

# ASSOCIATION OF ENGINEERING GEOLOGISTS

SOUTHERN CALIFORNIA SECTION

"Serving Professionals in Engineering, Environmental and Ground-Water Geology Since 1957"

March 1996

## OFFICERS

Chairman: Joseph Cota  
818.785.2158  
cotageo@smartdocs.com

Vice Chairman: David Ebersold  
818.796.9141

Treasurer: Mark A. Swiatek  
818.785.5244  
swiatek@smartdocs.com

Secretary: Charles Nestle  
818.458.4925  
ctnestle@aol.com

## COMMITTEE CHAIRS

Membership: John Whitney  
714.647.0277

Legislative Affairs: Hugh Robertson  
818.991.6367

Professional Registration: Robert Hollingsworth  
818.889.0844

Field Trip: Kim Bishop  
213.343.2409

Short Course: Sue Tanges  
619.442.8022  
(Short Course Notes by Tom Blake)

Education: Ali Tabidian  
CSUN — 818.885.2536  
atabidian@louie.csun.edu

Publications: Rudy F. Ruberti  
805.388.6162

Newsletter Editor: Charles Nestle  
818.458.4925  
ctnestle@aol.com

## THIS MONTH'S MEETING

March 19, 1996

Joint Meeting with ASCE

**Geophysical Techniques for Subsurface Exploration**  
*presented by*  
**Dr. Kenneth H. Stokoe, II**

**Reservations must be made by Friday, March 14!**  
**Call GeoSoils at (818) 785-2158**

**NEW TIMES!!!!**

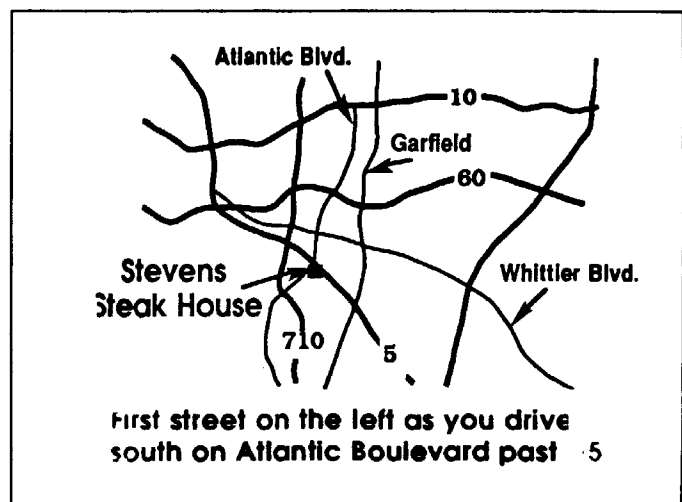
**Social Hour: 5:00 pm**  
**Dinner: 6:00 pm**  
**Meeting: 7:00 pm**

### Location:

**Stevens' Steak House**  
**5332 Stevens Place**  
**City of Commerce**

**Cost: \$20.00**  
**(\$10.00 for full-time students**  
**with valid I.D.)**

Map to Meeting



**Deadline for submittals to**  
**the April newsletter:**  
**March 15**

---

## MARCH PROGRAM

# Geophysical Techniques for Subsurface Exploration

---

**Dr. Kenneth H. Stokoe, II**

*Brunswick-Abernathy Regents Professor of Civil Engineering  
University of Texas, Austin*

**P**rofessor Stokoe will discuss the application of geophysical techniques to subsurface exploration and characterization. He will first present a brief overview of the methods available for use in practice, including refraction, reflection, crosshole, and downhole profiling, discussing both their applications and limitations. He will also discuss his work on the use of Spectral Analysis of Surface Waves (SASW) for practical problems. SASW is a non-destructive and non-intrusive geophysical technique for subsurface profiling that has been applied by Dr. Stokoe for both on and offshore subsurface profiling. The presentation will include a summary of Dr. Stokoe's recent work on characterization of shear wave velocity profiles at sites in the greater Los Angeles area impacted by the January 1994 Northridge earthquake using SASW. Sites profiled by Dr. Stokoe using this method include the La Cienega overpass, Culver City; Tarzana; Santa Monica City Hall; and Olive View Hospital.

Dr. Stokoe earned his B.S., M.S., and Ph.D. at the University of Michigan in 1966, '67, and '72 respectively. He was Assistant Professor at the University of Massachusetts from January 1972 until August 1973



when he left for the University of Texas at Austin, where he currently holds the title of Brunswick-Abernathy Regents Professor in Soil Dynamics and Geotechnical Engineering. He has been working in the areas of in-situ seismic measurements, laboratory measurements of dynamic material properties, and dynamic soil-structure interaction for the past twenty three years. Dr.

Stokoe was instrumental in developing the in-situ crosshole seismic method for shear wave velocity measurement. This method has been adopted as the standard by the American Society for Testing and Materials (ASTM D4428M). He has also developed a torsional shear/resonant column system to evaluate dynamic material properties. Over the last fourteen years Dr. Stokoe has conducted a major research effort in the area of nondestructive testing (NDT) of pavement, runway, geotechnical, and structural systems, during which, he and his colleagues developed the Spectral Analysis of Surface Waves (SASW) method of pavement and subgrade testing. This method has been used to evaluate earth dams for the U.S. Bureau of reclamation and the Icelandic government, and to evaluate debris slides for the U.S. Geological Survey and the Italian government.

---

## CHAIRMAN'S COLUMN

by Joseph Cota

As you may already know, on January 26, 1996, The Joint Legislative Sunset Review Committee (JLSRC) voted (4 to 0) to continue the State Board of Registration for Geologists and Geophysists (SBRG) operation under the Department of Consumer Affairs for another four years. Their meeting lasted less than five minutes. The committee members present were Senators Ayala, Boatwrite, and Johannessen and Assembly member

Speier. Republican Assembly members Thompson and Morrissey were against eliminating any board as long as it was self-sustaining, and unfortunately they were not present at the meeting. It was subsequently determined that the vote was illegal, as such a vote requires at least two members from each house to vote. We came up one Republican short.

On February 16, 1996, the SBRG received the proper

legislative committee approval and the JLSRC released their Joint Legislative Sunset Review Committee Findings and Recommendations Report. I haven't had a chance to completely review the lengthy document, however, at a glance, here are some of their findings and recommendations. I will make several copies to distribute to you at our next meeting.

## Findings

1. There is some evidence that the unregulated practice of geology and geophysics could endanger the health, safety or welfare of the public and could cause significant public harm, *but in most instances, only indirectly*...the board also notes that licensing of geologists and geophysicists protects a variety of consumers, "most of whom are not the immediate client of the geologist or geophysicist." These "indirect consumers" include future owners of the property being investigated, and the present and future neighbors of the property. Second, are the agencies (city, county, state) administering laws written to protect the populace from geologic hazards. Third, are the people who drink groundwater in the general area of a contamination site, and the future users of a particular groundwater basin. Fourth, are the taxpayers who will pay for the reconstruction of roads, utilities, etc. damaged by geologic hazards...the type of harm that could occur [from improperly constructed facilities] impacts the indirect consumer in major ways: by killing them, by injuring them and their families, by disrupting their lives, by destroying their houses, and by eating up their tax dollars...Basically, the type of activity or practice of the geologist which could cause the above harm, is that which could result from an inadequate or improperly prepared investigation and report. *The board also claims that there is a tremendous potential for public harm from fraudulent geologic investigations and reports. But a review of the enforcement activity does not indicate that the board has given this a higher priority.*

2. Geologists and geophysicists make judgements which could have potentially major financial, health, safety or other significant consequences for the consumer, *but whether harm actually occurs is difficult to determine.*

3. Judgements made by geologists and geophysicists require a high degree of skill and knowledge.

4. These judgements are, for the most part, independent of oversight or supervision by another person or group. Professional geologists, who are licensed, are employed by consulting firms (about 50%) or self-employed (21% to 26%). In these work environments they work independently.

5. There is a generally accepted core amount of knowledge, skill and ability that a geologist and geophysicist must have to meet minimum competency requirements, *but indicators of incompetent practice may be more difficult to measure.*

6. *There does not appear to be any significant public demand for the regulation and licensing of geologists and geophysicists, and there are those within the profession who have opposed licensure.* During the 1950's, geologic reports began to be required by cities

and counties... Los Angeles, and some 20 other cities, set up their own qualification boards for engineering geologists. However, some local geologists were barred from working on particular projects because they were not on an appropriate list. This caused both the City of Los Angeles and the professional geologic societies to push for statewide licensing.

7. California is unique in a large number of laws and regulations requiring the investigation of geologic hazards by [*registered*] geologists.

8. Components of the current regulatory program do not appear to provide protection to the consumer and preclude consumer harm. The board points out, that the major impact of their activities has been to develop and maintain a list of those geologists and geophysicists meeting a minimum level of qualification...*If this is true, and other activities such as enforcement are secondary, then maybe a simple registration and certification program is all that is necessary.* The board also points out that another benefit to licensing is the ability to track geologic work performed, *even after a company may have gone bankrupt or out of business.* There are instances, however, where tracking geologic work has not really benefited the consumer. *In certain areas of southern California there has been a problem of corrosive soils eating away at the foundation of homes.* To date, no one has been held responsible for this oversight.

9. There are other ways in which the consumer can control their exposure to the risk of harm which could be caused by poor geologic investigations and reports.

And the list goes on and on. Even though the JLSRC voted to continue the SBRG for another four years, all is not well in geology la la land. The JLSRC clearly are not happy with the board and geologic practice in general, and worse yet, the public seems to perceive us as bad guys. We need to wake up as a profession. It seems that one of the major factors in retaining the SBRG for the time being is that certain state laws require registered geologists. These laws can be eliminated, one at a time. It is important that AEG maintain a lobbyist, at almost any cost, to keep us informed about proposed changes in these laws. We need to change our attitudes about our work. We need to not only please our clients, but gain the respect of the public in general. We need a PR person. Some of the JLSRC's recommendations are as follows:

- a. Implement all recommendations set forth by the Board in its report to the JLSRC.
- b. Reduce its size from eight to seven members, with three professionals (two geologists and one geophysicist) and four public members.
- c. Adopt standards of practice or care.
- d. Adopt a code of ethics.
- e. Establish standards of negligence and incompetent practice.

f. Determine if the seven years of work experience required to qualify for registration should be abolished, or changed.

g. Determine whether the current examination is necessary and what changes could be made to the current examination to increase the pass rate.

h. Determine if the national examination should be used instead of the California registered geologist examination.

i. Become more proactive in its enforcement program and spend more than 30 percent of its budget on enforcement activities and less on its examination program.

j. Begin using its cite and fine authority immediately.

k. Make better use of its cost recovery authority.

l. Use any increased staff for enforcement matters only (with emphasis on Item m, below).

m. Review public files, when possible, at cities, counties, and state agencies where geologic reports are filed to determine whether violations have occurred.

n. Require all agencies that have oversight over geological reports and information to immediately submit complaints concerning substandard reports or information provided, or the actual substandard report if it contains false or misleading information, so the Board can take immediate action (it must be pointed out that the Board currently does not have the authority to enforce Item n.).

o. Better differentiate the practice of geology from the defined fields of soil science and hydrology. ϕ

---

## NEWS

The Board of Registration for Geologists and Geophysicists has moved. Their new address is:

2535 Capitol Oaks Drive, Suite 300A  
Sacramento, CA 95833

Tel: 916-263-2113  
Fax: 916-263-2099

---

Information Bulletin 96-01 mailed to all California registered geologists by the Board of registration incorrectly identified Lynn Nicholson as the Deputy Director of the Department of Public Works of the County of Orange. It should have read: "County of Los Angeles".

## EDUCATION COMMITTEE NEEDS YOUR HELP!

We are in the process of developing several educational modules for K-12 and the general public on the role of engineering geologists and other geology-related topics. In order to make these modules interesting, practical, and stimulating, we need copies of interesting slides, photos, and geology-related tools and instruments (even if they are obsolete and non-functional, we can use them for show and tell). If you have any ideas or suggestions for this committee or if you would like to get involved, please let us know. Only with your help will this committee be successful. ϕ

Contact Ali Tabidian, AEG Education Chairman, at 818-885-2536

---

## JOB OPENING

**Zeiser Kling Consultants, Inc.** is seeking a staff geologist for our Costa Mesa office. Requirements include; B.S. degree in Geologic Sciences or related field, entry level experience will be considered, experience in the industry and hillside grading a plus. Please mail or fax résumé for immediate consideration to:

Zeiser Kling Consultants, Inc.  
3187 Redhill Avenue, Suite 135  
Costa Mesa, CA 92626

Attn: Personnel ϕ

---

## COMPUTER CORNER

This month check out Volcano World at:  
<http://volcano.und.nodak.edu/>

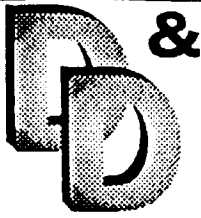
or for some really cool photographs try the Johnson Space Center's Digital Image Collection at <http://images.jsc.nasa.gov/>

and The Aurora Page at: <http://www.geo.mtu.edu/weather/aurora>

---

*"Some scientists claim that hydrogen, because it is so plentiful, is the basic building block of the universe. I dispute that. I say there is more stupidity than hydrogen, and that is the basic building block of the universe."*

— Frank Zappa



# Construction Specialties, Inc.

LIC. # 681416



*" Specializing In Hillside Drilling & Tough Hand Excavations "*

**\* Test Pits/Test Borings**

**\* Foundation Underpinning & Repair**

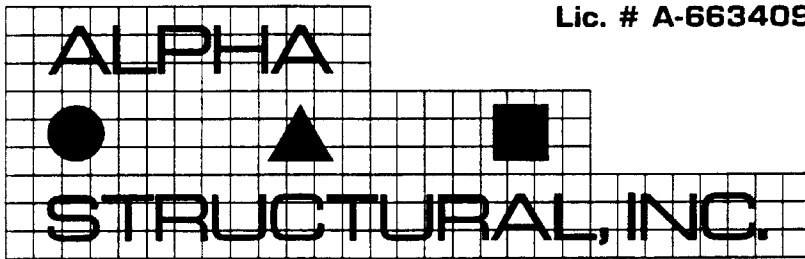
**\* Caissions/Grade Beams**

**\* Slope Repairs/Recompaction**

**\* Demolition & Hauling**

*Friendly & Professional Service*

**(818) 767-8864**



Lic. # A-663409

GENERAL ENGINEERING CONTRACTORS

### ***WE SPECIALIZE IN:***

- Foundation Underpinning
- Hillside Repair
- Seismic Retrofitting
- Retaining Walls
- Caissons / Grade Beams
- Structural Repairs

- We strictly follow all Geotechnical recommendations.
- We have the highest level of knowledge and experience in this specialized field.
- We well understand the scope of the project.
- We follow safety (Cal OSHA) procedures.
- We do the job, and we do it right.
- References and photos available.

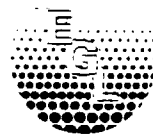
**EXPERIENCE · EXPERIENCE · EXPERIENCE**

**213-258-5482**

COMPACTION GROUTING

CHEMICAL GROUTING

*The Performance Company*



Environmental  
Geotechnology  
Laboratory

11823 Slauson Ave., Unit 18  
Santa Fe Springs, CA 90670  
Tel: (800)945-5648, (310)945-0689  
Fax: (310)945-0364

*The*

## **PRESSURE GROUT COMPANY**

More than 35 Years of Innovative Grouting

- Densifying/Strengthening Foundation Soils
- Preventing Soil Liquefaction
- Reinforcing Soils on Slopes
- Thwarting Soil Settlements
- Leveling of Structures
- Water Shut-off
- ★ Epoxy Grouting ★

**310•432•4100**

LENS GROUTING

PRESSGROUT PILES

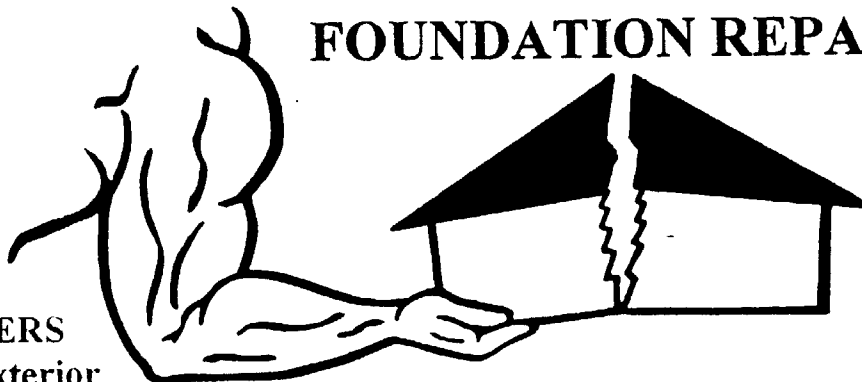
### **GEOTECHNICAL TESTING SERVICES**

- Index Properties
- Compaction
- Soil Chemistry
- Soil Strength (triaxial compression & shear)
- Consolidation
- Hydraulic Conductivity & Air Permeability
- Total & Effective Porosity, etc.

*Guaranteed Quality Services*  
*with Competitive Rates!!!*

# **POWER LIFT**

## **FOUNDATION REPAIR**



CA License #693886

**STEEL PIERS**  
Interior & Exterior

**Compaction Grouting  
& Mudjacking**

**ALL TYPES OF FOUNDATIONS  
& FLOORS RAISED  
RESIDENTIAL & COMMERCIAL**

Licensed  
Engineer  
Reports  
Available

over 28 years of progressive foundation repair experience

**818-342-5438**

LOS ANGELES

**800-562-5438**

NATION WIDE

Minimal  
Lawn  
Disturbance

**TRUE LEADER IN THE FOUNDATION REPAIR INDUSTRY**

# CALL FOR PAPERS

The Southern California Environment and History Conference presents:

SOUTHERN CALIFORNIA BEFORE 1900: LANDSCAPE, CLIMATE, AND ECOLOGY  
at California State University, Northridge, September 20-22, 1996

An interdisciplinary conference bringing together researchers and archivists in a variety of fields to discuss and enlarge our understanding of southern California's evolutionary landscape. This initial conference will allow for presentations on the period prior to massive transformations by modern urban and industrial growth.

The conference format will include panel and round table sessions and exhibitions. Panel sessions will allow for presentations of academic research. Round table sessions will provide an open forum for interdisciplinary discussion of selected topics. Archival exhibits will be displayed in designated areas to achieve a visual understanding of pre-1900 southern California from various standpoints.

If you wish to present research or exhibit an archival collection relating to the 1996 conference theme, please submit three (3) copies of your abstract or a description of your collection and a brief curriculum vitae to the coordinator in one of the applicable categories below. Include your name, address, phone number, fax or e-mail address. Submissions will be returned only if you provide a self-addressed-stamped-envelope (SASE). For further information call or fax session coordinators listed below. Other sessions will be considered.

## NATURAL ECOSYSTEMS (PLANTS AND ANIMALS)

Coordinated by Suzanne Goode (California Department of Parks and Recreation), phone: 818-880-0364, fax: 818-880-6165

## PALEOCLIMATES AND CULTURAL DEVELOPMENT

Coordinated by Mark Raab (California State University, Northridge), phone: 818-885-3575, fax: 818-885-2873

## HISTORY — Four Categories:

### VISUAL ARCHIVES

Coordinated by Michael Dawson (Dawson's

Bookstore), phone: 213-469-2186; and Jennifer Watts (Huntington Library), phone: 818-405-2180, fax: 818-449-5720

## LANDSCAPE PERCEPTIONS

Coordinated by Norman Klein (CalArts), phone: 818-441-1212, fax: 818-441-8293

## AGRICULTURE AND WATER

Coordinated by William Deverell (California Institute of Technology), phone: 818-395-4083, fax: 818-405-8941

## DISASTERS AND EXTREME EVENTS

Coordinated by Mike Davis (SCIARC), phone: 818-798-3909, fax: 805-254-8382

## EARTH SURFACE PROCESSES

Coordinated by Antony Orme (CSUN), phone 818-885-3564, fax: 818-885-2723

## Mail submissions to:

Southern California Environment and History Conference  
% Department of Geography  
California State University  
Northridge, CA 91330-8294

Attn: Lorna Fenebock — Conference Coordinator

CSUN phone: 818-885-3532  
Fax: 818-885-2723

DEADLINE FOR SUBMISSIONS: APRIL 1, 1996

## ZIP-A-DIP

Combination protractor, scales and  
most efficient apparent dip calculator!

Only \$4.00 each, 2-10: \$3.50; 11+: \$3.00; 50+: \$2.50

Brochure describes ZIP-A-DIP, equal angle stereonet plotter,  
and stratigraph. PLEASE NOTE NEW ADDRESS BELOW!

Brochure only \_\_\_ ZIP-A-DIP quantity \_\_\_ total cost \_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

To: ZIP-A-DIP, 3891 Ashford Dr. Eugene, OR 97405

Solutions  
Land  
Water

Consulting Geohydrologist  
Engineering Geologist  
Water Quality Specialist


**Sanford L. Werner**

Registered Geologist  
Certified Engineering Geologist

21031 Blythe St., Canoga Park, CA 91304, (818) 998-8178



Charles Nestle  
AEG Newsletter Editor  
6224 W. 82nd Street  
Los Angeles, CA 90045-2901

 Please Recycle

FIRST CLASS POSTAGE

---

## **GEOQUOTE OF THE MONTH**

"In 1882 or 3 the floods threatened El Monte and the people did get out and do enough work to protect the town. It looked for a while as though the hotel would be in danger. The way they felt about it was that it would never do to have the hotel threatened for the bar was located in the hotel. That much they would do, but to go up river 7 or 8 miles was too far away from the bar to carry on much work."

— Mr. George M. Peck (of Peck Road fame)

Excerpt from interview at his home, 1315 West Adams St., Los Angeles, Cal.,  
by F.Z. Lee on the morning of November 15, 1914  
in Research - Los Angeles County Flood Control - 1914-1915  
Mr. J.W. Reagan, Consulting Engineer  
Chairman of Committee of Menaced and Flooded Areas, Volume 2  
U.S. Army Corps of Engineers, pg. 471