

CALL FOR PAPERS

ASCE Journal of Structural Engineering Special Issue

Structural Design and Robustness for Community Resilience to Natural Hazards

Guest Editors:

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Synopsis

Resilience is the ability of a community to prepare for and recover from a disaster in a timely manner with minimum disruption. Resilience reflects a community's preparedness and ability to respond to and recover from a disaster and enhancing community resilience is a national imperative (Presidential Policy Directive 21). A community consists of physical infrastructure made up of buildings, transportation networks, electrical power, water distributions systems, and communication networks. Well-designed structural systems are a necessary condition of a resilient community, but by themselves are not sufficient to guarantee community resilience. The performance of structural systems impacts social and economic systems and affects community recovery following an event.

Papers are invited for a special issue of the *ASCE Journal of Structural Engineering* that focuses on the role of structural systems in achieving community resilience. Although papers addressing the following topics are of particular interest, other contributions are welcome:

- (1) Criteria to help designers improve the functional performance of buildings and other structures to support community resilience;
- (2) New risk-informed design methodologies focusing on methods to achieve desired functionality for structures and networked infrastructure systems;
- (3) Methods to assess and/or improve structural and/or non-structural functionality following an event;

(4) Understanding the role and design requirements of structures to satisfy community performance objectives; and

(5) Community-scale network modeling methods and structural representations (fragilities, limit states, etc) in network models.

Preliminary Timeline:

May 1, 2016	First Call for Papers
June 1, 2016	Proposed Title and Authors Due
October 31, 2016	Paper Submittal Date
January 15, 2017	Reviews (Round 1) Completed
February 28, 2017	Revisions (if needed) Submitted
April 30, 2017	Contributions Complete

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