Design Guidelines for Developments of Four or More Storeys

Moreland City Council

June 2005
The Moreland Design Guidelines for Buildings of Four or More Storeys were developed by David Lock Associates. This version has been adopted by Council and was submitted to the Minister for Planning for approval in July 2005. Once approved by the Minister, the Guidelines will be an Incorporated Document in the Moreland Planning Scheme. This document is based on the draft public exhibition version dated June 2003, and has been amended following the recommendations of the C43 Planning Panel.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE OF THE GUIDELINES</td>
<td>4</td>
</tr>
<tr>
<td>PLANNING FRAMEWORK</td>
<td>5</td>
</tr>
<tr>
<td>BENEFITS OF BUILDINGS OVER</td>
<td>6</td>
</tr>
<tr>
<td>FOUR STOREYS</td>
<td>7</td>
</tr>
<tr>
<td>PLANNING APPLICATION REQUIREMENTS</td>
<td>7</td>
</tr>
<tr>
<td>THE GUIDELINES</td>
<td>8</td>
</tr>
<tr>
<td>1 PUBLIC-PRIVATE INTERFACE</td>
<td>9</td>
</tr>
<tr>
<td>1.1 Street Connection</td>
<td>9</td>
</tr>
<tr>
<td>1.2 Public Safety &amp; Security</td>
<td>11</td>
</tr>
<tr>
<td>1.3 Building Appearance &amp; Legibility</td>
<td>13</td>
</tr>
<tr>
<td>2 OFF SITE IMPACTS</td>
<td>15</td>
</tr>
<tr>
<td>2.1 Overshadowing</td>
<td>15</td>
</tr>
<tr>
<td>2.2 Overlooking</td>
<td>16</td>
</tr>
<tr>
<td>2.3 Noise &amp; Air Quality</td>
<td>17</td>
</tr>
<tr>
<td>3 MOVEMENT &amp; ACCESS</td>
<td>19</td>
</tr>
<tr>
<td>3.1 Pedestrian Access</td>
<td>19</td>
</tr>
<tr>
<td>3.2 Bicycle Access &amp; Parking</td>
<td>20</td>
</tr>
<tr>
<td>3.3 Vehicle Access &amp; Parking</td>
<td>21</td>
</tr>
<tr>
<td>4 INTERNAL PLANNING &amp; DESIGN</td>
<td>24</td>
</tr>
<tr>
<td>4.1 Adaptability</td>
<td>24</td>
</tr>
<tr>
<td>4.2 Landscaping</td>
<td>25</td>
</tr>
<tr>
<td>4.3 Outdoor Space</td>
<td>26</td>
</tr>
<tr>
<td>4.4 Light &amp; Ventilation</td>
<td>28</td>
</tr>
<tr>
<td>5 TECHNICAL PERFORMANCE</td>
<td>30</td>
</tr>
<tr>
<td>5.1 Thermal Efficiency</td>
<td>30</td>
</tr>
<tr>
<td>5.2 Stormwater Management</td>
<td>31</td>
</tr>
<tr>
<td>5.3 Site Facilities</td>
<td>33</td>
</tr>
<tr>
<td>GLOSSARY</td>
<td>34</td>
</tr>
<tr>
<td>APPENDIX 1</td>
<td>36</td>
</tr>
<tr>
<td>APPENDIX 2</td>
<td>37</td>
</tr>
</tbody>
</table>
The purpose of these guidelines is to provide applicants with a checklist of elements to be considered when seeking approval for buildings of four or more storeys. The Guidelines are applicable to all residential, non-residential and mixed use buildings of four or more storeys throughout the municipality and provide a means of achieving good urban design outcomes while providing:

- Flexibility for good quality and innovative design solutions.
- A comprehensive and consistent framework for designing and assessing development proposals.

The Guidelines adopt a performance based system of control. This means that rather than specifying prescriptive standards, they outline various Design Standards which must be achieved in order to satisfy the desired Objective(s). Suggested Techniques provide examples of ways in which the desired conditions may be achieved, however these are only intended to illustrate one possible solution and do not preclude other options. The suitability of other options would however need to be demonstrated by the applicant.

The advantage of this approach is that it provides some degree of certainty about what is likely to be acceptable while allowing for diversity and the flexibility to respond to market needs and preferences.

The Guidelines were prepared by the City of Moreland in the absence of any such guidelines in the Victoria Planning Provisions (VPPs). In the past Council has referred to the standards in ResCode to guide the assessment of taller buildings. However, the ResCode standards were developed as an assessment tool for buildings up to four storeys and therefore contain a number of shortcomings when applied to buildings taller than four storeys.
Planning Framework

Introduction

The Moreland Planning Scheme contains a number of policy objectives that support urban consolidation within various locations including activity centres, areas close to public transport and in some cases, on larger redevelopment sites. These objectives are outlined in both the State and Local Planning Policy Framework. In addition, *Melbourne 2030*, the Victorian Government's strategy to guide growth and change over the next thirty years, also supports urban consolidation by concentrating major change in strategic redevelopment sites such as activity centres.

State Planning Policy Framework

The SPPF encourages consolidation of existing urban areas through increasing densities and supporting an increase in mixed use development particularly near public transport routes. The SPPF also places emphasis upon achieving good urban design outcomes.

Melbourne 2030

*Melbourne 2030* seeks to increase the concentration of activities in metropolitan Melbourne within a network of activity centres, both existing and planned. This network will comprise a range of centres that differ in size and function and are connected by public transport. Catchments of these centres may overlap, allowing as many people as possible the maximum choice in services, employment and social interaction.

Local Planning Policy Framework

The key MSS issues of Housing, Industry and Commerce, Retail, Urban Design, Open Space and Transport all include strategies that encourage or are supported by more intense redevelopment of the existing urban form, subject to meeting specific objectives for social benefit and design excellence. In summary, these objectives and strategies include:

- Support for urban consolidation and environmental sustainability.
- Encouragement of increased land use densities close to tram or train services and within urban villages.
- Promotion of energy efficient development.
- Provision of a range of housing types.
- Provision of affordable housing.
- The need for new development to make a positive contribution to the public realm and preferred neighbourhood character.
- Support for mixed use developments within activity centres.

Given the existing planning framework, Council considers that well designed buildings of four or more storeys will assist in fulfilling these objectives. These guidelines will provide clear guidance and certainty about the specific design objectives that Council expects buildings of four or more storeys to achieve.

Council will consider each building on its merits.
Benefits of Buildings Of Four or More Storeys

In certain locations, buildings of four or more storeys offer unique opportunities to achieve an increase in the variety of housing types and a more sustainable, equitable and vital city. While often a source of contention throughout the community, there are a number of compelling social, economic and environmental reasons to support multi-storey buildings in appropriate locations.

Environmental

Buildings of four or more storeys achieve a number of environmental benefits that include:

- A reduction in urban sprawl by contributing to greater housing availability in established areas and offering market choice.
- Potential reduction in car use through greater opportunities for use of public transport.
- More energy efficient buildings due to increased thermal efficiency.
- Greater opportunities for effective waste handling and recycling through centralised systems.
- A reduction in stormwater run off as a result of the decreased area of impermeable surface area per household.
- Greater opportunities for water collection and re-use.

Social

Buildings of four or more storeys promote a number of social benefits that include:

- Providing housing for a wider range of ages and family and socio-economic groups, enabling more people to live in and near areas with high amenity and services.
- Fostering more diverse communities through the provision of mixed use developments which generate both day time and night time activities in close proximity to shops and services.
- Providing for a more affordable lifestyle in high amenity locations partly through a reduction in transport costs.

Economic

Buildings of four or more storeys provide a number of economic benefits that include:

- Increasing the viability of Moreland’s local shops, businesses, public and private services by housing more people in these locations.
- Increasing the viability of redevelopment proposals on sites currently being used for unprofitable businesses.
- A more effective and efficient use of infrastructure including utility services and roads which results in a reduced cost per capita for local infrastructure maintenance and replacement.
Planning Application Requirements

Introduction
The following 4 steps must be followed when preparing a development application for a building greater than four storeys:

Step 1
Policy Review & Preliminary Site Context Analysis
Appendix 1 lists the minimum information that must be included in the Site Context Analysis.
Reference must be made to Cl. 19, 54.01, 55.01 of the Moreland Planning Scheme, as applicable.

Step 2
Pre-Application Meeting
All applications for buildings of four or more storeys must involve at least one pre-application meeting with a Council Planner prior to lodging the planning permit application. The purpose of this meeting is to discuss both the relevant policy framework and the Site Context Analysis to determine the suitability of a building of four or more storeys for the subject site.

Step 3
Revise Site Context Analysis & Prepare Design Response
Appendix 2 lists the minimum information that must accompany the design response.
Having regard to pre-application discussions, the Site Context Analysis may need to be revised and a design response must be prepared. The design response must explain how the proposed design:

- Derives from the Site Context Analysis.
- Responds to the objectives and standards of these guidelines.
- Facilitates open communication between developers of adjoining sites during the design process.

Step 4
Lodge Application
The formal lodgement of a planning application must include the following:

- Completed application form
- Correct application fee
- A current copy of title
- A Site Context Analysis (see Appendix 1)
- A Design Response (see Appendix 2)

Having received the application, Council will inform the applicant in writing whether the Site Context Analysis and Design Response are adequate. If Council considers that the Site Context Analysis and/or Design Response are not satisfactory, it may request more information from the applicant under Section 54 (1a) of the Planning & Environment Act 1987. Inaccuracies or insufficient information in the Site Context Analysis and/or Design Response will result in time delays in the processing of the application.
THE GUIDELINES

Objectives

The aim of the design element. All objectives must be met.

The Design Response must demonstrate how all objectives have been met.

Standards

General design conditions that should be achieved to meet the Objectives.

The Design Response must clearly identify how the standards have been met and justify why any particular standards have not been met.

Suggested Techniques

Examples of design techniques that may satisfy the Objectives and Standards.

The Design Response may use alternative techniques but must demonstrate how they meet
1. Public-Private Interface

1.1 STREET CONNECTION

See also Section 3.1 Pedestrian Access

Objectives

To ensure that buildings relate positively and add life to adjacent streets and surrounding public spaces.

Design Standards

1. The street façade and internal layout of the ground floor must be designed to facilitate visual and physical access between the building and the adjoining public realm.

2. If balconies project more than 300 mm into public space an agreement pursuant to Section 173 of the Planning and Environment Act 1987 must be entered into with Council to address public indemnity issues.

3. All upper levels should provide active uses, such as balconies and/or living area along the street frontage or to other public areas.

4. At least 80% of the ground floor façade on the main street frontage of new buildings in Business Zones must be clear glazed.

Suggested Techniques

A. Provide for lively internal activities at the ground and upper floor street frontage that enliven the public realm and which ‘spill out’ into the street.

B. Locate balconies so that they interact with the street.

C. Incorporate displays, windows, door openings, artwork and architectural detailing into ground and first floor street frontages.
5. Building frontages must be predominately parallel with street boundaries to create and/or reinforce a strong built form definition of the street.

6. All new buildings in Business Zones must be built to the front boundary and include retail or commercial uses at street level (unless otherwise specified in the preferred character statement).

7. All new buildings in Residential Zones must provide a front setback that is consistent with adjoining buildings (unless otherwise specified in a relevant preferred character statement or structure plan). Where the setback varies, an average of these should apply.

8. Pedestrian entries into the building must be designed to be clearly visible, directly face the street and provide weather protection.

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**Suggested Techniques (cont...)**

D. Distinguish residential entries from retail and commercial entries with the use of awnings and/or other detailing.

E. Building facades, including main entries and any architectural features, should be externally illuminated. All light sources located on the façade should be directed downward.
1.2 Public Safety & Security

Objectives

To ensure that new buildings enhance safety and security within the site and adjacent public spaces.

Design Standards

1. External public and communal spaces, such as building entries, parking areas and paths, must be well lit and clearly visible to allow for casual surveillance.

2. Carports, underground car parking, entrance hallways and other internal communal spaces must be designed so that the whole area can be viewed before entering.

3. All public or communal open space provided in or adjacent to the development must be substantially fronted by dwellings and commercial premises to provide outlook for as many dwellings as practical.

4. Boundaries between public and private spaces must be clearly defined to avoid ambiguity.

Suggested Techniques

A. Provide clear glazed windows at ground level to allow for casual surveillance of adjoining external spaces.

B. Provide lighting under fixed verandahs and awnings to ensure the footpath is adequately lit.

C. In commercial areas provide a mix of uses, particularly at ground level, to add vitality at different times of the day and night.

D. Use external lighting to encourage informal surveillance with well located, low wattage lighting to minimise blind spots on the perimeters of buildings.

E. Use landscaping and/or built edges to define public and private spaces.
1.2 **Public Safety & Security (cont..)**

### Design Standards (cont...)

5. Entrance foyers, lift lobbies and stairwells must be well lit and at least partially visible from outside the building.

6. Entrance foyers must contain an easily visible intercom system.

7. Landscape design should promote casual surveillance and perceptions of safety.

8. Recesses in the ground floor façades on the street boundary must be no deeper than 300mm.

9. The creation of alcoves and leftover spaces with poor surveillance must be avoided.

10. The principles of *Crime Prevention through Environmental Design* must be incorporated in the building design.

### Suggested Techniques (cont...)

F. Avoid dense foliage between 500 and 1800mm above ground level along streets and accessways.

G. Avoid planting that projects into the public realm up to two metres above ground level.
1.3 BUILDING APPEARANCE & LEGIBILITY

Objectives

To ensure that buildings provide visual interest of the street.

To ensure that buildings make a positive contribution to the preferred future character of an area, as described in the Moreland Neighbourhood Character Guidelines 2004.

To ensure that new buildings enhance and maintain the legibility of the neighbourhood.

Design Standards

1. Building facades must incorporate relief to ensure visual interest.

2. The detailing and finish of building facades must be contemporary in style.

3. Blank walls should be avoided except on boundaries adjoining a lot that is likely to be developed to a similar scale boundary.

4. Buildings should incorporate interesting roof top forms which add interest and variety to the skyline.

Suggested Techniques

A. Create visual interest through incorporating minor projections, using voids, modulating large forms and providing a variety of recesses.

B. Create contemporary sets of elements, details and finishes with an emphasis on ensuring that the building blends in sensitively with its surrounds.

C. Avoid highly reflective materials and colours on external walls that adjoin the public realm. Intersperse masonry with reflective or shiny surfaces to reduce the negative effects of highly reflective glass. Sheer curtain walls or other expanses of reflective glass are...
1.3 BUILDING APPEARANCE & LEGIBILITY (CONT..)

Design Standards (cont...)

5. Roof top servicing and communication equipment must be designed and integrated into the appearance of the building.

6. The height and scale of new buildings on sites nominated for a landmark function should be visually distinctive.

7. Buildings should incorporate interesting roof top forms which add interest and variety to the skyline.

8. On corner sites, buildings should emphasise the corner section of the site by being built to the street alignment and using taller, distinctive, architectural elements.

Suggested Techniques (cont...)

D. Where windows are reduced on west and south facades due to the employment of energy efficiency measures, use other design options to offer visual relief such as recesses, projections, material and colour variation.

E. Use a variety of architectural features, forms, height variation and materials to distinguish the site’s significance.
2. Off Site Impacts

2.1 Overshadowing

Objectives

To allow adequate daylight and sunlight into neighbouring properties.

To ensure new buildings allow good sun penetration to public spaces

To recognise the different overshadowing constraints affecting buildings in commercial areas and buildings in residential areas.

Design Standards

1. If in a Business or Mixed Use Zone at least 50% of adjacent residential private outdoor spaces and habitable room windows must receive a minimum of 5 hours of direct sunlight between 9am and 3pm on 22 September each year. However, scope may be allowed for a maximum 25% additional shadow, for taller buildings in a Business or Mixed Use Zone with a connection to the street.

2. If in a Residential 1 Zone at least 75% of adjacent residential private outdoor spaces and habitable room windows must receive a minimum of 5 hours of sunlight between 9am and 3pm on 22 September each year.

3. Development should not reduce the amenity of public spaces by casting any additional shadows between 11am and 2pm on 22 September.

4. New development should avoid overshadowing existing solar panels on other properties, where possible, and where this will not compromise the achievement of other sustainable development principles.

Suggested Techniques

No suggested techniques.
2. Off Site Impacts (cont...)

2.2 OVERLOOKING

Objectives

To limit direct views from the development into the private open space and habitable rooms of existing dwellings.

Design Standards

1. New developments must not allow a direct view of adjacent private outdoor spaces or habitable room windows within a horizontal distance (measured at ground level) of 9 metre of the window, deck, balcony, terrace or patio. In the case of windows, views should be measured within a 45 degree angle from the plane of the window or the perimeter of the balcony, terrace, deck or patio and from a height of 1.7 metres above floor level.

2. Overlooking should be avoided through the careful siting and design of buildings and windows where possible. The use of screening devices to avoid overlooking should be minimised. Where screening devices are used, they should be integrated within the design of the building.

Suggested Techniques

A. Minimise direct overlooking of neighbouring dwellings’ main internal living areas and private open space through:
   - building layout,
   - location and design of windows and balconies,
   - the use of landscaping, and
   - separation by distance.
2. Off Site Impacts (cont...)

2.3 NOISE & AIR QUALITY

Objectives

To minimise the impact of noise upon adjacent dwellings and the immediate public realm.

To minimise the impact of the development on air quality.

To minimise the impact of noise through the design and location of vehicular and pedestrian access points.

To ensure that all occupants are protected from high levels of external noise sources from both neighbours within the building and on nearby sites.

To recognise that the quality of residential amenity in a commercial area is inherently different to, and should not be compared with amenity expectations in a traditional residential area.

Design Standards

1. Noise levels from plant and equipment at the property boundary and at vehicular and pedestrian access points must comply with the EPA's Environment Protection (Residential Noise) Regulations 1997.

2. Servicing equipment must not be located where it will cause a noise nuisance to adjacent properties. Where such noise nuisance is likely or where noise levels generated exceed ambient levels at the boundary of the premises, adequate sound proofing must be provided.

3. Servicing equipment must not be located where it will have an unreasonable impact, including noise and air, on the surrounding public realm.

Suggested Techniques

A. Use noise resistant construction such as double glazing between abutting dwellings.

B. Locate air conditioning exhaust vents away from street frontages.

C. Locate mechanical plants away from private open space areas and noise sensitive rooms of adjacent properties.

D. Locate noise sensitive rooms and secluded private open spaces away from external noise sources and protect them with appropriate noise shielding techniques.

E. Use inter-apartment floor and wall construction techniques to reduce noise transfer horizontally and vertically between neighbours.
Design Standards (cont...)

4. All noise sensitive occupancies must be designed and constructed to include noise attenuation measures to achieve a maximum noise level of 35dB(A)Leq in unfurnished and uncarpeted habitable rooms with the windows closed.

5. Active communal recreation areas, parking areas, vehicle access ways and service equipment must be separated from bedrooms.

6. Servicing equipment should not be located near openable windows or in locations where it is likely to cause a noise or air nuisance to occupants within the development.


Suggested Techniques (cont...)

No other suggested techniques.
3. Movement & Access

3.1 Pedestrian Access

See also Section 1.1 Street Connection

Objectives

To enable the use of buildings by all people.

Design Standards

1. On site pedestrian access must comply with the Building Code of Australia where it refers to AS1428.2 – 1992 Design for Access and Mobility-Enhanced and Additional Requirements-Buildings and Facilities. This requires:

   "An uninterrupted path of travel to or within a building providing access to all required facilities. This accessible path shall not incorporate any step, stairway, revolving door, escalator or any other impediment which would prevent it being safely negotiated by people with disabilities."

2. All ground floor dwellings must be fully accessible by a wheelchair.

3. Key access routes must have good visibility and be well lit.

4. Pedestrian access must be provided directly from both the street and the car park.

Suggested Techniques

A. Provide safe and convenient access throughout the development including:

- the main entrance and exit,
- all public areas,
- all shops, restaurants and other services of a retail or service nature,
- all floors of all residential buildings, and
- lifts and car parks.
3. Movement & Access (cont...)

3.2 Bicycle Access & Parking

Objectives

To ensure convenient, safe and efficient bicycle movements and connections within the development and to the street network.

To ensure that bicycle parking provision for building occupants and visitors is sufficient.

Design Standards

1. Bicycle parking facilities must be provided on site in accordance with the Moreland Bike Plan June 2000 which requires a rate of 1 space per dwelling.

2. Bicycle parking facilities should be located in convenient locations and not require access via steps.

3. Bicycle parking facilities must be well lit and protected from the weather.

4. Appropriate signage must be provided indicating the location of bicycle parking facilities.

5. End of trip bicycle facilities must be provided in accordance with the Moreland Bike Plan June 2000. Shower and change facilities must be provided for non-residential building occupants.

6. Bicycle parking facilities must be provided in addition to general storage facilities.

Suggested Techniques

A. Construct bicycle racks from high strength durable materials that are designed to allow for ease of locking and unlocking, by both the frame and one wheel.

B. Refer to the Moreland Bike Plan June 2000.
3. Movement & Access (cont...)

3.3 Vehicle Access & Parking

Objectives

To ensure convenient, safe and efficient vehicle movements and connections within the development and to the street network.

To ensure that car parking provision for building occupants and visitors is sufficient.

To ensure that the design of parking and access areas is safe, practical and attractive and can be easily maintained.

Design Standards

1. Car parking spaces for residential uses should be provided at the rate of 1 space for each 1 or 2 bedroom dwelling and 2 spaces for each 3 or more bedroom dwelling.

2. Car parking spaces for commercial uses should be provided in accordance with Clause 52.06 of the Moreland Planning Scheme.


Suggested Techniques

A. Locate parking at basement or semi-basement level, or behind building.

B. Secure car park entries with automatic semi-transparent security grilles.

C. Provide clear and open sight lines within car parks.

D. Ensure that entry and exit points to basement car parks are well lit.

E. Provide directional signage to lifts, stairs and exit points.
3. Movement & Access (cont...)

3.3 Vehicle Access & Parking (cont...)

4. The number of vehicle crossovers must be minimised and where possible vehicle access must be provided from secondary streets rather than laneways.

5. Locate shared accessways or car parks at least 1.5 metres from the windows of habitable rooms in unrelated dwellings. This setback may be reduced to 1 metre where there is a fence of at least 1.5 metres high or where window sills are at least 1.4 metres above the accessway.

6. On site parking for vehicles must be sited to have a minimal visual impact on the streetscape.

7. All parking areas, including entry and exit points must be well lit.

8. Vehicle access points must be separate from pedestrian access points.

9. Where a building contains a mix of uses, car parking areas should be shared between day time and night time demand where possible.

10. Tandem spaces should be avoided unless associated with a single occupancy.

Suggested Techniques (cont...)

F. Relocate poles away from vehicle crossings.

G. Locate car park entry points away from commercial street frontages.
3. Movement & Access (cont...)

3.3 Vehicle Access & Parking (cont...)

**Design Standards (cont...)**

11. A continuous, accessible route must be provided between disabled parking spaces and the entrance of the premises they serve.

12. Basement car parks should be naturally ventilated.

13. Views of cars on upper levels must be concealed.

14. Access must be provided for service, emergency and delivery vehicles.

15. Laneways are required to be constructed to a standard to the satisfaction of Council if they are to be considered as viable access points.

**Suggested Techniques (cont...)**

No other suggested techniques.
4. Internal Planning & Design

4.1 Adaptability

Objectives

To maximise the building’s ability to accommodate a range of uses over its lifespan.

Design Standards

1. Buildings should be designed so that they may receive natural light and ventilation.
2. The number of potential pedestrian access points into a building should be maximised.
3. All pedestrian entries must be clearly apparent from the street.
4. The building should be designed to maximise the ability for the internal layout to be changed over time.

Suggested Techniques

A. Avoid deep plan buildings without effective lighting courts.
B. Ensure that all parts of habitable rooms are no more than 6 metres from an openable window.
C. Avoid ground floor ceiling heights less than 3000mm and upper floor ceiling height less than 2700mm
4. Internal Planning & Design (cont...)

4.2 LANDSCAPING

Objectives

To enhance the appearance of the development.

To enhance and improve the micro-climatic conditions of the development.

Design Standards

1. Indigenous plant species must be used in accordance with the Moreland Landscape Guidelines and Technical Notes for Residential, Commercial and Industrial Development.

2. Landscaping should be used to maximise permeable surface area.

3. Incorporate water sensitive urban design techniques into landscaping.

Suggested Techniques

A. Provide landscaping with any setback areas to the street frontage, ground floor open space areas and outdoor car parking areas.

B. Use species that reflect the character of the surrounding locality where this is consistent with the Moreland Landscape Guidelines and Technical Notes for Residential, Commercial and Industrial Development.

C. Use medium to large trees where possible.

D. Landscape communal open space areas with low maintenance but long life species.
4. Internal Planning & Design (cont...)

4.3 Outdoor Space

See also Section 4.4 Light & Ventilation

Objectives

To provide sufficient, sunlit and secure private open space for the reasonable recreation needs of residents.

Examples of private open space in the form of balconies that overlook the street

Design Standards

1. Private open space should be provided for the majority of new dwellings unless it would be detrimental to the heritage values or identified neighbourhood character.

2. Private open space associated with dwellings must have an area of 8 square metres with a minimum width of 1.6 metres and convenient access from a habitable room.

3. Private open space associated with dwellings should be oriented to facilitate solar access and provide for maximum year round use.

Suggested Techniques

A. Maximise the use of roof tops for communal open space purposes.

B. Where dwellings are not provided with private outdoor space, ensure a substantial area of northeast to northwest-facing openable windows and/or doors to ensure that the main living areas receive direct sunlight and ventilation.

C. Provide adequate weather protection to outdoor areas to minimise peak solar penetration and to provide elements of shelter from rain.
4. Where dwellings are not provided with private outdoor open space, habitable rooms must receive direct sunlight and ventilation.

5. The development potential of adjacent sites should be considered in the design of open space areas.

6. Public, communal and private open space must be clearly delineated.

Suggested Techniques (cont...)

No other suggested techniques.
4.4 Light & Ventilation

See also Section 4.3 Outdoor Space

Objectives

To ensure that habitable rooms in all new dwellings receive adequate natural light and ventilation.

To ensure adequate sunlight into secluded private open spaces and onto the main living room windows of new dwellings.

To recognise the constraints of providing sunlight access in Business Zones due to existing lot orientation and setback requirements.

Design Standards

1. Dwellings must be designed to comply with the Building Code of Australia by ensuring all habitable room windows:

   1.1 Face a court or other outdoor space open to the sky, or an open verandah or carport; and

   1.2 Are not less than a horizontal distance of 1.5 metres from any other building.

2. All habitable rooms in new residential development must be naturally ventilated.

3. The provision of borrowed light from adjoining rooms to habitable rooms is discouraged.

Suggested Techniques

A. Limit the depth of single-aspect dwellings.

B. Provide openable windows to permit the natural ventilation of internal spaces.

C. Locate windows to facilitate cross ventilation.

D. Incorporate internal courtyards and light courts to improve access to natural light and improve ventilation.

E. Provide openable windows to bathrooms and kitchens where possible.

F. Avoid south facing dwellings.
4. Internal Planning & Design (cont...)

4.4 Light & Ventilation (cont...)

Design Standards (cont...)

4. In Business and Mixed Use Zones main living rooms should receive at least 50% direct sunlight for at least 2 hours between 9am and 3pm on 22 September each year.

5. In the Residential 1 Zone main living rooms should receive at least 75% direct sunlight for at least 2 hours between 9am and 3pm on 22 September each year.

Suggested Techniques (cont...)

No other suggested techniques.
5. Technical Performance

5.1 THERMAL EFFICIENCY

Objectives

To maximise the energy efficiency of buildings through siting, passive design measures, materials, construction methods and servicing.

Design Standards

1. All buildings must maximise passive opportunities for energy efficiency in building siting and design.

2. All buildings must achieve a five star energy rating in accordance with the Sustainable Energy Authority Victoria’s First Rate system or a recognised equivalent.

Suggested Techniques

A. Apply the standards outlined in the Sustainable Energy Authority Victoria’s Home Energy Rating System.

B. Where the shape of the block permits, face the long side of the building to the north.

C. Orientate dwellings to take advantage of solar access and microclimatic conditions.

D. Control summer heat gain from solar penetration by minimising west facing glass, and shading glazing (including roof lights) with external louvres or blinds, verandahs, projecting balconies, pergolas or planting, or heavy recessing of windows into walls.

E. Provide openable windows, preferably on opposing walls, to allow natural ventilation.

F. Provide thermal chimneys for natural ventilation.

G. Maximise natural lighting.

H. Insulate the roof, ceiling and walls so that it protects the internal environment from Summer sun and retains Winter heat.

I. Install gas boosted solar hot water systems.
5. Technical Performance (cont...)

5.2 Stormwater Management

Objectives

To ensure that stormwater created by the development does not adversely impact on the external environment.

To encourage the re-use of stormwater wherever possible.

To encourage the collection of rainwater for flushing toilets and watering gardens.

Design Standards

1. On site drainage systems must take into account:
   1.1 On-site stormwater detention or retention and re-use;
   1.2 Scope for on site infiltration of stormwater;
   1.3 Minimisation of detrimental impacts on existing water balance and quality; and
   1.4 Emergency spillways and/or overland floodpaths.

2. Water sensitive urban design techniques must be incorporated into site layout and landscaping of new development at appropriate design stages.

3. The site drainage system must be connected to public drainage at appropriate point.

Suggested Techniques

A. Apply best practice stormwater management technologies for building and construction sites – see the Environmental Protection Authority’s Construction Techniques for Sediment Pollution Control 1991 and Environmental Guidelines for Major Construction Sites 1996.

B. Apply the Victorian Stormwater Committee’s Urban Stormwater Best Practice Environmental Management Guidelines 1999.

C. Retain existing vegetation and hydrological features.

D. Minimise impervious surfaces by using water permeable materials for driveways and parking lots, such as porous asphalt or concrete, open celled pavers, reinforced turf, concrete or plastic grids and stabilised aggregate.

E. Use water permeable materials for pedestrian pathways, such as loose aggregate, wooden decks, mulch pathways or paving stones, with consideration given to disability access.
## 5.2 Stormwater Management (cont.)

<table>
<thead>
<tr>
<th>Design Standards</th>
<th>Suggested Techniques (cont...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Stormwater must not be discharged onto the surface of a right of way or road.</td>
<td>F. Reduce potential for site erosion, sediment discharge and litter to enter drains during construction works by ensuring the site is adequately controlled and deposits of soils and materials are contained away from points of entry.</td>
</tr>
<tr>
<td></td>
<td>G. Employ sediment traps and divert ‘clean’ stormwater around the site.</td>
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<tr>
<td></td>
<td>H. Design car park surface areas and drainage to minimise the extent of inundation during periods of heavy rain.</td>
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<tr>
<td></td>
<td>I. Design the surface, slope and edge of paved areas to reduce run off and facilitate stormwater infiltration on site.</td>
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<tr>
<td></td>
<td>J. Design roof top spaces to retain and reuse stormwater.</td>
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<td></td>
<td>K. Incorporate rainwater tanks into the development.</td>
</tr>
</tbody>
</table>
5. Technical Performance (cont...)

5.3 Site Facilities

Objectives

To provide site facilities which are adequate and convenient for residents needs and which are practical, attractive and easily maintained.

To ensure common property is functional and capable of efficient management.

To provide adequate storage facilities for all dwellings.

Design Standards

1. Mail box dimensions, location and height must be consistent with the standards adopted by Australia Post and provided with a newspaper holder.

2. Garbage and recycling bin enclosures must be adequate in size, located for convenient access by residents and collection vehicles, constructed with an impervious floor and screened from view from the street.

3. Garbage and mail box facilities must blend in with the development and avoid visual clutter.

4. All public infrastructure facilities should be conveniently located to enable efficient maintenance without disrupting the operation or use of the building or resident amenity.

5. Any proposed telecommunications should be incorporated as part of the design of new development.

Suggested Techniques

No other suggested techniques.
### Glossary

<table>
<thead>
<tr>
<th><strong>ARTICULATION</strong></th>
<th>Building articulation refers to the 3 dimensional modelling of a building and its surfaces. Building articulation establishes the building's street address, its response to the local context and environmental conditions and the degree of continuity between indoor and outdoor rooms.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AWNING</strong></td>
<td>A roof-like covering used as a shelter from sun, rain or wind.</td>
</tr>
<tr>
<td><strong>AS</strong></td>
<td>Australian Standard</td>
</tr>
<tr>
<td><strong>BALCONY</strong></td>
<td>Any balustraded platform, 0.3 metres or more above adjacent finished ground level either cantilevered or supported over open space with access from the building via a door or window.</td>
</tr>
<tr>
<td><strong>BUILDING HEIGHT</strong></td>
<td>Distance between the natural surface level of the ground and the apex of a building's roof, but not including any receiving antennae, chimneys or flues.</td>
</tr>
<tr>
<td><strong>BUILT FORM</strong></td>
<td>The shape of the aggregate of all buildings and structures that make up a place. Built form relates to the layout (structure and setting on a site), density (height, storeys and mass) and appearance (materials and details) of a development.</td>
</tr>
<tr>
<td><strong>COMMUNAL OPEN SPACE</strong></td>
<td>An area of open land or building (including a balcony, roof deck or terrace) that forms part of the body corporate land and that can be used by the occupants of more than one dwelling within the development.</td>
</tr>
<tr>
<td><strong>CROSSOVERS</strong></td>
<td>The paved accessway between the carriageway of a street and a development site, constructed to Council's satisfaction.</td>
</tr>
<tr>
<td><strong>EPA</strong></td>
<td>Environmental Protection Authority (Victoria)</td>
</tr>
<tr>
<td><strong>HABITABLE ROOM</strong></td>
<td>A room used for normal domestic activities that include:</td>
</tr>
<tr>
<td></td>
<td>• a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom and sunroom;</td>
</tr>
<tr>
<td></td>
<td>and exclude:</td>
</tr>
<tr>
<td></td>
<td>• a bathroom, laundry, toilet, food storage pantry, walk in wardrobe, corridor, hallway, lobby, photographic, darkroom, clothes drying room and other spaces of a specialised nature used neither frequently nor for extended periods.</td>
</tr>
<tr>
<td><strong>INFORMAL SURVEILLANCE</strong></td>
<td>The casual observation of an area to enhance the level of security.</td>
</tr>
<tr>
<td><strong>LANDMARK</strong></td>
<td>A building place or structure that stands out and is remembered by people as part of their mental map of the city.</td>
</tr>
<tr>
<td><strong>LEGIBILITY</strong></td>
<td>The degree to which a place's physical form assists people in making sense of its overall layout.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td><strong>MASS</strong></td>
<td>The overall size or bulk of a building.</td>
</tr>
<tr>
<td><strong>MIXED USE</strong></td>
<td>A variety of compatible land uses arranged adjacent to one another or mixed vertically within a single building.</td>
</tr>
<tr>
<td><strong>MULTI UNIT DEVELOPMENT</strong></td>
<td>The development of more than one dwelling on a site where facilities are shared (e.g., access, parking, communal open space/facilities)</td>
</tr>
<tr>
<td><strong>ORIENTATION</strong></td>
<td>The direction a building faces, particularly how the building is located on its site in relation to the street frontage.</td>
</tr>
<tr>
<td><strong>PUBLIC REALM</strong></td>
<td>The spaces outside private property including street, footpaths, parks, etc...</td>
</tr>
<tr>
<td><strong>SCALE</strong></td>
<td>Relates to relative size. A large scale building is that which is big in comparison with its context or what is generally accepted. A small scale building is the opposite. A ‘human scale’ building has an overall size or is made up of clear individual elements whose size is the same order or magnitude as that of the human form.</td>
</tr>
<tr>
<td><strong>SETBACK</strong></td>
<td>The distance between a building and a site boundary.</td>
</tr>
<tr>
<td><strong>STOREY</strong></td>
<td>A floor level within a building, excluding those contained wholly within the roof space or a parking area contained wholly within a basement which is below the natural ground level.</td>
</tr>
</tbody>
</table>
Appendix 1

Information to Accompany Site Context Analysis

A comprehensive site context analysis should be the
starting point of the design process.

It will form the basis for consideration of height,
scale and massing of new development. It will also
demonstrate how the development will take into
account the natural, cultural and strategic context of
its location.

The site context analysis must use a site plan,
photographs and/or other techniques to accurately
show the following in relation to the site and its
neighbourhood:

In relation to the site:

- Site shape, size, orientation and easements.

- Levels of the site and the difference in levels
  between the site and surrounding properties.

- Location of existing buildings on the site and on
  surrounding properties, including the location
  and height of walls built to the site boundary.

- Use of surrounding buildings i.e. consolidation of
  sites and empty sites.

- Location of secluded private open space and
  habitable room windows of surrounding
  properties that have an outlook to the site within
  9 metres.

- Solar access to the site and to surrounding
  properties.

- Location of existing significant trees on the site
  and any significant trees removed from the site
  in the 12 months prior to the application being
  made, where known.

- Contaminated soils and filled areas, where
  known.

- Views to and from the site i.e. landmarks and
  vistas.

- Street frontage features such as poles, street
  trees, kerb crossovers and pedestrian spaces.

- Heritage and other notable features or
  characteristics of the site.

In relation to the neighbourhood:

- The built form, scale and character of
  surrounding development including front
  fencing.

- Architectural and roof styles.

- Any other notable features or characteristics of
  the neighbourhood.
Appendix 2

INFORMATION TO ACCOMPANY DESIGN RESPONSE

1. Completed application form.
2. Correct application fee.
3. Copy of current title.
4. Neighbourhood and site description including site plan, photographs and any other supporting visual information.
5. Design response.
6. Full shadow diagrams and assessment.
7. Elevations showing techniques to control overlooking.
9. Professionally prepared traffic report including a traffic management plan.
10. Professionally prepared landscape and irrigation plan indicating themes, location and species of vegetation, lighting, paving and all other works in communal areas.
15. Waste management plan.
16. Three sets of A1 size plans that include natural ground level and all levels to the Australian Height Datum (AHD).
17. One set of A3 size plans.