

QUALITY MANAGEMENT SYSTEM PROCEDURES MANUAL JANUARY 2014 **REVISION A**

UNIT 3 - DESIGN STUDIO

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QUALITY MANAGEMENT SYSTEM PROCEDURES

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Any queries about this Manual should be addressed to the Quality manager: Anthony Fogg

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CONTENTS

PM0.0 Title pagePM0.1 Policy StatementPM0.2 ContentsPM0.3 Amendment Record

1 Practice Management

PM1.1 Management Responsibility

PM1.2 The Management System

PM1.3 Internal Quality Audits

2 Project Management

PM2.1 Commission

PM2.2 Project Document Checking

PM2.3 Drawing and Document Checking

PM2.4 Selection of Consultants and Contractors

PM2.5 Advising on Procurement Method

3 Design and production Management

PM3.1 Plan of Work

PM3.2 Design Control

PM3.3 Production Control

PM3.4 Tender Action

PM3.5 Post Contract Services

PM3.6 Feedback

4 Office Management

PM4.1 Office Document Control

PM4.2 Control of Monitoring and Measuring Devices

PM4.3 Preservation of Current Documentation

PM4.4 Control of Quality Records

PM4.5 Competence and Awareness Training

5 Forms

- 1.3.1 Audit Programme
- 1.3.2 Audit Record
- 1.3.3 Deficiency Certificate
- 1.3.4 Audit Report
- 2.1.1 Commission Review Record
- 2.1.2 Working at Risk
- 2.4.1 List of Consultants
- 2.4.2 List of Contractors

- 2.4.3 Consultant Assessment Record
- 2.4.4 Contractor Assessment Record
- 3.1.1 Quality Plan
- 3.2.1 Design Review Report
- 3.2.2 Checklists
- 3.6.1 Client Feedback Survey
- 3.6.2 Design Team Feedback
- 4.2.1 Measuring Equipment Log
- 4.5.1 Employee's Induction Checklist
- 4.5.2 Training Evaluation Record4.5.3 Employee Training Record

AMENDMENTS TO THE MANUAL

1 When an amendment is made, the whole of the section will be reissued, to printed copy holders together with a revised content & amendment record sheet (PM02 & 03). The electronic version will be updated with previous versions made available only from archive. An amendment tracking version will also be available from archive.



PM0.0 Title page

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- PM0.2 Contents
- PM0.3 Amendment Record

1 Practice Management

- PM1.1 Management Responsibility
- PM1.2 The Management System
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- PM2.1 Commission
- PM2.2 Project Document Checking
- PM2.3 Drawing and Document Checking
- PM2.4 Selection of Consultants and Contractors
- PM2.5 Advising on Procurement Method

3 Design and Production Management

- PM3.1 Plan of Work
- PM3.2 Design Control
- PM3.3 Production Control
- PM3.4 Tender Action
- PM3.5 Post Contract Services
- PM3.6 Feedback

4 Office Management

- PM4.1 Office Document Control
- PM4.2 Control of Monitoring and Measuring Devices
- PM4.3 Preservation of Current Documentation
- PM4.4 Control of Quality Records
- PM4.5 Competence and Awareness Training

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- 1.3.1 Audit Programme
- 1.3.2 Audit Record
- 1.3.3 Deficiency Certificate
- 1.3.4 Audit Report

- 2.1.1 Commission Review Record
- 2.1.2 Working at Risk
- 2.4.1 List of Consultants
- 2.4.2 List of Contractors
- 2.4.3 Consultant Assessment Record
- 2.4.4 Contractor Assessment Record
- 3.1.1 Quality Plan
- 3.2.1 Design Review Report
- 3.2.2 Checklists
- 3.6.1 Client Feedback Survey
- 3.6.2 Design Team Feedback
- 4.2.1 Measuring Equipment Log
- 4.5.1 Employee's Induction Checklist
- 4.5.2 Training Evaluation Record
- 4.5.3 Employee Training Record



PRACTICE MANAGEMENT

MANAGEMENT SYSTEM DOCUMENTATION

- 1. This procedure describes the following:
 - a. The documentation structure
 - b. The scope of each documentation level outlined in the structure.
- 2. The Unit 3 Design Studio Management System is designed to satisfy the requirements of BS EN ISO 9000:2000 and is set down in the following documentation:
 - a. Quality Manual
 - b. Quality Procedure Manual.

Supported by

- c. Standard Forms
- d. Work Instructions

QUALITY MANUAL

- 3. This is the top level document and as required by the Standard contains the following:
 - a. The scope of the quality system.
 - b. Any exclusions from the standard and reasons for exclusion.
 - c. A process model e.g. flowchart, outlining the significant operations covered by the QMS.
 - d. The Quality Policy of the Practice.
 - e. The organisation and responsibilities of the members of the Practice.

QUALITY PROCEDURE MANUAL

- 4. This is the working document that outlines the techniques, documents, parameters etc used to implement the requirements of the quality management system. It is categorised into two sections.
 - a. One related to the core business of the Practice and would basically follow the process model in the Quality Manual
 - b. Another that relates to quality management requirements of the system e.g. management reviews, training, internal audits etc.
- 5. These procedures take account of and are written to suit the skills and professional background of the personnel using them.

STANDARD FORMS

6. These are used to control and record actions in particular the accountability of personnel for the tasks assigned to them.

WORK INSTRUCTIONS

- 7. These supplement the quality procedures and take a variety of forms.
- 8. They are generally more detailed than the quality procedures and may contain standard letters to be used, filing system instructions, reference to external industry sources etc.

REVIEW OF THE QUALITY MANAGEMENT SYSTEM

- 9. In order to ensure that the QMS is effective and efficient top management reviews its effectiveness at planned intervals particularly in respect of:
 - a. Status of actions placed at the last review meeting
 - b. An appraisal of any consultants or specialist that may have been engaged. This appraisal should be made against the terms of reference when the latter have been completed
 - c. The comments in (b) would also apply to any contractor that may have been engaged or recommenced by the Practice.
 - d. A review of client complaints which should address how corrective action was applied e.g. timely and effectively and if any action was taken, or could be taken to reduce or eliminate problems.
 - e. A review of the quality system audits that have been carried out. This should cover an appraisal of the audits against the planned schedule and the opportunity should be taken for a critical look at how the Quality System operates to see where improvements can be made to the service offered to clients. Results from project quality audits are useful in this context.
 - f. The identification of any pending statutory requirements which members of the Practice need to be aware of, and that may effect the business e.g. health and safety, environmental etc.
 - g. Any information derived from any project, identified as being of benefit to the Practice.
- 10. Notes of these reviews will include actions and agreed dates for completion of actions. It is the responsibility of the quality manager to follow up these actions to ensure they are discharged properly.
- 11. The reviews are run by a member of the top management of the Practice, and will include the quality manager and senior partners, associates etc and any other personnel who have a relavent input to the meeting.
- 12. It is emphasized that the quality management system is for all personnel and that top management will demonstrate its commitment to the on-going success of the quality system.

GENERAL PRINCIPLES

- 1. The purpose of internal audits is to ensure that the quality system as specified in the quality manual and procedures is effective, implemented, maintained and where possible improved. A secondary purpose is to further assure that when the system is subject to either third part certification assessment or second party client assessment it will be found adequate and (particularly in the light of the former) that it appropriately reflects the requirements of the Standard BS EN ISO 9000:2000
- 2. This procedure requires that the quality system shall be audited as follows
 - 1. At planned intervals (see Audit programme); taking into account any areas of weakness within the organisation that may necessitate more frequent attention through the audit process.
 - 2. In so far as is practical the audits will be carried out by personnel trained/ experienced in internal quality system auditing.
 - 3. In so far as is practical audits will be carried out by personnel independent of the function being audited.
 - 4. An audit report should be generated and where necessary agreed corrective actions specified along with completion dates and the actionee.
 - 5. The Quality manager has the responsibility for co-ordinating the audit programme i.e. ensuring audits are carried out as planned and to follow up corrective action, ensuring they are implemented as agreed.
- 3. Audits are carried out to ensure that activities are performed to planned arrangements and to determine the effectiveness of the management system. To this end two types of audit are performed, one concentrating on particular projects and the second on those systems that do not relate to particular projects (quality system management).

PROJECT AUDITS

4. These address all projects and systematically follow the project flow (e.g. RIBA Plan of Work). These audits may not necessarily wait until a project is completed but may be carried out at key stages e.g. on completion of detail design, prior to release for tender etc. The degree of auditing for a project may also be determined by the project type size and value and any client requirements. It is acceptable for aspects of project audits to be undertaken as a part of other on-steam activities and for some aspects this is in fact advantageous with up to date information and general focus being at the team's finger-tips. Where this does occur (i.e. building an item into a normal team meeting for example) the aspirations for independence and other degrees of rigor noted above must be built-in. In the case of small projects auditing is often carried out only after practical completion. It is a project team responsibility that whatever system is chosen it must be specified in the procedure as internal quality audits.

SYSTEM AUDITS

5. These relate more towards the organisation of the Practice than towards projects. These types of audit would cover (such activities as):

Office system and procedures Document control

Client complaints sections 1, 4 Training Procurement of external services Technical library etc

AUDIT OBJECTIVES

6. The purpose of the audit is to ensure that the procedures in this manual, work instructions and referred documents:

are useful and effective; are being followed; continue to meet the requirements of BS EN ISO9000:2000.

- 7. The auditor may, in the course of investigation, come across errors or inconsistencies in a project. Although this not the prime purpose of the exercise, these will be drawn to the attention of management.
- 8. For a project audit, particular attention will be paid to evidence that checks, reviews etc., have been carried out and recorded, and that the appropriate follow up action has been taken.
- 9. The whole system or project will not normally be examined at one time. In project audits, features of the current stage will be audited. Particular attention is paid to the areas of potential or suspected weakness.
- 10. Deficiency certificates are issued for each occurrence. These will be identified as major or minor by the auditor on the basis of their likely effect on the quality of the product. For a major deficiency, a follow up audit is carried out.
- 11. Recommendations may be issued where the auditor considers that clarification or alteration of a procedure, or the introduction of a new procedure, will improve the overall effectiveness of the management system.

AUDIT PROGRAMME AND RECORD

- 12. Each year the Quality manager plans a series of audits to ensure that the whole system is covered. The programme is set down on form <u>1.3.1.</u> Audit Programme allowing enough flexibility to ensure that the work is not disrupted. The programme can be updated on a rolling basis or a new programme set up annually.
- 13. A cumulative record of audits carried out is maintained on form <u>1.3.2</u> Audit Record under the following headings:

audit number date of audit; name of auditor; group/person whose work is audited; manual sections covered; deficiency certificates issued; agreed date for resolution of deficiency and corrective action; date deficiency resolved. 14. Each audit is given a unique number indicating the year and the next available sequential number (eg Audit 07/10).

CHOICE OF QUALITY AUDITOR

15. Auditing may be conducted by a member of staff or an external consultant. Ideally the auditor should not be directly responsible for the work being audited, will have been trained and have experience of project & system audits. The Quality manager maintains list of qualified/trained staff and external consultants with whom the practice has an arrangement. Nominate auditors are identified on the Audit Programme 1.3.1

AUDIT CHECKLIST/ PROJECT PLAN

- 16. The auditor prepares a checklist for each audit. For project audits, this is tailored to the Plan of Work stage that the project has reached. Records of subjects covered on previous audits are consulted to ensure a wide coverage of subject.
- 17. Audit checklists are filed on an Audit Record file.

AUDITS

- 18. The audit is generally limited in duration to minimise disruption to the work (about two hours is typical). A senior individual, or a representative of the project team, is nominated to ensure that all documents required by the auditor can be easily made available. Adequate notice is given of the subjects to be covered so that the appropriate staff and information are readily available.
- 19. Detailed notes, including file references, drawing numbers, dates, names etc., are made during the audit and agreement reached as to the facts with the auditee at the end of audit.

DEFICIENCIES

- 20. For each deficiency found, a separate certificate is to be issued. A deficiency may be either a technical deficiency (an error discovered in a document, an inconsistency, a discrepancy between two documents etc.) or a procedural deficiency (the failure to comply with some procedure, inadequate record keeping etc.).
- 21. The auditor will classify the deficiencies as follows:

A MAJOR deficiency is where for example:

there is a lack of knowledge of or a complete disregard of a procedure; there is a lack of attention to a procedure such as to have a serious potential outcome; there is evidence that effective corrective action has not been taken on the findings of a previous audit;

actions or responsibilities consistently undertaken beyond the person's stated authority without evidence of delegation; or delegation of responsibilities beyond the capability or resources of the person to whom they are delegated.

there is no procedure addressing a relevant part of ISO 9001 that is included within the stated scope of the firm;

A MINOR deficiency is where for example:

a procedure has not been implemented on one occasion; a latest issue of a procedure or document is not being used; a procedure or related document has not been properly maintained; an error in documentation or design solution is found but does not indicate a lack of knowledge or understanding of a procedure; minor departures in responsibilities or duties without evidence of delegation; files or records are not up-to-date.

A RECOMMENDATION is made where:

a procedure is clearly impracticable or ineffective.

AUDIT REPORT

- 22. As soon as possible, after the completion of the audit, a report is prepared by the auditor from notes taken and agreed during the audit setting down the discussion and findings. This should cover all work not just deficiencies.
- 23. The audit report is signed by the auditor and the person being audited establishing agreement as to the facts of the audit.

DEFICIENCY CERTIFICATE

24. A deficiency certificate is to be issued for each identified deficiency on form Deficiency Certificate by the auditor. The form is divided into 4 action sections:

Section 1 defines the deficiency in detail. It is the auditor's responsibility to define the category into which the deficiency falls and delete the inapplicable categories. The manual reference of the deficiency is also recorded where appropriate.

Section 2 sets out the action agreed between the person audited and the auditor to resolve the deficiency and the date by which it is to be completed. This section is to be signed by the person being audited or higher authority if needed to resolve the deficiency.

Section 3 records confirmation that the deficiency has been resolved and agreed action completed. It is to be signed by the signatory to the agreed action and returned to the Quality manager.

Section 4 is to be completed by the Quality manager when satisfied that the deficiency has been resolved. The Quality manager may carry out a spot check or, in the case of a major deficiency, a re-audit.

MANAGEMENT REVIEW

25. The quality manager will use the audit record as the basis of his report to the management review (see Management System Documentation)

PROJECT MANAGEMENT

SCOPE

- 1. This procedure defines the practice adopted on receipt of verbal or written instruction from a client to provide professional services. The procedures include review and amendment to the commission.
- 2. The term 'brief' is frequently used but has two connotations. It is commonly used use to signify the statement of requirements for a project. It also applies to the terms and extent of the commission. Both aspects of the brief are considered.

RESPONSIBILITY

Partner/Principal Project Architect Architects Administration

COMMISSION FILE AND NUMBER

- 3. In response to a potential client's enquiry, either written or oral, the Principal confirms the enquiry in writing.
- 4. The Principal nominates an appropriate staff member to be responsible for the project. The nominee arranges for a commission file to be opened.
- 5. The administrator opens the file as requested with the following information recorded:
 - a) unique project name;
 - b) a unique project number;
 - c) date of enquiry;
 - d) client's name, address and contact details.
- 6. Projects are numbered using a six digit reference code. The code is made up of three components which describe the date of inception of the project, the type of project and the project number.

Component 1 - Year

The first two digits correspond to the last two digits of the year in which the initial inquiry was received i.e. for a project in 2013 the first two digits would be:

13

Component 2 – Project Type

The third digit corresponds to the work sector as follows:

- 1. Commercial
- 2. Ecclesiastical
- **3.** Education & Institutional

- 4. Health
- 5. Industrial
- 6. Leisure, Culture & Arts
- 7. Residential
- 8. Retail
- 9. Sport

<u>Component 3 – Project Number</u>

The last 3 digits correspond to the project number. This number starts at **001** and runs for the duration of the year before being reset. The numbers run consecutively with each work sector.

Worked examples:

Project – Year 2013 (13). Residential Sector (7). First project of the year (001)

Project Number = **137001**

Project – Year 2015 (15). Health Sector (4). Twentieth health project of the year (020).

Project Number = 154020

COMMISSION REVIEW

- 7. Notwithstanding procedures at SPECULATIVE WORK as soon as is possible and before entering into a fully documented agreement with a client, the Principal or nominee carries out a review to establish that:
 - a) The extent of the duties and scope of work are clearly defined and acceptable. The Conditions of Appointment and terms for payment of fees are agreed with the client based on those from the RIBA or agreed mutually with the client;
 - b) The statement of requirements is adequately defined and/or there exists a means for clarifying them as the design proceeds;
 - c) There are no obvious ambiguities, contradictions or inadequacies in the documentation;
 - d) The program for the project is acceptable;
 - e) The Practice has adequate resources and expertise to complete the project to program, additional resources/expertise needed to be brought in;
 - f) The Practice has adequate equipment available (including computer hard/software);
 - g) The Practices PI insurance is adequate and manner consulted over any reserved matters (eg collateral warrantees)
 - h) There are no other reasons for rejecting the commission;
- 8. The Principal or nominee carries out an additional review if/ when significant changes are made to the brief or other conditions in order to assess whether any changes to, or clarifications of the brief during its development have affected the agreement.
- 9. The review is recorded in the Project Quality Plan and any clarifications and uncertainties resolved with the client.

CLIENT AGREEMENT

- 10. Unless the client determines the form of agreement, the Principal establishes the agreement under the following headings:
 - a) Terms of reference comprising the terms set down in the client's initial enquiry or letter of invitation, together with any relevant comments, clarifications of results of negotiation;
 - b) conditions of appointment based on those established by the RIBA or agreed mutually with the client;
 - c) the clients brief having been checked for adequacy and completeness;
 - d) program showing the extent and nature of the project, dates of all key activities, including obligations of the client, and approval periods;
 - e) remuneration defining clearly the terms of payment agreed by the client.
- 11. Where the agreement has been drawn up by the client, the Principal checks the details and identifies conditions at variance with those recommended by the RIBA, taking legal/PII advice as necessary, before signing and returning the agreement to the client. A copy of the agreement signed by all parties is kept on the commission file.
- 12. The Principal checks the agreement for contractual completeness and definition of duties, signs and dispatches it to the client for signature and return.

AMENDMENTS TO THE COMMISSION

- 13. During the course of the work, minor amendments and clarifications the brief, particularly the schedule of requirements, frequently occur. Minor changes and clarifications are discussed with the client at regular meetings. The changes are recorded in the minutes of the meeting and a copy of the minutes sent to the client.
- 14. Any changes agreed verbally are confirmed in writing to the client and entered into the project quality plan.
- 15. Where these changes constitute an amendment to the terms of the commission by way of change in scope, program or cost limits, the Principal agrees the changes with the client and a signed record is held in the commission file.

SIGNIFICANT CHANGES

- 16. Significant changes are those which may affect the ability of the Practice to comply with the client's brief in terms specified requirements, programme, capital cost or professional fees. All such changes from the client's original brief including those stemming from proposals by the client, the Practice and the consultants, are agreed with the client by Principal or project architect and signed.
- 17. The <u>quality plan</u> records the forms raised and the date submitted to the client together with the date and reference of any confirmation.
- 18. All changes after completion of Plan of Work stage E, Final Proposals, are treated as significant.

SPECULATIVE WORK

- 19. When the Practice is invited to bid for work or undertakes speculative work it may not be possible to satisfy all the requirements of normal commission review. Ambiguities or omissions in the documentation are recorded and all effort made to obtain clarification.
- 20. Before submitting a tender, the most senior member of staff involved undertakes a commission review, recording unresolved ambiguities and noting the potential consequences and follow procedures at 2.1.2 Working at <u>Risk</u>.

CDM REGULATIONS

21. When appropriate the Principal writes to the client advising him of his responsibilities under the Construction (Design and Management) Regulations 1994. The Principal may offer the services of the Practice to act as the planning supervisor.

RELATED DOCUMENTS

22. Reference should also be made to the following documents:

- 3.1 Plan of Work
- 3.2 Design Control;
- RIBA Appointments Documents;

Architect's Guide to Job Administration under the CDM Regulations 1994. RIBA Publications

PROJECT DOCUMENTS

1. The documents referred to in this section are those which constitute the output of the Practice in response to the client's brief. They are usually in the form of drawings and project specifications. They may sometimes be reports and studies. Project documents may also be prepared and transmitted by electronic means.

PROJECT DOCUMENT NUMBERING

- 2. All project documents show the unique project number allotted when the commission was accepted (see Commission). Individual drawings are numbered in accordance with the recommendations in The Co-ordination of Project Information (<u>CPI</u>) Code: Production Information: a code of procedure for the construction industry section 2.3).
- 3. All correspondence for the project shows the project number.

ISSUE OF DOCUMENTS

4. Documents are only issued after the appropriate approval has been recorded (see <u>2.3</u> Drawing and document checking). All documents are issued with an issue sheet. It records the number of document and its amendment mark, the number of copies and to whom issued. A copy of the issue sheet is filed.

INCOMING PROJECT DOCUMENTS

5. All incoming project documents from members of the design team (including the client, where appropriate) not accompanied by an issue sheet are recorded including number, revision mark and date. Each drawing/document is date stamped on receipt.

RELATED DOCUMENTS

- 6. Reference should also be made to the following documents:
 - 2.1 Commission;
 - 2.3 Drawing and Document Checking;
 - 3.3 Production Control;
 - 4.1 Office Document Control;

<u>CPI</u> document - Production Information: A code of procedures for the construction industry; Unified classification for the Construction Industry (UNICLASS)

VERIFICATION

- 1. Verification generally implies checking that the product satisfies the specified requirements. In the building design process the 'specification' is seldom sufficiently precise and the 'product' so variable that the verification is somewhat subjective. However certain safeguards are performed to ensure client satisfaction.
- 2. Verification is carried out by one of the following procedures:
 - a) Checking applied to production information (drawings & specifications), it is to ensure that there are no errors in, or inconsistencies between drawings and specifications. Applied to documents, that they are complete and compatible with other documents and drawings.
 - b) Design reviews to ensure that the project satisfies the brief, the Practice standards and statutory requirements.
 - c) Verifying data ascertaining that the source of data is reliable. With proprietary products, that their use has been proven and that test data is checked as satisfactory.
 - d) Project audits to ascertain that the appropriate procedures have been used, not necessarily that the outcome is correct.

DESIGN REVIEW

3. This procedure is described in Design control.

VERIFYING DATA

4. This procedure is described in Design control.

PROJECT AUDITS

5. This procedure is described in Internal audits.

CHECKING CONSULTANTS' WORK

- 6. The technical content of consultants' work is the responsibility of the individual consultants. Where a consultant is listed as generally providing good service they will follow their own checking procedures. Where the consultant is not so listed they are asked to confirm that the technical content of their work has been adequately checked.
- 7. The project architect ensures that the documents received are complete and appropriate to the requirements of the consultants brief and the project.

DRAWING AND SCHEDULE CHECKING

- 8. Drawings and schedules are checked at two levels, each with a different bias:
 - Level a) checking by the draftsperson before the drawing is issued that the content is correct within itself and covers the subject specified. The completion of this check is recorded on the drawing.

- Level b) checking that a set of drawings and/of schedules is complete, coherent and has been checked against relevant drawings of other disciplines. The completion of this check is recorded on the drawing/schedule. It makes references to other drawing schedules and the specifications.
- 9. All drawings and schedules are to be signed as checked by the draftsperson (level a) before they leave the office. Drawings issued before level b checks are marked 'PRELIMINARY'.

CHECKING PROJECT SPECIFICATIONS

10. Project specifications are checked by the project architect to ensure that:

- a) the content is compatible with and complementary to the project drawings;
- b) that all options from the reference specification have been selected;
- c) appropriate grades of product have been selected.

CHECKING CALCULATIONS

- 11. All calculations are recorded on standard calculation sheets. Input data to the calculations is also recorded on the calculation sheets. All sets of calculation sheets are signed by the person performing the calculations and by the checker
- 12. Calculations are checked on the following basis:
 - a) that the input data is appropriate and correct;
 - b) that the arithmetic is correct;
 - c) that the answer is sensible or compatible with 'rule of thumb' checks;
 - d) if performed by computer, that the software is appropriate and approved

Note on IT and CAD

Recent developments in IT and CAD have made it possible to build a virtual prototype of a project (ie a 3D model) in a computer. This enables errors, omissions and co-ordination problems in the production drawings and specification to be identified and rectified before work starts on site, thus avoiding the expensive delays and reworking which are, at present too common. The functions to achieve this are bespoke to the software systems and beyond the coverage of this Toolkit. Insofar as the practice employs such systems - use the software supplier's information for describing the practice's procedures.

CONTROL OF REVISIONS

13. Where a revision is found to be necessary on a drawing in a specification section, in a calculation or document during the checking process, it is clearly marked. The document is referred to the originator for immediate amendment of the original. The revised document is not issued until it has been rechecked.

RELATED DOCUMENTS

- 14. Reference should also be made to the following documents:
 - 1.3 Internal Quality Audits;
 - 3.2 Design Control;

Version Revision A Date January 2014

- 3.3 4.4 Production Control;
- Control of Quality Records.

PROFESSIONAL CONSULTANTS

1. Consultants may be nominated and employed by the client, nominated by the Practice and approved by the client or commissioned by the Practice. In any case, where the commission contains the requirement for project management or incorporation of consultants work into the Practice's work, procedures are established to ensure that the Practice can satisfy its professional responsibilities.

LIST OF CONSULTANTS

- 2. The Practice maintains a list of consultants (with whom there is a good track record of previous working). The consultants are vetted in accordance with the procedure described below (see APPOINTMENT OF CONSULTANT).
- 3. The list is reviewed each year taking into account the performance of the consultants. Where a consultant has not been used within the preceding five years, the name is removed from the list (alternative this is indicated on the list).
- 4. Where the use of a consultant is imposed by the client, steps are taken to evaluate their management system. Additional safeguards in reviewing the information provided by the consultant will be defined in the quality plan.

LIST OF CONTRACTORS

- 5. Principal Contractors are normally appointed by the client. The Practice maintains a list of contractors in order to be able to make recommendations to the client. They are vetted in accordance with the procedure described below (see APPOINTMENT OF A CONTRACTOR).
- 6. The firms are annotated according to the size and type of contract for which they are approved.

APPOINTMENT OF A CONSULTANT

7. When a consultant is required to assist the Practice in the performance of a commission, the client is notified. The client may make a nomination or request a nomination from the Practice. In either case the list is consulted. A short list is drawn up from appropriate firms on the list to suit the project. Where the client nominates a consultant, that consultant is assessed and entered on the list.

THE CONSULTANT LIST

- 8. All consultants used are listed on form 2.4.1 -, *held as a database on computer/network*. It records the following:
 - a) the name of the consultant;
 - b) the disciplines and services provided;
 - c) name, address, telephone no. of a contact point;
 - d) assessment method;
 - e) name of person who carried out the assessment;
 - f) date of assessment;
 - g) date consultant last used;
 - h) feedback rating.

9. Details of the assessment and feedback reports on each consultant are filed in the consultants file in the administrative series.

ASSESSMENT PROCEDURE

- 10. The consultants are vetted by the Principal or their nominee on one or more of the following bases which are as objective as possible:
 - a) satisfactory completion of previous commission;
 - b) recommendation from other Practices;
 - c) inspection of ongoing projects;
 - d) independent quality assessment;
 - e) their particular field or expertise.
- 11. The basis of assessment is entered on the database.

PERFORMANCE REVIEW

- 12. At the completion of each commission, the performance of each consultant is assessed as objectively as possible and the results filed on the consultants' file in the administration series. The factors to be reviewed are:
 - a) quality and presentation of information provided;
 - b) co-operation with the design team;
 - c) ability to meet programme;
 - d) ability to meet cost targets;
 - e) ability to appreciate design intentions.
- 13. The consultant is graded from 1 to 3 according to the team's wish to work with the consultant in future, the highest grade is 1. This grade is noted in the database for ease of reference.

REVIEW OF LIST

14. Each year the Quality manager will review the list and transfer to a reserve list (by coding in the appropriate database field) those which consistently receive poor reports or who have not been used for more than five years. Before they are recommended again they will be reassessed.

APPOINTMENT OF A CONTRACTOR

- 15. Principal Contractors are normally appointed by the client. The Practice maintains a list of contractors in order to be able to make recommendations to the client. They are vetted on the following basis:
 - a) satisfactory completion of previous contracts;
 - b) their ability to satisfy the requirements of the CDM Regulations:
 - c) recommendations from other Practices;
 - d) assessment/inspection of ongoing projects;
 - e) 3rd party quality certification;
 - f) their particular field or expertise.

THE CONTRACTOR LIST

- 16. All contractors used are listed on form <u>2.4.2</u> -, which is held as a database on computer. It records the following:
 - a) the name of the contractor;
 - b) their disciplines/services provided;
 - c) name, address, telephone no. of a contact point;
 - d) assessment method;
 - e) name of person who carried out the assessment;
 - f) date of assessment;
 - g) date contractor last used;
 - h) feedback rating
- 17. Details of the assessment and feedback reports on each contractor are filed for reference.

ASSESSMENT PROCEDURE

18. The contractors are vetted by the Principal or their nominee on one or more of the following bases:

- a) satisfactory completion of previous project;
- b) performance reports;
- c) independent quality assessment
- d) recommendation from other Practices;
- e) inspection of ongoing projects;
- 19. The results of the assessment is entered on the database.

PERFORMANCE REPORT

- 20. At the completion of each project, the performance of each contractor is assessed and the results filed. The factors to be reviewed are:
 - a) achievement of quality/workmanship;
 - b) speed and adherence to programme;
 - c) efficiency and organisation
 - d) making good defects
 - e) any other relevant factors

RELATED DOCUMENTS

21. Reference should also be made to the following documents:

PM3.3 Production control; PM3.4 Tender action.

PROCURMENT METHODS

- 1 Architects are very often expected to advise on the choice of procurement method for a client's project. It is important that this advice be impartial from the architects own interest in the contract and it is therefore advisable to use an authoritative source of reference as well as experience when discussing this with the client.
- 2 The following table "Procurement Identifying Priorities" has the advantage of providing information that was compiled from thorough and independent research of the subject including assessing the process and actual outcomes of samples of projects. It has the disadvantage of being quite old and now no longer published (though originals will be available from sources such as the RIBA Library). It therefore does not cover PFI and its derivatives.
- 3 If more contemporary guidance is used check on its impartiality and the rigour of the research backing the assertions made and be prepared to explain this to the client.
- 4 Also included for reference is a diagram to illustrate the principles of the likely effect on the sequence of the of the Plan of Work stages of various procurement methods.

Work Stage Sequences by Procurement Method

The diagrams illustrate different sequences for completion of work stages for various procurement methods, but are not representative of time.

In arriving at an acceptable timescale the choice of that method may be as relevant as other more obvious factors such as the amount of work to be done, the client's tendering requirements, risks associated with third party approvals or funding etc.







DESIGN AND PRODUCTION MANAGEMENT

RIBA PLAN OF WORK

1. Normally projects follow the RIBA plan of work. The stages are as follows: (NB choose which list suits your Practice – the RIBA Quality Management toolkit and hence references therein is now based on the New PoW)

Stages	Old RIBA Plan of Work Headings	New RIBA Plan of Work Headings
A.	Inception	Appraisal
В.	Feasibility	Strategic Brief
C.	Outline proposals	Outline Proposals
D.	Scheme design	Detail Proposals
E.	Detail design	Final Proposals
F.	Production information	Production Information
G.	Bills of quantities	Tender
H.	Tender action	Tender Action
J.	Project planning	Mobilisation
K.	Operations on site	Construction to Practical Completion
L.	Completion	After Practical Completion (including feedback)
M.	Feedback	

- 2. Where non-standard contracting methods are used, the order of events may be varied. Some commissions may be for limited services or for services outside the published PoW. These are identified in the quality plan.
- 3. Old RIBA Plan of Work Procedures for controlling stages A to E are covered in 3.2 Design Control, stages F and G in 3.3 Production control; stage H to K in 3.4 Tender action; Stages L in 3.5 Post contract services. Stage M is covered in 3.6 Feedback.
- 4. New RIBA Plan of Work Procedures for controlling stages A to E are covered in 3.2 Design Control, Stages F in 3.3 Production Control; stage G - K in 3.4 Tender action; Stages L in 3.5 Post contract services. Stage M is covered in 3.6 Feedback.

QUALITY PLANS

- 5. As soon as the commission is confirmed (see 2.1 Commissions), the Project Architect draws up a quality plan (some Practices prefer to call it project plan) based on the RIBA plan of work. The quality plan defines the following:
 - a) the quality objectives to be attained (e.g. aesthetic, cost limits, deadlines);
 - b) program for the design and production;
 - c) allocation of responsibilities and authority during the different phases of the project;
 - d) the specific procedures and work instructions to be applied;
 - e) checking and audit programs at appropriate stages (e.g. plan of work stages);
 - f) procedures for reviewing the quality plan as the project proceeds;
 - g) a method for measuring the achievement of the quality objectives;
 - h) other actions necessary to meet objectives.

Unit 3 Design Studio – Quality Management System Procedures Manual

6. Since the Practice produces designs as a regular course of work, there are standard procedures in place, such as plan of work, design reviews, brief change control and feedback. These are only referenced and programmed in the quality plan. If the work is of a non-standard type and standard procedures do not apply, the procedures to be followed are defined in the quality plan.

QUALITY PLAN FORMAT

- 7. Form <u>3.1.1</u>, provides a format for recording and referencing quality plan details. The boxes provided are only to be completed to identify the requirements of the project and record that they have been satisfied. It may not be necessary to fill in all the spaces provided. The location of important documents is recorded.
- 8. For small projects or those of short duration, the critical information may be recorded on the <u>short form</u> or on attached sheets, rather than referencing other locations.

USE OF THE SHORT FORM QUALITY PLAN SFQP

This short form has two principal uses:

- 9. Where the characteristics of the commission, particularly its very limited size and scope suggest that a full QP would be unnecessary and where other office procedures are reasonably expected to be set aside, modified or otherwise compromised.
- 10. Another use of the short form is for projects with an ill-defined start or for services outside the normal scope of the documented procedures of the quality system (whilst being within the scope of competence and PII cover of the practice). See also notes on 'working at risk' under the general heading and link <u>enquiry</u>.

PROJECT DETAILS

- 10 As soon as a commission has been confirmed, a project architect is nominated by the Principal. The first task of the project architect is to initiate the quality plan by recording significant data available.
- 11 The briefing documents are listed and their location identified. With the commission letter and agreement, schedule of requirements, site data and surveys, special requirements.

DESIGN TEAM

- 12 The members of the design team, including consultants are identified. The name, address and contact numbers of the nominated representative are recorded. There is space for updates as the project proceeds.
- 13 Any special duties beyond their nominal professional responsibilities are recorded, (e.g. project management, planning supervisor). Record special responsibilities at different phases of the project.

PROJECT OBJECTIVES

- 14 The project architect, together with the Principal formulates and records the project objectives, including:
 - a) the cost targets;
 - b) dead-lines;
 - c) quality of building (long/short life high/low cost);
 - d) standards of fixtures and finishes;
 - e) environmental and aesthetic objectives.

15 The deadline dates apply both to the client approval to commence the next stage as well as project stage completions. Record only those dates critical to the project brief.

SPECIAL FEATURES

- 16 Identify any special features of the project, for example:
 - a) sensitivity of development;
 - b) special contract provisions;
 - c) site conditions or restrictions;
 - d) planning limitations or restrictions;
 - e) project or building phasing.

PROGRAMME AND PROGRESS

- 17 Determine the method of programming and monitoring progress. Give references to location of programme and monitoring charts.
- 18 Programmes shall include the following as appropriate:
 - a) plan of work stages;
 - b) client approvals;
 - c) local authority approvals;
 - d) utility approvals;
 - e) project design reviews;
 - f) document checking;
 - g) project quality audits;
 - h) project evaluation.
- 19 Identify brief change control form number when revising programme. Intermediate programme stages and resource allocations may be revised by the project architect to achieve project targets.
- 20 Identify and record resources against programme stages.

REVIEW OF PROJECT QUALITY PLAN

- 21 The project quality plan is a working document on the project is subject to constant review. However it is specifically reviewed formally at the commencement of the following plan of work stages:
 - C. Outline proposals;
 - E. Final Proposals
 - I. Mobilisation.

RELATED DOCUMENTS

- 22 Reference should also be made to the following documents:
 - 1.2 The Management System;
 - 3.2 Design Control;
 - 3.3 Production Control;
 - 3.4 Tender Action;

3.5 Post Tender Action;3.6 Feedback;RIBA Architect's Job BookRIBA Plan of Work

RIBA Outline Plan of Work

A Appraisal	Identification of client's needs and objectives, business case and possible constraints on development.
	Preparation of feasibility studies and assessment of options to enable the client to decide whether to proceed.
B Developed Brief	Development of initial statement of requirements into the Developed Brief by or on behalf of the client confirming key requirements and constraints. Identification of procurement method, procedures, organisational structure and range of consultants and others to be engaged for the project
C Concept	Implementation of Developed Brief and preparation of additional data.
	Preparation of concept design including outline proposals for structural and building services systems, outline specifications and preliminary cost plan.
	Review of procurement route
D Design Development	Development of concept design to include structural and building services systems, updated outline specifications and cost plan.
	Completion of final Brief.
	Application for detailed planning permission
E Technical Design	Preparation of technical design(s) and specifications, sufficient to co- ordinate components and elements of the project and information for statutory standards.
F Production	F1 Preparation of detailed information for construction.
Information	Application for statutory approvals.
	F2 Preparation of further information for construction required under the building contract. Review of information provided by specialists
G Tender Documentation	Preparation and/or collation of tender documentation in sufficient detail to enable a tender or tenders to be obtained for the project.
H Tender Action	Identification and evaluation of potential contractors and/or specialists for the project.
	Obtaining and appraising tenders; submission of recommendations to the client.
J Mobilisation	Letting the building contract, appointing the contractor.
	Issuing of information to the contractor.
	Arranging site hand over to the contractor.
K Construction to	Administration of the building contract to Practical Completion
Completion	Provision to the contractor of further Information as and when reasonably required.
	Review of information provided by contractors and specialists

L Post Practical	L1	Administration of the building contract after Practical Completion
Completion		<u>anu making ina inspections.</u>
Completion	L2	Assisting building user during initial occupation period
	L3	Review of project performance in use

The activities in *italics* may be moved to suit project requirements, ie: D Application for detailed planning approval; F1 Application for statutory approvals; and F2 Further information for construction.

G+H Invitation and appraisal of tenders

THE DESIGN TEAM

- 1. The consultants appointed to the project are fully integrated members of the design team whether appointed by the client or commissioned by the Practice. The project architect convenes a project team meeting as soon as practical after the commencement of the project.
- 2. This initial meeting establishes:
 - a) design philosophy;
 - b) responsibilities;
 - c) input to the quality plan;
 - d) nomination of team members;
 - e) methods of communication and exchange of documents;
 - f) program for the input of each member;
 - g) project cost limits.

DESIGN INPUT

- 3. Design input includes the following:
 - a) functional requirements in the client's brief;
 - b) statutory requirements;
 - c) standards;
 - d) technical data;
 - e) design assumptions;
 - f) site information;
 - g) environmental data.
- 4. Design input that is specific to the project is recorded in the quality plan. The source of this information is reviewed and assessed to ensure that it adequate for the purpose.

VERIFICATION OF TECHNICAL DATA

- 4. All design methods and sources of design data are evaluated by one or more of the following processes:
 - a) usage regular and satisfactory use; regular reviews are carried out so that new design methods can be accommodated;
 - b) status of source for example a profession institution, recognised research body, technical publications; this is used when incorporating new materials, construction methods or data and is backed up with evidence of testing or the derivation of data;
 - c) testing this may be necessary when a design method or detail is applied in an unfamiliar situation or where there is a high risk associated with the design.
- 5. Validation methods and results are recorded in the quality plan.

STATUTORY AUTHORITIES AND UTILITIES

6. The project architect consults statutory authorities and utilities, if required in the brief, applies for the relevant approvals. Signed drawings and approvals are maintained as quality records and are

referenced in or filed with the quality plan. Negotiations and approval periods are included in the detailed project programme (see <u>3.3</u> Production control).

CDM REGULATIONS

- 7. The project architect co-operates with the planning supervisor and passes on any relevant information.
- 8. The project architect records any design feature or materials which may present a health and safety hazard and carries out a risk assessments.

CALCULATIONS

- Calculations are recorded on standard calculation sheets. They may be performed and recorded on computer. Each sheet contains the project number and sequential page numbering (see also <u>2.2</u> Project document control).
- 10. The lead sheet gives the subject and brief description of the purpose of the calculation and records the input data and its source. Diagrams and sketches are drawn on the sheets where possible or attached where not.
- 11. Calculation sheets and printout are checked in accordance with the checking strategy described in <u>2.3</u> Drawing and document checking.

DESIGN REVIEWS

- 12. Design reviews identify and anticipate problem areas and inadequacies, initiate corrective action to ensure that the final design meets the client and statutory requirements. The reviews are programmed in the quality plan and normally occur towards the end of plan of work stages D and E. The review is to be programmed to allow alterations to be made in response to the review within the project programme. Participants at each design review include all functions concerned with the design stage being reviewed.
- 13. The design reviews establish that the design:
 - a) satisfies the requirements of the brief;
 - b) takes account of feedback from previous similar projects;
 - c) satisfies regulatory requirements, specified standards and Practice standards;
 - d) drawings and calculations have been checked;
 - e) has been based on the latest consultants information;
 - f) has been submitted for and received approval where required in the quality plan;
 - g) takes into account all special requirements identified in the quality plan;
 - h) is reasonable, buildable and maintainable;
 - j) takes account of the findings of the previous review;
- 14. The design reviews are held by the Principal and organised by the project architect and the results recorded.

BRIEF CHANGE CONTROL

15. During the development of the design, the brief may be clarified or changed either by the design team or the client. Most will be minor developments but some may have a major influence on cost and program.

- 16. All changes and clarifications are recorded and approval sought
- 17. Any changes confirmed verbally are to be confirmed in writing to the client.
- 18. Significant changes are those which may affect the ability of the Practice to comply with the client's brief in terms specified requirements, programme, capital cost or professional fees. All such changes from the client's original brief including those stemming from proposals by the client, the Practice and the consultants, are be detailed in the project quality plan, agreed with the client and confirmed in writing by the Principal or project architect.
- 19. The quality plan records the forms raised and the date submitted to the client together with the date and reference of any confirmation.

COMMISSION REVIEW

- 20. The changes, both from the development of the brief and those considered significant, are to be considered at the commission reviews.
- 21. All changes after plan of work stage E, Final proposals, should be treated as significant.

RELATED DOCUMENTS

22. Reference should also be made to the following documents:

2.2 Project Document Control;

2.3 Drawing and Document Checking;

3.3 Production Control; (not included – see <u>CPIC</u> document 'Production information – a code of

procedure for the construction industry)

**** Risk Assessment (example not included).

PROGRAMME AND PROGRESS

- 1. At the commencement of each project a program is produced covering all plan of work stages in the commission. Deadline dates are recorded in the quality plan. Detailed programs are produced covering each plan of work stage including resource allocations.
- 2. For plan of work P P stages F, G, H production information through to tender action, a detailed program is produced listing all drawing and documents planned. Progress is ascertained by the project architect against this projection. Any deviation from planned progress is treated as a deficiency see <u>1.3</u> Internal audits.
- 3. Generally, detailed programs are produced at the commencement of the relevant stage and include:
 - a) brief dead-lines;
 - b) start and finish dates for each plan of work stage;
 - c) client approval periods;
 - d) local authority approvals;
 - e) utility approvals;
 - f) project design review dates;
 - g) document checking dates;
 - h) project quality audit dates;
 - j) project evaluation dates.

DRAWING PRODUCTION

- 4. Drawings are generally produced in accordance with BS1192 Drawing practice and <u>CPIC</u> "Production Information; a code or procedure for the construction industry".
- 5. Printed drawings are produced on standard sheets of *AO to A4* size. Each bears the following information in the title block:
 - a) the firms name and address;
 - b) the project and drawing number;
 - c) the revision identifier, if revised;
 - d) the name of the draftsperson and date and name of the checker.
- 6. Where drawings have been revised after the first issue, precise details of the amendment, revision letter, person making the amendment and the date are recorded on the drawing.
- 7. Numbering, issue and filing of drawings is described in Project document control. Checking of drawings is described in Drawing and document checking.

STANDARD DRAWINGS

8. Standard drawings for tried and tested details are to be used directly, or used to set principles for project specific situations, where appropriate. A list of drawings is maintained in the technical library andfill in title is responsible for their maintenance and review based on project feedback.

COMPUTER AIDED DESIGN (CAD)

9. Application of the <u>CPIC</u> "Production Information; a code or procedure for the construction industry" particularly applies to drawings produced by computer aided design (CAD). For bespoke system based applications refer to system documentation.

PROJECT SPECIFICATION

- 10. The project specification is compiled wherever coverage permits from *the National Building Specification* (<u>NBS</u>). A reference copy of the NBS is held by *the Principal*.
- 11. NBS is a proprietary product and all procedures and recommendations for its use applied as recommended by NBS and as in the <u>CPIC</u> "Production Information; a code or procedure for the construction industry".
- 12. When NBS is not used (e.g. when the type of work is not covered by the NBS) bespoke sections are prepared from validated technical sources in the style of the NBS and in sections as published in the CPIC Arrangement of work sections (CAWS)
- 13. Where the specification has been revised after the first issue, precise details of the amendment, revision letter, person making the amendment and the date are recorded.

PROPRIETARY PRODUCTS

- 14. Where proprietary products are to be incorporated in to the works that are untried or unfamiliar to the Practice, the project architect evaluates the product and records the results.
- 15. A proprietary product is evaluated on the following basis:
 - a) previous satisfactory use taking into account feedback;
 - b) satisfactory test reports by independent test bodies, eg BRE Certification, British Board of Agrément, BSI etc;
 - c) inspection of the installed product and consultation with the user or architect.
- 16. Products that are found to perform unsatisfactorily or do not meet the client's or Practice's expectation, will be reviewed during project evaluation (see <u>3.6</u> Feedback). If necessary results will be brought to the attention of staff.

CDM REGULATIONS

- 17. During the preparation of the project specification, the project architect consults with the planning supervisor to ascertain the health and safety requirements to be include.
- 18. The project architect reviews the production documents and conveys to the planning supervisor relevant information which may affect health and safety, for inclusion in the pre-tender Health and Safety Plan.

CHECKING AND APPROVAL

19. Checking and approval for issue of all drawings and documents both during the process and at its completion are carried out in accordance with 2.3 Drawing and document checking.

RELATED DOCUMENTS

20. Reference should also be made to the following documents:

- 2.2 Project Document Control;
- 2.3 Drawing and Document Checking;
- 2.4 Selection of Consultants and Contractors;
- 4.1 Office Document Control;
- NBS Reference Specification.

TENDER INVITATION

- 21. If requested by the client, the project architect is responsible for preparing a list of prospective tenderers from the list of approved contractors taking into consideration feedback from previous projects (see <u>3.6</u> Feedback). The list is submitted to the client for approval.
- 22. Each contractor is contacted by telephone or letter to confirm his willingness to tender. The project architect is responsible for collating tender documents, including those required under the CDM Regulations, and sending them to the selected tenderers.

RECEIPT OF TENDERS

- 23. Some clients have their own tender procedures adopt them where appropriate. Possible procedures for use in the absence of client or reference to other published procedures are the now obsolete <u>NJCC¹</u> procedures that are still followed by many clients.
- 24. When tenders are returned they are held until the final date for their return in a secure location. They are opened by the principal (in the presence of the client if requested).
- 25. The project architect checks the tenders to ensure that there are no errors, conditions or other qualifications. Should any be found they are referred back to the contractor for correction or withdrawal.
- 26. The project architect schedules the tenders in reverse order of price and records relevant comments on each. He passes them to the Principal for onward submission to the client with a recommendation to accept.
- 27. Once the client has approved the successful tenderer and instructions to proceed have been received, the project architect prepares two sets of tender documents for signature. A meeting is arranged with the contractor and the client for signing.

CONTRACT DOCUMENTS

28. The clients signed copy of the tender documents is stored in a safe location.

RELATED DOCUMENTS

- 29. Reference should also be made to the following documents:
 - 2.4 Selection of Consultants and Contractors;

CONSTRUCTION INFORMATION

- 30. The *project architect* is responsible for delivering all construction information to the contractor. This information includes all contract documents and additional information available to tenderers. Drawings and other documents are issued under the cover of an Architect's Instruction.
- 31. All additional information to be provided by the Practice for the completion the contract is scheduled and the program agreed with the contractor.
- 32. Review of design work to be provided by the contractor is to be scheduled and the program agreed with the contractor. NB Some standard contracts prescribe conditions with regard to information provision. They supersede the above when appropriate.

INSPECTION OF THE WORKS

- 33. Where the Practice is commissioned to inspect the progress and quality of the work on behalf of the client, the *project architect* makes a formal record of the visit noting the following:
 - a) the quality of completed work
 - b) the progress of the work in relation to the contractors program including the starts and completions of sections of the work;
 - c) queries from the contractor and answers given;
 - d) the weather conditions where it may affect the progress;
 - e) resolution of nonconformities which are to be confirmed in writing;
 - f) any other factors which may affect the progress or quality of the work.

ISSUE OF ARCHITECTS INSTRUCTIONS

- 34. Architects' Instructions are issued on the standard RIBA form and distributed as directed by the project architect. Those classified as b) below are copied to the quality manager for review and preventive action.
- 35. Each instruction is to be classified as follows:
 - a) issue of additional information to program;
 - b) issue of additional information in clarification of, or in addition to existing information;
 - c) resolution of contractors nonconformity, i.e. acceptance of alternative solutions or materials, extensions of time for weather.
- 36. All architects' Instructions that have a financial implication are priced prior to issue or waiver obtained by client for pricing information to follow .

INTERIM AND FINAL VALUATIONS

37. Interim and final certificates are issued on standard RIBA form where the Practice is commissioned for this task.

CDM REGULATIONS

38. The project architect liaises with the planning supervisor and provides relevant information for inclusion in the Health and Safety File.

PRACTICAL COMPLETION

- 39. On completion of the work the project architect, together with the clerk of works and other consultants, inspects the works to ascertain in so far as is possible by visual inspection that it complies with the contract requirements.
- 40. The project architect obtains from consultants confirmation that the work for which they are responsible is also complete, tested where appropriate, and acceptable. Test certificates are sought where appropriate.
- 41. Prior to practical completion, the Principal writes to the client informing of the implications, (i.e. start of the defects liability period, insurances etc. *see standard letter*). The project architect makes arrangements for delivering building control approval certificate, planning permission etc. if these are not in the Health and Safety File.
- 42. When the Principal is satisfied that the work is complete the client is invited to accept the building. The Principal will then sign the Certificate of Practical Completion.
- 43. As part of the Practice's Feedback Procedure the Principal should note the client's reactions and comments on the project, in particular the client's perception of the Practice's performance (delivery of the client's needs, compliance with programme, etc). Similarly the Principal should complete a Contractor's Performance Report and Consultant's Performance Report (if appropriate) and place them on file.

DEFECTS LIABILITY PERIOD

- 44. Towards the end of the defects liability period the project architect writes to the client and contractor informing him of the need to inspect the work before the period expires. The project architect liaises with the other consultants and arranges a suitable date for the inspection. The project architect collates the information from consultants with his own and submits a schedule of defects to the principal contractor for action.
- 45. As part of the Practice's Feedback Procedure the Principal should note the client's reactions and comments on the project, in particular the clients reaction to the building design.
- 46. On notification from the principal contractor that all defects have been rectified a final inspection will be undertaken. If all defects have been rectified satisfactorily, the Certificate of Completion of Making Good Defects is signed and issued by the Principal.
- 47. When the final account is agreed, the Principal signs the final certificate and issues it to the principal contractor, with copies to the client and consultants.

RELATED DOCUMENTS

48. Reference should also be made to the following documents:

Check-list for Health and Safety File (example not included).

FEEDBACK

- 49. It is important that the Practice obtain as much feedback as possible in order that the Practice can assess:
 - a) the performance of the Practice's design team and other consultants (appointed by the Practice),
 - b) the client's perception of the Practice and reactions to the completed project.

This should assist the Practice to improve performance and the standard service provided.

ARCHITECTS INSTRUCTIONS

50. The reasons for the issue of Architects Instructions are examined at the completion of the project by the project architect. A summary of the review is forwarded to the Quality manager for inclusion in his annual report to management.

PROJECT EVALUATION

- 51. As soon as possible, after the completion of the project on site, a meeting is held to appraise the following:
 - a) the performance of the design team;
 - b) the working arrangements between the design team and the client;
 - c) the working arrangement between the design team and the contractor;
 - d) the contractor's performance;
 - e) the design solution with particular reference to the client's comments (Note; it may not be possible to obtain a constructive reaction until the end of the defects liability period, see <u>3.5</u>);
 - f) the clients perception of the Practice and the service provided;
 - g) reasons for variations, Al's, revisions to the drawings and design
 - h) the quality system;
 - j) other relevant matters.
- 52. The meeting is chaired by the Principal, with the project architect and other staff attending as appropriate. Minutes are taken and distributed to those required to take action. The minutes are filed in the feedback file held by the Quality manager. Larger projects are generally reviewed individually whereas several smaller projects may be reviewed together.
- 53. The performance of the consultants and contractor is recorded in the consultants and contractors files respectively (see <u>2.4</u> Selection of consultants and contractors).
- 54. It is emphasised that the meeting should not concentrate on negative aspects of the project but also identifies the successes.

CLIENT AND USER COMMENTS

55. Observations and comments from the client and users (and general public where appropriate) are reviewed by the project architect and a summary sent to the Quality manager at the end of the defects liability period.

CUSTOMER COMPLAINTS

56. Should any specific complaint be made by the user or client on the performance of the design team, or on the performance of the building, materials or products, they are recorded in the customer complaints file held by the Quality manager. Where ameliorative action is warranted, it is the responsibility of the Quality manager to ensure that it is taken and that senior management is in contact with the client on the matter.

RELATED DOCUMENTS

- 57. Reference should also be made to the following documents:
 - 2.4 Selection of Consultants and Contractors;
 - 3.5 Post Contract Services.

OFFICE MANAGEMENT

SCOPE

58. This procedure outlines the system used for the identification, issue, approval and revision of all internally generated drawings. It is the Practice Policy to follow the detailed recommendations made in the document: <u>CPIC</u> "Production Information; a code or procedure for the construction industry".

RESPONSIBILITY

Partners Project Architects Architects Technicians

PROCEDURE

Drawing Identification

59. Each drawing is allocated a unique number. The drawing number is structured as follows. A brief description of the drawing number structure should be given.

Drawing Issue

60. All drawings are subject to an approval procedure prior to release.

or

a waiver is expressly obtained for release prior to and pending subsequent approval. Reasons for the need of a waiver must be stated.

- 61. The Drawing Issue Register is updated at every issue and it is the responsibility of the project architect to ensure that the Drawing Issue Register is at all times up to date. The Drawing Issue Register shall be held in the file.
- 62. Master copies of the latest drawings are locatedfill-in.....

Approval

63. All drawings are endorsed (initialed) by the person having generated the drawing indicating that the drawing is correct to all the latest information and is suitable for release (NB Clarity is main issue in order to track the process when needed – this is not a 'signature').

Revision Status

64. All drawings shall quote the latest revision status and the reason for changes shall be recorded on the drawing.

Superseded Drawings

65. All superseded drawings must be destroyed or identified as superseded, dated and signed.

Incoming Document Control

- 66. All documentation received shall be date stamped with date of receipt by *Administration and passed to the Partners for appraisal, action etc.*
- 67. All documentation shall be issued, after review by the Partners, for action as appropriate.
- 68. All Fax and E-mail shall be distributed by the Administration to the appropriate person.
- 69. All incoming documentation relating to a project shall be appraised by the person responsible for the project and shall ensure that:

The information provided is complete;

Ascertain the effect of amendments on any work already undertaken by the Practice and identify necessary changes to documents already issued by the Practice;

In the case of sub-consultants work the appraisal shall include verification of the adequacy of work produced against terms of engagement.

70. Where any information is ambiguous, or missing the sender shall be contacted to clarify or supply further information and this shall be confirmed by letter or recorded on a file note.

FORMS

Drawing Issue Register

CONTROL OF MONITORING AND MEASURING DEVICES

SCOPE

71. This procedure does not refer to drafting tools/ aids. The Practice only uses basic measuring equipment, which is generally used only as an indicator and not for precise measurements for construction purposes.

RESPONSIBILITY

Senior Partners Project Architects Architects Technicians Quality manager

PROCEDURE

- 72. All tapes, folding rods, etc. shall, before use, be examined to ensure they are not damaged and are legible.
- 73. Tapes and rods that are damaged or illegible are thrown away and replaced.
- 74. Any other equipment e.g. Level, Laser measuring device, etc., shall be logged on the Measuring Equipment Log and each piece of equipment identified.
- 75. Checks and service routines are carried out on such equipment as directed by the manufacturer.
- 76. Records of these checks and the frequency of the checks are recorded on the Measuring Equipment Log.

FORMS

Form 4.2.1 Measuring Equipment Log

PRESERVATION OF DOCUMENTATION

SCOPE

77. This procedure outlines the system used by the Practice to ensure that no damage, misuse, or deterioration occurs during the preparation off documentation or service offered to a client.

RESPONSIBILITY

Partners Project Architect Architects Technicians Administration

PROCEDURE

- 78. All correspondence (project related), drawings, specifications, reports, photograph, models, samples etc shall at all times be identified by the project number and/or the client's name.
- 79. Most handling within the Practice relates to documentation and therefore only minimal office handling techniques are applicable.
- 80. All project related parts, drawings etc are stored in suitable cabinets to ensure no damage or deterioration.
- 81. All documentation is delivered through the normal mail channels or by a recognised carrier.
- 82. In preparation for dispatch all documentation shall be carefully and securely packaged to ensure no damage in transit.

CONTROL OF QUALITY RECORDS

SCOPE

83. This procedure outlines the system used by the Practice for the indexing, filing, retention and disposal of project related information and that relating to the management of the quality system.

RESPONSIBILITY

Partners Architects Technicians Administration

PROCEDURE

84. Material related to projects that are complete, i.e. beyond final certificate, are stored so as to ensure safe preservation.

Hard copy of project documentation if under "seal" is retained for a minimum of 12 years before disposition.

Hard copy of project documentation if under "hand" is retained for minimum of 6 years before disposition.

85. The documentation relating solely to the quality system consists of:

Preferred Consultants List Consultants Performance Assessment Report Measurement Equipment Log Internal Audit Reports Minutes of Management Review Meetings

The above shall be retained by the Quality manager.

- 86. Where documentation relating to the Quality System is complete this shall be retained for a period of three years.
- 87. Personnel documentation e.g. training records etc shall be retained by the Partners during the duration of the individuals employment with the Practice.
- 88. Personnel records shall be retained for a period of five years after an individual has ceased employment with the Practice.

COMPETANCE AND AWARENESS TRAINING

SCOPE

89. The procedure outlines how the Practice identifies and considers the training needs of all employees and assesses the effectiveness of any training given.

RESPONSIBILITY

Partners Quality manager

PROCEDURE

Competency

90. The Practice employs experienced and/or qualified staff related to the requirements of the Practice.

91. The Partners shall identify the understanding and skill required for any vacancy that occurs.

Awareness

92. All employees shall undergo an induction training programme within the first week of employment. The agenda for this is on the Practice's Induction Checklist.

Training

- 93. Training needs are identified at Management Review Meetings. Individual architects are responsible for ensuring that their <u>CPD</u> records² are at all times up to date. The Partners will maintain records of all other relevant training carried out.
- 94. A review of the effectiveness of any training carried out forms part of the agenda of the Management Review Meeting and shall be recorded on a Training Evaluation Record.

FORMS

Form 4.5.1 – Induction Check List Form 4.5.2 - Training Records Form 4.5.3 – Training Evaluation Record

² The RIBA provides an electronic <u>CPD record</u> format in the member's section of the website

Unit 3 Design Studio – Quality Management System Procedures Manual