Sent:
 29/06/2018 2:13:05 PM

 Subject:
 OBJECTION Mod2018/0294 - (DA0367/2010)

 Attachments:
 objection to Council.pdf;

Please see attached Chris Taylor The Manager Development Assessment Northern Beaches Council C J Taylor 12/42 – 44 Victoria Pde Manly NSW 2095

Dear Sir/ Madam

RE : SP 10040. Mod2018/0294-DA0367/2010 46 Victoria Pde, Manly, NSW (46)

This is a formal **OBJECTION** to the proposed DA the applicant being BBF Planners. I am the owner of unit 12, level 2, on the north eastern corner of our block of units. There a number of issues that cause significant concern as follows :

## **Balcony levels**

My view of the ocean will be significantly reduced by the proposed DA and it follows that the value of my unit ( and others with a similar aspect ) will decrease.

I have conferred with council planner Luke Perry who was very helpful in explaining that the minimum ceiling height, using the <u>Apartment Design Guide</u> (ADG) which explains how to apply SEPP 65's design principles to the design of new apartments, is 2.7 M. The Council uses this document as its basis for decisions. Hence the new DA presumably using the ADG applies for significantly higher balcony levels to cater for the 2.7 M ceiling heights.

Given that the new developer has ignored previous conditions set by the LEC and confirmed by MIAP on 21<sup>st</sup> August 2014, it follows that I (and my co owners) are also able to ignore previous conditions set and request a complete restructuring of what has now been proposed based on the ADG & SEPP 65.

It follows that the ADG is to be used as to what must occur in a new unit development. I am prepared to work with this.

Please refer to Appendix 1

**Page 1**. Extracted from the ADG page 31 is the algorithm for determining the height of a new building. The result for a 5 story development is 18.50 metres. The proposed 46 building is 21.20 metres which is 2.7 M (8 ft 10 in ) higher than under

the ADG which is clearly unnecessary and causes severe impairment to the view of units 4, 8, 12,16 & 20.

Further down the page note "...appropriate to determine heights by relating them to site specific features .aligning floor to floor heights of new development with existing built form" We totally agree to aligning the new developments floor to floor heights with our existing balcony levels.

**Page 2.** Section 2C refers to new building controls considering the height of existing buildings of which we are one.

Page 3. Shows diagrammatically how the 2.7 M floor to ceilings are constructed.

**Page 4.** Section 3 B refers to orientation of the site. "...directly effects residential amenity...and influences other matters including visual and acoustic privacy to ...neighbouring sites."

Further "the site layout...must be balanced with...providing for the enjoyment of significant views. "

By any definition, my views are significant at present.

**Page 5.** Section 3F. "Visual privacy allows residents...on adjacent properties to use their private spaces **without being overlooked**. "As an example the RL of my unit is 10.85. The proposed RL is 11.63. This is **78 cms (2 ft 6 <sup>1</sup>/<sub>2</sub> in ) higher** than my balcony. This is a serious example of overlooking.

When looking along the length of the balcony of the proposed development the higher the level the less ocean view I have which is in total contrast to the "shared view" basis of the LEC/ MIAP decision.

With this current proposal the concrete slab is **78 cms** (RL 11.63 v RL 10.85) higher than my balcony and at EYE level.

I will be looking straight at a slab of concrete.

It appears when viewing S96-203 the West elevation that the glass balconies could be frosted. They need to be clear. This needs to be confirmed.

2

When I purchased my unit and the previous 3 storey red brick building was still in place I had <u>unrestricted</u> views to the ocean.

## **Balcony depths**

The distance from the front of the balconies in the proposed DA on levels 1,2 and 3 appears to be approximately 3175 mm from the Victoria Pde boundary of 46.

The closest any balcony in our block from the boundary of Victoria Pde. is approximately 4800 mm.

The destruction of the views of owners in the North Eastern corner of our block is exacerbated by the concrete planter box portion of the new DA balustrade.

Concrete balustrades have their place **BUT NOT WHEN THEY OBSTRUCT THE SIGNIFICANT VIEWS OF NEIGHBOURING PROPERTIES.** 

The ADG has been developed to provide "best "practise principles which are being followed by councils .

Hence in the interest of best practise and not having the new balconies encroach on the visual aspect owners in 42 – 44 currently enjoy, the new development balconies must be brought into line with our block i.e. 4800 mm in from the Victoria Pde boundary.

The fact is that owners of the units on the North Eastern corner of the new development have absolutely zero downside irrespective of what height their balconies are because there is nothing in front of them. The levels could be increased or decreased by 1000mm and it would make little difference to their outlook.

42 - 44 Victoria Pde on the other hand has all downside with this new DA particularly with higher balcony levels than exist in our block. Views will be decimated

2

Roof Design & Overshadowing

Please refer to Appendix 2.

**Page 1.** Section 2A refers to "...Primary controls...developed taking into account...orientation and overshadowing ...visual and acoustic privacy"

"The rationale for setting primary controls needs to be explained to the community, applicants and practitioners ".

No one has explained any rationale to me as part of the community (other than ceiling heights of 2.7M which we now know through the ADG algorithm does not in any way justify a roof of 21.20M) as to why there needs to be a flat concrete roof at RL 21.20 that forces greater overshadowing than the last approval.

**Page 2.** The ADG refers to consideration being given in setting side and rear setback controls and to "...test side and rear setbacks with height controls for overshadowing of the site, adjoining properties..."

**Page 3.** "In conjunction with height controls, consider secondary upper level ( you don't get more "upper "level than a roof ) to ... minimise overshadowing of the street and other buildings "

The S96-203 West elevation shows that the previously approved planter/ balcony on level 4 is now proposed to be enclosed by walls and roof to form part of the lobby

This request was specifically denied by the LEC on 2 occasions. Though the developer is ignoring previous decisions one has to question why the LEC was vehement on this point.

It is imperative that this area must remain open space at all times so there will be no shadowing of our building, additional to that cast by the agreed section 34 proposal.

Note that part of the pitched roof originally approved was removed to reduce the effect of shadowing on our properties.

Access to the planter area adjacent to the lift, lobby, stair and bedroom 2 at level 4 is to be for service & maintenance purposes only so as to reduce impacts on the amenity of adjoining properties

The new DA increases the overshadowing compared to the latest approval. Overshadowing causes immense problems just one of which is the inability of paving to dry out, creating mildew & moss on pathways.

It is inevitable that shadowing will occur when buildings are close together however it is in everyone's interest to minimise the impact – not increase it without reasonable justification. The increased danger of someone slipping is unacceptable.

Building Separation.

Please refer to Appendix 3.

**Page 1.** Now that we're using the ADG as the basis for the DA, there is a distance from the boundary for new developments of 6M. Refer to the diagram.

The distance of the proposed building from the boundary appears to be 5245 mm.

**Page 2.** Refers to adequate building separation being provided ...from neighbouring buildings. Further...." Noise transfer is minimised through the siting of buildings and building layout "

The new development west walls are too close to the boundary with respect to potential noise and do not satisfy the 6M ADG requirement.

## Car ramp wall

This was approved at RL 7.45 to prevent the nuisance of headlights. The proposed DA appears to have dropped this to RL 6.45.

## In Summary:

Council uses the SEPP 65 ADG as the basis for its decisions on new developments. Given that previous decisions have been voided and now using the ADG, I respectfully request:

1. Under ADG Sections 2C and 4C that the maximum height of the new development be reduced to 18.50 metres including the roof. This is to provide for shared views & reduce overshadowing.

2. Under ADG sections 2C and 3F that the levels of the balconies be made equivalent to the levels of the balconies at 42 – 44 Victoria Pde. so as to provide shared views and no "overlooking ".

3. Under ADG Sections 2A and 2H that the roof structure approved by the LEC / MIAP for obvious reasons be reinstated to minimise the impact of over shadowing. At the lower height of 18.50 it will actually improve the shadowing effect on our units – a considerably safer outcome.

4. Under ADG Sections 2G and 3B that the front of the new development balconies be no closer at any point than 4800 mm to the border of Victoria Pde. This is to protect the visual aspect currently enjoyed by residents of 42 – 44.

5. Under ADG 3B and the "shared views "principle espoused by Council, that the balustrades are constructed of clear glass with no concrete anywhere.

This is to minimise the effect of "massing ", avail owners of 42 – 44 of the views they currently enjoy and provide an openness currently in place for all residents of the neighbouring properties. There are no concrete components of the balconies of our building.

In Fact, there is <u>NOT ONE</u> building on both sides of Victoria Pde from South Steyne to Darley Rd that has <u>ANY</u> part of its balustrade that is full height concrete balustrade.

These concrete components of the new developments balustrades decimates the views of our NE corner residents.

6. Under ADG Sections 2F and 3F that the distance from the boundary with 42 – 44 Victoria Pde be increased to 6M i.e. the new building is shifted to the east to satisfy the 6 metre ADG minimum.

7. The car ramp wall needs to be raised to RL 7.45 to prevent nuisance headlights.

# APPENDIX 1 PAGE 1



Figure 2C.3 Building height in renewal areas should reflect the desired future character of the streetscape

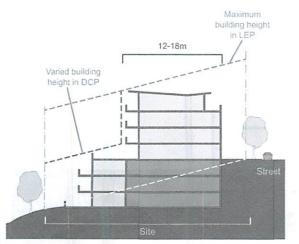


Figure 2C.4 On steep slopes across sites, a varied height control can be applied that steps down towards the lower level of the site and helps create useful residential floor plates (12-18m) addressing the street

## $5 \times 2.7 = 13.50$ + $5 \times 0.4 = 2.00$ + 1.0 = 1.00+ 2.0 = 2.00BUINDWG HEIGHTTOTAL = 18.5 N

Considerations in setting height controls

Set building heights by adding together the floor to ceiling heights for the desired number of storeys. Add 0.4m per floor for structure, services, set downs and finishes. Add 1m to the total to allow for rooftop articulation. Add 2m to the total to allow for topographic changes where required. Provide additional height in flood prone areas

Develop site-specific building envelopes and heights within a development control plan for large or complex sites such as those on steep slopes and those with changing topography. These specific heights need to be achievable within the building height set in the LEP

Ensure that building height controls respond to the desired number of storeys, the minimum floor to floor heights required for future building uses and include generous ground floor heights

Ensure the maximum building height allows for articulated roof planes and building services or that architectural roof features are enabled by the LEP

Where rooftop communal open space is desired, ensure adequate maximum height is provided and consider secondary height controls for lift/stair access and shade structures

Where a floor space ratio control is defined, test height controls against the FSR to ensure a good fit

It may be appropriate to determine heights by relating them to site-specific features such as cliff lines or heritage items. This may include:

- defining an overall height or street wall heights to key datum lines, such as eaves, parapets, cornices or spires
- aligning floor to floor heights of new development with existing built form

Consider secondary height controls to transition built form, for example:

- a street wall height to define the scale and enclosure of the street
- a step down in building height at the boundary between two height zones

The Building Code of Australia has certain requirements based on the effective height of a building. When setting height controls, consider these thresholds as it can have an impact on the feasibility of a development. Applicants should be able to design a building to the maximum height while achieving an economically viable development

# APPENDIX 1 PAGE 2

## 2C Building height

Building height helps shape the desired future character of a place relative to its setting and topography. It defines the proportion and scale of streets and public spaces and has a relationship to the physical and visual amenity of both the public and private realms.

Height controls should be informed by decisions about daylight and solar access, roof design and use, wind protection, residential amenity and in response to landform and heritage.

#### Aims

- · building height controls ensure development responds to the desired future scale and character of the street and local area
- · building height controls consider the height of existing buildings that are unlikely to change (for example a heritage item or strata subdivided building)

· adequate daylight and solar access is facilitated to apartments, common open space, adjoining properties and the public domain

- changes in landform are accommodated
- · building height controls promote articulated roof design and roof top communal open spaces, where appropriate.

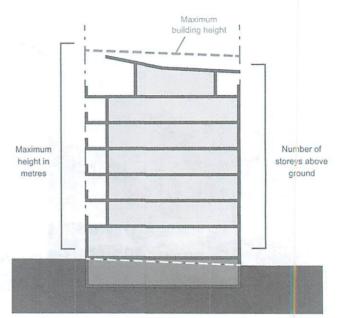


Figure 2C.1 The total height of a building informs the number of storeys possible in a development. Floor to floor heights vary depending on the use e.g. shops and offices are typically higher than residential apartments

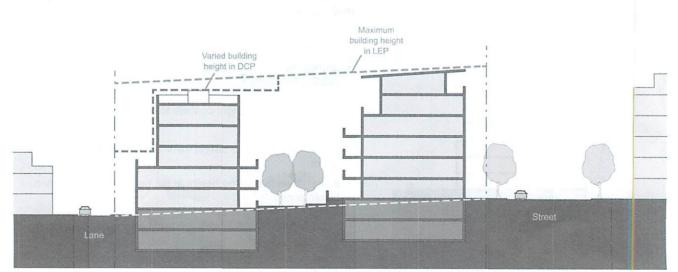


Figure 2C.2 Building height controls in a development control plan should reflect the existing or desired future character of an area. Height controls may need to step or change within a site while still being within the maximum set in the local environmental plan. This diagram shows how the height of proposed buildings responds to the lower and higher densities along each street frontage

# APPENDIX 1 PALL 3

## 4C Ceiling heights

Ceiling height is measured internally from finished floor level to finished ceiling level. The height of a ceiling contributes to amenity within an apartment and the perception of space. Well designed and appropriately defined ceilings can create spatial interest and hierarchy in apartments.

Ceiling height is directly linked to achieving sufficient natural ventilation and daylight access to habitable rooms. The ground and first floor levels of mixed use apartment buildings should have increased ceiling heights to ensure their longer term adaptability for other uses.

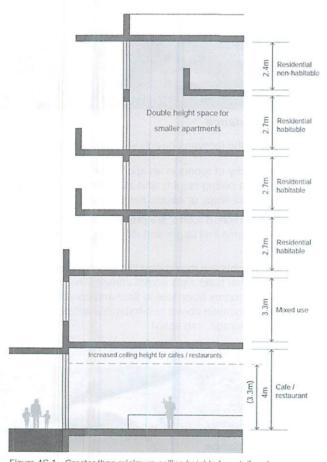


Figure 4C.1 Greater than minimum ceiling heights for retail and commercial floors of mixed use developments are encouraged to promote flexibility of use. Cafe and restaurant uses need greater minimum ceiling heights of 4m to allow for additional servicing needs

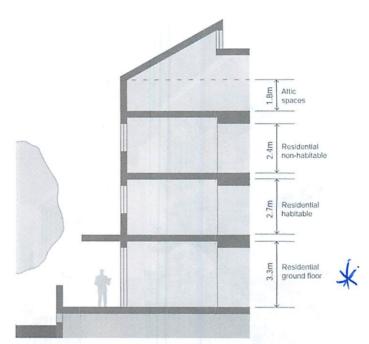


Figure 4C.2 Ceiling heights of minimum 2.7m help to achieve good daylight access and natural ventilation to residential apartments



Figure 4C.3 Ground floors often need to accommodate a range of uses such as retail, cafes and restaurants, and should provide increased ceiling heights to allow for maximum flexibility of use



Figure 4C.4 Differing ceiling heights are an opportunity to provide visual interest in the building facade

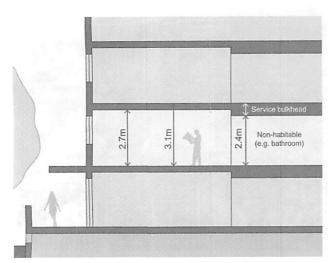


Figure 4C.5 Service bulkheads are wholly contained within non-habitable rooms and do not intrude into habitable spaces

## **Objective 4C-1**

Ceiling height achieves sufficient natural ventilation and daylight access

## Design criteria

 Measured from finished floor level to finished ceiling level, minimum ceiling heights are:

Vinimum ceiling height or apartment and mixed use buildings		
Habitable rooms	2.7m	
Non-habitable	2.4m	
For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area	
Attic spaces	1.8m at edge of room with a 30 degree minimum ceiling slope	
If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use	

These minimums do not preclude higher ceilings if desired

## Design guidance

Ceiling height can accommodate use of ceiling fans for cooling and heat distribution

## **Objective 4C-2**

Ceiling height increases the sense of space in apartments and provides for well proportioned rooms

## Design guidance

A number of the following design solutions can be used:

- the hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces
- well proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings
- ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist

## **Objective 4C-3**

Ceiling heights contribute to the flexibility of building use over the life of the building

### Design guidance

Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)

# APPENDIX 1 PAGE 41:

## **3B** Orientation

Orientation is the position of a building and its internal spaces in relation to its site, the street, the subdivision and neighbouring buildings. Building orientation influences the urban form of the street and building address. Building orientation directly affects residential amenity including solar access and influences other matters including visual and acoustic privacy to both the development and neighbouring sites.

Designing the site layout to maximise northern orientation is an important consideration, but it must be balanced with:

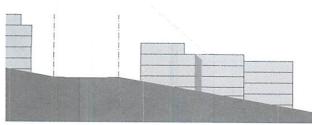
- · responding to desired streetscape character
- · promoting amenity for both the proposed development and neighbouring properties

· providing for the enjoyment of significant views

- · retaining trees and locating open spaces
- · responding to the topography and contextual constraints such as overshadowing and noise.

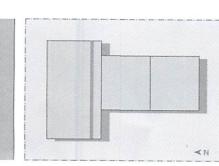


Figure 3B.1 Proposed buildings are sited to clearly address the street while maximising solar access to apartments



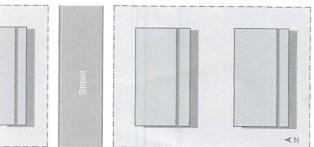
South facing slope







North facing slope





# APPENDIX 1 PAGE 5 WITHOUT BEING OVERLOOKED

## Visual privacy

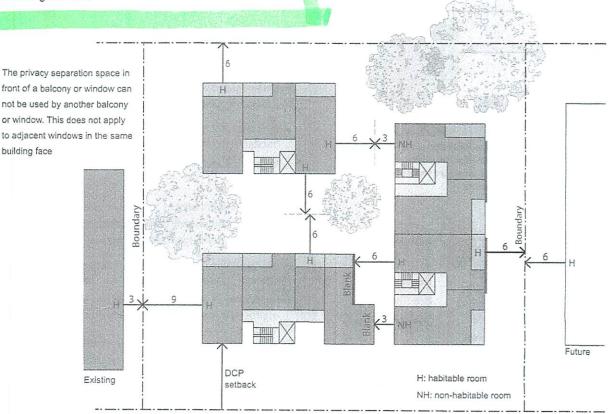
Visual privacy allows residents within an apartment development and on adjacent properties to use their private spaces without being overlooked. It balances the need for views and outlook with the need for privacy. In higher density developments it also assists to increase overall amenity.

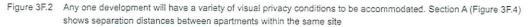
Visual privacy balances site and context specific design solutions with views, outlook, ventilation and solar access. The adjacent context, site configuration, topography, the scale of the development and the apartment layout all need to be considered.

Degrees of privacy are also influenced by a number of factors including the activities of each of the spaces where overlooking may occur, the times and frequency these spaces are being used, the expectations of occupants for privacy and their ability to control overlooking with screening devices.



Figure 3F.1 Visual privacy is an important factor for residential amenity. The siting of buildings needs to ensure adequate separation between apartments





building face

# APPENDIX 2 PAGE 1 ROOF DESIG

## ROOF BESIGN & SHADOWING

2A Primary controls

Primary development controls are the key planning tool used to manage the scale of development so that it relates to the context and desired future character of an area and manages impacts on surrounding development.

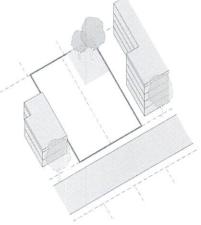
Primary development controls include building height, floor space ratio, building depth, building separation and setbacks (refer to in sections 2C-2H). When applied together, the primary development controls create a building envelope, which forms the three dimensional volume where development should occur.

## Setting and testing the controls

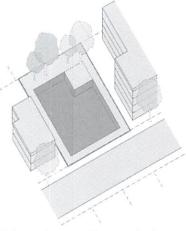
Primary controls should be developed taking into account sunlight and daylight access, orientation and overshadowing, natural ventilation, visual and acoustic privacy, ceiling heights, communal open space, deep soil zones, public domain interface, noise and pollution.

The controls must be carefully tested to ensure they are co-ordinated and that the desired built form outcome is achievable. They should ensure the desired density and massing can be accommodated within the building height and setback controls.

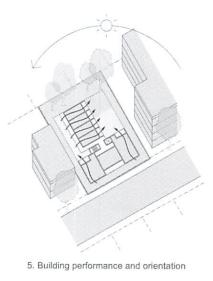
The rationale for setting primary controls needs to be explained to the community, applicants and practitioners.

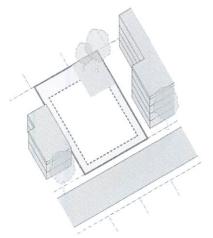


1. Retention of trees

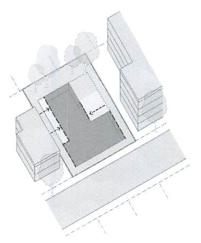


3. Deep soil zones and basement levels

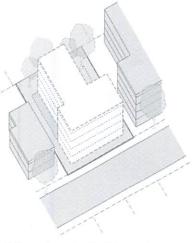




2. Minimum setbacks



4. Building separation and depth



6. Three-dimensional building envelope

Figure 2A.1 Key considerations when testing development controls and establishing a three-dimensional building envelope O VER SUADOWINZ

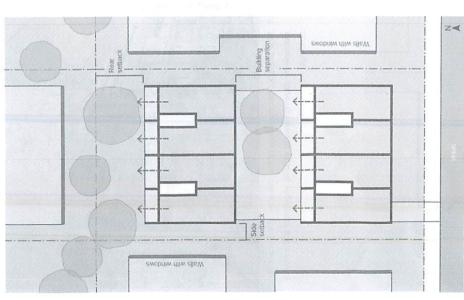


Figure 2H.3 On narrow infill sites select a building type that orientates habitable rooms to the street and rear, minimising required side setbacks

Considerations in setting side and rear setback controls Test side and rear setbacks with height controls for

overshadowing of the site, adjoining properties and

Test side and rear setbacks with the requirements for:

- · building separation and visual privacy
- communal and private open space
- · deep soil zone requirements

Consider zero side setbacks where the desired character is for a continuous street wall, such as in dense urban areas, main streets or for podiums within centres

On sloping sites, consider increasing side and rear setbacks where new development is uphill to minimise overshadowing and assist with visual privacy



Figure 2H.4 Side and rear setbacks vary according to the building context and type. In urban areas, setbacks are often guided by minimum building separation requirements

## 2H Side and rear setbacks

Side and rear setbacks govern the distance of a building from the side and rear site boundaries and are related to the height of the building. They are important tools for achieving amenity for new development and buildings on adjacent sites.

Setbacks vary according to the building's context and type. Larger setbacks can be expected in suburban contexts in comparison to higher density urban settings. Setbacks provide transition between different land uses and building typologies. Side and rear setbacks can also be used to create useable land for common open space, tree planting and landscaping.

#### Aims

- provide access to light, air and outlook for neighbouring properties and future buildings
- provide for adequate privacy between neighbouring apartments
- retain or create a rhythm or pattern of spaces between buildings that define and add character to the streetscape
- achieve setbacks that maximise deep soil areas, retain existing landscaping and support mature vegetation consolidated across sites
- manage a transition between sites or areas with different development controls such as height and land use.



Figure 2H.1 Side setbacks can contribute to the character of the street, for example by allowing views to existing vegetation at the rear of buildings

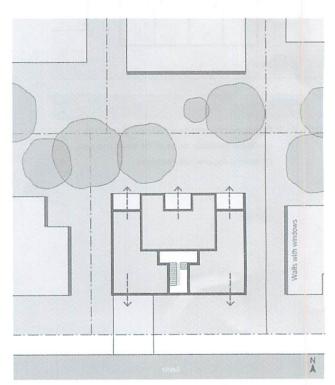
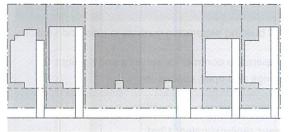


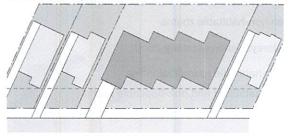
Figure 2H.2 On infill sites follow the existing open space patterns, limit side setbacks and locate habitable rooms to face the street and rear boundary to optimise amenity and privacy for all

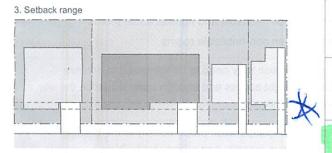
APPENDIX 2 PAGE 3

#### 1. Predominant setback



#### 2. Variation for angled subdivision





4. Building line

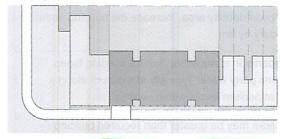


Figure 2G.4 Street setbacks should be consistent with existing setback patterns in the street or setbacks that achieve the desired future character of the area

Considerations in setting street setback controls

Determine street setback controls relative to the desired streetscape and building forms, for example:

- · define a future streetscape with the front building line
- match existing development
- step back from special buildings
- retain significant trees
- in centres the street setback may need to be consistent to reinforce the street edge
- consider articulation zones accommodating balconies, landscaping etc. within the street setback
- use a setback range where the desired character is for variation within overall consistency, or where subdivision is at an angle to the street
- manage corner sites and secondary road frontages

Align street setbacks with building use. For example in mixed use buildings a zero street setback is appropriate

Consider nominating a maximum percentage of development that may be built to the front build-to line, where one is set, to ensure modulated frontages along the length of buildings

Identify the quality, type and use of open spaces and landscaped areas facing the street so setbacks can accommodate landscaping and private open space

In conjunction with height controls, consider secondary upper level setbacks to:

- reinforce the desired scale of buildings at the street frontage
- minimise overshadowing of the street and other buildings

To improve passive surveillance, promote setbacks which ensure a person on a balcony or at a window can easily see the street

Consider increased setbacks where street or footpath widening is desired



Figure 2F.3 Building separation supports residential amenity and helps to provide suitable communal open space areas

Table 1	Minimum building separation increases proportionally	
	to the building height	

Building height	Separation distance	
9 storeys and above	12-24m	
Up to 8 storeys	9-18m	
Up to 4 storeys	6-12m	

## How to measure building separation

Gallery access circulation areas should be treated as habitable space, with separation measured from the exterior edge of the circulation space.

When measuring the building separation between commercial and residential uses, consider office windows and balconies as habitable space and service and plant areas as non-habitable.

Where applying separation to buildings on adjoining sites, apply half the minimum separation distance measured to the boundary. This distributes the building separation equally between sites (consider relationship with section 3F Visual privacy). Considerations in setting building separation controls

Design and test building separation controls in plan and section

Test building separation controls for sunlight and daylight access to buildings and open spaces

Minimum separation distances for buildings are:

Up to four storeys (approximately 12m):

- 12m between habitable rooms/balconies
- · 9m between habitable and non-habitable rooms
- · 6m between non-habitable rooms

Five to eight storeys (approximately 25m):

- · 18m between habitable rooms/balconies
- · 12m between habitable and non-habitable rooms
- 9m between non-habitable rooms

Nine storeys and above (over 25m):

- · 24m between habitable rooms/balconies
- · 18m between habitable and non-habitable rooms
- 12m between non-habitable rooms

Building separation may need to be increased to achieve adequate sunlight access and enough open space on the site, for example on slopes

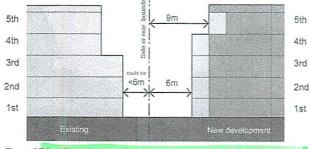
Increase building separation proportionally to the building height to achieve amenity and privacy for building occupants and a desirable urban form

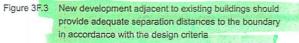
At the boundary between a change in zone from apartment buildings to a lower density area, increase the building setback from the boundary by 3m

No building separation is necessary where building types incorporate blank party walls. Typically this occurs along a main street or at podium levels within centres

Required setbacks may be greater than required building separations to achieve better amenity outcomes

## APPENDIX 3 PALE BUILDING SEPARATION





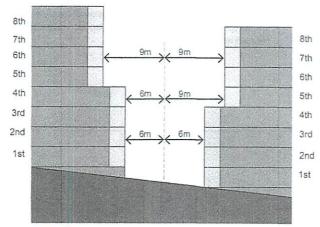


Figure 3F.4 Within the same site, minimum separation should be shared equitably between buildings. On sloping sites, appropriate separation distances ensure visual privacy for apartments on different levels

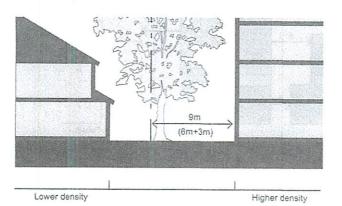


Figure 3F.5 To resolve amenity impacts, apartment buildings should increase the building separation distance (+3m) when adjacent to a different zone that permits lower density residential development

## **Objective 3F-1**

Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy

### Design criteria

1.

Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

Building height	Habitable rooms and balconies	Non- habitable rooms
up to 12m (4 storeys)	6m	/ 3m
up to 25m (5-8 storeys)	9m	4.5m
over 25m (9+ storeys)	12m	6m

Note:

 Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)

Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties

#### Design guidance

Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance

For residential buildings next to commercial buildings, separation distances should be measured as follows:

- for retail, office spaces and commercial balconies use the habitable room distances
- for service and plant areas use the non-habitable room distances

New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include:

- site layout and building orientation to minimise privacy impacts (see also section 3B Orientation)
- on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)

Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)

Direct lines of sight should be avoided for windows and balconies across corners

No separation is required between blank walls

# APPENDIX 3 PAGE 2



Figure 4H.4 Bedrooms should be located at least 3m away from noise sources such as driveways and garage doors



Figure 4H.5 In addition to mindful siting and orientation of the building, acoustic seals and double or triple glazing are effective methods to further reduce noise transmission

## **Objective 4H-1**

Noise transfer is minimised through the siting of buildings and building layout

### Design guidance

Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses (see also section 2F Building separation and section 3F Visual privacy)

Window and door openings are generally orientated away from noise sources

Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas

Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources

The number of party walls (walls shared with other apartments) are limited and are appropriately insulated

Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms

## **Objective 4H-2**

Noise impacts are mitigated within apartments through layout and acoustic treatments

## Design guidance

Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions:

- rooms with similar noise requirements are grouped together
- · doors separate different use zones
- wardrobes in bedrooms are co-located to act as sound buffers

Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions:

- · double or acoustic glazing
- · acoustic seals
- · use of materials with low noise penetration properties
- continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements