STRUCTURAL LOADS

2012 IBC® and ASCE/SEI 7-10

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ONLINE BONUS
FEATURE INCLUDED

NCSEA
National Council of Structural Engineers Associations

SEI ASCE
STRUCTURAL
ENGINEERING
INSTITUTE

ICC
INTERNATIONAL
CODE COUNCIL®

Contents

Preface

This edition updates this publication to the 2012 *International Building Code*® (IBC®) and the 2010 edition of *Minimum Design Loads for Buildings and Other Structures* (ASCE/SEI 7-10).

Readers who have used previous editions of this publication will immediately notice a significant increase in the explanatory material that is provided in each chapter. The main reason for including this basic background information is to help the reader understand the fundamental concepts that are behind the provisions in the IBC and ASCE/SEI 7.

Like the previous editions, this edition is an essential resource for civil and structural engineers, architects, plan check engineers and students who need an efficient and practical approach to load determination under the 2012 IBC and ASCE/SEI 7-10 standard. It illustrates the application of code provisions and methodology for determining structural loads through the use of numerous flowcharts and practical design examples. Included are the following major topics:

- Load combinations for allowable stress design, load and resistance factor (strength) design, seismic load combinations with vertical load effect and special seismic load combinations, and
- Dead loads, live loads (including live load reduction), rain loads, snow loads, ice loads, wind loads, earthquake load effects and flood loads.

New problem sections are included at the ends of most of the chapters. Solutions to these problems, which are available in a companion document to this publication, further illustrate the proper application of the code provisions.

A new section on ice loads has been added in Chapter 4. Also, a new Chapter 8 was added on load paths. Once loads are properly determined, it is important to understand the paths that these loads take through a structure. Gravity and lateral load paths are presented for various types of structures. The role of diaphragms and collectors is discussed for wind and seismic loads. Included are details that illustrate common load paths for a variety of situations.

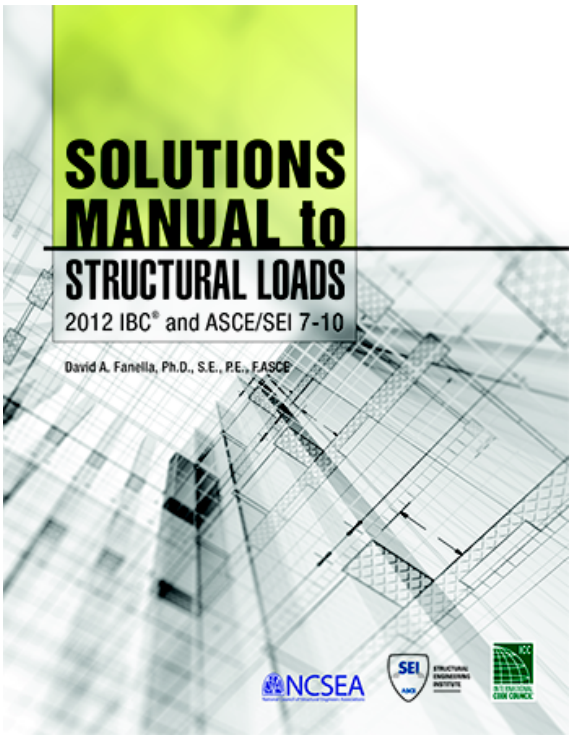
Structural Loads - 2012 IBC and ASCE/SEI 7-10 is a multipurpose resource for civil and structural engineers, architects and plan check engineers because it can be used as a self-learning guide as well as a reference manual.

Enhance Your Study Experience

The Solutions Manual to Structural Loads is a free bonus learning tool just right for you.

STRUCTURAL LOADS - 2012 *IBC*® *AND ASCE/SEI* 7-10 includes a companion Solutions Manual to help enhance your understanding of how to solve structural load problems. The Solutions Manual restates each problem in the book and provides complete solutions to many practical situations. The Solutions Manual covers Chapters 2 through 7 and includes:

- Chapter 2 – Load combinations
- Chapter 3 – Dead, live, rain and soil lateral loads
- Chapter 4 – Snow and ice loads
- Chapter 5 – Wind loads
- Chapter 6 – Earthquake loads
- Chapter 7 – Flood loads



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