2015 PRELIMINARY PROGRAM

ATC&SEI

2nd Conference on Improving the Seismic Performance of Existing Buildings and Other Structures

DECEMBER 10–12, 2015
HYATT REGENCY HOTEL
SAN FRANCISCO, CALIFORNIA

A State-of-the-Art Conference Organized by
the Applied Technology Council and
the Structural Engineering Institute of ASCE

Earn Professional Development Hours

www.ATC-SEI.org

CONFERENCE SCHEDULE AT A GLANCE

THURSDAY, DECEMBER 10, 2015

6:30 am – 6:00 pm	Registration
7:45 am – 8:30 am	Light Continental Breakfast
8:30 am – 10:00 am	**Opening Plenary Session**
10:00 am – 10:30 am	Refreshment Break
10:00 am – 1:30 pm	Exhibit Hall Open
10:30 am – 12:00 pm	**Concurrent Technical Sessions**
12:00 pm – 1:30 pm	Lunch in Exhibit Hall
1:30 pm – 3:00 pm	**Concurrent Technical Sessions**
3:00 pm – 7:30 pm	Exhibit Hall Open
3:00 pm – 3:30 pm	Refreshment Break
3:30 pm – 5:00 pm	**Concurrent Technical Sessions**
6:00 pm – 7:30 pm	**Reception and Poster Session in Exhibit Hall**

FRIDAY, DECEMBER 11, 2015

7:00 am – 5:00 pm	Registration
7:30 am – 10:30 am	Exhibit Hall Open
7:45 am – 8:30 am	Light Continental Breakfast
8:30 am – 10:00 am	**Plenary Session**
10:00 am – 10:30 am	Refreshment Break
10:30 am – 12:00 pm	**Concurrent Technical Sessions**
12:15 pm – 1:30 pm	Luncheon with Speaker
12:00 pm – 3:30 pm	Exhibit Hall Open
1:30 pm – 3:00 pm	**Concurrent Technical Sessions**
3:00 pm – 3:30 pm	Refreshment Break
3:30 pm – 5:00 pm	**Concurrent Technical Sessions**
6:30 pm – 10:00 pm	**Awards Dinner Honoring Champions of Earthquake Resilience**

SATURDAY, DECEMBER 12, 2015

7:00 am – 1:00 pm	Registration
7:45 am – 8:30 am	Light Continental Breakfast
8:30 am – 10:00 am	**Plenary Session**
10:00 am – 10:30 am	Refreshment Break
10:30 am – 12:00 pm	**Concurrent Technical Sessions**
12:00 pm	Conference Adjourns

ATC&SEI

2nd Conference on Improving the Seismic Performance of Existing Buildings and Other Structures

A State-of-the-Art Conference Organized by the Applied Technology Council and the Structural Engineering Institute of the American Society of Civil Engineers

DECEMBER 10–12, 2015, HYATT REGENCY HOTEL, SAN FRANCISCO, CALIFORNIA

You are invited to attend this informative conference on improving the seismic performance of existing buildings and other structures organized by the Applied Technology Council (ATC) and the Structural Engineering Institute (SEI) of the American Society of Civil Engineers (ASCE). The conference program has been structured to provide a forum for the presentation, exchange, and documentation of new information on the seismic evaluation and seismic rehabilitation of existing buildings and other structures, including case studies, new discoveries, innovative use of new technologies and materials, nonstructural component anchorage and bracing, implementation issues, needed improvements to existing standards and methods, and socio-economic issues.

The conference program includes plenary session presentations by nationally recognized specialists in the field, an invited luncheon talk, technical presentations on a broad range of issues in 29 sessions, poster presentations, exhibits, and an awards dinner (a separately ticketed event) honoring individuals and organizations who have shown extraordinary leadership and support of seismic hazard reduction. The conference will provide an invaluable opportunity to advance your understanding of the tools, techniques, and innovations available to assist you in meeting the challenges of seismic evaluation and rehabilitation.

Details about the conference program are provided in this brochure. Information is also provided about a corporate registration package that enables multiple individuals from one corporation/organization to participate in the conference at a reduced rate. Conference registration is open and you can save money by registering early. Additional information about the conference is available at the conference website: **www.ATC-SEI.org**.

We look forward to seeing you at the conference.

PLENARY SESSION & LUNCHEON SPEAKERS

THURSDAY, DECEMBER 10, 2015

Opening Plenary Session: 8:30 am–10:00 am

Speaker: Kenneth J. Elwood, Department of Civil and Environmental Engineering, University of Auckland, New Zealand

Title: *Observations of Building Performance in Recent Earthquakes*

Description: Observations of building performance in recent earthquakes with a special focus on the devastating event in Christchurch in 2011 and a discussion on where codes still need improvement.

Biography: Prof. Ken Elwood currently serves as the MBIE (Ministry for Business Innovation and Employment) Chair in Earthquake Engineering at the University of Auckland, New Zealand. Formerly of the University of British Columbia, Ken was drawn to New Zealand to pursue the numerous opportunities for research and implementation in earthquake risk reduction. Among other activities in New Zealand, Ken is helping to manage a three-year research program initiated by the New Zealand Government to investigate the performance of concrete buildings in the Christchurch earthquake, including improved procedures for assessing repairability. Ken is actively involved in research related to the seismic response of existing concrete and masonry buildings. Ken received his Ph.D. in Civil Engineering from the University of California, Berkeley in 2002. He is a member of several national and international code committees including the seismic provisions of ACI 318. Ken is a member of the EERI Board of Directors and Chair of the EERI Learning from Earthquakes program.

Speaker: Lucy Jones, U.S. Geological Survey, Pasadena, California

Title: *Resilience by Design in Los Angeles*

Description: The Los Angeles Mayor's plan to improve the seismic performance of buildings includes (1) mandatory and voluntary ordinances pertaining to retrofit of vulnerable soft-story wood-frame buildings and older concrete buildings, and (2) implementation of a seismic rating system for buildings.

Biography: Dr. Lucy Jones has been a seismologist with the US Geological Survey and a Visiting Research Associate at the Seismological Laboratory of Caltech since 1983. She currently serves as Science Advisor for Risk Reduction in the Natural Hazards Mission of the US Geological Survey, leading long-term science planning for natural hazards research, and the SAFRR Project: Science Application for Risk Reduction to apply USGS science to reduce risk in communities across the Nation. She led a partnership between the USGS and the City of Los Angeles to create solutions to four of the most significant seismic vulnerabilities in the City. Dr. Jones has authored over 100 papers on research seismology with primary interest in earthquake statistics and integrated disaster scenarios, especially in southern California, including leading the science projects that created the ShakeOut Earthquake Scenario, the Great ShakeOut Drill and the ARkStorm Scenario. Dr. Jones received a Bachelor of Arts degree in Chinese Language and Literature, Magna Cum Laude, from Brown University in 1976 and a Ph.D. in geophysics from the Massachusetts Institute of Technology in 1981.

FRIDAY, DECEMBER 11, 2015

Opening Plenary Session: 8:30 am–10:00 am

Speaker: Curt Haselton, Department of Civil Engineering, California State University at Chico, California

Title: *Can We Achieve Seismically Resilient Buildings (and Cities)? A Look at Recent Industry Developments and How We May Leverage These Moving Forward.*

Description: A discussion of building seismic evaluation and loss estimation methods, with a focus on recent technical developments that could both transform the approach to loss estimation and support resilience-based design.

Biography: Dr. Haselton is Professor and Chair in Civil Engineering at California State University, Chico, and Co-founder of the Seismic Performance Prediction Program (SP3) and Haselton Baker Risk Group. Dr. Haselton's research is in the area of performance-based earthquake engineering, with focuses on building code development, collapse safety assessment, ground motion selection and scaling, damage and loss estimation, and the treatment of uncertainties. Dr. Haselton was recently the chair of the Building Seismic Safety Council team to rewrite Chapter 16 of ASCE/SEI 7, *Minimum Design Loads for Buildings and Other Structures.* He obtained a Bachelor of Science degree in Civil Engineering, Magna Cum Laude, from California State University, Chico, in 2002, a Master of Science degree in Structural Engineering from Stanford University in 2003, and a Ph.D. in Structural Engineering from Stanford University in 2006.

Speaker: William T. Holmes, Structural Engineer, San Francisco, California

Title: *Simplified Seismic Evaluation of Older Concrete Frames for Collapse Potential*

Description: The seismic life safety risk from older concrete buildings, particularly frames, is well known. Current evaluation methods based on component performance are reasonable to measure damage, but conservative to predict global collapse. For several years, FEMA, through ATC, has sponsored development of a simplified method to estimate the probability of collapse that can be used to rank older concrete buildings for the purpose of identifying the truly dangerous ones. A probabilistic collapse evaluation method for frame buildings will be presented that is comparable in effort to a Tier 2 evaluation according to ASCE/SEI *41-13, Seismic Evaluation and Retrofit of Existing Buildings.* The method is currently being extended to include consideration of walls.

Biography: Mr. Holmes obtained his M.S. degree from Stanford University in 1963 and joined Rutherford & Chekene, Consulting Engineers, in 1965. Mr. Holmes has been responsible for the structural design or seismic retrofit of a wide variety of buildings as well as being active in significant research and development in structural and seismic engineering. He had a key role in the conceptual development of the NEHRP Guidelines for the Seismic Rehabilitation of Buildings (now ASCE/SEI 41). He also chaired the Provision Update Committee, responsible for updating the *NEHRP Recommended Provisions for Seismic Regulations for New Buildings,* 1997 and 2000 editions. He retired from Rutherford + Chekene in 2010 but remains active in projects for the Applied Technology Council and the Building Seismic Safety Council.

Luncheon Speaker: 12:45 pm–1:15 pm

Speaker: Patrick Otellini, Chief Resilience Officer, City and County of San Francisco, California

Title: *Our Resilience Challenge – Making San Francisco Safe Enough to Stay*

Description: In 2012, San Francisco Mayor Edwin Lee began the implementation of the Community Action Plan for Seismic Safety's 30-year Earthquake Safety Implementation Program aimed at reducing the City of San Francisco's exposure to the risks posed by earthquakes. San Francisco's Chief Resilience Officer and Director of Earthquake Safety will discuss several of the efforts underway to help strengthen San Francisco in the face of future disasters, ranging from soft-story retrofits to private school evaluations.

Biography: Patrick Otellini is the Chief Resilience Officer (CRO) for the City and County of San Francisco tasked with developing the city's resiliency strategy in conjunction with the 100 Resilient Cities initiative pioneered by the Rockefeller Foundation. Mr. Otellini was originally appointed by Mayor Ed Lee in October of 2012 as the Director of San Francisco's Earthquake Safety Implementation Program (ESIP). ESIP recently commenced implementation of unanimously approved pieces of legislation that range from mandatory retrofits of soft-story buildings to postearthquake repair standards with the goal of making San Francisco more resilient in the face of disaster. Prior to his appointment, Mr. Otellini was a Senior Associate with A.R. Sanchez-Corea & Associates, San Francisco's premier permit and code consulting firm. His work there included the management of the permit and inspection process for over $2 billion worth of construction in San Francisco. He is a Certified Building Inspector through the International Code Council (ICC) and a Certified Fire Protection Specialist through the National Fire Protection Association (NFPA). Patrick lives in San Francisco with his wife and two children. He received his Bachelor's Degree in Political Science from Westmont College.

SATURDAY, DECEMBER 12, 2015

Opening Plenary Session: 8:30 am–10:00 am

Speaker: David Mar, Mar Structural Design, Berkeley, California

Title: *Innovative Seismic Retrofit Solutions, with a Focus on New and Emerging Concepts (an Eye to the Future)*

Description: The stars are aligning in the universe of structural engineering. Peer-reviewed performance-based high-rise designs are becoming commonplace, proving in the market that sophisticated (non-prescriptive) engineering adds value. Incremental Dynamic Analysis, via FEMA P-695, sets the stage to understand collapse risk, offering the opportunity to cull deficient structural systems and introduce better systems. Finally, the FEMA P-58, *Seismic Performance Assessment of Buildings*, loss estimating methodology connects the circuit between design (the world of engineers) and loss prevention (the world of our clients). These advances combine to create a fertile environment for innovation and invention. This talk explores new and emerging designs in these exciting times.

Biography: Mr. Mar has a wealth of experience designing innovative structural systems. He believes the key to successful projects is striving to create holistic designs that optimize the architectural program and structural performance while controlling construction costs. To these ends, his designs are often inventive and technically ingenious, at the forefront of high-performance seismic and sustainable design. Mr. Mar demonstrated this approach in his role as the technical director for FEMA P-807, *Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories.* His out-of-the-box thinking resulted in a comprehensive design methodology that yields high-performance retrofits at a low cost, thus solving one of structural engineering's most vexing class of problems. David received his undergraduate and master's degrees from the University of California, Berkeley. In 1998 David was honored with SEAONC's H.J. Brunier Award for Outstanding Achievement in Structural Design.

Speaker: Laurie Johnson, Planning and Research Consultant, San Rafael, California

Title: *Building a Foundation for Resilience at the Community Level*

Description: Over the past decade, the concept of community-scale disaster resilience has gained increasing attention both nationally and internationally. In essence, efforts to build community resilience consider not only how to ensure a community is better able to withstand shocks but that it is also able to restore function quickly and even adapt to new conditions resulting from the shocks. This presentation will consider examples of community-scale resilience planning and implementation efforts and essential elements of a strong community resilience program.

Biography: Dr. Johnson is an internationally recognized urban planner specializing in disaster recovery and catastrophe risk management. She began her planning career working with San Francisco Bay Area communities that would soon be struck by the 1989 Loma Prieta earthquake. Since that time, she has developed an extensive portfolio of disaster resilience and recovery expertise for a range of hazards both in the United States and around the world, and she has researched or helped to manage recovery following many of the world's major urban disasters, including the 2011 Tohoku Japan earthquake and tsunami, 2010 and 2011 Christchurch, New Zealand earthquakes, and 2005 Hurricane Katrina. In 2006, she was a lead author of the recovery plan for the City of New Orleans following Hurricane Katrina and then coauthored the book, *Clear as Mud: Planning for the Rebuilding of New Orleans.* Dr. Johnson currently serves as Chair of the Advisory Committee for the National Earthquake Hazard Reduction Program, and is a member of the Steering Committee for Geotechnical Extreme Event Reconnaissance (GEER) and the Board of Directors of SPUR, a member-supported nonprofit organization promoting good planning and good government in the San Francisco Bay Area. She holds a Doctor of Informatics from Kyoto University, Japan as well as a Master of Urban Planning and B.S. in Geophysics, both from Texas A&M University.

TECHNICAL PROGRAM

THE COMPLETE TECHNICAL PROGRAM IS AVAILABLE AT **WWW.ATC-SEI.ORG/TECHNICAL-PROGRAM**

THURSDAY, DECEMBER 10, 2015

8:30 am–10:00 am — **OPEN PLENARY**

- **K. Elwood:** *Observations of Building Performance in Recent Earthquakes*
- **L. Jones:** *Resilience by Design in Los Angeles*

TRACK	Resilience/ Mitigation Programs	Concrete Structures/ Nonlinear Analysis	Historic Structures/ Emerging Technologies	Standards and Guidelines
10:30 am–12:00 pm	US Resiliency Council (USRC) and the Implementation of a Building Rating System	Modelling Reinforced Concrete Components and Building	Historic Masonry Structures	Performance-Based Seismic Evaluation of Reinforced Concrete Structures, in Conjunction with ASCE/SEI 41
1:30 pm–3:00 pm	Mitigation Programs for Schools and Other Buildings	Performance of Older Concrete Buildings and Implications for Regional Mitigation	Innovative Approaches and Codes for Historic Structures	Future Directions of ASCE/SEI 41-13 and Other Seismic Evaluation Procedures
3:30 pm–5:00 pm	Seismic Resilience—Lessons from the Field	Analysis, Modeling, and Simulation for Performance-Based Seismic Engineering: Next Generation of Nonlinear Modeling	Implementation of Emerging Technologies and Methods	Recent Updates to Standards and Guidelines

FRIDAY, DECEMBER 11, 2015

8:30 am–10:00 am — **PLENARY SESSION**

- **C. Haselton:** *Can We Achieve Seismically Resilient Buildings (and Cities)? A Look at Recent Industry Developments and How We May Leverage These Moving Forward*
- **W. Holmes:** *Simplified Seismic Evaluation of Older Concrete Frames for Collapse Potential*

TRACK	Managing Risk	Nonstructural/ Wood Soft Story	Implementation Case Studies	Innovative Solutions for Retrofit
10:30 am–12:00 pm	Regional and Portfolio Analysis	Performance Assessment of Nonstructural Components and Systems	Evaluation and Retrofit of Existing Buildings: Tall Steel Buildings Case Studies	Earthquake Demands—Important Topics
12:15 pm–1:30 pm	**LUNCHEON WITH LUNCH SPEAKER** — **P. Otellini:** *Our Resilience Challenge—Making San Francisco Safe Enough to Stay*			
1:30 pm–3:00 pm	How the FEMA P-58 Methodology Can Inform Decision Makers	Experimental Evaluation of Nonstructural Components and Systems	Evaluation and Retrofit of Existing Buildings: California Case Studies	Performance Assessment of Tall Buildings
3:30 pm–5:00 pm	Recent Legal Developments Affecting Owners and Designers: Using Performance Targets to Manage Seismic Risk in the Legal Arena	Behind the Scenes of San Francisco's Mandatory Seismic Retrofit Program for Soft-story Buildings	Evaluation and Retrofit of Existing Buildings: San Francisco Bay Area Case Studies	Retrofit Solutions for Masonry Structures

SATURDAY, DECEMBER 12, 2015

8:30 am–10:00 am — **PLENARY SESSION**

- **D. Mar:** *Innovative Seismic Retrofit Solutions, with a Focus on New and Emerging Concepts*
- **L. Johnson:** *Building a Foundation for Resilience at the Community Level*

TRACK	Napa Earthquake	Resilience Framework	Steel Structures Retrofit	Case Studies	Future Directions
10:30 am–12:00 pm	Performance Assessment of Single-Family Dwellings Impacted by the 2014 South Napa Earthquake and the Need to Promote Effective Mitigation Policies Soft-Story Buildings	NIST Disaster Resilience Framework	Retrofit of Steel Structures	Evaluation and Retrofit of Existing Buildings: Case Studies of Various Building Occupancies	Future Directions

As of 4/24/15 – subject to change.

ATC & SEI CONFERENCE PROGRAM COMMITTEE

Chair, Roberto Leon, P.E., Ph.D., F.ACI, F.IABSE, F.SEI, F.ASCE
Virginia Institute of Technology

Thalia Anagnos, Ph.D., A.M.ASCE
San Jose State University

Kelly Cobeen, P.E., S.E., M.ASCE
Wiss, Janney, Elstner Associates, Inc.

Greg Deierlein, P.E., F.ASCE
Stanford University

Jack Moehle, P.E., Ph.D., M.ASCE
Pacific Earthquake Engineering Research Center

Farzad Naeim, Ph.D., P.E., M.ASCE
Farzad Naeim, Inc.

James Parker, P.E., M.ASCE
Simpson Gumpertz & Heger

Maryann Phipps, S.E.
Estructure

Peter Somers, P.E., M.ASCE
Magnusson Klemencic Associates

Jonathan Stewart, Ph.D., P.E., M.ASCE
University of California, Los Angeles

CORPORATE REGISTRATION PACKAGE

With plenary presentations and 29 high-quality technical sessions being offered over two and a half days, there will be a tremendous amount of new knowledge and information available at the 2015 ATC & SEI Conference. Recognizing that organizations need to balance educating their employees against non-billable hours spent out of the office, a corporate registration option is offered for this event.

The Corporate Registration package consists of a minimum of four "corporate" registration badges, which will be tagged to the organization rather than to an individual. Each badge can then be easily passed among various employees, enabling partial or full day attendance at the conference depending on need and interest of the individual. The bearer of the corporate badge would be entitled to attend any or all of the conference technical sessions and have access to the exhibit hall during refreshment breaks. One copy of the Proceedings is also included in the package, as well as one ticket to Thursday's opening reception. The registration fee for four badges is $1,500 (by August 1, 2015), which represents a discount of over 50% per badge. Tickets for the luncheons and the Awards Dinner may be purchased separately. Note that this option is only available to one organization and not individuals from multiple organizations.

To take advantage of this special corporate discount package, please register on the conference website, **www.ATC-SEI.org**. Confirmation of the corporate package registration will be sent to the contact person identified on the registration form. Individual badges may be picked up at the registration desk at the conference.

PROFESSIONAL DEVELOPMENT HOURS

Attendance at the conference also earns participants Professional Development Hours (PDHs), nationally recognized units of record in non-credit education programs. Participants in the entire program can earn up to 14 PDHs in a few short days.

AWARDS DINNER

Champions of Earthquake Resilience: Awards Dinner Benefiting ATC Endowment Fund and SEI Futures Fund

December 11, 2015, The San Francisco Maritime Museum

The Awards Dinner is a separately ticketed event to honor Champions of Earthquake Resilience. The purpose of the event is to recognize extraordinary leadership and support of seismic hazard reduction. The proceeds will benefit the ATC Henry J. Degenkolb Endowment Fund and the SEI Futures Fund.

The Awards Dinner will take place at this historic landmark, a marvel of art-deco architecture with classic terrazzo floors and fanciful murals and mosaics, with sweeping views of San Francisco Bay, Alcatraz, Sausalito, and the historic ships at Hyde Street Pier. The San Francisco Maritime Museum is part of the National Park Service Aquatic Park Historic Landmark District. The building was built in 1939 as a joint project of the City of San Francisco and the New Deal Works Progress Administration (WPA) and originally served as bathhouse. The building has been home to the Maritime Museum since 1951.

Dress: Cocktail

Cocktails: 6:30 pm

Dinner: 7:30 pm

Cost: $350 per ticket

Sponsorship: $10,000 tables (rounds of 10); net proceeds to be donated to ATC's Henry J. Degenkolb Memorial Endowment Fund and SEI's Futures Fund

Seating Capacity: 150 people

Dinner Committee: Charles Thornton, *Chair*

To purchase tickets or a table for this event, please visit the conference website: **www.ATC-SEI.org** or contact the ATC office at (650) 595 1542.

CONFERENCE REGISTRATION

Registration for the conference is open. Register before August 1, 2015 to get the lowest prices available. Online registration is available on the conference website **www.ATC-SEI.org** via credit card, PayPal, check, or purchase orders. For more information regarding registration, to register by phone, or to obtain a registration form, please contact: Applied Technology Council, 201 Redwood Shores Parkway Suite, 240, Redwood City, California, 94065. Phone (650) 595 1542.

Register online at: www.atc-sei.org/registration.html

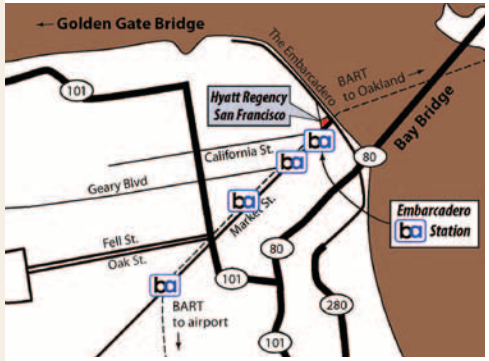
Registration Categories	Early Bird By 8/1/2015	Advance By 10/1/15	On-site After 10/1/15
FULL REGISTRATION			
Member[1]	$725	$800	$875
Non-Member	$800	$875	$950
Speaker/Moderator	$600	$700	$800
Full-time Student[2]	$195	$195	$195
DAILY REGISTRATION			
Thursday, Dec. 10, 2015	$350	$375	$400
Friday, Dec. 11, 2015	$350	$375	$400
Saturday, Dec. 12, 2015	$250	$275	$300
CORPORATE REGISTRATION			
Four Badges	$1,500	$1,600	$1,700
Additional Badge	$375	$400	$425
ADDITIONAL TICKETS			
Luncheon, Thurs. Dec. 10	$85	$85	$85
Luncheon, Friday, Dec. 11	$85	$85	$85
Proceedings	$100	$100	$100 if available
Opening Reception	$125	$125	$125

[1] Member of the ATC Subscription program, member of SEI or conference cooperating organizations (see full list on conference website)

[2] Full-time students must submit valid identification when registration form is submitted and on-site at the registration desk when picking up name badge

	Full Registration	Student Registration	Corporate Registration	Daily Thursday	Daily Friday	Daily Saturday
Technical Sessions	■	■	■	■	■	■
Networking Breaks	■	■	■	■	■	■
Opening Reception	■		One per organization			
Exhibit Hall Lunch, Thurs.	■	■		■		
Luncheon, Friday	■	■			■	
Proceedings	■	■	One per organization			
Awards Dinner						

HOTEL INFORMATION & RESERVATIONS



Hyatt Regency San Francisco

5 Embarcadero Center
San Francisco, CA 94111
Tel: +1 415-788-1234

Room Rates:
$229 Single or Double Occupancy

(Current taxes are 16.5% occupancy tax per room per night and a $13 per room night California Tourism assessment fee.)

Hotel Reservation Deadline:
November 17, 2015

For Online Reservations, please visit **www.ATC-SEI.org**

When making room reservations by phone, please request a room in the ATC-SEI Conference room block to receive the special conference rate. The hotel will extend the group rate to attendees three days before and after the conference dates, depending upon availability.

Transportation from SFO to Hyatt Regency San Francisco: The Hyatt Regency San Francisco Hotel (Conference site) is easily accessible from San Francisco International Airport (SFO), which is located 14 miles to the South, via taxi, shuttle, rental car, or BART (Bay Area Rapid Transit). Bart leaves the airport at 20-minute intervals, 4:00 am to midnight (weekdays); exit BART at "Embarcadero Station," immediately adjacent to the Hyatt Regency ($5.15 one way).

COOPERATING ORGANIZATIONS

American Concrete Institute

Council of American Structural Engineers

Earthquake Engineering Research Institute

Federal Alliance for Safe Homes

The Institute of Structural Engineers

Insurance Institute for Business & Home Safety

MAE CENTER — Creating a Multi-hazard Approach to Engineering

MCEER — Earthquake Engineering to Extreme Events

National Council of Structural Engineers Associations

OSHPD — Office of Statewide Health Planning and Development

PEER — Pacific Earthquake Engineering Research Center

SPUR

California Seismic Safety Commission

Structural Engineers Association of California

WSSPC — Western States Seismic Policy Council