AIQS
Dubai - UAE

ADVANCING BUILT ENVIRONMENT
COST PROFESSIONALS

COST PLANNING AND COST MANAGEMENT IN CONSTRUCTION PROJECTS

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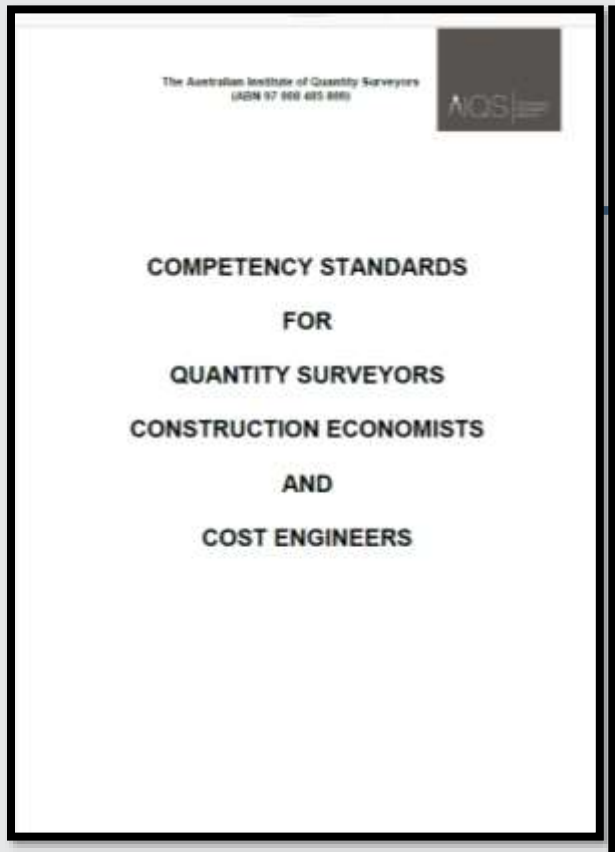
01. AIQS COMPETENCIES INTRODUCTION



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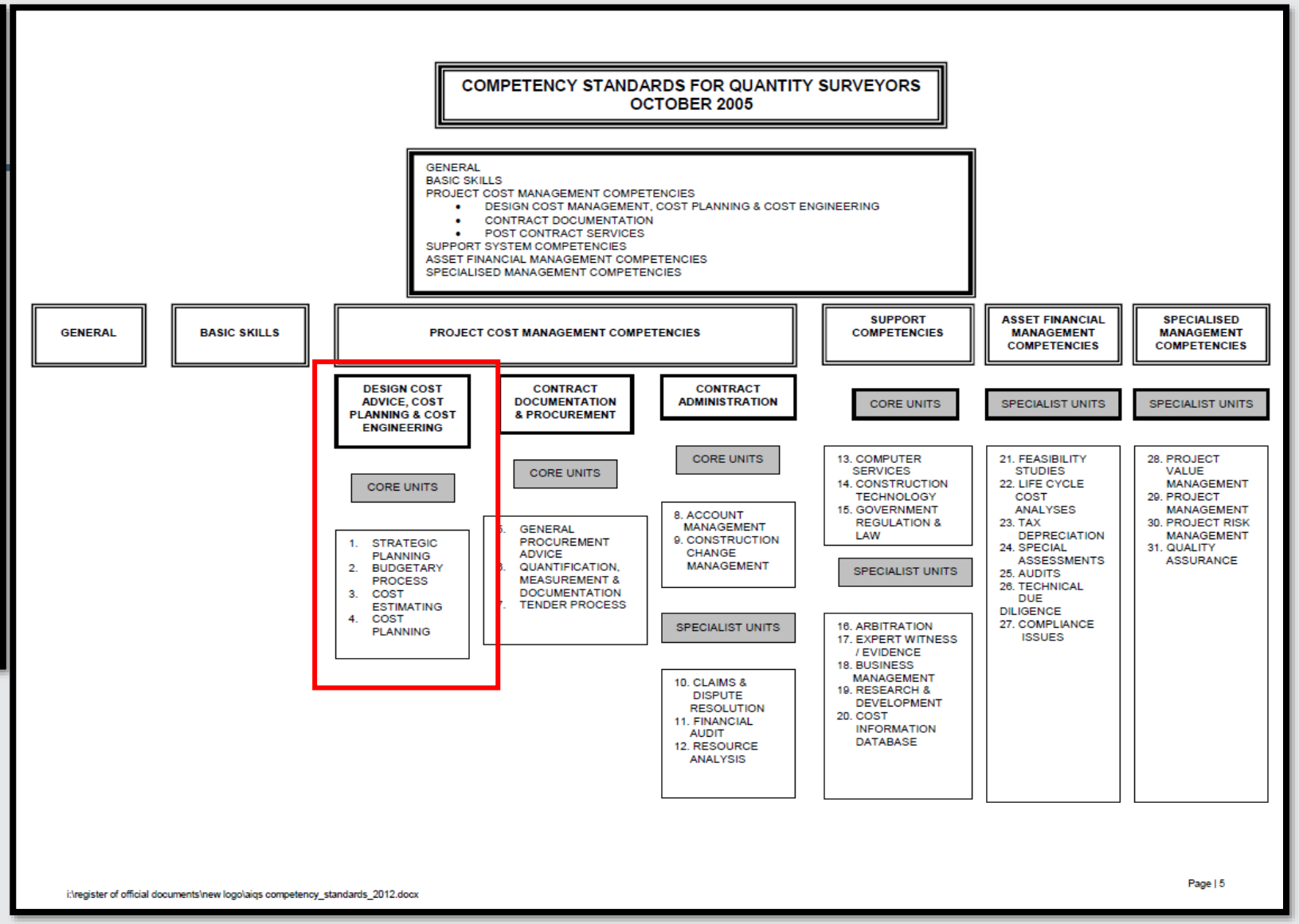


PROJECT COST MANAGEMENT COMPETENCIES

Project cost management involves various cost management and procurement procedures to ensure that **the Client's budget is properly established and maintained.**

DESIGN COST ADVICE, COST PLANNING AND COST ENGINEERING COMPETENCIES

Cost management of a project includes establishing the budget and then effectively monitoring and reporting against that budget on a regular basis, cost planning the evolving design, preparing appropriate contract documentation and advising on variations and claims during the progress of the project.

Additional Range Indicators

- Strategies for gathering data and carrying out research on current construction costs and future predictions
- Analysis of data relating to costing, budgeting and cashflows including financial implications of various options
- Use of appropriate analysis and evaluation techniques in reporting to the Client
- Application of principles of cost management and elemental cost analysis

PROFESSIONAL CQS SERVICES

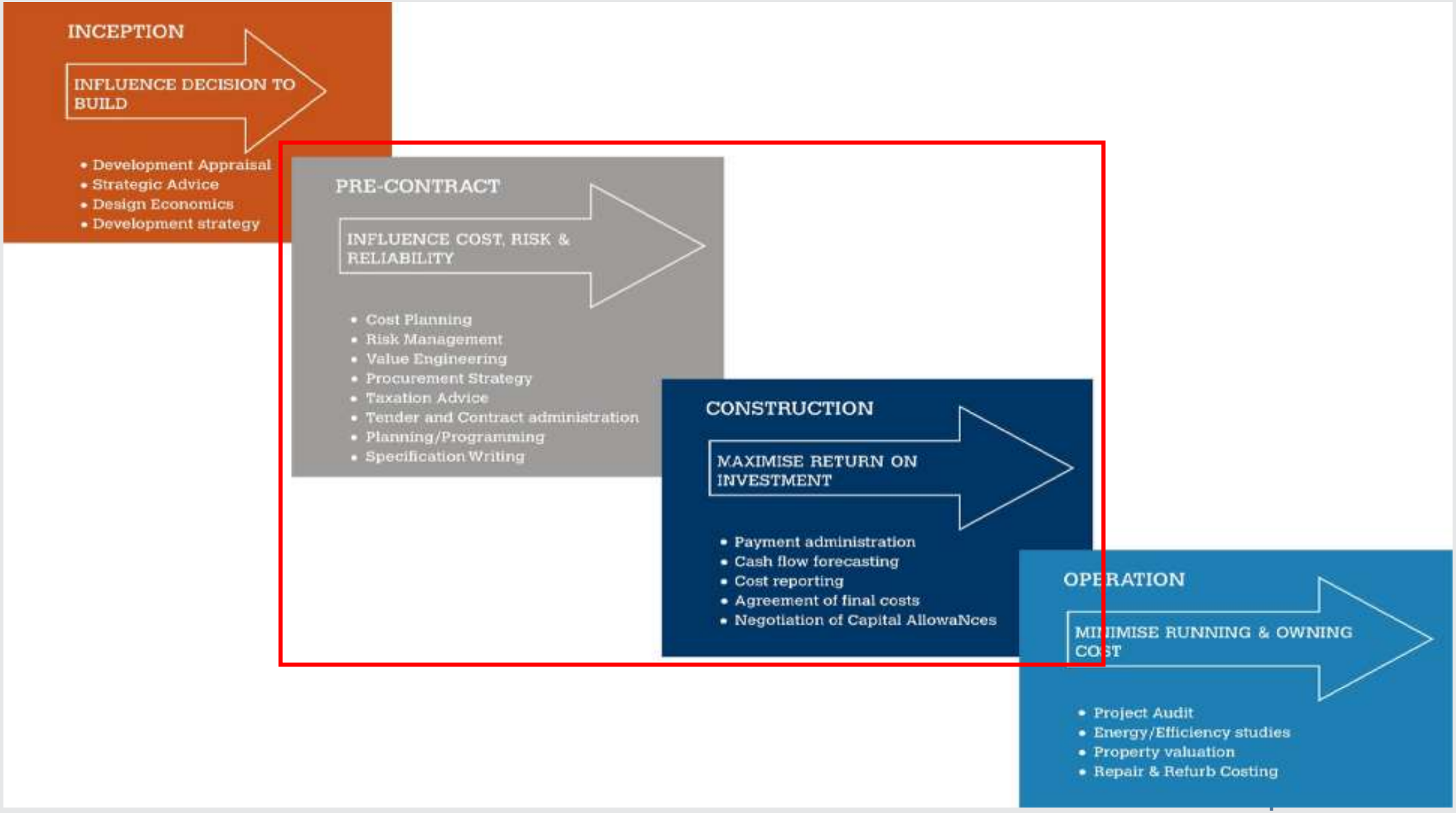
- Client Brief
- Development appraisal
- Viability of Project
- Project evaluation
- Procurement Strategy
- Cost Planning
- Pretender Estimate
- Tendering process

- Contract formation
- Contract documentation
- Conttact Administration
- Commercial Management
- Change Mangement
- Post Contract issues
- Vartaitions
- Valuations
- Final account

- Conflicts Avoidance in Pre-contract stage
- Conflicts to Dispute
- Contractual process
- Dispure resolution processes
- ADR (Alternate Dispute resolution) Methods
- Arbitration
- Litigation

- Contarctual provisions
- Claims procedures
- Claims submissions
- Review and analysis
- Evaluation
- Determination
- Negotiations
- Consultations
- Conclusion

PROJECT DEVELOPMENT CYCLE



02. PROJECT BRIEF AND DEVELOPMENT

Preparation of the project brief is likely to be coordinated by the lead consultant.

"The project brief is the final stage in the process of **defining the client's requirements for the development of a built asset**".

Development appraisal involves research into constraints and opportunities evolving from the location, legal and planning aspects of potential sites as well as their physical characteristics.

"A development appraisal is a financial assessment to enable a developer to establish the viability of a project."

Client's requirements

Time : Time and timing, which are of the essence, with costs and project processes inextricably linked.

Quality : Quality goals, which have to be properly defined if they are to be achieved.

Flexibility : The need to adapt to changing circumstances and keep projects on track whatever happens.

Costs : Effective financial planning and cost management are essential throughout.

Risks : Risks, which have to be identified, quantified and managed – and avoided wherever possible.

Client's wants and needs

Preparation of Project brief

Preparation of the project brief is likely to be coordinated by the lead consultant. As well as gathering information about physical requirements, the briefing process should:

1. Verify the objectives and priorities of the project.
2. Ensure space, time and budget parameters are aligned with the client's vision and needs.
3. Ensure expectations are reasonable and attainable.
4. Clarify client roles and the project structure.
5. Establish how much the client knows already and their level of experience; do they already have a clear brief?
6. Gather contextual information.
7. Gather user information.
8. Establish the building life span and flexibility requirements.

Core members involve in Project brief

The core members of the design team typically comprise:

- lead designer
- principal designer (usually a sub-function of the lead designer role)
- designers: architect, interior designer and landscape architect
- engineers: civil and structural and building services engineers
- cost consultant
- construction advisor
- specialist consultants

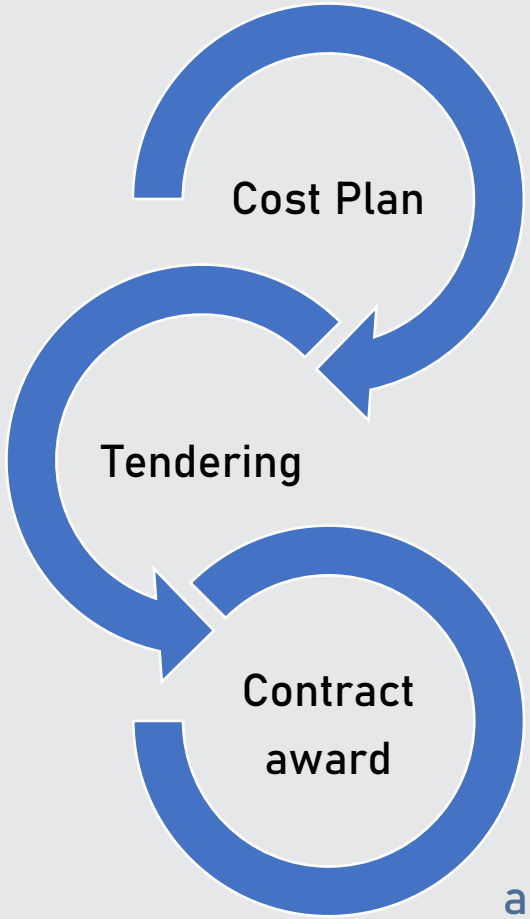
Many specialist consultants – with detailed knowledge and experience of a particular subject – may be involved in the design of a building. The need for their input will depend on the **Project Brief** and the experience and skills of the core design team members. Specialist consultants might include:

- fire engineer
- acoustic consultant
- security consultant
- façade engineer
- sustainability consultant
- specification consultant
- BIM consultant

- a poor **Project Brief** is likely to lead to poor design outcomes
- a poor design will not achieve exemplary **Project Outcomes**
- designs that are not **Spatially Coordinated** in Stage 3 will result in unnecessary iterations in Stage 4
- poor information in Stage 4 will create an unnecessary volume of **Site Queries**
- lack of foresight on maintenance in the early stages will make maintenance difficult.

03. PRE-CONTRACT COST MANAGEMENT

- Project brief and development appraisal
- Design Economics
- Cost Advice
- Cost Planning Process
- Pre-tender estimate
- Tendering process and evaluation
- Finalization of the Contract award

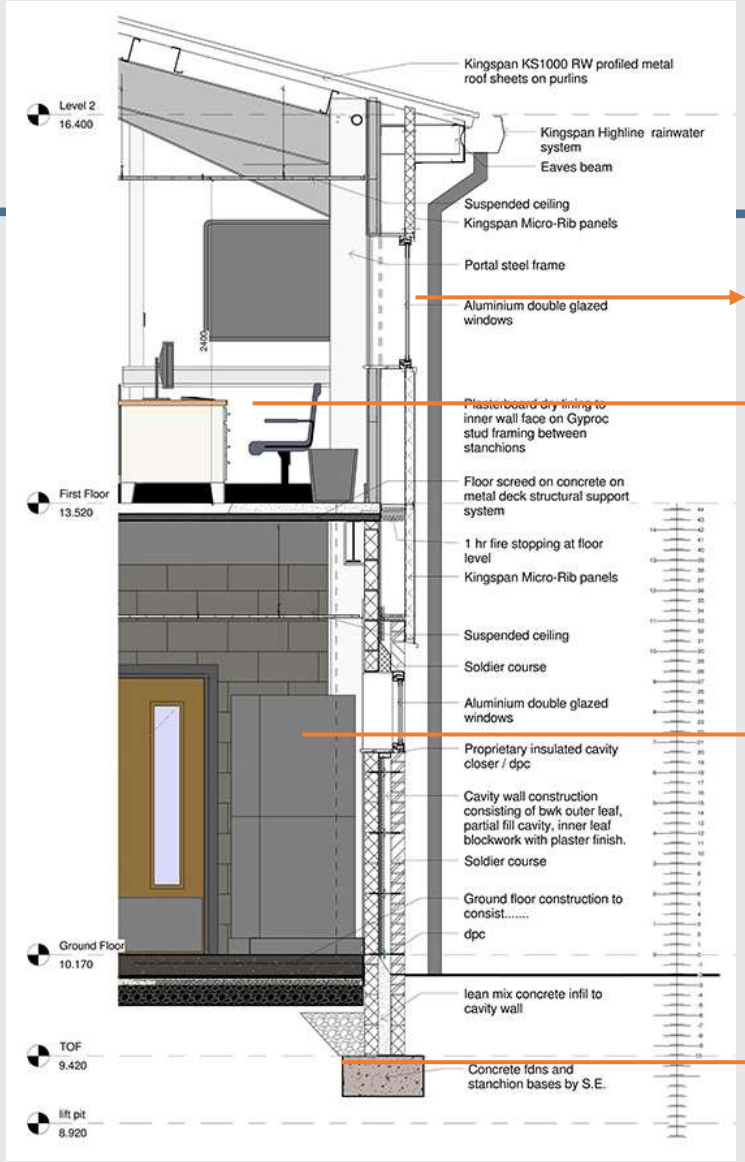


04. DESIGN COST ADVICE ,COST PLANNING AND ECONOMICS

Few Definitions

An **element** (for cost analysis/planning purposes) is a major physical part of a building that fulfils a specific function or functions irrespective of its design, specification or construction.

"Elemental cost planning is a system of Cost planning and Cost control, typically for buildings, which enables the cost of a scheme to be monitored during design development."

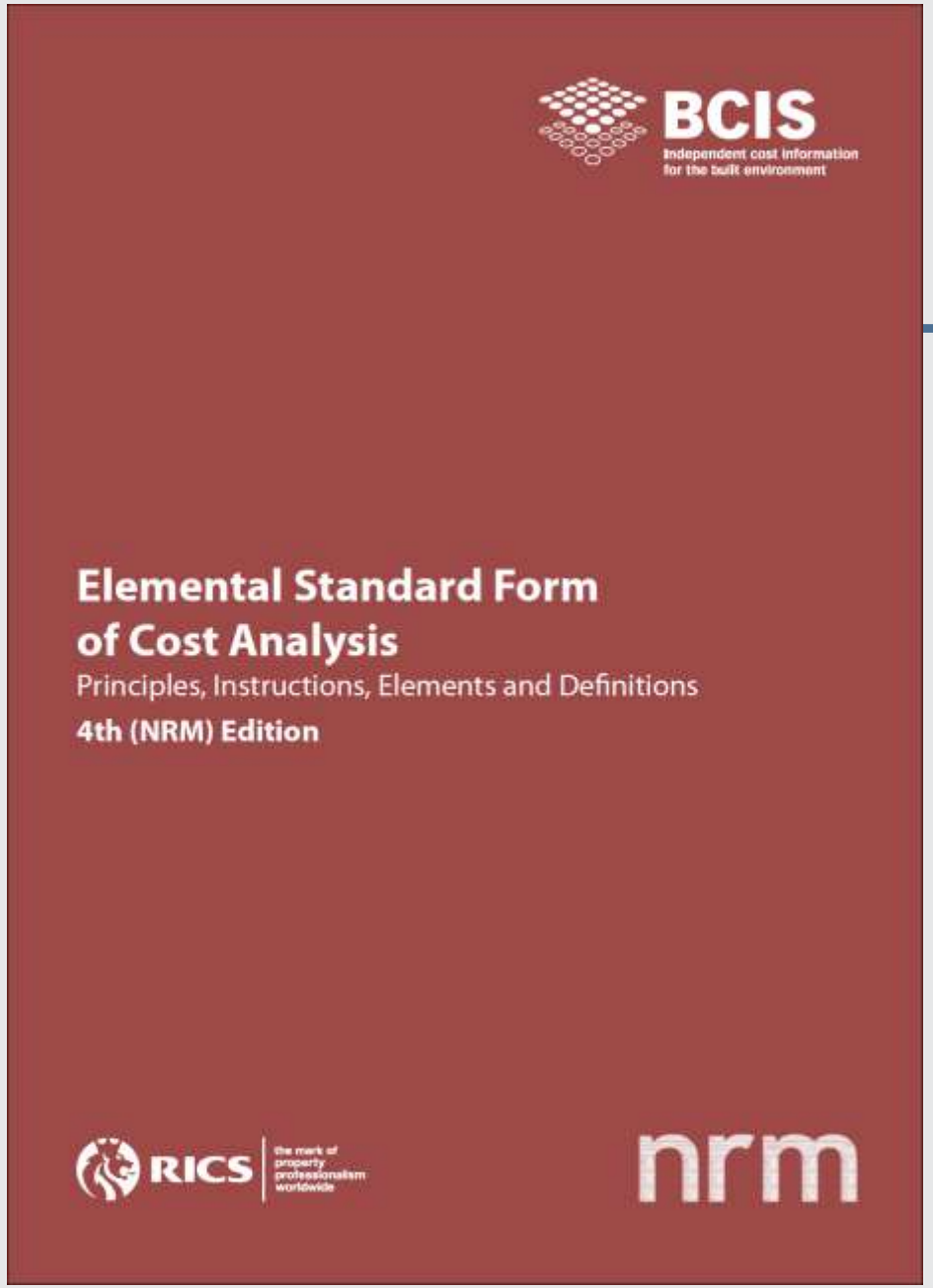


Services

FF& E

Superstructure

Sub-structure



Contents

Cost Plan Format Elements breakdown

COST CENTRE	GROUP ELEMENT/ELEMENT	COST/M² OF GIFA	TOTAL COST OF ELEMENT (TARGET COST)
		£	£
	FACILITATING WORKS AND BUILDING WORKS		
0	Facilitating works		
1	Substructure		
2	Superstructure		
3	Internal finishes		
4	Fittings, furnishings and equipment		
5	Services		
6	Prefabricated buildings and building units		
7	Work to existing buildings		
8	External works		
	SUB-TOTAL: FACILITATING WORKS AND BUILDING WORKS (A)		
9	Main contractor's preliminaries (B)		
	SUB-TOTAL: FACILITATING WORKS AND BUILDING WORKS (including main contractor's preliminaries) (C) [C = A + B]		
10	Main contractor's overheads and profit (D)		
	TOTAL: BUILDING WORKS ESTIMATE (E) [E = C + D]		
	PROJECT/DESIGN TEAM FEES AND OTHER DEVELOPMENT/PROJECT		
11	Project/design team fees (F)		
12	Other development/project costs (G)		
	TOTAL: PROJECT/DESIGN TEAM FEES AND OTHER DEVELOPMENT/PROJECT COSTS ESTIMATE (H) [H = F + G]		
	BASE COST ESTIMATE (I) [I = E + H]		
13	TOTAL: RISK ALLOWANCE ESTIMATE (J)		
	COST LIMIT (excluding inflation) (K) [K = I + J]		
14	TOTAL: INFLATION ALLOWANCE (L)		
	COST LIMIT (excluding VAT assessment) (M) [M = K + L]		
16	VAT ASSESSMENT		excluded (See Note)

Hard Cost

Reference: NRM1

Soft Cost

RIBA- 2020 PLAN OF WORK

- Agree appointments with the professional team
- Develop a brief with the client
- Create concept designs options
- Coordinate the design
- Prepare a planning application
- Apply for planning consent
- Develop a set of construction information
- Prepare a tender
- Obtain consents required prior to construction
- Award a Building Contract
- Construct the building
- Inspect the construction as it progresses
- Hand over the building.

RIBA Plan of Work 2013

RIBA

The RIBA Plan of Work 2013 organises the process of briefing, designing, constructing, maintaining, operating and using building projects into a number of key stages. The content of stages may vary or overlap to suit specific project requirements. The RIBA Plan of Work 2013 should be used solely as guidance for the preparation of detailed professional services contracts and building contracts.

www.ribaplanofwork.com

Stages / Tasks	0 Strategic Definition	1 Preparation and Brief	2 Concept Design	3 Developed Design	4 Technical Design	5 Construction	6 Handover and Close Out	7 In Use
Core Objectives	Identify client's **Business Case** and **Strategic Brief** and other core project requirements.	Develop **Project Objectives**, including **Quality Objectives** and **Project Outcomes**, **Sustainability Aspirations**, **Project Budget**, other parameters or constraints and develop **Initial Project Brief**. Undertake **Feasibility Studies** and review of **Site Information**.	Prepare **Concept Design**, including outline proposals for structural design, building services systems, outline specifications and preliminary **Cost Information** along with relevant **Project Strategies** in accordance with **Design Programme**. Agree alterations to brief and issue **Final Project Brief**.	Prepare **Developed Design**, including coordinated and updated proposals for structural design, building services systems, outline specifications, **Cost Information** and **Project Strategies** in accordance with **Design Programme**.	Prepare **Technical Design** in accordance with **Design Responsibility Matrix** and **Project Strategies** to include all architectural, structural and building services information, specialist subcontractor design and specifications, in accordance with **Design Programme**.	Offsite manufacturing and onsite **Construction** in accordance with **Construction Programme** and resolution of **Design Queries** from site as they arise.	Handover of building and conclusion of **Building Contract**.	Undertake **In Use** services in accordance with **Schedule of Services**.
Procurement *Variable task bar	Initial considerations for assembling the project team.	Prepare **Project Roles Table** and **Contractual Tree** and continue assembling the project team.	The procurement strategy does not fundamentally alter the progression of the design or the level of detail prepared at a given stage. However, **Information Exchanges** will vary depending on the selected procurement route and **Building Contract**. A bespoke **RIBA Plan of Work 2013** will set out the specific tendering and procurement activities that will occur at each stage in relation to the chosen procurement route.			Administration of **Building Contract**, including regular site inspections and review of progress.	Conclude administration of **Building Contract**.	
Programme *Variable task bar	Establish **Project Programme**.	Review **Project Programme**.	Review **Project Programme**.	The procurement route may dictate the **Project Programme** and may result in certain stages overlapping or being undertaken concurrently. A bespoke **RIBA Plan of Work 2013** will clarify the stage overlaps. The **Project Programme** will set out the specific stage dates and detailed programme durations.				
(Town) Planning *Variable task bar	Pre-application discussions.	Pre-application discussions.	Planning applications are typically made using the Stage 3 output. A bespoke **RIBA Plan of Work 2013** will identify when the planning application is to be made.					
Suggested Key Support Tasks	Review **Feedback** from previous projects.	Prepare **Handover Strategy** and **Risk Assessments**. Agree **Schedule of Services**, **Design Responsibility Matrix** and **Information Exchanges** and prepare **Project Execution Plan** including **Technology** and **Communication Strategies** and consideration of **Common Standards** to be used.	Prepare **Sustainability Strategy**, **Maintenance and Operational Strategy** and review **Handover Strategy** and **Risk Assessments**. Undertake third party consultations as required and any **Research and Development** aspects. Review and update **Project Execution Plan**. Consider **Construction Strategy**, including offsite fabrication, and develop **Health and Safety Strategy**.	Review and update **Sustainability**, **Maintenance and Operational** and **Handover Strategies** and **Risk Assessments**. Undertake third party consultations as required and conclude **Research and Development** aspects. Review and update **Project Execution Plan**, including **Change Control Procedures**. Review and update **Construction** and **Health and Safety Strategies**.	Review and update **Sustainability**, **Maintenance and Operational** and **Handover Strategies** and **Risk Assessments**. Prepare and submit Building Regulations submission and any other third party submissions requiring consent. Review and update **Project Execution Plan**. Review **Construction Strategy**, including sequencing, and update **Health and Safety Strategy**.	Review and update **Sustainability Strategy** and implement **Handover Strategy**, including agreement of information required for commissioning, training, handover, asset management, future monitoring and maintenance and ongoing compilation of **'As-constructed' Information**. Update **Construction** and **Health and Safety Strategies**.	Carry out activities listed in **Handover Strategy** including **Feedback** for use during the future life of the building or on future projects. Updating of **Project Information** as required.	Conclude activities listed in **Handover Strategy** including **Post-occupancy Evaluation**, review of **Project Performance**, **Project Outcomes** and **Research and Development** aspects. Updating of **Project Information**, as required, in response to ongoing client **Feedback** until the end of the building's life.
Sustainability Checkpoints	**Sustainability Checkpoint — 0**	**Sustainability Checkpoint — 1**	**Sustainability Checkpoint — 2**	**Sustainability Checkpoint — 3**	**Sustainability Checkpoint — 4**	**Sustainability Checkpoint — 5**	**Sustainability Checkpoint — 6**	**Sustainability Checkpoint — 7**
Information Exchanges (at stage completion)	**Strategic Brief**.	**Initial Project Brief**.	**Concept Design** including outline structural and building services design, associated **Project Strategies**, preliminary **Cost Information** and **Final Project Brief**.	**Developed Design**, including the coordinated architectural, structural and building services design and updated **Cost Information**.	Completed **Technical Design** of the project.	**'As-constructed' Information**.	Updated **'As-constructed' Information**.	**'As-constructed' Information** updated in response to ongoing client **Feedback** and maintenance or operational developments.
UK Government Information Exchanges	Not required.	Required.	Required.	Required.	Not required.	Not required.	Required.	As required.

RIBA Plan of Work 2020

The RIBA Plan of Work organises the process of briefing, designing, delivering, maintaining, operating and using a building into eight stages. It is a framework for all disciplines on construction projects and should be used solely as guidance for the preparation of detailed professional services and building contracts.

Stage Boundaries:
Stages 0-4 will generally be undertaken one after the other.
Stages 4 and 5 will overlap in the **Project Programme** for most projects.
Stage 5 commences when the contractor takes possession of the site and finishes at **Practical Completion**.
Stage 6 starts with the handover of the building to the client immediately after **Practical Completion** and finishes at the end of the **Defects Liability Period**.
Stage 7 starts concurrently with Stage 6 and lasts for the life of the building.

Planning Note:
Planning Applications are generally submitted at the end of Stage 3 and should only be submitted earlier when the threshold of information required has been met. If a **Planning Application** is made during Stage 3, a mid-stage gateway should be determined and it should be clear to the project team which tasks and deliverables will be required.
See *Overview* guidance.

Procurement:
The RIBA Plan of Work is procurement neutral – See *Overview* guidance for

	0 Strategic Definition	1 Preparation and Briefing	2 Concept Design	3 Spatial Coordination	4 Technical Design	5 Manufacturing and Construction	6 Handover	7 Use
	Projects span from Stage 1 to Stage 6; the outcome of Stage 0 may be the decision to initiate a project and Stage 7 covers the ongoing use of the building.							
Stage Outcome at the end of the stage	The best means of achieving the **Client Requirements** confirmed If the outcome determines that a building is the best means of achieving the **Client Requirements**, the client proceeds to Stage 1	**Project Brief** approved by the client and confirmed that it can be accommodated on the site	**Architectural Concept** approved by the client and aligned to the **Project Brief** The brief remains "live" during Stage 2 and is derogated in response to the **Architectural Concept**	Architectural and engineering information **Spatially Coordinated**	All design information required to manufacture and construct the project completed Stage 4 will overlap with Stage 5 on most projects	Manufacturing, construction and **Commissioning** completed There is no design work in Stage 5 other than responding to **Site Queries**	Building handed over, **Aftercare** initiated and **Building Contract** concluded	Building used, operated and maintained efficiently Stage 7 starts concurrently with Stage 6 and lasts for the life of the building
Core Tasks during the stage **Project Strategies** might include: – **Conservation** (if applicable) – **Cost** – **Fire Safety** – **Health and Safety** – **Inclusive Design** – **Planning** – **Plan for Use** – **Procurement** – **Sustainability** See *RIBA Plan of Work 2020 Overview* for detailed guidance on **Project Strategies**	Prepare **Client Requirements** Develop **Business Case** for feasible options including review of **Project Risks** and **Project Budget** Ratify option that best delivers **Client Requirements** Review **Feedback** from previous projects Undertake **Site Appraisals** No design team required for Stages 0 and 1. Client advisers may be appointed to the client team to provide strategic advice and design thinking before Stage 2 commences.	Prepare **Project Brief** including **Project Outcomes** and **Sustainability Outcomes**, **Quality Aspirations** and **Spatial Requirements** Undertake **Feasibility Studies** Agree **Project Budget** Source **Site Information** including **Site Surveys** Prepare **Project Programme** Prepare **Project Execution Plan**	Prepare **Architectural Concept** incorporating **Strategic Engineering** requirements and aligned to **Cost Plan**, **Project Strategies** and **Outline Specification** Agree **Project Brief Derogations** Undertake **Design Reviews** with client and **Project Stakeholders** Prepare stage **Design Programme**	Undertake **Design Studies**, **Engineering Analysis** and **Cost Exercises** to test **Architectural Concept** resulting in **Spatially Coordinated** design aligned to updated **Cost Plan**, **Project Strategies** and **Outline Specification** Initiate **Change Control Procedures** Prepare stage **Design Programme**	Develop architectural and engineering technical design Prepare and coordinate design team **Building Systems** information Prepare and integrate specialist subcontractor **Building Systems** information Prepare stage **Design Programme** Specialist subcontractor designs are prepared and reviewed during Stage 4	Finalise **Site Logistics** Manufacture **Building Systems** and construct building Monitor progress against **Construction Programme** Inspect **Construction Quality** Resolve **Site Queries** as required Undertake **Commissioning** of building Prepare **Building Manual** Building handover tasks bridge Stages 5 and 6 as set out in the **Plan for Use Strategy**	Hand over building in line with **Plan for Use Strategy** Undertake review of **Project Performance** Undertake seasonal **Commissioning** Rectify defects Complete initial **Aftercare** tasks including light touch **Post Occupancy Evaluation**	Implement **Facilities Management** and **Asset Management** Undertake **Post Occupancy Evaluation** of building performance in use Verify **Project Outcomes** including **Sustainability Outcomes** Adaptation of a building (at the end of its useful life) triggers a new Stage 0
Core Statutory Processes during the stage: Planning Building Regulations Health and Safety (CDM)	Strategic appraisal of **Planning** considerations	Source pre-application **Planning Advice** Initiate collation of health and safety **Pre-construction Information**	Obtain pre-application **Planning Advice** Agree route to **Building Regulations** compliance Option: submit outline **Planning Application**	Review design against **Building Regulations** Prepare and submit **Planning Application** See ***Planning Note*** for guidance on submitting a **Planning Application** earlier than at end of Stage 3	Submit **Building Regulations Application** Discharge pre-commencement **Planning Conditions** Prepare **Construction Phase Plan** Submit form F10 to HSE if applicable	Carry out **Construction Phase Plan** Comply with **Planning Conditions** related to construction	Comply with **Planning Conditions** as required	Comply with **Planning Conditions** as required
Procurement Route Traditional Design & Build 1 Stage Design & Build 2 Stage Management Contract	Appoint client team	Appoint design team Procurement Strategy Responsibility Matrix Information Requirements	ER Appoint	Pre-contract services agreement	Tender Appoint contractor ER CP Appoint contractor CP Appoint contractor tasks must be defined			Appoint **Facilities Management** and **Asset Management** teams, and strategic advisers as needed

The RIBA Plan of Work published by the RIBA in 2020 defines **spatial requirements** as: 'A schedule of rooms and/or spaces that will achieve the Client **Requirements**. The **Spatial Requirements** for the building as a whole are set at Stage 0 (strategic **definition**).

a **spatially coordinated** design is a: 'Design in which the client's **Spatial** Requirements and the spaces required for any Building Systems – such as structural and building services engineering aspects, including grids, risers and plant rooms – have been determined and fixed to allow Stage 4 to progress

RIBA Architecture.com

Core RIBA Plan of Work terms are defined in the *RIBA Plan of Work 2020 Overview* glossary and set in **Bold Type**.

Further guidance and detailed stage descriptions are included in the *RIBA Plan of Work 2020 Overview*.

Cost Plan Strategy

The **Cost Plan** represents the anticipated construction cost of the building and, as such, it represents only a portion of the **Project Budget**. The **Cost Plan** used to be prepared at the end of Stage 2 or Stage 3. At the outset, the **Cost Plan** can be based on industry norms for similar building types adjusted to take account of market conditions, project abnormalities, Project Risks and contingencies. As design information is developed, an elemental **Cost Plan** is prepared. Essentially, this breaks down the cost for the building into the different **Building Systems**.

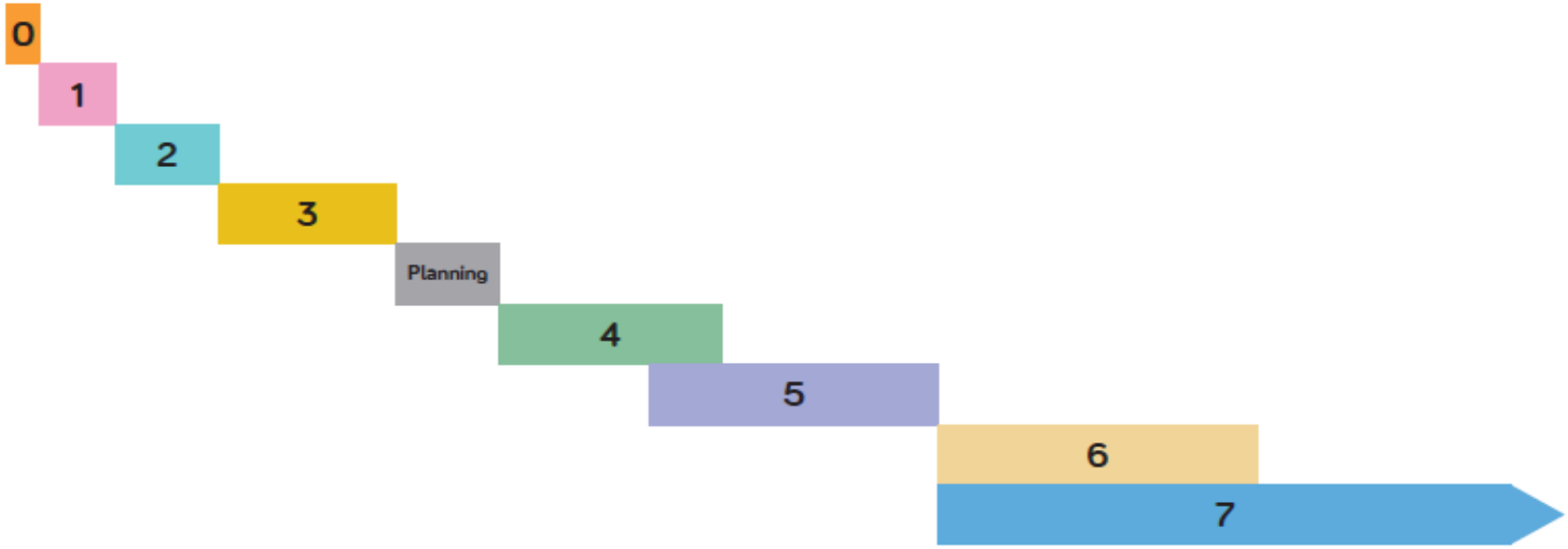
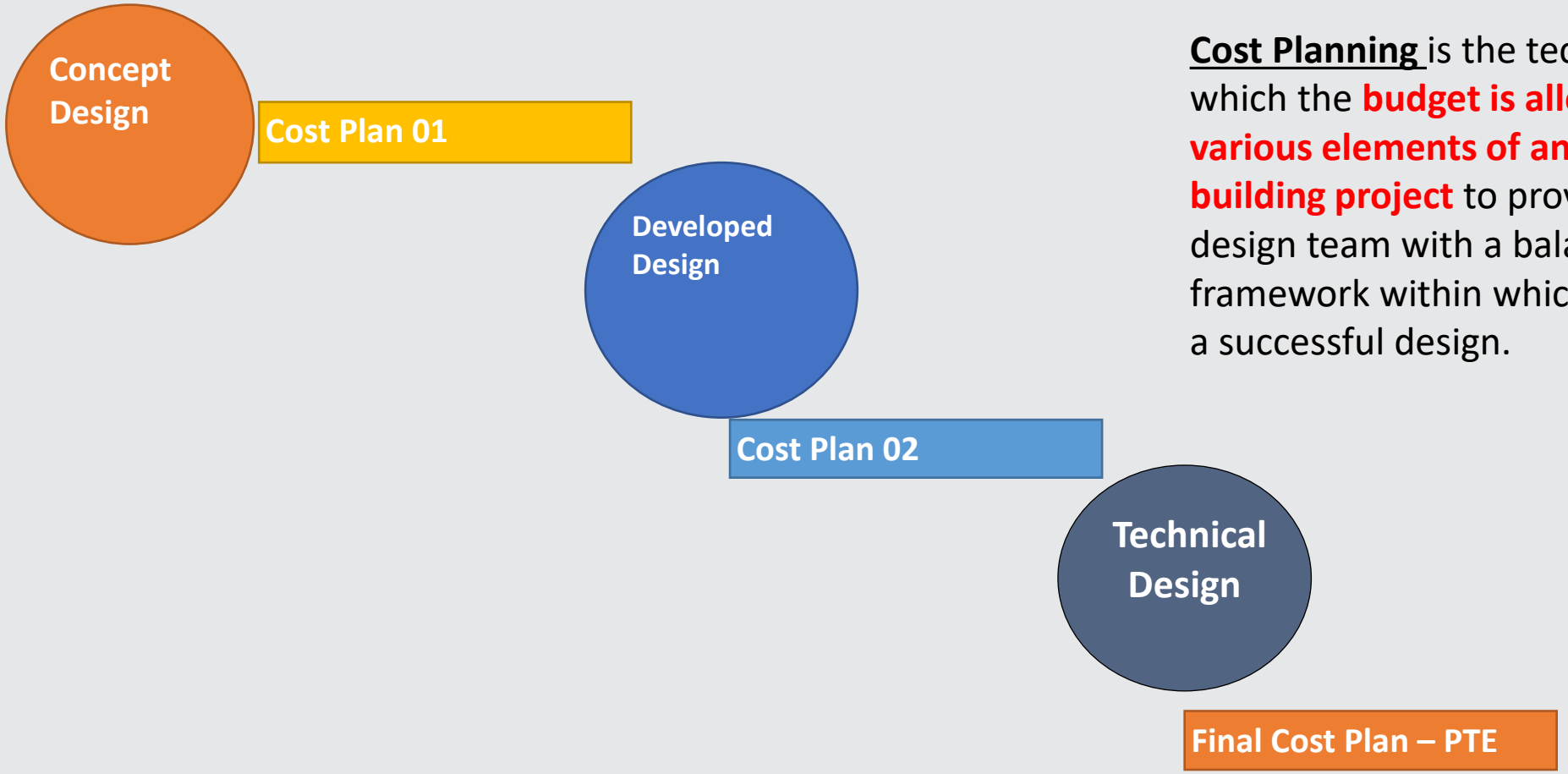


Figure 2: Example Project Programme for each stage of the RIBA Plan of Work 2020

Design Vs Cost

Design economics is an understanding of the **economics** associated with the **design of** building.

Cost Planning is the technique by which the **budget is allocated** to the **various elements of an intended building project** to provide the design team with a balanced cost framework within which to produce a successful design.



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Elemental cost plan for design and construction

Cost plans are generally prepared by cost consultants (often quantity surveyors). They evolve through the life of the project, developing in detail and accuracy based on the nature of the design, and then actual prices are provided by specialist contractors, contractors and suppliers. They range from very early initial cost appraisals through to tender pricing documents.

Cost Planning Process

- Client's requirements
- Quantification process
- Standard Method of measurements
- Pricing methods
- Rates database
- Assumptions
- Exclusions
- Inclusions
- Marked-up drawings /List
- Contingencies
- Risk Register
- Control of documents and distributions
- Revisions
- Value Engineering options
- Design Economics options
- Revised Cost Plans
- Comparative Cost Plan
- Bench Marking
- BCIS/NRM Cost Analysis.

Structure your Cost Plan

- Executive summary
- Outline of key risks
- Assumptions
- Exclusions
- Information Used
- Details
- Area schedule
- **TIP**: Include a set of Marked up drawings

Elemental **cost planning** is a system of **Cost planning** and **Cost control**, typically for buildings, which enables the **cost** of a scheme to be monitored during design development.

Preparation of BOQ

- List of drawings
- Specifications
- Standard Method of measurements
- Exclusions
- Information Used
- Details
- Other schedules (BBS, Cost breakdown etc.,)
- Preambles

The Bill of Quantities (sometimes referred to as 'BoQ' or 'BQ') is a document prepared by the cost consultant (often a quantity surveyor) that provides project specific measured quantities of the items of work identified by the drawings and specifications in the tender documentation.

Measurement

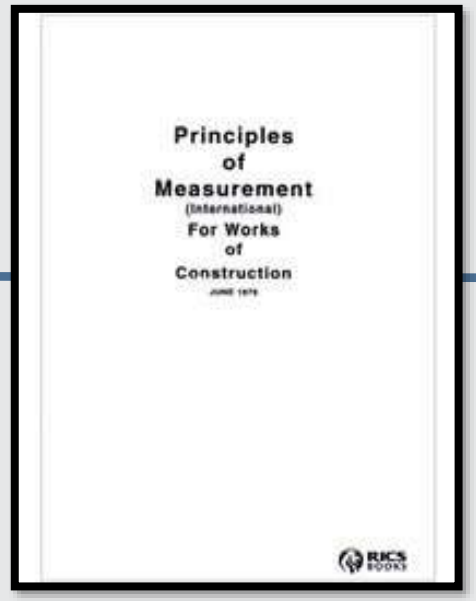
- Traditional measure / BIM
- Focus on areas with greatest value
- Focus on areas that take longest to measure
- **TIP:** Think about what is **not** on the drawings
  - Plant rooms
  - Building maintenance unit
- **TIP:** Think outside the box
  - If you were an auditor, where would you find gaps in a cost plan?
- Understand your building function
- Know your stuff!

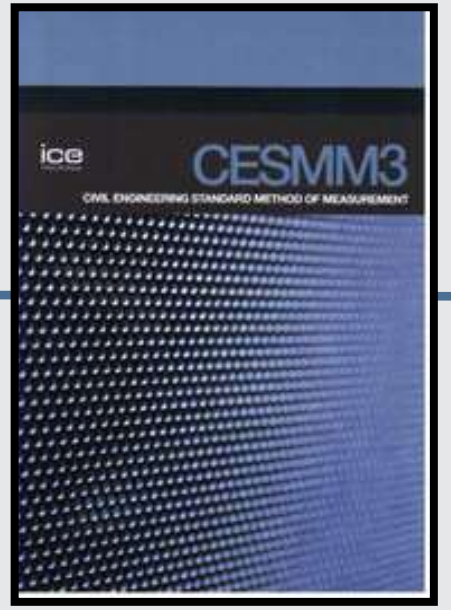
Construction Areas

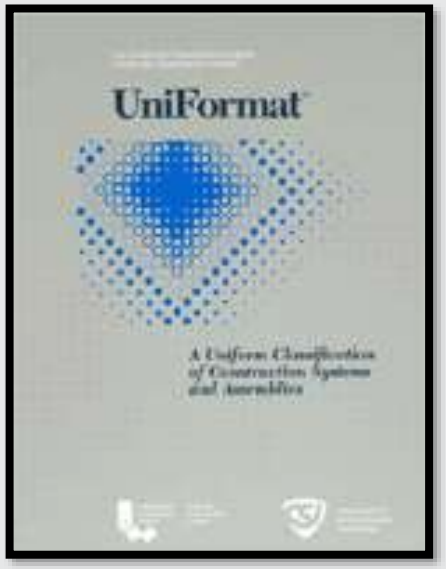
- GIA, GEA, NIA, NLA - when are they applicable?
- BCIS - all costs expressed against GIA(Definition as RICS Code)
- RICS Code of Measuring Practice - 6th Edition August 2007 *"The Code is for use in the UK only"*
- NRM (New Rules of Measurement)

Standard method of Measurement

- POM(I)
- CESMM3
- SMM7
- NRM
- CSI –UNIFORMAT (US)
- RICS –COMP







New Rules of Measurement (NRM) by RICS

The rules have been written to provide a standard set of measurement rules that are understandable by all those involved in a construction project.

They provide advice and best practice guidance to RICS members involved in the cost management of construction projects worldwide.

Pricing

- Procurement
- Location
- Size of project
- New build / refurbishment
- Market conditions
- Rates of construction
- Others

Know your market

- Key materials (steel, rebar etc)
- Procurement from overseas
- Timing of procurement
- Workload of Contractors
- Check Quarterly Market Reviews

Risks

- **Employer risks**
  - Cash flow restrictions
  - Employer variations
  - Funding
- **Design team risks**
  - Design co-ordination
  - Investigations
  - Lack of design
  - Inappropriate design
- **Procurement risks**
  - Currency fluctuations
  - Design responsibility

05. PRETENDER ESTIMATE (PTE)

The pre-tender estimate (PTE) is the final estimate of the likely cost of the works that are described in completed tender documents prepared to seek tenders (offers) from prospective contractors.

1. PTE provides a final comparison with the budget, and along with the cash flow estimate enables the client to confirm that sufficient funds are available before committing to seeking tenders.

2. PTE also gives a basis for assessing and comparing tenders when they are returned. If the pre-tender estimate exceeds the approved budget, an explanation should be provided for the client to consider and issue instructions.

3. PTE ensures that the tenders are easily compared with one another and with the pre-tender estimate, and any anomalies or potential savings identified.

The pre-tender estimate should be prepared following a standard approach to estimating such as that defined by the new rules of measurement (NRM).

06. CASE STUDY – COST PLAN

Project	**Sample**
Estimate	**Building Plot 7000**
Price Date	**2nd Quarter 2007**

1.0 SUMMARY OF ESTIMATE

This estimate has been prepared to indicate the likely cost of construction of the developments on Plots 700 at Jebel Ali Village. This indicative estimate has been prepared for the buildings and external works based on the information received and set out in Section 2.0.

Based upon the information set out in this report, our estimate for the Plots 700, development is in the order of **AED1.06B.** Attention is drawn to the list of exclusions in Section 4.0 for which separate budgetary allowances may be required.

Due to the developing nature of the design at the current time and the volatile fluctuations in the UAE construction market, we have indicated an allowance of 10% for design and construction contingencies.

Building Plot 700		**AED**	**GIFA (m2)**	**AED/m2**
General Requirements		125,882,900	186,721	674
Substructure Works		229,810,400	186,721	1,231
Podium		162,279,400	186,721	869
Residential Tower		435,673,300	186,721	2,333
External works		11,456,400	186,721	61
Indicative Construction Cost Estimate	**AED**	**965,102,400**	**186,721**	**5,169**
Professional Fees		Excluded		Excluded
Allowance for Design and Construction Contingencies @ say 10%		96,510,200	186,721	517
Tender Price Inflation to start on site		Excluded		Excluded
Indicative Building Works Cost Estimate at Q2 2007 prices	**AED**	**1,061,612,600**	**186,721**	**5,686**

Project	**Sample**
Estimate	**Building Plot 7000**
Price Date	**2nd Quarter 2007**

3.0 KEY ASSUMPTIONS & NOTES

1 General Requirements have been priced on a percentage basis at 15%

2 Provisional allowance for architectural finishes as specification is not available

3 Provisional allowance for structural works as no design Information provided

4 Provisional allowance for Piling as no design information available

5 Transformers have been excluded on the basis that they will be provided by DEWA

6 We have assummed the office space will be constructed to shell and core only. Finishes and MEP services have been allowed in common areas only.

Project	**Sample**
Estimate	**Building Plot 7000**
Price Date	**2nd Quarter 2007**

4.0 EXCLUSIONS

The estimate does not include the following:-

1 Taxes

2 Marketing, Letting and Public Relations Costs.

3 Land Acquisition Costs and Operator's costs including specialised supplies and equipment

4 Cost escalation/inflation as a result of market fluctuations

5 Costs associated with upgrading or reinforcement of off-site services and infrastructure.

6 Professional consultant's fees and expenses

7 Charges and fees in connection with Municipal planning and other statutory approvals

8 Finance and associated charges

9 Diversion of any existing services

10 Site investigation and survey costs

11 Testing of the site for exposure to electro-magnetic radiation

12 Infrastructure development costs including contributions for provision of services, roads,

13 Traffic Management System other than entry / exit point barrier system for the external parking lots

Project	**Sample**
Estimate	**Building Plot 7000**
Price Date	**2nd Quarter 2007**

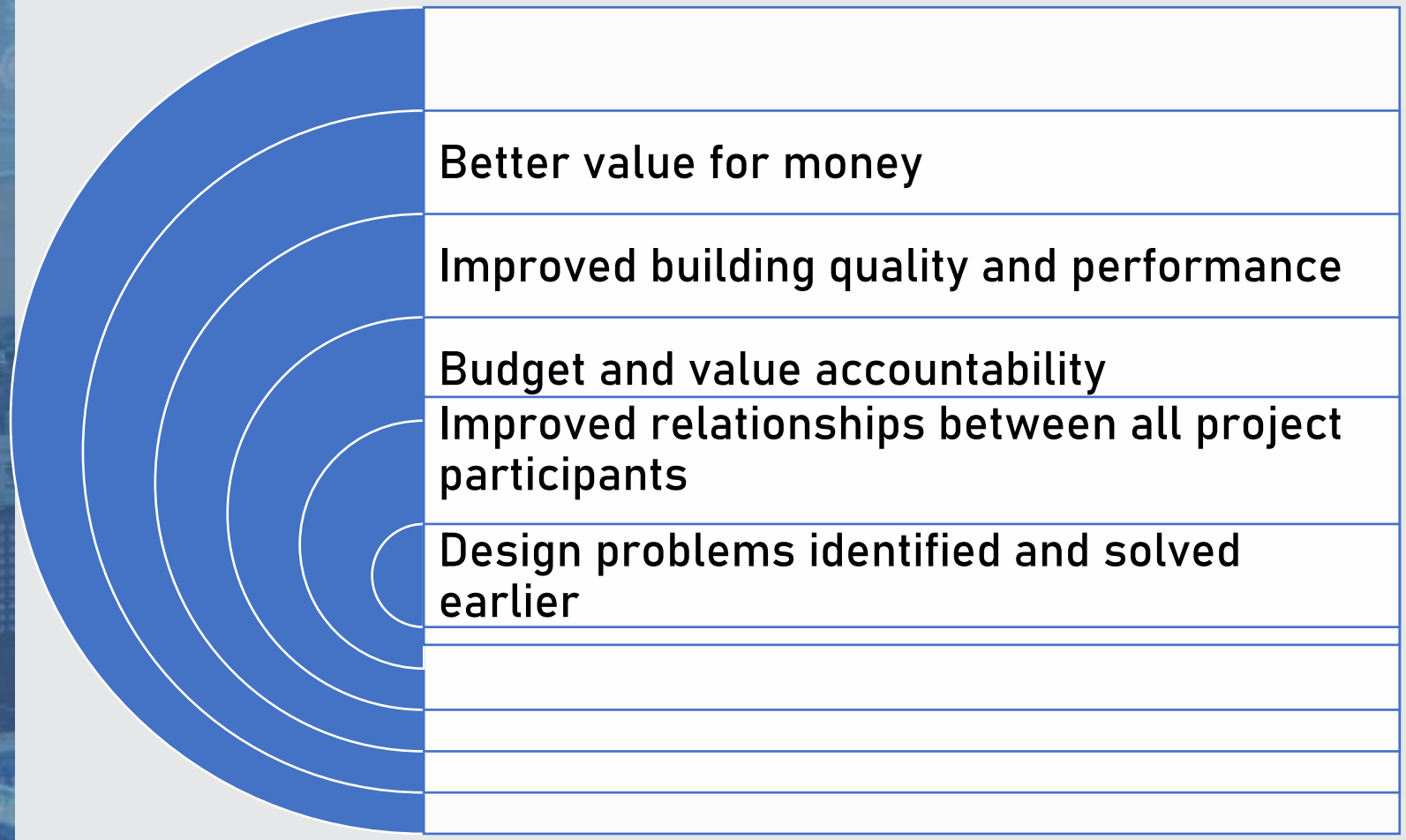
2.0 BASIS OF ESTIMATE

The following has been used in the formulation of this estimate:-

1. Jebel Ali Village- Plot 700 Building Form Drawings Sent By Email:
2. Basement plan - B1 (dwg: 3192(GA)P099)

a Basement plan - B2 (dwg: 3192(GA)P098)
b Podium lower ground floor plan (dwg: 3192(GA)P100)
c Podium upper ground floor plan (dwg: 3192(GA)P101)
d Basement plan - B1 (dwg: 3192(GA)P099)
e Basement plan - B2 (dwg: 3192(GA)P098)
f Typical low level floor plan - Tower A Typical Low Floor (3192(GA)TA110)
g Typical mid level floor plan - Tower A Typical Mid Floor (3192(GA)TA120)
h Typical high level floor plan - Tower A Typical High Floor (3192(GA)TA130)
i Typical low level floor plan - Tower B Typical Low Floor (3192(GA)TB110)
j Typical mid level floor plan - Tower B Typical Mid Floor (3192(GA)TB120)
k Typical high level floor plan - Tower B Typical High Floor (3192(GA)TB130)
l Typical high level floor plan - Tower B Typical Penthouse Floor (3192(GA)TB140)

BENEFITS OF COST PLANNING



Pre-Contract Cost Management – Procurement and Tendering

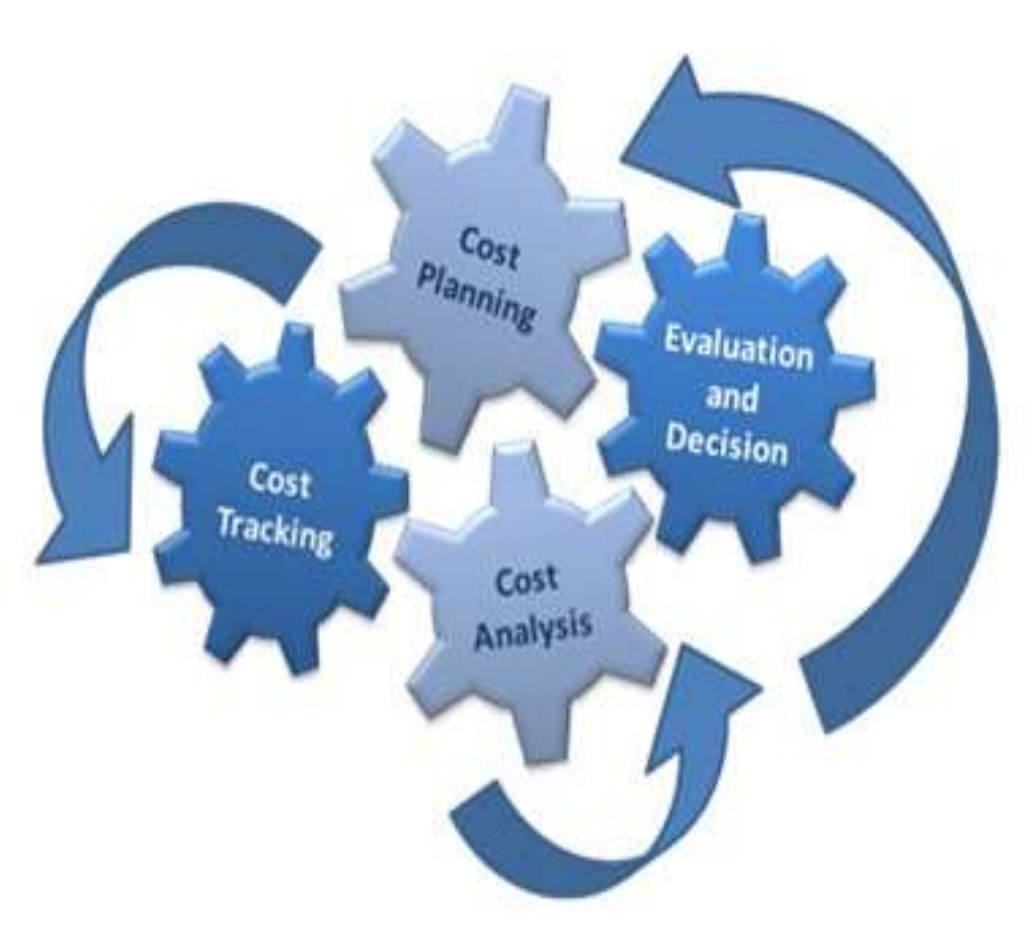
PROCUREMENT

- Client's requirements
- Global procurement methods
- Client's requirements
- Time. Cost, Quality, HSE and Sustainability
- Procurement Strategies
- Selection of right procurement route/ methods
- Contractual Relationships
- Risk Analysis
- Critical appraisal on selection
- Choice of form of contract
- Procurement report

TENDERING

- Tendering Methods
- Pre-qualification process
- Tendering procedures
- Tender documents
- Instructions to Tenderers
- Floating of Tenders
- Tender returns
- Tender opening protocols
- Rate Analysis and adjustments
- Commercial Analysis
- Technical Analysis
- Tender Reports
- Tender recommendation
- Award Contract

07. POST CONTRACT COST MANAGEMENT



COST MANAGEMENT

- Establishing procedures
- Payment's process
- Change Management
- Variations
- Claims
- Contractual challenges
- Commercial Management
- Budget Control
- Cost Overrun
- Cost Reports
- Evaluation of additional costs
- Cost Tracking
- Cost Analysis
- Commercial closeout

08. COST REPORT

Cost Report – Contents

- Contract Reference
- Package name and reference
- Budget associated with each contract / package
- Contract Price
- Instructed variations (agreed / not agreed)
- Anticipated variations (forecast)
- Claims / EOT
- Forecast Out-turn Cost or Cost At Completion
- Expenditure summary
- Financial Status -Cumulative and for this month

09. CHANGE MANAGEMENT

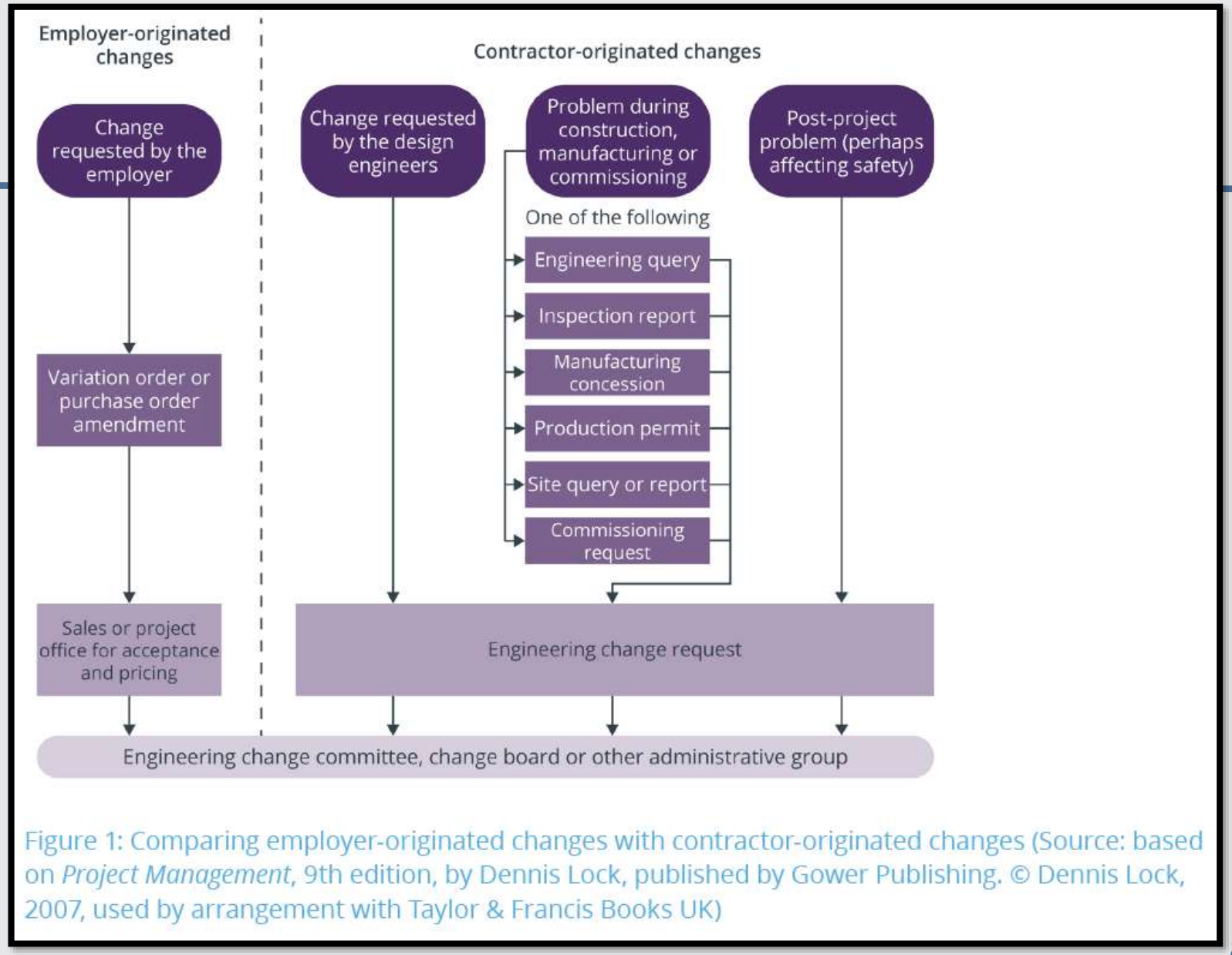
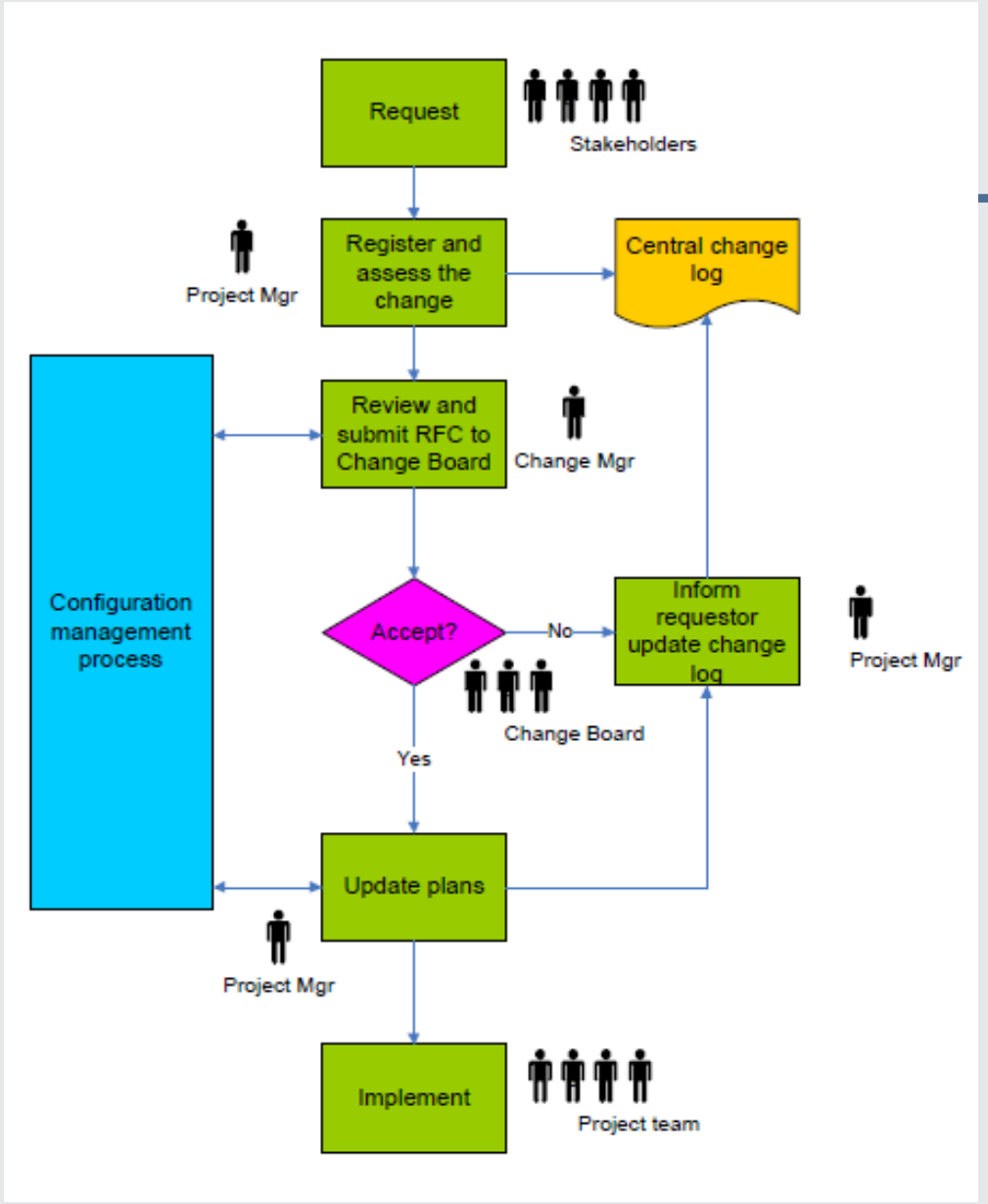


Figure 1: Comparing employer-originated changes with contractor-originated changes (Source: based on *Project Management*, 9th edition, by Dennis Lock, published by Gower Publishing. © Dennis Lock, 2007, used by arrangement with Taylor & Francis Books UK)

CHANGE MANAGEMENT



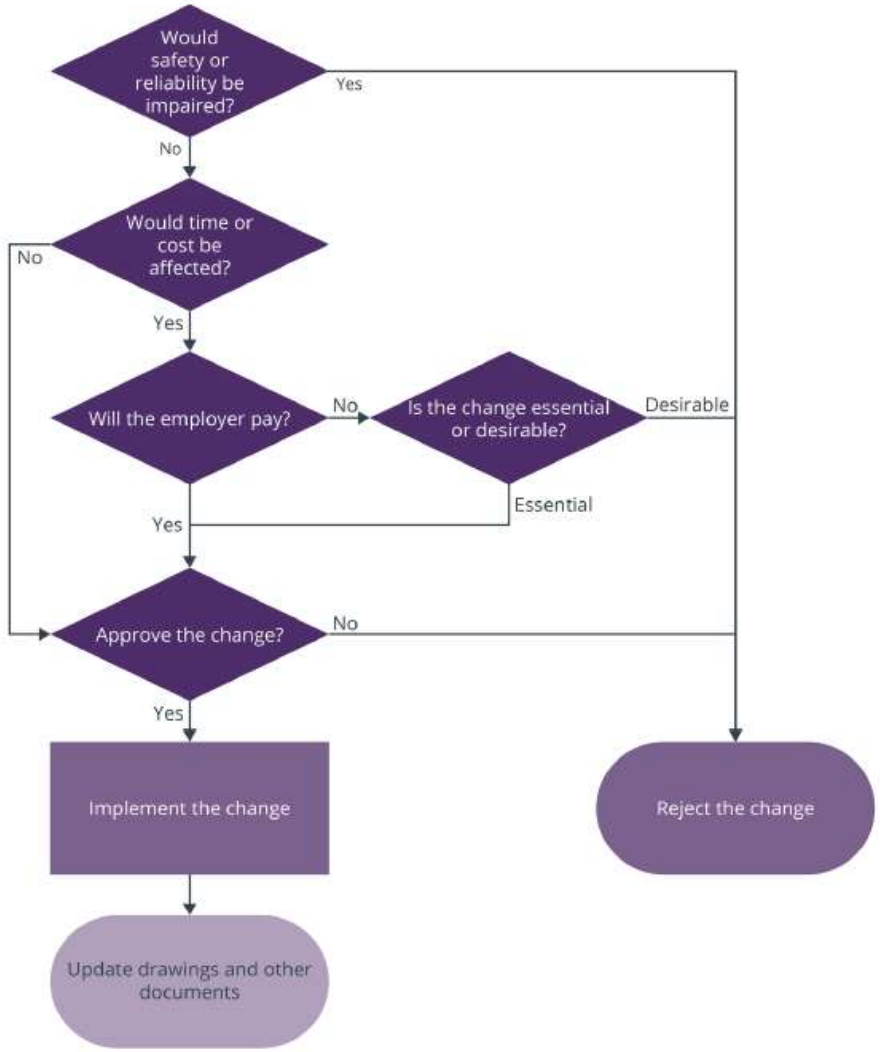


Figure 3: Flowchart of the change management process (Source: based on *Project Management*, 9th edition, by Dennis Lock, published by Gower Publishing. © Dennis Lock, 2007, used by arrangement with Taylor & Francis Books UK)

10. CONCLUSION

Any Questions? Please contact

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THANK YOU