



CUSTOM BUILD

PROJECT MANAGING

Whether undergoing a new build home, or a major renovation, Pinewood Niagara Builders can manage the project for you.

A look at what is involved in managing a house-building project.

1. Preliminaries:
 - Arranging finance
 - Organizing the design
2. Organizing the builder and the subcontractors:
 - Asking selected builders and/or subcontractors for prices or tenders to do the work.
 - Selecting the form of contract that best suits your needs.
3. Consents:
 - Getting building consents (and resource consents if necessary).
4. Managing construction:
 - Arranging for subcontractors to be available when needed.
 - Dealing with suppliers and making sure materials are ordered and delivered on time.
 - Monitoring progress once work starts to make sure everything complies with the contract and consent documentation (including plans and specifications).
 - Arranging for inspections by your own professionals, for example, the designer or architect.
 - Arranging for inspections by the building inspectors at the end of each stage.
 - Answering questions that arise during building, and clarifying anything in the construction documents with the contractors.
 - Knowing when progress payments are due and checking claims for payment.
 - Negotiating with the builder and subcontractors to come back and fix any work not completed or done properly.
 - Processing variations and anything else that

crops up along the way.

- Arranging amendments to the building consent where necessary.
- Arranging the final inspection for the code compliance certificate.

Building stages

Once the plans are drawn, the materials have been chosen, and your finance is arranged, the next steps in the building process are likely to be:

1. Finding a builder (and subcontractors if you are managing the building project yourself).
2. Getting tenders and quotes.
3. Revising the budget, if necessary.
4. Making your selection of builder and subcontractors.
5. Signing the contracts.
6. Making sure the appropriate insurance has been organised.
7. Applying for building and resource consents if not already underway - the applications may already have been lodged by you or your architect or designer.
8. Construction starts:
 - Monitoring progress
 - Making progress payments
 - Approving variations to structure or materials
 - Building inspections by the Building Consent Authority (BCA) inspectors.
9. Final stages:
 - completion and final inspections for the code compliance certificate
 - retentions and remedial work
 - final payment.
10. Dealing with problems when things go wrong.
11. Landscaping.
12. Often these steps happen together, or in a different order, depending on your circumstances.



CUSTOM BUILD

PROJECT MANAGING

Before work begins:

- Make sure building consent has been issued.
- Make sure that you understand all the documentation – have the architect or builder explain the plans and specifications to you and make sure you are happy with the design changes during construction are likely to be costly.
- From March 2012, if the work is restricted building work, make sure the appropriate licensed building practitioners will be designing and carrying out or supervising out the work.
- Talk to a lawyer about the contract.
- Ensure that the site is cleared and ready for the builder to start work.
- Make sure your builder has unhindered access to the site.

While work is in progress:

- Develop a good working relationship with your builder. If you have any concerns about the work, discuss them right away.
- Keep changes to a minimum and instruct your builder in writing about all variations to the specified work and ensure you get a written costing. Be aware any changes you make may mean you have to amend your building consent.
- Choose materials and finishes carefully and approve them before use.
- If you are responsible for choosing the appliances and any other materials or fittings and fixtures, make sure they are already bought when the builder reaches that stage.
- Keep to the payments schedule and pay promptly.
- When the work is complete:
- Report any urgent defects to your builder promptly and in writing.

- List any non-urgent defects for your builder to correct at an agreed time.
- Settle the final account promptly.
- It is your responsibility to apply for a code compliance certificate when the building work is complete.

When the work is complete:

- Report any urgent defects to your builder promptly and in writing.
- List any non-urgent defects for your builder to correct at an agreed time.
- Settle the final account promptly.
- It is your responsibility to apply for a code compliance certificate when the building work is complete.

Progress payments

Unless you are paying in one lump sum, chances are you will have a clause in your contract for regular progress payments to be made to your builder.

You can negotiate with your builder how these payments will be organized, including:

- The number of payments.
- The amount of each payment.
- The gap or stage of progress between payments.
- The date or stage when each one is due.
- If you have a project manager, one of their tasks will be to monitor progress payments on your behalf. Make sure this is specified as a task and they are qualified to recommend payment.

Making the payments

Depending on what you agreed with the builder, they will claim a progress payment by serving payment claim on you. They will do this at the end of the month to which the payment relates, or at the times specified in the contract.



CUSTOM BUILD

PROJECT MANAGING

The claim must be in writing, and must give details about:

- What work it covers.
- The period the claim covers.
- How much money is due.
- When payment is due.
- How the builder calculated the amount.
- What you have to do to respond to the claim, i.e. how to pay.
- What will happen if you don't respond to the claim or don't pay the amount.

Disagreements and non-payments

You are legally liable for the amounts due under the contract as a debt. If you simply don't pay and don't give the builder a written payment schedule (see below), it becomes a debt that the builder can recover from you in the courts, along with legal costs.

If you disagree with the amount claimed, you must notify the builder within the time proposed in the contract documentation and show your method of calculation for the alternative amount. The form in Schedule 1 of the Construction Contracts Regulation 2003 provides for a written payment schedule where you can state the amount you think you should pay. In the schedule you'll need to state exactly:

- How you calculated this amount.
- Why it's different from the builder's claimed amount.
- If you're withholding some money, why you are doing so.
- If you don't pay the alternative amount described in the schedule, the builder can recover this amount, along with costs, in court.

The builder can only suspend work if this is

agreed in the contract, or if it's a commercial construction contract, i.e. if you have built the house with the intent of selling or renting it.

If you have a dispute about whether you have to make a progress payment or about the standard of work, you can take the dispute to an adjudicator under a scheme set up under the Construction Contracts Act or under the provisions of your contract with the builder for dealing with disputes. Building work (for contracts entered into from 30 November 2004) is now covered by mandatory warranties.

Building & resource consents

Getting building consent is your responsibility as the owner of the property. But you can delegate this task to your architect/designer, or the builder or person you are using as a project manager. One view is that the best time to find out about, and apply for, building consent may be before the job goes to tender so you can be assured that the house can be built based on the plans and specification presented to the BCA.

The alternative view is that it is best to wait until the tenders are in before applying for consent, because if they come in too high, you might decide to abandon your project, or make major changes before seeking consent. Some BCAs require a reasonably accurate idea of the cost of the project to be included in the consent application, so in that case you will need to get the tenders in first.

If it is part of your brief that the builder organizes consent, it won't be applied for until you've engaged your builder.

Allowing time and money



CUSTOM BUILD

PROJECT MANAGING

Both the building consent and resource consent can take time to process so make sure you factor this into your timing of the project.

You will also need to budget for fees for obtaining various documents. The cost will depend on the fees charged by individual BCAs, the value of the house being built and in the case of resource consents, the type of consents required. Your BCA will advise you.

Monitoring progress

Once building work is under way, there are a number of things to keep an eye on. How long should the project take, who should keep records, and are building materials being stored correctly?

Order of construction

The usual order of construction is:

- Excavate the section and lay the foundations
- Pour concrete floors
- Construct the framing
- Put the roof on
- Mount the windows
- Put on the exterior cladding
- Organise plumbing and wiring
- Fit insulation
- Put in the doors
- Install cabinets and interior lining
- Tile floors and walls
- Carry out final plumbing and electrical work
- Paint the house and complete any finishing work
- Lay the floor coverings

How long will it all take?

Your builder has probably give you an estimate of how long it will take to actually build the

house. The start and finish dates should be in the contract. These are likely to be flexible because delays are often outside the builder's control. It is not always a straightforward matter of 12 to 16 weeks. Delays you can expect might be due to:

- Delays in other houses the builder is working on affecting how soon the builder can start.
- Whether the subcontractors are available when needed.
- The weather – this can be a huge factor, for example when laying concrete foundations. Wind is often a problem when roofing and building wraps are being installed.
- Hold-ups with materials, which are often in short supply in times of heavy building activity.
- With demand for builders and contractors being so high in recent times, people have reported huge delays of months and sometimes years before the house even got started, and then building work taking a lot longer than it should.

Builders should know about some likely delays and be up-front about them, for example, what commitments they have elsewhere. You need to take a reasonable approach to the delays outside of anyone's control, such as the weather. However, when the delays start to get unreasonable you might want to look at your options.

Remember that you should apply for a code compliance certificate once the building work is complete. If you do not apply within two years from the time the building consent is granted your BCA should contact you to follow up on the work.

Keeping an eye on things

If you are managing the project, you have to keep a close eye on the quality of the work and pick up



CUSTOM BUILD

PROJECT MANAGING

problems quickly. For example, if the wrong wall framing is going in, it needs to be sorted before the wall linings go up.

You, the builder or the project manager will need to ensure that:

- Materials are checked off when they arrive to make sure they are what is ordered and required.
- Timber is of the specified treatment type and at specified moisture levels.
- The house is set out correctly on the site.
- Plans and specifications are followed.
- Materials are installed to manufacturers' instructions.
- Finished construction is protected from the weather.

Even if you are not managing the project, you may well be taking a keen interest in progress. If you spot anything that does not look right, bring it up immediately with the builder. It would be better to replace a few bricks that are the wrong colour than wait until the house is finished before pointing it out. Most things that go wrong are simply mistakes which your builder would prefer to know about sooner rather than later.

Speak to the project manager first and let them deal with any problems. It is part of the project manager's job and it's what you are paying for. Use a diary to record all your questions and comments to your project manager.

Setting out the house on the site

How does your new house get its exact position on the section? How does the builder know where to start the foundations?

The architect/designer will have taken the first steps in making sure the house will fit the section and meet any height or placement restrictions. They will give careful set-out instructions on the plans for the builder to follow. The set-out instructions will be based on the plan of the section and give measurements showing exactly where in relation to the edges of the section the house will sit. In most cases this is all that is required and an experienced builder will be able to position the house exactly.

However, your section may have an unusual shape, or it may be that the house will have to fit very tightly on a small urban section. In these cases the services of a land surveyor will be used to position the foundations. They can also set out the other difficult-to-place features such as boundary pegs defining the site and minimum floor levels.

Sometimes the boundary pegs get moved. They may get knocked out when a neighbor is planting a boundary hedge, or children may remove them, not understanding their significance. If they are stuck back into the ground haphazardly the builder is probably working off the wrong information when setting out the house. If the deviation is small this may not be a problem. However, it could cause major problems when it is finally noticed. For example, the garage may not line up with the entrance way. Depending at which point the error is noticed, it can be an extremely costly exercise to put it right.

Storage of materials

Building materials may be in perfect condition when they are delivered to your site, but by the time they become part of the structure of the house, they may have become damaged due to their storage and handling on the building site.



CUSTOM BUILD

PROJECT MANAGING

Kiln-dried timber is a good example. It needs to be kept dry after it is delivered and when it is installed.

Practices that can damage materials include:

- No cover from the weather.
- Rough handling when coming off the delivery truck.
- Storage directly on the ground causing dampness.
- Storage on uneven surfaces causing warping.
- Storage that doesn't allow for sweating and escape of moisture.
- Using the materials as a storage or work platform.

If you see any of these practices occurring take it up with the builder or project manager and photograph it so you can show how damage occurred if there are resulting problems.

Safety on the building site

If you are managing the project, or just interested and want to visit, you will have to arrange access. Most builders close off their sites to public entry, including owners, to protect themselves from liability under the Health and Safety in Employment Act 1992 and for reasons of security.

Keeping records

The main contractor or project manager should be keeping a complete and organized set of site records. Depending on your involvement in the project, there are a number of documents, including photographs, you should acquire and file for your own protection.

The reason for keeping a document trail is to provide protection for everyone involved if there are any disputes. The records relating to building houses include:

- A record of the original site conditions, including photographs.
- The plans and specifications.
- The contract.
- Site diaries kept by the main contractor (or project manager).
- Your own diary of notes.
- Individual builders vary in whether they keep a site diary or not and how much information they record. But keeping records of the reasons for delays outside their control, in particular, could be very useful to the builder if there are any time penalties built into the contract.

Usual information recorded in the site diary:

- What work has been done.
- Verbal instructions given.
- Variations (which may require an amendment to the building consent before they are done).
- When subcontractors came and went.
- Weather conditions.
- Reasons for stoppages.
- Materials delivered and their condition.
- Setting out work.
- Inspections.
- Visitors to the site.
- Moisture content checks.
- Building specification checks.

Builders may keep registers. For example, a Request for Clarification Register to ask questions and contract Site Instruction Register to record the answer. They may also keep a similar set of registers for their dealings with subcontractors. In the glossary there is a list of the common



CUSTOM BUILD

PROJECT MANAGING

documents used in building projects.

Keeping your own records

Whether you are managing the project or not, keeping your own records is very important. A copy of the contract, as well as every piece of correspondence, the bills and statements, and a record of any discussion with the builder and contractors needs to be filed in such a way that you can easily find them. Emails should be printed out and filed.

Small projects won't need an elaborate document control system. Probably all that is needed is for documents to be separated into headings such as correspondence, subcontractors and suppliers, contracts and financial.

Keeping a record of the accounts will help you keep tabs on spending and help you stay within your budget.

Photographs and videos

It is a good idea to take photographs or make a video diary at regular or key times while the house is being built, preferably with a date imprint. The reasons for doing this include:

- Recording the location of service trenches, such as drains, before they are filled in.
- Having a factual record if there are any disputes about the workmanship or materials used, for example, it might show if the insulation was installed correctly over building paper. Make sure the photos are close-ups to show important details.
- Recording already damaged items delivered to the site or items damaged by vandalism.
- Recording weather conditions and any resulting damage.

- Noting anything unusual you see, such as irregular construction practices.
- Recording milestones in the building work.
- Keep the photos in an album, or on disk, date them and give them a title or explanation if necessary.

Building inspections

Making your own inspections of work on the building project and requesting inspections from building officials at the right times are important steps in the building phase.

Owner's inspections

In the plans and specifications put forward for building consent, you can specify owner's inspections. These are in-progress inspections by yourself, or delegated to someone else, such as your project manager. Owner's inspections are in addition to inspections by authorized inspectors.

Authorized inspections

During construction, the work has to be inspected at various stages. This is done by your Building Consent Authority (BCA). The inspections confirm that the work has been done in accordance with the plans and specifications approved in the building consent. For example, the depth and placement of steel reinforcing is inspected before the footings can be poured, and the moisture content of the timber framing is inspected before interior wall linings can go up.

Work cannot proceed until the inspection for each stage is completed. If the inspection is not done first, the BCA can make you undo the subsequent work, for example, take the wall linings off to inspect the framing.

Similarly, if work differs from the plans the



CUSTOM BUILD

PROJECT MANAGING

inspector can order it to be demolished and done again.

Either you, the builder or your project manager must arrange for the inspector to come at each stage, depending on what is agreed in the contract. It is often the builder who makes the call but you must confirm this as you need to know that the inspections have been done.

The inspection stages are listed in the paperwork you get with the building consent.

Final stages

Work nears completion – there are a few further steps to be taken before signing off the project. Making sure everything is finished and final inspections are done.

Work finishes

The end of the project may not be the occasion you imagined. The builder will be making arrangements to start the next job and may start transferring staff and equipment before your job is completely finished, leaving the remaining subcontractors to finish off unsupervised.

You can protect against this by having a clause in the contract that the main contractor (or their representative) maintains a permanent presence on the site until actual completion or handover. Your contract needs to define what constitutes the end of the project, or practical completion.

If your architect or designer is managing the project, the same problem can arise – they may put their efforts into their latest project and have less time to oversee and tidy up the loose ends at yours. Conversely they may find themselves left to tidy up the loose ends neglected by the

main contractor.

One way to ensure completion, and to keep the project rolling, is to have a contract that requires you to pay only when milestones are reached.

Nicola had a substantial extension built on to her house. In her contract with the main contractor, she had an agreed payment plan that had certain 'milestones' attached. She paid 20% deposit, the next 20% when the shell was completed and weather tight, and further percentages for each stage. There were major delays caused by the subcontractors but the builder was very motivated to chase them up as his payment depended on the milestones being completed.

Actual, or practical completion of the project, relates to when everything in the contract is completed. Therefore signing-off is a contractual matter and is nothing to do with the BCA's final inspections. The 10-year period to make legal claims against those involved in designing and building the house begins once the work is signed off as being completed (not when a code compliance certificate is issued).

Final tasks

Building work is finished, but there are three final things to consider:

1. A final inspection must be carried out by the building inspector to ensure everything complies with your building consent. If everything is satisfactory, a code compliance certificate will then be issued.
2. Most contracts allow for a retention or withholding sum to be held back for a certain period, known as the maintenance period, after building is completed. This will be a percentage of the total price and 10 percent



CUSTOM BUILD

PROJECT MANAGING

is common. You may have the opportunity to live in the house during this period, although it may not be possible if a CCC has not been issued, and if any problems or defects come to light the builder is obliged to fix them before the final payment is made. It is important this period includes part of winter when the weather is usually wet to test for weather tightness. Note that under some guarantees you cannot hold back any money or your guarantee is invalidated.

3. When leaving the site the builder should:
 - Ensure it's clean and tidy and ready for use.
 - Give you any operating instructions and appliance or product guarantees and instructions for special maintenance.
 - Arrange a date to come back and fix any problems that appear over the first few months.

Final inspection

You, as the owner, should advise the BCA when work is completed and apply for a code compliance certificate (CCC), (although in reality this will often be delegated to your builder or project manager). The BCA will then make a final inspection and issue you with a CCC if satisfied on reasonable grounds that the completed work complies with your building consent.

If the inspector is not satisfied, you will be issued with a notice to fix, which lists what items must be corrected before a CCC can be granted. You are legally required to make sure the items on the notice are rectified and advise the council when everything is done. You may have to go back to your contract with your builder and see who is responsible for the work that needs fixing. The council will inspect and consider whether or not a CCC can be issued.

There is considerable emphasis on getting a CCC

under the 2004 Building Act. There are several significant advantages in doing so.

It could be a major obstacle should you want to sell your house. Sale and purchase contracts are often conditional on a CCC having been granted. You won't have the peace of mind of a 'final sign off' on the compliance of the finished building.

You must apply for a CCC at the end of the job. If you do not do this within 2 years of the grant of the consent, your BCA should contact you to follow up on the work.

It is worth noting that there are a large number of houses built since CCCs were introduced in 1991 that don't have one.

If you have a cable car you will be issued with a compliance schedule at the time your CCC is issued. This requires you to maintain the cable car and provide the council with an annual building warrant of fitness.

Determinations

If you don't accept that the BCA had reasonable grounds for not issuing a CCC, you can apply to the Department of Building and Housing (DBH) for a binding ruling on technical matters of dispute, known as a Determination.

Making your own inspection

It's a good idea, when the builder is ready to hand over the keys, to walk through the new house, initially by yourself, and then with the builder. You should have been taking an active role in monitoring progress and already be familiar with the building work, including defects. You may have already discussed these with your builder.



CUSTOM BUILD

PROJECT MANAGING

In the final walk through carefully note, and possibly photograph, surfaces of counters, floors, walls, fixtures and fittings. Record any damage at the same time so that there can be no dispute later about whether the chipped bench-top was caused by the builder or the movers.

Use the walk through as an opportunity to learn about the features you need to operate, such as the woodburner or ventilation systems. The instruction booklets and warranties should be made available to you for each of the appliances.