## **Table of Contents**

## INFORMATION ABOUT THE AUTHORS

INTRODUCTION	1
CHAPTER 1 BUILDINGS WITH A WALL CONSTRUCTION SCHEME MADE OF SMALL-SIZED ELEMENT.  1.1 Brief overview and features of architectural and structural solutions of buildings with a wall structural scheme made of small-sized elements. 1.2 Assessment of damage and stability of wall buildings made of small-sized elements due to military factors. 1.3 Failure mechanisms and loss of load-bearing capacity in masonry structures composed of small-scale units under explosive and debris loading. 1.4 Generalization of damage patterns in wall structural systems composed of small-scale elements.	s 7 
CHAPTER 2 FRAME-TYPE BUILDINGS  2.1 Features of architectural and structural solutions of frame-type buildings  2.2 Analysis of damage to load-bearing structures of frame-type buildin 2.3 Summary of observed damage and guidelines for the restoration and reinforcement of damaged frame structures.	24 24 28
CHAPTER 3  LARGE-PANEL HOUSES.  3.1 Features of architectural and structural solutions of large-panel hous 3.2 Analysis of damage to load-bearing structures of large-panel buildings caused by military operations.  3.3 Generalization of damage to large-panel buildings caused by military actions.	40 ses. 40
CHAPTER 4 BUILDINGS FROM VOLUME BLOCKS.  4.1 Structural schemes of buildings from volume blocks.  4.2 Analysis of damage to buildings made of volumetric blocks caused by off-design impacts.  4.3 Summary of damage and brief recommendations for the restoration and reinforcement of damaged elements of reinforced concrete volumetric blocks of the building	58

CHAPTER 5
ANTENNA COMMUNICATION STRUCTURES
5.1 General information about the operation
of communication antenna structures under martial law
5.2 Classification of mobile communication antenna structures
5.3 Analysis of damage to supporting structures
of communication antenna structures caused by military operations 80
5.4 Summary of damage to communication antenna structures caused
by military operations
CHAPTER 6
TRANSPORT BRIDGE STRUCTURES 91
6.1 Features of design solutions and classification
of transport bridge structures 91
6.2 Analysis of damage to load-bearing structures
of transport facilities caused by military operations
6.3 Summary of damage to transport bridge structures caused
by military operations
CHAPTER 7
STEEL SILO STRUCTURE
7.1 Structural diagrams of steel silo structures 101
7.2 Analysis of damage to silo structures caused by off-design impacts 104
7.3 Summary of damage and brief recommendations
for restoration and damaged elements of steel silos
REFERENCES 115