

The Methods Of Estimating For Cost Planning Construction Essay

It advises a client how much a proposed project will cost. As well, cost planning will advise when the expected expenses will most possible occur. Hence it is important for obtaining project financing and for determining whether a project can be profitable. Therefore cost planning process essential to success of project.

Methods of Estimating for Cost Planning

There are some significant estimating methods uses in construction industry for Cost planning process. Those methods give preliminary estimate, hence Quantity Surveyor has to modify predetermine data considering the followings, such as , market conditions, Size, number of storeys, specification level, inclusions & exclusions, service, site & foundation conditions and other factors.

Conference Estimating Method

RIBA Stage A of Options Appraisal and stage B Design Brief,

These method uses for preparation of the initial price estimate give to the client. It based on a collective view of a group of persons, and not quantify in any particular way.

Financial methods

RIBA Stage A of Options Appraisal and stage B Design Brief,

This method fixes a cost limit on the building design, according to the unit of accommodation or rental values.

For example,

Unit method

RIBA Stage A of Options Appraisal and stage B Design Brief,

The unit method is multiplies desire standard unit of accommodation by an approximate cost per unit. Not required specific drawings and specifications, only the concept of the project in respect of function is required.

For example:

Schools – costs per pupil enplace

Hospitals – costs per bed enplace

Car parks – cost per car space

Estimate = Standard units of accommodation x Cost per unit

Cube method

Design Stage

This is the superseded method because of inherent disadvantages; this method needs some sketch drawings, historical cost data, and also important estimator experience. It is based on relationship between building volume and unit cost.

For example:

Estimate = volume of the building x Unit cost (cost/m³)

Superficial area method

RIBA Stage B Strategic Briefing and also can be used for Stage C

This is presently most common use method, its use for early price estimating purposes. The area of each of the floors multiplied by the cost per square meter. Mostly important Storey heights, plan shape and methods for when deciding on the rate to be used.

For example:

Estimate = Area of the building x Unit cost (cost/m²)

Story enclosure unit method

This technique use weightings for the estimating the building elements

Elemental Cost estimating

Detail Design Stage (Production information Stage F)

This can use to establish the approximate cost of a construction project. It analyzes, the cost of the project on an elemental basis using from other similar projects. Also provides cost advice during the design process. Detail drawings are required.

For example:

Approximate Cost estimating

Approximate quantities present additional detailed approximate estimate. No particular rules of measurement exist, and the composite items resulted from the experience of each individual surveyor. Also, significantly more information is required from the designer if the method is to be applied in practice.

For example:

Resource analysis

(Pre Construction Stage Tender Documentation -G)

This method is traditionally adopted by contractors' estimators to determine their individual rates for measured items in bills of quantities. All individual measured items are analyzed into its element parts such as labour, materials and plant. This method is not a pre-tender method of price prediction strictly.

For example:

Explain the pre-contract cost planning and cost controlling process with respect to the RIBA plan of work a client/ consultant may adopt during each stage

What Is Pre-contract Cost Planning?

Pre Cost planning is very important to successful planning, design and construction of projects and is aimed at providing best value solutions. Essentially it is a pre-costing method of a project. As well as Pre-estimation of a design proposal will give clear picture about the cost to the employer and design team to make decisions regarding the project to make sure value for money.

Pre-Contract Cost Planning Process

The pre-contract cost planning process according to the RIBA plan of work 1998; it can be described as follows.

Pre-Design

Inception of Feasibility

Pre-stage A

Work Stage A (1)

Work Stage B (2)

Establishing the need (Establish the budget)

Options Appraisal (Cost of preferred solution)

Strategic Briefing (Target cost)

Pre-construction Stage

Work Stage C

Work Stage D

Work Stage E

Outline proposals (Prepare initial cost plan)

Detailed Proposals (Firm Cost Plan)

Final Proposals (Cost checks, design against cost plan)

Work Stage F

Production Information (Final cost checks of design against cost plan)

Graph – 2.1

Pre-stage A (Establish the budget)

Client is the appointing client management team (Consultants) such as, client representative, cost consultant, according to his requirements.

Identify objectives, physical scope of project, standard of quality of building and services, timeframe and establishing the budget.

Emphasis nature of client's problems and functional requirements on proposed project.

Work Stage A (Options Appraisal)

Consultant has to identify of client prerequisite and possible limitation on development and cost of the ideal solution.

Prepare technical, functional and cost studies by consultant and then it should enable to the client to take decision on his project weather he can continue the first proposal or could do some changes to the first proposal etc. also select the possible procurement method.

Work Stage B (Strategic Brief)

Consultant has to prepare initial cost suggestion to the client based on an outline statement of client's needs, also to determine target cost. This establish an initial budget for client

Client has to investigate availability of finance for the project and value of money framework.

Pre Contract Cost Control

Generally Pre contract cost controlling process is implement from this stage according to the RIBA work plan mentioned chart 1.2,

Pre Contract Cost Control process give to ensure the cost of the project is within the client's budget or not. Hence pre contract cost control is very essential in a project since it is planning, design finalizing and tendering and selecting a suitable contractor too.

Outline Proposals- Stage C

Consultant involves preparing outline proposal and estimate of cost as initial cost plan.

Investigate the site conditions and preliminary sketches for requirement of cost plan by consultant.

Evaluate strategic brief through consideration of time, cost, risk and environmental issues.

Establish design management procedures and prepare initial cost plan, project program, and cash flow.

Detailed Proposals - Stage D

At this stage, consultant prepares full detailed proposals for the client, and also prepares firm cost plan & detailed elemental cost plan etc.

Client tem evaluate outline proposals for make final decision,

Receive design and cost input from client appointed team and extend detailed design solution.

Development control submission.

Review procurement advice.

Final Proposals – Stage E

Consultant has to prepared final proposal for the project at this stage.

Carry out cost check of the design as it develop against the cost plan, hence it
Confirmation of the cost limits for the project.

Most cost effective in satisfying level of project brief to confirm or put final budget and
to check the elemental cost targets.

Cost checks design against cost plan.

Decide on procurement methods.

Consultant, they attending to review design and cost plan.

Consultant has to prepare all required submission for legal approvals.

Production Information – Stage F

All legal approvals should have completed when at this stage.

This is the assessment of lowest acceptable tender price based on completed contract
documents.

Ensure that the completed designs are controlled within the cost limits.

Prepare all co-ordinate production information including location.

Arrange bring together all component drawings, schedules and specifications.

Supply all required information for final cost checks of design against cost plan.

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