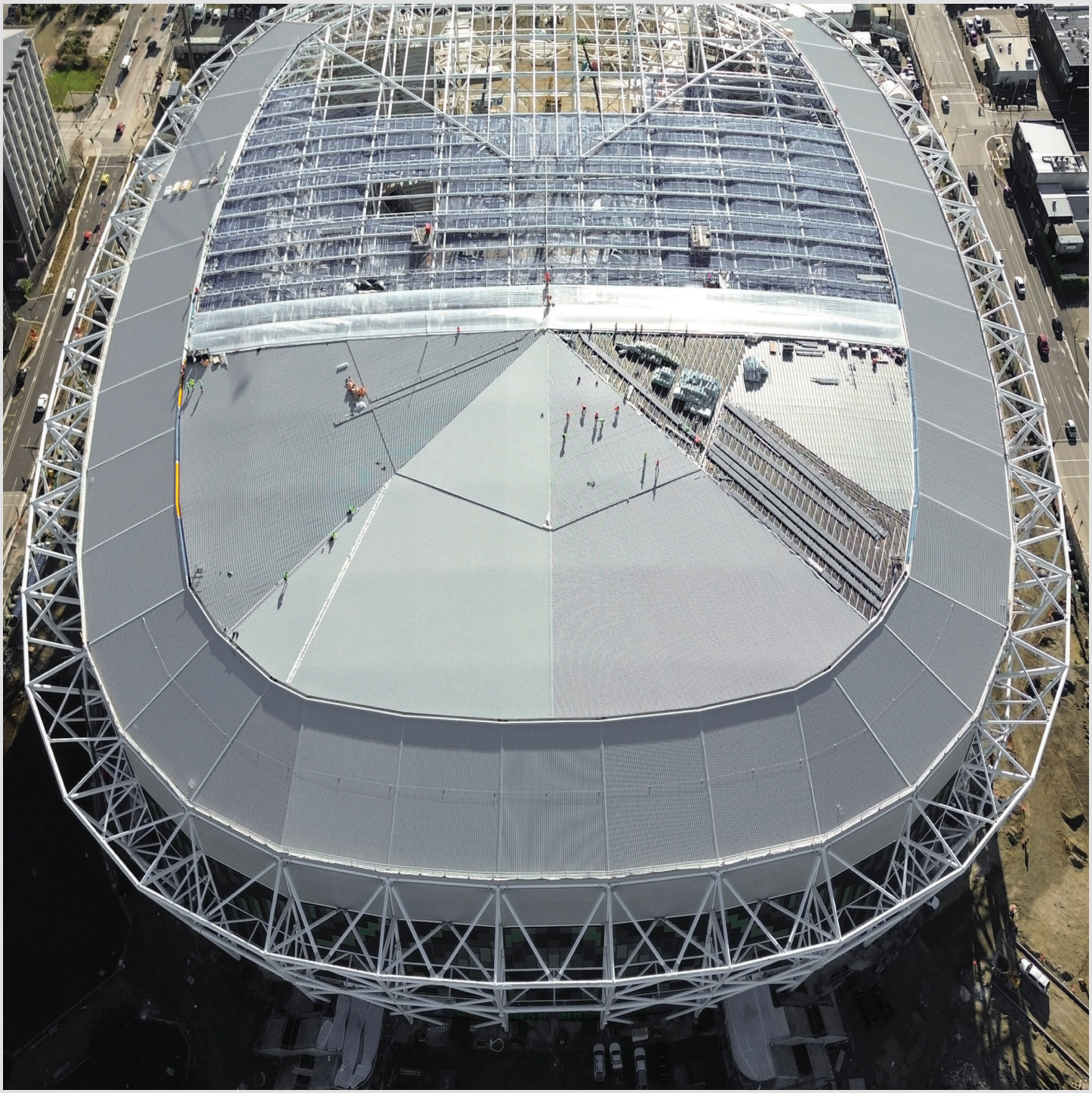
SCOPE

ISSUE 65

NZ METAL ROOFING MANUFACTURERS INC.



Welcome to the 65th edition of SCOPE, where we showcase our members' and suppliers' innovative roofing and cladding projects. In this edition, you will find exceptional designs and concepts that enhance the use of our members' roll-formed products.

The undisputed star of this issue is Te Kaha One New Zealand Stadium in Christchurch, which recently opened to huge fanfare and great acclaim. It is an extraordinary building that has pushed the boundaries of what can be achieved using metal roofing products – and not only on the roof. The stadium is also a testament to the innovative thinking and skill set of the local roofing companies involved in its conception, design, and delivery.

Also included in this edition is a full range of great projects, from bespoke residential new builds to large commercial developments. Of particular note is a small community-based project, the Kariaotahi Surf Lifesaving Club, a close neighbour of the Glenbrook steel mill, which was donated a new roof by New Zealand Steel.

We also take a deep dive into Standards NZ, which was recently reviewed and updated with assistance from NZMRM. It's a thorough and detailed read for those in the industry.

I hope you enjoy reading this issue of SCOPE as much as we did putting it together.

Tom Marshall, President, NZMRM

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Scope is the official publication of The NZ Metal Roofing Manufacturers Inc.

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Projects

Articles

Below is a brief introduction to the 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.

President
Tom Marshall – Marshall Industries

Immediate past President
Darrell Back – Taranaki Steelformers

Vice President
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Tony Rallis – Roofing Industries
Paul Brady – Roofing Industries Ltd (Christchurch)
Tony Barbarich – Metalcraft Roofing
Shane Pratt – Dimond Roofing
Brendon Back – Taranaki Steel Formers
Alan Wilson – Gerard Roofs
Milne Kite – Steel and Tube Ltd
Stuart Hayman – Co-opted consultant

Cover:
Te Kaha Stadium, Christchurch.
Article on page 16.

Photography: Itch

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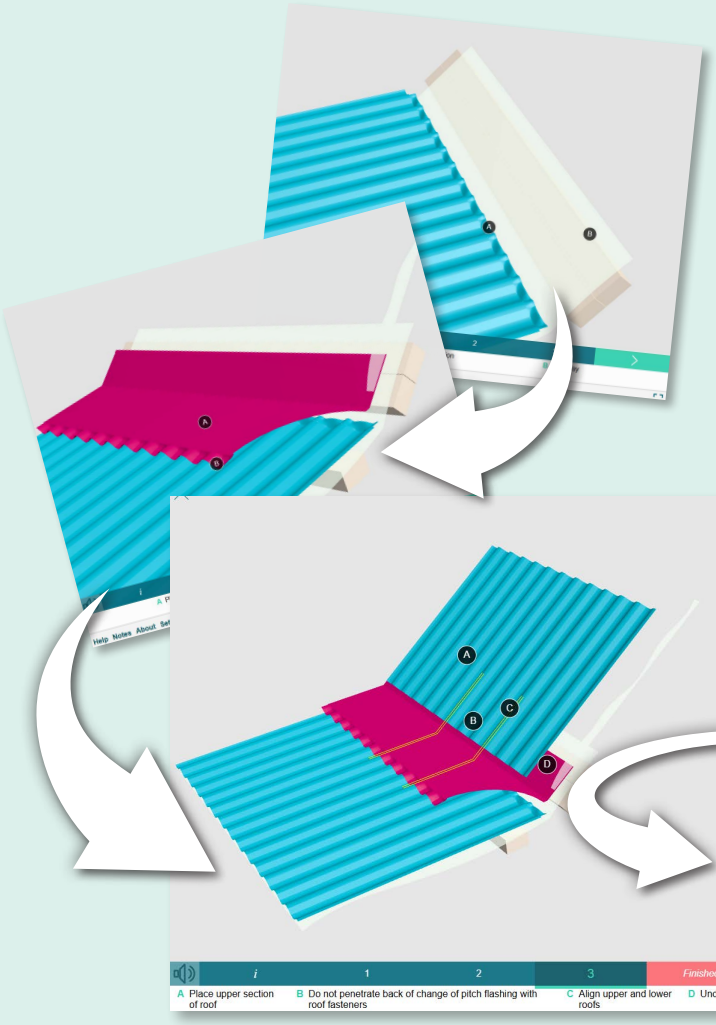

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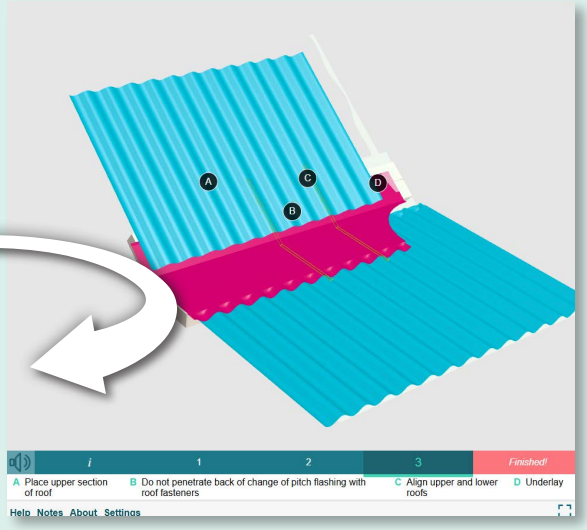


Paerata House, Pukekohe

After experiencing the turbulence and uncertainties of Auckland's COVID lockdowns, the owners of this beautiful rural property wanted to build themselves a home that felt like a sanctuary.

They found this site, once a farm but now divided into large residential lots and set among rolling hills on the outskirts of Pukekohe, and contacted their builder, Clint Lockwood of Create & Construct. He suggested they speak to Jenny Walter, a designer who lives locally and has extensive experience designing homes for large rural properties.

Jenny says when she saw the site and spoke to the owners, it was clear that the design of this home had to be about how to 'nestle' the house into the lovely rolling countryside, making the most of the sun and views, and ensuring there was plenty of protection from the wind.

"I looked at the idea of arranging a series of 'contemporary farm buildings' stepping down the hill to create courtyards. These courtyards then became outdoor rooms that, at different times of the day, and depending on the prevailing wind direction, enable the owners to spend as much time outdoors as they do inside," she says.

"Because of the fallout after Covid, we also considered the issues of material shortages and thought carefully about standard building practices and materials," says Jenny. "We chose to build the house using Porotherm clay blocks – we opted to try something other than timber framing with gib, as it had been in short supply, and instead decided on this age-old, solid, building material, which has amazing insulation and acoustic properties and is then plastered inside and out," says Jenny.

“Espan 470 was well suited to this brief because it provides strong, defined lines while keeping the fixing system concealed, creating a clean and premium appearance.”

For the roof, the designer selected Espan 470 Colorsteel in Sandstone Grey for its longevity and low maintenance requirements. “We also appreciated its crisp aesthetic, which helped us to create a more contemporary rendition of the classic barn in this ‘ farmhouse’,” says Jenny.

The roofing and cladding materials for this house were supplied by Metalcraft and installed by Euroclass Roofing. Mel Laird, Metalcraft’s branch manager in East Tamaki, says that for a project of this style and location, it was important that the roofing system and installation quality matched the home’s overall design intent.

Metalcraft’s Espan 470 profile was supplied using COLORSTEEL® Maxam Sandstone Grey in 0.55 gauge This profile is part of Metalcraft’s architectural concealed clip roofing range.

Mel says the brief was to provide a clean, modern architectural roofing finish that complemented the home’s design and lifestyle block setting in Paerata.

“Espan 470 was well suited to this brief because it provides strong, defined lines while keeping the fixing system concealed, creating a clean and premium appearance.

The overall design required a roofing profile that would not only perform well in New Zealand conditions but also contribute visually to the home’s architectural style. The finished result is a sharp, high-end roof with excellent lineal definition and a refined architectural look,” he says.

“Architectural roofing projects always require careful attention to detail, particularly where long sheet lengths, clean lines, flashing details, and junctions are involved,” says Mel. “Because Espan 470 is a concealed clip system, accuracy in manufacturing, set-out and installation are all critical.”

Metalcraft’s East Tamaki manufacturing team produced the material to specification, ensuring the installer received product that was ready for site and aligned with the project requirements. The installer then had to ensure the sheets were correctly aligned, clips positioned accurately, and the roof allowed to perform as designed while maintaining its visual appearance, says Mel.

“This roof required a high level of detail around the finishing, transitions and flashings, and Lance Inglis from Euroclass Roofing managed these details very well, applying his experience and workmanship to deliver a consistent, high-class finish across the project,” says Mel. “Lance is a highly

skilled and detail-focused installer, and his workmanship was a major contributor to the quality of the finished roof."

Euroclass Roofing designed a custom gutter/apron around the opening of the large glass roof, which the clients wanted to sit level with the roofing ribs. This gutter hooked into the roof on one side and ran over the skylight on the other, ensuring that if the back tray overflowed, water would flow safely over the glass without causing issues.

Scheduling and timing must be carefully controlled when supplying roofing materials, as delays can affect other trades and the overall building programme. To achieve this, Metalcraft East Tamaki's sales, customer service, manufacturing and dispatch teams all worked closely together to ensure the order was processed accurately, manufactured correctly, and delivered to site on time.

Material sustainability is increasingly being considered in construction projects, and metal roofing gets a strong tick for its durability, long service life, and recyclability. As a high-quality roofing system, Metalcraft Espan 470 will support the long-term performance of this home, reducing the need for premature replacement or major remedial work.

"The thing I really admire about this project is that the design and products used are all very simple and clean, and together they produced an amazing house that oozes class," says Lance.

P

Paerata House

CREDITS

Designer
Jenny Walter, X Architecture

Main Contractor
Create + Construct

Roofing Installer
Euroclass Roofing – Architectural Specialists

Roofing & Cladding Manufacturer
Metalcraft Roofing, East Tamaki, Auckland

Roofing Profile
Espan 470 swages

Colour
Sandstone Grey

Photographer
Simon Wilson

Yopp House, Lower Hutt

Perched above the harbour at Point Howard, Lower Hutt, the Yopp House tells a story of repurposing the small cottage the owner had fallen in love with into a modern, creative space that is low-maintenance and fit for the severe marine environment for decades to come.

Designed by Craig & Coltart Architects, the project's vision was to extend an existing cottage into a home that feels more sculpted than built. A quiet composition that settles naturally into its steep coastal site.

From the outset, the brief called for restraint. The client sought a dedicated wellness space for Ayurvedic yoga, teaching, and meditation, as well as the conversion of an existing carport into a garage.

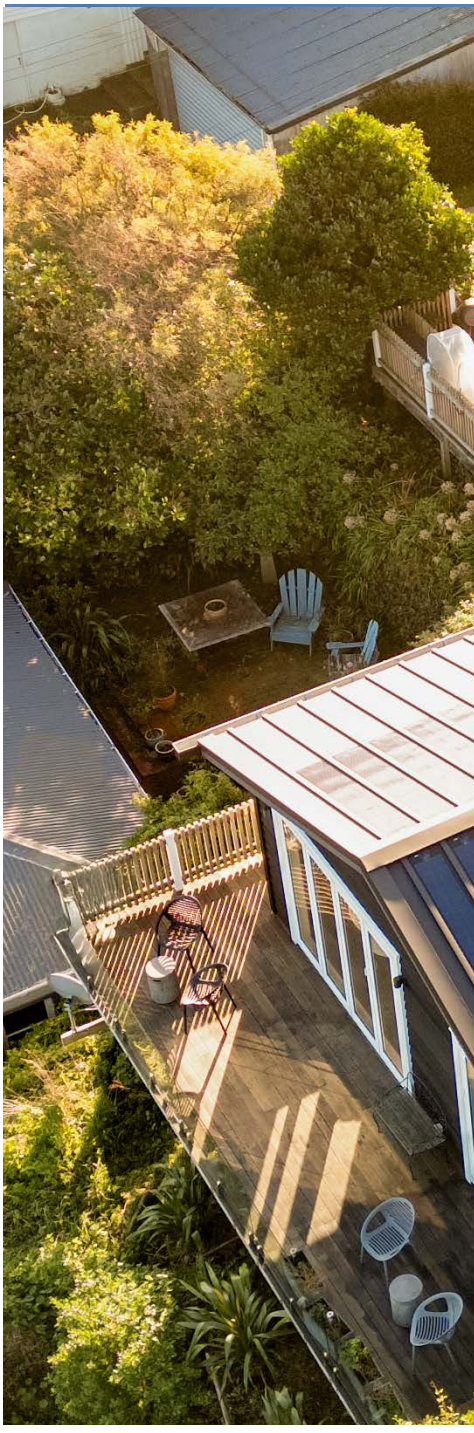
"We built the extension for the wellness space and garage off the south end of the cottage and nestled into the hill behind. It was important that we did not dominate the existing cottage, so our strategy was to have the extension be visually more like a sculpture in the garden than an extension of the existing house." David Craig, Registered Architect.

A series of subtle moves reinforced this relationship between old and new.

"We emphasised the horizontality of the existing cottage by using custom-formed spouting that extended past the barges, giving the perception of a longer roof and building. The same river stone from the cottage was used to elongate and emphasise the original shape, and we chose a dark matte finish colour for the roof to minimise reflection and to allow the beautiful natural views to sit forward."

The harsh coastal setting, with plenty of salt exposure, calls for careful material selection. "Pre-coated Aluminium was specified to ensure a long-lasting finish suited to the site's coastal context. The profile we used was Steel & Tube QBT450® in COLORSTEEL® Altimate. We love the fact that the absence of exposed fixing penetrations helps protect the reliability and durability of the roof, which we believe is important for long-term value when committing to a solar roof."

QBT450® was also used in the wall cladding, allowing the extension to read as a single, cohesive form while the textured timber screen sits forward as an element of the landscape.



“This was a very subtle solar solution that does not rudely interrupt the roof line or fine texture of the European tray profile.”

Bringing the architectural vision to life required more than the right material. It relied on true craftsmanship on site, with Construction Connection and Consultancy Ltd carefully setting out the QBT450® seams to align with key architectural junctions and bring cohesion to the whole building.

“We had a lot of fun playing with ideas for the timber screen,” David says. “It was a strong part of the brief for our client to be artful and create something special for the exterior cladding.” It helped the extension feel connected to the garden and surrounding landscape while ensuring the new work did not compete with the cottage the client had originally fallen in love with.

As you pull into the driveway and approach this beautiful home, the solar panels are almost hidden in plain sight, only subtly revealed by a slight glossy finish.

It is a detail that relies on precision. The QBT450’s wide trays allowed the 400mm wide solar panels to be laminated onto the pre-coated aluminium while preserving the fine texture of the tray profile. Cabling is tucked away through the vented ridge capping, keeping the roof free from visible cable runs, exposed fixings or penetrations.

For the architects, this was key to preserving the character of the design. “This was a very subtle solar solution that does not rudely interrupt the roof line or fine texture of the European tray profile,”

The project’s careful balance of design, material selection and craftsmanship was recognised at Te Kāhui Whaihanga New Zealand Institute of Architects’ 2025 Wellington Architecture Awards, where Yopp House received an award in the Alterations and Additions category. Judges described it as a finely crafted intervention that feels more like an inhabitable piece of furniture than a conventional extension.

P

Yopp House

CREDITS

Architect
Craig and Coltart Architects Ltd

Roof & Cladding Manufacturer
Steel & Tube

Roof & Cladding Installer
Construction Connection and Consultancy Ltd

Material
QBT450®, COLORSTEEL® Altimate

Photographer
Yaoyao Liu

NZMRM's participation in and involvement with Standards

By Stuart Hayman

Our last article on this topic was in 2017, following the absorption of Standards NZ into MBIE as a 'business unit'. Since then, some important Standards have been reviewed with NZMRM participation, and now that we have a review of AS 4200.1 and 2 – pliable building membranes (i.e., including underlays, which are currently of great interest in NZ), it will be useful to revisit and update the whole topic from the inside.

What are 'Standards'?

Standards are voluntary documents that set out specifications, procedures, and guidelines to ensure products, services, and systems are safe, consistent, and reliable.

Previously, we discussed the role Standards play in providing a framework for regulating all sorts of products and systems and ensuring safety in many industries, specifically how they do this for the building industry. In this article, we will provide an overview of global Standards and their involvement in NZMRM's activities.

For many people in New Zealand, Standards have little apparent relevance, even though some sort of 'standard' governs much of what they buy, what they eat, what they drive, even down to the electricity they use, and how they use it. The following article(s) will demonstrate the relevance of Standards to our industry and how we participate in their development and use. (See *Further Reading* at the end of this article).

In a narrower sense, Standards are highly relevant to our industry and its products – metal roof and wall cladding and rainwater goods – as they govern the materials and products we use and their performance in real life.

Three-Tiered System

NZMRM and its products and systems are governed by three levels of Standards:

Level One: International Standards
The International Organisation for Standardisation (ISO) creates and controls high-level Standards used worldwide. Examples include ISO 9001, the global Standard for Quality Management Systems, which, since 2015, has ensured product and service quality; MRM ISO 14001 Environmental Management Systems; and ISO 9223 Corrosion of Metals and Alloys, which we have used for years in our programme to assess the corrosion resistance of cladding and fasteners. Although we all use International Standards, we have had little (although not zero) input into these, but have been involved in implementation in NZ.

Level Two: Standards Australia (SA)
In our area of interest, SA and Standards NZ create and manage Standards relevant to our climatic conditions and to building products common to both countries. NZMRM contributes to the writing and implementation of such Standards – many of which are generated in Australia.

Level Three: Standards NZ

Standards NZ (SNZ) creates Standards that only affect New Zealand, either because of particular products or end uses. NZMRM contributes to the writing and implementation of such Standards.

In practice, and after several iterations and changes, SA and SNZ operate differently. SA is now a limited company, and SNZ is an operating unit of the Ministry of Business Innovation and Employment (MBIE), itself a relatively new construct.

SA is a much bigger organisation with more resources (and, of course, it is funded by a much larger population base). In NZMRM's areas of operation, SA tends to create and manage most of the Standards (either as joint or Australian-only) that affect Australia and NZ, or which we have adopted.

SNZ has tended to create and manage Standards whose operation only affects NZ products or conditions. Because of the commonality of products and markets, the majority of Standards affecting NZMRM are either joint AS/NZS (which means they do have some authority in NZ) or AS only (which means we can adopt as much or as little as suits us). There are still some important NZ-only Standards that we need to take notice of and comply with.

NZMRM's Involvement

Input by interested parties into the composition of Standards is similar to input into Acts of Law. However, most Standards work consists of updating or revising existing material to accommodate changes in circumstances. There are several levels at which input can be provided into their production:

- Sit on the committee and be a part of the creation or revision of the Standard
- Sit on the committee and only comment on material prepared by others
- Comment from outside the committee when material is released for Public Comment before publication
- Critique the published product, ready for the next round of revision

NZMRM has sat on several AS, SNZ and AS/SNZ Standards committees since at least 1999. We have used the opportunity to influence the control of our products, raw materials, and processes of use, to assist our industry and connected parties in producing systems that operate effectively in our unique climatic conditions. Hopefully, our input has helped produce more useful documents.

Further to this last comment, we should note that Australasian conditions are in regions that are mainly coastal and therefore have high corrosion rates, and are also subject to very high levels of ultraviolet light. These factors and relatively high temperatures mean that the Standards of performance for outdoor-exposed products and systems in NZ need to be significantly higher than in most of Asia, Europe and North America.

In both countries, the creation and updating of Standards are primarily driven by committees composed of unpaid (by Standards) members from interested parties, and are project-managed and finally produced by Standards management staff. These 'parties' are not allowed to be businesses commercially involved in the product or system. However, they can be representatives of organisations (e.g. the Plumbers and Drainlayers Association of Auckland).

NZMRM, as an industry organisation, can represent itself.

In terms of NZMRM participation in Standards generation, revision and implementation, it is worth noting an important difference between New Zealand's and Australia's systems. SA has a number of standing committees, e.g. BD-058 Thermal Insulation, with more or less permanent members or member organisations. Any perceived or requested update, or indeed creation, is referred to this existing group, and typically interested members will then reform the committee and proceed to work on the Standard. When this exercise is announced to the industry at large, new members can offer to join.

SNZ, while using committees of industry-knowledgeable (or interested) parties, forms a new committee for each Standard revision or creation by announcing its upcoming and hoping suitable parties will put their hands up. Previous committees are not necessarily invited, and all members are treated as new.

Both methods have good and bad points, but the standing committee method has the benefit that useful interested parties (organisations) are involved immediately and don't need to go through the recruitment process required by SNZ. Additionally, members often know one another and are accustomed to working together.

STANDARDS NEW ZEALAND
TE MANA TAUTIKANGA O AOTEAROA

STANDARDS Australia

ISO

Further Reading

Details of specific Standards that affect our products, and of NZMRM's involvement over many years in the production, editing, and subsequent revision of several Standards (both NZ, Australian, and joint), are available to read in two further articles on the website.

Standards which are relevant to Roof and wall cladding products:

Te Kaha One New Zealand Stadium, Christchurch

Christchurch's newly opened Te Kaha One New Zealand Stadium, designed to host events from live matches, concerts and conferences to e-sports, is the final anchor project in the Christchurch rebuild. With a capacity of 25,000 permanent seats and an additional 5,000 temporary seats, this world-class stadium can accommodate up to 30,000 for field sport events and 36,000 for concerts, making it one of the most versatile venues in the country.

This state-of-the-art facility is designed to be inclusive, accessible, sustainable, and to offer exceptional fan experiences. Its design incorporates elements of Māori culture, with artwork inspired by the Māori creation story of Tāne and the separation of Ranginui (Sky) and Papātūānuku (Earth). An 800-metre steel façade on the exterior of the venue reflects the Canterbury landscape – Banks Peninsula, the Port Hills and the Southern Alps – providing a visual connection for the stadium with its local surroundings.

Covering this impressive space is a huge roof spanning 175 metres by 211 metres. Business development director Glenn Milroy of Christchurch company Graham Hill Roofing (GHR) says that in early 2022, Australasian building and engineering firm Besix Watpac asked his company to submit a proposal to design, supply and install the metal roofing and wall cladding for Te Kaha.

The product selected for the roof and cladding was Roofing Industries' Multirib, finished in PCC ColorCote Zinacore. This high-performance commercial roofing and cladding profile, with tried-and-tested capabilities, was supplied by RoofLogic as part of the overall RoofLogic System.

Glenn says Besix provided his company with preliminary design documents and a very specific list of performance criteria centred around structural, acoustic and seismic performance. "Based on the high-performance nature of the project, there was only one supplier we felt had the experience and technical ability to assist us with the design, and this was RoofLogic."

GHR engaged RoofLogic early in the proposal stage and worked with the company to put forward a design that was subsequently chosen as the preferred option.

"From this stage, the real work began, and over the course of many months, we developed every detail of the design to the satisfaction of peer review consultants up to the consent issue stage," Glenn says.

With GHR, RoofLogic designed, engineered, tested and supplied the roofing, membrane, gutters and cladding systems for the stadium, and conducted both off-site and on-site quality assurance to ensure the performance criteria were met. Meeting thermal and

“One challenge was the main centre section of the roof, termed the Oculus. The structure here is a convex plane in all directions, meaning at no point was there a linear slope.”

acoustic requirements was a key aspect of the RoofLogic system, says Josh Beyer, RoofLogic’s national sales manager.

The RoofLogic system offered the very high acoustic performance specified to enable the stadium to host concerts where sound quality was paramount, achieved by first installing a perforated cassette with layers of acoustic and thermal insulation within the body of the system. Similarly, the wall cladding required unique acoustic solutions, and RoofLogic ran acoustic test cell simulations to ensure the system met the required levels.

The high-quality acoustic performance was also essential, as the stadium is located in a residential area and needed to comply with noise breakout levels.

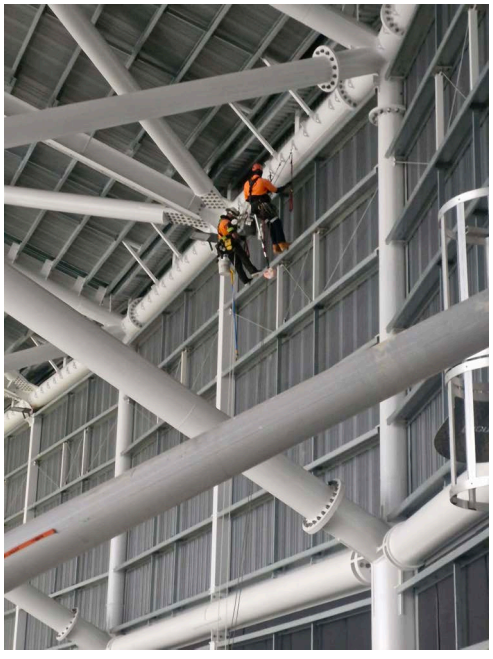
Thermal performance was another key design feature of the RoofLogic system. “We had to eliminate the condensation risk within a building with a large moisture load, resulting from watering the grounds and vapour from large crowds, combined with the likelihood of cold temperatures outside the stadium. These factors could have caused condensate to drip onto the crowds, leading to corrosion and mould build-up. We achieved this by ensuring the right levels of insulation were used in the different areas of the roofing and cladding systems,” says Josh.

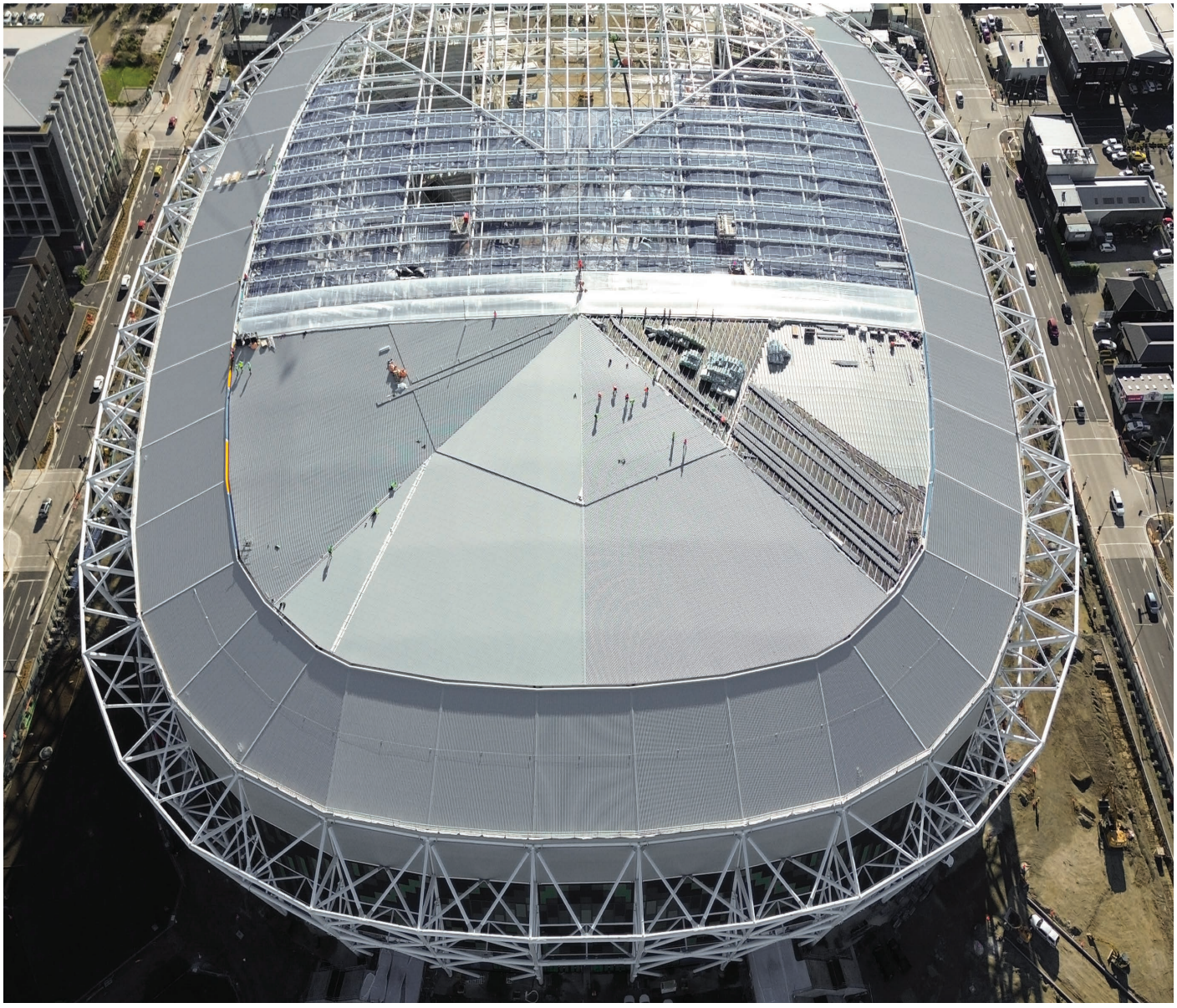
RoofLogic also built a full-scale model of the roof structure within its factory to ensure the roofing system was sufficiently sophisticated to meet the performance criteria, and work with the geometry of the stadium design – essentially a curved dome structure that required rigid, straight products to drape over it naturally, he says.

The project’s very specific design requirements posed unique challenges for the roofing team.

“One challenge was the main centre section of the roof, termed the Oculus. The structure here is a convex plane in all directions, meaning at no point was there a linear slope, which is traditionally required for profiled metal roofing. Our solution was to overlay the main structure with secondary fixing members, using complex geometry and a set out that enabled the profiled metal top sheet to always be within manufacturers’ minimum slope requirements,” says Glenn.

“Then, with regard to the wall cladding, part of the way through the design we were presented with another interesting challenge – the client had engaged an artist to design a cultural narrative that involved an arrangement of different colours along the length of each sheet which would produce an arrangement of patterns around the circumference of the building.”





After exploring a number of different solutions and in consultation with ColorCote, Glenn says they concluded that the solution was to over-paint the sheets before installation, using a high-performance coating system.

"This was only the first part of the challenge; next, we had to devise a plan to assemble a 14,000 square-metre jigsaw puzzle up to 35 metres in the air, without putting a single sheet in the wrong position."

This challenge was taken up by GHR's project manager, Darren Tonihi, who devised a sheet numbering and labelling system that enabled installers to understand exactly in which bay and in what sequence the sheets needed to be installed. This system was utilised for the painting process, delivery, logistics and installation.

To address some of the more challenging flashing junction designs and to gain a hands-on feel for how the junctions should be detailed, a full-scale replica of one of the cladding bays was fabricated at the GHR factory.

As with any construction project, the goalposts shifted constantly, making it an ongoing challenge to keep the project on programme, but Glenn says they completed the project on schedule through regular communication and planning meetings with Besix Watpac and other subcontractors. "We also called on our wider workforce when additional resources were required to meet target dates," he says.

"And, although we had undertaken a very in-depth approach to preplanning, due to the specialised nature of the project and because of access issues associated with the extreme height of the work location, we had to rethink our approach on a number of occasions," says Glenn.

The Multirib profile roofing and cladding products were manufactured and supplied by Roofing Industries Christchurch. In total, 4071 sheets were supplied to the project, with a combined weight of 178 tonnes, equating to more than 32 kilometres of roofing and cladding, with some sheet lengths exceeding 36 metres.

Paul Brady, branch manager of Roofing Industries in Christchurch, says that programming for the project was key. "Planning began well before the first order was received, with product pre-orders for the 50 pre-coloured coils of steel and manufacture scheduling to meet delivery targets on site – all while continuing production for everyday work."

As work progressed on site, the team at Roofing Industries all contributed, with office and sales staff assisting in walking out the longest sheets, which extended five metres outside the building. This required the manufacture, loading and removal of the truck in a single day, and teamwork helped ensure the product was produced and delivered on time.

Roofing Industries made 22 site deliveries to the stadium using specialist, oversized, piloted transportation supplied by local

company, Crane and Carry Limited, utilising a four-axle, rear-steer, remote-control trombone trailer and skilled operators. At times, roadworks, road closures, and site work made these deliveries challenging.

The completion and opening of Te Kaha One New Zealand Stadium on 27 March this year is a symbol of regeneration, resilience, and forward thinking for the Christchurch region, and marks the beginning of a new era of the stadium experience in New Zealand. Te Kaha, the name of the land beneath the stadium, means “the strength” in Māori, and was gifted by Ngāi Tūāhuriri. The name and arena architecture are intended to represent the strength and resilience of Canterbury and its people.

As a testament to the success of the project and the team that enabled it, Te Kaha One New Zealand Stadium won the top prize of Roofing Association of New Zealand Commercial Roof of the Year Award at the annual conference in June this year.

P

Te Kaha Stadium

CREDITS

Construction
Besix Watpac

Roofing/Cladding Installer
Graham Hill Roofing

Roofing/Cladding Manufacturer
Roofing Industries, Christchurch

Roof/Cladding System Design/Supply
RoofLogic

Roofing and Cladding Profile
Multirib .55 gauge, finished in PCC ColorCote Zinacore

Roofing Colour
Gull Grey and Horoeka

Cladding Colour
Slate

Raw Material Supplier
ColorCote

Roof Fastners
Bremick NZ

Photography
Itch

Kariaotahi Surf Lifesaving Club

The result of almost 20 years of planning, this modern facility provides a new, fit-for-purpose base for lifesaving operations at Kariaotahi Beach.

While plans to renovate the original, dilapidated clubhouse at this West Coast site date back to 2007, members soon recognised that a new building would make better financial sense. However, it took some time for cogs to turn and funding to be secured, with Auckland Council first replacing buildings at Muriwai, Karekare, and North Piha before giving the go-ahead for work to begin on Kariaotahi's new facility in 2025.

To ensure the new building would stand strong against the area's salt-laden winds and wild weather patterns, the new clubhouse was clad and roofed in robust COLORSTEEL Altimate®. This product was donated to the project by New Zealand Steel, with the aim of helping to create a lasting solution for the surf club.

"We're really proud to have had the support of New Zealand Steel down here at Surf Life Saving Kariaotahi, supporting our new build," says Brad Walters, President at Kariaotahi Surf Life Saving. "For such a large-scale business to be supporting our small clubhouse is amazing."

The well-used clubhouse hosts training events and community functions, and serves as the centre of operations for many rescues each year. As a large-scale employer of local residents, New Zealand Steel is highly involved in the Waiuku community. This made the donation a meaningful gesture with the

“I’d like to see more COLORSTEEL Altimate® used in areas like that because it’s a hardy product and you get a lot of bang for your buck.”

clubhouse catering to those who work and live in the area.

COLORSTEEL Altimate® was chosen for the project due to its ability to withstand exposed coastal locations like this one. Made from a marine-grade aluminium substrate and finished with COLORSTEEL paint technology, it offers superior protection against corrosion. This made it a perfect product for this site, says Project Manager Karl Neems of Aspect Roofing, who oversaw the installation.

“I’d like to see more COLORSTEEL Altimate used in areas like that because it’s a hardy product and you get a lot of bang for your buck. For harsh environments, it’s a good option,” he says. “Aluminium is always a little bit different to work with because it expands and contracts, which means the flashings need to be designed to give it movement. The overall design looked great when it was all finished.”

Ironsand was an apt colour choice for the project, helping the building tie in with the rugged black-sand beach. Metalcraft’s symmetrical Kahu® profile lends an understated aesthetic while providing high structural integrity, which is important when facing high winds.

The old clubhouse was demolished almost exactly at its expected lifespan of 50 years. This new building is destined to outlast it by at least 25 years, despite being built at one of the harshest coastal spots in the country. With its new facility, Surf Life Saving Kariaotahi can continue its important work of keeping beachgoers safe while remaining a vital pillar of the Waiuku Community.

P

Kariaotahi Surf Lifesaving Club

CREDITS

Roofer
Aspect Roofing

Rollformer
Metalcraft Roofing, East Tamaki, Auckland

Builder
Pukekohe Builders

Material
COLORSTEEL Altimate®

Colour
Ironsand

Profile
Metalcraft Kahu®

Te Kōrari House, Christchurch

With a soft palette of gently textured materials and a layout that prioritises connection, this Christchurch home supports the dynamic rhythms of family life while creating a sense of calm, comfort and belonging.

There is a sense of nourishment and protection in the bones of Te Kōrari House. Designed by Performance Architecture for a young family and located on a quiet cul-de-sac in Christchurch, the home balances contemporary design with a welcoming warmth that immediately feels at home in its surroundings. Every aspect of the design has been carefully considered to support everyday living, creating spaces that encourage connection while allowing moments of retreat.

Much of the home's calmness comes down to the look and feel of its exterior, which is anchored by Lichen coloured Metalcraft Espan® 340 roofing and upper-level cladding. The linear nature of this profile pairs precisely with the warm vertical cedar and pale brickwork on the lower level, adding timeless textural variety while creating a sense of visual balance. Together, the materials establish a restrained palette that feels both contemporary and enduring.

"The roof and upper walls create a crisp, contemporary silhouette that complements the home's simple gable forms and natural surroundings," says Dan McCormick of Performance Architecture. "COLORSTEEL® was selected for its durability, low maintenance, and ability to

“Window and door joinery has been colour-matched with the COLORSTEEL® Lichen exterior, creating continuity between inside and out.”

age gracefully, making it ideally suited to the demands of family life and the coastal Canterbury environment.”

The muted green-grey tones of COLORSTEEL® Lichen play an important role in helping the home sit comfortably within its setting. Drawing inspiration from the natural landscape, the colour complements the surrounding vegetation while providing a subtle contrast to the warmth of the cedar cladding and soft tones of the brick. The result is a cohesive exterior that feels grounded and connected to place.

At the heart of the home is a carefully planned layout centred around a circulation spine that links sheltered outdoor spaces with communal and private zones. This organising element not only provides intuitive movement throughout the home but also allows natural light to penetrate deep into the floor plan. Open sightlines create a strong connection between spaces, while strategically placed glazing captures sunlight throughout the day, contributing to both comfort and energy efficiency.

The home’s relationship with the outdoors is a defining feature of the design. Living spaces open seamlessly onto protected courtyards and garden areas, encouraging year-round use and creating opportunities for family life to extend beyond the home’s walls. These outdoor rooms provide places to gather, play and relax while maintaining a sense of privacy and shelter.

Inside, materials have been selected to reinforce the warm, crafted quality established on the exterior. Soft timber flooring runs throughout the main living spaces, while pale walls provide a calm backdrop that allows natural light to take centre stage. Window and door joinery has been colour-matched with the COLORSTEEL® Lichen exterior, creating continuity between inside and out and reinforcing the home’s cohesive material palette.

Thoughtful detailing adds character and functionality throughout. Vertical timber screens echo those seen on the exterior, creating visual rhythm while subtly defining spaces. Built-in window seats offer opportunities to pause, read or simply enjoy the garden outlook, while generous openings between rooms encourage easy movement and interaction. These moments of considered design contribute to a home that feels highly personalised to the needs of its occupants.

The main living, dining and kitchen area is characterised by pitched ceilings that create a sense of openness and airiness. The increased volume allows natural light to flood the space, enhancing its role as the social heart of the home. Upstairs, bedrooms and the main bathroom are intentionally separated from the communal areas below, providing quieter spaces for rest and privacy while maintaining strong visual connections to the surrounding landscape.

Functionality was equally important in the design process. The laundry, bathrooms and scullery were designed by Ingrid Geldof Design with both timeless style and practicality in mind. Durable materials, considered storage solutions and efficient layouts help support the realities of busy family life, allowing the homeowners to spend less time managing household tasks and more time together.

Completed in 2024, Te Kōrari House was recognised with a 2025 ADNZ Highly Commended Award in the Residential New Home category, reflecting the success of its thoughtful design and execution. More than simply a collection of carefully selected materials and well-resolved spaces, the home demonstrates how architecture can enrich everyday life through comfort, connection and adaptability.

With its clean detailing, warm atmosphere and enduring material palette, Te Kōrari House has been designed to evolve alongside its residents. It is a home that provides space to play, retreat and connect, supporting the changing needs of family life while remaining deeply connected to its environment for years to come.

P

Te Kōrari House

CREDITS

Designer
Performance Architecture – Hailey Sinke & Dan McCormick

Builder
Clive Barrington

Roof/Cladding Installer/Roofer
Clive Barrington

Rollformer
Metalcraft Roofing

Colour
Lichen

Profile
Espan® 340 (Tray profile via Metalcraft)

Photographer
Sarah Rowlands

Archers Road, Auckland

A long-considered approach to planning and logistics was the critical element for roofing installer Metalhartt Roofing in a recently completed project on Auckland's North Shore.

Property investment company Crown Property initially approached the directors of Metalhartt Roofing to re-roof a large 10,000-square-metre warehouse on Archers Road, Wairau Valley. The existing building had asbestos Super Six fibre-cement roofing, internal gutters, and associated plumbing dating from the 1950s or 1960s – all of which needed replacing.

Metalhartt recommended using the Roofing Industries' MultiRib profile in ColorCote ZinaCore with FleeceCote backing, as this system is particularly well-suited to this type of application. The project required roofing sheets that were 22 metres long and weighed 5.5kg per linear metre, meaning each sheet weighed in at 120kg. So, well in advance of the work's start date, the logistical planning began.

Metal supplier Roofing Industries prepacked the sheets into manageable lots. These packs were then lifted to predetermined

locations on the roof using a 120-tonne crane, provided by Ashton Cranes, which was on site for two days, craning the 50 tonnes of roofing sheets into position. The locations determined which areas each team would work on each day.

General manager of Metalhartt, Ryan Hogan, says that with a project of such huge magnitude – one of the largest-scale projects the company has undertaken – he had to work closely with its suppliers to ensure it had sufficient supplies of the materials it needed, and that they were in the right place at the right time. "Coordination between Ashton Cranes, Roofing Industries and Metalhartt was absolutely vital," says Ryan. "It was rather like conducting an orchestra. All the sub-components needed to be in harmony. Any adjustments would have resulted in huge additional costs," he says.

Roofing Industries' MultiRib was chosen for its high rib and robust profile, which make it well-suited to these types of applications. Additionally, this commercial roofing product has a reputation for performing well over its lifetime.

The project took approximately six months to complete, and the building owner wanted the tenant occupying part of the building to remain operational throughout the works.

"To achieve this very specific requirement meant that we had to work closely with the other trades to ensure everything flowed smoothly for the client, for us, and for the tenant," says Ryan. "Our role was to coordinate and facilitate the project, working closely with Henderson Demolition."

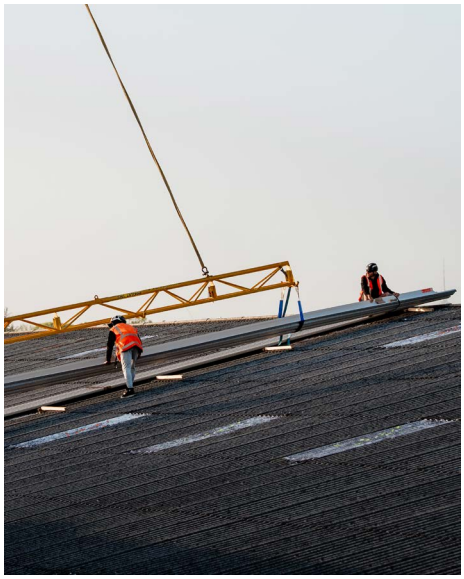
Each day, the asbestos-contaminated roofing materials were removed, followed by independent clearance inspections to confirm the area was safe for the roofing teams to access. The builders, waterproofers and roofers then worked in a carefully sequenced programme to complete each stage of the roof and ensure the building was left fully weathertight at the end of every day. During the programme, the tenants were relocated to different areas of the building to create separation between them and the roofing sections being demolished and replaced, and then moved again as the job progressed.

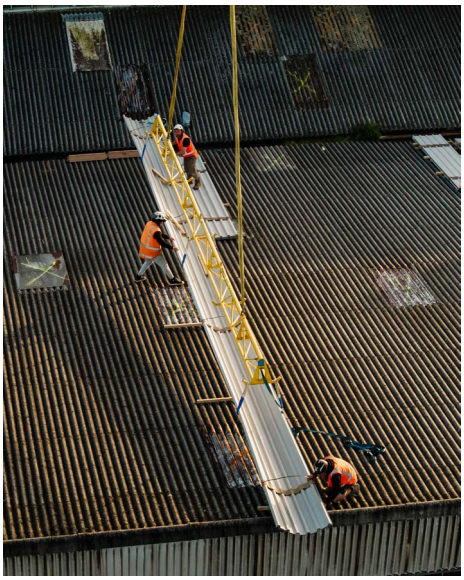
"The building had a lot of internal gutters that needed removal and replacement, meaning there was a lot of water to consider, so we needed a very tight sequence between the various trades – building contractors, plumbing, roofers and flashing manufacturer – to keep the warehouse watertight at all times," says Ryan.

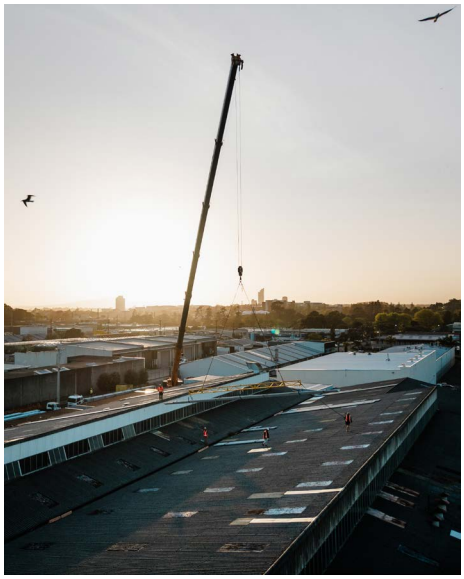

BEFORE


AFTER

“For the whole project, we supplied around five tonnes of coil for the flashings – a big job!”







A relative newcomer to the market, FleeceCote, a synthetic fleece product supplied by ColorCote and manufactured by Roofing Industries, enabled the roof to be installed more efficiently. Traditionally, roofing systems have a paper underlay beneath the iron to catch condensation that forms on the iron overnight.

“One challenge with traditional roofing underlay on large commercial buildings is its susceptibility to wind during installation,” says Ryan. “The underlay must be laid before the roofing sheets are installed, and in exposed conditions, high winds can make the process significantly more difficult, causing delays and increasing the risk of the material being damaged or torn before it can be covered.”

To minimise this issue, the MultiRib roofing used for this warehouse project was supplied with FleeceCote already directly adhered to the underside. FleeceCote eliminates the need for a traditional underlay by absorbing moisture, but, more importantly, from a roofing perspective, it makes installation much faster and more efficient, as there is only the roofing sheet to be fixed in place.

Marcus Tamatoa, Metalhartt’s representative at Roofing Industries, says ColorCote supplies his company with metal coil with fleece backing already adhered. The coil is then formed and cut into the required lengths specified for the job. Specialised machinery also burns back the top and bottom of the sheets.

“This new product provides both cost and time savings for the roofing contractors,” Marcus says.

Metalhartt also worked closely with flashing manufacturer Roll and Fold. Mike Orange, director of operations at Roll and Fold, says that when Metalhartt approached him to provide the flashings for this project, they warned there would be a very tight, precise timetable for the supply of flashings.

“To ensure we met their schedule, we ordered additional coil from ColorCote, so when Metalhartt project manager Shaun Graham called us, we were ready to supply the required flashings daily, enabling them to close each section of the roof and keep the building watertight,” says Mike. “For the whole project, we supplied around five tonnes of coil for the flashings – a big job!”

Ryan says Metalhartt appreciated the proactive approach taken by Roll and Fold. “For us to be efficient, we needed good support with the supply of the flashings. Often flashings are bespoke, as they can’t be accurately measured until the iron is installed. Roll and Fold coordinated with us to ensure the flashings were manufactured and delivered within the required timeframe.”

At any given time, there were up to 30 staff contributing to the project, from waterproofers, builders and roofing installers to health and safety and administration staff.

“Careful planning before and throughout the project helped to minimise unexpected challenges and ensured any issues that did arise were identified and addressed quickly. As a result, the project progressed smoothly, and the client was very pleased with the outcome,” says Ryan.

P

Archers Road

CREDITS

Client
Crown Property

Main Contractor
MetalHartt Roofing Ltd

Rollformer
Roofing Industries

Flashings Manufacturer
Roll and Fold Ltd

Roofing Specification
Multirib – ColorCote ZinaCore 0.55 bonded with FleeceCote Gull Grey

Waterproofing
Sub Zero Waterproofing

Building Contractor
In-house Build and Project Management

Crane Contractor
Ashton Cranes

Photography
Boxcrib

Chertsey House, Ashburton

Designing your own home is a huge undertaking, but homeowner Matt Smith had a leg up in creating the perfect sanctuary for him and his family. With over 20 years in the construction industry, Matt knew that design and material choices would be key to a high-performing home, and his choices began with a Gerard roof.

Matt started in the trades two decades ago as a building apprentice and went on to set up Matt Smith Construction in 2017. With over 14 employees and a full build schedule, his business is going from strength to strength. Matt's experience with the different facets of construction is vast. "We take pride in doing the job

start to finish, we place our own floors, quite often we put on our own roofs, build our own frames and trusses, we do the whole package." This level of expertise came in handy when it was time to build his own house.

Set amongst the endless green fields stretching north of Ashburton, Matt and his wife bought their property in Chertsey around 12 years ago with the idea of setting it up to suit their passion for training racehorses. The first years were spent setting up the paddocks, the horse pool, and the raceway for the horses' training, until 2025, when it was time to start on the house.

With the new home's design process underway, the brief had some non-negotiables – a couple of double-storey lounges and, to keep an eye on their racehorses, large windows at the rear of the home.

For Matt, there was only one architect for the job – Jonathan Moore of Moore Architecture, whom he had worked with for many years on various projects, and this relationship helped develop the final design. "Johnny was really good. We brought him out here, stood on the lawn, explained what we wanted, and the initial sketch he spent about an hour doing was pretty much the base of what we ended up with," Matt explains.

When it came to choosing materials, Matt knew exactly what he wanted. "I always wanted a Gerard roof. Right from when I was an apprentice, we did a job on Hollands Road in Ashburton, and they had one. So when it was our own time to do it, it was something I definitely wanted."

Matt decided to go with Gerard's CF Shingle profile. The profile features a close-set pattern with varying shades of textured stone coating, reminiscent of a wood shingle roof. CF Shingle, one of Gerard's newest profiles, incorporates Concealed Fastening technology. Fasteners are hidden from view, giving a clear optical line down the face of the roof, while protecting them from exposure to the elements.

“The profile pairs beautifully with the natural landscape, adding texture and depth to the home and working with the environment rather than fighting it.”

The profile pairs beautifully with the natural landscape, adding texture and depth to the home and working with the environment rather than fighting it. Dust was a concern at this location, with an unsealed road running alongside the property that requires a regular oiling schedule to prevent excessive dust build-up on the house. CF Shingle was perfect for this setting, as Matt explains, “We live in a rural setting on a dusty shingle road, we felt like an iron roof would just show up all the dust all the time, whereas the CF Shingle roof definitely lets the dust blend in because it has a sort of speckle in the tile.”

Underlying it all, Matt wanted a quality build and a high-performing roof. And a Gerard roof delivers. An outstanding roof prevents moisture build-up in the roof cavity, which is key to a long-term healthy home, as moisture can lead to mould and rot. A Gerard roof has natural breathability, with airflow not only from the eaves to the ridge but also between each tile. This helps reduce condensation, keeping the roof drier on the inside.

With performance assured, Matt was looking for that ‘something special’ for his home. “Most houses we build in Ashburton tend to be corrugated steel or a 5 rib look, so we were really looking for a point of difference and something that would make our house stand out. And I think this roof really does that, it really stands out, and we couldn’t be happier with the roof.”

P

Chertsey House

CREDITS

Architect
Moore Architecture

Builder
Matt Smith Construction

Roofing Company
GRC Christchurch

Product
Gerard's CF Shingle in Charcoal Blend

Photographer
Jamie Wright

Directory

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