

Better Apartments

Draft Design Standards

The Victorian Government's response to improving the liveability of apartments



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Why we need better apartments

The Victorian Government is committed to delivering affordable housing options that meet the long-term needs of the Victorian community. We want to protect and enhance Victoria's reputation for liveability and good design, and ensure that as our cities grow sustainably, they leave positive legacies for future generations.

More and more Victorians are choosing an apartment as a preferred housing choice because it is affordable and offers lifestyle benefits. However, not all apartments being built are healthy places for people to live. Some have little or no access to natural light. Some are poorly ventilated and insulated, and are too noisy. Some have no room for storage. These are places that can affect peoples' wellbeing.

The design standards will provide greater certainty to the community, councils and the development industry by creating better outcomes for apartments in Victoria. This requires a fair, effective and transparent development assessment process.

Taking action will ensure:

- Apartments provide safe and healthy living environments
- Apartments are a desirable and effective housing choice
- Apartment developments enhance the liveability and sustainability of the surrounding neighbourhood
- Apartment developments create a legacy of quality housing stock for future generations.

Discussion paper feedback

In May 2015, the Minister for Planning released Better Apartments – A Discussion Paper for public input and stated that the ‘right mechanisms must be put in place to promote high quality apartment living opportunities’.

The discussion paper started a community-wide conversation about the key issues affecting internal apartment amenity and received 145 written submissions and more than 1700 responses to an online community survey. Workshops and interviews were also conducted.

A Public Engagement report was released in December 2015 that summarised feedback from the community, local government, industry and other stakeholders.

Together with the Office of the Victorian Government Architect (OVGA), the Department of Environment, Land, Water and Planning (DELWP) identified options for implementing a consistent approach to the design and amenity of apartments.

A peak body reference group and a local government working group were also established to test a range of potential design standards and approaches. This work has resulted in the development of a number of draft design standards.

PROJECT REFERENCE GROUP

In February 2016, the Minister for Planning established a Reference Group of peak local government, consumer and industry bodies to provide a sounding board for DELWP and OVGA to test the most effective implementation measures and mechanisms for delivering the Better Apartments project. Reference Group members include:

- Australian Institute of Architects
- Building Designers Association of Victoria
- Housing Industry Association
- Master Builders Association of Victoria
- Municipal Association of Victoria
- Planning Institute of Australia
- Property Council of Australia
- Real Estate Institute of Victoria
- Urban Development Institute of Australia
- Victorian Planning & Environmental Law Association

LOCAL GOVERNMENT WORKING GROUP

In March 2016, the Municipal Association of Victoria assisted DELWP and OVGA in establishing a local government working group to help test potential implementation measures for the Better Apartments project. The group includes council officers with expertise in planning, urban design, heritage and environmentally sustainable development. The following councils from central, inner, middle, outer and regional areas of Victoria participated:

- Ballarat
- Baw Baw
- Kingston
- Manningham
- Maribyrnong
- Maroondah
- Melbourne
- Melton
- Moonee Valley
- Moreland
- Port Phillip
- Stonnington
- Whitehorse
- Wyndham
- Yarra

The process to date

Stage 1: Understanding the issues
May – Oct 2015

Public engagement on Discussion Paper

Better Apartments Discussion Paper prepared

Stage 2: Identifying draft implementation options
Nov 2015 – March 2016

Technical assessment of apartment issues and potential solutions

Stage 3: Testing draft design measures
April – June 2016

Draft measures tested with Reference Group and Local Government Working Group

Identification and testing of draft design measures and implementation approaches

Evaluation of draft measures

Stage 4: Confirming public consultation package
July 2016

Seek public feedback on draft standards

Identification and testing of implementation options for the Minister for Planning's consideration

- Public engagement
- Technical work undertaken by DELWP and OVGA

The draft design standards

The draft design standards developed to address the specific apartment design and amenity issues raised through public consultation are:

- Building setback
- Light wells
- Room depth
- Windows
- Storage
- Noise impacts
- Energy efficiency
- Solar access to communal open space
- Natural ventilation
- Private open space
- Communal open space
- Landscaping
- Accessibility
- Dwelling entry and internal circulation
- Waste
- Water management

While many of these draft design standards are new, some have been developed from existing Rescode standards to specifically address apartment design issues. The draft design standards are outlined in greater detail at pages 15 to 43.

Implementing the better apartment provisions

Step 1 Better education and training

Training will be provided to local government planners and building design professionals on how to design, prepare applications and assess apartment applications to develop their capacity to implement the new provisions.

The government will fund and deliver training to all planning officers in Victoria and offer 1,000 free places to industry participants, and registered architects and registered building practitioners who wish to attend.

A more advanced training course will be offered to accredit individuals to assess the more technical aspects of the new provisions, and performance based design.

Step 2 New apartment design guidelines

New guidelines will be prepared to help facilitate well designed apartments across Victoria.

These guidelines will replace the existing Guidelines for Higher Density Residential Development currently referenced in the *Victoria Planning Provisions* and provide extensive best practice guidance on the application of the design standards.

The guidelines will be made available in conventional and an interactive web based format.

Step 3 New planning provisions

The design standards will be introduced through a new particular provision in the *Victoria Planning Provisions*. The provision will apply to all apartments and will adopt the same performance based approach currently used to assess residential development in the planning scheme.

The new provision will contain:

- Objectives
- Standards
- Decision guidelines

The objectives describe the desired outcomes to be achieved in the completed development. An apartment development must meet all of the objectives.

A standard contains the requirements to meet the objective. A standard should normally be met. However, if the responsible authority is satisfied that an application for an alternative design solution meets the objective, the alternative design solution may be considered.

The decision guidelines set out the matters that the responsible authority must consider before deciding if an application meets the objectives. In developing an alternative design solution that meets the relevant objective, the effect of the design solution on other objectives should be considered.

Step 4 Keeping designs on track at building approval (design verification)

To maintain design quality in apartment developments after the planning stage, it is proposed to introduce a checkpoint at the building permit stage where a registered architect or a registered building designer (who has completed the advanced training course) can verify that all relevant apartment design matters have been met.

Step 5 Developing consumer awareness

DELWP will develop a range of tools to inform consumers which apartments satisfy the design standards. Consumers will be able to make informed decisions about apartments they are considering purchasing or renting.

The better apartments planning provision

A new planning provision will be developed to apply the draft design standards to all apartments. Along with existing residential standards the new design standards will form the new planning provision.

Apartments of five or more storeys

Applications of five or more storeys will continue to be assessed against the broader urban context as required by *Clause 52.35 - Urban context report and design response for residential development of five or more storeys*.

A permit application for an apartment development must be accompanied by an urban context report, a site description and a design response. These documents form the basis for applying and assessing the design standards.

Overlays will continue to operate to respond to specific built form issues such as heritage, environment, and other local design objectives.

Where an overlay specifies a requirement that is different from a requirement set out in the new planning provision, the requirements of the overlay must be met.

Apartments below five storeys

Applications for apartment developments below five storeys will continue to be assessed against the existing neighbourhood context.

Developments below five storeys will be subject to existing siting standards relevant to this scale of development compared to development greater than five storeys.

Overlays will continue to operate to respond to specific built form issues such as heritage, environment, and other local design objectives.

Managing transition

Once the standards have been finalised a minimum of three months notice will be provided before they come into operation. Transitional provisions will be included to ensure that existing permit applications lodged before the new standards come into operation continue to be assessed under the existing provisions in the planning scheme applying at that time.

Applying the standards to all apartments

TWO OR MORE DWELLINGS (APARTMENTS UP TO 4 STOREYS)

B1	Neighbourhood character
B2	Residential policy
B3	Dwelling diversity
B4	Infrastructure
B5	Integration with street
B6	Street setback
B7	Building height
B8	Site coverage
B9	Permeability
	Energy efficiency
	Solar access to communal outdoor open space
B12	Safety
	Landscaping
B14	Access
B15	Parking location
	Room depth
	Light wells
	Windows
B17	Side and rear setbacks
B18	Walls on boundaries
B19	Daylight to existing windows
B20	North facing windows
B21	Overshadowing open space
B22	Overlooking
B23	Internal views
	Noise impacts
	Accessibility
	Dwelling entry and internal circulation
	Natural ventilation
	Private open space
B29	Solar access to open space
	Storage
B31	Design detail
B32	Front fence
B33	Common property
B34	Site services
	Communal open space
	Waste
	Water management

TWO OR MORE DWELLINGS (APARTMENTS 5+ STOREYS)

	Local context
B2	Residential policy
B3	Dwelling diversity
B4	Infrastructure
B5	Integration with street
	Building setback
	Energy efficiency
	Solar access to communal outdoor open space
B12	Safety
	Landscaping
B14	Access
B15	Parking location
	Room depth
	Light wells
	Windows
B18	Walls on boundaries
B23	Internal views
	Noise impacts
	Accessibility
	Dwelling entry and internal circulation
	Natural ventilation
	Private open space
B29	Solar access to open space
	Storage
B33	Common property
B34	Site services
	Communal open space
	Waste
	Water management



The draft design standards

Building setback

The standard seeks to ensure that new apartment buildings are setback an appropriate distance from side and rear boundaries to receive an adequate amount of daylight and privacy.

Standard

A habitable room window or a balcony should be setback from a side or rear boundary at least the distance specified in Table 1.

A habitable room window or a balcony should be setback from another building within the site at least the distance specified in Table 1.

The setback is measured from the external surface of the habitable room window or the open side of the balcony, which ever is the lesser.

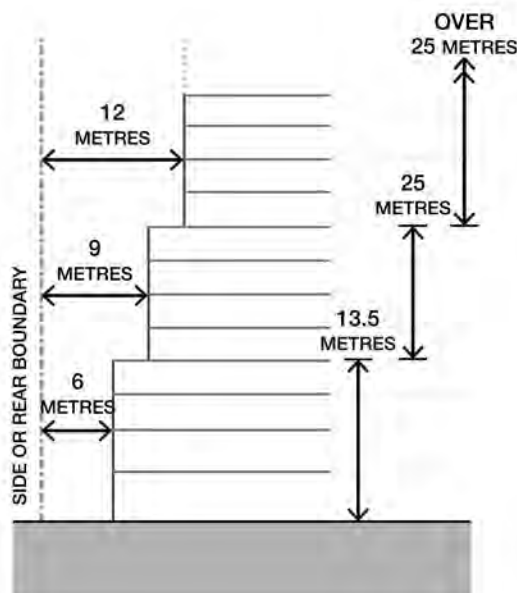
TABLE 1: BUILDING SETBACK

BUILDING HEIGHT	MINIMUM SETBACK FROM SIDE AND REAR BOUNDARIES	MINIMUM SETBACK FROM BUILDINGS WITHIN THE SITE
Up to 13.5 metres	6 metres	12 metres
13.5 to 25 metres	9 metres	18 metres
Over 25 metres	12 metres	24 metres

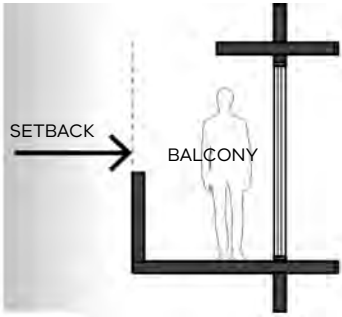
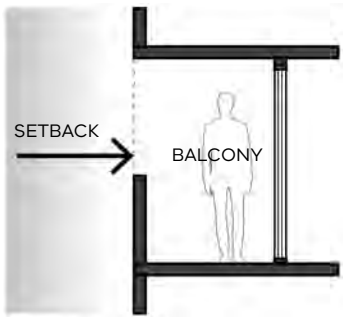
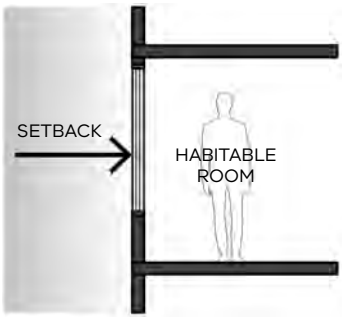
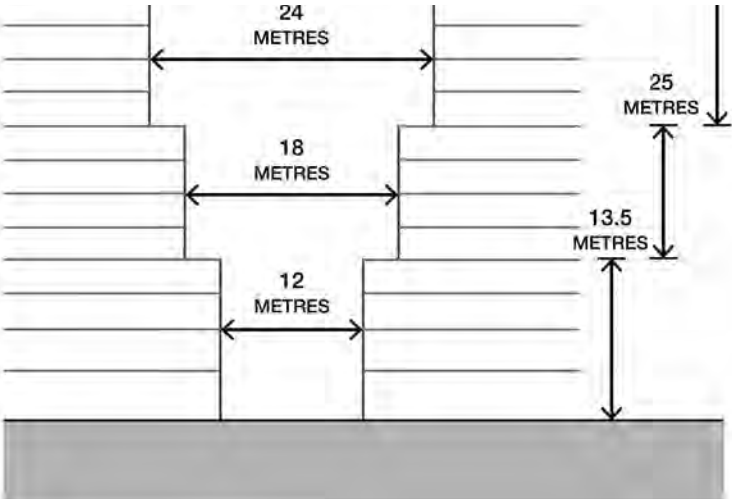
Note: The building setback requirements only apply to new apartment buildings of five or more storeys in height. Clause 55.04-1 Side and rear setbacks objective and Standard B17 will continue to apply to an application to construct two or more dwellings on a lot in a development up to four storeys (excluding a basement).

Applying the standard

Setbacks are measured from side and rear boundaries and become greater as the height of a building increases.



The standard also provides minimum setbacks that apply between two or more buildings on a site. Setbacks are measured between buildings.



The setback is measured from glazing line to glazing line or the open edge of a balcony.

The main building structure (including walls, balconies and other building appurtenances) should not encroach within the setback.

Light wells

The standard seeks to ensure that the size and design of light wells allow adequate daylight access to an apartment.

Standard

Living areas of a dwelling should not rely on a light well as the primary source of daylight.

Where a light well is provided, the light well should:

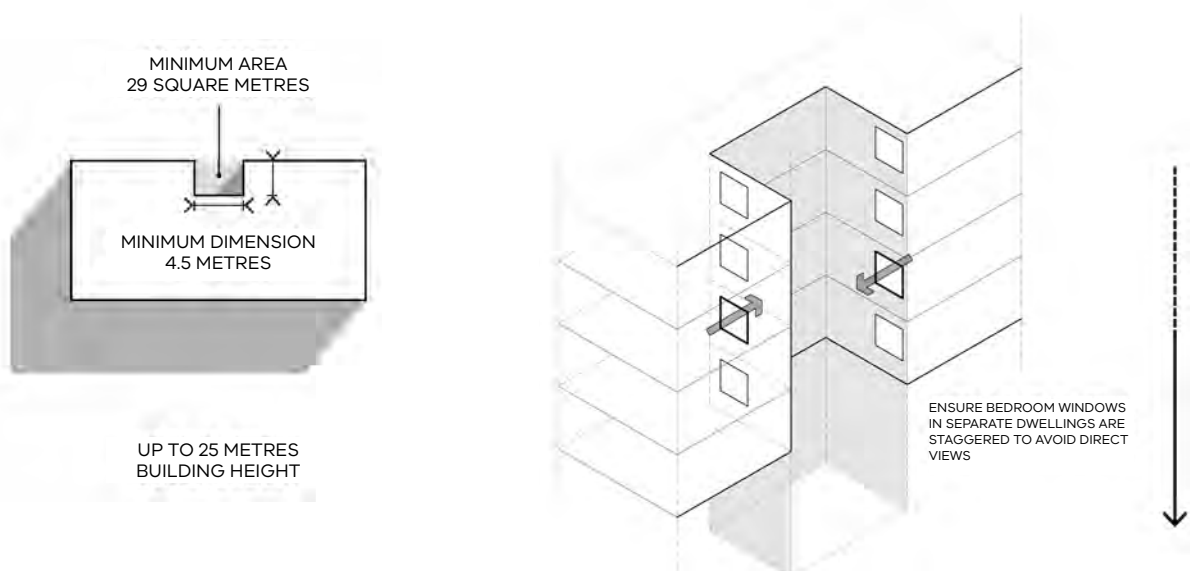
- Meet the minimum requirements specified in Table 1.
- Be clear to the sky and the minimum requirements should not include land on an abutting lot.
- Be painted in a light reflective colour.
- Ensure bedroom windows in separate dwellings are staggered to avoid direct views.

TABLE 1: LIGHT WELLS

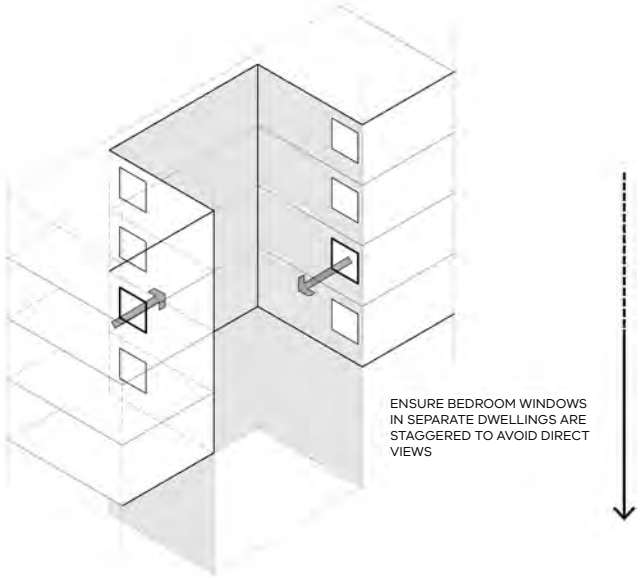
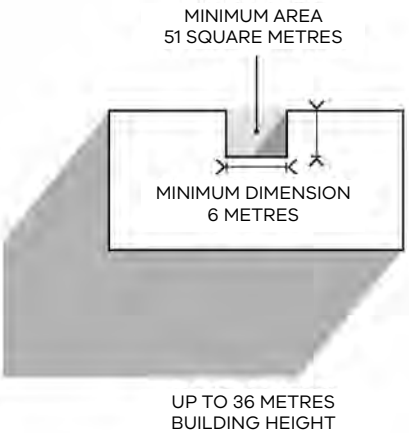
BUILDING HEIGHT	MINIMUM AREA	MINIMUM DIMENSION
Up to 13.5 metres	9 square metres	3 metres
Up to 25 metres	29 square metres	4.5 metres
25 metres to 36 metres	51 square metres	6 metres
36 metres and above	Should not include a light well	

Applying the standard

Land on an adjoining lot should not be included in calculating the minimum area and dimension of the light well.



The minimum area and dimension should be achieved for the entire depth of the light well.
Staggering of windows to limit direct views.



Room depth

This standard seeks to ensure that each apartment is able to receive an adequate amount of daylight, including south facing single aspect apartments.

Standard

A habitable room should not exceed:

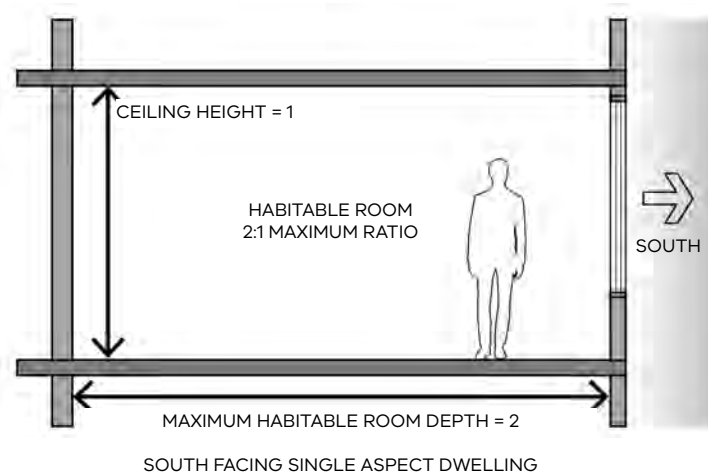
- A room depth to ceiling height ratio of 2:1 for a south facing, single aspect dwelling, or
- A room depth to ceiling height ratio of 2.5:1 for all other dwellings.

The depth of a habitable room with an open plan layout that includes the living, dining and kitchen areas may be increased to 8 metres where the following requirements are met:

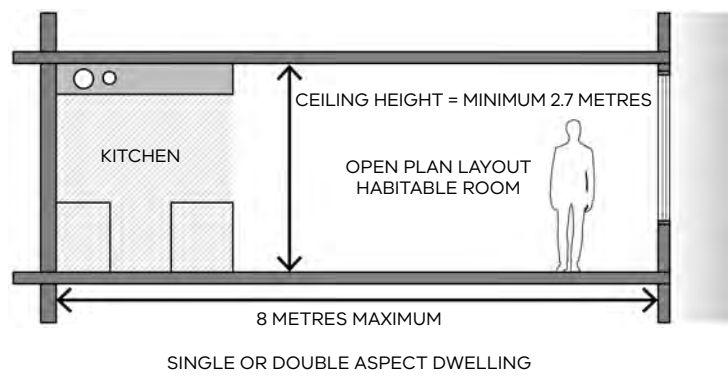
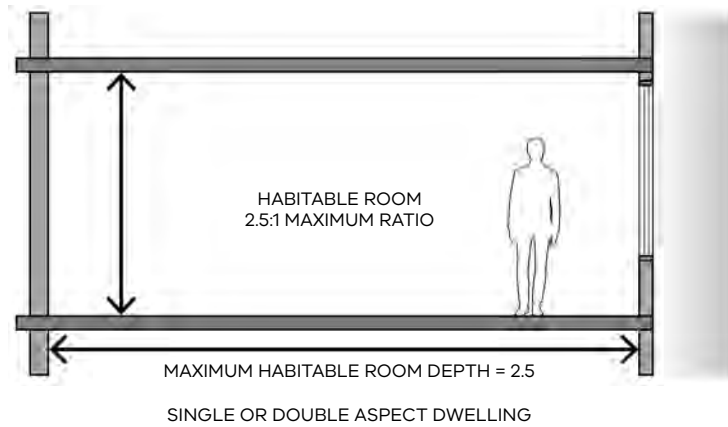
- The kitchen area is located furthest from the window.
- The ceiling height is at least 2.7 metres (measured from finished floor level to finished ceiling level).
- The dwelling is not a south facing, single aspect dwelling.
- The ceiling height of the kitchen can be reduced to accommodate services.

Applying the standard

The depth and ceiling height of an apartment are important factors in determining the amount and quality of daylight received by a habitable room. Dwelling orientation and whether the apartment is single or dual aspect also have a significant bearing on daylight access.



South facing, single aspect apartments have a higher ratio of 2:1 to offset the lower daylight they naturally receive. For all other apartments, a greater room depth of 2.5 times the ceiling height (a ratio of 2.5:1) is permissible.



Except for south facing, single aspect dwellings, where a habitable room is designed with an open plan layout and achieves the minimum standard ceiling height of 2.7 metres, the depth of a habitable room may be extended to no more than 8 metres. An open plan layout dwelling includes the living, dining and kitchen areas combined and not separated by a partition or wall.

The ceiling height of the kitchen area can be reduced to accommodate building services, such as exhausts, electrical and plumbing fittings.

Windows

The standard seeks to ensure that all habitable rooms have direct access to daylight by requiring a window to be directly visible from any point in the room.

Standard

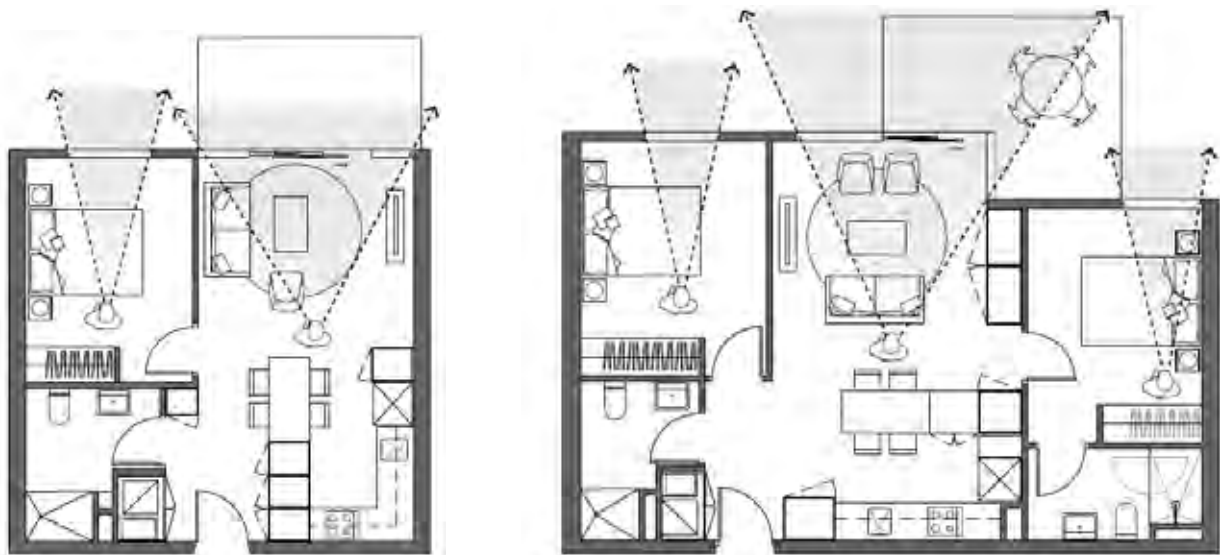
A habitable room should have a window in an external wall of the building that is visible from any point in the room.

Applying the standard

A habitable room is a bedroom, living room, dining room, kitchen area and study. It does not include a bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, stair, lobby, or any other space of a specialised nature.

Habitable rooms that rely on borrowed light arrangements or daylight from a 'snorkel' bedroom (access to light from an adjacent room) will not meet the standard.

Dwelling entrances and other non-habitable rooms are not expected to meet the standard.



Main living areas and bedrooms have an external window that provides direct daylight access.

Storage

The standard seeks to ensure that each apartment has a reasonable amount of storage space to allow people to live comfortably and provide for different space requirements of different households.

Standard

Each dwelling should have convenient access to usable and secure storage space (excluding kitchen, bathroom, bedroom and other utility storage).

The total minimum storage space should meet the requirements specified in Table 1.

TABLE 1: STORAGE SPACE

DWELLING TYPE	TOTAL MINIMUM STORAGE VOLUME
Studio and 1 bedroom dwelling	6 cubic metres
2 bedroom dwelling	8 cubic metres
3 or more bedroom dwelling	10 cubic metres

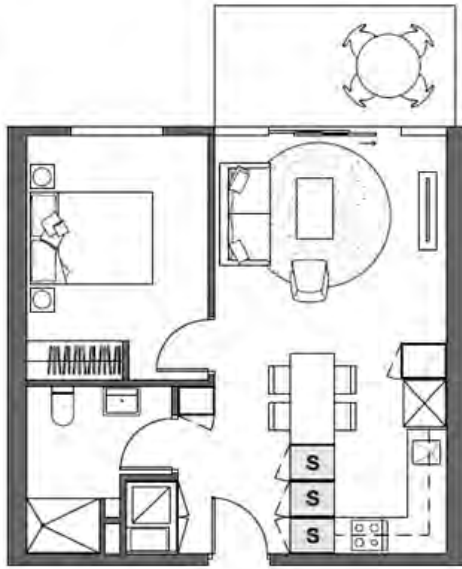
Applying the standard

The storage space must be provided in addition to storage space that would normally and reasonably be expected to be provided in a kitchen, bathroom, bedroom and other utility storage spaces such as a pantry, built-in robe, broom cupboard or linen press.

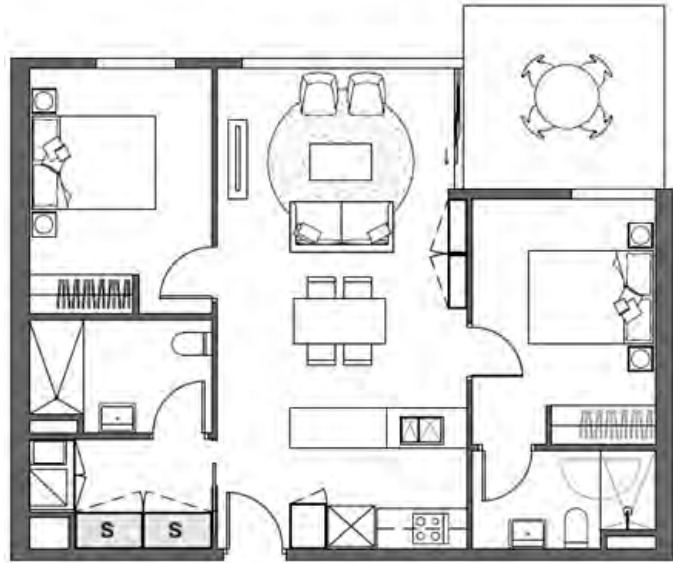
The storage space should be conveniently accessible and secure and may be provided internally or externally to an apartment, either wholly or in part.

Storage spaces provided externally to an apartment can be in a basement, lower level car parking area, or provided in a common area space near or next to the apartment.

External storage spaces in car parking areas can be prone to theft, and this can be prevented through appropriate design of the storage structure.



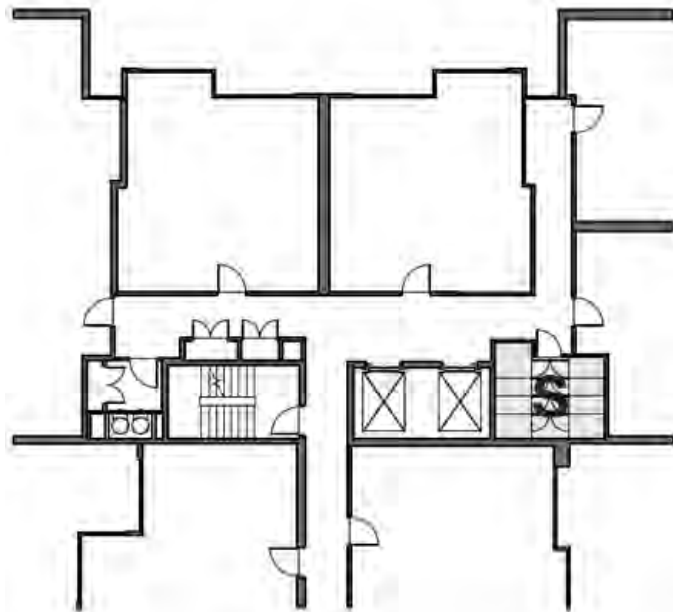
1 BEDROOM DWELLING



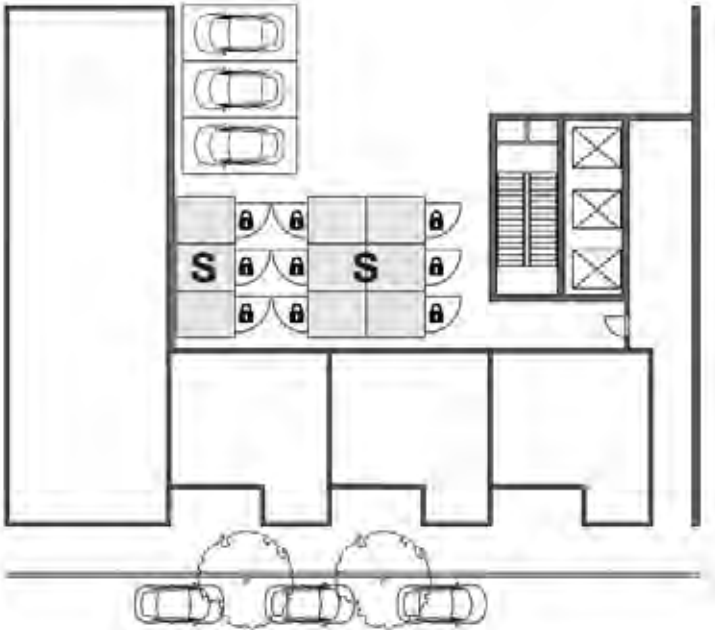
2 BEDROOM DWELLING

Storage is clearly distinct from typical forms of bedroom, bathroom, kitchen and other utility storage. The required volume is not completely provided internally and will need to be supplemented with additional storage space in a car parking area or other secure common area.

Storage spaces can be located in a common area adjacent to a services core. This makes efficient use of floor area located centrally that might otherwise be less usable or have poor access to daylight.



Separate secure storage areas within a car parking area.



Noise impacts

The standard seeks to ensure that new apartments achieve a reasonable standard of acoustic performance in relation to noise transmission.

Standard

Noise sources, such as mechanical plant, should not be located near bedrooms of immediately adjacent existing dwellings.

The layout of new dwellings and buildings should minimise noise transmission within the site. The location of noise sensitive rooms (such as living areas and bedrooms) should take account of:

- The layout of adjoining dwellings, and
- The location of mechanical plants, building services, non-residential uses, car parking, and communal areas.

New dwellings should be designed and constructed to include acoustic attenuation measures to reduce noise levels from any off-site noise sources to:

- Below 35dB(A) for bedrooms, assessed as an LAeq over 8 hours (from 10pm to 6am).
- Below 40dB(A) for living areas, assessed LAeq over 16 hours (from 6am to 10pm).

Noise levels should be measured in unfurnished and uncarpeted rooms with the windows closed.

Applying the standard

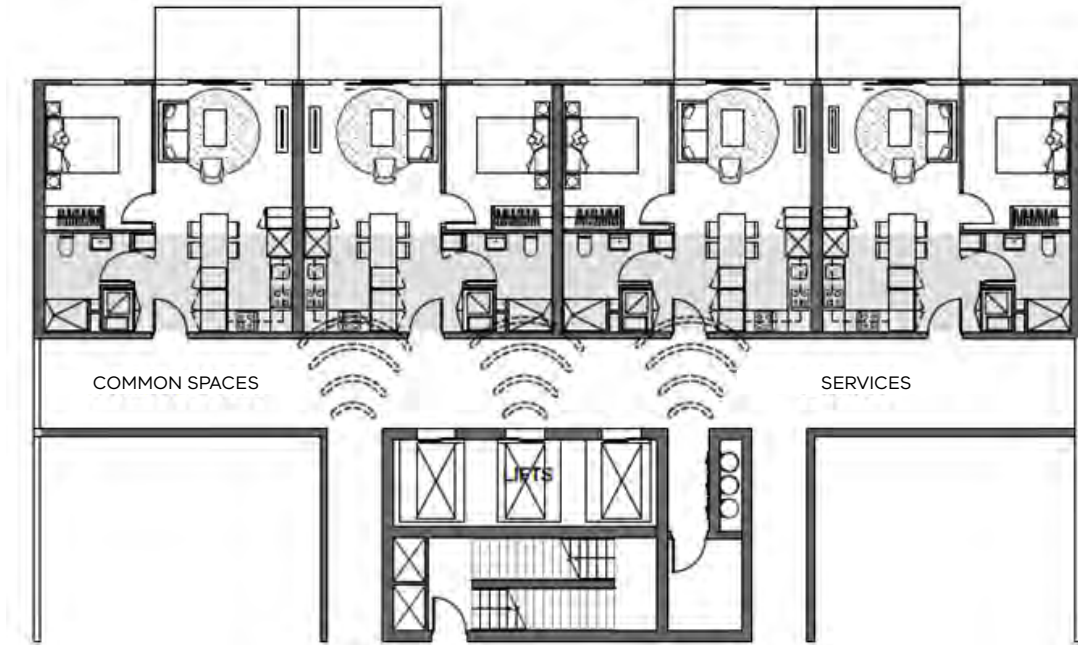
Careful consideration should be given to the land use and development context of the site.

Potential noise sources within a development should be addressed through design, location and siting techniques.

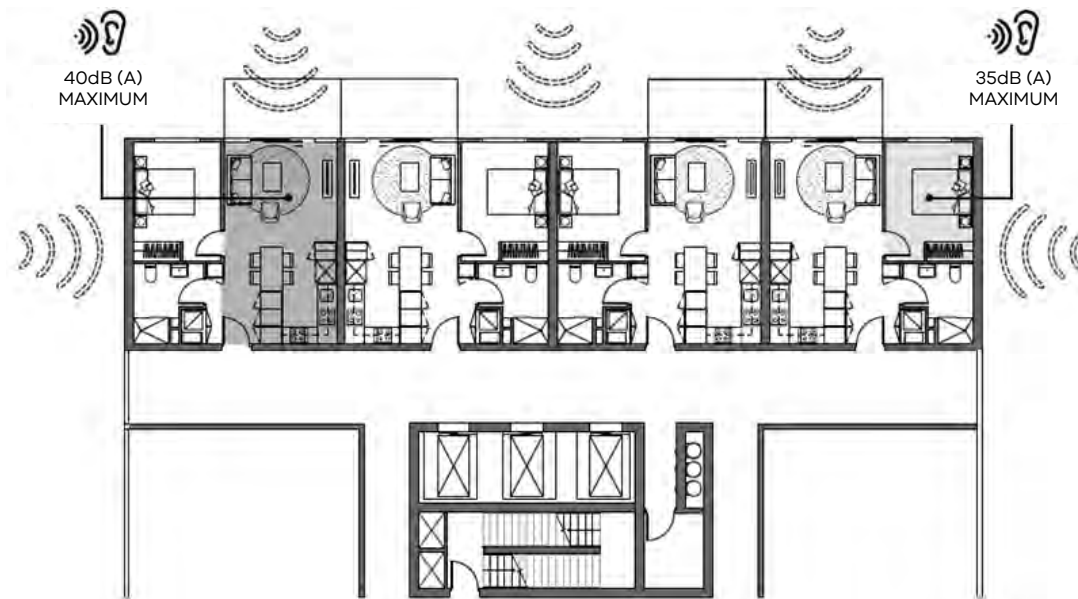
Using bathrooms, laundries and kitchen spaces as a buffer to noise-sensitive spaces (such as bedrooms or living rooms) from noise sources is encouraged.

Noise transfer between apartments (above, below, and adjoining) can be mitigated by configuring bedrooms and living rooms back-to-back respectively.

Off-site noise sources that may have the potential to impact on the amenity of a new apartment should also be considered. Development sites that are located in mixed use and / or commercial areas, activity centres, or close to transport infrastructure are likely to be exposed to higher levels of noise than established residential areas.



Bedrooms and living areas are arranged away from building services core and common area passageways. Bedrooms and living rooms are configured back-to-back.



External noise sources are required to be addressed by acoustic attenuation measures.

Energy efficiency

The standard seeks to ensure that new apartments are energy efficient.

Standard

Buildings should be:

- Oriented to make appropriate use of solar energy.
- Sited and designed to ensure that the energy efficiency of existing dwellings on adjoining lots is not unreasonably reduced.

Living areas and private open space should be located on the north side of the development, if practicable.

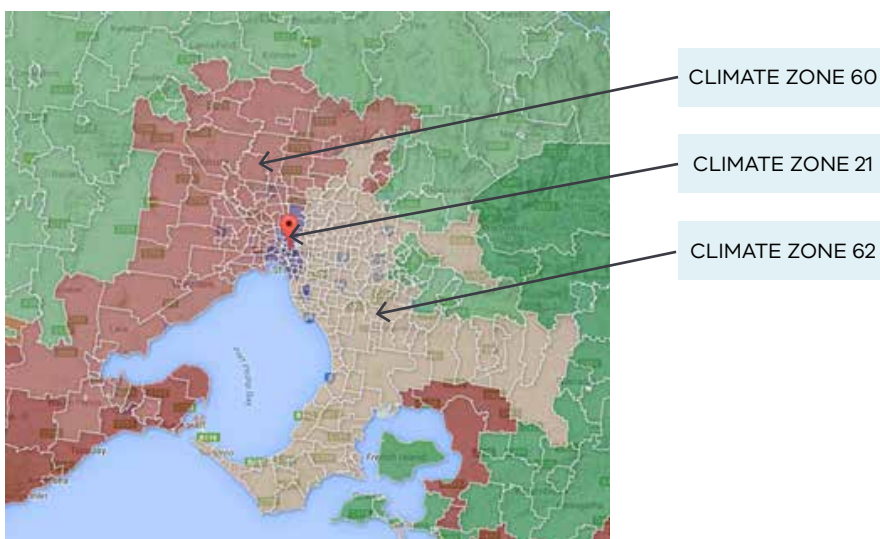
Developments should be designed so that solar access to north-facing windows is maximised.

Each dwelling should not exceed the maximum cooling load specified in Table 1.

TABLE 1: COOLING LOAD

NatHERS CLIMATE ZONE	MAXIMUM COOLING LOAD MJ/M ² PER ANNUM
Melbourne Central (Climate Zone 21 Melbourne)	30
Melbourne North and West (Climate Zone 60 – Tullamarine)	22
Melbourne South and East (Climate Zone 62 – Moorabbin)	21

Note: Maximum cooling load levels are currently being prepared for all Victorian climate zones.



Applying the standard

The standard specifies a maximum cooling load that is applied as part of a NatHERS assessment, to help ensure more consistent energy performance for an apartment, particularly over the warmer period of the year.

Solar access to communal outdoor open space

The standard seeks to ensure that any communal outdoor open space provided on-site for residents achieves a specific amount of direct sunlight through good orientation.

Standard

The communal outdoor open space should be located on the north side of a building, if appropriate.

At least 50 per cent of the communal outdoor open space area should receive direct sunlight for a minimum of two hours between 9am and 3pm on 21 June.

Applying the standard

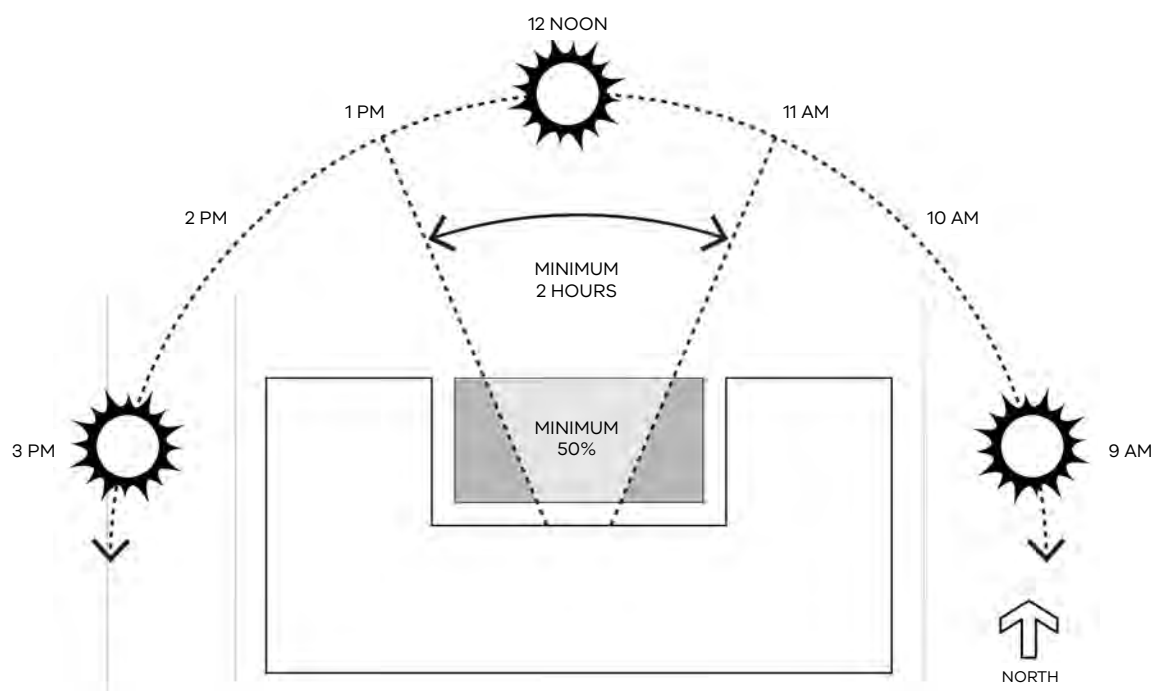
Siting of open space areas on the northern side of the building will optimise solar access.

Opportunities for the optimal siting and design of communal outdoor open space areas should be identified early in the design development process.

A minimum of two continuous hours of direct sunlight should be achieved between 9am and 3pm on 21 June. The shape and location of the outdoor open space area will also influence the amount of solar access achieved. A roof top or podium outdoor area will have different solar access opportunities than a ground level outdoor space.

Achieving the minimum amount of direct solar access will also be dependent on the existing built form context of adjoining sites.

While the minimum two hour window of direct sunlight is to be continuous, the two continuous hours could be achieved in the morning or the afternoon.



Natural ventilation

The standard seeks to ensure that a significant proportion of apartments in a new development have adequate natural ventilation.

Standard

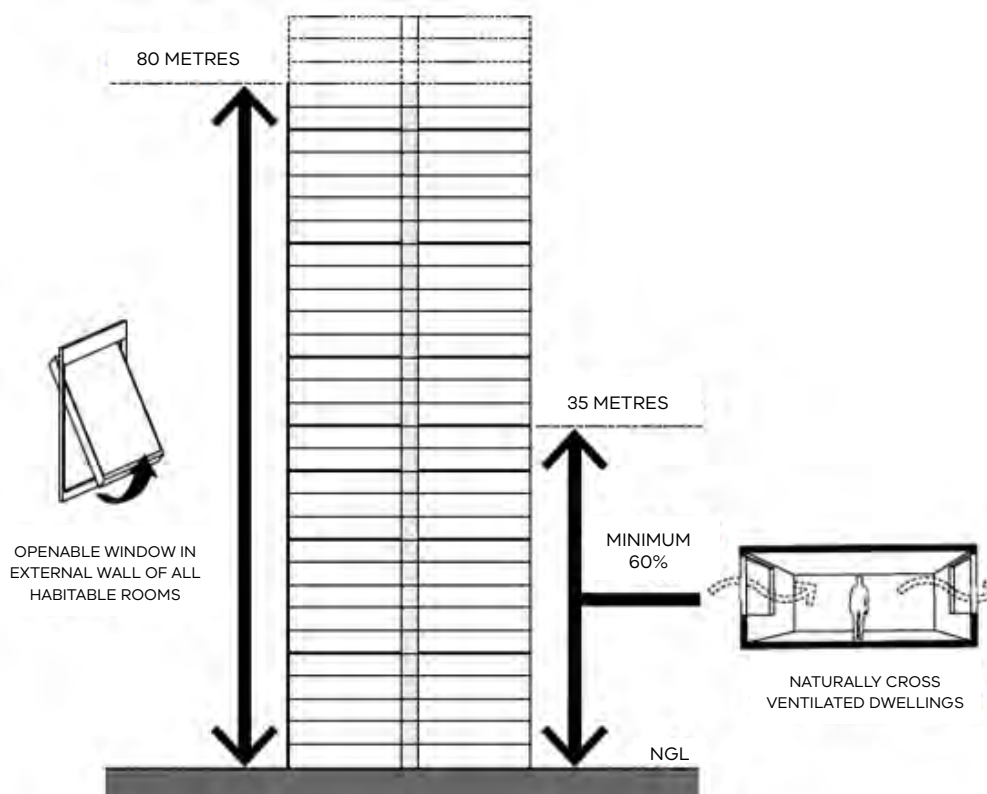
At least 60 per cent of dwellings with a finished floor level less than 35 metres height should be naturally cross ventilated. The length of the breeze path through the dwelling should be a maximum of 15 metres (as measured between openable windows and doors).

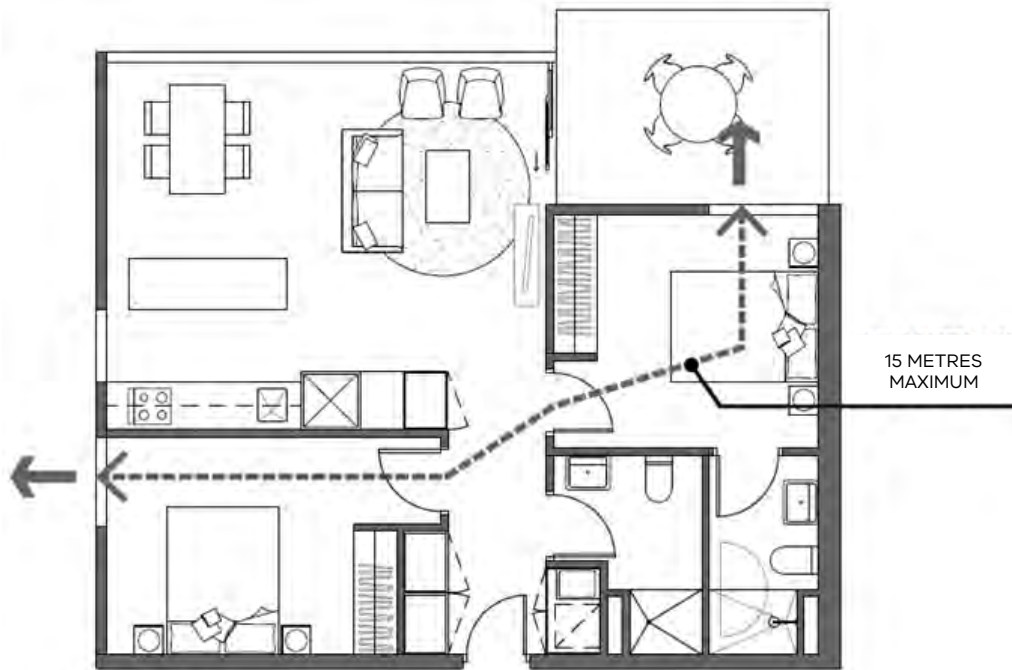
All habitable rooms less than 80 metres height should be provided with openable windows or doors in an external wall of the building.

Applying the standard

For dwellings up to 35 metres above natural ground level, 60% of apartments should be naturally cross ventilated.

The standard can be met by the provision of a dual aspect apartment provided the length of the breeze path does not exceed 15 metres.





Floor plan showing a breeze path through a two bedroom apartment. The breeze path carries through the two bedrooms and the living area, and also has potential to carry through the open plan kitchen and living area.

Private open space

The standard seeks to ensure that each apartment is provided with an area of private open space that will meet the reasonable recreation and service needs of residents.

Standard

A dwelling should have private open space consisting of:

- An area of 25 square metres, with a minimum dimension of 3 metres at natural ground floor level and convenient access from a living room, or
- An area of 15 square metres, with a minimum dimension of 3 metres at a podium or other similar base and convenient access from a living room, or
- A balcony with a minimum area and dimension specified in Table 1 and convenient access from a living room. This only applies to a dwelling with a finished floor level less than 35 metres height (measured from natural ground level), or
- A roof-top area of 10 square metres with a minimum dimension of 2 metres and convenient access from a living room.

If an air conditioning/heating unit is located within the private open space, the area occupied by the unit should not be included in the calculation of the required minimum area.

TABLE 1: PRIVATE OPEN SPACE

DWELLING TYPE	MINIMUM AREA	MINIMUM DIMENSION
Studio and 1 bedroom dwelling	8 square metres	2 metres
2 bedroom dwelling	10 square metres	2 metres
3 or more bedroom dwelling	12 square metres	2 metres

Applying the standard

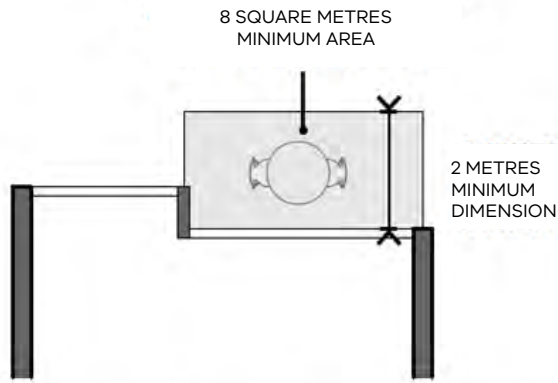
Private open space can be provided:

- At natural ground floor level, or
- On a podium or similar base. (A semi-basement level is considered a similar base structure for the purposes of providing open space to a podium.), or
- On a balcony, or
- On a roof top.

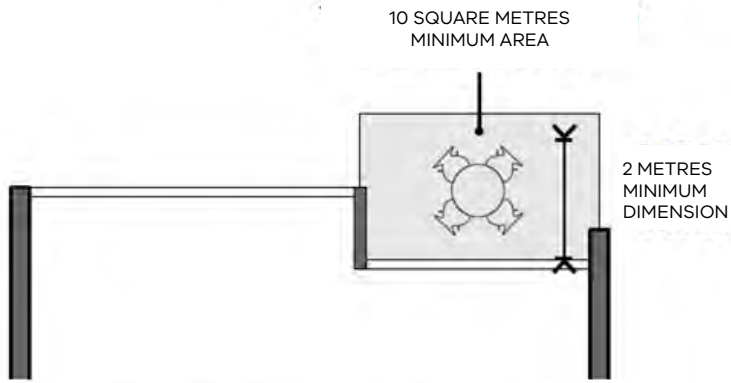
Both the minimum area and minimum dimension should be met.

When considering the application of the standard the development context should be considered. For example in a landscaped suburban setting, the side and rear setbacks can be used to provide private open space at the natural ground floor level.

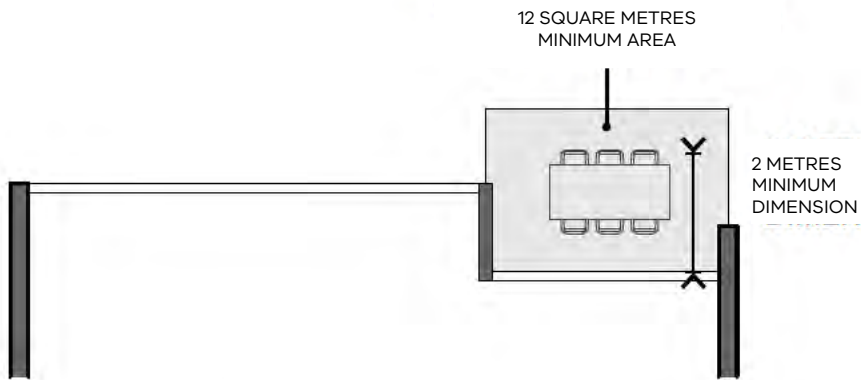
In more highly urbanised areas private open space may not be desirable at the natural ground floor level and should be provided at podium and upper levels depending on relevant built form outcomes.



1 BEDROOM DWELLING



2 BEDROOM DWELLING



3 BEDROOM DWELLING

Communal open space

The standard seeks to ensure that an area of communal open space is included in new apartment buildings for the benefit of residents.

Standard

Developments with 20 or more dwellings should provide a minimum area of communal open space of 2.5 square metres per dwelling or 100 square metres, whichever is lesser.

Communal open space should:

- Be substantially fronted by dwellings, where appropriate.
- Provide outlook for as many dwellings as practicable.
- Be designed to protect any natural features on the site.
- Be accessible and useable.

Applying the standard

Communal open space can be provided in different ways and be used for social and recreational purposes. There are opportunities to use spaces such as front, rear and side building setbacks for landscaped outdoor communal areas, and podiums and rooftops as social spaces.

The minimum area of communal open space is to be provided in addition to the private open space requirements for individual dwellings.

Communal open spaces are not necessarily required to be located outdoors. Where they are provided outdoors, they should also meet the *Solar access to communal outdoor open space standard*.

Landscaping

The standard seeks to ensure that new development is responsive to its landscape context, retains significant vegetation, maintains habitat and provides for canopy trees.

Standard

The landscape layout and design should:

- Protect any predominant landscape features of the neighbourhood.
- Take into account the soil type and drainage patterns of the site and integrate planting and water management to reduce urban heat island effect.
- Allow for intended vegetation growth and structural protection of buildings.
- In locations of habitat importance, maintain existing habitat and provide for new habitat for plants and animals.
- Provide a safe, attractive and functional environment for residents.
- Maximise opportunities for deep soil planting to allow for planting of canopy trees.
- Consider alternative landscaping opportunities such as green walls and roof top gardens to reduce heat absorption and improve stormwater management.

Development should provide for the retention or planting of trees, where these are part of the character of the neighbourhood.

Development should provide for the replacement of any significant trees that have been removed in the 12 months prior to the application being made.

The landscape design should specify landscape themes, vegetation (location and species), paving and lighting.

A development should achieve the minimum deep soil areas specified in Table 1.

If the development cannot meet the deep soil areas, alternative forms of landscape should be provided which can include canopy trees or climbers (over a pergola) with tree pits sized appropriately for the mature tree soil volume requirements for the selected species based on the Cornell Formula (Crown Projection x 0.6 = Soil Volume (m³). Crown Projection (CP) = πr^2 , $\pi = 3.142$), except where specific requirements are provided by the responsible authority.

The soil quality of the deep soil areas (or tree pits) should comply with Australian Standard AS4419- 2003, *Soils for Landscaping and Garden Use*.

TABLE 1: DEEP SOIL AREAS

SITE AREA (SQUARE METRES)	750-1000	1001-1500	1501-2500	>2500
Deep soil areas (% of site area)	5% minimum dimension of 4 metres any one side)	7.5% (minimum dimension of 5 metres any one side)	10% (minimum dimension of 6 metres any one side)	15% (minimum dimension of 6 metres any one side)
Tree provision (number and size of trees per area of deep soil)	1 small tree per 30 square metres deep soil	1 medium tree per 50 square metres deep soil	1 large tree per 90 square metres deep soil	1 large tree per 90 square metres deep soil
		Or 1 large tree per 90 square metres deep soil	Or 2 medium trees per 90 square metres deep soil	Or 2 medium trees per 90 square metres deep soil

Note: There is no requirement for deep soil areas for a site area less than 750 square metres.

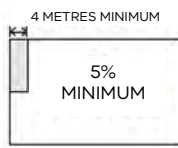
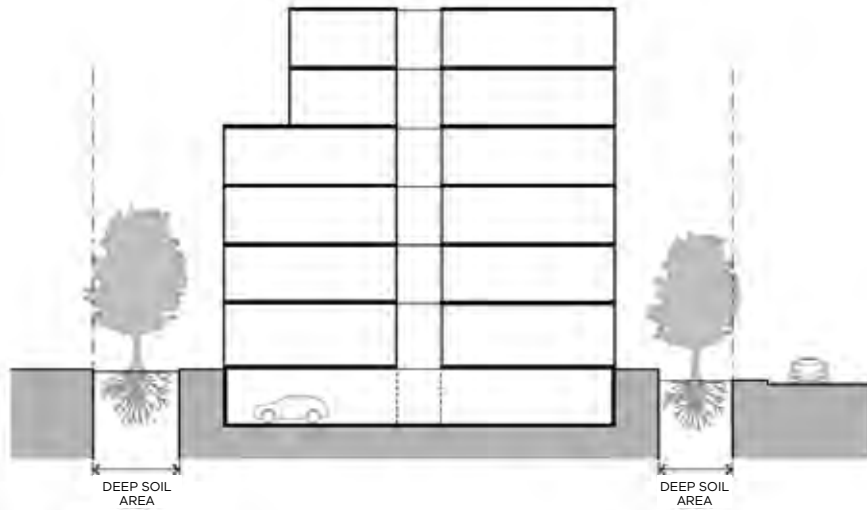
Applying the standard

Deep soil areas will more readily support canopy trees that add value to a landscape character and the public realm, or contribute to the amenity of residents, as well as reduce the urban heat island effect.

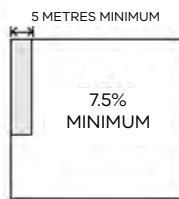
Where the number of trees to be provided is not a whole number, the fraction should still be provided through the use of small or medium size trees to meet the standard.

For example, a 2,400 square metre site would need to provide 240 square metres of deep soil area which can accommodate two large trees or four medium trees (ie: 180 square metres), with a residual deep soil area of 60 square metres. This residual area should be used to accommodate two small trees or one medium tree (ie: 60 or 50 square metres, respectively).

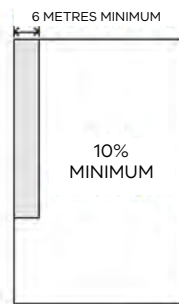
The standard provides some flexibility where the deep soil area requirements cannot be met, or in certain circumstances where the deep soil area might not be appropriate. In such cases alternate forms of greening including green roofs or walls should be provided.



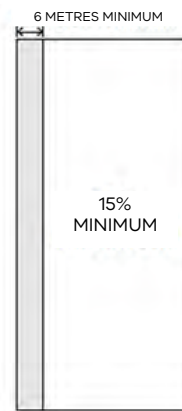
750-1000
SQUARE
METRES
SITE AREA



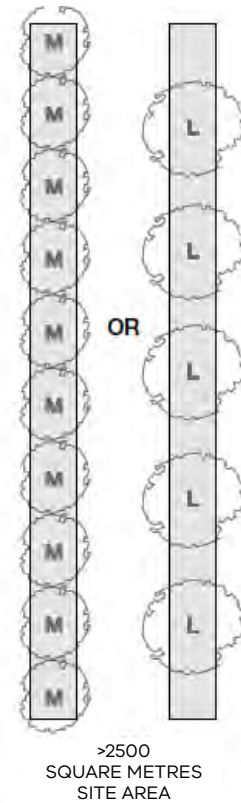
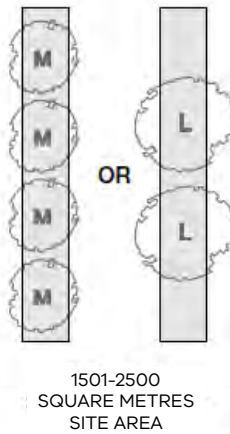
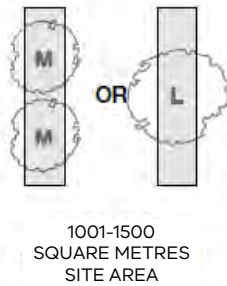
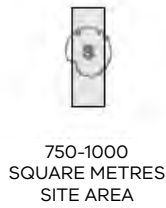
1001-1500
SQUARE
METRES
SITE AREA



1501-2500
SQUARE
METRES
SITE AREA



>2500
SQUARE
METRES
SITE AREA



Accessibility

The standard seeks to ensure that apartment developments cater to the needs of people with limited mobility by introducing minimum dimensions and design requirements for entrances, corridors, doorways, bedroom and bathroom spaces.

Standard

All dwellings (except for 25% of all two bedroom dwellings) should comply with the following requirements:

- The dwelling entrance should have a doorway with a clear opening width of at least 850mm.
- At least one adaptable bedroom and one adaptable bathroom. An adaptable bedroom and an adaptable bathroom should have a doorway with a clear opening width of at least 850mm.
- Any corridor connecting the dwelling entrance to the adaptable bedroom, the adaptable bathroom or the living area should have a minimum width of 1.2 metres.

Adaptable bedrooms should have minimum dimensions (excluding built-in robes) of 3 metres by 3.4 metres.

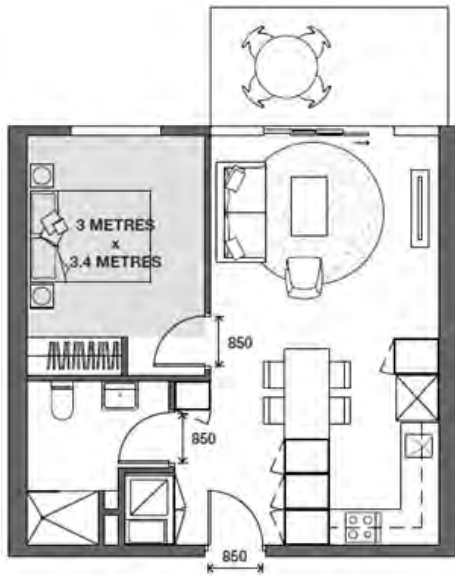
Adaptable bathrooms should have:

- A toilet in a corner of the room with a clear space in front measuring 1.2 metres by 1.2 metres, clear of the door swing. A removable shower screen may encroach into this space.
- A hobless (step-free) shower with a clear space in front of the shower measuring 1.2 metres by 1.2 metres, clear of the door swing. This space can overlap with the clear space in front of the toilet.

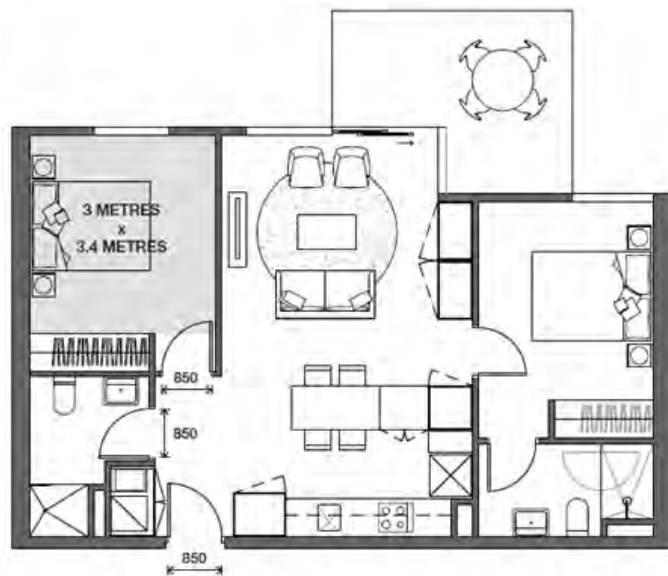
Applying the standard

Open plan living areas tend to be free of corridors and other permanent walls and obstructions, and should meet the standard when the minimum dimensions for entrances, doorways, and internal rooms are met.

With good design these features can be introduced with no increase in the apartment size.

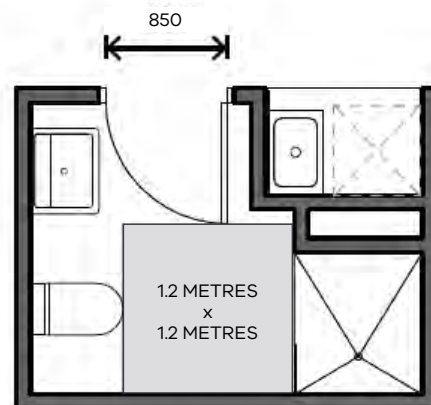
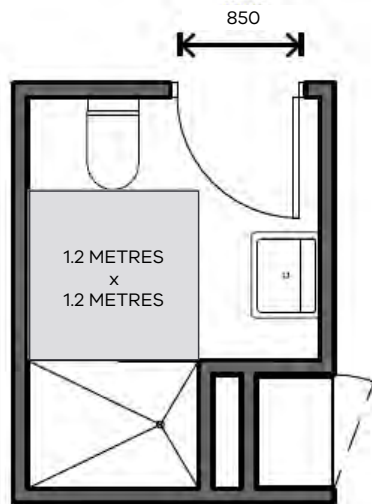


ALL 1 BEDROOM DWELLINGS



MIN 75% OF 2 BEDROOM DWELLINGS

Rooms and doorways that meet the standard.



Adaptable bathrooms that meet the standard.

Dwelling entry and internal circulation

The standard seeks to ensure that entries and internal common spaces are designed to provide high quality spaces that contribute to the overall amenity and functionality of the building.

Standard

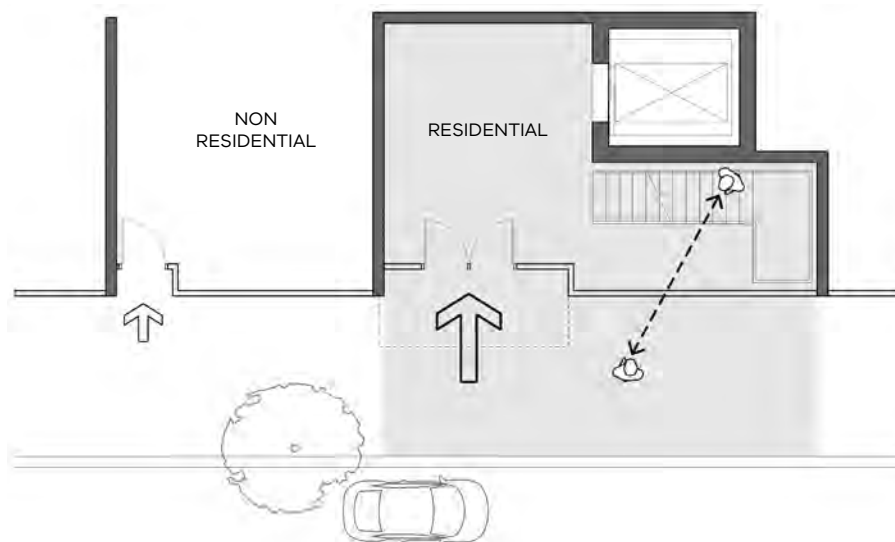
Entries to dwellings and buildings should:

- Be visible and easily identifiable.
- Provide shelter, a sense of personal address and a transitional space around the entry.

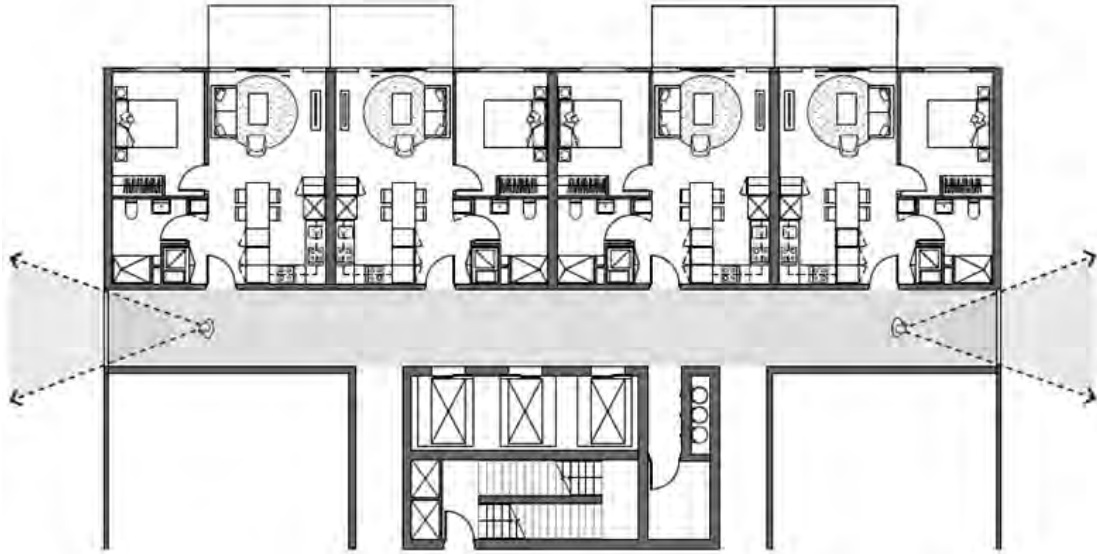
The layout and design of buildings should:

- Clearly distinguish entrances to residential and non-residential areas.
- Provide windows to building entrances, lift lobbies and stairwells.
- Provide common areas and corridors that:
 - Include at least one source of natural light and natural ventilation.
 - Avoid intrusion from building services.
 - Maintain clear sight lines.

Applying the standard



Distinguishing entrances to residential and non-residential areas.



Floorplan showing access to natural ventilation and daylight in common areas and corridors.

The standard seeks to ensure that waste management facilities are well designed, and enable residents to manage their own waste easily.

Standard

The development should include dedicated areas for:

- Bin and recycling enclosures that are adequate in size, durable, waterproof and blend in with the development.
- Bin and recycling enclosures that are located for convenient access by residents.
- Collection, separation and storage of general waste and recyclables, including where appropriate opportunities for on-site management of food waste through composting.
- Collection, storage and reuse of garden waste, including where appropriate opportunities for on-site treatment.
- Adequate circulation area for waste collection vehicles.
- Adequate internal storage space within each dwelling to enable the separation of recyclables, residual waste and where appropriate food waste.

Waste management systems and facilities should:

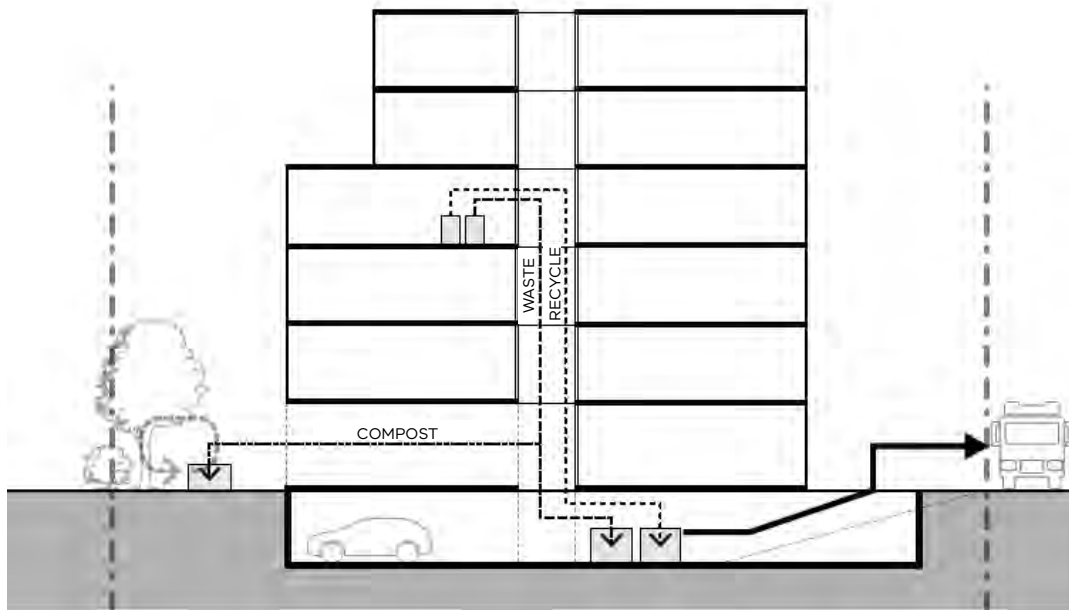
- Protect public health and amenity of occupants and adjoining premises from the impacts of odour, noise and waste collection vehicle movements.
- Be maintained in accordance with a Waste Management Plan approved by the responsible authority.

Applying the standard

Apartment buildings should provide dedicated areas for bin and recycling enclosures, and areas for collection, separation and storage of waste. This includes providing adequate spaces within an apartment for separated storage of waste, recyclables and food waste.

Providing spaces and facilities for composting of appropriate types of food and garden waste is also encouraged, although this will partly be influenced by whether the composted material can be used on-site.

Waste management issues will be resolved between the permit applicant and the responsible authority through the preparation of a waste management plan.



Providing areas for waste management.

Water management

The standard seeks to ensure that opportunities to collect and reuse rainwater and greywater are identified and implemented in new development.

Standard

Buildings should collect rainwater (with appropriate plumbed connections to suitable fittings) for non-drinking purposes such as flushing toilets, laundry and garden use.

Buildings should connect to a non-potable dual pipe reticulated water supply, where available from the water authority.

The stormwater management system should be:

- Designed to meet the current best practice performance objectives for stormwater quality as contained in the *Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee 1999) as amended*.
- Designed to maximise infiltration of stormwater, water and drainage of residual flows into permeable surfaces and treatment areas.

Glossary of terms

Apartment	An apartment is a dwelling that is constructed with a dwelling above the ceiling level and/or a dwelling below the floor level accessed through a communal area within the building.
Borrowed light	When a room has no window directly to the outside and accesses daylight from adjacent rooms, it is known as 'borrowed light'.
Cross or cross flow ventilation	The natural movement of air through an internal space (or spaces) between one external opening and another that face more than one direction.
Daylight	Natural ambient light available during the day.
Deep soil	An area of natural ground unimpeded by a structure below (and above), providing opportunity for ground water infiltration and the healthy growth of canopy trees.
Habitable room	A room used for normal domestic activities, and: (a) includes a bedroom, living room, kitchen, dining room and study; but (b) excludes a bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, lobby, clothes drying room and other space of a specialised nature occupied neither frequently nor for extended periods.
Light well	An unroofed space, bounded on all sides, which provides daylight to more than one storey of a building and may provide ventilation.
Natural ventilation	The movement and change of air in internal spaces by natural means through the use of a window that can be opened rather than the use of mechanical systems.
Orientation	The general compass direction that an apartment, apartment building or habitable room 'faces' that is typically defined by the location of primary openings in external walls.
Outlook	A place from which a view is possible; a vantage point.
Private open space	An outdoor space of an apartment for the exclusive use of the occupants.
Snorkel bedroom	A bedroom in an apartment where the bedroom is connected to a window in the exterior wall of the building via an adjoining space that is used to access daylight.
Single aspect apartment	An apartment with external walls facing only in one direction.
Sunlight	Direct rays from the sun.
Thermal comfort	The perception of physical comfort in a space, influenced by air temperature and movement, humidity, radiant heat, glare and the sense of having some control of these factors.
Urban heat island effect	A city or metropolitan area that is significantly warmer than its surrounding rural areas due to replacing vegetated areas with buildings, roads and other impervious surfaces as a city expands.

Better Apartments Draft Design Standards

**Submission by Council
September 2016**

Overview

1. Council broadly supports the drafted design guidelines for Better Apartments. Council recognises that all new apartment building development is liveable, sustainable, and meets the needs of all occupants. To date, a market based response to apartment design and amenity has led to many unacceptable outcomes.
2. Nillumbik residents expect a high standard of amenity when it comes to all forms of residential development, and that includes apartment buildings. Eltham is currently experiencing a significant increase in planning applications seeking this for of housing, and this trend is expected to continue in and around the Shire's two main activity centres, being Eltham and Diamond Creek.
3. The new Better Apartments provisions in the planning scheme will separate apartment development of five or more storeys and apartment development below five storeys. Due to the successful introduction of planning provisions in the Nillumbik Planning Scheme which have included height controls (namely Amendments C51 and C53 relating to the Eltham and Diamond Creek activity centres), Nillumbik will only be able to accommodate apartments of five storeys or below.
4. It is pleasing to see that the Better Apartments Draft Design Standards specifically address daylight provision, energy efficiency initiatives, accessibility/adaptability, natural ventilation and waste provision. These initiatives should be commended. However, it is disappointing that the draft standards have not included minimum apartment sizes based on the number of bedrooms provided, which is a consideration in other State jurisdictions such as New South Wales.
5. Although the drafted standards in the Better Apartments project will go a long way in achieving the outcome sought – better designed apartments with better amenity provision – this submission also identifies further recommended refinements and/or improvements.

Background information

6. The Shire of Nillumbik is a semi-rural council, formed in 1994 with the conservation of the Green Wedge as its strategic focus. The Nillumbik Green Wedge is distinguished from others by the quality of its environment and natural bushland. It covers approximately 91% of the total Shire area. The remaining 9% of the Shire is urban or township land within the Urban Growth Boundary.
7. The current population of Nillumbik (2012) is 62,500 people. It is growing at a much slower rate than the total Metropolitan area. It is also an ageing population, consistent with the national

trend. The bulk of population is located in the south and south-western areas, generally comprising Diamond Creek, Eltham, Eltham North, Greensborough, Hurstbridge and Wattle Glen.

8. Over the past decade Council's planning has focussed on consolidating and reinforcing the role of the activity centres within the Shire. The bulk of new economic development, employment growth, housing expansion and community facility improvements will occur in these areas over the coming years.
9. The Urban Growth Boundary (UGB) limits residential development in the municipality. Locations which are identified as having greenfield development potential include Diamond Creek and Plenty; these localities are expected to accommodate most of the Shire's future population growth. A component of this population growth will also be accommodated within the Eltham and Diamond Creek Activity Centres.

Submission in response to the Draft Design Standards

10. Council's response to each of the draft standards is set out under each of the fourteen themes outlined in the Better Apartments Draft Design Standards document, as follows.

Building setback

11. The building setback standard seeks to ensure that new apartment buildings are setback an appropriate distance from side and rear boundaries to receive an acceptable amount of daylight and privacy to apartments. For development of four or less storeys, the normal ResCode building setbacks will apply. This will therefore apply to the majority of apartment building development within Nillumbik. Setbacks are measured from side and rear boundaries and become greater as the height of an apartment building increases.
12. Importantly, the standard also introduces a minimum setbacks that will apply between two or more buildings within a development. This technical standard is supported, and will ensure that there is adequate building separation within developments, which will in turn ensure that there is adequate amenity for apartments in the form of daylight, outlook, privacy and landscaping opportunities.

What could be improved?

13. Nothing identified.

Light wells

14. This standard seeks to ensure that the size and design of light wells allow adequate daylight access to an apartment. Living areas of a dwelling should not rely on a light well as the primary

source of daylight. Where light wells are provided (for other rooms), minimum standards have been set in terms of dimensions, and these increase depending on the height of the development. The standard also ensures that bedroom windows in separate dwellings are staggered to avoid direct views.

15. These minimum standards address an existing deficiency in controls for apartments, and will avoid the promotion of poor internal amenity through 'borrowed light' principles and other similar design responses. Accordingly, this standard is strongly supported.

What could be improved?

16. Nothing identified.

Room depth

17. This standard seeks to ensure that each apartment is able to receive an adequate amount of daylight, including south-facing single aspect apartments. This standard introduces the concept of room depth to ceiling height ratios. The depth and ceiling height of an apartment are important factors in determining the amount and quality of daylight received by a habitable room. Dwelling orientation and whether the apartment is single or dual aspect also has a significant bearing on daylight access. The standard requires that south-facing, single aspect apartments achieve a better room depth to ceiling ratio compared to other apartments based on their sole southern aspect.

18. Council believes that this standard will go some way in reducing the 'cave effect' often experienced with single aspect south-facing apartments. It is also likely to strike an appropriate balance between providing adequate internal amenity and affordable housing options for residents.

What could be improved?

19. On the other hand, this standard still does not address poor functionality and layout outcomes that can also result in poor daylight provision and internal amenity. It is recommended that the draft standards be refined to include minimum apartment sizes based on the number of bedrooms provided. This is elaborated on in more detail later in this submission.

Windows

20. This standard seeks to ensure that all habitable rooms (living room, dining room, kitchen area and study) have direct access to daylight by requiring a window to be directly visible from any point in the room. Pleasingly, habitable rooms that rely on 'borrowed light' arrangements or daylight from a 'snorkel' bedroom (access to light from an adjacent room) will not meet this standard. As such, this standard is strongly supported.

What could be improved?

21. It is suggested that this standard should also regulate non-habitable rooms. Consideration should be given to non-habitable rooms (bathroom, laundry, walk-in-robos, pantry) not requiring natural daylight access if environmentally sustainable design initiatives (ESD) are incorporated into the design of these spaces (as a viable alternative) in order to reduce energy consumption.

Storage

22. This standard seeks to ensure that each apartment has a reasonable amount of storage space to allow residents to live comfortably and provide for different space requirements of different households. The standard requires that a total minimum storage space should be provided depending on the number of bedrooms contained within the apartment: 6, 8 and 10 cubic metres for one, two and three or more bedroom apartments respectively.
23. Council supports the introduction of these minimum standards to ensure the provision of private storage space for everyday household items. This exceeds current ResCode requirements.

What could be improved?

24. Nothing identified.

Noise impacts

25. This standard seeks to ensure that new apartments achieve a reasonable standard of acoustic performance in relation to noise transmission. The standard stipulates that noise sources, such as mechanical plant, should not be located near bedrooms of immediately adjacent apartments. This rationale is supported in principle.

What could be improved?

26. Council considers that the requirement for noise sources to not be located near bedrooms of immediately dwellings should be expanded to include all habitable rooms. Noise from air-conditioning equipment adjacent to dwellings can disrupt living spaces to the extent that occupants close doors and windows to exclude the noise, and then require the use of mechanical cooling themselves, thereby increasing energy use.
27. Notwithstanding the above, Council has concerns as to how this standard is to be demonstrated by the permit applicant. It is recommended that the standard requires the submission of an acoustic report prepared by a suitably qualified professional. Responsible authorities generally do not have expertise in acoustics, and would therefore have to rely on obtaining external acoustic advice to be reassured of compliance with this standard. This would be costly for councils, and likely result in time processing delays for the planning application.

28. To address noise sources external from the development (such as traffic, trains, neighbouring non-residential uses), Council recommends that further consideration be given to including a requirement for all external glazed areas of apartments be comprised of double or acoustic glazing (with acoustic seals). This requirement would be easy to administer and enforce (unlike the above), and is particularly important given that the majority of apartment building development within Nillumbik is occurring in activity centres, which generally experience greater external noise sources.

Energy efficiency

29. This standard seeks to ensure that new apartments are energy efficient. The standard specifies a maximum cooling load that is applied as part of a NatHERS assessment, to help ensure more consistent energy performance for apartments, particularly over the warmer period of the year. This standard is supported.

What could be improved?

30. The maximum cooling loads in this standard are considered by Council's Sustainability Officer as being too high, and are typical of dwellings that achieve lower than five star energy ratings. The cooling loads should therefore be reconsidered. Council would be happy to provide input into this adjustment to the standard.

31. Indeed, it is disappointing that other energy efficiency elements were not implemented in the drafting of this standard. It is noted that the following suggestions are not cost prohibitive, and will either deliver very short term financial benefits or significantly improve occupant comfort for the life of the apartment building.

32. External shading of north, east and west glazing is imperative to achieving resident comfort and lower energy consumption, and should be a mandatory requirement on low and medium rise apartments. It is recommended that the standard address this.

33. Individual metering for utilities has been demonstrated to reduce consumption by increasing accountability and information for residents. Council believes that this should be a mandatory requirement in all apartment buildings.

34. Consideration should also be given to requiring common areas (including basement carparks) having daylight and movement sensors to control artificial lighting and maximum wattage or lumens specified at levels lower than habitable areas, to reduce energy consumption of the development.

Solar access to communal open space

35. This standard seeks to ensure that any communal outdoor open space provided on-site for residents achieves a specific amount of direct sunlight through good orientation. Siting of open space areas on the northern side of the development will optimise solar access. This standard is strongly supported, and will ensure improved quality spaces dedicated to communal outdoor open space.

What could be improved?

36. Nothing identified.

Natural ventilation

37. This standard seeks to ensure that a significant proportion of apartments in a new development have adequate natural ventilation. The standard requires that at least 60% of dwellings should be naturally cross ventilated. All habitable room windows should be provided with operable windows and doors. Council supports the inclusion of these minimum standards to improve natural ventilation.

What could be improved?

38. It is recommended that an additional requirement be introduced to the standard for not just habitable rooms to be ventilated, but bathrooms located on external walls of a building to also have operable windows, to improve natural ventilation and potentially reduce energy consumption.

Private open space

39. The standard seeks to ensure that each apartment is provided with an area of private open space that will meet the reasonable recreation and service needs of residents. The standard sets the required amount and minimum dimension of private open space depending on the size of the apartment. Studio and one bedroom, two-bedroom and three or more bedroom apartments require 8, 10 and 12 square metres respectively. The standard also introduces a minimum dimension requirement of 2 metres.

40. The size of balconies is important to ensure a usable space is provided that services the needs of residents. The proposed balcony sizes, increasing in size depending on the number of bedrooms proposed, is appropriate and is supported. Excluding the calculated area from air-conditioning unit footprints (to maximise useability) is also supported.

What could be improved?

41. However, another important aspect of air-conditioning units on balconies is their potential visual impact when viewed from the public realm. Council strongly recommends that the standard include ensuring that these units are concealed from public view. This has both visual and

acoustic benefits. Clever architectural responses to this are becoming more prevalent (such as units being concealed in benches and seats) and should be incorporated into the standard.

Communal open space

42. This standard seeks to ensure that an area of communal open space is included in new apartment buildings for the benefit of residents. The standard states that communal open space is to be provided for development of 20 or more apartments, and the minimum communal open space area is 2.5 square metres per dwelling, or 100 square metres, whichever is lesser.

43. Council recognises the social benefits provided by communal areas within an apartment development. This can result in the fostering of stronger community relationships and providing recreation areas. Council supports the inclusion of standards regarding the provision of communal areas, and these need to be of a high quality.

What could be improved?

44. Council considers that any outdoor communal space standard should address potential amenity impacts of these spaces on neighbouring properties (whether it be within or outside of the development) such as overlooking and noise. This should be specifically addressed in the standard.

Landscaping

45. The standard seeks to ensure that new development is responsive to its landscape context, retains significant vegetation, maintains habitat and provides for canopy trees. The standard makes provision for minimum deep soil areas, or where this cannot be provided, tree pits sized appropriately for mature canopy trees or climbers should be provided.

46. Council recognises the important role landscaping plays with respect to apartment building developments. Council has applied a Significant Landscape Overlay to many parts of the Shire, including within its two activity centres (Eltham and Diamond Creek). In addition to providing neighbourhood and landscape character benefits, accommodating landscaping (including canopy trees) within developments provides shade to apartments on lower levels, enhances on-site and streetscape amenity, reduces surface water runoff and reduces the 'heat island effect'.

47. Deep soil areas will more readily support canopy trees. The standard applies a site area for deep soil areas depending on the size of the land supporting the proposed development: 0% for sites up to 750 square metres; 5% for sites between 750-1,000 square metres; 7.5% for sites between 1,001-1,500 square metres, 10% for sites between 1,501-2,500 square metres, and 15% for sites greater than 2,500 square metres. The inclusion of standards relating to deep soil planting is strongly supported, which are presently absent from ResCode requirements.

48. The standard also provides tree provision based on the number and size of trees per area of deep soil. Regrettably, the tree density ratios provided appear to be sparse, and do not reflect landscaping outcomes of suburban development, let alone that of apartment building developments in Nillumbik. The standard requires that for 750 to 1,000 square metre development sites, provision for one small tree per 30 square metres of deep soil; for a 1,001 to 1,500 square metre development site, provision for 1 medium tree per 50 square metres or 1 large tree per 90 square metres; for a 1,501 to 2,500 square metre development site, provision for 1 large tree per 90 square metres or 2 medium trees per 90 square metres; and for 2,500 square metres or greater development sites, provision for 1 large tree per 90 square metres or 2 medium trees per 90 square metres of deep soil.

49. It is strongly encouraged that further consideration be given to having differing standards in inner-metropolitan Melbourne locations compared to outer-suburban locations of metropolitan Melbourne. Council understands that it is difficult to apply a 'one size fits all' approach across the entire Melbourne metropolitan area.

What could be improved?

50. The requirement for 0% deep soil planting is immensely disappointing for sites less than 750 square metres, and this should be reconsidered. This may be acceptable in the inner metropolitan areas of Melbourne, but not in suburban locations. Even apartment building developments on this size of land (many of which exist within the Eltham and Diamond Creek Activity Centres) should make provision for canopy tree planting, supported by suitable areas of deep soil planting. The standard should follow the general principle that no matter the size of developable land, there should be provision for good canopy tree planting, supported by suitable areas of deep soil planting.

51. Similarly, the tree density ratio recommended in the standard are considered too sparse for suburban locations, and need to be increased. The current tree density ratios do not reflect the character of neighbourhoods and activity centres within Nillumbik. Based on the advice of Council's consulting arborist, there is capacity to improve the recommended tree density ratios, and it is recommended that this be strongly reconsidered in order to achieve far better landscape outcomes, particularly in suburban locations.

Accessibility

52. This standard seeks to ensure that apartment developments cater to the needs of people with limited mobility by introducing minimum dimensions and design requirements for entrances, corridors, doorways, bedroom and bathroom spaces. The standard stipulates that all dwellings (except for 25% of two-bedroom apartments) should provide minimum door widths, adaptable bedrooms and bathrooms and wider corridors.

53. Council strongly supports the inclusion of standards that increase accessibility to ensure that housing demand for people with limited mobility are considered from the outset of the design process. There is an increasing demand and need for housing accommodation that promotes ageing in place, and it is therefore important that apartments are adaptable so that they can support changing demographics.

What could be improved?

54. A shortfall of this draft standard is that it does not address the communal corridors and/or common areas within the development that are utilised to access the adaptable/accessible apartments. The standard does not provide guidance around the provision of lifts, nor does it set standards for ensuring that communal corridors and common areas also comply with dimensions and accessibility standards and that apply to the apartments.

Dwelling entry and circulation

55. This standard seeks to ensure that entries and internal common spaces are designed to provide high quality spaces that contribute to the overall amenity and functionality of the building. The standard requires that common areas and corridors include at least one source of natural daylight and natural ventilation. This standard is strongly supported.

What could be improved?

56. Council considers that on-site loading facilities are beneficial for large residential developments, to facilitate households as they move in and out and their provision should generally be encouraged. It is disappointing that this has not been included, particularly for larger apartment building developments.

Waste

57. This standard seeks to ensure that waste management facilities are well designed, and enable residents to manage their own waste easily. The standard requires adequate internal storage space within each apartment to enable the separation of recyclables, residual waste and where appropriate food waste. It is pleasing to see the promotion of organic waste management included in the standard. These provisions go beyond what is already specified in ResCode, and it would be good to see these considerations outlined in the standard translated into ResCode.

What could be improved?

58. Some of the considerations in the standard could be strengthened by making them mandatory, such as provision for on-site organic waste composting and green waste reuse.

Water management

59. This standard seeks to ensure that opportunities to collect and reuse rainwater and greywater are identified and implemented in apartment building development. This standard is supported, and was not specifically addressed in the original discussion paper on Better Apartments.

What could be improved?

60. The standard, however, is relatively generic and does not specify the quantity of rainwater appropriate for collection per dwelling. There would be nothing to prevent a permit applicant from attaching a single 2,000 litre tank for a building containing 60 apartments. There needs to be a minimum amount of water collected per bedroom, set at say the 500 litre mark. It is recommended that this standard be refined accordingly.

General comments

61. The objectives and design guidelines are not included in the draft, so it is difficult to understand the context or aim of the proposed standards and guidelines for decision making. However, the proposed initiative for the requirement of a registered architect or building designer having to verify that all relevant apartment design matters continue to be met through the building permit process is strongly supported.

62. The released document also provides some information regarding the supporting mechanisms to implement the design standards for this Better Apartments project. This includes:

- Training will be provided to local government planners and building design professionals on how to prepare and assess apartment applications to develop their capacity to implement the new provisions. The State Government will fund and deliver this training.
- DELWP will develop a range of tools to inform consumers which apartments satisfy the design standards. Consumers will be able to make informed decisions about apartments they are considering purchasing or renting.

63. These supporting initiatives are strongly supported and will add real benefits to future residents of apartment building development.

64. A disappointing feature of the draft design standards is that minimum floor areas for apartments, dependent on the number of bedrooms provided, has not been included in the drafted design standards. Notwithstanding the merits of the drafted design standards that have been presented, there is no particular standard that specifically addresses the functionality and layout of living spaces of apartments. Poorly designed apartments can result in living spaces that are neither functional nor well designed, resulting in poor internal amenity. This can sometimes result in poorly configured rooms where there is no capacity to accommodate a couch and a sitting chair. The introduction of minimum apartment sizes as a standard would go a long way in addressing poorly designed and poorly configured apartments.

65. In New South Wales, one-bedroom apartments must be at least 50 square metres, two-bedroom apartments at least 70 square metres and three-bedroom apartments at least 90 square metres. It had been speculated that the Better Apartments project would follow this concept of introducing minimum apartment sizes. Whilst it is understood that size is not the only determiner of good design and amenity for apartments, it should be a requirement that design excellence and innovation must be demonstrated before deviating from any minimum metric standard.

Conclusion

66. Council recognises that all new apartment building development is liveable, sustainable, and meets the needs of all occupants. Nillumbik residents expect a high standard of amenity when it comes to all forms of residential development, and that includes apartment buildings.

67. Overall, Council considers the draft design standards of the Better Apartments project will go a long way in improving design and internal amenity of apartment building developments. In particular, the initiatives and standards concerning daylight, energy efficiency, accessibility/adaptability, natural ventilation and waste are to be commended. However, Council respectfully requests that further consideration be given to the suggestions and recommendations highlighted in this submission.