



State Of California

## ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION



*Arnold Schwarzenegger, Governor*

Alfred E. Alquist Seismic Safety Commission  
Minutes of Meeting  
November 14, 2008  
Omni Hotel  
251 South Olive Street, Los Angeles, California

### **Members Participating**

Mark Church, Chair  
Andrew Adelman  
Kandiah (Arul) Arulmoli  
William Chubb  
Lucy Jones  
John Littrell  
Elizabeth Mathieson  
Gary McGavin  
Dennis Mileti  
Brad Mitzelfelt  
Don Parker  
Ali Sadre  
Michael Stevens  
David Thorman  
David Walls

### **Members Absent**

Ken Cooley, Vice Chair  
Jonathan Changus  
Christina Curry  
Sharron Leason  
James Schwab

### **Staff Participating**

Richard McCarthy, Executive Director  
Karen Cogan, Executive Assistant  
Robert Anderson, Staff Geologist  
Fred Turner, Senior Structural Engineer

## **I. CALL TO ORDER/ROLL CALL**

Commission Chairman Mark Church called the meeting of the Alfred E. Alquist Seismic Safety Commission to order at 2:00 p.m. Executive Assistant Karen Cogan called the roll and confirmed the presence of a quorum.

## **II. CHAIRMAN'S REMARKS**

Chairman Church welcomed everyone and commented that the International Earthquake Conference, co-sponsored by the Commission, had been interesting and enjoyable.

### **Vision for Coming Year**

Chairman Church noted that California is facing challenging times, with the worst budget crisis in the state's history. He said analysts are predicting the \$11 billion deficit will grow to \$28 billion within 18 months unless drastic steps are taken. He indicated the Commission was

working hard to identify a permanent funding source and to preserve research funds for their intended purpose.

Chairman Church observed that the Commission's research program has already yielded products of real value for the state, and noted that commissioners would be hearing more about four particular research projects later in the meeting. He said the Commission can be proud of many other accomplishments, including the completion last year of its review of the San Francisco Public Utilities Commission's proposed water system improvements, and the recent review of the reliability of California's nuclear plants in response to AB 1632. Chairman Church stated that the Commission shares the Governor's and Secretary's vision of improving seismic safety for all citizens. He said the Commission looks forward to helping organize a statewide earthquake drill and making recommendations on pending legislation.

### **Committee Assignments**

Chairman Church asked commissioners to review the latest committee rosters and let Ms. Cogan know which committees they were most interested in joining. He suggested discussing committee assignments at the next meeting.

### **Remarks from Secretary Rosario Marin**

Chairman Church welcomed State and Consumer Services Agency Secretary Rosario Marin and invited her to address the Commission.

Secretary Marin said she was delighted to meet with the Commission again. She noted that Los Angeles was a very appropriate place for the meeting, and reported that over 5.3 million people participated in the Southern California ShakeOut event the previous day.

Secretary Marin acknowledged that a joint effort will be required to help Californians prepare for earthquakes. She commended the Commission for its dedication in spite of difficult budget challenges. She noted that the research program is funding some amazing and worthwhile projects that will be used by the state in future work. Secretary Marin emphasized that the State and Consumer Services Agency is the Commission's friend and partner, and she pledged her support. She added that Executive Director Richard McCarthy does an excellent job keeping her informed of the Commission's activities.

Chairperson Church thanked Secretary Marin for her strong leadership and assistance.

### **III. APPROVAL OF SEPTEMBER 11, 2008 MEETING MINUTES**

**ACTION:** Commissioner Andrew Adelman made a motion, seconded by Commissioner Don Parker, that:

*The Commission approve the minutes of the September 11 Commission meeting as presented.*

\* Motion carried, 15- 0.

#### **IV. BRIEFING ON THE 1868 HAYWARD EARTHQUAKE ALLIANCE OCTOBER 21, 2008 COMMEMORATIVE EVENTS**

Dr. Tom Brocher, U.S. Geological Survey, reported on the activities of the 1868 Hayward Earthquake Alliance in October to commemorate the 140<sup>th</sup> anniversary of 1868 Hayward earthquake. He noted that 2008 is a fitting year for this event because major earthquakes tend to occur on the Hayward Fault at 140-year average intervals.

Dr. Brocher said the 1868 Hayward Earthquake Alliance, a public-private partnership, organized a series of events on October 21, including a commemoration of the earthquake itself at Mission San Jose in Fremont, school drills with over 200,000 students participating, showings of the QuakeReady video, a citywide drill in San Francisco, and release of new earthquake animations. He noted there was also a three-day scientific conference, and disaster responders from the Red Cross, BART, the Port of Oakland, and Bay Area cities participated in a Silver Sentinel follow-up earthquake preparedness drill on October 23.

Dr. Brocher advised that the 1868 Hayward Earthquake Alliance plans to continue its efforts in the coming months. He said the Alliance will be holding its next general meeting on November 18 in Oakland to discuss future plans, and he welcomed everyone interested to attend that meeting. He also informed the Commission that the Emeryville Chamber of Commerce had been selected to participate in FEMA's Quake Smart pilot study.

Chairman Church thanked Dr. Brocher for his presentation.

#### **V. BRIEFING ON THE NOVEMBER 13, 2008 SOUTHERN CALIFORNIA GREAT SHAKEOUT**

Commissioner Lucy Jones said she was very pleased with public participation in the Great ShakeOut event, estimated at over 5 million people. She stated that she was still in the process of gathering feedback from participating organizations. Commissioner Jones noted that the Great ShakeOut was the result of a successful public-private partnership that involved scientists, universities, businesses, government agencies, and community organizations. She observed that California needs to continually reinforce its safety message of "drop, cover, and hold on," because people tend to forget these concepts if they are not trained on a regular basis. Commissioner Jones added that in the Chino Hills earthquake last summer, many people ran outside rather than taking cover as experts recommend.

Commissioner Jones demonstrated a computerized animation of the scenario earthquake and showed some of the thousands of photographs received from locations in the field.

Commissioner Jones noted the second day of the Golden Guardian drill had been canceled because of the Santa Barbara fires. She said the ShakeOut partners will meet again in a few weeks to evaluate the event and review positive and negative feedback.

Chairman Church thanked and applauded Commissioner Jones for her efforts.

Executive Director Richard McCarthy said the groups from Northern and Southern California will be reconvening to discuss the lessons learned, and will then send a delegation to meet with Secretary Marin and her staff to organize an annual statewide earthquake preparedness day.

Commissioner Gary McGavin expressed concern that Doug Copp's "triangle of life" approach, widely disseminated over the Internet, is dissuading people from using the "drop, cover, and hold on" approach recommended by emergency providers. He noted that the triangle of life has been discredited and Copp's credentials are questionable. Commissioner Jones agreed, and said Copp's information is misleading and inaccurate. Commissioner McGavin noted that he discussed this issue recently with State Superintendent of Schools Jack O'Connell. He recommended working with O'Connell to develop a press release to PTA's to alert them to the misinformation.

## **VI. RESEARCH PROGRAM/PROJECTS UPDATE**

### **Outreach Campaign and Get Ready Rally**

Ms. Mariana Amatullo, Vice President, International Initiatives Director, DesignMatters, Art Center College of Design, thanked the Commission for supporting the Art Center College of Design's outreach project. She said the project includes a multimedia public safety campaign with a virtual reality game, a visual sourcebook, and a public rally.

Ms. Amatullo described the visual source book, a compilation of information from experts and government leaders on a wide range of topics. She showed an advance copy and said the book will be ready for publication next spring.

Ms. Amatullo talked about use of public art in the Westlake-McArthur Park area to convey messages about earthquake safety. She noted that several foundations have expressed interest in funding follow-up projects, and many community organizations have a need for custom earthquake preparedness materials. She stated that a virtual reality game and forecasting simulation, "Aftershock," will be running online for three weeks, and participants will be surveyed later for their input.

Ms. Amatullo said the rally beginning at 4:00 p.m. at L.A. Live will be an open, free, and public event featuring vendors with information, food, and music. She noted that the rally has been widely publicized, and she encouraged everyone to attend after the meeting.

Ms. Amatullo reported that the Art Center College of Design has developed a number of audio and visual resources, including public service announcements, short films, and media coverage. She ended her presentation by thanking the Commission and showing a brief film.

Chairman Church and commissioners thanked Ms. Amatullo for her presentation and expressed appreciation for the work done by the Art Center College of Design.

Commissioner Dennis Mileti commented that the ShakeOut has been an extraordinary public event that has never occurred before, and he commended all of the people who helped plan and organize the event.

Commissioner Elizabeth Mathieson recalled that the Art Center College of Design's original presentation to the Commission mentioned that the source book would contain electronic images, and she asked if that feature would be available. Ms. Amatullo confirmed that electronic images would be included.

### **Performance of Field Act School Buildings**

Mr. McCarthy noted that the three other research projects described at this meeting leverage public funds, but the Commission decided the Field Act project needed to be as independent and credible as possible, so no outside funding was used.

Commissioner Gary McGavin noted that the Field Act has undergone repeated attacks in recent years as critics question the costs and benefits of its extra requirements. Although there is anecdotal evidence suggesting that Field Act buildings perform better, there has been a lack of solid scientific research to resolve this issue. He said the purpose of the Collaborative for Disaster Mitigation project is to compare earthquake performance of Field Act buildings with comparable buildings. He invited Dr. Guna Selvaduray, Collaborative for Disaster Mitigation, San Jose State University, to provide a status report on his work.

Dr. Selvaduray introduced his associate, Professor Steven Vukazich, a structural engineer and professor of civil engineering at San Jose State. He said the project will entail identification of representative Field Act schools and comparable buildings, including Red Cross shelters and both public and private sites, obtaining data about levels of earthquake damage, and then comparing relative performance. Dr. Selvaduray noted that the research will be based on existing data; he indicated that a searchable database had been created, and researchers were in the process of reviewing all Stafford Act claims processed by the Office of Emergency Services.

Professor Vukazich discussed the process of selecting representative public schools and stated that ten schools will be chosen for in-depth investigation. He said the next step will be finding equivalent private schools and other buildings.

Commissioner Adelman recommended looking at local permit documents to find post-earthquake repair information. He volunteered to assist with access to the City of Los Angeles' records. He suggested contacting the City of San Jose as well.

Commissioner David Thorman said the Division of the State Architect has files on every project, but no combined database.

Dr. Selvaduray thanked the Commission, staff, and members of the Research Oversight Committee for their assistance.

## **Preparedness Survey**

Commissioner Mileti reported that the household preparedness survey interviews were almost complete for Southern California. He said he had a PowerPoint presentation on the status of the project, and he offered to provide the presentation to commissioners later. He introduced Dr. Linda Bourque, University of California at Los Angeles, and invited her to discuss some of the findings so far.

Dr. Bourque gave a presentation on earthquake myths and sources of information for six counties in Southern California. She described the demographics of the region, public opinion regarding earthquake safety messages and myths, and identified sources of earthquake information. She noted that television and radio are the most common and trusted sources of information, a finding that should be considered in future outreach campaigns.

Chairman Church asked Ms. Cogan to send copies of Commissioner Mileti's PowerPoint presentation to all commissioners.

## **Tall Buildings Initiative**

Dr. Yousef Bozorgnia, Pacific Earthquake Engineering Research (PEER) Center, stated that the purpose of the Tall Buildings Initiative is to develop guidelines for the seismic design of concrete and steel tall buildings in the coastal areas of California. He noted that over 100 tall buildings under construction or going through the permitting process in San Francisco and Los Angeles involve high-performance materials and methods that do not meet prescriptive building code limits. In these cases, the building designs are peer-reviewed, and local jurisdictions decide what will be allowed.

Dr. Bozorgnia said the research funded by the Seismic Safety Commission focuses on quantifying the costs and benefits for different levels of performance. He noted that past studies indicate that most people favor higher performance standards for tall buildings and would be willing to pay an extra 10 percent to achieve a higher level of performance. He added that for many, this decision depends on whether the initial cost is outweighed by the savings in repairs and losses after an earthquake.

Dr. Bozorgnia advised that as part of the Tall Buildings Initiative, three new buildings in downtown Los Angeles will be designed with three variations in performance levels. He showed slides illustrating a concrete core building with reinforced concrete walls, a reinforced concrete wall and concrete frame building, and a steel building with buckling restraint braces and pointed out the key features of each design. He noted that each type of building will be designed for three performance levels: building code, performance-based, and performance-based with enhancements, and then the results will be compared. He said the next step will be a nonlinear computer analysis of the buildings. Dr. Bozorgnia indicated that he would have more definitive results to share with the Commission at his next presentation.

## **VII. EXECUTIVE DIRECTOR'S REPORT**

### **Budget**

Mr. McCarthy advised that the Seismic Safety Commission's budget had not been reduced this fiscal year, but that could change. He referred to the budget report provided to commissioners and said he would have more details in January. He noted that the Commission has not yet charged for its overhead costs for the research program; he explained that overhead costs are limited to 10 percent, or approximately \$655,000.

### **Research Program Budget Update**

Mr. McCarthy reported that the Legislature has not swept funds from the Commission's research funds or other special funds at this point, although there has been talk about borrowing special funds until 2012 to help cover the state's deficit. He said the Commission plans to finish existing projects and consider new ones at the January meeting.

### **Briefing on AB 1632**

Mr. McCarthy advised the Commission that Commissioner Mathieson and the staff met with representatives from the California Energy Commission (CEC) to discuss its draft report on the safety of California's nuclear power plants, as required in AB 1632. He said the CEC committee accepted some of the Commission's recommendations, but not others. He suggested inviting the CEC to make a presentation on safety issues at the January meeting.

### **Request to Co-Sponsor TCLEE Conference**

Mr. McCarthy said the Commission had received a request to co-sponsor ASCE's Technical Committee on Lifelines in Earthquake Engineering (TCLEE) Conference. He clarified that co-sponsorship would not entail financial support, and he recommended approval. He added that Senior Structural Engineer Fred Turner and Commissioner Mathieson have proposed a paper for the conference. Commissioner Arulmoli stated that he had proposed two papers himself.

**ACTION:** Commissioner Adelman made a motion, seconded by Commissioner Arulmoli, that:

*The Commission approve the co-sponsorship request.*

\* Motion carried, 15 – 0.

### **DSA Update**

Chairman Church invited Commissioner Thorman to provide a brief report on the Division of the State Architect's (DSA's) activities.

Commissioner Thorman said that as a follow-up to AB 300, which required school districts to identify potentially vulnerable buildings, DSA sent a letter to all superintendents requesting an update. He noted that approximately 7,500 buildings were identified in the initial report.

Commissioner McGavin commented that the state approved a \$200 million bond issue in 2006 to fund retrofits. Commissioner Thorman indicated that DSA adopted a policy for selecting candidate projects for funding and was currently soliciting proposals.

### **VIII. PUBLIC COMMENT**

Mr. James Bela, Oregon Earthquake Awareness, commended the Commission for funding the Arts Center College of Design's DesignMatters outreach project. He expressed concern about making sure the public understands the implications of the deterioration in California's design standards. He said California is allowing too much flexibility in applying building codes, which results in greater uncertainties and piecemealing in building designs. He recommended that the Commission hold public hearings to identify changes in design standards, especially for tall buildings.

Chairman Church thanked Mr. Bela for his comments.

### **IX. MISCELLANEOUS AND GOOD OF THE MEETING**

Ms. Cogan reminded commissioners of the deadline for contributing to the United Way fund for 2008.

### **X. ADJOURNMENT**

The meeting was adjourned at 4:30 p.m. Ms. Cogan provided information about shuttles to the Get Ready Rally at the L.A. Live Staples Center.

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Sue Celli  
Office Manager

Approved by:

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Richard McCarthy  
Executive Director