

31<sup>st</sup> October 2014

Minister Pru Goward MLA  
Local Plans, Codes and Development Guides  
Department of Planning and Environment  
GPO Box 39  
SYDNEY 2001

Email: via the Department's submissions weblink at:  
[http://planspolicies.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=6692](http://planspolicies.planning.nsw.gov.au/index.pl?action=view_job&job_id=6692)

Dear Minister,

**RE: Draft Amendment No 3 State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development and Draft Apartment Design Code – Hill Thalis response**

This submission prepared by Hill Thalis Architecture + Urban Projects is intended to provide a positive response to proposed changes to SEPP 65 and the new Draft Apartment Design Guide (ADG).

**Our Experience and perspective**

Our practice has extensive experience with all matters related to SEPP65 and the RFDC;

- we have prepared Development Applications for more than 60 apartment buildings
- Hill Thalis staff sit on a number of Design Review Panels, including both as Ministerial appointees and as Council appointees
- Hill Thalis contributed to the original RFDC
- Philip Thalis participated in workshops both for the original SEPP 65 / RFDC, and the new ADF
- Philip Thalis regularly gives Continuing Education lectures on all aspects of apartment building design and construction
- Hill Thalis were guest editors of the recent issue of Architecture Australia on apartment buildings

**Key Issues**

There are key questions arising from the proposed amendments to SEPP 65 and the new Apartment Design Guide with regard to achieving design quality:

1. Do the changes to the SEPP provide objective and verifiable performance benchmarks from which flexible solutions can be proffered;
2. Has the SEPP been strengthened to address various shortcomings that have been identified in its operation since 2002;
3. If the ADG is to become a standard-instrument DCP, does it provide the structure and objective performance criteria necessary for a performance-based development code.

This submission is organized into two parts:

- A constructive overview of key issues arising from the above questions including suggested solutions; and
- Detailed comments on the SEPP 65 Amendment No 3 and the Draft Apartment Design Guide in the form of an appendix.

Hill Thalis supports the Department's extensive review of these documents as a welcome opportunity to consider the performance strengths and weaknesses of the policy over the past twelve years.

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We support any improvements that will promote healthier, more positive urban environments and deliver higher quality urban housing accessible to all across the state. Achieving both is in the broad public interest and consistent with the role of local and state governments and its policies.

**1.0 Does SEPP 65 Amendment No 3 provide objective and verifiable performance benchmarks from which flexible solutions can be proffered.**

- 1.1 The drafting of Clause 6A - of Amendment No 3 SEPP 65 in combination with the proposed status, organization, and drafting of the Draft Apartment Design Guide (ADG) provides the statutory opportunity to effectively remove disparate local planning controls from residential apartment development in NSW.

Unlike other State Environmental Planning Policies, Amendment No 3 of SEPP 65 does not include any enforceable, objective, measurable levels of performance as *development standards*.

Therefore, the status of the ADG as a *flexible guideline* results in performance criteria that become subjective, open to interpretation and ultimately highly vulnerable to perversion. This is exacerbated by the parallel path of Alternative Solutions that effectively further dilute the status of the Performance Criteria and Acceptable Solutions.

The inclusion of the eight key areas under Clause 6A (a) to (h) that will take precedence over local Development Control Plans can be supported in principle where appropriate, enforceable, robust and measurable development standards are in place.

This has implications for transparency of assessment, consistent application and interpretation and probity as will be discussed in Item 1.2.

**Solution:**

- a) Establish definitive numeric performance benchmarks (similar to SEPP - Affordable Rental Housing; SEPP - Housing for Seniors or People with a Disability and the Building Code of Australia – a comprehensive performance-based code) for each of the eight key areas listed in Clause 6A;
  - b) Locate these enforceable, objective, measurable, and verifiable performance benchmarks within the body of SEPP 65. Existing benchmarks such as maximum building depth, percentage of cross ventilated apartments, required hours of sun to a minimum number of units, 2.7metre ceiling heights and the like have lead to a manifest improvement in quality. Based on our extensive experience, such benchmarks need to be strengthened, rather than diluted;
- 1.2 ICAC – supporting documents for the proposed amendments of both SEPP 65 and the ADG make clear the policy intent that the changes are to *reinforce* the positive inroads made by the introduction of a planning policy that directly addresses Design Quality of Residential Flat Development.

This follows the overhaul of the current planning system largely as a result of adverse findings and recommendations arising from ICAC corruption inquiries into the planning system over the past several years.

We support the Department's close consultation with ICAC on the development of the new planning system, which has culminated in the Planning Bill 2013<sup>1</sup>.

ICAC submitted key recommendations in its submission (2012) in response to the Green Paper – A new planning system for NSW.

In particular, Item 13 which states:

*... the Commission believes that subjective and ill-defined criteria are inherently open to varying interpretation and consequently provide a convenient cloak for corrupt conduct. Corrupt conduct can also be difficult to prove where any number of possible outcomes can be justified based on unclear standards.*

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<sup>1</sup> It is noted that the Planning Bill 2013 does *not* include Design Quality in its Objectives - Clause 1.3 (1).

ICAC Submission to the NSW Planning System  
Team re: A New Planning System for NSW (Green  
Paper) Sept 2012, p3

And Item 15,

*The Commission has previously recommended that discretionary planning decisions, including the determination of proposals seeking to rely on a variation to development standards, are made subject to mandated sets of criteria that are robust and objective. This includes ensuring that the alternative set of criteria to be applied (given that by definition those agreed on are not met) are clearly articulated, measurable and enforceable.*

ICAC Submission to the NSW Planning System  
Team re: A New Planning System for NSW (Green  
Paper) Sept 2012, p3

In the Department's letter dated 11<sup>th</sup> October 2013 in response to ICAC's submission, the Department outlined key changes to the Planning Bill that included:

- *tougher rules apply where variations to development standards and controls are proposed including:*
  - *code development must now comply with all of the development standards in a development assessment code, and any variation means that the whole development is subject to a full merit assessment (including community consultation) [4.7 (1), Planning Bill]...*

[http://www.planning.nsw.gov.au/Portals/0/planningsystem/DG\\_to\\_ICAC\\_111013.pdf](http://www.planning.nsw.gov.au/Portals/0/planningsystem/DG_to_ICAC_111013.pdf)

This assumes that enforceable development standards would be in place.

Indeed, ICAC's subsequent letter to the Department dated 18<sup>th</sup> October 2013 regarding strategic plans, regulations and codes noted:

*...The Commission cannot comment on these documents as they have not yet been drafted. The precise contents of these documents will be of crucial importance to the corruption vulnerability of the proposed system given the Department's advice that some of the Commission's concerns will be addressed via these documents.*

And importantly,

*...These codes may contain both development standards and performance criteria. I understand that it is the intent of the Department that some performance criteria will be focused on outcomes as opposed to prescriptive controls. A key challenge in the drafting of local plans will be to ensure that the performance criteria against which certain developments may be measured are **objective, measurable and provide for independently verifiable limits of impact. A distinction should be drawn between flexible ways of achieving an outcome and flexible criteria.***

*In the same way, when considering the 'merit assessment' category of development, consideration needs to be given to whether the set of assessment criteria are sufficiently robust to be capable of independent verification. The Commission's position has consistently been that high levels of discretion coupled with criteria open to varying interpretations can provide a convenient cloak for corrupt conduct. On the face of clause 4.18 the proposed assessment criteria in this regard appears no more robust than the current system, although some key documents that will support assessments have not been drafted.*

[http://www.planning.nsw.gov.au/Portals/0/planningsystem/ICAC\\_181013.pdf](http://www.planning.nsw.gov.au/Portals/0/planningsystem/ICAC_181013.pdf)

It is our supposition that the drafting of Clause 6A Amendment No 3 SEPP 65, the absence of any measurable and enforceable development standards within the SEPP, and the flexible criteria and drafting of the ADG combine such that the outcome is to effectively remove development controls from future apartment development.

This is diametrically opposed to the concerns and recommendations of ICAC, appears to be inconsistent with Clauses 4.16(2) and 4.18(5) & (6) of the Planning Bill 2013 and is clearly not the intent of the Department as described in its supporting documents.

**Solution:**

- (a) Include objective, measurable and independently verifiable performance benchmarks within the body of the SEPP 65. These performance benchmarks are needed to provide certainty to all stakeholders and provide transparency for variations from compliance to be justified and demonstrated in an evidence-based method.
- (b) Clarify the role of the Apartment Design Guide as providing guidelines around acceptable solutions thus enabling design innovation and the flexibility desired by developers and architects to meet known objective performance criteria.

For instance, the BCA provides deemed-to-satisfy performance criteria as numeric benchmarks. Alternative solutions are left open but need to demonstrate levels of performance that are defined – this could be in required levels of illumination in lux reaching the back of a room for natural light and solar access, or in air flow rates for natural/cross ventilation.

**2.0 Does the ADG provide the structure and objective performance criteria necessary as a performance-based standard-instrument DCP.**

- 2.1** The eight key areas within Clause 6A are inadequate to take on the role of standard-instrument DCP because:
- (a) the performance requirements are located in the non-binding ADG rather than within the binding SEPP itself,
  - (b) the performance criteria within the ADG are in the form of *flexible guidelines* rather than *objective, measurable (numeric), and verifiable development standards or minimum requirements*;
  - (c) in our direct experience, most Councils do not have either the qualified staff or resources to independently assess performance solutions put forward by applicants for issues such as alternative ventilation solutions, solar access, and the like; and
  - (d) the drafting of Clause 6A can be applied so that these eight key areas become the sole criteria for the design of residential apartment development.

The ramifications of this have already been discussed in Item 1.2 above.

- 2.2** Expanding on item 2.1 (c) above, the drafting of Clause 6A can be applied to effectively negate any development control within a local development control plan that a proponent decides has an *indirect* impact upon any one of the eight nominated key areas within the clause.

This appears to be inconsistent with the intent of the new planning system that aims to provide Councils and the community the ability "to shape the growth of their local centres" nor does it meet Clause 3.13 and specifically (a), (b), (h), (i), and (j) of the Planning Bill 2013.

Accepting the implied policy outcome that the ADG becomes a state-based standard-instrument DCP, there still requires a mechanism for individual Councils to tailor development standards (outside the eight key areas of Clause 6A) to address issues specific to their local government area - for example the City of Sydney, inner city, middle ring, outer suburban and regional, and Upper Councils are dealing with vastly different issues – infrastructure, socio economics, demographics, employment opportunities, urban character, topography, landscape, community expectations etc – that need a range of quite different urban/housing solutions that are still able to achieve the additional policy objectives of SEPP 65 amendments Clause 2(3) (f)(g)(h);

**Solutions:**

The optimal solution needs to achieve the following:

- (a) SEPP 65 provides numeric performance benchmarks for the eight key areas of Clause 6A to be located within the body of the SEPP.
- (b) Redraft Clause 6A to ensure that compliance with the clause does not capture DCP standards outside the specific eight key areas of:
  - (a) *visual privacy,*
  - (b) *solar and daylight access,*
  - (c) *common circulation and spaces,*
  - (d) *apartment layout,*

- (e) ceiling heights,
- (f) balconies and private open space,
- (g) natural ventilation,
- (h) storage.

Comments on the proposed ADG performance criteria of these eight key areas are contained within Appendix 1.

- 2.3** There are inconsistencies and/or errors throughout the Apartment Design Guide that enable a pathway for technical compliance of apartment development that is deficient and/or poorly designed and/or would not otherwise pass a full merit assessment under the current RFDC provisions.

Hill Thalys acknowledges the extensive work that has gone into the preparation of the new Apartment Design Guide and the complexities in coordinating such a comprehensive document.

However, in context with the concerns already identified in this submission and shared by ICAC, it is vital that the organisation, drafting, content (text, diagrams and images) contain no errors or inconsistencies that can be exploited for private gain resulting in the detriment to the design quality of residential apartment development and ultimately failing the public interest.

Council is concerned that clear examples of poor design practice are contained within the ADG. This, in combination with the status and flexibility of the performance criteria and wording of Clause 6A enable proponents to cite these poor examples and/or images (contravening the written performance criteria) as meeting either Acceptable or Alternative Solutions.

- 2.4** The use of words in the ADG such as “minimise” and “unavoidable” in the absence of enforceable, objective, measurable and verifiable development standards opens the door to poor apartment design being approved because it is able to justify words such as “minimise” and “unavoidable” in context of a deficient/poor design solution.

This is particularly problematic where Alternative Solutions become a parallel path to development approval effectively negating the stated Performance Criteria and thus removing the level of public scrutiny that the community demands.

**Solutions:**

- (a) Provide enforceable, objective, numeric, measurable, verifiable Performance Criteria within the SEPP for the eight key areas of Clause 6A.
  - (b) Strike out words such as “minimise” and “unavoidable” which is achievable where solution (a) is implemented because the level of expected performance has been defined.
- 2.5** The complementing functions of performance-based and merit-based assessment needs to be clarified within the SEPP and better arranged within the ADG.

The function of SEPP 65 should be to provide Performance Criteria in the form of enforceable, objective, numeric, measurable, verifiable development standards.

The function of the ADG is to provide flexible guidelines that support merit-based solutions that may be applied to demonstrate compliance with the enforceable, objective, numeric, measurable, verifiable Performance Criteria within the SEPP.

The proposed arrangement of the ADG does not provide clarity around the components that are considered standards and how they are prioritised.

**Solutions:**

- (a) Provide enforceable, objective, numeric, measurable, verifiable Performance Criteria within the SEPP for the eight key areas of Clause 6A.
- (b) The arrangement of the ADG needs to be restructured consistent with its function as a performance-based code. Analysis <sup>2 3</sup> of the structure of performance-based codes has established the following hierarchy must be clearly defined:

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<sup>2</sup> <http://www.abcb.gov.au/en/about-the-national-construction-code/the-building-code-of-australia/hierarchy-of-the-performance-based-bca.aspx>

- 1 Goals/Objectives
- 2 Functional Statement
- 3 Operative/Performance Requirements
- 4 Performance/Risk Level
- 5 Performance Criteria – measure of pass/fail or range of acceptability
- 6 Verification

The analysis has demonstrated the clear link between the requirement for both qualitative and quantitative components in performance-based systems.

- (c) Strike out words such as “minimise” and “unavoidable” in the ADG. This is achievable where solution (a) is implemented because the level of expected performance has been defined thus negating the occurrence of “minimise” or “unavoidable”.

Where non-compliance is proposed, the alternative solutions thus would go through an evidence-based process to clearly demonstrate how the performance criteria is achieved.

- 2.6** The length of the ADG (176 pages with 290 standards) may increase both the amount of development application documentation and subsequent assessment times.


**Solutions:**

- (a) This is likely to be largely addressed where enforceable, objective, measurable, and verifiable Performance Criteria are captured within the SEPP for the eight key areas of Clause 6A, and where the wording of the body of that clause allows other local development controls to be effective.

The status of the ADG can then function as a flexible guideline document while local development controls are able to function around those eight key areas.

We appreciate the opportunity to provide this response and trust that the interests of the community and built environment are duly considered and acted upon.

Yours sincerely,



Philip Thalys  
**Hill Thalys** Architecture + Urban Projects  
Attachments: Appendix 1

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<sup>3</sup> *Performance System Model – A Framework for Describing the Totality of Building Performance*, Brian Meacham, Beth Tubbs, Denis Bergeron, Francoise Szigeti, 2002 pp66-68; and  
*Qualitative versus Quantitative Aspects of Performance-based Regulations*, Douglas Beller, Greg Foliente, Brian Meacham, 2002, p24

Appendix 1  
Apartment Design Guide – Recommended changes

<b>Overview</b>	The skills of architects, urban designers and landscape architects are essential in the detailed consideration of apartment building proposals. It is essential that all panels that review apartments include these skill sets, including large projects referred to the JRPPs. This expertise would be invaluable within membership of JRPPs so should be mandated similarly to DRPs rather than optioned.	Urgent
<b>Relationship to other documents</b>	While the intent to place SEPP 65 and the ADG above local DCPs is clear. The drafting of Clause 6A, and lack of objective, measureable, verifiable development standards within the SEPP is problematic. Even more so where the intent of the ADG is a 'flexible guide'. This results in no mandated performance standards with either the SEPP or ADG and can negate all DCP controls leaving no effective development controls for apartment development. The organization of the ADG is unclear. What are the objectives, what are the function statements, what are the measurable performance standards, what are the verification methods? There are no <i>development standards</i> as the ADG is a <i>flexible guide</i> as described p9 yet within the SEPP the ADG there is an expectation of compliance. With what? It appears that the amendments to the SEPP now provide a statutory mechanism that effectively removes development controls. ICAC should provide a submission.	Urgent

## INTRODUCTION

<u>About this guide</u> Statutory relationship to SEPP 65.	It is important that the requirements of the ADG prevail over LEP and DCP controls but not where they are dealing with site-specific conditions which the ADG is not equipped or intended to address.	Urgent
<u>How to use this guide</u> Achieving performance criteria	This does not clarify the <i>development standards</i> to be applied as cited under the SEPP due to the level of flexibility. This equates to any design solution that relates to CL 6A of the SEPP can be justified in effect negating the effect of any other control. Legal opinion required.	Urgent
Design Quality Principles (DQP)	Clear. These may become the <i>development standards</i> rather than the Performance Criteria as they are contained within the SEPP. However, they require objective, measurable, enforceable and verifiable development standards to accompany them or the eight key ?	Supported
Relationship of SEPP65 to ADG	This matrix clearly demonstrates the relationship of the ADG to the 9 Principles. 3J Car parking has a 'high' level of interaction to Principle 5 Landscape deep soil, in a suburban street setting with deep soil planting, but not along a mixed use high street. 4B Ground Floor apartments have a 'high' level of interaction with Principle 5 Landscape. 4N Apartment Layout has a 'high' level of interaction with Principle 2 Built Form and Scale	Revise / review

## PART 1 IDENTIFYING THE CONTEXT

1A Apartment building types Narrow infill apartments	This typology has been problematic all over Sydney and in fact is specifically described by Bob Carr in the Preface of the RFDC as prompting the need for design quality in apartment development.	Urgent
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	<p>The image does not represent narrow infill development as it is a corner site.</p> <p>The graphic as presented is deeply flawed as a typology. This needs to be amended to provide:</p> <ul style="list-style-type: none"> <li>• Setbacks that enable more (rear) landscaping for tall trees,</li> <li>• a sliding ratio of site length to acceptable building length, and</li> <li>• a typology that clearly shows a deep articulation between the component fronting the street and the 'tail'</li> </ul> <p>This is urgently needed to avoid infill development that transposes the problems of the 3-storey walkups to a greater scale of 5, 8 and 10+storeys.</p>	
Tower apartments	The image is of commercial office towers not tower apartments and does not show the podiums as described.	Amend
1B Local character and context	Of the four common settings described only Suburban Neighbourhoods reference "landscaped setting". For the ecology, climate, happy socialisation and sustainability of our increasingly urbanised city, "landscaped setting", deep soil landscapes and trees are important considerations in the design of quality Urban Neighbourhoods.	Amend
1C Precincts and individual sites Precincts	<p>Floor space of a precinct plan should not include streets.</p> <p>"When determining the floor space of a precinct plan, the <i>net</i> floor space is based on the whole of the site area including streets and open spaces. "...</p> <p>There may be a typo in p27 – replace the word <i>net</i> with <i>gross</i> (consistent with Figure2 D.3)</p> <p>"Through the precinct plan design process and testing of proposed building envelopes against site constraints, alternative solutions to some of the ADG performance criteria may be appropriate."</p> <p>These may need to be more onerous than the minimums within the ADG and cited within SEPP 65. Councils need a mechanism to deal with this that holds statutory weight.</p>	Amend

## PART 2 DEVELOPING THE CONTROLS

2A Primary controls Figure 2A.1	The figure does not adequately demonstrate controls that allow for deep soil enough to support new large trees. The trees are already established and are to be retained. The setbacks of the new development do not permit any new trees as demonstrated by the area needed to retain the existing trees.	Urgent
2B Building envelopes	There should be a ratio of boundary length to permitted wall length before either a separate building is required, or clear and deeply articulated building mass is demonstrated to address scale particularly in suburban infill and interface site with lower density development.	Urgent
2C Building height	It is vital that site-specific building envelopes be provided particularly for steep sites or changing topography. Again this may require adjustments to precinct density for specific sites that are not able to be addressed in the standard LEP instrument and may require more onerous performance criteria than the ADG contains. Councils have the experience of their LGA and need a mechanism to deal with site-specific issues.	Urgent
Figure 2C.4 – steep sites	Uniform building heights over extensive areas can have a deadening effect on urban places. Varied building types, lot area and dimensions can introduce a beneficial variety to	Urgent



	building heights. Fig 2C.4 needs to be amended urgently so that subterranean units are not indicated. There is a reasonable bonus to additional height across the site for 12-18m but amenity and failure of waterproofing for units below existing ground level is appalling.	
2D Floor space ratio	Description that FSR is a ' <i>theoretical maximum capacity</i> ' is highly supported. Council controls need to define mixed use as a component of FSR for clarity.	
2E Building depth Figure 2E.1	Fig 2E.1 to include ADG dimensions 12-18m across the building depth of the residential component.	Amend
2F Building separation	Supported	
2G Street setbacks	Supported	
2H Side and rear setbacks	Supported	

## PART 3 SITING THE DEVELOPMENT

3A Site analysis Figure 3A.5	Generally supported. Fig 3A.5 Do not include subterranean residential units as appropriate. These achieve appalling amenity.	Urgent
3B Orientation	Supported.	
3C Public domain interface	Supported.	
3D Communal and public open space	Communal open space should be commensurate with the density of the proposed development. 25% is insufficient as an all-encompassing amount and does not take into account specific site/local conditions. The description notes refer to a "principal communal open space" but don't indicate how this is to be defined i.e. area, minimum dimensions and the like. Is the entire 25% principal COS ? Can COS be allocated as small pockets , rather than one larger area and still meet the criteria ? However the figure 3d3 seems to indicate one consolidated area as does 3D1.2 and needs clarification. 1. There is no minimum dimension for communal open space, the notes indicate that this will vary. Again not clear. 2. This is unclear. Does consolidate into a recognisable and useable area mean that COS is not to be divided into smaller areas ? . In that case objective measurement to define "recognisable and useable" communal open space. 3. The criteria that deep soil areas and COS should coincide seems to be reasonable on first glance however as COS will have other features to support recreational use this potentially could result in less useable deep soil for tree and plant growth. 4. Solar access to 50% of the "principal useable portion " - what is a principal useable portion? How is this defined? The idea that lack of communal open space can be offset by increased private open space or "proximity" to public open space or "contributions" undermines the criteria. Also what contributions could there be other than those existing under S94?	Urgent
Performance Criteria 3D1.1 Performance Criteria 3D1.2		
Performance Criteria 3D1.3		
Performance Criteria 3D1.4 Alternative solutions		
Performance Criteria 3D-2.1	"Facilities are provided for a range of age groups where size permits..." Delete words "where space permits". All developments need to provide communal space whether at ground level or podium or roof. Where space 'does not permit' indicates proposed building footprint or density is inappropriate. Nominated area shown on this diagram is less than 25% inconsistent with Performance Criteria 3D-1.1	Amend
Figure 3D.3 Communal open space		Amend

3E Deep soil zones	Some terms are unclear : What defines "significant canopy cover " ? Such terminology is not useful as an assessment tool as it is open to wide interpretation.	Urgent
3E Deep soil zones Table 1	Deep soil landscape areas are inadequate. Outside of Strategic Centres and Local Centres more significant amounts of landscape including deep soil landscapes should be provided for ecology, climate, happy socialisation and sustainability. Larger sites should be required to provide a higher percentage of consolidated landscape due to economies of scale. The percentages should be revised as follows or deleted – <650m2 - 20%; 650-1500m2 - 25%; >1500m2 - 30%, >1500m2 and significant tree cover - 35%. Tall trees contribute to visual and climate amenity.	Urgent  Urgent
Performance Criteria 3E-1.1	The deep soil % of site as indicated in Table 1, is not related to a development type, zoning and location. Deep soil should not solely be a product of site area. The % of deep soil is low particularly for the larger areas and will be inadequate to protect the sort of very large canopy trees which are common in an area such as Ku-ring-gai. This will have significant implications for landscape character achievable with the type of development permitted under this criterion. The 6m width for deep soil is insufficient to guarantee the retention of large (DBH 500mm+) established trees, and also the establishment of large trees. The 6m zone is also inadequate as an area to sustain the spreading canopy growth of large trees. The table should be deleted.	
Performance Criteria 3E-1.3	It is unclear what purpose the soil volume figures for trees in deep soil zones serves as an assessment criteria. This is not useful and is not a "criteria". Rather, it is more a guide and even then it is unclear how it has been determined, how it would be calculated, and how it should be applied. It should be deleted.	Delete
Performance Criteria 3E-2.1	Require trees comparable in height to the building. One large tree for every 50m2 deep soil landscape. Delete point 1. All paving and paths should be excluded from the deep soil calculation as this further reduces the already inadequate requirement by 10%. The proposition that there can be a further 10% encroachment into the deep soil area is not supported. Deep soil should be unimpeded by structures other than 1m wide access paths which we accept currently. The 10% encroachment is too substantial a portion of an already reduced deep soil area and compromises the purpose of deep soil for substantial plant growth including retention of existing trees and establishment of new trees.	Delete
Alternative Solutions	This section undermines the performance criteria and should be deleted. As indicated previously the deep soil % should not be solely based on site area. It should be related to development type, zoning and location. Deep soil should not be able to be varied based on alternate solutions. Planting over structures is not capable of achieving the same outcomes as deep soil in regard to large scale tree establishment and is not an acceptable solution for a lack of deep soil. If a tower is proposed within a CBD then local controls should realistically deal with deep soil expectations in the circumstances - i.e. deep soil will not necessarily be an	Delete

	expectation. This section unacceptably undermines legitimate deep soil provision and should be deleted.	
3F Visual privacy	Supported.	
3G Pedestrian access and entries	Supported	
3H Vehicle access Figure 3H.1  Figures 3H.4 and 3H.5  Performance Criteria 3H-1-7  Performance Criteria 3H-1-10	<p>The darkness of the photo makes it hard to see the chains, however they seem to be delineating a vehicle standing area which is supposed to be avoided under 3H-1-5.</p> <p>These seem to show no pedestrian sight distance but it might be the angle of the photos.</p> <p>This is covered in the Australian Standard – is it necessary in the ADG? (was not in the RFDC)</p> <p>Unclear what this means. Does it mean that removalists' vehicles should stand on the street, or is it a recommendation that small vehicles be used for such things as waste collection? Perhaps it should finish with an example "... is avoided by....."</p>	
3J Bicycle and car parking Table 2 and reference in Performance Criteria 3J-1.1	<p>Clarification required for car parking requirement of RMS Guide to Traffic Generating Development as this appears to be a survey of car movements rather than providing car parking requirements.</p> <p><i>RMS Guide to Traffic Generating Developments 2002</i> has parking rates for medium density residential (&lt;20 units) or high density CBD or Metropolitan Sub-Regional Centres. The latter would seem to be the inner and middle ring metropolitan areas nominated at Note 1) to Table 2.</p> <p>The <i>Guide</i> does not have rates for developments of more than 20 units in other areas, nor does it distinguish between sites based on their distance from a station or light rail stop. So local government areas such as Ku-ring-gai do not fall into Table 2 at all (and the two rows for &lt;400 or 400-800 metres are superfluous).</p> <p><b>Hill Thalís would strongly oppose the idea of limiting on-street parking as a result of development. This would be perceived as providing a benefit to developers (reduced excavation costs) at the expense of the wider community.</b></p> <p>The philosophy has always been that developments are to accommodate their parking needs on site. Many of these sites are subject to commuter parking (which by definition has to be unrestricted) and parking associated with the local centre.</p> <p>Criteria says "where applicable". No measureable, objective, verifiable method provided to determines "applicability"?</p>	<p>Clarify</p> <p>Amend/clarify</p>
Performance Criteria 3J-1.1		Revise
Performance Criteria 3J-1.2	One visitor space per 10 units does not even comply with the <i>RMS Guide</i> , which recommends a minimum of one visitor space per 7 units.	Amend
Figure 3J.8	Fig 3J.8 while demonstrating a solution for above ground car parking, the unit typology appears to present a non-functional living area.	Amend

## PART 4 DESIGNING THE BUILDING

### Configuration

4A Apartment mix	The reduced minimum apartment sizes will not reduce market prices as developers will take advantage of the reduced	Urgent
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	<p>sizes.</p> <p>Anecdotal evidence supports this. Current DAs in many LGAs have been proposing affordable housing unit sizes for some time. Indeed Ku-ring-gai's Local Centres DCP already uses the RFDC affordable housing sizes as general minimums. DAs in Ku-ring-gai are not being lodged as affordable housing schemes with the associated commitments of affordable housing.</p> <p>It is further noted that the minimum sizes within the ADG are flexible and can be further reduced. Hence, Clause 30 of the SEPP becomes difficult to apply where the development standard is not a standard but a flexible guideline.</p> <p>The ADG setting a lower threshold size could remove housing choice by encouraging a concentration of unit developments that are likely to have poorer amenity than is currently achieved under the RFDC.</p> <p>Minimum size also assumes all architects have the necessary skills to deliver efficient unit layouts. This has not been demonstrated in many councils where the vast majority of developments demonstrate inefficient layouts and wasted space largely as a result of flawed building typology.</p>	
4B Ground floor apartments Figure 4B.3	Figure 4B.3 is the same as that used in Figure 3J.8. This is a poor example as the living space is either non-functional with no room for a dining table or more than two chairs, or if SOHO, there is no provision for a kitchen area. Delete and replace with a functional example.	Amend
4C Facades	Supported.	
4D Roof design  Performance Criteria 4D-2  Performance Criteria 4D-2.2	<p>Supported. Standard Instrument LEP allows Councils to approve roof elements that could also function as shade structures for communal spaces where maximum building height is proposed.</p> <p>Use of roof as open space is fine as long as any BASIX rainwater tank for re-use inside the building only collects runoff from non-trafficable roof areas.</p> <p>This requires co-ordination between the engineer designing the water management system, the landscape architect and whoever prepares the BASIX Certificate.</p> <p>Add: acoustic privacy.</p>	
Performance Criteria 4D-3.3	The feasibility to locate rainwater tanks on roofs is questioned. Weight, waterproofing etc may preclude it – although there are precedents in the City of Sydney and North Sydney for example where rooftop communal swimming pools have been constructed.	
4E Landscape design Table 3	Table 3 – requires opinion of landscape architect Larger sites should be supporting more trees commensurate with the scale of development. All sites to require 1 large tree/50m <sup>2</sup> ?	L'scape opinion needed
Performance Criteria 4E-1.1  Performance Criteria 4E-1.2  Performance Criteria	<p>1. The purpose of this criteria is unclear other than to demonstrate some "green " items that could go into the landscape areas, What about worm farms ...? Appears to provide an arbitrary list of questionable usefulness as solutions to enhance sustainability.</p> <p>2. Ongoing maintenance plans. Good idea but this is not a matter for assessment except where ecological issues and a vegetation management plan are required. We do not require a landscape maintenance plan now. Is this now to be an expected part of a DA proposal ? Is this able to be conditioned, enforceable and is this a consideration for assessment under EPA Act ?</p> <p>4. Trees and shrubs selection considers size and potential for</p>	Amend and clarify with appropriate l'scape advice

4E-1.4	<p>roots to overlap. This requires clarification from appropriately qualified landscape consultants. What does this mean ? In particular what is meant by... "potential for roots to overlap" ? It is unclear why is this something to consider ?</p>	
<p>Performance Criteria 4E-2</p> <p>Performance Criteria 4E-2.1</p> <p>Performance Criteria 4E-2.2</p>	<p>As a general comment there is no recognition of landscape design in terms of creating external space quality, usability, privacy, general amenity and the like.</p> <p>The existing RFDC provides superior landscape design principles and design potential.</p> <p>The performance criteria are more like general guidelines and hints, and are not especially useful as assessment criteria. What does "responding to levels" mean? How is this verified?</p> <p>The criteria suggest significant features be protected should be consistent with 4E2-2.1 to include rock outcrops.</p>	
<p>4F Planting on structures</p> <p>Table 4</p>	<p>Evidence needed to demonstrate the long term maintenance costs of maintaining green walls. Also whether water seepage has been an issue.</p> <p>Table 4 – requirement for large trees is inadequate for above ground structures as large trees use deeper groundwater via the action of the surface roots within that 1200mm zone.</p>	Clarify/ amend
<p>4G Universal design</p> <p>Figure 4G.1</p> <p>Figure 4G.4</p> <p>Performance Criteria 4G-1.1</p> <p>Performance Criteria 4G-2.2</p> <p>Figure 4G.4</p>	<p>This should be the benchmark of the ADG.</p> <p>Fig 4G.1 is much larger than any of the minimum unit sizes.</p> <p>Fig 4G.4 contradicts the minimum unit sizes by up to 35m2 for 3-bedroom unit in the example shown and demonstrates the inadequacy of the minimum unit sizes proposed.</p> <p>Requirement of 20% of total apartments achieving (silver) universal design is manifestly inadequate.</p> <p>The description of universal design is what ALL units should be delivering under design quality, flexibility, amenity and is consistent with government policy to provide real housing choice with the intention that people are able to remain living in apartments over the long term – rather than the current expectation that apartment living is a short-term solution before moving to a detached house.</p> <p>The Universal Design requirement equates to only 20% of ALL proposed development being able to cater to the needs of ALL age groups and changes in life situations. This will not change behavior to consider apartment living as a long-term option.</p> <p>Where the Department is resistant to amending this as seems to be the case, it is suggested that a minimum of 50% of every development meets the requirements of 4G and follows the lead of Landcom's 2011 policy change, as well as that of Grocon, Stockland and Meriton. (We note the charter of UrbanGrowth is economics-centric with no Board members having a background in design disciplines). This would deliver 50% of units as 'affordable' with the remaining flexible and appropriate to all demographics.</p> <p>Adaptable units to applicable Australian Standards should form 10% of each of these although it is noted Council policies will need to reflect the community expectations.</p> <p>How is the number of parking spaces determined for the adaptable units? If they are to be separately titled or shared, how is this enforced if a PCA can issue a strata subdivision approval and certificate?</p> <p>The sample dual key unit is a total area of approx 135m2 comprising 35m2 for the studio and 100m2 for the 2-bed, 1-bath unit. This is significantly larger than the (flexible) minimum apartment sizes thus demonstrating the limits to achieving flexibility and housing choice within the ADG standards.</p>	<p>Urgent</p> <p>Urgent</p> <p>Urgent</p> <p>Urgent</p>

4H Adaptive reuse	Supported	
4J Mixed use	Should include a % figure of the ground floor that would define mixed use. Ku-ring-gai for example is seeing almost 100% of applications submitted under mixed-use providing sometimes less than 5% and often as a generic 'medical centre' which is unlikely to be leased given the concentration. This could be defined in the ADG or deferred to council DCPs.	
4K Awnings and signage	Supported	
<b>Amenity</b>		
4L Solar and daylight access Performance Criteria 4L-1	4L-1 Acceptable solution 5 re: number of units receiving no sunlight: Amend to provide a range suited to urban context. Dense inner city situations may be appropriate to allow 15% but on suburban sites this is not acceptable and should retain the RFDC limit of apartments receiving no sunlight at 10%. Add additional point: 7. No habitable rooms are to be excavated more than 1 metre below natural ground level.	Urgent
Performance Criteria 4L-4	Acceptable solution 1: Interpretation of 'unavoidable' needs to be clarified as an inappropriate building type may result in 'unavoidable' lightwells, whereas the lightwells may be avoidable where an alternative building typology is proposed.	Urgent Urgent
4L Alternative solutions	After last paragraph: Where buildings face within 20 degrees east or west of south, apartments should maximise dual aspect, or have narrow depth for single aspect apartments. Replace 'or' with 'and have narrow depth': And add: 'and provide large areas of glazing to maximize indirect light.'	Urgent
4M Common circulation and spaces	Add to the last paragraph of the Description: 'and building character.'	
Performance Criteria 4M-1	Acceptable solution 4 : remove "where possible", and specify exceptions such as basement car parks. Fully internalized common lobbies are generally avoidable unless an inappropriate building typology is proposed or yield is excessive. Internalised common circulation spaces are unpleasant spaces, do not achieve performance criteria of creating meeting places, achieve poor amenity, poor residential character and place constant high energy demands on the life cycle of apartment buildings. This also unnecessarily increases carbon emissions and building costs over time.	Amend Amend
Figure 4M.6	Fig 4M.6 does not meet Performance Criteria 4M-1.1 which requires a maximum of 8 unit off a circulation core. This figure shows 10.	
4N Apartment layout	Apartment sizes could be given as a preferred range to suit various locations and pricings as well as promoting efficient urban consolidation and inclusions such as sunrooms or studies. Studio 35-45m <sup>2</sup> , 1-Bed 50-65m <sup>2</sup> , 2B 70-85m <sup>2</sup> and 3B 90-110m <sup>2</sup> . This is still less than the RFDC and less than needed for Universal Design.	Urgent
Performance Criteria 4N-2 Figures 4N.2, 4N.5 and 4N.6	Acceptable solution 1: supported but Fig 4N.3 also needs to be referenced 4O-1 as well as 4O-3. Dimension lines do not match with internal faces of walls. Either dimension is slightly wrong or apartments are larger than dimensioned.	Amend



Figure 4N.3	<b>The ceiling height to room depth of Figure 4N.3 is strongly supported.</b> It is clear and appropriate but also needs to be referenced 4O-1.	
4O Ceiling heights Performance Criteria 4O-1.1	3.3m FL-CL height for ground floor uses in mixed use zone is insufficient and inconsistent with Fig 4O.1 that nominates 4.2m and is a mixed-use example. Replace 3.3m in table with 4.2m. Acceptable solution 1: Add: ..."and is measured clear of all services and structure."	Amend  Amend
4P Private open space and balconies Figure 4P.6	Generally supported, however, more generous balcony sizes add more amenity to smaller units. Does not demonstrate a combination of solid and transparent balustrade materials but does show solid walls and transparent balustrades.	Consider  Amend
Figure 4P.10	Does not demonstrate any soffit detailing other than the top floor roof.	Amend
Performance Criteria 4P-3.6	Many councils prohibit A/C on balconies. This could be amended to clarify so that any A/C units on a balconies must be fully integrated with the façade design.	Amend
Performance Criteria 4P-3.7	Add ..."and fully waterproofed."	
4Q Natural ventilation	<b>The inclusion of Figure 4Q.4 is strongly supported</b> as it provides a measurable relationship between unit depth and amenity. All apartments should be cross-ventilated to maximise amenity, minimise energy use and reduce reliance on air conditioning. As a concession to urban consolidation and in support of small footprint apartment towers, 80% of apartments should be required to have dual orientation cross ventilation. The proposed 5% of area of serviced room as opening size needs to be confirmed as adequate by a mechanical engineer – this appears to be inadequate to meet the stated performance criteria. Clarification necessary so that window types provide differing amounts of 'Effective Openable Area' such as sliding versus awning. Reference Glossary?	Urgent  Amend
4R Storage	Storage should be calculated <u>in addition</u> to apartment sizes not included in already tight room sizes.	Urgent
4S Acoustic privacy	Figure 4S.5 does not demonstrate acoustic seals.	Amend
4T Noise and pollution Performance Criteria 4T-2	Figure 4T.5 does not demonstrate acoustic louvers. None of the Acceptable solutions in 4T-2.1 include noise barrier planning principles. This should be included.	Amend Amend
<b>Performance</b>		
4U Energy efficiency Performance Criteria 4U-2	Supported status of BASIX. Acceptable solutions 1: Add specific reference to common circulation spaces.	
4V Water management and conservation  Figure 4V.2	Generally support. Appears that a DCP in relation to water management would still apply? Or is this not the case because of the design quality principle "Sustainability"? Second paragraph says "...recycles stormwater and wastewater for building services". <b>Untreated stormwater cannot be used for building services except irrigation.</b> Figure 4V.2 shows overflow from the water feature and the bio-sink going into the rainwater tank – <b>this is stormwater and no good if the rainwater tank is for re-use inside the building.</b> This is an error within the RFDC (but with an added error), This should be amended by appropriately qualified and experienced consultants in the design of these systems and the application of BASIX.	L'scape opinion needed Amend



Performance Criteria 4V-1.2 Performance Criteria 4V-2.2	<p>On the right hand side of the figure is a second floor labelled "Basement parking" (16), which should probably be labelled "apartment building" and 17 should be the basement as in the RFDC.</p> <p>Reduction in potable water consumption as per BASIX, even if combined with stormwater detention, will not achieve the WSUD objective of minimising effects on receiving waters, as erosive flows can still occur. It is necessary to reduce the total volume of runoff, and since BASIX can be met by the use of water-saving fixtures, it does not do this. Hence the need for a DCP to apply in this regard.</p> <p>Wastewater re-use will reduce the re-use of rainwater further. How is this monitored or enforced?</p> <p>Runoff from balconies is stormwater and cannot be used internally.</p>	
4W Waste management	Figure 4W.3 does not demonstrate a compost bins or a community garden.	Amend
4X Building maintenance Performance Criteria 4X-1	<p>4X Topic description to include "and minimise likelihood of building defects".</p> <p>Strike-out "A number of the following design solution are used:" and replace with "All the following design solutions are used:"</p> <p>Add 3 additional points:</p> <ul style="list-style-type: none"> <li>- <b>No apartment is to be accommodated below natural ground level</b></li> <li>- <b>no external wall is to have direct contact with soil above the proposed floor level and</b></li> <li>- <b>no ground floor terraces are to be excavated below 1000mm of natural ground level.</b></li> </ul> <p>Extensive UNSW research has identified water penetration as a leading cause of building defects. Ensuring there is a physical separation of walls of habitable rooms from soil will alleviate problems with substandard waterproofing either due to poor construction detailing, poor construction methods. Water penetration is very costly to remediate, affects building value over time, affects affordability and is largely preventable.</p> <p><b>Figure 4X.3 has expanses of rendered painted walls requiring scaffolding to maintain which is inconsistent with Performance Criteria 4X-2.3 and 4X-3.1</b></p>	<p>Amend</p> <p>Urgent</p> <p>Amend</p>

## PART 5 DESIGN REVIEW PANELS

5A Function of design review panels	Supported.	
5B Membership and establishment	Supported. Needs to be extended to require that consent authorities including PACs, JRPPs include equal representation of similar design expertise.	
5C Roles and responsibilities	Supported.	
5D Meeting procedures	Supported.	
5E Templates	Supported.	

## APPENDICES

App1 Site analysis checklist	Supported.	
App2 Pre-development application checklist	Supported.	
App3 DA documentation checklist	<p>Supported.</p> <p><b>Appendix 3</b> – This was not separated out in the RFDC, but the water management concept design should be its own document, separate to the Landscape Plan and designed by a suitably qualified professional (i.e. an engineer), as required under 4V-2-1</p>	

App4 Apartment building example schemes	Sample schemes mostly do not demonstrate minimum deep soil areas – they are significantly higher than ADG minimums. This is clear evidence of the inadequacy of deep soil requirements and should be amended in 3D and 3E of the ADG.	Amend
Glossary	<p>Words such as 'minimise', 'unavoidable' are subjective and are not provided with any objective, measurable, or verifiable performance standards. They should be deleted from the ADG and replace with verifiable performance benchmarks.</p> <p>The following definition is not correct – the tanks are the retention systems:</p> <p><b>Stormwater retention systems:</b> Retention systems that allow for stormwater to be retained, for infiltration into groundwater or storage in tanks.</p> <p>There should perhaps be two separate items:</p> <p><b>Rainwater retention systems:</b> Retention systems that allow for roof runoff to be retained, for re-use inside the building, irrigation or for infiltration into groundwater: and</p> <p><b>Stormwater retention systems:</b> Retention systems that allow for stormwater to be retained, for infiltration into groundwater or irrigation</p> <p>The following definition looks incorrect – there is no “an” Australian Height Datum, but there is a “the” Australian Height Datum:</p> <p><b>Datum point or datum line:</b> A significant point or line in space established by the existing or desired context, often defined as an Australian Height Datum. For example, the top of significant trees or the cornice of a heritage building Should it read “...often defined <b>to</b> (or by? Or above?) Australian Height Datum.”?</p>	Amend