Architectural Practice Committee

Mission Statement:

• Promote Architectural Practice within SAME.
• Broaden SAME’s exposure in the architectural community to attract more architects in SAME.
• Networking and mentoring.
Committee Leadership Team:

**Service Branch Liaisons**
- Army – Brandon Tobias, AIA
- Navy – Kathleen Reid, RA
- Air Force – Gene Mesick, AIA

**SAME National Architectural Practice Committee**
- Chair – Paula Loomis, PhD, FAIA, FSAME

**Continuing Education**
- Vice Co-Chairs – Rad Delaney, AIA, FSAME
- Harley Hightower, FAIA
- Jose Matute, AIA, LEED AP

**Communications**
- Vice Co-Chairs & Team –
  - David Packard, RA, PMP
  - Yvonne Simon, AIA
  - Daphne Gurri, AIA
  - Brandon Tobias, AIA

**Urbahn Medal Group Advisory Board**
- Dave Thompson, FAIA
- JJ Tang, AIA

**SAME Conferences**
- Vice Chair & Team
  - Frank Kaye, AIA
  - Laura Lavelle, AIA
  - Virgil Campanerie, AIA, RID

**Collaboration with AIA**
- Vice Chair – Ed Gauvreau, AIA
Service Branch Liaisons:

- Advising the committee on initiatives benefiting service branch architects.
- Encouraging and supporting interactions among industry and service branches.
- Encouraging participation from all service branches in SAME architectural activities.

- Army Liaison: Brandon Tobias, AIA, USACE HQ, Edmond.G.Gauvreau@usace.army.mil
- Navy Liaison: Kathleen Reid, NAVFAC Atlantic, kathleen.o.reid@navy.mil
- Air Force Liaison: Gene Mesick, AIA, Air Force Civil Engineer Center, gene.mesick@us.af.mil
Scott Lester is architectural liaison coordinator
Encouraging quality architectural programs in major SAME posts.

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<thead>
<tr>
<th>Location</th>
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<td>Kentucky</td>
<td>Leising, Luke</td>
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<td>TeamFour/Saur</td>
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<td>Washington DC Post</td>
<td>Franklin Kaye</td>
<td>EYP</td>
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Architectural Practice Committee
Announcements:
2017 Urbahn Medal – Get your nominations ready
2017 SAME Appreciation Award - Get your nominations ready
Progress Review/Discussions:

1. Continuing Education – Rad
   1. Webinars

2. Communications – Dave and Yvonne
   1. Newsletter – need materials: firm profile, feature articles, etc.

3. Collaborating with AIA – Ed

4. SAME Conferences – Frank
   1. JETC 23-26 May 2017 Columbus, OH
      1. Tour of Capitol, Ohio State and new riverfront
Progress Review/Discussions:
1. Service Representatives
2. Post/AIA Chapter Liaisons
3. Date for APC Jan Call – 19 Jan 2017
4. Old Business not Covered
5. New Business
6. Thoughts?
Contact information:

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• **Collaboration with AIA Vice Chair**
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• **Continuing Education Vice Chair**
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  Evelyn Simon, AIA

• **SAME Conference Vice Chair**
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  ADTEK Engineers
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Architectural Practice Committee webpage:
[http://www.same.org/apc](http://www.same.org/apc)
• Rachel Minnery, FAIA is an architect with over 15 years of design and management experience in both the public and private sector on building and planning projects with a focus on environmentally and socially responsible design. She is the Sr. Director of Sustainable Development Policy at the American Institute of Architects in Washington DC overseeing the institute’s programs for disaster, resilience and community development. Rachel frequently speaks and writes on issues in the built environment related to natural disasters, resilience, and public-interest design.

• As former-chair of the national American Institute of Architect’s Disaster Assistance Committee and co-founder of Architects Without Borders Seattle, Rachel advocates for and organizes architects to contribute volunteer design services to communities in great need. She has led groups of volunteer architects to disaster-stricken places, particularly Washington, Mississippi and Haiti, responding to floods, hurricanes and earthquakes. AIA National honored her with the 2013 Young Architect Award. She is also the recipient of the Graduate of the Last Decade (GOLD) award and Outstanding Alumni Award from Ball State University.
AIA CODE OF ETHICS

The AIAs Code of Ethics and Professional Conduct, Canon II, states that...

“Members should promote and serve the public interest in their personal and professional activities.”
The Design Assistance Program

**HISTORY**  Began in 1967—inspired by civil rights movement.

**BREADTH**  Over 200 communities in US & Canada since. Program modeled in UK and Europe.

DISASTER RESILIENCE DESIGN ASSISTANCE CASE STUDIES

Greensburg, KS
Hilo, HI
Joplin, MO
The Case for Resilience

NUMBER AND TYPE OF NATIONAL DISASTERS, 1950–2012
AIA Disaster Assistance Program

PUBLIC SAFETY  Damaged buildings can pose a lingering public threat for days or weeks following a disaster

ROLE OF THE ARCHITECT  In 1972, the AIA formally recognized the role of architects in emergency response

SAFETY ASSESSMENT EVALUATIONS  Hundreds of architects have volunteered to provide thousands of assessments since 2011 alone
Components of an AIA Model Policy

1. Liability Coverage – Good Samaritan Law
2. Clarity on Workers’ Compensation
3. Standard of Training
4. Activation of Volunteers and Network
5. Portability of Licensure

Each state is led by an AIA State Disaster Assistance Coordinator(s) to implement the policy
Role of AIA Chapter

- AIA Component Risk Assessment
- AIA Business Continuity Plan
- Create a volunteer roster
- Provide training and resources
- Network: Local building official, state licensing board
- Partnerships: Struc/Civil Engineer Planners
- Practice! (i.e. Sound SHAKE 2010)
Evaluating Building Damage
“Words cannot express my deepest gratitude for the assistance you sent the City of Tuscaloosa in the wake of the April 2011 tornado disaster. Thank you for your willingness to aid our city in its rebuilding process”

---Walter Maddox, Mayor of Tuscaloosa, July 2011

- 2 training sessions by AIA
- 6 volunteer days
- 5,000 structures
- $300,000 value in volunteer hours
- Residents return to their homes, reducing spending and resources
RECOVERY COSTS

- Loss of habitability
- Developing new building codes
- Mold remediation(s)
- Insurance assessments
- Repair options
- Insufficient flood insurance coverage
- Future insurance premium increases
- Flood "proofing"
- Homeowners insurance coverage
- Identifying the cause of flood damage
- City rebuilding requirements
- Flood elevation certificates
Hurricane Sandy
Design Help Desk
# Outdated Risks & Vulnerabilities

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<th>FIRM 1983</th>
<th>ABFE 2013</th>
<th>Change</th>
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<tr>
<td>Residents</td>
<td>218,000</td>
<td>447,000</td>
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<tr>
<td>Jobs</td>
<td>190,000</td>
<td>341,000</td>
<td>79%</td>
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<tr>
<td>Buildings</td>
<td>36,000</td>
<td>71,000</td>
<td>97%</td>
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<tr>
<td>Floor area (sq. ft.)</td>
<td>374 million</td>
<td>589 million</td>
<td>57%</td>
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*Source: FEMA*
Flood Mitigation

NYC FLOOD RESILIENCE AMENDMENT

HEIGHT
must recognize elevation
requirements in flood zones

ACCESS
need for stairs or ramps requires
imaginative solutions

MECHANICAL SYSTEMS
must allow relocation out of
flood-prone areas

PARKING
may not be possible below
ground

GROUND FLOOR USE
buildings may be allowed only
limited use of ground floors

STREETSCAPE
limit negative effect of blank
walls on streetscape
National Flood Insurance Program is $23 billion in debt

>> Costing the average household $500 between 2005–2013 (FEMA)
Architect’s Role in Disasters

1. Response
   - Volunteer Mobilization
   - Temporary Housing

2. Recovery
   - Detailed building assessments
   - Transitional housing
   - Community planning
   - Rebuild, retrofit, restore

3. Preparedness
   - Building performance analysis
   - Emergency response plan
   - Business continuity plan

4. Mitigation
   - Risk and vulnerability of buildings assessment
   - Building code changes and land use updates
   • Retrofits
Why Architects?

PUBLIC SERVANTS whose license comes with the obligation to “protect the health, safety and wellbeing” of the public

SYSTEMS THINKER who blend environmental science, building science and social science

PROJECT LEADERS absorb incredible amounts of information, prioritize issues to guide decision-making

FACILITATORS engage occupants, jurisdictions and communities in participatory design processes

VISIONARIES communicate a future imagined reality with creativity, innovation and the visual skills to convey ideas
Why Architects?

PROTECT THE PUBLIC

HEALTH + SAFETY + WELFARE
Adoption of Minimum Building Standards

$1 in pre-disaster mitigation saves $4 in disaster recovery
72% of firms see resilient design effecting trends and business, citing climate change and America’s aging population
COMMUNITY RESILIENCE.
“Buildings and communities are subjected to destructive forces from fire, storms, earthquakes, flooding, and even intentional attack. The challenges facing the built environment are evolving with climate change, environmental degradation, and population growth. **Architects have a responsibility to design a resilient environment that can more successfully adapt to natural conditions and that can more readily absorb and recover from adverse events.** The AIA supports policies, programs, and practices that promote adaptable and resilient buildings and communities.”
Shocks

- Infrastructure failure
- Hurricanes
- Earthquakes
- Wildfires
- Heat waves
- Blizzard
- Health epidemics

Stresses

- Flooding
- Tornadoes
- Acts of terrorism
- Civil unrest
- Dam failure
- Subsidence
- Liquefaction
- Affordable housing
- Aging population
- Environmental degradation
- Sea level rise
- Growing wealth gap
- Drought
- Species extinction
- Aging infrastructure
- Population growth
- Unemployment
- Melting polar ice caps
- Global warming
- Food scarcity
- Increasing pollution
Cascading Effects

An inevitable and sometimes unforeseen chain of events due to an act affecting a system.
Next Hurricane Season
25 Years from Now
Three Aspects of Resilience

- Climate Adaptation
- Thriving Communities
- Hazard Mitigation
Location, Location, Location. Infrastructure, Land Use, and Development

**EXISTING BUILDINGS** must be addressed. The majority of our future built environment already exists.

**LAND-USE REGULATION** is a prerequisite for sound building codes.

**POPULATION GROWTH** and development continue to expand and its resource base is dwindling.

**URBANIZATION** has consumed natural buffers.
Sustainability + Resilience

**REDUCE, RECYCLE, REUSE**
Conservation
Optimization
Efficiency

**MITIGATE, ADAPT, BE RESILIENT**
Address Short and Long term needs:
- Community Vulnerabilities
- Natural Disasters
- Other Hazards
- Climate Change
Principles of Resilient Practice

1. **REDUCE PENDING AND POTENTIAL NEGATIVE IMPACTS** on people and the environment as a minimum obligation to ensure health, safety, and welfare of the public as regulated through licensure.

2. **ENCOURAGE SOCIAL COHESION.**
   Incorporate design, construction practices, structures, systems and materials that provide for more resilient people, places, infrastructure, businesses and communities.

3. **REGENERATE.**
   Strive for design implementations that regenerate natural resources.

4. **PLAN FOR CHANGE.**
   Create systems and infrastructure that are flexible and adaptable to changing needs and technologies.

5. **MAXIMIZE SYNERGIES.**
   Align local, regional and national priorities for optimal impact and reduced financial burden. Solutions may identify multi-purposes or co-benefits to offset costs, create opportunities, or provide additional value.
WHAT IS A RESILIENT BUILDING?
A Resilient Building is:

- Adaptable
- Redundant
- Flexible
- Recognize inherent interdependencies
- Pride of Place
- Prepared
- Designed for full life cycle
- Addresses risk
- Smart Site Selection
- Of local place
- Strive for self-sufficiency
- Safe & secure
- Durable & accessible
- Minimum Negative impact
- Maintainable/serviceable
- Low carbon
- Maximizes daylighting
- Uses quality Materials
- Cradle to cradle
- Regenerative
Framework for Resilience

EDUCATION OF ARCHITECTS

COMPONENT INNOVATION & SUPPORT

ADVOCACY

PRACTICE-BASED RESEARCH

POLICY-FOCUSED RESOURCES

PARTNERSHIPS
Industry Statement

RESILIENCE IS DEFINED BY:

“Drawing upon the work of the National Research Council, we define resilience as the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.”
100 Resilient Cities

- Health & wellbeing
- Economy & society
- Leadership & strategy
- Infrastructure & environment

“Helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century.”
Federal initiatives and standards

NIST Community Resilience Planning Guide

TOWARD A MORE RESILIENT COMMUNITY
In conjunction with the White House event, the AIA announced that it will create a resilience curriculum for the professional development of architects, including resilient design and decision-making on hazard mitigation, climate adaptation, and community resilience.
THANK YOU.

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rachelminnery@aia.org

WWW.AIA.ORG/RESILIENCE