

# SAMPLE

## Introduction to Building Renovation Projects

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### Lesson Aim

Determine the nature and scope of work required for a building renovation project.

### INTRODUCTION

Building renovation projects may be large or small, costly or expensive, complex or simple. All such projects should be carefully considered with respect to these issues before anything is ever done.

Any project can be disruptive for a home owner. The longer it takes to complete, the more disruptive it can be. Give serious consideration to what is an acceptable level of disruption, and make sure everyone concerned understands the time frame which needs to be worked to.

For any project to be successful it should be realistically conceived and its execution should be planned to achieve a useful outcome within the constraints of financial and other resources available, and with a comfortable margin of error.

#### Face Reality from the Start!

Renovation projects commonly do not go exactly to plan. This is because there are inevitably unpredictable factors at play which can impact a project as you proceed. Always expect the unexpected.

#### Obtaining Permits

Whilst sometimes things go smoothly, permits can be delayed. If possible apply for permits well in advance. Work cannot proceed without appropriate permits or progressive inspections. Requirements are varied according to the jurisdiction and applicable regulations. Often finalising government permits (such as a building addition) can be highly unpredictable. You may submit plans and expect a fast response; but there are rarely guarantees. Do not plan for a start date on any renovation until after all required permits are in place.

#### Hidden Defects

Structural defects or deterioration may be hidden until after work starts. You can't know whether the internal, hidden parts of a structure are sound, until after you begin to dismantle or renovate what is there now e.g. removing plaster from a wall may reveal rot or corrosion in what lies behind, or removing wallpaper could reveal subsidence cracks.

#### Inclement Weather

Weather can be unpredictable. Work can be stopped or slowed by abnormal weather such as an early wet season, an abnormal heat wave, a storm, a severe cold snap, etc. This is more likely to be a problem where roofs, walls or windows need repair or replacement, or where access to the site is difficult.

## Supplies

Materials and Equipment Supplies can be unpredictable. Building materials supplies may be scheduled to be delivered on particular dates, but things do go wrong; shipments get delayed; bespoke fittings may take longer to make or for suitable manufacturers to be found, and when other delays force a rescheduling of a delivery that can have flow on impacts.

## Sourcing Tradesmen or Women

Trades people may also be unpredictable. People get sick or delayed on other jobs. Small jobs (like renovations) can often be given a lower priority than larger jobs, and a visit from a critical tradesperson (e.g. plumber or electrician), may be delayed; and that may stop other work from proceeding.

## Finding the Time

The time and effort for any job may be unpredictable. Inexperienced home renovators are often optimistic about how quickly they can complete tasks; but with experience, a home renovator will discover some jobs take far more time than first estimated.

## Obtaining Funding

Funding can be delayed. Any significant renovation work requires finance. That finance may come from savings, or it may be planned to use earnings as the work proceeds. Alternatively, the renovator may be seeking finance (e.g. a loan). Applications for loans can take longer to approve than anticipated. Cost overruns may exhaust finance before a project is complete. Funding as you go using income may be disrupted through unexpected circumstances such as extraordinary costs (e.g. a car breakdown, a serious illness, loss of employment).

## **WHAT & WHY ARE YOU RENOVATING?**

Some things are worth renovating. They add more value to a property than what is injected in terms of time, money and effort. Other things are simply not going to add comparable value to a property.

People tend to renovate for one or more of the following reasons:

1. To add value to a property prior to sale; so as to increase profit when it is sold.
2. To make it more saleable, prior to sale. Some properties can simply be very difficult to sell, without first renovating features that dissuade buyers.
3. To add value for the owners, increasing their equity, hence increasing their overall wealth. They may continue living in a property, but it will be worth more; and that extra equity increases their financial security and capacity to borrow money.
4. To make a property more liveable; improving the quality of the lifestyle of those who live there.
5. To adapt to a change in life circumstances e.g. children grow up and leave the family home, elderly parents may come to live with their adult children, elderly people may need alterations so they can cope with mobility or other issues.
6. To provide a sense of satisfaction and/or achievement. Some people may renovate because they want to, without being driven by any of the above reasons. Renovation projects undertaken without a distinct and identifiable reason though, can potentially cost more than they are worth.

## How Do You Judge what is Worth Doing?

Until you get some experience behind you, there is nothing better than getting some advice from a professional. If you have a friend or relative who is a tradesman, or who works in the property industry; get their opinion. If you are renovating to sell; get one or more estate agents to look at your property, and advise what you could do to improve the property value.

## Start with Bite Size Renovations

If you have not done renovations before; it is best to begin with small jobs. Even if you have a whole house to renovate; don't start by trying to renovate the whole house at once. Consider planning and executing the renovation of just one room first. You will learn so much from that first experience, that your task of planning and renovating the next room will be so much easier.

## What are Typical Small Projects?

Anything that is damaged, degraded, corroded or unfashionably dated may be an obvious candidate for renovation.

## Where to Begin?

Whilst there are no rules as such, the following points can help you determine where to start:

### Colour

Many people start by considering colour. Certain colours (and patterns) are often associated with certain periods. If you are living in a time where cool colours are fashionable, it may be wise to paint out warm colours. If you live in a place and time where bright, flamboyant patterns are fashionable; it may be worth introducing these, but such things may not be appropriate in all locations and at all times.

### Attend to Damage and Degradation

Any surfaces that are marked, scratched or dented need repair. Any signs of rot, rust or mould need removal. Be aware of any smells and attend – check for poor drainage or blocked drains outside. Check for any cracks. Check for any subsidence. Any electrical or plumbing fixtures that are faulty will need repair.

### More Light May be Good

Often older buildings lack adequate light. A lack of light can make a room colder in winter but can also make it appear uninviting. It may not be so important for bedrooms which are largely used for sleeping in but dark rooms which are used regularly can be quite depressing. Adding a skylight or extra windows can make a big difference. Perhaps French doors leading to the outside will brighten up a ground floor room in the middle of a house.

### Practical Features

People expect certain features in modern houses e.g. for houses in warm climates most people would look for ceiling fans, good ventilation, and air conditioning. For houses in cold climates insulation and heating systems are desirable. In places where mosquitoes or other insects are prevalent insect screens fitted to doors and windows would be highly sought after. In places where criminal activity is perceived as a threat security systems, strong or impenetrable fencing and lockable gates would be high on people's wish list. In bushfire prone areas a sprinkler system and fire alarms would be a good idea.

### Luxury Features

Luxury features also have a place in renovation. Unless the property is in an inner city location and you are looking to sell it after renovating, then luxury features are not always a good idea except for

personal use. A swimming pool may be great if you live in a warm climate but it is not everyone's favourite idea of how to make use of outdoor space. It could actually deter some potential buyers from the property. Similarly, if you spend tens of thousands of dollars on marble kitchen floors and bench tops whilst it might look amazing you may not recoup that money when it comes to selling up.

### What Rooms to Renovate

If you speak to any real estate agent they will most likely advise you that the kitchen and bathroom are the most important rooms in a house when it comes to selling.

#### Kitchen Renovations

The most obvious renovation in a kitchen is replacing cupboards and bench tops. This task alone will transform the appearance of any kitchen. Whilst you can bring in specialists to do this, kitchen designers and installers can be very expensive to employ. If you go down this route you would be well advised to have a look at some show kitchens or ask to see photographs of their previous work. References are always helpful too.

Of course the other option is to take all the measurements yourself and source cupboards that will fit. You then install them and cut your bench tops to suit. It would be wise to replace any floor tiles or linoleum before installing the cupboards. If you are on a strict budget or the cupboard frames are physically sound you might prefer to just replace cupboard doors, resurface them, paint them, or strip and varnish them (if they are wooden). Replacing the cupboard door furniture can also provide a whole new appearance.

Other tasks in the kitchen may be repainting walls, tiling splashbacks, fixing leaks under the kitchen sink, and replacing taps or washers.

#### Bathroom Renovations

Bathrooms are a very important room but they can vary considerably in what they contain, as well as in number. Having more than one functional toilet in a house is often desirable, particularly for large families. It is always a good idea to have a downstairs bathroom where feasible in a multistorey building. Perhaps more so if the house is inhabited by elderly people who have less mobility.

A key decision will be whether to have a shower or bath, or both. If room permits, having a bath as well as a shower should future proof a property for sale at a later date. Young families, in particular, look for a bath so they can have 'bath time'. Older families and elderly couples on the other hand may prefer to remove a bath in favour of a walk-in shower with grab rails.

When deciding on your property's bathroom needs it is wise not to make a hasty decision. For example, if you only have a first floor bathroom you might consider locating a ground floor bathroom directly beneath the upper storey one so that existing pipe work can be more easily extended. If you place it at the opposite end of the house this could incur considerably more cost.

#### Other Rooms

Most other rooms in the house can be renovated to some degree. The sorts of things to consider will include paintwork and finishes on walls, floors, doors and windows. Fireplaces and permanent heaters may also be in need of repair or restoration. Ceilings may need painting, lining or cornices added or removed. Skirting boards and door architraves may be in need of work.

Outdoor living might also be something worth considering. Adding a summer room or conservatory provides a link with nature. Perhaps adding doors leading to an outdoor patio is possible. Some buildings have enclosed quadrangles containing plants to help bring the outside in.

## MANAGE RISKS - AVOID SURPRISES

The only way to avoid, or at least minimise nasty surprises in any renovation job is to not start the work until you have first gathered all pertinent information, and then planned what you are going to do based upon an awareness of all those facts, any likely risks, and knowledge of the resources you have to do the job.

Do not attempt to do jobs which you clearly do not have the resources to complete.

### Warning: Don't attempt to Remove Damaged Asbestos Products

Asbestos was used in some form in many houses which date from the 1970s and earlier. Asbestos can come in many forms from pipe lagging to tiles and soffits under eaves. Sometimes it was blended into other materials so it is barely recognisable as an asbestos product. Don't attempt to remove anything which could be asbestos without having it assessed. Qualified assessors can arrange to remove the asbestos without risk to anyone's health. Asbestos is at its most dangerous when the fibres become air bound from dismantling or breaking it. It is predicted that with the increase in people undertaking home renovations there is likely to be an increase in the incidence of asbestosis, and health data is already showing this.

### Gathering the Facts

**Legal Restrictions** – government regulations may restrict what you can and cannot do. You may or may not require permits to do work. You may be required by law to take out certain insurances. You may be required to use “registered” tradesmen to undertake some tasks. You may be required to comply with unions. If it is not a straightforward job or involves any structural alterations do your research first. Contact your local council if unsure.

**Insurance** – for any significant construction it is important to insure the building, materials and even equipment against theft, damage or vandalism. Public liability insurance is also important. When renovating your own home, there may be some level of insurance cover through an existing householder policy; but this should be checked. If you have just bought a property and it has subsidence problems or other structural defects you may not be able to get building insurance until those problems have been addressed, and all works will have to be conducted at your expense until the property is insurable. Sometimes the previous owner may be able to make a claim on their policy.

**Status of Property** – before planning changes to a building, you need to know and understand what you already have. Some things may be obvious, such as room dimensions and positions of windows and doors; but others things may not be so obvious, such as pipes and wiring inside a wall or roof cavity, or hidden damage to structures such as moisture, rot or pest infestations. You may think parts of a building are structurally sound; but once work starts, you may find it isn't. Unless the renovator is skilled and experienced, it may be wise to have a structure surveyed before starting to plan any renovation work.

**Desired Goals** – renovation work is normally prompted by specific goals. These may, for example be such things as:

- To increase property value so it can be sold for a profit

- To accommodate changing needs of the occupant (e.g. additional children, aging occupant needing a more functional environment)
- To provide more space (e.g. increasing house size)
- To improve insulation and ventilation
- To make a house brighter inside
- To link the interior to the outdoors e.g. balconies, patio doors, skylights
- To remove materials which pose a potential health risk (e.g. asbestos, laminates containing formaldehyde glues, lead-based paints or lead pipes)

**Resources Available** – the money, time and skills available to the renovator will always be a limitation upon what can be done. If money is unlimited; plans may be unhindered, but this is rarely the case. If a home owner intends doing as much of the work as possible themselves, there may be limits due to time they have available and their skill level. Sometimes people start a renovation project with the greatest of intentions but soon find they have taken on too much and are unable to continue. It can be very demanding and mistakes may set projects back and further drain your resources. Always try to work out what is needed for each job before attempting it. You can then estimate a time frame and likely expenses.

## WHAT ARE THE COSTS?

You won't always get your estimates close to the final cost, but if you attempt to work out expenses you are less likely to be faced with unexpected bills. Some of the expenses to consider include:

- Insurance and permit fees
- Costs of planning and managing a project (particularly if you are bringing in outside experts)
- Construction materials - where possible itemise all materials and quantities needed for each job
- Equipment and tools - the cost of hiring and/or buying tools and machinery but also consider repairs and maintenance of equipment
- Labour costs – subcontractors and tradesmen, unskilled labour, your own time

### Dealing with Subcontractors and Tradesmen

A contract is an agreement – the renovator pays a subcontractor and the subcontractor does the work. Contracts need to be very clearly defined though if the renovator is to get the work they expect and the contractor the money they expect. For example, if you want a resurfaced floor to be slip-proof and it is not written in a contract but only expressed verbally you have a problem trying to rectify the floor if it is not slip proof upon completion. To avoid disputes, contracts should always be in writing.

In case work requires rectification agreements should include what happens if there are variations in the work specified by a contract.

Payment rates and methods can vary. For instance, you may be charged per job, on an hourly basis, materials may be included in a quote or not included (make sure you check), the clean up afterwards may or may not be included (it may be cheaper if you offer to do this). When payment is due to be made can also vary. Some tradesmen will be happy for a weekly settlement others may prefer payment for days or weeks.

## Selecting Tradesmen

The best way to choose a tradesperson is through referral, but often they are scarce and hard to find. Some are not as good as others or may be more willing to cut corners to save time. Most people would be familiar with the phrase 'cowboy builders' and whilst there are certainly some charlatans around they perhaps give a bad reputation to those who are very good at what they do. So, without a referral how do you choose? One approach is to consult professional bodies which represent the industry. They can usually provide you with a list of people who can service your area. For instance, in most countries there are organisations which skilled tradespeople may be a member of e.g. Master Builders (Australia) or the Guild of Master Craftsmen (UK). There are different bodies which represent specific trades like plumbing, electrics, roofing, and so forth.

## SAFETY ON A SITE

Safety is of paramount concern in all types of work but particularly when undertaking renovations. Wherever tools and equipment are being used there are hazards and potential risks of injury.

### Who is responsible?

The responsibility for any site rests with the owner. If you employ tradesmen or subcontractors they should have their own insurance, but be mindful that if you ask them to do something which was not in the original contract and it results in them being injured their insurance may not cover them. They might turn to you for compensation or seek to claim from your insurance. Failing that, they might attempt to sue you. Make sure you know the limits of your insurance and those of your trades workers before embarking on a project.

### Tidiness

One of the best ways to avoid accidents is to keep the site tidy. Being aware of potential hazards will avoid many incidents. Look around and move things that are not needed so that they are clear of walkways and thoroughfares. A can of paint left inside a doorway could trip someone over, a cord dangling from a power drill cut get hooked on someone's arm and drag the drill onto them, and a poorly stacked pile of bricks could topple over onto someone walking past.

### Crowded Sites

Too many people in one area will increase the likelihood of accidents happening. Most of the time workers need space around them to perform tasks using tools. Make sure people are not working on top of one another. Try to schedule work so that there are never too many people on site at once.

Similarly, too many materials on site can be hazardous. Arrange to have materials delivered just before they are needed rather than have many different piles taking up workspace. It will be labour intensive and costly to keep having to move materials around the site which are not yet needed and are getting in the way of ongoing work.

### Other Hazards

To identify hazards you just need to apply some common sense. Hazards are anything which can pose a risk to wellbeing. For example, an unstable ladder could topple over so whenever a ladder is being used make sure it is tied to something at the top, if possible, and stable at the base (e.g. by wedging between a couple of bags of sand on unstable ground).

Try to think about each task in a logical fashion.

- If you are painting a room, make sure you wear a respirator, open the windows, or the room has adequate ventilation to avoid being overcome by fumes.

- If you need to sand timber that is not fixed in position, then take it outdoors to do it to avoid filling the interior with minute dust particles.
- If you have to remove a shower base make sure you have turned the water off and you are able to cap off the pipes before turning the water back on.
- If it is an electric shower you may need to get in an electrician to disconnect the electrics and make them safe before proceeding.

### Deliveries

When organising deliveries to the site make sure that there is clear access for the delivery vehicle. The closer a delivery can be to the site the less time is needed to unload. If materials have to be delivered and unloaded to a location within the building e.g. first floor, then ensure that there is clear access to the point of storage.

### Clean up & Tool Storage

It is good practice to get into the habit of cleaning up at the end of each work day on your renovation project. Tools should be tidied up and not left lying around. Look after your tools. Wipe debris from the surface of cutting blades and if necessary wipe with an oiled cloth. Check for burrs or nicks in blades and sharpen if needed. Hang tools, place them in an organised tool box or lay them out on a surface e.g. bench top. Don't throw them into a jumbled heap in a storage box.

Paint cans, glues and other liquids should be sealed in their containers. Paintbrushes and other equipment used to apply fluids should be thoroughly cleaned and left to dry in accordance with recommended procedures. Cement should be cleaned from barrows, shovels, trowels, etc. If you develop the habit of cleaning up properly not only do you reduce hazards but you prolong the life of your tools and equipment and you waste less time trying to clean it when substances have dried and hardened on them.

## ALLOWABLE TOLERANCES

No construction or renovation is likely to be 100% perfect – buildings are never 100% level, square or plumb. Joints are never 100% perfect. There will always be some movement during and after construction resulting in cracking or minor gaps, and some stains, etc. There should be tolerable limits to these imperfections though, and beyond those limits, subcontractors should have an obligation to do some repairs.

**Variations in length** – distances can be planned to a particular length (e.g. a 3 metre x 3 metre room) but in real life, materials shrink or expand slightly, things subside or become compressed or warped, and in reality 3 metres (for example) may become a little less or more than 3 metres.

**Variations in level** - just as distances can change so can levels. Often floors or ceilings that are originally constructed level, can over decades and centuries, change to develop a slope. In some situations it may become structurally important to correct such changes through renovation (e.g. a door which won't close due to a frame which has moved, a floor which sinks in one corner). Sometimes the need to correct such changes may be more for aesthetic rather than structural reasons.

**Variations in straightness** - curves develop in walls or other lines in a construction may be unnoticeable and of no consequence structurally; but if such problems become significant, a renovation may become necessary for aesthetic or structural reasons.



**Variations in materials used** – materials used which may have been appropriate in the past are sometimes deemed inappropriate today for either structural or safety reasons (e.g. lead and asbestos were widely used in the past but are deemed toxic today). Other materials used on old buildings are sometimes deemed historically important and renovations may need to use authentic materials when replacing building components in order to satisfy historical integrity requirements.

## SET TASK

### Activity 1

Evaluate a house and identify what has scope for renovation. This could be your own property, a friend's property or any other building you have access to. Determine why it needs renovating what your priorities would be. Take some photographs. Spend up to 2 hours on this task.

### Activity 2

Look at properties for sale in your locality, and note variations in prices. Try to make sense of what looks more saleable due to price, features, etc. Have the more saleable properties had any renovation work done? If so, what sort of renovation work? What sort of renovations seem to have the greatest impact on price? Spend up to 2 hours on this task.

## Assignment 1

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### Question 1

Report on your first set task. What do you think would be worthwhile renovations to the property you identified? Explain why you would make these changes. Include photographs and write up to one page or 500 words of comments.

### Question 2

Choose one type of renovation project identified in your first set task. For this task list what tools and equipment would be needed. Work out how much labour is required and whether or not outside contractors would be needed. Write about half a page.

### Question 3

For the task identified in Question 2 estimate how much the job would cost in terms of materials, equipment if you have to buy or hire it, and outside labour if needed (you may have to consult hardware stores and/or tradespeople for prices). Are you surprised or does your guesstimate seem about what you would expect? Write up to half a page.

#### Question 4

Report on your second set task. What different types of renovations did you find? Which types of renovation seem to be most popular, and which ones seem to add most value? Write up to one page or 500 words.