

12 April 2021

NSW Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Our Ref: 2021/198495

Dear Sir/Madam

Submission in response to the Explanation of Intended Effect for a Design and Place State Environmental Planning Policy

Thank you for the opportunity to provide comments in response to the Department of Planning, Industry and Environment's (the Department) exhibition of the Explanation of Intended Effect (EIE) for a Design and Place State Environmental Planning Policy (SEPP).

Northern Beaches Council (Council) strongly supports initiatives that improve the urban design of buildings, streetscapes and our local areas. As the Northern Beaches continues to grow and change, delivering well designed and sustainable built environments will help shape the liveability and productivity of our communities. This is particularly relevant for our Strategic Centres at Dee Why, Brookvale, Frenchs Forest, Manly and Mona Vale, where more compact housing forms under the Design and Place SEPP are expected.

The Department and NSW Government Architect's Office (GANSW) should be commended on delivering an EIE which recognises that urban design guidance is an upfront process and not a matter for consideration applied towards the end. At the same time, Council highlights that urban design guidance needs to be strengthened in the NSW planning system by ensuring that urban design becomes a requirement (not guidance). This is especially relevant at important stages of the planning process such as the pre-lodgement of planning proposals and the Gateway Determination stage.

Council understands that more work will be needed to implement the proposed reforms and the pivotal role that the GANSW will play. In this regard, Council urges the GANSW to consider the retention of numerical standards and reliance on 'principles' to address any non-compliance.

Council supports many of the proposed amendments, including:

- 1) amendments to various statutory instruments into a single Design and Place SEPP and Housing Design Guidance document to simplify the delivery of urban design controls;
- 2) raising the requirement for qualified designers and recognised accredited professionals as the basis for good design;

- 3) the application of the Design and Place SEPP to open space and precinct-scale planning to ensure baseline metrics whilst retaining a place-based response in accordance with local character statements across state and local planning;
- 4) improvements to design standards which meets basic requirements under the National Construction Code (NCC) for residential amenity such as natural cross ventilation, solar access, communal spaces, building separation requirements, limiting the number of apartments per level for tall buildings (tower typologies), increasing the size of bedrooms and private open space;
- 5) measures to reduce private vehicle usage such as the review of parking space requirements, incorporation of electric vehicle charging stations/spaces and car share provisions. This is particularly relevant for areas in the Northern Beaches within 800m of B-Line bus stops;
- 6) ensuring that apartment buildings provide appropriate spaces for bicycle and mobility storage to encourage further uptake of active transport use;
- 7) elevating the role and provision of local green infrastructure at the strategic planning and development assessment phase. Council welcomes the opportunity to actively participate in the development of sustainability measures for the Design and Place SEPP with the Department; and
- 8) amendments to sustainability measures for residential buildings to allow greater innovation and flexibility whilst still meeting minimum performance standards. Council strongly supports mechanisms and mandates to set our own higher or lower BASIX targets. This is particularly relevant for areas subject to uplift in zoning, in order to achieve greater public benefits including higher environmental performance.

However, Council notes that when considering the changes holistically and how this will impact future apartment development and precinct planning projects, further consideration on several aspects of the proposal is suggested, including:

- 1) how the proposed changes align with the NSW statutory planning system. NSW does not have a merit-based system, rather, it is highly legalistic and relies on definitions, interpretations and legal precedent. There is no proposal to change this. Given this, there needs to be a clear statement and explanation on how the principle and merit-based approach will fit with the statutory system. Council's view is that a minimum standards/benchmarks approach is more appropriate, with reference to the principle and merit-based approach for any non-compliance. This approach will be more effective, given the way the current planning system operates at all points in the process (from planning proposals, gateway assessments to development assessment phases);
- 2) how the principle and merit-based approach will align with the operation of other State Environmental Planning Policies (SEPPs). Council notes that the principle and merit-based approach will be inconsistent with *SEPP (Exempt and Complying Development Codes) 2008*, and the zones-based Standard Instrument Local Environmental Plan. A holistic review of all SEPPs should be undertaken against the Design and Place SEPP as part of this process, and to

ensure that the Design and Place SEPP does not become just another layer of assessment in an already complicated planning system;

- 3) identifying the problems and inadequacies in the current planning system the proposed changes are attempting to address. Without doing this, there is the risk of perverse outcomes. For example, a principle and merit-based approach not built on a foundation of benchmarks could make it easier to obtain approval for bad designs. Rather than expediting approval processes, it could lengthen them and increase both costs (preparation of voluminous reports), resourcing requirements for both the applicant and approval authority, and increase uncertainty for the applicant, community and planning authority;
- 4) potential issues with interpretation of the five design principles, 19 matters for consideration and design criteria in the NSW Land and Environment Court. Clarification on the proposed differences in statutory weight between the principles, matters for consideration and design criteria is suggested;
- 5) clarifying and providing clear direction about the use of clause 4.6 variation requests. Council notes that case law has significantly undermined the strategic and design intent of planning instruments through legal interpretation of clause 4.6. This needs urgent attention and rectification. Further, the suggestion for the determination of clause 4.6 variations by State or Council design review panels requires further consideration. The current planning system does not recognise design review panels as consent authorities, rather, their core function is to provide design advice. Notwithstanding this, Council notes that there may be an option for advice from design review panels to be formalised as a matter that is required to be taken into consideration by Local Planning Panels and the Land and Environment Court;
- 6) the impact on development feasibility with increased design standards, resulting in no immediate change or growth in certain locations with high land values. This is particularly relevant for the Frenchs Forest Planned Precinct, where current planning has been based on specific floor space ratios, housing typologies and internal rate of return assumptions that may differ from what would result under the Design and Place SEPP. Council recommends that the Frenchs Forest Planned Precinct is used as a case study by the GANSW to see if the proposed controls produce feasible development outcomes;
- 7) the impact on housing affordability, given the increased costs that will result from the implementation of increased design standards, requiring more technical studies, consultant advice and construction costs. Whilst more rigorous design controls are proposed and are strongly supported by Council, it is noted that this will have a flow on effect to consumers;
- 8) the inclusion of the following land uses and zones in the application of the Design and Place SEPP: tourist and visitor accommodation, SP1, SP2 and SP3 Special Uses zones (whereby residential land uses may be accommodated as an additional permitted use due to unique, site-specific circumstances). The delivery of good design and place outcomes is considered critical for special uses zoned land;

- 9) extending design guidance in the Apartment Design Guide (ADG) to include seniors housing and boarding house developments as a matter of urgency, given the increase in these development types within the Northern Beaches and the challenges that Council has experienced in achieving good design and place outcomes;
- 10) the impact on State-led rezoning projects that are currently under investigation such as Frenchs Forest and Ingleside. Council notes that the exhibition of the EIE is timely and as a minimum, the underlying principles and anticipated changes in the document should be considered by all planning authorities now in its precinct planning investigations ahead of land being rezoned, in order to capture good design and place outcomes;
- 11) the inclusion of measures to reduce private vehicle usage in the Urban Design Guide (UDG) to ensure alignment with similar provisions contained in the Apartment Design Guide (ADG);
- 12) clarification on the differentiation of roles between State and Council design review panels in the Design Review Guide (DRG). Council notes that there will be significant resourcing and expertise implications;
- 13) the consideration of local design panel advice as part of the assessment process, and the role that local council design excellence panels interface with the Design Review Guide (DRG). Whilst local design review panels are not a consenting authority, how can the advice provided be given more weight and urge conformance with the recommendations of the panel. In some respects, the panel is the coalface for implementation of this process/design excellence.
- 14) clarification on Matter for Consideration 19 (Affordable housing) is required. The EIE suggests that in the absence of an Affordable Housing Scheme under *SEPP No 70 – Affordable Housing (Revised Schemes)*, applicants are expected to provide 5% to 10% of new development as affordable housing, whether or not there has been an upzoning of the land. If this interpretation is correct, this would be contrary to current Council policy;
- 15) a state-wide approach to minimum density requirements of 15 dwellings per hectare for zones R1 to R4 is not considered appropriate due to potential impacts on local character. Councils are considered the appropriate authority to identify density requirements through its strategic planning function. The standard template and top-down simplistic zoning, the application of blanket floor space ratios and heights are in direct conflict with 'contextual' and 'place-based' responses, and work against other objectives such as diversity and mix. This also raises the question of the relationship between SEPPs and Development Control Plans (DCPs). The state-wide approach to minimum density requirements infers that DCPs would need to demonstrate a principle and merit-based approach;
- 16) the rollout of appropriate training and resources (such as a commitment to ongoing education and up-skilling) to assist Council Planners, Urban Designers, Design Review Panels and Administration staff to ensure that requirements have been interpreted as intended;



- 17) the implementation process for independent, merit assessment pathways outside of BASIX requires further investigation. Even if training of development assessment and sustainability staff is provided, Council considers this to be inadequate due to the complexities involved in assessing independent, merit assessment pathways outside of BASIX. For this reason, Council suggests that referral officers (who are employed by Council to ensure that probity is maintained) should comprise a dedicated sustainability expert who works alongside a registered architect/urban designer. Council notes that this would have resourcing implications;
- 18) the requirement for reporting embodied energy as part of a materials submission schedule requires further consideration. Council's view is that this matter is better dealt with as an industry policy supply side issue. The issue is that alternatives are not readily available in any case. Further, the proposal risks extraordinary compliance, reporting and certification costs; and
- 19) resourcing implications for Councils and the impact on assessment times for development assessment and planning proposal applications due to the increased volume of information submitted during application lodgement. The appointment of dedicated Design and Place SEPP expert assessment officers who are appropriately qualified and registered to undertake the assessment may be required.

Please see the attachment for specific comment about various aspects of the proposed changes.

Council again thanks you for the opportunity to provide comments on the Explanation of Intended Effect for a Design and Place State Environmental Planning Policy and we would be happy to participate in any further discussion or forums on this policy.

Should you require any further information or assistance in this matter, please contact my office on (02) 8495 6414.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Louise Kerr'.

Louise Kerr
Director Planning and Place

Attachment 1

Feedback on the EIE for a Design and Place SEPP

Item	Page	Proposal	Comments
General matters			
1	14	<p>Design principles A principle-based approach to guide the design and assessment of new development proposals is proposed.</p>	<p>A principle-based approach to guide design and assessment of new development proposals is generally supported. However, Council urges the GANSW to consider the retention of numerical standards and reliance on 'principles' to address any non-compliance.</p> <p>Council also notes that there may be potential issues with the interpretation of these principles in the NSW Land and Environment Court, as they are considered more ambiguous than the current requirements contained in Schedule 1 of SEPP 65 - Design quality principles.</p> <p>Further, Council requests that clarification is provided on the proposed differences in statutory weight between the five principles, 19 mandatory matters for consideration, the design criteria and design guidance identified in the revised ADG. Not all outcomes will be achievable as there are often competing objectives.</p> <p>Specific comment on the below principles are provided for further consideration:</p> <ul style="list-style-type: none"> • Principle 4 (Design sustainable and greener places for the wellbeing of people and the environment): reference to minimum standards is not considered a reflection of best practice outcomes as developers will often provide the absolute minimum requirement. Separately, reference to 'blue-green infrastructure' is suggested as this would complement the intended effect of Principle 4. • Principle 5 (Design resilient and diverse places for enduring communities): Council suggests defining 'diverse environments' to provide clarification on this terminology. Separately, Council notes that reference to 'climate resilience infrastructure' is missing, despite being highlighted as critical when referencing the impact of the 2019-20 bushfire season. A suggested criterion for inclusion is for 'infrastructure construction to be adaptive to climate change over its design life and use materials that are durable to natural hazards'.



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2	21	<p>Application of the new Design and Place SEPP The Design and Place SEPP will apply to all urban land. It will exclude certain zones e.g. rural zones and certain state significant developments under Schedule 1 of <i>SEPP (State and Regional Development) 2011</i>.</p> <p>There are various notes throughout the document which suggest that the SP1 Special Uses zone will be excluded from the application of the Design and Place SEPP.</p>	<p>The application of the Design and Place SEPP to all urban land and exclusion of certain zones is noted. Council supports the inclusion of 'Precincts' and 'Significant development' in addition to 'All other development' as this will provide consistency across councils and state government for all precinct planning and significant sites.</p> <p>Council also notes that the application of the Design and Place SEPP should clearly distinguish the role of 'precincts', 'significant development' and 'all other development'. Council considers that the underlying principles of the Design and Place SEPP have clear application at the planning investigation phase for the rezoning of land.</p> <p>Council supports the inclusion of additional design guidance for student accommodation, co-living, boarding houses and housing for seniors. Council considers that design guidance is needed urgently for seniors housing and boarding house developments. Council has observed a noticeable increase in development applications for seniors housing and boarding houses in the Northern Beaches in the past few years. Council is unclear why these developments have different requirements for open space, landscaped areas, floor space ratios and car parking. On a broader note, the logic of special categories of housing needs re-thinking and whether the planning system is the best way of delivering it. The delivery of good urban design and place outcomes for these developments has been challenging.</p> <p>Council requests that careful consideration is given towards the exclusion of SP1, SP2 or SP3 Special Uses zoned land from the Design and Place SEPP as this will create a localised issue for the Northern Beaches. This is because the Northern Beaches contains various special uses zones (SP1 SP2, SP3), often in state agency ownership, where special circumstances have permitted residential flat buildings (for example, as an additional permitted use or an ancillary use). It is often planning and development by State agencies which is problematic. The delivery of good design and place outcomes is considered critical for these specific areas.</p> <p>Further, Council requests that consideration is given towards the inclusion of 'tourist and visitor accommodation' in the application of the Design and Place SEPP. For the Northern Beaches, there have been several hotels or motels that have been approved</p>



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			with poor design and amenity outcomes (such as in business parks where no predominant character exists). The application of the ADG to tourist and visitor accommodation would improve the overall design quality of these developments. However, Council notes that requirements for solar access, private open space etc. would require some level of differentiation to apartment development.
3	25	<p>Design skills Qualified designers as defined by clause 50 of the <i>Environmental Planning and Assessment Regulation 2000</i> is proposed to be incorporated into the Design and Place SEPP.</p>	<p>The requirement for qualified designers and recognised accredited professionals is supported as this will raise the basis for good design. However, there would need to be support to implement this requirement.</p> <p>Notwithstanding the above, Council notes that there are major anomalies with Architects and their institutions. Architects are not required to have any skill in urban design or planning under the revised Architects Accreditation Council of Australia (ACA). The Planning Institute of Australia (PIA) is the only institute that has an urban design chapter and accredits only two courses in Australia in Urban Design (University of Sydney and University of Melbourne). This matter requires further consultation with relevant institutions.</p>
4	26	<p>Design evaluation and review panels A consistent design review process across all councils and state government panels is proposed.</p>	<p>The preparation of a Design Review Guide (DRG) is supported. In the preparation of the DRG, Council notes the following matters for consideration:</p> <ul style="list-style-type: none"> • the need for input from Council's urban design division on early design concepts such as site analysis, mapping and design development • consideration of pre-lodgement urban design advice as a mandatory part of the development application process • the need to allow a degree of flexibility regarding thresholds for design review, as there may be local issues which require consideration by a design panel e.g. boarding house developments • the need to clearly differentiate the roles between Council and State panels, and advice and determination. <p>Council has recently established a Design and Sustainability Advice Panel (DSAP), which aims to promote the delivery of high-quality built environments which feature design excellence and sustainability. The DSAP Charter is available on Council's website and outlines the role of the Panel and types of proposals that are reviewed. Refer to Attachment 1 for a case study on Council's DSAP.</p>



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			<p>Regarding clause 4.6 variations, Council requests clarification and clear direction on the use of clause 4.6 variation requests. Council notes that case law has significantly undermined the strategic and design intent of planning instruments through legal interpretation of clause 4.6. This needs urgent attention and rectification. Further, the suggestion for the determination of clause 4.6 variations by State or Council design review panels requires further consideration. The current planning system does not recognise design review panels as consent authorities, rather, their core function is to provide design advice. Notwithstanding this, Council notes that there may be an option for advice from design review panels to be formalised as a matter that is required to be taken into consideration by Local Planning Panels and the Land and Environment Court</p>
5	28	<p>Mandatory matters for consideration 19 matters that respond to the principles are proposed to be identified as mandatory considerations.</p>	<p>The 19 mandatory matters for consideration are supported. However, as noted previously, clarity on the difference in statutory weight with the overarching five principles and criteria in the ADG is suggested to ensure that the intended outcome is achieved.</p> <p>Specific comment is provided on the below considerations:</p> <ul style="list-style-type: none"> • Consideration 5 (Street design): Council suggests inclusion of water management in Consideration 5. Roads are a significant source of microplastic pollution, among other pollutants. Therefore, there needs to be strong linkages with water management. Council has observed that the density of development and limited landscaped areas has placed pressure on space. Council has observed the lack of natural stormwater treatment via wetlands/bioretenion, and increase in engineered devices, which are below the ground. This has increased maintenance issues because the devices have been out of sight and mind. Further, Council suggests that specific reference to protecting groundwater resources is undertaken so that infiltration to groundwater to maintain baseflows in creeks can be achieved. Several case studies highlighting issues with stormwater treatment with recent developments are provided in Attachment 3. • Consideration 6 (Water management): the notion of precinct scale water management is reasonable so long as it is not dependent on individual water management requirements, particularly when Exempt and Complying development Class 10



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			<p>structures can occur to the detriment of the lot-scale water management.</p> <ul style="list-style-type: none">• Consideration 10 (Density): the proposed minimum density capacity of 15 dwellings per hectare for R1 to R4 zones is not supported by Council. A state-wide approach will have implications on local character. Council is considered the appropriate authority to identify minimum density requirements through its strategic planning functions. Further, this proposal appears arbitrary and possibly goes back to the Australian Model Code for Residential Development (AMCORD) and National Housing Strategy objectives of the early 1990s. These documents were focussed on the optimisation of infrastructure provision. It is considered that the 15 dwelling per hectare outcome had driven most of the worst urban outcomes by translating into 450 square metre lots with little open space, the proportion of road space remaining the same or slightly higher. However, more importantly, this numerical control is directly opposed to the idea of place-based responses and diversity.• Consideration 13 (Attractive form): Council suggests case studies and/or a pattern book (like the former Residential Flat Design Pattern Book) is included to provide additional guidance. This could also be extended to include boarding houses and seniors housing. Council notes that this would need to be carefully positioned in the planning system i.e. is it part of the planning system or not, as this may be an issue for interpretation and application by the Land and Environment Court. Council notes that the Pattern Book was not part of the planning system. The motivation of the original Pattern Book at the time was an attempt by the Government Architect to be relevant when all the good thinking was being done by Urban Development Authorities.• Consideration 17 (Emissions and resource efficiency): Concern is raised over specifying 'apartment buildings' and 'all buildings' could result in a misunderstanding (by others, not necessarily Council's view) that other residential accommodation are not required to be 'ready for net zero'.• Consideration 19 (Affordable housing): The EIE suggests that in the absence of an Affordable Housing Scheme under <i>SEPP No 70 – Affordable Housing (Revised Schemes)</i>, applicants are expected to provide 5% to 10% of new development as affordable housing, whether or



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			not there has been an upzoning of the land. If this interpretation is correct, this would be contrary to current Council policy.
6	35	Repeal of SEPP 65 and BASIX SEPP The Design and Place SEPP intends to replace SEPP 65, the BASIX SEPP and revise the current ADG into three separate documents.	<p>No issue is raised with the repeal of SEPP 65 and the BASIX SEPP and replacement with a new SEPP, revised ADG, new Urban Design Guide (UDG) and new DRG.</p> <p>Council considers that separating the current ADG into three separate documents will simplify the delivery of urban design controls in strategic planning, development assessment and the design review process.</p> <p>Council welcomes the opportunity for alternative mechanisms/ assessment pathways that demonstrate a design meets sustainability performance requirements. However, notes potential resourcing implications and lack of expertise within Council in regards to assessment of sustainability mechanisms outside of BASIX.</p> <p>Regarding the broader reforms to sustainability, this is noted. Council notes that the National Construction Code (NCC) is not as advanced as BASIX. NSW therefore has the potential to show leadership. The NCC revision is a cumbersome process and is focussed on demand side measures in the absence of understanding supply side. Council requests for more autonomy regarding the implementation of sustainability measures such as the ability to set 'base' floor space ratios and then require a range of public benefits that could be provided which align with maximum floor space ratio provisions.</p>
7	38	Other environmental planning instruments impacted by the Design and Place SEPP The Design and Place SEPP will interface and supplement with other SEPPs.	Council queries how the Design and Place SEPP will link to the Draft NSW Coastal Design Guidelines, which is proposed to be mandatory for Planning Proposals. Coastal areas are not set up well for urban conditions and the EIE provides little guidance on this. On the one hand, the EIE states that it will consider a whole range of factors, but it does not specify how or what should be done.
8	42	Transitional Provisions Feedback is sought on the lead time required by stakeholders for the components of Design and Place SEPP to inform	The changes proposed will have significant implications on Council resourcing, implementation and internal processes. For this reason, at least a 12 month lead time will be required.



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		the making of these transitional provisions.	
9	48	Glossary Certain terminology in the document has been defined.	Council does not agree with the proposed definition of 'mitigation (of climate change)' as this is confusing and not consistent with NSW Government definitions of climate change mitigation/adaption. Council suggests reference to the NSW Government AdaptNSW website for correct terminology and definition of climate change mitigation (and adaption).
10	A30	Combining housing design guidance It is intended that the ADG will be revised over time to combine all housing design guidance into a single design guide to be used with the Housing Diversity SEPP and Design and Place SEPP. This would include additional design guidance for student accommodation, co-living, boarding houses, and housing for seniors.	No issue is raised with combining housing design guidance into a single design guide.
Urban design and site planning matters			
11	A14	Contribution to Place Development will require a demonstration of Country and positive contribution to place, local character, local planning aspirations and integration with urban and natural systems.	The Aboriginal Land Council have a very specific remit under NSW legislation compared to Commonwealth legislation under the <i>Native Title Act 1993</i> . This matter requires further thought as this requirement could easily turn into a 'tick a box' approach that could devolve into a process that attempts to shoe-horn Aboriginal values into a development delivery process. It should also be acknowledged that other cultural groups should be consulted, where relevant.
12	A14	Landscape and greening Changes to the calculation of deep soil zones as a percentage of site area have been proposed. A pro-rata reduction in targets if	The changes to the calculation of deep soil zones are generally supported however, requires further consideration as it is not place specific and does not consider context. Notwithstanding the above, Council suggests identifying definitive ratios rather than ranges, as the minimum will always be used by applicant. That is:



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		<p>retail/commercial entrances on the ground floor are greater than 85% of the building footprint is also proposed.</p>	<ul style="list-style-type: none"> • Less than 650m² = 15% • 650-1500 m² = 15% • 1500-3000m² = 20% • Greater than 3000m² = 25% • Unless a specific water management study has been undertaken which introduces precinct-specific requirements. For example, the Warriewood Valley Water Management Specifications developed for this release area has very specific impervious and deep soil area requirements as does the Ingleside Water Management Study.
13	A14	<p>Building form and separation Tower typologies (i.e. any part of the building that is nine or more storeys) are proposed to include a limit on gross floor area to a maximum of 700m² along with a maximum of eight units per core per floor.</p> <p>Changes are also proposed to increase the building separation for towers of 25+ storeys from 24m to 30m between habitable rooms.</p>	<p>Limiting the floor area, number of units per core per floor and increasing building separation distances for tower typologies is supported in principle as this will produce slimmer, taller buildings, enhance sunlight to the public domain and improve internal amenity.</p> <p>Further guidance on the implications of tall towers is suggested such as the requirement for wind tunnel testing.</p> <p>Regarding the proposed increase in building separation to 30m for towers of 25+ storeys, this is supported as it will activate the ground plane and urban realm.</p> <p>Notwithstanding the above, further consideration is suggested on the impact that limited floor space may have on development feasibility. Council notes that these controls will affect the Frenchs Forest Planned Precinct, currently being prepared by the Department. Feasibility testing has not factored in the reduced floor space resulting from these controls.</p>
14	A15	<p>Mixed use development and street activation, ground floor ceiling heights and ground floor activation To activate the ground floor of mixed use developments, changes proposed include:</p> <ul style="list-style-type: none"> • allocating 40% of ground floor space for non-residential use in R3 and R4 zones, and centres 	<p>Changes to ensure activation of the ground floor space of mixed use developments in R4 zones and centres is supported from an employment and jobs perspective. Activation of all ground floor/non-residential uses, in the R3 zone is not supported.</p> <p>Council notes that there may be circumstances where the ground floor of mixed use developments remains vacant for significant time periods due to market demand. Whilst this has an impact on visual amenity and the built form relationship with the public domain while vacant, it also leaves open opportunity for future activities. Consideration could be given to creating an agency that could manage these spaces.</p>



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		<ul style="list-style-type: none">increasing ground floor ceiling heights for all non-residential uses (habitable rooms only) to 4.2mrequiring all ground floor apartments facing a street to have direct access to the street.	<p>Regarding increasing ground floor ceiling heights for non-residential uses to 4.2m, whilst Council supports this requirement. However, Council notes that there remains inconsistency across other statutory instruments and accordingly, the 4.2m ceiling height becomes challenging to implement (if this is not the desired urban design outcome from applicants e.g. suburban local centres where high ceilings may not be considered necessary due to overall building height restrictions). Therefore, detailed development controls and urban design is required. Council's DSAP is continually being presented with schemes that break height limit. This is generally because applicants are trying to fit three storeys where the planning intention is clearly two storeys. Attachment 2 provides a case study illustrating this issue.</p> <p>Council also notes that the Building Code of Australia and National Construction Code specifies a requirement of 2.4m minimum ceiling heights for habitable rooms. A negotiated outcome between these two numerical standards often results.</p>
15	A15	<p>Car parking</p> <p>The current car parking rates are proposed to be supplemented with several initiatives designed to reduce private vehicle dependency such as revising the minimum parking rate or applying maximum parking rates for certain locations, unbundled parking, adaptive travel plans and increased car share spaces.</p>	<p>Council supports initiatives to decrease private vehicle usage, particularly in areas within 800m walking distance of B-Line bus stops.</p> <p>For Strategic Centres with major growth e.g. Dee Why and Frenchs Forest, parking rates have been revised to either reflect a reduced minimum (based on precinct-specific traffic modelling findings) or the application of a maximum parking rate.</p> <p>Minimum parking rates in the Dee Why Town Centre include:</p> <ul style="list-style-type: none">0.6 spaces per 1 bedroom dwelling0.9 space per 2 bedroom dwelling1.4 spaces per 3 bedroom dwelling1 visitor space per 5 units or part of dwellings1 car share space per 25 dwellings (for properties with more than 25 dwellings) with each car share space replacing one (1) regular car parking space). <p>Draft maximum parking rates for the Frenchs Forest Planned Precinct include:</p> <ul style="list-style-type: none">0.6 spaces per 1 bedroom dwelling (including studios)1 space per 2 bedroom dwelling1.5 spaces per 3+ bedroom dwelling



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			<ul style="list-style-type: none"> • 0.1 visitor space per 5 dwellings • 2 car share space per 15 dwellings • 2% of dwellings or 2 per development (whichever is greater) electric vehicle charging spaces • 0.5 spaces per dwelling motorcycle parking <p><i>Note: For Frenchs Forest, calculation of parking rates is to be rounded up to the nearest whole number</i></p> <p>Council notes that adaptive travel plans and increased provision of car share and electric vehicle spaces is gradually being included in its Development Control Plan to support the reduction in car parking spaces.</p> <p>Regarding unbundling of parking from apartments, Council notes that this initiative was investigated for Frenchs Forest, however implementation was considered challenging in the current planning regulatory context. However, Council notes that if unbundling of parking is adopted then precinct scale approaches are the best mechanism for this. Analysis needs to go beyond 'market preferences', which currently plays too much weight in decisions alongside credibility given to real estate advice. It is simply impossible for valuers to make a comment about innovative forms that may not yet exist. Their analysis is based on advice on what has sold so if the 'product' does not exist in the area, then there can be no sales, so real estate and market advice is inherently conservative and simply perpetuates and reinforces the status quo.</p> <p>Council also suggests that guidance on parking design controls above ground is investigated. Consideration of green wall systems could assist with improving the public domain. Consideration of these spaces as adaptable areas is also an idea.</p>
16	A16	<p>Bicycle parking and mobility storage</p> <p>New bicycle parking and mobility storage rates are proposed to encourage further uptake of active transport.</p> <p>The proposed rates are:</p> <ul style="list-style-type: none"> • Studio & 1 bed - 1 secure space • 2 bed - 2 secure spaces 	<p>The proposed parking rates and design guidance for bicycle and mobility storage is supported. Ensuring that parking for bicycles and mobility storage are mandatory matters for consideration will strengthen the importance of active transport and the delivery of healthy built environments.</p> <p>Council suggests inclusion of rates for visitor bicycle parking and the provision of end of trip facilities for new developments in the Design and Place SEPP.</p>



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		<ul style="list-style-type: none"> 3+ bed - 3 secure spaces 	
Residential amenity matters			
17	A19	<p>Solar access, shading and glare controls</p> <p>To enhance liveability and wellbeing, changes are proposed to increase the range of sunlight access and change the calculation of solar access to apartments. This includes:</p> <ul style="list-style-type: none"> maximising the number of apartments within 15 degrees of north reducing the number of east-facing and west-facing single-aspect apartments to avoid overheating limiting the extent of façade glazing to improve thermal performance. 	<p>The proposed changes to the calculation of solar access and guidance on shading and glare control (particularly limiting glazing on taller buildings) are supported. These changes will deliver better amenity for occupants that will improve the liveability of apartment living.</p>
18	A19	<p>Natural ventilation</p> <p>To improve naturally cross-ventilated apartments, changes to the requirements for cross-ventilation are proposed. This includes:</p> <ul style="list-style-type: none"> increasing natural cross-ventilation requirements to 70% of all units, and applying this across all storeys requiring ceiling fans for habitable rooms with 2.7m ceiling heights 	<p>The proposed requirements for natural cross-ventilation are supported. Getting cross-ventilation into deep floor plans and common circulation is an existing challenge and the proposed controls will assist with improving this.</p> <p>Additionally, Council suggests consideration of the 'stack effect' as a potential design guidance idea to improve natural ventilation. This is achieved through the placement of operable windows to both sides or aspects of apartments, low level operable louvers or vents for air flow to flow in at low levels, pushing up hot air to operable windows to exhaust hot air.</p>
19	A19	<p>Universal design</p> <p>Whilst no immediate changes are proposed,</p>	<p>The proposal to increase the percentage of universal design in line with other government research is supported. Council is not aware of current government</p>



Item	Page	Proposal	Comments
		there is the potential to increase the percentage of universal design to the Livable Housing Design silver performance level, in line with government research that recommends an increase.	research proposing any increase in universal design requirements. Notwithstanding this, this requirement needs to be understood and analysed in relation to other objectives e.g. ground floor units addressing the street.
20	A20	<p>Adaptable apartment layouts It is proposed to enable varying layouts to support different households, and people working or studying from home, by requiring 20% of 2 or more bedroom units to be 'family units', providing minimum 12m² bedrooms for all bedrooms.</p> <p>Guidance is also proposed to encourage non-structural walls to be used between dry areas of apartments, capable of being modified by future occupants (subject to strata bylaws or consent where necessary).</p>	<p>The proposed increase in the size of bedrooms is supported. This will enhance amenity and liveability of apartment living. It will also support working from home by providing a large space that could accommodate a desk and chair. Demonstration of good precedence of resultant floor space and planning configurations with good internal circulation and ventilation is suggested. However, Council notes that larger bedrooms will have a series of flow on effects including development feasibility and housing affordability. Council sees that this requirement will become a competing objective with other controls within the ADG.</p> <p>Regarding guidance on non-structural walls to be used between dry areas of apartments, an additional option for consideration is the incorporation of operable joinery solutions that could address change of internal layout.</p>
21	A20	<p>Local planning considerations It is proposed to develop specific criteria to respond to local housing strategies.</p>	The proposal to require development to demonstrate how it will contribute to local housing strategies, targets and local needs is supported. This will ensure effective implementation of Council strategies and/or policies. Council requests further thought on how this will be implemented.
22	A20	<p>Private open space Changes are proposed to increase the minimum depth of private open space for studio and two-bedroom apartments to improve liveability of outdoor space. This is linked with new environmental performance standards to require centralisation of</p>	The proposal to increase the minimum depth of private open space for studio and two bedroom apartments is supported. This will enhance amenity and liveability of apartment living. Council suggests that an alternative option is also provided which allows generous living room areas with open opening windows. This is especially relevant for areas where balcony use will be minimal e.g. along major roads and windy areas. Council notes that shared open space and rooftop common space may be more effective for some sites.



Item	Page	Proposal	Comments
		<p>heating and cooling infrastructure to avoid impinging on private open space amenity.</p> <p>Added design guidance is also proposed for private open space in tower typologies to address amenity issues relating to natural cross-ventilation, wind impacts, safety, outlook and opportunities for alternatives to balconies.</p>	<p>Regarding design guidance on private open space and the advice provided to not locate air conditioning condensers and hot water units on balconies, an alternative option available for certain apartments is to locate these items on walls that interface with the private open space or courtyards that are not visible from the public domain.</p> <p>Regarding added design guidance for private open space in tower typologies, this is supported. However, Council notes that there should be extensive research to support the guidance.</p>
23	A21	<p>Storage Whilst the total provision of storage is increasing, there is no overall change to storage requirements as the proposed increased in total storage is offset by the amount required internally.</p>	<p>No issues are raised with increasing external storage and decreasing internal storage.</p> <p>Specification of external storage areas per apartment at the development application stage (as opposed to identifying storage lot ownership at the strata subdivision stage) is suggested, to ensure that an appropriate volume of storage space is delivered according to apartment size.</p>
24	A21	<p>External Noise & Pollution New requirements for development on busy roads to supplement the Infrastructure SEPP are proposed to be developed.</p>	<p>No issue is raised with new requirements for development on busy roads to address external noise and pollution.</p>
25	A21	<p>Acoustic Separation Changes to the layout of bedrooms from main living spaces are proposed.</p>	<p>No issue is raised with changes to bedroom layouts to ensure acoustic separation from main living spaces.</p>
Common spaces and vertical circulation matters			
26	A23	<p>Communal open space, daylight and ventilation, lift requirements, building access, common circulation and spaces To improve common amenity, changes are proposed to:</p>	<p>The proposed changes to common spaces and vertical circulation are supported as this will provide better guidance on shared and public spaces in apartments.</p> <p>Notwithstanding the above, Council suggests that with the shift towards working from home requirements, apartment buildings incorporate a notional co-working space in apartment design that allows movement out of the immediate residence to an alternate space</p>



Item	Page	Proposal	Comments
		<ul style="list-style-type: none"> • amend the calculation of communal open space with a unit mix or occupancy metric • require internal communal rooms and covered spaces that are accessible from the street • require adequate daylight and natural ventilation to all common circulation spaces • require a lift report for development nine or more storeys or over 40 units that demonstrates 2.5m lift internal clearance height and a 2.5m wide space in front of the lift • improve circulation spaces to achieve Livable Housing Australia silver performance level • require fire stairs to provide hold-open fire doors and natural light to allow daily access 	<p>within the complex. This will add expense to the building costs that should be considered.</p> <p>Council also suggests that guidance on the design of through-site pedestrian links and pathways within apartment buildings and site-specific applications is provided.</p> <p>Council notes that internal communal rooms accessible from the street may be challenging if there is a requirement for a certain percentage of retail or commercial uses on the ground floor. Further, Council suggests that guidance is provided on the design of internal communal rooms to ensure that appropriate facilities are provided, so that the space is not treated as a redundant part of the building. Communal spaces could be counted as meeting 'non residential' use at ground level. By incorporating active communal uses e.g. co working spaces, private recreation facilities (gyms, pools etc. that could be publicly accessible via membership), this could achieve the same outcome for activation of the street.</p>
Environmental performance matters			
27	A25	<p>Utility infrastructure – energy efficiency, heating and cooling, water management</p> <p>A number of green infrastructure measures are proposed to improve the environmental</p>	<p>Council supports the inclusion of guidance and targets to incorporate sustainability measures within the NSW planning system. Council is aware of recent work undertaken by City of Sydney in a recent forum on 'Planning for net zero energy buildings', with suggested performance standards identified (see Attachment 4).</p>



Item	Page	Proposal	Comments
		<p>performance of apartment buildings. This includes:</p> <ul style="list-style-type: none"> • requirements for smart meters for each apartment • enabling choice of energy suppliers • targets to be determined for NABERS Common Property Energy requirements • targets to be determined for electric vehicle (EV) charging stations and car spaces • requirements for development to be EV-ready to enable future conversion • heating and cooling infrastructure (including condensers) to be located in a centralised location • requirements for minimum WELS standards • requirements for an on-site water re-use strategy 	<p>Regarding energy efficiency, Council requests that reference to resilience is clarified i.e. does this relate to heat impacts and passive design of apartments.</p> <p>Regarding designing choice of energy suppliers, Council also recommends the investigation of collective energy capture and storage and resale to the grid by residents. This is usually collectively arranged by the residents but provides the potential to become carbon neutral and contribute towards the net zero goal. There could also be the opportunity to accredit providers of such that residents can negotiate with through a transparent process.</p> <p>Regarding heating and cooling infrastructure, Council suggests that examples of renewable energy infrastructure for apartments are provided for guidance.</p> <p>Regarding water management, Council suggests including targets for reuse and/or runoff volumes to try and minimise runoff.</p> <p>Council notes that Item 15 (Car parking) of this table has identified potential targets for EV charging stations and car spaces.</p> <p>In addition to EV requirements, Council also recommends the identification of car share spaces as a measure to reduce the reliance on private vehicle ownership and use.</p>
28	A26	<p>Building and landscape maintenance A building and landscape maintenance plan is proposed, which will identify periodic maintenance regimes after completion. Five and ten year planning is identified as a potential timeframe.</p>	<p>Council supports the requirement for a building and landscape maintenance plan however, requests consideration of the below matters to address potential implementation issues:</p> <ul style="list-style-type: none"> • determination of the appropriate authority (with the legal powers to act) who will certify the maintenance plan, monitor performance, provide notifications for actions and inspections • the Strata Corporation may need to incorporate this requirement into a by-law and engage professionals to monitor and report on performance • application of this could also extend to Community Title developments • the identification of a yearly schedule in addition to a five and ten year maintenance regimes. This is because five to ten years is considered a



Item	Page	Proposal	Comments
			significant time period for landscape maintenance to go unattended.
29	A26	<p>Materials schedule submission requirement It is proposed to include a materials schedule requirement in submission documentation which identifies carbon footprint and the embodied energy of materials.</p>	<p>Council does not agree with the proposal to address the environmental performance of materials via a materials schedule requirement.</p> <p>Materials is a supply side issue and this proposal risks extraordinary compliance, reporting and certification costs. This matter is better dealt with as an industry policy supply side issue. The issue is that alternatives are not readily available in any case.</p> <p>Council queries what this requirement is trying to achieve. There needs to be recognition that this needs to be considered in relation to broader economic policy issue. Gross Domestic Product (GDP) is based on growth, growth is based on immigration and population growth. Construction makes up 22% of GDP but is not sustainable. The fundamental question of what we are trying to achieve remains. This proposal needs more thought, particularly as reporting and compliance costs could be horrendous with no effect.</p>
30	A26	<p>Waste management The separation of waste facilities for residential and non-residential uses is proposed.</p>	The proposal to require separation of waste facilities for residential and non-residential uses is supported.
Sustainability reforms			
31	C1	<p>Sustainability in residential buildings Several ideas have been proposed to improve the incorporation of sustainability into the NSW planning system. This includes:</p> <ul style="list-style-type: none"> the introduction of an independent, merit assessment pathway outside of BASIX. This would require a report to the consent authority and supporting documentation prepared by a suitability qualified professional. This 	<p>Council notes the provision of flexibility in the delivery of sustainability measures. This is welcomed however, Council notes that assessment of sustainability during the Development Application stage may be challenging due to lack of expertise.</p> <p>Even if training of development assessment and sustainability staff is provided, Council considers this to be inadequate due to the complexities involved in assessing independent, merit assessment pathways outside of BASIX. For this reason, Council suggests that referral officers (employed by Council) should comprise a dedicated sustainability expert who works alongside a registered architect/urban designer.</p> <p>Council notes that the proposed reforms to BASIX are very confused and largely a result of pressure from other states and special interest groups. The proposal is the result of lobbying by special interest groups including assessors, and private certification systems</p>



Item	Page	Proposal	Comments
		<p>assessment would be done instead of completing a BASIX assessment</p> <ul style="list-style-type: none"> • providing other assessment tools that 'plug in' to BASIX • allowing minor trade-offs in the BASIX Tool where compliance is challenging for thermal comfort and energy performance, such as low-emission materials or integrated site solutions • aligning energy efficiency targets with National Construction Code Reform 2022 and NatHERS thermal comfort calculation, where possible • introducing 'BASIX Plus' certification to enable developments to promote sustainability credentials. 	<p>that are essentially consultancies and require onerous and costly reporting - an attempt to make voluntary systems mandatory and require the consultancy as part of approval. Overall, the proposed changes to allow greater flexibility has little to do with the overarching policy objectives of a trajectory to zero carbon by 2050.</p> <p>Council is aware that other state systems are inferior (inefficient and ineffective) to BASIX and often use inappropriate metrics e.g. megajoules or square metres for thermal performance.</p> <p><i>Note: For illustration purposes only</i></p> <ul style="list-style-type: none"> • From 2004 – 2017, BASIX reduced Carbon emissions by 8.8 million tonnes. (Mt) • That sounds like a lot but in the same period NSW total greenhouse gas emissions was in the order of 150Mt x 15 years = 2,250 Mt. • Improved thermal efficiency that NatHERS provides is only a small part of the energy consumption - about 25-30% maximum of household energy consumption. • So say 2.2Mt CO₂e, that is addressing 2.2/2,250 = 0.1% of the problem. • Let's say we double the stringency and forget the rebound effect (this is a fact - people can use more energy in 'higher performance' housing. It is human nature to consume more of something (comfort) is it is cheaper (efficient). • We will have addressed 0.2% of the problem. • Quantification in relation to the overall task is essential. • Our point here is that BASIX provides a very efficient (low compliance cost) platform for delivering policy – (it is effective) • But, we need to recognise the relatively small contribution it can make • So we should be focusing on those areas that will make a big difference in the time needed as well as increasing resilience at the same time. • Therefore, the suggestion that there could be 'trade-offs' between 'thermal comfort and renewable energy generation' (and batteries and electrification anticipating a de-carbonised grid is very strongly supported.



Attachment 1 Northern Beaches Council Design and Sustainability Advice Panel (DSAP) process

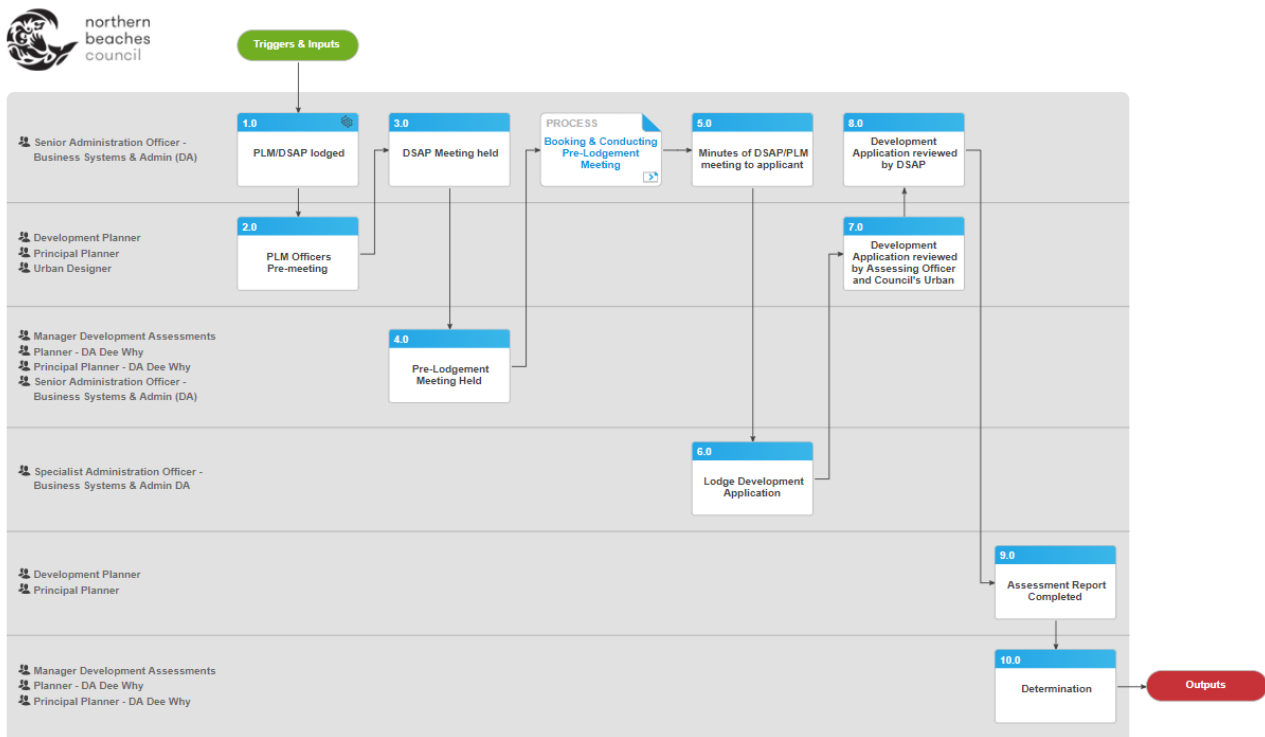
Council's DSAP was established in 2020 in order to improve the design quality of buildings on the Northern Beaches and establish a 'design excellence' system that ensured buildings and the public domain were well designed.

The Panel provides high-level independent advice and expertise on matters relating to urban design, architecture, landscape architecture and sustainability including:

- pre-lodgement applications for SEPP 65 applications, multi-unit housing developments, boarding houses and other development proposed under the Affordable Rental Housing SEPP, student housing, seniors housing, mixed use developments, shop top housing
- advice on the above proposals after the Development applications have been submitted
- development applications for large commercial and industrial development
- any other development application where council staff are of the opinion that the assessment would benefit from referral to the Panel
- significant capital works projects being delivered by Northern Beaches Council.

DSAP is not a formally constituted design panel under *SEPP No 65 – Design Quality of Residential Apartment Buildings 2002*.

The flowchart below illustrates how the DSAP fits into Council's internal processes. This has worked well from Council's point of view as advice has been provided early in the process, allowing enough time for design review prior to application lodgement.



Attachment 2

Development Application (DA2020/0824) for a shop top housing development at 321 Condamine Street, Manly Vale

The proposed development (refer to perspective below) was for the construction of a four (4) storey shop-top housing development at 321-331 Condamine Street consisting of 31 Residential Units and four (4) retail tenancies upon the ground floor. A total of 70 car parking spaces were proposed across two basement levels, which serviced the retail and residential component of the development.

The application was referred to Council's DSAP for advice, who raised the following issues:

- legal interpretation of 'shop top' being the reduced level (RL) of any residential being higher than the RL of the ceiling of the retail. This proposal had 4% retail and 96% residential and most of the residential was not directly above the non-residential – it was up the slope and the rear of the site
- the height limit and permissible storeys was exceeded by 25%
- reference to precedents that had sub-optimal amenity was not considered appropriate or relevant
- whilst the *Warringah Local Environmental Plan (LEP) 2011* did not have floor space ratio (FSR) requirements to allow for flexibility in massing and building orientation, it was never the intention that building envelopes be filled completely, which is what the development proposed
- due to the proposal's maximisation of floor area, this resulted in most units comprising poor amenity, exposure to traffic noise on a main road and lack of natural ventilation (even where available)

The application was refused by the Local Planning Panel on 16 December 2020.



Attachment 3

Case studies on stormwater treatment and landscaped areas of recent development

Case study 1: 18 Macpherson Street, Warriewood (approved by the NSW Land and Environment Court)

The Court approved development, *Sunland Developments (No 28) Pty Ltd v Northern Beaches Council* (formerly Pittwater Council) [No. 00151183 of 2016], resulted in minimal pervious area for each dwelling/ lot well below the required 50% impervious area for each new residential lot specified under the adopted Warriewood Valley Water management Specification. The resultant outcomes of minimal/insufficient landscaping for canopy trees or greening within the road reserve or in this case, a private one-way circulation road for 81 dwellings (approved at 32 dwellings per developable hectare), does little to mitigate urban heat and stormwater runoff issues at this location (see Figure 1); and is similar outcome to those replicated in other developments across Western Sydney (see Figures 2 and 3).



Figure 1: 18 Macpherson Street, Warriewood

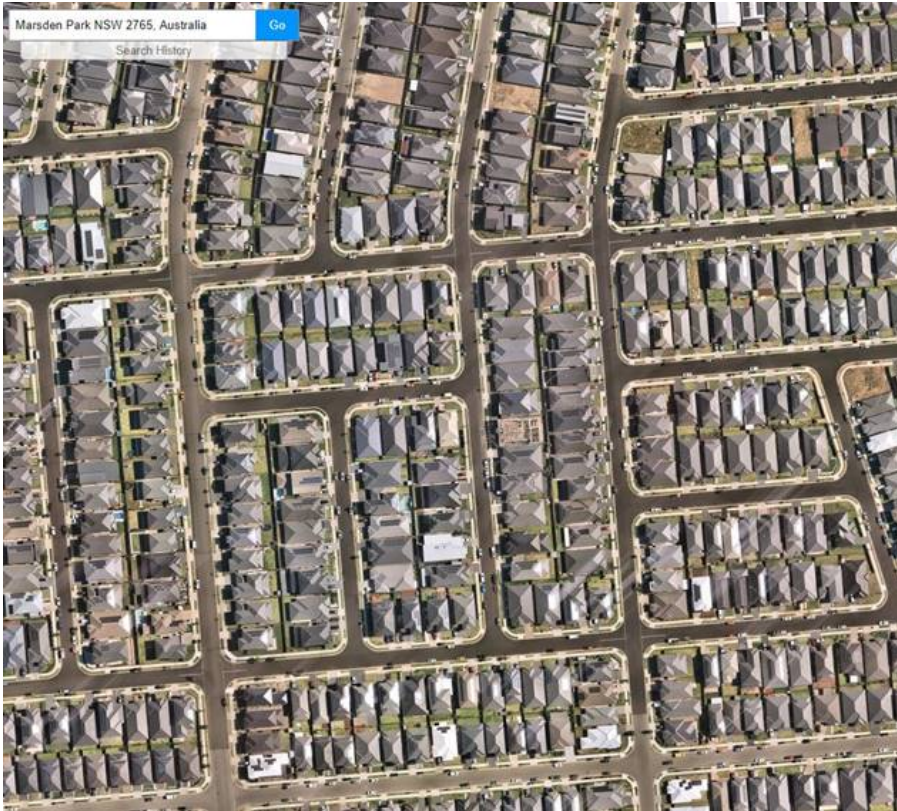


Figure 2: Marsden Park



Figure 3: Redbank at North Richmond

Case study 2: The Grove, Warriewood

For the Northern Beaches, the greatest increase in development is infill. For these developments, Council has not mandated or requested the installation of stormwater treatment on lots that are likely to have large floor space and very little setback. This is because Council has observed that due to limited backyard space, this has resulted in owners progressively building over stormwater treatment infrastructure and landscaped areas (see Figure 5 and 6).



Figure 5: The Grove, Warriewood in 2016 (with raingardens)

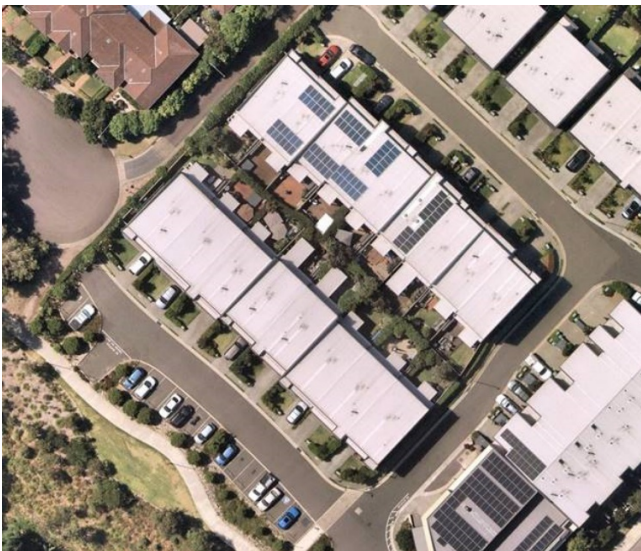


Figure 6: The Grove, Warriewood in 2020 (minus many raingardens and landscaped area)

Attachment 4

Performance standards from the City of Sydney's 'Planning for net zero energy buildings briefing', held on 11 March 2021

The performance standards

The performance standards take on board feedback from developers, industry groups and government.

Proposed use	Performance standards - step one Development applications submitted between 1 January 2023 – 31 December 2023	Performance standards - step two Development applications submitted from 1 January 2025 onwards
Office (base building)	<ul style="list-style-type: none"> - maximum 45.0 kWh/yr/m² of Gross Floor Area (GFA), or - 5.5 star NABERS Energy Commitment Agreement (CA) + 25%, or - certified Green Star Buildings rating with a "credit achievement" in Credit 22: Energy Use, or - equivalent 	<ul style="list-style-type: none"> - maximum 45.0 kWh/yr/m² of GFA, or - 5.5 star NABERS Energy CA + 25%, or - certified Green Star Buildings rating with a "credit achievement" in Credit 22: Energy Use, or - equivalent <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to "net zero energy" or a maximum of 45.0 kWh/yr/m² of GFA
Hotel (whole building)	<ul style="list-style-type: none"> - maximum 245.0 kWh/yr/m² of GFA, or - 4 star NABERS Energy CA, or - certified Green Star Buildings rating achieving the "minimum expectation" in Credit 22: Energy Use, or - equivalent 	<ul style="list-style-type: none"> - maximum 240.0 kWh/yr/m² of GFA, or - 4 star NABERS Energy CA + 10%, or - certified Green Star Buildings rating with a "credit achievement" in Credit 22: Energy Use, or - equivalent <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to "net zero energy" or a maximum of 240.0 kWh/yr/m² of GFA
Retail (applies to Shopping Centre base building only)	<ul style="list-style-type: none"> - maximum 55.0 kWh/yr/m² of GFA, or - 4 star NABERS Energy CA, or - certified Green Star Buildings rating achieving the "minimum expectation" in Credit 22: Energy Use, or - equivalent 	<ul style="list-style-type: none"> - maximum 45.0 kWh/yr/m² of GFA, or - 5 star NABERS Energy CA, or - certified Green Star Buildings rating with "exceptional performance" in Credit 22: Energy Use, or - equivalent <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to "net zero energy" or a maximum of 45.0 kWh/yr/m² of GFA
Multi-unit residential (whole building) 6-10 storeys	<ul style="list-style-type: none"> - BASIX Energy 40 	<ul style="list-style-type: none"> - BASIX Energy 45 <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to "net zero energy" or a maximum of 85.0 kWh/yr/m² of GFA
Multi-unit residential (whole building) 11-20 storeys	<ul style="list-style-type: none"> - BASIX Energy 35 	<ul style="list-style-type: none"> - BASIX Energy 40 <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to "net zero energy" or a maximum of 90.0 kWh/yr/m² of GFA
Multi-unit residential (whole building) 21-30 storeys	<ul style="list-style-type: none"> - BASIX Energy 30 	<ul style="list-style-type: none"> - BASIX Energy 35 <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to "net zero energy" or a maximum of 95.0 kWh/yr/m² of GFA
Mixed use	<ul style="list-style-type: none"> - the above performance standards apply for each proposed use 	<ul style="list-style-type: none"> - the above performance standards apply for each proposed use

In this project, energy includes gas, electricity and thermal energy, and excludes diesel used for emergency back-up generation. Other emissions, such as those from refrigerants and embodied energy, are not included.

Source: City of Sydney 2021, 'Planning for net zero energy buildings briefing', presentation, Sydney.