



THE AQUA GROUP GUIDE TO

Procurement, Tendering & Contract Administration

SECOND EDITION

Edited by

Mark Hackett and Gary Statham

WILEY Blackwell

Table of Contents

[Cover](#)

[Title Page](#)

[Copyright](#)

[Part I: Briefing the Project Team](#)

[Chapter 1: The Project Team](#)

[Introduction](#)

[Parties to a building contract and their supporting teams](#)

[Rights, duties and responsibilities](#)

[Statutory requirements](#)

[Avoiding disputes](#)

[Communications](#)

[Chapter 2: Assessing the Needs](#)

[The structure](#)

[The strategic definition](#)

[Contribution to the initial project brief](#)

[The initial programme](#)

[The appointment](#)

[Chapter 3: Buildings as Assets](#)

[Buildings as assets as well as buildings](#)

[Single building or programme?](#)

[Buildings as solutions to business challenges?](#)

[Everyday solutions-based thinking](#)

[Summary](#)

[Part II: Available Procurement Methods](#)

[Chapter 4: Principles of Procurement](#)

Simple theory – complex practice

The eternal triangle

Other considerations

Entering into the contract

The dynamics of tendering

Chapter 5: Basic Concepts

Economic use of resources

Contractor's contribution to design and contract programme

Production cost savings

Continuity

Risk and accountability

Summary

Chapter 6: Accountability

Background

The modern concept of public accountability

Contract documentation

Proper price

Dispensing with competition

Inflation

Value for money

Summary

Chapter 7: Value and Risk Management

Value management

Risk management

Risk management strategies

Allocating management actions

Value and risk are complementary

Chapter 8: Fixed Price and Cost Reimbursement

Fixed price

Cost reimbursement

Application to contract elements

Fluctuations

Target cost contracts

Use

Programme

Summary

Chapter 9: Fixed Price Contracts

JCT fixed price contracts

Advantages and disadvantages of fixed price contracts

Chapter 10: Cost Reimbursement Contracts

The fee

The prime cost building contract

Advantages and disadvantages of cost reimbursement contracts

Budget and cost control

Administering the contract

Procedure for keeping prime costs

Sub-letting

Defective work

Cost control

Final account

Chapter 11: Target Cost Contracts

Guaranteed maximum price contracts

Competition

Contract

Advantages and disadvantages

Use

Chapter 12: Management and Construction Management Contracts

Payment and cost control

Selection and appointment of the contractor

Contract conditions

Contract administration

Professional advisers

Advantages and disadvantages

Construction management

Use

Programme

Chapter 13: Design and Build Contracts

The contract

Where to use DB (and when not to do so)

Managing the design process

Novation

Evaluation of submissions

Post-contract administration

Financial administration

Programme

Advantages and disadvantages

Chapter 14: Continuity Contracts

Serial contracting

Continuation contracts

Term contracts

Chapter 15: Partnering

[A definition](#)

[When to adopt a partnering approach](#)

[The agreement](#)

[JCT Partnering Charter](#)

[JCT Framework Agreement](#)

[JCT constructing excellence](#)

[The partnering workshop](#)

[The benefits](#)

[The risks](#)

[Future of partnering](#)

[Chapter 16: EU Procurement](#)

[Introduction](#)

[The scope of procurement law](#)

[The general principles](#)

[Procedures](#)

[Key principles](#)

[Evaluating tenderers](#)

[Evaluating tenders](#)

[Framework agreements](#)

[Contract change](#)

[Cancellation of the process](#)

[Information obligations debrief and disclosure](#)

[Commencing proceedings](#)

[Remedies](#)

[Complaints to the EU commission and other
challenge procedures](#)

[Tendering contracts](#)

[Notes](#)

Part III: Preparing for and Inviting Tenders

Chapter 17: Procedure from Brief to Tender

Initial brief

Procurement

Detailed design

Programming

Design team meetings

Drawings

Specifications

Bills of quantities

Specialist sub-contractors and suppliers

Quality assurance

Obtaining tenders

Chapter 18: Pre-Contract Cost Control

Introduction

The purpose of pre-contract cost control

Framework for pre-contract estimating

Order of cost estimate

Information used to prepare an order of cost estimate

Treatment of on-costs and other costs in order of cost estimates

Presenting an order of cost estimate

Cost plans

Treatment of on-costs and other costs in cost plans

Presenting a cost plan

Challenges associated with the production of cost plans

Cash flow

[Whole life costs](#)

[Summary](#)

[Notes](#)

[Chapter 19: Drawings and Schedules](#)

[The language of drawing](#)

[The changing role of drawings and documents](#)

[Quality](#)

[Types, sizes and layout of drawings](#)

[Nature and sequence of drawing production](#)

[Computer aided design](#)

[Project extranets](#)

[Contents of drawings](#)

[Schedules](#)

[Drawings and schedules for records](#)

[Notes](#)

[Chapter 20: Specifications](#)

[The use of specifications](#)

[Specification writing](#)

[Chapter 21: Building Information Modelling](#)

[The BIM revolution - what is BIM, and who/what is it for?](#)

[The role of government and its BIM strategy](#)

[The levels of BIM adoption](#)

[The BIM journey](#)

[Level 3 and the future](#)

[Epilogue](#)

[Notes](#)

[Chapter 22: Bills of Quantities](#)

[Tender and contract document](#)

[The wider role](#)

[Basic information](#)

[Preliminaries](#)

[Preambles](#)

[Measured works](#)

[Formats](#)

[Chapter 23: Sub-contractors](#)

[Introduction](#)

[Specialist sub-contractors](#)

[Design by the sub-contractor](#)

[The SBC and sub-contract agreements](#)

[Chapter 24: Obtaining Tenders](#)

[Introduction](#)

[Tender list](#)

[Preliminary enquiry](#)

[Tender documents and invitation](#)

[Tender period](#)

[Tender compliance](#)

[Late tenders](#)

[Opening tenders](#)

[Examination and adjustment of the priced document](#)

[Negotiated reduction of a tender](#)

[Notification of results](#)

[Tender analysis](#)

[E-Tendering](#)

[Part IV: Contract Administration](#)

Chapter 25: Placing the Contract

Preparing and signing the contract documents

Performance bonds and parent company guarantees

Collateral warranties

Third party rights

Issue of documents

Insurances

Chapter 26: Meetings

Initial meeting

Procedure to be followed at subsequent meetings

Contractor's meetings

Employer's meetings

Chapter 27: Site Duties

The architect on site

The architect's duty of inspection and supervision

Considerate constructors scheme

Site safety

Fire precautions on site

Chapter 28: Instructions

Architect/contract administrator's instructions

Clerk of works' directions

Format and distribution of instructions

Chapter 29: Variations and Post-Contract Cost Control

Variations

Valuing variations

Cost control

Chapter 30: Interim Payments

[Introduction](#)

[Certificates and payments under the SBC](#)

[Interim certificates under the SBC](#)

[Retention under the SBC](#)

[Payments to sub-contractors under the SBC](#)

[Value added tax](#)

[Valuation and certificate forms](#)

[Chapter 31: Completion, Defects and the Final Account](#)

[Practical completion](#)

[Partial possession](#)

[Possession of the building](#)

[Defects and making good](#)

[Final account](#)

[Final certificate](#)

[Chapter 32: Delays and Disputes](#)

[Introduction](#)

[Delays caused by the contractor](#)

[Delays caused by the employer or his representatives](#)

[Delays caused by events outside the control of either party](#)

[SBC procedure in the event of delay](#)

[Reimbursement of loss and/or expense under the SBC](#)

[Liquidated damages](#)

[Disputes and dispute resolution](#)

[Chapter 33: An Introduction to Sustainability in Construction](#)

[Sustainable development](#)
[The regulatory framework for construction](#)
[Assessing the sustainability of construction and buildings](#)
[Sustainable procurement](#)
[Other important issues](#)
[References](#)
[Chapter 34: Future Trends](#)
[Global -v- local](#)
[Industry and corporate trends](#)
[Opportunities and challenges](#)
[Index](#)
[End User License Agreement](#)

List of Illustrations

Chapter 2: Assessing the Needs

[Figure 2.1 RIBA outline plan of work. Reproduced by permission of Royal Institute of British Architects.](#)

[Example 2.1 The initial programme.](#)

Chapter 4: Principles of Procurement

[Figure 4.1 The procurement triangle.](#)

[Figure 4.2 Variations on the eternal triangle, showing the different priorities.](#)

[Example 4.1 Procurement options](#)

Chapter 7: Value and Risk Management

[Figure 7.1 Optimising value for money.](#)

[Figure 7.2 Opportunities reduce with time.](#)

[Figure 7.3 The integrated process of risk and value management.](#)

Chapter 8: Fixed Price and Cost Reimbursement

[Figure 8.1 Sequence of events – fixed price and cost reimbursement.](#)

Chapter 11: Target Cost Contracts

[Example 11.1 Target cost contract with saving](#)

[Example 11.2 Target cost contract with overspend](#)

[Example 11.3 Target cost contract with cost saving and overspend](#)

Chapter 12: Management and Construction Management Contracts

[Figure 12.1 Differing contractual arrangements.](#)

[Figure 12.2 Comparative sequence of events.](#)

Chapter 13: Design and Build Contracts

[Figure 13.1 Differing processes compared.](#)

Chapter 15: Partnering

[Figure 15.1 The three fundamental characteristics of partnering.](#)

Chapter 18: Pre-Contract Cost Control

[Figure 18.1 Constituents of an order of cost estimate.](#)

[Figure 18.2 Upper floors element hierarchy.](#)

[Figure 18.3 Constituents of a cost plan.](#)

Chapter 19: Drawings and Schedules

[Example 19.1 Window schedule](#)

[Example 19.2 Door schedule](#)

[Example 19.3 Finishings schedule](#)

[Example 19.4 Manhole schedule](#)

Chapter 20: Specifications

[Figure 20.1 Uniclass section J \(RIBA enterprise\).](#)

Chapter 21: Building Information Modelling

[Figure 21.1 BIM maturity diagram.](#)

Chapter 22: Bills of Quantities

[Example 22.1 Uniclass work section bill of quantities](#)

[Example 22.2 Locational bill of quantities](#)

[Example 22.3 Annotated bills of quantities](#)

[Example 22.4 Elemental bills of quantities](#)

Chapter 25: Placing the Contract

[Example 25.1 Performance bond](#)

[Example 25.2 Parent company guarantee](#)

Chapter 26: Meetings

[Example 26.1 Construction programme](#)

[Example 26.2 Typical site meeting agenda](#)

[Example 26.3 Typical site meeting minutes](#)

Chapter 27: Site Duties

[Example 27.1 Standard checklist for site inspections](#)

Chapter 28: Instructions

[Example 28.1 Architect's instruction. Reproduced by permission of Royal Institute of British Architects.](#)

Chapter 29: Variations and Post-Contract Cost Control

[Example 29.1 Financial review. Reproduced by permission of Royal Institute of British Architects.](#)

Chapter 30: Interim Payments

[Example 30.1 Interim valuation.](#)

[Example 30.2 Statement of retention.](#)

[Example 30.3 Interim certificate.](#)

Chapter 31: Completion, Defects and the Final Account

[Example 31.1 Certificate of practical completion.](#)

[Example 31.2 Certificate of making good defects.](#)

[Example 31.3 Final certificate.](#)

Chapter 32: Delays and Disputes

[Example 32.1 Revision to completion date.](#)

[Reproduced by permission of Royal Institute of British Architects.](#)

Chapter 34: Future Trends

[Figure 34.1 Team interactivity.](#)

List of Tables

Chapter 7: Value and Risk Management

[Table 7.1 Three phases in applying value management](#)

[Table 7.2 The stages of value management](#)

[Table 7.3 Study structure](#)

[Table 7.4 Evolution of risk management studies](#)

Chapter 9: Fixed Price Contracts

[Table 9.1 JCT forms of contract](#)

Chapter 18: Pre-Contract Cost Control

[Table 18.1 Alignment of estimates and cost plans and project stages](#)

[Table 18.2 Information requirement for the production of an order of cost estimate](#)

[Table 18.3 Information requirement for the production of cost plan 1](#)

Chapter 29: Variations and Post-Contract Cost Control

[Table 29.1 The five basic methods for the valuation of variations \(excluding variations relating to a CDP and Schedule 2 Quotation\)](#)

[Table 29.2 The valuation of variations relating to a CDP](#)

The Aqua Group Guide to Procurement, Tendering and Contract Administration

Second Edition

Edited by

Mark Hackett and Gary Statham

with contributions from

**Michael Bowsher, John Connaughton, Michael Dallas,
Paul Morrell, Alan Muse, Erland Rendall, Simon
Rawlinson, Nick Schumann, Andrew Shaw and Peter
Ullathorne**

WILEY Blackwell

This edition first published 2016

© 2016 by John Wiley & Sons Ltd

© 2007 The Aqua Group and Blackwell Publishing

Wiley-Blackwell is an imprint of John Wiley & Sons, formed by the merger of Wiley's global Scientific, Technical and Medical business with Blackwell Publishing.

First edition published 2007

Second edition published 2016

Registered office

John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom.

Editorial offices:

9600 Garsington Road, Oxford, OX4 2DQ, United Kingdom.

The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom.

For details of our global editorial offices, for customer services and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com/wiley-blackwell.

The right of the author to be identified as the author of this work has been asserted in accordance with the UK Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty: While the publisher and author(s) have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. It is sold on the understanding that the publisher is not engaged in rendering professional services and neither the publisher nor the author shall be liable for damages arising herefrom. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Library of Congress Cataloging-in-Publication Data

The Aqua Group guide to procurement, tendering and contract administration.
— Second edition / edited by Mark Hackett, Gary Statham ; with contributions
from Michael Bowsher [and 5 others].

pages cm

Includes bibliographical references and index.

ISBN 978-1-118-34654-9 (paperback)

1. Buildings— Specifications. 2. Construction contracts— Great Britain. 3.
Letting of contracts— Great Britain. 4. Construction industry— Management. I.
Hackett, Mark, 1962- editor. II. Statham, Gary, editor.

TH425.A678 2015

692— dc23

2015008101

A catalogue record for this book is available from the British Library.

Wiley also publishes its books in a variety of electronic formats. Some content
that appears in print may not be available in electronic books.

Cover design by Workhaus

Part I

Briefing the Project Team

Chapter 1

The Project Team

Introduction

Since the first editions of the Aqua Group's books, the process of constructing and running a built asset has become increasingly complicated. From inception to completion, through site acquisition, design, tender, contract and construction, each stage of the process is time-consuming and can be considerably expensive. The need to optimise the process is of paramount importance and the best base from which to achieve this is proper and efficient team work. It is therefore vital that all members of the project team are fully conversant, not only with their own role but also with the roles of others and with the inter-relationships at each stage of the project. All members of the project team can then play their part fully and effectively, contributing their particular expertise whenever required.

The make-up of any particular project team will depend upon the scope and complexity of the project, the procurement route and the contractual arrangements selected. There are already many different methods of managing a project and, no doubt, others will be developed in the future. This chapter is set in the context of traditional procurement and, although not exhaustive, provides an indication of the principles involved and the criteria by which other situations can be evaluated.

Parties to a building contract and their supporting teams

The parties to a building contract are the employer and the contractor. Those appointed by these two will complete the *project team* which can include:

The design team

- *employer
- *architect
- *quantity surveyor
- *principal designer
- project manager
- structural engineer
- building services engineers
- sub-contractors

In addition, the employer may appoint:

- *clerk of works

The construction team

- *contractor and/or principal contractor
- *site agent (or foreman, described in the contract as the person-in-charge)
- sub-contractors

It should be noted, however, that only those marked with an asterisk are mentioned in the Joint Contract Tribunal (JCT) Standard Building Contract With Quantities 2011 Edition (hereinafter referred to as the 'SBC'). This list is not exhaustive and to it could be added planners, landscape consultants, process engineers, programmers and the like. Furthermore, some roles may be combined and roles such

as the project manager or principal designer may be fulfilled by individuals, firms or companies from varying technical backgrounds.

Rights, duties and responsibilities

The SBC is comprehensive on the subject of the rights, duties and responsibilities of the employer, the contractor and the other members of the project team mentioned in it. Not all the members of the project team are mentioned in the SBC and those not mentioned will usually be given responsibility by way of delegation from those who are mentioned. The delegation of any duties and/or responsibilities must be spelt out elsewhere in the contract documents and this will usually comprise part of the bills of quantities.

Whatever the size of the project team, all members should be familiar with the contract as a whole and, in particular, with those clauses directly concerning their own work, so that the project can be run smoothly and efficiently. It should be noted that the duties comprise (i) discretionary duties; (ii) mandatory duties; and (iii) statutory duties.

The employer

The employer is referred to throughout the contract and is expressly required to perform specific duties. The vast majority of these duties are codified and are carried out by the architect/contract administrator on behalf of the employer. However, the employer, as one would expect, retains the important duty of payment to the contractor for works which are completed in accordance with the contract. Such is the importance of the payment provisions in the SBC, and indeed in all construction contracts, that failure to adhere to the provisions may lead to statutory repercussions against the employer.

The architect/contract administrator

The architect/contract administrator is named in the contract and, as the designation contract administrator suggests, is not only responsible for carrying out the design of the works but also for the vast majority of the administrative duties under the contract on behalf of the employer. The architect/contract administrator is also the only channel of communication for any un-named consultants with delegated powers. Historically, the architect was recognised as being the person responsible for administering the contract. However, since the designation 'architect' is a protected title under section 20 of the Architects Act 1997, it can be used in business or practice by only those with the requisite education, training and experience. In this regard, if a person happened to carry out the duties of administering the contract and that person was not entitled to practice as an 'architect', then he could be held to be in breach of the Act. The title 'contract administrator' was added in order that other professionals could administer the contract without fear of breaching the Act.

The quantity surveyor

Quantity surveyors are named in the contract and their principal duties are in relation to the payment provisions, value of the works including the value of variations and, if so instructed, ascertainment of any loss and/or expense suffered by the contractor as the consequence of a specified matter.

The principal designer

The Construction (Design and Management) Regulations 2015 (hereinafter referred to as 'CDM 2015'), which came into effect on 6 April 2015, introduced the 'Principal

Designer' to the project team (having been previously referred to as the planning CDM co-ordinator in the Construction (Design and Management) Regulations 2007). When a project is notifiable, the principal designer is appointed by the employer, pursuant to regulation 5(1)a of the CDM Regulations. Standard contracts such as the SBC make provision for the appointment of a Principal designer. For instance, Article 5 of the SBC identifies that the Principal designer is the architect/contract administrator unless such other person is appointed.

The Principal designer is required to:

- plan, manage, monitor and co-ordinate matters relating to health and safety during the pre-construction phase to ensure the project is carried out without risks to health and safety;
- liaise with the principal contractor regarding the contents of the health and safety file, the information which the principal contractor needs for preparation of the construction phase plan, and any design development which may affect planning and management of the construction work;
- assist the client in the provision of the pre-construction information required by regulation 4(4) and to provide such of that information as is relevant to designers and contractors as is necessary;
- ensure that designers comply with their duties under Regulation 9 and ensure that all persons working in relation to the pre-construction phase cooperate with the client, the principal designer and each other; and
- prepare and update as necessary the project 'health and safety file' and, at the end of the construction phase, pass that file to the client; and

The clerk of works

The clerk of works may be appointed by the employer to act as an inspector of the works, solely under the direction of the architect/contract administrator. Traditionally, the role would have been taken by an experienced tradesman such as a carpenter, joiner or bricklayer. However, with today's highly complex and high-tech buildings, the architect/contract administrator, who will normally recommend the appointment, may need someone technically experienced or qualified and here the Institute of Clerks of Works will be able to assist in finding the right person. The clerk of works should be ready to take up the duties before the date of possession (how early will depend on the size and complexity of the project) and that person will either be resident on site or will visit the site on a regular basis during the period of the works.

The status of named consultants

While the architect/contract administrator and the quantity surveyor are expressly referred to in the contract and are expressly required to perform specific duties (many clauses include the phrase 'the architect/contract administrator shall'), they are not parties to the contract. Should the contractor have a grievance regarding the named consultants failing to carry out their duties prescribed in the contract, the only contractual recourse is to seek redress from the employer.

Unnamed consultants with delegated powers

The project manager, the structural or any other consulting engineers are not referred to in the contract and nor do they have any express powers under the contract. They do, however, have a duty, as the employer's persons, not to impede the progress of the contractor. Their position within

the project team depends on the agreement they have with the employer or the architect. Where they have been given responsibility by way of delegation, perhaps for design or site inspection, they should be named in the contract documents and the extent of their delegated responsibility should be defined so that they have contractual recognition. Since they have no powers under the contract, if they need to issue instructions then this must be done through the architect/contract administrator.

As with the named consultants, if the contractor has any grievance against an unnamed consultant, the only contractual recourse is to seek redress from the employer.

The project manager

A project manager, who may be considered as an employer's representative, is likely to be appointed at the outset by the employer to whom he is directly accountable. The project manager is likely to be responsible for the programming, monitoring and management of the project in its broadest sense, from inception to completion, to seek a satisfactory outcome. This will involve giving advice to the employer on all matters relating to the project, and may include the appointment of the architect, quantity surveyor and other consultants. However, since the project manager is not mentioned in the contract, the project manager's position in respect of the contract works, which will be only a part of his overall duties and responsibilities, must be clearly determined and described in the contract documents. The duties and responsibilities delegated must not exceed those set out in the contract in respect of the employer.

The principal contractor

Whilst a main contractor may feature as a person in the design team for certain elements of the works, the contractor is usually appointed to construct the works. That same contractor is usually appointed as the principal contractor whilst carrying out the works. Under Article 6 of the SBC, the principal contractor is stated to be the contractor or such replacement as the employer shall appoint as the principal contractor pursuant to regulation 5(1)b of CDM 2015. The definition of a principal contractor in CDM 2015 allows for some flexibility but for the majority of construction contracts carried out under the SBC, the main contractor will be appointed as the principal contractor.

Since a principal contractor must always be appointed while work is in progress on-site, problems could arise where enabling works contracts, such as demolition or piling works, are required before the commencement of the main contract, or where a fitting-out contract follows completion of the main contract. In these circumstances, the employer will probably appoint a succession of principal contractors but care will need to be taken to ensure responsibility passes properly from one principal contractor to the next. In the event that the employer (client) fails to do so, Regulation 5(4) provides that the employer must fulfil the duties of the principal contractor.

The principal contractor's duties are extensive and they are contained within three Regulations

12 – Construction phase plan; and health and safety file.

13 – Duties of a principal contractor in relation to health and safety at the construction phase.

14 – Principal contractors duties to consult and engage with workers.

These duties can be summarised as follows:

(Construction phase plan and health and safety file)

1. Draw up a construction phase plan which sets out the health and safety arrangements and site rules; ensure that the plan is appropriately reviewed, updated and revised from time to time.
2. Provide the principal designer with any information in its possession relevant to the health and safety file and, where the health and safety file is passed to the principal contractor (on conclusion of the principal designer's duties) the principal contractor must ensure that the file is appropriately reviewed, updated and revised to take account of the work and any changes that have occurred.

(Duties of a principal contractor in relation to health and safety at the construction phase)

3. Plan, manage and monitor the construction phase and coordinate matters relating to health and safety during the construction phase to ensure that, so far as is reasonably practicable, construction work is carried out without risks to health or safety.
4. Organise cooperation between contractors.
5. Coordinate implementation by the contractors of applicable legal requirements for health and safety.
6. Ensure that employers and, if necessary for the protection of workers, self-employed persons apply the general principles of prevention in a consistent manner and follow the construction phase plan.
7. Ensure that a suitable site induction is provided.
8. Ensure that the necessary steps are taken to prevent access by unauthorised persons to the construction site.

9. Ensure that welfare facilities that comply with the requirements of Schedule 2 of the Regulations are provided throughout the construction phase.
10. Liaise with the principal designer and share information relevant to the planning, management and monitoring of the pre-construction phase and the coordination of health and safety matters during the pre-construction phase.

(Principal contractor's duties to consult and engage with workers)
11. Make and maintain arrangements which will enable the principal contractor and workers engaged in construction work to cooperate effectively in developing, promoting and checking the effectiveness of measures to ensure the health, safety and welfare of the workers.
12. Consult workers or their representatives in good time on matters connected with the project which may affect their health, safety or welfare, in so far as they or their representatives have not been similarly consulted by their employer.
13. Ensure that workers or their representatives can (with certain limited exceptions) inspect and take copies of any information which relate to the health, safety or welfare of workers at the site.

Sub-contractors

Sub-contractors may feature as members of the design team as well as members of the construction team. This is because, in addition to carrying out work on site, they are often involved in the design and planning of specialist works in advance of the appointment of the main contractor. All sub-contractors employed by the contractor under the SBC have 'domestic' status and are fully