

# Balance the

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Empowering yourself with the knowledge to make informed decisions about your building project can save you thousands

**H**aving been involved in hundreds of new homes and extensions over the years, I have learnt that there are some key factors to achieving a cost-effective build. The extent to which you will need to follow these pointers will probably depend on how tight your budget is in relation to your brief. A good architect or building designer will help you to find a balance between cost-effective construction and something that has visual interest and appeal.

Following are seven tips for you to keep in mind when designing a cost-effective build, renovation or extension.

## 1 MINIMISE THE PERIMETER WALLS

Clearly you're going to need some perimeter walls unless you're going for the truly "outside-in" feel! However, if we consider the high amount of labour and the number of trades required to build perimeter walls, we can see how a high ratio of perimeter walls to floor space increases cost. The perimeter walls of a home represent a high proportion of the cost of a building project because just about every trade is involved in their construction, including surveyors, drainers, carpenters, bricklayers and concreters, to name a few.

There are a total of 28 processes required to build perimeter walls, which don't include all of the suppliers required to complete those tasks. To get to a smaller list of only 10 processes, for example, the trick is to design a home that has a lower ratio of perimeter walls to internal space.

For example, a 180 square metre house with a 10m by 18m layout has a total perimeter of 56m (10+10+18+18); or the 180sq m could be a 5m x 36m layout, which has a total perimeter of 82m (5+5+36+36). Both examples have the same 180sq m area; however, the second option has a perimeter length that is 26m longer and therefore 46.4% less efficient than the first option. All other things being equal, the second option will be a more expensive house to build.

The downside to this tip is that the most cost-effective building is a fairly boring box with no articulation or uniqueness about the layout. To get the best of both



worlds, try to achieve a balance that provides some interest in the design without being too complex.

## 2 SOLAR PASSIVE IS COST EFFECTIVE!

Solar passive design is when the windows, walls, roof and floors of a building are designed to take advantage of your local climate, collecting warmth and solar energy in winter while shielding from the heat in the sometimes brutal summers. By designing a solar passive home, you should expect to save money in the long term by using less energy in your home (also meaning you'll be less impacted by rising energy costs). Most importantly, though, you'll be designing a home that

# budget

is more comfortable to live in and is less reliant on artificial heating and cooling.

While some solar passive concepts can be expensive, a northern orientation is one of the "freebies" that should be capitalised on, unless you are in a tropical climate. However, remember that eliminating direct sunlight in the summer months is just as important as allowing lots of sun into the home in winter, which is where eaves are most effective. Eaves serve good purpose in a house, so don't fall for the trap of removing them to save money.

The basic principle of designing to capitalise on orientation is to provide lots of north-facing glass that is also well shaded in summer. There should be less glazing in all other orientations as windows that are not north-facing are seen to lose more warmth than they capture, though in cooler climates there is more scope for east- and west-facing glass.

Most homes in Australia will also benefit from using double-glazed windows. For more detailed information on best practices for solar passive and sustainable design, go to [yourhome.gov.au](http://yourhome.gov.au).

## 3 LESS IS MORE IN CONSTRUCTION TOO

This tip is an obvious one, but I am still surprised by how many people build homes that are a lot bigger than they really need. Every square metre that you build is going to cost you money, so make sure that every single one of them is needed.

To ensure that the spaces you are building are functional without being too vast and expensive, you need to be sure that they are designed for purpose. This may sound obvious, but I have seen too many large rooms that just don't work very well. A good designer will help you work through this and make sure the result is what you expect, ensuring that each space is designed to fit the furniture that will go into the room.

Think carefully about the spaces you need to ensure they suit your lifestyle. Where possible, invest in high-quality spaces rather than high quantities of space by considering how you can get multiple uses from the same room. For example, a guest bedroom can often also be used as a study space. If you are building an additional room for guests that only gets used two or three weeks a year, then that is clearly not an efficient use of that space. However, by combining the study and the guest room (and designing it to successfully perform both roles) you will save a lot of space and expense by not building two separate rooms.

## NAIL THIS!

- Perimeter walls are one of the most expensive elements of a home due to the number of trades required to build them. To cut costs, minimise your perimeter walls.

- Design a solar-passive, or energy-efficient, home to save money on energy costs over the long term.

- Every square metre costs money, so focus on building what you need, not what you think a future buyer might want.

- Consider using brick veneer, as this is one of the most cost-effective building methods.

- Design extensions to minimise demolition, as demolition can be very costly.

- Minimise expensive square metres, meaning kitchens, laundries and bathrooms.

- Focus on completing your extension in as few stages as possible, to save both time and money.

## 4 BRICK VENEER RULES ... (FOR THE TIME BEING)

Visit any new display housing estate in the eastern states and take note of the materials the houses use. The majority are brick veneer. The main reason that most new display villages (and therefore most new homes) are brick veneer is because it is generally the most cost-effective form of construction. It is the method that builders are most familiar with, which means they have more confidence to competitively quote brick-veneer projects. So, for the time being, brick veneer is still king.

## 5 DEMOLITION - MINIMISE, CONSOLIDATE AND SIMPLIFY

Demolition is labour intensive and expensive. And if you are extending or renovating your home, demolition of part of the existing home is something you will not be able to avoid entirely. However, if your extension can be designed in a way that minimises the extent of the demolition it will save you a lot of money, which can then be invested in a higher-quality building project or ultimately saved altogether.

By minimising demolition you can avoid many of the potential knock-on costs of demolition, such as repair and make-good work and, the ultimate budget killer, structural changes and remediation. That isn't to say that demolition should be avoided at all costs. In some situations, the removal of certain walls may create a significantly better result than leaving the walls in place and if your budget can accommodate those extra costs then you shouldn't let them stand in the way of achieving a far superior final result.

For any project that does involve a lot of demolition work, it is essential that the builder has a very good understanding of the building when finalising his quote. Ideally there will be an allocation of expenses related to the demolition work clearly noted.

Another significant cost associated with extending and renovating is repairing and reintegrating any connected areas. For every wall that gets knocked down there is another wall it is connected to, a floor that it sits on and a ceiling that rests above it. The need to remove a wall will have an impact on all of those associated elements. Once the wall is removed, the junctions where it connected to the other elements need to be repaired and refinished. The more fragmented the extension works, the more demolition and integration works will be required, and this is where many budgets get out of control.

## PROPERTY BUILDING COSTS



### 6 MINIMISE EXPENSIVE SQUARE METRES

All rooms are not created equal, and there is a significant difference between the dearest areas of a home and the cheapest areas of a home. Kitchens, bathrooms and laundries have a high concentration of trades, materials and fittings that go into each space, so each square metre is a lot dearer in those rooms than each square metre of a bedroom, for example.

If we consider the physical area they require, and the higher concentration of costs, a bathroom can cost anything from \$3000 for a small powder room up to \$30,000-plus for a larger, all-inclusive bathroom (luxury high-end bathrooms can cost two to three times that amount). It is unlikely that you will have more than one kitchen or laundry in your home, but most modern homes do have multiple bathrooms, including an ensuite for the main bedroom and one other bathroom, sometimes with the toilet in the bathroom and sometimes with a separate toilet.

My personal preference is for a separate toilet with a small hand basin so that it can function as a powder room, or a half bathroom. A two-storey home may have one more bathroom, depending on, among other things, the location of the main bedroom and the size of the home. Remember, one less bathroom has the potential to save you thousands.

### 7 DOING IT IN STAGES COSTS EXTRA

One of the common objectives for people undertaking an extension project is to live in the house during construction. By doing so they are, of course, going to save themselves money by not needing to find alternative accommodation. And even though it can be less than convenient to live through an extension or renovation, on balance it will still probably be less of an impact on your life than if you had to move out, which involves adjusting your lifestyle to suit everything that is currently linked to where you live now, like transporting kids to schools and extra-curricular activities, getting to work and, of course, the nightmare that is moving house. If you are planning on living in the house during your extension or renovation project, you should be aware that your builder may need to factor in additional costs due to staging that may be required to complete a project in that manner.

Depending on the size and scope of the project, the builder may need to complete it in different stages to allow you to continue living in certain areas of the house while they get on with construction. Once the first area is completed you may then need to vacate the spaces where you were living and move to a different part of the house, possibly the area that has just been built, so that the construction can move into stage two and possibly stage three. It is easy to see that staging a project in this way will increase the time it takes to complete.

In many cases you simply cannot avoid the project being staged and the associated costs, unless you decide to move out for the construction process, which then incurs another set of costs. The important thing is that you understand the effect staging has on a project and make an informed decision to suit your personal situation.

When getting quotes and deciding on a builder, you should talk to them about your intentions to stay in the house throughout the extension/renovation, how they plan to approach the staging issue, and their overall time frame. Each builder may have a different method with potentially very different outcomes. **M**

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