CAULFIELD KRIVANEK architecture

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Do It Yourself

Improvement Guide

Equipment You Will Need

- An accurate tape measure at least 20m long
- Power point tester
- Ladder
- Camera
- Spirit level

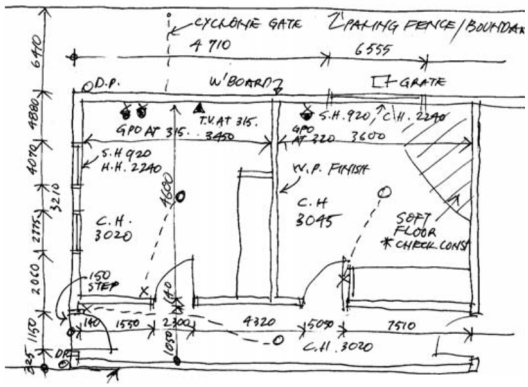
Your Existing Home

Before you begin your home improvement process you need information vital to your own home. This includes: accurate plans of existing conditions and the condition of the structure and services.

The Measure Up

Building plans of your existing home may be available from your local council. If not, you will need to accurately draw and measure the entire house to an accuracy of 10mm to 25mm for each room, the house overall and setbacks from front and side boundaries. Note: Real estate plans are not sufficiently accurate for this purpose.

Drawings should be to a scale of 1:100 or 1:50 and include items such as wall thicknesses, door and window locations, height of sills and ceilings. You should also show the location of services such as power points, taps, heaters, hot water services, air conditioners, etc. We recommend that you photographically record the condition of the house internally and externally before construction work starts.



Typical architecht's measure up

Familiarise yourself with regulations governing minimum setbacks and maximum heights relevant to your property and those of neighbours. You may also need assistance from a building surveyor to plot and certify these.

If you are not confident with this process, an architect can help.

About this Cost Guide

This guide has been prepared by Homesafe Group and Caulfield Krivanek Architecture in conjunction with Kidsafe to provide a guide to home owners contemplating undertaking home improvements, renovations and extensions.

In addition to providing stunning, energy efficient projects, Caulfield Krivanek Architecture is committed to providing safe environments for children, adults and seniors.

Every year in Australia approximately 320,000 children and over 300,000 adults suffer preventable injuries in their homes. Your home improvement project will provide the opportunity of building a safer environment for your family and friends. Home safety design does not add cost nor does it compromise design integrity, but it could save lives. Additionally, a well designed improvement is an excellent capital gains free investment.

To organize a child home safety inspection in your home, contact Homesafekids on www.homesafekids.com.au

The Condition Survey

Home improvement building costs can inadvertently escalate more than 25% because of unforeseen problems with your existing structure.

The most common of these are:

- Dangerous electrical wiring requiring total replacement
- Dilapidated water pipes requiring total re-plumbing
- Old roofs and gutters requiring total replacement
- Rotten timber stumps, piers or sub floor structure requiring re-blocking or re-construction of subfloors
- Old lath-and-plaster walls requiring total re-plastering
- Termite or borer activity requiring replacement of structural members.

It is critical that you undertake a detailed inspection of the home.

Caulfield Krivanek Architecture or Archicentre can arrange a professional inspection and report.

Restrictions, Rules and Regulations

There are many planning and building codes which will impact on the process. These can include:

- Restrictions on tree removal
- Erosion control
- Heritage restrictions
- Single storey or single dwelling covenants
- Bushfire protection
- Energy ratings
- Minimum front and side boundary setbacks
- Maximum height restrictions
- Overlooking
- Overshadowing

Visit your local council town planner and building surveyor to compile a list of restrictions relative to your property; they will all potentially affect your design.

The Design Brief

Before you undertake any planning work, you need to prepare a design brief. Involve the family and come to a consensus. The brief should include a list of all rooms, optimum dimensions, furniture, fittings and equipment. The most common mistakes made are:

- Over estimating sizes of lounges and family rooms
- Under estimating storage requirements
- Under estimating circulation space

Planning for Sustainability

A competent home renovation should involve state of art thinking in sustainable design. This will reduce your energy and water consumption and will substantially lower your running costs for all utilities without adding substantial costs. Sustainable design is a complex issue and each project needs to be examined individually. Your architect can help with these. Following are some design tips:

- Appropriately designed eaves, pergolas and sunshades will optimise solar control, reducing heating and cooling costs.
- Well placed windows and doors promote cross flow ventilation, reducing cooling costs in summer.
- Water efficient taps and shower heads can reduce water usage more than 50%.
- The hot water service is often the greatest source of greenhouse gas emissions and therefore expensive energy bills. Solar, natural gas or electric heat pump systems can significantly reduce energy costs.
- Current building regulations stipulate minimum insulation criteria for walls, floors and ceilings. You can improve the energy efficiency of your home if you choose to exceed these.
- Choose energy rated appliances rated 3 star or greater.
- The building materials you choose require different levels of energy to produce them. True sustainable design takes these into consideration. Generally, concrete and aluminium products have the most ‘embodied energy’ timber however has the least. Your architect can explain the energy properties of materials that may be relevant for your home.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Home Safety Design Guide

The most common injuries in homes can be categorized into three age groups; young children, adults, seniors. All these three groups will visit or live in your home, so you should consider the following:

a) Children

- Every year in Australia an estimated 320,000 children under the age of 15 are treated in hospital as a result of accidents, many of which were sustained in their homes.
- For more detailed information on child home injuries refer to the HomesafeKids Home Safety Guide-www.homesafekids.com.au
- The design should allow the establishment of a "child safety zone" inside the house and supervised playground area outside
- There should be no connection between areas where children play and driveways or garages
- Door handles for all external doors and 'danger areas' such as laundries, bathrooms, garages and sheds should be set 1500 mm from floor level to prevent toddler access
- There should be a maximum of ten steps in a stair before a change in direction and stairs should ideally be carpeted
- There should be no sharp corners to benches, built in furniture (and loose furniture if possible)
- Sliding aluminium windows should be restricted to a maximum opening size of 125mm
- Provide a medicine cupboard in the main bathroom, mounted at 1500mm from floor level
- Ensure that residual current devices (safety switches) are installed if the home is not being re-wired
- Ensure that hot water services are limited to 50°C

b) Adults

- Every year in Australia an estimated 130,000 adults are treated in hospital for fall, slip and trip injuries that happen in the home; many of the more serious injuries are due to falls from ladders and roofs. Another 45,000 are treated for cutting and piercing injuries that happen in the home from contact with glass, knives and tools. Many of these injuries occur from home maintenance projects and could have been prevented by good design.
- Installing gutter guards will minimise ladder maintenance
- Limit the use of highly polished or slippery floor surfaces particularly in wet areas or near stairs
- Keep roof designs simple and preferably less than 20 degree pitch to minimise maintenance and the probability of slipping. Alternatively, install safety harness anchor points


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c) Seniors

- Many injuries to seniors occur from falls in and around the home. Most of the precautions listed previously apply, but the following are most relevant to seniors.
- Steps and changes in level should be obvious, well lit and where possible incorporate hand rails
- Step free shower bases minimise bathroom falls
- Provide adequate power points to minimise the use of extension leads and power boards, one of the most common causes of tripping hazards

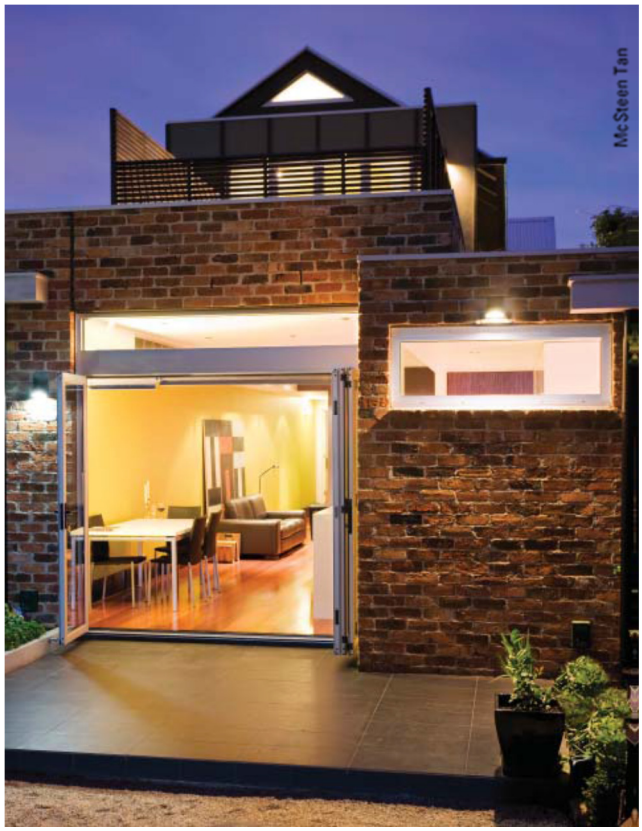
The Design Process

Budget

Having considered all available data on regulations, restrictions, design brief, sustainability and the home safety guide, there is one remaining important factor to consider: budget.

You can prepare an appropriate cost of your renovation from the Home Renovation Cost Indicator, available as a download on the Caulfield Krivanek Architecture website www.ckagroup.com.au/resources.

Most home owners under-estimate the projected cost of home improvements and many DIY renovators find their available funds exhausted when only part way through the building process resulting in a financial and planning disaster. Be realistic! A builder, or an architect can give you a realistic estimated price per square metre for new work. You will need to estimate and include the cost of repairs from your home condition survey. Calculate the approximate area of new construction you can afford and amend your budget and brief accordingly.



Planning Your Improvement for Profit

There is no simple way of defining the planning procedure, but the following tips will help you work through the process. A successful home improvement should be attractive, safe, energy efficient and a great tax free capital investment. Your architect can help you achieve this.

- High resale value is about great first impressions. Your improvement must have excellent design appeal.
- Never skimp or compromise on the overall design concept.
- Independent professional advice here is worth every cent.
- Choosing premium fittings and finishes such as tiles, taps, basins, toilets and bench tops may not add to the value of your home but will definitely place unnecessary stress on budget. This is the common cause of over capitilisation
- According to many real estate agents, "Architect designed" can add more than10% to the value of your home. An architect's fees will most often be justified from the increased capital value of the home.
- Inefficient planning such as excessive circulation space, oversized rooms and poor spatial relationships will add unnecessary floor area to your project. This is the second most common cause of over capitalisation.

Preparing your design concept

You should now have enough information to prepare your concept plans. These are not construction drawings but sketch plans drawn at 1:100 or 1:50 scale. They should include all furniture such as tables, chairs, beds, lounge suites, all drawn to scale to make sure that your room sizes, circulation spaces and door swings all function efficiently. You should also prepare elevations, including your existing home so that everyone involved in your project can visualise the final product. Your architect can perform this work.

Investment Budget Review

You now have enough information to obtain estimates of construction cost from a builder or quantity surveyor and opinions on the resale value from a real estate agent or valuer. As a guide, successful renovation projects should return a profit after about five years and a substantial capital gain tax free profit after seven to ten years. Generally, property values double every ten years or so. In addition to the investment return you will enjoy living in a contemporary, 21st century home until you decide to sell.

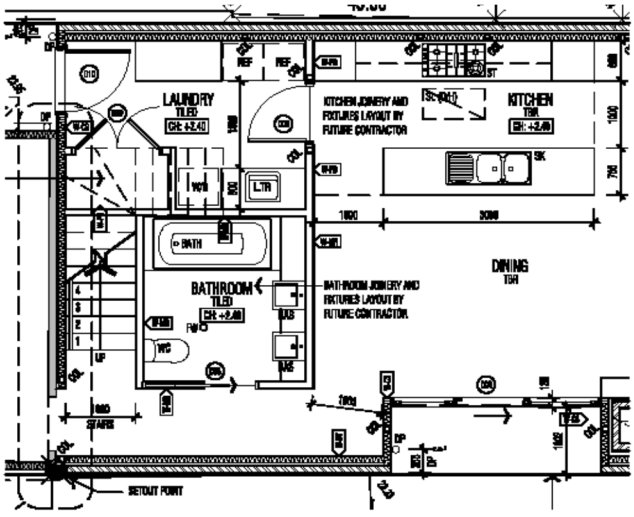
If your budget review doesn't achieve the result you require you should revise your concept plan.

Getting your project built

The most cost effective way to progress your project to building stage is to engage your architect to prepare working drawings, specifications and material schedules. Then seek competitive tenders from three to six suitable builders. The cheapest price is not necessarily the best. You need to consider construction time and quality of previously finished projects.

Be aware of contingency sums and prime cost sums. These are monetary allowances builders often include in tenders instead of pricing specified products. These are notorious for causing cost overruns where the allowance is far less than the actual purchase price.

You should then enter into a legal contract that protects your interests with appropriate liquidated damages, retention sum and defects liability clauses. Your architect will be experienced in these issues and will offer quality advice. Ensure the builder has allowed for obtaining all required permits.



Typical architect's working drawing

Some owners choose to administer the contract. This can work successfully providing the owner has a comprehensive knowledge of building, and project management procedures. This will be time consuming and will involve monitoring quality of construction work, progress payments, variation claims and generally supervising a host of issues that invariably develop during construction. An alternative is for your architect to administer the process.

Completion

Your project is not complete until all regulatory checks (building inspector, electrical, plumbing etc) have been signed off, all contract items are complete, defects remedied and the defects liability period (usually 26 or 52 weeks) has expired. Only then should you release the remainder of funds to the builder.

If you have planned your project well you will have a contemporary, trouble free home, sound investment and hopefully you will have enjoyed the process and be proud of your achievement.

More importantly, you will enjoy a safe environment for your family, friends, visitors and maintenance contractors who will experience your home for many years to come.

Note: Injury data for Australia has been estimated from Victorian injury data provided by the Victorian Injury Surveillance Unit (VISU) at Monash University Injury Research Institute (MIRI), HomesafeKids and Kidsafe then estimated for Australia on a pro rata population basis

Where to go from here

- Home Safety Checks – Homesafekids www.homesafekids.com.au
- Home Renovation Concepts – Archicentre www.archicentre.com.au
- Home Renovation – Caulfield Krivanek Architecture www.ckagroup.com.au

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