



KEY ISSUES OF SUSTAINABLE PERFORMANCE FOR CONSTRUCTION PROJECTS

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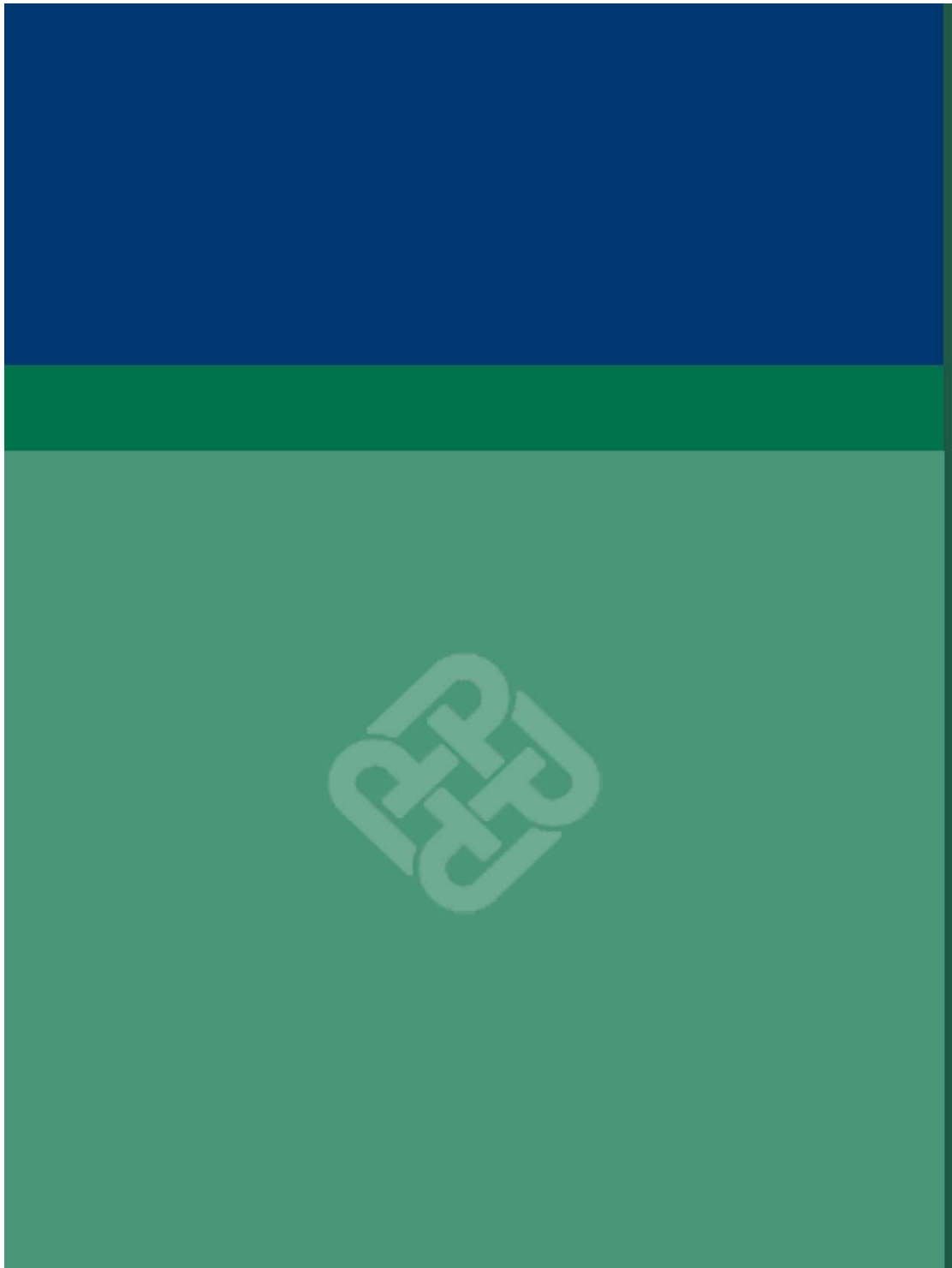
SDP Research Group

Department of Building & Real Estate



THE HONG KONG
POLYTECHNIC UNIVERSITY

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Key Issues of Sustainable Performance for Construction Projects

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External Commentary *One* for

“Key Issues of Sustainable Performance for Construction Projects”

Sustainable development and sustainable performance are terms susceptible to a range of interpretations. Sustainability is a concept that is sufficiently broad that a singular definition is perhaps elusive and certainly all the nuances of its manifestation are difficult to appreciate. Notwithstanding, there is general agreement that the uncontrolled exploitation of natural resources is counterproductive to humankind and harmful to the planet. To maintain the future capability and capacity for future generations to evolve and prosper, ways must be found to ensure that the further development of the world's infrastructure is achieved with a long-term perspective and one sensitive to the truly effective use of natural resources. The construction industry and the built environment lie at the heart of sustainable development. Approximately one-tenth of the global economy is directed to designing, constructing and operating domestic and commercial infrastructure. Four-tenths of the world's natural materials are used within the construction sector whilst waste products, air emissions, pollution and contamination are synonymous with construction activities.

The considerable and onerous challenges for the construction industry were highlighted in the CIB Report - *Agenda 21 on Sustainable Construction*. The strategies and actions required to address this most difficult of challenges were presented in a framework by which sustainable construction could be enabled through positive practices. Management and organisation are the foundations of corporate and operational core business practices which can support not only the technical aspects of construction but also the economic, political, legal and social dimensions which support the development, production and operations processes. Management methods which can impact upon the provision of sustainability need to be effective and, moreover, become intrinsic to construction.

A better understanding of sustainable development is prerequisite to the promotion of more efficient and effective construction practice. *Key Issues of Sustainable Performance for Construction Projects* is a publication based on detailed and comprehensive research that recognises and addresses those challenges of sustainable construction presented now and likely to occur in the future. The book conceptualises and contextualises sustainable construction, looks at the issues and challenges presented and the strategies and actions needed in response. It provides a detailed insight of environmental performance and its measurement and presents a prototype model of assessment for application. Furthermore, it examines the implications of sustainable development and its environmental-related dimensions upon the business of construction and the implications of legislation and regulation. In particular it focuses on demolition and waste management, an important dimension of environmental management in Hong Kong construction industry, and examines a systems approach to enhance the efficiency and effectiveness of waste management practices.

Professor Dr. Alan Griffith

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External Commentary *Two* for

“Key Issues of Sustainable Performance for Construction Projects”

It is my great pleasure that I had the opportunity to review this research monograph arising from the newly formed Sustainable Development Process (SDP) research group at HKPU. The five papers included here cover a broad range of important issues from sustainable construction and environmental performance indicators through to environmental management performance and waste management. As a writer and fellow researcher on sustainable practices for the built environment, I am delighted to see my HK colleagues are also passionate about reducing construction industry impact on global resources and ecosystems, and for this reason alone I would recommend their investigations to you. I hope this publication is the first of many and I look forward to reading about further research from SDP in the years ahead.

Professor Craig Langston

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