ISSUE 5

# SCOPE

NZ Metal Roofing Manufacturers Inc.

## PRESIDENT'S FOREWORD

Welcome to our fifth issue of SCOPE.

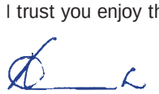
2003 has been an exciting year in the industry with the launch of the Code of Practice for metal roofing and cladding and some exciting new products and developments. As we progress into 2004 we will be endeavouring to bring information and examples of these as they are completed.

It is increasingly encouraging to see the diverse range of material which is now being submitted for publication in Scope. Many architects, designers and manufacturers have recognised the value in submitting their work which is of benefit to the industry overall.

We continue to encourage you, our readers, to submit projects and wherever possible we have an undertaking to publish these; from the most innovative small projects to commercial and residential design solutions. Our primary interest is in the use of metal products, however we recognise that roofing and cladding is only part of the story. We encourage those submitting articles to expand on their passions, rationales and design philosophies.

To submit projects please contact the publisher or any member of the Association.

I trust you enjoy this issue.



Darrell Back
President
The NZ Metal Roofing Manufacturers Inc.

# SCOPE

NZ Metal Roofing Manufacturers Inc. Executive Committee 2003/2004

Darrell Back President
Darrell Back is the Managing Director of the Steelform Group of Companies.

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Tony Barbarich is the Director of Business Development for Metalcraft Industries.

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Gary McNamara is the New Zealand Sales and Marketing Manager for Gerard Roofing

Philip Meyers Executive Member
Philip Meyers is the Marketing Manager of roofing Industries Limited

Warren Oliver Executive Member
Warren Oliver is the Managing Director of Franklin Long Roofing.

Gregg Somerville Executive Member
Gregg Somerville is Marketing Manager for Dimond.

Above is a brief introduction to the 2004 executive of the Association. It is intended that Scope be representative of the industry and therefore material of interest is welcomed from all sectors of the building industry be it design, research, manufacture or construction.

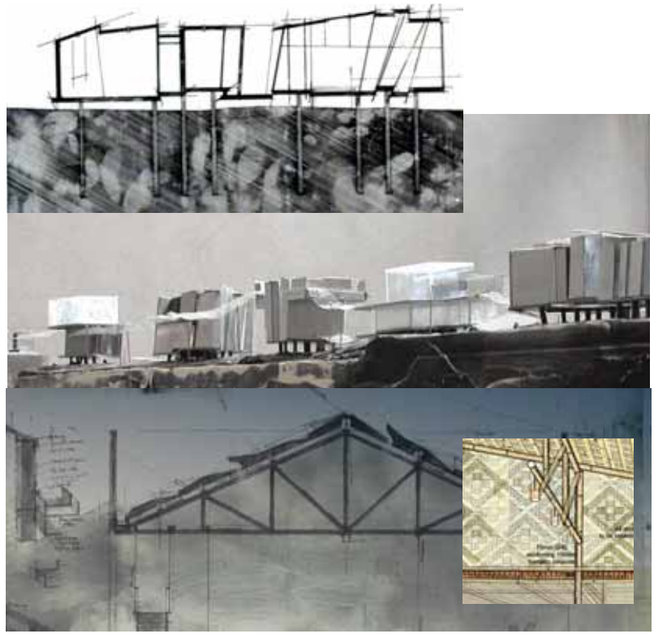
If you would like to submit material please contact any member of the executive or the publisher.

*Advertising and editorial opinions expressed in Scope do not necessarily reflect the views of the NZ Metal Roofing Manufacturers Inc., it's executive, committees or publisher unless expressly stated.*

## INDEX




*Scope is the official publication of The NZ Metal Roofing Manufacturers Inc.*
*Peter Atkinson*
*Private Bag 92 066, Auckland.*
*DDI Ph: 367 0934*
*Ph: 09 367 0913*
*Managing Editors:*
*Gary McNamara,Warren Oliver, Gregg Somerville.*
*Published by ICG Limited*
*57 Glendhu Road, Glenfield, Auckland.*
*Ph: 09 444 2424.*
*Fax: 09 444 2524*
*e-mail: conceptart@xtra.co.nz*

# A LOOK TO THE FUTURE

## BRIAN TAGGART: Auckland School of Architecture

Relationships of design to technology in architecture have often been tricky, if not precarious and this is particularly so in the field of education. In 2002, a report commissioned by the UK Architects Registration Board (ARB) found 18 of the 26 schools of architecture visited by the ARB and Royal Institute of British Architects (RIBA) failed to meet the full validation criteria for the three parts of the architecture course, particularly with regard to design and construction technology. In the UK, both practitioners and educators placed blame on each other for this perceived deficiency; educators argued that the five-year course was already too dense with content, particularly with the advent of electronic technologies, computer aided design/drafting, etc. The architects office on the other hand, once a place of apprenticeship and learning for construction integration, had taken the brunt of market forces fee competition, with tight margins leaving no slack for the coaching of young graduates. The one time responsibility felt by many practitioners toward new graduates on the practical front was no longer affordable.

*Brian Taggart Dip.Arch (L.pool) NZIA RIBA Assoc. Head (Ext. Affairs). School of Architecture. National Institute of Creative Arts and Industries. The University of Auckland.*

Similar situations are experienced here in New Zealand, but surely educators and practitioners have a joint responsibility to share this crucial aspect of development in the career of an architect. For example, practice and management programmes in the New Zealand schools of architecture are currently under review, with a probable outcome being that courses will be spread across both undergraduate and postgraduate stages, possibly divided between pre and post contract times. Sensibly, there would be a bridging across by both parties in support of the other – a symbiotic relationship at best, a pragmatic acceptance at least. Perhaps the task of education in design construction technology is also a shared responsibility of both practitioner and educator? To complete an understanding of the bigger picture, a place must be found in education for a third player with a wealth of expertise - the construction industry.

It's been said that the architecture of New Zealand is just 10mm thick; a scathing indictment of the approach adopted by some designers, where any style of architecture can be applied to NZS 3604 timber framing, irrespective of technical appropriateness - rather like a piece of theatre set without the benefit of a protective casing. Recent well documented problems with moisture penetration through 'sealed' envelope systems is a case in point where the skins of Mediterranean culture have been applied to the bones of New Zealand technology. This serious dislocation between design and technology could never have happened if designers employed appropriateness in construction. At Auckland University

*Example of pin jointed nodes or junctions used by Jourda & Perraudin*

School of Architecture, a recent review of technology has led to the development of courses promoting greater cohesion between design and technology, a blurring of distinctions between the two. In particular, having an emphasis on materiality and understanding of the relationships between materials and design intent become an important issue in the studio, alongside appropriate technology in envelope systems and a wider discourse on appropriate structures.
Until the mid to late 1990's, the use of steel in architecture had taken a back seat, much as a direct consequence of the extensive difficulties experienced during the well documented construction of the BNZ building in Wellington. With little demand for steel, so less emphasis was placed on it's use in tertiary education establishments. However, the late 1990's saw a resurgence in the use of steel construction, not only in the commercial sector, but interestingly also in the domestic market. While often deployed as a decorative item of jewellery, a new sense of wisdom in choice began to prevail, especially in the work of Australian architects. A potential development of this wisdom could arise from appropriateness of material. For instance, the work of Jourda & Perraudin in France uses raw timber to resist compressive forces, while steel cables provide tensile stability and steel castings and fabrications provide tough moment resisting and pin jointed nodes or junctions.

At Auckland University School of Architecture, two design courses in particular have specific requirements relating to engagement with construction and environmental technologies. Design 6, the final design course of the Bachelor of Architectural Studies (BAS) and Design 9 in the final year of the B.Arch programme both require a substantial engagement in design technology by students. The Design 6 prescription states;

*A culminating course in which students are expected to demonstrate appropriate awareness, knowledge and skill in the preparation of a fully resolved sketch design proposal, in response to a challenging project topic. Design proposals are required to address thematic, programmatic (cultural, social, functional) and contextual issues, and demonstrate an understanding of the formative influence of building structure, construction and materials and of architectural strategies for environmental considerations.*

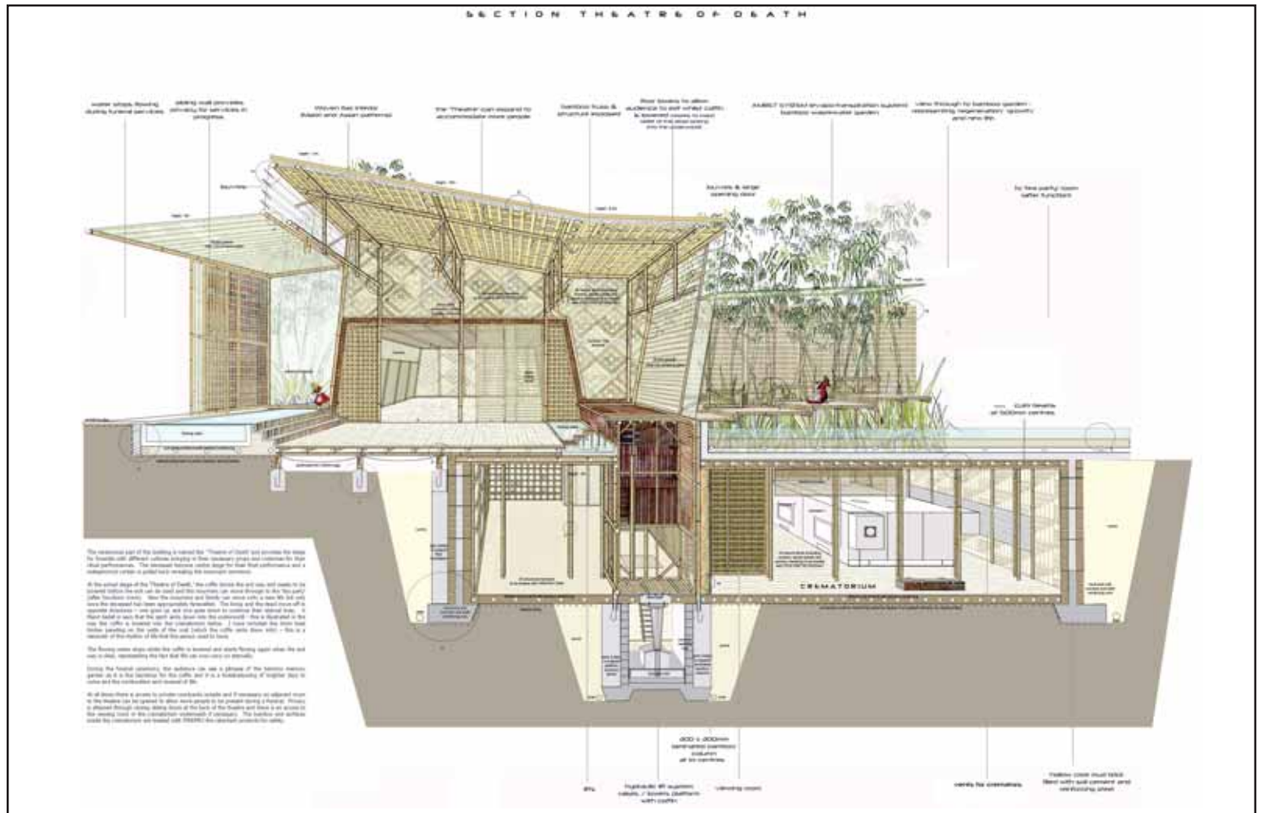
Three prize-winning students of 2003 achieved major success in this area of exploration, particularly in the deployment of steel to provide programmatic realisation in support of thematic interests.

## Alice in the after Life – a Glimpse in the Mirror

Lucy Gauntlett, 5th year student, explores issues of death and sustainability in the design of a crematorium off Great North Road, Auckland. In her research, Lucy investigated numerous cultural positions on death and burial, including Maori, Balinese, Tongan, Fijian, Niuan, Samoan, Protestant, Mormon, Jehovah's Witness, Jewish, Islam, Hindu, Australian Aborigine, Huron and Chinese, establishing core relationships, while also studying relationships in mythology and in particular the study of works of Lewis Carol. In particular, 'Alice in Wonderland' and the 'Looking Glass House' where Lucy found themes in the stories strongly related to ideas found in other research surrounding 'death'. Common themes and ideas unearthed include, time, passing of time and the stopping of time, being lost, on a mysterious journey to another place, enclosure, closure, temptation, confusion, the unknown, mirrors, identity change, fear, appropriate for both child and adult, and themes of mirrors. Other themes embraced the notion of a crematorium as a theatrical experience, where different cultures and religions stage ritual performances and the Ceremony Room becomes a 'Theatre of Death, the onlookers become the audience and a bamboo memory garden becomes the backdrop'. Research also indicated drums and other percussion instruments were prominent during funeral ceremonies of many non-western cultures. Lucy identified a song, 'In My Time of Dying', mapped the drumbeat diagrammatically, scanned the diagram while changing the scale of the image and literally used the result as a basis for the plan form. The underlying idea being, '…that the composition (song) had been shattered and distorted by the act of death.' The idea of the distortion and change of scale came from the way that Alice constantly changed size in 'Alice in Wonderland.'

'The interior of the building is therefore made up of different individual drumbeats relating to the different lives that have travelled through the building and all the different lives which have continued their eternal drumbeat in the afterlife. Therefore, the architecture can be seen as symbolising the eternal rhythm of life and the fact that death is not an ending but a rebirth; however, the beat of life continues somewhere else. Overall, music is so universal throughout the world in so many different cultures that rhythm and composition incorporated into architecture would ultimately enhance these ceremonial occasions for everybody.

The ceremony rooms (and 'theatre of death') architecturally represent the mysterious 'Looking Glass House' in which Alice wants to gain an insight into. Therefore, the richly panelled interior and the mysterious journey to farewell the deceased which is happening inside, will not



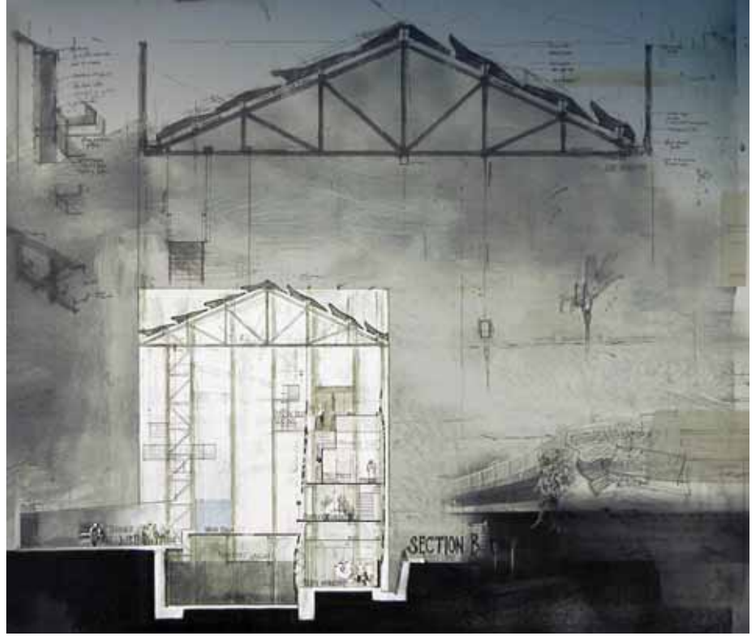


be able to be seen from the outside, except for the occasional glimpse in.'

The materiality of this project is greatly influenced by the deployment of bamboo and steel as primary materials, ultimately selected for their contribution to sustainable development. On the face of it, the two materials might seem to be incompatible, both culturally and visually, but they are common bedfellows in many tropical countries of the world where pragmatism reigns – bamboo being plentiful and durable steel being readily available at an affordable price. For Lucy, the use of bamboo was largely determined (other than for cultural reasons) by concerns of sustainability around depletion of natural resources. Bamboo is a renewable and fast growing resource, which is strong, flexible and has a good strength/ weight ratio. The decision to use steel was made on the same grounds, for as well as the usual well-known properties, steel is manufactured from an almost inexhaustible supply of iron ore in the world and it is re-usable and fully recyclable. Indeed, it is the most recycled product in the world on an industrial scale, as well as in the home. On the documentation front, Lucy's project embraced substantial construction detailing as well as a comprehensive computer analysis on thermal performance to ensure NZ Building Code Compliance, using BRANZ ALF 3.1 software.

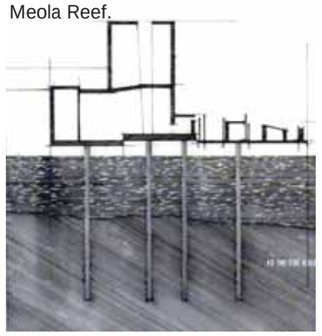
## The Puppet Theatre

Jacqueline Chan, 5th year student, supervised by Pip Cheshire, chairman of Jasmax, focuses on the art of puppetry through an architecture for the construction and performance of puppets – it is simultaneously factory, theatre and cinema. The large shed like structure is located in the Auckland CBD on a site adjoining the North side of Mayoral Drive and Greys Avenue, currently a council car park. Thematic threads developed over the semester weave and reveal a tough programmatic response, resulting in a multi function shed draped in a flexible and translucent skin, which doubles as a projection screen of internal activity for passers-by.  Multiple levels of accommodation sit alongside a gothic like cathedral of industry, visually linked but structurally independent. The adoption of a structural steel post and roof truss reminiscent of early industrial building typology, with internal levels constructed as independent ‘tables’, obviates the need for any fire protection to either




the post or truss, while steel multiple storey levels are intumescent coated, allowing explicit structural steel detailing. The whole project is exquisitely rendered in a mix of hand and computer enhanced imagery reminiscent of early gritty industrial age technology and a jewellery like model with an almost ingenuous quality.

led to the programme for a water treatment works housed in three linked buildings located on a lava flow extending from Mt. Wellington into the Manukau harbour, on Meola Reef.



become very important to the architecture.. placed on this site. The subtle reflection of the surrounding water allows the land to be reflected, revealing the act of transfer. This also shows a counter transference between the heaviness of the water and the somewhat lightness of the land, but this state of constant reflection which occurs in the very undulating surface of the water suggests that the land is in a state of fragility…relating to the Freudian aspect of the Medusa document; my proposal for the site was to purify the water and somewhat rectify this fragile piece of the coast by making the public aware of it, exposing the transfer to somewhat heal the natural environment.

In programmatic terms, the construction technology of each of the three buildings manifests a tangible link with thematic issues through the deployment of various metals for both structure and fabric. The ship like steel frame construction of each building rises out of the water flow, linked with perforated steel walkways, while layers of adjustable light steel louvre systems in the external envelope offer a filtering ‘fabric’ rather than a defensible wall as a barrier. Natural ventilation can be

## The Medusa Project

Anna Harley, 3rd year student, supervised by Dr. Sarah Treadwell, develops the programmatic use from a thematic exploration of the Greek mythological figure, Medusa – the ugly Gorgon who had snakes for hair and whose heads turned those who looked at them into stone. Anna says; ‘On the side of the seen, seeing herself seeing herself, the Medusa whilst terrifying others, terrifies herself. The aspect of the myth that I chose to work with was based on the Freudian concept of transference. From Freud’s analysis of the subject arose three areas of investigation; Transfer (including counter-transference), Reflection (and how this informs the transfer) and Marking, specifically the traces that are left behind from the transfer. These three areas of investigation

Anna comments; the site incorporates the three concepts on which my Medusa document has been based: Transference, Reflection and Marking.
The transfer that occurs between land and water tidally is powerful, these tidal movements have the ability to completely submerge or expose this Isthmus causing the play between the two states to

finely tuned by adjusting the incline of the louvred layers, controlling the moderating temperature with passive ventilation flows between louvre banks by stack effect. This same stack effect ventilation also tempers and replenishes internal spaces - as the air at lower levels is cooled by the flow of water, so the air above is heated by solar radiance via the louvre banks and roof skin.

# SIMPLICITY AND ELEGANCE



Darren Jessop has established a reputation for innovative, distinct style and restrained elegance of design that is clean, distinctive and functional. Within the practice emphasis is placed on “hands on” involvement and personal client contact to ensure that they provide a successful end result to each project.
Darren’s work has been recognised by a number of major architectural awards.
Jessop Architects was established in September 2001. Formally known as Jessop Townsend Architects for 12 years, our new practice is situated in Parnell, Auckland. The practice concentrates on a variety of projects including residential, commercial, hospitality and interior design.”

## DESIGN BRIEF:TOZER HOUSE

An island retreat to escape the pressures of working in the city, open plan with simple lines and no fuss was the starting point for this project. The clients lived in Mt Eden, Auckland, had a passion for art, entertaining and design.  This new retreat was to reflect their life away from work.

*Cover: PHOTOGRAPHY © MICHAEL NG*

The planning of this home needed careful attention to existing trees and sunlight.  A single block wall from the front door angle acts as the circulation spine separating rooms from the glass curtain wall, which slides back into cavity walls allowing the pool area to come inside.
In addition, polished concrete floors where chosen over other softer materials for its energy efficiency with heat transmittal from afternoon sun. Each of the three half levels are connected by half flights of open tread stairs, making the pool area only a quick exit from living areas. It was important to the brief for private open space, such as the pool area not to be disconnected from the kitchen, living, dining.  From the kitchen both walls slide back allowing the island bench to float in the room between views North and South.
Material selections, although modern needed to reflect the honesty of the Island. To this, concrete floors are complemented by timber strip floors. The external cladding of corrugated iron, cedar weatherboards and concrete block, tones in with the surrounding batch like structures on the island.
Finally, the brief called for an understanding of art. Both furniture and art play an important part of this house; consideration of walls for art, placement, furniture sizing and colour needed special attention.

*Architect: Darren Jessop*
*Jessop Architects Ltd*
*Telephone: 09 366 3707*
*Fax: 09 366 3708*
*email: talk2us@jessop.co.nz*

*Metal Roofing &*
*Cladding Manufacturer:*
*Metalcraft Industries Ltd*
*Telephone: 09 274 0408*

*Photography: Michael Ng*
*Telephone: 025 767 892*
*email: michael.ng@clear.net.nz*
*Michael Ng qualified with a BArch from the University of Auckland. He also has a NZCD (arch) qualification from Unitec and a BTEC in Photography from The University of Westminster, London.*
*He now specialises in architectural photography, super yachts and fashion around the world.*

*PHOTOGRAPHY © MICHAEL NG*

*Above:*
*Architect: Mason and Wales*
*Telephone: 03 477 1096*
*Builder: Mark Duffy*
*Telephone: 03 443 1157*
*Roofing Contractor: Harvey Roofing Centre*
*Telephone: 0800 845 376*
*Roofing: Gerard CoronaShake Textured (Charcoal)*
*Cladding: Rockcote*
*Telephone: 0800 50 70 40*

*Builder: Mark Duffy*
*Telephone: 03 443 1157*
*Roofing Contractor: Harvey Roofing Centre*
*Telephone: 0800 845 376*
*Roofing: Gerard CoronaShake (Charcoal)*
*Cladding: Rockcote*
*Telephone: 0800 50 70 40*

*Builder: Mark Duffy*
*Telephone: 03 443 1157*
*Roofing Contractor: Harvey Roofing Centre*
*Telephone: 0800 845 376*
*Roofing: Gerard Oberon Shingles (Eclipse)*
*Cladding: Rockcote*
*Telephone: 0800 50 70 40*



# BUILDING DREAMS

The design of our dream home is usually the result of years of saving, planning and collating design ideas. With few exceptions we all work within a budget and once a design meets our criteria we take the plunge. We build. What was a carefully rendered design is about to become a reality and together with the architect we put our faith.....not to mention our life's savings into the hands of a builder.

*Mark Duffy receiving the Gerard 2003 Home Design Award from Gary McNamara, Marketing Manager for Gerard Roofing.*

Today's builders are not the generally held perception of a man with a hammer who happens to know how to follow a plan. To survive he has had to become a very astute businessman who understands not only the huge variety of building products available in the NZ market, but the qualities and durability of each. He is the adviser and confidant, the negotiator, he understands the law, he is the supervisor, the technician, the quantity surveyor, the construction contractor and even the councillor. Above all he has to be accountable, not only to the client he has today but any unknown owner who may purchase the property tomorrow.

It is in this environment of accountability that builders such as Mark Duffy excel.

Mark began in the industry in 1984, based in Wanaka. After a 3 year OE stint in the early 90s' he returned and has remained in the district building houses and a reputation for fine craftsmanship and project management.

In recent years Mark Duffy Builders have been working primarily on architecturally designed homes in the upper end of the residential market. Mark is currently working on several homes designed by Mason and Wales architects.

When asked his formula for maintaining his reputation and standards Mark is very clear. "I work with subcontractors I know. I trust their workmanship, their pricing, their reliability and their loyalty.
The same applies to suppliers. It is not entirely about price, it is about quality and service. This is particularly relevant because of our location and the distance from the manufacturers."

In 2003 Mark won the Gerard Home Design Award for his contribution to the home designed by Mason and Wales for Richard and Susan Ewing. The home featured a Gerard CoronaShake Textured roof. Mark says, "Many of the homes being designed in the area are of an alpine nature which, together with the lightweight features of metal roofing, suit the tiled appearance."

Pictured are three examples of homes recently completed by Mark Duffy Builders.

# SOMETHING OLD SOMETHING NEW

Graeme North
Eco Architecture

Sustainability is not a new concept. Using resources so that the needs of future generations are protected is historically embodied in at least some parts of many cultures. The global environmental consciousness that we now have is arguably a relatively recent notion. The real concern is not the realisation of our environmental degradation, but, what are we doing about ensuring sustainability as we head towards a point of no return?
The short answer is "a lot" or "very little" depending on where you look.

*Centre: An earth walled house which is an example of the integration of plants and buildings.*

*A mud brick floor, mud brick walls and a sarked ceiling gives this home a warm natural feel.*

*This timber framed "whimsical" home features a colorsteel roof.*

ºPracticing eco architecture is not academic theorising - indeed it leaves very little time for such indulgences says Graeme North who leads by example.
As a practitioner of eco architecture he recognises that the ideal cannot always be achieved, but finds most clients are prepared to go at least part way down the road towards more sustainable practices. Graeme encapsulates it well by saying, “Don’t let the perfect spoil the good”.

New Zealand’s driving rain and high earthquake risk pose particular challenges to earth building. Techniques in New Zealand have to adapt to the climatic and weather conditions, in particular the relatively high rainfall that is often wind driven horizontally onto buildings.
With these conditions Graeme combines many materials not the least of which is a New Zealand icon, corrugated iron. “I like to use it in light weight for roofs as a reliable economical solution, and, particularly in extreme conditions, for a weathertight wall cladding.”
An example of the latter is using it as a rainscreen over thick strawbale walls with earth plaster on the inner surface. The iron ensures the straw will stay dry.

Graeme‘s passion for eco architecture began some 30 years ago and since then he has completed over 100 buildings using many different techniques and materials. Many have been built, using rammed earth, mud brick, pressed earth brick, cob, in-situ adobe, untreated timber, strawbale and a variety of other non-toxic materials.

His philosophy: "Good, well designed buildings enhance and enrich their occupant’s activities and lives and promotes their well-being and health; they make a positive contribution to the urban fabric or rural landscape; they sustain and protect the environment and minimise the impact of man’s activities; and they provide an opportunity for sound investment. Indifferent buildings, on the other hand, frustrate and inhibit their occupant’s activities and impoverish their lives; they adversely affect their occupants’ health and demean the spirit…"

With this objective in mind Graeme North has devoted his life to researching many forms of eco and earthern buildings world wide. This knowledge has been combined with his love of the environment and his determination to create “livingscapes” He supports the Permaculture philosophy of growing food as an integral part of our houses and landscapes. It is a crucial environmental strategy and Graeme is experimenting with directly growing parts of buildings with appropriate plants and combining these with biologically safe waste disposal systems.



*Colorsteel cladding was used here because of extreme weather exposure on a ridge overlooking the sea. The south side opens onto a lawn protected from northerly winds.*
*The northern face opens onto extensive decks that overlook bush, enjoy the sun and are protected from the colder southwest winds. Inside the house is a large thermal mass earth wall that wraps around a fireplace and incorporates the stair way to upstairs. Steel was used for reinforcing, some wall stiffening, braces, and exposed plates for large exposed timber trusses.*

New Zealand has managed to develop what is believed to be the world’s first comprehensive set of building standards that are consistent with a national performance based building code.

These new Standards are based on research, testing and service experience of earth buildings and specifically address questions of durability and earthquake resistance.

There is now a general awareness that more environmentally gentle building methods are available and now that New Zealand Standards are available, earth takes its place alongside timber, steel, cement and concrete masonry as a "normal" building material.

Graeme believes a lack of industry training is a real impediment to the growth of earth building in NZ. There is only a handful of professional designers, both architectural and engineering, who are very familiar with earth building. The indications are that the public has an excellent awareness that earth is a viable option and a very good building material. The down side is a lack of experienced builders.

Graeme’s envolvement and contribution in promoting the use of eco architecture has been enormous. He is chairman of the Standards New Zealand (SNZ) technical committee for “earth building” who produced the first set of standards of this nature in the world. He was the inaugural chairman of the Earth Building Association of New Zealand Inc. and has written many articles on the subject including straw bale construction for BRANZ.

Over the last decade Graeme has won many major awards for his work which range from investigating earth building in the USA and Australia to being an invited guest speaker to the 2001 Eco Conference in San Franciso.

Without doubt Graeme North is a man with a passion for architecture which is environmentally sensitive and sustainable. For further information on eco-architecture please visit his website.

*Graeme North*
*B.Arch, Dip.Permaculture, ANZIA*
*Registered Architect*
*18 Neville Street, Warkworth, New Zealand*
*tel/fax +64 09 4259305*
*email ecodesign@xtra.co.nz*
*website:*
*www.warkwortharchitects.co.nz/graeme*

McDonalds- Antwerp, Belgium. Gerard Colortile textured

McDonalds- Canada. Gerard Colortile textured

McDonalds- Riyadh, Saudi Arabia. Gerard Colortile textured

McDonalds- Istanbul, Turkey. Gerard Colortile textured

McDonalds- Beijing, China. Gerard Coronashake textured


McDonalds- Zakapane, Poland. Gerard Coronashake textured

# PROVEN AROUND THE WORLD

McDonalds around the world from China to Poland, from Saudi Arabia to Canada, from Belgium to Turkey....have one thing in common. Gerard Roofing tiles from New Zealand.

When an international Mega brand establishes a worldwide architectural image there are many considerations. In the first instance the asthetic appeal is important but many other factors must be present to ensure the product is capable of enduring absolute extremes from snow and wind resistence to earthquakes. Safety, longevity and aesthetic performace all play their part. These factors coupled with global distribution and availability are mandatory.

Gerard Roofs have been proactive in the export market for the last 50 years. The introduction of Zincalume® and new profiles such as CoronaShake, Oberon and Senator shingles has kept Gerard Roofing at the forefront of aspirational roofing products worldwide. The product range is backed by their standard 50 year pro rata warranty.

STEEL TILES
50 YEARS
proven worldwide

# LUXURIOUSLY EXTREME

Every exclusive New Zealand lodge is unique; each offers something entirely different in both setting and accommodation style.

It is fair to say that Grasmere Lodge has an indefinable quality that isn't replicated anywhere else in New Zealand by virtue of its dramatic location and ever-changing climate. With the emphasis on quality and quiet comfort, Grasmere Lodge offers its guests an unparalleled experience.
It is a proud member of the prestigious Small Luxury Hotels of the World Group, the Lodge Association of New Zealand, and Select Hotels and Resorts.
The somewhat select clientele demands the highest standards which were reflected in the brief from Lodge owner, Oli Newbegin. From the exterior to interior detail was important. This coupled with the extremes of weather and the remote location required detailed planning and timing between the architect, contractor and owner. In the words of architect, Denise Wright, “We had to work through the tourist off season...winter, snow and all.”

In addition to the renovations to the main lodge, Grasmere Lodge has now completed the Chalet, designed by architect Denise Wright of Replica, which offers guests and larger collective groups some autonomy from the main lodge complex. The brief was to reflect the Alpine flavour drawing on the elements and forms of the existing homestead, while making use of materials, sympathetic with the environment.

The building is clad in cedar weatherboards with a Colorsteel roof and copper gutter and down pipes. The roofing material selected had to withstand the rigours of the climatic conditions, in particular the high winds experienced in the area on occasion. The main living space features cathedral ceilings following the roofline with exposed trusses and a full height schist fireplace, the stone being sourced locally.
Designed as boutique accommodation, there are four large bedrooms each with lavish ensuites and views to the mountain vistas.

*Client: Oli Newbegin*
*Telephone: (03) 318 8407*
*Architect: Denise Wright of Replica*
*Telephone: (03) 3513 800*
*Contractor: Contract Construction*
*Telephone: (03) 3796 277*
*Roofing contractor: Metalcraft Christchurch*
*Telephone: (03) 379 6277*
*Roofing profile Chalet: Colorsteel T Ribbed profile*

# BUILDING A REPUTATION FOR CREATIVE FLAIR




Judd Fenwick Team Architecture have an impressive list of completed buildings that reflect the broad spectrum of experience and expertise the practice has available. The building types vary from the smallest of alterations, to very large industrial, commercial and health-care buildings.

The combined experience and interests of the Directors ensures all clients of a high level of professional and personal service with an office continuity considered by many to be an important aspect of their professional service.

Directors make a ‘hands on’ commitment to all stages of a project - and they continue to employ a team approach to the design and planning challenges of larger projects, ensuring the best end result from their collective talents.

The practice is a member of Team Architecture comprising of eight individual practices which retain their regional identity and independence, but can call on the resources of the entire team. The well established infrastructure means that the Team can, at short notice, analyse architectural issues rapidly and expertly, and provide architectural integrity and thorough and dependable back-up.

## DESIGNER'S STATEMENT

### JFTA Offices - Napier

In relocating to a high exposure site the architectural practice desired to show themselves off in a modern building - but also one that sat comfortably on the edge of Napier's Art Deco Heritage District.

A 21st century building strongly expressing the quadrant site shape, incorporating modern material solutions to keep vehicle noise out - and with subtle ( and not-so subtle ) Art Deco design features blended in.


The interior design continues the practice's previous open plan working arrangement with built-in flexibility to enable ongoing technology advances to be easily kept up with.

A limited palette of strong colour externally coupled with natural finish materials to provide visual impact to the constant traffic flow - and with neon signage incorporated for night time identity!

The building location and design has already had the desired effect in attracting passers-by as clients - and design recognition from the Art Deco Trust who have acknowledged our intent to produce a building that is NOT Art Deco but fits into the locality – "A building of today that sits well in Napier’s Art Deco landscape."

JFTA’s offices also received a 2001 NZIA-Resene Local Award for Architecture and a 2001 NZIA-Resene Colour Award.

*Judd Fenwick Team Architecture.*
*Telephone: (06) 835 7561*
*JFTA Offices:*
*Roofing & Cladding Manufacturer: Dimond Industries*
*Telephone: (06) 879 9285*
*Roofing & Cladding Fixer: Panton Plumbing Ltd*
*Telephone: (06) 876 5057*
*Main Contractor: Mackersey Construction Ltd*
*Telephone: (06) 876 0252*

## DESIGNER'S STATEMENT

### Print Solutions - Napier

The boldly coloured and strongly accented external design for the premises for Print Solutions was conceived as a counter-reaction to the bland and tired buildings existing previously - an attempt to make a much greater visual impact, and to reinforce their unified and different identity.

The sixties warehouse building with its seventies office block were severely outdated and under used – the new owner commissioned Judd Fenwick Team Architecture to provide a commercially viable and appropriate makeover – the architects have endeavoured to instill appropriate compatibility with Napier's heritage, and yet ensure a vivid commercial statement on a prime site.


The two disparate buildings have been ‘merged’ externally with colour, form and material consistency to reflect the new single commercial / industrial usage of Print Solutions – and extensive alterations and remodelling internally reflect the openness and pride that the Print Solutions proprietors express in their business.

The overall design intent is aimed at giving Print Solutions operation a very visible and accessible presence – and supporting their desire to present themselves as "leading edge" providers in a maximum exposure situation.

*Above: Print solutions shown before the redesign which has significantly improved the form, function and visibility for the client.*

*Judd Fenwick Team Architecture.*
*Telephone: (06) 835 7561*
*Print Solutions:*
*Roofing & Cladding Manufacturer: Dimond Industries*
*Telephone: (06) 879 9285*
*Roofing & Cladding Fixer: Martin Roofing Ltd*
*Telephone: (06) 879 8252*
*Main Contractor: Amtech Construction Ltd*
*Telephone: (06) 843 3003*

# A STEALTHY ILLUSION

It's not often that the roof of a hotel entrance is compared to the latest in American weaponry but that's precisely the kind of remarks made about the Novotel Ibis Hotel located in Greenlane, Auckland.

Several within the roofing industry have commented that the design of the roof to cover the bar, restaurant and function room area of the Novotel Ibis Hotel resembles the pinnacle of the United States Air Force, the B-2 Stealth Bomber. The use of triangular divisions for each part of the roof is seen to loosely reflect the lines of the famous fighter plane.

However, for CDA Architecture the 'stealth' comparisons are an unexpected response with their main objective on the project actually being to create an illusory effect that masks the actual slope of the roof. CDA Architecture achieved this through a variation in pitch that has been designed so effectively that it actually creates the illusion of reverse fall. In reality, the pitch varies between 3 degrees and 25 degrees.

To achieve the desired effect, the architects required a versatile roofing material that could be used at a variety of pitches while providing clean, distinctive lines. Dimond's steel longrun profile, BB900, was seen to possess these attributes and consequently chosen as the roofing material for the project. Indeed, Brett Taylor of CDA Architecture makes the comment that "BB900 is an attractive profile suitable for a wide range of commercial and industrial buildings at varying pitches".

The visual aesthetics are further enhanced by wide, bold detailing on the hips and ridging. These ridge features simply serve to define and promote the individual shape of each division.

It is a significant measure that several years after the completion of the project, the hotel entrance still attracts its fair share of attention and provides a stunning invitation to patrons and passers-by alike. The design of the entrance to the Novotel Ibis Hotel in Greenlane may be based around illusion however the striking impact is very real indeed.

*Client: Novotel Ibis Hotel*

*Architect: CDA Architecture*

*Roofing Manufacturer: Dimond*
*Profile: Dimond BB900*
*Telephone: 0800 346 663*
*email: dimond@fcsp.co.nz*



# THE BEST OF BOTH WORLDS

Calder Stewart provides a new roof for a Historic Dunedin Home.

Situated in the hills in an old hill suburb of Dunedin, this historic house has been tastefully renovated by it's current owners using products that recognise its age yet do not detract from its contempoary renovation. The project involved the re-siting of an existing dwelling as well as the new metal roof and wallcladding for the garage extension. Calder Stewart Eurotray made from Pacific Coilcoaters ZR8 was chosen as it was both sympathetic to the original building design and offered clean modern lines to the extension. The intention was not to make the two wings match but instead to allow them to stand alone, not mimic each others style.
Architect Robin Walton was closely involved with this project from design through to construction and chose Eurotray because its contours are sympathetic to the old house whilst giving it a contempoary edge.

Project - Dunedin Historic home
Architect - Robin Walton Architects, Grey Lynn, Auckland.
Telephone: 09 376 5232
Roofing - Calder Stewart Roofing.
Phone: 0800 115 232
Profile: Eurotray
Material: Pacific Coilcoaters ZR8™

# SCOPE NEWS AND VIEWS

## Fletcher Building purchases AHI Roofing.

Fletcher Building Products completed the purchase of Tasman Building Products on 01 October 2003.

AHI ROOFING
A FLETCHER BUILDING COMPANY

Fletcher Building is New Zealand owned and is New Zealand's largest building materials manufacturer and distributor with operations in concrete, steel, plasterboard, panel products and aluminium extrusion. It is also active in residential and commercial construction. Fletcher Building is New Zealand's sixth largest company and employs more than 10,000 people in a wide range of businesses located in New Zealand, Australia, the South Pacific and South America.

The Tasman group of companies included AHI Roofing, which is the world's largest producer of steel tile, shake and shingle products. AHI Roofing exports to over 70 countries and has been manufacturing steel roofing tiles in New Zealand for 50 years. AHI Roofing uses the Brand name Gerard Roofs to market its products in New Zealand.

The ownership and future of AHI Roofing is in the hands of a strong building products focused company and this is a positive step for both customers and employees of AHI Roofing.

SCOPE NEWS AND VIEWS

## NZ Metal Roof and Wall Cladding Code of Practice

The NZ Metal Roofing Manufacturers Inc. is pleased to advise of the completion and publication of its Code of Practice covering the use of metal roof and wall cladding.

The COP is the culmination of some four years work commissioned by the NZMRM Inc. and written by Auckland Building Consultant Stuart Thomson. In the course of the preparation of the COP there was the widest possible consultation with all sectors of the industry directly and indirectly associated with the installation of metal roof and wall cladding.While this approach of obtaining consensus views on the various subject matters resulted in a high quality production it did lengthen the time taken to complete the project.


The COP has been produced to provide details of acceptable trade practice for the fixing of metal roof and wall cladding and accessories. In addition it provides a range of prescriptive detailing for designers and regulators and sets a benchmark for the standard detailing and workmanship required which we believe is over and above that required to comply with the NZBC.

The COP is written in loose leaf form so that users will be able to update their copy as required and updates are produced. The updates will be available on the NZMRM Inc. website.
The COP is divided into three parts:
1. The performance requirements and the prescriptive means to comply with the COP. The "What and the How".

2. The recommended better practice options and the responsibilities of different parties to comply. The "Should know and Should do's".

3. The reasoning used to formulate the above. The "Why".

The provision of the third part is intended to provide the education necessary to inform designers and specifiers, to complement and complete the training to qualify as a Licensed Building Practitioner or skilled tradesperson and also to be used as a text in such training. It is an invaluable tool for regulators, designers, installers, training institutions and practitioners in general.

The NZMRM Inc. is working toward the acceptance of the COP as a Guidance Document or an Acceptable Solution and is in dialogue with the BIA in this regard.

The COP is without a doubt a publication that reflects the combined expertise, experience and skills of the industry and as you will see demonstrates the value of drawing information from such a wide range of sources

*The COP is available from the:*
*NZ Metal Roofing*
*Manufacturers Inc.*
*Private Bag 92 066*
*AUCKLAND.*

## New Executive Officer NZMRM

Peter Atkinson has taken over the role of Executive Officer for the NZMRM following the departure of Peter Rasmussen earlier this year. Peter has an MSc in Chemistry and 15 years as a Technical Manager in the Food Processing and Dairy Industries followed by 12 years as a Business Manager for the Crown Research Institute Industrial Research Ltd. Starting in June this year Peter has been on a rapid learning curve with the NZMRM , dealing with the E2/AS1 submission to BIA, production and launch of the Code of Practice and the organization of the recent Annual Conference in Fiji.

*Peter's contact details are:*
*Ph: (09) 367 0934*
*Mob: (021) 646 949*
*Peter.Atkinson@ema.co.nz*

## FIJI 2003

The NZMRM annual Conference was held from 22 to 26 October 2003 at the Sheraton Denaru Resort in Fiji.

Attended by 103 delegates and their Families, the conference was the largest so far held by NZMRM. The usual business sessions were held commencing with the launch of the NZ Metal Roofing Code of Practice. This is the Industry's new handbook, funded by the NZMRM and Industry contributions and authored by Stuart Thompson with the support of the Technical Committee which was chaired by Brian Cosgrove. This was followed by the launch of the new Colorsteel products Maxx and Endura by Richard Sheehan of NZ Steel, and an informative presentation of Market and Economic Data. Further Market and Economic comment came from Rob Hartley of Pacific Coilcoaters, together with a comprehensive presentation on design and warranties. A technical presentation by Stuart Thompson left Delegates suitably enlightened and a range of excellent supplier presentations rounded out the picture.

The social programme commenced with the opening night beach bar b que, and continued with an excellent Industry Dinner sponsored by NZ Steel. The final night was the Pacific Coilcoaters Conference Dinner which, as usual, was held at a mystery location, (An offshore island) and featured a live band and theme dinner.

The final day was spent in a range of recreational activities; golf, fishing and sightseeing.

Thanks to sponsors, presenters and delegates, Conference 2003 was a great opportunity for the industry to network and discuss issues of common interest in a very pleasant environment. A great time was had by all!


*Pacific Coil Coaters conference dinner*

*Tony Barbarich, Brad Bridges, Paul Wayman, Darrel Back*

*Jo & Gregg Somerville*

*Kathy & Andrew Protheroe*

*Bill Jacob & Richard Sheehan. NZ Steel*

*Tony Coxhead*

*Phil Hogg and Gary McNamara*

*Darrel Back. President.*
*Right: Inge Bolt, Brad Bridges, Jennie & Stuart Haymen*

*Rob Hartley. PCC*

*Paul Wayman. RANZ*

*Janet & Bruce McNally. Brian & Margaret Cosgrove*

# SCOPE NEWS AND VIEWS

## Creating Corporate colours is no problem for PCC's ColorCote®

More and more companies and organisations are now including their corporate offices, warehouses and retail trading outlets as part of their overall corporate branding strategy.

An integral part of these brands are the corporate colours and livery. It is very important that the corporate colour when used on office, warehouse or retail premises exactly matches the company's brand standards and retains its correct pigmentation as long as possible

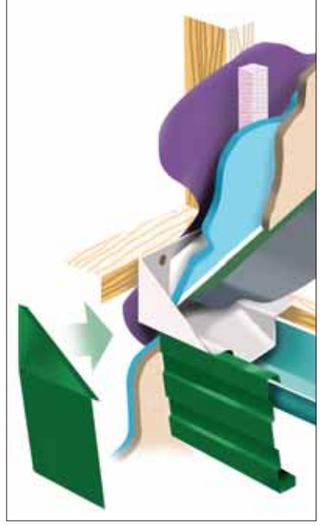
Pacific Coilcoaters have developed a range of ColorCote® corporate colours for a number of clients over the past 20 years - three of whom are represented in the PCC case study 4.

ColorCote® corporate colours are baked onto steel or aluminum substrates in a controlled factory environment to client approved colour standards.

As well as getting a quality product, there are cost savings for developers and building owners because buildings can be completed with the corporate livery already coated on the roofing and cladding material.

Pacific Coilcoaters became involved early in the building design process to ensure product lead times are aligned to construction schedules. The comprehensive colour matching can take up to 12 weeks. Once the colour is matched and the formulation developed ( as with the 150 outlets of the Warehouse ), corporate colours can be manufactured to Pacific Coilcoaters' standard lead times.

*For further information contact PCC:*
*Fax 09 579 7515*
*Telephone: 09 571 1082*
*email: anneth@fcsp.co.nz*



## Gerard Roofs new "Stop End" adds protection against moisture.

Wall to roof junctions are high risk areas where water can penetrate the building envelope – for this reason a Gerard certified installer should be utilised on your next metal tile building project. Our installers fit side flashings to all wall/roof intersections, ensuring that there is no entry point for water between the cladding system and the roof.
Our engineers have crafted an additional weapon to protect your building from any water entry problems. The Gerard Roofing Stop End has been designed to provide a deflection mechanism to stop water entering wall cavities when used in conjunction with either internal or external rainwater systems. Gerard Roofing Stop Ends are available in left hand and right hand versions in 4mm thick PVC; they suit any pitch of roof and are profiled to complement Klass Fascia and internal gutter fascia. They are also suitable for use with standard fascia systems and external gutters, with a large downturn into the gutter to provide maximum fall away from the adjacent wall. When used with an internal rain water system a Stop End Cover is required to complete the stop end assembly. The Gerard certified roofer will supply and install the Stop Ends as they usually install their flashing before the wall system cladding is started. The roofer may also install the required Stop End Cover (for use with internal systems) if the section of roof above the Stop End is completed after the walls. If the roofing is completed prior to the walls then it is the responsibility of the wall system installer to install the Stop End Cover. Gerard Stop Ends when used in conjunction with our side flashings, and superior roof systems, provide an impenetrable roof cladding for the protection of your valuable asset.

*Contact*
*Gerard Customer Services*
*Freephone: 0800 104 868, or your Regional Sales Manager*
*Email: info@gerardroofs.co.nz*

## Gerard Roofs launch's reCap – a building industry magazine.

Gerard Roofs launched reCap to Designers and Builders in November 2003.

reCap is a Gerard Roofs trade publication and will be published on a quarterly basis. It is designed to be smart, interesting and informative and will help the team at Gerard Roofs to channel communication "to and from" the trade.


If you did not receive a copy of reCap please let us know and we will send one out to you.

If you have any queries in regards to reCap or the Gerard Roofs basket of products please contact Grant Williams directly by phone or e-mail.

Grant is the Business Development Manager for Gerard Roofs and is also responsible for the publication of reCap.

*Grant's contact details are as follows: Phone; (09) 978 9043 or 029 978 9043. E-Mail: grant.williams@gerardroofs.co.nz*

## An apology

In Issue 4, page 21, we feature an article which claimed the Progressive Enterprises distribution facility was the longest, longrun roof ever. Not so. It may well be the longest roof in NZ but as one of our readers, Mark Jerling, correctly pointed out, it is not the longest, longrun ever. This roof on the Bellville Velodrome, Bellville, Cape Town, South Africa claimed this distinction in 1999. The Architects were MLH Architects, Cape Town and the contractor was Grinaker Construction Pty Ltd. The roofing was rolled on site by Sydcor, with the longest length sheet 156m and the shortest sheet 127m. With an average of 136m it held the world record for long span sheeting when constructed in 1999. It is not certain that this roof still holds the record and Scope is investigating further but wish to thank Mark Jerling for the time and trouble he went to in providing this information.

## PCC Road show proves a success

The PCC Road Show offers a programme which is both informative and entertaining. PCC provide information focusing on choosing from their ARX™/AR8™, ZRX™ & ZR8™ range, products that cover every environment in NZ. Stuart Thompson looks at the features and benefits of the new NZMRM Code of Practice and Eric Rush provides some personal insights into a fairly popular New Zealand sport.

The Road show began in December 2003 with the first seminar held at the Ellerslie Convention Centre. The seminar was well attended and feedback has been very positive. All enjoyed the breakfast session which was both informative and entertaining. The Road Show will continue at venues throughout NZ in 2004. Copies of the NZMRM Code of Practice are available for purchase. These will be held in association with local manufacturers and if you wish to ensure your inclusion on the invitation list please forward your contact details to PCC.
*Contact Tim Rutt.*
*email: timru@fcsp.co.nz*
*Fax: 09 579 7515*


## PCC extend residential warranty terms for ColorCote®.

Pacific Coilcoaters have issued new warranty terms for ColorCote when used for residential buildings. These appear on the back of their Atmospheric Environments usage guide published December 2003.

The warranty (for moderate environments cat.1-3) on ZR8™ roofing is increased from 15 to 18 years. The warranty on AR8™ roofing and cladding is increased from 15 to 18 years. The extension of the warranty comes through experience gained from exposure site testing, at their NZ test sites, and PCC's "in market" experience of NZ conditions. The extended warranty is for paint resistance to flaking, peeling and excessive fading and the company is confident of the performance of these products at these new levels.

When issuing your Residential warranties please advise your customers of these extended terms. (An electronic copy is supplied by the NZMRM).
*For a copy please contact:*
*email: anneth@fcsp.co.nz*
*Fax: 09 579 7515*

## PCC introduce a new colour chart.

In October 2003, in response to customer feedback, PCC reverted to the use of the more accurate painted chips to represent their ColorCote® colour range.

The new colour chart features two new colours which have been added to the Designer range. Copperstone and Slate Blue. Windsor Grey has been transferred to the basic NZ colour range. The popularity of these colours has influenced the decision to include them in the new colour range. The improved coding system shows colours available in ARX™, AR8™, ZRX™ and ZR8™ products.

The design of the new colour chart is created in such a way as to place all colours at the edges to allow easy comparison with other colours which may be under consideration in the overall colour scheme of the home or building.
Whilst painted colour chips are the most accurate form of colour chart available it is still recommended that actual metal samples be used for final colour selection. These are available from local manufacturers or PCC.

*For a new colour chart please contact:*
*email: anneth@fcsp.co.nz*
*Fax: 09 579 7515*

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.*

*National Distributors*

*Calder Stewart Industries Limited*
*PO Box 1400*
*Invercargill*
*Telephone: 03 214 5544*
*Contact: Andrew Protheroe*

*Dimond*
*PO Box 22201*
*Otahuhu*
*Auckland*
*Telephone: 09 270 4392*
*Contact: Gregg Somerville*

*Gerard Roofs*
*PO Box 18071*
*Glen Innes*
*Auckland*
*Telephone: 09 978 9010*
*Contact: Gary McNamara*

*Metalcraft Industries Limited*
*PO Box 10113*
*Te Rapa*
*Hamilton*
*Telephone: 07 849 3807*
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*Contact: Maurice O'Flaherty*

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*Telephone 09 268 1555*
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*Contour Roofing Nelson Ltd*
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*Annesbrook*
*Nelson*
*Telephone: 03 546 4260*
*Contact: Dave Freeman*

*Dan Cosgrove Ltd*
*PO Box 211*
*Timaru*
*Telephone: 03 688 4169*
*Contact: Brian Cosgrove*

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

*Franklin Long Roofing Ltd*
*PO Box 151*
*Pukekohe*
*Auckland*
*Telephone: 09 238 9249*
*Contact: Warren Oliver*

*Glenwood Industries (1992) Ltd*
*PO Box 5009*
*Tinwald*
*Ashburton*
*Telephone: 03 307 0593*
*Contact: Bruce McNally*

*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: Peter Marshall*

*N S Irwin Ltd*
*PO Box 27029*
*Mt Roskill*
*Auckland*
*Telephone: 09 620 8149*
*Contact: Gary Irwin*

*Roof Manufacturers Limited*
*PO Box 319*
*Tauranga*
*Telephone: 07 578 2650*
*Contact: Gordon Taylor*

*Roofing Industries Ltd*
*233 Bush Road*
*Albany*
*Auckland*
*Telephone: 09 414 4585*
*Contact: Philip Meyers*

*Roofline Marlborough*
*31 Stuart Street*
*Blenheim*
*Telephone: 03 578 8793*
*Contact: Phil Hogg*

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

*Stratco (NZSl) Ltd*
*PO Box 8494*
*Christchurch*
*Telephone: 03 338 9063*
*Contact: Jarrod Stratton*

*Taranaki Steelformers Ltd*
*Wanganui Steelformers*
*King Country Longrun*
*PO Box 36*
*Stratford*
*Telephone: 06 765 5191*
*Contact: Darrell Back*

*Tri Web Industries Ltd*
*PO Box 408*
*Feilding*
*Telephone: 06 323 6037*
*Contact: Des Signal*

SCOPE

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