Post-Disaster Safety Evaluation of Buildings & Infrastructure
ATC-20 Training

Training Session

Post-Disaster Safety Evaluation of Buildings (ATC-20)
The large devastating earthquakes in Nepal, Japan, Equador, and other recent large scale events are a potent reminder about the importance of disaster preparedness of our communities. After such large-scale disasters involving buildings, bridges, and critical urban infrastructure, assessing the damage and safety of this infrastructure is one of the most important first steps to disaster recovery. People are scared to return to their damaged homes, offices, and public spaces. Displaced citizens place an even greater demand on disaster response and recovery resources. Additionally, critical facilities such as hospitals required immediate inspection to continue providing essential healthcare services. Post-Earthquake Evaluation of Buildings (ATC-20) are the de facto standards for post-disaster safety evaluations of buildings in the United States and around the Pacific Rim. ATC-20 training is critical for our nation’s disaster preparedness to quickly assess building safety in the aftermath of a major disaster and to communicate that assessment effectively to the public.

Architectural Institute of British Columbia (AIBC) – Vancouver is hosting an 8-hour training session on post-disaster safety evaluation procedures (ATC-20) to help you develop the necessary skills to properly assess damaged buildings for occupancy and use following a major disaster. Taught by Structural Engineers with hands-on experience in disasters locally and internationally, you will learn current methods for performing post-disaster safety evaluations of buildings and infrastructure. Building safety evaluation exercises based on real-life examples of earthquake, tsunami, wind, and landslide damage from significant disasters in the U.S., Taiwan, China, Haiti, Chile, New Zealand and Japan will be presented.

Training Topics

- A detailed presentation of ATC-20 building safety evaluation procedures with an emphasis on the evaluation of critical hospital facilities.
- CAL OES SAP (California Office of Emergency Management Safety Assessment Program) training and certification will be available to licensed architects and engineers and certified building inspectors and officials.
- Training examples of damaged buildings from significant earthquakes, tsunamis, hurricanes, windstorms, floods, and landslides the United States, Chile, Haiti, China, Japan, Taiwan, and New Zealand.
- How do buildings and infrastructure structurally react to earthquake forces and other extreme loading?
- Procedures and example exercises for buildings constructed from wood, masonry, concrete, and steel.
- GREEN, YELLOW, and RED placards, what are they, what do they mean, and how do we use them?
- When and how do you perform a safety assessment and post a building?
- How to triage building safety evaluations and postings after a disaster?

Class Agenda

Welcome and Introductions
Disasters Overview
Seismology/Faults/Loads
Structural Basics/Load Path
ATC-20/45 Posting System
BREAK
Evaluation Procedures
CAL OES Safety Assessment Program (SAP) Overview
LUNCH
Wood Structures
Masonry Structures
Concrete Structures
Steel Structures
BREAK
Lifeline Facilities/Roads/Infrastructure
Nonstructural/Fixed Equipment
Geotechnical Hazards
Hazardous Materials
Field Safety

WHERE  Vancouver, BC, Location TBD
WHEN    January 30, 2017
TIME     9:00 am – 5:00 pm
CONTACT Krista Sutherland, ksutherland@aibc.ca
Instructors

David B. Swanson, P.E., S.E., F.SEI, M. ASCE
David is passionate about public safety, especially as it relates to how architects and engineers can lend their expertise in making our communities more disaster resilient. As a principal at Reid Middleton, Inc., Dave serves as the Director of Structural Engineering. Dave’s 27 years of structural design experience includes the design and seismic rehabilitation of buildings for healthcare and other essential facilities, commercial, institutional, academic, civic, and aviation projects throughout the Pacific Rim.

Erik Bishop, P.E.
Erik works as a project engineer at Reid Middleton, Inc., a 90-person structural and civil engineering firm with offices in Washington and Alaska. His structural engineering experience includes the design and analysis of reinforced concrete, steel, wood, and masonry structures. He enjoys the opportunity to collaborate with building owners, other design disciplines, and contractors to overcome many unique design and construction challenges in order to deliver successful projects.

Steven Bibby
Steven Bibby is the Senior Manager of Security and Emergency Services at BC Housing, leading the emergency management, business continuity and security programs for the provincial agency since 2005. He is a founder and previous Co-Chair of the Integrated Provincial Damage Assessment and Inspection Steering Committee, past Director with the Cascadia Region Earthquake Workgroup, and a member of the Integrated Disaster Council of BC and the Inter-Agency Emergency Preparedness Council of BC.

Reid Middleton Firm Profile
Reid Middleton is a civil and structural engineering consulting firm with an over 60-year history of serving public and private-sector clients throughout the western United States, Pacific Rim, and Middle East. The firm focuses on specific market-sectors that include aviation, civic, municipal commercial, education, healthcare, industrial, military, transportation, and waterfront. Reid Middleton serves as prime consultant to owners as well as consultants to architects and related design professionals.