THE ESSENTIAL GUIDE FOR HOME OWNERS DOING BUILDING PROJECTS

A STRAIGHT UP PRODUCTION

CENTRAL NORTH ISLAND 2011 ANNUAL

HOMEOWNER'S BUILDING GUIDE

YOUR GUIDE TO BUILDING A BETTER HOME WWW.BUILDINGGUIDE.CO.NZ

FREE

WIN A LA PAVONI ESPRESSO COFFEE MACHINE WORTH $1999

SEE PAGE 80 ...

INSIDE THIS ISSUE ...

NEW PLYMOUTH DISTRICT COUNCIL

PALMERSTON NORTH CITY COUNCIL

Building Services

TARARUA DISTRICT COUNCIL

GISBORNE DISTRICT COUNCIL

HASTINGS DISTRICT COUNCIL

South Taranaki District Council

STRATFORD DISTRICT COUNCIL

CITY OF NAPIER

MTR_MBS_1012

MASTERBUILDER.ORG.NZ

We'll stand by our work for 10 years – guaranteed.

A Registered Master Builder can guarantee his work will stand the test of time. Any building job can be nerve wracking for the owner but, for a minimal cost, you can have the peace of mind of a Master Build Guarantee for your home. No worries, no anxiety, you know Registered Master Builders will be there for the next ten years to solve a problem.

Our premium option covers you for up to $500,000 for loss of deposit or non-completion, materials and workmanship as well as structural defects including rot*.

To find out more, talk to your Registered Master Builder or go to www.masterbuilder.org.nz

*conditions apply.

BUILDING EXCELLENCE FOR OVER 100 YEARS

Registered Master Builders™

0800 269 119

HOMEOWNER'S BUILDING GUIDE

Get Ready!

WELCOME TO YOUR BUILDING PROJECT. THIS GUIDE IS DESIGNED TO BE A USEFUL WORKING TOOL FOR YOU, THE HOMEOWNER, AS YOU GO THROUGH YOUR BUILDING JOB.

UNDERTAKING A BUILDING PROJECT is a challenging time and can be immensely enjoyable or thoroughly frustrating – and often both! We hope this guide will help you avoid many of the problems that can crop up and that we help your project be a source of pride for you on an ongoing basis.

Be prepared for large draw on your time and, of course, your budget. Be prepared for major frustrations and stress. Make sure your work colleagues know that you're about to got through this – you will need understanding from your managers because of the time demands on you – be prepared to be called on site to make instantaneous decisions about things.

Remember – this guide is not designed to be a replacement for a project manager and it is especially not a replacement for building inspections – these are a stipulation of the Building Act. Rather, this is a work book for you to keep track of the project, stimulate ideas and to remind you of things to look out for.

GOOD LUCK AND HAPPY HOME BUILDING!
From the Publisher

HOW TO USE THIS BUILDING GUIDE

We've split the magazine up so that you can think through each item as it comes up and even work ahead so that you're anticipating each step and are prepared for it when it comes.

The book is split into the following items:

- Council Information
- The Building Act 2004
- Preplanning
- Design and Planning
- Product Selection
- Construction Checklist
- Budget Workpage

Our advice is to read through the book completely first so you can consider the various elements that need planning in the early stages, then come back and tackle each section as it is relevant to the stage of the project.

We welcome feedback on the magazine – call us on 09 360 8885 or email info@buildingguide.co.nz

Inside the guide...

HOMEOWNER'S BUILDING GUIDE

Homeowner's Building Guide is published by Straight Up Productions Ltd, Copyright 2006; none of the contents can be used without written permission of the publisher. Straight Up Productions Ltd accepts no responsibility for any problems with building work done by anyone using this guide book. This publication is a guide for homeowners only and is not a substitute for a professional project manager or official building inspections.

Mark Graham – Publisher; Bill Cutting – Production Manager; Toni Keeling – Sales Manager. Homeowner's Building Guide is published 10 times around the country and distributed free through local councils to homeowners undertaking building projects; it is also distributed direct to builders and architects for onsupply to their clients and through selected retail outlets. Printed on paper sourced from managed resources and using vegetable based inks.

CONTACT US AT: www.buildingguide.co.nz; email: info@buildingguide.co.nz; ph 09 360 8885 or fax 09 360 8887; or mail: PO Box 78-152, Grey Lynn, Auckland, New Zealand 1245.

A word from the Councils...

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

CENTRAL HAWKE'S BAY DISTRICT COUNCIL
32 RUATANIWHA STREET, WAIPAWA
PO BOX 127, WAIPAWA
PH: 06-857 8060 FAX: 06-857 7179
WEB: WWW.CHBDC.GOVT.NZ EMAIL: INFO@CHBDC.GOVT.NZ

RANGITIKEI DISTRICT COUNCIL

The staff of the Environmental & Regulatory Services Department have a wide range of skills to assist you with your building project, we can help by providing property information, advice relating to consents & the acceptance, lodging & issuing of consents.

As a territorial authority we are required to administer the Building Act 2004 to ensure all buildings meet the required standards set out in the Act. Submitting an application is the first step towards obtaining a building consent, the application should be clear, accurate and have good detailed plans to make processing quick and efficient.
The building work must be built in accordance with the approved plans therefore if any changes are to be made an application for an amendment to the original building consent must be submitted to ensure a Code Compliance Certificate can be issued at the end of the project.

A condition of a building consent is that regular inspections are carried out throughout the project. It is the owner/agents responsibility to arrange a suitable time for the inspector to carry out the inspection. The inspection ensures that the project is built in accordance with the approved plans and is being carried out safely. It is vital that no inspections are missed as this can affect Council's ability to issue a Code Compliance Certificate.

As part of the government's review of the Act, an extensive list of projects that no longer require a building consent has been created. This list, schedule 1, has also allowed Council to extend the range of works that are exempt from the consenting process. As this is a potential compliance "minefield" we recommend that you discuss your intentions with one of our friendly team who will be keen to assist.

The department of building and housing has produced a range of booklets to assist you, examples:

- "Guide to applying for a building consent" this guide covers plans, specifications and documentation required for a building consent please contact our office to have a copy sent to you.
- "A guide to building work that does not require a building consent"

These publications are available on line at
http://www.dbh.govt.nz/publications

We wish you all the best and look forward to helping you with your future projects.

RANGITIKEI DISTRICT COUNCIL
PRIVATE BAG 1102
MARTON 4710
PHONE: 06 327 0099
FAX: 06 327 6970
WEB: WWW.RANGITIKEI.GOVT.NZ
EMAIL: INFO@RANGITIKEI.GOVT.NZ

GISBORNE DISTRICT COUNCIL

When Alvin Toffler wrote his book "Future Shock' in 1970 he probably wasn't thinking of the building industry. That book discussed computers, digital watches, and the pace of life among other things. What he did say though was that we should all expect changes to continue, and speed up. That is certainly true for the building industry at this moment in time. We've seen, and learnt from the leaky house debacle, a new Act was written and had specific sections put in it to try and prevent systemic building failures ever occurring again. Foremost among these, from your perspective as a person thinking of building, is the requirement for Councils to become accredited as Building Consent Authorities and the Licensed Building Practitioner scheme. Accreditation is here now and Gisborne District Council is a fully accredited Building Consent Authority. The LBP scheme has been rejigged and the qualification process streamlined. Check your builder's status to make sure he can build your project.

What this means for you is a more robust process. As part of the accreditation scheme a Building Consent Authority must have written procedures and processes to ensure that a building consent will be dealt with in a consistent manner, and therefore achieve a consistent result. The process to ensure this is intense; there are audits, documentation fixes, and then final approval. The upside for you is a better process; the downside is a slower process, and consequently a more expensive one.

Parallel with these changes is the wish of the Minister for Building and Housing to undertake a major review of the Building Act. Already Schedule 1 (exempt work) has been expanded. As an applicant you still need to check with Council in regard to your project. Even if it is exempt under the Building Act it may still need a resource consent under the Resource Management Act. Often you will need a neighbour's permission. Don't build and hope the Council won't notice, if your neighbour complains, and you contravene the District Plan rules, you may have to remove your building work (it has happened). Such a destructive process is costly, antagonistic for neighbours, and easily circumvented by going through the right processes.

A lot of guidance for those and other building issues are in this guide, Council also has brochures specific to issues like septic tank and effluent disposal, and ground bearing capacity testing. Just ask, and we'll help. If it's a planning issue we will get the duty planner out to talk to you. Sound scary and complicated, well it can be, but doesn't need to be. The easiest way through this seeming maze of complications is asking us first. This Council is here to help, we would rather spend time before a project commences talking to you about what you need and where to get it, than cause you (and us) stress by trying to remedy something that has been built incorrectly or in the wrong place. So the message from the Gisborne District Council is simply "Ask first", and it may save everyone a lot of angst.

GISBORNE DISTRICT COUNCIL
15 FITZHERBERT STREET
PO BOX 747, GISBORNE
TELEPHONE: (06) 8672 049
FAX: (06) 8678 076
WEB: WWW.GDC.GOVT.NZ
EMAIL: SERVICES@GDC.GOVT.NZ

PALMERSTON NORTH CITY COUNCIL AND MANAWATU DISTRICT COUNCIL

Palmerston North City Council was the first Council in New Zealand accredited as a Building Consent Authority under the new building regime set up by the Government under the 2004 Building Act. Manawatu District Council's accreditation incorporates a contract agreement with the Palmerston North City Council to carry out the Building Consent Authority functions. The two Councils work together in a shared services arrangement to deliver under the title of **Building Services.**

WHAT WE DO

The main function of Building Services is to administer the Building Act 2004 and ensure buildings are constructed to meet the minimum requirements set out in the New Zealand Building Code thereby achieving safe and well constructed buildings for the public of Palmerston North and Manawatu. With our knowledge of the legislation and practical experience, the staff are an excellent source of information to help start any building project. While we cannot do design work for you, we can advise on how to go about organising building and resource applications. Doing research early can save time and money later, by **identifying the need for specific information.**

APPLICATIONS

Applicants that provide clear, accurate drawings and documentation are the ones that will be smiling at the end of the job. Not only does this allow for faster, efficient processing of applications, reducing processing costs, it helps trades people provide quotations for the supply of materials and labour that you actually want, reducing a lot of the disputes that can arise.

INSPECTIONS

The building team cannot offer a complete supervision service; it is up to the property owner, or their appointed agent to supervise the day-to-day construction. When a building consent is issued it will contain a list of building inspections that are required to be undertaken. A building inspection can be booked during normal working hours simply by contacting us and arranging a time for the inspection. You will need the building consent number and the contact details of the person that will be on site at the time of the inspection. There is occasionally a small delay before you can get your inspection so plan to give as much notice as possible.

DO'S AND DON'TS

Failure to comply with any of the conditions of consent, or failure to have any of the mandatory building inspections carried out, could result in costly mistakes, or worse (fines for being found in breach of the Building Act or Building Code can be considerable). You may also jeopardise the Code Compliance Certificate when the building work is finished. Avoid the hassles and talk to the team. There are staff on hand from 8am till 5pm, Monday-Friday.

FURTHER INFORMATION AND ENQUIRIES

Specific information or enquiries about building consents can be made by contacting either Palmerston North City Council or Manawatu District Council Customer Service Centres (contact details below).

A range of information is also available from the Department of Building and Housing at their website: www.dbh.govt.nz

PALMERSTON NORTH CITY COUNCIL

CIVIC ADMINISTRATION BUILDING
PRIVATE BAG 11034, THE SQUARE,
PALMERSTON NORTH
PHONE: 06 356 8199
FAX: 06 351 4471
WWW.PNCC.GOVT.NZ

MANAWATU DISTRICT COUNCIL

PRIVATE BAG 10-001
FEILDING 4740
PHONE: 06 323 0000
FAX: 06 323 0822
WWW.MDC.GOVT.NZ

NEW PLYMOUTH DISTRICT COUNCIL

The council is a Building Consent Authority which has responsibilities under the Building Act 2004 to ensure buildings are constructed to meet the requirements of the New Zealand Building Code.

The building consent application process is very important as it also allows the council to check at the pre approval stage that District Plan requirements are met and that the integrity of the council's roads and other services are protected.

The outcomes we seek are safe, durable, healthy buildings that will meet the needs of current and future occupants and owners in our District. Ultimately it is the responsibility of the property owner to ensure that application is made for the work and once granted, that the necessary inspections are called for so the work can be signed off. The most valuable part of the process for the property owner is the Code Compliance Certificate issued by the Building Consent Authority (the council),stating that the work has been completed in accordance with the building consent. There is no substitute for the verification that this certificate gives.

You should confirm with any tradesman undertaking building work for you that a building consent will be applied for. There are certain exemptions but we suggest you confirm these with us.

Designing and building is a technical process. Those unfamiliar with how to prepare plans and specifications, district plan rules and building standards should engage professionals to guide them through the process. While we cannot prepare the applications for you, our customer support, building and planning staff are an excellent source of information on how to go about organising the consent and service connection applications needed for your project.

Good quality documentation will make your application easier for us to process and keep your processing costs to a minimum. It is best that you finalise the design before applying as amendments add to costs. Quality documentation will help trades people provide accurate quotations for the supply of materials and labour, reducing the possibility of disputes and cost overuns.

Our building team look forward to working with your architect, designer, builder and other tradesmen to achieve a successful outcome. By following the approved plans and ensuring good communication between your building professionals and council building officers you will be well on the way to making your building project run as smooth and hassle free as possible.

NEW PLYMOUTH DISTRICT COUNCIL
PRIVATE BAG 2025, NEW PLYMOUTH 4340
PHONE: 06-759 6060
FAX: 06-759 6072
EMAIL: ENQUIRIES@NPDC.GOVT.NZ
WEB: WWW.NEWPLYMOUTHNZ.COM

HASTINGS DISTRICT COUNCIL

Building a home can be one of the most expensive and potentially stressful projects that a person will do during their lifetime. It can also be very satisfying. By working together with your council on your building project much of the stress involved can be avoided.

Make sure you get professional help with your plans from a qualified Architect, Architectural Designer or a qualified Draughtsperson. Council staff have the experience, ability and willingness to help you get a building consent for your project and to make sure that the building is constructed to the standards set by the Building Code.

PLANSMART CHECKS

Most building consent applications receive an initial assessment called PlanSmart, prior to being lodged in to the consent processing system. PlanSmart ensures all information necessary to ensure compliance with the New Zealand Building Code has been included with the application.

Through PlanSmart you have the opportunity to talk face-to-face with a building officer about whether your application is ready and what to do if it's not. PlanSmart is not a technical check; a full assessment by a number of technical staff will be performed after an application has been through the PlanSmart checking process. PlanSmart is also not an endorsement that building consent will be granted as presented; this will be determined on completion of the technical checks.

During technical assessments it may be considered necessary to suspend processing of the consent in order to clarify technical issues to ensure the proposed building work will comply with the building code requirements.

Building Inspections and Code Compliance Council staff will inspect the building project as it progresses and if the building work has been completed according to the approved documents and has been built to comply with the building code, a Code of Compliance Certificate may be issued.

It is important to note that the role of the building inspector is not to be a clerk of works and supervise the project at every stage. Building inspectors can only be on the job for a limited time to inspect the work at key stages. Builders, engineers, and designers and other professionals or trades people assume more significant roles in ensure work meets required standards.

BUILDERS

If you have not used a particular builder before, ask around to check on the standard of work completed by the builder. Council is not in the position to recommend either building products, or trades people, but you can ask organisations such as the Certified Builders or Master Builders to recommend various trades people.

Finally if you have any problems or are concerned about any aspects of the job, do not hesitate to contact the council staff. We are always happy to help.

HASTINGS DISTRICT COUNCIL
LYNDON STREET EAST
PRIVATE BAG 9002, HASTINGS
PHONE: 06-8715000
FAX: 06-8715115
WWW.HASTINGSDC.GOVT.NZ

NAPIER CITY COUNCIL

The staff of the Planning Services Department consider themselves as part of your building team.

WHAT WE DO

The main function of the department is to administer the Building Act 2004,and the Resource Management Act, and ensure buildings are constructed to meet the minimum requirements set out in the New Zealand Building Code. With the knowledge of the legislation and years of practical experience, the staff here are an excellent source of information to start any building project. While we cannot do design work for you, we can advise on how to go about organising building and resource applications. Doing research early can save time and money later, by identifying the need for specific design or other technical reports.

APPLICATIONS

Applicants that provide clear, accurate drawings and documentation are the ones that will be smiling at the end of the job. Not only does this allow for faster, efficient processing of applications, it helps trades people provide quotations for the supply of materials and labour that you actually want, cutting out a lot of the disputes that can arise.

INSPECTIONS

Council cannot offer a complete supervision service; it is up to the property owner, or their appointed agent to supervise the day-to-day construction. When Council issues a building consent it will contain a list of strategic inspections that are to be carried out and the notice required before inspection, usually 4 hours. Each inspection should be notified and any remedial work advised by the inspector carried out before proceeding to the next stage.

DOS AND DON'TS

Missed inspections or work covered up prematurely could mean Council will not be able to issue a Code compliance Certificate for the completed work. This can be a costly oversight when it comes to selling. Avoid the hassles and talk to the team. There are staff on hand from 8am till 5pm, Monday-Friday.

THE BOOK

The information contained in this publication will provide an insight into the regulations and processes involved in building projects, as well as referencing suppliers and professional services. Remember, "If in doubt - ask!"

We wish you well with your future projects and look forward to being part of your building team.

NAPIER CITY COUNCIL
231 HASTINGS STREET, NAPIER.
PRIVATE BAG 6010, NAPIER.
PHONE: (06) 834 4175 (BUILDING)
PHONE: (06) 834 4179 (PLUMBING AND DRAINAGE)
WEBSITE: WWW.NAPIERPLANNING.GOVT.NZ

RUAPEHU DISTRICT COUNCIL

The staff of the Building Control Team consider themselves as part of your building team.

WHAT WE DO

The main function of the team is to administer the Building Act 2004 and ensure buildings are constructed to meet the minimum requirements set out in the New Zealand Building Code. With the knowledge of the legislation and years of practical experience, the staff here are an excellent source of information to start any building project.

While we cannot do design work for you, we can advise on how to go about organising building applications. Doing research early can save time and money later, by identifying the need for specific design or other technical reports.

APPLICATIONS

Applicants that provide clear, accurate drawings and documentation are the ones that will be smiling at the end of the job. Not only does this allow for faster, efficient processing of applications, it helps trades people provide quotations for the supply of materials and labour that you actually want, cutting out a lot of the disputes that can arise.

INSPECTIONS

Council cannot offer a complete supervision service; it is up to the property owner, or their appointed agent to supervise the day-to-day construction. When Council issues a building consent it will contain a list of strategic inspections that are to be carried out and the notice required before inspection, usually a minimum of 3 working days. Each inspection should be notified and any remedial work advised by the inspector carried out before proceeding to the next stage.

DO'S AND DON'TS

Missed inspections or work covered up prematurely could mean Council will not be able to issue a Code Compliance Certificate for the completed work. This can be a costly oversight when it comes to selling. Avoid the hassles and talk to the team. There are staff on hand from 8am till 5pm, Monday-Friday.

THE BOOK

The information contained in this publication will provide an insight into the regulations and processes involved in building projects, as well as referencing suppliers and professional services. Remember, 'If in doubt - ask!'

We wish you well with your future projects and look forward to being part of your building team.

RUAPEHU DISTRICT COUNCIL
PRIVATE BAG 1001
TAUMARUNUI
07-895 8188
07-895 3256 (FAX)

OHAKUNE
06-385 8364
06-385 8628 (FAX)
INFO@RUPEHUDC.GOVT.NZ

SOUTH TARANAKI DISTRICT COUNCIL

If you're planning to build, renovate or relocate a building, start a new business, come and see us for free advice!

HOW WE CAN HELP YOU

The South Taranaki District Council's Building Control Team is part of a Unit that is your one-stop shop for advice about building, planning and environmental health matters. The Council has five Building Control Officers who are dedicated to providing customer service for people planning building projects. They are based in the Hawera Administration Building and provide advice in person, over the phone and via email (building@stdc.govt.nz). They also process Building Consents and undertake Building Inspections.

TIPS BEFORE YOU APPLY FOR BUILDING CONSENT

There are several important things you need to do before you apply for a building Consent:

Select a builder and a designer. Unfortunately, we are unable to recommend trades people to you. However, we advise you to ask around and spend some time finding the right person for your project contact us to check whether your proposal complies with planning requirements. This way you will know whether or not you will need a resource consent.

APPLYING FOR A BUILDING CONSENT

Most building projects require a Building Consent from the Council.

The application form is available from all Council offices, including LibraryPlus centres and on our website: www.southtaranaki.com. We need clear and complete information to help us approve your application quickly.

This means well-drawn, scaled plans and detailed specifications of the building work. The application form provides a check-list and it is important that all sections are completed. If all the necessary information is provided; we aim to process your Building Consent within three weeks.

Come and see us. We look forward to working with you.

SOUTH TARANAKI DISTRICT COUNCIL
ALBION STREET, HAWERA
PHONE: 0800 111 323
EMAIL: BUILDING@STDC.GOVT.NZ
WEB: WWW.SOUTHTARANAKI.COM

STRATFORD DISTRICT COUNCIL

WHO WE ARE

Building consents are processed within the Planning and Regulatory Department of Council. This department has responsibility for all of the regulatory functions of Council, including heath and building, as well as administering the Stratford District Plan. The team is small, with only five full-time and two part time employees, but prides itself on its efficiency and customer service. Our small size helps with the close integration of building queries and consents with other Council services such as planning and water/wastewater services.

WHAT WE NEED FROM YOU

The Building Act 2004 stresses the need for high quality and complete plans and specifications for your intended building work. Where either quality or completeness is lacking there will be significant delays in processing your application. Complete documentation will typically allow the granting of a Building Consent within 15 working days. All consents are processed within 20 working days, although this will exclude any time taken to return any requested information missing from an application to us.

INSPECTIONS

When Council issues a building consent it will contain a complete list of inspections that are to be carried out. Each of these inspections must be booked through the Service Centre and they require at least 24 hours notice. Any correction work will be advised by the Building Control Officer and must be completed before proceeding to the next stage. The Building Act does require you to supervise the building work, however - Council cannot do that for you.

WHEN THE WORK IS FINISHED

Once the building work is completed you need to apply for a Code Compliance Certificate. If you leave that application for two years after the consent is granted then Council is required to carry out a final inspection regardless of whether or not the work is complete, which can lead to uncertified work. If you are expecting delays in completing your project it is essential that you contact Council to avoid the future problems that uncertified work can cause.

Our dedicated team is here to help you through the processes involved, whether with the District Plan or the Building Code requirements. Any of the Council team can be contacted Monday to Friday 8:00am to 4:30pm either at the Miranda Street Service Centre or by phoning the Council offices.

STRATFORD DISTRICT COUNCIL
MIRANDA STREET, STRATFORD
PO BOX 320, STRATFORD
PH: (06) 765 6099
FAX: (06) 765 7500
WEB: HTTP://WWW.STRATFORD.GOVT.NZ

TARARUA DISTRICT COUNCIL

The staff of the Environmental Services Department consider themselves to be part of your building team.

WHAT WE DO

The main function of the department is to administer the Building Act 2004, and the Resource Management Act, and ensure buildings are constructed to meet the minimum requirements set out in the New Zealand Building Code. With the knowledge of the legislation and years of practical experience, the staff here are an excellent source of information to start any building project. While we cannot do design work for you, we can advise on how to go about organising building and resource applications. Doing research early can save time and money later, by identifying the need for specific design or other technical reports.

APPLICATIONS

Applicants that provide clear, accurate drawings and documentation are the ones that will be smiling at the end of the job. Not only does this allow for faster, efficient processing of applications, it helps trades people provide quotations for the supply of materials and labour that you actually want, cutting out a lot of the disputes that can arise.

INSPECTIONS

Council cannot offer a complete supervision service; it is up to the property owner, or their appointed agent to supervise the day-to-day construction. When Council issues a building consent it will contain a list of strategic inspections that are to be carried out and the notice required before inspection, usually 24 hours. Each inspection should be notified and any remedial work advised by the inspector carried out before proceeding to the next stage.

DOS AND DON'TS

Missed inspections or work covered up prematurely could mean Council will not be able to issue a Code Compliance Certificate for the completed work. This can be a costly oversight when it comes to selling. Avoid the hassles and talk to the team. There is staff on hand from 8am till 5pm, Monday-Friday.

THE BOOK

The information contained in this publication will provide an insight into the regulations and processes involved in building projects, as well as referencing suppliers and professional services. Remember, "If in doubt - ask!"

We wish you well with your future projects and look forward to being part of your building team.

TARARUA DISTRICT COUNCIL
26 GORDON STREET, PO BOX 115
DANNEVIRKE 4942
TARARUA
PHONE: 06 374 4080
FAX: 06 374 4137
WEBSITE: WWW.TARARUADC.GOVT.NZ
EMAIL: INFO@TARARUADC.GOVT.NZ

WAIROA DISTRICT COUNCIL

The building team at the Wairoa District Council play a vital role in any building project that takes place in our community. Our job is to make sure the Building Act 2004 is adhered to so that high standards of quality are maintained, which ultimately benefits both the builder and building owner. We are a small but efficient team, which means close integration with other council services, such as planning and water/ wastewater services.

In order to make sure the process runs smoothly, the building team requires comprehensive plans and specifications for your intended building work. All documentation must be specific to the project and show compliance with the Building Code and District Plan requirements. We are here to help, so it pays to check out all requirements before lodging any consent applications. Significant delays are inevitable if quality is lacking or if there are gaps in the information provided.

When consent is issued, there will be a list of inspections that will be carried out. These inspections can be booked through Council offices. Remedial work will be advised and must be carried out before the next stage can progress. These inspections ensure that the project is built in accordance with the approved plans. It is vital no inspections are missed as this can affect Council's ability to issue a Code Compliance Certificate.

Changes to the original building consent documentation will require an amended plan application be applied for and approved by Council.

Once work is completed you need to apply for a Code of Compliance Certificate (CCC). This application must be made within two years of the original consent being granted. Council issues a CCC when satisfied on reasonable grounds that the building work complies with the building consent.

Council has guidance and consumer information to assist you with your project. Staff are available from Monday to Friday, 9am to 5pm, so call in or phone if you have any queries

WAIROA DISTRICT COUNCIL
QUEEN STREET, WAIROA
PH: 06-838 7309
FAX: 06-838 8874
EMAIL: INFO@WAIROADC.GOVT.NZ
WEB: WWW.WAIROADC.GOVT.NZ

WANGANUI DISTRICT COUNCIL

The staff of the Building and Planning Department consider themselves as part of your building team.

WHAT WE DO

The main function of the department is to administer the Building Act 2004, and the Resource Management Act, and ensure buildings are constructed to meet the minimum requirements set out in the New Zealand Building Code. With the knowledge of the legislation and years of practical experience, the staff here are an excellent source of information to start any building project.

While we cannot do design work for you, we can advise on how to go about organising building and resource applications. doing research early can save time and money later, by identifying the need for specific design or other technical reports.

APPLICATIONS

Applicants that provide clear, accurate drawings and documentation are the ones that will be smiling at the end of the job. Not only does this allow for faster, efficient processing of applications, it helps trades people provide quotations for the supply of materials and labour that you actually want, cutting out a lot of the disputes that can arise.

INSPECTIONS

Council cannot offer a complete supervision service; it is up to the property owner, or their appointed agent to supervise the day-to-day construction. When Council issues a building consent it will contain a list of strategic inspections that are to be carried out and the notice required before inspection, usually 24 hours. Each inspection should be notified and any remedial work advised by the inspector carried out before proceeding to the next stage.

DOS AND DON'TS

Missed inspections or work covered up prematurely could mean Council will not be able to issue a Code Compliance Certificate for the completed work. This can be a costly oversight when it comes to selling. Avoid the hassles and talk to the team. There are staff on hand from 8am till 5pm, Monday-Friday.

THE BOOK

The information contained in this publication will provide an insight into the regulations and processes involved in building projects, as well as referencing suppliers and professional services. Remember, "If in doubt - ask!"

We wish you well with your future projects and look forward to being part of your building team

WANGANUI DISTRICT COUNCIL
PHONE: 06 349 0001
FAX: 06 349 0545
PO BOX 637 WANGANUI 4540
WEB: WWW.WANGANUI.GOVT.NZ

HOMEOWNER'S BUILDING GUIDE

1.0 The Building Act

BUILDING WORK IN NEW ZEALAND IS CONTROLLED BY THE BUILDING ACT 2004 AND THE VARIOUS BUILDING REGULATIONS WHICH INCLUDES THE BUILDING CODE.

The legislation is administered nationally by the Department of Building and Housing (DBH) and on a local basis by Building Consent Authorities (BCAs) using a building consent process.

The purpose of the Act is to ensure that buildings:

- Are safe, sanitary and have suitable means of escape from fire; and
- Contribute to the physical independence and well being of people who use them
- Are designed, constructed and able to be used in ways that promote sustainable development

The regulations prescribe the Building Code with which all building work must comply. Performance standards that must be met include building:

- Durability
- Sanitation (services and facilities)
- Energy efficiency
- Fire safety
- Moisture control
- Access

You must have a Building Consent to carry out "building work". See building consent check list. A Resource Consent and other authorisations may also be required before building work can commence. One or more of each consent type may be required for the same project.

NOTE: BUILDING CONSENTS AUTHORISE "BUILDING WORK" NOT LAND USE, AND RESOURCE CONSENTS AUTHORISE LAND USE AND NOT BUILDING WORK.

THE COUNCIL'S ROLE UNDER THE ACT

Council is both a Building Consent Authority (BCA) and a Territorial Authority (TA) under the Building Act (although some councils may choose to transfer their BCA functions and/or not qualify as an accredited BCA). Its function is to:

- Administer the Building Act 2004 in its territorial district
- Enforce the Building Code
- Receive and consider applications for Building Consents.
- Approve or refuse building consent applications within the prescribed time limits
- Issue Project Information Memoranda (PIM)
- Issue Code Compliance Certificates
- Receive and consider applications for Certificates of Acceptance (COA)
- Receive and consider applications for Certificates for Public Use (CPU)
- Issue Notices to Fix
- Issue Compliance Schedules
- Record building Warrant of Fitness details
- Determine whether applications for waiver or modification of the building code, or documents for use in establishing compliance with the provisions of the building code should be granted or refused
- Maintain a building records system available for public access for the life of the building to which it relates

WHAT IS A BUILDING?

A building is any temporary or permanent, movable or immovable structure and its service connections. It includes temporary structures such as marquees. Please note this list is not exhaustive and you should check with your BCA prior to commencing work.

WHAT YOU NEED TO DO

1. Ensure your building is maintained in a safe and sanitary condition
2. Undertake maintenance to ensure on-going durability and performance
3. Obtain a building consent for all building work that is not exempted in schedule 1 before commencing work
4. Ensure all building work undertaken that is exempted from the need to obtain a building consent complies with the building code
5. Where required, obtain resource consent and other authorisations under Bylaws before commencing any building work
6. Ensure easements and covenants on the title are complied with
7. Notify Council of any proposed change in building use and not effect that change until written approval is obtained from the Council
8. Apply to Council for a Code Compliance Certificate upon completion of consented building work
9. Strengthen earthquake prone buildings in accordance with Council policy
10. Ensure building compliance schedule inspections, maintenance and reporting procedures (where applicable) are completed, the annual building Warrant of Fitness (not required for residential homes unless a cable car is attached or the house is serviced by one) is signed off in due time, and copies of the warrant of fitness and LBP reports are provided to Council with the prescribed fee

1.1 Recent Changes to the Building Act

2004 MAIN CHANGES

- There are new forms which are required by the Act, including application forms.
- More detailed information is required with a Project Information Memorandum (PIM) application, particularly site levels and contours.
- All building consents and PIMs have a 20 day statutory time frame for processing.
- Some building consent applications will be sent to the Fire Service for comment.
- Building projects need to be completed within two years, and a formal application for a code compliance certificate made.
- There is a 20 day timeframe to issue a code compliance certificate at completion.
- Owners are able to apply for amendments to their compliance schedule, or the Council may initiate an amendment.
- Owners must provide copies of licensed building practitioner (LBPs formerly known as independent qualified persons or IQPs) certificates with the building warrant of fitness.
- The Council is able to charge for inspection work related to the building warrant of fitness regime, including checking the details of the warrant of fitness and accompanying certificates.
- If work that required a building consent has been completed without first obtaining one, owners cannot apply for the building consent retrospectively. Instead, owners can apply for a Certificate of Acceptance.

OFFENCES

It is an offence for a residential property developer to:

- complete the sale of a household unit, or
- allow a purchaser to enter into possession where the contract for sale and purchase was entered into from 30 November 2004

Unless either:

- The CCC has been issued, or
- The parties have agreed otherwise in writing using the developer/purchaser agreement form provided by the Department of Building and Housing. (Note: The Council advises you to seek legal advice before signing this form.)

MULTIPROOF APPROVALS

The MultiProof service, launched in 1 February 2010, enables volume builders to obtain a MultiProof or National Multiple-Use Approval for standardised building designs that are intended to be replicated several times. MultiProof approvals are issued by the Department of Building and Housing. A MultiProof is a statement by the Department that a specific set of building plans and specifications complies with the New Zealand Building Code. Under the Building Act 2004 (as amended in 2009), Building Consent Authorities must accept a MultiProof as evidence of Building Code compliance.

A building consent is still needed for a building with MultiProof approval. The role of Building Consent Authorities is to:

- approve site-specific details, including foundations and utilities
- ensure that any MultiProof conditions have been met, and undertake normal inspections during construction

BUILDING CONSENT AMENDMENTS (AND MINOR VARIATIONS)

Once building work has commenced as a result of the issue of the building consent, any desired changes to the building work which vary from the issued Building Consent need to be carefully considered to assess whether there is a requirement to apply for an amendment building consent, or whether the changed work can be considered to be a "minor variation".

Contact can be made with the building section of your local council to ascertain whether the desired changes are only a "minor variation". To assist in working through the question for yourself, there is a helpful guide produced by the DBH titled "Minor variations to building consents: Guidance on definition, assessment and granting" Feb 2010 available on their website.

1.2 Restricted Building Work Defined

The types of building work that will be restricted to Licensed Building Practitioners – and an exemption from restricted building work that will be available to do-it-yourselfers (DIY) – have been defined by the Government.

From 1 March 2012, only Licensed Building Practitioners will be able to carry out or supervise the following work on stand-alone houses and small-medium sized apartments:

- The design and construction of the primary structure – foundations and framing - to ensure the building can withstand vertical and horizontal loads
- The design and construction of external moisture management systems - the roof and cladding - to ensure it is weathertight
- The design of active fire safety systems in small-medium sized apartment buildings

The rationale for restricted building work is that because it is critical to the integrity of a building, it should only be done by a competent (ie, licensed) person.

However, the definition of restricted building work does not jeopardise DIY, because owner-builders will still be able to build a home from scratch if they wish. Restricted building work will also not affect most DIY projects because it won't apply to any work that doesn't require a building consent. This means DIYers can still renovate a kitchen/bathroom, put in a window or door.

Nor will restricted building work apply to low-risk work that does require a building consent – such as removing an internal wall or building a conservatory, or to buildings that aren't regularly occupied.

DIY EXEMPTION

DIYers wanting to build a house from scratch or do work such as adding a new room will be able to claim an exemption from restricted building work requirements if they:

- Are an individual (ie, not a company or trust)
- Have a legal, beneficial or equitable interest in the land
- Live in, or intend to live there (including a bach or holiday home)
- Carry out the work themselves, or with a close friend or relative
- Complete statutory declarations confirming that the conditions are met

The declarations will be kept on council files. This means a possible purchaser will know a house is DIY and, if they choose to buy, can contact the DIYer if any of the restricted building work is defective.

DIYers will only be able to carry out restricted building work on one home every three years. This – and the other conditions – is to prevent unlicensed builders masquerading as DIYers.

LICENSING

The Department of Building and Housing is expecting about 20,000 practitioners to be licensed by March 2012, now that restricted building work been defined and that the licensing scheme is being streamlined.

Many building practitioners have been holding back from becoming licensed because they didn't know the final shape of the scheme or because of concerns that their qualifications would not be given sufficient recognition. Streamlining proposals for early 2010 include making the scheme faster, easier and cheaper for trade-qualified practitioners to become licensed. That doesn't mean non-qualified people can't be licensed, because the scheme is competency based and a number without formal qualifications have already been granted licensing.

The Government's decisions on restricted building work provide the building industry with certainty about the scheme.

Licensing will remain voluntary – as it has been since it was introduced in November 2007 – but from March 2012 those not licensed will be limited in what they can do. They will have to engage a licensed person to carry out or supervise restricted building work.

The lead-in time for restricted building work to take effect is to ensure that sufficient building practitioners are licensed to prevent building activity being disrupted by a lack of licensed people.

BUILDING ACT REVIEW

A review is also underway of the Building Act, with the aim of cutting red tape in the building consent process, with sector-wide consultation proposed for 2010.

The review proposes that, with full implementation of licensing there is potential for a more risk-based approach to the building consent process, reflecting the competence (ie, licensing) of those doing the work. For example, the number of inspections for a straightforward new house could be cut from the current twelve to fifteen down to four.

Fewer inspections would mean lower consenting costs and faster building times: When licensing is in full swing thousands of dollars could be knocked off the cost of a standard house.

More information on building practitioner licensing and restricted building work is available at www.dbh.govt.nz/lbp Information on the Building Act review is at www.dbh.govt.nz/buildingactreview

EARTHQUAKE-PRONE BUILDINGS

The definition of earthquake-prone buildings has changed with the Building Act 2004, Section 122. The provisions apply to all buildings except those used wholly or mainly for residential purposes unless they are two or more stories high and contain three or more household units. The main changes from the Building Act 1991 are:

- The definition is no longer restricted by building construction type or materials
- The threshold strength has been effectively raised to a third of the current structural design code

WHAT ARE DEVELOPMENT CONTRIBUTIONS?

The Local Government Act 2002 provides a mechanism for Councils to set development contributions to provide for infrastructure projects. Where these have been set for a particular development area, the Building Act allows for a notice to be attached to the PIM advising of the contributions payable.

The Code Compliance Certificate (CCC) may be withheld until such time as the development contribution has been pai

1.3 PIMs & LIMs

PIMs and LIMs are both issued by your local council. The main difference is that the PIM is specific to a proposed project – hence the name Project Information Memorandum. Whereas the Land Information Memorandum (LIM) gives information on the council's files on land and buildings that already exist. We cover off the differences in the information on the Building Act.

PROJECT INFORMATION MEMORANDA (PIM)

Project Information Memoranda (or PIM as they are commonly referred to) are Council documents issued under Section 34 of the Building Act 2004. The Land Information Memorandum (LIM) has a different purpose. A Project Information Memorandum must be obtained for all building work that requires a Building Consent.

They are the first step in the process to gain legal approval for building work.

Project Information Memoranda provide information relevant to the proposed project that is known to Council about land including such features as:

- Potential inundation/flood risk
- Potential erosion
- Falling debris
- Subsidence
- Slippage
- Heritage status of the building
- Identification of cut and filled land
- Wind zone
- Vehicle crossing requirements
- The possible presence of hazardous contaminants
- Details of stormwater, and wastewater utilities systems
- Resource Consents and other authorisations that may be required
- Need for an evacuation scheme where applicable
- Site vehicular access restrictions during construction work
- Notification of any Development contribution that may be payable
- Any notification that building work cannot be undertaken because some necessary authorisation has been refused despite there having been a Building Consent issued
- Confirmation that building work may be undertaken subject to the requirements of any Building Consent, Resource Consent or all other necessary authorisations being obtained

For Project Information Memorandum purposes the term land means the land on which building work is to be undertaken and any other land likely to be affected by that work.

Project Information Memoranda should be issued within 20 working days of the application receipt date provided all required information is supplied with the application.

MAKE SURE YOU VISIT OUR WEBSITE FOR MORE GOOD STUFF: www.buildingguide.co.nz

Please tell the advertisers you contact where you saw their ad - without them we couldn't bring this magazine to you!

LAND INFORMATION MEMORANDUM (LIM)

A Land Information Memorandum (LIM) is a Council document that provides all information held by that Council in respect of a specific property. It is recommended you obtain a Land Information Memorandum (LIM) on a property before you purchase, as it could disclose information that could influence your purchase decision. A LIM only provides the information that the Council has on its records. The Council may not have all the information required to make a sound decision about purchasing the property. You should inspect the site and get expert opinion
on the property.

A LIM typically contains all or any of the following as available in each case:

- Rates information i.e. annual rates payable and rates outstanding on the property
- Land features
- Restrictions on land or building use
- Land use approvals granted or required
- Environmental issues i.e. potential for erosion, slippage, subsidence or flooding
- Potential contamination by hazardous substances.
- Drains - public and private (where known to Council)
- Septic tank disposal system approvals (if applicable)
- Resource Consents issued
- Building Consents and permits issued
- Building plans and drawings
- Code Compliance Certificate details
- Compliance Schedule details
- Certificates issued by a Building Certifier
- Aerial photographs
- Licence details i.e. food premises, health, hair dressing, hazardous substances, etc.
- Information given to Council about the land or buildings and/or site designations imposed by any statutory body i.e. Historic Places Trust etc.

NOTE: A LIM WILL NOT PROVIDE FULL DETAILS OF BUILDING RESTRICTIONS APPLYING TO A SITE. IF YOU ARE INTENDING TO BUY A PROPERTY FOR REDEVELOPMENT, CHECK YOUR PROPOSAL AGAINST THE RULES OF THE DISTRICT PLAN. COUNCIL OFFICERS ARE AVAILABLE IF YOU WISH TO DISCUSS YOUR PROPOSAL BEFORE COMMITTING YOURSELF TO A PURCHASE. A LIM WILL NOT TELL YOU THAT UNPERMITTED OR ILLEGAL WORK HAS BEEN DONE ON THE PROPERTY.

Your LIM may contain aerial photographs depicting boundaries and/or other information. They are provided as a guide only. To confirm property boundaries you will need to:

- View the Certificate of Title at Land Information New Zealand
- Locate the property survey pegs, or
- Have the boundaries set by survey. You will need to employ a registered surveyor to do this

Council cannot guarantee the accuracy of the information held on its files. If you have any queries or concerns you should discuss them with a Council Building Compliance Officer or Resource Consents Planner (as applicable in each case) or obtain appropriate independent professional advice.

HOMEOWNER'S BUILDING GUIDE

1.4 Building Consents

WHAT IS A BUILDING CONSENT?

A Building Consent is Council's written authority to carry out building work that it considers will comply with the Building Code provided it is completed in accordance with the plans and specifications submitted with the building consent application. It cannot be issued retrospectively for work already completed. In these circumstances a Certificate of Acceptance should be applied for.

WHEN & HOW TO APPLY FOR A BUILDING CONSENT:

You must obtain a building consent before carrying out building work and that includes: structural work, plumbing and drainage work and site work for new houses or alterations, or before shifting an existing building onto a new section.

- Structural building – additions, alterations, re-piling, demolition
- Plumbing and drainage (except the repair and maintenance of existing components)
- Relocating a building
- Installing a wood burner or air-conditioning system
- Retaining walls higher than 1.5 metres
- Fences or walls higher than 2 metres, and all swimming pool fences
- Swimming pools
- Decks, platforms or bridges more than 1 metre above ground level
- Sheds greater than 10 square metres in floor area

SCHEDULE 1: EXEMPT WORK

THIS INCLUDES:

- Fences up to two metres in height (except pool fences)
- Retaining walls up to 1.5 metres in height, providing they only carry the ground load
- Small garden sheds - they must be less than less than 10 metres^2 and a single storey. They cannot include sleeping accommodation or toilets or stored drinking water, and they must be as far from the boundary as the height of the shed itself and the rain water from the roof must not cause ponding or a nuisance to the neighbouring property
- Closing in an existing veranda or patio where the floor area does not exceed five square metres
- A patio or deck at ground level
- Garden trellis less than 2 metres high
- Installing kitchen cupboards
- A small garden pond
- Maintenance of your house, for example replacing spouting or a piece of weatherboard

YOUR APPLICATION:

- Must be on the prescribed application form and be completed in full
- Must be accompanied by the prescribed application fee
- Must be accompanied by plans, specifications and other information required by Council

There are checksheets and guidance documents available to help you prepare applications and to put together the necessary information held at your local council, but in the accompanying table is a comprehensive (but not exhaustive) list. The Council will not accept incomplete applications.

MINOR BUILDING WORK CHANGES - EFFECTIVE OCTOBER 16, 2008

There are a number changes, which came into effect on October 16, 2008, which will make it easier for homeowners to do minor building work without having to get Council Consent.

The list of work that no longer requires a building consent has been extended and now includes:

- Changing existing household plumbing, including minor drainage work, as long as the work is done or signed off by a licensed plumber or drainlayer
- Building or installing a small cabin near to an existing home, as long as the cabin is smaller than 10 m^2 and does not have cooking or sanitary facilities
- Removing or changing a non load-bearing wall
- Building awnings, pergolas or verandas over a deck
- Installing or replacing windows or exterior doors, provided there have not been weathertightness problems and there is no change to structural elements
- Making a home more accessible by widening doorways and building access ramps
- Fitting out shop or office interiors where the work does not modify certain important building features, such as fire escapes
- Erecting tents or marquees, as long as they are smaller than 100 m^2 (for private use) and 50 m^2 (for public use) and will not be used for more than a month

NOTE: THIS LIST IS NOT COMPREHENSIVE BUT COVERS MOST OF THE EXEMPTIONS PERTAINING TO DOMESTIC SITUATIONS. IF YOU ARE UNSURE, ASK YOUR LOCAL COUNCIL BEFORE DOING ANY WORK. BUILDING WORK THAT IS EXEMPT FROM HAVING A BUILDING CONSENT MUST STILL COMPLY WITH THE BUILDING CODE.

NOTE: THE BCA (COUNCIL) WILL OFTEN REQUEST ADDITIONAL INFORMATION TO THAT SUPPLIED AND THE 20-DAY CLOCK WILL STOP UNTIL THAT INFORMATION IS PROVIDED TO THE BCA.

Building Consent Checklist

Each Council may have different requirements for submissions for a building consent and, to complicate matters, requirements are constantly being updated so you must check with your Council before taking in the completed application to make sure you have everything you need. Generally you are required to provide the completed building consent application form including an estimated value of the building work, with the following information attached:

- ☐ **Proof of Ownership**
- ☐ **Locality plan**, including building in relationship to neighbouring streets, north point, name of building and lot and DP number
- ☐ **Inspections and Monitoring** – details of the inspection regime, including those by council offices, other professionals such as architects, engineers, etc. and by you, the owner
- ☐ **Site plan** showing dimensions of all boundaries, finished floor levels, ground contours and/or levels, lot and DP number, street name and number, site area, outline of building and distances to boundaries, designated wind zone
- ☐ **Foundation plan** showing dimensions which provides details of footings, reinforcing sizes and layout, foundation elements, sub-floor ventilation and engineering information, reinforcing and contractions joints in concrete slabs, upgrading of existing foundations if an upper story is to be added, Subfloor bracing and Foundation details
- ☐ **Drainage plan** showing fixtures and fittings, hotwater system(s), upper floor sanitary fittings with isometric layout showing wastes, pipes and falls, drainage layout with inspection bends and junctions for both stormwater and sewage, other drainage on site, ventilation of sanitary rooms, calculations for sizing of downpipes
- ☐ **Floor plans** – existing (for additions and alterations) and proposed providing details of floor dimensions, walls, windows, doors, stairs, barriers, handrails, floor joists, beams, fixtures and fittings, stove, plumbing, and smoke detector layout
- ☐ **Wall Bracing plans** showing detail of wall layout with windows, doors, roof layout, bracing type, the location and fixing details of bracing panels and calculations for all floors, subfloor bracing for decks projecting more than 2m from the house
- ☐ **Elevations** showing accurate ground lines, levels, height recession planes, location of doors, windows (with opening windows clearly shown), floor levels in relation to finished ground levels, exterior claddings, roof covering, down-pipes, spouting, sub-floor ventilation and flues
- ☐ **Sections and details** showing details of the foundations, reinforcing, damp-proof membrane, stud heights, floor levels, wall structure (including proprietary wall-bracing element details), roof structure, roof covering, wall cladding, flashings, insulation, fire-rated systems, lintels and beams, stairs, handrails, decks and decking, barriers, truss layout
- ☐ **Cladding details** providing details around all penetrations, joinery and other junctions at a level appropriate to the level of risk, e.g. roof/wall, balcony/wall, junction of different types of cladding, backflashing details for cavity systems
- ☐ **Specifications providing a clear description of the materials and building elements** that cannot be shown on the drawings. For example, durability issues would be shown here
- ☐ **Engineer's reports and calculations**
- ☐ **Producer statements** - where the application is relying on a statement to certify compliance of the plans, specifications or completed works with the Building Code, a copy of that producer statement and the calculations it is based on must accompany the application
- ☐ **Solid fuel heaters** – these may need a separate building consent application and must include the manufacturer's specifications and installation instructions and a floor plan of the building that clearly shows the proposed location of the heater unit and adjacent rooms, doors and windows
- ☐ **Water supply details** - where the property will not be connected to the council reticulated water supply. The location and size of tanks, the location of bores, test results, etc. must be included
- ☐ **Alternative Solutions** – if the proposal uses products or systems that are not covered in the Acceptable Solutions then an alternative solution can be used that is compliant with the building code but not necessarily part of the Compliance Document. You may need to provide supporting current information including independent test results (full signed reports), case studies, expert opinion (and proof of expertise) to demonstrate compliance
- ☐ **List of specified systems** (if applicable)

IMPORTANT INFORMATION: Each BCA (Council) may have different requirements for how many sets of plans you have to submit – the list above is not exhaustive. Some require that plans are drawn to a particular scale. Check with your BCA.

The details provided in the documents listed in the checklist must be good enough to show that what is being proposed will meet the performance requirements of the Building Code. For example, the documentation should clearly show how the house will keep water out by giving ground clearances, balcony and deck details, and information about claddings, including flashings and guttering.

Each aspect of the Building Code requirements has to be covered in detail in the documents. If the documents are not full enough, the BCA will have to come back to you for further information. When this happens the 20-day clock stops and doesn't restart until you return with the amended documents. This delays the whole process.

Courtesy of Consumerbuild – the Consumers' Institute building information website and the Wellington City Council building consents division.

IMPORTANT INFORMATION:

If you don't start work within 12 months the consent will lapse, (or other time limit specified by the Building Consents Authority (BCA), usually a Council). You can ask for more time, however. Also note – YOU are responsible for making sure you have a Code Compliance Certificate (CCC). Make sure your builder is available for any remedial work that may need doing if your CCC is rejected – otherwise you won't get it and it could cause problems in the future.

Important Information

ISSUING A BUILDING CONSENT

There is a 20 working day timeframe in which to process your building consent application. However processing time will stop if Council officers need to seek additional information. When your building consent is issued it will contain:

- The building consent
- The addendum to the building consent which lists any special conditions relating to the approval
- Advice on when to call for inspections
- Copies of the approved plans and specifications

It may also contain copies of other approvals relating to the project.

WHEN CAN YOU START WORK?

You may commence work immediately upon receipt of your consent as long as all other authorisations that are required have been obtained. The issue of a building consent does not relieve the owner of obligations under other Acts.

INSPECTIONS & CODE COMPLIANCE CERTIFICATE

Your building consent documentation will list the stages at which you need to call for inspections of the work. It is very important that all inspections are called for. If inspections are missed the Council may not be able to issue a Code Compliance Certificate (CCC) when it is completed. If you are in doubt about whether or not an inspection is needed please contact the Council.

A Code Compliance Certificate (CCC) is issued when a building project is finished and the Council is satisfied on reasonable grounds that the building work under the building consent complies with:

→ the New Zealand Building Code at the time of issue of the building consent (for consents issued prior to 31 March 2005)

→ the building consent, for consents issued from 31 March 2005.

Whether or not CCCs have been issued for building consents is recorded in any Land Information Memorandum (LIM) and building status report for your property. A CCC cannot be issued for work carried out without a building consent and other compliance matters may also have to be addressed in order for a BCA to issue a Code Compliance Certificate, such as failure to provide the BCA with energy works certificate and/or any developments contribution, etc...

BUILDING CONSENT LEVIES

The following levies are applicable where the value of the building project exceeds $20,000 in total:

- Building Research Association of New Zealand (BRANZ) levy assessed at $1.00 per $1,000
- Department of Building and Housing levy assessed at $1.97 per $1,000

SiteManagement - an important part of your building project

A sometimes forgotten aspect of a building project is the management of the actual site. The main objective of good site management is to prevent the work on the site from having an impact on the environment off-site.

So, when you are beginning a building project it is very important to consider how you are going to manage things such as:

- The risk of heavy rain which can cause erosion and sediment runoff
- Discharges of contaminants (pollution) from concreting, plastering and painting operations
- The management of construction waste (litter and waste reduction)
- Movement to and from the site by heavy vehicles (which can cause problems on the site and on roadways, footpaths and road berms)
- Any other effects on the environment and neighbouring properties and public places.

Councils have regulatory responsibility for ensuring compliance with all these matters. Councils provide guidance and information about all aspects of site management for home owners, developers and builders.

Also as part of its building consent requirements the Councils require all sites where 50m2 or more of earthworks are proposed, to have an approved site management plan and "signoff" (certification) by an engineer that the controls have been implemented, before any inspections can be booked.

Council building inspectors will also check to see if erosion and sediment control measures are implemented in accordance with the approved site management plan. These measures are all designed to encourage and support best site management practices to reduce the cumulative environmental and social impacts of building activities on small sites.

NOTES: .....

.....

.....

.....

BUILDING CONSENTS FLOWCHART

A Building Consent is legal permission to undertake specified building works in accordance with a project plan. Under the Building Act 2004 Council will become a **Building Consent Authority (BCA)** and is responsible for processing consents, inspecting work and issuing a Code Compliance Certificate (CCC). The flow chart below shows how the process works.

- Owner (or agent) completes application, plans, required reports, lodges with Council
  - If everything is not submitted the application will not be accepted for processing
- Council produces **Project Information Memorandum**
  - Site specific hazards are identified and Resource Consent issues are highlighted
- Building Consent processed and conditions attached (Request for more information as necessary)
  - You can choose to be contacted with all requests as necessary throughout the processing or once at the end
- Owner pays fees and collects Building Consent
  - Your Consent maybe issued with a section 37 notice, which means the building work cannot commence until a Resource Consent is granted
- Building inspections are booked with Council or Council approved inspection contractor and carried out at prescribed intervals (Council issues notice to fix any non-compliant work)
  - Building must start within 12 months of the consent being collected, and be completed within 2 years of the consent being granted, or you may apply to the BCA for an extension
- Owner notifies Council that building work is completed to standard and all conditions of the consent are met and books for a final inspection
  - Your CCC will not be issued until all conditions have been met and an application has been lodged in the prescribed format
- Outstanding charges are paid and CCC uplifted

Courtesy Manukau City Council

OBTAINING YOUR CERTIFICATE

When all work under a building consent is completed, contact the Council to arrange a time for a final inspection. You must provide a completed Code Compliance Certificate Application form before a Code Compliance Certificate can be issued.

For building consents issued from 31 March 2005, projects must be completed within two years of the granting of the building consent

If the work has been carried out in accordance with your consent and in compliance with the Building Code, the Council will issue a Code Compliance Certificate. If the work does not comply, the Council will issue a Notice to Fix identifying areas of non-compliance that you will need to address and then you request a second inspection once the items are done.

CERTIFICATE OF ACCEPTANCE

As building consents cannot be issued retrospectively, the Act provides for a Certificate of Acceptance to be applied in situations where:

- Work has been done as a matter of urgency
- Work that needed a building consent has been undertaken without one
- Where building work started or consented before 31 March 2005 affects public premises

The Certificate of Acceptance is a statement from Council that it believes that the building work that can be inspected complies with the Building Code.

NOTE: A BUILDING CONSENT WILL LAPSE AND BECOME INVALID IF:

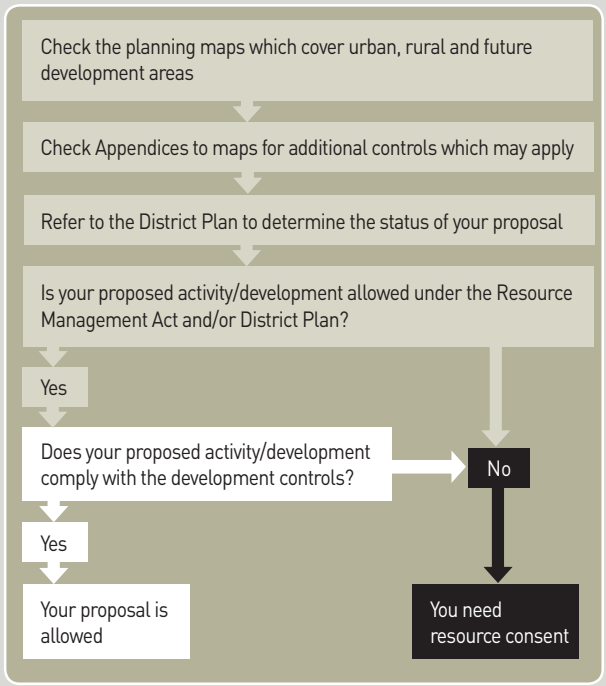
- **THE WORK IT AUTHORISES IS NOT COMMENCED WITHIN 12 CALENDAR MONTHS FROM THE DATE OF CONSENT ISSUE; OR**
- **WITHIN SUCH FURTHER PERIOD OF TIME COUNCIL IN ITS DISCRETION ALLOWS**

Resource Consents

Resource consent may be required if your project does not meet the requirements of the Resource Management Act and the Council's District Plan. Essentially, resource consent applies to work you do on the land, building consent applies to building work you do, although if the building work impacts on the land or other users, you may need a resource consent. Contact the Council if you have any questions about applying for resource consent. If resource consent is required it must be granted before you can start work.

WHAT IS A RESOURCE CONSENT?

Check whether your proposed activity/development is allowed under the Resource Management Act and/or District Plan by checking the relevant planning maps to identify the zoning of your property.



Swimming Pools

Any excavation, structure or product that is used or is capable of being used for swimming, wading, paddling or bathing (including spa pools) is defined as a swimming pool.

THE FENCING OF SWIMMING POOLS ACT

The Fencing of Swimming Pools Act 1987 exists to protect young children from the danger of drowning in unfenced swimming pools. It does this by requiring owners to fence their pools. If your pool has the capability of water depth greater than 400mm (16 inches) then it is required to be fenced in accordance with the Fencing of Swimming Pools Act. Note: this includes blow up and temporary pools. All pools, no matter when they were installed must comply with the Fencing of Swimming Pools Act.

WHERE THE FENCE MUST BE SITUATED

The fence must only surround the pool and the area immediately around the pool. This area can only include things used in association with the pool, for example, changing sheds. It must not include things that are not relating to the pool for example, clotheslines, vegetable gardens and children's play equipment. Buildings may form part of the pool fence provided they comply with the Act, for example, there must be no other doors opening out to the area outside that fenced. Boundary fences may form part of the pool fence provided they meet the requirements of the Act. The Council (only) can grant an exemption from meeting the requirements of the Fencing of Swimming Pools Act. Council will only grant an exemption if it is satisfied that the circumstances will not significantly increase the danger to young children.

DO POOLS REQUIRE A BUILDING CONSENT?

All pool fencing requires building consent, including that around spa pools, and some pools require consent for the construction of the pool itself. Refer to the section on building consents for information about applying for building consent. Contact your local council if you have any questions about the information needed for a pool related building consent.

2.0 Preplanning

You need to get a building consent before doing almost any building work except for that listed under Schedule 1: Exempt Work. You can apply yourself, but your application must comply with the Building Code and you must provide all the necessary documentation – and there's a lot!

However, your architect/designer or builder can do this on your behalf, and they've probably put a few applications in which will mean they know all the items needed.

Stages in a Building Project

1. **Deciding to do something**
2. **Setting a budget**
3. **Finding and briefing a designer**
4. **Finding a builder**
5. **If you are managing the building project yourself, then arranging subcontractors and preparing the Health and Safety Plan (see later)**
6. **Getting tenders and quotes**
7. **Revising the budget and/or project scope**
8. **Applying for building and resource consents (and PIM if one not already received)**
9. **Selecting the builder and subcontractors**
10. **Construction starts:**
    - **Monitoring progress and work**
    - **Negotiating and/or approving variations to structure or materials**
    - **Making progress payments – perhaps as milestone payments or monthly payments; note that funds can be retained until work completed is done to a satisfactory level**
    - **Building inspections by the Building Consent Authority (BCA) inspectors**
11. **Final stages:**
    - **Completion and final inspections for the code compliance certificate**
    - **Retentions and remedial work**
    - **Final payment**
12. **Dealing with problems when things go wrong**
13. **Landscaping**

Your Responsibilities Checklist

It is recommended that you have active involvement during construction.

BEFORE WORK BEGINS:

- [ ] Make sure resource consent (if required) and building consent has been issued and
- [ ] 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
- [ ] 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
- [ ] Ensure Architect or Architectural Designer is involved throughout

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
- [ ] Often some funds are retained until work is completed satisfactorily but only with the understanding and agreement of the project manager as agreed in the contract
- [ ] Settle the final account promptly

ENSURE THAT YOU HAVE ALL PRODUCT WARRANTIES/GUARANTEES AND KNOW YOUR RESPONSIBILITIES

IT IS YOUR RESPONSIBILITY TO APPLY FOR A CODE COMPLIANCE CERTIFICATE WHEN THE BUILDING WORK IS COMPLETE.

CERTIFIED BUILDERS

GISBORNE

Brendan Fry Builder Limited - Brendan Fry
P 06 863 3375 **M** 027 244 5585 **E** brendanfry@xtra.co.nz
269 Clifford Street, Whataupoko, GISBORNE 4010

J B Puddick Limited - John Puddick
M 021 977 860 **F** 06 868 3006 **E** jon.jule@kinect.co.nz
GISBORNE 4010

Steve Candy Building - Steve Candy
P 06 863 0363 **M** 027 273 3863 **F** 06 863 0360 **E** shelley.steve@vodafone.co.nz
32 MacDonald Street, Te Hapara, GISBORNE 4010

NAPIER

AB Construction - Willie Absolom
M 021 452 232 **F** 06 839 5794 **E** wda@xtra.co.nz
1656 Puketitiri Road, RD 4, NAPIER 4184

Anjalo Construction Limited - Ron Fritz
P 06 843 7000 **M** 027 443 9257 **F** 06 843 7002 **E** ron@anjalohomes.co.nz
PO Box 3327, Hawke's Bay Mail Centre, NAPIER 4142

Ariel Construction Limited - Mike O'Dwyer
P 06 835 0829 **M** 021 274 3548 **E** zuiyer@slingshot.co.nz
29 Campbell Street, Ahuriri, NAPIER 4110

Grant Property & Construction Limited - Brendan Grant
P 06 835 8554 **M** 021 722 245 **F** 06 835 8554 **E** gpandc@xtra.co.nz
13 Nelson Crescent, Napier South, NAPIER 4110

Hayden Kane Building Limited - Hayden Kane
P 06 834 3177 **M** 021 589 110 **E** haydenkane@gmail.com
148 Te Awa Avenue, Te Awa, NAPIER 4110

Luke O'Connell Construction Limited - Luke O'Connell
P 06 842 2459 **M** 021 804 580
E luke@lukeoconnell.co.nz **W** www.lukeoconnell.co.nz
32 Oldham Avenue, Onekawa, NAPIER 4110

Norm Zonneveld Builders Limited - Norm Zonneveld
M 027 234 3785 **E** zonnevelds@xtra.co.nz
77 Mcdonald Street, Napier South, NAPIER 4110

Peter Mackay Builder - Peter Mackay
P 06 845 0008 **M** 021 031 2441 **E** pmackay@actrix.co.nz
28 Donegal Crescent, Greenmeadows, NAPIER 4112

Rex Butler Building Services - Rex Butler
P 06 835 9488 **M** 027 449 3311 **M** 06 835 9460 **E** rexbuilding@xtra.co.nz
24 George Street, Hospital Hill, NAPIER 4110

Richard Kepka Builders Limited - Richard Kepka
P 06 844 4767 **M** 021 454 273 **F** 06 844 4767
E kepka.builders@xtra.co.nz **W** www.kepkabuilders.co.nz
PO Box 7468, Taradale, NAPIER 4141

T & A Builders Limited - Andy Nicol
P 06 842 0661 **M** 027 494 0158 **F** 06 842 0661 **E** thenicols@xtra.co.nz
PO Box 3371, Hawke's Bay Mail Centre, NAPIER 4142

Titan Buildings Limited - Lans Hasselman
P 06 835 1451 **M** 027 278 5023 **F** 06 835 1454
E titanbuildings@gmail.com **W** www.titanbuildings.co.nz
1 Coronation Street, Ahuriri, NAPIER

Vision Homes Limited - William Alan Dick
P 06 843 0432 **M** 027 484 3470 **F** 06 843 0434
E peter@visionhomes.co.nz **W** www.visionhomes.co.nz
PO Box 3026, Hawke's Bay Mail Centre, NAPIER 4142

HASTINGS

AD Whyte Builders Limited - Alan Whyte
M 021 275 2360 **F** 06 878 8188
E adwhyte@vodafone.co.nz **W** www.adwhytebuilders.co.nz
979 Riverslea Road South, Longlands, HASTINGS 4122

Cottages (NZ) Limited - John Roil
P 06 870 8979 **M** 027 449 1526 **F** 06 870 8978
E john@cottagesnz.co.nz **W** www.cottagesnz.co.nz
PO Box 2543, Stortford Lodge, HASTINGS 4153

Robert Lang Builders Limited - Robert Lang
M 027 449 4032 **F** 06 877 8915 **E** annroblang@xtra.co.nz
107 Crystal Road, RD 2, HASTINGS 4172

HAVELOCK NORTH

DP Doohan Limited - Daniel Doohan
P 06 877 7733 **M** 021 924 119 **F** 06 877 7742 **E** deepdee@xtra.co.nz
107A Te Mata Road, HAVELOCK NORTH 4130

Havelock North Construction Limited - Murray Quelch & Tony Blades
P 06 877 2308 **M** 027 449 2771 Murray 027 552 9999 Tony **F** 06 877 3308
E murray-maureen@xtra.co.nz
PO Box 8338, HAVELOCK NORTH 4157

Hislop Construction Limited - Cameron Hislop
P 06 877 5856 **M** 021 223 4191 **E** camhislop@xtra.co.nz
PO Box 28 155, HAVELOCK NORTH 4157

Robinson Built Limited - Sam Robinson
P 06 877 0998 **M** 027 479 8771 **E** robinsonbuilt@gmail.com
PO Box 8567, HAVELOCK NORTH 4157

CLIVE

Craig McCartney Builders - Craig McCartney
P 06 870 0993 **M** 027 472 6958 **F** 06 870 0963 **E** crmccartney@xtra.co.nz
CLIVE 4102

WAIPUKURAU

David Clarke Builders Limited - David Clarke
P 06 858 7571 **M** 021 886 041 **F** 06 858 7579 **E** theclarkes@xtra.co.nz
PO Box 361, WAIPUKURAU 4242

Jacobs Construction - Lance Jacobs
P 06 858 8808 **M** 027 444 6296 **F** 06 858 8851 **E** lg-jacobs@xtra.co.nz
PO Box 283, WAIPUKURAU 4242

Noel Hinton – Builder - Noel Hinton
P 06 858 5270 **M** 027 243 7539 **E** noel@nhbuilders.co.nz **W** www.nhbuilders.co.nz
177 Racecourse Road, WAIPUKURAU 4242

Potters Building and Painting Waipukurau Limited - Nigel Potter
P 06 858 7533 **M** 027 488 6008 **F** 06 858 7544 **E** potters.building@xtra.co.nz
8 Wilder Street, WAIPUKURAU 4200

Tony (Bones) Lepelaars Builders Limited - Tony Lepelaars
P 06 858 8106 **M** 027 492 9861 **F** 06 858 8110 **E** tony.lynda@xtra.co.nz
PO Box 291, WAIPUKURAU 4242

PALMERSTON NORTH

Blair McDonald Building Limited - Blair McDonald
P 06 354 1658 **M** 021 974 889 **E** b.mcdonald.building@vodafone.co.nz
30A South Street, PALMERSTON NORTH 4410

Clough Construction (PN) Limited - Barry Clough
P 06 354 8076 **M** 027 242 6678 **F** 06 354 8078 **E** ccpnl@xtra.co.nz
25A Trent Avenue, Hokowhitu, PALMERSTON NORTH 4410

Colin McGhie Builder & Contractor - Colin McGhie
M 027 446 8394 **F** 06 329 2899 **E** crmcghie@xtra.co.nz
RD 8, PALMERSTON NORTH 4478

D & P Taylor Construction Limited - David Taylor
P 06 353 3735 **M** 021 988 591 **E** taylorconstruction@xtra.co.nz
454 Stoney Creek Road , RD 10, PALMERSTON NORTH 4442

Ellison Construction Limited - Graham Ellison
M 027 212 1242 **E** ellisonconstruction@orcon.net.nz
15A Stewart Road, RD 9, PALMERSTON NORTH 4479

John Edwards Builder & Maintenance Contractor Ltd - John Edwards
P 06 326 8692 **M** 027 446 0883 **F** 06 326 8625
PO Box 10 059, Terrace End, PALMERSTON NORTH 4441

Kerry Mark Builder Limited - Kerry Mark
P 06 357 4693 **M** 027 442 8095 **F** 06 357 4693
PO Box 7018, Pioneer Highway, PALMERSTON NORTH 4443

Lewis M Davies Builders - Lewis Davies
P 06 357 5860 **M** 027 449 4148
74 Linton Street, West End, PALMERSTON NORTH 4410

MRB Builders Limited - Michael Binns
M 027 698 2696 **E** mrbbuilders@hotmail.com
26A Mount Stewart Halcombe Road, RD 9, PALMERSTON NORTH 4479

Olympic Builders Limited - Ron Calder
M 021 391 888 **E** roncalder@inspire.net.nz
PO Box 64, Palmerston North Central, PALMERSTON NORTH 4440

Phil McLean Builder Limited - Phil McLean
P 06 877 8422 **M** 027 571 6255 **F** 06 877 8422 **E** philmclean@xtra.co.nz
PO Box 8328, PALMERSTON NORTH 4157

Tony Hunt Builders Limited - Tony Hunt
P 06 329 0750 **M** 021 329 079 **E** hunt@inspire.net.nz **W** www.tonyhuntbuilders.co.nz
234 Oroua Road, RD 5, PALMERSTON NORTH 4475

Vining & Harrall (1998) Limited - Peter Vining
P 06 357 2880 **M** 027 443 2378 **F** 06 357 2880 **E** randpvining@xtra.co.nz
47 Collingwood Street, Hokowhitu, PALMERSTON NORTH 4410

Wayne Duncan Builder Limited - Wayne Duncan
P 06 324 8766 **M** 027 489 3605 **E** mudwiggle@inspire.net.nz
814 Rongotea Road, RD 6, PALMERSTON NORTH 4476

FEILDING

Nailing It Limited - Stewart Buchanan
P 06 3289746 **M** 027 554 1535 **E** nailingit@hotmail.com
109 Beaconsfield Valley Road, RD 9, FEILDING 4779

Noel's Building Maintenance and Alterations - Noel Leins
P 06 323 3407 a/h **M** 021 579 405 **F** 06 323 3457 **E** noelandngaire.leins@inspire.net.nz
6 Stonebridge Heights, FEILDING 4702

Turbine Residential Limited - Ricky Crutchley
P 06 323 7071 **M** 021 270 7310 **F** 06 232 7073
E rickandanj@xtra.co.nz **W** www.turbineresidential.co.nz
PO Box 270, FEILDING 4740

FOXTON

Caldow Builders Limited - Rodney Caldow
P 06 363 8236 **M** 027 442 8049 **F** 06 363 8237 **E** rodney@caldowbuilders.co.nz
PO Box 173, FOXTON 4848

Robbie Builders - Neil Robbie
P 06 363 7687 **M** 027 444 1701 **F** 06 363 7680 **E** robbiefxb@xtra.co.nz
11 Ferry Street, Foxton Beach, FOXTON 4815

MARTON

Craigs Building - Craig Whitton
P 06 327 5540 **M** 027 222 4886 **E** krama.liz@ihug.co.nz
738 Makirikiri Road, RD 3, MARTON 4789

WHANGANUI

AJ Hoskin Builders Limited - Alan Hoskin
P 06 343 5671 **M** 027 472 5566 **E** ajbuild@orcon.net.nz
20 Roberts Avenue, WHANGANUI 4500

P Walsh Builder - Peter Walsh
P 06 345 6295 **M** 021 157 7553 **F** 06 345 6295
34 Tawa Street, Gonville, WHANGANUI 4501

NEW PLYMOUTH

Aarmic Ltd t/a Aarmic Homes - Aaron Hotter
P 06 755 0423 **M** 021 280 5997 or 021 280 5990 **F** 06 755 4023 **E** aarmic@xtra.co.nz
PO Box 9072, Bell Block, NEW PLYMOUTH 4351

Albon Building Taranaki Limited - Gary Albon
P 06 758 8648 **M** 021 399 770 **F** 06 758 8648 **E** albonbuilding@clear.net.nz
34 Fitzroy Road, Fitzroy, NEW PLYMOUTH 4312

Banks Builders Limited - Wayne Banks
P 06 751 3557 **M** 027 465 8621 **F** 06 751 3875
E wayne.banks@xtra.co.nz **W** www.banksbuildersltd.co.nz
25 Peace Avenue, Moturoa, NEW PLYMOUTH 4310

Daniel Lock Builders Limited - Daniel Lock
P 06 752 2090 **M** 027 228 4532 **F** 06 752 2090 **E** dlbbuilders@hotmail.com
141 Alfred Road, RD 1, NEW PLYMOUTH 4371

David Tate Builders Limited - David Tate
P 06 769 5750 **M** 027 476 3509 **F** 06 769 5750 **E** dtate.builder@xtra.co.nz
16 Record Street, Fitzroy, NEW PLYMOUTH 4312

George Construction Limited - Bruce George
P 06 751 3697 **M** 027 449 2225 **F** 06 751 3697 **E** georgeconstructionltd@hotmail.com
84D Seaview Road, Westown, NEW PLYMOUTH 4310

Isis Construction - John Fletcher
P 06 753 6269 **M** 027 687 8600 **E** isis-construction@ihug.co.nz
28A Trafalgar Street, Westown, NEW PLYMOUTH 4310

L T R Construction Limited - Lester Rooks
P 06 752 3722 **M** 027 450 6100 **F** 06 752 3722 **E** ltrconstruction@xtra.co.nz
PO Box 766, Taranaki Mail Centre, NEW PLYMOUTH 4340

Uhila Building Solutions Limited - Veni Uhila
P 06 757 4535 **M** 027 544 4102 **E** nakiuhilas@xtra.co.nz
20 Wallace Place, Westown, NEW PLYMOUTH 4310

WAITARA

Collins Construction 2003 Limited - Teri Collins
P 06 754 8898 a/h **M** 021 550 050 **F** 06 754 8898
E teri@collinsconstruction.co.nz **W** www.collinsconstruction.co.nz
866 Otaraoa Road, RD 43, WAITARA 4340

OAKURA

Webber Building Solutions Limited - Colin Webber
P 06 752 7685 **M** 021 936 602 **F** 06 752 7685
E webzy70@yahoo.com **W** www.webberbuilding.co.nz
3 Kaitake Place, OAKURA 4314

STRATFORD

Adan Larsen Building Contractor Limited - Adan Larsen
P 06 762 2661 **M** 027 672 3143 **F** 06 762 2661 **E** A.K.Larsen@xtra.co.nz
693 Bird Road, RD 23, STRATFORD 4393

HAWERA

Brooks Builders Limited - Allan Brooks
M 027 490 4786 **F** 06 278 5572 **E** brooksm@xtra.co.nz
36 Kawei Road, RD 11, HAWERA 4671

PATEA

B M Building (2010) Limited - Bayden Muller
P 06 273 8324 a/h **M** 027 634 6907 **E** atbm@xtra.co.nz
306 Hukatere Road, RD 1, PATEA 4597

FINANCE & THE BUILDING PROCESS

1. Arrange finance to purchase a section and have pre-approved finance in place to build the home. Remember to allow for lighting, carpets, curtains, driveway, paths, decks, grass and fencing and other landscaping items
2. Buy the section
3. Decide on suitable plans with your builder/architect
4. Get a valuation, using the house plans and building specifications you have chosen for your new home. This is where an independent property valuer reports to the lender on what the property will be worth once complete. To do this they look at your plans, specifications and your vacant section
5. Take a copy of your building contract to your lawyer
6. Once you are happy with the building contract arrange for a copy of this to be taken to your finance professional so finance can be confirmed
7. The building contract is normally confirmed at this point with a deposit paid to your builder. If you do not have the available funds to meet this then speak with your finance professional for guidance
8. Progress payments commence
9. Nearing completion of your new home you will be advised of a handover date. It's really important you advise your finance professional of this date as early as you possibly can. The handover date is where you get the keys to your house in return for final payment. For the lender/bank to release these final monies they will need:
   - A copy of your house insurance starting from the date of handover. Your insurance must include your lender as an interested party
   - A completion certificate, provided by the valuer, so the bank knows the house is fully completed
   - A Code Compliance Certificate, which is issued by the local council. Your builder would normally arrange this once all work is complete

CONTRACT WORKS INSURANCE

Arranging the insurance for the construction of your new home is an essential part of the planning of the project. Without appropriate cover being in place you risk everything – would you really want to risk your dream home going up in smoke and not being able to afford to rebuild it?

There are any number of things that can wrong during construction, right from the very beginning of the project during the excavation and foundation stage or at any time during the build, when theft of building materials, fire or malicious damage are risks. Construction projects are inherently risky by their very nature. You have to think 'if it can go wrong, it will'.

Contract Works Insurance must be in place BEFORE a peg is put in the ground. The first time many people think about insurance is after the project has actually commenced and the Bank has asked for an insurance certificate before they release any funds. Arranging insurance after the work has commenced is not ideal and it can cause delays to your project whilst it is sorted out.

Your contractor may well have insurance already in place for your project but you must check that the cover he has is sufficient. Do not take his word for it. The project must be insured for the full replacement value including any materials or goods that you are supplying i.e. the whitewear goods for the kitchen or electronic equipment. Unfortunately, these expensive goods are the target for theft and are vulnerable when they have just been installed.

If you are building an extension or altering your existing property then contract works insurance is required here too.

You are required to disclose to your existing property insurer what work you are going to have done. A 'Standard Buildings' cover will exclude loss or damage to the existing building arising from the construction work such as removal of any structural support or water damage caused by the removal of roofing material or exterior cladding.

Your existing insurer may extend cover to include the building work and the existing structure. If the works are extensive they may not extend cover and you will be required to seek cover from a specialist insurer who is prepared to provide the necessary cover for the existing property, including contents and the new work.
Editorial supplied by QBE Insurance.

Financials

Financing the building of a new home it is very different to arranging finance to buy an existing one. So it's really important that you work with someone who understands all the complexities of building finance.

These days, the least expensive rule of thumb costing for building work is around $1500 per square metre, $2500 per metre for more upmarket versions and upwards for luxury. And allow at least 10% for overruns, unforeseen costs or changes to the plan – you are likely to need it (and if you don't need it then you can have a great housewarming party)!

The best time to work out your finance is when you first start thinking that building may be an option for you. Talk to a mortgage broker who is a member of the New Zealand Mortgage Brokers Association (NZMBA), or if you're happy that your bank has the best building finance available, you may like to talk to them.

Here's a list of the most popular lending options:

- Borrow up to 95% of the house and land value
- Don't make any loan payments until you move in
- Borrow extra funds for furnishings and finishing touches
- Pay interest only on the amount of money you have drawn down to pay the builder, at any time
- And this is just the start of it!

Knowing how much you can borrow will help you when talking with builders, and looking at different plans. Having your loan already approved means you know exactly how much you can spend on the house and all those extras (like carpet, driveways, fencing etc).

PROGRESS PAYMENTS

When you're building the funds are advanced by progress payments to your builder. This ensures that you are only paying for work the builder has done at anytime. It's really important that you never owe more than the house is worth at each stage of building.

Normally when a builder invoices a progress payment, the bank will want to see an updated progress report from the valuer. This report is generally a one page and will tell the bank what the property is currently worth and what the cost is to complete. The bank will then pay the funds out to you at which time you would write out a cheque to your builder.

RENOVATION & ALTERATION COSTS

When the job is a renovation, other factors come into account. Do you want to match the style and materials already used in the house or are you comfortable to add something that is different (but still, ideally, complementary)? Is it time to change elements in the old house, for instance wooden to aluminium joinery or do you really want to match light fittings and bathroom ware to the old style prevalent in the house or should you modernise? And remember, with renovations, there are often hidden problems that only come to light when the wall boards come off. Be prepared for nasty surprises and make sure you have contingency in your budget.

Legal Requirements

COMPLIANCE WITH THE BUILDING ACT

While all building work must comply with the Building Code, not all building work needs a building consent or resource consent. However, you may well need resource consent so it's important to check early in your planning process as it can take several months to gain.

If you are planning on building a new house or doing alterations, you have to get a building consent from your local council before construction starts (unless it is work that is exempt). You only need resource consent when you want to do something that is not specifically allowed for under the Resource Management Act or is regulated by a regional, city or district plan. To find out if you need resource consent, check with your council and/or your architect/designer.

Building Consent Authorities (BCAs – usually Councils) issue consents based on the detailed plans that are presented to them that comply with the Building Code. These plans need to be highly detailed these days to gain consent. Then, once the house is finished and there has been a final inspection, the BCA will issue a Code Compliance Certificate (CCC) if the work matches the building consent. If you change something during the building process you must notify the council of the change through an amendment to your building consent otherwise the building inspector may well hold up sign-offs during construction – adding to your time, your costs and most of all, your stress levels!

NOTE: EVEN THOUGH YOU MAY USE A DESIGNER OR ARCHITECT WHO TAKES RESPONSIBILITY FOR PROCESSING THE BUILDING CONSENT, IT IS YOU WHO IS RESPONSIBLE IF YOUR HOUSE DOES NOT MEET THE REQUIRED STANDARDS AND IT IS YOU WHO IS RESPONSIBLE FOR GETTING THE CODE COMPLIANCE CERTIFICATE.

3.0 Planning & Designing

GROUP HOME BUILDERS CAN OFFER A CHEAPER AND FASTER OPTION, ESPECIALLY NOW THAT THERE ARE CONSENTS AVAILABLE FOR PRE-APPROVED DESIGNS THAT CAN BE BUILT ANYWHERE IN THE COUNTRY – MEANING YOU CAN BUILD THAT DESIGN WITHOUT HAVING TO GO THROUGH THE NORMAL CONSENT PROCESS, THUS SAVING YOU TIME AND MONEY.

HOWEVER, USING A DESIGNER TO TAILOR SOMETHING SPECIFICALLY FOR YOU WILL GIVE YOU A HOME THAT IS UNIQUE AND OFTEN WITH ELEMENTS THAT WILL GIVE YOU VALUES BOTH IN REAL TERMS AND INTRINSIC.

BUDGET

You will know what you can afford. Inevitably, in looking at beautiful homes in home magazines you will gather exciting ideas. The reality is that many of these homes may well have cost more than the budget you have available. However, compromise is a fundamental requirement and the good news is that many of the design 'looks' can be achieved within more limited budgets by building smaller or using alternative materials – your designer can give you a great home within your budget restrictions.

STEPS TO HAVING A HOUSE DESIGNED:

1. Deciding what you want
2. Choosing a designer
3. Developing the project brief
4. Pre-design information gathering
5. Concept Design
6. Developed Design
7. Resource Consent (if required)
8. Detailed Design
9. Building Consent
10. Construction – (Your designer, especially if they are an architect, should play a role here, helping to choose a builder, advising on the form of contract, undertaking contract administration, and observing the works for compliance with building consent and quality of finish)

HERE ARE SOME THINGS WE'VE LEARNT:

1. Outdoor/indoor flow is vital for modern living but –
   1.1. Make sure your doorways have shelter from rain with eaves or porticos
   1.2. Outdoor living in New Zealand can be done for much of the year in northern climes, less so down south, but it is essential that shade is provided. Consider waterproof shade either through shadeclothes that are waterproof or solid roof materials
   1.3. Think about sun-lines. Shade at midday may be inadequate in the early evening and the sun can still be brutal at that hour
   1.4. If you can't afford to install outdoor heating, make provision for it by running gas pipes or electrical wiring during the build
   1.5. Look at running your music outdoors with outdoor speakers. It's actually more considerate for the neighbours as you don't need volumes up as loud to be able to hear it
2. Sightlines for children's play areas can be incorporated into your design early in the process
3. Separate spaces for children (no matter how old) can be a very valuable asset to living
4. Lighting is vital to enhancing a home's natural features and ambience and don't forget to install outdoor lighting, or cable it up even if you can't afford the lights yet
5. Run speaker cable and computer cable throughout your house, even if you cannot afford to install computers and speakers – add them later!
6. Ensure the materials you build your home from are of good quality from reputable suppliers – from the framing you choose, to the cladding, electrical cabling and plumbing to glass, roofing and interior linings. Fittings can be changed out – you cannot change your framing
7. Spend money on quality fittings wherever you can
8. If you're building, site leveling beforehand can be an excellent way of making the full use of your property – making space for entertaining areas, kid's play areas or parking. Don't be scared to move dirt around – it's never cheaper than before things are built.
9. Above all else, think about how you want to live in your new home and build it around your requirements, needs and desires – this is the ultimate benefit in building your own dream

DECIDING WHAT YOU WANT

- What style of house – traditional or contemporary, Tuscan villa or modernist masterpiece?
- How do you live your life – lots of outdoor living or sheltered retreat? And if outdoor living, what amount of shading do you want and how will you incorporate into your design?
- Open plan or many rooms?
- How do the various rooms interact with each other – living room with kitchen, living spaces with sleeping, and work spaces with leisure?
- What kinds of things do you want to do in each room – some will be specific and can be purpose designed, others will have multi-use requirements?
- Do you have children? How old are they and what spaces do they require? How long are you planning to stay there and what will your children want/need in three, five or ten years' time?
- Are there any features – indoor or outdoor – you want to highlight? These can include special views or interior design elements such as staircases
- Where do you want your rooms? Bedrooms at the front or rear of the property? Living on the sunny side or shaded side? Kitchen and bathrooms to the shady side or rear of the property?
- Did you want everything on the same level? What kind of contour is your chosen site? If it's sloping then you have the option of levelling the slope or having different parts of the house at different levels.
- How will you incorporate new technologies into your design for home theatre, telecommunications and smart home technologies?
- How will your entranceway work for things like dropping keys, shoes, bags, coats, etc? Will it have shelter from the weather? Will you step straight into your living area?
- How does your planned home relate to its neighbours for privacy or to maximise the sun? Does your design move outside the district plan and building envelope, meaning you will need resource consent?
- Where will you put the laundry and what access will it have to outdoors; where will the clothesline go?
- How many toilets/bathrooms do you want or can afford? Do you want the toilet(s) separate?
- Where do you want the garaging and what do you want to use it for – just for parking cars, or storage (inevitably) or workshop?
- What level of sustainable building/energy efficiency can you build in now? If you can't afford everything now, can you prepare by running pipes for grey water recycling or solar hot water? Can you put pipes into your concrete slab with a view to installing hot water heating (from whatever source) later?
- Do you have space or budget for a pool and if so where is the ideal place?
- Now is a good time to consider landscaping design – where do you want trees planted for privacy, shading, pleasure; paths?

Renovations, Alterations & Additions

A renovation is an update to an existing building or a return to a new condition. An alteration is a change to an existing building. An addition is adding to an existing building. Most people consider any combination of the three to be a renovation, however.

The design of whatever addition you do can be a difficult process. Because there is already an existing building, whatever you do must complement what is there. That doesn't necessarily mean you have to imitate the design of the existing building, but any new addition needs to be sympathetic – and this is where a design professional can help you considerably.

When the job is a renovation things to consider include:

- Matching the style and materials already used in the house or adding something that is different (but still, ideally, complementary)
- Is it time to change elements in the old house, for instance wooden to aluminium joinery; updating bathroom fittings, new tiles
- Adding new technologies, such as Cat 5E computer cable or underfloor heating if replacing tiles (highly recommended)
- Moving walls
- Retro-fit insulation (highly recommended)
- Adding storage (highly recommended)
- Do you really want to match light fittings and bathroomware to the old style prevalent in the house or should you use modern items?

And remember, with renovations, there are often hidden problems that only come to light when the wall boards come off.

Bathrooms are particularly susceptible to issues around water leaks, but the Leaky Homes issue in recent years has shown that leaks are not restricted to this area. Poor workmanship in previous renovations or even the original build may have serious implications for the work you're planning.

These are items you may be mentally and emotionally prepared for, but when the reality hits and your budgets are blown out, things may be quite different. Be aware that there may well be nasty surprises so make sure you have contingency in your budget.

Keeping that warning in mind, renovating or adding to your house can be an exciting and very rewarding exercise. You already know the good and bad points to your home. If you like where you live, then improving the house you already know so well can dramatically improve your quality of life and improve its capital value.

The Building Amendment Act 2008 has added some building work to the list of items that are exempt from requiring a building consent, however, any work must still be carried out within the building code. It is strongly recommended that if your level of competency is only average, then having professionals help or finish the job can make a huge difference to the quality of the end result.

3.1 CHOOSING AN ARCHITECT OR ARCHITECTURAL DESIGNER

Look for someone whose work you like or an area of expertise relevant to your particular job, and who you believe you can work with. Use recommendations from friends or visit the New Zealand Institute of Architects and Architectural Designers New Zealand websites to find them in your locale.

Those who can prepare a custom-designed home are:

- A Registered Architect (Please note – only those registered can call themselves an 'Architect')
- An Architectural Designer
- An Architectural Draughtsperson
- All Group Home Builders have Designers who can design your home from scratch

The foundation decision to help ensure a successful project will be selecting the right designer to guide you through the process.

Finding the right designer for your project can be a relatively daunting prospect, but like most decisions, it can be easily made by setting simple criteria for selection and evaluating a small group who can offer you the service you'll need.

1. It is important that the designer you select can understand your needs and adapt to that particular architectural style. This is a good place to begin culling designers who are not suitable.
2. On establishing a small list of suitable designers, you are ready to begin the detailed process of finding the best fit for you. In doing so you'll need to consider what is important to you and define selection criteria. Typically the criteria may include:
   a. Scope of service required
   b. Experience
   c. Personality fit

Architectural designers will offer a wide range of services from the purely creative aspects of designing your building to the technical aspects of preparing construction documentation and providing support to you and your contractor during construction.

It is important that you thoroughly discuss the range of service each offers to be sure that you will have the right support throughout the whole building process – and no nasty surprises.

The world of architectural design is incredibly varied and while all architectural designers will be able to demonstrate their experience in some areas, it is important that they are able to competently deliver your unique project. Looking at relevant examples of their work and talking with client and contractor referees will help you establish the designer's competencies.

Finally, given that the building project is likely to consume many hours of your time over a number of months, a key element is for you to have an effective professional relationship with your designer.

Finding this fit is perhaps the single most important item.

- Be comfortable with the way your designer communicates and their alignment with your personal values. Positive relationships lead to positive outcomes

Price is a small consideration specifically not considered. The value the right designer will add to your project will far exceed any small difference in fee. While it is important to have a clear understanding of your costs, emphasis should be placed on achieving the project budget and sometimes stretching a bit to get the home you want.

REGISTERED ARCHITECTS

In order to register with the New Zealand Registered Architects Board (NZRAB), architects must first graduate from university with a Bachelor of Architecture Degree, and after some three years' practical experience in a mentored environment, submit to rigorous registration assessment.

Registered architects must re-register every five years, and to do so must demonstrate that they have undertaken Continuing Professional Development (CPD). Most registered architects are members of the New Zealand Institute of Architects (NZIA), which actively supports graduate development and CPD, provides a wide range of technical documentation to its members, and promotes excellence in design through award programmes.

For more information on Architects or to find a Registered Architect visit **www.nzia.co.nz** or **www.architecturenz.net.nz**

ADNZ Members

ARCHITECTURAL DESIGNERS

To be eligible for membership of Architectural Designers New Zealand Inc (ADNZ), members must hold a recognised certificate or diploma, undertake compulsory professional development, and have their skills assessed to ensure they meet the requirements of the ADNZ Competency Standards. They are also bound by the ADNZ Code of Ethics.

ADNZ (Architectural Designers New Zealand Inc.) is the national professional body representing architectural designers. ADNZ members are specialists in building design and construction, undertaking residential and commercial projects at all stages of the construction process. To be eligible for membership, ADNZ members must hold recognised professional qualifications or relevant experience, undertake compulsory professional development and have their skills assessed to ensure they meet the requirements of the ADNZ Competency Standards.

In selecting a professional member of ADNZ, you can be confident that you are engaging an architectural designer who will bring professionalism, accountability and integrity to their work.

For more information and to contact an ADNZ member visit **www.adnz.org.nz**

Kermitt Architecture
Toni Thomas
P 06 835 6359
F 06 835 6366
M 021 769 623
E toni@kermitt.co.nz
W www.kermitt.co.nz
Shop 3, 67 Bridge St, Ahuriri, Napier 4110
PO Box 12247, Ahuriri, Napier 4144

Emerge Architectural Design Ltd
Marty Horn & Phil Stanfield
P 06 353 0217
M 021 284 5674 Marty
or 021 728 784 Phil
F 06 353 0218
E marty@emerge-arch.co.nz or phil@emerge-arch.co.nz
W www.emerge-arch.co.nz
85 Lombard Street, PO Box 652, Palmerston North 4440

Keall & Associates Ltd
Andrew Keall
P 06 376 8901
M 021 0274 0737
E ad.keall@clear.net.nz
66 Wakeman Street, PO Box 41, Pahiatua 4941

O McCluggage Design
Owen McCluggage
P 06 758 6008
M 0274 404 444
F 06 758 6008
E owen.mcc@xtra.co.nz
Dean House, 11 Young Street, New Plymouth 4310

WHAT IS LIFETIME DESIGN?

BIG DECISIONS ARE AT STAKE WHEN BUILDING A NEW HOME – AFTER ALL, IT'S YOUR LIVING ENVIRONMENT WHICH UNDERPINS HOW COMFORTABLE AND EASY YOUR DAILY LIFE WILL BE...

There are the many factors to be taken into account, such as site conditions and environment, design style, the number of bathrooms, bedrooms and the size of living space.

But, one of the most important elements and one that is generally never considered is a home that caters for our specific needs over time - whether a young family with babies, buggies and groceries or the elderly or disabled with mobility issues.

Currently, our housing stock does not cater well for this lifetime of needs, especially considering New Zealand has a rapidly ageing population, which means there will be many more people with mobility challenges in the future.

It's a major challenge for the Government.

We know that modifying homes to suit changing needs is extremely expensive. Last year alone, the Government spent more than $33 million retrofitting homes so older people and people with disabilities could stay in them.

But the solution is simple – we should be incorporating "lifetime design" into building homes right from the start – an approach which could save private homeowners, taxpayers, housing developers and government millions of dollars.

It is easy and inexpensive to build homes with these lifetime design values thanks to New Zealand now having the 'Lifemark™', an independent seal of approval and the building sector's equivalent to Tourism New Zealand's Qualmark.

A home awarded the Lifemark™ has 33 design features based on usability, adaptability, accessibility, inclusion and lifetime value – simple features such as a level entry, widened doors and passageways - all aimed at making the house accessible for everyone.

It also means your home is 'future-proofed' – designed to make it easy and inexpensive to adapt should your needs change.

Some of the key design features that make such a big difference include;

- Kitchens are designed to be safe, accessible and convenient - not relegated to a thoroughfare – and with enough space to maneouvre a wheelchair and easily access benches and appliances.
- Living areas are designed for ease with switches, power sockets, TV, phone and computer outlets located away from corners and sited to avoid unnecessary bending and reaching.
- Generous space in the bedroom makes life easy for parents with children or for maneuovering wheelchairs or parking a walking frame just where it's needed next to the bed.
- Wide hallways and entrances and level entries are as suitable to a mother pushing a pram as they are to someone in a wheelchair.

- At least one bathroom and bedroom are ideally designed on the entry level, with wide easy access between the two.

The Lifemark™ review process also covers multi-story homes ensuring there is a bathroom and bedroom on the entry level, that there are spacious stairwells with weight bearing handrails on both sides and space for a platform lift if needed.

With all this, there is no compromise in aesthetics. People can very rarely tell the difference between a standard home and a home with the Lifemark™.

The flexibility of a home accredited with the Lifemark™ is uniquely suited for housing where there may be many different needs to meet, such as those of multi-generational households, with permanently or temporarily disabled inhabitants, those who are already elderly, or those who simply plan to live in their own home into their old age.

The additional cost of getting a Lifemark™ is minimal with United Kingdom studies suggesting that it adds about 0.5-1% extra to the initial cost of a conventional home, however local architects and designers have opined that if the lifetime design principles are included in the original design from the outset there may be no extra cost involved. Either way, there is a significant return on investment, as Lifemark™ standards dramatically reduce the need to retrofit homes.

And, choosing the Lifemark™ for your home is a smart financial investment, giving you a competitive edge in the future real estate market as New Zealand's changing population increasingly demands housing that is accessible and adaptable.

While Lifemark™ is relatively new to New Zealand, the principles of lifetime design are well-known in the United Kingdom and the United States. A further confirmation of its value is that the Lifemark™ has the backing of the New Zealand government as part of a strategic solution to meeting the housing challenges of the future.

Ultimately, the Lifemark™ seal of approval gives you confidence that your home meets your needs today and tomorrow.

If you're planning to build or indeed looking to renovate an existing home, it's well worth considering adopting the Lifemark™. For more information visit **www.lifemark.co.nz**

3.2 Professional Services

GEOTECHNICAL REPORTS

If you are developing your site, a Geotechnical Report or Soils Report may be required by Council as part of the Resource Consent or Building Consent process.

This Council requirement is usually due to the site being affected, or potentially affected, by some sort of ground hazard. It may be a stability issue if the site is on sloping ground, or it may be due to the presence, or possible presence, of soft layers, fill or expansive soils. In these cases the Council may request that you engage a Chartered Professional Geotechnical Engineer to conduct a specific site investigation and prepare a geotechnical report.

SPECIFIC SITE INVESTIGATION - The purpose of a specific site investigation is to confirm the ground conditions beneath the site and to identify any problems that may be associated with the stability of the site or the subsoils with respect to the proposed development. This will usually involve the drilling of boreholes or the digging of test pits with samples and testing carried out in-situ.

The Geotechnical Report will present the findings of the site investigation and recommend the most appropriate foundations and any stabilising measures, retaining walls, etc.

Investigations by a Geotechnical Engineer would address for practicalities of site development associated with use of the land. This is to ensure the security of the development with time. The geotechnical investigations could include; slope stability issues, foundation requirements and disposal options for stormwater and wastewater.

DESIGN AND CONSTRUCTION - The stability and foundation issues identified during the Geotechnical Investigation may require specific design. This is likely to involve site drainage, retaining walls and specifically designed foundations. A Geotechnical Engineer will complete this work ensuring compliance with Council requirements. They would also give regard to the financial and architectural constraints of the project. Development must also follow Council Building controls. A Registered Surveyor can set out the building location and provide certification to meet Building control requirements. Sophisticated building developments and construction on difficult sites are possible given the appropriate level of participation from design professionals.

WORKING WITH A SURVEYOR

Under the Resource Management Act 1991, if you want to subdivide land or create a site for another dwelling, you must obtain permission from your local Council.

To achieve this, your proposal needs to be assessed against rules which your Council has set in its District Plan. Also you may need to show how your activity will affect the environment and how any possible adverse effects will be dealt with.

Determining just how the rules affect your proposal can be complex. The final legal plans for your subdivision must be prepared by a Registered Surveyor. A member of the NZ Institute of Surveyors can provide the professional help that you need. When you consult a Surveyor first, you will receive expert assistance with all stages of your subdivision.

STRUCTURAL ENGINEERS

NZS3604, the New Zealand Standard for Non-Specific Design of Light Timber Framing, is the New Zealand standard you can generally build to without engaging a structural engineer.

Work that falls outside this Standard, or dealing with imperfections within the Standard, requires specific design by an engineer. Specific design is often required for new residential dwellings and additions/alterations work. Foundations, beams, and bracing are common items designed by the engineer. The structural design is usually prepared from the architectural drawings.

Retaining walls over 1.5 metres high, and walls with a surcharge (eg wheel load), require specific design. The engineer provides drawings and details suitable for both Council consent purposes and for construction. In the Wellington area more difficult sites are being developed and the services of a Geotechnical Engineer are often required. Geotechnical engineers specialise in ground stability and foundation issues. It is often appropriate to engage the services of a geotech-nical engineer prior to purchasing to confirm the suitability of building on the site.

CONSULTING ENGINEERS – ROLE & COSTS

It is likely that you will need to engage a professional engineer for part of the design of your house. You may wish to have an engineer advise on whether the site is suitable or if your plans comply with the local authority regulations, before you start.

The engineer can advise on earthworks, drainage or septic tank requirements, and structural design requirements of the building. You can engage them directly or your architect or designer may do so on your behalf. There will be a fee for the advice and design work they do. Ask your engineer or architect what the cost will be, and what it does and does not include.

Your engineer or architect may be required to provide you with a statement that the design or the construction complies with the Building Code. Your local authority may also have a requirement for construction to be monitored by an engineer. This will also incur a fee, but it is important to arrange monitoring before construction begins, as it cannot be done after the work is complete.

REGISTERED MASTER BUILDERS - WHEN QUALITY COUNTS

GISBORNE

Jennian Homes Gisborne Limited - Dylan Callaghan
P 06 867 2514 **M** 021 989 646 **F** 06 867 2614
E dylan.callaghan@jennian.co.nz **W** www.jennian.co.nz
PO Box 645, 55 Lytton Road, Gisborne 4040

Versatile Buildings Gisborne - Roger Corrin
P 06 867 2822 **M** 027 268 8243 **F** 06 867 0510
E gisborne@versatile.co.nz **W** www.versatile.co.nz
Display Site: 391 Childers Road, Gisborne 4010

Albert Waikari – Builder - Albert Waikari
P 06 868 9860 **M** 027 244 5255 **F** 06 8689870
E albertwaikari@gmail.com
PO Box 94, Gisborne 4040

Landmark Homes Gisborne - Dean Hollamby
P 06 867 9957 **M** 027 262 7622
E dean.hollamby@landmarkhomes.co.nz **W** www.landmarkhomes.co.nz
31 Peel Street, Treble Court, Gisborne

Coastland Homes Limited - Roger Davies
M 027 276 4241 **E** roger.davies@actrix.co.nz
PO Box 3006, GISBORNE 4041

HAWKES BAY

Alexander Construction Company Limited - Mark Hamilton
P 06 843 9626 **M** 021 710 468 **F** 06 843 9079
E office@alexanderconstruction.co.nz
PO Box 3062, Hawke's Bay Mail Centre, Napier 4142

McGinty Developments Limited - Frank McGinty
M 021 792 453 **E** mcgintydevelopments@xtra.co.nz
85 Napier Road, Havelock North 4130

Paul Libby Builder Limited - Paul Libby
P 06 876 5777 **M** 027 249 9776 **F** 06 876 5777 **E** paullibby@xtra.co.nz
1419 Woodstock Avenue, Mayfair, Hastings, 4122

Cavalier Homes Hawkes Bay Limited - David Chapman
P 06 843 0117 **M** 021 663 257 **F** 06 843 1157
E cavalierhb@paradise.net.nz **W** www.cavalierhomes.co.nz
PO Box 3303, 170A Taradale Street, Napier 4112

MANAWATU

A K Humphries - Building Contractor - Andrew Humphries
P 06 354 4412 **M** 027 435 4412 **F** 06 354 4412
E akhbuilding@slingshot.co.nz
8 Flemington Lane, Awapuni, Palmerston North 4412

Alteration Specialists Limited - Steve Brown
P 06 356 5519 **M** 027 442 4684 **F** 06 356 4723
E steve@alterationsspecialists.co.nz **W** www.alterationspecialists.co.nz
PO Box 5539, Terrace End, Palmerston North 4441

Andrew Harward Building Services Limited - Andrew Harward
P 06 374 8356 **M** 027 652 2870 **F** 06 3748356 **E** aharward@xtra.co.nz
228 Smith Road, RD 8, Dannevirke 4978

Avenue Construction Limited - Phil Round
P 06 357 6374 **M** 027 442 7940 **F** 06 354 6373
E phil.diane.round@inspire.net.nz
PO Box 5276, Terrace End, Palmerston North 4441

Benlee Homes Limited - Stuart Coldstream
P 06 353 7338 **M** 021 733 989 **F** 06 353 7318 **E** stu@benleehomes.co.nz
44 Briarwood Road, RD 10, Palmerston North 4470

Brendan David Welch t/a Brendan Welch - The Builder - Brendan Welch
P 06 326 8870 **M** 027 284 5330 **F** 06 326 8870 **E** welch.brendan@gmail.com
1032 Valley Road, RD 14, Ashhurst 4884

Brent O'Neill Limited - Brent O'Neill
M 027 446 7431 **F** 06 326 8156 **E** brentoneill-builder@thinair.net.nz
65 Glenburn Road, RD 10, Palmerston North 4470

Brent W Hughes Building Company Limited - Brent Hughes
P 06 323 6110 **M** 027 444 6010 **F** 06 323 6110 **E** bwhughesbuilding@gmail.com
38 East Street, Feilding 4702

Cambria Commercial Limited - Keith Tunnicliff
P 06 323 8484 **M** 027 223 8484 **F** 06 323 8482 **E** kmtunnicliff@xtra.co.nz
PO Box 9, Feilding 4740

Colspec Construction Limited - Shane O'Brien & Steve Hirst
P 06 357 9837 **M** 021 850 316 or 027 466 0451 **F** 06 357 9838
E team@colspec.co.nz **W** www.colspec.co.nz
PO Box 205, Feilding 4740

Crowe Construction Limited - Ross Crowe
P 06 368 8718 **M** 021 725 067 **F** 06 368 8769 **E** build4me@xtra.co.nz
PO Box 1074, Levin 5540

Diamond Homes Limited - Geoff Boyden
P 06 355 4448 **M** 027 444 7348 **F** 06 355 4449 **E** geoff@diamondhomes.co.nz
752 Main Street, Roslyn, Palmerston North 4414

Excel Builders Limited - Leigh Anthony
P 06 356 8876 **M** 027 496 9262 **F** 06 355 0252 **E** leigh.anthony@clear.net.nz
PO Box 8007, Hokowhitu, Palmerston North 4446

G & E Taylor Construction Limited - Grant Taylor
P 0800 368 9974 **M** 027 229 8980 **F** 06 368 3555 **E** scorch@levin.pl.net
PO Box 49, Levin 5540

Gary Bevins Construction Limited - Gary Bevins
P 06 325 8879 **M** 027 448 2902 **F** 06 358 2564 **E** garybevins@xtra.co.nz
PO Box 350, Palmerston North Central, Palmerston North 4440

H R Jones & Co Limited - Mark Pickford
P 06 323 4388 **M** 027 448 6972 **F** 06 323 4378
E enquries@hrjones.co.nz or hrjones@hrjones.co.nz
60 Aorangi Street, Feilding 4702

H T Illsley - Building Contractors - Hamish Illsley
P 06 374 6335 **M** 027 449 6520 **F** 06 374 6335 **E** hamishillsley@xtra.co.nz
1 Hunter Street, Dannevirke 4930

Humphries Construction - Paul Humphries
P 06 952 3584 **M** 021 459 710 **F** 06 952 3586
E paul@humphriesconstruction.co.nz **W** www.humphriesconstruction.co.nz
6 Connolly Place, Milson, Palmerston North

Isles Construction Limited - Tarsha Isles
P 06 355 3319 **M** 027 249 2873 **F** 06 355 3309
E tarsha@southpacifichomes.co.nz **W** www.islesconstruction.co.nz
PO Box 5597, Terrace End, Palmerston North 4441

Jennian Homes Manawatu Limited - Anthony Scott
P 06 353 0021 **M** 021 989 505 **F** 06 353 0022 **E** manawatu@jennian.co.nz
58 Grey Street, PO Box 4424, Palmerston North 4442

K Fowler Homes Manawatu Limited - Shane Walker
P 06 355 5279 **M** 027 474 6131 **F** 06 355 5129
E shane@fowlerhomes.co.nz **W** www.fowlerhomes.co.nz
PO Box 5186, Terrace End, Palmerston North 4441

Kynoch Construction Limited - Peter Kynoch
P 06 350 6802 **M** 027 240 8773 **F** 06 356 5448
E kynochconstruction@inspire.net.nz
PO Box 1941, Palmerston North Central, Palmerston North 4440

Mainzeal
P 06 354 4056 **M** 027 542 9795 **F** 06 354 4069
PO Box 1099, Palmerston North

McMillan & Lockwood PN Limited - Lloyd Berendt
P 06 357 0979 **M** 027 502 1268 **F** 06 357 0970 **E** lloyd.b@mlpn.co.nz
PO Box 1646, Palmerston North Central, Palmerston North 4440

Milestone Homes Manawatu Limited - Anthony Scott
P 06 358 9108 **M** 021 989 505 **F** 06 353 0022
E anthony.s@jennian.co.nz **W** www.milestonehomes.co.nz
58 Grey Street, PO Box 4424, Palmerston North 4442

Mitchell & Greatbatch Builders - Barry Mitchell
P 06 374 6901 **M** 027 457 1616 **F** 06 374 6901 **E** mitchell.greatbatch@xtra.co.nz
PO Box 224, Dannevirke 4942

Morris & Bailey (Dvke) Limited - Peter Burne
P 06 374 4262 **M** 027 242 5437 **F** 06 374 9327 **E** peterburne@vodafone.co.nz
PO Box 270, Dannevirke 4942

Paul Robertson Builders Limited - Paul Robertson
M 021 617 496 **E** paulrobertson@inspire.net.nz
PO Box 12 082, Inner City, Palmerston North 4444

Peter J Lea Building - Peter Lea
P 06 376 8847 **M** 027 441 9243 **F** 06 376 8847 **E** pjlea@xtra.co.nz
90 Tyndall Street, Pahiatua 4910

Profile Homes New Zealand Limited - Robert James
P 06 323 0243 **M** 027 430 4025 **F** 06 323 7152 **E** robjames@ruralitm.co.nz
11 Eyre Street, Feilding 4702

Versatile Buildings Palmerston North - Ross G Cruden
P 06 355 1982 **M** 027 430 3962 **F** 06 355 1258 **E** cruden@inspire.net.nz
PO Box 4197, Manawatu Mail Centre, Palmerston North 4442

R J & T L Feasey Limited - Rod Feasey
P 06 367 9804 **M** 027 447 4706 **F** 06 367 9864 **E** rod.feasey@xtra.co.nz
PO Box 200, Levin 5540

Rauzi Construction - Glen Rauzi
P 06 354 1119 **M** 027 604 0063 **F** 06 354 1116 **E** rauzi@xtra.co.nz
41 Masefield Terrace, Kelvin Grove, Palmerston North 4414

Rex M Stevens Builders Limited - Rex Stevens
P 06 326 8359 **M** 027 444 6340 **F** 06 326 7184 **E** rex.stevens@xtra.co.nz
18 Bushview Lane, RD 10, Palmerston North 4470

Selwyn A Simpson – Builder - Selwyn Simpson
P 06 355 3153 **M** 027 450 9457 **F** 06 355 3153
56 Rongopai Steet, Roslyn, Palmerston North

Stonewood Homes PN Limited - Peter Robson
P 06 356 5320 **M** 027 442 0212
E peter@woodrobson.co.nz **W** www.stonewood.co.nz
699 Tremaine Avenue, PO Box 679, Palmerston North 4414

Wenham Builders (2004) Limited - Gary Wenham
P 06 586 860 **M** 027 447 8076 **F** 06 358 6860 **E** wenhamfamily@xtra.co.nz
PO Box 9059, Terrace End, Palmerston North 4441

Cavalier Homes Manawatu - Wolcan Construction Co Ltd - Philip Wolland
P 06 359 0694 **M** 027 450 7712 **F** 06 357 6002
E phil@wolcan.co.nz **W** www.cavalierhomes.co.nz
3A Windsor Street, Terrace End, Palmerston North 4410

Wood Robson Limited - Peter Robson
P 06 356 5320 **M** 027 442 0212 **F** 06 355 2499
E peter@woodrobson.co.nz **W** www.woodrobson.co.nz
PO Box 679, Palmerston North Central, Palmerston North 4440

TARANAKI

Mark Eichstaedt Builder - Mark Eichstaedt
P 06 753 3060 **M** 027 246 5624 **F** 06 753 3060 **E** voneich@infogen.net.nz
2 Wayne Place, Ferndale, New Plymouth 4310

Murray Crocker Builders - Murray Crocker
P 06 765 7722 **M** 027 490 0684 **F** 06 765 7722 **E** croscka@xtra.co.nz
48 Cressida Avenue, Stratford 4332

A1 Homes Taranaki (Naki Construction Limited) - Daniel Jensen
P 0800 214 663 **M** 021 922 141 **F** 06 759 4072
E dan.jensen@a1homes.co.nz **W** www.a1homes.co.nz
Showhome: Cnr Devon & Katere Rds, Waiwakaiho, New Plymouth

Robert Anderson Builders Limited t/a Cavalier Homes - Rob Anderson
P 06 756 6049 **M** 027 481 2060 **F** 06 756 6043
E cavalierhomestaranaki@xtra.co.nz **W** www.cavalierhomes.co.nz
Showhome: 211 Heta Rd, 94 Rata Street, Inglewood 4330, New Plymouth

Schrider Builders Limited - Patrick Schrider
P 06 758 0654 **M** 027 642 6707 **F** 06 758 0654 **E** patrick.paula@farmside.co.nz
72 Baker Rd, RD1, New Plymouth

G J Gardner Homes Taranaki -Kodesign Builders Limited
P 06 769 6512 **F** 06 769 6516
E taranaki@gjgardner.co.nz **W** www.gjgardner.co.nz
Office: 95 Katere Road - after 1/7/11 3 Egmont Road, Showhome: 82 Wills Road, Bell Block, New Plymouth

B & R Barron Builders Limited - Bruce Barron
P 06 752 4044 **M** 027 444 8106 **F** 06 752 4044 **E** barronz@xtra.co.nz
2475 South Road, Okato, Taranaki 4335

Tasman Builders & Renovators Limited - Ken McDonald
P 06 751 3355 **M** 027 419 2204 **F** 06 751 3355
E ken@tasmanbuilders.co.nz **W** www.tasmanbuilders.co.nz
62A Poplar Grove, Whalers Gate, New Plymouth 4310

Stanley Gray Limited - Colette Stanley
P 0800 363 433 **M** 027 363 4332 **F** 06 753 7018
E info@stanleygray.co.nz **W** www.stanleygray.co.nz
PO Box 8129, New Plymouth Central, New Plymouth 4342

WHANGANUI

Able Builders Limited - Wayne Haynes
P 06 344 6641 **M** 027 444 9358 **F** 06 344 6640 **E** ablebuilders@clear.net.nz
24 Kelsi Street, Tawhero, Whanganui 4501

Des Candish Builders - Des & Nick Candish
P 06 348 8358 **M** 027 227 4972 Des, 021 744 168 Nick
E nickcandish@hotmail.com
5 Blyth Street, Durie Hill, Whanganui 4500

Philip Walker Building & Joinery Contractor - Philip Walker
P 06 345 0855 **M** 027 449 9749 **F** 06 345 0921 **E** p_s_walker@xtra.co.nz
16 Cathro Road, Westmere, Whanganui 4501

Versatile Buildings Whanganui 2003 Limited - Warren Johnson
P 06 348 2471 **M** 027 479 2726 **F** 06 348 2479
E admin@versatilewanganui.co.nz **W** www.versatile.co.nz
PO Box 7230, Whanganui 4541

Clive Barritt Builders Limited - Clive Barritt
P 06 344 2289 **M** 021 733 150 **F** 06 344 4471 **E** clivebarrittbuilders@xtra.co.nz
43 Kakaho Drive, Tawhero, Whanganui 4501

Mike Watson Builders - Mike Watson
P 06 343 2439 **M** 027 248 6489 **F** 06 343 2438 **E** mikewatsonbuilders@xtra.co.nz
164 No 3 Line, Whanganui East, Whanganui 4500

Shane Stone Builders Limited - Shane Stone
P 06 347 7007 **M** 021 242 0099 **F** 06 347 7008
E shanestonebuilders@xtra.co.nz **W** www.shanestonebuilders.co.nz
Showroom: 22 Dublin Street, Whanganui 4500

THIS LIST MAY NOT INCLUDE ALL REGISTERED MASTER BUILDERS IN THE REGION, IF YOU WANT TO FIND MORE GO TO WWW.MASTERBUILDER.ORG.NZ

3.3 Choosing a Builder

This is a critical stage of the whole process – finding a builder you can trust and you feel comfortable with is very important. You will be having a very close relationship with this person, especially if you're living on site during any of the process and you end up sharing the bathroom!

- Choose more than one to tender for the job – this way you can see if the costs being presented are fair and realistic
- Give a good brief – make sure they understand all aspects of the job and what your expectations are
- Price is, of course, important, but don't take the cheapest simply because it is the lowest. Get the higher bidders to justify their prices and find out what may have been missed by the first builder
- Check the builders' work by visiting other jobs they have done or are doing
- While every builder will have to be licensed by March 2012, check to see if they are part of the Certified Builders of NZ or Master Builders organisations. Please note that if they are not, it does not necessarily mean they are poor builders. There are excellent builders who are not members of either organisation
- What guarantees, if any, are offered with the job and are they prepared to make time to come back to do any work that is unsatisfactory
- Builders, especially good ones, may be booked well in advance, so ensure you start looking early in the planning process
- Word of mouth is often a good place to start looking for a builder and our website – **www.buildingguide.co.nz** - is a good place for alternatives
- Group House companies are a reliable and convenient option for many people. All provide standard designs and some will do custom designed homes as well. They will take care of the whole project for you from start to finish, including the project management
- You may choose to have your architect or designer stay on as full project manager or you may have an arrangement where your builder is the project manager and the designer takes on an overview role. Make sure the arrangement is fully spelt out in the building contract
- There are specialist project management companies and, while this may be a bit more expensive, this can take many of the hassles out of the whole building process. BRANZ (the Building Research Association of New Zealand) has a list of Accredited Advisors who can also manage a building project, or even specific elements within the overall job. See **www.branz.org.nz**
- You may wish to be the project manager yourself. Ensure you have the time – it requires a lot – and, ideally, the expertise. The Building Code is a complex and exacting rule book and the technical aspects of many components of the building process are important to get right

CONTRACTS

You have options on how you work with your builder. You may choose to work under a Full Contract or Labour-only – or a Managed Labour-only.

Full Contract can make your life easier: one price that covers the bulk of the work (add-ons, such as kitchens, tiles and tiling, door furniture and tapware may not be included) and the builder will manage the subbies working and the timing and there is one person to go to if there are any problems.

A FULL CONTRACT & THE PRICE INCLUDES:

- All materials
- Subcontractors and their prices
- Getting consents.
- Liaison with the architect/designer
- Arranging inspections
- Managing the whole building project

A LABOUR-ONLY CONTRACT means the builder is only responsible for actual building work – you manage the rest of the process. The implications are that you become responsible for the project, including getting consents, supervising the building work, organising sub-contractors and materials and the Health and Safety Plan. If you're considering this option to save money, keep in mind the time demands – it becomes a virtual full time job.

A managed labour-only contract is a hybrid of the two. For more information on these options, go to the ConsumerBuild website – **www.consumerbuild.co.nz**

3.4 Sustainable Building Practices

Careful house design is essential if the features you want to incorporate are to work well together. There's a lot to consider if you want to minimise your house's environmental impact while meeting all your needs for comfort, health, economy, social wellbeing, etc.

You'll probably need to make some compromises, so you must prioritise your wants very early on in the process.

The top five ways to ensure you get a comfortable, healthy house that's economical to run are also the top five ways of minimising the environmental impacts of CO_2 and waste production. These are energy efficiency, water efficiency, choice of materials, waste reduction, and indoor air quality.

Here are some things to consider at the design stage, as a start to get you thinking more sustainably:

THE SITE: Whether nearby amenities are within walkable distances, the potential to minimise earthworks, the potential for winter sun to get into the house, the ability for existing vegetation to provide temperature control, etc.

THE DESIGN: Ensuring that only the necessary area is built, making good use of nature to achieve all-year round comfort, correctly sized overhangs to control overheating, using salvaged materials where appropriate, designing with accessibility in mind so that all abilities are catered for, specifying energy-efficient appliances and lighting, specifying water-efficient appliances, etc. Look at BRANZ's Easy guide to eco-building, www.branz.co.nz/branzltd/pdfs/Eco_Guide2005.pdf

THE DESIGNER: Be as well-informed as you can and as clear as you can about what you want, and then choose someone who understands what you want and whom you can work with. Ask how experienced they are at designing sustainable houses and ask to see examples of their work.

MAKE SURE YOU VISIT OUR WEBSITE FOR MORE GOOD STUFF: www.buildingguide.co.nz

Please tell the advertisers you contact where you saw their ad - without them we couldn't bring this magazine to you!

Sustainable Building

10 EASY STEPS TOWARDS SUSTAINABILITY WHEN BUILDING OR RENOVATING

1. Design advice - Design your home to take advantage of its location while saving power, water and money
2. Choosing building materials - Try to use environmentally friendly produced materials
3. Natural daylight - Make good use of windows and skylights.
4. Insulation - Good quality, well installed insulation will make your house easier and cheaper to heat
5. Water efficiency - Build water efficiency into your home
6. Ventilation - A healthy home is well ventilated, high moisture levels are linked to health problems like asthma and eczema
7. Double glazing - This will insulate your house, while letting heat in to encourage passive heating
8. Building and renovation waste - Consider reusing or recycling waste
9. Myth: Sustainable building is a lot more expensive - In most cases it is possible to design sustainable buildings that achieve high standards of energy efficiency and incur little or no additional cost
10. Internal Finishes – When considering your internal finishes, consider products that are made with the environment in mind such as paints and act as good insulators such as curtains and carpets

Courtesy of AbsoluteEnergy Ltd – Insulation Solutions for Healthier Living. www.absoluteenergy.co.nz

There are many websites and books that can help you, and New Zealand has some of the best.

If there is an Eco Design Advisor in your council, book an appointment – the earlier in the design process the better. This is a free service that eight councils are now offering with a ninth set to start shortly (go to www.ecodesignadvisor.org.nz/local-eda/ for more information). The service provides free, independent, tailored advice on sustainability options to homeowners and industry professionals involved in home building and renovation projects. The advisors are independent industry specialists working to help people make well-informed decisions about the way homes are constructed and about how to keep them sustainable into the future. Issues considered include health and comfort, savings on energy and water bills (including solar water heating), choice of sustainable materials, and the impact on the environment.

During the construction process, encourage good communication between trades, keep a tidy site, and set up recycling facilities. These steps will help reduce waste of materials, time, and money.

Consider using double glazing on windows, installation of solar water heaters – there is financial support from the Energy Efficiency and Conservation Authority (EECA – **www.eeca.govt.nz**) for installation of these, and installation of grey water (water used for washing) recycling – for instance, use in the garden or flushing toilets.

Keep a close eye on the details of installation of insulation: Did you know that having a 4mm gap at the edge of a ceiling insulation batt, or cutting large holes in the insulation to fit ceiling downlights, can result in a 40% loss of insulation R-value?

For more information: www.smarterhomes.co.nz

3.5 Leaky Homes & Weathertightness

Leaky Homes are a growing concern as more examples become exposed every day.

The best time to deal with weathertightness is at the design stage where different options can be considered and changes are easily made to the plans. It is important for the designer, builder and owner to look at the risks associated with the proposed building and reduce these to acceptable levels before building.

Sometimes materials are used in ways for which they are not specifically designed or are poorly maintained, leading to cracking and leaking. **Make sure you are aware of the maintenance requirements of all specified materials for your home –incorrect or lack of maintenance will often mean your product's warranty becomes void.**

Modern designs can also have insufficient level difference between the floor of a building and the surface outside. An adequate level difference is necessary if the building is to meet the performance requirements of the Building Code in regard to external moisture provisions.

• Information supplied courtesy of BRANZ

FOR MORE INFORMATION ON WEATHERTIGHTNESS INITIATIVES VISIT WWW.WEATHERTIGHT.ORG.NZ OR IF YOU THINK YOU MIGHT HAVE A PROBLEM WITH YOUR HOME THAT IS LEAKING, THEN CONTACT WWW.HOBANZ.ORG.NZ FOR ADVICE.

OTHER DESIGN/DETAILING CONCERNS INCLUDE:

- **Using sealant instead of properly designed flashings**
- **Designing parapet walls without a cap flashing or slope to drain water from them**
- **Not installing head and sill flashings to windows**
- **Not installing kick-outs or diverters to apron flashings where roofs abut wall surfaces – kick-outs are necessary to ensure that water flows into the gutter and not down inside the walls**
- **Using design features that penetrate the cladding, such as projecting timber beams or handrails. It is almost impossible to effectively and durably waterproof these penetrations**
- **Not allowing for movement in monolithic claddings and tiled finishes – these finishes require movement control joints to allow building movement to occur without cracking**
- **Following building trends that ignore features known to provide some weather protection, such as eaves and drip edges to the base of claddings and above windows, though be aware that even houses with eaves have been known to leak.**
- **Poor or no detailing of junctions between materials**

Common handrail detail where the handrail support penetrates the weather skin of the building and the top of the wall is not sloped to drain the water.

A typical example of cladding finished hard onto a paved surface:

A NUMBER OF COMMON BUILDING DESIGN FEATURES ARE NOT 'GOOD' DESIGN PRACTICE. THESE PROBLEM AREAS HAVE BEEN READILY IDENTIFIED IN BUILDING FAILURES:

1. **Decks enclosed by solid walls. These walls usually have a textured finish and a flat top surface (also textured) with a handrail fixed to it. Water cannot drain from the surface and the weather-proofing skin has been penetrated by the fixings or the rail support, making these walls almost impossible to waterproof. It may then take only six months for serious deterioration of wall framing to occur.**
2. **Wall-cladding materials are commonly finished hard down onto a deck surface or paving or paths. By doing this the cladding will absorb water from the surface it is finished onto. Any water that might pass through the cladding is also prevented from draining out at the bottom. It's even worse if wall cladding materials are taken below the ground level or if landscaping materials, such as mulch, are built up against the wall. Materials that are continuously damp will deteriorate faster.**
3. **Waterproof decks are commonly constructed with the deck surface close to the same height as the building floor with no provision for the water that will fall onto the surface. Often there is no fall to drain the water away from the building and no overflows. When the outlet blocks, the only place for the water to go is inside the building.**
4. **Buildings with suspended timber floors require the space below the floor to be ventilated to remove moisture that evaporates from the ground. It is common, particularly in renovation projects, to see vents blocked by decks, paving, planters or soil. Restricting the ventilation rate significantly increases the risk of dampness and mould within the buildings and also the potential for damp-related deterioration.**

CASE STUDY:

Colleen Dicks Home Rebuild Project

THE STORY OF COLLEEN DICKS AND HER DEAR LITTLE HOUSE IN HOBSONVILLE COULD CERTAINLY FIT THE DEFINITION OF A SAGA: THE TRUSTING INNOCENT IS PITTED AGAINST WILY PROFESSIONALS, A SAFE HOUSE THAT DESCENDS INTO THE STUFF OF NIGHTMARE WITH LEAKS AND MOULD AND, EVENTUALLY, UNLIVEABLE CONDITIONS; COURT CASES THAT DRAG ON AND ON, ENDING IN NAIL-BITING TENSION WHEN DEFEAT IS NEARLY SNATCHED FROM THE JAWS OF VICTORY. BUT EVENTUALLY, AS WITH ALL GOOD SAGAS, THERE COME TALES OF REDEMPTION AND REWARD, KNIGHTS IN SHINING ARMOUR AND, FINALLY, A NEW, WARM, SAFE HOUSE FOR THE FEISTY HEROINE, COLLEEN.

Some might see retired teacher Colleen's leaky house saga, which culminated in her winning a $250,000 judgement against Waitakere City Council in January 2007 after a four year battle, like that. Battleweary Colleen is a little more circumspect. "It has been a long time living out of a wardrobe," she says. "I can only say that I feel extremely grateful to the people who have helped me out, but I am still extraordinarily angry that the situation arose."

The turnaround in Colleen's fortunes happened after her leaky house win hit the papers when the High Court awarded her compensation and costs. Colleen learned that nearly $200,000 of costs had been racked up by her lawyers and their experts. Her so-called win would leave her with no actual funds to re-build her house. Around this time John Gray stepped up to help. He had been championing the leaky homes battle through his action group, but was building up an organisation with a wider brief to help homeowners, the Home Owners and Buyers Association of New Zealand Incorporated.

"We started talks with Colleen and her family around the time when there may have been an appeal. Our campaign had raised significant amounts of money, so we decided to set some aside to help her and at the same time created HOBANZ," explains John. "We want to look at the broader aspects of housing needs in New Zealand and our Pacific neighbours. There are quite a few like Colleen [estimates vary between 30,000 and 80,000 homes]. We would love HOBANZ to achieve that charitable objective, ultimately a charitable registration."

This was not a speedy saga. It took John's team close to 12

months to find sponsors for the project – eventually some 70 suppliers came on board in an exercise of corporate social responsibility.

The leaky house was demolished in May 2009. Early on the team had agreed a complete new build, rather than a re-clad or remediation was best, but hoped to work within the existing footprint of Colleen's concrete slab. However more detailed work revealed that this too was in poor condition and it was demolished in August 2010.

Architectural designer Marissa Pearson of Scribble joined the project in 2008 and took on the challenge of redesigning the modest 110 square metres of house to better suit Colleen. The pair were constrained by retaining plumbing/drainage services in the same location, but with some clever tweaking Marissa has managed to create a more sustainable, comfortable home for Colleen.

"By re-orienting the entrance way, we protected the house from the prevailing wind and weather. We rearranged the bathroom, toilet and laundry to create better storage and use of space. Double-glazed French doors now open the whole north living room side to the sun, while we used small windows to the South to prevent heat loss," she explains. But more importantly, the exterior design was changed to a mono-pitched roof with generous overhanging eaves – a design that does not give water the same chance to enter the building and do its damage.

"We wanted this to be a demonstration project," agrees John Gray. "With the systems like steel frames, mono-pitch roof, aluminium cladding and the latest window technology we start to bullet-proof and weathertight a house. We wanted sustainability – low operating and maintenance costs, good ventilation, ambient temperatures and clean air; secure elements like fire sprinklers and smart energy and security management. In other words, a lovely, modern healthy home."

Project manager Kirk Davis of Palladium homes initially was approached to do the building work, but decided Colleen's cause deserved more input. While generally used to working on projects two or three times this size, Kirk's company by-word is quality (every house they build is a show-home, proudly shown off by existing clients) so he is up to the challenge of showing how combining all the elements – leak-proof design, steel instead of timber, correct use of cavities and attention to detail – will give Colleen the sound house she missed out on last time.

An early supporter of the project was the National Association of Steel-framed Housing (NASH) who were only too happy to demonstrate to both Colleen and the wider community the benefits of steel framing in houses, compared to conventional materials. Association head Carl Davies says that the steel framing produced by NZ Steel provides a 50 year durability statement, and is quality assured in terms of production. He points out that the builders on tight-timeframe projects can benefit from the speed of erection therefore enhancing their earning potential. Steel framing can usually be erected with little time delay in inclement weather (handy for a build in Auckland's notoriously rainy spring), does not need time to dry out and, because of its dimensional accuracy, allows follow on trades to proceed with confidence.

More new technology appears on the exterior cladding: Nu-Wall, an aluminium weatherboard system designed and made in New Zealand. The powder-coat or anodised cladding can be applied horizontally or vertically and meets or exceeds the requirements of the current New Zealand Building Code (all three installation methods have been ticked by BRANZ). The product was developed over 20 years ago to keep water out while allowing the passage of air to avoid condensation. Joint and corner details provide external drainage for moisture so it cannot be trapped behind the cladding and cause damage. Specifiers often use the product in conjunction with Flashman Flashing Systems, a new flashing system BRANZ appraised and tested in hurricane conditions, and the Cavibat plastic cavity batten system.

Nu-Wall's Dave Hopkinson says that the product, previously used in high end commercial projects, is now frequently specified in leaky home re-cladding, so he was keen to jump on board HOBANZ' Colleen Dicks home rebuild project. He wants to demonstrate that the flimsy American notion of 'aluminum siding' does not apply in this market: Nu-Wall is thicker and tougher, and is stable and durable enough to last the 50 year minimum life of a building (other claddings are deemed replaceable after only 15 years).

"Our challenge is that people don't realise that Nu-Wall requires minimal maintenance and it doesn't depend on the finish to keep weather out. Once it's up, all it requires is cleaning – like your car. Builders like that the whole proprietary system comes complete with the kit of parts they need to install, all they have to do is follow the instructions" says Dave. He points out that homeowners have the reassurance that there is no room for error ("builders can't bog and paint over their mistakes") and finds that once they have explored the design and installation options they are well-convinced of the warmth and style.

The precision of metal is continued in Colleen's house with the advanced window and joinery system provided by Open Building Solutions. The vertically integrated company has turned the

aluminium joinery industry on its head.

Marketing Manager, Mark Fisher, explains, "We extrude, powdercoat or anodise and manufacture all the joinery in one place and ship it directly to the building site. This is both energy efficient and gives us cost and quality control. It's taken us two and a half years to develop this, and we started rolling out in late 2009."

The company's blank slate approach to design produced a much larger flat frame – with 35 mm, rather than 20mm flange cover– to ensure greater weather protection, give builders more installation leeway, and stronger support. There are no external drainage holes, and structural integrity and a clean finish are ensured by the cast aluminium corner cleats crimped not screw ported into the system. Even the hardware and locking systems are designed for longevity, easy manufacturing and weathertightness. The double glazing system is thermally broken at every junction to prevent window 'weeping', while argon filling means the windows have an R rating of an astonishing R.47 (conventional single glass windows have R values of less than R.17).

"This is essentially a bullet-proof envelope for Colleen," says Mark. "The real advantage is in the saved energy costs to the consumer – and that will defer government and therefore taxpayer investment in power generation. There's such a small premium for this kind of joinery for a big saving in energy."

A LEAP Thermagenius Heat Pump Water Heating system powers both the production of hot water and the inslab heating system for Colleen's home. Thermagenius extracts energy from the air outside the home and converts it into heat. Hot water then moves around the home thanks to flexible pipes laid in the foundation and heats the home from the ground up.

Colleen's house will not only be warm and energy efficient but also safe thanks to an inbuilt Blazestop Home Fire Sprinkler System from LEAP.

The highest specification of Pink Batts insulation will also help minimise Colleen's energy bills while a Fujitsu heat pump from the Healthy Home Group will give her immediate heating to boost the ambient heat provided by the heated floor.

Colleen's bathroom will be a glamorous improvement, too, with Plumbing World contributing a superb fit-out with new vanity unit, toilet and bath and taps from Methven, among other things. The HOBANZ project group is exploring further sustainable options with sponsors to increase Colleen's comfort and decrease her bills – rainwater collection and grey water recycling, for example, and solar collection panels.

"We want to demonstrate low operating and ownership and maintenance costs, that are good for consumers. We want to educate and support them to make the right decisions to get in and get it right the first time," says HOBANZ's John Gray. "Too many people made poor decisions – or didn't know, like Colleen, at the outset. We have a unique opportunity to create an economic engine to get out and do good in the community. There are too many people like Colleen, but we have a limited chance to repeat this, we'd love to."

Colleen agrees. "I am actually luckier than a young family with

Designed to be Dry

House design: mono pitch flat roof, extended eaves, front door protected from prevailing weather

Passive solar design: main windows and doors oriented to north for maximum solar gain, with only small windows for summer ventilation; double glazed joinery (with thermal breaks and argon) to minimise heat loss; insulated envelope in floor, walls and ceiling to maximum of R3.6.

Smart energy: shed-roof precludes use of ceiling cavity DVS system, so window and door placement for natural ventilation; Fujitsu heat pump and underfloor hot water reticulation for energy efficient heating; smart energy and security management.

a mortgage and kiddies who got sick. I'm very fortunate that I've got family behind me, they've been really supportive and a group of people and companies who are helping replace the home I lost. But I'm still very angry that the situation is still being ignored and not dealt with."

After all the drama, legal issues and stress, on Thursday 10th February 2011, Colleen was presented with her new home by members of HOBANZ and many of the sponsors of her project.

Colleen was gracious as ever as she thanked everyone involved for helping her get her life back. We at the Building Guide would also like to extend thanks, and recommend that readers have a look at the list below to find companies that are responsible, generous and great to work with!

Design, Consents:	**Scribble**
Project Management:	**Palladium Homes**
Quantity Surveyors:	**Kwanto**
Building and Construction Insurance:	**Builtin New Zealand**
Interior Design:	**Equilibrium Interiors**
Demolition:	**Gabo Demolition**
Preparation and Groundwork:	**Yeoman Surveyors**
Steel Framing:	**National Association of Steel Framed Housing, AXXIS Steel Framing**
Concrete:	**Firth Industries and Slab Specialists**
Cladding:	**Nu-Wall**
Roofing, Gutters, Downpipes:	**Dimond**
Flashings:	**Flashman**
Windows, Doors:	**Open Building Solutions**
Front Door:	**Parkwood**
Insulation:	**Pink Batts**
Lining:	**Gib**
Hardware:	**Dayle ITM**
Adhesives:	**Dulux Group - Selleys**
Painting:	**Dulux**
Kitchen Cabinetry:	**Kitchen House**
Fittings:	**Methven**
Bathroom:	**Plumbing World**
Heat Pumps:	**DVS**
Water System:	**Leap Australasia**
Hard Fill:	**Winstone Aggregates**
Lawyers:	**Minter Ellison Rudd Watts**
Site Preparation & Excavation:	**Pole Specialists**
Reinforcing Steel:	**Wire Plus**
Scaffolding:	**Safeway Scaffolding**
Tiles:	**Jacobsen Creative Surfaces**
Tiling:	**Dream Homes**
Wardrobes:	**Wardrobe Works**
Electrical Labour:	**B W Henderson**
Plumbing:	**All Go Plumbing**
Appliances:	**Fisher & Paykel**
Carpet:	**Bee Jay Carpets**
Painter:	**Kingdom Decorators Ltd**
Painter:	**APS**
Security:	**Cactus Security and Bosch**
Washing Line:	**Hills**
Furniture:	**Farmers**
Furniture:	**Freedom Furniture**
Furniture:	**Hunter Furniture**
Window Screens:	**Window Treatments**
Plasterboard install:	**Troake**
Drains:	**Hynds Pipes**
Slab:	**Concrete Laying**
Landscape Design:	**Hamish Dodd Design**
Shirt Design:	**The Kitchenmedia**
Shirt supply:	**Embroidme**
Hire Equipment:	**First Hire**
Freight:	**Straight Freight**

FOR MORE INFORMATION GO TO WWW.HOBANZ.ORG.NZ OR "LIKE" OUR FACEBOOK PAGE: COLLEEN DICKS HOME REBUILD PROJECT

4.0 Product Selection

4.1 Your Site / Structure

BUILDING SOLID FOUNDATIONS' HAS BECOME A CLICHÉ IN ALL WALKS OF LIFE FOR THE VERY GOOD REASON THAT IT IS SO VERY IMPORTANT. KNOWING WHAT GOES ON ALSO HELPS YOU MANAGE YOUR EXPECTATIONS FOR YOUR PROJECT . . .

FRAMING

This is one of the most exciting moments in the project as the frames go up quickly and it looks like everything is happening. Bear in mind, however, that while work continues, not much seems to change rapidly from here.

- Framing options have now opened up with steel framing now available here though most builders are not familiar with the use of steel.
- There is debate on the relative environmental merits of different framing materials.
- Steel framing does not emit chemicals as wooden framing does and has endorsements from the Asthma Foundation.
- Steel is roughly the same price as timber for installation.
- Steel won't rot should your home leak.
- Timber is a renewable resource and most builders are familiar with the product.

WEBSITES TO VISIT FOR MORE INFORMATION ON FRAMING:

Frame & Truss Manufacturers Association of New Zealand: www.ftma.co.nz



RETAINING WALLS

Excavation work inevitably means retaining walls. Depending on the location of the wall, its height and whether it's in a highly visible location, there are different materials you can use: precast concrete, concrete block and timber are the most common but stone is becoming more common.

- Consider the style and feel you're after, or whether this matters at all.
- Remember, retaining walls must be included in the building consent and signed off.
- Are the materials consistent with the look and feel of the design you want to achieve?
- Think about using masonry as a design feature. Mix and match with alternative cladding products that may feature elsewhere around your home.
- The higher your wall, the greater the need for engineering input. Speak with your designer or builder to find out if your wall requires an engineer's design.
- You must ensure there is a suitable foundation, drainage and appropriate backfill material is used.
- As local requirements vary, check with your council for local design, resource consent and building consent requirements.

DRAINAGE & UNDERGROUND PLUMBING

While not the most exciting of items in the construction process, good drainage is absolutely essential to the long term integrity of your home but consider where your plans put the pipes and assorted gully traps and vents.

- Some Councils are also requiring the installation of retention tanks to slow down the release of storm water into municipal drains that are in need of replacement.
- Are the pipes in the correct position, e.g. not where you may want to put paths or gardens?
- Are the drain holes or pipe vents in locations that will interfere with future use of the grounds, e.g. are they where you may want to put paths, entertaining areas or gardens?
- Will the vents in the right position?
- Will the drains cary sufficient water?
- Does your drainage system meet with the local building bylaws and building code – e.g. do you need retaining tanks

CONCRETE SLABS/FLOORING

The concrete is laid on top of several things put down beforehand. There is a layer of compacted base course, a polythene vapour barrier, plumbing pipes and pipes taking electrical and other cables, in-floor heating and polystyrene insulation (if required).

The concrete needs to be cured and cut. Additives can be applied to the concrete to reduce cracking during or following curing; concrete can be coloured, polished and/or ground.

- Ensure the floor is fully laid in one pour and there is no lag between deliveries
- Ensure the concrete is cured properly under advice from your builder
- Wooden floors are laid on floor joists. These need to be level and solid
- Are the floor joists even and solid?
- Has the flooring timber been evenly laid?
- Has the timber been sufficiently seasoned (the right moisture content)?
- Are the plywood/chipboard panels secured properly and are they even – is there any movement or squeaks?
- Underfloor foil insulation is the minimum level of insulation you require under the Building Act but never shy away from increasing your level of insulation

WEBSITES TO VISIT FOR MORE INFORMATION: Cement & Concrete Association of NZ (CCANZ) **www.cca.org.nz**
NZ Ready Mixed Concrete Association (NZRMCA) **www.nzrmca.org.nz**

HOMEOWNER'S BUILDING GUIDE

4.2 Exterior Envelope

THE ITEMS THAT ENCLOSE YOUR HOME ENSURE ITS WATERTIGHT QUALITIES, ITS WARMTH AND HOW IT LOOKS. DOING A GOOD JOB HERE IS ESSENTIAL FOR ENJOYMENT IN LIVING HERE . . .

EXTERIOR CLADDING

New technologies and materials are changing the face of how our homes look and there are a huge number of alternatives out there.

There are many options available now for the external walls and the envelope of the building is of very high importance. So what considerations should you take into account?

- What is the Insulation (R-value) when you choose a particular system? Remember, the higher the R-value, the lower your power consumption and generally, the improved health of the inhabitants (your family!).
- Is the structural integrity and bracing values suitable for your site? Ensure you check concrete strength after curing.
- Will it break down over time? (Even weatherboards need replacing eventually). Should water penetrate into the external walls, what materials can break down internally and how does this effect the structural integrity of your home?
- How does your chosen system weigh up in terms of value? Remember, it is not only the cheapest option you need to look at but consider what ongoing savings you will make through less maintenance. Also consider the environmental impact – from manufacture through to left-over waste.
- What claddings can I use over my system? Make sure you can choose something that will provide protection from the elements.

Don't be afraid to ask for the supporting information to give you the comfort level that you have made the right choice.

Some wall cladding options are:

- Weatherboards are shaped planks fixed horizontally and lapped over each other. Rainwater drains down the outside and can only get inside if it is forced upwards between the boards. There are new installation techniques that can greatly speed up application, keeping costs down. As well as timber, weatherboards can be made from materials such as fibre-cement, metal and vinyl (PVC).

- Fibre cement exterior wall coverings come in the form of panels and weatherboards. They may be used as the exterior wall covering, or as substrate for monolithic claddings.
- Plywood panels may be used as cladding. Gaps are covered with battens or flashings. You can also get plywood weatherboards.
- Masonry veneer is a system where a timber-framed home is clad with bricks, stone, or thin concrete blocks. The masonry is connected to the timber framing through flexible wall ties.
- Concrete blocks or poured concrete may act as both the structure and the cladding.
- Monolithic cladding systems have a seamless appearance. They have become popular in recent years, but have to be designed and applied properly or they will leak. The 'leaky home' problem is largely to do with incorrectly constructed monolithic cladding. Ongoing maintenance is essential. The traditional monolithic system is stucco. Cement-based plaster is applied over a variety of backings including fibre-cement and plywood sheeting. It is then painted. This is the oldest of the three types of monolithic cladding and has been used in New Zealand since the 1920s. Exterior Insulation and Finish Systems (EIFS) are multi-layered systems, using polystyrene insulation and reinforced plaster. There are several different proprietary systems available. Fibre cement sheets can also be plastered to give a monolithic effect. All monolithic claddings rely on the final coat for waterproofing, and this needs to be well maintained.
- Metal: Extruded Aluminium panels are highly durable, come in great looking profiles and are very low maintenance; they are coloured prior to delivery, so no painting is required.

Major considerations are aesthetics, durability

- Waterproofing is a huge concern, but building procedures used in the past for certain products that created problems have largely been addressed and homes being built now use specific techniques to avoid problems.
- Options for external cladding will play a major role in how your home looks, so investigate widely for cladding you like that fits with the style of home you're building.
- You can mix different cladding types, too.
- Wall cladding must protect the interior from water penetration under all conditions, including rain driven by high winds. It should also stop draughts.
- Drained and vented wall cavities - Some cladding systems work on the assumption that some water will inevitably penetrate the outer skin of the building. A cavity between the outer wall covering and the interior lining allows water to drain away through drain holes and air to circulate. With most types of cladding, in all but low-risk situations, a dry cavity is now required under the Building Code.
- Wall underlays or building paper - Building paper and synthetic wraps prevent any moisture which does enter the wall cavity, or has got in behind the cladding, from getting into the framing and interior lining.
- Flashings - Flashings are strips of metal or other material that cover joints and gaps where water can get in. They are used around window frames, external doorways, and on top of exposed walls, to help stop water getting in, and help to drain it out.

Material sourced from Smarterhomes website – www.smarterhomes.co.nz

GUTTERS & DOWNPIPES

More than an afterthought – gutters are the edging of a roof and can add to the look or detract.

- Consider the colour and material to be used – white plastic has many alternatives, including copper, coloured steel and a whole range of profiles for both gutters and downspouts are on offer to match the style of your home.
- Have you chosen a colour that complements the roof and external colour of the house, and has the correct colour actually been installed?

ROOFING

Roofing is another critical element of the project and there are many different options for style of roof:

1. Tiled roofs can be concrete, steel or clay (terracotta)
2. Long-run steel or other metal such as copper
3. Wooden shingles
4. Membrane (for flat roofs), and more.

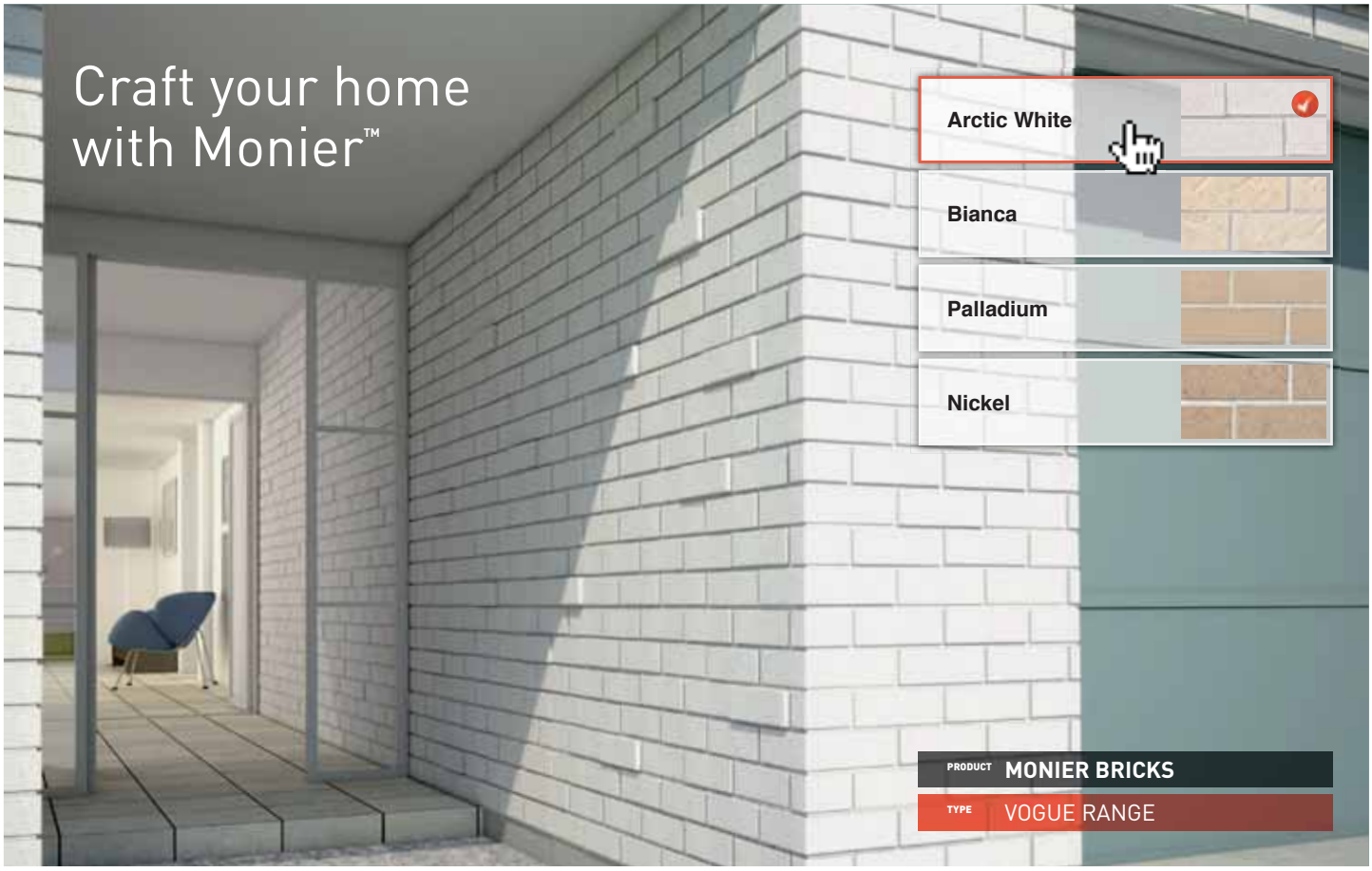
The important thing to think of here is the look of the roof and how it fits in with your overall design.

- Choose roofing in keeping with the style of your house and its projected performance.
- Roofing products are defined as lightweight or heavyweight depending upon their classification within the New Zealand standard (NZS) 3604. A lightweight material is one that weighs under 20Kg per square metre when fixed and finished on the roof. Heavyweight materials exceed this limit but do not exceed 60Kg per square metre.
- Make sure the roof you've chosen will perform at the pitch of your roof (some tiles won't perform at less than 12 degrees, for instance).

MAKE SURE YOU VISIT OUR WEBSITE FOR MORE GOOD STUFF: www.buildingguide.co.nz

Please tell the advertisers you contact where you saw their ad - without them we couldn't bring this magazine to you!

- Concrete and Terracotta tile roofing requires less maintenance than most other roofing materials.
- Select the right grade of metal for the location of your house – for instance, if you're at a coastal location.
- Non standard colours on colour coated metal roofing may have longer delivery times and cost more.
- Concrete and Terracotta roofing perform well in high wind zones.
- Concrete roofs reduce airborne sound and help provide effective thermal insulation.
- Water runoff from Concrete and Terracotta roof tiles does not contain zinc or aluminium ions.
- **Concrete and Terracotta** tile roofs allow moisture vapour to escape.
- There are two widely used products within the light roofing classification.
  Both use steel as the core and generally weigh much less than the upper per square metre). Different coatings and processes are carried out with these products.
- **Longrun steel** is made from coils of steel, usually but not always painted, that are formed into a variety of longrun profiles. They extend as one sheet with laps along edges and ridges. There are many more options for profiles than just standard corrugated iron.
- **Metal tiles** are individually pressed out from blanks of primed or painted steel. They are available in a range of profiles designed to achieve different appearances once on the roof. There are advantages in the level of protection achieved where the coatings are applied after pressing the blank, as there is a reduced tendency for microcracking, where the paint cracks micro-scopically at bent edges and exposes the base metal to immediate contact with the elements.
- Other products that can fit under the lightweight code include bituminous shingles, fibre cement tiles, wooden shingles and some slate products.
- Heavyweight products include concrete tiles and most slate products.
  Because of their greater weight, concrete tiles generally weigh around 45Kg per square metre.
- The house structure must be engineered to ensure all weight can be withstood by the house structure. This means that where necessary, frames, lintels and trusses are increased in size or placed closer together to ensure sufficient structural strength.
- For all types of roofing NZS3604 ensures there are standards defined for structural performance, fixing standards etc. thus there are no concerns regarding safety of different roofing systems.
- However achieving these standards may only be accomplished through additional expense in timber and framing, hence it is necessary to talk with your designer, builder or architect to clearly understand the differences in design requirements for the various roofing options available.
- They can show you the specific cost savings or penalties involved in the different roofing products.



With our exciting new product ranges, brochures, website and online visualiser, Monier gives you the tools to bring your vision to life.

MONIER DESIGN TOOLS
HELPING TO MAKE YOUR CHOICE EASIER

ONLINE VISUALISER
The Monier Visualiser makes it easy to choose the look that fits your style. Visit monier.co.nz and click on "design your home" to start picturing your future house.

PRODUCT GUIDES
Our newly released brochures feature Monier's latest Brick and Roofing ranges. Phone us for a copy or download these from our website at monier.co.nz

NEW PRODUCTS
We have new product ranges in both brick and roof tiles. The stylish and sleek new Georgian and Madison roof tiles are especially worth checking out.

ASK FOR INFORMATION ON ALL OUR PRODUCT RANGES
MONIER BRICKS, CONCRETE AND TERRACOTTA ROOFING.
0800 MONIER 0800 666 437 \ MONIER.CO.NZ

MONIER™
BRICKS & ROOFING

4.3 WINDOW JOINERY AND FRONT DOORS - OVERVIEW

Windows are crucial to the enjoyment of our homes. They allow us to enjoy a view of the world outside, and are a big component of a house's comfort level and cost.

Doors are literally the gateway to our homes, providing an initial impression for visitors and offering security.

So it is amazing how little time people spend considering window, joinery and door options for their new homes or house renovations, because research and planning is the key to making the right decision.

With doors alone, there is a wide range of products – each with differing advantages, security measures, glazing choices, inward or outward opening options for the buyer to consider.

The first step to making an intelligent decision is to seek out a respected company which has an established record in the

industry. As with a lot of purchase decisions we make, word of mouth from friends or family is a good start, so ask around for recommendations.

The staff of a top company will intelligently discuss the initial "looks" you have in mind, help select the right product, and the questions to ask to make sure the building professional you choose has the skills to ensure the right end result – achievement of your dream lifestyle.

The market leading window solutions companies invest heavily in technology which produces outstanding quality and precision. To a layperson, one piece of joinery may look the same as the next, but the finest machinery can ensure angles of the finished product are incredibly accurate and the joinery has the best finishing possible.

A quality supplier will be able to make fittings specific to a particular home and indentify it with individual markings – you shouldn't ever get joinery left over from another job.

The true test of a homeowner's decision will be when winter's first southerly blast arrives. That is when homeowners will be thankful they planned, sourced good advice, and bought quality. This can be achieved with three crucial steps:

Step 1. Have a Plan

Be prepared. Collect pictures of the colours and look you would like to achieve. If you visit a friend with a new home and you like certain features, find out who supplied them. Take your building plans and ideas to an expert – preferably one with a showroom where staff can show you solutions which best fit your design. You will see how the joinery operates and how it will enhance the look of your home and quality of lifestyle.

Step 2. Investigate

Quality of product is paramount when selecting windows and doors, as is trust.

- Do you feel good about the product you want to use?
- Do the people you are dealing with know the product and have a track record of performance?
- Did you like the designs suggestions and solutions you were offered?
- Is everyone offering the same thing?

The best way to gain confidence in what you are going to install is by meeting the people and touching the product – it should speak for itself. Things to compare include thermal efficiency (for example, high-performance double glazing and aluminium joinery with thermal breaks), the best use of space, and the product's environmental impact.

Step 3. Choose a Partner

I believe a top operator should regard customers as its partners.

Choosing the right supplier can make all the difference to the end result.

- Is the joinery going meet the Building Code?
- Is it manufactured to Standards NZ 4211:1985?
- Will it arrive to the site on time and will it fit?
- What after-sales service does the supplier provide?

It is important to ask whether your deposit will be secured in a Buildsafe-approved account, and whether the supplier offers a delivery guarantee. A window supplier with the right level of experience, ability and reputation will be happy to answer these questions. Membership of the Window Association of New Zealand is a great indication.

The last things people need during a home-building project are nasty surprises. If you are not an expert in aluminium joinery, it is critical to have confidence in someone who is to help you achieve your dream.

Editorial supplied by Windowmakers Ltd. www.windowmakers.co.nz
Heidi Johnston has been owner and Managing Director of North Harbour-based company Windowmakers Ltd for eight years. She is the Manufacturers' Representative on the Window Association of New Zealand executive, and has extensive experience developing property and commissioning house builds.

NOTES: .....

THE MODERN GARAGE DOOR

Local Councils now require full lock up before interior lining can occur and this includes window/doors and garage doors. This raises the issue of ordering your garage door at the correct time so as not to delay the progress of your build. In normal conditions, allow two to three weeks for coloured steel doors and three to four weeks for powder coated or custom made doors.

The best time to get a garage door firm in is at the framing stage, once the roof is on. It is easy to make changes to the opening at this point. Once the door arrives, windows are usually installed and the door is the last item to close in the exterior envelope.

- Keep in mind that the garage door installer requires the front wall lining and insulation (if applicable) to be in place first. This saves the builder having to remove the track, etc., to do the lining. Normally the inspectors are happy for this to proceed but check with your local council
- When choosing a garage door for your home you should be aware that nowadays doors are available in countless styles to enhance the character and street value of your home
- Some simple technical advice by an expert can assist with situations such as confined parking space, corrosion prone areas by the sea or even what size best suits to keep within a given budget
- Three main door types are used now: rollerdoors, tiltadoors and sectional doors. Both tilt and sectional can be made in many custom designs with plywood, metal and cedar claddings
- Windows may be added to these doors to let in light or to aesthetically match your house
- Metal doors can be chosen in a very broad colour range with a high quality powder coated finish
- Sectional and roller doors offer good security and weatherproofing along with quiet operation. The sectional door is considered to offer the most advantages to the homeowner
- Often automatic operators are offered with the facility to switch on and off a burglar alarm or lighting from the same remote control

NOTES: .....

.....

.....

.....

.....

.....

.....

4.4 Behind the Wall

THE THINGS YOU CAN'T SEE REMAIN VITAL TO THE QUALITY OF YOUR HOME AND ITS WORKING WELL FOR A LONG TIME. ENSURE THAT THE WORK DONE IS GOOD AND THAT QUALITY MATERIALS ARE USED . . .

PLUMBING

Often in the process of a building project, be it a new home or renovations to an existing home, the plumber is brought in too late in the day and has to design a plumbing solution to fit the layout already agreed. If you employ a plumber at the design stage they can offer you advice on options which could save you thousands and will almost certainly ensure a better solution for you.

There are a number of plumbing issues to consider...

- [ ] Is there enough water pressure from the mains supply?
- [ ] Are the fixtures suitable for the plumbing solution?
- [ ] Is the position of the fittings suitable for the design and plumbing solution?
- [ ] Is the pipe size adequate for the number of appliances you are currently running and are likely to add in the near future?
- [ ] Do you want water filters and how will this affect the water pressure?
- [ ] Are you adding fire sprinklers?
- [ ] Does your landscaping include water features and where do you need taps for garden needs?
- [ ] Is there backflow protection on the water features?
- [ ] How can you conserve the amount of water you use and the energy used to heat the water?
- [ ] Is there adequate insulation on the pipes so they can't be heard?
- [ ] Are the water pipes close enough to the hot water source or do you need multiple water heaters?

GAS INSTALLATION

If you employ a plumber/gasfitter at the design stage they can offer you advice on options which could save you thousands.

There are a number of gasfitting issues to consider...

- [ ] Gas appliances must be installed by a qualified gasfitter: has this been allowed for?
- [ ] Is the gas flued correctly to reduce the moisture build up and any potentially harmful gases in your home?
- [ ] Are you adding gas heating or cooking to your outdoor areas and how are you going to supply this gas?
- [ ] Do you have sufficient energy sources for your needs?

INSULATION

Insulation has a huge impact on the comfort on your home and is utterly imperative: in winter it helps keep your home warm, in summer it helps keep your home cool. The more insulation you use, the more efficient your heating will be and the lower the cost of heating. The Building Code has minimum requirements. Our strong recommendation is to exceed these as much as practicable. Be aware that gaps in installation can reduce efficiency by substantial amounts. Different products abound here, as well – you are not restricted to Pink Batts. Options include:

- **Wool insulation** is natural sheep wool (either new or recycled), and may be blended with preservatives, and polyester or resin to prevent slumping and make it pest, mould, and fire resistant. It must 95% wool.
- **Polystyrene** for underfloor use or in walls (often used to sandwich concrete)
- **Artificial 'wool'** – usually made from specially treated polyester. It is naturally resistant to fire, moisture, vermin, insects, mould and bacteria, eliminating the need for any chemical additives. It is also environmentally friendly, as it is non-toxic, non-irritating, non-allergenic and safe for anyone coming into contact with it. A high percentage of the polyester fibre in Polyester insulation products is made from recycled PET plastic, including plastic bottles and bags. And it is itself fully recyclable at the end of their lives
- **Glass** based insulation, such as Pink Batts, is usually made from recycled glass and can itself be recycled. Repeated wetting will reduce efficacy. No treatment is necessary as it is naturally resistant to vermin, insects and mould. Care should be taken with installation to avoid breathing glass fibres.

The measurement of efficiency is rated in Rs – the higher the better. There are minimum levels but paying a small amount here to increase the R-rating can make a dramatic difference to your comfort levels in the long run. Different products require different levels of thickness to meet R-level standards. New homes in different parts of the country now are required to meet minimum insulation measures as an overall measure, so if you have lots of insulation and small windows, you may not necessarily need to install double glazing (though our recommendation is that you do so). Your designer will work through this critical design element with you.

Home Automation & Lifestyle Requirements

This is not just for the blokes! New technologies allow for music to be delivered to zones within the home and even to zones within a room. Lights can be controlled from one spot – even using a remote controller that may also double up as audio visual control pad. Using these devices can mean total control over the ambience of your home as you lower lights, lower or raise volumes, turn TVs and stereos on or off, apply preset levels of all of these with the touch of a single button.

Computers are increasingly playing a role here, with hard drives being used to store music – no more loading of CDs, DVDs or vinyl records. Going to this extent is becoming more common and even required in homes of a certain budget and increasingly these features are becoming accessible to more and more people. Consultation with experts is still recommended, however, and, as with many elements, approaching the topic early in the planning is better.

- Are the speaker cables installed to the correct locations and are they protected from electrical and computer cabling?
- Are all units to be connected to the system correctly installed and onnected?
- Think about where you want the internal wires to exit for connection to appliances – do they exit where they are visible?
- Have you considered wireless internet access for home use or would you prefer to wire with computer cable to different areas so networks can be run through the home?

It's Time to Prewire

HI FI AND HOME THEATRE PRE-WIRING

If you are building or renovating now is the time to look at "pre-wiring" for your Audio and Theatre needs.

Pre-wiring is the general term given to running the audio and video cabling through the framing timber of your home. Specific cabling is run for your current and (most importantly) future Television, Stereo, Hi-Fi and Home Theatre needs.

Home buyers are expecting to see more pre-wiring and doing so can add both value and "saleability" to your home.

The benefits can be huge and the cost minimal. New technologies now available will enable you to:

- Remote use of your smartphone or PC to control heating, lights, music and even cooking and food ordering.
- Sensors to control gates, lights, music and garage doors automatically
- Digital music options allow you to choose from your own collection or subscribe to digital radio and libraries giving you access to millions of songs and movies.
- Integration TV and Internet
- Security control at home and remotely using CCTV and sensors

Who should pre-wire your home?

The pre-wiring for all A / V cabling needs to be done by a company that has an intimate working knowledge of the products likely to be installed. A specialist retailer with experienced installers is a must. They should understand the type of cabling necessary and how the quality of cable can influence the end results.

What do you need to pre-wire for?

1. **Hi-Fi** When building, it is easy to distribute music of superb quality anywhere in your home. Practically invisible speakers (they fit into the walls or ceiling) and control solutions that match your décor and budget can be used in as few or as many room as you like. Weatherproof outdoor speakers can also be wired for.
2. **Home Theatre** By putting specialised speakers around your TV and a couple behind you, a Home Theatre can be created. It is critical to locate the speakers in the right place and run good audio cables to them. Video cables (for the picture you will see) also need to be run for your TV, Plasma or Projector. The type, quality and location of these cables will make a huge difference to the quality of picture and sound..
3. **Structured Wiring** This is the general term given to the centralised wiring and distribution of Aerial, Sky, Telephone and Data cabling.

DATA CABLING With the cost of high speed internet tumbling and its speed ever increasing, more and more services and service providers are relying on an internet connection to communicate, update and better manage everything from your Sky connection to your CD collection. Internet radio and downloadable movies are growing in popularity - so the "future" really is now. Networking your home professionally is cheaper than you might think. Not doing so will dramatically affect your ability to adopt emerging technologies and will come to influence the resale value of your home.

AERIALS and Broadcast TV reception With Sky TV proving to be more and more popular and free-to-air Digital TV now available modern aerials are essential. Sky, RF and Free-to-air Digital should be run to a central panel before being distributed to the rest of your home.

PHONES Running your telephone cables to the same central services panel before heading around your home is also a great idea. Phone cabling is very cheap so don't be scared to run the cables to locations you might not think you need a phone.

Simply speaking... the benefits of pre-wiring can be huge and the cost minimal.

Editorial supplied by The Listening Post, 19 Mandeville Street, Riccarton, Christchurch

Ph: 03-377-7299; 0800 TO HIFI (86 44 34); www.listeningpost.co.nz

WATER HEATING

Heat Pump Hot Water System

Water heating accounts for up to 50% of the energy demand in New Zealand homes and so is one of the first places to look for savings.

Recently highly efficient heat pump water heaters have come onto the market, offering a simple way for homeowners to cut down on electricity costs, while still retaining the benefits of high hot water flow capability that traditional storage heaters offer.

Heat pump water heaters transfer renewable "free heat" from the air to water in a storage vessel, via a refrigeration cycle. Because the system is merely transferring the heat, not creating it, the system is VERY efficient. A quality heat pump water heater is at least 300% efficient. That means for every $1 of electricity needed to run the heat pump, the equivalent of $3 of heat energy is transferred.

Quality heat pump water heaters will still operate efficiently to below zero ambient temperatures and do not rely on direct sunshine to deliver effective heating.

Heat pump water heaters can be installed quickly and easily by suitably trained and qualified tradesmen.

Solar Hot Water System

A solar system will save up to 75% of the energy used to heat the water in your home.

Good timing: when building or renovating you will need to install a water heater. Instead of purchasing the standard electrical or gas water heater, think about the long-term benefits of purchasing a solar heater for a small incremental investment.

- Use an accredited supplier. Accredited suppliers comply with the Solar Code of Practice
- Use an accredited installer
- The water cylinder should be bigger than 50 litres per person
- You need a north–east to north-west facing roof with no shading between 10 am and 3pm
- Consider materials and construction of the solar system to ensure long life
- Fewer moving parts mean greater reliability
- During low radiation periods, the solar system can be boosted with electricity, gas or even a wetback.
- In addition, Government funding is available for some accredited solar systems - so there is no better timing to switch the power off and turn the solar system on.

WATER CONSERVATION

A carefully designed water system within the home is an essential part of the sustainable building process. Thousands of litres of water are wasted in New Zealand homes every day – from water sitting around in large pipes to inefficient plumbing practices.

A plumbing system can be designed for your home to ensure water is being directed to its source in an efficient and timely manner, and only taking what water is required. Where the Hot Water Cylinder is positioned, what type of pipes are used in the home design and how water is distributed around the home can end up saving homeowners thousands of litres of water annually.

A home with a water design that is smarter will use significantly less water than a traditional home. It will also cost less as hot water gets to its destination quicker - meaning that water heads straight where it is required without sitting around in big 'feeder' pipes to serve different areas of the home. Hot water wastage can be reduced by up to half by using one of these systems. This will not only reduce costs but contributes to the protection of our future water supply.

FOR WATER CONSERVATION AND SUSTAINABILITY CONSIDER:

- A manifold system where water is directed straight to its destination
- The size of the pipes delivering water to the different areas of your home
- How to best move water around the home
- Greywater recycling to make the most of unused water from the bath, shower, washing machine or sink
- Insulating hot water pipes for energy savings
- Using a water efficient showerhead which can save you hundreds of litres of water a year

Editorial supplied by LEAP Australasia Ltd

4.5 Services & Utilities

THESE ARE THE ITEMS THAT KEEP THE HOME 'ALIVE'. INCREASINGLY, THE ENERGY WE CONSUME AND HOW IT'S USED IS BECOMING A MAJOR CONSIDERATION AS COSTS INCREASE – HERE'S WHERE TO REALLY PLAN FOR THE FUTURE...

GAS

There are a number of reasons to consider gas as an energy source in your home. Gas is cleaner burning than coal or wood, although modern wood pellet burners are very environmentally friendly. There is plenty of gas to continue the supply to the domestic market. **See: www.ganz.org.nz/plenty**

And, if you don't have access to natural gas that is piped to your home, there is always the option of using LPG in the form of gas bottles to run gas appliances - the bottles can be housed outside the home and piped to specific gas appliances.

ELECTRICAL

You'll be surprised at just how much wire goes through a modern house, but given the number of electrical fittings, you need it! This is where good planning can really pay dividends – think not only about what you want now but what you may need in the future. Entertainment, Lighting, Home Automation and Security are all elements of the electrical fitout that may need specialist attention. Consult widely during your planning. For lights, light switches and powerpoints, walk through the plans with your designer and project manager to ensure that they're in positions that are convenient and functional.

- Do you have sufficient powerpoints through the house and in the right positions?
- Are the powerpoints, light switches, intercom boards installed evenly with each other and other elements on the wall?
- Is your home entertainment system hard wired into the walls (no more tripping over wire spread around the floor)?
- Have you future proofed for new light fittings, appliances or heating units and installed appropriate wiring (think outdoor heating, stereo speaker wire, outdoor lights, etc...)?
- Have you installed computer, security and stereo or other home automation cabling (better to do it now than rip holes in walls later)?
- Are they all protected from each other?

TELECOMMUNICATIONS & INTERNET

Service providers for both these technologies are increasing in number and the services on offer are exploding. Let's face it, we cannot do without telephones and increasingly we cannot do without the internet.

You now have the option of having services delivered through the cables that have traditionally brought these to you, or you can go wireless – even for phone systems (not available in all regions).

And, of course, you have the option of a combination of the two.

TELEPHONE

Services on phones have increased dramatically in recent years and you now have options such as caller ID, call hold, call forwarding and messaging with remote access to messages if you're away. These are available now and renovations and new home builds are an ideal time to review your current services to see what else is on offer. Telephone companies are now eager to offer packages combining cellphones, landlines and internet connections.

The future home may be quite different; as technologies converge, telephones will be quite different to those we are familiar with now. While new services can be speculated about, preparing for potential technologies can be as simple as pre-wiring your home with computer cable.

INTERNET

There are still areas of the country which cannot get broadband by cable. Fortunately for these areas there are satellite services, which ensure the whole country can enjoy broadband internet.

Broadband means you are connected to the internet at all times (at your control). It also has the benefit of being faster and generally better quality than dial-up connections.

One thing you can consider is to have your internet connection to your home via the regular telephone wires but have a small wireless setup within your home so that you can use your computer anywhere within the house without having to be connected to a wall! These are easy and cheap to install and ideal if you have a laptop, most of which now come with automatic wireless internet modems already installed.

BROADBAND INTERNET FACTS ARE THESE:

- It is faster than dial-up
- You can do more with it
- It will only get better and cheaper

TANKS, SEPTIC TANKS AND PUMPS: ON-SITE WASTEWATER SYSTEMS

There are specific rules governing the placement and installation of septic tanks.

1. Modern Pre-treatment Systems - A "pre-treatment" system is the first stage in handling household waste flows before discharge to land. Modern non-flush toilet systems for dwellings without water closets include:

- VIP toilets (ventilated improved pit)
- Composting toilets
- Dehydrating toilets

Non-flush toilet systems require a "greywater" septic tank and soakage system to handle kitchen, bathroom and laundry wastewaters.

2. Modern pre-treatment systems for full waterborne wastewater servicing (flush toilet "blackwater" plus kitchen, bathroom and laundry flows) include:

- Aerobic treatment plants (aerated systems and bio-filter systems)
- Advanced septic tank and sand filter (or fabric filter)

Advanced septic tanks (larger tanks with special effluent outlet filters in place of an outlet tee)

3. Modern Land-Application Systems - A range of soil treatment systems is now available in situations where trench systems are not suitable. These include:

- Dripline irrigation systems.
- ETS beds (evapo-transpiration-seepage)
- LPED trenches (low-pressure-effluent- distribution)
- 'Wisconsin Mounds' for boggy areas or thin soils over rock or high groundwater;
- ETS, LPED and Mounds use the soil to treat advanced septic tank effluent in a far more effective way than traditional septic tank and trench systems. Dripline systems disperse high quality treated wastewater into garden areas where advantage can be taken of the nutrient and water value of the effluent.
- Usually the most environmentally effective on-site wastewater system comprises either an aerobic treatment plant, or a sand filter treatment plant, both of which produce high quality effluent for use in supporting plant growth in landscaped areas via dripline irrigation.
- Septic tanks require ample topsoil and organic matter to enable bacteria to break down septic tank effluent and allow the water in the effluent to soak away effectively. The soil provides the majority of the treatment in a septic tank and soakage trench system. Poor soils result in system failure.
- The treatment process in an aerobic treatment plant or sand filter system breaks down most of the waste matter and creates nutrients for plant growth. The soil is the least important part of the treatment process, but captures bacteria and viruses to allow them to die off with time.
- Engage a Designer - A "designer" will arrange an investigation of your site, its soil conditions and natural drainage patterns, and then discuss with you where you would wish to locate your dwelling and other on-lot facilities. Check with your local Council as to "designers" operating in your locality.
- Applying for a Building Permit for Your On-site System - Your "designer" will also find out what your local District Council requirements are, and check if your Regional Council has set any special environmental requirements for on-site systems when installed in your locality.
- Using an Alternative Technology System - If you decide to go with one of the alternative technology systems now available, check with your designer as to its suitability for your site. Make sure you ask about the system's performance record, and if appropriate, ask the supplier or installer for a performance guarantee over the first three years of use.

Editorial supplied by Hynds Environmental
www.hyndsenv.co.nz

4.6 Heating, Ventilation & Airconditioning

HEATING OPTIONS ARE FAR GREATER NOW THAN FOR OUR PARENTS: ELECTRICAL, GAS, NEW SUPER-EFFICIENT WOOD FIREPLACES, GAS FIRES, IN-CONCRETE FLOOR HOT WATER OR ELECTRICAL HEATING UNITS, CENTRAL HOT WATER HEATING, HEAT PUMPS AND AIR CONDITIONING UNITS AND HOME VENTILATION SYSTEMS.

And about time, too! New Zealand homes have been woefully under-heated and it leads to illness and poor health. Make your home warm, healthy and comfortable.

HEATING CONSIDERATIONS:

- Ensure you have an abundance of insulation – remember, building code requirements are a minimum.
- Modern heating systems are generally better at heating your home and more energy efficient than the traditional kiwi approach of huddling around a bar heater.
- There is no truly 'green' heating system – all rely on some form of energy and energy production is detrimental to the environment.
- Modern wood-burners – either fireplaces or Pellet burners – are extremely efficient and emit minimal fumes.
- Un-flued gas heaters are expensive to run and potentially dangerous – they emit toxic chemicals and add moisture to interior atmospheres.
- It's important that whatever system you install is of sufficient capacity to heat your home properly – too small a unit will result in expensive bills and insufficient heating.
- Balance the trade-off between price to purchase and the ongoing cost of running the units?
- You can get built-in gas and electrical heaters that will extend the use of your outdoor living areas into cooler months, and even make the evenings more enjoyable through summer.
- Consumer magazine reports that gas heaters are comparatively expensive to run. Their findings are that woodburners are cheapest, then heat pumps.

The modern approach to heating is 'whole house heating'. Good insulation and an energy efficient heating system will heat all areas of the house at a reasonable price and help keep your family healthier through cold months.

Options:

1. Central Heating

Central heating can be fueled from gas, diesel or solid wood pellets

- Central heating can work through warm water underfloor heating or slim water radiators, or both, with the added advantage of domestic hot tap water and swimming pool heating all from the one heatsource.
- The most common heatsources chosen are gas or diesel boilers for their efficiency and lower capital cost, but hot water heatpumps, eco-friendly wood pellet boilers and even ground source or geothermal heatpumps are available.
- High up-front costs are outweighed by lower running costs and lovely warm homes.
- Modern Wood Burners and Wood Pellet Burners – Are very inexpensive to run, very energy efficient and surprisingly environmentally friendly. They have the advantage of being able to be connected to a wetback, which will provide hot water at no extra cost apart from the installation. Bear in mind, the payback time for installation of wetback depends on the frequency of use of the woodburner.
- Freestanding models are generally more efficient but if renovating and looking to replace your existing open fireplace, installed wood burners are much more efficient than your old open fireplace. Look for 10Kw output for a home located in warmer locales and that is well-insulated. The further south or for less insulated homes, higher outputs will be required – 12-14Kw is recommended.
- Wood burners heat one area, so combining with a heat transfer system is recommended.
- Wood Pellet Burners: Free-standing, Fireplace or Basement Furnace
- Wood pellet burners use waste wood, such as sawdust and shavings that are compressed into pellets. They are highly efficient and environmentally friendly. They can be used as the heat source for central hot water heating or as stand-alone burners, similar to wood burners.
- Underfloor heating provides radiant heat from the ground up which proponents claim as the most comfortable and even warmth of any heating system. These work best with concrete floors or under tiles. Carpets will reduce the level of heat entering the room. Electrical systems are cheaper to put in initially, but running costs are higher. Your alternative is warm water heating. Specific areas can be targeted; especially bathrooms and timers are usually included so floors can be heated only when needed.

2. Solar

Solar panels provide you with what is effectively free hot water. The excess can successfully be used to heat a pool. Solar generally needs supportive heat sources, especially in winter, but can successfully be used even in colder climates.

- Running pipes into your concrete slab or under wooden flooring even if you don't intend to use them will future-proof your home should you wish to install either Solar or Central Heating systems later.
- Power and gas prices are continuing to rise and are forecast to increase sharply as demand increases – Solar is renewable, sustainable, efficient and very cheap to run.

3. Heat Pumps and Airconditioning

Heat pumps work the same way your fridge does. Warm air is removed from one side of the wall and transferred to the other using coils – outside to in, if heating, and inside to out, if cooling. Because there are no heating elements to heat, they can be very inexpensive to run.

- Consider the size of the room to be heated – larger rooms require greater power capacity on the heat pump.
- The Energy Efficiency and Conservation Authority has launched a rating system called the Energy Star Mark that allows you to identify particularly efficient units.
- Buying a unit from and installing it yourself may not be the best option in the long run – installation to manufacturer's specifications is often imperative for warranties to be valid. You're also more likely to get the type of unit most suitable for your requirements.
- If doing a new build then consider a whole home ducting unit with the heat pump installed in the roof cavity and vents inbuilt into ceilings.
- Options run to wall units, floor units, ceiling units or fully ducted – choose the most suitable for your space and house design.
- You can buy a single unit for one room, or a multi-system unit for two to four rooms.
- Check how loud the unit is – some can be noticeably intrusive
- The larger the room size, the bigger the unit you will require. Remember, even though the larger unit may cost more upfront, they will run more efficiently when heating large spaces and so use less energy on an on-going basis.
- Centrally ducted air heating is when the heat is delivered into every room from a central heating system. The benefits of this system are that every room in the house is heated to a programmable constant temperature; there is flexibility in where the heat enters a room (floor, ceiling, even walls) which creates less disruption to space flow; there is good indoor air quality; it is custom made for each home's heating needs, and it is a safe and healthy way to heat your home.
- Heat Recovery Ventilation Systems - A ducted home ventilation system designed to remove the stale damp air while also introducing fresher drier air into your home. The key to the system is the heat exchanger, which recovers heat from the air inside the home before it is discharged to the outside, and simultaneously warms the incoming air. Heat recovery systems typically recover 67–95% of the heat in exhaust air.
- Advantages of heat recovery systems include:
- Reduces heat loss from inside the home
- Recovers already generated heat, saving you money on your electricity costs
- Can be easily used effectively in combination with heat pumps
- Allows effective ventilation where open windows are a security risk and in windowless rooms (eg interior bathrooms and toilets)
- Operates as a ventilation system in summer by bypassing the heat exchange system and simply replacing indoor air with outdoor air
- Reduces indoor moisture in winter, as cooler air outside will have lower relative humidity.
- Heat recovery systems meet the requirements of fresh outdoor air ventilation in Building Code Clause G4 Ventilation.

Remember, these are not heating systems, so some means of warming the house remains important to integrate into your design.

4. Gas Heaters and Fires

- Ensure your gas heater is flued (exhaust fumes run outside): unflued gas heaters, such as stand alone units using gas bottles, emit toxic gases and water vapour – adding moisture and dangerous fumes to the interior of your home.
- Efficiency is important. Though gas heaters are the cleanest burning fossil fuel, some are more efficient than others so

make sure yours is at the higher end of the scale. Ideally, look for condensing gas heaters.

- If you live in an area that has no gas supply, you can have tanks that are delivered to you, last for months and only get changed out as required.
- Decorative gas fireplaces are more for ambience and interior décor than for heating – as a general rule, their efficiency is at the lower end of the spectrum.
- Gas heaters may need electricity to run, so they are often not a guarantee of heating in the event of power failure.

As with wood burners, you will need a building consent for a fixed gas heater to be installed and you must use a Registered Gasfitter. Gas heaters must be installed by a Registered Gasfitter and a Gas Certificate must be issued for the installation. Electrical work should be carried out by a Registered Electrician and, if required, an Electrical Certificate of Compliance issued.

5. Electric Heaters

- Electric heaters have evolved from radiant bar heaters (though these are still available): Ceramic heaters, panel heaters and alternatives provide homeowners with options on how to heat their home.
- New designs incorporate elements of mass (such as concrete panels) heated by the electricity, and which then slowly releases heat into the home.
- There may well be a use for smaller, portable, electric heaters for 'spot' heating – much cheaper than heating the whole house.

6. Home Ventilation Systems

Modern homes are well sealed to ensure warmth is retained and moisture is kept out. Unfortunately, with no outside air coming into homes stale air that may also be contaminated with fumes from things as inconsequential as furniture or treated wood in cabinetry, is also retained, as is moisture from showers and cooking and so ventilation systems can be very beneficial to the healthy state of a home.

- Home Ventilation systems bring in fresh air from outside and deliver to selected rooms within the house.
- There may be some aid to heating your home as sometimes the air brought in may be less humid than the air inside – and dry air is easier to heat but they are not heating systems in and of themselves.
- Some systems gather air from the roof cavity. Air heated during the day is collected, filtered and then disseminated through the house. This can result in warm air being delivered inside during the day, and cool air during the night as the roof cavity cools. They are not, however, a heating system, unless they have that feature installed.

The area you want to heat	Heat Pump Capacity
15 to 25m^2	3,000 Watts
25 to 35m^2	4,000 Watts
30 to 40 m^2	4,500 Watts
40 to 50m^2	5,500 Watts
45 to 55m^2	6,000 Watts
50 to 60m^2	6,500 Watts
55 to 65 m^2	7,000 Watts
60 to 75 m^2	8,000 Watts

m^2 Assumes ceiling height approx 2.4m Single storey dwelling.
Well insulated floors, walls.
Indoor design temp 20˚C and outdoor ambient 7˚C

MODERN WOOD BURNERS AND WOOD PELLET BURNERS

With the correct fuel – wood that has been properly dried – modern wood burners are very inexpensive to run, very energy efficient and surprisingly environmentally friendly. They have the advantage of being able to be connected to a wetback, which will provide hot water at no extra cost apart from the installation. Bear in mind, the payback time for installation of wetback depends on the frequency of use of the wood burner.

Freestanding models are generally more efficient but if renovating and looking to replace your existing open fi replace, installed wood burners are much more efficient than your old open fireplace. Look for 10Kw output for a home located in warmer locales and that is well-insulated. The further south or for less insulated homes, higher outputs will be required – 12-14Kw is recommended.

With a wood burner in one area, combining with a heat transfer system is recommended.

10 reasons to buy a wood fire

1. Wood fires are designed to heat the entire house, not just a single room.
2. Wood fires use a sustainable fuel - wood!
3. Wetbacks can be fitted to some wood fires, which can supply the entire home's hot water needs.
4. Wood fuel is carbon neutral.
5. Can be used for cooking - again great during power cuts.
6. Running a wood fire is the cheapest form of heating.
7. Clean air approved wood fires are affordable.
8. Wood burners are not affected by power cuts.
9. Do not product moisture.
10. There are many options for design that will suit your décor and a fire adds ambience lacking with other forms of heating.

WOOD PELLET BURNERS:
FREE-STANDING, FIREPLACE OR BASEMENT FURNACE

Wood pellet burners use waste wood, such as sawdust and shavings that are compressed into pellets. They are highly efficient and environmentally friendly. They can be used as the heat source for central hot water heating or as stand-alone burners, similar to wood burners.

4.7 Flooring & Interiors/Furnishings

THE 'ICING' – THESE ARE THE ITEMS THAT HAVE SUCH AN EFFECT ON THE AMBIENCE OF YOUR HOME, WHERE CREATIVITY CAN BRING A MEMORABLE AND PERSONAL TOUCH...

FLOORING OVERVIEW

The range of floorcoverings now available has grown enormously over the years. Each product has its own features and benefits so it is important that you understand these to make your own informed choices about floorcoverings as it is a big-ticket item and has a major impact on your interior design.

When building or renovating your home – don't feel confined to the tried and traditional – check out commercial fitouts, showhomes and design shows to gather your ideas and information. The web is also a fabulous source of product options and possibilities. Be sure to mention your builder or specifier details to your floorcoverings retailer, as you may also be able to obtain special pricing or additional services. If using an interior designer or specialist, be sure to provide the features and benefits that are important to you and give feedback on any queries you may have but remember they can also see the big picture of all your elements together and on a bigger scale.

Let your floorcoverings be the perfect palette for the rest of your home, space or fitout and invest in the best you possibly can – you will enjoy the many years of service in return.

1. Carpet

- Carpet is still traditionally one of the most economical forms of floorcovering on a square metre basis because it's a product that primarily is installed directly over underlay and the sub-floor surface, where most other forms of floorcoverings have labour and product requirements to prepare the sub-floor.
- Carpets are a classic example of getting what you pay for – as a guide domestic carpets are graded heavy duty (5-7 year product) and extra heavy duty (10-12 years plus product) and generally weighted with the amount of yarn within the product – the higher the weight, the more yarn is incorporated into your product (and the better). A cheaper carpet may look just the same as a more expensive option from the samples but after a few years of wear there is definitely a difference in appearance.
- Carpet is produced either as a cut-pile where the top of the carpet fibre is cut to create a look of luxuriousness and softness. As a cut pile relaxes and blooms the fibres also soften and so if you have a big area with a join this assists with the join becoming less obvious over time. The other construction method is a loop or textured loop-pile style where the fibre "loop" is not cut – giving you a stronger yarn and better appearance retention in the years ahead. Again the popularity of both styles varies in the marketplace and depends on the other elements of your home you are bringing together.
- New Zealanders have historically been drawn to wool carpets but the array of other options is fast changing, with new synthetic products from around the world now available here.
- There is no right or wrong option, as a good quality wool carpet and an equally graded synthetic one both provide great comfort underfoot, but there are some differences:
  - The selection of colours is about the same, although wools have more loop-pile options.
  - Pricing is about the same for comparable products but some of the features and benefits are where they start to stand apart.
  - The two main strengths of a good synthetic – a solution dyed nylon or equal – are its fade resistant properties and serviceability (being stain-proof and easy maintenance). Some can be cleaned with a bleach mix.
  - Most of the new synthetics also have a man-made backing – an attractive anti-rot feature for homes where concrete subfloors may have moisture issues.
  - Wool, on the other hand, can absorb and release up to a third of its weight in airborne moisture without becoming wet to touch – making your home a drier and healthier place. It is fire resist and naturally hypoallergenic and, being a natural product, has the ability to age gracefully.
- If you are concerned about the environment check product claims. For example an overseas product may have environmental advantages but will also have accrued carbon miles getting to NZ.

- New Zealand wool carpets are supporting our own economy and wool farmers and can also be returned to the earth for weed matting, worm farms or compost.
- Most manufacturers have a range of wools and synthetics products and, again, the importance of putting your trust in a reputable company and carpet manufacturer is recommended.
- A good underlay and installation using correct methods are important aspects to this too – just because you can't see the underlay don't overlook this important part of your carpeting – bonded foam is currently the most common underlay used and again like carpet the weight of its bulk density dictates its quality – the lower the weight, the lower the quality.. There are other specialist underlays for installations with glue for commercial or wheelchair needs and premium underlays such as urethane for those wanting the very best.
- When looking at the price of carpets, these are usually detailed as a lineal metre price. A lineal metre is 3.66m wide (12 ft old school) or some of the newer nylons are produced on a 4.0m wide loom. You should only use these prices as a guide only - what is the most important is the "on the floor" cost including a good underlay and installation. Your carpet specialist should go over your layout and plan with you indicating where joins are placed throughout your home.

Choosing your Carpet

- When it comes to furnishing your new home or extension, the floor covering should be considered early in the decorating scheme as it is the foundation from which you build up a decorating plan.
- Berber and Wooltweed relate to the colouring of the carpet and can refer to either cut or loop piles. Berbers are carpets of naturally earthy tonings such as cream, beige, brown and gold. Wooltweed carpets combine small flecks of many colours on a single base colour.
- Light colours tend to show dirt more readily. Blues and green create cool, calm surrounding while colours such as pinks lemons and apricots emphasise warmth and welcome.
- Check samples under your own night lighting conditions - perceived colours vary according to lighting. Remember, the colour you choose for a room can enhance the feeling you've created throughout the house.
- Weight refers to the amount of wool used to manufacture of the carpet (i.e. grams per sq metre). It is a manufacturing term and not an easy reference for the consumer to use. A carpet with a weight heavier than another is likely to be more expensive but not necessarily a better wearing product. You'll find a label on the back of carpet samples specifying their recommended usage. This will help you gauge the performance you can expect from the carpet.
- A good underlay is essential. Good carpet works in combination with underlay, extending the life of the carpet. Underlay reduces the wear on the backing, adds to the carpets insulating qualities, and gives a softer; more luxurious feel. A quality carpet retailer will advise you on the best underlay for your situation... but remember cheap is not necessarily best.

2. Vinyls, Vinyl Woodplanks and Tiles

- Modern sheet vinyls from Europe are finished today with slip resistant and easy clean properties.
- They replicate many looks and styles from woodplanks through to leathers, slates and more.
- two-metre wide sheet vinyl is still the most common in New Zealand but vinyls also range in availability through to 3-metre and some 4-metre wide products, often helping avoid joins.
- Sheet Vinyls usually have what they called a Cushionback giving you softness and comfort underfoot.
- Pricing on sheet vinyls installed to your home is generally more than carpet but less than a vinyl woodplank or tile option, or engineered timbers or corks on a like for like quality.
- Vinyl Woodplanks and Tiles are just as they sound – a plank and tile format installed as individual pieces looking like a real timber or ceramic tile but giving you the easy maintenance and cost saving feature. These products come in domestic and commercial grades and a variety of sizes. The price point for this option is generally above carpet and vinyl on a like for like basis.

3. Cork

- Cork is now prefinished and even coloured and available in four modern sizes.
- It is resilient yet extremely durable, natural, warm, soft, absorbs noise, keeps you cool in summer and warm in winter. It will give you many years of use and is able to be resurfaced. Cork is not one of your cheaper options for floorcoverings but its features and benefits definitely provide worthy consideration for their lifetime value, investment and return.

4. Timbers

- There are a large scope and range of products and options
- Engineered Prefinished Timber has a real timber surface but a manmade backing. They usually click or lock together and can be installed over special underlay or direct stuck to your sub-floor.
- Products on the market start at an 8mm thick option and move through to a 14mm and 21mm option. The finishes are either a Plank style or a 2-Strip or 3-Strip style – the Plank option within the same species family is more expensive because when they manufacture 2-Strip and 3-Strip products they are able to use more of the timber.
- Solid Tongue & Groove timbers are available in a variety of thickness and widths – 19mm solid T&G is commonly used in New Zealand and often if you don't want a 19mm you may pay for it to be milled down anyway.
- Native species are more expensive.
- Finishes include stains and lime washing along with traditional polyurethane or the newer more environmental friendly water based polyurethanes but be aware that these newer options have a quicker need for maintenance and resurfacing.
- Remember that with any timber, a species colour is a good guide but every tree is different so it is a natural characteristic to have colour variance, texture and grains throughout even the same box of product.
- If considering a timber option, you will need to remember to leave skirting boards until after the install (or consider this for

renovations) and leave the kitchen toespaces off until install is finished.

- On new concrete subfloors the relative humidity must be at a certain level before installation can take place – timber is a natural product and if your subfloor is too wet it will absorb this moisture and then release leaving you with a multitude of problems. There are moisture barrier systems available that can be installed prior to timber if you do not wish to wait for your subfloor to reach the percentage required.
- A timber floor is likely to be one of the most expensive options you can consider.

5. Other Options:

- **GARAGE CARPET** - usually a polypropylene needlepunch product is used that won't rot and is extremely hard wearing. Garage Carpet gives you an extra play or work space in your home, reduces the amount of travelling dust and surprisingly keeps the rest of your home warmer with internal access not to mention that added value of garage carpeting when selling or reselling a home.

- **DESIGN AND CUSTOM OPTIONS** - New Zealand has carpet producers who are able to replicate your every wish for carpet colour, design and style – you do of course pay for this privilege but it is available.
- Natural Fibre products such as Sisals and Jutes look beautiful in a full wall to wall installation as well as the popular option of having a fabric or leather bound custom made mat.
- Wallcoverings are a product originally from the educational and commercial sector that is also taking hold in the domestic market for home offices, theatre rooms and child friendly spaces and bedrooms. Bright colourful options in a 12mm thick product means there is no noise transference between rooms and provides a surface for pinning and attaching to.

Editorial kindly supplied by Gerrand Floorings in Mt Maunganui
www.gerrand.co.nz

SOFT FURNISHING TIPS

It's important to use specialists when furnishing your biggest asset and investing in the right products will make all the difference.

Here are some points to consider when looking to purchase drapes and blinds:

Get a budget established before starting. To save you a lot of time looking at product that may not suit your situation. Custom made curtains and blinds are almost always dearer than ready-made products.

Use a reputable company specialising in soft furnishings. They employ people of high standards, often with interior design experience. They will have a wealth of knowledge of fabric composition, colour, styles and practicalities.

Don't pay for quotes. You don't need to. Companies who charge for quotes may tell you their expertise is more valuable than others. This is very unlikely, if not misleading.

When possible choose your carpet and curtain fabrics before, or at the same time, you choose your paint colours.

When considering the design of your drapes give thought to the size of the room. Often lifting the rods 100-200mm above the frame or even up to the ceiling will make the room feel bigger.

Drape length can be a personal thing, whether you like them well off the floor, just to the floor, or dragging on the floor. Remember if you have them touching the floor you won't be able to achieve a structured look from your drapes as the fabric will loose its pleated look as the fabric drags on the floor.

If you are wanting to give your home a contemporary look use sunscreen blinds as sunfilters instead of net fabric. This gives nice clean lines to the window and lookAs great from the outside.

Drapes made using linen, cotton or hemp will move up and down. They look great but make sure you have these fabrics well on the floor.

Express your personality. Not every room in the house has to have the same fabric or style. Enjoy your designing and buying experience. Choosing a drape company that has a good reputation and that care about your purchase is important.

Don't assume that paying a high price for your fabric means you are buying long lasting fabric.

Comparative quotes. If you get more than one quote make sure that you are getting "apples for apples". In other words, make sure it is the same fabric, lining, style, meterage, and tracking. You may find the dearer quote could be the "cheaper" quote if the same product was quoted on.

Get a written guarantee. Whilst you are covered by the Consumer Guarantees Act, you should always get a guarantee of workmanship and quality.

Supplied courtesy of Auckland Drape Co.

INTERIOR DOORS

When considering the doors to be put inside your home, price, as always, is a factor, but also think about some of the long term implications of what you buy, which can have a major impact on the value of your home and the quality of your living.

Solid timber panel or veneer doors can help in reducing both sound transmission and heat loss. Reducing internal noise creates an ambiance inside your home that is hard to beat and with an increase in heat retention during winter you will subsequently enjoy cost savings in power.

Editorial courtesy: Parkwood Products

INTERIOR & EXTERIOR PAINTING

The finishing is all important but the surface preparation work is critical to the quality of the final paint finish. Allow plenty of time for surface preparation. Many paint failures are caused by poor surface preparation.

- Ensure paints are suitable for the area. Specific areas like kitchens, bathrooms, doors and window frames need different paints from general wall areas.
- Invest in good quality paints. The quality of paint has no impact at first, but over time, quality paints maintain their sheen, colour and finish for longer than cheaper paints that will fade and weather more readily.
- If using a professional painter, ensure that the colours and paints used are the brands you specified, not cheaper alternatives.
- Don't paint in very hot or very wet conditions. If too hot the paint will dry too fast and give you a patchy result. If too wet the paint won't be able to cure and long term performance may be affected.
- Don't skimp on your decorating accessories. The best paint job is achieved with the right brush, roller or application equipment for the job. If you use a cheap poor quality brush with high quality paint you will not get the best performance out of the paint.
- Always clean out decorating tools well at the end of each job and hang them by their handles. Quality decorating tools treated well can last for many paint jobs.

Always use a testpot to confirm your colour choices in the areas you are planning to paint. If in doubt that a colour you are looking at on a colour chart may be too dark, choose a lighter colour. Colours will look more intense when they are painted onto a large area.

When selecting colours, don't forget to factor in the gloss level. Most colour charts are produced using low sheen chips. If you use a gloss finish it will look brighter and cleaner; if you use a flat finish it will look darker and more intense. If you have a less than perfect surface, use a lower sheen paint. The lower the sheen the more imperfections the finish will hide.

INTERIOR DESIGN

Now you have a fabulously designed home, consider the interior fitout – ideally it will match the exterior for taste and quality, at the very least it should match the style. Colour consultants, interior designers and decorators (not necessarily the same thing), have increased in numbers as more people realise that to achieve a certain look is not that easy.

- Interior designers can be brought in early to work with the architect or architectural designer to provide a second opinion and counterpoint on the layout of the rooms and their relationship to each other
- Pick a theme and be true to it. If you are striving for a traditional home, use materials, textures and styles that are true to that style. Once you have selected your theme, your decorating decisions will be simplified because you will have a unifying theme guiding your decisions.
- This is where you live – think hard about the colours and materials you will be surrounded by
- Use accents in each interior room. Aim for a focal point in each area and develop the room around this. Typically the focal point in the dining room would be the table, in a bedroom the bed and duvet and in a kitchen it is often the splashback.
- What colours do you like and are they appropriate for the rooms you'd like to use them in? (some colours increase energy, others are cold – consult a colour consultant or look up on the internet)
- Soft furnishings are both functional and decorative. Closed drapes are very effective at preventing heat loss as well as providing privacy but they make up a large visual area so carefully consider the design before having them made and installed
- If you want to use the latest fashion colours and trends, use them in areas that will be easier and cheaper to update – such as accessories, cushions and paintwork, rather than in furniture and carpet, and be prepared to update them when the fashions change.

INTERIOR LININGS

The plasterboard options are increasingly varied as manufacturers produce interior wall boards with noise reduction, additional insulation, fireproof and waterproof for different applications.

- There are alternatives to plasterboard, too. Plywood, wood veneer panels, glass and fiberglass have been used and there are now also bamboo sheets.
- Negative details create clean, sharp lines that leave ceilings floating or subtly frame walls with recessed channels surrounding windows, doors, and at wall-to-floor ceiling junctions.
- Feature walls and ceilings can be created with other techniques such as bulkheads, false beams, partitions, curved walls, voids or recesses to create interest, separate spaces an style. Talk to your designer
- Level 4 and 5 finishes are most commonly specified in residential home construction.
- Level 4 is the generally accepted level of finish; it is used where non-critical lighting falls on satin/flat/low sheen paints or wallpaper.
- Level 5 is for use where gloss, semi-gloss or dark tone paints are specified or where critical lighting conditions occur on satin, flat matt or low sheen paints.
- The key difference between Level 4 and 5 is that level 5 requires the entire surface of the wall or ceiling is covered in a thin layer special compound called a "skim coat" to remove surface textures and porosity. Stricter framing and installation requirements are also needed to ensure a level 5 finish is achieved. Due to the extra labour costs, the skim coat process can add an extra $150-$250 to the cost of one 15m2 wall.

Information sourced from Gib Living Interiors

Website to visit for more information: Interior Systems Association of NZ (ISA) www.awcinz.org.nz

LIGHTING

The right atmosphere can be created by well designed, carefully planned and executed lighting installation: to eliminate contrast and create balanced light in a room.

There should be at least three kinds of lighting:

- Soft, indirect ambient light should illuminate the whole room with a glow
- Task lighting should be positioned (usually between the top of the head and the work surface) to enable working or reading
- Accent lights should be used to highlight artwork and decorative objects. (A decorative light like a chandelier is a fourth, not necessarily essential, component of lighting design; it should never be the sole source of light in a room because it throws everything else into darkness)

There are fantastic effects that can be created using the right lights in the right positions. But also make sure you have lights that are sufficient for work you have to do, such as over kitchen benches or where you like to read. By all means consult lighting designers. Their services can make a huge difference in the quality of your finished installation. The lights themselves can be a significant portion of your budget and are very much a fashion statement if you want them to be. Consider whether they will be seen and spend accordingly, with more money spent on lights that occupy highly visible positions. As a rule of thumb, it is recommended that you allow approx 1.5 to 2 % of your total budget for the lighting.

- Consider how you use a space, and what degree of lighting flexibility is required over time (over a day, or as room use changes over a few years)
- Consider how the space itself 'works' architecturally, and what aspects of it could be highlighted or hidden; the colour and texture of the surfaces being lit; whether you have particular paintings, objets d'art or materials that you wish to make a feature of.

Human eyes don't like to deal with extreme contrast because it creates eye exhaustion, therefore look to diminish contrast in a room that you will be in for a long time.

REMEMBER – if you can't afford a particular light you want, you can always run cable to the point of installation and just leave a bare bulb there for a short while, which is far better in the long run than removing the light from your plans altogether and ending up with something you won't be happy with.

- Consider low and non-direct lights in areas such as the bathroom that you may visit during the night
- Consider lighting in closets as this can help illuminate dark corners.
- Consider practical considerations such as ease of changing a light bulb, or not placing hot light fittings where they may be touched
- Consider the bulb beam width: this effects where light goes and the intensity of contrast between light and shade

Outdoor lighting can open up gardens for night time enjoyment and the old days of spotlights over the deck are rapidly disappearing, with lighting helping create outdoor rooms for entertaining into the night.

Even light switches can be fashion pieces – the choices are far greater than the old standard white buttons. Are the light switches conveniently placed and in the correct position? Don't worry about having too many switches but now is a great time to consider installing home automation products that can control your lights – see our Home Automation and Pre-Wiring sections

- Is the kitchen lighting and other task lighting sufficient so that no shadows are produced?
- Have you considered dimmers? Dimmers create lighting flexibility within a room – from bright to relaxed
- Are the transformers correct for the types of lights you have installed (if required)?
- Are the lights selected correct for the specific job you want them for?
- Are the light fittings in the correct position on your plan, taking into account the tasks you wish to undertake, or the ambience you wish to achieve?
- Has the electrician created holes for the lights in the correct position as per your plans? And during installation, has the electrician installed the correct lights in the right places in the right way?

4.8 Kitchen & Bathrooms

THE KITCHEN IS WHERE FRIENDS AND FAMILY SPEND A LOT OF TIME AND INCREASINGLY IT'S THE HEART OF THE HOME, WHICH IS WHY WE'RE DEVOTING SO MUCH SPACE TO IT.

Kitchen Design

New designs, new gadgets and features make kitchens one of the more fun elements of your new home to plan. The layout of your kitchen will be largely dictated by the available space and its relationship to other rooms and traffic flows, but there are elements within the kitchen itself over which you have a wide range of choice.

- Consider how much storage space you need.
- Remember the golden triangle of sink/bench, fridge and hob and try to make sure it's not too big or things are in the way.
- Do you have enough bench space (depth as well as length)?
- Think about rubbish handling – recycling of cans and glass and compost bucket for organics.
- Consider the traffic flow in and around the kitchen. Are there areas where work collides with traffic and how can this be redesigned to minimise impact?
- Think about the possible reflection of the sun off stainless steel.
- Do the rubbish bins you've selected fit under your sink with the assorted drainage and water pipes?
- Where and how will you store cleaning products, especially for easy access?
- Water filters are regularly thought of but how about a soap dispenser?
- Are the handles easy to use – can you get your fingers in; will they be dirt traps?
- The kitchen tap is the most used in the house – get a good one.
- Are the materials chosen for cupboard/drawer facings and benchtops easy to keep clean and durable?
- Do you have sufficient lighting and lights in places where they're needed?

Gas is a great way to cook. You can precisely control the temperature which is one of the many reasons why chefs prefer to cook with gas. It gives fantastic indoor and outdoor cooking options, with a wide range of ovens, cooktops and barbeques in the latest styles to suit any home and budget.

Even if gas is not available in your street, you can install large home use tanks that will last a household months and can get replaced whenever you want.

BENCHTOP(S)

Today a growing number of materials are available for your benchtop and therefore selecting the proper kitchen worktop surface can be confusing. Deciding what style suits your kitchen and what material you choose defines in most cases the budget required. It is an important step to get it right.

Deciding what material to use is only the beginning, with similar options to Splashbacks. Additional decisions have to be made, however:

- What edging profile do you want?
- How thick do you want your benchtop to be?
- Do you like the quality and visual impact of stone or the simple functionality of stainless steel? Laminate benchtops offer an almost bewildering array of colours and designs that can help you create a major impact
- Consider different heights on the benchtop between breakfast bar and work area, or recesses within the bench for the sink and/or condiments or decorative items
- If installing an island or standalone bench projecting from the wall, do you want to have a wall to hide the work area?
- Be aware that templating may be needed to shape the benchtop to a particular space and if this is the case then there may need to be a temporary benchtop to bridge the time span

Natural Stone is considered the top of the range choice for your kitchen benchtop, with Granite as the most commonly used material and chosen for its proven durability and lasting value. Granite worktops are available in polished and matte finishes, are heat, scratch and wear resistant, but require sealing to prevent staining and are expensive.

Engineered Stone is a composite product which uses granite chips as its main component and adds resins to create a uniform stone surface. It is non porous, has good scratch, heat and stain resistant properties and does not require additional sealing, but is expensive.

Solid Surface is a composite product which uses acrylic and/or polyester polymers as its main component and includes colorants and stone chips to create a homogenous, non porous surface. The surface is lesser scratch, heat and stain resistant, but easier to repair and is also expensive.

Stainless Steel is highly durable, heat and stain resistant but does scratch (although the patina of scratches gives depth to the surface over time and they come to provide a depth to the benchtop). Mid-range in price, Stainless gives a kitchen a strong, modern and functional feel.

Concrete is strong, moldable, heat and scratch resistant but requires sealing to prevent staining. It's heavy, so requires good bracing, but gives a kitchen a strong bold statement and fits with modern decors.

High Pressure Laminate (HPL) is traditionally the most commonly used kitchen worktop protection and available in endless patterns, textures and colours. The development of new benchtop products such as Engineered Stone has had a positive influence on the laminate industry. New laminates are being launched providing depth and texture for a new luxurious look. Better abrasion resistant surfaces are being engineered to provide improved wear and scratch resistance. A wider range of edge finishes can be achieved, such as tight radius bending "Tight-Roll" simulating an Engineered Stone edge appearance. HPL is comparatively inexpensive, is non porous, resists staining and is easy to clean. Although the surface is less scratch resistant, with normal care the benchtop will last for many years.

Care should always be taken whatever the worktop surface product you choose. Ask your benchtop manufacturer for advice.

SPLASHBACKS

Splashbacks are a given in the modern kitchen but the choices are many:

- ◆ Tiles
- ◆ Glass
- ◆ Stainless Steel
- ◆ Laminate
- ◆ Concrete
- ◆ Stone

- If using glass, ensure the manufacturer uses good quality manufacturing techniques and quality glass
- Do you want the splashback to run the full length of the benchtop or just behind the hob?

SOLID SURFACE BENCHTOPS

Solid surface benchtops and vanity tops have been around for over 25 years. While some benchtop innovations are fads and trends that will disappear before long, the solid surface benchtop is still gaining popularity in the modern kitchen.

Advantages of Solid Surface

1. Non porous - keeps bacteria away, promoting a cleaner and more sanitary countertop.
2. Strong - unlike laminate, the plastic goes all the way through, and thus resists impact better.
3. Scratches can be sanded out - by far, the greatest advantage of solid surface benchtop material.
4. Wide range of colors possible - infinitely "tintable".

Solid Surface Brands

Popular brands of solid surface benchtop materials include imported brands Corian, Silestone, Staron, Roxx, Infinity and Caeserstone and the New Zealand manufactured Kymira.

Local Versus Imported Product?

The locally manufactured product (Kymira) has over 600 standard colours, an infinite range of thicknesses and widths and a 3 week lead time for a custom made product. Price for the local product is generally lower than for imported product. The choice in imported tops are of necessity quite limited by comparison.

APPLIANCES & RANGEHOODS

The options here, too, are many and varied. Different power supplies – gas and electricity – and different hob types – gas, electric-ceramic induction cooktops or electric – provide additional choices.

- Hobs can be seamlessly integrated with Stainless Steel benches
- Solid cast iron trivets (the 'frames' on which pots and pans sit while being used) are generally better but are more expensive
- Stand alone ovens are an aesthetic option for a more commercial or traditional kitchen look
- Rangehoods provide a way of further enhancing a chosen style. A built in rangehood is a minimalist option or the new square ultramodern designs work for contemporary kitchens. At the end of the day, choose what you like
- Wall ovens can be placed at chest height or under bench – there are good reasons for each position but it's often dictated by the shape of the kitchen
- Consider the new combination microwave/convection ovens for use as a second oven, giving you greater flexibility for cooking.
- Double door fridges provide additional cold storage if you have room and icemakers are a luxury that can become a necessity surprisingly easily once you get used to them.

BATHROOM

Another exciting part of the project is creating your bathroom. The kind of environment you want your bathroom to have is dictated by materials, space and finish and much of the advice given to kitchens, applies here, too.

- Tiles are an obvious choice of material here but wooden or concrete floors and painted walls have their place (carpet is not recommended, however)
- The fashion is for larger tiles rather than smaller and these help convey a sense of a larger space when the room is small; conversely, small mosaic tiles are still very fashionable and work well in small spaces, too
- Fixtures come in a range of materials – examine the performance characteristics before making decisions
- Don't forget ventilation and heating – especially underfloor heating (very nice in the winter!) - the room must be able to be fully dry within 30 minutes
- Tapware is important to the look and feel of your room and modern built retro designs are an option along with modern designs; consider large mirrors to make small bathrooms look bigger
- The towel rail should be as big as you can afford and fit – more people, more towels
- The waterproofing is essential so don't scrimp – even though you can't see it, incorrect application will be costly in repairs
- Have you got toughened glass rather than tempered glass in the bathroom?
- Is the tapware correct for your water pressure?
- Lighting is important, from task lighting for makeup application, to soft non-directional lighting for relaxing baths or midnight visits
- Can you fit two basins in, or one large one with two taps, so that two people can use the basin at the same time?
- Does the layout work – can you open the shower door without hitting anything, or bend over the sink without bouncing off the wall behind you?
- Is access to the shower and bath easy? Does the door open the right way?
- Do you have sufficient storage for everything you want to keep in the bathroom (makeup, first aid, personal products, medicines (not recommended because of temperature and moisture fluctuations), bathroom supplies)
- Natural lighting is often sacrificed here: consider installing a roof window or solar tube
- Where Glass is mentioned showers must have NZ Safety Glass to ensure Council signs it off
- Check product warranties when selecting bathroomware and after sales service
- Only use qualified installers
- When cleaning acrylic showers only use products that are clearly marked and identified as suitable

Magazine Directory WHERE TO GET GREAT IDEAS...

LAUNDRY

Every home needs one, whether space is at a premium and the laundry is shared with the kitchen or bathroom, or you can afford to spread out and have a separate room.

- Consider storage for all those items you need here – detergents, clothes baskets, ironing board and iron
- Is this at the back door – if not, how will you access the clothesline?
- Have you considered a rack for drying clothes inside?
- Are the appliances easy to access and fill and empty?
- Is the lighting sufficient for the tasks being done?
- Is the door here (if there is one) suitable for pet doors?

STORAGE

- Storage is critical for all the things you collect over the years and are convinced you need to keep
- Access to the roof cavity using pull down attic doors can give a huge amount of usable space otherwise being wasted, or consider trapdoors to under floor space for things like wine cellars
- Cleverly designed and located cupboards are incredibly useful. Look for opportunities during the design stage and add them wherever space and budget allow
- You can never have too many cupboards!

PRINCIPLES OF GOOD WARDROBE DESIGN

Wardrobes have come a long way from being "just a shelf and pole" – providing poor storage and sagging in the middle! Now a good designer can incorporate everything from double hanging spaces, drawers and sliding shoe shelves, to pull out mirrors, laundry baskets and even an ironing board.

Today, "reach-in wardrobes" are most common in children's and guest rooms while most new homes are being designed with "walk-in-wardrobes" in the master bedroom, with enough space to suit your lifestyle and needs. There is an increasing trend in high end homes to have "built-in wardrobe furniture", where clothing, shoes and accessories can be displayed.

A custom designed wardrobe gives the best result as a good designer will ensure that every inch of your wardrobe is used in the best possible way and provide considerably more space for useful storage. Wardrobes should be designed to fit your personality and individual needs rather than the traditional 'one size fits all', approach.

When supported by a good factory, a great wardrobe designer can provide you with wardrobes in a range of styles and colours. When choosing a wardrobe company for your storage needs, select one that uses New Zealand made materials and quality accessories, you'll have greater design flexibility and if you ever want to add to your wardrobes in the future, you can be certain of a product match. Most importantly, check how the system is attached to the wall – solid mounting rails, preferably two, are best to ensure your wardrobes stay on the wall and to minimise unsightly gapping.

Spend time with your wardrobe designer to come up with wardrobes that are ergonomic, stylish and suit your requirements for tomorrow – not just today. Consider your room design and decorative choices also.

Here are some key design issues to consider and discuss with your wardrobe designer:

- What style and colour of wardrobe do you prefer?
- What shape of wardrobe, i.e. L-shape, galley style etc. will make the best use of your space?
- What lay-out is best to give you an ergonomic flow?
- Think about your clothing, accessories, shoes etc. Do you want separate storage for each type or style of clothing? E.g. evening, work wear, casual etc.
- Do you need long hanging for coats, long dresses, dressing gowns?
- Do you need built in drawers to minimise furniture in the bedrooms?
- How much shelf space will you require? Don't forget about jerseys, handbags and hats.
- What budget range are you comfortable with?
- What depth should your wardrobe be? For example, at a 300mm depth, folded clothing will overhang the shelving and hanging items will "stick out"
- Where will you store your shoes? On the floor, shoe racks, Sliding shelves or on a shelf around the base of the robe?
- Consider the traffic flow through the area – will any part of the wardrobe obstruct other users of the area?
- Would features such as pull out pant racks, tie or accessory drawers, hide away mirrors or laundry storage be beneficial to you?
- Do you need doors on your wardrobe? These can incorporate a mirrored panel or be coloured to match your décor
- Should your doors be hinged or sliding as this impacts on accessibility?

Finally good wardrobe design is vital in ensuring that your new storage area is suitable for your short and longer term needs. Be sure to visit a professional wardrobe designer to get the best advice.

Information kindly supplied by Pridex Kitchens and Wardrobes
0800 400 510 or www.pridex.co.nz

4.9 Landscape

LANDSCAPING IS THE PACKAGING OF YOUR HOME AND PLANNING SHOULD BEGIN AT THE START OF THE PROJECT.

You have a choice in how you want to handle the landscaping and it's important to be aware of the trade-offs early in the planning process. Allowing budget for landscaping means you can get the whole project finished – and having the landscaping done is a truly wonderful feeling because it really completes your home. You can save money by doing much of the work yourself but there may be elements, such as retaining walls, that are often best left to professionals.

Landscape designs, especially, are often best done by landscape architects or designers. There are different looks that you can go for – but come back to the style of house design you've chosen and use that to lead your garden design. The recent concept of 'outdoor rooms' is not hard to implement in your own backyard. Taking lighting, appropriate furniture and creating a defined space that is a room in its own right but outside, means your home extends into your garden for exceptional lifestyle enjoyment.

PATHS AND DRIVEWAYS

- Different materials are available for paths but ensure they're in keeping with the rest of the house
- Think about why you want paths in their particular location and consider how much sun the area gets which may dictate what kind of material you use
- Concrete or stone driveways can add greatly to the aesthetics of a home and are very practical
- Small river stones look great but their smooth edges mean they move, so are impractical for walking or driving on. Think about the size of stones you're getting and how well they compact down, as well as the aesthetic considerations

PLANTING

- Consider choosing larger plants that may cost more but have an immediate effect, as opposed to buying smaller plants that will take a couple of years to reach the right size.
- Remember to look at the size that trees grow to – some trees get big (really big!) So think about where you're planting them for yourself and for your neighbours.
- Check the materials to be used in beds with the plants going in to make sure they complement each other
- Grouping plants together can make a strong garden statement
- The notion of the low-maintenance garden is very hard to achieve, short of lots of concrete and few plants, so make sure you're prepared to keep on top of your garden to ensure it looks its best.
- Don't forget the lawn: ready lawn, spray-on seed or sow it yourself, ensure you've prepared the ground appropriately for the best effects.

TIME SPENT HERE PAYS OFF.

SWIMMING POOLS

There are specific parts of the Building Act that deal with swimming pools. In addition, there are components of each Council's District Plan that control their installation and access. Not only can they greatly add to the beauty of your property, but anyone who likes swimming will revel in being able to plunge into their own pool in their backyard. For many people, the extra effort is well worth it.

- Pools may be built into the ground or sit above
- The main pool types are concrete and fibreglass and each type has its advantages – fibreglass on cost, concrete on flexibility of design
- There are alternative ways of treating water to chlorine treatment that are very safe
- Consider the location of the pool and access to your living areas – do you want it to be readily accessible or to have the pool in a more private location?
- The pool can be a major feature of your landscaping – lighting plays an important role here
- Consider the landscaping around your pool – decking and paving are often important to have in areas that get wet regularly
- Have you considered where to put the water treatment plant?

SWIMMING POOL OPTIONS

The Building Act and Council's District rules deal with installation, access and control of swimming pools. Professional help is advisable before building a pool. Pool builders services include amassing the trades people required to complete the job.

Families with children will especially enjoy the fun and entertaining aspects of a pool while also adding value to their property. Parents with teenagers enjoy the security of knowing their children use the pool as a safe meeting place for friends.

Concrete, vinyl and fibreglass options are available. Concrete pools, the most expensive option, have unlimited shape and design options and are extremely durable, but take at least eight weeks installation. Fibreglass pools are a less expensive option, are very durable and can be installed very quickly, they come in preformed designs and need installation on level ground. Vinyl pools are least expensive and can be easily installed on sloping ground, above ground, inground, or semi-inground, and have a 10 year
life expectancy.

- Consider the location of the pool and access to your living areas – do you want it easily accessible or more private?
- The pool is a major landscaping feature – lighting also plays an important role. Carefully choose decking and paving for wet areas. Don't forget your machinery housing
- Carefully choose plants and trees around your pool– leaves can clog your system and make cleaning more difficult
- A pool heating system will extend your swimming season. Solar is cheapest, but gas and electricity are more effective
- Your local pool shop will aid in regular water balancing by performing free water tests and advising on any additional water enhancement products
- Automated water treatment systems reduce the amount of time spent working on your pool
- An automatic cleaner reduces the effort of vacuuming your pool

DECKING AND PAVING

- Outdoor areas are becoming an increasingly important part of New Zealand homes. Our climate is such that we can spend many months outside in the evenings, and decks or paved areas are essential
- Drainage is an important component of this stage and needs to be considered early in the process. Is the drainage sufficient?
- Also, where decks attach to walls is a weak point for moisture, so ensure the proper procedures are followed
- Paving is an alternative to wooden decks that may have an advantage in durability and can open up creative opportunities
- Have wall attachments been done properly?
- Is the deck rated to hold sufficient people?

FENCING

Fencing is another component that can be expensive but is essential for privacy and security. The range of materials is again extensive but remember to consider new products like glass and fibreglass for appropriate locations. There are specific laws dealing with fences – their height, sharing the cost with neighbours, whether you need a building consent for them or not. Discuss with your neighbours what you intend to do, especially if you need access from their property. Good fences make good neighbours – work with them wherever possible.

- Make sure you check with your Council before commencing construction
- Is the correct grade of timber used?
- Are the vertical posts installed solidly and evenly?
- Is the fence the correct height or do you need to get building consent?
- Have you discussed the fence with your neighbour?

YOUR NEW DECK

Decks have undergone some exciting changes in the past few years New types of decking have come on the market. The most interesting is composite decking made from recycled wood and plastic to create a great looking deck board witch come in grey and brown colours.
Branz has tested composite decking and it passed the 15year durability test. The expected life of composite decking is over 30 years were as hardwood decking life is 15-20 years

If you prefer the wood look the Local grown pine decking has come a long way in recent years. Premium Kin dried pine decking in30mm by 90mm and 140mm wide board are available. They also come pre stained and are treated to last over 20years.
Hardwoods decking has come under scrutiny from the environmentalism so it is worth checking that it's sourced from sustainable forests if that's the decking you like

Not so new but now becoming very popular is Glass balustrades which not only look amazing
And provide a good wind break. The glass is now mostly sorted in China so pricing more affordable.

If it's a waterproof deck and the architect has specified a water membrane with timber overlay, composite decking is ideal as is in long lengths and is screws down making it easy to access the membrane for maintained.
Don't forget PVC vinyl water proof ing as an alternative comes in a range of colors and there for dose not need to be covered and is very low maintenance

Editorial supplied courtesy of EzyDeck

GARAGING

Given the investment we have in our cars, it's surprising there aren't more garages with doors. Garages have come a long way and now are seen as an integral part of the design of the house and doors can be sourced that enhance the street appeal. On the other hand, prebuilt units can be bought and installed rapidly and cheaply. The concrete slab is fundamental to the garage.
Be aware of what is underneath your planned garage – drains may mean the concrete needs reinforcing which can dramatically add cost.

MAKE SURE YOU VISIT OUR WEBSITE FOR MORE GOOD STUFF: www.buildingguide.co.nz

Please tell the advertisers you contact where you saw their ad - without them we couldn't bring this magazine to you!

CUSTOM MADE FOR YOUR HOME

AWNINGS | BALUSTRADE | GATES | SECURITY & INSECT SCREENS | SHOWERS | WARDROBES

Folding Arm Awning

Full Height Glass Balustrade

Hinged Security Door

Ventilated Wardrobe Organiser

Frameless Glass Shower

Sliding Wardrobe Doors

5 year WARRANTY

HOME PLUS

Custom made for your home

www.homeplus.co.nz

HomePlus Wanganui
176A Glasgow Street
Ph: 06 345 4721
wanganui@homeplus.co.nz

HomePlus Gisborne
395 Childers Road
Ph: 06 867 2410
gisborne@homeplus.co.nz

HomePlus Taranaki
Cnr Molesworth & High Sts
Ph: 06 759 0430
taranaki@homeplus.co.nz

HomePlus Palmerston North
637 Tremaine Avenue
Ph: 06 355 0202
palmerstonnorth@homeplus.co.nz

MEASURED AND INSTALLED BY A TEAM OF EXPERTS.

FOR A FREE MEASURE AND QUOTE CALL 0800 466 375

At HomePlus you get great value as we have every aspect of manufacture and installation down to a fine art.
We go the extra distance for our customers.

HomePlus Hawkes Bay
1014 Omahu Rd
Ph: 06 879 8397
sales@homehb.co.nz

5.0 Construction Checklist

BRACE YOURSELF! CHANCES ARE IT WILL TAKE LONGER THAN YOUR BUILDER ESTIMATES AND LONGER THAN YOU THINK. PREPARE FOR DELAYS, FRUSTRATIONS AND MINOR IRRITATIONS. HOPEFULLY, THAT'S ALL YOU'LL HAVE...

CONSTRUCTION... AND SO IT BEGINS

Following is an outline of each stage of the construction process itself - what to look for at each stage and spaces for notes. We start from the ground up – because that's how building usually goes.

Bear in mind these notes are not comprehensive and make sure you check with the various industry bodies' websites for more information or to get someone to check with if you have concerns – you'll find links on the Building Guide website.

The length of the project will be affected by availability of the builder and sub-contractors. Also, weather and sometimes availability of materials specified can cause delays. Understand and accept that this will happen and you will reduce stress levels in all parties, however, regular followups and meetings with builders and sub-contractors can ensure work progresses as quickly as possible and problems can be identified early on.

Bring problems to the builder straight away. It's far better and easier to replace and fix things now while building is still going on, than wait until the house is finished before pointing it out.

ORDER OF CONSTRUCTION

The usual order of construction is:

1. Correct set out of the building
2. Excavate the section and lay the foundations
3. Pour concrete floors
4. Construct the framing
5. Put the roof on
6. Mount the windows
7. Put on the exterior cladding
8. Organise plumbing and wiring
9. Fit insulation
10. Put in the doors
11. Install cabinets and interior lining
12. Tile floors and walls
13. Carry out final plumbing and electrical work
14. Paint the house and complete any finishing work
15. Lay the floor coverings.

MANAGING YOUR BUDGET

Make sure you keep a close eye on your spending as work progresses. Much of the costs will have been covered in assorted quotes from suppliers and your building team, but you may well find that as you progress, you will be making decisions on a daily basis that will have an impact on the costs.

Use our workbook budget pages or go to our website to use our Build-Your-Budget and Tracking-Your-Budget pages so you can keep on top of things as you go.

CHANGES TO PLANS DURING WORK

Try to avoid these as much as possible as changes are most probably going to cost you time and money. Changes to the plans may require an amendment to the building consent to cover those changes and even if this is not required, depending on the scope of the change to the plan you may wish to get changes specified in writing and to record discussions and agreements, especially with regards to cost.

FOR MORE INFORMATION ON THESE OPTIONS, GO TO THE CONSUMERBUILD WEBSITE: WWW.CONSUMERBUILD.CO.NZ

IMPORTANT INFORMATION:

The building work to be done will have been set out on the plans accurately, however, boundary pegs get moved accidentally (and sometimes deliberately) so make sure the house is set out correctly before building commences.

STORAGE OF MATERIALS

Materials can be affected by handling and storage. Timber left uncovered can get wet and damp timber used for framing is not good. So keep an eye on your builders and subbies to make sure that materials are protected from the weather, stored correctly – not on bare ground or uneven surfaces, handled properly and not damaged. Also note that you must have clear title (e.g. receipts) to materials stored off site and insurance coverage in case of theft or your builder going into liquidation.

This is where cameras can play a valuable role – document problems immediately, discuss with the builder straight away and retain photos in case of further issues.

OWNER'S CHECKLIST

Building projects are a substantial investment of your time and money. If you are managing the project, you have to keep a close eye on the quality of the work and pick up problems quickly. Even if you're not the project manager, IT'S YOUR HOME. Make sure you visit regularly to check on the quality of work and progress. You, the builder or project manager will need to ensure that:

- [ ] Materials are what is ordered and required
- [ ] Timber is at specified moisture levels on installation
- [ ] Timber has the correct preservative treatment for its building location
- [ ] 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

SAFETY ON THE BUILDING SITE

Under the Health and Safety in Employment Act 1992, you become a 'principal' (unless you're living in the house while the work is going on).

As a principal it's also up to you to ensure that people working on the site don't get hurt, which means you also must identify hazards and remove them, isolate them, or minimize them as much as possible if the first two options are not open to you.

Courtesy of Consumerbuild.co.nz

HEALTH & SAFETY SITE PLAN

This needs to include:

- [ ] The person responsible for health and safety on site
- [ ] Identification and control of potential hazards
- [ ] Posting of notices and warnings of potential hazards
- [ ] Restriction of access to the site to authorised people only
- [ ] Guidance on ensuring a safe working environment at all times, for example, avoiding stacking things that could topple over
- [ ] Instruction in safe methods and practices
- [ ] Provision for safety meetings
- [ ] Safety audits on plant and procedures
- [ ] The recording and investigation of accidents

CHECKLIST Homeowner's Responsibilities

1. Earthmoving and Excavation

- [ ] Is the hole for excavation staked out correctly?
- [ ] Are the walls vertical and even?
- [ ] Has it gone to the correct depth?
- [ ] Are all cut earth faces supported and 'cut in' – especially important where this can impact on neighbouring properties?

2. Retaining walls

Excavation work inevitably means retaining walls.

- [ ] Remember, retaining walls must be included in the building consent and signed off.
- [ ] Is the ground supported during construction (only if necessary)
- [ ] Ensure the wall is drained behind and waterproofed/tanked (if waterproofing is necessary)

3. Drainage and underground plumbing

While not the most exciting of items in the construction process, good drainage is absolutely essential to the long term integrity of your home.

- [ ] Are the pipes in the correct position, e.g. are they not located where you may want to put paths or gardens?
- [ ] Are the drain holes or pipe vents in locations that will interfere with future use of the grounds, e.g. are they where you may want to put paths or entertaining areas?
- [ ] Are the vents in the right position?
- [ ] Will the drains carry sufficient water?
- [ ] Does your drainage system meet with the building code – e.g. do you need retaining tanks.

3. Footings and foundations

The base upon which your home is established is of prime importance in its building. The footings need to be straight and correctly positioned, though the finish doesn't have to be smooth.

4. Concrete Slabs

The concrete is laid on top of several things put in beforehand. There is a layer of compacted base course, a polythene vapour barrier, plumbing pipes and pipes taking electrical and other cable, in-floor heating and polystyrene insulation if required. The concrete needs to be cured and cut. There are additives that can be applied to the concrete to reduce cracking during or following curing; the concrete can be coloured, polished and/or ground.

- [ ] Ensure the floor is fully laid in one pour and there is no lag between deliveries.
- [ ] Ensure the concrete is cured properly under advice from your builder.

Website to visit for more information:
Cement & Concrete Association of NZ (CCANZ)
www.cca.org.nz
NZ Ready Mixed Concrete Association (NZRMCA)
www.nzrmca.org.nz

5. Wooden Flooring

Wooden floors are laid on floor joists. These need to be level and solid.

- [ ] Are the floor joists even and solid?
- [ ] Has the flooring timber been evenly laid?
- [ ] Has the timber been sufficiently seasoned (the right moisture content)?
- [ ] Are the plywood/chipboard panels secured properly and are they even – is there any movement or squeaks?
- [ ] Underfloor foil insulation is the minimum level of insulation you require under the Building Act but never shy away from increasing your level of insulation.

6. Framing

This is one of the most exciting moments in the project as the frames go up quickly and it looks like everything is happening. Bear in mind, however, that not much seems to change rapidly from here even though plenty of work continues on.

- [ ] Are the nogs level with each other?
- [ ] Are the uprights evenly spaced (note there will be some variation due to doors and windows)?
- [ ] If using timber, is the timber sufficiently dry?
- [ ] Is the timber of the correct preservative treatment?
- [ ] Are the doors and windows correctly positioned and of correct sizes?
- [ ] Are the bracing elements in place?

Website to visit for more information:
Frame and Truss Manufacturers Association of NZ
www.ftma.co.nz

7. Brick and Block Laying

- [ ] Have they been laid even and straight?
- [ ] Is there a satisfactory level of quality finish – no evidence of mortar splashes?
- [ ] Are there ventilation gaps at the bottom and not blocked with excess mortar?

8. Scaffolding

- [ ] Is the scaffolding secure?
- [ ] Are there safety barriers?

9. Roofing

Roofing is another critical element of the project.

- [ ] All roofing must be laid straight and true and fixed correctly.
- [ ] Fixings (screws) must be evenly and neatly set out.
- [ ] All flashings, barge boards and ridge cappings must be in place.
- [ ] Do you have a guarantee with the roof?
- [ ] Have you supplied the roof shout?!

Website to visit for more information:
NZ Metal Roofing & Cladding Manufacturers Assn
www.metalroofing.org.nz

10. Window Joinery

- [ ] Are the windows and sliders the correct size and design on delivery?
- [ ] Have they been fitted with sufficient waterproofing?

Website to visit for more information:
www.masterjoiners.co.nz
Window Association of NZ (WANZ) - www.wanz.org.nz

11. Plumbing

- [ ] Is the hot water source close enough to the kitchen/bathroom taps to minimise time lag?
- [ ] Check the correct filters are in place for pipe size and water pressure.
- [ ] Have you worked with your plumber to ensure you will have adequate water pressure – discuss with your plumber, designer and bathroomware supplier together if you can – water pressure is a major source of confusion on installation so get everyone's input.
- [ ] Are the gas pipes all installed in the correct position?
- [ ] Do you have sufficient outdoor taps for hoses wherever you may need them?
- [ ] Is the bathroom plumbing correctly positioned?
- [ ] Have you worked with your plumber to ensure the pipes will not be heard?

Website to visit for more information:
Master Plumbers www.masterplumbers.org.nz

12. Exterior Cladding

- ☐ Is the cladding handled and installed as per manufacturer's instructions and there are no damaged panels used?
- ☐ Are the flashings done correctly and properly waterproofed?
- ☐ Are the joins in panels even and level and regular?
- ☐ If using flat panels, is there sufficient protection from the rain to ensure weatherproofing?
- ☐ Are battens used to aid in drainage for water that gets behind the cladding?
- ☐ Is the cladding finished properly and the job looks neat?

Website to visit for more information:
Claddings Institute of NZ (CINZ) www.cinz.co.nz

13. Weathertightness

- ☐ Avoid decks enclosed by solid walls with a lack of drainage and perhaps a handrail attached to the top of the top of the wall – water cannot drain and the weather proofing skin may have been pierced by the handrails.
- ☐ Avoid wall cladding materials finished hard down onto a deck surface or paving or paths: the cladding will absorb water from the surface it's finished onto.
- ☐ Avoid wall cladding that extends below ground level or landscaping materials, including mulch, are built up against the wall – materials that are continuously damp will quickly deteriorate.
- ☐ Avoid decks that are constructed to the same height as the internal floor, with no fall for drainage, compounded by an outlet that can get blocked.
- ☐ Ensure suspended timber floors have space below the floor for ventilation to remove moisture evaporating from the ground.
- ☐ Avoid using silicon sealant instead of properly designed flashings.
- ☐ Ensure head and sill flashings are installed over windows and joinery.
- ☐ Ensure parapet walls have cap flashings.
- ☐ Kick-outs or diverters to apron flashings where roofs abut a wall surface are necessary to ensure that water flows into the gutter and not down inside walls.
- ☐ Ensure monolithic claddings and tiled finishes have movement control joints that allow building movement to occur without cracking the materials.
- ☐ Ensure adequate detailing on junctions between materials.
- ☐ Check the difference in levels between the surface outside and floor inside and/or that there is good drainage – without these the building may well fail to meet the performance requirements of the Building Code in regard to external moisture provisions.

Information supplied courtesy of BRANZ

Website to visit for more information:
www.weathertight.org.nz
Weathertight Homes Resolution Service (WHRS)
www.weathertightness.govt.nz

14. Insulation

Insulation has a huge impact on the comfort in your home: in winter it helps keep your home warm, in summer it helps keep your home cool. Different products abound here, as well. The measurement of efficiency is rated in 'R's – the higher the better. There are minimum levels but paying a small amount here to increase the R rating can make a dramatic difference to your comfort levels in the long run.

- ☐ Have you got the correct R (heat retention) levels or better?
- ☐ Has it been correctly installed – as per manufacturers' specifications?
- ☐ Ensure there are no gaps – these can reduce efficiencies by as much as 40%.

Website to visit for more information:
Energy Efficiency and Conservation Authority (EECA)
www.energywise.co.nz
www.smarterhomes.co.nz

15. Wiring and lighting

- ☐ Do you have sufficient powerpoints through the house and in the right positions?
- ☐ Are the powerpoints, light switches, intercom boards installed evenly with each other and other elements on the wall?
- ☐ Is your home entertainment system hard wired into the walls (no more tripping over wire spread around the floor)?
- ☐ Have you future proofed for new light fittings, appliances or heating units and installed appropriate wiring (think outdoor heating, stereo speaker wire, outdoor lights, etc...)?
- ☐ Have you installed computer, security and stereo or other home automation cabling (better to do it now than rip holes in walls later)?
- ☐ Are they all protected from each other – are electrical cables of sufficient distance from data and audio cables?
- ☐ Are the transformers correct for the types of lights you have installed (if required)?
- ☐ Are the lights selected correct for the specific job you want them for?
- ☐ Are the light fittings in the correct position on your plan, taking into account the tasks you wish to undertake, or the ambience you wish to achieve?
- ☐ Has the electrician created holes for the lights in the correct position as per your plans?
- ☐ During installation, has the electrician installed the correct lights in the right places in the right way?

Website to visit for more information:
Electrical Contractors Association of NZ Inc (ECANZ)
www.ecanz.org.nz

16. Gutters and downpipes

More than an afterthought – gutters are the edging of a roof and can add to the look or detract.

- ☐ Do the gutters have the correct fall to ensure no pooling of water?
- ☐ Are the gutters installed correctly with overflow relief in the event that blockage or heavy rain does not flow into wall cavities?
- ☐ Have you chosen a colour that complements the roof and external colour of the house, and has the correct colour actually been installed?
- ☐ Are the correct downpipes installed – colour, materials, profile (shape)?
- ☐ Are they secure?
- ☐ Are the downpipes in the correct location so they don't interfere with external gates or the lines of your home?

No sheet lining material has a surface that is perfectly flat and totally free of minor imperfections. However, by paying careful attention to the design, the materials used, the lighting conditions and installation of the framing, linings, paint and wallpaper, small imperfections can be minimised.

- ☐ Ensure framing is dry and straight. The use of thicker 13mm plasterboard with metal ceiling battens helps provide a straighter ceiling that is less likely to result in problems.
- ☐ Walls sheets should be fixed horizontally as a horizontal joint is less likely to be visible.
- ☐ To reduce the visibility of any imperfections use light colours and flat paints or textured wallpaper and avoid critical lighting - light striking a wall at a shallow angle.
- ☐ Use light shades or recessed downlights and position windows away from the edges of walls and ceilings or use shades.
- ☐ Plastering of the joins is critical, especially in ceilings in open plan living areas – a single large ceiling is almost impossible to get completely flat but a poor job will be obvious – and bug you for years.
- ☐ Do you have the correct panels for specific rooms; e.g. waterproof in the bathroom, fire-rated in the kitchen, sound proofed in the bedrooms?
- ☐ Are they even and undamaged?
- ☐ Is the plastering even and sanded correctly

Website to visit for more information:
Interior Systems Association of NZ (ISA)
www.potters.co.nz/isa.php

18. Heating and Airconditioning

- ☐ Do you have sufficient heating units for your new home?
- ☐ Have they been correctly installed as per manufacturers' specifications?
- ☐ Is the gas flued to reduce moisture build-up inside?
- ☐ Have you considered the trade off between price to purchase and the ongoing cost of running the units?

Website to visit for more information:
Institute of Refrigeration, Heating & Air Conditioning Engineers of NZ Inc (IRHACE)
www.irhace.org.nz

19. Interior and Exterior Painting

The finishing is all important but the preparatory work is critical to the quality of the end product.

- ☐ Ensure correct paints are used in specific areas like kitchens and bathrooms, doors and window frames.
- ☐ Look for sloppy work and make sure it's cleaned up. Ensure angles are cut in to keep lines sharp.
- ☐ The quality of paint has no impact at first, but over time, better quality paints maintain their sheen and finish where cheaper paints fade and chip more readily.
- ☐ Is the preparatory work of a sufficient standard – filling holes, touching up plaster sanding, use of correct undercoats?
- ☐ Are the paints being used the brands you specified or cheaper alternatives?
- ☐ Have the painters got the correct colours as specified?

Website to visit for more information:
Master Painters NZ Assn Inc
www.masterpainters.org.nz

20. Kitchen

- ☐ Is the benchtop the correct size? If not, negotiate with your kitchen manufacturer to replace or discount.
- ☐ Are cupboards installed above the bench fitted properly to the ceiling and/or walls (if relevant)?
- ☐ Are powerpoints installed at correct locations and with fittings that minimise intrusion onto benchspace or tight spaces?
- ☐ Ensure workmanship on joinery is an acceptable standard, with well fitted joins and hardware.

Website to visit for more information:
National Kitchen & Bathroom Associations NZ Inc (NKBA)
www.nkba.org.nz

21. Bathroom

- ☐ Don't forget ventilation and heating – especially underfloor heating (very nice in the winter!) - the room must be able to be fully dry within 30 minutes.
- ☐ The waterproofing is essential – check to make sure sufficient waterproofing is done.
- ☐ Ensure all glass is of correct NZ standard.
- ☐ Check tiles for chipping after laying and after other major items installed so damaged tiles can be replaced by the appropriate company.

Website to visit for more information:
National Kitchen & Bathroom Associations NZ Inc (NKBA)
www.nkba.org.nz

22. Fencing

- ☐ Has the correct grade of timber been used (where relevant)?
- ☐ Are the vertical posts installed solidly and evenly?
- ☐ Is the fence the correct height or do you need to get building consent?
- ☐ Have you discussed the fence with your neighbour?

23. Decking and Paving

Drainage is an important component of this stage and needs to be considered early in the planning process.

- ☐ Is the drainage sufficient?
- ☐ Check where decks attach to walls to ensure the proper procedures are followed and weathertightness is achieved.
- ☐ Have attachments to walls been done properly?
- ☐ Is the deck rated to hold sufficient people?

24. Rubbish Removal

Now that the building work and possible the landscaping work is all finished, you may well find that there is a certain amount of detritus left behind from assorted tradespeople and sub-contractors. It is important to dispose of this correctly and in an environmentally sound manner. There are specialist companies who can do this work for you and we encourage you to make contact with them to ensure your home is finished properly to your complete satisfaction.

WEBSITES FOR MORE INFORMATION:

- Certified Builders Association of NZ Inc (CBANZ) **www.certified.co.nz**
- Registered Master Builders Federation Inc (RMBF) **www.masterbuilder.org.nz**
- Architects - NZ Institute of (NZIA) **www.nzia.co.nz**
- Architectural Designers NZ Inc (ADNZ) **www.adnz.org.nz**
- Association of Consulting Engineers (ACENZ) **www.acenz.org.nz**
- BRANZ Ltd **www.branz.co.nz**
- NZ Institute of Quantity Surveyors Inc (NZIQS) **www.nziqs.co.nz**
- NZ Institute of Surveyors (NZIS) **www.surveyors.org.nz**
- Department of Building and Housing (DBH) **www.dbh.govt.nz**
- Institution of Professional Engineers NZ (IPENZ) **www.ipenz.org.nz**
- NZ Institute of Building Surveyors Inc (NZIBS) **www.buildingsurveyors.co.nz**
- Consumers' Institute of New Zealand **www.consumerbuild.org.nz**
- Smarter Homes **www.smarterhomes.co.nz**

Wrapping Up

FINISHING: FINAL INSPECTION & CODE COMPLIANCE CERTIFICATES

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

A new licensing system will come into effect on 30 November 2011. From that date licensed building practitioners (LBP) will be required to carry out or supervise significant building work, such as new buildings, extensions, major alterations or changing the use of a building. When completed, this work will need to be certified by the LBP that it complies with the building consent.

If a notice to fix is issued you are legally required to make sure the work on the notice is corrected 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 once you advise it that you have fixed the problems.

There is a considerable emphasis on getting a CCC under the 2004 Building Act and there are benefits, as well:

- Should you want to sell your house, not having a CCC could be a major obstacle – sale and purchase contracts are often conditional on a CCC having been granted
- You will have the peace of mind of having the 'final sign off' on the finished building in compliance with the Building Consent

RUBBISH REMOVAL

Now that the building work and possibly the landscaping work is all finished, you may well find that there is a certain amount of detritus left behind from assorted tradespeople and sub-contractors. It is important to dispose of this correctly and in an environmentally sound manner. There are specialist companies who can do this work for you and we encourage you to make contact with them to ensure your home is finished properly to your complete satisfaction.

Maintenance

ENJOYMENT & ONGOING MAINTENANCE

As nice as it would be, it never finishes here! There are always things to be done – touchups to work, things that didn't get fitted into the original budget, changes to what was done originally, repairs to items that have broken in the meantime. Ensure you maintain your house, now your home, regularly:

- Check and clear gutters regularly. The last thing you want to be doing is standing on a slippery aluminium ladder in a storm at 2am with buckets of water coming down while clearing out your overflowing gutter (you really don't want to be doing this)
- Painting needs to be regularly done – timing is dependent on materials, colour, quality of paint and exposure to weather but get it done, even if you have to listen to the cricket while you paint. Paint one wall per year and the window frames in the fifth year
- Decks and paths, especially where shaded, can grow moss and this can be slippery and dangerous. Clean regularly
- Check drains to make sure they're clear
- Check filters in the water system to ensure steady pressure
- Clean your septic tank regularly if you have one
- Check your roof – it's what keeps you dry – replace cracked or broken tiles or monitor condition of the steel
- Ensure plenty of mulch or bark goes on your garden a couple of times a year – it'll save a heap of time on weeding
- Make sure little jobs around the place get dealt to – studies have shown that taking care of these can add three years to your life (it's true!)
- Get your chimney cleaned regularly – some insurance policies won't cover chimney fires unless you can prove it's been cleaned
- Clean the outside of windows – you'll be surprised what a really wonderful difference it can make inside and out
- Clean your house! Some cladding and roofing manufacturers' warranties are void if this is not done!

Finally, enjoy what you've achieved. The amount of time, effort and money you've spent on this project has been done so that you have something you'll love.Take time to sit and look and enjoy what you've built... YOU HAVE EARNED IT!

VOUCHERS

HOMEOWNER'S BUILDING GUIDE

YOUR GUIDE TO BUILDING A BETTER HOME

READERSHIP SURVEY

Please fill in this form to let us know what areas of building you would like further information on and we will pass this on to our advertisers to get back in touch with you...

FOLD HERE

HOMEOWNER'S BUILDING GUIDE

YOUR GUIDE TO BUILDING A BETTER HOME

Phone +64 9 360 8885 Fax +64 9 360 8887
PO Box 78-152, Grey Lynn, Auckland 1245

www.buildingguide.co.nz

FOLD HERE

NZ Homeowner's Building Guide
PO Box 78-152
Grey Lynn, Auckland 1245

Free

Freepost Authority Number 205889

WIN A... ESPRESSO COFFEE MACHINE - worth $1999

la Pavoni®
Dal 1905 macchine per caffè

HOMEOWNER'S BUILDING GUIDE

La Pavoni is Italy's premier espresso machine manufacturer and we've got TWO of their fabulous machines to give away to homeowners renovating or building!

For the homeowner on the go, an efficient, delicious coffee in the morning (or after dinner) is exactly what you need!

Domus Bar PUMP ESPRESSO MACHINE WITH GRINDER • Semi-professional espresso machine with conical burr grinder • The Domus Bar is the perfect home espresso machine for people who want to make real espresso without taking up a huge amount of bench space • Quality components, including brass boiler, brewing group, and portafilter give the Domus Bar excellent thermal stability for magnificent espresso • The included conical burr grinder allows the user to freshly grind coffee directly into the portafilter • Plentiful steam capacity for preparing steamed milk using either the steam wand or cappuccino automatic.

To go in the draw to win a La Pavoni Domus Bar espresso machine, simply fill in the reader survey form below and send it back to us. Not only have you got a chance to win the stylish La Pavoni espresso machine, but we will even do some of the legwork for you! We have a list of excellent suppliers of quality products – simply tick the boxes of the products and services you want information about, tell us what you're planning and then select the items you want information on and we'll send your details on to just those appropriate suppliers/ installers in your region and we will have the suppliers contact you!

CENTRAL NORTH ISLAND

Date Sent: ..... Information Required by: ..... Planned Build Date: .....

Name: .....

Address: .....

Company: ..... Position: .....

E-mail: ..... Phone: .....

TYPE OF PROJECT: (YOU CAN PICK MORE THAN ONE CATEGORY)

☐ New House ☐ Renovation ☐ Addition ☐ New Bathroom ☐ New Kitchen

BUDGET: ☐ $50k ☐ $50-$100k ☐ $100-$250k ☐ $250k-$500k ☐ $500k-$1MIL ☐ $1MIL+

STAGE OF YOUR PROJECT:

☐ Looking for Section ☐ Looking for Designer ☐ Looking for Builder ☐ Applying for Consent
☐ Consent received – waiting for build to commence

PLEASE TELL US WHERE YOU GOT THE NEW ZEALAND HOMEOWNER'S BUILDING GUIDE FROM:

☐ Council with consent application form ☐ Council with consent ☐ Council office counter
☐ Certified Builders ☐ Mitre 10 ☐ Other Building Supplies Company (please name)
☐ Master Builders ☐ Home Ideas Centre ☐ Other

CATEGORIES YOU'D LIKE MORE INFORMATION ON:

(Please note: by ticking any of these categories you agree to allow us or our advertisers to contact you as follow-up)

PRODUCT DECIDED ON	MORE INFO REQ'D		PRODUCT DECIDED ON	MORE INFO REQ'D		PRODUCT DECIDED ON	MORE INFO REQ'D	
		Financial / Legal / Insurance Escrow			Cladding			Central Vacuum Systems
		Resource Consent			Interior Lining			Interior Design
		Architect / Architectural Designer			Plumbing			Paint / Wallpaper
		Consulting Engineers – Soil / Drainage / Structural			Window / Door Joinery			Curtains / Blinds
		Builders / Building Companies			Energy – Electricity / Gas Solar / Installation			Stairs & Balustrades
		Building Supplies			Airconditioning / Heat Pumps			Furnishings
		Earthmoving / Footing Foundations			Home Ventilation Systems			Decks
		Drainage / Drain laying / Waste Water Management			Heating/Fireplaces			Landscaping
		Framing – Steel / Wood / Concrete			Home Theatre / Automation Telecommunications / Internet			Garden Supplies
		Insulation			Lighting			Wardrobe Systems
		Floors – Concrete / Timber Carpet /Tiles			Skylights			Garage Doors
		Roofing / Spouting / Downpipes			Bathrooms			Pools & Spas
					Kitchens			Fencing
					Home Appliances			Security
								Rubbish Removal

Please note: La Pavoni Coffee Machine prizes drawn December 2011. Winners will be notified by email or phone and winners' names may be posted on the www.buildingguide.co.nz website.
Please note: by ticking any of these categories you agree to allow us or our advertisers to contact you as follow up.

Budget Workpage

HOMEOWNER'S BUILDING GUIDE

	Budget	Actual
GENERAL		
1 Preliminaries and General		
2. Consulting Engineers		
3. Legal		
4. Design		
5. Consents		
6. Insurance		
SITE/STRUCTURE		
7 Preparation and groundwork		
8. Retaining walls		
9. Concrete		
10. Steel reinforcement		
11. Concrete masonry		
12. Framing – Steel/Timber		
13. Carpentry		
DRAINAGE/PLUMBING		
14 Exterior drainage		
15. Sanitary plumbing		
16. Septic Tanks and On-site Waste Water Systems		
EXTERIOR ENVELOPE		
17 Tanking and damp proofing		
18. Brick and Block-laying		
19. Concrete slab		
20. Timber joists and piles		
21. Building wrap		
22. Wall cladding		
23. Wall cladding - Masonry veneer		
24. Roofing membrane		
25. Roofing		
26. Downpipes and Guttering		
27. Fascia		
28. Soffits		
29. Capping and Flashings		
30. Windows and doors – Timber/Aluminium/Composite		
31. Skylights		
32. Front door		
33. Glazing		
BEHIND THE WALLS		
34 Insulation		
35. Pre-wiring		
36. Plumbing		
37. Hot Water Heating		
INTERIOR FITOUT & FLOORING		
38 Lining – Plasterboard/Other		

	Budget	Actual
39. Interior doors and windows		
40. Interior Joinery		
41. Fixtures – Bathroom/Kitchen		
42. Door Hardware		
43. Solid plaster		
44. Tiling		
45. Carpeting		
46. Timber flooring		
47. Flooring - other		
48. Painting and paperhanging		
49. Furniture		
50. Window Dressing		
51. Lighting		
52. Home Automation		
53. Stairs		
KITCHENS & BATHROOMS		
54 Kitchen joinery		
55. Benchtops		
56. Kitchen Fixtures		
57. Appliances		
58. Bathroom tiling		
59. Bathroom fixtures		
60. Wardrobes		
61. Storage		
62. Laundry		
SERVICES & UTILITIES		
54 Water		
64. Gas		
65. Electrical		
66. Solar		
67. Telecommunications & Internet		
68. Security		
69. Rainwater systems		
70. Drainage		
71. Heating and cooling		
LANDSCAPING & RUBBISH		
54 Retaining walls		
73. Swimming Pool/Spa		
74. Decking		
75. Paving		
76. Landscaping		
77. Garaging		
78. Rubbish Removal		
Total		

LIST OF ADVERTISERS

WHY SHOULD YOU USE A MASTER PLUMBER?

- We are registered and qualified Plumbing, Gasfitting & Drainlaying professionals.
- We guarantee our work
- We provide independent complaints mediation
- We are licensed professionals
- We abide by professional ethics

When you stand by your work, customers stand by you.

For more details about the Master Plumbers Guarantee

visit www.masterplumbers.org.nz or call 0800 502 102

Master Plumbers Gasfitters Drainlayers