

A Message from the President**Harassment Policy
Adopted**

At the state board meeting held in January, the SEAOC directors adopted a harassment policy for the organization. This policy was subsequently adopted by the four local chapters.

The purpose of the policy is twofold. First, the policy defines what constitutes harassment and secondly, it puts the membership on notice that harassment will not be condoned at SEAONC affiliated activities.

State president Bill Staehlin initiated the policy in response to a complaint voiced by a member following the state convention held in Santa Barbara this past September. The policy states "All SEAONC members and guests have a right to participate in official SEAONC functions in an environment free from all forms of discrimination and conduct which can be considered harassing, coercive, or disruptive. Consistent with SEAONC's respect for the rights and dignity of each member or guest, harassment based on race, color, religion, sex, sexual orientation, national origin, ancestry, physical handicap, medical condition, disability, marital status, citizenship, or any other characteristic protected by law, will not be sanctioned nor tolerated." For a complete copy of the document, which includes examples and a complaint procedure, visit the SEAONC web page at www.seaonc.org

by Steven B. Tipping, SEAONC President

March 4th Dinner Meeting Program, The City Club, San Francisco**A Visit from John
King, San Francisco
Chronicle's Urban
Design Critic**

*by Jamison Curry, Program Committee
Chair*

The Bay Area's built landscape is going through its most tumultuous change in decades. Such world famous architects as Renzo Piano, Herzog & De Meuron, Rem Koolhaas and Thom Mayne have projects in the pipeline. There are stupendously important (and expensive) bridge projects, and restorations of such beloved landmarks as the Ferry Building and the Old Main Library.

For one informed and opinionated perspective of what to make of all this, our speaker will be the San Francisco Chronicle's urban design writer, John King. He'll offer thoughts on whether the outside invasion makes us world-class or a carbon copy, and on why the local political process so often stifles fresh design. He'll also give his take on how the bones of a building, the structure, once shaped the region's image—and whether this might happen again.

This program would be an excellent choice to bring an architect to – perhaps they'll bring you work! It's also an excellent opportunity to meet the press – bring your concerns, too.



John King, SF Chronicle

King created the urban design beat in 2001, and was a 2002 finalist for the Pulitzer Prize in criticism. In his decade at the Chronicle he has also written a column on Contra Costa and covered politics at San Francisco City Hall—two perspectives that give real-world insight into why growth and development here can be so odd.

Meeting Notice**March Dinner Meeting**

March 4th, 2003

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, February 28th.

Missing the Point of Performance-Based Design

by Ron Mayes

Conveying the value of high-performance seismic design to clients, building users and the general public has always been a difficult task. The surprise, however, is how much misconception exists with regard to the relative merits of seismic technologies, and especially base isolation, within much of the engineering community itself. The following anonymous quotes from respected members of our profession reflect a poor understanding of our newer technologies.

“Base isolation has given way to un-bonded braces as the new technology for higher predictable performance.”

“Dampers reduce both drifts and floor accelerations and are therefore an economic way of achieving immediate occupancy.”

“We decided between two very different isolation systems (with the same costs) without looking at their impact on the floor spectra.”

These quotes are not only incorrect, but unfortunately, I think they represent a major shortcoming in some of the engineering community’s understanding of high-performance design. In the most general terms, conventional code-based structures effectively protect life, but not necessarily property (structure and architecture). Frames with added dampers and un-bonded braces offer improvements by better protecting the building itself. Only base isolation gives the highest performance by protecting a building’s contents as well.

To put this in perspective, the structural system of a building is only around 20% of the total building cost while the remaining 80% of costs go to the architectural, mechanical and electrical components. Even more important are the costs associated with the building’s operation. With this in mind, it is essential for our clients and the public that we view the structure in a bigger context. There are two mechanisms that cause earthquake damage; the first is inter-story drift and the second is floor acceleration. Together, these two mechanisms cause damage to the structural frame, building contents, architectural facades, partitions, piping, ductwork, ceilings, building equipment and elevators. The great debate of the 70’s was the relative merits of moment frames versus braced frames and shear walls. Braced frame and shear wall proponents argued that stiff buildings reduce inter-story drift and that was the more important issue. They were not as concerned with the problems caused by higher floor accelerations. Proponents of moment frames argued they gave the best solution because they attract less force and produced lower floor accelerations. They were not as concerned with the problems caused by higher inter-story drifts.

This debate between drift versus acceleration is similar today, but with new technologies. For instance, dampers (energy dissipaters - ED’s) provide us with the ability to dissipate energy in a device designed for that purpose while minimizing inelastic deformations in the structural frame. These provide the ability to reduce inter-story drifts by up to a factor of two; however they have minimal impact on reducing floor accelerations. Buckling restrained braces (BRB’s) are a braced frame structural system with a brace that does not buckle and acts as an energy dissipater. These too reduce inter-story drifts for all design events, but the floor accelerations are also quite high.

Base isolation of a braced frame or shear wall structure is the “Cadillac” of the new technologies. To date, it is the only system that provides the best of both worlds; the lowest possible inter-story drifts *and* low floor accelerations. Structural engineers need to focus more on the impact of floor accelerations on earthquake damage. For example, the differences in the floor response spectra produced by elastomeric and pure friction base isolated structures should be included in the decision-making process for selecting the appropriate isolation system for a project. It is also important that we focus on the floor acceleration issue when we compare the performance of different energy dissipation, base isolated, and buckling restrained brace design alternates. Only when we examine and compare the realistic levels of inter-story drift and floor accelerations produced by alternative systems, can we make intelligent comparisons.

Letters to Open Forum

I believe that the column by David Mar (SEAONC News Open Forum, February 2003, “Are High Performance Structures Cool?”), while well intentioned, would send the profession in the wrong direction with respect to interaction with the public. I am very supportive of new technologies and want building owners to embrace performance-based design and ask for higher performance when it is necessary or financially prudent for them to do so. However as professionals (akin to medical doctors in this regard), we should strive to educate our clients and show them the benefit of a particular course of action, and not have them make decisions based mainly on emotional response, as car dealers and manufacturers do. I do not believe that it is in our long-term self-interest to have the public purchase services from us that they may not really need. But come to think of it, excess horsepower, bright red paint, and 0% financing never hurts.

--John Dal Pino

Preconstruction Conferences - Worth the Effort

by Zan Turner, SEAONC CQA Committee/SF DBI

This is the fourth in a series of articles about real life jobsite Quality Assurance challenges, triumphs and disasters. As testimonials or cautionary tales, these experiences can help you achieve similar success or avoid similar pitfalls. Please – contact Art Dell, CQA Chair, adell@soha.com, if you have a good story to tell. No names or specific project identification of any sort will be used.

A meeting with the people involved in the special inspection process before the start of construction is an excellent way to avert problems during the work as well as to avoid delays in compliance approval at project completion. If the building department doesn't require such a meeting, it might be a good idea for the structural engineer to recommend one.

I requested a meeting regarding special inspection before beginning construction of a major San Francisco public project in 1995. There was some opposition from the owner's representative, who asked why I wanted the meeting. I told him the major purpose was to make sure all parties understand their responsibilities with regard to the project special inspection requirements and procedures and to discuss methods of handling. He said that I'd better not waste his time.

The other invited participants were representatives of the architect, structural engineer, general contractor and relevant subcontractors, special inspectors, City inspector and plan reviewer. The agenda included the following tasks, with the major affected parties in brackets:

- Review project special inspection requirements; [all]
- Establish parameters for any allowed periodic inspection; [DBI]
- Identify individual(s) responsible for scheduling special inspection; [contractor]
- Identify lead special inspector; [special inspection (SI) agency]
- Define issues requiring building department contact [DBI: provide name and phone number];
- Outline conditions requiring structural engineer contact and/or approval; [DBI, engineer, SI agency]
- Designate method for handling changes from approved plans; [DBI]
- Delineate procedures and lines of communication for problem resolution; [all]
- Identify any work scheduled to be performed outside regular work hours; [contractor, SI agency]
- Discuss offsite work requiring special inspection; [contractor, DBI, SI agency]

- Define requirements and timing for progress and final reports; [DBI, owner, SI agency]
- Stipulate procedure for final special inspection compliance approval. [DBI, SI agency, contractor]

All of these items were covered in less than 20 minutes and the contractor's superintendent said it was the most worthwhile job meeting he had ever attended. The discussion of procedures for problem resolution proved worthwhile at various points in the construction, particularly during difficulties encountered with the fireproofing application.

It would be ideal to have a preconstruction conference for every project. Smaller projects are sometimes more likely to have problems regarding special inspection because the parties involved are unfamiliar with requirements and procedures. But since few jurisdictions can spare the personnel and time, these meetings are generally required only for larger or more complex projects. Following is a list of the types of projects for which pre-construction conferences are typically required in San Francisco:

- New construction five or more stories in height, or where a floor of any story is more than 75' above highest grade;
- New Type I or Type II fire resistive buildings;
- Projects requiring special inspection of life safety systems;
- Projects utilizing pre-stressed or post-tensioned concrete;
- Projects valued in excess of \$5 million;
- Projects requiring special inspection for which the owner is also the builder;
- Projects requiring special inspection for which the designer is also the builder;
- Projects utilizing new methods/materials of construction or otherwise considered special by the building department.

CORRECTION: Last month's CQA article, "Concrete Placement Inspection," was written by Tim Hart, and not Art Dell, as was indicated.

Seismic Strengthening of Historic Structures Using Fiber Reinforced Polymers

Richard Dreyer and John Hare, Holmes Culley Consulting Structural Engineers

by Jamison Curry, Program Committee Chair

Our February 4 dinner meeting was a crowded affair. One hundred eighty people attended to hear Mr. Dreyer and Mr. Hare speak about several of their projects in which Fiber Reinforced Polymers (FRP) had been a key component in seismic strengthening projects.

Among the ranks were Stanford professors Helmut Krawinkler and Greg Deierlein and 23 of their students, attending the annual Stanford Student Night. Not to be outdone, a few Cal students attended too.

Because FRP is not yet a commonly used building material, Mr. Hare and Mr. Dreyer explained some of the characteristics of this material. FRP may use glass or carbon fiber fabric. One of the most important aspects of FRP is its stress-strain behavior—it has very high strength (over 120 ksi) and essentially linear behavior with ultimate elongation in the range of 0.01 to 0.05, depending on the fiber chosen. Because of this material behavior, design with FRP must be based on strain compatibility with other materials in a structure.

Some advantages of FRP are its high strength, its light weight, its non-intrusive (e.g. thin) nature, and its corrosion resistance. Disadvantages are that it requires

good bond (e.g. surface preparation), it can creep, it acts in tension only, and it is relatively costly. Good references include ACI 440 and ICBO Acceptance Criteria 125.

Building codes do not currently recognize FRP, so the design techniques utilized are often subject to a series of negotiations and even peer reviews with governing code agencies. Holmes Culley has done many projects using the analytical techniques in FEMA 273, *NEHRP Guidelines for the Seismic Rehabilitation of Buildings*. These techniques allow the calculation of an R-factor. In the three projects talked about, the Woolen Mill at Ghiradelli Square, the Union Pacific Depot in Salt Lake City and Piers 1 1/2, 3, & 5 in San Francisco, FRP was supplemented with the use of more “conventional” components, like shear walls or braces. More about these projects is in the February SEAONC newsletter.

Mr. Hare described some bond and shear testing done at San Jose State University.

Mr. Dreyer stressed the importance of having a good specification and a knowledgeable FRP contractor.

Thanks to Mr. Dreyer and Mr. Hare.

YMF March Activities and Announcements

by Laura Yamaguchi, YMF Chair

Welcome everyone to March! The YMF has two events planned for this month. The first is Santa Clara University / San Francisco State University Student Night at the March 4th Monthly Dinner Meeting at the City Club in San Francisco. The students will be treated to an office visit at KPFF Consulting Engineers prior to the meeting. Sign up with your professors, or e-mail me at lauray@tippingmar.com with any questions.

Our second event is a St. Patrick's Day Construction Site Field trip to Lick Wilmerding High School's Technology and Design Center on Monday March 17th. We will be meeting at the nearby Balboa Park Bart Station street level entrance at 3:15pm, then walking over to the site at just across highway 280 on the north side of Geneva Avenue. The project consists of three interconnected buildings, two of which will have sod roofs. Lots of exposed structure to look at: Special Steel Moment Frames, Special Concentric Braced Frames, concrete shearwalls, roof trusses, etc. We will be meeting with Pete Barber, Project Manager for Plant Construction, and John Wolfe, Associate at Tipping-Mar. The buildings are a Phau Architecture special. The tour will be limited to the first 15 people who RSVP (to lauray@tippingmar.com). Bring a hard hat (or you will get to wear a site one.)

Continued on page 8

Engineering and Technical Resources Sharing Coming Soon on SEAONC Website

by Reinhard Ludke, Chair Business Forum

The Business Forum and the Web Site Committee are installing new pages on the web site to allow companies to share technical resources. Historically, there has been a tradition among SEAONC member firms to loan employees to other firms when short-term project schedule demands additional engineers or technicians. This sharing of resources benefits both employees and firms, because employees retain their jobs and firms have a means to obtain qualified engineers to help deliver and complete projects.

We understand that the current economic conditions are making it more difficult for some firms to keep staff busy on projects, while other firms may have staffing needs.

The web site will have a page that lists firms that have staff available to loan out on a short-term basis and a page that lists firms that have short-term needs.

The length of time that employee resources are shared, and payment to the other firm, are negotiated between the firms. The employee remains employed by the “lending” company, and returns to that office after the project is completed. Generally, these agreements are made on an hourly, weekly, or monthly rate basis, with the rate paid to the lending firm about the “direct + benefits cost of the employee.” We will keep a firm on the site for 3 months or until we are notified to delete the need or resources available.

We request that you use the classifications developed for the SEAOC Salary survey, and we will have a description column where you can list specific experience skills required.

After we have this up and running, and if we see positive benefits from this site, we may add a page for the resumes of engineers and technicians available for short-term projects. We will set this up soon and operate through 2003 to see if it provides a benefit to Business Forum and SEAONC members. Provide data for the site to the SEAONC office at seaonc@ix.netcom.com.

Existing Buildings

Existing Buildings: Nothing New

by David Bonowitz, *Existing Buildings*

That headline's a joke, folks. Get it? Yeah, we're a barrel of laughs here at the EBC. Seriously, though, here's the latest:

SEAONC member David McCormick will chair the State EBC for the 2003-04 committee year. The State committee will be focusing on the 2003 International Existing Building Code (IEBC), which will include the 2000 Guidelines for Seismic Retrofit of Existing Buildings (GSREB). SEAOC will have a lead role in writing the official commentary for the IEBC sections dealing with earthquake stuff.

Much of that work will come out of our local EBC. Our subcommittees are busy writing and reviewing commentaries on GSREB chapters related to soft-story apartment buildings, non-ductile concrete frames, and prescriptive house retrofits. Which means plenty of volunteer opportunities for anybody who's read this far.

And if you use FEMA guidelines (like 351, 352, or 356), you'll want to keep up with the committee as well. Each of those documents will get some EBC attention over the next few months.

Also, I am pleased to note that we will co-sponsor with the local EERI chapter a workshop on seismic risk in public schools. The Department of General Services reported recently that California has 7500 K-12 public school buildings of questionable seismic safety.

The workshop, scheduled for July and geared toward school administrators and facilities managers, will explain the DGS report and focus on the challenges of tough financial times. DSA and the Coalition for Adequate School Housing are expected to join us as co-sponsors.

Finally, the committee thanks Eve Hinman and EBC member Darell Lawver for their informative presentations on blast resistance at our January meeting.

In Memoriam

Frederick Willsea

Past SEAONC Director and Treasurer

We are sad to announce that Fred Willsea died at the age of 75 during a short illness while in the company of his wife and children on December 10, 2002 in San Francisco.

Fred, with a B.A. in Architecture (Yale), B.S. in CE (U. of Washington) and M.S. & Degree of Engineer (Stanford) started his structural engineering design career with John A. Blume & Associates in 1959. He generally developed 5-year plans of employment that included the following: Eric Elsesser & Associates, Nishkian & Hammill, a second time with John Blume, and Martin, Cagley and Nishkian. He also formed a partnership (Schneider & Willsea) and then formed his own firm. In December of 1986 he joined the firm of Wiss, Janney, Elstner Associates, where he worked with Sig Freeman. Sig and Fred first met at John A. Blume & Associates in 1959 while doing the structural design of the new College of San Mateo, College Heights Campus. Fred retired from WJE in 1992,

but remained as an affiliated consultant until 1995.

Fred Willsea, a member of SEAONC for over 40 years, served on the Building Code and Seismology committees and was a Director, Treasurer, and Life Member. He was also a member of ASCE and ACI. He was active on several ATC projects, was responsible for the development of ATC 22 (later known as FEMA 178), and assisted Sig Freeman in the updating of the TriServices seismic design manuals. Fred remained active in SEAONC and attended meetings after his retirement. He was a remarkable person and will be sorely missed.

Fred had many interests outside of engineering ranging from following the trails of the covered wagons to recently learning with his wife Jane to read Greek and Roman classics in their original languages. He was also concerned about local land preservation projects such as Marin Agricultural Land Trust and San Bruno Mountain Watch.

Posting for Membership

Member SE

Azlan Bin Ezaddin, Associate
Peoples Associates
Gerard Madden, Civil Engineer/Owner
Madden Engineering
Glen Mah, Senior Project Manager
UC Santa Cruz
Jason Oliver, Project Engineer
Buehler & Buehler Associates, Inc.
Mark Sarkisian, Associate Partner
Skidmore, Owings & Merrill LLP
Ching Liu Wu, Senior Project Manager
Bechtel Corporation

Member

David Andrews, Senior Engineer
LACO Associates
Che-Han Lee
W.Koo & Associates
Amarendra Prasad, Senior Engineer
Beyaz & Patel, Inc.
Timothy Van Schoonenberg, Owner
VS2R Engineering

Victor Wu, Structural Engineer
Carollo Engineers

Associate

David Abidemi, Tool Engineer
Baker Hughes Inteq
Cathy Ge, Structural Engineer
Skidmore, Owings & Merrill LLP
Sean Godin, Project Engineer
DASSE Design, Inc.
John Gordon, Structural Engineer
Skidmore, Owings & Merrill LLP
Tiffany Martindale, Engineer
St. Onge & Associates
Nicholas Murray, Design Engineer
T.Y. Lin International

Student

Amy Gac, Graduate Student
San Francisco State University
Erika Hansen, Graduate Student
UC Berkeley
Heinz Kuo, Graduate Student
UC Berkeley

Annual Joint AIA/SEAONC Business Forum Meeting

Creative Structures – Imagine the Impossible: Structural Engineers That Can Make it Real

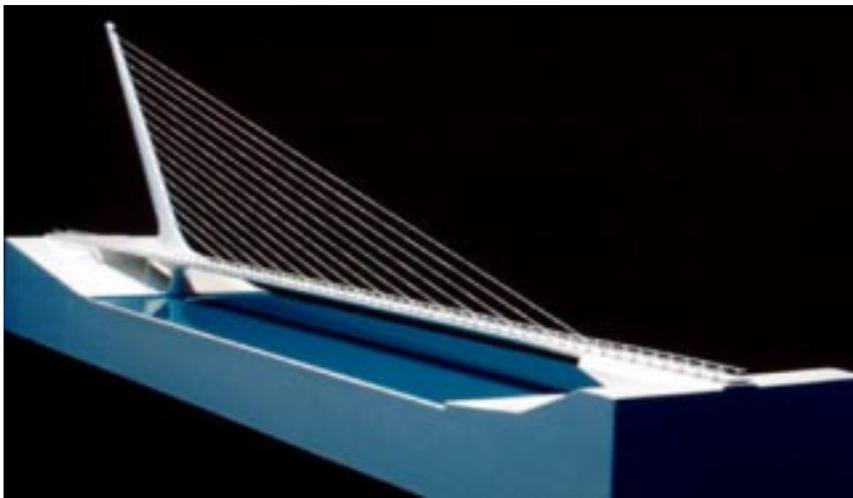
Date: March 19, 2003
Time: 12:00 – 2:00 PM, Lunch/Program
Place: AIA Office
130 Sansome Street, Suite 600
San Francisco, California
Cost: \$20.00 Business Forum Member
\$30.00 Non-Business Forum Member
Make reservations by contacting the SEAONC office (seaonc@ix.netcom.com or 415/974-5147) by Monday March 17, 2003.

Special Guests: Drake High School
Engineering Academy Students, San Anselmo, California.

Speakers:



*Mr. Jon Magnusson, CEO, Skilling Ward Magnusson Barkshire
Seattle, Washington
“The Music Experience” Building Frank Gehry’s Architecture*



*Dr. Mark Ketchum, P.E., OPAC Engineers
San Francisco, California
Architecture and Bridges
Santiago Calatrava – Turtle Bay Bridge and Cable Structures*



*Mr. Reinhard Ludke, S.E.
Creegan +D’Angelo Structural and Civil
Engineers
San Francisco, California
Art, Architecture, & Structure
Shotcrete and Welded Structures*

The Business Forum holds an annual joint meeting with the Small Business Committee of AIA. This committee asked, “Can we imagine free form shapes and spaces for our buildings? – How do Structural Engineers create these buildings? The March SEAONC Business Forum program includes three Structural Engineers who will describe the use of new laser scanning technology to map complex geometries, CATIA, and translating complex 3-dimension geometry to structure, fabrication and construction. Creative engineered structures that make use of cables, suspensions and rib forms to create sculpture and complementary architecture. The details can make the difference between art and structure. Pneumatic

placement of concrete and shotcrete allow designers to create “free-forms” in architecture and man made natural landscapes.

Architects and Structural Engineers will be attending this program. This is an opportunity for you to share and learn how new technologies are incorporated into the design, engineering and building process. The Business Forum welcomes all SEAONC and AIA members to attend this meeting. This is always a popular meeting and attendance is limited to 50 people, so make your reservation early.

Bulletin Board

SEAONC Excellence in Structural Engineering Awards Deadline Friday, March 28

The deadline is 1 p.m., Friday, March 28, 2003 to enter the SEAONC Excellence in Structural Engineering Awards contest. For rules and an entry form, please go to the member section of the SEAONC website, www.seaonc.org.

CSI Gives Break to Small Firms

Computers and Structures, Inc. has agreed to give a substantial discount to small structural engineering firms who are members of the SEAONC Business Forum for purchase or upgrade of all of their software. Small firms are defined by CSI as firms with fewer than 10 full-time permanent employees. This is a limited offer and will expire on April 30, 2003. If you are interested please contact the SEAONC office for further information, at seaonc@ix.netcom.com, or 415/974-5147.

DASSE Design Inc. Announces Promotions

DASSE Design Inc. is pleased to announce the promotions of Carl Wilford, SE and John Westphal, SE to Principal and Rafael Sabelli, SE to Senior Associate.

Carl Wilford joined DASSE in 1993 and has been responsible for the structural design of a number of major microelectronics, telecommunications and healthcare projects, and is currently working on the \$44M west campus expansion of St. Mary's Regional Medical Center in Reno. John Westphal, one of last year's SEAONC Rebuilding Together team leaders, came to DASSE in 1997 and has led the structural design efforts of numerous major school and university projects, including the recently completed CSU Stanislaus Educational Services Building. Rafael Sabelli joined DASSE in 1994 and is currently a SEAONC Board Member and

Chair of the Seismology and Structural Standards Committee. Rafael has completed the structural design of many complex structural steel projects, and is currently leading the structural design of a new \$15M Santa Clara County Courthouse.

These promotions recognize their leadership within the firm in the areas of project and client management, staff development and technical excellence, plus their contributions to the structural engineering community. They join Principals Bill Dasher, Joe Sutton, Bill Andrews, Jon Kiland and Jim Passaglia in the ownership of the firm.

Rivera Consulting Group Inc. Announcements

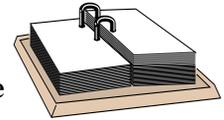
The Rivera Consulting Group (RCG) has relocated from Los Altos to San Francisco. The firm's new offices are located at 201 Mission Street, Suite 280, San Francisco, CA 94105. New contact numbers: tele. 415-975-5500; fax 415-357-9806. SEAONC member SE Ed Rivera serves as the firm's president.

RCG is also pleased to announce the additions of Steven F. Lew, SE and Kerry P. McCoy, PE to the firm.

Steven Lew, SEAONC member SE, brings 13 years of experience in the design and retrofit of new and existing commercial and institutional projects. Steven holds a BS in Civil Engineering and an MS in Structural Engineering from UC Berkeley. He is also a member of EERI and SEAONC's DES committee. His past experience includes projects in new institutional building design,

EVENT CALENDAR

**Mar. 4
Dinner
meeting--The
City Club,
San Francisco (Santa Clara
and San Francisco State
Student Night)**



**Mar. 17 YMF St. Patrick's Day
Construction Site Field Trip to
Lick Wilmerding High School**

**Mar. 12 and 19 SEAONC
Spring Seminar: New Trends
in Performance Based Design--
see flyer in this newsletter or go
to www.seaonc.org for details.**

**March 19 Business Forum
Luncheon, joint with AIA, at
the AIA Office.**

public school design and plan check, historic renovation, and seismic retrofit. With RCG, recent noteworthy projects include two major seismic retrofit projects in SF, the Telecommunications Center at 5700 3rd Street and the Villa Florence Hotel.

Kerry McCoy, SEAONC member, brings to the firm 14 years of engineering and project management experience on a variety of new and existing building projects. Kerry holds a BS Degree in Civil Engineering from UC Berkeley. Kerry was lead project engineer for new buildings such as the Top Gun Naval F-14 Air Hanger in Fallon Nevada, Centennial Village at San Francisco State University CA, and the West Field Cargo Facilities Building 648 for SFO. With RCG he recently completed engineering designs for two SF building projects: the Argonaut Hotel near the Cannery and the seismic strengthening of One Maritime Plaza.

New Members

Member SE

Natarajan Venkatachalam, Plan Check
Engineer
City of Fremont

Member

Alexander Cox, Project Engineer
Tipping Mar + Associates
Matthew Fong, Civil Engineer
Holmes Culley
Lisa Steffens, Design Engineer
Hohbach-Lewin

Student

Patxi Uriz, Graduate Student
UC Berkeley

STRUCTURAL ENGINEERING REVIEW WORKSHOP

BYA Publications is pleased to announce the 2003 SE Review Workshop to be held in the Bay area for the third year in a row. The workshop, to be held over 12 Saturdays in the May through October period, is mainly intended for those planning on taking the SE exam. However, it is also beneficial as a review course of the structural provisions of the 97 UBC. The details of the workshop are posted on www.structuralsolutions.com. Also, look for more details in the April newsletter.

SEAONC SCHOLARSHIP FUND

We acknowledged many generous contributions to the fund in the November 2002 and the January and February 2003 newsletters. We would now like to acknowledge the generous contributions received since the February publication, from the following members and firms:

\$1000 and above
Degenkolb Engineers

\$50 and under
Vincent Borov

YMF Activities and Announcements

Continued from page 4

Are you working on a cool job that's under construction now or will be in the future? We are looking for volunteers to share their interesting construction site with younger engineers. Last but not least, the Winter Ice Skating Social was a blast, and now it's time to think of the plan for the Spring Social. Any requests?

Committee Chairs

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Young Members Forum

Laura Yamaguchi
510/549-1906
lauray@tippingmar.com



**April Newsletter Deadline:
Monday, March 10, 2003**

**submit to:
seaonc@ix.netcom.com**

FOR RENT: SEAONC Multimedia Projector & Digital Camera

SEAONC's multimedia projector is available for rental! Voting members can rent the projector for only \$100 a day (plus a \$1000 security deposit) SEAONC also has a SONY digital camera available for rental. Voting members can rent the camera for only \$25 a day (plus a \$1000 security deposit). Contact the SEAONC office at 415/974-5147 for details.

Ahearn, Knox & Hyde, Inc. is a medium size structural firm in San Jose providing design services to the bay area for the past 32 yrs. We are looking for a self-motivated engineer with a minimum of 5 yrs. of experience in analysis & design of various types of buildings. We offer a very good benefits package along with SEP IRA plan, all fully funded by the firm. Salary is competitive & commensurate with experience & skills. Superb working conditions with congenial atmosphere. Fax résumés to 408/267-7919 or e-mail hyde@akhse.com.

Biggs Cardosa Associates is the largest structural engineering firm in the South Bay and the ONLY California Structural Engineering Design Firm to be ranked in the Zweig White Hot Firm 2002 list, which ranks the 100 fastest growing U.S. Architectural, Engineering and Environmental Consulting Firms. Would you like to join us and become part of our dynamic, growth-oriented team? We have an immediate opening for a Senior Structural Engineer or Structural Project Manager for our San Jose office. Do you have a minimum of 8 years experience in building design and a California SE? Please contact us by visiting our website at www.biggs-cardosa.com and submitting your resume online, or by calling Michael Thomas at 408/296-5515. The exact position and compensation will be based on the candidate's experience.

Bevier Structural Engineering. Sacramento area engineering firm seeks qualified engineers with minimum two years experience in structural design and detailing of buildings. Multiple positions available. California CE or SE preferred. Strong communication and team work skills essential. Project management skills a plus. Excellent benefits and competitive salaries offered. Send or E-Mail résumé to: Bevier Structural Engineering, 2479 Sunrise Boulevard, Gold River, CA 95670-4344, E-Mail: bill@bevier.net

DeSimone Consulting Engineers (DCE) has immediate openings in our San Francisco office for outstanding PEs or SEs with excellent communication skills and experience in new design and seismic rehabilitation of existing buildings. We offer a competitive benefits package and a great work environment. Please fax resume to Ron Polivka at 10 United Nations Plaza, Suite 410, San Francisco, CA 94102 (415/398-9834) or e-mail to: rpolivka@de-simone.com

Forell/Elsesser Engineers, an award-winning structural/civil engineering firm, offers outstanding career opportunities to engineers and CAD drafters with all levels of experience who seek a dynamic, challenging and rewarding work environment (www.forell.com). Work on exciting projects and collaborate with innovative design engineers. We offer an unparalleled salary & benefits package, including employer matched 401(k), pension and incentive compensation plans. Contact: Jim Guthrie, 160 Pine St. #600, San Francisco, CA 94111; fax 415/837-0800 or jim@forell.com

Harris & Sloan Consulting Group, Inc., a growing full-service structural engineering consulting firm in Davis, Ca., offers a relaxed, professional working environment in the heart of downtown Davis. Our firm has immediate openings for outstanding individuals seeking to grow professionally in a positive work environment. We offer excellent compensation and benefits packages and a great working environment. We are currently seeking Project Managers, Project Engineers, and CAD Operators to join our growing team of quality individuals. Project Managers will have leadership ability and demonstrated experience in all materials and building types with a strong background in design and detailing of wood-framed structures. Requires P.E. and 5-10 years of relevant experience. Project Engineers require a Bachelor's Degree in Engineering with structural emphasis and a minimum of two years of experience designing and detailing buildings of wood, with concrete, masonry, and steel experience a plus. CAD Operators should have a demonstrated proficiency in the layout, design, and detailing of buildings and at least two years of experience in AutoCad. If you have exceptional interpersonal, communication, and organizational skills and are committed to providing excellent customer service, come and join our growing firm! Fax your resume in confidence to 530/753-5380.

Structural designer position available with a Modesto based structural consulting office. 3 years experience in designing concrete, CMU, steel, and wood structures. Must have good communication skills and be conversant in AutoCad, SAP 2000, ETABS. Send résumé to **Lawder Engineering**, PO Box 3206, Modesto, CA, or fax to 209/521-1166.

RPSE, www.rpse.com, in business since 1960, has a long AND successful track record of innovative and creative structural solutions. Projects range from relocating historic buildings to retrofitting health care facilities. Our name is well known for quality – something we earned via our quality team members. If your strengths include communication and critical thinking, e-mail: sharonberman@rpse.com or fax cover letter and resume to HR-Sharon, 650/428-2861.

ATI Architects and Engineers has an opportunity... a great opportunity actually. An opportunity to join our firm (6 years in a row ranked by the S.F. Business Times as one of the fastest growing privately held firms in the bay area and two years in a row ranked by Zweig White as one of the fastest growing A/E/P firms in the nation) as a Principal Level Structural Engineer. The big cheese as it were. What's it going to take? We can talk more about that later – for now though – let me say you have to be a good structural engineer and you have to understand business. You have to understand there is no Business Fairy. You can't expect to put a lead under your pillow and wake up with a client. Give me call (Phillip Cairns 925/648-8800) or drop me an e-mail (pcaires@ataie.com) and let's talk about ATI (www.ataie.com) and you.

Buehler & Buehler, Sacramento's largest structural engineering firm, has openings in its Sacramento and Roseville offices for engineers with three or more years of building design experience and strong communication skills. Since 1946, B&B has provided SE services for private and public sector clients in California and the Western U.S. We maintain a staff of 45, with 12 SE's and 13 CE's experienced in designing buildings of various project types. We offer a competitive compensation package and a positive work environment. The area provides excellent affordable housing. Send resume in confidence to Buehler & Buehler, 7300 Folsom Blvd., #103, Sacramento, CA 95826. Fax 916/381-8673. E-mail Buehler@bbse.com. Website www.bbse.com.

Dean, College of Architecture and Environmental Design, Cal Poly State University, San Luis Obispo, CA. California Polytechnic State University, San Luis Obispo is seeking a dean to head its College of Architecture and Environmental Design (CAED). The CAED is one of the largest of its kind in

Continued on page 10

the country with seven accredited degree programs in architectural engineering, architecture, city and regional planning, construction management, and landscape architecture. The preferred starting date is July 1, 2003. For additional information contact: Academic Personnel Office, Phone: 805/756-2844, Fax: 805/756-2916 or 756-5185; e-mail: academicpersonnel@calpoly.edu.

City & County of San Francisco - Structural Engineer. Salary: \$3,470-\$4,218 Bi-weekly. Provisional appointment - incumbents will be required to succeed in a Civil Service Examination process for this class to be considered for a permanent appointment. Professional structural engineering design work on City projects. Candidate will be required to lead professionals and supervise technical staff engaged in such work, interpreting and coordinating existing engineering policies and methods with other departments and contractors; making regular responsible contracts with professional engineering personnel and contractors; preparing, checking and reviewing detailed and complex engineering plans, specifications and related documents. Must be able to respond to inquiries related to structural design and structural analysis, and requests for information from the general public, contractors and other agencies. Requires B.S. in Civil Engineering, California License as a Registered Structural Engineer AND minimum 7 years of professional structural engineering experience, in which 2 years were practiced under his/her structure's license. Send one-page cover letter, resume, City and County of San Francisco (CCSF) Application, verification of education/license/experience to: Department of Public Works, Personnel Administration, Class 5218/BOE, 875 Stevenson Street, Room 470, San Francisco, CA 94103. Position will remain open until filled. CCSF Application forms may be picked up at the preceding address from 8 a.m. - 5 p.m. (M-F). Applications will be screened for relevant qualifying experience; only the most qualified applicants will be interviewed.

Growing firm with interesting and challenging projects has openings in Sausalito and San Francisco. We are looking for bright energetic structural engineers with 1 to 5 years experience. Masters degree a plus. Fax resume to 415/339-9095.

Structural Engineer. Guy Nordenson and Associates, New York, a young, creative Structural Engineering firm seeks motivated, bright Engineers for complex, high profile projects worldwide. Applicants should have a BS or BE (MS preferred) and 3-7 yrs exp. EIT or PE is not required but helpful. Knowledge of typical office, drafting and/or analysis software is essential. We offer competitive salary, paid overtime, excellent benefits and a great work environment. If you desire to grow in a collaborative environment with potential for advancement, fax resume with letter and salary requirements & to 212/766 9016 or email to: mail@nordenson.com

Peoples Associates Structural Engineers, a growing Structural Engineering consulting company in the Bay Area, is looking for talented and energetic people to join our firm. We offer a competitive salary, excellent benefits and a team-oriented atmosphere that encourages professional growth. BS required (MS preferred). Experience is a plus. Mail resume & cover letter to 529 S. Main St., Milpitas, CA 95035. Fax: 408/957-9221. E-mail: mail@pase.com.

SOHA Engineers has openings: *-Project Engineer* with 4-7+ yrs exp. in structural/seismic analysis and design of buildings. CE license. Must have good technical skills, able to work fairly independently, team player with interest in working in a collaborative and technically challenging environment. *-Project Manager/Principal Structural Engineer*, 10-15+ yrs exp. SE license. Must have excellent technical, verbal and written communication skills. SOHA offers stability, diversity of projects, and career growth opportunities. Please send resume with cover letter to: SOHA Engineers, c/o Human Resources, 550 Kearny Street, Suite 200, San Francisco, CA 94108 or Fax 415/989-9909.

Umerani Associates, structural engineering firm located in Palo Alto, specialized in Civic, Educational & Healthcare facilities, is seeking self-motivated engineers with strong technical & management skills. 3 to 10 years of experience in computer analyses and design of steel, concrete, wood & masonry structures is preferred. Firm is also seeking experienced CAD draft-persons. If you are interested in joining a small firm with tremendous opportunities for growth, please send resume to 4020 Fabian Way, Suite 302, Palo Alto, CA 94303. Tel: 650/494-1600, Fax: 650/494-1601, e-mail: jumerani@umerani.com

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.

Display Ad Rates

Full Page \$900/mo.

2/3 Page \$600/mo.

1/2 Page \$480/mo.

1/3 Page \$360/mo.

1/4 Page \$270/mo.

1/6 Page \$225/mo.

Rates are for finished camera-ready black and white ads or proofed pdf files. Full payment is required at time of insertion order. For advertising contract, specifications, and special rates for running an ad multiple months, contact the SEAONC Office at seaonc@ix.netcom.com or 415/974-5147.

**Reminder: April Newsletter
Deadline: Monday, March 10, 2003
submit to: seaonc@ix.netcom.com**

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*Repeat Ad for
Computers and Structures*

MAR	
4	San Francisco Dinner Meeting (Santa Clara and SF State Student Night)
17	YMF Field Trip to Lick Wilmerding HS
19	Business Forum/AIA Luncheon
12,19	SEAONC Spring Seminar, "New Trends in Performance-Based Design"

Registration

Structural Engineers Association of Northern California MARCH 4TH SEAONC DINNER PROGRAM, SAN FRANCISCO CITY CLUB

5:45 PM
General
Assembly

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

NAME _____

COMPANY _____

6:30 PM
Dinner

ADDRESS _____

CITY _____ STATE _____ ZIP _____

7:30 PM
Program

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, February 28, 2003

Dinner and program reservations are limited. Register early! No cancellations after 12 noon, Friday, February 28, 2003. 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.

Location:
The City Club
155 Sansome St.
10th Floor
San Francisco

BART:
Montgomery
Street Exit
San Francisco

COST:	PRE-REGISTERED	LATE REGISTRATION
SEAONC Member	<input type="checkbox"/> \$34	<input type="checkbox"/> \$39
Junior Mbr (29 and under)	<input type="checkbox"/> \$28	<input type="checkbox"/> \$33
Non-Member	<input type="checkbox"/> \$39	<input type="checkbox"/> \$44
Student	<input type="checkbox"/> \$15	<input type="checkbox"/> \$15

← **NOTE: New prices, and new age for Junior Member**