

## COST ESTIMATE ACCURACY THROUGHOUT THE DESIGN PROCESS

When designing a new build or major renovation, you will likely have an idea of the overall budget available for the project at the outset.

For many people, this is a 'hard limit', and any cost escalation over and above that level will result in a project that cannot go ahead, or that causes significant difficulty and stress due to the extra finance required.

An architect will work to your design brief, however they are not cost consultants and cannot give advice on cost or confirm with any certainty whether your project can be built within your budget. There are a great many unknowns and variables that can affect the eventual cost of any build, and many of these cannot be anticipated or quantified up front.

It's therefore essential to consider an acceptable level of variance to cost estimates, and factor in appropriate contingencies, at each stage of the design process. That's why engaging a professional quantity surveyor (PQS) at every design stage is the best way to monitor and control project costs, allowing you to adapt your designs to achieve optimum value and ensure the project remains viable.



**Level of accuracy** is the potential of the estimate to vary due to a host of factors including site conditions, design details, planning requirements, etc. As the design progresses and the level of certainty about each element increases, so too will the accuracy of the estimate.

**Contingencies** are a specific sum of money factored into an estimate to cover the costs of details and some likely issues or risks. Often this is applied as a flat 10% across the project, but the acceptable contingency fund should also vary as the design progresses and the level of certainty increases.



**01**

### Concept design

There are many unknowns such as site conditions, planning requirements, structural requirements, quality of finish, temporary works, etc. Assumptions must be made about foundations, services and siteworks based on what would typically be expected.

Acceptable contingencies — 20-25%  
Typical level of accuracy — +25%

**02**

### Preliminary design

Building size, footprint specification and finish options are explored. 2D floor layouts and elevations are produced. Structural concept design is commenced. There is more certainty about the main elements such as foundations, frame, walls, windows, roofs, internal finished, services and infrastructure.

Acceptable contingencies — 15-20%  
Typical level of accuracy — +15%

**03**

### Developed design

Key details are developed further. Structural design is calculated, as well as other specialist consultants' input into the design. Detailed cost estimates can be worked up comprising materials, labour and plant costs.

Acceptable contingencies — 10-15%  
Typical level of accuracy — +10%

**04**

### Detailed design

Specifications for all products and finishes are confirmed. Structural engineering, mechanical and electrical designs are coordinated and confirmed. Procurement options are explored. Building consent is lodged.

Acceptable contingencies — 5-10%  
Typical level of accuracy — +5%



While every project is different, for new build projects of relatively standard design on an uncomplicated site, it's our experience that the following level of acceptable contingencies, and typical variance in accuracy, applies to cost estimates at each design stage. These do not apply to remediation or more complex projects, where the percentages can be significantly higher.

We strongly recommend engaging a Professional Quantity Surveyor at every stage to ensure effective budgeting and cost control throughout your project.

[www.prendos.co.nz](http://www.prendos.co.nz)