ISSUE 37

SCOPE

NZ METAL ROOFING MANUFACTURERS INC.

SCOPE

ISSUE 37 DECEMBER 2014

Below is a brief introduction to the 2014 executive of The Metal Roofing Manufacturers Inc.
It is intended that Scope be representative of the Metal Roofing and Cladding Industry in both commercial and residential sectors. Your submission of material you consider is of interest is welcomed be it design, research, manufacture or construction.

If you would like to submit material please contact any member of the executive or the publisher.
Visit our website at:
www.metalroofing.org.nz

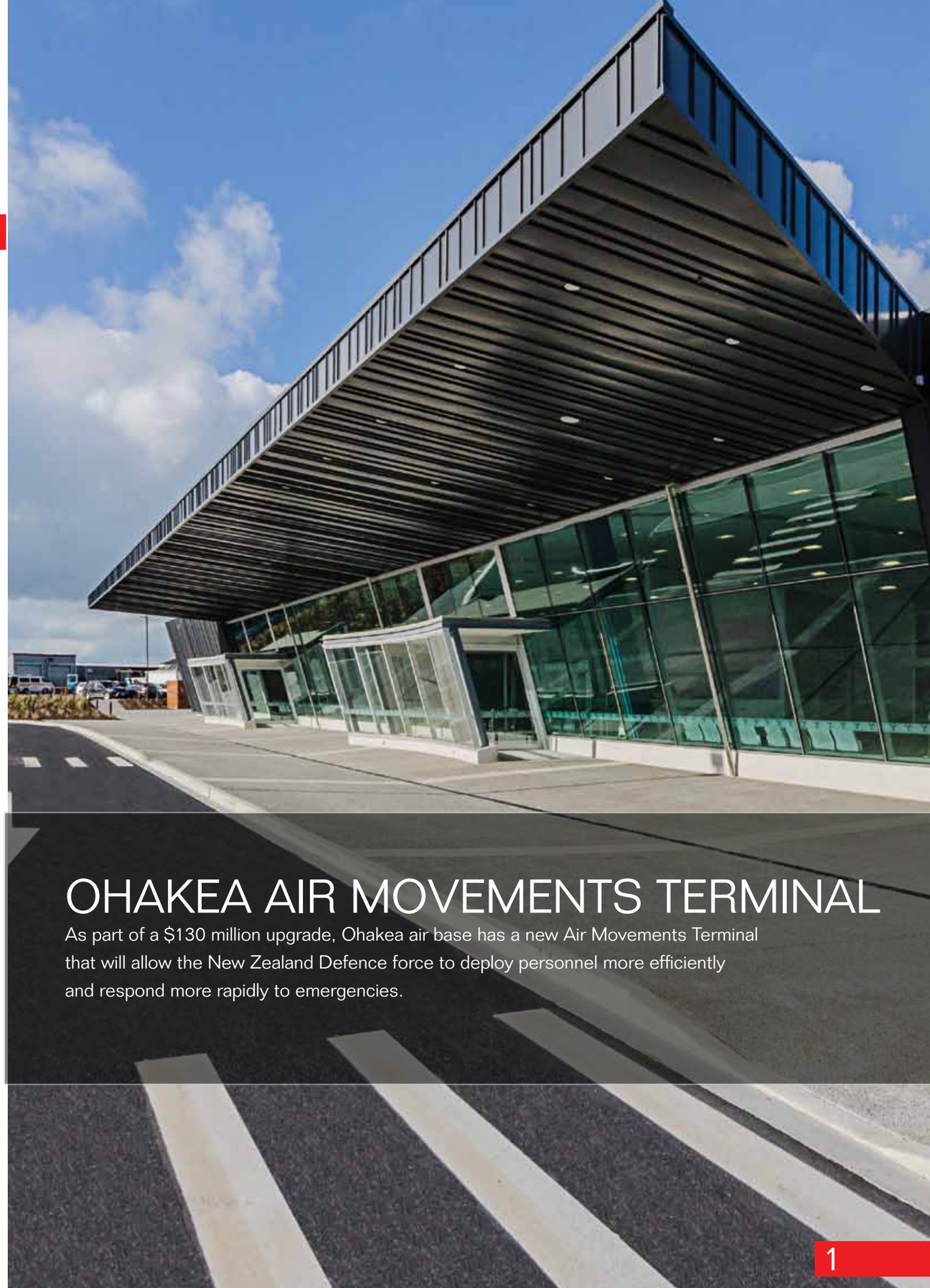
Opinions expressed in Scope do not necessarily reflect the views of the NZ Metal Roofing Manufacturers Inc., it's executive, committee members or publisher unless expressly stated.

Systems Warranty

Managing Editors: Warren Oliver, Christine Wilkinson, Phil Prior, Chris Back.

Published by ICG Limited.
57 Glendhu Road, Glenfield, Auckland. Telephone: 09 444 2424.
e-mail: conceptart@xtra.co.nz

Scope is the official publication of
The NZ Metal Roofing Manufacturers Inc.
Executive Officer: Peter Atkinson
Private Bag 92 066, Auckland.
DDI Ph: 09 367 0934,
Ph: 09 367 0913



OHAKEA AIR MOVEMENTS TERMINAL

As part of a $130 million upgrade, Ohakea air base has a new Air Movements Terminal that will allow the New Zealand Defence force to deploy personnel more efficiently and respond more rapidly to emergencies.

As part of Project Takitini to modernise Base Ohakea, $12.6 million was spent on the 5800sq m Air Movements Terminal, which includes a check-in area, baggage carousels, processing areas, freight handling and conference facilities as well as site preparation and exterior works.

Because of its upgrade and central location, Base Ohakea will become a major hub for the armed forces allowing them to assemble and deploy on major activities more easily. Outside, the terminal has also been upgraded with a larger "hard standing" area to accommodate larger aircraft.

The terminal can process up to 250 domestic and international passengers at a time, and has been purpose-built to meet the requirements of Customs, Ministry for Primary Industries, and Immigration.

Chief of Air Force Air Vice-Marshal (AVM) Mike Yardley says, "Over the last few years the RNZAF and the Defence Force have seen the benefit of the introduction of new state of the art aircraft, and world class facilities.

“At Ohakea this new terminal joins our award winning maintenance and training facilities that support our new NH90 and A109 helicopter fleets."

The building has taken 12 months to construct and has been designed so that it can operate in eight different modes – by opening or closing off the primary spaces - depending what is required of it at any given time. It also has a secure military communication system.

"The new air terminal will increase NZDF's agility and capability in deployment and exercise activities, as well as enhance our ability to respond in emergency and disaster situations," says AVM Yardley.
Part of the building has been equipped with infrastructure so it could be used as an operations room for other agencies to link into a network that has been created to cope with a natural disaster. The new facility employs about 18 staff.
Beca architect Jeff Armstrong led the design team that worked on the terminal, developing the brief provided by aviation consultants Airbiz. Beca also undertook civil, structural and services design.

A single-storey structure, it is divided into three main parts: a cargo bay, the arrivals/departure/customs spaces and a large multifunction space for presentations, social events, welcomes and farewells. Designed as a “sophisticated shed” the Air Movements Terminal will also offer greater comfort than its predecessor, a converted Lockwood building.

While the building is based on the form of a shed, the look has been softened by using a draped roof ridge profile and a glazed façade that is sloped and sheltered by a deep overhang. Inside, some of the ceilings boast curves that mimic an aerofoil profile.

Turfrey Ltd undertook the roofing and cladding of the building, and managing director Brad Turfrey says 54m lengths of COLORSTEEL® roofing were run on site and craned up, something he describes as an “interesting task”.
He says cladding the building

in Roofing Industries Eurostyle "required a lot of skill and precision" but the barcode aesthetic looked impressive once finished.
Interior layouts, finishes, fitout and construction monitoring was done by Architype Shadbolt Architects Ltd.

Darren Shadbolt says, "The exterior of the building is influenced by aeronautical forms, materials and notions of flight. These design drivers are carried through to the internal spaces. Interior layout uses a variety of finishes through the fitout to define the functions for each space and the circulation routes using colour, material, finish, graphics and pattern."
He adds, "The building changes as the function changes; it's quite a clever building like that."

The most striking aspect is the sloped, glazed facade at the terminal's roadside frontage. This facade, which was glazed over 47m in the APL 168mm Structural Glaze System, was a tough job to tackle for Altherm Window Systems, Palmerston North. The sloped façade leans on a steel frame at the top, with each double-glazed panel 5m high by 1.85m wide and weighing 790kg.

Another custom-made feature is the secondary glazing system in the passenger lounge facing the tarmac. To provide soundproofing from aircraft outside, a 135mm Flushglaze system in double glazed format was used in combination with an extra 10.3mm laminate window installed in a U-channel behind with a 100mm air gap.

Beca

One of the largest employee-owned professional services consultancies in the Asia Pacific, Beca was established in New Zealand in 1918 with only three employees. Beca now has nearly 3000 employees in 17 offices around the world. Beca delivers a variety of consultancy services - engineering, architecture, planning, project and cost management, software technology and valuations – for projects across sectors including power, water, transport, industry, government buildings and construction.

Architype Shadbolt Architects Ltd

A design-led practice, Architype Shadbolt Architects beileves in "fully investigated design" to deliver successful architecture. A team approach is used, combining the enthusiasm and vision of the client with the skills, experience and design knowledge of architects to produce "architecture meeting the most demanding briefs while maintaining the important aspects of quality, timeliness and economy". "Most importantly, we consider architecture is more than bricks and mortar - it is the experience of space and volume, colour and texture, form and function."

Architect: Beca
Auckland
Telephone: 09 300 900
http://www.beca.co.nz

Construction Management and interior design
Architype Shadbolt Architects
Palmerston North
Telephone: 06 355 5599
info@architypestudio.co.nz
www.architypestudio.co.nz

Cladding Manufacturer:
Roofing Industries Palmerston North
Telephone: 06 353 8480
Email: central@roof.co.nz
www.roof.co.nz
Colorcote ®ZRX™
Profile: Eurostyle ™
Colour: Grey Friars

Roofing and cladding installer:
Turfrey Ltd,
Telephone: 0800 182 182
Building Contractor:
Ebert Construction
Telephone: 04 587 0000

Kevin Hawkins Photography
Telephone: 0212668960
http://kevinhawkinsphotography.com/

TANE COX OF RED ARCHITECTURE WINNER OF THE ADNZ SUPREME AWARD

The judging panel for the 2014 ADNZ | Resene Architectural Design Awards included Dr Andrew Barrie, professor of design at the University of Auckland's School of Architecture and Planning, Dr Duncan Joiner, chief architect at the Ministry of Business, Innovation and Employment and Graham Sawall, award-winning architectural designer and life member of ADNZ.

The supreme award winner is selected from across all categories including commercial design, residential new homes, alterations and multi-unit dwellings. For more information visit www.adnz.org.nz.

Architectural Designer Tane Cox says he loves projects that begin with an idea and grow into a design that embraces that idea. His design 'Modern Barn Form' picked up the SUPREME award at the 2014 ADNZ | Resene Architectural Design Awards, receiving praise for its unique barn-inspired structure.

A subtle and clever design, 'Modern Barn Form' is centred on two black barn-like structures located in the beautiful rural landscape of Whatawhata. Designed for a young family, the brief called for a home that was child-friendly and could grow with the clients and their children.

It's a design that really serves its purpose, and although modest in appearance, the two black barn-like structures are hard not to admire when the home finally reveals itself as you wind around the quiet country road.

One of the structures houses the main living and sleeping areas for the property, while the entry and ablutions are in bock forms to the south of the main structure. The secondary black barn holds the garage which is detached from the main dwelling.

With the clients open-minded about the end result, Cox had some freedom of design, with the prime goal to build a home that fits in with its rural environment. There was real consideration for these surrounds right from the early stages of the design, with Cox passionate about creating homes that have a real relationship with their environment. He tends to favour simple designs that fit their context. .

The clients were particularly impressed with the design, and it has become a place where they can entertain their friends with ease, and also enjoy family time in the beauty of their location.

Barn Typology

With a real interest in the interaction between architecture and the environment, the traditional barn structure was a concept Cox was keen to explore. Generally confined to the farms of rural New Zealand, most barns are usually organised as part of a collection of buildings, all situated around a common arrival space. However, instead of housing farming equipment and animals, this structure would need to house a family.

Staying true to barn typology, Dimondclad Rib 50 vertical run steel was chosen as the primary cladding. Not only was this a cost effective option, it was also seen as an adaptive cladding that can easily be removed for future alterations, as well as being easily serviceable. The choice of black Dimondclad Rib

50, creates a dominant feature in the landscape and yet the barn typology blends in with the feel and identity of the countryside. Dimondclad Rib 50 is a versatile cladding that creates a distinctive look whilst maintaining clean lines and weathertight, concealed

laps. Bricks from a warehouse that was a of the Christchurch earthquakes and had found their way to a local demolition yard were picked up cheap and seemed a fitting cladding of the block forms to the south side. They create beauty and contrast against the form of the steel cladding. A secondary barn clad in Dimondclad Rib 50 forms the garage, which is detached from the main building.

Structures were also put in place to allow options in the future - a pergola that will later serve as a guide for an external sliding weather screen, a garage that can easily have lean-to storage to the rear for firewood and an upper loft that can continually increase along the length of the roof space via attic trusses to allow for a growing family.

A cedar clad recess is cut at the centre of the house and provides a covered outdoor area for the home while creating an outdoor foyer with framed views from the entry and loft. The recess also functions as a passageway to a deck.

The simplicity of a single depth living space and skylight ventilation to the loft space allows for passive ventilation via the "stack effect". Predominant north facing glazing also allows passive solar heating. Solar panels for hot water located on the north facing roof facades and a low particulate output wood burner with wetback complete a mild passive envelope.

Beyond the exterior

Inside, it's evident that this is a home made up of many elements. The interior is enlivened by recycled materials and off-the-shelf items such as bare light bulbs hanging from the roof by their cords, exposed beams , old distressed stools against the kitchen bench and brick features giving a modern industrial appearance. The judges in the ADNZ Resene Architectural Design Awards were particularly impressed by the use of these simple, yet effective additions and the disciplined palette of colours which they said invested the home's spaces with liveliness and charm.

There's ample space for the family to enjoy the home, including fun, quirky features such as a storage cupboard with a comic-book themed wall. A long deck protrudes from the house, with an outdoor dining option providing a seamless transition between the indoors and the outdoors.

Red Architecture

Red Architecture is an innovative Hamilton-based boutique architectural practice. Lead by Founder and Director Tane Cox, the practice was established with the aim of designing significant buildings and spaces that achieve their design purpose, and as a result give an alternative visual aesthetic to common architecture.

With an interest in creative form and modernism, Tane enjoys projects and clients that share his interests and passions and thrives on creating new ideas and designs for like-minded people.

Tane is an active member of Architectural Designers New Zealand (ADNZ), and benefits significantly from the organisation's inclusive culture and continuing pursuit of excellence.

Clients: Ben and Sarah Quinn

Architectural Designer: Tane Cox
Red Architecture. Hamilton
ADNZ member
Telephone: (07) 839 6852
Email: tane@redarchitecture.co.nz

Roofing manufacturer: Dimond
Profile: Dimondclad Rib 50
Colorcote® ZR8®
Colour: Black

Roofer: Westgate Roofing Hamilton
Telephone: 07 850 9407

Builder: Russell Last Creative Housing Ltd
Telephone: 07 847 7360

Engineer: John Dale .
JD Consulting Engineers
Telephone 07 855 4458

METROTILE INTRODUCES VENT TILES FOR ITS METAL TILE

By Stuart Hayman

NZMRM has long been promoting the need to ventilate roof spaces under metal roofs, to avoid moisture problems caused when moisture vapour passing from the house into the roof space cannot escape. Stuart Thomson has discussed this in detail in his recent series of Scope articles. NZMRM with BRANZ has investigated a number of roofs with supposed leaking problems which turned out to be caused by moisture from the house being unable to be removed by the ventilation available naturally in the roof.

It has been obvious that for many roof designs and environmental conditions some form of additional ventilation is needed over and above that created by the inherent shape, pitch or design of the roof, and discussions are ongoing about the amount of ventilation and the way to provide it.

Recent changes to E3/AS1 now allow roof space ventilation and we have been discussing with a number of interested parties how to achieve adequate levels of ventilation and what these levels are for different roof constructions and local temperature/humidity conditions. We have also been investigating products designed to create acceptable levels of ventilation under metal roofs.

Most of our discussions and recommendations have revolved around profiled metal roofing (longrun) which has no inherent ventilation by air leakage other than up the roof profile, and we have tended to consider that metal tile roofs provide enough self-ventilation by means of the "trickle" ventilation provided by the very small spaces between the tiles, but this is not necessarily true in all cases of design and environment.

Now Metrotile add a new-to-New Zealand method for ventilating metal tile roofs, which are used in Europe.

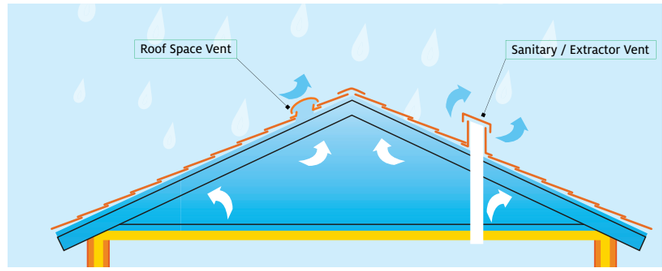
The builders and designers of houses in Northern Europe, where tile house roofs are almost universal, and where tiles are also used for many commercial applications where we would use longrun, are well aware of this. The issues we have only recently realised in New Zealand, of closed in air-tight houses and cold and humid weather conditions have long been common knowledge in Europe. These conditions can create serious moisture problems with attendant damage and health issues caused by mould and damp. In Northern Europe it is common to install multiple vents in the roof to allow the escape of roof-space moisture and also as a means of venting sanitary and other extraction systems directly into the air flow above the roof.

Visitors to Germany and Scandinavia will have seen roofs like this one, on a shopping centre in Denmark, with a row of "mushrooms" close to the ridge line. These are in fact ventilators used to vent moisture from the roof space, and also to cap vent pipes from inside the building. These replace our more familiar pipes and "boot flashings" and are certainly more aesthetically pleasing. Tile roofed buildings in Northern Europe, where diurnal temperature variation and humidity are similar to or worse than those experienced in areas of New Zealand where we have had moisture problems, can nearly all be seen sprouting various designs of such vents, and they are also seen on roofs clad with other materials. Metrotile have used these on roofs supplied into Europe.

A leading supplier of these products is J.A. Plast Industri in Denmark which makes a range of products for ventilation, of these "mushroom" type and a number of others for all types and finishes of roof.

Of course these products are designed to be used with air access at the eaves; products also supplied by J.A. Plast, and are designed to be weatherproof under all conditions of rain wind and snow.

Now Metrotile in New Zealand announces it is to supply J.A. Plast vent tiles to go with its metal tile roofs in New Zealand. These will be of two types – one to ventilate the roof space and allow air introduced at the eave to escape carrying with it moisture which can otherwise cause "leaking" issues. The



other is a sanitary vent cap which allows vent pipes from toilets and also from bathrooms, laundries and kitchens to exit straight up and out of the roof where natural air movement is at a maximum, to remove steam etc with no mechanical ventilation or less than required with the common horizontal venting.

These blend in naturally with the roof, instead of an intrusive and obvious pipe through a boot flashing. The vents are made as part of a single tile and are fitted into the roof without the need to cut any penetrations.

Comments from the builder and roofer of the house above, David Read Homes and Hain Sinclair Roofing –

- "They look smart and blend in with the surrounding roof as they are the same style and coated with the same finish as the tiles"
- "They allow me to provide ventilation to remove moisture from the roof space and places where it is created in the house such as the bathroom, laundry and kitchen, to comply with E3"
- "They can be installed at the same time as the tiles and don't require cutting any holes in the roof"
- "They are available to suit all Metrotile profiles"

To take advantage of these benefits and for further information see Metrotile at www.metrotile.com and J.A. Plast Industri at www.japlast.com

Roofing Company:
Hain Sinclair Roofing
Hain Sinclair
Email : hain.sinclairroofing@gmail.com
Telephone: 021 582444

Builder:
David Reid Homes (Southland) Ltd
Chris Leith
Telephone: 03 208 8100

After a high-profile career including 20-plus years managing companies in various Asian countries, all Kevin Ramsey wanted to do when he returned home was build and live somewhere that was “authentically New Zealand.”

BELONGING TO THE LAND

He’d bought land near Queenstown that supported grapevines, and remembered how good Peregrine Wines’ former woolshed looked.
“It had been there since the 19th century and seemed to belong in the landscape; be part of it,” Kevin explained. “That’s what I felt was the real Central Otago, and that’s what I wanted for my place.”
His brief to architect Tony Koia of Koia Architects Ltd was therefore to translate that sense of permanence and aged simplicity into a modern home with modern conveniences, which nevertheless looked as if it had been there for a century or so.

“Each time we presented finishes to the client, he would say ‘make it rougher’,” says Tony Koia ruefully. “There’s no gib board anywhere – walls are stone or band-sawn cedar, downstairs floors are polished concrete, and the ceilings are corrugated iron as well as the roof. Reproducing Kevin’s aesthetic was an interesting challenge!”
“I never once considered anything else for the roof,” declares Kevin. “Steel roofs are synonymous with New Zealand, and since I was a kid I’ve loved the sound of rain on the roof when we’re warm and dry inside, just like thousands of other kids still do I’m sure.”

The steel roofline incorporating two dormers also meant care had to be taken at the design stage to ensure the potential for future corrosion was minimised. Corners, joints and protected pockets in structures can easily trap dirt, debris and snow and if drainage is poor, rainwater will inevitably collect there too. This situation can allow the corrosion process to start so relatively steep, well sealed angles are required to ensure rainwater can flush debris and dirt away to ensure that ponding doesn’t occur.

Between the Zincalume® steel roof and ceiling is self-supporting roofing underlay fixed to purlins and rafters, and batts insulation between the rafters and ceiling, which ensured the house met all current Standards. Recycled rafters were then fixed to the ceiling to give the impression of seeing the underside of the roof from inside the structure.
To accentuate the aged effect, the roof was broom painted in three different layers of low-sheen paint.

"Applying three different layers in three slightly different colours of matt paint immediately gave the impression of the roof having been repainted over many years," explains Tony. "Obviously, this also avoids high reflectivity within the environment and although it wouldn't be immediately obvious from the ground, brooming the paint onto the roof also made for somewhat uneven coverage. Brooming three layers on to it not only gave subtle complexity to the finished colour, but served to provide excellent final coverage as well. It also helps give the home the aged appeal that Kevin wanted."

Kevin loves the charm that buildings acquire as they age, and the subtle textures distilled from a well loved and lived in home. While this ethos was refined during his time in Japan, it's something he believes he's always leaned towards. It is summed up by the Japanese words "shibumi. " or "shibusa," which refer to simple, subtle, and unobtrusive beauty that offers "timeless tranquillity."

The seven elements of this concept are said to be simplicity, implicity, modesty, silence, naturalness, everyday-ness, and imperfection.

When applied to objects, they should appear to be simple but will include subtle details such as interesting or unexpected textures, that balance simplicity with complexity. The concept treads a fine line between contrasting aesthetic concepts such as elegant and rough, or spontaneous and restrained. What he and Tony achieved is a building they describe as "unself-conscious" – one that appeared to be thrown up with whatever was at hand.

Beyond the design, materials also needed to reflect this aesthetic. Locally sourced schist formed the 800mm thick exterior walls, and even details such as grouting were not to look too new.

Inside, the floors are concrete on the ground floor with beech floorboards upstairs, and underfloor heating throughout. The band-sawn cedar interior walls give their own character, revisiting times past by using tongue and groove machining and coincidentally meaning it's impossible for them to be perfectly even. The boards are painted in thinned coats which may suggest the fashionably distressed look, but more importantly continues to honour the early woolshed theme.

The large double fireplace is the central feature of the north-facing external wall, and opens to the external entertainment area and

fireplace protected by a low schist wall. There's even a cedar "lean-to" on the eastern side of the house which houses the dining area and a large bathroom. While the lounge area rises clear to the roof, the rest of the house supports a partial second floor including barn doors opening above the lounge area, recalling many older woolsheds. Of course, this also allows the second floor to borrow heat directly, and the resultant opening is protected by railings.

"This is a home that combines the simple farm structure of the Peregrine Farm shed with the ease and informality of the Blue Door Café," says Tony when describing it. The finished effect has certainly achieved a sense of belonging in its environment, and Tony is almost as delighted with it as Kevin.

Koia Architects

Koia Architects has created many beautiful homes throughout the Wakatipu District. "We have enjoyed working on a wide range of projects from 'High-Tech Barns', to 'Millbrook Country Homes', 'Modern Sculptural Homes' that blend into the landscape, to Interpretations of Original Otago dwellings. Each location and client creates their own individual response and the natural environment sets a high standard.

The Ramsey house is a case in point. Set amongst an established vineyard and overlooking the Shotover River, the client wanted an original piece of Otago. Unself-conscious, almost non-architectural, unrefined, direct, this home was the opposite approach to many homes we are engaged to create.

With offices in Auckland and Queenstown, we are able to access the best products the world has to offer and combine this with an intermit knowledge of the area.

Local schist in all its variety, combined with what can start to appear like an infinite number of mortaring methods, provides unlimited combinations with other materials.

It is certainly a beautiful place to create architecture.

Architect:
Koia Architects
Auckland and Queenstown
Telephone: 3 441 2271
Telephone: 9 373 2244
koia@koia.co.nz
http://www.koia.co.nz

Roofing Manufacturer:
Calder Stewart Industries Limited
Invercargill
Telephone: 03 214 5544
Roofing: ZINCALUME®

Builder:
R M Smith Builder Ltd
Kerry Smith
Telephone: 272743386
kmsmithbuilder@xtra.co.nz

THE TERRACES ON PARKWAY SEAVIEW MILLWATER

When Horncastle Homes decided to build medium density homes at Millwater, it was determined to set a high standard.

As Horncastle's Brendon Hosken says, "It was critical for public opinion that these first terraced houses were designed and built well. We successfully set the benchmark very high. To the point that Auckland Council is showcasing us as an exemplar case study in their planning Design Manual."

The 145-190sq m two-level homes have a boatshed look referencing the views over the Orewa river from the Seaview community in Millwater. As Horncastle architect Tim Devine says, "It's a sort of Cape Cod-style home; American-type seaside architecture. We wanted to do something with a different look and feel to the surrounding homes, which are mostly dark brick with a hip gable roof."

Tim says the homes are not only designed to look smart but also to be as maintenance-free as possible and that comes from using quality materials such as the COLORSTEEL® Endura® roofing and the James Hardie Stria cladding, a lightweight composite cementboard .

Brendon Hosken says longrun roofing has been used on all the terraced homes that Horncastle has built at Millwater, while their free-standing homes in the subdivision have pressed metal tile roofing. He says a steep roof pitch on the terraced houses means there is a high level of street visibility for the roof cladding and finish. Because of that the COLORSTEEL® fascia and gutters were used for a matching clean look and good durability.

The terraced home are either three or four bedrooms, with two bathrooms and double garaging. Timber balustrading on the first floor balcony of the homes softens their look and provides an element of privacy. The balustrading also extends below the balcony to provide some shading for the ground floor living areas.

As Tim explains, “The homes are right on the street there so the balustrading gives you privacy but you can still see through it pretty easily, and because it hangs down over the ground floor window it gives you shade as well as providing a nice dappled light inside.”

Brendon says the light, bright feel of the homes has been a hit with buyers.

“Market uptake and general public opinion of Horncastle’s terraced houses has been nothing short of amazing. Every stage has sold out before completion.”

Brendon says there are “about 10 stages and about 100 houses in our medium-density projects”.

The Millwater residential development is made up of five communities – Arran Hills, Arran Point, Seaview, Ridgedale and Bonair - and is situated between Silverdale and Orewa, with access to the Northern motorway and just 10 minutes’ drive from Albany.

The setting for the development includes rivers, gentle hills, parks and playing fields. Along with the residential development, there is a growing business centre.
Home owners at Millwater can expect state of the art technology such as fibre optic broadband as well as facilities such as a swimming centre, gymnasium and playing fields.

Roofing manufacturer:
Steel and Tube, Albany
Telephone: 09 415 3490
http://steelandtube.co.nz

Roofing: COLORSTEEL® Endura®
Profile: Plumbdek
Colour: Ironsand

Roofer installer:
Roof Improvements Ltd,
Telephone: 09 267 3040

PROPOSED NZMRM SYSTEMS WARRANTY INITIATIVE

The New Zealand Metal Roofing Manufacturers (NZMRM) is an incorporated body representing the majority of metal roofing manufacturers in New Zealand. Metal roofs constitute over 95% of all Commercial roofs and around 75% of all Residential roofs in New Zealand. The NZMRM is a voluntary organisation and provides the metal roofing and cladding industry with a vehicle to lift standards, by addressing technical and regulatory issues at an Industry level, and to "increase the size of the pie", by targeting generic promotional opportunities.

In 2002 the New Zealand Metal Roofing Manufacturers launched SCOPE magazine, which promotes the benefits of steel roofing products to some 10,000 designers, builders and roofing companies throughout New Zealand.

In 2003 the NZMRM published the Code of Practice, which has become the Industry guidance document for the selection, design and installation of metal roofing and wall cladding systems.

In 2011 the NZMRM commenced work on an Industry Systems Warranty program. This work was undertaken in direct response to the pending Building Act amendments, which come into effect 01 January 2015, and which require Builders to offer "10 year regime" responsibilities for materials and workmanship. These pending changes have created a "vacuum" opportunity in the market that are not covered by any of the existing Supplier component warranties. Furthermore, the proposed Systems Warranty product is complementary to the existing Builder Warranty & Guarantee products and its proposed cover extends beyond all of the existing guarantee products in the market.

During the last four years the NZMRM has been actively working on an Industry Systems Warranty program for pre-painted longrun products used in new and re-roof residential applications. The development of the proposed NZMRM Systems Warranty program has been an organic journey involving Members, Suppliers and Industry Partners, including the Roofing Association of New Zealand. Latterly the NZMRM has met with the Certified Builders and Master Builders Associations in regards to the proposed program. In due course the NZMRM will meet with ADNZ, NZIA and BOINZ representatives and Building Supply Merchants and other Industry participants in regards to the proposed program. The potential roll out of the proposed Systems Warranty program into other product areas and applications such as Wall Cladding, Metal Tiles and Rainwater Goods will be dependent upon demand.

The key value proposition supporting the proposed Industry Systems Warranty program is that it;

- ❑ Applies when the Product, Supplier or Installer is no longer around
- ❑ Mitigates Builders Building Act Responsibilities
- ❑ Supports Roofers Building Act Responsibilities
- ❑ Supports, in conjunction with the NZMRM Code of Practice, best practice design, products and systems.
- ❑ Becomes an inclusive "Quality Mark" for a published list of Approved Suppliers and Products

In addition the proposed Industry Systems Warranty program reduces Industry compliance costs, supports professional and ethical behaviour, via a Systems Warranty Supplier Code of Conduct, inhibits the inappropriate substitution of customer specified products and provides the NZMRM with a financial vehicle to promote metal roofing growth opportunities.

The Certified Builders and Master Builders Associations clearly understand the value proposition of the proposed Systems Warranty program and are supportive of it in principal, subject to viewing the final offer.

The NZMRM expects to have provided committed Members , Suppliers and Industry Partners with a "beta" version of the proposed Systems Warranty program for legal, peer and financial review by mid-December 2014. The NZMRM understands that the December circulation of the Systems Warranty management company and product documents will essentially be the "starting point" in the development of a successful and sustainable Systems Warranty program and that there are still a number of unresolved issues including the ongoing compliance requirements for existing products and the testing and verification requirements for new products. The NZMRM is also working on a final review of the Building Amendment Act, the Fair Trading Act and the Consumer Guarantees Act to ensure that they are fully accounted for within the proposed Systems Warranty program. However, subject to there being no "show stopping" issues and a favourable review of the proposed Systems Warranty management company structure and product options, the actual introduction of a NZMRM Systems Warranty program would then be dependent upon it being accepted by the NZMRM Members at the 2015 Annual General Meeting or an earlier Special General Meeting.

Though the catalyst for the proposed Systems Warranty program has been amendments to the Building Act requiring Builders to offer "10 year regime" responsibilities for materials and workmanship and for Warranty providers to prove that they are financially able to meet their long term liabilities, the proposed Systems Warranty program will also incorporate recent changes to the Fair Trading Act and Consumer Guarantees Act.

The primary intention behind the proposed Systems Warranty program is to make it more attractive for Designers, Builders, Roofers and Homeowners to specify Systems Warranty approved products and suppliers by providing them with a cost effective "minimum performance" backstop warranty program that reflects the "fit for purpose" regime requirements of the Building Amendment Bill. To achieve this the NZMRM will be actively working with Industry Suppliers, including RANZ, to include a best practice design and performance requirements section within an updated version of the NZMRM Code of Practice, which will set the minimum standards required of the Systems Warranty.

Systems Warranty

Under the proposed program Roofers, Builders and Homeowners would be able to choose from a "Warranty Continuum", ranging from the existing component Warranty options through to the proposed Supply & Install Systems Warranty program, as best suits the needs of their individual requirements and the project opportunity. It is also envisaged that NZMRM members would lodge the individual Systems Warranty applications from a published list of Accredited Suppliers and Code of Practice approved Products as a result of Designer, Builder, Roofer or Homeowner specification. As a result the proposed Systems Warranty program is an incremental value added offer to existing route to market and supply options.

Due to the "minimum performance" baseline requirements of the Systems Warranty program it is highly likely that, in many instances, the component warranties offered by Individual Suppliers will offer additional cover to that of the proposed Systems Warranty, and Suppliers will therefore be actively encouraged to promote their individual value propositions within the Systems Warranty program.

The proposed Systems Warranty program will be run by a separate Warranty company in order to mitigate potential liability issues. The Systems Warranty Management company will also provide Designer, Builder, Roofer and Homeowner customers with the protection of an independent platform to manage Warranty issues, which is of particular value if a Supplier was no longer around. It is also intended that the Systems Warranty Management Company will be a financial vehicle to lift and maintain standards and to actively target metal roofing growth opportunities. It will also provide the Industry with a co-ordinated vehicle to communicate with the Homeowner in regards to their maintenance and sub-trade responsibilities.

The NZMRM is currently targeting a 01 July 2015 launch of the proposed Systems Warranty program subject to it meeting its various "sign off" milestones and being accepted by the NZMRM Members at a March or April 2015 Special General Meeting.

The NZMRM Systems Warranty sub-committee is composed of Darrell Back (Taranaki Steel Formers), Phil Prior (Roofing Industries), Warren Oliver (Franklin Longrun) and Gary McNamara (Consultant). Please do not hesitate to contact Gary McNamara directly on 021 975 891 or gmacconsult@gmail.com if you would like any further information on the proposed NZMRM Systems Warranty program.

EFS OFFICE, NEW PLYMOUTH

Accountancy is often stereotyped as a dull, colourless profession but EFS Accounting has broken the mould with its vibrant new building in New Plymouth.

The two-storey building designed by Saunders Architects has a colourful façade clad in aluminium in bright green, orange, tan and silver

As architect Neville Saunders, of Saunders Architects, says: "With 19,000 cars passing daily the clients wanted a place that stands out from the crowd. They got it!

The green colour was specially formulated from a car paint colour range as none of the paint brands had a bright enough green in their standard range. The colour has been sprayed onto a laminated aluminium base for durability and a quality finish."

He adds, "The other sides of the building didn't miss out, however, on the colour as a pre-coated vertical steel siding and aluminium weatherboards allowed for a multicoloured finish to be achieved."

The façade of the building has a slightly cubist look to it, accentuated by the contrasting colours - an effect that Neville is happy with as he enjoys using colour in his designs and creating a sense of art.

"We made the windows the same shape to fit in with the panels, and the panels form a nice sort of cross," says Neville. "That effect is purely artistic because I think buildings should be a piece of art. At the same time, the building has a great connection with the street."

He says the colours on the façade have also been worked into a street sign and the company's business cards.

Neville says using coloured metal cladding on the building met the client's brief in several respects: the two-storey building has street appeal, the materials were within the budget constraints and they are low-maintenance.

He says the other requirements from EFS for the approximately 400sq m building included staff parking below (with access via a right of way on the east side) with roller door access, and concrete floor construction with timber-framed structure for the main level.

EFS also wanted storage in the

basement for archives, an internal stair from the basement car park to offices above, which sit at street level on the main street to provide easy access for elderly clients and mothers with pushchairs.

With the main floor, EFS wanted two partners offices, two interview/ meeting rooms, reception area, three senior accountants offices, large staff office (with 4/5 desks), a boardroom next door to a kitchen with outdoor access to a deck, as well as toilets, storage, and space for a filing system.

The brief also called for a light and bright, climate-controlled office environment to make the offices a pleasant place to work year-round. Neville says, "The design for the building follows the requirements of the brief and site constraints. A sloping site allowed for a building

with basement parking and a level entry to the main office from the street - two of the client's main criteria.

"The building is on a one-way street so the predominant view is when approaching from the east down the one-way system. For this reason, the front elevation became the focus for the building. A strong decorative panelled full height wall on the corner facing the approaching traffic provides the anchor for the building and colour scheme. The entry is outlined by another strong L shaped element that provides a contrasting colour and makes a "book-end" to complete the front elevation."

"Side walls and the rear of the building are clad with vertical steel cladding in complimentary colours to the front elevation.

"The Metclad 850 cladding is economical, low maintenance and can be purchased off the shelf in many attractive COLORSTEEL® colours so proved to be ideal for use around the three sides of the building that required a more utilitarian finish."

Neville says, "We are passionate about colour to give each project a unique presence. The practice aims to place the client's needs above all else thus ensuring continual work by means of referrals from delighted clients."

Saunders Architects has specialised in designing childcare centres over the years but its portfolio also includes every genre from residential, commercial, education, hospitality and industrial buildings.

Architect:
Saunders Architects Limited
Telephone: 6 759 7430
Mobile: 027 60 151 60
info@saundersarchitects.co.nz
www.saundersarchitects.co.nz

Main contractor:
Street & Cook Construction Co Ltd, New Plymouth
Telephone: 06 751 2299.

Roofing and cladding supplier:
Metalcraft Roofing New Plymouth,
Telephone: 06 755 2113

Roofing: 0.55 ZINCALUME®
Profile: MC760 and 3 degrees pitch, natural finish.

Cladding south, east and west faces:
COLORSTEEL® Endura™
Profile: Metclad 850 laid vertically,
Colour:'Cloud White', 'Ebony Black' and 'Terracotta'.

Cladding: North wall – street frontage
PSP Alpolic aluminium composite (ACM) cladding
Custom sprayed colours:
'Bright Silver Metallic', Resene 'Fleet Digital Green', Resene 'Tan', Resene 'Orange'.
Nu-Wall Mono 190 prefinished aluminium weatherboards, colour 'Matt Black'

Saunders Architects

A small, vibrant architectural practice based in New Plymouth, Saunders Architects is currently involved with projects throughout New Zealand from Northland to Queenstown.

Architect Neville Saunders, the principal, believes that a good architectural practice should have the emphasis on confidential and personal service while upholding the principles of honesty, integrity and respect. Visual appearance, cost efficiency, functionality and good resale value are all vital when it comes to designing for a client. The skills, knowledge and experience of the architect enable the firm to "do well what we do well" and also enable it to give a project that little bit of extra pizzazz.

SCOPE NEWS AND VIEWS

Zincalume® - consent not required during PAUP hearing process.

Jenny Bain: Rooflink

Roofing companies in Auckland may have encountered problems with the restriction included in the Proposed Auckland Unitary Plan (PAUP). In the proposed plan, Auckland Council has said roofing and cladding products with an exposed surface coating of more than 10% zinc are high contaminant yielding and even though the plan is currently under review, certain rules relating to the environment mean high contaminant yielding materials must now be considered in planning applications.

Zinc is one of the contaminants of concern to the Auckland Council and galvanised steel roofing has been identified as a principal source of zinc in stormwater which contributes to accumulation of zinc in sediments. Colorsteel ®prepainted steel is not affected by these restrictions and Auckland Council acknowledges that pre-painted steel has contributed to falling zinc levels in the harbours and that this trend will continue.

In disputing the changes proposed, New Zealand Steel has sought guidance on whether Zincalume® coated steel falls within the definition of a high contaminant generating area. It should be noted that this product has a clear coating but it is uncertain whether that coating is sufficient to exclude it from the definition.

Zincalume® came on to the New Zealand market in 1994 and is produced by a hot dip process that produces an alloy coating of 43.5% zinc, 55% aluminium and 1.5% silicon. It has proved ideal for the Auckland region with its prevailing winds which carry salt laden air for many kms inland.

Auckland Council has taken the view that during the hearing process on the PAUP Zincalume® roofing, spouting and wall cladding and architectural features will not require resource consent where their area exceeds the installation thresholds in the rule.

A critical review of zinc trends in Auckland streams, estuaries and harbours was presented by Dr Bryan Shedden of BlueScope, Port Kembla, NSW at Water New Zealand's annual conference. In this review Dr Shedden concludes that zinc levels in Auckland are mostly observed to be reducing. Freshwater streams in particular were consistently observed to have declining levels of zinc over the last 20 years of monitoring and this finding is consistent with NIWA modelling of the Upper Waitemata Harbour and Southeastern Manukau Harbour – both of which showed a decreasing trend for zinc loads in stormwater between 2001 and 2015 – 20 as existing galvanised roofs are replaced by zinc aluminium coated steel, followed by a slow increase as vehicles become the dominant source of zinc.

If you have been following this issue New Zealand Steel has a website devoted to zinc run off: http://www.nzsteel.co.nz/zincalume%C2%AE-steel-roofing-and-stormwater-consent-conditions/

Recently restrictions were applied to one project however this was quickly resolved with Auckland Council. New Zealand Steel says in the unlikely event that you experience similar restrictions, contact Pat Dwyer, Technical Marketing Manager at pat.dwyer@bluescope.com

Painted aluminium roof installation updates

Between 2006 and 2008 the technical committee of NZMRM investigated some reports of corroded painted aluminium roofs in severe environments, where premature failure had occurred. This investigation determined several adverse installation conditions which had not previously been realised would cause problems.
In 2010 both Pacific Coilcoaters (the manufacturer of ARX and AR8 painted aluminium coil) and NZMRM issued bulletins explaining how to avoid these conditions.

One of these was subsequently written up in Scope, and the information published in the Code of Practice, as advice on correct installation methods.

Since then further discussions have been held and further improvement of methods developed, specifically inclusion of methods to prevent access of salt/moisture laden air at the roof eaves and also avoidance of contact with various materials that tests had shown to be deleterious to painted aluminium cladding.

Some investigation is continuing and specifically on a test roof in New Plymouth, but we have been able to cover all known hazards and describe how to avoid them both in an update to the COP V 2.3 issued in June 2014, in Section 7.11, and derived from this, new a PCC bulletin, No 9 issued in August 2014.

PCC Bulletin No 9 August 2014

Supersedes Bulletins 1 and 5
Fixing of AR8™ and ARX™ as per MRM COP v3.0

Technical Bulletin Number 9 follows the guidelines as laid down in the NZ Metal Roof and Wall Cladding Code of Practice Version 2.3 Section 7.11

Aluminium has been used as a roofing material for many years and performs well in Severe and Very Severe Marine, Geothermal and Industrial environments. As with any material, to achieve its potential durability, installation requirements appropriate to the material and its environment must be adhered to.
In general good aluminium cladding design prevents salt laden air from entering the roof under-space, allows for adequate ventilation of the under-surface, and prevents contact with dissimilar metals and corrosive surfaces.

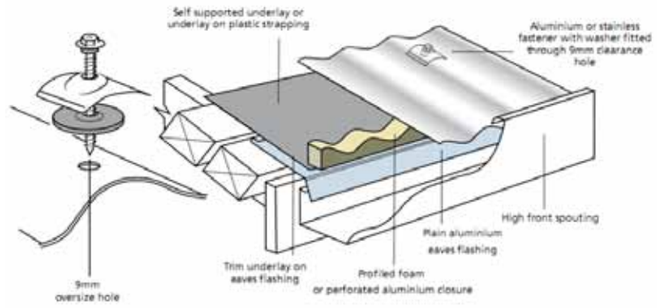
Recommendations

1 The front edge of the spouting or gutter must be higher than the crest of the roofing profile.

2 An eaves flashing of aluminium must be used. Underlay should terminate on top of the eaves flashing.

3 In exposed situations, profiled closures of closed cell foam may be used at the eaves line. If closed cell foam is used, provision must be made for eaves or soffit ventilation, together with ventilation at the apex, to prevent structural damage due to excessive condensation build up.

4 When re-roofing with aluminium, the existing support members must be inspected to ensure that complete removal of staples, wire netting, nails or other materials likely to damage the aluminium have been removed.
5 Galvanised netting or mesh must not be in contact with the underside of aluminium roofs. If present, it must be separated by a



Drawing 7.11

5 mm barrier of inert non-absorbent, non-reactive material. Alternatively self-supporting underlay may be used. Plastic strapping can be used for supported underlays, stapled with stainless steel staples to the vertical face of the purlins.

6 When aluminium is adjacent to a corrosive surface such as concrete, butyl rubber or CCA treated timber in a wet environment, separation must be achieved by employing a 5mm rigid strip of inert non-absorbent material, an open woven geo textile layer, or PVC netting. Plastic coated steel netting is not recommended under aluminium sheeting.

7 All screws should be fitted with a profiled or bonded washer. Fixing screws shall be aluminium or stainless steel grade 304. When using stainless screws, they are to be fitted centrally through pre-drilled 9mm oversize holes for roof and walls regardless of sheet length. For sheet lengths in excess of 10 metres, capacity to allow for thermal expansion must be in accordance with MRM COP tables (4.1.6)
To download the original bulletin go to www.colorcote.co.nz

Fixing details as per MRM COP 2.3 June 2014
As further information is found or methods developed these will be the subject of future bulletins.

For example just recently we discovered that Primepac, Sifco and Talon are offering plastic and aluminium staples that fit standard staple guns. These would seem to be a suitable inert/compatible staple to use for fixing underlay and tape/strapping under aluminium roofs. We have not yet tested these.

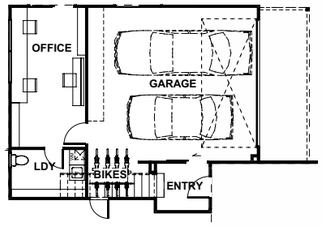
MURPHY RESIDENCE

With their family maturing, architectural designers Lynda and Paul Murphy decided it was time to move closer to town so their children could have more independence. They chose to build in the new area of Millwater, situated between Orewa and Silverdale, north of Auckland, and relished the chance to design a family home for the next phase of their lives.

"We liked the subdivision because they had left a lot of the old shelter belts and incorporated them into some good landscaping. There are green avenues with some mature trees down the middle of the street," says Lynda. "We also liked the fact that the land here used to be my friend's family farm and the names of the street relate to them." Lynda says the site at 520sq m was much smaller than they were used to, and of course there would be neighbours to consider and all the usual constraints.

She says, "Our usual work is residential homes and alterations, and I've been involved in a number of homes in this subdivision recently, so it was exciting for one of them to be our own home. I love the idea of being economical with the spaces, and making

projects cost effective - it's always a challenge, but if we give clients designs that are too expensive for them to build, then the project won't get built and nobody wins. We, too, had a tight budget and did a lot of the finishing work ourselves - we felt like we were on "The Block" at times, but it does give you a great sense of satisfaction – and, of course, a great big 'Thanks' to all the friends and family who also gave us a helping hand."



LOWER FLOOR

UPPER FLOOR

Lynda says the planning rules for this location are quite different to other local areas, which allowed for a more economic use of space. In Millwater, housing is encouraged to be closer to the street and taller, thus allowing for a larger backyard than is normal for a smaller sized section.

The amount of fall across the site meant that the logical start for the design was to have a garage and office underneath and living areas upstairs opening up to a deck and outdoors. The home also needed to provide a large office so the clients could work from home, three beds, study, separate lounge (which doubles as a guest bedroom) and a large living/kitchen/dining area - all within 216sq m. There is very little wasted space in the design, and there are a number of multi-use rooms to avoid making the house larger than required. The lounge doubles up as the spare bedroom, the office can be converted to a separate granny or teenage zone, the garage is insulated so that it can be used as part of the house, the large sliders mean that the family room that is not overly large but feels much bigger when opened up to the covered deck.

Using sliding doors that meet at a pillarless corner accentuates this feeling of openness and the easy flow to the outdoors is aided by the channel for the sliding door being set flush with the deck.

The south side of the building is very close to the boundary and a large accessway so the house wall on this side has been treated as though it is a barrier fence, shielding the house from view, with just some slot windows for the kitchen area.

Building their own home also allowed Lynda and Paul to explore a few different products. Having used corrugated steel walls for their last two homes, it was time to see what products were going to be right for this project.

Lynda says, "Everyone loves the wide pan look, so eventually the Roofing Industries' Multidek was chosen, it was an economical option, with no visible fastenings, and accentuated the vertical form of the walls. The Multidek is on a cavity system, as it is too flat to be direct fixed. The set out of the sheets was important and marked on the plans

to work back from each end point so that the flashing sizes were all the same."

Lynda says, "Rob Lovie from Affordable Spouting and Roofing was great on site, and had a wealth of knowledge about the product. The cladding went up quickly and easily. Concealed brackets also help to allow for movement as well as looking neater and sharper visually.

"Originally it was planned to have no windows at all in the cladding - but a change was made, and the four north windows were set out to suit the cladding module. A few lessons have been learnt over the years working with pre-finished claddings, and they have been kept away from high impact everyday use areas as a weatherboard cladding is just easier to patch, replace and repaint after it's been hit with a cricket ball."

To provide contrast with the Multidek® cladding, the couple used painted timber weatherboards and vertically arranged birch-stained cedar.
And another lesson that Lynda has learned was the benefit of providing a water tap for tradesmen to use during construction that was away from the metal cladding. This means there is no risk of plaster, paint, concrete, grease etc ending up on the prefinished cladding.

The couple also tried something different with the flooring that would help rein in the budget.

"This home has vinyl floors, which look great and are incredibly practical," says Lynda. "The main living area floor is Resene Whitewash and polyurethane on a sanded strandboard floor. The kitchen is off the shelf from Mitre10, but we chose a stone top for the centre, and the rest is Formica which looks like the stone - which has proved to be a great mix, both for budget and usability."

The shape and orientation of the roof was perfect for adding solar panels, so the house has been prewired and extra purlin nogs added, so that 12 PV panels can be installed easily.

Lynda says, "The way that you always see the home from below means they will hardly be visible once installed even though they will be on a tilted frame."
Being on a tilted frame, rather than flush with the roof, means the roofing material beneath will also get washed.

Lynda adds, "The house has a number of passive solar features, with sun used in the living areas to heat the strandboard floor - not quite as effective as concrete."
They also beefed up the insulation and decided to have no recessed lights. With only surface mounted lights the insulation is more effective and the noise from rain is reduced.

Lynda says, "All in all the home has a fabulously warm feel with a little bit of fun - from the bright orange front door, laundry chute, fully opening face sliding doors, and toys in the kitchen display - it will be perfect for the family in years to come, and we are looking forward to a summer without any painting required."

Paperspaces Architectural Design

Lynda and Paul Murphy believe in responding to a client's requirements and their chosen site for architectural solutions. The couple have 15 years' experience working in the local area on a wide variety of residential projects. They use the latest design software in preparing clear and concise documents which will fulfil the requirements of local authorities and allow for a hassle-free construction. Their expertise covers residential design in urban, rural, coastal, and medium density settings beginning with site assessments and feasibility of development proposals right through to full documentation.

Architectural Designers:
Lynda and Paul Murphy
Paperspaces
www.paperspaces.co.nz
Telephone: 09 424 7590

Roofing and cladding supplier:
Roofing Industries,
Telephone: 09 414 4585
Roofing: Trimrib® Colorcote® ZR8
Cladding: Multidek on Cavity
Colorcote ZR8
Colour: 'Black'

Roof and cladding installer:
Affordable Spouting and Roofing,
Telephone: 09 412 7972

Fascia, Gutter & Downpipes
Metal Line Roofing
Paul Stenburg
Telephone: 027 208 5460
Colour: Ebony
Metalcraft Fascia
COLORSTEEL® Maxx®

Builder: Tom Dunn
TLD Construction
Telephone: 0272 337 537

Engineer: Harris Foster Consulting,
Telephone: 09 367 1070

For further information on Metal Roofing or Cladding or details of any of the articles which appear in this publication please contact any of the members listed below.

Members of the NZ Metal Roofing Manufacturers Inc.

A Ellery & Sons Ltd
PO Box 178
Greymouth
Telephone: 03 768 5029
Contact: Clark Ellery

AZKO Roofing Limited
41 Shakespeare Road
Christchurch
Telephone: 03 365 9808
Contact: Maurice O'Flaherty
www.azko.co.nz

B J Moss Ltd
PO Box 1007
Gisborne
Telephone: 06 867 1219
Contact: Roger Moss
www.bjmoss.co.nz

B R Roofing & Walling Co Ltd
Ford Road
Onekawa, Napier
Telephone: 06 843 6968
Contact: Phillip Fendall

Calder Stewart Industries Limited
PO Box 1400
Invercargill
Telephone: 03 214 5544
Contact: John D'Arcy
www.calderstewart.co.nz

Continuous New Zealand Ltd
PO Box 151
Takanini, Auckland
Telephone 09 268 1555
Contact: Nick Claridge
www.continuous.co.nz

Contour Roofing Nelson Ltd
PO Box 9015
Annesbrook, Nelson
Telephone: 03 546 4260
Contact: Dave Freeman
www.contourroofing.co.nz

Franklin Long Roofing Ltd
PO Box 151
Pukekohe, Auckland
Telephone: 09 238 9249
Contact: Warren Oliver
www.franklinroofing.co.nz

E.R. Freeman Ltd
Freeman Roofing, Nelson
Roofline Marlborough, Blenheim
Canterbury Long Run Roofing, Timaru
Canterbury Long Run Roofing, Ashburton
www.roofing.co.nz

Roofing Solutions, Dunedin.
P.O. Box 2317
Stoke, Nelson
Telephone: 03 5443108
Contact: Shane Atherton
www.roofing.co.nz

HB Longrun Ltd
PO Box 3056
Napier
Telephone: 06 843 6159
Contact: Chris Patheyjohns

Marshall Industries Ltd
PO Box 846
Invercargill
Telephone: 03 218 2579
Contact: Tom Marshall
www.marshalls.co.nz

Megami Metal Roofing Systems
PO Box 113
Takanini, Auckland 2245
Telephone: 09 268 8959
Contact: David Moselen
www.megamiroofing.co.nz

Metalcraft Roofing
PO Box 51286
Pakuranga, Auckland
Telephone: 09 274 0408
Contact: Tony Barbarich
www.metalcraftgroup.co.nz

Metal Design Solutions
PO Box 33
Drury, Auckland
Telephone: 09 294 9134
Contact: Jan Alberts
www.metaldesignsolutions.co.nz

Metrotile (NZ) Ltd
PO Box 72-062
Takanini, Auckland
Telephone: 09 299 9498
Contact: Harry Boxall
www.metrotile.com

Queenstown Roofing Ltd
PO Box 2418 Queenstown
Telephone: 03 442 3883
Contact: Bill Giller
www.qtroof.co.nz

Quin Roofing Ltd
PO Box 1087
Levin, 5540
Telephone: 06 3679480
Contact: Bruce Love
www.quinbuildings.co.nz

Roof Manufacturers Limited
PO Box 319
Tauranga
Telephone: 07 578 2650
Contact: Martin Smith
www.roofman.co.nz

Roofing Industries Ltd
PO Box 302 385
North Harbour Post Centre 0751
Telephone: 09 414 4585
Contact: Paul Ross
www.roof.co.nz/

Roofline Products Ltd
PO Box 16302,
Christchurch
Telephone: 03 349 8439
Contact: Colin Megaw
www.roofline.co.nz

Silbery Long Run Ltd
69 Montgomery Crescent
Upper Hutt
Telephone: 04 526 9343
Contact: Angie Silbery-Dee

Steel and Tube Roofing Products
PO Box 204216 ,Highbrook,
Manukau 2162, Auckland
Telephone: 09 273 7628
Contact: Rod Newbold
www.steelandtube.co.nz

Stratco (NZ) Ltd
PO Box 8494
Christchurch
Telephone: 03 338 9063
Contact: Andrew Staff
www.stratco.co.nz

Taranaki Steelformers Ltd
Wanganui Steelformers
King Country Longrun
PO Box 36 Stratford
Telephone: 06 765 5191
Contact: Darrell Back
www.steelformers.co.nz

The Architectural Roofing Company
PO Box 8052
Hornby, Christchurch
Telephone: 03-3445991
Contact: Bruce Gibson
www.trayroofing.co.nz/

SCOPE

Scope is the official publication of the N.Z. Metal Roofing Manufacturers Inc..
http://www.metalroofing.org.nz