NATSPEC

Product Partners

Quality Reputation Support

Case Studies and Technical Articles 2026 - 2027



Supported by Australia's leading industry organisations

AAVT Australian Association of Vertical Transport
AIB
AIBS Australian Institute of Building Surveyors
AIQS
AMCA Air Conditioning & Mechanical Contractors' Association
Australian Institute of Architects
CONSULT AUSTRALIA
ENGINEERS AUSTRALIA
MASTER BUILDERS AUSTRALIA
STANDARDS Australia

Welcome

As the Australian construction industry continues to evolve, the need for clear, coordinated and reliable project documentation has never been greater. This edition of the magazine showcases how NATSPEC continues to support industry professionals through a selection of Product Partner and subscriber case studies. Spanning a diverse range of sectors, these projects demonstrate how NATSPEC's trusted specification system contributes to successful project outcomes by improving the quality, consistency and efficiency of documentation.

NATSPEC continues to simplify the specification writing process while supporting collaboration across the design, construction and asset management lifecycle. As the industry responds to changing regulations, increasing sustainability expectations, digital delivery and growing demands for quality assurance, NATSPEC provides a standardised framework that helps professionals prepare accurate, coordinated and compliant specifications. By promoting consistency across project documentation, NATSPEC assists in reducing errors, improving communication between stakeholders and supporting better project outcomes.

Subscribers also benefit from the ability to customise branded worksections, enabling documentation to be tailored to specific project, design and performance requirements while maintaining consistency across their practice. Whether delivering residential, commercial, infrastructure or public sector projects, these capabilities continue to reinforce why NATSPEC remains Australia's leading specification system.

We encourage you to support NATSPEC Product Partners by selecting branded worksections in SPECbuilder or downloading them free from the NATSPEC website at www.natspec.com.au.



Richard Choy
Chief Executive Officer
NATSPEC//Construction Information

Product Partners Program

The NATSPEC Product Partners program is a service providing manufacturers with the opportunity to place their product information in the National Building Specification with a Branded Worksection. This gives design and construction industry professionals ready access to a proprietary specification from manufacturers, offering reputation, support, and quality in line with Australian Standards. Product selection is easier, which saves specifiers time and reduces risk.

NATSPEC is the trading name of Construction Information Systems Limited, ABN 20 117 574 606.

NATSPEC, founded in 1975, is a not-for-profit organisation owned by the design, build, construct and property industry through professional associations and Government property groups. It is impartial and is not involved in advocacy or policy development. NATSPEC's objective is to improve the construction quality and productivity of the sustainable built environment through leadership of information.

NATSPEC's major service is the comprehensive national specification system endorsed by Government and professional bodies. NATSPEC, the National Building Specification, is for all building structures, with specialist packages for architects, interior designers, landscape architects, structural engineers, services engineers, and domestic owners. AUS-SPEC is the local government specification system for the life cycle management of assets. Packages include Urban and Open Spaces, Buildings, Roadworks and Bridges, Public Utilities, Maintenance, and Rural Roads. NATSPEC is also responsible for the National BIM Guide and its associated documents.

Stakeholders

Air Conditioning and Mechanical Contractors' Association of Australia

Australian Association of Vertical Transport

Australian Institute of Architects

Australian Institute of Building

Australian Institute of Building Surveyors

Australian Institute of Quantity Surveyors

Construction Industry Engineering Services Group

Consult Australia

Department for Infrastructure and Transport (SA)

Department of Finance (Federal)

Department of Housing and Public Works (QLD)

Department of Housing and Works (WA)

Department of Logistics and Infrastructure (NT)

Department of Treasury and Finance (TAS)

Department of Treasury and Finance (VIC)

Engineers Australia

Infrastructure Canberra

Master Builders Australia

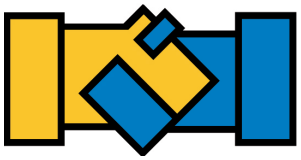
NSW Public Works

Standards Australia

Front cover credits:

Project: Croft & Cremorne
Architect: MODE
Builder: Hutchinson Builders
Photography: Shadowlight Studios, courtesy of Stockwell

To view the full case study see page 64.



AWS ARCHITECTURAL WINDOW SYSTEMS PTY LTD

Resene the paint the professionals use

Leviat

FIELDERS

Dulux

RAVEN Door & Window Sealing Systems

Kingspan

DTAC ARCHITECTURAL TACTILES & STAIR NOSING SOLUTIONS

REGUPOL

ASKIN Performance Panels

Taubmans SINCE 1897

Cavity Sliders

moddex BETTER BY DESIGN™

CAPRAL ALUMINIUM

LYSAGHT

LAWN SOLUTIONS AUSTRALIA

Haymes PAINT Australia's first family of paint. SINCE 1935

ASSA ABLOY Opening Solutions

TermShield STAINLESS STEEL TERMITE MANAGEMENT SYSTEM BRISBANE | SYDNEY | MELBOURNE | ADELAIDE | PERTH | DARWIN

breezway

DELTA PANELS

ductus "THE EVOLUTION OF AIR"

envu™

TERMI MESH ORIGINAL TERMITE BARRIER

evapco for LIFE

Stramit

Ametalin Performance insulation for a greener world

forbo FLOORING SYSTEMS

PALRAM

SOPREMA

STRATCO ARCHITECTURAL SOLUTIONS

BLUEDOG FENCES AUSTRALIA

Tactile Systems

EDGESMITH

Fletcher Insulation Building Better, Together

SOLATUBE

MASTERWALL ENGINEERED FOR PERFORMANCE. DESIGNED TO INSPIRE.

Weepa Perfect weepholes every time!

Interpon POWDER COATINGS An AkzoNobel brand

Metroll BETTER SERVICE • BETTER BUILDING SOLUTIONS

BARRIERGROUP

Guardian Tactile Systems Pty Ltd

APC

DINCEL STRUCTURAL WALLING

Branded Worksections have been compiled by NATSPEC and our Product Partners using the latest regulations and standards. Download for free at www.natspec.com.au

NATSPEC Branded Worksections

01 General

0184p KORDON termite management
0184p TERMIMESH termite management
0184p TERMSHIELD termite management
0192p ANCON structural components
0194p RAVEN door seals and window seals
0195p DTAC tactile indicators and stair edgings
0195p GUARDIAN TACTILE SYSTEMS TGSIs, NOSING AND ANCILLARIES
0195p TACTILE SYSTEMS TGSI and stair nosing

02 Site, urban and open spaces

0242p BLUEDOG FENCES landscape - fences and barriers
0245p EDGESMITH automation for vehicle and pedestrian gates, barrier arms and ancillaries
0252p LAWN SOLUTIONS in landscape – natural grass surfaces
0277p BARRIER GROUP protection and safety ancillaries
0277p TACTILE SYSTEMS car park fixtures in pavement ancillaries

03 Structure

0311p DINCEL in conrete formwork
0311p FIELDERS KingFlor® in concrete formwork
0311p STRAMIT Condeck in concrete formwork
0331p WEEPA in brick and block construction
0341p FIELDERS SlimFlor in structural steelwork
0341p LYSAGHT purlins and girts in structural steelwork
0341p METROLL in structural steelwork
0341p STRAMIT purlins and girts in structural steelwork
0345p DULUX protective coatings

04 Enclosure

0411p SOPREMA waterproofing – external and tanking
0422p SOLATUBE tubular daylighting devices and skylights
0423p FIELDERS roofing - profiled sheet metal
0423p LYSAGHT roofing - profiled sheet metal
0423p METROLL roofing – profiled sheet metal
0423p STRAMIT roofing – profiled sheet metal
0423p STRATCO roofing - profiled sheet metal
0424p FIELDERS roofing - specialised sheet metal
0424p METROLL roofing – seamed sheet metal
0428p ASKIN® VOLCORE performance panel roofing
0428p ASKIN® XFLAM roofing system
0428p DELTA PANELS insulated roofing systems
0428p KINGSPAN INSULATED PANELS roofing systems
0429p PALRAM roofing - glazed
0434p LYSAGHT cladding - facade panels
0434p PALRAM translucent facade cladding
0436p FIELDERS wall cladding – profiled sheet metal
0436p LYSAGHT WALL cladding - profiled sheet metal
0436p METROLL cladding – profiled and seamed sheet metal
0436p STRAMIT cladding - profiled sheet metal
0436p STRATCO cladding - profiled sheet metal
0437p ASKIN® VOLCORE performance panel cladding
0437p ASKIN® XFLAM performance panel cladding
0437p FIELDERS wall cladding - specialised panels
0437p KINGSPAN INSULATED PANELS cladding systems
0451p AWS aluminium windows and doors
0451p CAPRAL ALUMINIUM windows and doors
0453p CS Cavity Sliders in doors and access panels
0455p ASSA ABLOY door hardware
0456p ASSA ABLOY louvre assemblies
0456p BREEZWAY louvre windows
0456p CAPRAL VENTUS louvre windows
0458p ASSA ABLOY automatic doors
0471p AMETALIN in thermal insulation and pliable building membranes
0471p FLETCHER INSULATION thermal insulation and pliable building membranes
0471p KINGSPAN in thermal insulation and pliable building membranes
0472p FLETCHER INSULATION acoustic insulation
0473p REGUPOL acoustic floor underlays

05 Interior

0554p MODDEX steel handrails, guardrails, balustrades and other barriers

06 Finish

0651p FORBO in resilient finishes
0651p REGUPOL in resilient finishes
0652p FLOTEX carpets
0657p APC resin based seamless flooring
0671p DULUX painting
0671p HAYMES paint
0671p RESENE painting
0671p TAUBMANS painting
0672p MASTERWALL textured and membrane coatings
0673p INTERPON powder coatings

07 Mechanical

0713p EVAPCO cooling towers
0741p DUCTUS in ductwork
0762p ASKIN® XFLAM performance panels in cool rooms
0762p DELTA PANELS in cool rooms
0762p KINGSPAN INSULATED PANELS in cool rooms

NATSPEC Product Partners support you. Support them and their products in your next project by selecting Branded Worksections in SPECbuilder or downloading them for free from www.natspec.com.

Table of Product Partners

APC p. 8
Ametalin p. 8
Askin Panels p. 8
Assa Abloy p. 8
AWS p. 8
Barrier Group p. 14
Bluedog Fences p. 14
Breezway p. 14
Capral p. 14
CS Cavity Sliders p. 14
Delta Panels p. 14
Dincel p. 20
DTAC p. 20
Ductus p. 20
Dulux p. 20
Edgesmith p. 25
Envu p. 25
Evapco p. 25
Fielders p. 25
Fletcher Insulation p. 28
Forbo p. 28
Guardian Tactile Systems p. 28
Haymes Paint p. 28
Interpon p. 28
Kingspan Insulated Panels p. 33
Kingspan Insulation p. 33
Lawn Solutions p. 33
Leviat p. 33
Lysaght p. 40
Masterwall p. 40
Metroll p. 40
Moddex p. 40
Palram p. 40
Raven p. 46
Regupol p. 46
Resene p. 46
Solatube p. 46
Soprema p. 50
Stramit p. 50
Stratco p. 50
Tactile Systems p. 50
Taubmans p. 50
Termimesh p. 56
TermShield p. 56
Weepa p. 56

Subscriber Case Studies

Gran Associates Australia p. 62
MODE p. 64
Tract p. 66

Articles and TECHnotes

Navigating NCC 2025 Complexity - Article p. 6-7
Understanding Product Conformity in Australian Construction p. 36-37
Specifying Quality p. 59
NATSPEC's Use of Standards p. 61
Hold Points and Witness Points p. 63
Product Specifying and Substitution p. 65
Branded vs Generic Worksections p. 67
AI, Specifications and Liability - Article p. 68
Specifications p. 69
Getting Help p. 71

Disclaimer

The materials contained in this publication have been prepared by Construction Information Systems Limited in association with various third parties for informational purposes only. The materials are presented without any representation or warranty whatsoever regarding the accuracy or completeness of the information. The information contained in this publication is provided only as general information, which may or may not reflect the most current information available. Construction Information Systems Limited will not accept any liability for any loss, damage, or other injury resulting from its use.

Navigating NCC 2025 Complexity:

A Strategic Guide for Australian Specifiers

The Australian construction industry is currently navigating a period of significant regulatory evolution. The widening gap between design intent and the reliable delivery of compliant, on-spec projects is driven by the non-uniform rollout of the National Construction Code (NCC) 2025, supply chain volatility, and the heightened risks associated with product substitution. In this environment, specification has transformed from a purely creative exercise into a rigorous risk management discipline.

Regulatory Fragmentation and the NCC 2025 Landscape
The operational status of the NCC 2025 varies significantly across Australian jurisdictions. This fragmentation creates a complex compliance landscape where a product compliant in one state may require different documentation or specifications in another. A single specification error can lead to project delays, rejection by certifiers, and increased legal exposure.

- Victoria (VIC): NCC 2025 became mandatory on 1 May 2026.
- Tasmania (TAS): NCC 2025 commenced on 1 May 2026. NCC 2022 has been reinstated and remains operative until 1 May 2027, when NCC 2025 is scheduled for adoption.
- Australian Capital Territory (ACT) and Western Australia WA: NCC 2025 is available for use from 1 May 2026 (with a 12-month transition period).
- New South Wales (NSW) and Queensland (QLD): NCC 2022 remains in force until 30 April 2027, with NCC 2025 becoming mandatory on 1 May 2027.
- South Australia (SA): Volume Three (the Plumbing Code) NCC 2025 was adopted on 1 May 2026. Volumes One and Two (the Building Code) scheduled for adoption on 1 May 2027.
- Northern Territory (NT): NCC 2025 has not been adopted.

Note: *Regulatory adoption dates are subject to change by state and territory governments. Specifiers must verify the latest operative code for their specific project location prior to finalising specifications*.

Supply Chain Volatility and Market Pressures
Beyond regulatory complexity, the industry is managing significant supply chain instability. Geopolitical tensions in key shipping corridors have triggered fuel surcharges and price volatility in imported building materials. Consequently, lead times for specialised imported goods have extended significantly. Builders are under pressure to lock in specifications early to avoid cost blowouts, often before final code adoption in their specific state. This forces specifiers to balance the need for early specification against the risk that a product may become unavailable or, crucially, non-compliant due to state-specific code variations before installation.

The Risk of Substitution and Shared Liability
In a tight margin environment, contractors may pursue cost-saving substitutions. If a specification is vague, a cheaper, non-compliant product may be installed. While the contractor bears direct statutory and contractual liability for installing non-compliant products, the specifier often faces shared liability and reputational risk if the specification was ambiguous or failed to meet the standard of care. When a certifier rejects a non-compliant product, the project halts. The contractor faces rectification costs, while the specifier faces potential claims of professional negligence. The industry challenge is to eliminate ambiguity to protect all stakeholders.

From "Design Intent" to "Delivery Reality"
The industry has moved beyond the era of "pretty models." While digital workflows are mature, they require data that is accurate and actionable. Success is no longer just about innovation; it is about defensive precision. Specifiers need specifications that can withstand the rigours of procurement, installation, and certification without requiring constant clarification. However, a "Time vs. Accuracy Paradox" exists and specifiers do not have time to manually verify every product against the applicable NCC version for every jurisdiction. The demand is for solutions that do not compromise quality, as manual verification is simply too slow for the current pace of regulatory change.

Strategic Mitigation: The Role of Standardised Worksections
To close this gap and manage these risks, the industry is increasingly adopting NATSPEC Branded Worksections. These are not merely templates; they are a mechanism to minimise risk and ensure clarity.

- Pre-Verified Compliance: These worksections are updated by NATSPEC's technical team to align with the operative NCC version for the specific state and territory.
- Legal Clarity: By using a Branded Worksection, specifiers inherit a pre-verified compliance framework. Performance criteria, testing standards, and installation requirements are locked in, reducing the risk of ambiguity that leads to errors or omissions.
- Protection Against Unintended Substitution: Precise, legally verified language makes it significantly harder for non-compliant alternatives to be installed inadvertently. It signals that the product is a performance requirement, not just a preference.

Why This Matters
In a market where cost pressures are high, a vague specification invites substandard outcomes. A Branded Worksection acts as as a strategic shield, making it difficult for non-compliant alternatives to slip through the cracks. It ensures that contractors have clear instructions that align with statutory duties, while supporting the specifier in meeting their professional standard of care.

For the specifier, the value proposition is simple: efficiency without compromise. By utilising the Branded Worksections available in the NATSPEC specification system, you bypass the tedious process of drafting and cross-referencing, freeing up time to focus on design and coordination. You gain confidence that your project specification is robust against regulatory changes and supply chain shocks.

Key Takeaway for the Specifier
The Branded Worksections provided by NATSPEC Product Partners are a critical tool for navigating the complexities of 2026 and beyond. They support your projects against the risks of rework and rejection, streamline your workflow, and ensure that every specification you issue is a benchmark of quality and reliability.

Disclaimer: *While a comprehensive specification significantly reduces risk and supports compliance efforts, it does not absolve the contractor of their statutory duty to install compliant products, nor does it guarantee that a specific outcome will be achieved. The ultimate responsibility for ensuring a poduct meets the specific requirements of the project and the relevant code rests with the specifier and the contractor. NATSPEC provides tools and templates to support these efforts, but users must always verify current regulatory requirements.*

Reference
- Official ABCB national summary: https://ncc.abcb.gov.au/ncc-2025/ncc-2025-state-and-territory-adoption-information

NATSPEC//ProductPartners · AWS Architectural Window Systems Pty Ltd · Resene the paint the professionals use · Leviat · Fielders · Taubmans · Cavity Sliders · moddex Better by Design · Capral Aluminium · Lysaght · Lawn Solutions Australia · envu · Termi Mesh Original Termite Barrier · evapco for life · Stramit · Ametalin Performance insulation for a greener world · Forbo Flooring Systems · Fletcher Insulation Building Better, Together · Solatube · Masterwall · Weepa Perfect weepholes every time! · Interpon Powder Coatings An AkzoNobel brand · Metroll

Dulux · Raven Door & Window Sealing Systems · Kingspan · DTAC Architectural Tactiles & Stair Nosing Solutions · Regupol · Askin Performance Panels · Haymes Paint Australia's first family of paint. · ASSA ABLOY Opening Solutions · TermShield Stainless Steel Termite Management System · breezway · Delta Panels · ductus "The Evolution of Air" · Palram · Soprema · Stratco Architectural Solutions · Bluedog Fences Australia · Tactile Systems · Edgesmith · Barrier Group · Guardian Tactile Systems Pty Ltd · APC · Dincel Structural Walling · NATSPEC//ProductPartners



"Quality documentation is one of the most important aspects for ensuring a project finishes on time, on budget, and meets the client's expectations of quality.

"Without the guidance of NATSPEC and the inclusion of quality project specifications, there is an increased risk that projects will not achieve positive outcomes in terms of cost, quality, effectiveness, and timeliness of construction.

"The NATSPEC Open BIM Object Standard for Building Information Modelling represents another key contribution to the construction industry."

James Cameron, Chief Executive Officer, AIQS

All Purpose Coatings (APC) is a family-owned Australian company specialising in the design, formulation and manufacture of premium protective floor coatings for residential, commercial, industrial and government sectors. Founded by CEO Charmaine Ashford and Managing Director Christopher Ashford, the company draws on their extensive experience in the application and manufacturing industries. Our dedicated and passionate team remains at the forefront of the market, embracing emerging technologies and continuously redefining the coatings industry **www.allpurposecoatings.com.au**

AMETALIN is a leading Australian manufacturer of reflective, DtSnon-reflective and non-combustible air-vapour-water-thermal control building membranes for weatherproofing, insulating and condensation management in residential, commercial, industrial, and non-combustible building systems. Products are designed for Australian climate zones for year-round thermal comfort, while reducing energy consumption, heating/cooling costs.

AMETALIN is proactively driving the industry to design and build passive Net Zero-ready and high-performance constructions. **www.ametalin.com**

ASKIN® is an Australian-owned manufacturer and installer of facade systems, roofing systems and temperature-controlled facilities in Australasia. ASKIN® embraces a customer first approach in delivering sustainable, lifetime value. With a network of 12 sites throughout Australia and New Zealand, ASKIN®'s vast experience built upon a strong foundation dating back to 1964. ASKIN®'s culture of constant improvement, quality and safety assurance is supported by our technical expertise and ISO 9001 (2015) and ISO 14001 (2015) accreditation. **www.askin.net.au**

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience. Under the iconic brands such as Interlock, Lockwood, Whitco and Yale, Record and Austral Monsoon Building Products, ASSA ABLOY Australia has long been developing innovative products. In the growing electromechanical security sector, the Group has a leading position in access control, identification technology, automatic doors and security. **www.assaabloy.com/au/en**

Architectural Window Systems (AWS) is one of Australia's leading suppliers of aluminium window and door systems. AWS offers an extensive range of Australian designed aluminium window and door suites for residential and commercial applications. AWS designs, tests, finishes and supplies aluminium window and door systems under the Vantage and Elevate™ and ThermalHEART™ brands to more than 200 licenced manufacturers throughout Australia. **www.awsaustralia.com.au**

Wendy's Queen Street Mall, Brisbane, QLD

Wendy's second Australian store has officially opened in the heart of Brisbane City, taking over a landmark site at the intersection of Adelaide and Albert Streets. This food outlet delivers a bold and immersive brand experience, combining interior design with the performance required for a busy quick service outlet.

Designed by Zone Design and delivered by Crafted Spaces, this project represents a step in Wendy's Australian presence. For APC, this was an opportunity to demonstrate how our Commercial Development Team supports projects beyond the supply of quality Australian made surface solutions.

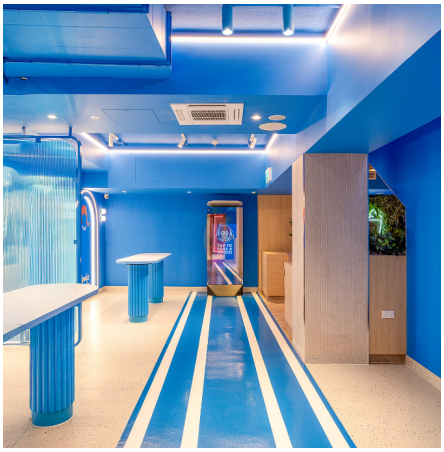


Photo Opportunity Area - B34 Paradise Blue and N14 White APC Plain Coat System with a dimple finish to form a highlighted feature floor, guiding patrons toward the photo booth area.

Requirements

This project commenced with architectural firm Zone Design reaching out to All Purpose Coatings (APC) for colour samples and a formal specification to meet slip rating requirements in Wendy's iconic colours. From the outset, slip resistance was a key priority given the very high traffic anticipated in front of house areas.

After reviewing the intended use and long-term cleaning requirements, our Commercial Development Team recommended a Plain Coat system with Dimple Slip Resistance to achieve a P3 slip rating. This delivers the right balance between safety and ease of maintenance, without an aggressive surface profile.

Custom AS2700 colours were formulated and manufactured by APC in Bundamba to align with vibrant red and blue interior themes. An APC Accredited Applicator also resolved detailing requirements, including transitions to tiles and managing falls to waste, to maintain a seamless floor level across finishes.



Entrance to Wendy's - B34 Paradise Blue APC Plain Coat System with a dimple finish to create a bold feature and provide a strong first impression at the entry.

Solution

APC's Commercial Development Team worked closely with the architect, project management team, and builder from specification through to completion. As the manufacturer, we delivered clear guidance around slip rating classifications, system builds, and application sequencing, ensuring confidence at every stage.

When the project went to tender, APC was listed as a preferred supplier. Through our national network of APC Accredited Applicators, JBL Flooring Pty Ltd was recommended based on their commercial experience and project history. This ensured continuity and the right skill set for the system installation.

Product supply remained consistent throughout the project, with all elements of the coating system readily available from the APC Bundamba facility. The materials were available immediately, with custom colours manufactured and delivered within 24 hours, preventing disruption to scheduling.

Results

The completed flooring integrates smoothly with adjacent tiled areas and achieves the required slip performance with visual impact. Feedback from the architecture and design firms has been positive, with commendation for the team's professionalism and flexibility to adapt as required. This included after-hours attendance to avoid busy trade traffic during development, allowing the flooring system to cure unimpeded.



Stairways - B34 Paradise Blue APC Plain Coat System with a dimple finish to achieve compaint slip resistance for safe use on the stairs.

Benefits

This project highlights the value of early manufacturer involvement. Our commercial team provided practical specification advice, ensuring product availability, and connected the builder with a proven applicator suited to the project scope.

For the builder and applicator, this meant technical backing, responsive supply, and flexibility as site conditions evolved based on our extensive experience in commercial and high-density residential spaces. For Wendy's, it delivered a compliant, easy to maintain flooring solution aligned with the demands of a high traffic flagship restaurant in Brisbane's CBD.

Architect: Zone Design, Hayden
Builder Credit: Crafted Spaces
Applicator: JBL Flooring Pty Ltd
Photographer: Crafted Spaces

Donnelly Modular Home, WA

Ametalin
Performance insulation for a greener world

TR Homes, part of the Murray River North Group, is a Western Australian modular home builder specialising in transportable housing for regional and remote locations. Using prefabrication and off-site manufacturing, the company delivers modular homes designed to reduce the cost, time and logistical challenges associated with building in remote areas of WA.

The HIA Charitable Foundation selected TR Homes' Donnelly modular home design as a special edition project, with the sale proceeds donated to support health and wellbeing initiatives within the residential building industry.



Expert installers delivering precise VapourTech® control

Requirements

The Donnelly modular home must meet National Construction Code (NCC) performance requirements while remaining suitable for prefabrication, transport and installation across varied regional conditions.

Key project requirements included bushfire compliance, with materials and detailing suitable for Bushfire Attack Levels BAL-19; NCC condensation management, ensuring effective moisture and vapour control within the building envelope in accordance with NCC provisions; lightweight clad to steel-frame construction, where building components must address thermal mitigation for steel-frame construction; and climatic performance, with improved thermal performance for hot regional locations in WA.



Enduring vapour control for the life of the home

Approach

To address these requirements, multi-functional building membranes were specified for use within both roof and wall assemblies.

Ametalin Trade Select® membranes were selected for their suitability in lightweight modular steel-frame construction and their compliance with the NCC and bushfire performance requirements.

Trade Select® ThermalBreak® was incorporated into the roof system to provide thermal separation across the steel framing and enhance weather protection and climatic performance. For walls, Trade Select® VapourTech® Wall and Thermal Break strips provided thermal mitigation, vapour control, and NCC Condensation Management.

Installation details focused on maintaining the continuity of the building envelope and effective integration of thermal breaks into lightweight cladding systems typically used in modular construction.

Results

The project achieved several key outcomes. Firstly, through off-site manufacturing, TR Homes delivers high-quality modular homes designed to minimise cost, time, and logistical challenges faced when building in remote areas of WA.

Additionally, the Trade Select building membranes provided an all-in-one solution that met all requirements, resulting in convenience: the home could be delivered anywhere within WA and be NCC2025 compliant.

Collectively, the HIA Charitable Foundation's completed project delivered a resilient, weather-resistant, energy-efficient and thermally comfortable outcome while meeting NCC performance and BAL requirements.



VapourTech® installed for balanced wall performance

Beyond the built outcome, the project was completed and sold with proceeds directed to the HIA Charitable Foundation. Funds raised support broader benefits for the building industry by supporting mental health initiatives and medical research into silicosis; contributing to organisations including Beyond Blue and the Tradie Health Institute, reinforcing the industry's commitment to wellbeing, safety and future-ready housing solutions; raising awareness of occupational health issues affecting construction workers and their families; and demonstrating how a compliant building envelope specification can support resilient housing in remote Australian regions.

Benefits

The project delivered a durable, weather-resistant and thermally comfortable modular home that meets NCC performance, BAL requirements and broader benefits for the building industry's future-ready housing solutions.

Client: HIA Charitable Foundation
Builder: Murray River North Group - TR Homes
Photography: Stephen Nicholls Photography & TR Homes

Dordaak Kepup Library and Youth Innovation Hub, Wanneroo, WA

The Dordaak Kepup Library and Youth Innovation Hub is a major civic development for the City of Wanneroo, designed as a contemporary community facility supporting learning, creativity and youth engagement.

The building's architectural expression is based on Noongar heritage and inspired by the surrounding wetlands, where the name Dordaak Kepup, meaning Place of Living Waters, pays homage to the cultural significance of the site.

Requirements

Bollig Design Group had clear expectations for the non-combustible, high-performance façade and roofing solution, requiring the design intent of flowing lines and curves, to also meet stringent compliance and operational targets. The building is designed to reflect a diverse range of attributes, including sustainability, technology, innovative use of materials as well as integrating into an existing urbanised shopping and parkland precinct – Ray Crocker, Director, Bollig Design Group.

Solution

ASKIN Performance Panels supplied the Volcore non-combustible insulated panel system for both wall and roof applications, built by Swan Group. The Volcore wall panels form the primary weatherproof and thermal envelope, providing a non-combustible core that supports compliance with the NCC.

For the roof, Volcore Metric panels were selected to provide a fully integrated roofing solution with high structural capacity, non-combustibility and excellent thermal performance. The system's long spans and fast installation supported construction timeframes while delivering a clean architectural finish. Sourcing materials that are manufactured in Australia meant sustainability targets were achieved while also supporting Australian owned and made products.

Swan Group worked closely with Bollig Design Group and City of Wanneroo to bring the architectural vision for the Dordaak Kepup Library and Youth Innovation Hub to life. Complexities around curved FRL requirements were a challenge, met with an optimistic attitude and a collaborative, solutions-focused approach from all project stakeholders. "ASKIN's Volcore panels were key to delivering the Dordaak Kepup façade and roof, particularly in achieving the curved façade while maintaining the required FRL performance. The system was efficient to install and supported programme timelines without compromising design intent. Using an Australian-made and owned product also ensured reliable supply and consistent quality on site." — Swan Group

Results

The custom perforated aluminium overclad over the Volcore wall system, creates the building's distinctive external appearance while maintaining the performance of the underlying sealed panel envelope. This approach, combined with the ability to curve the ASKIN panel, achieves sweeping curves and a layered façade depth without compromising airtightness or continuous insulation.



Dordaak Kepup Library and Youth Innovation Hub - facade



Dordaak Kepup Library and Youth Innovation Hub - front entrance



Dordaak Kepup Library and Youth Innovation Hub - rear facade

Benefits

The Dordaak Kepup Library and Youth Innovation Hub offers young people an engaging, inspiring and future-focused environment that encourages creativity, collaboration and innovation within a safe, high-performance civic space. The design thoughtfully acknowledges the site's cultural heritage and demonstrates respect for Country through its design, materials and community purpose, while meeting sustainability and innovation goals through the high performing Volcore mineral wool insulated panel façade and roof.

Client: City of Wanneroo
Architect: Bollig Design Group
Builder: Swan Group
Photographer: DMAX Photography

New Footscray Hospital, Footscray, VIC

ASSA ABLOY
Opening Solutions

The Victorian Governments delivered the $1.5 billion Footscray Hospital, one of the state's largest ever health infrastructure projects.

The new Footscray Hospital project was delivered by the Plenary Health consortium under a Public Private Partnership (PPP) with the Victorian Health Building Authority

Located on the corner of Geelong and Ballarat roads, the new Footscray Hospital will support the increasing demand from Melbourne's booming western suburbs, ensuring families can get the care they need close to home.

The hospital opened on February 18th, 2026, with 180 patients transferred from the old hospital, thousands of staff who will start their first shift and services including the ED, surgery, ICU, and mental health will begin

The bigger and better Footscray Hospital will cut wait times and reduce pressure on nearby hospitals. With an increase of nearly 200 beds, the new hospital will treat approximately 15,000 additional patients and enable around 20,000 additional people to be seen by the emergency department each year.

The ASSA ABLOY team was delighted to secure the project and to collaborate with the design team including Cox Architecture and builder Multiplex, Australia's leading architecture firm and construction group.

ASSA ABLOY Opening Solutions in collaboration with ASSA ABLOY Entrance Systems worked closely together to secure this project for the ASSA ABLOY Australia Group.

Being involved in this project early was key to securing it, we understood how important it was to be involved in such a significant State Government project," said ASSA ABLOY Opening Solutions Regional Sales Manager for Specification (Victoria), Lyndon Payne.

Requirement

"With such an extensive project timeframe between 2022-2025 it was important that we had a team put together to ensure we could meet client's deadline", said Lyndon

ASSA ABLOY Opening Solutions worked on this project from the design stage right through to completion with Multiplex & Cox Architecture.

Approach

For this project, we used the ASSA ABLOY's Openings Studio™ software to prepare the detailed door hardware schedule for around 4,500 openings.

Supported by one of the most experienced Commercial Carpentry businesses in Victoria, Casello supplied and installed the following ASSA ABLOY products:
Lockwood Selector Series 3772 Mortice Locks, 2800 Series Brass Plate Door Furniture, 2615/6 Cam Action Door Closers, ES2100 Electric Strikes and ASSA ABLOY Entrance Systems Auto Swing and Sliding Door Operators.

Results

ASSA ABLOY Opening Solutions provides door openings and products for access solutions.

As a global leader in door opening solutions, ASSA ABLOY is always proud and thrilled to work on projects like the new Footscray Hospital

Architect: Cox Architecture
Builder: Multiplex
Photography: Supplied by ASSA ABLOY



ASSA ABLOY Opening Solutions worked on this project from the design stage right through to completion with Multiplex & Cox Architecture

Woden Green, Woden, ACT

Woden Green is a landmark $257 million residential development comprising 419 apartments across three buildings in the heart of Woden, Canberra. Designed and delivered by DBI, the project blends urban density with expansive green space to create a connected, community-focused environment.

Positioned as a social sanctuary, Woden Green offers apartment residences designed to maximise views, natural light and livability. Generous glazing, modern finishes and carefully considered detailing contribute to a refined architectural expression that balances scale with warmth.



Series 704 SlideMASTER™ Sliding Door

Central to achieving this vision was the integration of high-performance façade systems capable of responding to Canberra's demanding climate, while maintaining the clean, contemporary aesthetic set out in the architectural brief.

Challenge

Delivering over 13,000m^2 of glazing across three buildings presented both technical and logistical complexity. Canberra's harsh environmental conditions required façade systems that could achieve strong thermal and structural performance, while extensive testing to AS2047 and AS4284 was essential to ensure compliance at scale.

A key challenge was translating the initial architectural concept into a fully engineered, project-specific solution. Bespoke systems were required to meet the design intent, particularly across balconies and slab edges, where visual consistency and performance needed to work in tandem.

Coordination across disciplines was critical. Window and door systems had to integrate seamlessly with mechanical and fire services, as well as slab edge treatments and cladding interfaces. Maintaining consistent finished floor levels and aligning sill heights across hundreds of apartments demanded detailed design and precision fabrication.

Solution

To realise the project vision, DBI partnered with Taylors Window Supplies, an experienced AWS fabricator serving the ACT and Southern NSW region. Leveraging AWS systems, including Series 426 Double Glazed FrontGLAZE™ Framing (102mm), Series 704 SlideMASTER™ Sliding Doors, Series 466 Architectural Awning Window and Series 52 Hinged Doors, Taylors developed a comprehensive façade package tailored specifically to Woden Green.

A bespoke semi-frameless balustrade system was engineered for the project,



Woden Green development delivered façade systems with strong thermal and structural performance



Series 426 Double Glazed FrontGLAZE™ Framing (102mm)

incorporating both straight and curved configurations. The installation spans approximately 1,500 m^2, including 500 m^2 of curved glass. The balustrades deliver a refined edge detail while preserving sightlines and reinforcing the development's architectural softness.

The project-specific AWS Interlocking Cladding System was utilised across internal balcony areas, contributing over 8,000m^2 of durable, cohesive façade treatment. Tubular subheads and spandrel subheads/subsills were purpose-designed to accommodate slab edge coverings and ensure seamless integration with surrounding elements. Custom 170mm tubular subheads were introduced to align with finished ceiling levels and incorporate mechanical and fire services without compromising the architectural line.

Existing suites were carefully re-engineered to ensure all product sills aligned to consistent finished floor heights, enhancing both visual continuity and constructability across the three buildings.

Result

The result is a technically robust and visually cohesive façade solution that supports the project's ambition, delivering high-performance glazing and cladding systems at scale, while reinforcing Woden Green's identity as a modern, connected and enduring residential address in Canberra.

Architect: DBI
Builder: Hindmarsh
Fabricator: Taylors Window Supplies
Photographer: Paul McMillan

Barrier Group is Australia's leading industrial safety manufacturer and distributor. Barrier Group designs, manufactures and distributes a wide range of industrial and pedestrian safety products such as bollards, machine guarding and pedestrian barriers, industrial gates, queue control systems, and traffic and car control products like speed humps, wheel stops and traffic delineators. We have offices in VIC, NSW, and QLD, and supply to customers and a distributor network in all Australian states. **www.barsec.com.au**

Bluedog Fences Australia is an industry leading manufacturer of Australian tubular steel fencing systems; They are 100% Australian owned & operated and distribute products nationally to local and state government agencies, commercial and private organisations. They provide a large range of commercial and security fencing systems manufactured in regional Australia compliant with relevant Australian Standards. They fabricate, chemically clean and powder coat wholly in-house at their state-of-the-art, Lean manufacturing facility in Tamworth NSW. **www.bluedogfences.com.au**

BREEZWAY is the leading Australian manufacturer of high performance, energy rated, Altair Louvre Windows. Fully compliant with AS 2047 (2014), Altair Louvres are designed to open twice as wide as other windows to provide maximum light and ventilation into sustainable buildings. Altair Louvres are cyclone rated, offering automation with the award winning Powerlouvre System. Extra strength and safety can be provided to windows using the Stronghold System. Double glazing is also available using the IGLU System. **www.breezway.com.au**

Capral Aluminium, established in 1936, is Australia's largest manufacturer and distributor of aluminium profiles. Our comprehensive range of commercial, residential, security and industrial products has an enviable reputation for quality, style and high performance. As a local systems designer, NATA-accredited testing authority, and with innovative R&D capabilities, we are well-positioned to take advantage of changing building regulations in Australia and technically support our brands, including Artisan Architectural, AGS Commercial, Urban Plus, Futureline Thermal and Amplimesh. **www.capral.com.au**

CS Cavity Sliders sets the standard for cavity sliding door systems. Their mission is to create innovative, high-quality solutions that maximize space and enhance the aesthetics of any room. Founded in 1986, CS Cavity Sliders set out to revolutionize sliding door design and manufacturing. From humble beginnings in a small workshop, the company has grown into an industry leader, renowned for its innovation and commitment to excellence. **www.cavitysliders.com.au**

DELTA PANELS is a 100% Australian owned and operated manufacturer of insulated panels. Its range of products includes roof, wall and patio systems, plus a wide range of accessories. The range of panels, in various styles and colours, has been engineered for enhanced performance in Australia's harsh environment. **www.deltapanels.com.au**

GMHBA Stadium, Geelong, VIC

GMHBA Stadium, home to the Geelong Cats Football Club, is a major regional stadium seating 40,000 spectators.

The stadium experiences large-scale pedestrian and vehicle movement during events, and in 2025 hosted more than 480,000 visitors across 44 events.



Safety Yellow Powder-Coated Removable Bollards for Impact-Resistant Protection

Requirements

As part of ongoing stadium improvements and event-readiness upgrades, the stadium operator, the Kardinia Park Trust, sought to enhance pedestrian safety and accessibility both within GMHBA Stadium and throughout the surrounding complex.

A primary requirement was to create clear separation between pedestrian zones and areas of vehicle movement across the stadium grounds. In addition, safety improvements were required within the stadium, particularly around elevated spectator stairways, to help reduce the risk of slips, trips, and falls for patrons of the venue.

Approach

Barrier Group was engaged to design, supply and install a tailored integrated solution to enhance the safety and accessibility of the venue and sorrounding complex.

After a thorough on-site inspection, conducted by dedicated Barrier Group technical experts, key considerations were highlighted including: compliant handrail systems for elevated spectator stair access; impact protection for out-of-bowl pedestrian and back-of-house entrances; precise fabrication to suit existing structural dimensions; durable, corrosion-resistant materials suitable for external exposure and repeated use; integration with the stadium's architectural character, and lastly, installation aligned with fixed event deadlines.



Removable Bollards for Flexible Back-of-House Security

Results

A combination of permanent bollards that were installed throughout the external stadium complex to provide impact-resistant boundary protection and clearly define pedestrian zones while keeping with the stadiums architectural character.

At key service and back-of-house access points, removable bollards were installed to maintain security while allowing operational flexibility.

Custom galvanised hoop bollards were fabricated to match the stadiums existing geometry and installed within the stadium to provide essential support and stability for patrons in the elevated stair areas, enhancing overall spectator experience.

Safety mirrors and traffic-calming speed humps were strategically placed to increase visibility and slow vehicles down.

This tailored specification approach delivered a cohesive safety solution that improved pedestrian protection, enhanced operational access control, and complemented the functionality of the stadium and surrounding precinct.

For GMHBA stadium and Kardinia Park Trust, working with Barrier Group to design, manufacture and install made for a seamless specification process from site inspection through to sign-off. The signature Barrier Group turn-key process resulted in quick turn-around timeframes with minimal operational downtime.

This project highlights Barrier Group's ability and commitment to delivering turn-key safety solutions to large-scale industrial and commercial facilities across Australia.

Client: GMHBA Stadium
Photography: Supplied by Barrier Group



Custom Galvanised Hoop Bollards for Elevated Stairway Safety

Warringah Freeway Cycleway Upgrade, North Sydney, NSW

In 2025, a key section of the Warringah Freeway south of Naremburn was upgraded to improve cyclist safety and network connectivity after sustained community and stakeholder advocacy. The 2023 Active Transport Network Review identified a critical missing link between Merrenburn Avenue and West Street, creating the opportunity to deliver a wider, safer path alongside the southbound lanes even though it was not in the original freeway upgrade scope. Collaboration between Bicycle NSW, Bike North, and staff from North Sydney and Willoughby Councils helped shape the corridor, resulting in a new four-metre-wide path free of hazards such as light poles and unprotected edges. Safety requirements demanded a barrier solution meeting Austroads guidelines while maintaining a clean, coherent design appropriate for a prominent urban environment, leading to the selection of Bluedog Fences Australia's CycSafe® system.



Installation of CycSafe® Cycleway fencing

The project arose from the network gap south of Naremburn and the need for a direct, safer connection between Merrenburn Avenue and West Street. The improved alignment eliminates typical path-edge hazards and integrates a high-quality facility into a constrained freeway environment. CycSafe® was identified as the preferred barrier because it aligns with Austroads' guidance and suits the visibility and design expectations of a major metropolitan corridor.

Requirement

The barrier system needed to significantly enhance cyclist and pedestrian safety along a complex, high-traffic corridor, fully complying with Austroads standards for cyclist impact behaviour and path-edge protection. It also had to provide a robust, visually appropriate solution that integrates with the new path and supports a clean, modern aesthetic. Practical constraints were stringent: the project required guaranteed availability of more than 720 metres of barrier material with no risk of supply delays, rapid dispatch to meet strict schedules, and ease of installation. Modular adaptability was essential to accommodate geometric variations while delivering a consistent, high-quality finish across the corridor.

Approach

Bluedog Fences Australia supplied the CycSafe® system, engineered for cycling corridors to protect against vehicles, embankments, and roadside obstacles. Its bump-rail design allows riders to brush the barrier at speed without catching handlebars or pedals—mitigating a critical risk in constrained environments. Immediate stock availability was a standout: despite the scale, Bluedog had sufficient materials for more than 720 metres, with most packed and dispatched within seven days, enabling installation to begin promptly. The modular, bolt-together system simplified construction, eliminating onsite welding and supporting consistent, accurate installation along the full length.

Results & Benefits

Delivery was efficient and aligned with safety and performance expectations. Dependable stock and rapid dispatch kept the program on schedule, while the modular system supported smooth, precise installation throughout the corridor. Once installed, CycSafe® significantly enhanced cyclist and pedestrian safety, providing protection tailored to active-transport environments and complementing the upgraded path's appearance. Contractor confidence was strengthened by Bluedog Fences Australia's responsiveness, product reliability, and commitment to full compliance. Overall, the upgrade stands as a strong example of high-quality, safety-focused infrastructure that delivers a connected active-transport link for commuter and recreational cyclists alike.



Partial barrier profile in proximity of the busy freeway

Architect: Engineering / freeway "architect" (design lead): Arcadis - Jacobs Joint Venture.
Place, Design & Landscape Plan Lead: Hassell Ltd
Construction: CPB Contractors & Downer EDI Works Joint venture
Client: AWI Steel
Photography: Supplied by Bluedog Fences Australia



CycSafe® Full & Barrier profile

Margaret Rice Place, St Joseph's College, Brisbane, QLD

Margaret Rice Place is a thoughtfully designed, contextually responsive vertical learning precinct by Macksey Rush Architects for Year 5 and 6 students at St Joseph's College, Gregory Terrace. This adaptive reuse project transforms a six-storey institutional building and landscape into a dynamic learning environment designed to nurture the social, physical and pedagogical needs of young students.



Control ventilation without obstructing walkways through Breezway Louvre Windows

Requirement

Macksey Rush collaborated closely with the client to test various age groups and uses against the building's zig-zag floor plate, budget, topography, and vertical school model – ultimately selecting an upper primary cohort.

Retaining the building's strong and well-preserved façade offered sustainability, planning, and character benefits. By embracing the building's quirks and inherent qualities, the architectural team was able to incorporate core design principles: access to natural light and ventilation, framed views and vistas, and a meaningful connection to the surrounding landscape.

Approach

The lower three levels accommodate high-activity community spaces such as play areas, assembly zones, the canteen, and a welcoming reception. The heart of school life resides within a two-storey amphitheatre connecting Levels 1 and 2, with introspective and flexible spaces including the library, a student wellbeing hub, a STEAM lab, and multipurpose gallery. The middle levels accommodate 14 classrooms, strategically placed to reduce vertical travel and ensure proximity to both community and specialty spaces. The upper levels are dedicated to performing arts and music- recognising their vital role in the school's cultural life.

A new external six-storey circulation spine was introduced at the centre of the street-facing northern façade to improve movement and provide outdoor learning zones on each level, while refurbished existing stairwells now support both emergency and daily circulation. Classroom clusters welcome adjacent breakout areas and external access, offering diverse learning settings tailored to student needs.

Results

Natural light and ventilation provided by Breezway® Altair® Louvre Windows and fixed glazing are prioritised through a single-loaded corridor layout that frames expansive views across Spring Hill, Brisbane city and surrounding vegetation. Original façade elements were retained and celebrated, complemented by a restrained external palette and red accents that assist navigation. Internally, a dynamic mix of neutral tones and colour themes on each level fosters place-making and supports wayfinding.



Learning environments at St Joseph's College are naturally ventilated through Breezway Louvre Windows

Benefits

Acoustic treatments throughout help manage noise, while generous undercroft spaces and landscape-integrated play areas support daily recreation and social development. Margaret Rice Place redefines urban education with its innovative vertical design – offering young learners an inspiring, inclusive, and adaptable space to thrive.

Architect: Macksey Rush Architects
Photographer: Wade Roberts Photography



Maximise cross flow ventilation through Breezway Louvre Windows in large learning areas

The Department of Fire and Emergency Services, Collie, WA

The Department of Fire and Emergency Services (DFES) Collie Multipurpose Facility was constructed using Capral Aluminium window and door systems to manage complex emergencies in Western Australia's South-West region. LGA (WA) worked closely with builder Perkins and architect Oldfield Knott Architects to deliver a vital hub for managing large-scale emergencies, particularly in the face of the persistent bushfire threat.

Approach

This cutting-edge facility boasted a Level 3 Incident Control Centre, an Emergency Driver Training School, and Regional Fleet Management capabilities, all supported by state-of-the-art ICT and Radio Communications. Notably, it was the first facility in the state designed specifically for regional use, setting a new benchmark for emergency services infrastructure. Designed by Oldfield Knott Architects, the building combined a modern, durable aesthetic with a strong emphasis on sustainability, achieving a 4-star Green Star rating.

Approach

Capral Aluminium played a pivotal role in the facility's design, providing a comprehensive range of window and door systems. The Capral AGS 400 Narrowline framing system was utilised in areas of the facility that required a balance of structural integrity and sleek aesthetics, such as the office spaces and common areas. The Capral AGS 425 Narrowline Double Glazed and Capral AGS 419 Flushline Acoustic systems were strategically implemented in critical facility areas, such as the Incident Control Centre and observation rooms. These systems' superior thermal and acoustic properties were crucial in maintaining a comfortable and focused indoor environment. The Capral AGS 225 Wide Stile Double Glazed Hinged Door and Capral AGS 900 Double Glazed Sliding Door systems were strategically implemented throughout the facility to address diverse access requirements. The versatility of these door systems contributed significantly to the facility's operational efficiency and architectural cohesion.



Capral AGS Commercial 400 Narrowline Single Glazed featured in the DEFS Collie Multipurpose Facility

The DFES Collie Multipurpose Facility also showcased a diverse range of Capral window systems, each contributing to the building's functionality, efficiency, and aesthetic appeal. The Capral AGS 50 Top Hung Commercial Awning Windows provided controlled ventilation and ease of operation.



Capral AGS Commercial 50 Awning Sach featured in the DEFS Collie Multipurpose Facility

In areas where a more traditional look was desired, the Capral AGS 481 Double Hung Window system added a touch of classic charm without compromising on performance. Complementing these, Capral's Fixed Louvres played a crucial role in environmental control. Together, these systems maintained the high-performance standards required of a modern emergency services complex.

Security, a central concern in an emergency services facility, was addressed with the inclusion of Amplimesh SupaScreen Security Screens. These screens provided an additional layer of protection without compromising visibility or ventilation, ensuring that the facility remained secure.

Results

The successful implementation of Capral's window and door systems at the DFES facility was made possible by the expertise of LGA (WA) Pty Ltd—a trusted, family-owned glazing specialist servicing Western Australia's South West for over 30 years. With deep experience in aluminium commercial glazing for both small and large-scale projects, LGA (WA) ensured each Capral system was fabricated and installed to the highest standards. Their proven capability in delivering complex, high-performance glazing solutions made them the ideal partner for this critical emergency services facility.

Benefits

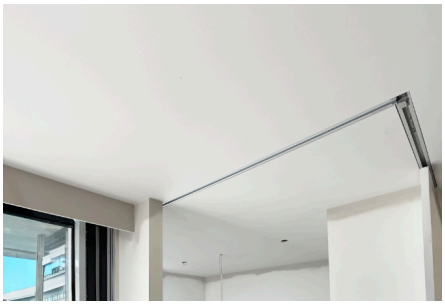
The DFES Collie Multipurpose Facility stands as a testament to what could be achieved when innovative design and cutting-edge technology come together. It served not only as critical infrastructure for emergency services but also as a practical model for future developments in this sector.

Architect: Oldfield Knott
Builder: Perkins Builder
Fabricator: LGA (WA)
Photographer: Henderson Photographics

Fasteners Way Apartments, East Brunswick Village, NSW

Cavity Sliders

Situated at the northern edge of the East Brunswick Village commercial development, the Fasteners Way apartments by JAM Architects deliver a modern approach to apartment living and community creation. Through flexible, design-led interiors each residence has creatively maximised space to deliver apartments that are practical and spacious. CS Cavity Sliders delivered full height detail track systems with the CS SquareStop split jamb and no head and no closing jamb details, to create an innovative corner meeting solution that creatively divided up the open plan living spaces.



Corner meeting install 1

Requirement

Designing for high-density residential environments required a careful balance between openness and privacy with the trend towards open plan floor plans. Traditional hinged doors can drastically reduce usable floor area and limit flexibility in apartment layouts. For this project, JAM Architects required a door solution that would enable spaces to transition easily between open-plan and private configurations, without compromising design intent. The challenge was to achieve this flexibility while maintaining clean, minimal detailing suited to the modern East Brunswick Village apartments.

Approach

CS Cavity Sliders worked collaboratively with JAM architects to specify the right track, door configurations and wall finishes that enhanced both functionality and architectural expression of the residencies. The corner meeting door configuration was chosen to allow the seamless dividing up of the floor space. This solution enables rooms to be fully opened or enclosed as required, maximising flexibility within the compact apartment footprints. The CS Full-Height Track was selected to deliver a clean, top-hung solution with no floor track. The CS SquareStop Jambs allowed for a seamless, square-set finish. Added to the doors was the CS SofStop to ensure a smooth and safe soft close and open experience.

Results

The integration of CS Cavity Sliders allowed spaces to transition effortlessly between open and closed configurations, supporting a variety of living arrangements within a single apartment.

Chris Manton, Director Jam Architects - ‘Creating flexible multipurpose spaces within an apartment opens a whole new world of possibilities’.



Fasteners Way Apartments

By eliminating door swing, the system increased usable floor area and improved circulation. The clean, full height and no closing jamb finishes contributed to a cohesive interior aesthetic, while the corner meeting detail introduced a high level of adaptability not achievable with conventional door systems.

In choosing CS Cavity Sliders, JAM Architects responded to the spatial needs of the apartment’s future occupants with a high quality, durable door system that allowed for the flexibility the space required.



Corner meeting install 2

Benefits

The use of CS Cavity Sliders delivered measurable advantages across design, performance, and usability. These included: improved spatial efficiency by removing the need for door swing, enhanced design flexibility to enable multi-functional living spaces and minimalist and modern aesthetic with square-set detailing. The overall experience was maximised with the inclusion of CS SofStop for a smooth and safe open and close with the robust and highly engineered CS track and carriage systems ensuring the continual performance of the corner meeting configuration.

Architect: JAM Architects
Developer: Ironside
Carpenter: Cranmore Carpentry
Photography: Supplied by CS Cavity Sliders

CONSULT AUSTRALIA



"NATSPEC fulfils an important role in the building and construction industry.

"NATSPEC not only assists those in the supply chain to conduct their day to day activities, but also contributes to the standardisation of practices across the industry to produce better building quality outcomes. Consult Australia is proud of our founding membership of NATSPEC and highly recommends NATSPEC documents to our industry."

Jonathan Cartledge, Chief Executive Officer, Consult Australia

DINCEL
STRUCTURAL WALLING

Dincel Structural Walling is a lightweight, 'snap together' modular polymer formwork, which is filled with concrete. It is suitable for constructing virtually any type of load bearing structural wall. Architects and building designers can enjoy complete creative freedom by specifying Dincel to build straight or curved concrete walls, which can be beautifully finished. Dincel walls are also tested by NATA Accredited Testing Laboratories, CSIRO and Warringtonfire as being waterproof and fire safe. **www.dincel.com.au**

DTAC®
TACTILES, STAIR TREADS
& EDGING SOLUTIONS

DTAC is an Australian company with over 15 years' experience in design and manufacturing excellence, all backed by industry leading support. DTAC comprises a specialist team of professionals that prides itself on offering aesthetically pleasing, BCA compliant, architectural tactile ground surface indicators, stair nosing and edging, urban landscape edge protection products and more. DTAC's unequalled attention to detail enables architects, designers and builders to make the right choice for aesthetic and functional conformance in every project. **www.dtac.com.au**

---

ductus
"THE EVOLUTION OF AIR"

Ductus is Australia's leading supplier of lightweight pre-insulated duct systems, delivering high-performance air distribution solutions for commercial and industrial HVAC applications. Its AFLO range - AFLOsystem, AFLOactive and AFLORound, integrates advanced antimicrobial and high-efficiency duct technologies to enhance indoor air quality and system performance. Focused on innovation, compliance and constructability, Ductus systems reduce installation time, minimise leakage and mprove energy efficiency while meeting the requirements of the NCC (2025) and AS 4254.2 (2012) **www.ductus.com.au**

Dulux®

At Dulux, we create market-leading products that protect, maintain and enhance the spaces and places in which we live, work and play.

We're proud to be home to some of Australia and New Zealand's most recognised and trusted brands, including Dulux, B&D, Fosroc, Porter's Paints and Cabot's.

Dulux supports Specifiers to bring their vision to life. Our world-class chemists ensure we continue to be first-to-market with products that respond to emerging construction and maintenance requirements. **www.dulux.com.au/specifier**

NATSPEC
ProductPartner

Addison Road, Marrickville, NSW

DINCEL
STRUCTURAL WALLING

Basement construction presents persistent challenges for the Australian construction industry, particularly in relation to waterproofing performance and long-term durability. Failures at wall and footing junctions, known as cold joints, remain a leading cause of water ingress, often resulting in costly rectification, compromised indoor air quality, and reduced asset value. The recently completed housing development on Addison Road in Sydney's Marrickville showcases how an integrated structural and waterproofing system can address these risks while supporting compliance with the National Construction Code.

Requirement

The project utilised Dincel Structural Walling permanent polymer formwork, developed to improve both construction efficiency and building performance. In use for 20 years, the system's recent evolution has focused on resolving one of the most critical failure points in basement construction, the wall-to-footing interface.



Dincel Water Stop accessory

Approach

In response, Dincel developed the Dincel Waterproof Warranty System, an engineered approach designed to prevent water ingress at cold joints. The system integrates the Dincel Waterstop with an injected epoxy liner applied behind the wall, effectively creating a continuous barrier that prevents moisture migration to the internal face. Water is managed externally and directed into subsoil drainage systems, reducing hydrostatic pressure at the structure while maintaining a dry internal environment. The solution is supported by an up to 50-year transferrable waterproof warranty, aligning with increasing industry emphasis on lifecycle performance and accountability.

The Marrickville project involved close collaboration between installer HD Projects and principal contractor Tricon Group. Dincel's technical team worked alongside consultants during the design phase, ensuring that detailing, service penetrations and compliance requirements were resolved prior to construction. This early engagement proved critical given the site



35-41 Addison Rd Marrickville NSW, Tricon Group

constraints, including limited space behind perimeter walls and the need to accommodate multiple service interfaces without compromising waterproof integrity.

The system offered an alternative to conventional basement construction, which requires coordination between formworkers, steel fixers, concreters and waterproofing contractors, often resulting in complex staging of works and fragmented responsibility for quality outcomes. The Dincel system consolidates structural walling and waterproofing into a single process, reducing trade interfaces and simplifying sequencing.

At Marrickville, perimeter walls were constructed using 200mm profile panels, with wall heights ranging from approximately three to six metres, delivered as full-height, single-skin external walls. Particular attention was given to the treatment of service penetrations, with sleeves and membrane detailing integrated into the system to maintain continuity of the waterproof barrier.



Resin injection points

Results

The finished basement created a dry environment which allowed uninterrupted access for follow-on trades and reduced the risk of delays associated with water management. This also contributed to improved site safety and material handling efficiency, particularly in a confined urban setting.

The integrated design and associated warranty provides a clear line of responsibility for long-term performance, reducing uncertainty for the builder and future asset owners, who can engage directly with Dincel Structural Walling in the event of an issue.

Benefits

As regulatory requirements tighten and expectations around durability and indoor environmental quality for habitable spaces continue to increase, solutions combining structural efficiency with robust, verifiable waterproofing outcomes will play an increasingly important role in basement design and delivery.

Developer/Builder: Tricon Group
Construction/Installation: HD Projects
Structural Engineering: Portes Project & Services Pty Ltd
Photography: Supplied by Dincel Structural Walling

Rodd & Gunn Flagship Store, Melbourne, VIC

DTAC®
ARCHITECTURAL TACTILES & STAIR NOSING SOLUTIONS

Situated on Melbourne's vibrant Little Collins Street, the Rodd & Gunn flagship store represents a significant milestone for the brand. The project brings together a retail floor, a cellar, and the second venue of The Lodge, Rodd & Gunn's self-curated restaurant. The result is a single, cohesive space that thoughtfully balances the brand's heritage identity with a refined contemporary aesthetic.

Requirements

The iconic renovation required Stair Edging solutions to be compliant with AS1428.1 and other relevant standards such as the National Construction Code (NCC) and the Disability Discrimination Act (DDA), whilst aligning with the overall aesthetic direction. Provided the new store will be used daily with consistent high-volume foot traffic, performance was just as important as appearance. Products were chosen with a strong focus on durability, longevity, and ease of maintenance, ensuring the tactile solutions would remain effective, safe, and visually cohesive over time.

Approach

A dedicated team of DTAC staff was onsite throughout the project providing a complete end-to-end service, overseeing the project from initial assessment through to installation and final compliance.

Modular and Corduroy Surface Edging Systems were installed at the entrance to the first-floor mezzanine and continued along the stairways leading up to the retail space. All products were manufactured in accordance with DTAC's own certification standards and fully complied with all relevant national regulatory requirements.



Storefront of the new Rodd & Gunn Flagship store, located on Little Collins Street, Melbourne

Results

DTAC's surface edging was seamlessly integrated into the architectural design, ensuring full compliance with Australian stair safety requirements while maintaining a consistent, refined finish throughout the space. The Modular and Corduroy Surface Edging Systems enhanced accessibility throughout the project, providing a P5 slip rating that improved safety across spaces.



Entrance stairs featuring DTAC's Pemko® Modular + Corduroy Surface Edging System

Benefits

Rodd & Gunn's new flagship store combines classic architecture with modern interiors to deliver a refined retail and dining experience. The completed space supports a high-traffic retail and hospitality environment, with DTAC solutions enhancing safety and compliance.

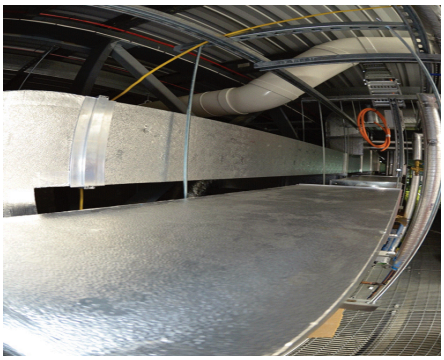
Architect: Studio Y
Builder: Indetail
Client: Rodd & Gunn Australia
Project Team: Baracon
Photographer: Jake Roden

Vaxxas Biomedical Facility, Hamilton, QLD

Requirements

The delivery of the new Vaxxas bio-medical facility in Queensland demanded an HVAC system capable of achieving stringent environmental control within a critical laboratory setting. Facilities of this nature require tightly controlled pressurisation, minimal system leakage, and full alignment with Australian Standards, particularly AS4254.2 for ductwork performance and verification.

The project required a solution that could provide both structural robustness in primary air distribution and high-performance, low-leakage air delivery within laboratory environments, without introducing installation complexity or long-term risk.



Clean streamlined duct installation of AFLO system in the plant room

Approach

A hybrid ductwork strategy was adopted, combining AFLO and KoolDuct systems to optimise performance across different functional zones of the facility.

AFLO was utilised in primary distribution areas, specified with a 200-micron facing to deliver enhanced impact resistance and mechanical durability. This higher-performance facing provides a level of robustness not commonly available in standard systems, ensuring greater resilience during installation and throughout the lifecycle of the system. This is a key point of differentiation offered by Ductus, delivering performance beyond typical market offerings.

KoolDuct pre-insulated ductwork was installed throughout laboratory and conditioned spaces, providing a lightweight, thermally efficient, and inherently airtight solution ideally suited to controlled environments.

Fabrication was carried out by ACA Insulation, whose expertise ensured precision manufacturing and consistency across the project. Off-site fabrication contributed to improved installation efficiency while maintaining strict quality control—critical in a bio-medical environment.



Installation of KoolDuct in the ceiling space for space and cost saving

Results

The installed system, comprising approximately 5,000m² of ductwork, was subjected to air leakage testing by AG Coombs in accordance with AS4254.2 leakage testing requirements.

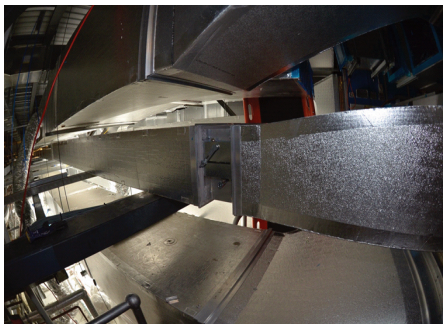
The results were exceptional, with measured air leakage of less than 1% across the system—well beyond typical expectations for a project of this scale. The outcome was so unexpected that the testing team initially believed the equipment may have been faulty, prompting the introduction of additional calibrated testing apparatus to verify the readings. The results were subsequently confirmed.

This level of verified performance highlights the integrity of the system design, fabrication, and installation.

Benefits

Achieving sub-1% air leakage delivers significant operational advantages in a bio-medical facility. Improved airtightness ensures stable pressurisation, reduces the risk of contamination, and enhances energy efficiency by minimising conditioned air losses.

The inclusion of AFLO with a 200-micron facing further strengthens the system by improving resistance to impact damage during installation and maintaining long-term durability—an important consideration in environments where reliability is critical.



Combination system using Kingspan KoolDuct system and AFLO system transitioning from the plant room to building space for a complete ducted system that works

The combined system also enables faster installation and reduced structural load due to the lightweight nature of the pre-insulated ductwork, without compromising performance.

The Vaxxas facility demonstrates the effectiveness of a performance-led hybrid ductwork approach.

By integrating AFLO with enhanced impact-resistant facing and KoolDuct pre-insulated duct technology, Ductus has delivered a system that not only complies with AS4254.2 but exceeds typical industry performance benchmarks. Supported by expert fabrication from ACA Insulation and independently verified results, the project sets a strong benchmark for HVAC delivery in advanced laboratory and bio-medical environments.

Client: Vaxxas
Mechanical Contractor: AG Coombs
Fabricator: ACA Insulation
Photography: Supplied by Ductus

Anderson Point Wharf Life Extension, Port Hedland, WA

Port Hedland in Western Australia is a critical hub for iron ore exports, with Anderson Point Wharf playing a key role in supporting operations. While the project focused on expanding export throughput, a key objective was protecting structural steel assets within one of Australia's most aggressive marine and mining environments.



Steel supports of Anderson Point Wharf

Requirement

Beyond infrastructure expansion, the facility required long-term corrosion protection for steel elements supporting wharf structures, conveyor systems and berthing infrastructure.

Port Hedland's environment presents extreme durability challenges, including high salinity, intense UV exposure, elevated temperatures, abrasive iron ore dust and significant tidal variation. Steel located in immersion and splash zones is particularly vulnerable to accelerated corrosion. Given the remote location and continuous operational demands, the coating system needed to deliver high-performance protection, long service life and reduced maintenance intervention. Whole-of-life asset protection was therefore a critical requirement for the project.

Approach

To meet project requirements, Dulux® Protective Coatings worked with Total AMS (TAMS Group) to implement a remediation process comprising abrasive blasting and surface preparation, thorough cleaning for optimal adhesion, and application of a high-performance protective coating system. Steel columns were protected using a two-coat application of Dulux® Duremax® GFX at 400 microns (µm) DFT per coat, providing durability in severe marine exposure conditions.

The high-build system delivered strong adhesion and barrier protection, reinstating corrosion resistance through remediation and extending asset life while maintaining long-term performance. Protecting steel through remediation works ensured corrosion resistance was reinstated, extending asset life and maintaining long-term performance.

Results

From a coatings perspective, structural steel across the extension is now protected by a high-performance system designed to withstand tidal immersion, splash exposure, UV radiation and industrial abrasion.

Achieving the required film build through two coats of Duremax® GFX at 400-microns (µm) DFT per coat ensured performance requirements were met while maintaining a controlled and consistent application.



Spray application of Dulux® Duremax® GFX



Aerial of Anderson Point Wharf

Benefits

The project delivered both operational and asset protection outcomes. Increased export capacity supports continued growth in iron ore shipping operations, while the Dulux® Protective Coatings system provides long-term corrosion resistance for critical infrastructure.

Enhanced durability reduces the likelihood of premature coating failure and minimises future maintenance shutdowns. This supports lower whole-of-life asset costs and improves operational reliability in a remote and highly corrosive marine environment. Through high-performance protective coatings, Dulux® Protective Coatings played a key role in safeguarding the longevity and structural integrity of the Anderson Point Wharf extension.

Asset Owner: Fortescue
Applicator: Total AMS - Part of the TAMS Group
Photography: Russell Brown at Mintox Media

The Australian Institute of Architects is proud to be a founder and owner of NATSPEC and continues to endorse the NATSPEC National Building Specification. NATSPEC, a not-for-profit organisation, maintains the national and comprehensive master specification on behalf of the Australian industry, with input from many of the Institute's members, and reflects the latest national regulations and standards. NATSPEC's regularly updated information reduces the risk of expensive litigation for designers and improves the communication with builders.

Australian Institute of Architects

EDGESMITH

Edgesmith Pty Ltd, founded in New Zealand in 2000 and expanded into Australia in 2023, is headquartered in Auckland (NZ) and Melbourne (AU). Specialising in vehicle and pedestrian access control, we supply gate automation solutions for trade professionals, backed by comprehensive technical support. Our mission is to provide energy-efficient brushless motors that operate quickly, quietly, and safely, enhancing the security of both property and individuals. **www.edgesmith.com.au**

envu™

Envu was founded in 2022, a new company built on years of Bayer Environmental Science experience, for the sole purpose of advancing healthy environments for everyone, everywhere. We offer dedicated services in Professional Pest Management including our Kordon Termite Management System. For further information visit: **www.au.envu.com**

evapco® for LIFE

Evapco Australia, part of US-based Evapco Inc, is an industry-leading manufacturing company with global resources and solutions for worldwide heat transfer applications. Our wide range of cooling towers, closed-circuit coolers and evaporative condensers are high quality and have been engineered to be environmentally sustainable, reduce noise pollution and conserve natural resources in the commercial HVAC, Industrial process and Refrigeration market. Evapco Australia has a strong "Sales and Service" presence across Australia through our dedicated team. **www.evapco.com.au**

FIELDERS

Fielders is a leading local manufacturer of a comprehensive range of roll-formed steel products supplied to commercial, industrial and domestic building markets throughout Australia.

Fielders' focus on innovation, breadth of product and extensive customer support offering, make it a preferred supplier for engineers, architects and construction companies around the country.

The Fielders range is supported by 10 branches nationwide, including manufacturing facilities at Novar Gardens, SA and Campbellfield, VIC, which also offer in-house processing capabilities. **www.fielders.com.au**

NATSPEC ProductPartner

LIV Albert, Brunswick, VIC

EDGESMITH

Mirvac's LIV Albert development in Brunswick showcases the future of sustainable residential living in Melbourne. The 498 apartment build-to-rent complex achieved an 8.2 star NatHERS rating, the highest energy performance of any Mirvac apartment building. The all electric, fossil fuel free development operates on 100 percent renewable electricity. Positioned between Clifton and Gilpin Parks within 20 hectares of open space, the project shows how higher density housing aligns environmental performance with long term affordability and liveability.



Venus 24V brushless pedestrian gate operator managing controlled access to main apartment corridors. Swipe card activation with adjustable closing timer deivers secure, compliant entry management for residents and authorised users

Requirements

The project required an access control solution that matched its sustainability and energy targets. With hundreds of residents and visitors using multiple entry points each day, the automation needed reliable, high cycle performance with low energy consumption.

The system also needed to support equitable access for all residents, including those with mobility needs, while integrating cleanly with the development's contemporary design. Different entry points called for flexible automation tailored to each location without compromising sustainability goals.

Approach

Powered Gates Australia, led by director Ivan Grahovac and working alongside Windtech Facade, installed an energy efficient automation package using brushless motor technology. The system included:

- Six Locinox Venus pedestrian swing gate motors for corridor entries
- Roger Medio sliding gate motors for common areas

The Locinox Venus delivers smooth, quiet operation with significantly lower energy use than traditional gate motors. Its brushless design performs reliably in high traffic environments without the energy demand typical of conventional systems.

App based configuration simplified commissioning and ongoing management, reducing site visits and supporting efficient operations.

Results

The installation secured all key access points and provided residents with seamless, equitable movement across the complex. Brushless motors deliver consistent performance under heavy residential use while maintaining low energy consumption aligned with LIV Albert's sustainability targets.

Quiet operation protects the parkland setting and reduced maintenance lowers environmental impact. This automated access supports inclusive design, helping residents of all mobility levels move safely and comfortably.

Benefits

LIV Albert now operates an access solution that supports its sustainability objectives through reduced energy use and minimal maintenance. The low energy motors contribute to the building's strong performance and help residents benefit from lower electricity costs.

Automation improves accessibility, enhances resident comfort, and reduces long term operational and replacement costs. Remote app based management, streamlines diagnostics and adjustments, supporting efficient facility management.

Ivan Grahovac, Director, Powered Gates Australia says, "The product quality and finish is exceptional with its slim, sleek design and simple app setup. Locinox continues to lead in access control and fencing solutions. The Venus motors delivered the reliability and performance required for a high traffic residential environment while supporting LIV Albert's energy efficiency goals."

Architect: Fieldwork in Partnership with WEBBER Australia
Developer & Builder: Mirvac
Motor Installer: Powered Gates Australia, Ivan Grahovac
Gate Fabrication: Windtech Facade
Photographer: Ivan Grahovac



Medio 24V brushless sliding gate motor securing shared amenities. Integrated swipe card access controls entry to the gym, with programmable auto close timer to ensure the gate returns to a secure position after each cycle

Woolworths, Eastern Creek, NSW

Keeping shelves stocked across Sydney, Canberra and regional New South Wales is a logistical exercise at scale. To support growing demand, Woolworths set out to deliver a new generation of distribution infrastructure, larger, faster and more efficient than anything before it.



Precision installation supports structural performance from the ground up

Located in Eastern Creek, the chilled and fresh distribution centre spans 93,000m² and is set to become the largest temperature-controlled facility of its kind in the Southern Hemisphere. Designed to process up to 6,000 tonnes of fresh produce daily, the project brings together automation, refrigeration and structural engineering to support continuous, high-volume operations.

Requirement

The suspended warehouse floors needed to carry significant loads across multiple levels while remaining efficient to build. The project required a solution capable of delivering strong structural performance across large spans and high load demands, while reducing material use without compromising integrity.

It also needed to support safe installation within a complex, multi-level construction environment while aligning with a past-paced, tightly coordinated programme. At 93,000m², even minor inefficiencies can have major consequences, impacting cost, programme and material use.

Approach

Fielders Design Solutions Group (DSG) was engaged early, working with Santana Stud Welding, BESIX Watpac and Costin Roe Consulting to develop a structural solution suited to the project's scale, loads and construction programme.

The Fielders KingFlor® KF70® steel formwork system, manufactured from 1.0mm BMT DECKFORM® Z350 steel, was selected to support performance and buildability. The mechanical interlocking of a concrete slab and embossments of KF70® work as bottom tensile reinforcement in composite slab design, saving on concrete and reinforcement costs. For such a large project, this is a significant consideration – both financially and from a sustainability point of view.



KingFlor® system enables efficient construction across large spans

On-site, the system created a stable work platform during installation and concrete pours, improving safety and maintaining construction momentum. The decking also performed as a canopy, protecting workers below in the multi-level construction environment.

Fielders worked with project partners to implement a just-in-time (JIT) delivery strategy, coordinating the supply of KF70® sheets to reduce congestion and support construction sequencing.

Results

Once fully operational in 2027, the facility's impressive throughput capacity will strengthen Woolworths' ability to distribute fresh produce efficiently across key regions.

Across one of Australia's largest distribution developments, the KingFlor® system contributed to measurable project gains that balanced speed with safety and ensured performance at scale.

Its composite slab design improved structural efficiency by reducing the need for additional reinforcement and lowering overall concrete volumes, while the large-format KF70® decking accelerated installation across multiple levels, reducing time spent per pour cycle.

The system also enhanced site safety, with continuous decking providing a stable work platform and overhead protection for teams working below. Just-in-time delivery of KF70® sheets supported programme alignment by reducing on-site storage, congestion and material handling.

Finally, overall system design delivered the strength needed to support high-load, multi-level warehouse floors across the full 93,000m² facility.



Large-scale distribution facility delivered with speed and coordination

Infrastructure at this scale shapes how goods move and how communities are supplied. Early engagement, coordinated delivery, and a structural solution aligned to project demands supported controlled construction. The KingFlor® System brought clarity and control to a complex, high-capacity build.

Architect: Waston Young
Client: Woolworths
Consulting Engineer: Costin Roe Consulting
Builder/Head Contractor: BESIX Watpac
Decking Installer: Santana Stud Welding
Photographer: Aran Anderson

ENGINEERS AUSTRALIA



"The National Building Specification (NATSPEC) has been a trusted voice for government, industry and professional bodies for more than 50 years; playing a critical role in improving the quality of construction in Australia.

"As a strong advocate for increased professional standards, Engineers Australia is proud to be a founding member of NATSPEC and strongly endorses their professional and special packages."

Romilly Madew AO, CEO Engineers Australia

Fletcher Insulation
Building Better, Together

Fletcher Insulation is an industry leader in insulation solutions for the Australian building sector. Working closely with architects and specifiers in addressing the complex challenges in building design across the range of performance parameters including energy efficiency, thermal comfort, acoustic comfort, moisture control, indoor air quality, thermal bridging, fire resistance and air tightness. Fletcher Insulation continually invest in more sustainable manufacturing processes and look to ways of bringing innovative products and services to the Australian market.
www.insulation.com.au

forbo
FLOORING SYSTEMS

Forbo Flooring Systems is a global manufacturer of premium commercial and residential floor coverings. All materials are designed, engineered, and manufactured within our own 100% green energy European facilities. An extensive and attractive range of environmentally friendly linoleum, high-quality vinyl flooring and LVT, entrance flooring systems, carpet tiles, needlefelt and Flotex flocked flooring is provided globally through our local service and distribution operations.
www.forbo.com/flooring/en-au/

Guardian
Tactile Systems Pty Ltd

Guardian Tactile Systems is a proudly Australian-owned company with over 24 years' experience in the design, manufacture, supply, and installation of NCC and AS-compliant tactiles, stair nosing, and accessibility products. We deliver premium-grade, Australian-made solutions at competitive prices, supporting architects, builders, and government projects nationwide with uncompromising quality, compliance, and reliability. Quality you can trust and compliance you can count on.
www.guardiantactile.com

Haymes PAINT
Australia's first family of paint. SINCE 1935

Haymes Paint is Australia's largest locally owned and operated, NATA accredited paint manufacturer. Since 1935, the Haymes family have proudly crafted innovative colours and coatings that continue a tradition of never taking short cuts on quality.

The Haymes Paint range includes Green Star compliant surface coatings, providing a single source solution including sustainable protective coating, timber finishes, texture and render, on top of their nationally accredited Ultra-Premium paints. **www.haymespaint.com.au**

Interpon
POWDER COATINGS
An AkzoNobel brand

AkzoNobel Australia is a leading global paints and coatings manufacturer, providing innovative and sustainable solutions across industrial, architectural, automotive, marine, protective, and powder coating segments. Committed to excellence, sustainability, and customer collaboration, AkzoNobel leverages advanced technologies and extensive industry expertise to deliver durable, high-performance finishes tailored to meet diverse market needs. Dedicated to enhancing and protecting surfaces, AkzoNobel continuously sets industry benchmarks in quality, innovation, and environmental responsibility. **www.interpon.com**

NATSPEC ProductPartner

Marvel Stadium, Melbourne, VIC

Marvel Stadium in Melbourne, home to the AFL, is one of the busiest multi-purpose venues that underwent a much-needed makeover after 20+ years of intense use.



Marvel Stadium Locker Room using Forbo Flotex created by Stark Twilight range

Requirement

The refurbishment of stadium locker rooms needed a floor finish that could balance durability, design flexibility and long-term maintenance efficiency. So how do you design a floor for a space that sees muddy boots, constant traffic and occasional post-game champagne celebration without comprising on design?

Traditional carpet was quickly ruled out. In environments like locker rooms, it can trap moisture and dirt, leading to faster wear and hygiene concerns. On the other hand, hard flooring options lacked the comfort, acoustics and warmth expected in team spaces. So, the flooring needed to bridge all requirements.

Flotex was selected for its unique construction. Combining cleanability and durability of a resilient hard flooring with comfort and acoustic benefits of a textile. It was important to Grimshaw that the space looked just as good today as it does in 10 years.

Approach

"Flotex was easily the obvious choice to meet the performance requirements however I had initial hesitations around a suitable design that would be stylish enough for the team facilities. Carpet plays an important role in elevating the overall design of a space, so it needed to be an appropriate choice.

As soon as I viewed samples of Philippe Starck's unique collection for Flotex I knew this was spot-on. The bold and dynamic linear design of Twilight spoke perfectly to the energetic atmosphere of the locker rooms" says Amanda York, Interior Design Lead at Grimshaw.

Design isn't just aesthetic it also plays a role in shaping the identity of a space. The Flotex design used was by renowned French designer, Philippe Starck, adding a sense of speed and movement to a superhero stadium. The Flotex Starck collection features unique patterns. By playing on scale and transition and creates a new language in the perception of interior spaces and floor covering design.

Results

The outcome? From party to pristine in no time! Flotex is waterproof and washable making clean-up a breeze, after intense use Flotex maintains its look and cleaning was as simple just using water and floor scrubber/cleaner making it easy for the maintenance team.

Flotex is also available in 'Next' backing construction that can be installed quickly without adhesives, meaning quick to remove and the option to reuse. A new floor can be installed with minimal downtime or even without closing the premises.

Flotex is made with up to 80 million upright dense nylon fibres, this allows for the product to be easily cleaned especially from muddy footy boots! For high traffic and high impact environments where performance and identity matters, textile flooring with resilient performance offers the best alternative to traditional flooring material choices. The Flotex branded worksection is available to download via NATSPEC - 0652p FLOTEX carpets.

Interior Designer: Grimshaw and Smartform Architects
Flooring Contractor: Aywon
Builder: John Holland
Photographer: Dianna Snape



Marvel Stadium Exterior shot by Dianna Snape

Piara Waters Community Centre, Perth, WA

Guardian Tactile Systems Pty Ltd

Requirements
The product selection for this project required a solution that was visually striking yet complementary to the building's light-coloured entry. It was essential that the tactiles did not distract from the area's detailed architectural features. The chosen products needed to provide high contrast against the substrate while matching the "dark-on-light" motif of the stair nosing, handrails, and other fixtures. Above all, the materials had to ensure long-term durability while enhancing the building's overall aesthetics and design.



Piara Waters Opening event, showcasing its luxurious design and architecture via the entryway brought to Australian standards by Guardian Tactile Systems

Approach
Guardian Tactile Systems conducted thorough research into the Light Reflectance Values (LRV) of the site's substrates. We evaluated multiple solutions to achieve the best aesthetic outcome without compromising safety, accessibility, or the high-quality execution of the installation areas.

To align with the black handrails and light housings, we selected 316 Stainless Steel discrete tactiles with a Black PVD coating, paired with aluminium slimline nosing featuring black anti-slip carbide tape. Due to project delays and last-minute changes, the nosing selection was added to the scope late in the process; however, our team successfully completed the installation within a 2-day turnaround to meet the deadline.

Results
Guardian Tactile Systems delivered a comprehensive, start-to-finish installation program. The final result provided a professional, high-end finish that accentuated the project's architectural integrity. By meeting the strict completion date, we ensured the facility was ready for its grand opening with products designed to stand the test of time.

Benefits
Partnering with Guardian Tactile Systems allowed for the rapid delivery of premium-grade products specifically engineered for Australia's harsh UV and weather conditions, without the premium price tag. As one of Australia's longest-established tactile specialists with a rich history of innovation, our team continues to provide industry-leading advice and products both domestically and globally.



Guardian Tactile Systems Black PVD discrete tactiles installed along the Piara Waters entry and ramp, complementing the light-coloured surfaces while enhancing safety and accessibility requirements

Architect: Richard Hammond Architects
Client: Kastle WA
Installer: Guardian Tactile systems Pty Ltd
Photography: Aatman Hart



Guardian Tactile Systems slimline aluminium nosing with black carbide tape installed to entry stairs to meet LRV compliance while enhancing the two tone colour design of the entryway

Two Sisters, North Melbourne, VIC

Haymes PAINT
Australia's first family of paint. SINCE 1935

Designed as a collection of fourteen apartments and townhouses, Two Sisters is a multi-residential project in North Melbourne that prioritises community, longevity and sustainable urban living. The development responds to its inner-city context while creating opportunities for connection between residents and neighbours.



Colour Breathe 17. Haymes Paint Ultra Premium Eggshell

Referencing the site's industrial past, the architecture incorporates a saw-tooth brick screen that echoes the former warehouse and provides privacy between dwellings. At ground level, ten one-bedroom townhouses are designed as build-to-rent homes, compact yet generous in amenity, supporting long-term living within a well-connected urban environment.

At the rear of the site, a once-neglected laneway has been reopened and landscaped, contributing to the public realm and creating a shared space for residents and the broader community.

Requirement

The project required coating systems that could support both the architectural intent and the practical demands of a dense urban environment. Finishes needed to be durable, low-maintenance and suitable for a mix of substrates, while maintaining a consistent and refined appearance across multiple dwelling types. Sustainability considerations were also central to the specification.

Approach

Haymes Paint coating systems were specified to align with the project's material palette and performance requirements. A restrained colour scheme drawn from the Haymes Paint x Breathe Palette was applied across interior and exterior surfaces, supporting a cohesive identity while allowing the brickwork to remain the dominant architectural element.



Cabinets Colour: Breathe 32 Haymes Paint Ultra Premium Trimplus
Wall: Breathe 62 Haymes Paint Ultra Premium Eggshell

Internally, Haymes Paint Eggshell was selected for its low-sheen finish and durability, providing a soft, consistent surface across living spaces and circulation areas. Externally, Solashield was used to deliver long-term protection and colour stability, suited to the varied exposures of the urban environment.

The combination of finishes ensured continuity across the development while accommodating different substrates and conditions.

Results

The completed project presents a unified and considered material expression, where coatings support rather than compete with the architectural form. The selected finishes enhance the perception of depth and texture, particularly in transitional spaces such as entries and shared circulation areas.

Durable coating systems contribute to reduced maintenance requirements over time, an important consideration for build-to-rent dwellings and high-use communal areas.

Benefits

By aligning coating selection with both design intent and long-term performance, the project demonstrates the value of a considered specification approach. Durable, low-sheen interior finishes and robust exterior protection support visual consistency while minimising ongoing upkeep.

For specifiers, selecting a coordinated coating system across multiple substrates can streamline documentation, reduce on-site variation and support reliable project outcomes in complex multi-residential environments.

Architect: Breathe Architects
Builder: Never Stop Group
Painter: Paint it Black
Photographer: Tom Ross

The Smith Collective, Gold Coast, QLD

Interpon POWDER COATINGS
An AkzoNobel brand

The Smith Collective, spanning 7.1 hectares is a major residential redevelopment comprising 1,252 dwellings and accommodating more than 2,500 residents, representing one of Queensland's largest and most ambitious urban renewal initiatives.

Requirement
The client required a bold, architecturally distinctive residential precinct that would stand out visually while meeting rigorous long-term performance and sustainability standards.

Located in a coastal environment, the development demanded finishes capable of withstanding high UV exposure, humidity and saline conditions. The design incorporated a striking palette of blues, greens, yellows and reds across multiple façades, making precise colour matching and long-term colour retention essential to maintaining the architectural vision.

The project needed to deliver strong visual impact while ensuring durability, low maintenance and long-term value for a growing residential community.

Approach
To achieve these objectives, ARM Architecture partnered with Interpon Powder Coatings to deliver high-performance, super-durable façade finishes.

Interpon specified its D2525 architectural powder coating range, engineered for projects requiring exceptional colour retention and long-term durability. Designed for coastal applications more than 10 metres from salt water, the system is ideally suited to the Gold Coast's tropical seaside climate and is manufactured in Australia to suit demanding local conditions.

More than 30 custom colours were developed to align precisely with the architect's design intent. Interpon's local customisation capability enabled small-batch production while maintaining warranty-grade performance standards.

The selected coating system provides a 25-year film integrity warranty and a 20-year colour and gloss retention warranty, ensuring the façades maintain their vibrancy for years to come.

Results
The completed development delivers a visually dynamic and cohesive precinct defined by its colourful façades and distinctive architectural elements, including a signature double-helix arbour that weaves through the site.

The powder-coated cladding achieves both aesthetic precision and environmental resilience, meeting the project's enhanced durability requirements. The development also achieved a 6-Star Green Star Communities rating and six leaves under the UDIA EnviroDevelopment rating tool, reinforcing its sustainability credentials.

Today, The Smith Collective operates as a thriving residential community supporting the Gold Coast's growing population.

Benefits
By specifying Interpon D2525, the client secured a finish that faithfully realised the architect's bold design vision while ensuring long-term performance in a demanding coastal environment.

The durable, low-maintenance coating system reduces lifecycle costs and preserves the development's visual identity over time. The Smith Collective now stands as a vibrant and enduring residential precinct, reflecting excellence in design, sustainability and performance.

Architect: ARM Architecture
Photographer: Supplied by Akzo Nobel



Interpon D2525 Custom Colors



"The quality and productivity of the building and construction industry is enhanced by the work of the National Building Specification (NATSPEC). For more than 50 years NATSPEC has provided professional and specialty packages for all sectors of the industry and all building structures. NATSPEC is highly regarded by industry stakeholders in both the private and public sectors and is strongly supported by Master Builders Australia (MBA)."

Denita Wawn, Chief Executive Officer, Master Builders Australia

Kingspan Australia manufactures and supplies insulated roof and wall panel systems, standing seam roofing systems, facade solutions, and coldstore solutions, supported by local manufacturing capability in Australia. Serving commercial, industrial and controlled environment sectors, Kingspan delivers high-performance building envelope solutions backed by technical expertise and project support. Its products are designed to support thermal efficiency, durability, compliance, and efficient installation across a wide range of applications. **www.panels.kingspan.com/en-au**

Kingspan Insulation is a manufacturer of insulation products for roof, wall, and underfloor applications in residential, commercial, and modular buildings. Kingspan Insulation manufactures AIR-CELL®, the thermo-reflective insulation, and Kooltherm®, a rigid thermoset insulation.

Kingspan Insulation's technical experts can provide thermal solutions for Section J, Green Star, and NatHERS 7 Star rating. **www.kingspaninsulation.com.au**

Lawn Solutions Australia is an Australian owned and operated business with Australia's leading group of turf growers coming together to offer a range of exclusive turf brands and turf products across a comprehensive national network.

Lawn Solutions Australia is setting a new benchmark for best practice in the turf industry with the industry-leading accreditation system, AusGAP. All Lawn Solutions Australia producers are AusGAP certified and adhere to the same stringent, nationally endorsed quality standards. **www.lawnsolutionsaustralia.com.au**

Leviat, a CRH company, is a global leader in connecting, fixing, lifting and anchoring technology for the construction industry. We imagine, model and make engineered products and innovative construction solutions. Our engineered products and innovative construction solutions are used in a variety of market segments from residential to infrastructure, enabling users to build better, stronger, safer and faster. **www.leviat.com**

Haigh's Chocolate Factory, Salisbury South, SA

Haigh's Chocolates recently celebrated its 110th anniversary, making it Australia's oldest family-owned chocolate maker. To mark the occasion and to meet growing industry demand, a new state-of-the-art production, warehousing and online fulfilment facility has been built in Salisbury South, Adelaide, South Australia. The $120 million project is the company's largest-ever single investment. It features advanced chocolate-making equipment, including specialised panning, enrobing, and moulding lines, as well as 1.8 km of chocolate delivery pipes. The new facility is expected to produce over 2,000 tonnes of raw chocolate, doubling the company's previous production capacity, and enabling the opening of more stores around the country.

Requirement

The project had high sustainability goals and needed to meet energy-efficiency regulations, so for this ambitious project, Haigh's required a facility that could maintain precise temperature control for chocolate production, deliver an HACCP-approved food-safe environment, support rapid construction to meet market timelines, and match energy-efficiency certifications.

Approach

Kingspan KS1100/1200CS Coldstore panels were specified to provide a solution to the project challenges. The panels are engineered specifically for use within temperature-controlled environments and are supplied with hygiene-safe coatings. The 150mm thick panels offer excellent thermal performance with an R-value of 6.92 m^2K/W, and the high-performance PIR insulation core ensures the temperature remains constant and ambient.

A fast installation of the panels was also needed to meet market timelines and ensure the factory was up and running quickly. KS1100/1200CS Coldstore panels are a through-fix, single-component system which allows for a quick and simpler installation compared to built-up systems. This jointing system also achieves an airtight seal once installed, resulting in a consistent blanket of insulation that assists with temperature control.

With bespoke colours available for the external face and either a flat or ribbed profile, the KS1100/1200CS Coldstore panels offer an appealing aesthetic when used to form the building envelope. The coolroom white internal liner coating is designed for hygiene-safe environments and maintains a clean visual.

The panels used in the construction of the new facility were made at Kingspan Insulated Panels manufacturing facility in St Marys, Sydney to ISO 9001. Local manufacturing further reinforces the sustainable approach to this significant development and highlights the value of Australian-made building solutions in delivering high-performance, future-ready facilities.



Kingspan KS1100/1200CS Coldstore panels play a key part in Haigh's Chocolates new $120 million manufacturing facility, which doubles the production capability of the 110-year old business.



Kingspan KS1100/1200CS Coldstore panels were specified to provide a solution to the project challenges, forming the majority of the external and internal walls.

The panels also have Environmental Product Declarations in accordance with ISO 14025 and EN 15804:2012 + A2:2019 and are FM Approved.

Results

The new Haigh's Chocolate Factory ensures that a beloved Australian brand can continue to scale while maintaining the standards of excellence for which it is known, and remaining firmly rooted in the community it has served for over a century. This state-of-the-art development strengthens local capability by creating jobs, boosting regional investment, and reinforcing the importance of advanced manufacturing within South Australia.

"The benefits of using Kingspan in our facility are quite numerous. At the beginning we went through a very rigorous evaluation process. We found that Kingspan not only has got the best R rating for the panels, but it's also easy to clean, it has a really good flame resistancy, and the warranty was outstanding compared with competitors." Andreas Reisinger, General Manager, Supply Chain – Haigh's Chocolates

Client: Haigh's Chocolates
Prinicipal Consultant and Architect: BELL
Main Contractor: CIP Construction
Sub-Contractor: Gary Harvey
Photography: Mark Playdon at Kingspan Insulated Panels

0437p KINGSPAN INSULATED PANELS cladding systems
0762p KINGSPAN INSULATED PANELS in cool rooms
0428p KINGSPAN INSULATED PANELS roofing systems

The First Building, Bradfield City Centre NSW

Kingspan Therma PIR roof insulation supports a landmark sustainable development in Sydney.

The First Building in Bradfield City Centre marks a significant milestone as part of Australia's first new city in over 100 years. Located in Western Sydney, near the upcoming Western Sydney International Airport, the building houses Stage 1 of the Advanced Manufacturing Readiness Facility (AMRF) and sets a benchmark for environmentally conscious, resilient design.



Interior of the First Building, Sydney

A key feature of the project is its large, curved roof structure, designed to integrate multiple sustainability functions including solar energy generation, rainwater harvesting, and thermal performance optimisation. The roof incorporates a 1300 sqm green roof system with over 14,000 native plants, helping to reduce heat gain, manage stormwater, and enhance biodiversity.

Requirement

Kingspan Insulation played a critical role in delivering the roof's thermal and functional performance. The warm roof system, installed by ARW Group, utilised Kingspan Therma PIR insulation boards positioned above the structural deck and beneath the waterproofing membrane by Soprema, with Enduroflex as the waterproofing partner.

Flat roof areas were insulated using Therma TR26 and TR27 boards, while tapered solutions TT46 and TT47 were used to provide both insulation and effective drainage. This tapered system enables rainwater to be channelled efficiently into a 150kL underground tank for reuse in irrigation and grey water applications, supporting the building's water management strategy.

Approach

Kingspan Therma boards were selected for their thermal efficiency, lightweight properties, and compressive strength, making them well suited to support the demands of an extensive green roof system. Their moisture resistance and durability under foot traffic further ensured long-term performance.

The PIR core delivers a higher R-value compared to traditional insulation materials such as glasswool, enabling a thinner build-up while maintaining thermal performance. In this project, the insulation contributed to reducing roof surface temperatures by up to 20 degrees in Western Sydneys harsh climate, helping to stabilise internal conditions and reduce energy demand.



First Building in Bradfield City Centre, Sydney



Green roof of the First Building, Sydney

Results

Compatibility between Kingspan Therma boards and Soprema membranes also streamlined installation and enhanced system reliability, ensuring an efficient and integrated construction process. The versatility of the boards across different substrates, including concrete, metal, and CLT, further supported the project's complex roof design.

The roof system is complemented by a 180kW solar PV installation and on-site battery storage, enabling the building to generate and manage its own energy. Combined with passive design elements such as shading eaves and the green roof, the building significantly reduces heat absorption and energy consumption.

Benefits

Overall, the integration of Kingspan Therma PIR insulation within the warm roof system has been instrumental in achieving a performance, durable, and sustainable roofing solution. The First Building demonstrates how advanced insulation systems can support complex architectural design while delivering long-term environmental and operational benefits.

Architect: Hassell
Waterproofing Partner: Enduroflex
Waterproofing Membrane: Soprema
Contractor: Taylor Group
Warm Roof System Installer: ARW Group
Photography: Images courtesy of Bradfield Development Authority

Prahran High School, Windsor, VIC

GRAY PUKSAND

What were the advantages of using the NATSPEC system?
As changing legislation, technical requirements, insurance and litigation issues become more prevalent, architects and consultants must keep abreast of evolving industry standards and a vast amount of technical information. Traditionally, the architect would be the holder of this technical information, producing a specification that covered all of the project specific issues. With an increased reliance on embedded product technical information within Digital Technology models, compounding the extent of the information management required, it is increasingly difficult to have total clarity that the information contained within the model and its individual elements is up to date and accurate.

Having dedicated resources to maintain, update and disseminate this information can be challenging. NATSPEC dramatically reduces the risk of missing important updates to standards and manufacturer specific updates. For some time now, the Victorian School Building Authority have had a dedicated 'VSBA' branded version of NATSPEC, which Principal Design Consultants must use as the basis for Project Specifications.

Project Credits:
Architect: Gray Puksand
Client: Victorian School Building Authority
Builder: Kane Constructions
Project Manager: DCWC Struct/Civil/Build Services
Engineers: Wood & Grieve Engineers
Building Surveyors: McKenzie Group
Landscape Architects: Tract
Acoustic Engineers: Wood & Grieve Engineers
Accessibility Consultants: Architecture & Access
Quantity Surveyors: Slattery
Photographer: John Gollings



Understanding Product Conformity in Australian Construction

Non-conforming and non-compliant building products create serious safety, legal, performance and financial risks in Australian construction. Product conformity is the practical way to manage these risks by ensuring products meet specified conformance requirements.

Product conformity means a product meets specified conformance requirements. These requirements for building products are often specified in standards. Standards are voluntary consensus documents that set out technical specifications and procedures to ensure products, services and systems are safe, reliable and perform as intended. Conformity to standards is not necessarily compulsory. Their application is by choice unless mandated by government or called up in the building contract or specification.

This article explains Australia's standards and conformance infrastructure, the evidence of suitability required by the National Construction Code, and how NATSPEC helps specifiers demand and verify conforming products.

Be informed about non-conforming building products (NCBP) and non-compliant products (NCP)
Non-conforming building products (NCBP) are those that purport to be something they are not, do not meet required standards for their intended use, or are marketed or supplied with the intent to deceive those who use them. Non-compliant products (NCP) are those that are used in situations where they do not comply with the requirements of the National Construction Code (NCC), other relevant laws and Australian standards.

Australia's standards and conformance infrastructure
The following four bodies make up Australia's standards and conformance infrastructure:

1. JASANZ: A bi-national government accreditation authority for certification and inspection bodies, and other related bodies
2. NATA: An independent, not-for-profit national accreditor of laboratories and testing facilities, and inspection bodies
3. NMI: National Measurement Institute
4. Standards Australia.

Product conformance in the National Construction Code (NCC)
Products used to comply with the NCC typically affect:

1.Structural stability, 2. Damp and weatherproofing, 3. Fire safety, 4. Health and amenity, 5. Safe movement, access and egress and 6. Energy efficiency.

NCC clause A5G3 evidence of suitability – Volumes One and Two
NCC clause A5G3 lists six acceptable forms of evidence of suitability for materials and construction products to meet a Performance Requirement or Deemed-to-Satisfy Provision:

1. A current CodeMark Australia or CodeMark Certificate of Conformity (or WaterMark Licence), 2. A current Certificate of Accreditation, 3. A current certificate issued by a certification body, 4. A report issued by an Accredited Testing Laboratory, 5. A certificate or report from a professional engineer or other appropriately qualified person and 6. Another form of documentary evidence, such as but not limited to a Product Technical Statement.

NATSPEC approach
NATSPEC addresses product conformity throughout a typical worksection so specifiers can nominate their requirements:

PRODUCTS or SELECTIONS: Select proprietary products with documentary evidence of conformity as required, or describe products generically by material and performance properties. Reference relevant Australian or international standards.

SUBMISSIONS: For critical items, require the contractor to submit evidence of conformity and/or compliance to ensure the installed product meets the specified performance.

INSPECTIONS: Where required, allow periodic inspections during construction to confirm no substitution has occurred and the correct product is installed.

Conformity assessment and conformity assessment bodies (CAB)
Conformity assessment demonstrates that a product, process, system, person or body fulfils specified requirements. The four main activities are:

1. Testing, 2. Inspection, 3. Auditing and 4. Assessing the product and production process.

Designers, specifiers, consenting authorities and contractors need reliable information for decision making. The conformity assessment body needs to be appropriately accredited.

St Joseph's College, Echuca, VIC

St Joseph's College established a new Kildare Campus five kilometres west of Echuca to accommodate growing student numbers, particularly Years 7–9. With over 500 students on site, the college prioritised expansive green play space as a core component of the campus design.

Requirements

The college required a premium-grade sporting surface that could withstand high levels of weekly use from school programs while also meeting the durability expectations of a multi-sport facility.

Selecting a turf capable of performing in Echuca's challenging climate was critical. Hot summers, variable rainfall, and increasing pressure on water resources meant the playing surface needed to be resilient, efficient, and able to maintain quality under demanding conditions.

Additionally, the broader Echuca region faced capacity constraints at existing venues like Victoria Park, which were operating at full capacity and scheduled for major redevelopment.

Approach

Coolabah Turf worked with the contractor to ensure a comprehensive installation process with detailed site assessment and soil testing to establish baseline conditions. TifTuf Hybrid Bermuda was selected for the installation, recognised for its exceptional drought tolerance and water efficiency.

Ground preparation involved removing existing vegetation, amending soil, and constructing an engineered soil profile featuring a drainage layer beneath 150–200mm of quality sand based topsoil. The site was precisely graded to ensure proper water drainage and levelled to within 25mm across the entire oval.

Irrigation infrastructure was installed prior to turf laying to support establishment and ongoing performance. Coolabah Turf then laid premium TifTuf Hybrid Bermuda turf in a brick-like pattern from the perimeter inward, with immediate watering following installation. The company provided expert guidance throughout an intensive 6–8 week establishment period, including frequent site visits and early-stage mowing programs to ensure optimal surface quality.



St. Joseph College AFL Field ground preparation



St. Joseph College's brand new TifTuf AFL Field

Civil works commenced in July 2024, with irrigation installation completed in December 2024 and turf installation in January 2025. The facility opened for active use in August 2025.

To maximise community benefit, St Joseph's College partnered with the Echuca Junior Football Club to share the oval for training and competition from 2025 onwards. The AFL contributed $200,000 toward professional-grade lighting infrastructure. The project prioritised local expertise, engaging regional contractors to retain investment within the Echuca Moama economy.



Root growth of TifTuf Hybrid Bermuda 8 days after installation

Results

The new sporting precinct now features an AFL-specified oval with a future soccer pitch and additional athletic facilities planned. The facility is operational and available for both school and community use.

Benefits

The oval addresses critical infrastructure gaps in a rapidly growing region, alleviating capacity pressures on existing venues during their redevelopment. Students and the wider Echuca community now have access to a premium sporting surface that supports active, outdoor lifestyles. The project demonstrates the value of local collaboration and regional business investment in community wellbeing, with Coolabah Turf's contribution supporting generations of students and athletes.

Photography credit: Coolabah Turf & Lawn Solutions Australia

Barangaroo Station, Barangaroo, NSW

Leviat

Barangaroo Station, a major addition to Sydney's Metro network, sits within one of the city's most culturally significant precincts. Positioned at the southern end of Barangaroo Headland and framed by Sydney Harbour, the Opera House, and Darling Harbour, the station required a series of service "pods" that were both functional and visually integrated into the public realm. Achieving this balance demanded close collaboration between designers, engineers, and contractors. Leviat's Masonry Division played a central role, developing restraint solutions that enabled Bricklaying Contractor Favetti Pty. Ltd. to construct the pods' distinctive brick façades.

Requirements

The architectural intent was to create dynamic brick skins that enriched the Hickson Road streetscape and reflected the site's cultural significance. These external façades were designed to contrast with the internal structure, introducing movement through curved, stepped, and corbelled forms. The brief also required the façades to incorporate public safety, heritage interpretation, and resistance to graffiti and vandalism. This combination of aesthetic ambition and practical performance demanded a restraint system that could adapt to irregular geometry while remaining efficient to install.

The sculptural brickwork presented several technical challenges. The façades were conceived as independent skins, separate from the standardised internal structure, resulting in non-uniform cavity widths and unsupported spans. These conditions required tailored restraint solutions that could accommodate variation without compromising structural integrity. The coastal environment added further complexity: proximity to Sydney Harbour meant all components needed superior corrosion resistance. Delivering this level of complexity while maintaining buildability and efficiency required careful coordination between Leviat and Favetti.

Approach

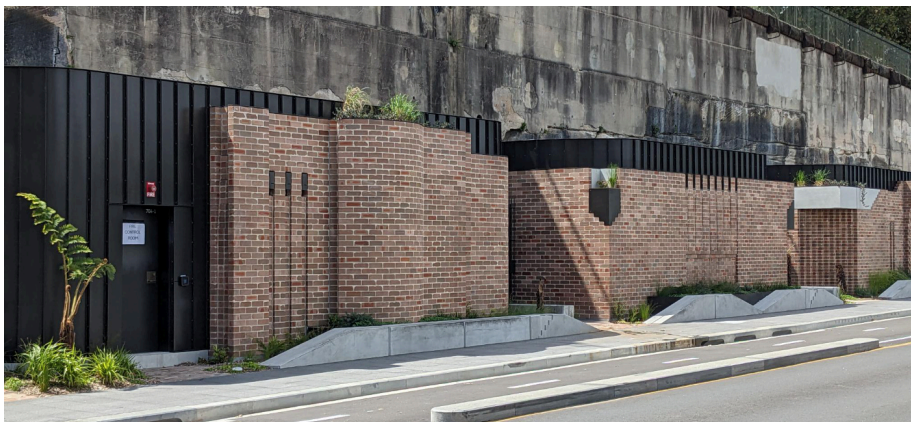
Leviat joined the project early, collaborating with the arcFavetti, the façade Engineer and Metron, from March 2023 to develop a restraint strategy that supported the architect's sculptural intent. Leviat supplied performance data for long wall ties to confirm the system's structural suitability.

As the design progressed, some cavity widths exceeded practical tie lengths. To address these spans, Leviat proposed stainless steel Ancon WP3 channel-section windposts engineered to resist the required loads. Each windpost was fabricated for its exact location and featured laser-cut slots, allowing restraint ties to be quickly clipped in on site. Built-in tolerances at the top connections enabled fine adjustment during installation.

Alongside the windposts, Leviat manufactured custom stainless-steel wall ties up to 260 mm long, ensuring precise connection across the irregular brick geometry. This tailored system gave Favetti's bricklayers the flexibility and accuracy needed to construct the curved, corbelled, and stepped façades efficiently.



The Service Pods Brick façade at Barangaroo Station is supported by a restraint system designed for irregular geometry and easy installation



Custom 260 mm stainless steel wall ties ensured accurate restraint across the curved, corbelled and stepped brick façades

Results

The completed service pod façades at Barangaroo Station demonstrate the power of coordinated design, engineering innovation, and skilled craftsmanship. Through close collaboration between Leviat and Favetti, the project delivered expressive brick forms that enhance the site's visual and cultural identity. The result is structurally robust, corrosion-resistant, and architecturally distinctive — a benchmark for how brickwork can elevate public infrastructure by blending beauty and performance.

Architect/Engineer: Metron
Façade Engineer: Metron
Contractor: Favetti Pty Ltd
Client: Sydney Metro
Photographer: Supplied by David Brown at Leviat

LYSAGHT has a proven track record supplying quality steel roofing, walling, rainwater, fencing, home improvement and structural products. Made from 100% Australian steel, our products are extensively performance-tested, come with a BlueScope warranty, and offer our customers confidence and peace of mind.

Our quality products are only part of our unique offer – our commitment to genuine, helpful customer service, and unmatched technical support and expertise has helped us become the trusted experience in steel. **www.lysaght.com**

Masterwall is Australia's leading provider of innovative External Insulation Finishing Systems (EIFS). Our comprehensive product range includes the Masterwall Insulated Cladding System, Rendered Panel Systems, M-TEX Premium Renders, Textures, Colours and Coatings, Masterfloor Underfloor Insulation, SKYLINE Architectural Capless Parapet System, UMBRA Architectural Shadings, and Matrixx Architectural Mouldings. We enhance energy efficiency, durability, and aesthetics in residential and commercial projects, meeting the unique demands of the Australian climate and architectural standards. **www.masterwall.com.au**

METROLL are one of Australia's largest manufacturers and suppliers of quality steel building products across residential, commercial and industrial markets. The product range includes roofing, walling, rainwater goods, structural and fencing products.

METROLL combine the benefits of being part of a large national organisation with emphasis on local service. Metroll has 29 manufacturing sites across the country which operate as small local businesses which means we truly understand the markets we operate in. **www.metroll.com.au**

MODDEX is Australasia's leading manufacturer of innovative modular barrier systems for large-scale infrastructure and non-residential construction projects. Our extensive range of pre-engineered, proprietary handrails, balustrade and barriers systems are designed for industrial, commercial and civil applications. All our systems comply with Australian and New Zealand Standards, BCA, NZBC, DDA and WHS regulations.

MODDEX can provide a complete system design, layout and specification service including CAD drawings, detailed scope of works and estimated cost breakdown. **www.moddex.com**

PALRAM is a world-leading manufacturer of extruded thermoplastic sheets and panel systems. With over 60 years of experience, a large portfolio of products, PALRAM is recognized as a leading brand for quality and service.

PALRAM has grown into an industry leader and multinational conglomerate with branches on six continents. With added focus on advanced technologies and sustainability, PALRAM offers professionals and users the solutions and support they need for a wide variety of applications. **www.palram.com**

Mayne Rail Complex, Bowen Hill, QLD

In a project as large and visible as Brisbane's Cross River Rail, even the supporting facilities require careful consideration. The Mayne Complex, Queensland Rail's primary stabling and maintenance precinct, sits at the operational heart of the project.



Clean panel lines and expressed joints create a refined, consistent finish

Within this environment, the new staff facilities building was never going to be purely functional. Designed by award-winning architects, Hassell Studio, the design sought to acknowledge the industrial language of the site while also contributing something more contemporary. Saw-tooth roof forms reference surrounding buildings, while the overall expression is deliberate, refined and modern.

Requirement

From the outset, the façade was expected to resolve a complex set of requirements. It needed to meet strict Queensland Rail and NCC compliance standards, particularly around combustibility, while also performing reliably in a high-use environment where durability and low maintenance were essential.

Just as importantly, the façade had to deliver a more refined architectural outcome than standard industrial cladding solutions. Early considerations included aluminium cladding, but compliance limitations and installation complexity ruled it out. The design team instead sought a system that could provide a flat, contemporary profile with expressed joints, while maintaining structural integrity and ease of installation.

Approach

Hassell Studio developed a design that balanced industrial familiarity with a refined, contemporary expression.

The LYSAGHT AZURE® façade system was selected for its ability to deliver both performance and visual precision. Manufactured from 1.2mm COLORBOND® steel, it met NCC requirements while providing the durability required in a high-use rail environment. Large-format panels with expressed joints supported a consistent façade aligned with the design intent.



Precision detailing delivers a sharp, contemporary building edge

Custom sizing allowed the system to respond to the building's geometry, while AZURE® battens fixed to conventional top hats simplified installation within a live site. Local manufacturing and support from Lysaght contributed to efficient delivery.

Results

The completed building holds its own within a demanding, highly visible environment. The façade reads as crisp and cohesive, elevating the structure beyond a purely utilitarian outcome.

The selection of COLORBOND® steel in Windspray® balances glare reduction with controlled heat gain, a key consideration in an exposed rail yard.

Internally, the building supports a wide range of operational needs, while externally presenting a confident architectural response.

Benefits

The specification of LYSAGHT AZURE® façade system delivered clear advantages across compliance, design, construction and long-term performance.

Its steel construction supported NCC alignment, reducing specification risk and providing confidence around regulatory requirements.

Architecturally, the system offered greater design control, with large-format panels and expressed joints enabling a precise façade. Simplified fixing systems and custom panel sizing also supported faster installation on site, helping streamline the construction process.

Access to local manufacturing and technical support strengthened delivery certainty and overall project outcomes. And over the longer term, the durability of COLORBOND® steel will continue to reduce maintenance demands across the asset lifecycle.



A cohesive facade brings architectural clarity to a high-performance rail environment

Infrastructure projects leave little room for compromise. Every element must perform and increasingly contribute to how a building is experienced within the broader urban environment.

LYSAGHT AZURE® delivers on both fronts. Supported with a NATSPEC branded worksection, it gives specifiers a solution that is clear, compliant and ready to specify, without sacrificing design intent.

Architect: Hassell Studio
Client: Queensland Rail
Builder: CPB/Unity Alliance
Photographer: Rix Ryan Photography

Melvista on Broadway, Nedlands, WA

Melvista on Broadway is a boutique residential development situated in the high-end riverside suburb of Nedlands, WA. Located near iconic landmarks like the Crawley Edge Boat Shed and the Swan River, this project by MJA Studio reflects the elegance of its prestigious surroundings. Such a landmark building required premium, Australian-made external finishes developed specifically to endure the harsh Australian climate.



A crisp, uniform finish on sharp corners for a sophisticated result

Requirement

The primary challenge was achieving a consistent, high-end finish across multiple substrates, including in-situ concrete, off-form concrete, and the complex 45mm deep curves of the AFS Logicwall® structure. Beyond the visual, the system had to meet strict National Construction Code (NCC) safety standards, requiring a certified non-combustible solution under AS 1530.1.

Approach

Masterwall provided two tailored M-TEX systems, chosen for their premium quality and the flexibility needed to bridge diverse surfaces into a single, seamless façade.

Concrete Substrates: A 3–5mm basecoat of FR Render was applied to ensure superior adhesion and fire safety certification. This was followed by Render Coat Primer, a coloured Marble Texture for a monolithic finish, and a UV-resistant Flex Coat topcoat.

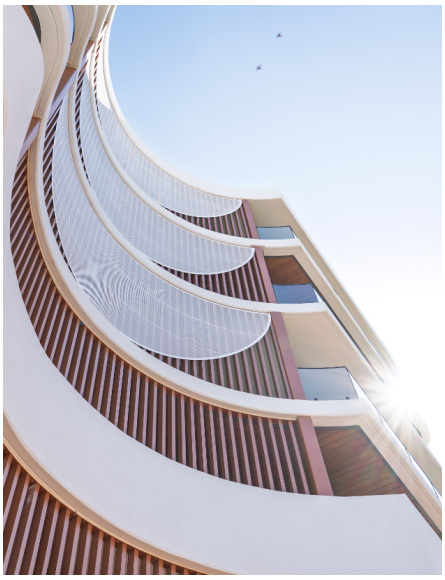
AFS Logicwall®: To handle the deep curves and prevent cracking, we used FR Render with 60mm mesh tape at the joints, followed by a full coat of FR Render embedded with 160gsm mesh. The surface was finished with a trowel-applied Marble Texture and two coats of Flex Coat membrane for maximum weather protection.

Results

The M-TEX systems unified the building's complex geometry, delivering a uniform architectural finish that mirrors the quality of the Nedlands area. The water-based, easy-to-apply nature of these premium renders reduced labor time on-site. Most importantly, using a certified non-combustible system provided the developer total peace of mind regarding BCA 2022 fire regulations, resulting in a durable, breathable, and low-maintenance façade.

Benefits

The combination of FR Render and Marble delivers a façade that is as safe as it is sophisticated. By using products with certified non-combustibility (AS 1530.1) and high-load Titanium Dioxide for UV stability, the project achieves a higher standard of durability than standard site-mixed renders.



A seamless M-TEX finish unifies complex architectural curves

The product used in this project is backed by a 15-year warranty, ensuring the architectural integrity of Melvista on Broadway remains protected against the elements for years to come.

Architect: MJA
Builder: Exal
Plastering team: Plasterwise
Photographer: Sam Li from Masterwall



Street-level view highlighting Melvista's seamless facade, finished with Masterwall M-TEX for architectural impact.

Metronet Armadale Line Redevelopment, Perth, WA

The Western Australian Government recently completed the Armadale Line redevelopment project.



Beckenham Station's elevated rail and contemporary architecture

Designed by world leading architects Hassell on Whadjuk Nyoongar Country, the project delivers one of the most significant improvements to Perth's rail infrastructure in decades by introducing new elevated stations.

The Armadale Line Upgrade Alliance (ALUA) was awarded the project to develop five stations on the Armadale Rail line.

ALUA, comprised of ACCIONA, AECOM, WSP, and BMD Constructions, with Built Australia and Broad Construction contracted to build the stations, as part of the larger METRONET program in Perth, Western Australia.

Requirements

In conjunction with the world leading design team at Hassell, the Alliance delivered this impressive and outstanding project to the WA community.

When it came to the materials selection for the building envelope elements, Metroll was invited to engage in the review of product capability and design capability for the supply of roofing and façade cladding to four new stations at Carlisle, Oats Street, Queens Park, and Beckenham.



MAC Distinction® cladding delivers a crisp, linear aesthetic

The project brief required a prominent level of product specification elements, including material types, warranties, standards, and performance expectations. Added to the need for stringent safety management, these expectations informed the design perspective to incorporate a durable, low maintenance, high quality finish.

The design team worked closely with the engineering partners and successfully achieved bold, modern facilities which complement and service the local growing and changing communities.

Approach

The Metroll team met with the Hassell design team members on a regular basis, providing technical product support, samples and input on product warranties and serviceability. Metroll supplied their MAC Distinction® roofing and cladding profile for use on the facades which delivered a crisp, clean, linear appearance to the façade, complimenting the other adjoining material elements. In addition, the contemporary enduring aesthetic and durable, low maintenance nature of MAC Distinction made it an ideal product to fit the project requirements.

The roofing element was a critical part of the story, keeping commuters dry and providing a wrapped shelter effect with a clean, penetration free roof structure. This was a significant consideration as the surrounding suburbs grow into higher density residential areas with increasing commuter number.

Results

The results of the team effort was that the Public Transport Authority delivered a streamlined, integrated series of train stations which reflect the modern nature of the Perth community, provide a safe and easily maintained public facility that will serve the state for decades to come.

Benefits

Metroll supported the design team by providing direct access to technical and design support, allowing a smooth process whilst accommodating queries and RFI's.

The construction team incorporated the quality Metroll roof and façade products, waterproofing elements, and secondary structural members, all from one manufacturing site which assisted efficiencies. A close eye on detail, timely delivery and service helped achieve required outcomes in the specified timeframes, which on occasions meant provision for after-hours manufacture and delivery of key materials to busy and space poor sites.

Architect: Hassell
Client: Public Transport Authority of Western Australia (METRONET)
Builders: Built Australia, Broad Construction
Photography: Supplied by Metroll



Integrated design creates a welcoming commuter experience

Swinburne Senior Secondary College, Hawthorn, VIC

moddex
BETTER BY DESIGN™

Swinburne Senior Secondary College's sports centre at Fritsch Holzer Stadium brings together competition-grade courts, ground-floor amenities and a viewing deck overlooking the upgraded AFL oval. Designed by N2SH Design Studio, the project required circulation routes that would be safe, compliant and durable.



Compliant ramp system installed with Conectabal CB35, Assistrail AR20 and Ezibilt EB120

Moddex was specified, ensuring accessibility, compliance and constructability were considered from the outset. This early involvement enabled closer alignment between design intent and delivery, reducing project risk and eliminating the need for redesign or compromise later in the build.

Requirements

Site investigations revealed that ground conditions were not suitable for deep footings, yet the design called for three stairways and ramp systems rising up to four metres. At the same time, the construction program was tight, placing pressure on the delivery team to find a solution that could meet compliance requirements while maintaining programme certainty.

Led by contractor SJ Higgins, the team needed fully certified barrier and access systems that could be installed efficiently without relying on heavy plant or extensive on-site fabrication. Traditional approaches would have introduced additional structural complexity, longer curing times and increased disruption on site.

Approach

Working closely with SJ Higgins, Moddex delivered over 470 lineal metres of handrails to support 170 square metres of access ramps and stairways, all tailored to suit the project's specific requirements.

Rather than adopting conventional ramp and stair construction methods, which would have required deep footings and extended construction timeframes, Moddex supplied the Ezibilt™ system. This prefabricated, pre-engineered solution provided a more efficient pathway, with modules delivered pre-configured in site-specific assemblies and mounted directly onto in situ concrete slabs before being raised into place.



Conectabal CB30 used for compliant stair access

To complete the system, the ramps were paired with Assistrail Disability Handrails and Conectabal Commercial Balustrades, both engineered specifically for public environments where safety, durability and compliance are critical.



Conectabal CB10 used to provide compliant edge protection

Each system was pre-certified to relevant safety load requirements, with full Regulation 126 documentation provided upfront. This removed uncertainty around compliance and allowed both the architect and builder to proceed with confidence, knowing the solution would meet performance requirements before installation even began.

Results

By being specified early and delivering a prefabricated, project-specific solution, Moddex helped resolve complex site constraints without compromising the architectural vision.

The result is a fully compliant and accessible circulation network that integrates seamlessly into the facility, supports safe movement for all users and was delivered with greater efficiency and reduced disruption. It demonstrates how early specification and smarter system design can simplify construction while maintaining performance, safety and design intent.

Architect: N2SH Design Studio
Contractor: SJ Higgins
Photographer: Nick Addison Photography Pty Ltd

Charles Darwin University Health Precinct, Casuarina, NT

The Charles Darwin University (CDU) Health Precinct at the Casuarina campus represents a major investment in healthcare education in the Northern Territory. Designed to support the development of future healthcare professionals, the facility balances advanced functional requirements with the demands of a tropical environment.



SUNPAL 18mm Multiwall system for reliable performance through heavy rainfall

Palram was proud to contribute to this landmark project through the specification of the SUNPAL® 18mm Multiwall Polycarbonate system, installed in White Opal Diffuser Plus. The solution delivers an optimal combination of durability, regulatory compliance, and high-quality natural daylighting key attributes for contemporary educational spaces.

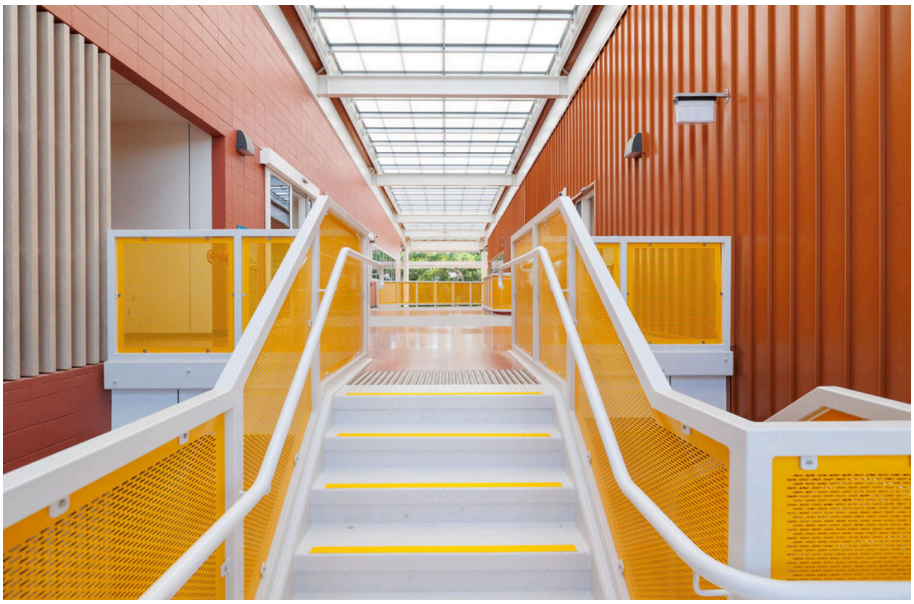
Requirements

Darwin's tropical climate presented significant design challenges. The roofing system was required to perform reliably under extreme wet-season rainfall and withstand cyclonic conditions typical of the region. This included compliance with Cyclonic Region standards and resistance to wind loads of up to 3.0kPa.

In addition to environmental performance, strict compliance with fire standards specifically AS1530.3 and AS5637.1 was essential. The design also required long-span coverage using extended sheet lengths, alongside full structural certification to ensure performance and safety.

Approach

Palram's SUNPAL® 18mm system was selected for its proven performance in demanding environments and its suitability for compliant architectural applications. The White Opal Diffuser Plus panels provide soft, evenly distributed daylight while reducing glare, contributing to a comfortable and productive internal environment.



SUNPAL 18mm Diffuser+ White Opal's high-quality daylight supporting modern educational spaces

Installation was carried out using Palram's Cyclonic T-Bracket system, engineered specifically for high-wind regions. Continuous sheet lengths of up to 10.5 metres were supplied to minimise joins, enhancing waterproofing performance. Aluminium joiners were incorporated to ensure structural integrity while delivering a clean, refined finish.



Engineered to perform in Darwin's cyclonic conditions

Results

The completed installation delivers a robust, high-performance roofing solution capable of withstanding one of Australia's most challenging climates. The system achieves reliable resistance to cyclonic wind loads and heavy rainfall, while fully meeting required fire performance standards.

Beyond structural performance, the integration of diffused polycarbonate panels enhances the internal environment through consistent, natural daylight supporting the building's role as a modern, high-quality educational facility.

This project highlights the value of a fully integrated system approach, combining engineered components, certified performance, and effective collaboration between stakeholders to achieve a resilient and future-ready outcome.

Builder: SHAPE Australia Pty
Installer/Roofing Contractor: Skyside Roofing
Concept Design: Ashford Lamaya/ ARCH
Final Design: Haymes Sharley/Studio BE
Photography: Supplied by SHAPE Australia Pty

AIBS
Australian Institute of Building Surveyors



"The Australian Institute of Building Surveyors (AIBS) is proud to support NATSPEC on their work to update and publish their National Building Specification.

The value of the confidence derived when a project has utilised a National Building Specification published by NATSPEC cannot be understated. In the ever dynamic environment of product uncertainty and complexity of design, it is essential to have a clear and thorough approach to specification of buildings. With a NATSPEC specification, building surveyors operating in statutory roles throughout Australia are better able to deliver on their responsibilities to the public and their clients.

AIBS continues to fully support the National Building Specification from NATSPEC."

Wayne Liddy, President & Director, AIBS

RAVEN
Door & Window Sealing Systems

Established in 1950, Raven Products is an Australian family owned and operated company producing a range of acoustic, fire, smoke, weather and energy sealing systems. Raven Products is a member of the Raven Group of companies worldwide.

Raven's door and window sealing systems have become synonymous with quality, value and reliability backed by service excellence, which is why it is the brand that architects, specifiers and builders can rely on. **www.raven.com.au**

REGUPOL

REGUPOL Australia Pty. Ltd. is the Australasian office and distribution network for the REGUPOL sonus acoustic underlays and REGUPOL everroll sustainable flooring product brands. The company has been operating in the region for over 35 years, offering solution-based products and technical services for all kinds of sustainable flooring and soundproofing solution-based projects. The company is conveniently located at Smeaton Grange, NSW and offers the nationwide distribution of REGUPOL sonus and REGUPOL everroll product lines. **www.regupol.com.au**

Resene
the paint the professionals use

Known for excellence and quality for over 75 years, Resene meets the high standards of architectural and building industry professionals. Resene manufactures paint and specialist coatings for residential, commercial, and industrial use. Resene's sophisticated tinting technology enables durable colour options, available in a wide variety of products, to remain true to colour long after application. **www.resene.com.au**

SOLATUBE

Solatube Daylighting Systems bring natural daylight into commercial buildings, schools and homes to create pleasant, well-illuminated and eco-friendly indoor environments. Using patented technology, Solatube Daylighting Systems maximise light capture through optical domes on the roof, efficiently transfer it through highly reflective tubing, then diffusing natural daylight into indoor spaces where it was once thought impossible.

It is a proven fact that you think, feel and work better under natural light. **www.solatube.com.au**

NATSPEC ProductPartner

R+M Family Law Office Refurbishment, Canberra, ACT

Located in Canberra, the recently upgraded R+M Family Law office is the pinnacle of clean, function driven design, balancing minimalist aesthetics with professionalism. Designed by The Design Agency and built by Projex Building Group, the refurbishment provides common areas and conference rooms, fostering a connected and harmonious workplace for employees, clients, and visitors.

The primary goal of the renovation was to create an inclusive, warm and inviting space, perfect for collaboration. Each solution was specifically chosen and influenced by the requirement of avoiding a reduction in productivity while meeting the required goals.

Raven products were specified through our distributor in the region to deliver a product that would conceal noise, without interfering with the surrounding fixtures of the project.



RP10Asi Hidden in-situ

Requirements

A key challenge within the project was the integration of compliant door sealing systems without compromising the design intent. Balancing strict code requirements for acoustic performance with the refined aesthetics of custom doors, required careful detailing and coordination. A discreet, high-performance sealing solution was selected and integrated to meet all regulatory standards while preserving the clean lines and integrity of the interior.

Large windows, allowing for abundant natural light, are a defining feature of the building. This informed the use of a light-toned, clean interior palette to enhance brightness and create a welcoming environment. The design incorporates custom timber doors, bold terracotta and navy tones, and smooth, curved interior architecture, all of which work together to capture the warmth and professionalism of the firm, so the solution needed to be customisable in a way to compliment these features.

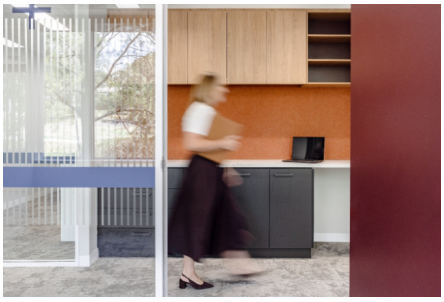


Product blending seamlessly into the architecture

Approach

The new RP10ASi perimeter door sealing solution was decided on, and was colour matched to smoothly blend in with the surrounding fixtures. Built to aid with noise travel between rooms, the RP10ASi was the perfect product for this project.

The RP10ASi can be mitred or butt-jointed for a seamless finish and features large concealed fixing slots for precise adjustment. It also includes a tamper-resistant aluminium cover strip, which can be powder-coated either before or after installation for added convenience.



Product hidden in plain sight

Results

Competed in March 2025, the R+M Family Law office is now a thoughtfully designed space for lawyers and clients to collaborate in comfortable spaces. The building includes high rated acoustic systems while keeping the space delicate and inviting.

Raven's RP10ASi sealing system supports a calm and private environment that defines the character of this facility. For both clients and lawyers, the space feels secure, tranquil, and carefully designed.

Benefits

The RP10ASi is an acoustic product which works to reduce noise transferring between spaces, which is key when working in a shared office where collaboration is essential. By reducing noise transfer between offices, clients and lawyers are able to productively plan cases in a quiet, undisturbed, and private environment. The ability to powdercoat and customise the seals allows the systems to blend in with the interior, cohesively matching any space installed.

Architect: The Design Agency
Client: R+M Family Law
Builder: Projex Building Group
Photography: Kasey Funnell

Chromatic Oscillation, Laverton, VIC

Part of ESR Group, ESR Australia and New Zealand initiated a "Creative Communities" strategy, emphasising the transformative power of art in industrial spaces.

Working in conjunction with local artists across its Australian locations, the company commissioned a series of murals to be installed at its properties, with the goal being 'to elevate workplace environments, foster community connections, and allow users to thrive'.

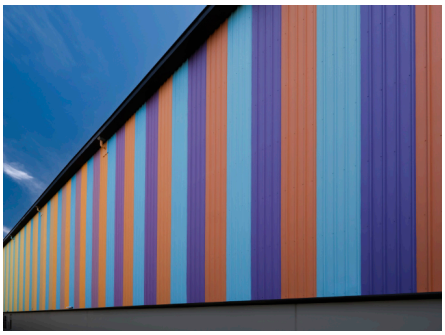


Resene Lumbersider Low Sheen was specified for the project in part because it has been formulated to ensure maximum durability in all exposed conditions

Requirement

For its Laverton, VIC property, ESR Australia and New Zealand engaged Melbourne street artist, Drez, to design a 2000sqm mural to be painted onto the building's Princes Freeway-facing façade.

Several requirements needed to be met for the final artwork including durability, ease of maintenance and vibrancy. To satisfy these, the following Resene systems were specified – Resene Pre-Coated Steel Primer, Resene Lumbersider Low Sheen waterborne acrylic, and Resene Uracryl GraffitiShield.



Resene's exclusive Total Colour System technology ensures richer, longer-lasting colours across a range of substrates

Approach

Starting with a base of 28 Resene swatches, a range of assorted colours were hand mixed by the Studio Drez team to create about 300 variants in total, from which Drez created a combination of complementary and contrasting colours that together produced a striking visual effect.

Working in bold, vertical stripes of alternating colours, Drez transformed the building's façade into a vibrant, dynamic spectacle. The resulting artwork mimics the rhythmic flow of passing vehicles, engaging passersby in a visual dance of energy and movement.

Results

The mural is a celebration of diversity, perspective and interconnected paths, embodying Drez' mission to create inclusive and accessible public art, as well as successfully fulfilling the client's brief.

Titled Chromatic Oscillation, the 216m x 14m mural is a symphony of colour, and a work Drez considers to be his flagship project.

"It was a memorable project for me because it is so large, but also because of its location. It's right on the side of a motorway and gets passed by more than 100,000 cars each day so it was designed to respond to that movement."

Benefits

"I love Resene for the depth of colour, vibrancy, glossiness, coverage and longevity their paints offer," says Drez. "The pigment load of the colour is so crucial in my work and being able to get rich colours at full opacity in just two coats is a huge advantage.

"The quality of Resene colours is key, too. The fact that there are so many different bases means that you can get those clean, pure colours – and that kind of purity in colour is crucial in getting the kind of richness and depth I'm after on the wall."

Another benefit to using Lumbersider Low Sheen is the system's fast drying (45 minutes at 18 C) and recoat (two hours) times, allowing for efficient application.

Drez explains: "If you're just painting a wall in one solid hue, it isn't as a big deal to have to do another coat. But if you're working on a mural that has fifteen or more colours and having to do a third, fourth or fifth coat, it's a pain to have to wait for each one to dry before moving on."

Client: ESR Australia
Photography: Studio Drez



A testament to the vision of Drez and ESR Australia and New Zealand, the full effect of Chromatic Oscillation is one of energy and movement

Acacia Ridge Campus, Brisbane, QLD

SOLATUBE

The Acacia Ridge campus of TAFE Queensland is a purpose-built training facility designed to replicate real-world residential and commercial construction environments. Students undertake practical training across a wide range of trades including painting and decorating, plastering, glass and glazing, tiling, flooring, and roofing. In these disciplines, lighting quality is critical, influencing everything from colour accuracy and surface finishes to detailed measuring and material inspections.

As part of a broader roof refurbishment initiative, the campus sought to significantly improve natural lighting within its workshops and training spaces to better support both students and educators.

Requirements

The design team established a target of maintaining an average illuminance level of 600 lux across the working plane. This benchmark supports the medium-to-fine detail tasks students perform daily, including cutting, fabrication, assembly, and finishing work. Achieving consistent, high-quality light was essential for both safety and skill development.

In addition to visibility requirements, the project aimed to create a healthier and more productive learning environment. Exposure to natural daylight assists in regulating circadian rhythms, which can improve alertness, concentration, and overall cognitive performance — key factors in hands-on vocational training. Energy performance was also a priority.

The new daylighting approach needed to integrate with the existing artificial lighting system via daylight sensors, allowing electric lighting to dim or switch off when sufficient daylight was available. This would reduce operational energy use while maintaining consistent lighting conditions.

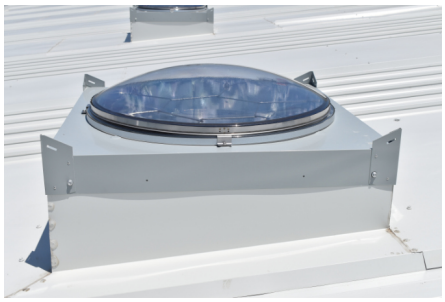


Acacia Ridge Tafe Internal Building

Approach

Following detailed modelling and performance analysis, Solatube SkyVault M74 units were selected. The system demonstrated its ability to deliver high internal light levels while minimising solar heat gain — an important consideration in large workshop environments where thermal comfort directly affects learning conditions. Independent performance data and as-built verification gave the project team confidence the required illumination levels would be achieved.

A total of 312 Solatube SkyVault M74 units were installed across the campus. Each unit featured a double-dome configuration and security guards, ensuring durability and suitability for the scale and function of the facility.



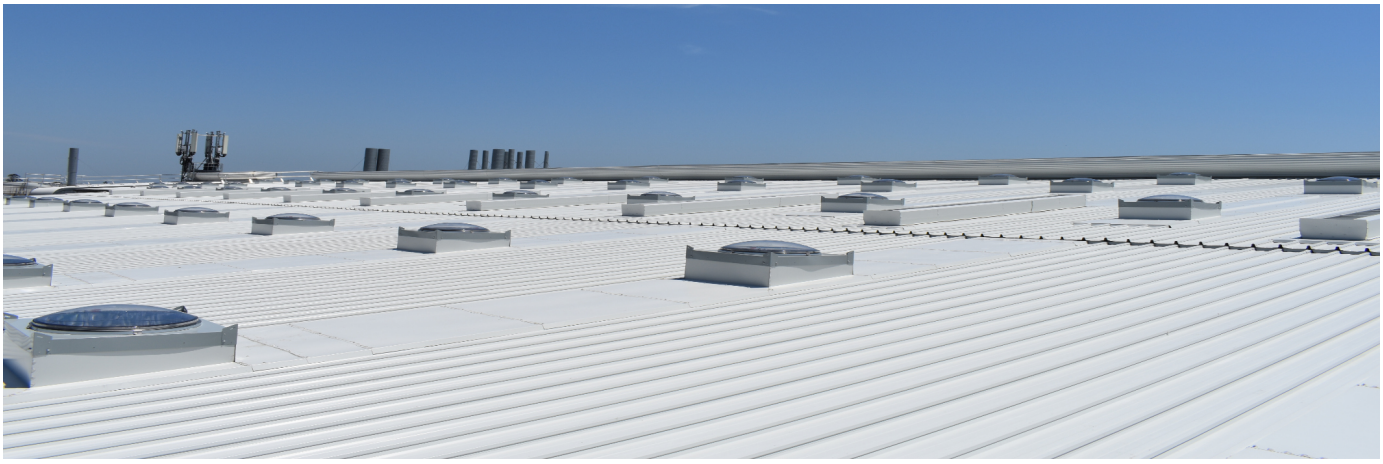
M74 SkyVault Skylight

Results

Post-installation light measurements confirmed the system exceeded performance expectations. Workshops and training areas now benefit from bright, evenly distributed natural light, creating indoor spaces that feel open and closely aligned with real job-site conditions. The integration with daylight sensors has also contributed to reduced reliance on artificial lighting, supporting ongoing energy savings.

Beyond energy performance, the improved daylighting has enhanced the overall learning environment, supporting student wellbeing and providing the visual conditions necessary for high-quality trade training.

Architect/Consultant: GHD Woodhead, Brisbane
Builder: ICM Constructions
Daylighting/Solatube Installer: Brisbane Skylights
Client: Queensland Government – Department of Housing and Public Works (TAFE Queensland, Acacia Ridge Campus)
Photography: Brisbane Skylights



Acacia Ridge Tafe External Roof

SOPREMA is an international manufacturer specialising in the production of innovative products for waterproofing, insulation, soundproofing, and vegetated solutions in response to the specific challenges within the construction industry for the roofing, building envelope, underground and civil engineering sectors.

With over 100 years of expertise, SOPREMA has earned its place as a world leader of the waterproofing industry, and the availability of its technical team. **www.soprema.com.au**

At STRAMIT, we are dedicated to shaping the future of construction and building design with our unwavering commitment to innovation, quality and excellence. As a leading manufacturer, we provide innovative steel solutions, from roofing and walling solutions to flooring and structural components, that enhance customer value. Our advanced software applications, coupled with cutting-edge ingenuity and precision engineering, enable us to deliver exceptional Australian buildings. **www.stramit.com.au**

Stratco is one of the largest producers of building products in Australia with manufacturing facilities in every State and Territory.

Established in 1948 Stratco has been at the forefront of product development through Industry Engagement, Research & Development, Engineering, and Certified Testing.

Stratco Architectural Solutions will continue to offer quality service, innovative products, and push the boundaries of what is achievable in Commercial and Residential construction. **www.stratco.com.au**

Tactile Systems is a leading provider of high-quality products and services in the building industry and public sector. With a strong track record since 1999, they have established ourselves as a trusted name in the industry. Their commitment to delivering products that meet Australian Standards, the National Construction Code, and other relevant regulations ensures that their clients receive top-notch solutions and a one-stop solution for their project requirements. **www.tactilesystems.com.au**

Taubmans is a proud PPG Architectural coatings brand in Australia. Your local Taubmans team supports the industry with high quality performance paint and colour support for residential and commercial projects.

PPG works every day to develop and deliver the coatings that customers have trusted for more than 135 years. PPG makes coatings which support high specification requirements in the architectural space as well as high performance industries like automotive, aerospace, industrial, packaging and more. **www.taubmans.com.au**

Mascot Square Waterproofing Upgrade, NSW

When remedial works were initiated across four rooftop areas at a luxury apartment development in Mascot, the project required a waterproofing solution capable of delivering long-term protection in demanding rooftop conditions.



Premium Waterproofing Upgrade at a luxury apartment in Mascot

The SOPREMA Flagon membrane system was specified by SOPREMA Australia, in cooperation with our authorised distributor Bayset, to meet the technical and performance requirements of the project. Danrae Group was subsequently selected to deliver the works, having secured the project as a SOPREMA Platinum Warranty applicator, ensuring the highest installation standards and long-term performance assurance.

Requirements

SOPREMA'S waterproofing technologies are backed by more than a century of product innovation and engineering excellence. Recognised globally for exceptional resistance to harsh weather, UV exposure, and structural movement, SOPREMA'S membranes consistently deliver long lasting performance. Danrae Group regularly relies on SOPREMA products including various Flagon systems for residential, and commercial due to their outstanding durability and field tested results.



Final Installation

For the Mascot project, the Flagon system was selected due to its proven performance and suitability for demanding conditions. It offers high resistance to weathering and UV radiation, superior flexibility, and weldability to enable seamless installation in complex areas. It also provides enhanced long-term waterproofing protection that helps reduce building lifecycle maintenance costs.

These strengths make the Flagon membrane system an ideal solution for rooftop areas requiring robust, future proof waterproofing.

Approach

In Mascot, Danrae commenced full site setup including scaffolding and access preparation before installing the new Flagon membrane system across multiple roof sections. This upgrade ensures improved building resilience, enhanced protection against leak related damage, and greater confidence for owners and tenants alike.



Flagon Installation

Benefits

This project reinforces why construction, and remedial specialists continue choosing SOPREMA: performance, reliability, and proven results. With industry leading membrane technology and global manufacturing expertise, SOPREMA delivers solutions that go beyond compliance solutions designed to last.

By upgrading to SOPREMA'S Flagon membrane system, this luxury apartment in Mascot now benefits from a premium waterproofing solution engineered for today's challenges and tomorrow's peace of mind.

Installation: Danrae
Distributor: Bayset
Photography: Supplied by Soprema

St Paul's Innovation Precinct, Bald Hills, QLD

The St Paul's Innovation Precinct in Bald Hills, Queensland, stands as a bold statement in educational design; an inspiring hub that redefines how students learn, collaborate and create. Completed in early 2023, this state-of-the-art facility is now a cornerstone of St Paul's School, delivering a future-focused environment for Pre-Prep to Year 12 students and supporting contemporary teaching methods.



Aerial view of St Paul's School 'Innovation Precinct'

Designed as a singular learning ecosystem, the precinct brings together spacious indoor and outdoor zones that seamlessly support research, presentation and project-based learning. This fluid design minimises disruption and fosters creativity, enabling students to transition effortlessly between tasks while supporting a wide range of learning styles.

The precinct is more than just classrooms – it's a vibrant community space designed to bring students and staff together. Features include Sippers Cafe and hospitality areas for social interaction and real-world learning, a dedicated secondary school library and study zones for focused research, ICT classrooms equipped for digital innovation and emerging technologies and an expanded presentation centre for showcasing ideas, collaboration and achievement.

Requirement

Ken King, Stramit's Technical Specification Manager for the Project at the time, reflected on the partnership:

"This was about creating spaces that inspire. Working closely with Towill Design Group and St Paul's, we delivered a precinct that embodies progressive education and showcases the versatility of Stramit's steel building solutions."

For Stramit, the collaboration was a natural fit. Innovation sits at the heart of everything we do – from advanced product development to supporting projects that challenge traditional design thinking. Partnering on a precinct dedicated to future-focused learning allowed us to demonstrate how steel solutions can enable architects and educators to push boundaries, delivering environments that are both functional and inspiring.



St Paul's 'Innovation Precinct': Sippers Cafe

Approach

The success of the Innovation Precinct was built on strong collaboration between St Paul's School, Towill Design Group and Stramit. Guided by the school's Realms of Thinking philosophy, the project team worked together to create spaces that encourage curiosity, creativity and critical thinking, while remaining highly practical.

By combining Stramit's engineering expertise with Towill Design Group's architectural vision and St Paul's commitment to educational excellence, the project sets a new benchmark for learning environments in Australia.



St Paul's School 'Innovation Precinct'

Benefits

Stramit's Australian-made steel building products played a pivotal role in bringing the precinct to life, delivering structural integrity, durability and design flexibility. The project incorporated Stramit Corrugated and Longspan® roofing, Monoclad® wall cladding and Quad Gutter, all in COLORBOND® steel Monument® and Shale Grey™.

Stramit Premier 300® in UniCote® LUX Maple was also specified to introduce a premium timber-look finish, adding warmth and texture to the architectural expression while maintaining performance.

Results

Now fully operational, the St Paul's Innovation Precinct is more than a building – it's a catalyst for learning transformation and a powerful example of what's possible when education, design and material innovation converge.

Architect: Towill Design Group
Photographer: Jason Smith

Yitpi Yartapuultiku, Adelaide, SA

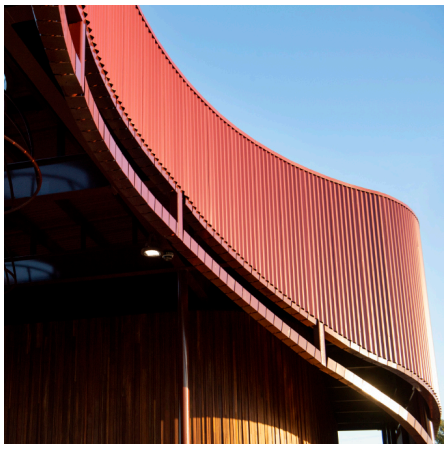
Yitpi Yartapuultiku in South Australia's Port Adelaide was founded on a place-based co-design model that placed Traditional Custodians at the centre of the design process. The project was shaped with Custodians rather than for them, embedding cultural knowledge, stories and values directly into the built form.

The engagement process informed the architecture; learnings were distilled into a contemporary and restrained form, where cultural references are intentionally subtle. Visitors are encouraged to explore their curiosity and engage directly with Custodians, who are able to share the deeper meaning of place.

Requirements

The building is organised around a strong central axis, running through the bookends of the form and the connecting central space. This axis aligns with key cultural sites beyond the project boundary, reinforcing connections to Country and situating the building within a broader cultural landscape.

The project site was contaminated, requiring remediation. Custodians were clear in their desire to address the issue on site rather than transferring the problem elsewhere. In response, the design and construction team worked to remediate and cap the site while simultaneously creating a living shoreline. This required significant excavation and careful coordination, but was ultimately guided by the Custodians' commitment to healing Country.



Maximus 33 Curved in Plan with custom flashings and details

Approach

Materiality was critical to the project's success. Materials needed to be familiar and approachable to Custodians, sit comfortably within the landscape, and perform in a marine environment. For Ashley Halliday Architects, Stratco's Maximus® 33 was integral to achieving this outcome. Selected for its deep 33mm rib height, it offers the recognisable language of corrugated cladding at a scale appropriate to the building. The profile adds texture, shadow and depth to the façade, enhancing both performance and visual interest.

Colour selection emerged through the co-design process. Hunter Red®, from the COLORBOND® Studio range, was chosen for its connection to local ochre pits and its layered cultural significance, including links to ceremony and storytelling. As with the building form, colour is used with restraint, embedding meaning without literal expression.

The design team utilised NATSPEC throughout the specification stage. Direct collaboration with Stratco was critical to balancing custom COLORBOND® Studio colour, double-sided coil requirements, marine performance and the curved nature of the building. Custom flashing details were developed to ensure the building's soft curves were carried through to execution on site.



Cultural centre featuring riche ochre red on traditional Kaurna land

Benefits

Yitpi Yartapuultiku demonstrates how genuine co-design and early collaboration with suppliers can deliver culturally embedded architecture that is contemporary, durable and deeply connected to place. The project balances environmental responsibility, material performance and cultural integrity, resulting in a 6 Star Green Star building that supports learning, storytelling and long-term connection to Country.

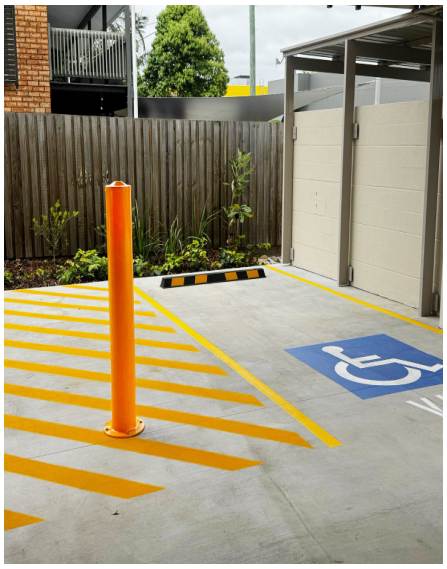
Architect: Ashley Halliday Architects
Builder: Sarah Constructions
Roofing Contractor: Cladding and Roofing Contractors
Photography: Iain Bond Photography



Large corrugation Maximus 33 providing a sense of scale to an undulating facade

Broadmeadows Social Housing Development, Maroochydore, QLD

The Broadmeadows Social Housing Development in Maroochydore was delivered by Murphy Builders (Qld) Pty Ltd for the Kabi Kabi Aboriginal Corporation and Coast2Bay Housing Group in partnership with the Queensland Government. The $10.8 million project provides 18 one- and two-bedroom residential units designed to deliver safe, secure and culturally appropriate housing for Aboriginal and Torres Strait Islander peoples on the Sunshine Coast.



Line Marking & Car Park Fixtures

Tactile Systems was engaged to supply and install all access-compliance and car park safety elements, including tactile ground surface indicators, stair nosing, line marking and associated safety fixtures to meet Australian accessibility and safety standards.

Requirement

The objective was to deliver a durable and compliant access solution that enhanced safe navigation, mobility and parking throughout the site, including stairwells, entry points and the external car park.

Works were completed within a tight eight-day construction window alongside other trades. Key challenges included managing site access, achieving accurate alignment and luminance contrast for tactile and stair-nosing installations, and maintaining clean surfaces for line marking and fixture placement.



Hoop Bike Rack

Compliance and Standards

All works were completed in accordance with the following Australian Standards:

- AS/NZS 1428.4.1:2009 – Design for Access and Mobility: Tactile Ground Surface Indicators
- AS 4586:2013 – Slip Resistance Classification of New Pedestrian Surface Materials
- AS 1428.1:2021 – Design for Access and Mobility: General Requirements for Access (stair nosing and luminance contrast)
- AS/NZS 2890.1:2004 – Off-Street Parking (wheel stops, bollards and bike racks)
- AS 1742.2:2024 – Manual of Uniform Traffic Control Devices (line marking layouts and visibility)

Products installed included stainless steel discrete tactile indicators with carb infill, Classic Series stair nosing with yellow tape insert, premium wheel stops, galvanised hoop-style bike racks, surface-mounted bollards, a yellow vehicle height bar and high-visibility line marking using Dulux Road Master paint.

Approach

Tactile indicators were installed using specialised drilling equipment to create 8mm holes for pressure-fit installation. Stair nosing was fixed with concealed hammer anchors beneath the P5 slip-rated insert. Wheel stops, bollards and bike racks were secured with ETA-approved concrete screws, and line marking was applied using professional-grade equipment for high-visibility, durable results.

All works were completed in accordance with Tactile Systems' Safe Work Method Statements (SWMS). Personnel followed procedures for dust control, manual handling and coordination with other trades, with appropriate personal protective equipment used throughout the project.



Yellow Carb Insert - TGSI & Stair Nosing

Results

The project was delivered on schedule and to a high standard of workmanship. All installations met compliance requirements while enhancing the accessibility and presentation of the development. The completed site now provides safe, inclusive access for residents and visitors, supporting the broader goal of culturally appropriate social housing for the local community.

Architect: Hollindale Mainwaring Architecture
Builder & Client: Murphy Builders (Qld) Pty Ltd
End Client & Developer: Kabi Kabi Aboriginal Corporation and Coast2Bay Housing Group
Photographer: images supplied by Tactile Systems

The Horizon, Darlinghurst, NSW

Located in Darlinghurst, Sydney, The Horizon is a 45-storey residential tower constructed in 1998. An award-winning design by architect Harry Seidler, the building contains 250 apartments and offers picturesque views of the Sydney Harbour Bridge and Opera House. The exterior recently underwent a major repaint using premium PPG Taubmans products, including Armawall Primer, Armawall Satin, All Weather, and other specialty architectural coatings.



Abseil applied Taubmans Armawall coatings addressing complex façade access and long-term performance

Requirement

This project involved repainting and remediating the building's exterior to deliver a coating system that ensures extensive longevity and durability.

The architecturally complex 45-storey building required a strategic approach by the applicator, skilfully combining abseil and swing stage platforms to access all areas safely.

Minimising disruption to owners and tenants while maintaining strict safety standards was a critical challenge for both building management and the applicator.

Additionally, the engineer needed to specify a product system that guaranteed both aesthetic appeal and long-term performance, supported by a comprehensive warranty to facilitate future maintenance planning and provide peace of mind.

Approach

Taubmans closely collaborated with key stakeholders and developed a comprehensive Taubmans coating specification. This solution incorporated a combination of Taubmans premium exterior products, including the Taubmans Armawall Texture Coating system to enhance durability while delivering high weather resistance and dirt shedding properties.



Completed exterior repaint using Taubmans Armawall system and Taubmans All Weather

The coating system started with Armawall Primer, a water-based acrylic primer/sealer specially modified to maximise adhesion and penetration as a primer, and alkali resistance as a sealer.

This was followed by Armawall Satin, a tough acrylic membrane with high weather and moisture resistance. It offers long-term durability with excellent dirt shedding and strong crack bridging properties and is approved to APAS 0117/2 for long life masonry coatings.

Taubmans All Weather was also specified in appropriate areas, delivering superior protection against the harshest weather conditions and a durable UV barrier to prevent sun damage, supported by a lifetime paint guarantee for the homeowner.

The Taubmans Specification Services team were also able to offer a comprehensive extended warranty based on the combination of products and ongoing maintenance schedule, supported by the professional application and project management of both the contractor and Engineer to specification requirements.

Results

The comprehensive repaint and remediation enhanced The Horizons' exterior with a protected and highly durable finish. The project delivered on its core objective, ensuring long-term performance on a complex façade, while minimising disruption to residents throughout the process.

The successful execution was recognised with multiple industry awards, acknowledging excellence in project management, customer service and technical application. With a fully specified coating system and an extended maintenance pathway in place, the building is now positioned for lasting durability and reliable performance against Sydney's environmental conditions.

SAP Group Australia won multiple category awards for this project at the 2024 NSW Master Painters Awards including: Customer Service, Project of the Year, The Masters Award, Iconic Building and structures project of the year, Difficult Access Residential (Multi-Unit), Residential (Multi-Unit) Repaint over $100,000 NSW Metro and Texture Coating Finished.

Building Management Company: T&M Management Services
Engineering Consultant: Macquarie Building Consultants
Applicator: SAP Group Australia (Won multiple category awards for this project at the 2024 NSW Master Painters Awards)
Photography: Supplied by Taubmans



"Standards Australia is steadfast in its commitment to advancing safety and quality within Australia's building and construction sector. We are proud to serve as a partner with NATSPEC in this shared commitment."

Rod Balding, Chief Executive Officer, Standards Australia

For 30 years, the TERMIMESH SYSTEM has come with unreserved guarantees for product efficacy in construction projects. TERMIMESH protects buildings as well as the reputations of architects and builders. TERMIMESH were the first to issue a warranty of substance covering workmanship, materials and consequential termite damage and continue doing so.

Only the TERMIMESH Pledge Guarantee delivers the first 10 years of protection without compulsory annual termite inspections and with the opportunity for indefinite ongoing extensions. **www.termihc.com.au/termimesh/**

TermShield are Australian termite specialists with extensive experience in installing physical termite management systems for residential, commercial and industrial buildings. As an Australian owned and operated company, we pride ourselves on providing a friendly, personalised and professional service for all our clients. Our expert team is trained and skilled in stainless steel physical termite management systems. TermShield is CodeMark certified and is backed by TermShield's industry first 60 Year $1,000,000 Diamond Warranty. **https://termshield.com.au/**

Weepa Products is an Australian family company specialising in innovative patented products for weepholes in cavity brick walls. Their goal is to make it simple and to create beautiful, functional and compliant weepholes with features that help exclude both pests and burning embers from bushfires. Their products assist with compliance to NCC (2022) including requirements described in the ABCB Housing Provisions, AS 3700 (2018), AS 3959 (2018) and the AS 4773 series where required. **www.weepa.com.au**

Acute Services Building, Bedford Park, SA

TERMI MESH
ORIGINAL TERMITE BARRIER

The new Acute Services Building at Flinders Medical Centre is part of SA Health's multi-year Southern Redevelopment – Stage 1 program, delivering additional medical facilities to hospitals across the southern suburbs of Adelaide. Scheduled for completion in 2028, the seven-storey facility will provide the health campus with an additional 98 clinical spaces, expanding the hospital's capacity to deliver specialist care.



TMA725 stainless steel termite barrier mesh perimeter installation prior to a slab pour

Requirement

As mandated, protection from concealed termite entry was required on the project to ensure compliance with the Australian Standard for Termite Management (AS 3660.1) and provisions outlined for termite risk management in the National Construction Code.

Our industry leading Pledge Guarantee warranty, which complements every Termimesh System installation, was the key feature that secured the system's inclusion within the project. The termite management specification stipulated warranty terms must provide unlimited value and a minimum coverage period of ten years for both materials and workmanship, making Termimesh the only meaningful choice.

Termimesh's inclusion in this project marks the third occasion on which the system has been specified and installed within the ongoing redevelopment works of the health campus, with the system also being installed in the nearby Health and Medical Research Building constructed for Flinders University.

Approach

Working closely with the Built Environs team, supplied architectural plans were precisely marked up to identify all areas requiring protection from concealed termite entry, with an accurate assessment of the quantity surveying requirements of Termimesh, Termiflanges and Termiparge being provided by our estimating team.

Early engagement and ongoing communication with the Built Environs team throughout the tender and delivery phases supported the successful execution of the works and strengthened the rapport between both parties throughout the project.

In total, certified Termimesh technicians installed over 800 lineal metres of TMA725 stainless steel termite barrier mesh to all perimeters, cold joints and construction joints. To prevent termite ingress through expansion gaps arising from singular and clustered electrical and hydraulic penetrations, 335 Termiflange termite mesh collars were cut, secured and embedded across the concrete ground slab.

The creation of several blockouts following the removal of the tower crane bases across the site raised concerns for Built Environs, in that these areas may be overlooked for termite management. Prior to backfilling, the Termimesh System was installed in these areas to ensure continuity across the project.

Results

Installation of the Termimesh System in the new Acute Services Building will provide the structure with protection against concealed termite entry for its entire practical life, while eliminating the ongoing need for poisonous and hazardous chemical applications to maintain protection.



A Termiflange installed around a typical penetration before a slab pour

These poison-free attributes, coupled with the unique warranty terms of the Pledge Guarantee, make the Termimesh System the preferred termite barrier for specification and installation in hospitals, schools and other government infrastructure projects across Australia, where long-term asset performance and risk minimisation are critical.

Architect: Silver Thomas Hanley and ARM Architecture
Builder: Built Environs
Photography: ARM Architecture and Termi Home & Commercial Adelaide



Termimesh installed along the perimeter of formwork prior to the removal of a tower crane base

Griffith University, Brisbane, QLD

The new Environmental Laboratories Building (N81), also known as the Technical Annex, is a state of the art facility located on Griffith University's Brisbane South campus. Completed in mid-2025, the building was designed by Wilson Architects and constructed by BADGE Constructions under a $31.1 million design and construct contract. It hosts integrated research and teaching spaces, including rooftop greenhouses and specialised environmental laboratories. The building embodies modern sustainability principles including energy efficient infrastructure, passive design elements, and a commitment to reducing environmental impact.



Cold Joint 1

Requirement

Griffith University sought a termite-protection solution aligned with its sustainability goals and its commitment to minimising chemical use on campus. The challenge was to implement a termite barrier that complied with AS 3660.1 standards while eliminating the use of chemical pesticides. The client required a durable, low-maintenance, non-toxic solution that would safeguard the building's integrity and the surrounding environment, which is situated within the Toohey Forest conservation area.

Approach

To meet these needs, the project incorporated a TermShield stainless steel mesh termite barrier system. This pesticide-free barrier, manufactured from marine-grade 316 stainless steel, was installed around slab edges, wall cavities, and penetrations during the early stages of construction as mandated by Griffith University's design guidelines. The stainless steel mesh acts as a physical deterrent blocking termite entry without the environmental and health risks associated with chemical treatments.

Results

The installation of the TermShield barrier provided a reliable, long-lasting termite protection solution that required no ongoing chemical applications or frequent maintenance. The barrier's corrosion resistance and durability ensure protection for the life of the building, backed by warranties extending up to 60 years. By avoiding chemical termiticides, the project also minimised potential toxic exposure risks to building occupants, local wildlife, and soil ecosystems.

Benefits

Griffith University benefited from a termite protection system that aligns strongly with its environmental sustainability strategy. The non-toxic stainless steel barrier supports the university's broader goals of net zero emissions and ecological preservation.



Perimeter Cold Joint

The long lifecycle and recyclability of stainless steel mesh contribute to waste reduction and a circular economy approach, further enhancing the building's green credentials. From a practical standpoint, the system reduces lifecycle costs through minimal maintenance and eliminates the need for costly chemical re-treatments. Overall, the TermShield termite barrier underscored Griffith University's leadership in sustainable construction and responsible pest management.

Design: Wilson Architects
Builder: Badge Constructions
Photographs: TermiProtect, Twin Waters QLD



Penetrations

SPECIFYING QUALITY

INTRODUCTION

Communicating the requirements for quality is the main technical function of the specification. This TECHnote outlines how the NATSPEC specification system may be used to promote quality in construction projects.

DEFINING QUALITY

Quality must be clearly defined as it has different meanings for different people in different situations. In construction this problem is amplified because the responsibility for a project is divided amongst many people and organisations. Therefore, agreement on a defined quality level between all parties, and how it is to be measured, is key to achieving the desired quality sought by the principal.

QUALITY LEVEL

The desired level of quality of a project and its components is driven largely by anticipated life. However, other factors include:

- The purpose of the building - Prestige or utility, flexibility or permanence.
- Required functional performance - Design repetition or one-offs, environmental.
- User perception - Convenience, comfort, ease of maintenance and repair.

It would be a false economy to poorly construct something which must last for many years or over-design something which may only be required to last a short period of time.

WHEN CAN QUALITY BE ACHIEVED?

There is a common misconception that the quality of a project can be completely controlled during the construction stage. However, the level of quality that can be demanded during construction cannot be higher than that which is specified in the contract documentation, without additional cost.

The quality of a project is therefore dependent on adequate documentation and supervision. The contract documentation includes the conditions of contract, the specification, the drawings and the schedules.

To achieve the desired level of quality, weighed against time and cost, care must be taken with material selection, documentation, workmanship and supervision. Failure to take care may lead to poorer quality, increased costs, and require greater rework, repair and maintenance.

ROLE OF THE SPECIFICATION

The primary role of the specification is to precisely and succinctly define the quality required, and the processes necessary for achieving this. It includes defining clear acceptance criteria for any item of work.

Quality is assured, provided conformance to the specified acceptance criteria, matches the agreed defined quality level.

USING NATSPEC TO ACHIEVE QUALITY

The worksection *Templates* include the construction processes required for each item of work and define clear industry-standard acceptance criteria in the form of tolerances, performance requirements, testing and certification requirements. These can be modified as required, to suit the defined quality levels agreed for each project and its components.

In achieving quality, NATSPEC promotes the coordination of all contract documents. Guidance text discourages duplication of information included on the drawings or within the specification, to avoid potential discrepancies or ambiguity. Duplication of information within the specification is minimised by reference to relevant worksections.

NATSPEC references and monitors updates to relevant Australian and International standards, including those cited within the NCC. Where standards define alternative levels of service, NATSPEC provides prompts to be completed by the specifier. It is essential that the reference to standards is specific to the requirement, to achieve the desired quality.

NATSPEC and AUS-SPEC also cover the requirements for project Quality Management Systems based on AS/NZS ISO 9001 and the provision of project Quality Plans in the **Relevant worksections** listed in the sidebar.



Poor quality timber construction – Split base-plate used.



"….If the building contract documents permit a sow's ear then all the quality control in the world cannot demand a silk purse……"



Inspection to confirm quality level achieved.



Poor quality concrete – Honeycombing and timber.

Relevant worksections

0010 Quality requirements for design (AUS-SPEC).
0121 Tendering
0160 Quality.
0161 Quality management (Construction) (AUS-SPEC).
0162 Quality (Supply) (AUS-SPEC).
0163 Quality (Delivery) (AUS-SPEC).

Fish Lane Town Square, South Brisbane, QLD

Fish Lane Town Square in South Brisbane is a landmark urban renewal project that transformed a neglected 2,500 square metre car park into a vibrant community space. Developed by Aria Property Group and delivered under a Design & Construct model by SHAPE, the project features two new buildings, a public laneway lined with restaurants, and a Woolworths Metro. Designed by Richards & Spence, the Town Square now serves as a cultural and social hub beneath the South Brisbane railway, adjacent to heritage-listed buildings.

Requirement

Town Square's redevelopment required durable brick façades that could withstand Brisbane's subtropical climate. It also demanded compliance with ventilation and drainage standards and the discreet integration of functional elements to preserve architectural detailing. To meet these requirements, Standard Weepa weep hole formers were specified. Installed during construction, Weepas ensure proper ventilation and drainage within cavity walls, preventing moisture buildup and protecting structural integrity.

"On a project as complex and high-profile as Fish Lane Town Square, every detail mattered. The Standard Weepa products were chosen for their ability to deliver essential ventilation and drainage without compromising the clean brickwork aesthetic. Their reliability and discreet design made them the ideal solution for this award-winning project."

— Preston Springhall, Senior Project Manager, SHAPE Australia



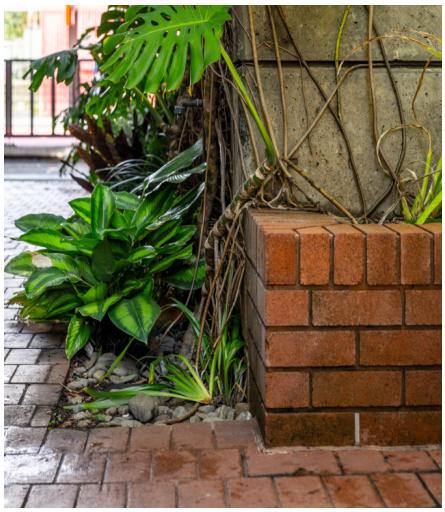
Entrance to the Town Square precinct

Approach

Brick work detailing was central to the architectural language, creating depth and texture while respecting the site's historical context. Richards & Spence utilized Bowral Bricks in Capitol Red for their sharp edges and rich clay tones, ensuring durability and aesthetic appeal. The integration of greenery and robust materials reflects a commitment to ecological integrity and urban resilience. The design by landscape architects, RPS, celebrates Brisbane's subtropical identity, reintroducing over 3,500 plants including ferns, fan palms, and native violets to evoke a Gondwanan Rainforest, which are the remaining rainforests in northeast New South Wales and south-east Queensland.



Brick facade layered with planting and Weepas at varied levels



Integrated brick retaining wall seating with Weepa drainage

Results

The result is a multi-award-winning precinct that exemplifies sustainable urban transformation. Fish Lane Town Square now accommodates bars, restaurants and public art, offering a dynamic space for community engagement. Behind the scenes, the inclusion of Standard Weepas meets the aesthetic requirements of this high-profile project while playing a critical role in ensuring this architectural achievement remains resilient in Brisbane's humid environment. The Standard Weepas play a pivotal role in safeguarding the health and longevity of the brick façade buildings they protect while keeping insects and other unwanted pests out. By combining visionary design with practical solutions like Weepas, the project demonstrates how attention to detail in construction can underpin the success of landmark developments.

Architect: Richards & Spence
Landscape Architect: RPS Group
Developer: Aria Property Group
Design & Construct Lead: SHAPE
Photography: Leah Bawden

NATSPEC'S USE OF STANDARDS

QUALITY AND STANDARDS

'. . . the level of quality that can be policed in the construction stage cannot be higher than that which is spelt out in the contract. If the building contract documents permit a sow's ear, then all the quality control in the world cannot demand a silk purse . . . True quality control starts with the documentation for a project and in the project specification in particular . . .'

'. . . for many years an army of experts has been producing minimum quality standard specifications for reference in a variety of industries, including the building industry, and in regulations relevant to those industries.'

'Nothing could be more necessary, more logical, more timely or more useful in today's building industry or more responsive to the call for quality control than a specification system tied to relevant Australian standards. That is what NATSPEC sets out to be.'

NATSPEC AND AUSTRALIAN STANDARDS

'The NATSPEC method of using relevant published standards is to incorporate them by reference and not to quote, transcribe, repeat or paraphrase the text of the standards. To do so would not only interfere with copyrights but would also breed errors of transcription. It would also increase the physical size of NATSPEC and its derivative specifications, unnecessarily.'

'NATSPEC deliberately avoids blanket referencing of standards, the system by which specifiers expect contractors to allow for every conceivable and inconceivable standard in the world.'

'NATSPEC provides a checklist of possible relevant standards. It also provides a means of exercising options contained in standards. It also allows for manufacturer's recommendations to be referenced or 'called-up' in the same way as standards. NATSPEC recognizes the need for care in the specifying of standards.'

– Bryce Mortlock, RAIA Practice Division Report, August 1989.

STANDARDS IN NATSPEC

NATSPEC continues to incorporate standards by reference to the standard's designation, number and year of publication. Where there are options in standards and decisions to be made, NATSPEC provides prompts and guidance. NATSPEC, with research and feedback from subscribers and industry, fills gaps that the consensus approach can leave out of standards.

NATSOURCE

The publication NATsource includes all NATSPEC cited standards, and their abstracts. It is provided to subscribers as part of their package and also available for purchase.

STANDARDS TO OWN

The following should be considered:

- Design standards cited in the NCC and other regulations, with which you are legally bound to comply.
- Design standards that relate to your discipline and project type.
- Standards and handbooks that relate to construction.
- Lists of suggested standards for the offices of architects, landscape architects, structural, mechanical, hydraulic and electrical engineers provided in the paper *Specification Writing* on the NATSPEC website, under Suggested Standards for offices.

Whether the owning of a standard should be regarded as essential is a matter of professional judgement. Standards relating only to product manufacture or type testing may be considered non-essential provided compliance can be demonstrated by other means, such as certificates of compliance and labelling schemes.

KEEPING STANDARDS CURRENT

- Every three months, NATSPEC lists the most important of these standards in SPECnotes, which is also available in SPECbuilder.
- Standards are updated every six months, preceding the April and October specification updates. Standards cited as older versions in the BCA are retained, with additional guidance on the newer version for the specifier.
- Every six months, in April and October, NATSPEC issues updated specification material to its subscribers via USB and in SPECbuilder.

SOME NATIONAL AND INTERNATIONAL STANDARDS CITED

by NATSPEC

Australian Standards.

British Standards Institution.

American Society for Testing and Materials.

International Organization for Standardization.



Bryce Mortlock - Father of NATSPEC, RAIA Gold Medallist.



Relevant Websites

NCC
www.abcb.gov.au/

Acts and regulations
www.austlii.edu.au/

Standards Australia
www.standards.org.au/

© NATSPEC

Amity College, Leppington Campus, NSW

In 2018 Gran began work on a masterplan then schematic design for a new campus of Amity College, a non-denominational school with existing campuses in Prestons, Auburn and Shellharbour. Amity's mission is to create a school environment that is conducive to learning in all aspects of life. The concept of community – school, local and the broader community – is integral to the school's outlook and the design of the new campus supports this philosophy.



The wide central connecting space with light wells brings natural light deep into the buildings

What was unique about the project?

The new school is designed to support C21 activity based, flexible learning. The design encompasses a flexible and adaptable system of modules to suit different groups and activities as well as supporting teaching practices that will evolve over time. Modules are two and three storeys high and each includes a wide central connecting space with light wells to bring natural light deep into the buildings. These light wells also provide for movement, connections, and spaces for flexible learning and group activities.

Links between the modules provide permeability for cross connections and service spaces while maintaining separation between the modules. The central space where the library, canteen and administration are found is designated the "heart of school" – where the whole school comes together. The multipurpose halls are located adjacent to the future parkland reserve to provide for indoor/outdoor connections and broader community use.

Stage 1 of the project was completed in May 2024 and Stage 2 is expected to be complete in the first half of 2026. The construction of Stage 1 was complicated by COVID and the original contractor entering voluntary administration requiring engagement of another contractor to complete the work.

What were the advantages of using the NATSPEC system?

The NATSPEC specification system was invaluable in setting clear standards and requirements. This meant that the new contractor was able to clearly understand the scope of the completion works and we were able to assess original and completed work to ensure a high standard of finish.

Using the NATSPEC system gave assurance that we had up-to-date standards and latest industry information. The hidden text prompts and technical advice delivered in real time are comprehensive and very helpful. We've found NATSPEC to be well understood and accepted within the industry. Its systematic approach to specification writing ensures thorough and rigorous documentation.



Strong connectionsn are provided between indoor and outdoor spaces and activities

What are the lessons learnt from the project that you are prepared to share with other designers?

We have found that it is very important to critically review suppliers' data, to fully research all materials specified, and to clarify and confirm manufacturer-supplied data and specifications. The roofing membrane system selected and approved required exhaustive research into its fire and smoke developed indices, which culminated in a thoroughly researched and comprehensive fire engineered solution.

Extensive group consultation in the early design phases of the project meant that material and finishes selected completely met with user expectations. The completed Stage 1 has been extremely well received by the school staff, students, and wider school community who praise the light filled, flexible spaces and indoor/outdoor connection.

Architect: Gran Associates Australia
Contractor and Photographer: Grindley



The concept of community –school, local and the broader community – is reflected in the building forms and large areas of glazing

HOLD POINTS AND WITNESS POINTS

INTRODUCTION

Hold points and *Witness points* are construction stages which may need additional inspection, verification and documentation to make sure of:

- The safety of the personnel, environment and the public, before proceeding.
- The technical quality and any legal requirements have been satisfied.
- The next stage in the construction process can be completed.

Verification measures will vary with the specification method. For performance specifying, verification involves testing. For specifying by reference, verification is to a standard, or through third-party certification to that standard. Verification procedures are documented in the specification Inspection and test plan designated as *Hold points* and *Witness points*.

HOLD POINT

A *Hold point* is a mandatory verification point beyond which a work process cannot proceed without authorisation by the contract administrator. *Hold points* are usually assigned to those critical aspects of the work that cannot be inspected or corrected at a later stage because they will no longer be accessible. The relevant work cannot proceed until the contract administrator is able to verify the quality of the completed work and releases the *Hold point*.

Hold points can be nominated by:

- The principal, in the contract documents.
- The contract administrator, with a Non-conformance or Corrective action report.

Use *Hold points* sparingly as each potentially affects project duration and cost.

WITNESS POINT

A *Witness point* is an identified point in the work process where the contract administrator may review, witness, inspect or undertake tests on any component, method or process of works. The contractor is required to notify the contract administrator who may or may not take the opportunity. The subsequent activity however, may proceed.

CONTRACTOR'S ROLE

The contractor is responsible for satisfying the documented contract requirements and planning, developing and maintaining a system assuring the detection of non-conformances and control of their resolution. The issue of a Non-conformance report or a Notice of non-conformance automatically creates a *Hold point*.

AUS-SPEC APPROACH

AUS-SPEC is a specification system for the life-cycle management of assets. In AUS-SPEC *Templates*, *Hold points* are part of:

- *0136 General requirements (Construction), 0161 Quality management (Construction)* and *0167 Integrated management* worksections. The Quality plan for the works incorporates checklists, inspections, testing and documentation to make sure that the works comply with the contract documents. *Hold points* and *Witness Points* should be included in the checklists. Examples of submissions include a quality plan or soil compaction test results for a prepared sub-base.
- The summary of *Hold points* and *Witness points* in the annexure of each construction worksection provides a checklist for programming sequential activities and communication obligations.
- A Maintenance management plan combines the requirements of the Technical specifications, Quality manual and the Quality plan, for assuring quality in construction projects. The Maintenance management plan covers policy, organisation, selected procedures, maintenance planning and Activity specifications for maintenance activities. The Activity specifications form the core of the document and include the nominated *Hold points*, e.g. test results confirming compliance of materials like asphalt or requirements of the work order for the proposed maintenance work.

AUS-SPEC TECHguides provide further guidance on the use of *Hold points* and *Witness points* for the AUS-SPEC specifications.

NATSPEC APPROACH

NATSPEC *Templates* do not nominate *Hold points* in *Normal* style text. The **INSPECTION** clause in individual worksections includes *Guidance* text for nominating *Hold points* where they may be appropriate for inclusion in a project specification, e.g. inspecting formwork and reinforcement prior to placement of concrete.

NATSPEC *Templates* use **INSPECTIONS, Notice** in lieu of *Witness points*. TECHnote GEN 014 provides more information on submissions and testing.

AUS-SPEC definitions:

Hold point: A mandatory verification position in the contract beyond which work cannot proceed without designated authorisation.

Witness point: A nominated position, in the different stages of the Contract, where the option of attendance may be exercised by the Superintendent, after notification of the requirement.

Non-conformance report (NCR):

A mandatory (standard format) submission by the contractor that details the non-conforming work and the contractor's proposed disposition of the non-conformance.

Notice of non-conformance (NNC):

Formal instruction to the contractor of product non-conformance to documented requirements. It automatically creates a Hold Point and requires a non-conformance report (NCR) from the contractor.

Corrective action request (CAR):

A formal advice/instruction to the contractor requesting action to eliminate the cause of a detected nonconformity.

Disposition (of non-conformity): A remedial action to be taken concerning material, components or product about which a decision has been made. The resolution of a non-conformance. (This should not be confused with Corrective Action.)

NATSPEC definitions:

Hold point: The activity cannot proceed without the approval of the contract administrator.

NATSPEC defines **Hold points** in *Optional* style text in *0171 General requirements* worksection along with *Guidance* text on minimising Contract administrator intervention of this kind to *accord with principles of quality assurance and risk allocation.*

Contract administrator: Has the same meaning as 'architect', 'superintendent' or 'principal's authorised person' and is the person appointed by the 'owner' or 'principal' under the contract.

Relevant documents

0136 General requirements (Construction) (AUS-SPEC)

0161 Quality management (Construction) (AUS-SPEC)

0167 Integrated management (AUS-SPEC)

0171 General requirements

AUS-SPEC TECHguides

TECHnote GEN 014 *Submissions and testing*

Austroads AGPD03/22 Guide to project delivery – Part 3 Contract management.

Austroads AGPD05/18 Guide to project delivery – Part 5 Road construction quality assurance.

© NATSPEC

Croft & Cremorne, South Brisbane, QLD

Located in the heart of Fish Lane, Croft & Cremorne is a vertically layered mixed-use development responding to one of Brisbane's most tightly held urban conditions. The project integrates ground level retail, concealed podium and basement parking, and premium residential apartments within a highly constrained inner-city footprint.

Fish Lane is defined by its fine-grain character, narrow streets and closely built interfaces. The opportunity was to create a building that contributes to this evolving cultural precinct while carefully resolving significant technical and logistical challenges.



The residents' entry is defined by a crafted brick façade and oblique apertures that echo the material history of Fish Lane, grounding the building within the precinct's evolving urban character

What was unique about the project?

The defining constraint was the narrow site itself, measuring just 20 metres wide and 90 metres long. With minimal laydown area, narrow access roads and neighbouring buildings in immediate proximity, construction sequencing required careful planning from the earliest stages of documentation, as materials could not be stored on site.

The project brings together multiple typologies within a compact envelope. Comprising 120 apartments, 1,000m^2 of retail, 170 car parks and extensive communal recreation areas, the building represents a highly efficient planning outcome.

Retail activation at ground level engages the public realm, parking levels are integrated within the podium, and residential apartments rise above. Each component carries distinct performance requirements across fire, acoustic, waterproofing and compliance standards. A defining feature of the project is the brick façade wrapping the podium. The striking oblong apertures introduce rhythm and visual interest to Fish Lane, referencing the material character found throughout the precinct. Careful collaboration with fire and mechanical engineers enabled the podium to be naturally ventilated, supporting the client's sustainability objectives while maintaining fire compliance in close proximity to neighbouring buildings.

What were the advantages of using the NATSPEC system?

In a regulatory environment that is continually evolving, maintaining currency with Australian Standards and the National Construction Code is essential. NATSPEC formed the base specification platform for the project, providing a consistent and up-to-date framework across all work sections.

For a mixed-use development with intersecting building classifications, this consistency was invaluable. The structured format supported coordination between architectural, structural and services consultants, ensuring alignment of technical requirements across disciplines.

The flexibility of the system allowed project-specific amendments to reflect the design intent and the unique site constraints, while retaining a nationally recognised structure familiar to contractors and subcontractors. This shared understanding reduced ambiguity and supported clearer communication during tender and construction.

NATSPEC's regular updates also mitigated the risk of missing critical changes to standards or compliance requirements. In a complex urban project where documentation clarity directly impacts site efficiency, this provided confidence that the specification remained current and comprehensive.

What are the lessons learnt from the project that you are prepared to share with other designers?

Croft & Cremorne reinforced that in constrained urban environments, the specification is a key risk management tool. Clear definition of quality benchmarks and performance criteria supports smoother delivery, particularly where staging and access limitations heighten construction pressures.



Croft's layered design expresses the building's mixed-use program, with retail activating the street, a brick podium screening naturally ventilated parking, and residential apartments rising above in response to the surrounding urban context of Fish Lane

The project also highlighted the importance of aligning detailed documentation with design intent. By using a consistent and rigorous specification system, MODE was able to protect quality outcomes while navigating the challenges of a dense mixed-use site.

Through this approach, Croft & Cremorne contributes meaningfully to Fish Lane's evolving identity, demonstrating how strong documentation foundations underpin resilient, high-performing architecture.

Architect: MODE
Client: Stockwell
Contractor: Hutchinson Builders
Photographer: Shadowlight Studios, courtesy of Stockwell

PRODUCT SPECIFYING AND SUBSTITUTION

PROPRIETARY SPECIFYING
In NATSPEC, proprietary means *identifiable by naming the manufacturer, supplier, installer, trade name, brand name, catalogue or reference number.*

GENERIC SPECIFYING
The aim of the specification writer in customising NATSPEC for a project is to describe performance as follows:

- Measurable outcomes in terms of:
  - Conformity to a standard.
  - Product tolerance.
  - Construction tolerance.
  - Delivery and energy use.
  - Durability.
  - Compatibility with existing systems.
- Comparable outcomes in terms of:
  - Colour and texture.
  - A benchmark description.

Evaluation criteria include:

- Type tests.
- Evidence of conformity to a standard by an Accredited Testing Laboratory or JASANZ accredited certification body.

SUBMISSIONS
NATSPEC includes provisions for specifying particular submissions requirements. Provision is also made for specifying time and program constraints for submissions. The subclause relating to information submissions for building products under *0171 General requirements*, SUBMISSIONS AND INSPECTIONS, **SUBMISSIONS** is:

Project requirements

Products and materials: Products and materials data, including product certification, manufacturer's technical specifications and drawings, product data sheets, type tests results, evidence of conformity to documented requirements, performance and rating tables, evidence of delivery, service connection requirements and installation and maintenance recommendations.

NATSPEC POLICY ON SUBSTITUTIONS
In order to maintain the contractor's contractual responsibility regarding supply, NATSPEC allows for substitution within *0171 General requirements*. The following italicised text is an extract from PRODUCTS AND MATERIALS, **SUBSTITUTIONS**:

General

Identified proprietary items: Identification of a proprietary item does not necessarily imply exclusive preference for the identified item but indicates the necessary properties of the item.

Alternatives: If alternatives to the documented products, methods or systems are proposed, submit sufficient information to permit evaluation of the proposed alternatives, including the following:

- *Product, method or system identification.*
- *Essential technical information, in English.*
- *Product data sheets.*
- *Manufacturer's contact details.*
- *Detailed comparison between the properties of the documented product and proposed substitution, including finishes, assembly or installation methods, and any protection/packaging.*
- *Details of manufacturer's and/or installer's warranty.*
- *Statement of NCC compliance, if applicable.*
- *Evidence of conformity to a cited standard or code of practice.*
- *Evidence that the performance is at least equal to that specified.*
- *Samples.*
- *Reasons for the proposed substitutions.*
- *Statement of the extent of revisions to the contract documents.*
- *Statement of the extent of revisions to the construction program.*
- *Statement of cost implications including costs outside the contract.*
- *Statement of consequent alterations to other parts of the works.*
- *Statement of consequent maintenance conditions of warranty.*

Availability: If the documented products or systems are unavailable within the time constraints of the construction program, submit evidence.

Criteria: If the substitution is for any reason other than unavailability, submit evidence that the substitution:

- *Is of net enhanced value to the principal.*
- *Is consistent with the contract documents and is as effective as the identified item, detail or method.*

Optional style text

Costs: Pay the cost of submissions and of evaluations and tests of proposed alternatives, whether subsequently adopted or not. The costs will be calculated at the current charge-out rates of the relevant consultant(s).

ACUMEN ADVICE ON SUBSTITUTIONS AND VARIATIONS
An architect administering the contract should be aware that:

- *A substitution may be contrary to the owner's requirements. When the owner signs a contract with the contractor, the materials described in the specification are a requirement under that contract and the substitution of materials without approval may be a breach of the contract and any applicable warranties.*
- *If the contractor substitutes materials without approval, the owner is entitled to give notice to the contractor that the specified materials must be installed, or in the alternative, the owner may claim damages for the substitution because without approval by the owner the contractor may be in breach of the contract.*

(Italicised text is an extract from **Substitutions** in acumen.architecture.com.au, the Australian Institute of Architects' practice advisory subscription service.)

NATSPEC PRODUCT PARTNERS

NATSPEC// ProductPartner

A NATSPEC Product Partner is a building product manufacturer with an agreement with NATSPEC to include a purpose edited worksection in NATSPEC.

A NATSPEC branded worksection is a technical worksection produced in NATSPEC format in conjunction with a Product Partner. Branded worksections provide specifiers with an alternative to the generic worksection where a particular product has been selected at the design stage.

The research prior to the selection of a product or system is filtered, to eliminate inappropriate choices. The requirements of the client, regulators, standards, and the designer all affect whether the selection is presented as a generic or a proprietary item. The NATSPEC worksections facilitate the recording of both types.

All manufacturers are acutely aware of the problem of substitution by the contractor. It is being exacerbated by the lure of cheap and sometimes fake imports. Consultants are also affected as they spend considerable time and effort selecting a product, finish or electrical/mechanical system as part of their design responsibilities.

Relevant worksection
0171 General requirements

Related TECHnotes
GEN 014 Submissions and testing

Pendle Hill Civic Park, Pendle Hill, NSW

Tract

What was unique about the project?
Opened in May 2024, this revitalisation transformed a worn and fragmented open space into an legible, inclusive and resilient town-centre park. Uniquely balancing upgraded public amenities with ecological restoration, the project delivers lawns, picnicking, inclusive play, fitness areas and new bridges alongside wetland repair and pollutant-capture infrastructure. The parkland is now a social heart for a rapidly growing and culturally diverse community and a resilient piece of green infrastructure.



Nature play in established garden setting

The design was informed by deep community engagement, ensuring the final outcome reflected local values while supporting contemporary civic life. A strong emphasis on shade and comfort, extensive tree retention is complemented with new planting and targeted shade structures. Sensitive integration of memorial features and gathering spaces responds to local values and cultural inclusivity.



Youth focused active recreation space

What were the advantages of using the NATSPEC system?
Using the NATSPEC system allowed us to provide a clear and transparent framework for documenting this complex public realm project. It enabled the design intent to be communicated across multidisciplinary scopes, reducing ambiguity during procurement and construction.

Detail resolved through early contractor and supplier engagement was embedded in NATSPEC documentation, allowing elements such as play and fitness equipment, furniture and amenities to be clearly specified and coordinated. This clarity gave confidence to both the client and delivery team that critical park elements would be delivered as designed.

The system also provided flexibility to accommodate elements, while maintaining consistency with industry standards. This was particularly valuable given the project's combination of civic infrastructure and wetland rehabilitation works, ensuring quality and long-term performance of the investment.

What are the lessons learnt from the project that you are prepared to share with other designers?
Project learnings have reinforced the importance of using well-structured specifications, particularly on these more complex public domain projects where expectations around performance and durability are understandably high. A key lesson also being the value of early, and regular collaboration between the design team, specialist suppliers and construction partners. Coordinating this from concept design onwards improved cost certainty as well as buildability assurance.

Finally, the project demonstrated that investing time in clear documentation and stakeholder alignment upfront leads to smoother construction delivery and successful long-term outcome. The revitalised parkland has been well received by all, with pleasing evidence of increased park use and positive community uptake since opening.

Industry Awards: 2025 AILA Award - Parks and Open Space and Shade Smart Award (NSW)

2024 Greater Western Sydney Project of the Year - Outstanding Community Infrastructure Project: Highly Commended

Client: Cumberland City Council
Photographer: Eva Shaw
Design Team: Tract, Woolacotts - Consulting Engineers, Lighting Art & Science - Lighting Consultants, Wilde and Woolard - Quantity Surveyors and Green Geotechnics - Geotechnical Engineering
Construction Team: CA&I - Community Assets & Infrastructure, The Gardenmakers, Play Workshop, Forge, Lark Industries, Stoddart Infrastructure and A-Space, Exeloo & MGP - Building and Infrastructure Services Pty Ltd.



Community lawns at the heart of the park

BRANDED vs GENERIC WORKSECTIONS

BRANDED OR GENERIC?

The foundation unit of the NATSPEC specification system is the worksection. NATSPEC worksections are selected and customised by the specifier to produce a project specification. In some instances, the specifier can choose between a generic worksection and a branded worksection when compiling the specification. This TECHnote defines the alternatives and outlines their advantages.

Regulations, standards, client and designer requirements will all have some influence on whether a generic or branded worksection is appropriate.

BRANDED WORKSECTION	GENERIC WORKSECTION
Definition A NATSPEC branded worksection is developed by NATSPEC in conjunction with the manufacturer, known as a NATSPEC Product Partner. It is a MS Word document *Template* which follows NATSPEC style and format and can be customised by the specifier.	**Definition** A NATSPEC generic worksection is a MS Word document. It is a comprehensive *Template* which the specifier must customise by completing prompts, adding relevant material and deleting material which is not applicable to their project.
Classification Each branded worksection is based on the associated NATSPEC generic worksection and shares the same classification number.	**Classification** NATSPEC worksections are classified and sequenced in a logical order corresponding to common Australian construction industry sequence.
Advantages • Provides an alternative to a generic worksection where a particular product has been selected at the design stage. Associated generic material not manufactured by the Product Partner is still provided. • Minimal customising required as the *Template* has been pre-edited in conjunction with the Product Partner. • Current product information is readily available and accessible via hyperlinks between the *Template* and the Product Partner's website reducing research time and facilitating early decision making. • The possibility of product substitution by the contractor may be reduced as the unique performance characteristics of the product are clearly specified.	**Advantages** • Provides comprehensive coverage of a particular work area. • Adaptable for open proprietary specification where more than one brand or model number is acceptable. • Adaptable for closed proprietary specification where a branded worksection is unavailable. • Useful where the inclusion of brand names is not permitted. • The *Template* can be modified to create a new worksection where a NATSPEC worksection is not available.

SUBSTITUTION

Manufacturers are aware of the problem of substitution by the contractor. To maintain the contractor's contractual responsibility regarding supply, NATSPEC allows for substitution. However, text in the *0171 General requirements* worksection requires the contractor to provide the contract administrator with the appropriate technical information to make an informed decision regarding the proposed substitution. See related TECHnote *GEN 006 Product specifying and substitution.*

Worksection Structure

Each worksection is divided into:

GENERAL - applies to the worksection as a whole and includes cross referencing, standards, interpretation, tolerances, submissions and inspections.

PRODUCTS - describes the basic materials, components and fabricated items.

EXECUTION - sets out the construction performance criteria to prepare the substrate, assemble materials to produce an installation and carry out the works.

SELECTIONS - contains schedules that refer to the selection of proprietary products or to generic products by their properties.

Open specifications, such as descriptive, performance or reference specifications, can be satisfied by more than one product. An open proprietary specification is where there is more than one acceptable brand or model number.

Closed specifications can be satisfied by only one product. A single brand or model number may be nominated. However, some specifications which seem open are actually closed as only one product on the market will satisfy the criteria specified.

Related TECHnotes

NATSPEC TECHnote *GEN 006 Product specifying and substitution* sets out the difference between proprietary and generic specifying, and explains the policy and means of managing contract variations related to requests for substitution.

Related Worksection

0171 General requirements

© NATSPEC

AI, Specifications and Liability

informed
By Planned Cover
Delivering Knowledge

A major benefit predicted to flow from the adoption of generative AI is the ability to automate repetitive tasks, freeing up staff for more creative, skilled work. Since specifications contain a high component of repetitive content, they could represent a prime opportunity to apply AI. But what risks and liabilities need to be accounted for first?

Liability

A design consultant who engages human specification writers as sub-consultants can put in place a clear contract setting out required work outcomes and standard of care, and requiring evidence of insurance to cover the sub-consultant's work. This creates a solid foundation to establish liability and recover damages if the specification writer underperforms.

When using AI to perform the same work, these protections will very likely be lost. The AI itself is not a legal entity that can bear liability. Although the companies who supply AI can be liable for loss caused by its errors, bringing legal claims against them would face steep obstacles, including overcoming protective contract terms and very clear disclaimers typically included in AI search results.

For work produced using AI, liability will probably be the same as if the work were done by an employee in the business. However, while generative AI can create whole swathes of content almost instantaneously, it has no moral conscience and is known to produce wholly fabricated "hallucinations", sometimes persuasively intermingled with factual content.

Design consultants should assume that they will remain liable for errors in AI-generated work, and therefore put in place strong procedures to check it thoroughly.

Insurance

Professional indemnity ("PI") insurance is highly valued by design consultants and their clients, since it offers protection against the risk of liability to third parties arising out of professional errors. Through our work with Planned Cover, who specialise in PI insurance placement, our team encounters a range of different PI policies.

Generally speaking, PI policies do not expressly provide cover for claims arising out of use of AI, but do not exclude them either. With few AI-related claims made against design consultants, it is too early to predict how insurers will respond to this emerging risk. We are optimistic that many PI policies ought to cover the insured consultant for liability claims arising out of AI-generated errors, provided the consultant used the AI in the usual course of the insured profession. However, policy terms vary and consultants are best placed to enquire with their insurance broker.

Remember that AI errors can also cause commercial costs that are largely uninsured, such as wasted re-work, staff dissatisfaction, and reputational damage.

In Conclusion

AI may generate efficiencies, especially in repetitive aspects of specifications, and could provide a helpful back-up check for clashes or out-of-date information. However, consultants should weigh these benefits against the risk of errors and liability, and factor in the cost of checking by experienced professional staff. Generative AI has a gift for metaphor and lively phrasing, but specifications call for consistency and precision rather than poetry. That makes it important for specification writing to continue to draw on real and substantial human input.

Wendy Poulton
Manager Risk Services
informed by Planned Cover



With AI efficiency comes professional responsibility

SPECIFICATIONS

WHY HAVE A SPECIFICATION?

The primary function of the drawings and specification is to realize design intent, through effective decision making. Many design decisions cannot be expressed in graphic form and therefore rely on words for their expression. Other decisions would be too tedious or impractical to be conveyed in graphic form. The drawings and specification complement each other by effectively communicating design decisions and therefore, intent.

THE IMPORTANCE OF A SPECIFICATION?

The quality of a building project is dependent on the documentation provided. The contract documentation includes the conditions of contract, the drawings, the schedules and the specification. Whilst the specification is a multi-purpose document, its primary function is to define precisely and succinctly the quality required and the processes necessary for achieving it. Its role extends beyond the selection of materials, by providing the criteria for an acceptable quality of construction.

THE ROLES OF THE SPECIFICATION

The roles of the specification includes:

- a document **embodying design decisions**.
- a document demonstrating **compliance with statutory requirements**.
- an **estimating** document.
- a **tendering** document.
- a **contractual** document.
- an on-site **working** document.
- a **dispute settlement** document.
- a **project management** tool.

THE FORM OF A SPECIFICATION

NATSPEC specification worksections are classified, numbered and sequenced in a logical order for the Australian construction industry. The recognised methods of specification writing are:

- **Reference:** Where identifiable, printed and published documents are incorporated by reference to them, such as Australian Standards or manufacturer's technical manuals.
- **Performance:** That is, by stating a desired result and the criteria by which the result will be deemed acceptable.
- **Description:** Detailing the materials, workmanship and installation procedures to be used.
- **Direct/Proprietary:** Specifying a product by a proprietary trade name.

Typically, each NATSPEC worksection is divided into:

- **General:** Includes cross referencing, standards, interpretation, tolerances, submissions and inspection requirements.
- **Products:** Includes details of materials and components.
- **Execution:** Deals with the fabrication, installation, erection and completion as part of a project.
- **Selections:** Made within the text, in worksection schedules or provided separately. With simple projects, all selections may be on the drawings.

NATSPEC is the trading name of Construction Information Systems Limited, ABN 20 117 574 606.

NATSPEC, founded in 1975, is a not-for-profit organisation that is owned by the design, build, construct and property industry through professional associations and government property groups. It is impartial and is not involved in advocacy or policy development.

NATSPEC's major service is the provision of the comprehensive national specification systems endorsed by government and professional bodies. NATSPEC, the National Building Specification, is for all building structures, with specialist packages for architects, interior designers, landscape architects, structural engineers, service engineers and domestic owners. AUS-SPEC is the Local Government specification system for the life-cycle management of assets. Packages include Urban and Open Spaces, Roadworks and Bridges, Public Utilities, and Maintenance.

NATSPEC's objective is to improve the quality of construction in Australia through its updating services and via the provision of information, tools, products and other services.

Stakeholders

- Air Conditioning and Mechanical Contractors' Association of Australia
- Australian Association of Vertical Transport
- Australian Institute of Architects
- Australian Institute of Building
- Australian Institute of Building Surveyors
- Australian Institute of Quantity Surveyors
- Construction Industry Engineering Services Group
- Consult Australia
- Dept for Infrastructure and Transport (SA)
- Dept of Finance (Federal)
- Dept of Housing and Public Works (QLD)
- Dept of Housing and Works (WA)
- Dept of Logistics and Infrastructure (NT)
- Dept of Treasury and Finance (TAS)
- Dept of Treasury and Finance (VIC)
- Engineers Australia
- Infrastructure Canberra
- Master Builders Australia
- NSW Public Works
- Standards Australia

CONTACT INFORMATION

NATSPEC
Level 4
263 Clarence Street
SYDNEY NSW 2000
Australia
PHONE 1300 797 142
EMAIL mail@natspec.com.au
WEB www.natspec.com.au



"The Australian Institute of Building is proud to support the work of NATSPEC.

"The Product Partner Case Study Magazine is another useful guide which provides examples of a Product Partner and subscriber's capacity and credibility. It also adequately addresses the necessity of high-quality construction specifications. The magazine increases exposure of manufacturers who have achieved high-quality projects which add value to the built environment. We congratulate NATSPEC for sharing such a valuable resource with the industry. This type of initiative when utilised by designers and constructors to achieve a universal quality of material selection will assist in creating Building Confidence for end consumers."

George Jim Moschoyiannis, National President, AIB

"It's incredibly important to manage processes, it's incredibly important to manage information: to know what information is correct, what information is out of date, and what is the current information. NATSPEC is very important because it is a common language and what it does is, it creates a whole specification database for the elements we're proposing to build. Essentially, working through NATSPEC provides you with a full gamut of opportunities that you can potentially face, so it acts as an aide-mØmoire as well as working through the documentation."



David Sutherland, Fender Katsalidis Architects



"An architectural practice should have, amongst other things, three fundamental project control documents: its Integrated Management Manual, the National Construction Code and NATSPEC."

Tony Kemeny, Gran Associates

"...Hence, the courts and others often look to the specification in particular to determine the

message conveyed by the contract documents to those who work with them."

Acumen, Australian Institute of Architects

"Using good design documentation, you protect your reputation, you reduce defects, you produce high quality, you reduce costs, and most importantly, you deliver on time. And without good documentation you can't achieve these objectives.

"Clearly defined quality requirements reduce construction cost blowouts that result in re-work, redesign, variations and disputes. Good quality construction increases asset value due to longer asset life."



Mario Macri, Lendlease

GETTING HELP

INTRODUCTION

This TECHnote summarises the various ways that NATSPEC provides help to specification writers.

NATSPEC *Guidance*

NATSPEC worksections include extensive *Guidance* text with suggestions on filling in prompts, alternatives, and background material. *Guidance* is in Microsoft Word hidden text format which can be turned on or off, and appears like this:

> NATSPEC does not recommend the use of Scope of Works clauses. If you wish to include such a general description you may add it here, or in the corresponding location of selected worksections.

If you work with an office master, you may find it convenient to add your own guidance notes using NATSPEC's hidden text styles.

See NTN GEN 029 for more on design and specification *Guidance* text.

NATSPEC *Optional* style text

Some worksections include *Optional* style text in this font (blue with a grey background) that covers items specified less frequently. It is also a Microsoft Word hidden text format which can be incorporated into *Normal* style text, where it is applicable to a project, by highlighting the text and changing the style and format.

NATsource

NATsource lists more than 1200 documents cited in the specification packages. Use it to check document titles, currency, content and publishers. Access *NATsource* via SPECbuilder/Resources/Standards Info. Changes to cited standards are summarised in *SPECnotes*, a quarterly newsletter for subscribers.

NATSPEC TECHnotes, TECHreports and AUS-SPEC TECHguides

TECHnotes provide guidance of a more general nature that either relates to several worksections, or does not fit into the normal worksection structure. TECHreports provide more detailed information on specification issues. TECHguides provide guidance on compiling contract documentation for local government projects.

All these documents continue to be developed and updated. The latest versions are available in the Technical Resources area of the NATSPEC website or via the Resources link in SPECbuilder.

NATSPEC Website

See www.natspec.com.au. NATSPEC's website has a range of material including:

- Details of NATSPEC specification packages, including abstracts of worksections.
- A link to SPECbuilder and Domestic Online.
- Links to NATSPEC Class 2, Class 3 and Class 9c Reference Specifications.
- Links to Product Partners' websites arranged by worksection.
- Information on publications relating to specification writing.
- Answers to frequently asked questions (FAQs) on specification writing, purchasing NATSPEC, getting started with NATSPEC and word processing.

NATSPEC BIM Portal

The BIM Portal is home to the *NATSPEC National BIM Guide* and related documents. It also includes resources and tools to assist the implementation of BIM in the construction industry. To go to the BIM Portal, click on the *NATSPEC BIM* logo on the NATSPEC website.

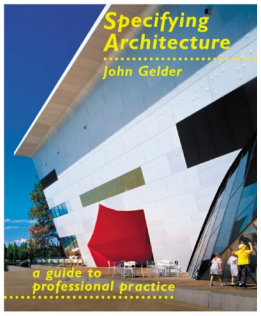
NATSPEC Training

NATSPEC provides training in specification writing-related subjects.

For details of monthly *Getting started with NATSPEC* webinars and annual training courses in venues around Australia see www.natspec.com.au.

Videos of previous courses are also available on the website. Subscribers are notified of upcoming training courses.

Relevant Publications



Specifying Architecture - a guide to professional practice

NATSPEC assistance

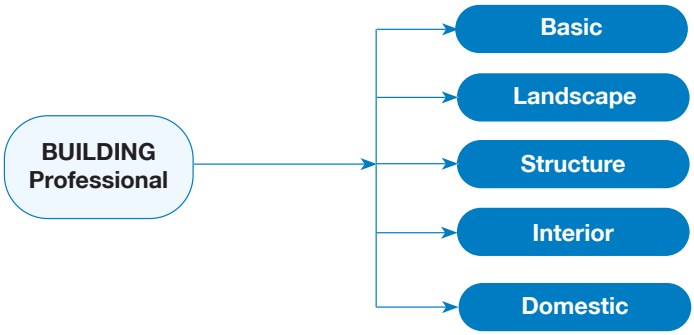
NATSPEC does not provide a design or specification service, but we can assist with specification writing techniques and dealing with problems using SPECbuilder and NATSPEC in Microsoft Word.

If you have problems finding what you want, feel free to contact us directly.

CONTACT INFORMATION

NATSPEC
Level 4
263 Clarence Street
SYDNEY NSW 2000
Australia
PHONE 1300 797 142
EMAIL
mail@natspec.com.au
WEB
www.natspec.com.au

your NATSPEC



Professional Package Inclusions

- Twice yearly update including changes to the National Construction Code and Standards.
- SPECbuilder online specification compilation software compatible with all versions of Windows, Macintosh and Linux operating systems.
- Editable worksection Templates in Microsoft Word *.docx format. See the National Worksection Matrix for the worksections included in this package and NATSPEC Worksection Abstracts for a summary of each worksection's content and application.
- Hidden text Guidance for developing project specifications for tender and contract documentation.
- Fully searchable pdf version of package with highlighted updates.
- Instructional guides and technical resources.
- Package USB for backup.
- Unlimited use of Domestic Online.
- Branded Worksections are meticulously prepared documents that are editable with guidance text, and product options. This ensures consistency, clarity, and adherence to good industry practices for achieving success in building projects.

Subscribe to NATSPEC at www.natspec.com.au and transform your specification experience.
Call 1300 797 142 or **email:** mail@natspec.com.au for assistance.

NATSPEC the National Building Specification

Government departments and clients prefer NATSPEC

In the majority of Australian States and Territories, NATSPEC specifications are required for building projects. Government departments and clients prefer NATSPEC specifications so that they are assured of a baseline level of project quality. Whilst drawings and schedules only provide the form and materials, it is a properly constructed specification that outlines the quality desired. For over 45 years NATSPEC has been trusted to deliver quality results.

Consultants prefer NATSPEC

The number of regulations that change each year continues to increase. Pressures on consultants' fees and the time required to design do not allow for individual organisations to monitor all the regulatory changes. NATSPEC provides the economies of scale to keep consultants up-to-date. Consultants know that NATSPEC is comprehensive and provides a clear outline of the quality of materials and tolerance of construction required. NATSPEC specifications save litigation and support the team's desire for successful projects.

Contractors prefer NATSPEC

It is a competitive world and as the industry continues to consolidate, greater emphasis is being placed on the cost of a project. Contractors want to compete on an even footing and a NATSPEC specification means that the job will not be lost to someone who will cut the quality of construction. NATSPEC is independent and does not favour one party over another.

Project managers prefer NATSPEC

When all parties are clear on the expected outcome, the project progresses quickly and without undue confrontation. NATSPEC's template specifications are written in simple plain English without duplication or contradiction so that Project Managers do not waste time clarifying project requirements.

NATSPEC is a national not-for-profit organisation, owned by Government and industry, whose objective is to improve the construction quality and productivity of the sustainable built environment through leadership of information. It is impartial and is not involved in advocacy or policy development.

www.natspec.com.au
Tel: 1300 797 142
Email: mail@natspec.com.au