

The Olympic Effect

How Brisbane 2032 is Shaping the Future of Building Design in Australia







INTRODUCTION

Major sporting events do more to cities than host athletic competition. They compress infrastructure timelines, concentrate capital and highlight emerging design trends. Australia has seen this before: Sydney 2000 was a catalyst for urban transformation, triggering a rethinking of urban waterfront design, accessibility and construction practices in Australia.

Brisbane 2032 is the next iteration and one of the most significant infrastructure programs Australia has undertaken in recent decades. The \$7.1 billion venue infrastructure program spans 17 new and upgraded competition venues, athletes' villages across Brisbane, the Gold Coast and the Sunshine Coast, and transport upgrades that add a further \$12.4 billion in committed spending across the region.

For architects, this creates windows of opportunity. The design priorities embedded in Brisbane 2032's briefs reflect where regulatory frameworks, client expectations and design standards are heading beyond the Games. This paper examines four of those priorities reshaping architectural practice nationally: inclusive design, climate-responsive envelopes, a focus on place, and the growing importance of lifecycle thinking.



DESIGNING FOR EVERYONE: UNIVERSAL DESIGN AND INCLUSIVE ACCESS

Brisbane 2032 has made a stated commitment to being the most accessible Games in history. Around one in five Australians lives with disability,¹ making people with disability one of the largest demographic cohorts in the country. The parallel Paralympic program reinforces the point: venues cannot be designed for athletes and then retrofitted for accessibility. They must perform equally well for every user from the outset, across competition, spectator, and operational functions alike.

The athletes' village program illustrates how that thinking extends beyond venue design into urban legacy. The main Brisbane Athletes' Village will be located at the RNA Showgrounds in Bowen Hills, with earthworks scheduled for mid-2026 and construction commencing early 2027. Around 2,000 units across six towers will house over 10,000 athletes and officials during the Olympics and around 5,000 during the Paralympics.² The program extends across the region with additional villages at Maroochydore on the Sunshine Coast, Royal Pines on the Gold Coast, and a satellite village in Rockhampton serving the rowing venue. Post-Games, the Bowen Hills precinct converts to permanent residential use: a mixed-tenure community incorporating build-to-rent, social housing, and key worker accommodation, with modular construction being explored to accelerate delivery.

The international precedent for this model is well established. London 2012's Athletes' Village became East

Village post-Games, delivering over 2,800 permanent homes, including affordable housing. Paris 2024 designed its village to transition to housing around 6,000 residents after the Games. What both projects demonstrate is that conversion only delivers quality outcomes when both uses are resolved simultaneously from the concept stage: short-stay, high-density Olympic layouts do not automatically produce liveable long-term housing.

Universal design is moving from a compliance checklist into a standard, with project briefs increasingly requiring it. The regulatory framework is also tightening. The Disability (Access to Premises – Buildings) Standards 2010 were amended in November 2024 and took effect in July 2025, updating the primary referenced standard from AS 1428.1:2009 to AS 1428.1:2021, a more comprehensive set of requirements for access and mobility in public buildings.

Alongside this, the National Construction Code 2022 (NCC) introduced mandatory liveable housing requirements for all new Class 1a dwellings and Class 2 apartments, with state and territory adoption now largely complete. The Silver tier (the mandatory baseline) requires step-free entry paths, wider doorways and corridors, hobless showers, and reinforced bathroom walls to allow future grab rail installation. The Gold-level voluntary standard goes further and it is increasingly expected on public projects and legacy developments where long-term community use is a stated objective.

PUSHING THE ENVELOPE: CLIMATE-RESPONSIVE DESIGN

If inclusive design is reshaping how buildings accommodate people, climate performance is reshaping how they are built. The regulatory framework for energy efficiency was expanded considerably under NCC 2022. Section J changes include lower glazing U-values, revised solar heat gain coefficient limits for north- and west-facing facades, tighter air infiltration standards and solar-readiness provisions requiring 20% of roof area to be reserved for future PV installation. Under NCC 2025, rooftop solar PV installation becomes mandatory. For architects specifying facades and glazing assemblies, these adjustments redefine what a compliant building envelope looks like at the concept stage.

Brisbane 2032 has embedded climate performance into its procurement from the outset. Originally publicised as the first climate-positive Games, the IOC no longer uses the term 'climate-positive' when referring to its climate commitments but maintains that the requirements underpinning this term and its ambition to address the climate crisis have not changed.³ What remains relevant is the objective of making all new or significantly upgraded venues target a 6-star Green Star rating.⁴ Around 84% of Brisbane 2032 venues are existing or being refurbished,⁵

which means the real specification challenge lies in retrofitting envelope performance into existing structures.

Southeast Queensland sits within climate zones 1 and 2, the zones with the most demanding solar admittance and thermal performance thresholds under the NCC. The Victoria Park stadium, designed by COX, Hassell and Azusa Sekkei, responds directly to this, drawing on Queensland traditions of deep shading and natural ventilation to manage solar load and thermal comfort.

The practical implication is that envelope decisions need to be made earlier and supported by more rigorous evidence. Under NCC 2022's combined facade assessment, walls and windows are evaluated together as a single performance unit: glazing U-values and solar heat gain must be confirmed alongside wall insulation at the concept stage. Substituting a lower-performing product during construction can push the entire facade below the combined threshold. Thermal bridging must also be accurately modelled. For projects operating under both Green Star and NCC 2022, tested system performance data and modelled facade assessments are the baseline expectation.

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DESIGNING FOR PLACE: LOCAL MATERIALS AND THE QUEENSLAND DESIGN TRADITION

Climate-responsive design and place-responsive design are not separate conversations; in Queensland, they are the same one. Brisbane City Council's Design-Led City strategy explicitly frames the city's built environment vision around becoming a well-designed subtropical city, with new development expected to consider local climate, biodiversity and landscape. That framing has found direct expression across the 2032 venue program. COX, Hassell and Azusa Sekkei's concept for Victoria Park draws on the Queensland tradition with a stadium that sits within the landscape rather than imposing on it.⁶ For the Sunshine Coast Stadium, Architectus has conceived floating roof forms referencing the Glass House Mountains and the curves of Bokarina Beach, with breezy undercroft spaces recalling the region's coastal hinterland.⁷

The same thinking applies to material selection. Products specified for subtropical and tropical climates need to

be chosen with that environment in mind. Aluminium performs well in this context: its corrosion resistance, thermal stability and low maintenance requirements make it a durable and practical choice in Queensland's coastal and high-humidity conditions, where less resilient materials carry significantly higher maintenance costs over a building's life.

Brisbane 2032's procurement framework further reinforces the focus on place. With over 80% of supplier spending already directed to domestic businesses and a \$2.5 billion procurement strategy built around a "Games for Queensland, by Queensland" objective, the program actively favours local manufacturers and sustainable sourcing.⁸ Specifying locally manufactured, durable and high-performing systems is consistent with the procurement values underpinning the Games and reflects broader industry directions.

BUILT TO LAST: LEGACY, LIFECYCLE AND THE NEW SPECIFICATION STANDARD

Without long-term thinking, infrastructure quickly becomes a liability. Brisbane 2032 has positioned legacy outcomes as a core procurement priority from the outset.


The 17 new and upgraded venues overseen by the Games Independent Infrastructure and Coordination Authority are purpose-designed to meet local community participation needs first and foremost, with venues returned to community management following the Games to serve long-lasting benefits. The 2032 Delivery Plan explicitly frames funding decisions around this principle, prioritising infrastructure that provides a lasting legacy rather than venues purpose-built for the Games alone.⁹

The athletes' village program carries the same logic into housing. Games accommodation must remain fit-for-purpose and commercially viable after 2032, meaning the RNA Showgrounds Athlete Village and the regional villages at Royal Pines and Maroochydore need to be designed with future conversion firmly in mind. As industry commentators note, layouts designed for high-density, short-term stays don't always translate easily

to long-term housing; retrofitting services, upgrading finishes, or reconfiguring floor plans can be costly if not planned for upfront.¹⁰ The practical implication is that durability, adaptability and maintenance impact must be evaluated alongside initial performance from the earliest design stages.

This expectation is spreading beyond Olympic infrastructure. Green Star's updated rating tools incorporate life cycle assessment as a pathway credit, rewarding projects that rigorously quantify and reduce embodied carbon. Specifying a product on the basis of upfront cost or initial performance data alone is no longer sufficient for projects operating under Green Star or major public procurement frameworks. Lifecycle cost analysis, maintenance schedules and whole-of-life performance evidence are becoming baseline documentation requirements. Practitioners who can specify systems that hold up under scrutiny across a 30 to 50-year asset life will be better positioned as these standards move from Olympic-scale projects into the broader market.





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SPECIFYING FOR THE FUTURE WITH ALSPEC

Brisbane 2032 is best understood not as an isolated infrastructure program but as a leading indicator of where Australian architectural practice is heading. The four priorities examined in this paper, inclusive design, climate-responsive envelopes, place-responsive material selection, and lifecycle thinking, are not independent trends. They are converging into a new baseline, one being normalised through Olympic-scale procurement and regulatory reform.

Navigating this transition requires more than awareness of the regulatory landscape; it requires access to systems that are engineered for it. The systems specified need to perform under NCC's combined facade assessment requirements; provide transparent environmental performance data that satisfies Green Star certification criteria; meet the design specifications embedded in liveable housing and accessibility compliance; and hold up in the climatic conditions that Queensland's and Australia's broader building stock actually experience.

Alspec is an Australian-owned manufacturer with over 50 years of experience developing aluminium systems for Australia's climate and regulatory conditions. Their range is broad, including curtain wall, louvre and solar control, thermally broken door and window systems and glazing assemblies, but what distinguishes them is that each system has been developed and tested specifically for the Australian market.

Each part of Alspec's range addresses the design priorities and trends examined in this paper. Alspec's door and window systems are designed with accessibility in mind, with wider clear openings, low-threshold entries and hardware configurations that support independent use and universal design principles. Their Flinders curtain wall and ThermAFrame Commercial Window and Door systems incorporate thermal break technology that limits heat transfer through the frame, directly addressing the envelope performance requirements of NCC 2022. The Ventus and Paraflow louvre systems have been tested by a NATA-accredited laboratory to Australian standards, providing documented passive ventilation performance.

Alspec's local manufacturing capability sits naturally within the values Brisbane 2032 has established, favouring Australian suppliers and durable materials. Aluminium is well suited to the Australian context: corrosion-resistant, thermally stable and low-maintenance across decades of use in subtropical and coastal environments. In addition, Alspec's investment in compliance documentation and technical support means the performance data project teams increasingly require are available from day one.

The design priorities reshaping Australian architecture through Brisbane 2032 and beyond call for suppliers who understand what it means to build for access, performance, place and longevity. With local manufacturing, a broad product range and the quality to back it up, Alspec is well placed for the decade ahead.



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