

Submission on the development of pattern books to fight the NSW housing crisis

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The Sydney Chapter of Street Level Australia (SLA) makes the following submission in support of the NSW pattern book

Street Level Australia

Street Level Australia is a registered charity dedicated to enhancing the beauty and cultural vibrancy of Australian places. We advance good urbanism, traditional architecture, and quality building, with a mission to promote excellence and aesthetic appeal in design. Our role is pivotal in shaping and enriching urban environments.

The Sydney Chapter of Street Level Australia brings together over 100 planners, architects, and community members who share a deep interest in the beauty and form of the built environment. We are actively engaged in environmental and planning issues, raising awareness about the importance of beauty and human-scale design in the places we call home. Our advocacy for timeless, locally-driven, and uniquely Australian architecture and urban design aims to meet the needs and aspirations of the community.



Figure 1 New Sydney-style terraces in Auckland, NZ

Credit: Brookfield

Summary of recommendations

Street Level Australia supports the State government's endorsement of pattern book policy and offers the following recommendations to enhance its efficacy in NSW:

1. Beautiful local design: Require that pattern book designs incorporate NSW's rich architectural history to ensure that new developments resonate with the historical, cultural, and local context. This may be achieved by closely studying and faithfully producing aspects of iconic heritage-listed items and classical design language that define Sydney (e.g. the Sydney Terrace) with the canonically correct composition and elements. Ultimately, the most effective way to test beauty is to ask the community. Ultimately, the most effective way to test beauty is to ask the community.
2. Community co-creation: Develop pattern books collaboratively with communities, ensuring designs accord with community preferences, thereby reducing the 'NIMBY' sentiment and increasing social license. **The best way to conduct this is through visual preference polling** (as conducted by Street Level in Victoria). This democratic approach will help foster a balanced integration of professional and local perspectives.
3. Enduring, sustainable development: The most sustainable building is one that does not get knocked down. Beyond necessitating compliance with BASIX requirements, ensure the use of high-quality, locally sourced materials such as wood, weatherboard, and Australian-made brick in the pattern book. 'Enduring design' should be a key dimension of sustainability.

To achieve these goals, the pattern book should be thoroughly considered and precisely written. This means ensuring that it is highly visual, explicit, objective, and avoids ambiguity. Avoiding aspirational language and subjective standards are essential to eliminate interpretation disparities and ensure a streamlined, predictable approval process that reduces uncertainty.

Introduction

The delivery of new housing is in the public eye more than ever, as the State grapples with a housing affordability crisis. The debate is one that pits ‘NIMBY’ against ‘YIMBY’, without fully understanding their respective motivations.

The Sydney Chapter of Street Level Australia holds the view that the tension in housing development could be resolved by ensuring that new medium-density housing is not only aesthetically pleasing but also aligns with the local community's preferences and the context of the historic fabric, thereby signifying a sense of legacy and continuity.

This submission aims to give context to the recommendations provided for the NSW Pattern Book, giving evidentiary weight to the social license that will be generated by designs that accord with community preferences and uniquely Australian architectural styles.

Building beautiful buildings as Sydney undergoes transformation is essential for garnering shared, whole-of-community support for increased density, a key factor in meeting the 2023 National Cabinet housing targets.



Figure 2 New medium- density development in Tullimbar, Shellharbour inspired by Australian architectural traditions

Credit: Building Versatility Pty Ltd

I Context

Housing supply

New South Wales (NSW) is grappling with a significant shortage of housing supply. In an effort to address this challenge, the ‘Low Rise Housing Diversity Code’ (the Code) was introduced in 2018. This legislation was intended as a pivotal step to bridge Sydney’s ‘missing middle’ by promoting increased housing density and diversity within residential areas.

However, a significant impediment to the realisation of this initiative is a prevailing NIMBY sentiment among some local Councils and residents, that significantly hampered the effective implementation of the Code.¹ In response to this resistance, numerous local governments have adopted reactionary amendments to their Local Environmental Plans (LEPs), instating prohibitions against certain medium-density developments within residential zones.

The reaction to the Code demonstrates that the previous State government’s approach was ineffective. The current legislative framework, rather than facilitating, has become a hindrance to medium-density development and the ‘missing middle’. A new approach is needed that addresses the concerns of local residents and local governments while facilitating more housing supply.

Political context

The political narrative on housing in NSW has shifted such that there is public support for higher-density development. This shift is underlined by the ambitious 2023 federal housing targets set by the National Cabinet, mandating the construction of over 375,000 new homes in NSW over the next five years. This target doubles the State's forecasted delivery and sets an ambitious benchmark.

The NSW Premier has been unequivocal in communicating the government’s stance on this issue. A clear message was sent to local Councils, emphasising that inaction is not an option. The Premier asserted that the State government is prepared to step in and enforce necessary reforms to ensure that the housing supply is substantially increased.

It is clear that action is required. For any policy to be successful, it must be implemented quickly, be carefully considered, and garner community support.

¹ Korsanos, Angelo. 2022. “The Failure of the ‘Housing Diversity Code’ to Deliver Housing Diversity.” *Australian Planner*, August, 1–4. <https://doi.org/10.1080/07293682.2022.2113548>.

II The promise of pattern books

In a significant move to address the housing crisis in NSW, the Minns Labor Government has announced a plan to fast-track the construction of homes by endorsing pre-approved designs through a pattern book. This 'pattern book' approach consists of a suite of pre-approved designs for dual occupancies, townhouses, terraces, and low-scale residential flat buildings up to six storeys in height. These designs are anticipated to introduce 'gentle density' to 'R2 – Low Density Residential' and 'R3 – Medium Density Residential' zones.

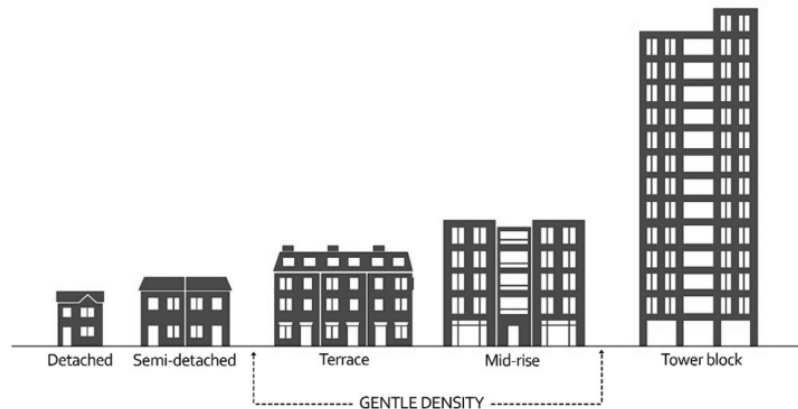


Figure 3 Illustrating 'gentle density'

Credit: Create Streets

A brief history of pattern books

Pattern books, although re-emerging as a contemporary policy solution, have historical roots that trace back centuries. Many globally renowned cities were built on the basis of these pre-prepared architectural design books. Haussmann's pattern book approach to the redevelopment of Paris in the 19th century underscores this rich heritage.

Likewise, Australia shares in this architectural tradition. In the 18th and 19th centuries, Sydney's architectural landscape was significantly shaped by pattern books. Notable figures like convict architect Francis Greenway relied on John Plaw's pattern book *Ferme Orne* in the design of public buildings and official residences. Recurring, popular patterns were used in the development of beloved Sydney suburbs including Surry Hills, Bondi, and Balmain.

The resurgence of pattern books in the modern planning system is not simply a nostalgic acknowledgement of the early architectural history of Australia. Rather, it is a pragmatic approach to address the issue of housing supply and urban sprawl. Properly legislated, this approach promises expedited building approvals, a shift from the NIMBY to the YIMBY mindset, and a bolstering of sustainable design practices.

People prefer beautiful architecture

The resurgence of pattern books not only revives a rich architectural tradition but also aligns with contemporary community preferences for aesthetic architecture and urbanism. Beautiful

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buildings make people happier, healthier, and promote strong community bonds.² However, new development in Australia often appears to prioritise function and cost at the expense of beauty and placemaking. Beautiful and enduring styles – such as buildings designed with classical techniques – are treated as unimportant or impossible, even though this approach is overwhelmingly popular with local communities. Or, as is often the case, the architectural designs submitted in the procurement process are excessively experimental. The built outcomes can be alienating and troubling for non-designers who, research shows, have different preferences than architects for the buildings they prefer.

Many architects prefer large-scale buildings, few details, cold colours, a contemporary style and an emphasis on originality. On the other hand, lay people prefer human-scale buildings, a diversified design with many details, warm colours, historical styles and an emphasis on conventionality.³

This is borne out by research, which indicates that people routinely look away from architecture that is asymmetrical, overbearing, or constructed with ‘cold’ materials. Such designs trigger emotional dysregulation, elicit stress responses, and deter individuals from these areas.⁴



Figure 4 Example of gentle density in a Sydney style

Credit: Commercial Real Estate

² Building Better, Building Beautiful Commission. 2022. “Living with Beauty.” https://assets.publishing.service.gov.uk/media/5e3191a9ed915d0938933263/Living_with_beauty_BBBBC_report.pdf.

³ Sternudd, Catharina. 2007. "Bilder av småstaden - om estetisk värdering av en stadstyp; Images of the Small Town - on Aesthetic Evaluation of a Townscape." PhD diss., Lund University, Department of Architecture and Built Environment, 2007. ISBN: 978-91-7740-086-8.

<https://www.lu.se/lup/publication/b24c7cb2-8a74-4c02-9fd7-5c130e6f274d>

⁴ Sussman, Ann, and Justin B. Hollander. 2014. *Cognitive Architecture*. Routledge. <https://doi.org/10.4324/9781315856964>.

There is, conversely, a correlation between traditional architectural forms and biological stress reduction. Symmetries and patterns of traditional architecture are generally found to be aesthetically-pleasing, as human brains have been physiologically conditioned by evolution to associate these fractal components with safety, security, wellbeing, and survival. This causes release of oxytocin and endorphins, resulting in a sense of pleasure and throttles negative aspects of the sympathetic nervous system (accelerated heart rate and raised blood pressure), working to restore our body and immune system and return us to homeostasis.⁵

Research indicates that beautiful and enduring architectural styles are popular. The community, as a function of our biology, finds it more pleasant, relaxing and interesting than contemporary buildings that are minimalist and asymmetric with little ornamentation and made from materials that appear ‘cold’ to the observer. The pattern book will therefore need to accord with these beautiful and enduring styles if it is to find community support and generate social license to develop.

Case study - Brookfield

In New Zealand, a boutique developer in Christchurch, Brookfield, is building ‘new traditional’ homes from repeatable patterns. To address the housing crisis, the state government must encourage a similar approach in Sydney, Melbourne and other major and regional cities.

Over the course of just 2–3 years, Brookfield has initiated and completed 53 developments in Christchurch – a rapid pace that is uncommon in the NSW Planning System. Their success hinges on their commitment to designing traditional homes that cater to the majority of the medium-density market. Remarkably, these homes attract almost no opposition from local communities, whilst their competitors building contemporary-style homes draw considerable friction, thereby slowing down approval times.

Brookfield homes have the elements Australians look for in the heritage homes that attract such high premiums, including higher ceilings and custom elements such as double-hung sash windows. Surprisingly, these homes don’t come at a higher price point than their modern counterparts, partly because they don’t stray from convention with novel façades and experimental details requiring custom treatment.

One of Brookfield’s major advantages is its ability to rapidly bring homes to market. On average, they go from an empty site to commencing construction in just four months, partly thanks to high community acceptance. Their popularity allows them to stay ahead of competitors, who often struggle to sell their inventory. This success is borne out in their sales data. A quarter of inventory doesn’t get added to the website because it sells before they list it. They have a database of people waiting for a Brookfield home designed to align with their size and location preferences.

These homes are designed to be popular – for consumers and among existing residents. ‘NIMBYs’ in New Zealand, like here, are particularly opposed to development that is out of

⁵ The Complete Hospitals Group, and John Simpson Architects. 2021. “Creating Complete Hospitals.” https://issuu.com/johnsimpsonarchitects/docs/november_submission_opt_high.

keeping with neighbourhood character. This conforms with Street Level's research, which shows that the majority of consumers prefer traditional design in a language in keeping with historic fabric.

Co-create pattern book designs with local insight and expertise

The clear preference for aesthetically pleasing and traditionally inspired architecture among the public underscores the necessity of involving them directly in the urban design process. There are compelling arguments for this approach. Such co-creation ensures that the resulting design codes resonate with the community's vision for their areas and local vernacular. This in turn helps to facilitate 'social license' through greater public trust. In parallel, collaboration with key stakeholders, including developers, in the preparation of pattern book designs ensures that they can be realised with efficiency and efficacy.

To foster successful co-creation, a mix of tools for engagement, blending innovative online platforms with traditional face-to-face interactions should be used for engagement. It is encouraged to ask foundational questions that often go overlooked: inquiries about favourite locales and preferred gathering spots can yield profound insights. Moreover, it is vital to approach public engagement not with the intention of dictating 'educated' opinions but rather with the aim of listening and understanding. These methods and approaches have been utilised for similar, successful design-led policies in the United Kingdom through Nicholas Boys Smith's 'Create Streets'.

Case study: Test community preferences

Street Level Australia's Melbourne Chapter conducted a community poll on preferences for architectural styles. Its results reinforced existing literature and the results of similar polling throughout the world.

Respondents were asked: *'The following developments are all newly built (since 2006). Which of these would you most want to see built in an activity centre or on a major Richmond street near where you or a close friend lives, works, or plays?'* The Poll was conducted by local community group in Gleadell St with the support of Street Level Australia among residents and visitors. Respondents could select multiple options. (n=83)

The results clearly demonstrate community preference for enduring, traditional designs.

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83%



Newly built traditional - brick industrial

60%



Newly built modern - textured

57%



Newly built traditional - patterned

38%



Newly built traditional - stone classical

30%

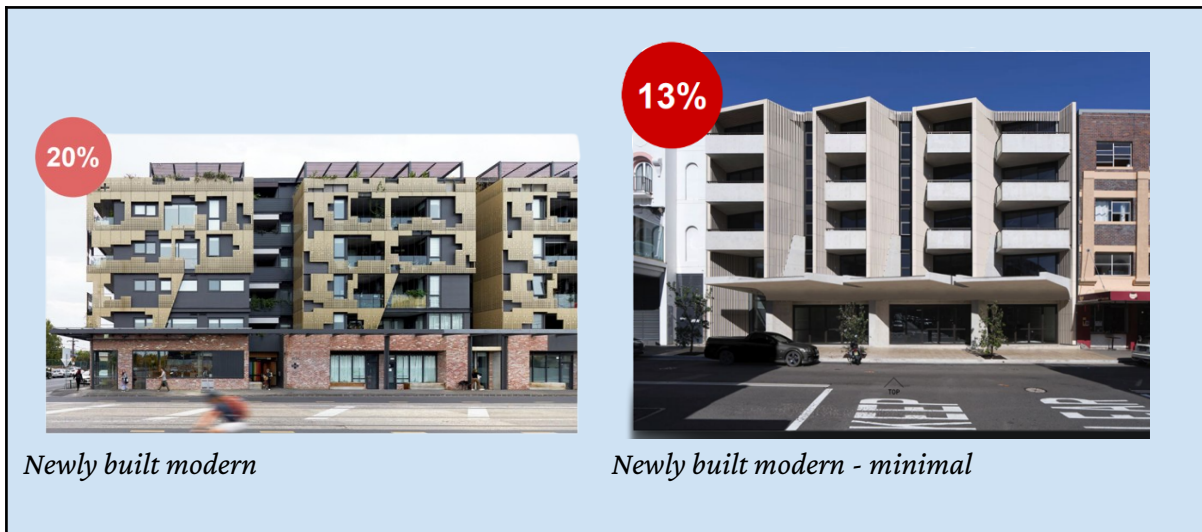


Newly built traditional - brick classical

21%



Newly built modern - asymmetrical



The most sustainable building is one that does not get knocked down.

Having discussed the importance of community co-creation in design, it is crucial to also consider the sustainability and longevity of these structures. An often overlooked aspect of sustainable architecture is the enduring nature of well-designed buildings. For example, the use of local materials in developments that have stood the test of time tends to be more sustainable in almost every dimension.⁶ This includes energy use; for example, a traditional dense-walled building with punched window openings and local materials (e.g. brick) has better thermal performance than a largely glass-walled lightweight building.⁷ Traditional buildings deliver structural strength and withstand weathering well.

Concrete, steel, and plastic, widely used in construction, are known to have significant negative environmental impacts. In an industry responsible for 38% of global carbon emissions, concrete (180 kg of CO₂/tonne) and steel (1.85 tonnes of CO₂/tonne) contribute heavily to environmental destruction. Plastics and plastics derivatives appear to be useful for their apparent flexibility, durability, lower costs, and energy and weathering efficiency in construction; the short life of plastics, combined with our inability to recycle or degrade them, makes them environmentally risky.⁸ On the other hand, sandstone has a carbon footprint of

⁶ Quinlan Terry Architects. 2023. "Essay Sustainable Future." Quinlan Terry Architects. 2023. <https://qtarchitects.com/publications/essay-sustainable-future/>.

⁷ ADAM Architecture. 2019. "A Study of the Energy Performance of Two Buildings with Lightweight and Heavyweight Facades - Energy & Environmental Assessment." ADAM Architecture. April 5, 2019. <https://adamarchitecture.com/publication/a-study-of-the-energy-performance-of-two-buildings-with-lightweight-and-heavyweight-facades-energy-environmental-assessment/>.

⁸ Buras, Nir, and Francis Terry. 2019. "Building for the Future: Seeing Building Materials in Terms of Weathering and Longevity." *New Design Ideas* 3 (2): 99–112. <http://jomardpublishing.com/UploadFiles/Files/journals/NDI/V3N2/TerryF%20BurasN.pdf>.

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just 77 kg/tonne,⁹ and wood can be CO2 negative as it locks in carbon.¹⁰ The use of locally sourced materials, such as sandstone or sustainable timber, is not merely a design choice but can also support local economies, creating jobs and ensuring the vitality of local businesses for future generations.

Beautiful buildings made with high-quality materials stand for generations, thereby negating the cycle of demolition and reconstruction. A successful pattern book will embed this local materiality to support Australian-first materials and help to meet our sustainability objectives.

⁹ Crishna, N., P.F.G. Banfill, and S. Goodsir. 2011. “Embodied Energy and CO2 in UK Dimension Stone.” *Resources, Conservation and Recycling* 55 (12): 1265–73. <https://doi.org/10.1016/j.resconrec.2011.06.014>.

¹⁰ Green Building Council Australia. 2021. “Timber! Five reasons to choose the good wood”. Green Building Council Australia, 27 October 2021, <https://new.gbca.org.au/news/gbca-news/timber-five-reasons-choose-good-wood/>

III Street level's support and recommendations

Street Level Australia supports the State government's endorsement of pattern book policy and offers the following recommendations to enhance its efficacy in NSW:

1. Beautiful local design: Require that pattern book designs incorporate NSW's rich architectural history to ensure that new developments resonate with the historical, cultural, and local context. This may be achieved by closely studying and producing aspects of iconic heritage-listed items and architectural styles that define Sydney (e.g. the Sydney Terrace). This should be contrasted with designs that take traditional/classical features and 'reinterpret' them producing results that create community backlash. Ultimately, the most effective way to test beauty is to ask the community.
2. Community co-creation: Develop pattern books collaboratively with communities, ensuring designs accord with community preferences, thereby reducing the 'NIMBY' sentiment and increasing social license. **The best way to conduct this is through visual preference polling** (as conducted by Street Level Australia in Victoria). This democratic approach will help foster a balanced integration of professional and local perspectives.
3. Enduring, sustainable development: The most sustainable building is one that does not get knocked down. Beyond necessitating compliance with BASIX requirements, ensure the use of high-quality, locally sourced materials such as wood, weatherboard, and Australian-made brick in the pattern book. 'Enduring design' should be a key dimension of sustainability.

To achieve these goals, the pattern book should be thoroughly considered and precisely written. This means ensuring that it is highly visual, explicit, objective, and avoids ambiguity. Avoiding aspirational language and subjective standards are essential to eliminate interpretation disparities and ensure a streamlined, predictable approval process that reduces uncertainty.

IV Closing note

This submission has outlined key recommendations for the implementation of the pattern book approach in addressing NSW's housing crisis. By advocating for designs that reflect NSW's rich architectural heritage, emphasising community co-creation, and prioritising sustainable development with locally sourced materials, Street Level Australia aims to bridge the 'missing middle' in housing supply. The adoption of pattern books presents a significant opportunity to not only meet housing targets but also to foster community support and enhance the environmental sustainability of new developments.

In the face of a pressing housing crisis, the importance of these recommendations cannot be overstated. It is a pivotal moment for transformative action that can shape the future of our communities in our State for the better. Street Level Australia urges the State government and relevant stakeholders to consider these recommendations carefully to ensure a positive and lasting impact for generations to come.