CONSTRUCTION PROCESS AND PROJECT MANAGEMENT

NEW TITLES

Handbook of Project Management Procedures 66
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JOURNALS

Civil Engineering
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www.thomastelford.com
This Handbook is structured into four distinct parts -

1. Introduction - the concept of the ‘living book’
2. Projects - three integrated structures for managing projects
3. Project Management procedures - how to use them
4. Route Maps - from inception to completion

This book provides definitive, comprehensive, step-by-step, best-practice processes for managing any type of project from start to finish.

This is the book that everyone involved in projects has been waiting for, but until now has not been available. It is not academic. It is not of a general nature. This is the first practical, project management book that provides working standards and practices in the recognised project management knowledge areas. It will be of significant guidance and assistance to all those engaged in projects and their management.

Today’s enlightened leaders recognise that projects are the basis by which organisations achieve their strategic targets. They are also acutely aware that the management processes used on project work are different to that used on other types of organisational work. As most people are involved, in some way or other in projects, this Handbook will be invaluable in providing ‘a way to do it’.

Project managements importance to corporations and public bodies is becoming more and more evident. This book provides a comprehensive guide for consultants and practitioners involved in construction projects, and it will be invaluable for all those seeking to improve the efficiency of their business and what they do.

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1. Introduction - the concept of the ‘living book’
2. Projects - three integrated structures for managing projects
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This book in many ways breaks new ground and is unique. As a Handbook it is the ideal ready-reference for any user involved in projects and project management. As a ‘living book’ the users have the opportunity to relay their experiences and comments directly to the author through registering in the ‘Sign up for the alumni’ section and influence and enhance future editions of this publication.

For more information visit www.pmhandbook.com

Best Practice Tendering for Design and Build Projects
Alan Griffith and Andrew King, Sheffield Hallam University and Andrew Knight, Nottingham Trent University

There is increasing pressure upon clients, in particular government departments and local authorities, to procure construction projects in a best practice manner. Design and Build is one procurement approach used extensively, both in the UK and worldwide; being recognised for its capability to deliver real value to both public and private sector clients.

This book is based on the findings of an Engineering and Physical Sciences Research Council (EPSRC) funded project. It reports on the factual experiences of those construction practitioners involved in Design and Build procurement and presents practical tools for the application of best practice tendering. This book provides a comprehensive guide for consultants and practitioners involved in the procurement process.

CONTENTS

- Introduction
- Design and Build
- The development of tendering arrangements in the construction industry
- Pre-qualification
- Competition in Design and Build projects
- Published guidance, ethical and practical considerations
- The practical application of best practice tendering
- References
- Index

“Buildability demonstrates that projects that go well and leave satisfied clients and contractors are based on thorough planning and design. However, there are many factors to consider to achieve a successful outcome. These include the implementation of guidance on fair practice, better management and improved techniques suggested by the Latham and Egan reports, and the application of improved health and safety measures. Also required is a knowledge of practical construction and the incorporation of this knowledge into the project details from the outset.

This excellent book lists simple proposals, put forward by a variety of experienced people, which, if implemented correctly, will help reduce construction problems and cost, and make work more straightforward and safe.

Buildability is a practical guide based on extensive experience of construction projects, and it will be invaluable for all those seeking to improve the efficiency of their practice.

CONTENTS

- The state of the industry
- The health and safety issues
- The business requirements
- Good practice in the construction process
- The future
- References
- Index

Buildability
Successful construction from concept to completion
Trevor M Holroyd

This book fills an important gap in construction literature and makes a positive contribution to improving buildability and hence efficiency. I am sure it will benefit its readers and the construction industry generally.”

Sir Frank Gibb

Buildability demonstrates that projects that go well and leave satisfied clients and contractors are based on thorough planning and design. However, there are many factors to consider to achieve a successful outcome. These include the implementation of guidance on fair practice, better management and improved techniques suggested by the Latham and Egan reports, and the application of improved health and safety measures. Also required is a knowledge of practical construction and the incorporation of this knowledge into the project details from the outset.

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Strategic Management Applied to International Construction
Rodney Howes, Chairman of the Innovation and Research Committee of the Construction Industry, UK and formerly Head of the School of Construction, South Bank University and Joseph H M T ah, Professor of Construction Management, South Bank University

This book has been specifically written to provide a broad coverage of the knowledge required to address strategic issues relating to the business of construction on a global scale. Unlike previous books in this area, it is not biased towards practice in any particular country. Instead, it provides...
knowledge that is universally applicable. This knowledge is supported by a series of case studies of leading consultants, contractors and suppliers of products, materials and construction equipment to highlight current best practice by organisations in America, Japan and Europe. Supporting the text are numerous diagrams, charts and tables to help visualise the key issues.

Strategic Management Applied to International Construction will be an excellent reference work for practitioners across all construction related disciplines who are seeking to supplement their strategic business knowledge and expertise in the broad spectrum of international construction. The book will also be essential reading for postgraduate students studying construction management and for undergraduates who are studying specialist options.

CONTENTS

- Introduction
- Preparation for entry into international construction
- International trade and the nature of international construction
- Corporate strategy
- Marketing, competitive advantage and procurement
- International construction finance
- International management culture
- International human resource management
- Organization structure and management systems
- Communications
- Project management
- Future horizons

Managing Innovation in Construction
Martijn Jones and Mohammed Saad, University of West of England

This book investigates best practice across different sectors of the economy and their transfers into the context of construction. It examines the development and diffusion of innovation to address adversarial relationships, the fragmented processes and lack of customer focus which still characterise much of the industry.

It explains systematically how construction must respond to the raft of new management processes expounded throughout the past decade in a bid to achieve a more appropriate approach for business innovation in construction. Through a number of practical case studies, the authors demonstrate how steps towards innovation through management systems and processes are applicable in key organisations involved in the construction process.

Doing it Differently

David Blockley, University of Bristol and Patrick Godfrey, Halcrow

This informative and practical book provides numerous tools, techniques and case studies that will help change the way things are done within the construction industry. It explores the rapidly changing expectations of the clients of the construction industry and includes a tool kit to help make a difference. It also encourages both clients and industry to explore the concepts outlined in the Government’s report Rethinking Construction, and helps develop its basic ideas focused on the customer process and people.

CONTENTS

- Preface
- Part 1: The need to do it differently; Meeting the challenge
- Part 2: Thinking differently; Focussing on process; Finding leverage; Hard & soft; Practical foresight
- Part 3: Making the difference; Business cases; Managing the team; Managing the life-cycle; Looking to the future

Capturing Client Requirements in Construction Projects
John M Kamara, University of Newcastle-upon-Tyne, Chimay J Anumba, University of Loughborough and Nosa F Evbuomwan, Divine Inc.

This book describes an innovative and structured approach for capturing client requirements on construction projects. The new approach, encapsulated in a Client Requirements Processing Model (CRPM) and associated prototype software, ClientPro, facilitates better understanding and implementation of clients’ requirements, more effective collaborative working and design creativity. CRPM also promotes effective facility management by ensuring early identification of issues affecting the whole life cycle.

CONTENTS

- Introduction
- Briefing and client requirements processing
- Tools and methodologies for client requirements processing
- Methodology for client requirements processing
- Capturing client requirements with the client requirements processing model
- ClientPro: software version of the client requirements processing model
- Summary and conclusions

Construction Creativity Casebook
David Langford and Branka Dimitrijevic, University of Glasgow

Many innovations in the UK construction industry are in response to government initiatives based on the Egan Report. This publication provides a background and profile of innovations in the UK construction industry through an analysis of the innovations presented within the Network of Construction Creativity Clubs (NCCCI).

The analysis of collected data shows that significant efforts are being made in the construction industry, academia, professional organisations, and through government initiatives to stimulate and achieve improvements. Innovations are taking place in all construction related areas, especially in environmental impact management, contracting and partnering, procurement, and application of IT.

Building Innovation

Complex constructs in a changing world
David Gann, University of Sussex

This book presents an understanding of how to manage contemporary change. It starts in the Machine Age, showing how a sophisticated set of industries and design processes have evolved to work with new materials, components and systems, culminating in the experiences and skills needed to integrate systems in the Digital Age. The book compares approaches and draws lessons from Europe, Japan and North America. It addresses the role of government policies and professional institutions in supporting innovative approaches aimed at improving performance in construction. It concludes with lessons for the management of technology and innovation in project based firms.
Design Chains
A handbook for Integrated Collaborative Design
S Austin, A Baldwin, D Root, D Thomson and A Thorpe, Loughborough University, J Hammond and M Murray, AMEC

2001 Paperbound 240pp
297 x 210 mm 0 7277 3039 8 £50.00

This book presents innovative thinking on supply chain management. Springing from the work of the Integrated Collaborative Design (ICD) research project, a combined industry and academic initiative, it presents a set of key principles and practices that provide a new approach to design management – the design chain. It describes how design can be understood, managed and optimised to add value for clients. The practices developed through ICD and described in the book provide a timely response to the need to manage design complexity to help collaborating organisations deliver projects that meet client needs.

Benefits of an ICD approach include:

■ creating business level frameworks for organisations to collaborate for mutual benefit on projects
■ aiding understanding of design information flows
■ helping organisations align their competencies and business cultures
■ promoting value adding design solutions
■ integrated processes across organisations.

Procurement Routes for Partnering
Practical Guide
Dr Jon Broome

2002 Hardbound 416pp
230 x 156 mm 0 7277 3136 X £45.00

This book is aimed at those who want to apply, or improve the application of, partnering to their projects in the construction and heavy engineering industries. It focuses on procurement aspects and is based on the premise that unless the commercial and contractual conditions align objectives, there is little stimulus to change the culture and integrate processes and teams to achieve the outstanding results that can be attained through partnering.

This invaluable book presents detailed information about partnering and procurement process, which will lead to better delivery of construction projects. More specifically Procurement routes for partnering looks at:

■ a practical model for applying partnering in your projects
■ the principles and tools – as well as a generic process – for developing any procurement strategy
■ a review of traditional contractual arrangements; when to use them and their suitability for partnering
■ the concepts, process and mechanisms for developing a balanced incentive plan
■ specific considerations when using incentives to improve time, quality, performance in use, service and/or health and safety
■ the ten key implementation points when using target and reimbursable contracts
■ when to use alliances – both project and strategic, and their key implementation points from a procurement perspective.

Written in accessible language and using accelerated learning techniques to promote comprehension and retention, Procurement Routes for Partnering translates cutting edge thinking and academic rigour into practical application. It is a ‘must-read’ for any construction professional involved in setting up a partnering relationship.

Contracting for Business Success
Andrew Cox and Ian Thompson, University of Birmingham

“. . . A highly informative insight into contracting practices. It offers essential guidance that is relevant to all contract managers.”
Martyn Osborn, Scottish Hydro-Electric plc

1998 Hardbound 340pp
230 x 156 mm 0 7277 2600 5 £40.00

Partnering in Europe
Incentive based alliancing for projects
Bob Scott

2001 Paperbound 160pp
297 x 210 mm 0 7277 2965 9 £45.00

This handbook provides a practical guide for creating and implementing project specific alliances, primarily for engineering construction activities for private-sector clients.

Contents
Part 1: What is partnering – why adopt alliancing?
■ Potential barriers to alliancing
■ Legal considerations
Part 2: Implementing an alliance – a tool kit
■ The owner internal alignment process
■ Starting the process with potential alliance contractors
■ Selecting alliance contractors
■ Contracts for alliancing
■ The alliance incentive scheme
■ Project organisations in an alliance
■ Project procedures and processes in an alliance
■ Building and sustaining alliance relationships
■ Monitoring performance in an alliance
■ Building relationships with others

Trust the Team
The best practice guide to partnering in construction
Professor John Bennett and Sarah Jayes, University of Reading

1995 Paperbound 82pp
297 x 210 mm 0 7049 0503 5 £50.00

Best Practice Partnering in Social Housing Development
Martyn Jones and Vic O’Brien

2003 Paperbound 124pp
297 x 210 mm 0 7277 3219 6 £25.00

This essential book provides a seven-step model for developing new supply chain relationships and describes how best to approach and manage sustainable partnerships. It identifies a number of benefits and dangers that can flow from close, open and more collaborative customer–supplier relationships:

■ higher housing quality
■ more open communication
■ greater certainty in relation to quality, price and programme
■ continuity of work for contractors
■ loss of competitiveness due to complacency
■ problems of dependency due to fewer suppliers and customers
■ reconciling the aims, values and objectives of the competing organisations involved
Best Practice Partnering in Social Housing Development will be an invaluable resource for registered social landlords (RSLs), consultants and contractors, housing associations, local authorities and students of best practice. A useful audit checklist is included at the end of each section that can be employed by RSL staff to gauge the level of implementation.

The Future of International Construction
Ranko Bon and David Crosthwaite, University of Reading

This book begins with a brief background and history to international construction activity and moves on to disseminate and discuss the findings of the European Construction Economics Research Unit (ECERU) surveys. By examining three of the European Construction Economics Research Unit (ECERU) surveys. By examining three

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A Bridge to the Future
Profitable construction for tomorrow’s industry and its customers
Roger Flanagan, Ian Ingram and Laurence Marsh, University of Reading

2000
Paperbound
150pp
210 x 210 mm
0 7277 2749 4
£40.00

The Jubilee Line Extension
From concept to completion
Bob Mitchell

2003
Hardbound
400pp
243 x 170 mm
0 7277 3028 2
£39.95

“This book is a major reference work that provides essential information for all future rail transport developments in London. It is essential reading for anyone with an interest in public transport planning and the complex processes involved in the development and delivery of major infrastructure projects. It is well written, full of fascinating detail and an interesting read!”

Professor Brian Mellitt
Director of Engineering, London Underground, 1989 to 1995, past-President of the Institution of Electrical Engineers

Much has been written about the construction work and architecture of the JLE, particularly the stations; however, this is the first book that provides a rounded view of how a major new underground railway line came to be built. It presents key details of the JLE project activities relating to transport planning, the legal processes, comprehensive safety planning, procurement, contracting, engineering development, environmental issues, project management and commissioning.

The Jubilee Line Extension: From concept to completion will appeal to everyone who is interested in major transportation projects and in discovering how the JLE was able to deliver a major urban infrastructure with the minimum of environmental disturbance and with an exemplary safety record.

Project managers will find this detailed record of all that was involved an inspiration and an invaluable source of information, which they can apply to other projects they are working on now and in the future.

Contents
- Planning and design – 1990 to 1993
- The parliamentary process
- The route described
- Safety
- Trains and operations
- The stations
- Tunnelling the line
- Electrical and mechanical engineering
- Commissioning and line opening – 1998 to 2000
- The contracts
- Time, cost and quality
- Look to the future
- Appendix 1 – JLE main contractors
- References and further reading

The Management of Projects
Peter Morris, UMIST

1997
Paperbound
376pp
240 x 170 mm
0 7277 2593 9
£30.00

1994
Hardbound
358pp
240 x 170 mm
0 7277 1693 X
£65.00

CONSTRUCTION INDUSTRY BOARD REPORTS
In June 1997 the Construction Industry Board (CIB) published a series of codes of practice and good practice guides, which aim to improve the performance of the UK construction industry by instilling a culture of cooperation, teamwork and continuous improvement.

Constructing success
Code of practice for clients of the construction industry

1997
Paperbound
28pp
297 x 210 mm
0 7277 2541 6
£12.50

Partnering in the team

1997
Paperbound
48pp
297 x 210 mm
0 7277 2551 3
£10.00

Briefing the team

1997
Paperbound
24pp
297 x 210 mm
0 7277 2540 8
£12.50

Code of practice for the selection of main contractors

1997
Paperbound
30pp
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0 7277 2618 8
£12.50

Code of practice for the selection of subcontractors

1997
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297 x 210 mm
0 7277 2542 4
£12.50

Selecting consultants for the team

Balancing quality and price
2nd edition

2000
Paperbound
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Fourteen original CIB reports are available in a boxed set at the special price of £70.00 0 7277 2552 1

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£12.50

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Managing Projects for Success
A trilogy
Albert Hamilton, Consultant

This book is a response to a growing need for project management, management that is needed when leading, or working within, teams undertaking a partial or complete project. This is a ‘how to do it’ book of considerable value to practitioners and students alike. It addresses the challenge of theory application by providing a series of exercises and comprehensive illustrations.

It is written in three inter-related parts – Part 1: The framework, Part 2: Planning for control and Part 3: The tool kit – to promote clarity of understanding and study, will equip the reader with specialist skills that can be immediately applied in practice.

Partnering in the Social Housing Sector
A handbook
European Construction Institute

This handbook provides the social housing sector with a step-by-step guide to implementing partnering arrangements for both additions to, and refurbishment of, their housing stock. It is particularly relevant to the Government’s Best refurbishment of, their housing stock. It is partnering arrangements for both additions to, and

This valuable guide to partnering will have application in many areas of the building and construction industry, particularly for work for the public sector.

Project Management of Multiple Projects and Contracts
Edited by Jack Loftus, Jackpot Limited

This multi-authored work provides detailed guidance on managing multiple projects, and advises on the standard contracts that should be used. It assists engineers and managers in organisations where little established infrastructure and assistance exists, offering clear guidance and step-by-step accounts of project management as viewed by all of the concerned parties. It covers the whole spectrum from the capital expenditure budgeting process through to commissioning and beneficial use.

CONTENTS
- The client’s problem
- Capital expenditure proposals
- Commercial management
- Cost control and estimating
- Project management
- Accounting for projects
- Engineering and project department organization
- The management of projects

Construction Project Management
Getting it right first time
John Woodward, Consultant

This book addresses the important issues involved in forming effective and profitable teams for construction projects – both within and between client, design and construction firms. It is divided into two main sections.

The first contains theories related to particular aspects of project teams, with key points illustrating their practical application. The second contains real and simulated building and civil engineering case studies, each concluding with corrective lessons to aid successful construction project team building.

Unconstrained Organizations
Managing sustainable change
Ted M Hutchin

Every organisation has to deal with constraints. The Theory of Constraints argues that there are typically only a few constraints and that they can be determined through the application of a robust and logical thinking process. The expectation is that having found the constraint, developed the solution and implemented the plan, the results would simply follow.

This book examines the fact that on many occasions the expected results did not appear. The identification of a crucial barrier to change entitled ‘paradigm lock’ is the key finding of the research and the methods by which it might be overcome. The book covers the research process used to determine this phenomenon and the steps taken to validate the findings before gaining confidence in what was discovered.
The Value Management Benchmark
Professor Steven Male, University of Leeds, John Kelly, Marcus Grönqvist, Scott Fernie and Graeme Bowles, Heriot-Watt University

Framework Document:
1998 Paperbound 64pp 297 x 210 mm 0 7277 2729 X £35.00
Research Report:
1998 Paperbound 72pp 297 x 210 mm 0 7277 2730 3 £35.00
Interactive CD:
1998 0 7277 2731 1 £47.50+ £7.88 vat (no VAT for overseas customers)

This book highlights the benefits of value management, and presents a framework for implementing it on real projects. The Framework Document highlights the requirements at specific (value opportunity) points in the project life cycle. The Research Report presents the findings of the three-year research programme that forms the basis for the Framework document. A CD comprising both the Framework document and the Research Report is also available.

Value Management Incentive Programme
Nigel A Standing

2001 Paperbound 152pp 297 x 210 mm 0 7277 2989 6 £45.00

The book considers value incentive programmes in depth, highlighting their application and benefits to client and contractor. It provides an insight into contractor-led value engineering and its effective use in different procurement forms. To highlight the alignment of value within the different procurement forms the project value chain has been developed from strategic value to operational value.

It reviews value incentives that exist in the USA and Australia. It also examines the procedures that are undertaken in their application within the project environment. As no formalised UK value incentive clauses exist, this book also considers the criteria that should be met, and how they should be implemented. The impact of a value incentive clause on the various parties involved in a project is also investigated.

Enterprise Focused Management
Changing the face of project management
Ted M Hutchin

2001 Hardbound 192pp 243x170 mm 0 7277 2979 9 £45.00

Based on the author’s research over a three year period in a number of different companies throughout Europe, this book discusses the key issues within organisations today. These companies, drawn from project-based industries such as construction and high-tech product development, understand the pressure to make profit both now and in the future. They have a wealth of data at their fingertips; yet remain unable to make sense of this mass of information. Using the rigour and logic of the Theory of Constraints first to analyse these difficulties, and then to propose a way forward, the book should be first port of call for all working or preparing to work in such environments.

Value Management
Improving capabilities
Roy Woodhead and Clive Downs, Oxford Brookes University

2001 Hardbound 96pp 297 x 210 mm 0 7277 3030 4 £45.00

This report is one of the few to look at value management (VM) from the client’s procurement perspective. Based on extensive empirical research over a period of one year in the UK, it examines why clients use VM, how they use it, and what benefits they achieve by applying it. This publication acts as a third-party facilitator helping both clients and providers improve VM.

The text provides a comprehensive summary for those wishing to improve the organisational value creation for all stakeholders and explains how to improve VM in a structured way to enhance competitive advantage.

Engineering Judgement and Risk
James Parkin, University of Technology, Sydney

2000 Hardbound 225pp 230 x 156 mm 0 7277 2873 3 £37.50

This book explores the nature of professional judgement and how it is used in planning, design and management. Drawing upon two decades of research on the psychology of judgement and its application in professional decision making, as well as his extensive experience in the field of engineering planning, design and construction, the author has arrived at fresh insights that will benefit all engineers.

Cost–Benefit Analysis for Engineers and Planners
Michael Snell, Mott McDonald

1997 Hardbound 328pp 230 x 156 mm 0 7277 2587 4 £50.00

Risk Analysis and Management for Projects (RAMP)
Institution of Civil Engineers and the Actuarial Profession

2002 Paperbound 125pp 297 x 210 mm 0 7277 3200 5 £30.00

Risk analysis and management for projects (RAMP) is a process that has been developed by a joint working party of the Institution of Civil Engineers and The Actuarial Profession for the purpose of evaluating and controlling risk in major projects. RAMP demonstrates how to identify, analyse and mitigate risks and how to place financial values on them. This practical handbook details a rigorous approach to risk management that can be applied to all types and stages of investments. It provides a method to enable a structured and consistent analysis of the financial implications of risk within (and between) projects to be carried out effectively. It can be applied either at a strategic level or as a detailed analytical and control process. The RAMP process aims to achieve as much certainty as possible about a long-term and uncertain future. Risk analysis and management for projects will be of use to everyone who is concerned with the financial, commercial, legal or engineering aspects of major projects and ongoing activities of any kind.

Engineering Construction Risks
A guide to project risk analysis and risk management
Peter Thompson and John Perry

1992 (amended 1998) Paperbound 68pp 210 x 297 mm 0 7277 1665 4 £25.00

This book provides detailed appraisal of risk management, analyses, applications and techniques, and suggests contract strategies that deal with risk.
Supply Chain Management for Refurbishment
Lessons from high street retailing
Professor Steven Male and Marcus Grönqvist,
University of Leeds, John Kelly,
Glasgow University, Leela Damodaran and Wendy Olphert, Loughborough University

Achieving Results: How to Create Value
Roy Woodhead and James McCuish

"It is rare to sit and read a book at a single sitting but this is what I found myself doing, being intrigued by the developing arguments and well crafted points. The authors state that the future for value engineering rests with the development of more rigorous approaches to thinking and decision taking, I believe that they have argued this point succinctly and convincingly."

Professor John Kelly
School of the Built and Natural Environment,
Glasgow Caledonian University

The Decision Makers
Ethics for engineers
James Armstrong, Consulting Engineer,
Ross Dixon and Simon Robinson, University of Leeds

This book examines the problems involved in making engineering decisions that affect the quality of life of large numbers of people worldwide and presents the individual, family, community and global contexts within which the engineer has to make such decisions. Engineers need to understand the decisions that they are required to make, and which decisions are likely to produce the most favourable results in the short and longer terms.

The Role of Cost Saving and Innovation in PFI Projects
Construction Industry Council

This publication presents the findings of a study designed to test the proposition that PFI will yield value for money by stimulating innovation. It surveys the people responsible for managing the purchasing, designing, building and operating of PFI projects, and poses questions about the extent to which cost saving improved value for money in various projects in both the construction and operation of facilities.

Construc tors’ Key Guide to PFI
Construction Industry Council

The Role of Government
Adrian Smith, Chartered Surveyor

This book examines the major aspects of the relationship between government and the private sector in the provision of high-quality, sustainable and affordable privately funded infrastructure projects.

Privatized Infrastructure
The BOT approach
Charles Walker, Consultant and Adrian Smith,
Chartered Surveyor
Infrastructure Planning
James Parkin and Deepak Sharma,
University of Technology, Sydney

This book introduces engineers to the principles and procedures necessary for infrastructure planning in rapidly developing regions. It covers the technical methods required in planning for infrastructure provision, from base-line studies and problem definition through to the specification for a set of projects.

Site Management for Engineers
Trevor Holroyd, Consulting Engineer

This book will enable you to learn from the mistakes of others and to benefit from ideas that have been proven to work well. It provides practical working guidance of site supervision of middle range projects.

Construction Safety Handbook
2nd edition
Vic Davies and Ken Tomasin, Consulting Engineers

This is the first volume in the ECI Pricing System series, this book deals specifically with the fabrication and erection of pipework, offering a structured approach to the contracting of pipework that maximises clarity for contractors and owners alike.

The ECI Guide to Managing Health in Construction
European Construction Institute

Clients and contractors have a responsibility to develop health risk management systems, based on the full and careful appraisal of the risks to which all their employees [including subcontracted workers] are exposed. This book is the first dedicated to the subject of construction health as opposed to just safety.

Electronic Communication in Construction
Achieving Commercial Advantage
Tim Cole, Interlock Limited

This book sets out the commercial issues driving, or hampering, recent developments, with regards to the implementation of common information exchange standards and will dispel the many myths that generate excuses for inertia.

Adding Value Through the Project Management of CDM
Edited by Liz Bennett, Habilis Ltd

This book has been published as a direct response to the poor results in the years following the introduction of the CDM Regulations. Throughout the book the authors demonstrate that the CDM Regulations can be a tool for delivering real value in health and safety, improved operational output, and savings and measurable benefits for clients.

The Management of Setting Out in Construction
Institution of Civil Engineers Design and Practice Guide
Edited by Jim Smith

Clients and contractors have a responsibility to develop health risk management systems, based on the full and careful appraisal of the risks to which all their employees [including subcontracted workers] are exposed. This book is the first dedicated to the subject of construction health as opposed to just safety.
CONSTRUCTION MANAGEMENT SERIES

This series of management guides addresses the management issues facing the civil engineer in the 21st Century. Since the publication of the original Engineering Management series, SARTOR'97 has radically changed the BEng and MEng curricula and the practitioner has experienced new codes and regulations.

These new guides are intended to support graduate engineers and young chartered practitioners in the acquisition and effective management of fundamental knowledge relating to engineering management. The whole ethos of these new guides is to promote integrated or ‘joined-up thinking’ in a management approach to construction management. The texts in the series are designed to provide a sound basis for further reading or CPD as appropriate.

Financing Infrastructure Projects
Tong Merna, UMIST and Cyrus Njiru, Loughborough University

This book deals with financial aspects of procurement of various infrastructure projects and commercial aspects of the projects, sources of finance, financial instruments, financial markets and financial engineering techniques. Aimed at individuals and organisations involved in the procurement of projects and in the financial aspects of infrastructure, this book provides engineers, project managers and planners, students and postgraduates, with sound information on commercial aspects of infrastructure projects.

Management of Procurement
Edited by Denise Bower, University of Leeds

This invaluable book covers all aspects of procurement, from drafting and using contracts to procurement strategies for privately financed projects. It is written from a construction perspective, and uses examples from other industries where appropriate.

This essential book offers guidance, explanations and case studies to help the reader comprehend the strengths and weaknesses and realistic meanings and outcomes of the stages in the development of an effective procurement strategy. Bringing together the theory and practice that relates to procurement, the book offers guidance on how the process should be undertaken. It begins by outlining the role of procurement in the construction industry, including the problems it faces and some of the steps that can be taken to overcome these problems. It then goes on to consider contractor selection and raises issues relating to the allocation of risk in contracts and factors to consider when awarding a contract. A brief summary of the relevant legal aspects is also provided.

The book also examines contract strategy, major organisational arrangements and payment types and provides a summary of the key features of the most common standard forms of contract. The relationship between benchmarking, key performance indicators and incentives is explained and a framework for developing incentive mechanisms is provided.

Contents
- Estimating from first principles
- Building up the net price
- The site set-up – preliminaries
- Calculating rates
- The sources of our prices
- Getting the final price – the tender and other totals
- Examples of estimates
- Cost, value and budgets

Successful Professional Reviews for Civil Engineers
H Macdonald Steels, Institution of Civil Engineers

1997 Paperbound 120pp
210 x 138 mm 0 7277 2613 7 £20.00

Civil Engineering Procedure
5th edition
Institution of Civil Engineers

1996 Paperbound 157pp
210 x 147 mm 0 7277 2052 X £15.00
which expertise is needed. Model competencies for these elements have been produced which are representative across all areas of the industry. Together the key roles and the model competencies provide a diagnostic tool for self-assessment and comparison and make indispensable reading for all managers in the construction industry.

Management Decisions for Engineers
James Parkin, University of Technology, Sydney
1996 Paperbound 240pp
210 x 148 mm  0 7277 2501 7  £25.00

People and Organizational Management in Construction
Shamil Naoum, South Bank University
2001 Hardbound 312pp
230 x 156 mm  0 7277 2874 1  £40.00
This book offers an extended dictionary of key management concepts for students and professionals alike. It helps the reader to search for the most appropriate ways of improving their organisation’s performance and effectiveness. With the aid of case studies drawn from the construction industry, this book discusses key management issues.

A Guide to the Procurement of Privately Financed Projects
An Indicative Assessment of the Procurement Process
Douglas Lamb and Tony Merna
August 2004
Paperback
136pp
287 x 210 mm  0 7277 3273 0  £30.00
A guide to the procurement of privately financed projects: an indicative assessment of the procurement process outlines the concept of privately financed projects (PFP) that can be used for both public-private and private-private interactions. Utilising models from many countries the guide develops a robust procurement system applicable to PFP and project finance in both the EU and overseas.
This guide provides a systematic approach for the preparation and evaluation of privately financed projects (PFP) and services. It is intended to assist both the ‘principal’ (often a public body) and the ‘promoter’ (private body) at each phase of the procurement process, from inception through to financial closure. Principals using this guide should be able to adapt the private finance procurement process for their specific organisation and business sector. Moreover, in the case of the promoting organisation, the guide provides an appreciation of the steps that occur and the various processes undertaken and the associated costs of bidding. Key topics of focus are:

- preliminary assessment of project proposals
- developing the business case and advertising the project
- tendering
- preparing bidders
- closing the deal

A guide to the procurement of privately financed projects: an indicative assessment of the procurement process provides an invaluable understanding of the critical facets involved in PFP and suggests frameworks for developing objective oriented procurement elements.

Dynamic Mentoring for Engineers
H Macdonald Steels, Institution of Civil Engineers
2001 Paperbound 160pp
210 x 138 mm  0 7277 3003 7  £25.00
This book offers practical guidance on how mentors can quickly achieve the required competencies in their trainees and looks specifically at the detail of how to make mentoring work effectively in practice. In an increasingly commercial and fast-moving business, the only competitive advantage a company has is the skills, abilities and commitment of its workforce. To develop these various talents to their maximum potential, as quickly as possible, requires the industry to train much more efficiently and effectively than it has ever done in the past. Mentors must be carefully chosen and better trained to undertake this vital role. In the past, very few ever received any guidance, let alone training – this book will allow that to change.

Communication for Professional Engineers
2nd edition
Bill Scott, Consultant and Bertil Billing, Consultant Engineer
1997 Hardbound 280pp
210 x 138 mm  0 7277 2630 7  £35.00

Effective Training for Civil Engineers
2nd edition
H Macdonald Steels, Institution of Civil Engineers
1999 Paperback 128pp
210 x 138 mm  0 7277 2709 5  £20.00
HISTORY

Biographical Dictionary of Civil Engineers in Great Britain and Ireland - Volume 1: 1500-1830
Edited by Mike Chrimes, Sir Alec Skempton, R W Rennison, R C Cox, Ted Ruddock and P Cross-Rudkin

2002 Hardbound 243 x 156 mm
784pp 0 7277 2939 X £95.00

Intended as a valuable biographical reference work on the lives, works and careers of individuals engaged in the practice of civil engineering, this volume looks specifically at those whose careers began before 1830. Beginning with what little is known of the lives of engineers such as John Trew who practised in the Tudor period, the background, training and achievements of engineers over the following 250 years are described by specialist authors, many of whom have spent a lifetime researching the history of civil engineering. This book will be of particular interest to historians of all disciplines and of great value to engineers involved in restoration work for whom an authoritative source of information on the engineers who designed public works over 300 years will be available for the first time.

Civil Engineering Heritage: Ireland
Edited by R Cox and M H Gould

1998 Paperbound 210 x 148 mm
304pp 0 7277 2627 7 £19.95

Civil Engineering Heritage: Eastern and Central England
Edited by E A Labrum

1993 Paperbound 210 x 148 mm
304pp 0 7277 1970 X £19.95

Civil Engineering Heritage: Northern England
Edited by R W Rennison

1996 Paperbound 210 x 148 mm
300pp 0 7277 2518 1 £19.95

Civil Engineering Heritage: Wales and Western England
2nd edition
Edited by Roger Cragg

1997 Paperbound 210 x 148 mm
304pp 0 7277 2576 9 £19.95

Civil Engineering Heritage: Southern England
Edited by R A Otter

1993 Paperbound 246pp
210 x 148 mm 0 7277 1971 8 £19.95

The Diary of William Mackenzie
Edited by David Brooke

2002 Hardbound 240 x 189 mm
648pp 0 7277 2830 X £29.95

The Diary of William Mackenzie, a fascinating new book which presents a unique record of this important figure and also of the Victorian world in which he lived, affording new insights for economic, social and engineering historians. Mackenzie's remarkable career was based on the business of building railways and canals. He was at the forefront of the export of Britain's technical expertise, for the development of Europe's infrastructure.

Record Pictures: Photographs from the Archives of the Institution of Civil Engineers

Michael Collins

Record Pictures: Photographs from the Archives of the Institution of Civil Engineers represents the photographic jewels of arguably the finest collection in Britain. Spanning a period of 75 years from the mid-nineteenth century, the book contains previously unpublished examples drawn from across Europe, Africa, Australasia, the Far East and Latin America.

Civil Engineering in Context
Sir Alan Muir Wood, Past President of the Institution of Civil Engineers

Where is British Civil Engineering going? This brand new book, written by a Past President of the Institution of Civil Engineers [1977-78] identifies the nature of the recent rapid changes in the role of the Civil Engineer and the consequences of adaptation. From a function of translating narrowly defined requirements of the Client, through science-based technology, the successful Civil Engineer of today – and yet more so tomorrow – contributes to a broad range of functions between identification of and realisation of projects which satisfy, or more than satisfy, the Client’s ‘business case’.

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