APPENDIX A -SUGGESTED MODIFICATIONS TO SOME KEY PARTS OF THE DRAFT APARTMENT DESIGN GUIDE

Part 2	Suggested Modifications	Reason for Modification
Developing the Controls		
2E – Building depth	Objectives Ensure building depth supports apartment layouts that meet the performance criteria and acceptable solutions within the Apartment Design Guide Ensure that the bulk of the development is in scalecompatible with the existing or desired future context	This does not recognise that alternative solutions may also be used to meet the performance criteria as outlined on page 11 of the ADG. The focus should be placed on meeting the overall objectives and performance criteria. As specified on page 11 this can be through the listed design solutions, the listed alternative solutions or another alternative design solution not listed.
	1. Use maximum apartment building depths of 12-2518m when precinct planning and testing development controls to help ensure apartments receive adequate daylight and natural ventiliation and optimize natural cross ventilation.	Tower apartment buildings typically have a depth of between 20 to 25m, which have been approved on the basis of achieving good residential amenity.
2F - Building Separation	 3. Minimum separation distances for buildings within a site and between adjoining sites for buildings are: Up to four storeys (approximately 12m) 12m between habitable rooms/balconies 9m between habitable and non-habitable 6m between non-habitable or habitable rooms with no eye level windows or where appropriate screening is provided to habitable rooms and balconies 	A common issue with the current RFDC is that it defines a habitable room as including most rooms except bathrooms and kitchens and therefore despite whether a living room or kitchen for instance has a high level window or appropriate screening, the greater building separation distances still apply. It is reasonable that where there are no overlooking impacts from one habitable room or balcony to another that a lesser separation distance may apply.
	Five to eight storeys and above (approximately 25 over 25 m)	

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	18m between habitable	
	rooms/balconies	
	• 12m between habitable and	
	non-habitable	
	• 9m between non-habitable	
	or habitable rooms with no	
	eye level windows or where	
	appropriate screening is	
	provided to habitable rooms	
	and balconies	
1		
	Nine storeys and above (over	
	25m)	
	• 24m between habitable	
	rooms/balconies	
	• 18m between habitable and	
	non habitable	
	• 12m between non-habitable	
	12m between non-nabitable	
	Suggest adding acceptable	As per above
	design solution:	Tib per de s ve
	Where habitable rooms do not	
	contain eye level windows or	
	where appropriate screening is	
	to be provided to minimise	
	overlooking such as louvered	
	screens the building separation	
	distances may be reduced. In	
	such instances building	
	separation distances should be	
	assessed on their merit taking	
	into consideration the	
	performance criteria for	
	building separation.	
Part 3 - Siting	Suggested Modifications	Reason for Modification
the Development	baggestea mounications	ACCESON 101 MICHINICATION
ine Development		
3B-2	Delete acceptable solution 4	Rely on acceptable solutions
	and 7	3.
	Delete wording "to the south	Solar modeling will confirm
	or down the hill" in solution 5.	where setbacks should be
		adopted.
3C	Diagram 1 pg 52- modify	1m maximum level change is
	S PS -2	too restrictive on sloping
		sites
	Diagram 2 pg52 – modify front	1m front fences and walls
	2 mgrain 2 pg-2 mounty mont	III Home remove and wants

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	wall height	will not allow privacy or security in courtyards that face the street. Blinds will always be closed, windows and doors will be locked shut, which will encourage an unactivated streetscape.
	Image 3 pg 53 – Delete	This image articulates why low walls should not be a design control - all the blinds are shut, and there is no furniture in the "private" open space
	3C-1 Performance Criteria 4 – update to 1.5m	1m is too restrictive as noted above. Images on pages 8, 18, 33, 40, 43, 54, 67, 69, 76, 78, 107 and 128 all do not comply with this control, but are good examples of higher fencing.
	3C-1 Performance Criteria 5 – Delete	Need to consider the site context – site falls, planters, privacy, solar, dwelling types, neighbouring buildings etc.
	3C-1 Performance Criteria 6 – Delete	Seating at the front entry would potentially compromise security, not enhance it. It will also potentially block paths of travel for fire egress.
	3C-2 Performance Criteria 4 – Delete "Substations" and "other service requirements".	Substations and fire services are often not able to live within the building envelope i.e. they MUST be on the street.
3D	Add Alternative Design solution:	There are numerous instances in inner city locations where a new
	Having regard to the size of an apartment building, its location, context of a site and its proximity to existing community open space and	building may be well located across the road from a park or playground or in close proximity to open space areas or community facilites.
	facilities, the design may	In such instances it could

	provide less than 25% of the site as communal open space provided good access to local facilities can be satisfactorily demonstrated.	reasonably be argued that less than 25% of site could be provided as communal open space. Indoor community spaces such as gyms, pools, business hubs and the like should also be considered.
	3D-2 Performance Criteria 3 – Delete "electrical substations"	Often there is no choice on the location of substations, booster valves and the like.
3E Deep Soil Zones		Mature planting and turf can be achieved without deep soil beneath them. Suggest relooking at deep soil to be a % of "Landscaped Area" to achieve permeable surface objectives, rather than to achieve a quantum of trees. Deep soil zones are very restrictive on efficient and legible basement design.
	3E-1 Performance Criteria 3 – Delete soil volumes	Mature trees do not require these soil volumes.
	3E-2 Performance Criteria 2 – Delete	This solution is not achievable on large sites with complex hydraulic & civil requirements.
3F		The 45 degree angle is not reasonable, as it rare that a person will stand right in front of a window and look at a neighbouring building facade, particularly if it has windows.
	Figure 3F-10 – Delete	Figure 3F.10 prohibits a window into a kitchen for cross vent, which is now a proposed performance criteria.
	3F-1 Performance Criteria 3 – Delete	This is unreasonable

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	3F-1 Performance Criteria 4 – Delete	Rely on solar access criteria
ЗН	3H-1 Delete acceptable solution 3, 4, 5 and 7	These requirements are driven by traffic impacs, wait times, traffic volumes and the Australian Standards.
	3H-1 Delete acceptable solution 3	Difficult to control in council owned land.
3J - Bicycle and Car Parking	Table 2 Add sites within 400m of metro bus stop into first row of table to also require nil parking requirement. This would enable sites located in dense urban areas with good access to transport such as Neutral Bay and Rozelle for instance to also take a more sustainable development approach to the provision of parking.	The Sydney Buses website states: "Sydney's Metrobus network is comprised of 13 routes, providing high-frequency, high-capacity links between key employment and growth centres across Sydney. These extra Metrobus routes provide 400,000 additional bus passenger spaces a week." It is appropriate that the new minimum parking requirements apply not only to sites located in close proximity to rail and light rail but also to metro bus stops where frequent services are
	3J-4 Criteria 1 – Delete	provided. This contradicts affordability argument. We currently try to build our basements above ground, particularly along rail or in areas where apartment development is very price sensitive.
	3J-4 Criteria 2 "Where on grade parking is unavoidable"	What constitutes "unavoidable"? Commerciality, demographics, site conditions? Etc?
	3J-5 - Delete	Delete as above ground parking often extends to
	4. Natural ventilation is	more than 1m out of the

provided to basement and sub	ground to account for site
basement car parking areas	slope and conditions. The key
	is not to limit the extent
	parking protrudes above
	ground level but to introduce
	requirements for any parking
	wall that does protrude to be
	appropriately screened with
	vegetation of decorative
	façade treatments. Full above
	ground parking levels can
	also be screened with
	residential or retail uses to
	hide the parking areas
	behind activated street
	frontages.

Part 4 Designing the	Suggested Modifications	Reason for Modification
Building		
4A – Apartment Mix	4A-1	
	1. Add dot point:• The broader context of established housing in a locality	So a single development is not considered in isolation to the context.
	2. Add to sentence- "as the market dictates"	To recognize that apartments need to be sold, and mix should also be linked to this.
	3. Flexible apartment configurations, such as dual key apartments, are to be considered provided to support diverse household types and stages of life including single person households, families, multigenerational families and group households	Some flexibility should be allowed for as it is not always possible to provide flexible apartments such as dual key apartments.
	1. Different apartment types are located to achieve successful façade composition and to optimize solar access. See figure 4A.3	There is currently too much focus on achieving solar access compliance which has been driving poorer design outcomes than could otherwise be achieved if a more holistic approach to residential amenity was encouraged. This is a covered in 4L.
	Larger apartment types are located on the ground or roof level where there is potential for more open space and or on corners where more building frontage is available	To allow a little more site specific response.
4B - Ground Floor	4B-1	
apartments	Figure 4B.4 The dimension on the elevated terrace should be changed: max approximately 1m	This is inconsistent with most Council's DCPs which allow 1.2m above ground level. This is very difficult to

achieve uniformly on sloping sites. There is no account for site specific responses. 1. Direct street access is May not be possible due to specific site features or provided to ground floor apartments where possible slopes 3. Retail or home office spaces This should not be are may be located along mandatory. There are street frontages where numerous situations where demand exists. the provision of ground floor retail/commercial would sit as vacant spaces due to lack of demand. If demand does not exist it is a much better outcome to provide well designed residential apartments at street level which will at least activate the street frontage and contribute positively to the streetscape rather than vacant spaces. 4B-2 1. Privacy and safety is 1m is too low for many provided without sloping sites. It is not obstructing causal casual necessary to limit the extent surveillance. Design of elevetaion as the solutions may include: treatment should be assessed • Elevation of private gardens on its merits with regard to and terraces above the its context. For instance on street level by a maximum busy roads a height of of 1m (see figure 4B.4) greater than 1m might be • Landscaping and private preferable to satisfactory address potential privacy courtyards impacts. This also conflicts Window sill heights that with many Council DCPs that minimize sight lines into allow up to 1.2m elevation apartments above the street which is Integrating balustrades, important for enabling safety bars or screens wit natural ventilation of the exterior design basements. Appropriate screening measures 2. Solar access is maximiszed through:

	Providing privacy so occupants feel comfortable with bli and curtains open Appropriate ceiling height and windows taking into account a privacy issues High ceilings and tall windows Trees and shrubs the allow solar access I winter and shade in summer	nds ize iny
	Alternative Solutions	
	Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities easy conversion.	ng
	Add an alternative solution this criteria such as:	to
	Variations to Council DCP dwelling mix requirements should be supported by documentation demonstrate that the proposed alternative mix is appropriate for the signal of th	seeks to vary a mix control in
4C Facade	4C-1	
	3. Building facades have appropriate scale, rhyth and proportion to the	It is not practical or cost m effective to change floor levels throughout a

	streetscape and human scale. Design solutions may include: • Well composed horizontal and vertical elements variation in floor heights to enhance the human scale	residential tower. This would have implications for housing affordability.
4D Roof Design	Preamble: Add to the first paragraph: In some contexts a simple flat roof and parapet may be the most appropriate response. 4D-2	
	Opportunities to use roof space for residential accommodation and open space are maximised considered	Should acknowledge that it is not always possible to provide rooftop open space. Wind impacts often limit the ability to provide such space
	2. Open space is provided on roof tops where possible subject to acceptable visual privacy, comfort levels, accessibility, wind impacts, safety and security impacts	on rooftops. Rooftop open space also requires an extension of the lift and accordingly greater height. Where skylights are used to living rooms to achieve natural ventilation requirements it can also be impractical to provide rooftop open space. There are also services and plant requirements that may preclude rooftop open space.
	2.3. Rainwater tanks are located on roofs where possible Delete this solution	Rainwater tanks are best located below the roof and, balconies so water can drain by gravity.
4E Landscape Design	Table 3 – Delete	The number and size of trees to be provided per deep soil zones should be assessed and determined on a site by site basis taking into consideration context, character, proposed use and function of deep soil area and

		the opportunities and constraints of individual sites. For example we are currently designing a development with a 3,000m2 deep soil park. The requirement to provide either 37.5 large trees or 75 medium trees in a park within an urban development site that will have both passive and active use functions is impractical and could impact on the design of a proposed active park area.
	4E-1	
	Ongoing maintenance plans are	A costly impost.
	preparedDelete this solution	
4G Universal	Delete this entire Section	Livable Housing Australia's
Design		objective is to have Silver Level
		design standards incorporated into
		the Building Code of Australia by
		2020. These standards are
		currently being developed in
		partnership with industry and LHA,
		which will likely supercede the
		current controls that are built into
		this edition of the ADG creating a
		conflict between the SEPP and the
		BCA in the future.
4H Adaptive	Add into alternative solutions:	Non-compliant floor to
Reuse	• Retention of existing floor to	ceiling heights particularly in
	ceiling heights subject to	older non-residential
	demonstrating a reasonable	buildings is typically an issue
	level of amenity can be achieved.	for adaptive re-use projects, which should be
	acmeved.	acknowledged.
	4H-1	demiowiedged.
	Design solutions may include:	Note that the examples shown in
		Figures 4H.1, 4H.2 and 4H.3 do not
	• new elements align with the existing	align with existing buildings or
	building	complement existing scale, in fact
	additions complement the existing	they add significant new fabric above
	scale, proportion, pattern, form and	the existing building, and yet they

	about as	have been feet to the
	rhythm	have been included as good
	use of contemporary materials and	examples In recognition of this add
	finishes	another point.
	New elements may contrast in apple or add to existing	
	in scale or add to existing buildings	
	bundings	
	4H-2	Changing the heights of
	Delete "deeper apartments	individual apartments
	have greater ceiling heights".	depending on their layouit
		and deopth is not achievable
		as-e a_consistent ceiling
		height needs to be applied
		across each floor for
		construction purposes.
		Higher ceilings and/or
		changing ceiling heights across individual floors
		would increase construction
		cost significantly and have an
		adverse impact upon housing
		affordability.
4J Mixed Use	Figure J.2	To provide one commercial
	Delete commercial floor from	floor in what is essentially a
	image	residential flat building with
		perhaps some shops/cafés at
		ground level is unviable. This
		issue is justified in economic
		impact reports regularly. The demand for commercial
		offices is more typically
		limited to business parks and
		in commercial office
		buildings within existing
		centres. Furthermore, as
		residential and commercial
		uses require their own lift
		cores, aside from the lack of
		demand for such space it is
		uneconomic to construct one
		level of commercial offices within a building.
4L Solar Access	Preamble:	within a bunding.
and daylight	3 rd paragraph-	A 2.5m deep balcony in front
Access	Access to sunlight for habitable rooms	of a living area 20 deg or
	and or private open space is measured	more from due north will not
	at mid winter (21 June) as this is when	allow 3 hours of sunlight into
	the sun is lowest in the sky and	the living room. There are
	and suit to towest in the sky and	few sites that enable perfect

represents the 'worst case' scenario for solar access.

Figure 4L.1

Shading devices on balconies should shade summer sun and allow winter sun access to living areas or private open space/balconies

4L-1

- 2. Single aspect, single storey apartments have a northerly, or easterly or westerly aspect.
- 3. The number of single aspect west and south facing apartments is minimized
- 4. Living rooms and or private open space of at least 670% of apartments in a buildings receive a minimum of 23 hours direct sunlight between 89am and 43pm in mid winter
- 5. A maximum of 15% of apartments in a building have no direct sunlight between 9am and 3pm in mid winter
- 6. Living areas are located to the north and service areas to the south and west of apartments, where possible

northerly orientation, resulting in apartment plans that position the balcony to side of the living area in order to comply with the control. A better control would be to achieve sunlight to the living room OR balcony/private open space.

The westerly aspect plays a very important role in being able to achieve or get close to achieving the solar access requirements. Shading devices can be used either within or external to an apartment to address issue of heat penetration during the warmer months.

It is very difficult to achieve solar access to 70% of apartments for 2 hours mid winter in inner Sydney locations largely due to the density of development and the fact that typically available sites do not have an ideal orientation. A 60% target is more reasonable and would allow for improved design outcomes such as the ability to locate balconies directly in front of living rooms rather than offset them in order to achieve solar access requirements into the living room. We have also suggested that the time period be increased an hour in the morning and afternoon which would not compromise amenity as sunlight received between 8 and 9am and between 3pm and 4pm is considered to be quite valuable particularly

1	
	for people to enjoy such amenity while they are at home prior to or following school or work. Many people are at work or school between the core hours of 9am and 3pm.
41 -2	1
Reasonable levels of direct sunlight is provided to habitable rooms- and or balconies. 1. Apartments that receive direct sunlight in accordance with the acceptable solution 4L-1.4 need to demonstrate that a person is able to sit in the sun in a habitable room or on a balcony of an apartment in mid winter between 8am and 4pm. See Figure 4L.1 DELETE	The draft provision requiring an applicant to demonstrate that a person can sit in the sun within a habitable room in mid winter is an overly prescriptive control that will add significant time and cost to the application process. Furthermore, as suggested through-out this submission the current difficulty in achieving the solar access requirements for the RFDC which are less onerous that the draft controls has led to the suggestion that the solar access provision be altered to require access to either the living room or balcony in order to allow an improved design outcome of being able to locate balconies directly in front of living rooms.
Alternative solutions –	
In these circumstances the	
development should receive a	
minimum of 2 hours of direct sunlightto	
70% of living rooms and or balconies	
at mid-winter.	
Add the following words: Variations to the acceptable solutions are permitted where it can be demonstrated that site constraints prevent the achievement of the solar access target and that a satisfactory level of amenity can be achieved through a holistic approach to amenity. The	

	factors that may contribute to amenity include (but not limited to) views, outlook, proximity to open space, transport, shops and services, natural ventilation, privacy, size of private open space, extent of facade glazing and access to daylight. 4L-3	Please note that some of the acceptable solutions to achieve shading affect the ability of a development to achieve the solar access
4M Common Circulation and Spaces	4M-1 1. The maximum number of apartments off a circulation core on a single level is eighttwelve.	targets. 10 to 12 is a common design outcome with the provision of a slot or skylight for natural daylight penetration
4N Apartment Layout	Remove all dimensions from indicative layout plans	The dimensions should be removed to avoid developments being assessed against such calculated examples. As per the proposed SEPP the focus should be on the minimum apartments sizes in table 6 which satisfactorily address the issue of housing affordability. The images can remain as examples provided there is no potential assessment tool associated with them if they are not replicated.
	Delete second paragraph from alternative solutions requiring ceiling height to increase as habitable room depth in single aspect apartments increases. Delete Figure 4N.3	The proposed habitable room depth control is a significant issue and cannot be reasonably applied or complied with. Using this control an allowable 8m depth requires a 3.3m high ceiling. This will have a significant impact on affordability. A requirement for a 2.7m ceiling is a good outcome. Requiring any room

4N-1

 A window should be visible from any point in a habitable room Delete more than 6.75m deep to have ceilings higher than 2.7m is unreasonable.

Study nooks, which are often inboard, are very valuable to occupants. Studies are classed as habitable rooms in the Glossary, and as such providing these will be difficult because of this control.

4N-2

- 1. Habitable room depth complies with the ceilibng height to room depth ratio as per figure 4N.3
- 2. For open plan layouts, combining the living room, dining room and kitchen, the back of the kitchen is a maximum of <u>9.8</u> metres from a window.

Delete this control. This requires any room deeper than 6.75 to have a ceiling height higher 2.7m

We request that the 8m depth of kitchen control be extended to 9m to allow for apartment design to be able to return to a kitchen that flows to open lounge and dining in front. Allowing for a zone of 3m each for living and dining and 2.7m for the kitchen is reasonable and not excessively deep. The 8m control limits the opportunity to provide open plan living along this design model without breaches, which is a design the market appreciates and desires because it does facilitate good amenity.

- 6. Delete
- 7. Delete
- 8. Delete

4N-3 Delete acceptable solutions 1 through to 6 These controls area unrealistic and restrictive.

These are highly prescriptive and unnecessary and will add an excessive compliance burden of compliance tables

		in DAs
40 Ceiling Heights	Figure 40.5 Services bulkheads are wholly generally contained within non-habitable rooms and are a minor intrusion into habitable spaces	It is not always possible to have no bulkheads in habitable rooms,. For example when apartments do not stack due to set back requirements, or horizontal exhaust of wet areas can require a small bulkhead along the side of a room.
4P Private Open Space and Balconies	2. Private open spaces and balconies predominantly face north, east or west and solar access to living rooms is not impeded 4P-2	This will result in loss of connection between balconies and living areas, as balconies will have to be moved to the side of living areas. Balconies are a valuable means of shading to living areas- it is desirable to reduce the solar load on living room glazing
	 Balcony minimum sizes should be adjusted to bedroom- 6 m2 bedroom- 8 m2 bedroom- 10 m2 The minimum depth of 2m should be the same for all apartments. 	These requirements are new and as a minimum size are too large. Maintain the current RFDC minimum of 2.0m for all balconies

40 N : 1	E' 40.1	TD1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4Q Natural Ventilation	Figure 4Q.1 4Q-2	There is a danger that this could be interpreted as requiring depths more than 6.75m to have greater than 2.7m ceilings
	Light wells are not the primary air source for habitable rooms living rooms	This control could prohibit the use of slots to acieve cross-ventilation. It should be acceptable for kitchens, studies and bedroom to have ventilation through lightwells/slots
	 lightwells or building indentations with a width to depth ration of 2:1 or 3:1 where possible to ensure effective air circulation and avoid trapped smells 	This ratio is too prescriptive and will force apartments to be wider reducing yield on sites and increasing cost per apartment, all contributing to reduced affordability.
	4Q-3	
	 At least 560% of apartments are naturally cross ventilated For apartment buildings 9 storeys and over an appropriately qualified 	A 50% target is more readily achievable.
	wind consultant has confirmed that 50% of apartments achieve cross ventilation	
	3. Overall building depth does not exceed 12-2518 metres.	A more appropriate depth would be 20m to external walls or 25m to balconies. However there are numerous other controls on amenity that this control should no be necessary.
	5. Delete	Excessive compliance burden

4R Storage	4R-1 1. Studio apartments <u>4</u> 6 m3	In line with the ADG statement that storage "should be provided proportionally to the size of the apartment" the storage requirement for studio apartments should be 4 m3
4T Noise and Pollution		All of this should be to Acoustic Engineer's advice and BCA. This section is unnecessary
4U Energy Efficiency		This aspect is covered by BASIX. This is duplicating not only BASIX controls but also increasing controls in the BCA. At the very least and acceptable solution should be "compliance with BASIX"
	Figure 4U.4	We note that this layout conflicts with controls for cross ventilation.
4V- Water management and Conservation		This aspect is covered by BASIX. This is duplication of controls. At the very least and acceptable solution should be "compliance with BASIX"
4W Waste Management		All Councils have Wadte Management DCPs. This is uneceassruy duplication.