



Stormtech™

Grate Insights

Issue 6, 2024

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Grate Insights - Welcome



Hi, and welcome to Grate Insights for 2024.

Well, it's certainly been another big year! The world continues to change at a rate of knots, creating both challenges and opportunities as it does. This year it's safe to say that people and businesses in Australia and across the world have felt the brunt of macroeconomic change, and have done what they needed to, in order to adapt.

For us at Stormtech, this has only strengthened our resolve, and our focus on the things we can control: being a sustainable, efficient business; designing and manufacturing products that go way beyond the minimum standard; and working closely with our clients to achieve the best results in every project. Our adherence to these core philosophies has seen us through the turbulence of the last few years and continues to pay dividends.

One of the most visible and exciting dividends this year came in the form of our Wave Grate taking out the Product Design

category at this year's Good Design Awards. The grate was designed by myself and Peter Tucker, bringing together more than 30 years of expertise to create a product that was both incredibly simple, and incredibly functional. The thinking behind the grate came in response to feedback from designers, installers, and end users - something we're very proud of... plus, it's always nice to win an award!

The Wave Grate, like all our products, was designed and manufactured onshore, right here in Australia. This is one of the tentpoles of our business, because we know that keeping our supply chain close enables us more control over our output, and means we can focus on quality over cost. It also means we can continue to refine our own processes, as well as those of our suppliers, when it comes to sustainability. We're always looking to improve, keeping an eye on the newest technologies and considering how we can put them to work - and we're committed to continuing this

focus for as long as our business is around.

But for now, it's on with the show. This edition of Grate Insights is packed with some of our most innovative case studies for the year, as well as some more detailed whitepapers for the technical-focused among you. We've also got a great interview with the incredibly talented Luke Seidler on how he came to find his path in the architecture industry.

As always, we want to thank you for your ongoing support. It allows us to do what we do, building a company and products we believe in - and we hope you believe in them too. I hope you have had a relaxing end to 2023, and have a happy, healthy, and prosperous 2024 ahead.



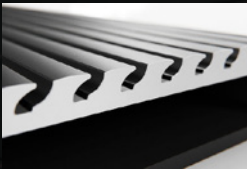
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Case study - Nautilus by Smart Design Studio sets sail on premium waterfront living

Taking subtle cues from the dynamic symbolism of sailing, the enduring craftsmanship of shipbuilding, and its exquisite waterfront setting, the organic curvature of Nautilus' form leans over the Shellharbour Marina precinct at Shell Cove with a sense of poised grandeur. This premium residential development fronting Shellharbour Marina has been designed by Smart Design Studio for Frasers Property, and is set to be completed in September 2023.

"The brief for this project was to create a landmark building within the Shellharbour Marina precinct," explains Stephen Sharkey of Smart Design Studio. "We set out to create a monumental and timeless set of waterfront residences that captured the best of the surrounding environment. That includes views of the Illawarra escarpment, the Shellharbour Marina, the Shellharbour Beach and out to the Pacific Ocean."

The project comprises 116 beautifully appointed residences sited across two edifices:

Building A and Building B. The horseshoe-shaped Building A on the northern side of the development boasts premium apartments, most of which offer sweeping views of the waterfront thanks to the strategic curvature of the structure. Building B, on the other hand, caters to a more traditional residential living with a selection of classic dwellings. Both structures are connected and feature common facilities within two separate podium levels that boast soft landscaping, pool and seating area, as well as a private residential gym.

Designed with utmost attention to detail, the project reveals an intricate connection to the tradition of shipbuilding. "The project's name - Nautilus - is most certainly a maritime reference," explains Stephen. "That's primarily driven by the form of the building, which has long, curving vertical precast blades braced by horizontal fins, which then repeat and rotate around the radius of the building. That sort of order reflects the

craft involved in the building of a timber boat hull."

These contemporary nautical cues are seamlessly fused with the classical architectural tradition, defined by the notion of repetition and regular rhythm, both of which imbue a commanding sense of order. "The exterior reflects a modern take on classic design principles. It evokes the design language of Georgian terraces of London and Bath, and perhaps even the monumentality of classical Greek and Roman architecture," Stephen describes, once again pointing to the concrete blades conceived to conjure up a Hellenic column structure.

This timeless approach is carried through the materiality of the development. "We have light concrete tones that reflect the sun-bleached colours of sand and seashells, and the reflective white hulls of luxury boats and sailing vessels," Stephen explains. "The interiors boast beautiful pale timber flooring and light



concrete-look tiles, mirroring the serene energy of the extended environment.”

Augmenting this powerful connection to the outdoors the floor plan of the development follows the dynamic order of the arched facade, designed to maximise the vistas across the Marina and out to the Pacific Ocean. In order to achieve that, it was paramount to incorporate minimalist products that enabled the design team to frame the views without obstructing them.

Stormtech was the natural choice. “Stormtech is a well-respected brand, and we frequently use them for their robust reputation, quality and customisable products,” Stephen says. “They have a great range of grate drain profiles that we work with in various scenarios, such as the tile insert drains for threshold areas where we try to minimise the visible disruption of the space.”

This project was no exception. “On the exterior, we used

Stormtech’s linear threshold drain 100TRTDiS,” Stephen says. “There are alternating bays of glazing that are six storeys high, and it was important for us to maximise the views outwards. That’s why, at the base of those six-storey glazed bays, we used Stormtech’s linear threshold drainage system. It’s highly effective yet very subtle.” Minimalist by design, Stormtech’s signature drainage system will not hinder the views, nor visually interrupt the seamless and meticulously designed curved contour of the building’s ocean-facing facade.

“In the bathrooms we used one of Stormtech’s new products – a linear drain with an integrated shower screen support,” Stephen describes. “Our goal was to drain the bathrooms using one floor waste only, and so in order to make that happen, we needed to get drainage from both sides of the shower screen.” With Stormtech’s integrated 120SCSTiiMTL® Shower Screen Support Smart Design Studio could set the shower screen

within the drain itself, and then receive water from both sides. “This actually fulfils the need of the whole room,” Stephen summarises. “And there’s no need for a secondary floor waste within the room.”

“Stormtech has a broad range of fantastic finishes,” he adds. “And, especially on multi-residential projects, we can use the same product throughout and get consistent results across the whole project.”

Intertwining outstanding amenities with classicist architectural heritage, nautical inspiration and organic curvature that honours its geographical context, Nautilus’ self-assured sense of identity gracefully balances a sympathetic response to the site with the quiet luxury of premium apartment living. And in that, this exciting development demonstrates that residential living in one of NSW’s most sought after coastal locations should – and can – feel like smooth sailing.

Case study – The ambitious residential project set to transform North Sydney

Located on North Sydney's bustling Walker Street, the sculptural volumes of Aura by Aqualand emerge gently from within the sloping topography of the suburb. The project's purposefully organic form is informed both by the softness of the surrounding landscape, and the city's curvilinear shoreline. Set for completion in 2024, this sophisticated residential development has been designed by Woods Bagot in collaboration with interior architect Richards Stanisich to redefine the notion of urban living by placing the sense of community at its very heart.

"At Aura we have put an intense focus on the community benefit of the project – how we integrate into the public domain and create an environment that is inviting to the existing and the future community," explains Jason Fraser, Principal and Global Sector Leader – Residential at Woods Bagot. "The residences sit above 3 levels of retail, hospitality and workplace that

provide an amenity far beyond most residential developments. Coupled with this is a residential amenity offer that is considered in three parts; active amenities at ground level including gym, pool and activity rooms; passive amenity at the waist of the building with internal amenity rooms and outdoor amenity at the crown where people can relax in the sun or use these spaces socially."

With 386 luxury residences boasting panoramic harbour and district vistas, a 5-star hotel-style concierge service and a dining precinct with a wine bar, LA-inspired bistro and Japanese restaurant, the ambitious project is spearheading a transformation of the area into Sydney's new CBD precinct by attentively addressing the way urban living is evolving.

"The one thing that has really become evident in recent times is the need to design to reflect the diversity of people and their needs," Jason points out.

"The homes we design are now considered for people to inhabit them beyond the 5 to 9 that was the tradition. Working from home, flexible working, self-employment, shared parenting, and shifting attitudes to living in general are just some of the changes in the way we all live that mean apartment design is changing. We consistently aim to be aware of these changes and translate that into the homes we design. This ability to accommodate people's diversity and sense of self is only going to become increasingly important in everything we design."

Jason adds that Woods Bagot's approach to residential projects is deeply guided by the consideration for how they can create great places, and then strive to create great architecture within them.

"Vibrant, active, healthy places where people are happy to live in continually changing ways are the heart of our project's success," he explains.

This intent is embodied by Aura's self-assured form that comfortably nestles into the falling topography of North Sydney. With its robust shape articulated in response to its boundary, and sculpted to its context, Aura's soft volumes sprawl gently across the site, creating multiple connections to adjoining streets and the future North - South pedestrian link from St Leonards Park to North Sydney station. In addition, the new Sydney Metro Victoria Cross station adjacent to the development adds another valuable transportation option.

But the grounding practicality of the transport links or proximity to the surrounding parklands aren't the only ways in which Aura harnesses its milieu - the project is permeated with the elements of the surrounding landscape. "The design very much refers to the landscape of North Sydney and its connection to the harbour in its form and language," Jason says. "The building is shaped by

rich, organic forms. Materials are designed to reflect light in different ways through the day and throughout the seasons like the light reflecting off the rippling water of the harbour. At ground level we have exposed or re-used much of the unique North Sydney sandstone to refer to the site's origins and integrated landscape to foster a healthy and wellness oriented public domain experience."

This commitment to establishing a distinct visual connection to the rich tapestry of the area is also expressed through the design team's meticulous specification methodology, and prioritising products that would allow them to incorporate functional elements in an inconspicuous way.

Stormtech's tile insert drains are most certainly one of these products, and a considered mix of their signature 100Tii20MTL and a custom depth tile insert drain incorporated throughout the main bathrooms and the

ensuites. Renowned for fusing the latest in drainage technology with a minimalist design language, Stormtech's marine grade stainless steel products have long been enabling architects to bring their vision to life, without hindering the optics of their designs. This project is no different.

"We've integrated this system into the public domain because of its ability to seamlessly incorporate drainage and be visually unobtrusive," explains Jason. "This allows us to keep the focus on materiality and public space."

Through this unwavering emphasis on materiality, public space and community benefit, Woods Bagot, Richards Stanisch and Aqualand deliver a residential environment that not only confidently finds its footing on the falling slopes of North Sydney, but provides an adaptable foundation to the evolving needs of the communities of today, and the future.





Understanding AS 3740:2021 “Waterproofing of domestic wet areas”

A Guide to Floor Waste and Fall Requirements

Two of the most frequently reported building issues are improper floor grading in wet areas and non-compliance with waterproofing regulations. According to government research, the most prevalent major building defect in strata communities in New South Wales is related to waterproofing, accounting for 23% of the surveyed buildings.

Water seeping into adjacent building elements due to improper floor grading and inadequate waterproof membrane installation in key areas, such as around the floor waste, frequently results in building damage. A myriad of issues can follow, including mildew and mould growth or cracks in concrete, that impact structural integrity. This can lead to costly repairs that could have easily been avoided.

A common practice nowadays is to aim for the bare minimum specifications when constructing a new building. The most basic objective of any construction project should be to keep our buildings and people safe and preventing loss of amenity. This is more easily achieved by exceeding the requirements for wet area waterproofing in terms of material, design, and installation.

The importance of floor grading quality and waterproofing has been emphasised in the 2021 version of AS 3740 (AS 3740:2021) “Waterproofing of domestic wet areas” and the 2022 update of the National Construction Code (NCC 2022). Below, we consider how the recent updates to these documents impact floor waste and fall requirements.

Download this whitepaper for a detailed overview of Understanding AS 3740:2021 “Waterproofing of domestic wet areas”

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Beyond the Building Code

Perils of Stopping at the Minimum Standard

Building codes play a significant role in determining a building's long-term quality, safety, and energy efficiency. In Australia, this is fulfilled by the National Construction Code (NCC), which specifies the minimum necessary requirements for safety, health, amenity, and sustainability in the design and construction of new buildings (and new building work in existing buildings).

Design and construction choices affect operational performance and maintenance costs during the lifetime of the building. Building codes, such as the NCC, help designers and builders “get it right” from the start. Once installed, some building components may be replaceable or upgradeable, but some aspects of how the building performs are “baked” into the design. This is especially the case for plumbing and waterproofing.

Due to various factors—from stronger fire safety regulations

to higher expectations for liveability—building regulations have grown more onerous in recent years. This, along with increases in the cost of materials and labour, has seen the cost of construction rise to some of the highest levels we have ever seen.

“Chasing the minimum” is the default stance many architects, designers, and builders take when faced with the need to increase margins and deliver projects on schedule. This practice involves constructing buildings to the bare minimum, following the regulatory requirements to the letter, and making no attempt to exceed the performance level or specification set by the standard—even if doing so would result in better building performance over the long run. Is this a mistake?

As we will discuss below, pursuing the minimum in plumbing and waterproofing can actually result in cost increases, defects and projects that fail to meet expectations. In contrast, a

building design that exceeds code requirements can reduce risks of non-compliance, save projects time and money and lead to a healthier, safer and more durable built environment.

Download this whitepaper for a detailed overview of Beyond the building code.

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At home designing homes: Luke Seidler on finding his calling in residential architecture

Seidler Group is a family-owned design and construction practice located in Port Melbourne, Victoria. Originally set up by Chris Seidler in 1992, the studio was defined by his early work in the north-eastern suburbs. And while the business has flourished and expanded ever since, the vision has remained the same: offering reliable turnkey services for families looking for their forever home. Here, Luke Seidler, who formally joined the firm in 2015, talks about his path to becoming the practice's Head of Design, his passion for residential architecture – and his current focus as an architect.

"I've always been interested in design," Luke starts. "Growing up, I spent a lot of time on construction sites as a labourer to make some extra money, so I was always around building and design." His initial passion focused on industrial design – cars, yachts and planes. "I was quite drawn to their dynamic forms but I soon realised that there wasn't much of an industry for that in Australia," he explains with a smile. "And then, during one of the open days at RMIT, I discovered building design."

To build a home

It was around that time that his father, Chris Seidler, gave him an opportunity to get involved with some of the Seidler Group projects. And it was through these initial briefs, completed after hours, on top of his Peddle Thorp work, that Luke found his calling: designing homes for families. "Working on smaller residential projects, developing meaningful client relationships and working in a more intimate setting, I really found my passion," he recalls. "I finally felt that my work had a true impact on the end user."

Joining the practice and heading up the design department allowed Luke to bring in some new perspectives, opportunities to incorporate some of the newer technologies, and elevate the studio's sustainability efforts. At the same time, he was very happy to embrace the ethos the practice was built on in the first place. "The main focus has always been to create dwellings for families looking to invest in their next – and sometimes their final – family home," he says. "And while it is such a significant undertaking for most people, my father thought there was a real

lack of service in the industry, where a firm could offer it all: design the home and then assist in the process of actualising it. That's how our integrated design and construction offering was born."

Integrated design and construction

The Seidler team is there from the moment their client acquires the site, all the way to the moment they're ready to move in, and can look after elements like landscaping, pools and even tennis courts. "Offering the full package means that we have more autonomy in terms of envisaging both the home, and the environment the home exists within," he says. "For many of our clients it's also beneficial that they get a view of the budget for the project right from the get-to. What we see quite often in our industry is a ballpark budget, initially put together by an architect, going up significantly once they tender to builders."

Seidler Group mitigates that by managing the budget from the start. "We feel that, particularly with family homes, being conscious of the client's finances is incredibly important. Often,

people spend their life's savings on their homes, and as a design and construction firm we're incredibly cognisant of that."

Looking at some of Seidler Group's recent projects, it's easy to imagine why their clients would be happy walking into their new homes, and the Split Home in Brighton, Victoria – designed by Luke a couple of years ago – is an excellent example.

The Split Home

"The brief for this project was quite open, which was fantastic because it gave me space to explore my architectural aspirations," Luke says. "From a functional point of view, our clients wanted a home that allowed seamless entertainment. It was key for multiple areas to be easily connected or separated when necessary to make sure the space would respond to the evolving needs of the occupants – and Melbourne's changing weather conditions throughout the year."

"From an aesthetics point of view, our clients wanted a dwelling that went against the predominant architectural language of the area," he adds. "And so we set out to create an entertainer's dream that would feel like an escape from suburbia."

The home celebrates coastal materiality by incorporating some reclaimed timber, imposed onto concrete precast walls, which provided an opportunity to bring in a tactile connection to the coastline, and make the structure a bit more efficient. But perhaps nothing connects the home to its

geographical context more than the exterior facade, which radiates the sense of coastal respite out to the public realm. "The rippled aluminium facade has been designed to gently conceal the primary sleeping quarters," Luke says. "The texture was inspired by the south-westerly breezes and the organic ripple shapes they create on the sand. We then superimposed a cracking wave that was perforated onto the screen – again, it's play on the coastal breezes imprinting themselves onto the architecture of the home."

Backlit at night, and visible at all hours of day and night, the facade has an immense sense of presence, and most certainly escapes the quintessential suburban architecture of the area. "It makes it feel like you've arrived at an oasis," Luke sums up.

The potential of the concealed

Luke's commitment to his architectural vision, and sharp focus on materiality that celebrates the home's coastal setting, was also apparent in the attention to detail with which he approached the more functional aspects of the home, such as drains. "We used Stormtech's tile insert strip drains in all the bathrooms," he says. "We found that they were really successful at seamlessly incorporating a drainage grate into the shower base. The product is very minimalist and efficient, and using it helped us achieve a beautiful aesthetic in these spaces."

Luke adds that Stormtech's products were also incorporated

on the ground floor. "Stormtech's tile insert drains were used between the sliding doors that separate the indoor and the outdoor living spaces," he explains. An undeniable entertainer's dream, the area embodies this notion of effortless, all-year-round indoor-outdoor living, by seamlessly connecting both realms. That's what Luke appreciates about Stormtech products – the ability to achieve an effortless transition and clean design language. "It's a really nice product," he says. "We've definitely used their tile insert strip drains on quite a few residential projects."

Always refining the process

This impeccable attention to detail, as well as the broader approach to the Split House project, certainly reveal a lot about Luke as an architect. "I'm always looking to refine the process of creating a home," he shares. "When I think of a successful project, it has to be an efficient home – which isn't always easy for a family dwelling. A family home has to feel universally accessible, but also respond to a client's specific needs. It's a challenging but incredibly rewarding aspect of residential architecture."

Ultimately, Luke sums up, a successful project is one that can benefit all. "That means considering the current state of our climate, the diminishing resources, and the impact of the construction resources," he explains. "And it means giving back to our clients, as well as the public realm."

Stormtech's Wave Grate makes waves at the Australian Good Design Awards

There is design, and then there is good design - driven by innovation, genuine human insight, and consideration for the impact the product will have both on the lives of its users, and the environment overall. In the world of architecture and design, there hasn't been a visual symbol that would be more emblematic of these qualities than the now iconic Good Design Tick. Awarded annually since 1958 as part of the prestigious Australian Good Design Awards program, the symbol has been synonymous with design excellence for over six decades now, rewarding bold thinkers, tinkers and creators who aspire to create better products, better experiences and a better future in Australia and globally. And so when on Friday September 8th, in the company of over 1000 esteemed guests from the industry, Stormtech was announced as one of winners of

this year's Awards, the choice wouldn't have surprised anybody. A passionate family enterprise turned leader in the field of high-quality drainage, today Stormtech is the architect and designer's favourite, and their latest product, Wave Grate, further exemplifies why the brand has become the industry's go-to.

The pioneering product, designed by Stormtech's Troy Creighton and Peter Tucker, was recognised for its remarkable, innovative and unique quality, and scored the distinguished Good Design Award Winner Accolade in the Product Design category. "The Wave Grate is a stylish and functional product that has clearly incorporated a new approach to manufacturing and design," the statement from the jury reads. "Achieving a patented design is highly commendable and a clear reflection of its innovation.

Well done on a beautiful and seamlessly integrated design!"

Designed and manufactured in Australia, with Australian sourced and processed aluminium, the Wave Grate's beautiful design cleverly conceals drainage channels for a perfect integration. The product fuses exquisite functionality with a stunning, pared back and unpretentious form - a clear expression of the brand's DNA, which, Stormtech Managing Director, Troy Creighton, remarks, doesn't include half-measures.

"What we've learnt over the last three decades is that the design needs to be as simple as possible, yet provide multiple benefits to different stakeholders," explains Troy. His desire to ensure the product didn't compromise on the quality, functionality, sustainability profile, nor the



aesthetics meant that Wave Grate was developed based on decades of experience and designer and customer feedback. It is quite clear that this commendable dedication to design excellence and unwavering commitment to innovation have paved Wave Grate's way to the accolade in the Product Design category.

"To be recognised with an Australian Good Design Award tells the world this project not only represents design excellence, but it also surpasses the criteria for design innovation and design impact," says Dr. Brandon Gien, CEO of Good Design Australia and Chair of the Australian Good Design Awards. "The Good Design Award is an independent endorsement of professional design quality."

The 2023 Awards celebrated 65 Years of Good Design since

the founding organisation behind the awards – the Industrial Design Council of Australia (IDCA) – was first established. And so it is quite fitting that – as if to mark such a pivotal milestone – some of the award-winning projects from this year's Good Design Awards were truly ground-breaking. "There are so many inspiring impact-led projects this year that have embraced the power of design as a problem-solving tool – their design stories deserve to be recognised and celebrated at the highest level," explains Dr. Brandon. "We are proud to continue the legacy of celebrating design, and designers making a positive impact on our world."

With a well-deserved place amongst other winners in 11 Design Disciplines covering more than 35 Categories and Subcategories, Stormtech truly epitomises the very quality underpinning both

the notion of good design, and the ethos behind the Australian Good Design Awards: the transformative power to find innovative, customer-centric solutions to local and global challenges.

"The award represents the culmination of a project Stormtech put together in response to feedback from designers, installers and end users," Troy remarks on the win. "This culmination was satisfying in and of itself, as the quality and aesthetic are self-evident, however recognition from the Australian design community in such a way is a massive compliment to our design and engineering prowess as a team."

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