

VISION

Auto Motive
Toyota Dealership
Chatswood, Sydney

Breaking House Rules
Nepean Hospital Mental Health
Care Unit, Penrith NSW

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Auto Motive

Cool, calm and connected, SBA's design for Toyota's new flagship premises is all high legibility and fine detailing.

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VISION welcomes project submissions to our editorial team, please submit ideas and projects clicking the icon above.

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Breaking House Rules

A precisely focused glazing program can be the difference between high and low light. Especially so, when the project is a mental health care facility – traditionally inward looking and driven by security concerns.



DIAGONAL STEEL COLUMNS
AND ELEGANT GLASS
JACKET DELIVER BESPOKE
ARCHITECTURE. A SOARING
SINGLE VOLUME AND HIGH-END
VIRIDIAN GLAZING, IMMERSE
STAFF AND CUSTOMERS IN THE
CRAFTED, LIGHT-FILLED SPACE.

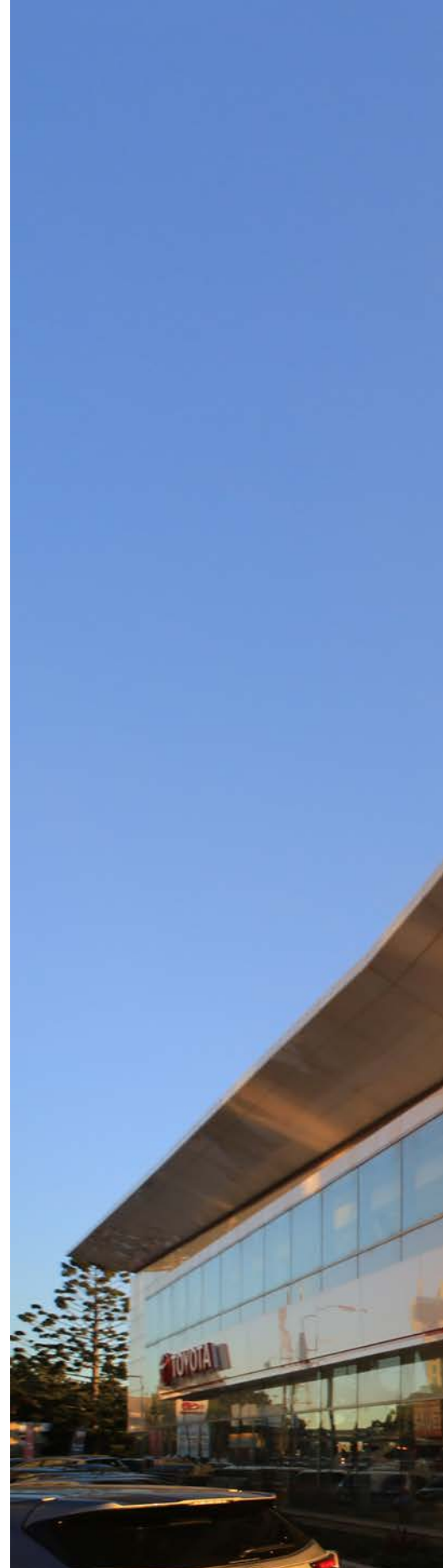
Toyota Dealership
Chatswood, Sydney

Principal glazing resource:
Viridian ComfortPlus™ clear
Seraphic Design™

Architect:
SBA Architects Pty Ltd

Photography:
Peter and Jennifer Hyatt

Text:
Peter Hyatt



AUTO MOTIVE



CORE PRODUCTS



ENERGY



NOISE



CLEAR VISION



DECORATIVE



BUSHFIRE



STRUCTURAL



STORM



SECURITY

The rise of the automobile has meant the rise of the automotive dealership and in so many instances this leaves plenty to be desired. A visit to the local motor-vehicle showroom is often little better than time spent at its big siblings – the airport terminal and shopping mall – where the initial novelty soon becomes unbearable. Too often it calls for a simple strategy – get in, get out.

A panacea to such dysfunction is better design and brilliant service. The average punter prefers clarity to confusion; understatement to overstatement. Toyota's new showpiece on the Pacific Highway on Sydney's North Shore is a shining example of a pared, stripped-back variety. Forget the old days of fluttering flags and furniture showroom hijacked to shift cars. Real customer and staff amenity is key to fulfillment of a much bigger, better promise.

This showroom is a shining, streamlined example of the genre. It connects on a commercial level and fulfils the customer experience with a relaxed, light-filled volume. Working to reflect the engineering quality of rolling stock on display, the architecture deftly skins the box with clear and fritted performance glass.





David Slade of SBA Architects discusses the rise of architecture as performance machine

Are the real stars here the vehicles, or showroom?

It's a combination. One needs to complement the other. You can't have a showroom that dominates because the retailer wants their product to stand-out. I think our design provides the perfect balance between display and building presence. It has an openness and volume that permits flexible layouts for car display. Beyond that backdrop, people experience the building as they walk through and inspect cars and inevitably feel pretty comfortable in that space.

There is a real form of retail theatre here. How do you balance that with the need for high function?

The primary means is the sculptural quality throughout. Its dramatic, Y-shaped, columns are the centrepiece in more ways than one and are visible internally and externally. There is also that floating projected geometry of the roof and solid facade panels. They contribute a quite dynamic effect for what is a flagship beyond the ordinary showroom. It is really a celebration of technology and design to create visual impact. We see it as a reflection of Toyota's superior brand, quality and corporate image.

It now features prominently in Toyota's national television advertising.

It's quite a nice compliment to know that we have fulfilled the brief with what is now seen as an iconic building. It also happens to take advantage of its prominent corner position on the Pacific Highway. It's pleasing that they use it for a lot of their media and it's a vote of confidence in the result.

What are the less obvious qualities in this type of project?

Beyond the visible surfaces is the thoughtful geometry and resolved internal layout. Features such as the mezzanine level work in less obvious ways. It wraps around both sides of the showroom and improves the visual connection between office staff above looking down across the showroom and beyond to the urban fabric. Their offices have transparent partitions up to the ceiling and that allows natural light through the showroom into those back offices and a terrific connection for those staff working there. They have that feeling that they are part of the dealership rather than locked away and left alone. Those sort of open connections are very important for well-being and allow staff to see customers and respond with a meet and greet.

What were the key design strategies to capitalise on its premium position?

Apart from providing a dominating form addressing both the Pacific Highway and Fullers Road, it is also about trying to create the memorable or engaging form. The realities are that this is a very constrained and congested site. It may not be the impression most visitors have but opening it up and managing efficient vehicle flow was critical. A lot of thought went into how to handle traffic from the Pacific Highway, parking and departure. There is also substantial vehicle storage in the lower basement area, so that incurred major excavations and site remediation works.

To what extent does it mirror bigger automotive aspirations?

It's really all about a space for cars and that might seem obvious, but we had to fit other ancillary functions such as sales consultant and new vehicle delivery areas into the back of the showroom. The building height is determined by views from external display areas and for corporate signage to be visible.

How tough a job is it to bring all of those strands together?

There's that delicate arrangement of signage and glass that looks right and is of the correct proportion for the scale of the site. There is a defined exercise in composition to achieve that. The facade height raises issues of sun-shading and temperature control and detailing. Viridian's Seraphic Design™ and operable shades on the northern side are a key part of that strategy to manage a building of quite some complexity.

What are some of the stand-out qualities that you can transfer to other projects?

The type and level of detailing is extremely crisp, especially on the facade between the steelwork and glass. We used a fairly conventional framing system on the facade by maximising the span and use of mullions between the steel supports. The layering effect of the primary steel behind the glass and the secret cut-outs behind the beams enabled the use of cleated connections that you can't see at all. This allowed the primary steel frame to be erected very quickly and from there a large fascia with corporate signage suspended from primary steel supports. That's achieved using some very slender steel cleats that come through the middle of the mullion supports for glazing.

Did such large glazing present installation problems?

Actually it did because it's such a tight site. Normally it wouldn't be an issue, but here we had little area to manoeuvre equipment. The glass facade also sits beyond the outside edge of the floor-plate to create a floating effect. With the facade projecting beyond the main slab line, support is achieved by the use of large steel parallel flange sections fixed along the slab edge. This support system needed to be in place before any glass could be installed.

Right

Suspended panels of Seraphic Design™ mediate the entry/exit transition.



IT IS REALLY A CELEBRATION OF
TECHNOLOGY AND DESIGN TO CREATE
VISUAL IMPACT. WE SEE IT AS A REFLECTION
OF TOYOTA'S SUPERIOR BRAND, QUALITY
AND CORPORATE IMAGE.

David Slade
Architect



Apart from the need for transparency, what were the other key design drivers?

That broad roof is a signature. It has been adopted as a feature for future Toyota showroom design. It obviously provides shading and takes advantage of the corner position to create an angular dart type of form from street level. We worked hard to maintain a thin, tapered element to complement the overall volume of the showroom. The joins in the eaves and their alignment, the recess and how they work together are all important to that floating roof effect.

So it's really responding to the tight automotive fit and form that is the hallmark of modern automotive design?

We're always mindful of a precision to the aesthetic. Obviously we wanted the right proportions, look and feel and higher level of finish than is normally associated with vehicle dealership designs.

What is the main reason behind fritted glazing?

The main driver was to manage heat gain to the main east and north facing elevations. That needed to be done in a way that didn't simply create a milky opacity. That level of environmental control and protection of the filtered light works extremely well.

What sort of interaction did you have with Viridian to ensure the pattern was just right for purpose?

There was a fair amount of research into the available patterns. We all work to budgets and so we couldn't necessarily afford a unique custom design. We referred to samples of standard Viridian patterns and adjusted their scale. We had a number of separate templates made, printed, tested and we reviewed them with Viridian's input to see which worked best. In the end Viridian produced a custom template to create that optimum pattern.

Left

A middle band of Seraphic Design™ produces a subtle shift in the glazing envelope and a reduced thermal loading along the north and east-facing elevations.

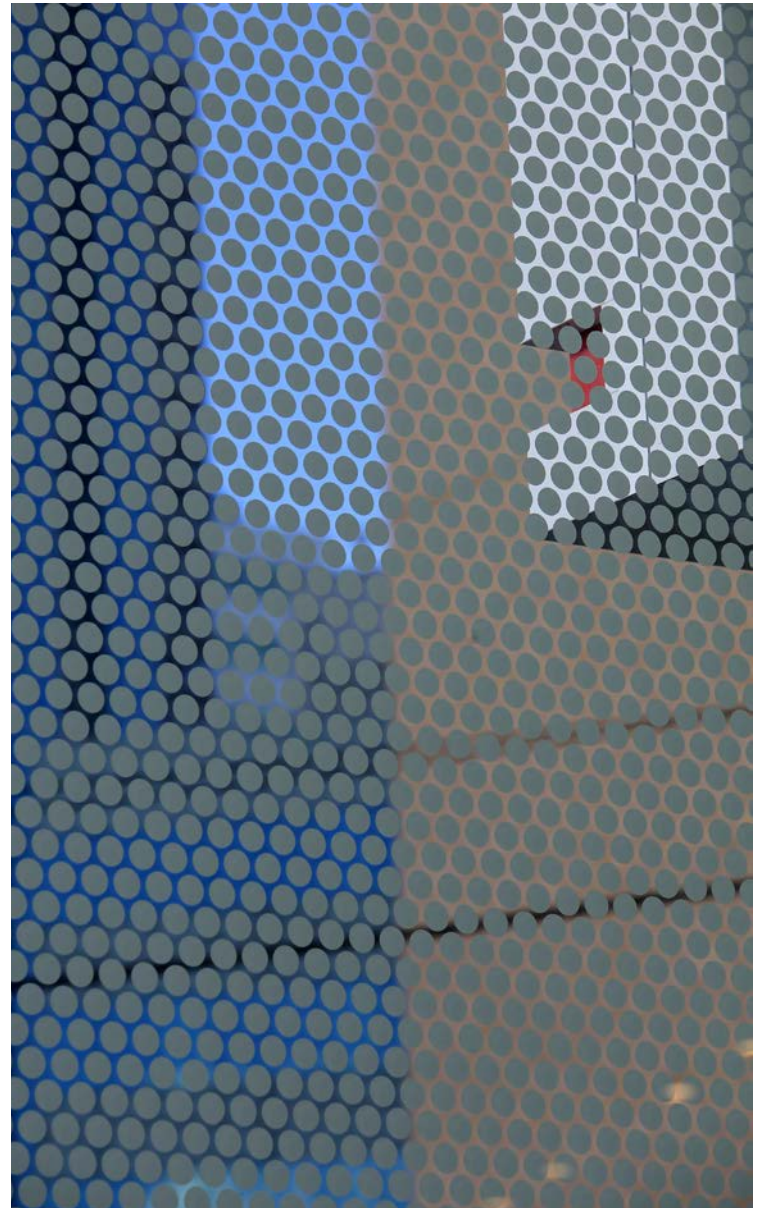


IN THE END VIRIDIAN PRODUCED
A CUSTOM TEMPLATE TO CREATE
THAT OPTIMUM PATTERN

David Slade
Architect

**Left**

Clear spans created by integrity of structural program allowed high-end glazing to achieve transparency at eye level and translucence above with Seraphic Design™ glass.







What about the remaining glass? You've opted for a very clear product.

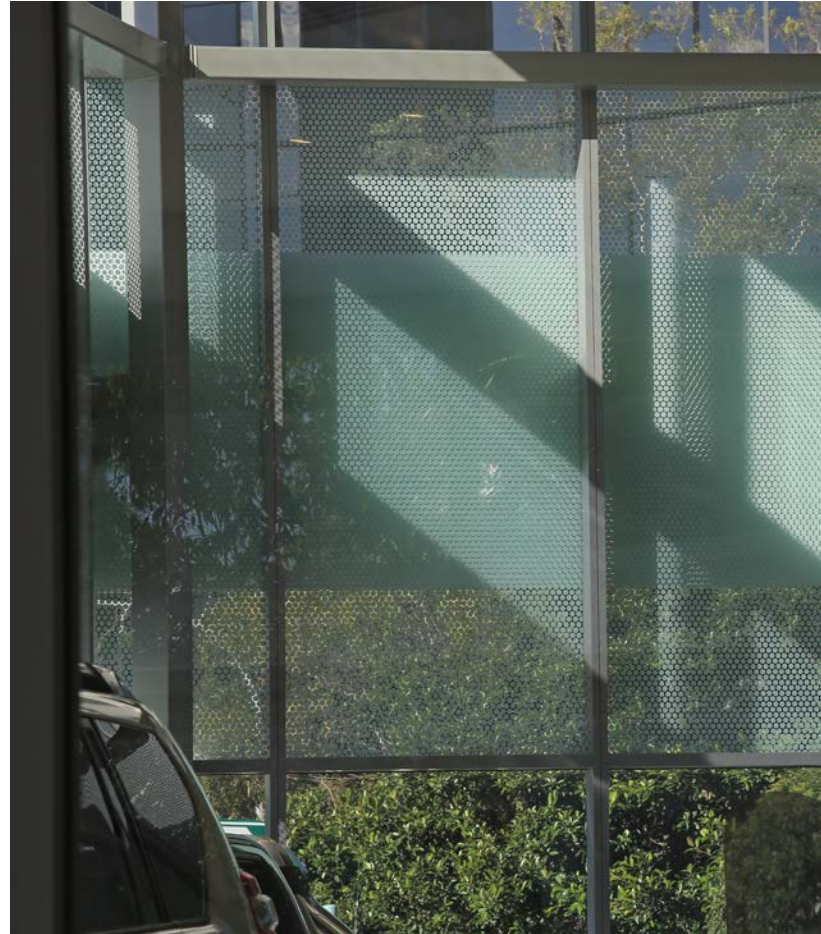
All of the external glass throughout is laminated ComfortPlus™ and the feedback about the quality of light and temperature control has been extremely positive.

Did you visit or research other vehicle showrooms around the world? What were the benchmarks you wanted to at least match and hopefully exceed?

We investigated project examples here and overseas – especially Europe which has some very sophisticated facade systems. We initially considered a frameless glass system with patch fittings and glass supports. One of the issues with being on such a busy arterial is structural stability and so we needed a glass system that was robust enough in concept to deal with the slightest movement or vibration caused by heavy vehicles.

What appealed about Viridian over another local supplier or imported product?

There are several reasons; one is the ability to get on the telephone and talk to a technical support specialist, especially during the design phase and then post construction should any defects occur. That level of support is always reassuring. Although we chose ComfortPlus™, Viridian has a wide product range of colours and patterns. We also knew of their extensive range of environmental glass products and systems. That made them the obvious choice.





Left and below
Clear circulation and flowing interiors.



Malibu 101

BUSINESS







Above
Main elevation from Pacific Highway.



Credits

Project

Toyota Dealership
Chatswood, Sydney

Architect

SBA Architects Pty Ltd

Design Director

Greg Baird

Design Team

Greg Baird, David Slade,
Lazlo Kotvan, Lyle Cunliffe

Builder

Maincon Pty Ltd

Structural Engineering

Matt MacDonald

Principal Glazing Resource

Viridian

Window Fabricator

Boka Aluminium Windows
Pty Ltd

Principal Glazing

Viridian ComfortPlus™ clear
Seraphic Design™

Floor area

4620 m²
(including basement storage)

Project Budget

\$14 million



BREAK
HOUSE RULE



NEPEAN HOSPITAL IN SYDNEY'S WEST EXALTS NATURE WITH A SERIES OF BOLD OPENINGS AND APERTURES TO USHER IN DAYLIGHT FOR PATIENT HEALING AND STAFF WELL-BEING.

Nepean Hospital Mental Health Care Unit, Penrith NSW

Architect:
Woods Bagot Sydney

Principal Glazing Resource:
VLam Clear, VTough Clear,
AssaultGuard Ultra 10 clear,
AssaultGuard Ultra 14 clear,
AssaultGuard Ultra 14 Neutral Low E,
Viridian JailGuard 14 clear,
JailGuard 14 Neutral Low E
SolTech Neutral,
ComfortPlus Neutral Toughened

Photography:
Peter Bennetts

Text:
Peter Hyatt



CORE PRODUCTS



ENERGY



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DECORATIVE



BUSHFIRE



STRUCTURAL



STORM



SECURITY

An unorthodox arrangement of openings and windows announces the difference between this facility and institutions based upon conventional practice. Private garden courtyards and an assured public face are keys to a reversal of the healthcare stereotype. An imaginative, collaboratively conceived glazing program connects occupants physically and visually to landscaped, green courtyards.

As the last major suburb before ascending the Blue Mountains, Penrith is no longer a remote outpost so much as satellite centre within Sydney's rapidly expanding growth rings.

Fifty kilometres from the Sydney CBD and with a gravitational pull all of its own, this is a powerful community and business hub deserving of high-end health care facilities. As if to signal its reputation as heartland of the west, Penrith's new Nepean Mental Health Centre (NMHC) is the hard-working showpiece all cities would love to call their own. The NMHC is the latest addition to the Nepean Hospital complex.

Defying the label of 'institution' is no small feat and yet this is precisely what Woods Bagot does with this design that breaks the conventions and house rules for high security health care.

Woods Bagot worked closely with Viridian to satisfy glass specifications for client sensitivity and security and the stringent requirements required to meet section J of the Building Code of Australia. Working with the architects from the outset meant Viridian could deliver the complexity of glass without client or design compromise.



Above
Aerial perspective illustrates linked pavilions and private courtyards.



Breaking House Rules



Above
The high-security facility made accessible and user-friendly.

Woods Bagot principal, Domenic Alvaro describes the goal of a healing environment and a 'living architecture'. He spoke with Vision about the desire to create an open, yet secure facility that lights the way for mental health care.

Your design promotes a real relationship with nature and better sense of connection between occupants. How important is this to the project result?

It informs almost all aspects of the design. We know that the mind and body respond to their direct environment, perceiving and reacting to the physical and emotional surroundings. The quality of this setting as a regenerative tool, stimulating the patient healing process, completely informs our design.

These interior qualities really extend well beyond light-filled volumes into courtyards that fully realize the idea of the extended garden room.

Yes and those landscaped, tranquil courtyards change with time, where plant growth and regeneration are highly visible. Rooms have generous solar access and protective interior spaces as sanctuary with strong connectivity between interior and exterior. That provides a very calming and reflective influence.

The design isn't a singular mass so much as a series of connected pavilions.

It is a direct response to the landscape and site. A series of stepped courtyards utilize the existing slope to create internal/outdoor spaces – green courtyards for healing, reflection and connection with nature. Plant colour and scent for instance contribute to the healing process. Courtyards have an organic character with a tapestry of planting and paths. Flexible fluid spaces encourage privacy and social interaction. The idea of patient regeneration is also there in the landscape that changes and transforms with the seasons.

What are some of the other design drivers?

Extensive consideration is given to the idea of representing the 'home'. Comfort with surroundings is essential to create a non-intimidating environment.

A strong connectivity between generous landscaped courtyards and interior spaces is established with internal courtyards expressing individuality rather than institutional values. Six outdoor landscaped courtyards provide respite for patients, families and staff from the more clinical setting of the wards.

What planning model guides the practical functions?

Internal planning is separated into three distinct clinical units, each with its own patient requirements and spatial demands. Individual patient wings are orientated on a 'V' planning typology, with a staff station at the base of the 'V'. This allows optimum surveillance and visibility while allowing bedroom wings to be spatially severed from public areas.

It must be very hard to satisfy not merely the utility of need, but provide a softness of place.

That was one of the defining challenges. We sat down with the clinical planner at the very beginning and drove a much more residential than clinical quality. It has a courtyard typology, and it holds its edges really well with its civic function as gateway within a complex hospital master-plan. There was enough critical mass in this to create the big civic gesture to the street frontages. It has a duality of expression that is robust and civic on the outside and coloured and contoured inside.

And not just about patient security, but keeping them safe from those without authorized access?

That's right and it's for patients needing varying acuity of care so it needs to be focused on patient safety and security. The hospital has observed that the design allows patients a sense of freedom to move in and around the courtyards. The amount of glazing in transit spaces between rooms to get to the courtyard is also extensive and with tremendous solar access. It's a huge reversal from a lot of these buildings that feel enclosed and intimidating.



Above and right

Six landscaped courtyards provide respite for patients, families and staff from the more clinical setting of the wards.



COURTYARDS HAVE AN ORGANIC CHARACTER WITH A TAPESTRY OF PLANTING AND PATHS. FLEXIBLE, FLUID SPACES ENCOURAGE PRIVACY AND SOCIAL INTERACTION.

Domenic Alvaro
Architect



It's interesting that you bring a whole other experience of residential design but nothing specifically of this type or precedent.

Our design proposition was to create a living architecture, as if we were designing a house. These design values are transferable across typologies – we overlay the constraints of the brief to build complexity, layering site lines, maximizing daylight, connecting indoor and outdoor.

Did value management dilute the qualities you wanted?

All projects have a degree of value management. The clarity of the design typology is such that you can consider a variety of materials and finishes as part of the value management process and still achieve the desired design outcomes for the project.

You appear to have driven a real slenderness to most of the volumes. It's not a single volume building with a dark central core requiring heavy artificial illumination.

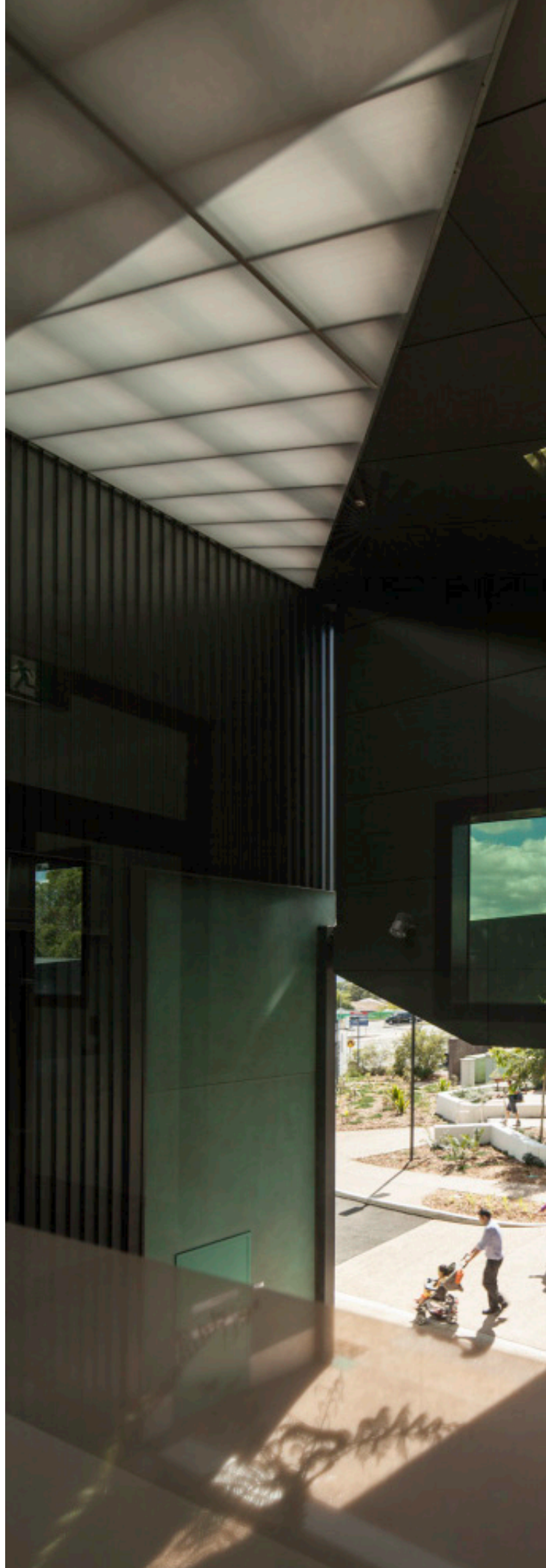
This is a site-specific response that resulted in a building with primary and secondary volumes, all connected with internal courtyards. This intentionally gave the street frontages a sense of ambiguity so that it could quite easily pass as a library or art gallery for instance. It's no longer a mental institution typology, it's focused on a civic presence. It gives presence and importance to the facade and that is as important for staff as for patients and has meant a real lift in staff satisfaction. Our design, glazing and walls really present a result you experience rather than negotiate.

The dark exterior shell sets up one expectation and yet internally the reverse occurs with the lightness from within.

It was very intentional to present this civic skin. Once inside it feels green and has this regenerative quality where the garden is physically embedded within the physical walls. That sort of tactility is very important for patients to touch and feel in combination with the landscape design.

Right

Striking just the right the balance between security and accessibility.





Glazing is intrinsic to the way the building operates and feels. That flexibility and permeability of glass never appears added on.

The glass skin utilizes the pixel or pattern of lines which acts as a screening device from the street. Our emphasis was always on the restorative environment. Externally it goes from clear to frosted and moving to double height at the end where it becomes clear for staff to see through. Some of the corridors have this playful game of the pixel whereby the window isn't just a window but has the horizontal on a vertical cut. There's that playful quality that breaks away from the more formal, restrictive design.

What is triggering that sort of response?

The project functions as a contemporary workplace. The role and impact of daylight is significant and has been welcomed by staff, patients and the client. It reflects the innovative workplace design we're doing in the Sydney CBD.

Does such an extensive use of glass in this sort of facility introduce real or imagined fears?

The client sometimes needs reassurance that glass can satisfy certain security concerns or issues of glare or privacy for instance. Glass is fundamental to the streetscape and people's interaction. There's a great depth to the glass by use of frit and film. The language of glass has an extensive vocabulary and we called on Viridian for a wide range of glass types to allow many of the effects you see.

That slightly random nature of the glazing sidesteps the more familiar marching rhythm that defines similar institutions.

That was really important because the design encourages playfulness and joy where people physically engage with the glass facades. There's that conversation with the facades from this playful pixel line to clear glass facing the courtyards for example.

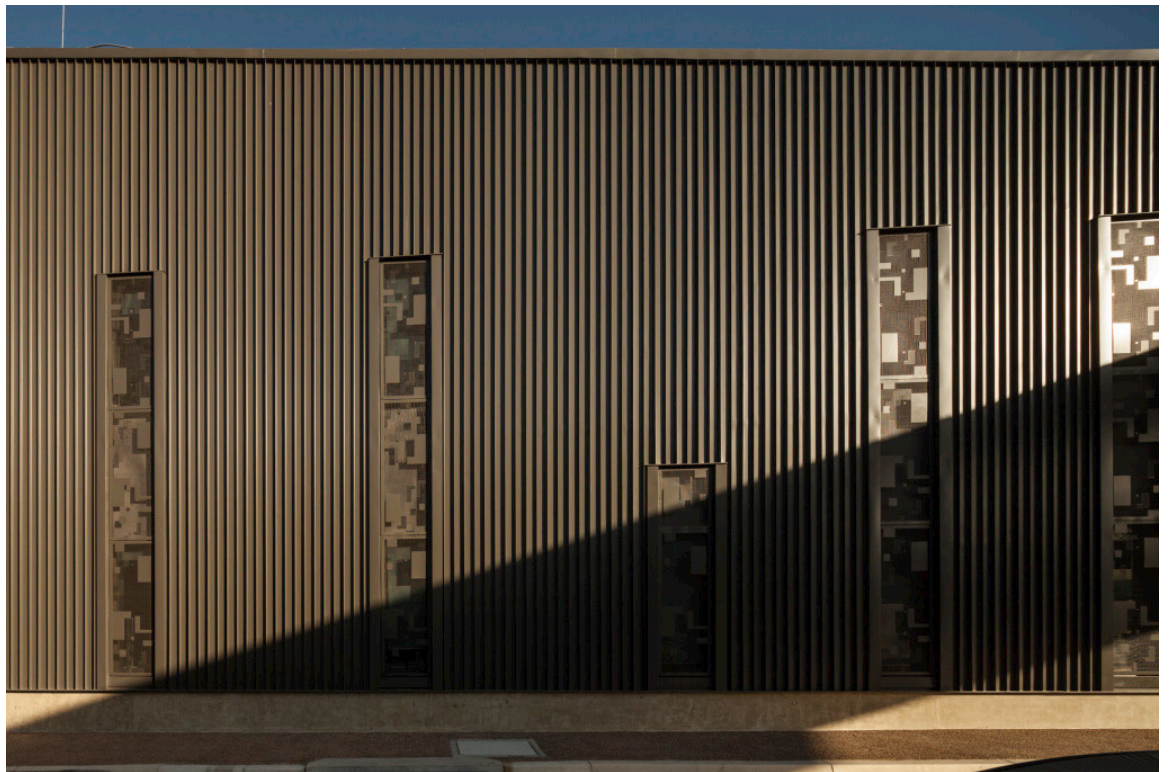
What is the single biggest lesson you take from this project?

The essence of the project lies in creating an architecture that embodies a regenerative environment, stimulating the healing process.



Above and right

Rather than a single, high-walled entity, the design has a layered, multi-dimensional quality where security glazing punctuates key zones with dappled, patterned daylight.





Credits

Project

Nepean Hospital Mental Health Care Unit, Penrith NSW

Architect

Woods Bagot Sydney

Design Team

Henry Ahn, Domenic Alvaro, John Breguet, Tershia Habbitts, Greg Harper, Dung Le, Howard Liu, Tracy Lord, Alan McMahon, Mukesh Mavji, Tommy ODaly, Stephen Taskin, Margaret Hardy

Landscape Architect

360 Degrees

Builder

A W Edward

Principal Glass Provider

Viridian

Principal Glazing

VLam Clear,
VTough Clear,
AssaultGuard Ultra 10 clear,
AssaultGuard Ultra 14 clear,
AssaultGuard Ultra 14
Neutral Low E,
Viridian JailGuard 14 clear,
JailGuard 14 Neutral Low E
SolTech Neutral,
ComfortPlus Neutral Toughened

Project area

6,000m²



Above
An animated facade of steel and glass as hard shell with soft centre.

VIRIDIAN (Australia)

VICTORIA

Melbourne (03) 9562 9562
Mildura (03) 5021 2921
Morwell (03) 5134 3586

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Albury (02) 6021 4333
Coffs Harbour (02) 6658 4500
Erskine Park 1800 810 403
Newcastle (02) 4940 3700
North Ryde 1800 810 403
Tamworth (02) 6763 3600
Wollongong (02) 4271 5888

QUEENSLAND

Brisbane (07) 3365 0500
Cairns (07) 4031 5777
Townsville (07) 4775 4099

TASMANIA

Hobart (03) 6245 0470
Devonport (03) 6424 1816

AUSTRALIAN CAPITAL TERRITORY

Canberra (02) 6203 0500

SOUTH AUSTRALIA

Adelaide (08) 8348 9200
Mt Gambier (08) 8721 0000

NORTHERN TERRITORY

Darwin (08) 8981 9411

WESTERN AUSTRALIA

North Perth (08) 9444 5333
(Viridian Glass Selection Centre)
Jandakot (08) 9411 0111
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