, located in Los Angeles, California, consists of five building structures: the Cathedral Church, Campanile, Residence, Conference Center and an underground parking structure. The Residence and Conference Center are built on top of the parking structure and are of conventional design. The Cathedral Church (a two-story, 150



*Continued on page 2*

**Meeting Notice**

**January 8th, 2002**

**The City Club**

155 Sansome Street  
10th Floor  
San Francisco

**Assembly 5:45  
Dinner 6:30  
Program 7:30**

Fax registration form on the back of this newsletter to the SEAONC office by **12 noon Friday, January 4th, 2002**

## A Message from the President

*Continued from page 1*

struction might be found in buildings of different vintage. Jim’s presentation also included aspects of design and construction in this region for lateral loads that could help our buildings to be better equipped to resist blast and impact loads than non-seismically designed buildings. Jim’s presentation put local construction in context for the presentations that followed.

The third presentation was a joint effort by Gary Piermattei and Don Moeller of Rolf Jensen and Associates, a nationally renowned fire prevention design firm. Their presentation, “Building Performance under Fire Conditions in High-rise Buildings,” gave a synopsis about how fire-proofing provisions came to be in the codes with a history dating back to the late nineteenth century. Over 35 steel high-rise fires in which the building contents burned out without the structural elements of the building failing or allowing partial collapse have been documented and studied over a 35-year period. The ASTM E119 Standard denotes the standard fire testing procedure that fireproofing and construction fire resistive standards are based upon. The bottom line is that under typical expected fire conditions, our high-rise buildings have adequate fire proofing designs.

The fourth presentation was another joint effort by Eve Hinman and Hollice Stone of Hinman Consulting Engineers in San Francisco, titled “Blast Effects: Damage & Injuries Expected from Explosions.” Hinman Consulting Engineers is a renowned firm specializing in blast resistant design for many Federal agencies. Their presentation gave insight into the incredible pressures caused by terrorist blasts and the detrimental effects these loadings have on buildings, contents and occupants. Studies of past blast disasters show that structural damage occurs to buildings quite far away from the blast location and that glass breakage may be found almost a mile away. Hollice Stone detailed several key safety concerns and considerations about aspects of approaching a bomb threat, and assessing a blast damaged building and region following a disaster.

The final presentation was a joint effort by John Osteraas of Exponent Failure Analysis and Blake Rothfuss of PG&E, both local leaders in FEMA US&R local Task Forces and well-connected to SEAONC through the Disaster Emergency Services Committee. Their presentation on Urban Search and Rescue detailed the organization of FEMA US&R, and the fact that 28 Task Forces are located around the US with 8 in California. The FEMA/US&R program provides a valuable resource to fire departments

during extreme rescue operations, with a response time under 6 hours in California. US&R recourses include K-9 units, life-support medicine, structural assessment and mitigation, heavy rigging, shoring, bracing and debris mining, and hazardous materials identification / removal. US&R can also be self sustaining for 72 hours. They noted that survival rate percentages for trapped victims are very good at 80% after one full 24-hour day and night, and fall dramatically as days pass to a 10% success rate after 5 days. John gave a synopsis of the Oklahoma City rescue and recovery effort and Blake gave a synopsis of his experiences in New York City at ground zero.

The workshop concluded with an open forum question and answer session and a round table discussion. The SFFD were very pleased with SEAONC providing the Workshop presentations and both groups hope that this event will be the beginning of a cooperative bond. SEAONC now needs to create contact lists of structural experts willing to be contacted by fire departments around the Bay Area following severe disaster events. I would appreciate if willing participants would call or e-mail the SEAONC office to sign up and join SEAONC regional contact lists.

--by Jon Kiland, President 2001-2002

## January 8th Program

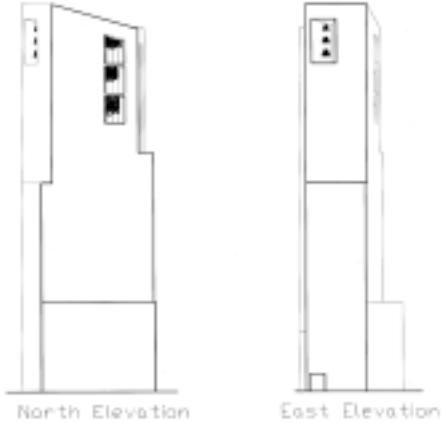
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foot tall building) and the Campanile (a 160 foot tall bell tower) are both shear wall structures with architecturally exposed concrete and base isolation.

Because the Archdiocese of Los Angeles envisioned a cathedral that would remain usable as a shelter and sanctuary after a major earthquake, structural design criteria were developed based on the seismic performance objective of Immediate Occupancy. At this performance level, only minor structural damage is anticipated during a major seismic event. Therefore, it was determined that seismic isolation is the most effective design strategy for achieving the desired seismic performance for both the Cathedral Church and the Campanile.

The Cathedral Church is supported by approximately 150 high damping rubber bearings (30 in. to 40 in. in diameter) and 50 flat sliding bearings. The foundation system is a combination of mat, strip and spread footings connected with tie beams. The Campanile sits on four 7.5 ft. diam-

eter friction pendulum (244 in. radius of curvature) bearings supported by concrete piles.



The durability and aesthetic issues of the architecturally exposed concrete are also among the top priorities for this project. In addition to having stringent inter-story drift limits, special measures were taken by the structural engineers to limit concrete cracking. Such measures were

additional reinforcement to control shrinkage and creep, increased concrete cover to minimize effects of corrosion, and a concrete mix design that will reduce long term material deterioration.

The project team also faced many other construction challenges. Some of the interesting challenges were: 850 unique corner conditions that each required a custom form, careful sequencing of pouring the architecturally complex walls with irregular sloping diaphragms, and 3-D form work shop drawings to facilitate coordination for the entire building.

Since 1971 Mr. Youssef has been a registered civil and structural engineer and a recognized expert in the seismic design and retrofit of new and historic buildings. Mr. Youssef has a BS degree from Cairo University, MS degree in Structural Engineering from Cal State LA, and a post-graduate degree in Earthquake Engineering from UCLA. Since 1989, Nabih Youssef & Associates has completed several renowned projects including the Los Angeles City Hall, Saint Monica’s Church in Santa Monica, the J. Paul Getty Museum, and the Caltrans Transbay Terminal in San Francisco.

## December Meeting Wrap Up

### Vertical Base Isolated System for Hermès in Tokyo

Andrew Mole and Mitsuhiro Kanada of Ove Arup & Partners

by Jamie Curry, Program Committee Chair

Thanks to the patience and perseverance of Mr. Mole and Mr. Kanada, our September program, which became our December program, which took an unusually long time to be presented, finally happened. The two members of Ove Arup & Partners presented an example of a "vertical base isolation" system designed for the French fashion house, Hermès; the architect is Renzo Piano, who will be the architect for the new Academy of Sciences here in San Francisco.

The building is on an extremely narrow site in the Ginza district in Tokyo. The building's floor plate is about 34 feet x 143 feet; the building has 11 stories above grade and 3 below grade. The height-to-width ratio is approximately 13. The site has streets on two adjacent sides and existing buildings on the other two.

The lateral system in the longitudinal direction is a damped, steel concentrically braced frame. The lateral system in the transverse direction is the really tricky part, however – it consists of single-bay, 12.4-foot wide, special moment resisting frames with an ingenious joint at the first level that allows the column at the back

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## Fall 2001 Seminar Wrap Up

### New Technologies

by Reina Farah, Continuing Education Committee Chair

The Fall 2001 Seminar was held at the PG&E auditorium on November 7th and 14th. Over those two nights, speakers presented a variety of topics that involved the latest developments in wood, steel and concrete. Vendors were also available during the registration hour and break to provide information on several different products and services.

Dr. Abolhassan Astaneh-Asl of U.C. Berkeley led off the seminar with a talk on

## SEAONC RECOGNIZES AND THANKS SCHOLARSHIP FUND CONTRIBUTORS

A special thanks to the following companies and individuals who have contributed to the SEAONC Scholarship Fund! Over \$5,000 has been collected since July. If you have not already done so, please consider making a contribution so that we can add you to this auspicious list.

### Contribution Level: \$1,000 and above

Chris Poland

### Contribution Level: \$100-\$500

Thomas Adamo  
Marguerite Bello  
Pat Buscovich  
Dominic Chu  
Jeff De Bois  
Ruth Gordon  
Stephen Harris

Loren Hinkelman  
John Lowney  
Gregory Luth  
Larry McLean  
Avery Miller  
James Murray  
John Paquette

Joseph Quilici  
Edward Rivera  
Virgilio Sarmiento  
Larry McLean  
Kenneth Smetts  
Ken Wong

### Contribution Level: Under \$100

Pedro Bello  
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Stephen De Jesse  
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Samuel Fletcher  
Toma Goncerenco  
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Ephraim Hirsch

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William Kaplan  
Charles Kircher  
Arnold Kohnert  
Darell Lawver  
Raymond Lundgren  
Thomas Meece  
Yogesh Mehta  
John Miller  
Lowell Napper  
Russell Nygaard  
Harry Okino

F. Robert Preece  
William Price  
Gregory Shriver  
Armen Tajirian  
Steven Tipping  
Frank Valavanis  
Robert Vandembosch  
Mark Viesselman  
Ronald Vogel  
Homer Wong  
Anoush Zebarjadian

the Seismic Behavior and Design of Steel Plate Shear Walls. Dr. Mohammad Ehsani of the University of Arizona followed with a talk on the strengthening of Structures with Fiber Composite Materials. The third speaker of the first night was Dr. P. K. Mehta of U.C. Berkeley who discussed the Emerging Technologies of Sustainable Concrete.

For the second evening, Philip Trott from the Canadian Wood Council was not able to make it to the seminar, so in his place, Dr. Robert Taylor from the American Wood Council spoke about the latest in Wood Technology. Dr. John Stanton from

the University of Washington, Seattle followed with a discussion of Precast Hybrid Shear Walls. Dr. Ian Aiken from Seismic Isolation Engineering and Rafael Sabelli from DASSE Design wrapped up the seminar with a talk on Buckling Restrained Frames.

Many thanks to all of the speakers for their informative presentations and thanks to the Continuing Education Committee members for all their help in planning the seminar. The Spring 2002 Seminar has been scheduled for March 2002. Watch for more information on the seminar in the coming months.

# Committees on Assignment

## Computer Applications Committee

### Computer Forum – CAD Applications

By Satinder P. Singh, Computer Applications Committee Chair

The Computer Applications Committee of SEAONC invites you to a discussion forum on the CAD Applications in the future of design and analysis tools for the Building Industry. The design and development team from Autodesk will make a presentation about their latest software products and have an open dialogue about the needs of Structural Engineers for the future development in CAD.

Autodesk has led the Building Industry with model-based design solutions and now understands that there is interest in the Structural Engineering community in

tools with greater data interoperability and coordination. The forum will be an excellent opportunity to share and discuss the vision and strategy for model-based design in Autodesk. The feedback from the Engineers as well as CAD operators is particularly useful on the direction of building design technology and how it may affect Structural Engineering design, analysis, and detailing.

Please join us on Wednesday, January 23, 5:30 pm at the Autodesk office at The Pacific Conference Room 15727 at The Landmark Tower, One Market Street, 5th Floor, San Francisco. The forum is free and refreshments will be served.

As the space is limited, please RSVP to Satinder P. Singh at (510)465-3977 or "spsingh@pacbell.net" before January 21.

## DES Committee

### DES Committee Activities

By Michael Fretz, DES Committee Chair

The last few months have been busier than anyone on our committee could have imagined in August. In addition to the committee's regular charges, many of our members have been responding to the events of September 11, 2001.

There were six DES committee members who were sent to the site of the World Trade Center disaster with the two local Urban Search & Rescue (USAR) teams or as members of the FEMA Incident Support Team (IST). Three others, including myself, were preparing to go to New York when USAR activities were called off at the beginning of October.

Being sent to a disaster site has a tremen-

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## Business Forum

### January Luncheon Meeting

By Lisa Blanton, Business Forum Chair

Date: Thursday, January 17, 2002

Time: Board Meeting: 11:00 am-12:00

Lunch/Program: 12 pm-1:30 pm

Place: City Club, 155 Sansome Street, San Francisco

Cost: \$20.00 Business Forum Member  
\$35.00 Non-Business Forum Member

Speaker: Mr. Michael Strogoff, AIA, Strogoff Consulting

Topic: EIGHT WAYS TO NEGOTIATE BETTER FEES

Given the current economic outlook, this seminar is timely for all engineering firms!

Lunch Selection: Chicken, Beef, or Pasta.

RSVP: Make reservations by calling the SEAONC office at 415/974-5147 by Tuesday, January 15th at noon and don't forget to make a meal selection for this event.

### EIGHT WAYS TO NEGOTIATE BETTER FEES

As traditional A/E services become more commodities, clients expect to pay lower and more competitive fees. This seminar will discuss eight specific pricing and negotiating strategies that can lead to greater profitability. After discussing how clients and other professionals evaluate fees, this seminar will explore how to change clients' perceptions of the value A/E firms provide and demonstrate ways to communicate value for which clients are willing to pay more. Specific negotiating strategies will be demonstrated using case studies and participant role-playing exercises. Given the current economic outlook, this seminar is timely for all engineering firms!

### ABOUT THE SPEAKER

Michael Strogoff, AIA, Strogoff Consulting, specializes in helping design professionals negotiate better fees and agreements. Mr. Strogoff has negotiated hundreds of agreements with public and private entities, construction managers, joint venture partners and consultants. He has studied negotiations theory and techniques, led numerous workshops on negotiating throughout the United States,

and has provided in-house training to some of the nation's largest design firms. Mr. Strogoff's articles on negotiating have been featured in Architectural Record, Engineering News Record, PSMJ's Best Practices, DPIC's Communiqué and Dealey, and Renton & Associates' A/E Risk Review. His firm publishes Negotiating Strategies, a monthly newsletter with essential negotiating information for the architectural and engineering professions. For more information, visit his firm's website [www.StrogoffConsulting.com](http://www.StrogoffConsulting.com).

Through strategic advice, consulting and training, our mission is to help design professionals uncover the value they provide, persuasively communicate that value to others, and manage their practices effectively.

Join the Business Forum and save \$15.00 a month on the luncheon! Yearly dues is \$150 for firms of 6+ employees and only \$75 for 5 employees or less. Call the SEAONC office directly at 415/974-5147 to join. This is an opportunity to join a committee who's only requirement is that you eat a great lunch each month with us and receive some good information about running a business.

## DES Committee

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dous effect on both the personal and professional lives of all USAR team members. That effect was greatly amplified by the magnitude of this disaster. On behalf of the committee, I want to recognize and thank the following committee members who went to New York: Joe Zsutty, Ray Lui, Holly Stone, John Osteraas, Tom Clark, and Karin Kuffel.

In addition to the DES members named above, the following engineers from Northern California were also sent to New York with the Sacramento USAR team or FEMA IST: David Hammond, Blake Rothfuss, and Neil Moore.

David Hammond deserves special recognition for his role as one of the founders of the USAR program and for the many other disasters he has responded to over his career.

I encourage anyone reading this article to take the time over the next few weeks to call or write these people and thank them for their efforts. Even if you have never met them, I know they would appreciate the gesture.

Beyond the USAR activities, our committee has also been busy updating the Volunteer Safety Assessment Engineer Directory (phone tree). We are on track to issue an update in January 2002.

We have also started the planning process for the next ATC-20 training in October 2002. This workshop covers the ATC-20 methodology of assessing the post-earthquake safety of buildings. Workshop participants can register with the Governor's Office of Emergency Services (OES) and SEAONC as Volunteer Safety Assessment Engineers to perform the inspection and tagging of buildings (red, yellow, green) that is so critical in helping communities recover from an earthquake.

If you are interested in helping plan and organize our next workshop, now is the time to get involved!

For those who attended the June 2001 ATC-20 Workshop at the Presidio in San Francisco, you should have now received your ID card from OES. If you applied for a card and have not heard back from the state, please feel free to contact me.

## Young Member Forum

By Jason Towle, YMF Committee Chair

The November SEAONC monthly dinner meeting on the campus of UC Berkeley coincided with the YMF-sponsored student night for the UC Berkeley engineering students. The student turnout was fantastic, with undergraduate, graduate and Ph.D. students attending the meeting. The students announced themselves individually and were recognized by the SEAONC dinner meeting attendees. More student nights, including Stanford, San Jose State and Santa Clara Universities, are forthcoming in the new year.

On December 4th the YMF Committee sponsored the SEAONC 2001 New Member Orientation. This event encourages new and younger members to become involved in SEAONC and its various committees. All the committee presentation boards were displayed, allowing younger members to learn about committees and mingle with committee chairs and other members of SEAONC. During the orientation, raffle tickets were handed out to participants, and prizes were distributed during the dinner meeting.

Thanks to everyone who attended and helped make these successful YMF events.

## Committee Chairs

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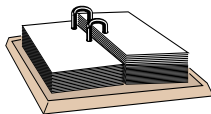
### **Young Members Forum**

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*Ram International*  
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# Bulletin Board

## CALENDAR OF EVENTS



January 8th Dinner Meeting - The City Club, San Francisco, RSVP: 415/974-5147

Jan. 17th - Business Forum Luncheon City Club, San Francisco RSVP: 415/974-5147

Jan. 23rd - Computer Applications Forum: CAD Applications. For more details, see article in this newsletter. RSVP to Satinder P. Singh at 510/465-3977 or [sp Singh@pacball.net](mailto:sp Singh@pacball.net) before January 21.

Jan 31st - SEAONC Special Seminar "Synopsis of the September 11, 2001 World Trade Center Disaster and Recovery".

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## Structural Engineers Association of California 2002 Annual Convention Call for Papers

The SEAOC 71st Annual Convention will be held September 26th – 28th, 2002 in Santa Barbara, California.

Technical Session Theme: "Real World Structural Engineering". For convention information and "First Call for Papers" see website:

[www.seaint.org/seaocconvention/convention2002](http://www.seaint.org/seaocconvention/convention2002)

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## Announcing the UC Berkeley-CUREE Symposium in Honor of Ray Clough and Joseph Penzien

The CUREE Symposium in Honor of Ray Clough and Joseph Penzien will be held on the University of California at Berkeley campus on May 10 and 11, 2002, with a reception the evening of May 9 and banquet the evening of May 10. Please save the dates.

For further information, visit the CUREE website homepage: <http://www.curee.org>

## SEAONC SPECIAL SEMINAR

### "Synopsis of the September 11, 2001 World Trade Center Disaster and Recovery"

Speakers will be Ronald O. Hamburger of ABS Consultants in Oakland, Peter L. Lee of S.O.M. in San Francisco, David J. Hammond of David J. Hammond SE, John D. Osteraas of EPA, and Robert D. Scheibel of DASSE Design, Orange County.

January 31, 2002  
6:00p.m. to 9:00p.m.

PG&E Auditorium

Cost: \$75 for members  
\$100 for non-members  
\$15 late registration fee (for all registrations received after January 28, 2002)

To register, call the SEAONC office: 415/974-5147

See insert for more details

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## Noteworthy Article in The New Yorker

The November 19, 2001 *New Yorker* (pages 64-73) featured a very interesting article on the primary structural engineer of the World Trade Center, Les Robertson. Robertson is one of the great Structural Engineers of our era, and someone of whom our profession should be proud. The article paints a poignant picture of him. Ron Hamburger is quoted as well. This article is well worth reading.

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## Structural Steel Design Courses Scheduled for California

Structural Welding: Design and Specification and Steel Connections: Seismic Applications, two one-day seminars conducted by the Steel Structures Technology Center, will be offered in the San Francisco Bay area in late February.

The seminars will be in South San Francisco on February 19th and 20th, and in Walnut Creek on February 21 and 22. For further information, contact the Steel Structures Technology Center, 248/893-0132, or visit the the SSTC website at [www.steelstructures.com](http://www.steelstructures.com)

## SEAONC EXCELLENCE IN STRUCTURAL ENGINEERING COMPETITION 2002 Call For Entries

For details on eligibility and submission of entries, please see page 10 of this newsletter. Entry forms can be downloaded from the SEAONC website:

[www.SEAONC.org](http://www.SEAONC.org). If you have any questions, please contact the SEAONC office at 415/974-5147, or [SEAONC.ix.netcom.com](mailto:SEAONC.ix.netcom.com). Deadline: 1 p.m. March 29, 2002

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## 2002 PEER Annual Meeting

On January 17 & 18, 2002, the Pacific Earthquake Engineering Research Center (PEER) will once again return to the Oakland Marriott City Center Hotel for the 2002 PEER Annual Meeting. PEER is an NSF-administered Engineering Research Center with headquarters at UC Berkeley whose mission is to develop and disseminate performance-based earthquake engineering methodologies.

Day 1 of the program is intended for PEER participants (researchers, students, BIP members, committee members, and other project personnel) and will focus on the methodology testbed program in both plenary and breakout sessions. Day 2, which is open to both PEER participants and the public at-large, will feature research presentations and poster sessions on current PEER research and the Methodology Testbeds.

There is no charge to attend the meeting, but pre-registration is required. For more information on the Annual Meeting, including a program and on-line registration form, please visit: <http://peer.berkeley.edu/2002annualmtg>

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**MKM & Associates of Santa Rosa, CA** seeks engineer with minimum 2 years experience with emphasis in timber construction in residential & commercial low-rise buildings. Salary with Bonus considerations dependent on experience & availability to start. Excellent benefits. Please fax résumé to 707/578-7153 or e-mail: [office1@mkmassociates.com](mailto:office1@mkmassociates.com).

**RPSE** is a 30+ employee Palo Alto firm currently seeking talented EIT's, PE's, & SE's. If you are a dynamic individual with great communication skills and enjoy diverse and challenging projects, we want to talk to you! RPSE offers growth opportunity, competitive salary, great benefits, and a superb working environment. Please fax cover letter & résumé to HR, Attn: Sharon at 650/428-2861 or email to [sharonberman@rpse.com](mailto:sharonberman@rpse.com). For more details please visit [www.rpse.com](http://www.rpse.com).

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leader in structural design and seismic engineering. We have a large current workload and a significant backlog. Projects include museums, libraries, research laboratories, and hospitals. Opportunities are available in our San Francisco and Oakland offices for engineers with 3+ years of experience who have enthusiasm for participating in the design of some of the most exciting engineering projects in the Bay Area. CE/SE license and prior building design/detailing experience are a plus. If you wish to learn more, please contact Peter Revelli by phone at 510/740-3200 or e-mail at [prevelli@ruthchek.com](mailto:prevelli@ruthchek.com). Also visit our web site at [www.ruthchek.com](http://www.ruthchek.com).

**Simpson Gumpertz & Heger Inc.** (SGH), founded in 1956 by three M.I.T. professors, is a growing and dynamic consulting engineering firm with \$20M in gross revenues, a staff of 170, and offices in Boston, MA, San Francisco, CA, and Washington, DC. SGH has an international reputation in design, investigation, research and development of structural and building envelope systems, mechanical components, and materials. The variety of our expertise enables the firm to undertake investigative, research, and design projects of a complex and unusual nature. We seek creative, enthusiastic, motivated individuals for positions in all three offices. We offer an excellent compensation and benefits package in a corporate culture based on learning and growth. At SGH you'll gain the strength of our reputation and the creativity of diverse and complex projects. To learn more about SGH, please visit our web site at [www.sgh.com](http://www.sgh.com). We are an equal opportunity employer and value the diversity of our workforce. Please forward your résumé and letter of interest to Dept. LAS, SGH, 297 Broadway, Arlington, MA 02474; FAX 781/643-2009; e-mail [jobs@sgh.com](mailto:jobs@sgh.com).

**Sverdrup Civil**, a major nationwide multi-discipline professional services firm, is seeking a structural engineer with a CE license and a BSCE in Civil Engineering. A Master's degree in structural engineering is preferred. Experience with an IBM PC is desirable. Good communication skills and the ability to work with peers and clients is required. A minimum of 3 years experience desired. Candidate should have an interest in proceeding into management. Our office is conveniently located next to the Pleasant Hill BART Station. Please send résumé to: Personnel

Manager, Sverdrup Civil, Inc., 1340 Treat Blvd., Suite 208, Walnut Creek, CA 94596. EOE WKW

**Watry Design, Inc.** which is located in the San Francisco Bay Area, is in search of highly motivated engineers to join our rapidly growing team. Watry is a full service Architectural/Engineering Firm specializing in the design of large concrete structures, including high-rise hotels and apartments as well as award-winning parking structures. This position offers the right individual an opportunity to play an integral role in the design of multi-million dollar projects with a firm that fosters a cohesive family like environment. The applicant must possess a B.S. in Structural Engineering (or equivalent) with a P.E. or S.E. license being highly desirable. A background in the design of concrete and post-tensioned structures, strong computer skills, and excellent communication skills are beneficial. If you would like further information regarding Watry Design, Inc., please visit our web site at [www.watrydesign.com](http://www.watrydesign.com). Submit all résumés to: Watry Design Inc., 815 Hamilton Street, Redwood City, CA 94063 attn: Lisa Blanton or you can send electronically to [lblanton@watryesign.com](mailto:lblanton@watryesign.com)

**Ansari Structural Engineers, Inc.**, a growing consulting firm in SF, seeks a PM with min. 8 yrs of experience in bldg design & S.E. license, as well as a motivated project engr w/1 to 3 yrs of experience. Excellent analytical and communication skills required for both positions. Knowledge of CADD is a +. We offer excellent growth opportunities, flexible schedule, and competitive benefits in a friendly atmosphere. Our projects are challenging & exciting; they include retrofit of historic structures & design of medical and institutional facilities. If interested email your résumé to [mehri@ansariinc.com](mailto:mehri@ansariinc.com) or fax to Mehri Ansari @ 415/348-8947

Sacramento's largest Architecture/Engineering firm seeks qualified engineers. Minimum 2 years experience structural design and detailing of buildings. California CE, SE preferred. Multiple positions available. Strong communication/teamwork skills essential. Project management skills a plus. **Lionakis Beaumont Design Group, Inc.** Forward résumé to [jobs@lbdg.com](mailto:jobs@lbdg.com) or Fax to: 916/558-1919 Reference number E2.

## Job Forum

*Continued from page 8*

**Quest Structures**, a growing small company specializing in structural-earthquake engineering for dams, intake towers, navigation locks, and bridges, is looking for a highly motivated Civil/Structural engineer. A master's degree in structural engineering is preferred. Strong background in dynamics of structures and experience with finite-element computer analysis and computer programming is required. Good communication skills and the ability to prepare written technical reports are desirable. Send your résumé to QUEST Structures, 3 Altarinda Road, Suite 203, Orinda, CA 94563, or e-mail to yghanaat@QuestStructures.com.

**Solano County** is now recruiting for the following position: Civil Engineer-Plan Check. Last date to apply: 5:00 PM January 31, 2002. The position: Professional engineering work. This is the fully qualified professional structural engineer in the County Building and Safety Services Division of the Environmental Management Dept. Please contact [www.solanocounty.com](http://www.solanocounty.com) for more information, or call 707/421-6170 for an application.

Job Forum insertion fee:

\$150 up to 450 characters/spaces

\$15 for each 45 characters/spaces thereafter

All job forum ads will be posted on the SEAONC web site.

## December Meeting Wrap-Up

*Continued from page 3*

wall (adjacent to a building) to lift up. Propped cantilever beams span the remainder of the transverse width, to act as outriggers. This system minimizes the size of columns on the longitudinal side of the building adjacent to the street, in order to maximize the floor area near display windows.

The special column joint also has visco-elastic dampers on each side. The dampers are activated when the column is uplifted. Mr. Kanada informs us that each damper costs about as much as a handbag from Hermès. I note that women in the audience laughed heartily at that remark. Younger men stared blankly. Older, married men, who, in a state of pique, had bought such

## New Members

### Life Member

Ulrich Luscher  
*Consultant*

### Member SE

Stephen Burns  
*Senior Structural Engineer, Nabih Youssef & Associates*

Afshar Jalalian  
*Structural Engineer, Rutherford & Chekene*

Marco Scanu  
*Senior Associate, Forell/Elsesser Engineers*

### Member

Pamalee Brady  
*Assistant Professor, California Polytechnic State University*

Anita Chu  
*Engineer, Ove Arup and Partners California Ltd.*

Ronald Cruz  
*Structural Designer, Structural Engineers, Inc.*

Anindya Dutta  
*Lead Engineer, ABS Consulting, /EQE Structural Engineer's Division*

Cynthia Egan  
*Principal Engineer, Geomatrix Consultants*

John Jones, III  
*Project Manager, Winzler & Kelly Consulting Engineers*

Vicki May  
*Assistant Professor, Cal Poly State University*

Adrian Nacamuli  
*Designer, Degenkolb Engineers*

### Associate

Matthew Arroyo  
*Junior Engineer, Biggs Cardosa Associates*

John Castagnoli  
*Project Engineer, Devcon Construction*

Jean-Pierre Chakar  
*Skidmore Owings & Merrill*

Wai Yip Chan  
*Level C Engineer, Skidmore Owings & Merrill*

Christina Cho  
*Engineers/EIT, Ove Arup & Partners*

Sarah Diegnan  
*Engineer, Skidmore, Owings & Merrill*

Robert Graff  
*Designer, Degenkolb Engineers*

Changmo Kwon  
*OLMM Consulting Engineers*

Jacob Rodriguez  
*Staff Engineer, Paradigm Structural Engineers*

### Affiliate

Christopher Craiker  
*President, Craiker Architects*

David Grod  
*Division Manager, Executive Recruiter, Lucas Group*

### Student

Clair Chloe  
*Graduate Student, Ecole des Ponts Et Chaussees*

Julie Langlais  
*Graduate Student, Ecole des Ponts Et Chaussees*

handbags for their wives, wept remorsefully at the thought that they, too might have been able to purchase such lovely hardware, had they only been wiser. Of course, such valuable dampers were fireproofed.

Mr. Mole and Mr. Kanada described the analyses, which included linear and non-linear time history analyses, using several different programs and a non-linear pushover analysis. Academicians from Tokyo universities acted as peer reviewers for the project.

Construction began at the first level and progressed downward for the 3-level basement construction and upward for the superstructure simultaneously. Mr. Kanada reported that this was relatively routine for construction in Tokyo.

## Posting for Membership

### Member SE

Jawed Umerani  
*Principal, Umerani Associates*

### Member

Robert Lyon  
*Owner, Robert Lyon Associates*

Farhad Shahpar  
*Staff Engineer, Washington Group International*

Gregory Totten  
*Civil Engineer, Structural Engineer Inc.*

### Associate

Christopher Bradbury  
*Staff Engineer, Biggs Cardosa Associates Inc.*

Michael Quirk  
*Associate Engineer, St. Onge & Associates*

Dean Roesner  
*Staff Engineer, Morrison Structures, Inc.*

# SEAONC Excellence in Structural Engineering Competition 2002

## Call for Entries

The Structural Engineers Association of Northern California announces the call for entries for its seventh annual Excellence in Engineering competition.

### **Purpose**

The purpose of this competition is to provide public acknowledgement of creative achievement and innovation in structural engineering design, and to educate the public as to the contribution of Structural Engineers to the building industry and to public safety.

### **Eligibility**

Project design must have been completed after January 1, 2000. Project must currently be under construction or completed. New projects, renovations, rehabilitation, structural upgrades and adaptive reuse projects, of any size or form, and in any locale, are eligible. Within the context of this competition, "design" may refer to the overall concept of a structure, or the detail of a single concept used during the design or construction process.

Entries must be submitted by a licensed professional engineer whose practice is primarily in the field of structural engineering. At least one member of the design team, or a principal of the firm responsible for the entry, shall be a member of SEAONC. Contestants may submit as many entries as desired. Projects previously submitted to this or other competitions are eligible for resubmission (except prior SEAONC Competition winning projects).

### **Categories of Awards**

Awards will be presented for the following categories:

- New projects submitted by firms with more than 10 full-time licensed engineers
- New projects submitted by firms with 10 or fewer full-time licensed engineers
- Retrofit projects submitted by firms with more than 10 full-time licensed engineers
- Retrofit projects submitted by firms with 10 or fewer full-time licensed engineers

### **Judging Criteria**

Projects will be assessed using the following criteria:

- Creativity or innovation in structural design or analytical procedures used
- Design efficiency, in terms of use of materials and labor
- Suitability of the material used for the environment
- How the design met the performance objectives of the project
- How the design met the unusual challenges of the project
- Reports, research, investigations, and plan review activities, which significantly contributed to the project
- Completeness of submission material

### **Submission of Entries**

All entries must include:

- A completed SEAONC Award of Excellence in Structural Engineering Competition entry form
- An abstract describing the project and outlining the significant aspects of the entry as they relate to the judging criteria (one page maximum).
- A standard 30"x40" foam core display board. The board should highlight the significant structural aspects of the project through the use of drawings, photographs, diagrams, text, etc. All items must be secured to the board for display and transportation. Submitted materials must clearly show the basic design of the structural system.
- One photograph of the under-construction or completed project.

All entries become the sole property of SEAONC. Submitted materials will not be returned. SEAONC reserves the right to use the entries and the accompanying materials for publicity purposes. All entries to SEAONC competition will automatically be forwarded to the SEAOC Competition.

### **Deadline for Entries**

All entries must be received by 1:00 p.m. on Friday March 29, 2002. Materials should be labeled as "Submission for SEAONC Excellence in Structural Engineering Competition," and sent to the following address: SEAONC, 74 New Montgomery Street, Suite 230, San Francisco, CA 94105

### **Judging and Presentation of Awards**

Entries will be displayed at the April SEAONC dinner meeting. A distinguished panel of five judges from SEAONC, with input from the SEAONC membership present at the meeting, will evaluate the entries based on the material submitted. Up to three awards may be presented for each category. However, if none of the entries in one category meets the Judging Criteria, there may be no award given in that category. Presentation of awards will be made at the June, 2002 SEAONC dinner meeting.

Entry forms may be downloaded from the SEAONC website ([www.SEAONC.org](http://www.SEAONC.org), in the Members section). If you have any questions, please contact the SEAONC office by e-mail at [SEAONC@ix.netcom.com](mailto:SEAONC@ix.netcom.com), or by phone at 415/ 974-5147.

*New Ad for  
Computers and Structures*

upcoming events

JAN

8 SEAONC Dinner Meeting  
The City Club

17 Business Forum  
Luncheon

23 Computer Applications  
Forum: CAD Applications

31 SEAONC Special Seminar:  
Synopsis of the World  
Trade Center Disaster and  
Recovery

Registration

**Structural Engineers Association of Northern California  
January 8th SEAONC DINNER PROGRAM, CITY CLUB, SAN FRANCISCO**

5:45 PM  
General Assembly

6:30 PM  
Dinner

7:30 PM  
Program

*"Los Angeles' New  
Base-Isolated  
Cathedral"*

Location:

**The City Club  
155 Sansome  
Street,  
10th Floor  
San Francisco**

**BART:  
Montgomery Street  
Exit  
San Francisco**

If no label is shown above, or for guests, please fill in the form below.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE \_\_\_\_\_ FAX \_\_\_\_\_

**RSVP by fax to: 415/764-4915** or phone: 415/974-5147  
Make check payable to **SEAONC** and bring with you to the door.

**Deadline for pre-registration: 12 noon, Friday, January 4, 2002**

Dinner and program reservations are limited. Register early! No cancellations after 12 noon, Friday, January 4, 2002. No-shows will be invoiced. Tickets not claimed by 6:45 p.m. on the night of the event are subject to being sold. Note: Individuals with outstanding monthly meeting balances are required to pay in advance for a meeting reservation and pay all outstanding monthly meeting invoices.

<b>COST:</b>	<b>PRE-REGISTERED</b>	<b>LATE REGISTRATION</b>
SEAONC Member	<input type="checkbox"/> \$32	<input type="checkbox"/> \$37
Junior Mbr (34 and under)	<input type="checkbox"/> \$28	<input type="checkbox"/> \$33
Non-Member	<input type="checkbox"/> \$35	<input type="checkbox"/> \$40
Student	<input type="checkbox"/> \$15	<input type="checkbox"/> \$15