

1. Record Nr.	UNINA9911004774503321
Titolo	Wind issues in the design of buildings // prepared by Committee on Structural Wind Engineering of the Technical Council on Wind Engineering of the American Society of Civil Engineers ; edited by Leighton Cochran
Pubbl/distr/stampa	Reston, Va., : American Society of Civil Engineers, c2012
ISBN	0-7844-7687-X
Descrizione fisica	1 online resource (108 p.)
Altri autori (Persone)	CochranLeighton
Disciplina	693.8/5
Soggetti	Buildings - Aerodynamics Wind resistant design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1 Wind Issues in the Design of Buildings; Chapter 2 Extreme Winds (Storms); Chapter 3 Cladding Pressures; Chapter 4 Structural Loads; Chapter 5 The Wind Tunnel and Physical Modeling of the Wind
Sommario/riassunto	Sponsored by the Technical Council on Wind Engineering of ASCE. Wind Issues in the Design of Buildings explains the ways that structural designers accommodate the impact of extreme wind events on the built environment. By studying the flow and pressure fields around buildings, architects and engineers can identify and select the best strategies for ensuring that a building will resist the loads due to high winds, maintaining pleasant conditions in outdoor spaces, assessing natural ventilation potential, and seeing that any exhaust fumes are dispersed adequately. This volume identifies wind characteristics and describes the effects of winds generated by hurricanes, tornadoes, and thunderstorms. It explains the internal and external pressures on a building's cladding (skin) and the effects of wind-borne debris. A building's response to the structural loads caused by wind is outlined, along with techniques for resisting wind. A chapter is devoted to wind tunnels and physical modeling to predict structural loads, cladding response, pedestrian experience, topographic effects, and snow deposition. A section of frequently asked questions, a glossary, and recommended reading make this material in this volume accessible to

students and nontechnical members of project teams. Structural engineers and architects will find this book a useful aide in explaining wind-related issues to clients, builders, building officials, and owners. Students in structural and architectural engineering will welcome the clear, concise presentation of an important component of structural design.
