30-45%, as well as improved material predictability and reliability. Even though the construction industry has not kept pace with the automation and computerization that have characterized various manufacturing and service industries in other European countries. The book describes the multiple criteria which inform decision making and how this new knowledge and thereby embed a deeper level of understanding in readers. Illustrative case studies and graphs. The contents of The Construction Chart Book are relevant to owners, contractors, unions, workers, and others organizations affiliated with the construction industry, such as health providers and workers compensation insurance companies, as well as researchers, economists, trainers, safety and health professionals, and industry observers.


Green Roof Retention Soin, G. Wilkinson 2016-06-02 A deep understanding of the implications of green roof retrofit is required amongst students and practitioners to make the decisions and take the actions needed to mitigate climate changes. Green Roof Retention builds on Green Roof Construction, but expands its scope to address the development of this new knowledge and thereby embed a deeper level of understanding in readers. Illustrative case studies and examples are drawn from countries outside of the core researched areas to demonstrate the application of the knowledge broadly in areas such as the United States, Canada, and other European countries. The book describes the multiple criteria which inform decision making and how this provides a way forward for making better decisions about green roof retrofit in different countries and climates.

Construction Technology—Mark W. Heth 1999

Building Information Modeling—André Bormann 2018-09-19 Building Information Modeling (BIM) refers to the consistent and continuous use of digital information throughout the entire lifecycle of a building facility, including its design, construction and operations. BIM methods provide a comprehensive approach to implementing the key principles and applications is essentially. Accordingly, this book combines discussions of theoretical foundations with reports from the industry on currently applied best practices. The book’s context is divided into six parts: Part I discusses the technological basis of BIM and addresses computational methods for the geometric and semantic modeling of buildings, as well as methods for process modeling. Part II covers the important implementation aspects of all BIM methods. Part III introduces BIM in the Construction Industry Foundation Classes. It presents the different classification systems, discusses the data format CityGML, for describing 3D city models and CityGML for handling over data to clients, and also provides an overview of BIM technology—urban scale and BIM for an overview of digital tools and interfaces. Part III is dedicated to the philosophy, organization and technical implementation of BIM-based collaboration, and discusses the impact on legal issues including construction contracts. In turn, Part IV covers a wide range of BIM use cases in different lifecycle phases of a building facility, including the use of BIM for design coordination, structural analysis, energy analysis, code compliance checking, quality take-off, predictive maintenance and error prevention. In Part V, a number of design and construction companies report on the current state of BIM adoption in connection with actual BIM projects, and use the conference for the purpose of shaping the BIM trend, including the hurdles taken. Lastly, Part VI summarizes the book’s content and provides an outlook on future developments. The book was written both for professionals using or programming such tools, and for students in Architecture and Construction Engineering programs.

Print Reading for Architecture and Construction Technology—David Mak and 2012-08-15 PRINT READING FOR ARCHITECTURE AND CONSTRUCTION TECHNOLOGY, 3E provides the knowledge and skills needed to accurately interpret blueprints for residential and light commercial construction. This easy-to-use text exposes all aspects of print reading, with examples and illustrations taken from actual architectural prints. Readers are provided with the information they need to create high-quality, standardized real world working drawings. In addition, this edition is fully updated with CAD-generated print reading examples, illustrations, and exercises that comply with the highest industry standards of computer-aided design and drafting. Important Notice: Media content referenced within the product description or the product test may not be available in the ebook version.


Total Sustainability in the Built Environment—Alison Cotgrave 2012-12-06 The first textbook in sustainable construction bringing together the whole range of topics from planning through to facilities management in an accessible and engaging way, and complete with illustrations and photographs. Written by experts and including real-world case studies, this book can be used as a core text or across several modules.

The 19th International Conference on Industrial Engineering and Engineering Management—Ershi Qi 2013-06-25 The International Conference on Industrial Engineering and Engineering Management is sponsored by the International Engineering Management Institute, which is a global thought leadership organization for Industrial Engineering. The conference is held annually as the major event in this area. Being the largest and the most authoritative international academic conference held in China, it provides an academic platform for experts and entrepreneurs in the areas of international industrial engineering and management to exchange their research findings and experiences. The papers present the global state of the art of industrial engineering and management, and focuses are on the conference to review, exchange, summarize and promote their achievements in the fields of industrial engineering and management engineering. For example, some experts pay special attention to the current state of the application of related techniques in China as well as their future prospects, such as green product design, quality control and management, supply chain and logistics management to address the need for, amongst other things low-carbon, energy-saving and emission-reduction. They also offer opinions on the outlook for the development of related techniques. The proceedings offers impressive methods and concrete applications for experts from colleges and universities, research institutions and enterprises who are engaged in theoretical research into industrial engineering and engineering management engineering. The conference is an important platform for those involved in research and development, and is an effective way of sharing the latest knowledge and experience of the various water resource management approaches such as: separation and purification (end of discharge pipe); zero discharge approach; green process development; flow management approach, and preservation and control approach. This coverage is followed by deeper discussion of individual techniques and their applications. Covers water treatment approaches including: separation and purification (end of discharge pipe); zero discharge approach; green process development; flow management approach, and preservation and control approach. Discusses water treatment process selection, trouble shooting, design, operation, and physics-chemical and treatment Discusses industry-specific water treatment processes

Barry’s Advanced Construction of Buildings—Stephen Emmitt 2018-03-01 Barry’s Advanced Construction of Buildings is the fourth edition of Barry’s Construction of Buildings expands the resource that has become a standard text on the construction of buildings. The fourth edition covers the construction of larger-scale buildings (primarily residential, commercial and industrial). The text is comprehensive in coverage and written in a logical and easy-to-read style. The book covers all aspects of construction, including foundation, framing, insulation, and roofing. It also includes a chapter on sustainable construction, which discusses the latest trends in environmentally friendly construction techniques. The book is intended for students in building and construction technology and can be used as a text for either a course in construction technology or as a reference tool. Written for undergraduate students and those working towards similar NFC level 5 and 6 qualifications in building construction, Barry’s Advanced Construction of Buildings is a comprehensive guide to construction practice. It covers the materials and technologies involved in constructing larger scale buildings.

Building Construction Handbook—R. Churton 2006-03-14 This 6th edition includes numerous revisions, amendments and updates to bring the book in line with ongoing changes in building construction. It is a reference source of construction that are designed to economize and manage the use of fuel energy in buildings and limit the effect on atmospheric pollution.