

# Structures Congress 2017

## Buildings and Special Structures



Selected Papers from the  
Structures Congress 2017

Denver, Colorado  
April 6–8, 2017



EDITED BY  
J. G. (Greg) Soules, P.E., S.E., P.Eng



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The Structural Engineering Institute (SEI)  
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J. G. (Greg) Soules, P.E., S.E., P.Eng



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## Preface

The Structures Congress has a robust technical program focusing on topics important to Structural Engineers.

The papers in the proceeding are organized in 4 volumes

Volume 1 includes papers on Blast and Impact Loading and Response of Structures

Volume 2 includes papers on Bridges and Transportation Structures

Volume 3 includes papers on Buildings and Nonbuilding and Special Structures

Volume 4 includes papers on Other Structural Engineering Topics including; Business and Professional Practice, Natural Disasters, Nonstructural Systems and Components, Education, Research, and Forensics

## Acknowledgments

Preparation for the Structures Congress required significant time and effort from the members of the National Technical Program Committee, the Local Planning Committee. Much of the success of the conference reflects the dedication and hard work by these volunteers.

We would like to thank GEICO and Pearl for Sponsoring the Congress proceedings and supporting the Structures Congress in such a generous way.



The Joint Program Committee would like to acknowledge the critical support of the sponsors, exhibitors, presenters, and moderators who contributed to the success of the conference through their participation.

On behalf of our dedicated volunteers and staff, we would like to thank you for spending your valuable time attending the Structures Congress. It is our hope that you and your colleagues will benefit greatly from the information provided, learn things you can implement and make professional connections that last for years.

Sincerely,

J. Greg Soules, P.E., S.E., P.Eng, SECB, F.SEI, F.ASCE

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