Item III

State Of California

ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION

Governor Edmund G. Brown Jr.

Minutes of Commission Workshop
City Hall, Galleria Room
1110 West Capitol Avenue, West Sacramento, California
March 9, 2016

Members Present

Timothy Strack, Chairman
Tracy Johnson, Vice Chair
Ken Cooley (arrived at 2:15 p.m.)
Michael Gardner
Randall Goodwin
James Hackett (for Chet Widom)
Peggy Hellweg
Helen Knudson
Mia Miravelli
Ian Parkinson
Fuad Sweiss
Mark Wheetley

Members Absent

Greg Beroza
Anthony Cannella
Mark Ghilarducci
Kit Miyamoto
David Rabbitt

Staff Present

Richard McCarthy, Executive Director
Lena Daniel, Administrative Manager
Robert Anderson, Sr. Engineering Geologist
Henry Reyes, Special Projects Manager
Fred Turner, Structural Engineer
Salina Valencia, Legislative Director

I. CALL TO ORDER AND ROLL CALL

Commission Chairman Timothy Strack called the workshop to order at 1:00 p.m. Administrative Manager, Lena Daniel called the roll and confirmed the presence of a quorum.
Chairman Strack thanked the City of West Sacramento for hosting the workshop, and he expressed his appreciation to Commissioner Randall Goodwin for arranging the venue.

Commissioner Goodwin welcomed the Commission to West Sacramento. He introduced Ms. Charline Hamilton, Director of Community Development, and invited her to address the Commission.

Ms. Hamilton stated the City of West Sacramento was pleased to host the meeting, and she thanked the Commission for its efforts to improve seismic safety of California and looks forward to the release of the Commission's final report and recommendations to the State. She indicated that she grew up in South Napa and was in that area the night before the earthquake occurred in 2014.

Chairman Strack explained the purpose of the workshop was to review the draft South Napa earthquake report and recommendations. He noted that members of the public were welcome to watch the proceedings, and he asked that public comments be deferred until the end of the meeting.

II. OVERVIEW OF REPORT ON SOUTH NAPA EARTHQUAKE

Executive Director Richard McCarthy introduced Dr. Laurie Johnson, Pacific Earthquake Engineering Research Center (PEER), author of the South Napa earthquake report. He noted that Dr. Johnson presented her draft findings to the Commission at the January meeting. He said the task before the Commission was to narrow down the recommendations and select the most important items.

Mr. McCarthy noted that the Commission staff met earlier and identified ten key recommendations, but he added that the Commission is not limited to just those ten. Mr. McCarthy suggested that the Commission then establish a subcommittee afterwards to meet with the responsible parties to discuss the recommendations before the report is finalized.

Dr. Johnson reviewed the structure of the report. She noted that the document begins with an executive summary that identifies ten preliminary priority recommendations, followed by an overview of the South Napa earthquake and the resources available, and then five sections detailing the findings and recommendations. She said the breakout working groups will focus on those five sections, including Geosciences, Infrastructure, Structures, People and Businesses, and Government and Institutions.

Dr. Johnson said the next step is for the Commission to review and prioritize the recommendations in each section of the report. She encouraged Commissioners to propose revised wording, deletions, and additions as appropriate. She invited the Commission to provide feedback on the supporting text and corrections to any factual errors. She noted that a revised version of the report will come back to the Commission for approval at the May 12 meeting.

III. BREAK OUT INTO WORKING GROUPS

Working Group Assignments:

<u>Infrastructure:</u>

- Commissioners Miyamoto,
- Commissioner Johnson,
- California Office of Emergency Services (Cal OES) staff work
- California Seismic Safety Commission facilitator Special Projects Manager Henry Reye

<u>Structures:</u>

- Commissioners Chet Widom,
- Commissioner Goodwin,
- Commissioner Miravell
- California Seismic Safety facilitator Structural Engineer Fred Turner

<u>Geosciences:</u>

- Commissioners Hellweg
- Commissioner Beroza, and Dr. John Parrish, California Geological Survey
- California Seismic Safety facilitator Senior Engineering Geologist Robert Anderson

Government and Institutions:

- Commissioners Parkinson
- Commissioner Rabbitt
- Commissioner Ghilarducci
- Commissioner Cannella

Business and People:

- Commissioners Gardner
- Commissioner Knudson
- Commissioner Wheetley
- Commissioner Cooley
- Commissioner Sweiss

IV. REPORT FROM WORKING GROUPS

Commissioner Wheetley reported that the working group focusing on Business and People identified two core recommendations:

- Recommendation 4.2.1 to provide for establishment of a state- and local-level task force to be tasked with implementing the first recommendation pertaining to improving total earthquake preparedness and training, to consider the risk posed to the state by having large portions of uninsured residences and businesses, and to address Recommendation 4.3.1, pertaining to working with FEMA and helping local governments better prepare for issuance of emergency proclamations.
- Recommendation 4.4.2, to evaluate and enhance the penalties and post-disaster consumer protections. Commissioner Wheetley noted that the working group saw some overlap with the next topic, government and institutions, pertaining to local assistance centers. Commissioner Johnson questioned whether the emphasis of Recommendation 4.4.2 should be on unlicensed contractors. Commissioner Gardner clarified that abuses after past disasters have involved both contractors and consultants. Commissioner Gardner noted that the state could help by strengthening licensing requirements and increasing the penalties in the Penal Code. Mr. McCarthy said local governments can also help safeguard citizens from theft and fraud by requiring badges for licensed contractors and post-disaster consultants. He reported that Department of Insurance representatives recently testified before a Senate subcommittee about instances of post-disaster thefts by contractors.

Commissioner Parkinson stated that the working group on Government and Institutions discussed:

- Requiring seismic performance standards, training, and contingency plans for state and local correctional facilities and revising state regulations pertaining to transfer of inmates. He noted that this task could be addressed by the state Department of Corrections, which already regulates correctional facilities.
- Recommendation 5.1.1, pertaining to regionalization of Emergency Operations Centers (EOC's) within counties. He advised that the working group recommends enhancing training and adopting guidelines for county EOC's.

Commissioner Johnson reported that the Infrastructure working group identified:

- Recommendations 2.2.1 and 2.3.1 as priorities, and proposed combining

Recommendations 2.3.2 with 2.3.1. She said the working group also suggests assigning the task force to promulgate best practices.

- Whether Recommendation 2.2.1 was worded correctly in discussing minimization of seismic hazards versus a focus on the risks. Commissioner Hellweg recommended revising that item, noting that seismic hazards cannot be minimized unless faults are moved or structures are moved off faults.

Commissioner Hellweg said the Geosciences working group discussed all of the recommendations:

- Determined that the sets of recommendations in Sections 1.1, 1.2, 1.3, and 1.4 are all currently being worked on.
- Concluded that the most important recommendations pertained to mapping active earthquake faults as well as areas prone to liquefaction, landslides, and tsunamis; evaluating the aggregated effects of current amendments and exemptions to the Alquist-Priolo Act; establishing standards for geologic investigations and qualifications of investigators; and providing a source of funds for geologic investigations.

Mr. Turner summarized the results of the Structures stating the working group reviewed the 15 recommendations in the report and identified four top priorities:

- Recommendation 3.1.1, tasking Cal OES to work with other organizations, including FEMA and the California Building Officials, to develop training, deployment, and compensation protocols
- Recommendation 3.1.2, asking Cal OES to take the lead on developing guidance for local officials for effective management and coordination of post-earthquake safety assessments
- Recommendation 3.3.3, developing guidance and training for local fire departments and building owners and operators to safely shut off damaged sprinkler systems after earthquakes;
- Recommendation 3.3.5, developing and enhancing best practices training and inspection materials for school districts and staff.

Mr. Turner noted that the working group also recommends dropping three recommendations explaining that the working group found the wording of these three recommendations problematic and had difficultly assigning a lead agency:

- 3.2.1, educating and incentivizing unreinforced masonry programs
- 3.3.4, training of building industry personnel on nonstructural systems
- 3.4.2, training home inspectors on seismic performance.

V. SELECTION OF PRIORITY RECOMMENDATIONS FOR SOUTH NAPA EARTHQUAKE REPORT

Chairman Strack suggested that the Commission schedule a special teleconference meeting before May to review and prioritize the recommendations selected by the working groups. Dr. Johnson said she would work with the Commission staff to compile the recommendations and revise the report before the May meeting.

Commissioner Johnson commended Dr. Johnson for her comprehensive and thoughtful report. She noted that Dr. Johnson provided an exhaustive list of creative recommendations for the

Commission to consider, and she thanked her for her efforts.

Chairman Strack invited public comments, but there were no members of the public who wished to address the Commission.

Mr. McCarthy noted that previous Commission reports on past earthquakes typically included scores of recommendations, many of which were difficult or time-consuming to implement. He encouraged the Commission to narrow down the list of issues and recommendations from the South Napa earthquake to focus on actions that have the greatest chance of success within a relatively short period of time. He recommended choosing ten or twelve priorities for the final report but not attempting to identify a responsible entity. Commissioners expressed support for this approach.

VI. ADJOURN

Chairman Strack thanked participants for their input. There being no further business, the workshop meeting was adjourned at 4:30 p.m.

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Salina Valencia
Legislative Director & Communications

Approved by:

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Richard McCarthy
Executive Director

State Of California

ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION

Governor Edmund G. Brown Jr.

Minutes of Regular Commission Meeting
State Capitol, Room 437
Sacramento, California
March 10, 2016

Members Present

Timothy Strack, Chairman
Tracy Johnson, Vice Chair
Greg Beroza
Michael Gardner
Randall Goodwin
Peggy Hellweg
Helen Knudson
Mia Miravelli
Ian Parkinson
David Rabbitt
Fuad Sweiss (arrived at 10:23 a.m.)
Mark Wheetley
Chet Widom

Members Absent

Anthony Cannella
Ken Cooley
Mark Ghilarducci
Kit Miyamoto

Staff Present

Richard McCarthy, Executive Director
Lena Daniel, Administrative Manager
Robert Anderson, Sr. Engineering Geologist
Henry Reyes, Special Projects Manager
Fred Turner, Structural Engineer
Salina Valencia, Legislative Director

I. CALL TO ORDER AND ROLL CALL

Chairman Strack called the meeting to order at 10:02 a.m. Administrative Manager Lena Daniel called the roll and confirmed the presence of a quorum.

III. APPROVAL OF DECEMBER 2, 2015, AND JANUARY 14, 2016 MEETING MINUTES

Commissioner Peggy Hellweg drew attention to a typographical error on Page 3 of the January 14 minutes. She clarified that the state pays $250 million per year to the California Earthquake Authority, not $250,000.

Executive Director Richard McCarthy asked who seconded the motion on Page 6 of the January minutes.

Commissioner Hellweg said it was also unclear what the motion on Page 6 was. Mr. McCarthy responded that the motion was to approve the request as proposed. Commissioner Hellweg stated that she seconded the motion on Page 6.

ACTION: Commissioner Hellweg made a motion, seconded by Commissioner Mark Wheetley, that:

The Commission approve the minutes of the December 2, 2015, as presented, and the January 14, 2016, meeting as amended.

* Motion carried, 9 - 0 - 3 (Commissioners Greg Beroza, Tracy Johnson, and Chet Widom abstaining; Commissioner Fuad Sweiss absent during voting).

IV. SELECTED TECHNOLOGIES AND CAPABILITIES TO IMPROVE EARTHQUAKE RESILIENCY IN CALIFORNIA

Chairman Strack introduced Dr. Sharon Kedar, Research Scientist, Jet Propulsion Laboratory (JPL), National Aeronautics and Space Agency (NASA) advised that this project started as a pilot study to look at lessons learned from the South Napa earthquake and to explore JPL technologies and capabilities that can help improve California's resiliency to earthquake. He presented a table showing the major findings. Dr. Kedar explained that JPL has two major types of technologies that could be useful: remote sensing for hazard and damage assessment, and FINDER for search and rescue. He noted that JPL uses space-based and airborne radar to assess earthquake impacts on critical infrastructure and measure deformation. He reported that JPL has also developed new technology for airborne spectroscopy and gas detection. He said search and rescue teams in Los Angeles have been working with JPL to tailor the FINDER technology for their needs. Dr. Kedar indicated that all of JPL's remote sensing data products were outgrowths of scientific research, and the challenge now is to make them operational and useful for the State of California.

Dr. Kedar described how the remote sensing technology works, and he showed examples of images obtained from satellites and airborne radar. He said JPL has two ongoing projects using advanced rapid imaging and analysis to assess earthquake damage and transfer data to target response agencies. He noted that these images can pinpoint areas of high deformation to identify potential damage to critical infrastructure and structures. Dr. Kedar reported that JPL is working with local, state, and federal agencies to provide damage proxy maps that can be used in their decision-making process. He added that as a second phase of research, JPL is working to provide on-board processing for airborne radar images.

Dr. Kedar said airborne spectroscopy and gas detection can also assist with damage assessment. He explained that certain gases absorb radiation and electromagnetic signals of specific frequencies, so scientists can use spectrometers to detect post-earthquake gas leaks and emissions of methane, ammonia, and other gases. He noted that JPL is working with the California Air Resources Board and California Energy Commission to outfit state-owned planes with these powerful instruments. He advised that this kind of research is also part of JPL's proposal for a second phase of research.

Dr. Kedar discussed how FINDER technology can facilitate disaster emergency response by helping search and rescue teams detect heartbeats and find people trapped underneath earthquake rubble. He said this technology, used successfully in the 2015 Nepal earthquake, can locate people buried as deep as 30 feet or behind 20 feet of solid concrete from about 100 feet away.

Dr. Kedar asked the Commission to consider funding a second phase of JPL research to refine

FINDER technology, develop protocols for remote sensing products, and develop requirements and an implementation plan for use of airborne spectroscopy for post-earthquake gas leak detection.

II. CHAIRMAN'S REMARKS

Chairman Strack welcomed newly appointed Commissioner Mia Miravelli, Executive Director of the California Building Standards Commission. Commissioner Miravelli reported that she was appointed to the Building Standards Commission in February, replacing former Commissioner Jim McGowan. She said she has a background in architecture, design, and construction, and previously worked for the Department of Water Resources, Department of General Services.

V. PROGRESS REPORT ON BACK TO NORMAL: EARTHQUAKE RECOVERY MODELING PROJECT

Mr. McCarthy noted that the Commission is sponsoring two Global Earthquake Model (GEM) projects, and he invited Dr. Christopher Burton to provide an update on the earthquake recovery modeling project.

Dr. Burton stated that GEM is a global nonprofit organization dedicated to developing tools, open-source data, and protocols to communicate and assess risk worldwide. He said GEM is working in collaboration with Dr. Henry Burton at the University of California, Los Angeles, on this project. He reported that substantial progress has been made in linking the research to a set of tools to help predict recovery time and recovery outcomes based on social and economic circumstances, ground shaking and damage, and political decision-making. Dr. Burton noted that GEM works with scientists from around the world to disseminate best practices and provide guidance regarding risk assessment and risk management.

Dr. Burton indicated that the recovery modeling project started with an analysis of seismic hazards and data from past earthquakes to predict levels of ground-shaking due to earthquakes. He said seismic hazard information is coupled with exposure to identify risks to critical structures and infrastructure, as well as impacts on human lives.

Dr. Burton indicated that GEM researchers have visited Napa three times to observe the recovery process and identify the factors that have the greatest effect on recovery trajectories. He described a case study of an uninsured Napa homeowner whose house was severely damaged. Dr. Burton stated that this homeowner, who had a low income and medical problems, spent his life savings trying to repair the house and was unable to obtain assistance from FEMA. He pointed out that the house is still in precarious condition a year and a half after the earthquake, and the homeowner risks losing the house, and possibly his life, if another strong earthquake occurs. Dr. Burton showed slides of other homes in Napa's downtown area that still show signs of catastrophic earthquake damage. He advised that the South Napa earthquake had devastating effects on humans, particularly elderly citizens, racial and ethnic minorities, and people with disabilities.

Dr. Burton said his research is premised on vulnerability science, an analysis of circumstances that put people at risk, as well as factors that enhance or reduce the ability of populations to respond to and recover from disasters. He observed there are geographic patterns as well. He

noted that the end result of this work will be a recovery prediction tool for GEM's OpenQuake suite of tools to predict earthquake risk.

Dr. Burton indicated that GEM researchers are trying to identify inherent conditions within communities, in terms of both pre- and post-event factors, that provide the best predictors of recovery. He observed that understanding the link between pre-existing conditions and decision-making will help scientists predict recovery, and the South Napa earthquake provided a real-world field study.

Dr. Burton presented a slide from the City of Napa's database of damaged buildings. He said all red-tagged buildings and a random sample of yellow-tagged buildings were then followed every six months, and this data was incorporated in a spatial and temporal database of the recovery process. He stated that the key variables in determining a community's resilience are social conditions; the strength and diversity of the local economy; institutional factors, including the ability to mitigate damage and purchase insurance; type of infrastructure; response capacity; and community resources. Dr. Burton noted that the researchers then created a model that predicts how well and how quickly a community recovers from a disaster. He displayed a map showing differences in resiliency in the areas affected by the South Napa earthquake. He said Dr. Henry Burton has developed a mechanism for incorporating more qualitative data from one-on-one interviews in the recovery model.

Dr. Burton commented that Napa was a well prepared community before the earthquake, with strong social networks and a growing economy. He said researchers also identified key barriers to recovery, including race and socioeconomic status, federal policy changes, and insurance saturation.

Dr. Burton advised that this GEM project will end in September, and the work is on track at this point.
Chairman Strack thanked Dr. Burton for his presentation and said the Commission looks forward to GEM's final report.

VI. PROGRESS REPORT ON BEYOND BUTTON-PUSHING: IMPACT OF ASSUMPTIONS ON EARTHQUAKE MODEL RESULTS PROJECT

Dr. Vitor Silva, GEM, explained that this project entails examining the assumptions behind various existing earthquake risk estimate models. He advised that this project also ends in September, but he said he would consult with the Commission in advance to make sure the final product meets the Commission's needs and expectations.

Dr. Silva said most risk calculation models are based on an analysis of physical earthquake hazards and building types and vulnerabilities, which are then used to predict earthquake losses. He noted that earthquake modeling is a complex process, but the hazards data and human factors can vary considerably among models, and little is known about how calculations are made and how uncertainties are addressed.

Dr. Silva stated that California has the most comprehensive and complex seismic hazard model in the world, but it includes a number of uncertainties with respect to risk and exposure

estimates. He noted that variables include building types, building vulnerabilities, design parameters, costs to repair damage, building performance, and soil conditions.

Dr. Silva said GEM's goal with this project is to aggregate the available data sets in its open-source and transparent OpenQuake platform so everyone can understand the methodologies and functions used to arrive at loss estimates. He talked about how census data can be used to glean information about the physical building stock and socioeconomic characteristics in a given area. Dr. Silva indicated that this analysis will help identify places where higher losses are expected so more resources and mitigation efforts can target those areas. He noted that this research will also be useful in setting earthquake insurance premiums and raising public awareness.

Dr. Silva said GEM hopes the outcome of this project will be a more accurate and efficient loss prediction model that identifies uncertainties and helps policy makers understand relevant risk metrics.

Mr. McCarthy recommended working with the California Department of Insurance and the Insurance Commissioner's office to take advantage of their data, and he offered to facilitate that contact.
Chairman Strack thanked Dr. Silva for his presentation.

VII. PROPOSAL: INSPECTION OF EARTHQUAKE- AND FIRE-DAMAGED BUILDINGS USING UNMANNED AERIAL VEHICLES (UAVs)

Mr. McCarthy noted that Dr. Tara Hutchinson made a presentation at the last meeting about testing earthquake- and fire-damaged structures on the shake table at the University of California at San Diego (UCSD). He said additional promising research is being done using unmanned aerial vehicles (UAVs), and he suggested adding this component to the project previously approved by the Commission.

Chairman Strack introduced Professor Falko Kuester, Department of Structural Engineering and Computer Science and Engineering, UCSD, and invited him to address the Commission.

Dr. Kuester explained that UAVs are great tools for inspecting damaged buildings because they can access areas that would be dangerous for humans. He said the major challenge is getting sensors to the right locations. He noted that digital surrogates are used to simulate built environments, and then researchers can fabricate instruments and UAVs rapidly that can be deployed to collect perishable data in the field for first responders, engineers, and decision-makers.

Dr. Kuester stated that data collected digitally can be disseminated easily to a wide range of devices, and data can be combined and manipulated at different scales and at levels of precision. He said drone technology can be used to acquire, curate, analyze, and disseminate information that can help solve engineering problems. He noted that UAVs come in a broad range of sizes and types, but his research focuses on motor rotor vehicles of the paraglider type.

Dr. Kuester said UCSD deployed a team to Napa Valley on August 25, 2014, to assess the structural health and integrity of lifelines and critical infrastructure after the earthquake. He

indicated that UAVs collected data that was used to create a three-dimensional digital simulation of various industrial settings, communication systems, and water distribution networks, and then this data was used to identify areas of potential cracking, spalling, and other types of damage. Dr. Kuester emphasized the importance of having pre- and post-earthquake data in order to establish a baseline for correlating damage and identifying cause-and-effect relationships across different timelines. He noted that this information is useful in terms of monitoring the progression of damage and finding ways to mitigate losses. He remarked that once inspection data is acquired, it can be shared with stakeholders so they can react quickly and respond effectively to problems.

Dr. Kuester reported that UCSD is currently constructing a full-scale, five-story building on the shake table that will be tested first for earthquake resiliency, and then for fire resiliency. He displayed a slide showing how the building will look. He presented a proposal to use UAVs to conduct pre- and post-event inspections, followed by inspections of earthquake and fire damage. Dr. Kuester advised that the timeline for this project is rather aggressive, with earthquake testing taking place in April and May, followed by fire testing in late May and June. He requested Commission funding to reserve time on the shake table, conduct initial assessments, and then incorporate UAV-based imaging techniques. He reviewed the project budget and asked the Commission to contribute $49,900.

Commissioner Michael Gardner said he was very excited about this project. He commented that unmanned aircraft offer tremendous benefits for scientific research, and uses of this type can help allay public fears about widespread use of drones. He noted that UAVs can be used to conduct routine inspections of utility transmission lines, a time-consuming and expensive task currently done by helicopters. He said UAVs are also very useful in hazardous materials situations that pose dangers to humans. Commissioner Gardner expressed support for funding this project.

ACTION: Commissioner Gardner made a motion, seconded Commissioner Wheetley, that:

The Commission approve the proposal as presented.

* Motion carried, 13 - 0.

Chairman Strack thanked Dr. Kuester for his presentation.

VIII. MEDIA TRAINING FOR COMMISSIONERS AND STAFF

Chairman Strack introduced Mr. Russ Heimerich, Deputy Secretary, Communications; Business, Consumer Services, and Housing Agency, and invited him to address the Commission.

He said the Commission's work is exceedingly interesting for members of the public, and he proposed finding ways to raise the Commission's profile and visibility for its excellent work products and subject matter expertise. He offered to provide training to commissioners about effectively working with the media, disseminating important messages, and developing a strategic communications plan.

Mr. Heimerich noted that the Commission has an ongoing contract with Mr. Michael Kleeman, and he suggested that the Commission consider expanding that contract to include a media training component. He offered his assistance with that effort.

Mr. McCarthy said the Commission-sponsored research project a few years ago that entailed testing a full-scale hospital building on the UCSD shake table received national news coverage. He remarked that the upcoming tests in May or June would be another good opportunity to highlight the Commission's work. Mr. Heimerich agreed. Mr. Heimerich said he would work with Mr. McCarthy and Ms. Valencia to develop a proposal for media training and messaging.

Chairman Strack thanked Mr. Heimerich for his presentation.

IX. PROPOSAL TO DIGITIZE CONSTRUCTION DOCUMENTS IN DOWNTOWN NAPA

Staff Structural Engineer, Fred Turner showed slides of an old stone building damaged in the Napa earthquake. Noting historic building was retrofitted in 2005, and the retrofit work was carefully hidden to minimize its visual impact and that the best source of information about how well the retrofit performed is the construction plans maintained by the local building department.

Mr. Turner said the Commission has been working with the Earthquake Engineering Research Institute, the PEER Center, and reconnaissance teams from structural engineering organizations to identify 56 buildings in Napa recommended for further study. He noted that all of these buildings are located in close proximity to ground motion recordings, so their performance can be tied to accurate ground motion readings. Mr. Turner proposed approaching the City of Napa, and possibly a few other local jurisdictions, to obtain drawings and specifications for the candidate buildings and then digitize those records to preserve them for further study. He explained that the digitized records would be posted on a password-protected, cloud-based site with a set of security protocols, and the information could be accessed by code development committees and researchers.

He proposed a budget of approximately $5,000 for this work. He suggested using the service of UC Berkeley to hire students to unroll the drawings, take pictures, roll them back up, and return them to the local jurisdictions.

Commissioner Chet Widom stated that the Division of the State Architect has obtained digitized drawings for all public schools in the state. He expressed his support for this project, noting that this technology provides amazing capabilities for retaining and holding information, as well as making it available to users.

ACTION: Commissioner Widom made a motion, seconded by Commissioner Gardner, that:

- *The Commission approve the digitization project as proposed.*

Commissioner Goodwin recommended reaching out to the architects and engineers who worked on the buildings, noting they would likely be very interested in the study and the results. Mr. Turner said state law does not require consultation with the architects and engineers. He

clarified that this project does not require their consent or involvement, and all of the documents obtained are public information. He stated that some designers are already involved in this project and have been quite helpful. Mr. Turner added that the researchers are hoping to obtain considerable valuable feedback from local building officials, and that outreach could expand to include more design professionals later if funds are available.

Mr. McCarthy advised that the Commission can allocate money from the Insurance Fund rather than the Research Fund to pay for this project. He suggested that the Commission Chair and Vice-Chair make a decision on the source of funds after hearing the staff budget presentation later in the meeting.

Commissioner Widom revised his motion to provide that funds may be allocated from either account, as determined by the Chair and Vice-Chair, and Commissioner Gardner concurred.

Commissioner Hellweg commented that working through UC Berkeley takes advantage of the University's work-study program, because when work-study students are hired, the University provides 50 percent of their funding, in effect doubling the Commission's funds.

With respect to the quality of the digitalized records, Commissioner Hellweg asked if images would be sufficient or whether building plans would have to be scanned. She recommended using a high-quality flat scanner. Mr. Turner said the proposal calls for high-resolution digital imagery, but the details have not yet been decided. He noted that a flat scanner will be used if one is available at a low cost. He suggested that he and Commissioner Hellweg discuss these arrangements after the meeting.

Mr. Turner said digitized images were created after the Northridge and San Simeon earthquakes, and students were engaged in both efforts. He added that these relationships provided networking opportunities that were beneficial for the students in their later careers.

Commissioner Sweiss commented that use of a camera creates a skewed image, and he recommended using a flat scanner to create more accurate images.

Commissioner Sweiss asked about the public accessibility of the digitized records. Mr. Turner clarified that the records will be accessible to limited users who meet certain criteria. He noted that access permission would need to be obtained from both the building owner and the design professional.

* Motion carried, 13 – 0.

Chairman Strack thanked Mr. Turner for his presentation.

X. LEGISLATION

Ms. Valencia indicated that the final legislative tracking list from the Governor's Office has not been finalized yet, but three bills had been assigned to the Commission for tracking:

- **AB 1783 (Dodd)**-pertaining to schoolroom contents, earthquake safety, and inspection,

requires school districts to develop and implement plans to inspect classroom contents for earthquake safety. Commission staff has been providing technical support to the author AB 1783 has been referred to the Assembly Education Committee.

- **AB 1707 (Linder)-** modifies the California Public Records Act to require that agencies subject to these rules include in their responses to requests for public records the name of documents withheld, and the exemption that applies to each document. Additionally, the agencies should respond to all requests via written response, regardless of how the request is made. Bill is set for hearing on March 29, and the staff will develop a bill analysis for Agency review.
- **AB 1566 (Wilk)** - will ensure accountability on behalf of state agencies and heads of state departments by holding them civilly liable for the reports they submit to the Legislature or Executive branch. Furthermore, a penalty of $20,000 may be assed in a civil action on any person who declares as true any material matter that he or she knows to be.

Other Bills

Ms. Valencia reported that the Commission was asked to support AB 1346 (Gray), which provides $23.1 million in general fund money to install sensors for the earthquake early warning system. She said she explained to the author's staff that the Commission does not take official positions on bills. She noted that SB 438 (Hill) is a parallel bill with identical language.

Ms. Valencia noted that the Commission held a teleconference meeting in December to discuss a proposed bill creating a new Earthquake Safety Board and moving the Commission to Cal OES, but that effort was tabled. Since then, she said, draft language is being developed regarding establishment of the California Earthquake Early Warning Advisory Council. She advised that this concept keeps Cal OES in the lead and creates an entity within Cal OES to make decisions about the development, implementation, and maintenance of an earthquake early warning system. Ms. Valencia explained that under this bill, the Commission would remain housed under the Business, Consumer Service, and Housing Agency and would function as it currently does, and the Commission's chair would have a seat on the new advisory council.

Ms. Valencia noted that Mr. Russ Heimerich Communications Director at Agency, have been working to propose a new communications contract with Mr. Michael Kleeman to elevate the Commission's visibility and highlight important accomplishments in seismic safety. She stated that the contract has not yet been approved by Agency, and she indicated that the Commission staff will work with Mr. Heimerich to move this contract forward to create a communications plan to elevate the Commission.

Chairman Strack thanked Ms. Valencia for her report.

XI. EXECUTIVE DIRECTOR'S REPORT

Budget

Ms. Daniel reported that there had been problems pertaining to the new FISCAL accounting system. She said Commissioners who used their own funds to purchase tickets could seek reimbursement with a travel expense claim form. She stated that a number of problems have been brought to the attention of the Department of Finance and FISCAL management, and

improvements are being implemented. Ms. Daniel acknowledged that there had been long delays in processing travel expense claims. She advised that the Commission will begin using an automated system available through the State Controller's Office that can process travel expense claims reimbursements.

Ms. Daniel referred to the budget forecast, and she projected about $202,000 remaining in the Commission budget at year-end. She said she estimated bills not yet processed and future travel, and the projected surplus came to about $145,000. She reported that the current balance in the research fund was about $4 million.

Meeting Calendar

Mr. McCarthy proposed holding the May 12 Commission meeting at UC San Diego so commissioners can watch shake table testing and tour the drone dispatch center. He said a field trip to the shake table facility would be scheduled for May 11.

Mr. McCarthy suggested a Bay Area meeting in conjunction with the ShakeOut and HayWired events during the third week of October. He noted the normal sequence of Commission meetings would be May, July, and September, and asked what adjustments commissioners preferred.

Commissioner Sweiss said Fleet Week in San Francisco takes place during the first week of October and noting that Navy ships are well equipped for emergency management and communications in major disasters and earthquakes. He recommended that the Commission meet in San Francisco on the 6th or 7th of October.

Mr. McCarthy suggested sending representatives to the Fleet Week activities, and holding a full Commission meeting later in San Francisco in conjunction with the HayWired event. Commissioner Hellweg proposed meeting in Oakland. She said BART and East Bay Municipal Utility District facilities might have interesting tours.

Commissioner Sweiss offered his assistance in arranging for use of the City Council chamber.

Chairman Strack recommended moving September meeting to October, stating he and Commissioner Johnson will work with the staff to coordinate October meeting dates and locations.

After some discussion, Commissioners agreed to move the September meeting to October in conjunction either with the HayWired scenario or Fleet Week.

Commissioner Hellweg noted that the National Earthquake Conference would be held in Long Beach at the beginning of May.

Mr. McCarthy reported that GOBiz planned to hold disaster preparedness workshop for small businesses in mid-May in Oakland.

Dr. Graham Kent, representing Nevada's seismic safety council, noted that the Seismological

Society of America is holding its annual meeting in Reno, marking the 50th anniversary of its last visit, which was followed shortly thereafter by a magnitude 5.9 Truckee earthquake.

Mr. McCarthy observed that the minutes seem to be getting longer. He suggested changing the minutes to include only a few brief sentences describing each agenda item, he welcomed feedback from Commissioners. Chairman Strack noted that local governments typically have a brief summary of the discussion leading up to action items. Commissioners indicated they liked the idea of a brief summary of discussions leading to action items.

Mr. McCarthy welcomed input from commissioners regarding how the Commission wants to evaluate research proposals. He said contracts over $50,000 typically take nine months of legal review; and he noted that establishing a committee would probably extend that time by two months. He advised that there is sometimes difficulty meeting matching fund requirements.

Commissioner Johnson said she thought the current process worked well. Commissioner Gardner said the issue of a match should not mean the Commission would not fund a proposal.

Mr. McCarthy observed that the GEM project moved rapidly, and there were other multi-year, large projects that went rapidly. He said he typically consults with a couple commissioners before deciding which projects warrant further attention.

Chairman Strack remarked that Mr. McCarthy made a good screening point for the Commission.

XII. PUBLIC COMMENT

There were no members of the public who wished to address the Commission.

XIII. MISCELLANEOUS & GOOD OF THE MEETING

There were no other items brought to the Commission's attention.

XIV. ADJOURN

There being no further business, Chairman Strack thanked everyone for attending, and the meeting was adjourned at 1:10 p.m.

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Salina Valencia
Legislative Director & Communications

Approved by:

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Richard McCarthy
Executive Director