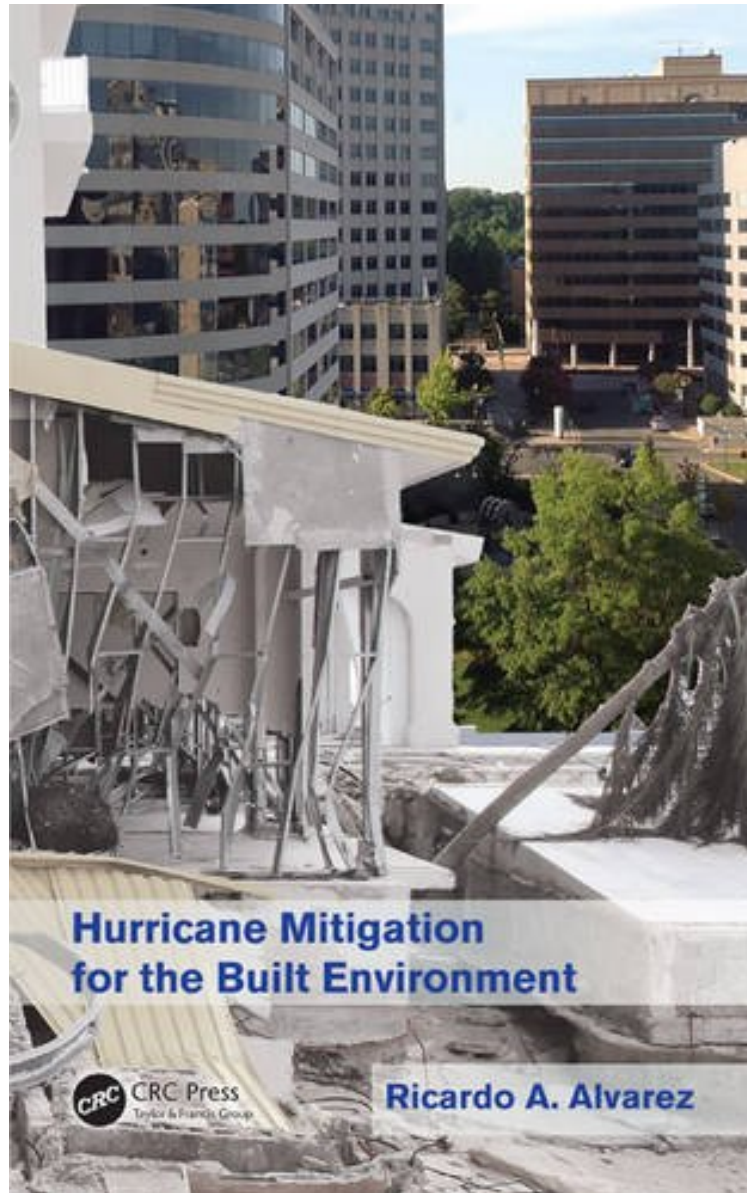


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Hurricane Mitigation for the Built Environment

Ricardo A. Alvarez

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Ricardo A. Alvarez : Hurricane Mitigation for the Built Environment before purchasing it in order to gage whether or not it would be worth my time, and all praised Hurricane Mitigation for the Built Environment:

0 of 0 people found the following review helpful. Quick read provokes questions and sharpens thought.By CustomerAfter reading this book, I want to immediately investigate the envelope of our high rise. How are the roof tiles attached? What size fasteners attach our roof mounted AC equipment and do we employ redundant fastening

methods? How does our roof drainage system work? Have we elevated our basement generator? etc. Very readable.

"Alvarez drives home the point that for buildings and communities located in hurricane-prone regions, it is not a question of whether the area will be impacted, but when it will be impacted. The book makes a strong case for taking responsibility to understand the vulnerabilities of buildings and structures to hurricane impacts." Timothy Reinhold, PhD, from the Foreword Focusing on coastal regions affected by tropical cyclones, *Hurricane Mitigation for the Built Environment* highlights vulnerability, natural hazards, risk, damage, emergency management, and hazard mitigation as they relate to the threat and occurrence of hurricanes. The product of more than 25 years of the authors experiences with post-event assessments and studies of hurricane damage, it looks particularly at common sequences of failures and oversights in planning for a hurricane that amplify the damage caused by storms. This book combines observations of actual damage to the built environment in coastal regions caused by hurricanes with applied research and testing. It uses case studies and imagery from recent storms to show some of the strengths and weaknesses of infrastructure, landscaping, and city planning. The case studies also illustrate, in great detail, what community planning efforts have worked and those that have failed. The book also goes beyond analyzing immediately visible structural damages following a hurricane. It addresses long-term issues such as beach erosion and struggling tourism economies. It also describes specific, realistic, and essential mitigation measures for reducing the damage potential of future hurricanes and urges developers, designers, and owners to incorporate new knowledge into the design of new buildings or into the retrofitting of existing buildings. By applying the information presented in this book, communities susceptible to recurring hurricanes can reduce storm damage as well as the potential for extended losses that frequently follow a hurricane.

"I just finished reading *Hurricane Mitigation for the Built Environment* and realize I need to immediately run to our roof to see what shape it is in and how our equipment is anchored. Alvarez writes with such great clarity that the book is an easy read. I just ordered a second copy to share with our condominium's board of directors and maintenance staff!" Bernard Horowitz, Ph.D., Co-Founder, V.I. Technologies, Inc.; Board Member, The Cleo Institute

About the Author Ricardo A. Alvarez is an internationally known consultant, subject-matter expert, applied research scientist, former college professor, author, and speaker, focusing on the performance of the built environment in the context of vulnerability to natural hazards, risk management, hazard mitigation, emergency management, and adaptation to climate change. He began focusing on how buildings perform under the impact of natural hazards as an architecture student in California, complementing his design work by conducting research using smallscale models to visualize the behavior of structures under various loading conditions, and how damage takes place under such impacts. Early in his career, he had a chance to convert the knowledge he had acquired through analytical and experimental research into actual practice when he experienced a major earthquake in his native Nicaragua and had the opportunity of assessing damage on numerous buildings, and of formulating plans for repairs and reconstruction with the objective of making buildings stronger against future expected impacts. That early experience taught him invaluable lessons that contributed to a philosophy of design and professions, which he had begun formulating as a student, learning about building performance under external impacts. Among these lessons, the value of empirical knowledge acquired through field work and observation of damaged buildings in the aftermath of a disaster have become central to Ricardos approach to reducing the potential for damage to the built environment from expected impacts of natural hazards. Another valuable lesson Ricardo has incorporated into his philosophy of work is that a practical methodology toward hazard mitigation based on empirical knowledge, complemented as needed by experimental and analytical work, will be effective independently of the type of natural hazard prevailing in any given region. Ricardos lifetime work is proof of this. He has over the years successfully converted this method into a multihazard approach to mitigation that has worked effectively in cases of hurricanes, floods, and other hazards, and as a foundation for his work on adaptation of the built environment to climate change. Ricardo has engaged in vulnerability, risk, and damage assessment field work in the United States and other countries posthurricanes Gilbert, Andrew, Mitch, Opal, Ivan, Katrina, Wilma, and many more, developing an empirical approach for characterizing impacts, assessing the causality of damage, and identifying effective hazard mitigation and adaptation measures to reduce the potential for damage to the built environment. Ricardo is a former deputy director of the International Hurricane Center (1997-2004). He has served in the Miami-Dade County Local Mitigation Strategy Steering Committee (LMS), the Florida State Hazard Mitigation Plan Advisory Team (SHMPAT), and the CLEO Institute Advisory Board.