



STRATHFIELD MUNICIPAL COUNCIL

PART B
of
Strathfield
Consolidated Development
Control Plan

Dual Occupancy Housing

(Replaces DCP No.8)

TABLE OF CONTENTS

| | | |
|------------|--|------------|
| 1.0 | INTRODUCTION | 87 |
| 1.1 | PURPOSE OF PART B | 87 |
| 1.2 | OBJECTIVES OF PART B | 87 |
| 2.0 | SITE PLANNING AND DESIGN PROVISIONS | 88 |
| 2.1 | SITE ANALYSIS AND DESIGN PRINCIPLES | 88 |
| 2.2 | SITE REQUIREMENTS | 91 |
| 2.3 | DENSITY, BULK AND SCALE | 95 |
| 2.4 | ENERGY EFFICIENCY AND WATER CONSERVATION | 96 |
| 2.5 | STREETSCAPE AND BUILDING ORIENTATION AND MATERIALS | 104 |
| 2.6 | HERITAGE AND CONSERVATION | 110 |
| 2.7 | OPEN SPACE AND LANDSCAPING | 111 |
| 2.8 | PRIVACY AND SECURITY | 113 |
| 2.9 | ACCESS AND PARKING | 116 |
| 2.10 | SITE FACILITIES AND WATER MANAGEMENT | 117 |
| 2.11 | SECTION 94 CONTRIBUTIONS | 119 |
| 2.12 | SUBDIVISION | 119 |
| 2.13 | EXCAVATION OF SITES | 119 |
| 3.0 | APPENDIX 1 | 121 |
| 3.1 | STREETSCAPE ANALYSIS | 121 |

1.0 INTRODUCTION

Refer to “General Introduction” of this Consolidated Plan in regards to Background, General Introduction and Definitions etc.

1.1 Purpose of Part B

Part B aims to achieve residential development within the Strathfield Municipal Council Area which is sympathetic and appropriate for the natural and built environment, acceptable to the community and economically feasible.

1.2 Objectives of Part B

The specific objectives of Part B are:

1. To maintain and improve the amenity and character of residential areas in the Council area.
2. To ensure that new dual occupancy development is of a type, scale, height, bulk and character that is compatible with the particular streetscape characteristics of the area in which it is proposed.
3. To promote residential development that is attractive, functional, innovative and is of a high quality.
4. To maximise solar access and privacy to existing and proposed developments.
5. To provide an acceptable acoustic environment for residents through appropriate design, layout and construction measures, which mitigate noise and vibration impacts from nearby road and rail transport activities.
6. To preserve existing mature vegetation and encourage the planting of native vegetation suitable for the area.
7. To ensure that an adequate number of on-site car parking spaces are provided for residents and visitors.
8. To ensure that adequate provision is made for landscaped open space for the enjoyment of residents.
9. To promote high quality landscaped areas which complement the overall development and which assist in maintaining existing streetscape quality.
10. To promote ecologically sustainable development by requiring the construction of energy smart dual occupancy dwelling houses.
11. To ensure that the heritage value of individual buildings and conservation areas is not compromised by dual occupancy development.
12. To promote ecologically sustainable development.

2.0 SITE PLANNING AND DESIGN PROVISIONS

2.1 Site Analysis and Design Principles

Site Analysis

Objective:

To ensure that site layout and building design consider the existing characteristics, opportunities and constraints of the site and the surrounds, which will result in a design sensitive to its environment and of high quality.

Guidelines:

All applications shall include a site analysis drawing, which demonstrates the following items have been taken into consideration in the design and documentation of applications:

| Site | Surroundings |
|---|---|
| <ul style="list-style-type: none">• Survey details, including changes of levels• Easements (drainage or service)• Existing vegetation and other significant site features• Existing buildings or structures• Site orientation and solar access• Significant noise sources• Views• Pedestrian and vehicle access• Natural drainage | <ul style="list-style-type: none">• Location, height and use of neighbouring buildings (including location of doors or windows facing the site)• Predominant built form and character of locality (including fencing and garden styles)• Private open space areas adjacent to site• Adjacent public open space• Location of major trees on adjacent properties• Elements of street frontage (street trees, vehicular cross-overs, bus stops etc)• Differences on levels between site and neighbouring properties• Significant noise sources, such as railway or roads. |

Refer to Figure 1 for an example of a site analysis drawing.

Design Principles

A site analysis must be carried out in respect of all proposals.

Site layout and building design are to consider the existing characteristics, opportunities and constraints of the site and the surrounds to result in a high quality design that is sensitive to its environment.

Council will consider the results of the site analysis, and will not grant consent to a dual occupancy development unless it is satisfied that:

1. The development is compatible with the predominant height, bulk, scale and character of existing residential development in the vicinity;
2. The proposed development is generally consistent with the existing streetscape character of the locality (as defined in Appendix 1);
3. The height, scale, character and external detailing of the development is compatible with any adjoining heritage item or conservation area; and

4. The development is unlikely to adversely affect the amenity of any existing residential development in terms of overshadowing, privacy (refer to Figure 2), excess noise, loss of views or otherwise.

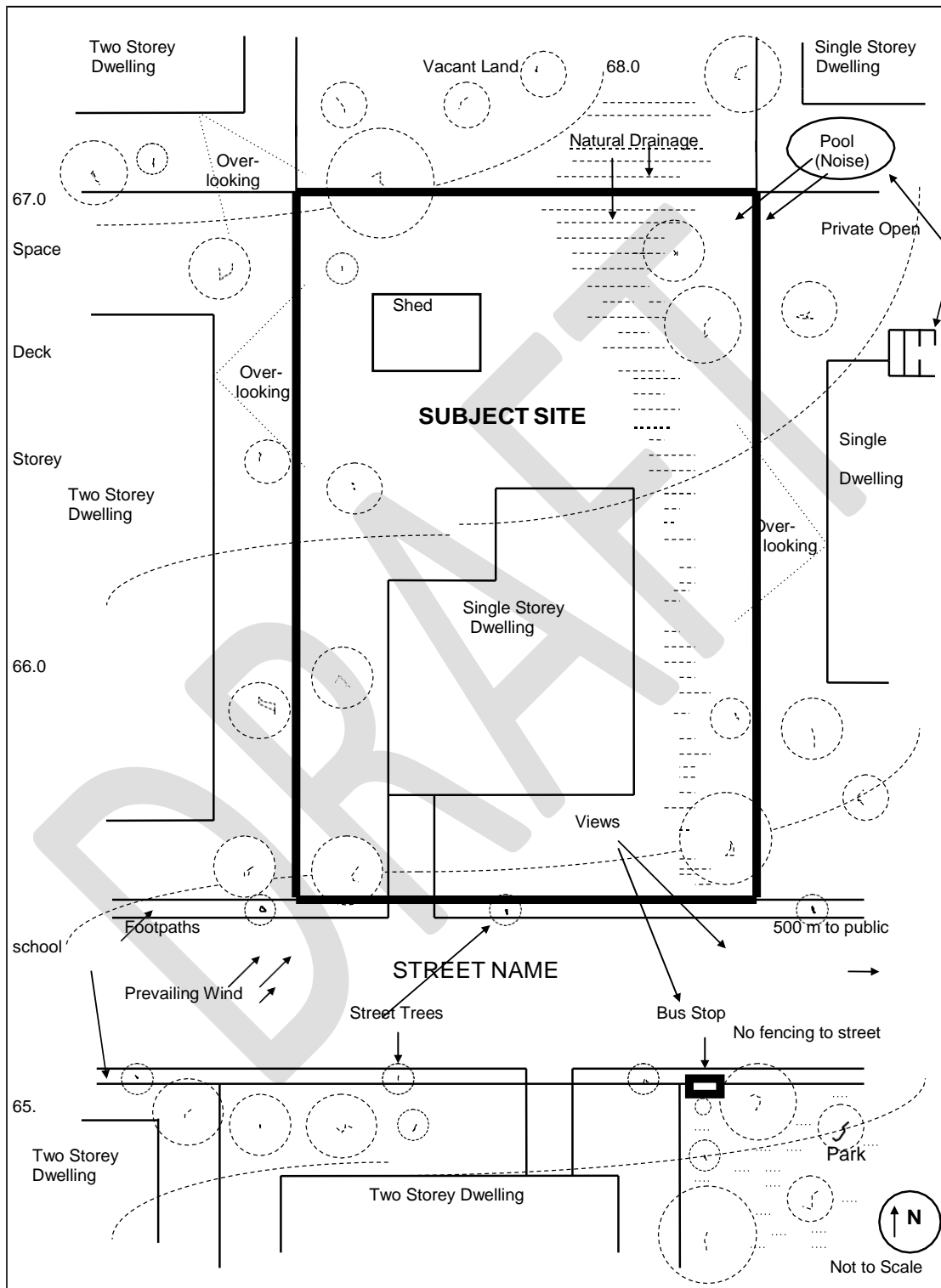


FIGURE 1: SITE ANALYSIS DRAWING

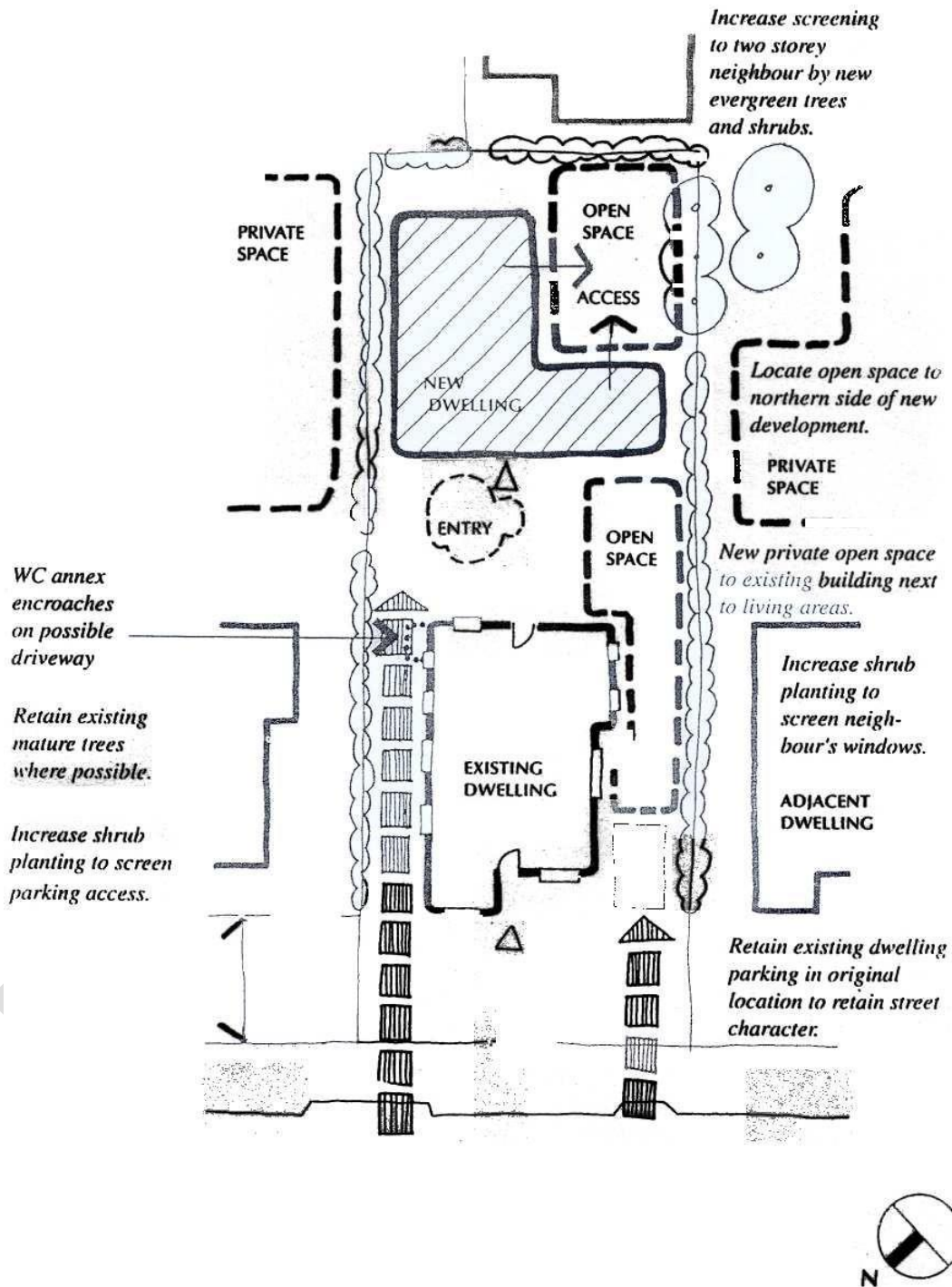


FIGURE 2: PRIVACY AND NOISE IS A KEY CONSIDERATION AT THE SITE PLANNING AND LAYOUT STAGE

Source: Department of Planning: Dual Occupancy - design solutions manual

2.2 Site Requirements

Generally, dual occupancy developments should take place on allotments that are appropriate for dwelling houses.

Objectives:

- a) To ensure dual occupancy developments are compatible with the streetscape;
- b) To retain a single dwelling character of development in the 2(a) zones; and
- c) To clearly define appropriate site requirements for dual occupancy development.

Development Standards

The following site requirements are the basic minimum area requirements for all dual occupancy development:

Allotment Requirements:

1. Dual occupancy developments shall not be permitted on allotments less than 560m² in area.
2. The frontage of all sites should be of sufficient width to permit adequate and safe vehicular access, and side boundary setbacks.

General Site Coverage:

1. The site coverage (proportion of the site which is built upon) is not to exceed 65% of the total site area.
2. For the purpose of calculating site coverage, the following is to be included:- house, garage, driveway, paved or concreted areas (including pool concourse), side setback areas between the boundary and house (paved or unpaved) 1500mm or less in width, pools, footpaths, BBQ areas, covered awnings, outbuildings, tennis courts and the like.

Frontage

For the purpose of this section of Part B, frontage refers to land between the front of the building and street.

The proportion of the frontage to be built upon shall not exceed 50% or 90m² whichever is the lesser.

Front Setbacks:

1. Front boundary setbacks are intended to achieve a reasonably consistent arrangement and alignment of buildings to the street where there is a particular feature of the streetscape, provide areas for landscape planting in front of buildings, and to achieve adequate sight distances for vehicular safety, particularly at intersections.
2. Developments are required to be setback a minimum of 9 metres from the front of the development to the front property boundary.

3. Developments may be setback less than 9 metres where the predominant setback in the street block is less than 9 metres or the setback would not conflict with the existing streetscape.
4. For sites with frontage to two or more streets, a minimum setback of 9 metres is required to at least one of the street frontages. The setback to the other frontage shall generally be in accordance with the design principles outlined within Part B but shall not be less than 3 metres.
5. All car parking structures and designated surface parking areas are to be located behind the front building alignment. On corner sites in particular, such areas should be designed and suitably landscaped or screened to ensure the character and visual amenity of the streetscape is maintained and not compromised.

Side and Rear Boundary Setbacks:

1. Setbacks are intended to maintain a reasonably consistent relationship between buildings, allotment boundaries and adjacent development and limit the extent to which occupants within one building overlook neighbouring buildings and private recreation areas.
2. A 900mm minimum setback from side and rear boundaries for walls of less than 3.0 metres in height.
3. A 1.5 metre minimum setback from side and rear boundaries for walls greater than 3 metres in height.
4. Two storey developments must also comply with the building envelope as detailed in this section of Part B. Buildings shall be sited within a building envelope determined by a plane projected at an angle of 45 degrees over the site from a height of 4.5m above natural ground level along the side and rear boundaries of the land, subject to the matters listed below. Figures 3 and 4 illustrate the building envelope.

Within the building envelope, developments are required to comply with the following side and rear setback controls:

- (i) minor encroachments to the minimum setback shall be considered on their merits for elements such as eaves, pergolas, electricity or gas meters, steps, ramps or the like;
- (ii) side setbacks for buildings containing 2 storeys shall be determined by the building envelope, and the ability of the development to comply with Solar Access and Privacy requirements as set out in sections 2.4 and 2.7 of this Plan. Encroachments to the building envelope and setback controls will be considered on sites with frontage to a public place (including road or open space area), and will be determined on their merits.
- (iii) exceptions to the side and rear setback controls will also be considered for sites with frontage to a major noise source, such as an arterial road or the railway line. The extent and nature of variations will be determined on the merits of the case.

Departures from the building envelope will be considered for characteristic design elements, such as chimneys, vents and eaves, and for other features

such as dormer windows and aerials where it can be demonstrated that no significant non-compliances are likely to occur with the privacy and overshadowing provisions contained in this Plan.

Walls along boundary setbacks shall be broken or staggered to avoid the appearance of appearing unduly massive or long walls. No section of wall built on a side or rear boundary setback should be longer than 10 metres or 40% of the length of the boundary, whichever is the lesser. Variations to this requirement will be considered on merit having regard to overshadowing, privacy issues and treatments used to avoid the appearance of unduly massive or long walls.

2. Buildings should be sited in a manner, which is consistent with the principles contained in the Streetscape Analysis included in Appendix 1, and should maintain or enhance the existing streetscape, particularly where there is an established building line.

Basement Setbacks:

The outer walls of basements shall comply with the setbacks required in this section.

Setback from Easements:

Sydney Water Corporation requires that all buildings and structures be at least one metre from any easement or public sewer main. Exceptions may be considered on their merit. In all cases, development must comply with the Corporation's requirements for building over or adjacent to sewer mains.

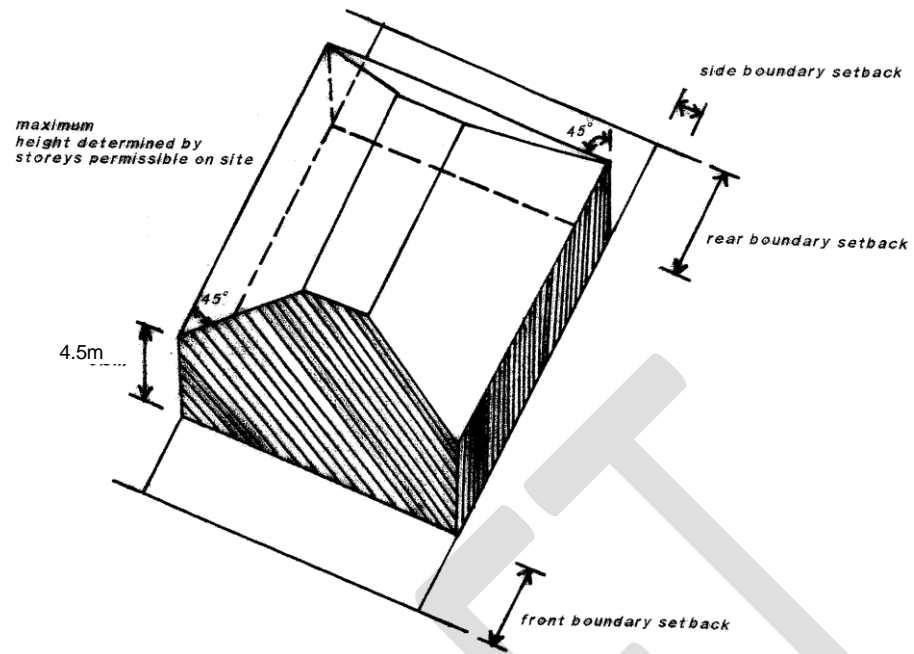


FIGURE 3: BUILDING ENVELOPE

Source: AMCORD 1997

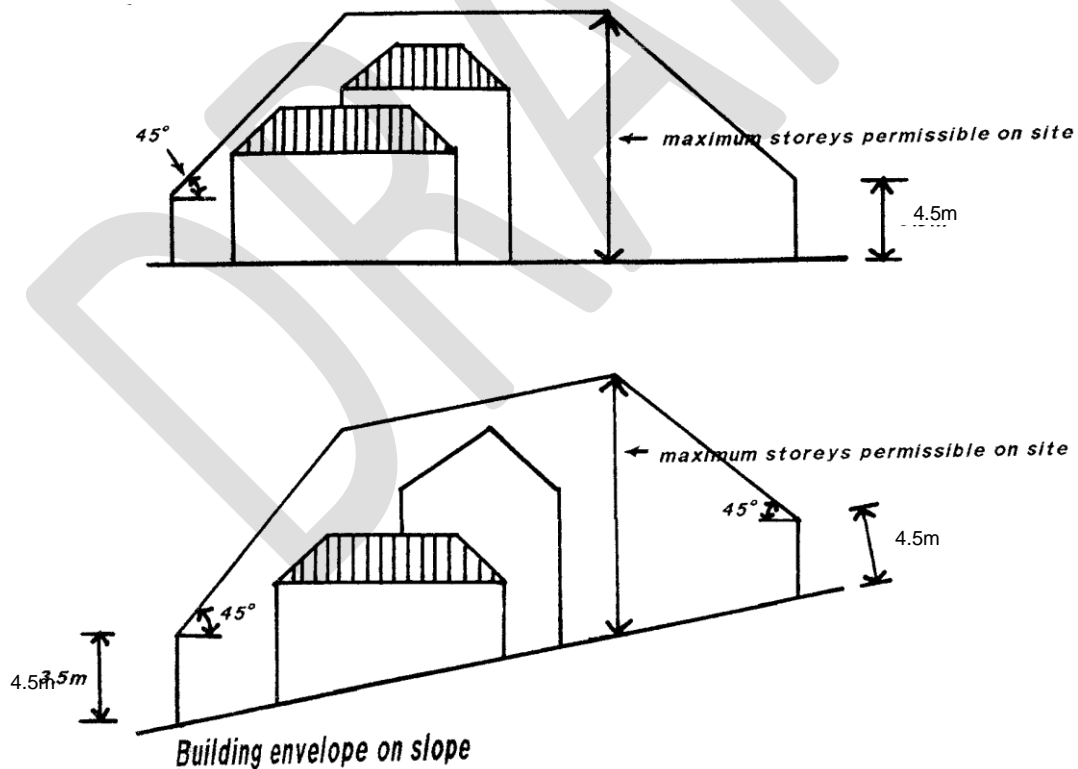


FIGURE 4: SIDE ELEVATION OF BUILDING ENVELOPE

Source: AMCORD 1997

2.3 Density, Bulk and Scale

While residential density in terms of dwellings is established by definition, a control on the bulk of building is necessary to ensure that streetscape objectives are not compromised by large, out of character buildings.

The maximum height of a dual occupancy development at any point shall be measured from the natural ground level to the eaves of the topmost storey. The design and height of roofs, is to be determined on the basis of streetscape principles.

Objectives:

- a) To ensure that residential development is of a type, height and scale that is generally compatible with or which improves the existing scale, appearance and character of the existing buildings in the street;
- b) To maintain a residential density that is compatible with the established built environment and streetscape; and
- c) To ensure that overshadowing and overlooking of private yard spaces, windows in adjoining living areas and public space is minimised.

Development Standard

- 1. The maximum floor space ratio for dual occupancy developments (attached and detached) is 0.5:1. This excludes the area of any carport or garage.

An exception may be considered where an existing dwelling house exceeds a floor space ratio of 0.5:1, and it is proposed to convert the dwelling into an attached dual occupancy without increasing the total floor space.
- 2. Buildings in a detached dual occupancy shall not exceed one storey in height except in the case of the dwelling addressing the primary or main street frontage, in which case a 2 storey building may be considered in similar circumstances to attached dual occupancy. Figure 5 shows possible dual occupancy developments.
- 3. A detached dual occupancy shall have a maximum floor space of 100m². This excludes the area of any carport or garage.

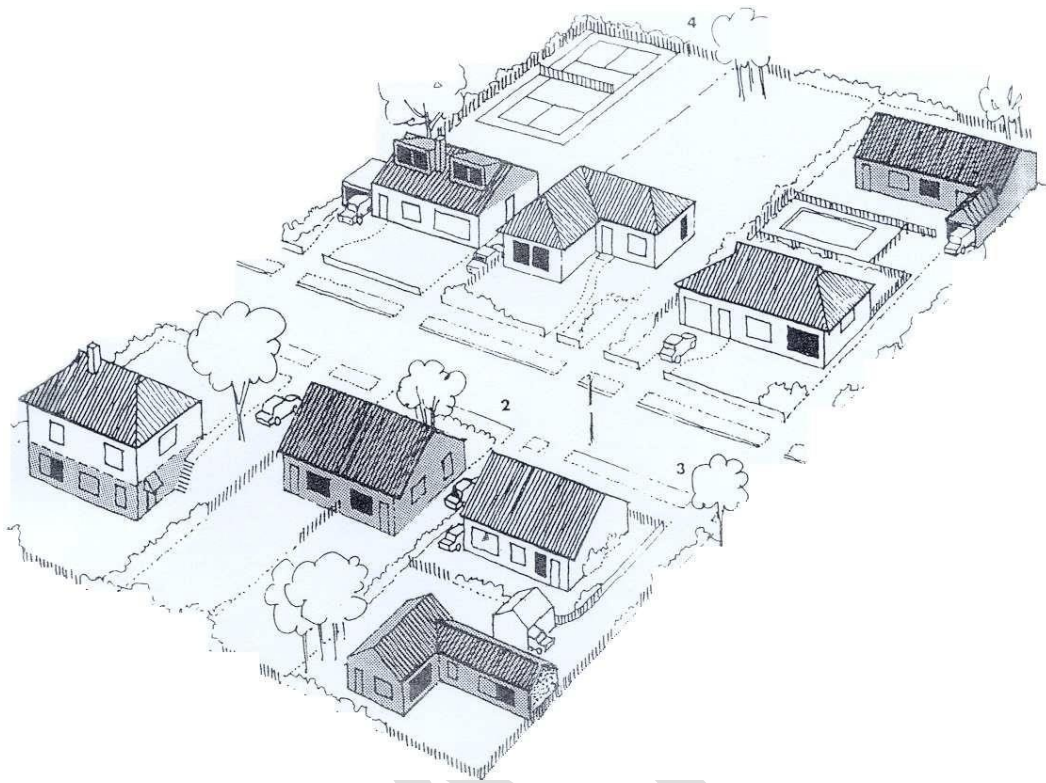


FIGURE 5: EXAMPLES OF POSSIBLE DUAL OCCUPANCY DEVELOPMENTS

2.4 Energy Efficiency and Water Conservation

This section of Part B has been developed as part of the Council's and growing community's desire to achieve greater efficiency in domestic energy use. It stems from the concern about the effects of greenhouse gases generated by energy use on the environment and over use of domestic water supplies.

The following provisions illustrate how energy efficiency can be achieved in all new developments through the use of appropriately designed buildings, passive solar energy, use of energy smart appliances and water efficiency which will dramatically reduce the need for non-renewable energy thereby reducing both costs and air pollution and in turn increase the level of living standards and comfort within the dwelling.

Applicants are encouraged to consult the Sustainable Energy Development Authority's (SEDA), *Energy Smart Homes Policy* for design solutions to the minimum requirements specified in this plan.

Objectives:

- a. To achieve a high level of energy efficiency in the design of new dual occupancy dwellings and in the design of alterations and additions to existing dwellings.
- b. To locate buildings and open space areas so that existing and proposed dwellings will have reasonable access to sunlight, shade and have optimal outlook and aspect; and

- c. To achieve energy smart urban housing, using passive solar design, that provides residents with all year round comfort and reduces energy consumption.
- d. To conserve water via the use of rainwater tanks and water-saving appliances.
- e. To encourage the use of devices which promote energy efficiency and water conservation and which respect the residential qualities of the areas in which they are located.
- f. To promote the reduction of greenhouse gas emissions through ensuring a thermally efficient building envelope and the use of greenhouse gas friendly hot water systems.
- g. To encourage building materials and insulation, which assist in thermal performance and maintain internal comfort levels.
- h. To encourage recycled building materials where appropriate.

2.4.1 House Energy Rating

Requirements

Thermally efficient building envelope

1. All proposals for dual occupancy dwelling houses must achieve a minimum House Energy Rating of 3.5 stars (using Nationwide House Energy Rating Software NatHERS or equivalent), assessed by an accredited HMB Assessor - accredited by the House Energy Rating Management Body (HMB).
2. All alterations and additional to dual occupancy dwelling houses must achieve minimum levels of insulation under Australian Standards AS 2627.1-1993 Thermal insulation of dwellings for ceiling, roof and walls.
3. Appropriate shading devices for protection against summer heat must be included to living areas, bedrooms and all north facing windows of each dwelling.

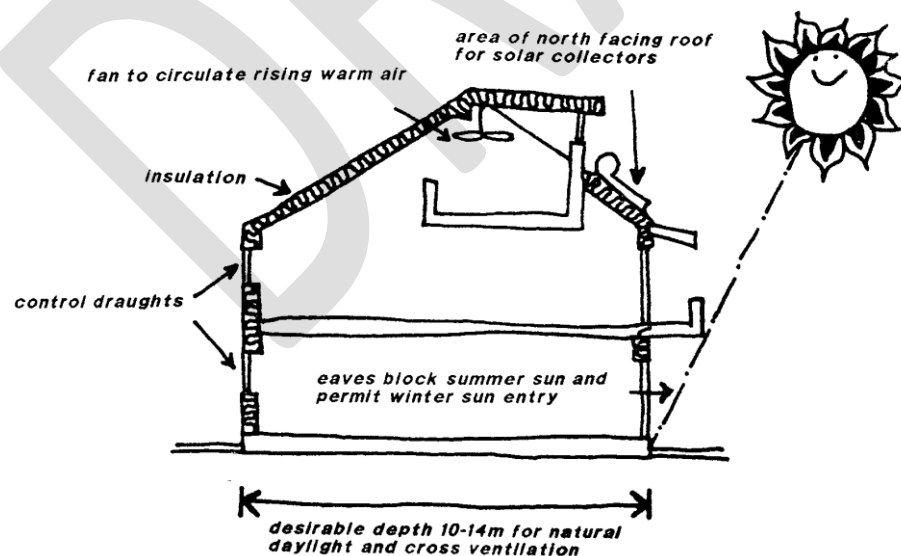


FIGURE 6: BUILDING DESIGNED TO MAXIMISE BENEFITS OF ENERGY EFFICIENCY

Source: Urban Form, Urban Design & Energy Use: Occasional Paper Series 2 Paper 2

2.4.2 Solar Access

Requirements

1. To the extent that existing developments and site orientation allow, site layout and design shall ensure:
 - (i) reasonable solar access to the site;
 - (ii) the protection of solar access to neighbouring properties;
 - (iii) buildings to maximise the benefits of solar access in terms of reducing winter heat loss and the impact of summer afternoon sun (refer to Figures 6 and 7);
 - (iv) adequate natural light to the living areas of dwellings for normal domestic duties; and
 - (v) orientation to the north, with priority in dwelling layout being given to living areas and bedrooms (refer to Figure 8).
2. Dual occupancy developments are to be designed to maximise solar access to living areas and private open space. The following guidelines indicate the preferred levels of solar access for dwellings, and any departures from these standards will require justification that resultant energy efficiency and solar access is acceptable:
 - (i) the main living areas and at least 50 percent of the principal private open space of each dwelling have at least four hours of sunlight between the hours of 9am and 3pm on June 22 (winter solstice); and
 - (ii) sunlight access to the main living areas and principal private open space of adjacent properties is not unreasonably reduced by the proposal.
3. In the case of alterations or additions to existing dwellings, solar access to the windows of habitable rooms and to the majority of private open space must be substantially maintained or achieved for a minimum period of 4 hours between 9.00am and 3.00pm at the winter solstice (June 22).

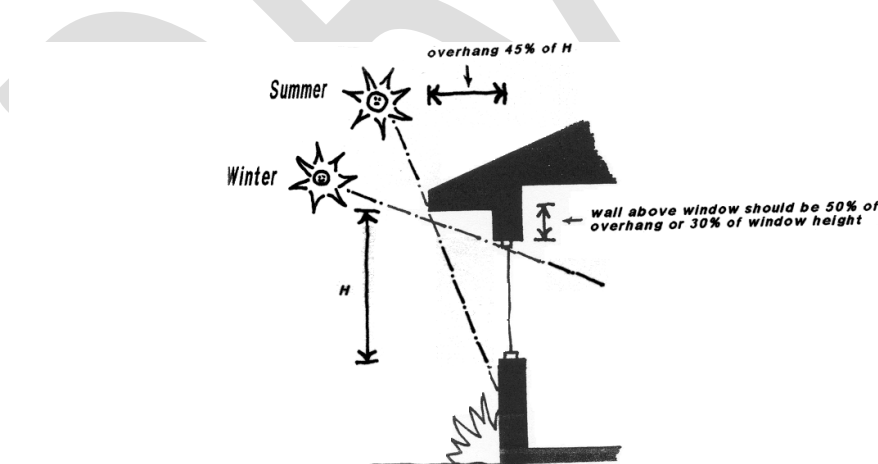


FIGURE 7: BUILDING DESIGNED TO MAXIMISE BENEFITS OF SOLAR ACCESS

Source: Urban Form, Urban Design & Energy Use: Occasional Paper Series 2 Paper 2

4. Where already existing, solar access to the windows of habitable rooms and to the majority of private open space of adjoining properties must be substantially maintained or achieved for a minimum period of 4 hours between 9.00am and 3.00pm at the winter solstice (June 22).

5. Solar access to existing neighbouring solar collectors including solar hot water systems and photovoltaic systems must be maintained or enhanced.
6. Applicants of all two storey developments (including additions) are required to submit shadow diagrams for 9am, midday and 3pm for 22 December (summer equinox) and 22 June (winter solstice) that show:

- Shadows cast by the existing structures on the site, including the dwelling, outbuildings, fences and any significant trees (including where those shadows extend off the site onto adjoining properties); and
- Shadows cast by the structures on the site when the proposed development is complete, (including where those shadows extend off the site onto adjoining properties) including an indication of where these shadows differ from those cast by the existing structures.

Note: Shadow casts in elevation to determine the extent of overshadowing may be required if windows of adjoining buildings are affected.

7. Where shadow diagrams are submitted, they are required to be in accordance with the Department of Environment and Planning's (now Department of Planning) 'Technical Bulletin 13: Sunlight Indicators'.

2.4.3 Natural Space Heating and Cooling

Requirements

1. It is desirable that the use of artificial heating and cooling devices be minimised. Heating and cooling needs should be considered at the design stage.
2. Dual Occupancy dwelling houses shall be designed/oriented in a manner which minimises heat gain during summer and maximises solar access during winter, thereby reducing the need for artificial cooling and heating (and the associated consumption of natural energy resources).
3. The need to artificially heat each dwelling during winter, for example, can be minimised via the techniques indicated below.
 - The orientation of living areas to the north so as to make full use of available heat from the sun.
 - The use of deciduous trees (rather than non-deciduous trees) to the north of the dual occupancy dwellings so as to allow for improved solar access during winter.
 - The use of insulation to walls and roofs so as to reduce the rate at which heat is lost from each dwelling.
 - The use of thermal mass to retain solar heat made available during the day. Thermal mass refers to the ability of a material to store and retain heat. Dense materials such as brick and concrete have a high heat storage capacity. For example, an internal brick wall that receives direct sunlight during the day (preferably only) in winter will store heat that is then released during the evening.
4. The need to artificially cool a dwelling during summer, (via air conditioning) for example, can be minimised via the techniques indicated below.

- The shading of windows and walls (particularly those which face east and west) with both horizontal and vertical shading devices, including appropriately sized eaves and louvres.
 - The shading of windows and walls via appropriately located trees.
 - The positioning of windows and openings so as to capture prevailing breezes.
 - The positioning of windows and openings so as to allow for cross-ventilation.
 - The use of ceiling fans to maintain movement of air.
 - Allowing windows to be locked in a slightly open position so as to admit cool air yet maintain security.
5. Council discourages the use of domestic solid fuel combustion heaters.

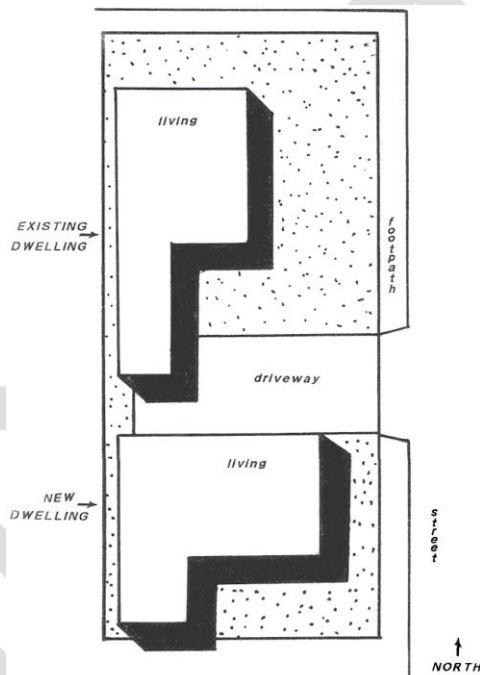


FIGURE 8: ORIENTATION OF LIVING AREAS TO NORTH

2.4.4 Natural Lighting

Requirements

1. The need to artificially light each dwelling during the day can be minimised by allowing as much natural light as possible to enter the building. Minimised use of artificial lighting results in reduced electricity consumption. Natural light can be harnessed via:
 - North and south facing windows;
 - Skylights;
 - Clerestory windows;
 - Lightwells;
 - Internal courtyards;
 - Glass bricks;
 - Translucent, glazed or otherwise treated glass which allows for the transmittal of light but which maintains privacy; and
 - Pergola/patio roofs which are able to be opened.

The installation of some of the above features will require shading devices, either externally or internally such as eaves, pergolas, verandahs, awnings or a solar blind to be incorporated within the building design to provide maximum shading in summer and minimum shading in winter.

2.4.5 Building Materials

Requirements



1. Building materials and insulation that assist in providing acceptable thermal conditions are to be used wherever possible.
2. Materials of high thermal mass are to be used for living areas and located to receive maximum sun during cooler months.
3. Existing buildings, which are in sound condition, can be converted in whole or in part for dual occupancy dwellings.

2.4.6 Water Management





Requirements

Greenhouse Gas Friendly Hot Water Systems

1. A greenhouse gas friendly hot water system that achieves a minimum 3.5 SEDA Hot Water Greenhouse Score must be installed for all new dual occupancy dwelling house developments, and for all alterations and additions to existing dual occupancy dwelling houses (where a new hot water system is required). Systems which comply with this requirement are outlined in the table below.

| Water heater Type | | Greenhouse Score |  ACCEPTABLE |
|------------------------------|---|------------------|--|
| Solar-Gas boost * | Storage | 5 | |
| Gas | Instantaneous | 4 | |
| Gas-Storage | High Efficiency | 4 | |
| Electric-Storage | Heat Pump | 4 | |
| Gas-Storage | Low Efficiency | 4 | |
| Solar-Electric Boost* | Continuous | 4 | |
| Solar-Electric Boost* | Off Peak 2 | 4 | <hr/> UNACCEPTABLE  |
| Electric | Instantaneous | 2 | |
| Electric | Continuous | 1 | |
| Electric-Storage | Storage (Off Peak 1, Off-Peak 2) | 1 | |

* greater than 50% solar contribution

2. The installation and use of electric or gas boosted solar hot water systems is encouraged.
3. Installation details of proposed solar hot water systems are required to be submitted including:
 -  Position on roof and orientation;
 -  Type of system – eg split system, direct or indirect system;
 -  Size of system and colour of tank and collectors;
 -  Specifications for attaching the system to the host structure.

Solar water heaters should generally be located below the ridge line of a roof. Where possible, a solar water heater should be located on a section of roof that is not visible from the street or that is otherwise set back from the street. Particularly in situations where north-facing sections of roof face the street, consideration will need to be given to the visual impact of a solar water heater upon the quality of the streetscape and heritage listed properties.

4. For the purpose of child safety and energy conservation, all new or replacement hot water systems must include a mixing device which delivers hot water at a maximum temperature of 50 degrees Celsius to all taps, shower heads and other outlets.

Water Saving Devices

1. Developments are required to be fitted with appliances and plumbing hardware which have a “AAA” Australian Standards Water Conservation Rating and meet the manual of Assessment Procedure for Water Efficient Appliances SAA MP64-1995 which aim to reduce water consumption, including those devices indicated below:
 - Shower head which allows 9 litres flow or less per minute
 - Water tap which allows 9 litres flow or less per minute
 - Dual flush toilet with maximum 6/3 litre capacity dual flush cistern or approved dual flush equivalent

- Low water use dishwasher and washing machine.

Mandatory Rainwater Tanks

1. A rainwater collection tank of at least 1000 litres capacity for each dwelling must be included in all applications for new dual occupancy dwelling houses. The use of tank water for outdoor purposes such as garden watering should have the effect of 'saving' higher-grade water.
2. Subject to the fulfilment of certain conditions indicated in Schedule 13 of the Strathfield Planning Scheme Ordinance (SPSO), domestic water tanks with a capacity of 3000 litres or less are classified as Exempt development and therefore do not require Council approval.
3. The following controls apply to all water tanks that are not classified as Exempt development under the SPSO:
 - a. The water tank(s) is to be located behind the dual occupancy dwellings. Where it is not possible to locate a water tank wholly behind each dwelling, it should at least be located behind the front building line. Care should be taken to reduce the visibility of the water tank from the street.
 - b. The water tank(s) and any associated support structure and plumbing should be the same colour as each dwelling or a colour which complements each dwelling.
 - c. The water tank(s) must be located at least 900mm from any property boundary.
 - d. The top of the tank(s) is to be located below the top of the nearest fenceline or 1.8 metres, whichever is the lesser.
 - e. The water tank(s) should be positioned to collect rainwater which falls on the roof of the dwelling. Tank water is to be used for non-drinking/non-consumption purposes only. Taps associated with the tank(s) are to be clearly marked 'NOT FOR DRINKING'.
 - f. Overflow from the water tank(s) is to be piped directly to the approved stormwater drainage system. Where stormwater for a particular property is required to be directed to on-site stormwater detention (OSD) storage (as per Council's Stormwater Management Code) then the overflow from the water tank(s) must also be directed to the OSD storage.
 - g. Plumbing from the water tank(s) is to be kept separate from the reticulated water supply system.
 - h. The water tank(s) inlet is to be screened to prevent entry of any foreign/animal matter and insects such as mosquitos. The water tank(s) should be enclosed.
 - i. No part of the water tank(s) or support stand is to rest on a wall footing.
 - j. The water tank(s) is to be installed in accordance with the manufacturer's specifications.

- k. The design of any water tank(s) support structure is to be in accordance with the requirements of a qualified practising structural engineer or to the maker's specifications.
- l. A pump associated with the tank(s) is to be housed in an enclosure and be no louder than 5dBA above background noise levels.

Greywater System

1. Where possible, new dwellings and dual occupancy developments or large extensions should be to have greywater systems form part of the development.
2. Greywater systems shall be located in the rear garden. Where this is not possible the system should be screened from the public domain.

Greywater is the wastewater from your washing machine, laundry tub, shower, bath and hand basins. It does not include wastewater from a toilet or urinal. Greywater can be utilised as an alternative to using drinking water and as a result reduce fresh water consumption and household bills.

There are three ways that greywater can be reused which is detailed in the table below:

| <u>Methods</u> | <u>Description</u> | <u>Council Approval Required</u> | <u>How the water can be used</u> |
|-----------------------------------|--|----------------------------------|---|
| <u>Manual bucketing</u> | <u>Collect water in a bucket from your washing machine or shower.</u> <u>Don't store or keep the collected greywater for more than one day. This avoids the risk of spills and bad odours.</u> | <u>No</u> | <u>Above ground irrigation</u> <u>Toilet bowl flushing</u> |
| <u>Greywater diversion device</u> | <u>Diverts greywater to a small holding tank and then to an irrigation system that's below the soil surface.</u> <u>These systems should be self-draining so that greywater isn't stored for more than a day.</u> <u>They also have a valve to make it is easy to divert greywater directly to the sewer when it's raining or when the soil is saturated.</u> <u>NSW Health maintains a register of accredited Greywater diversion devices.</u> | <u>No</u> | <u>Sub-surface irrigation</u> |
| <u>Domestic greywater</u> | <u>Greywater treatment systems use all the greywater your home</u> | <u>Yes</u> | <u>Above-ground irrigation</u> |

| | | | |
|--------------------------|---|--|--|
| <u>treatment systems</u> | <u>generates.</u> <u>After treatment, the greywater is clean enough to be stored but not to be consumed.</u> | | <u>Toilet flushing</u> <u>Washing machine</u> |
|--------------------------|---|--|--|

2.4.7 Energy Smart Appliances

1. The use of top star rated energy smart appliances and lighting including dryers, dishwashers, refrigerators, freezers and washing machines is required.
2. Energy smart appliances are those that use less energy to do the same job as other less efficient models. The Label Star Energy Rating System gives a rating to a range of appliances based on their energy efficiency. The more stars you see, the more efficient the model.
3. Energy Smart light includes the use of fluorescent and compact fluorescent globes, self-timing systems, dimmers, motion sensors and specific purpose switches. The use of natural lighting should be maximised wherever possible.

2.5 Streetscape and Building Orientation and Materials

Objectives:

- a) To provide design solutions which will assist in achieving residential development which is attractive, functional and convenient for residents; and
- b) To ensure street facing facades incorporate appropriate decorative elements to provide interest to the development and address the street frontage.
- c) To encourage materials used in new or altered dual occupancy developments to be compatible with an existing dwelling if applicable, adjoining dwelling houses and the streetscape in terms of type, form and colour.

Guidelines:

1. New development, particularly when viewed from the street or other public places is to be compatible with the predominant character and architectural detail of existing residential development in the street and in particular with any existing building to be retained on the site. New development shall also address the street frontage (refer to Figure 9).

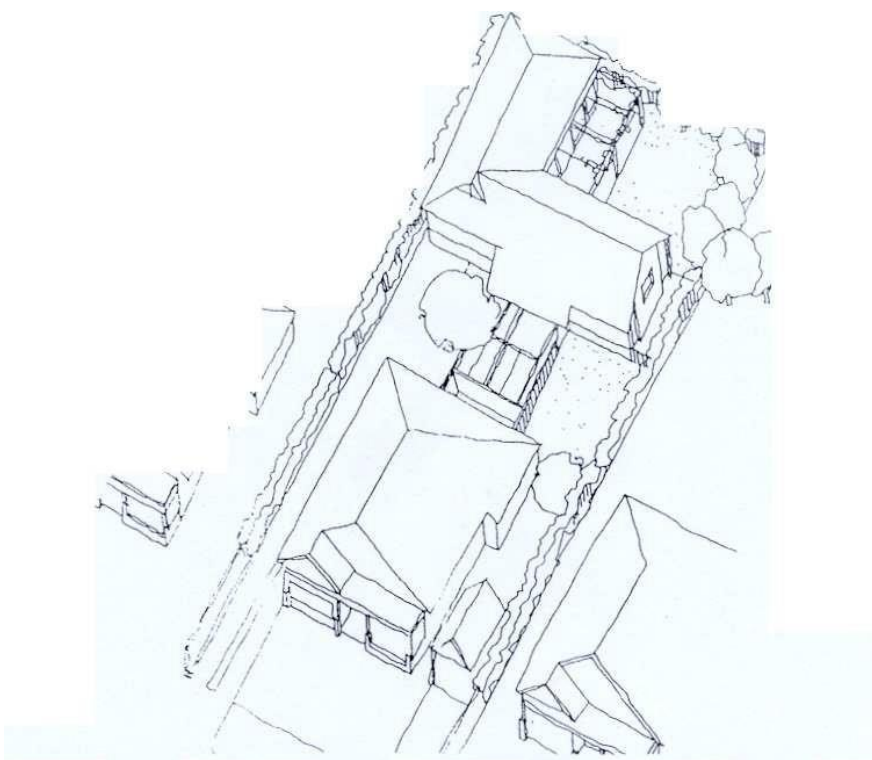


FIGURE 9: NEW DEVELOPMENT SHOULD ALWAYS ADDRESS THE STREET FRONTAGE

Source: Department of Planning: Dual Occupancy - design solutions manual

2. In areas where one period or style of architecture predominates, new development is to reflect either that style or the main stylistic features such as roof pitch, gable end details, building height, window and doorway proportions, verandah detailing, building materials, front boundary setbacks, etc (refer to Appendix 1).
3. Building materials, finishes and colours are to be sympathetic with the materials, finishes and colours of any existing buildings to be retained, adjoining buildings and buildings in the streetscape.
4. In order to maintain the character of the Municipality, the preferred finish of buildings are face brick and tile. The following requirements apply to brickwork:
 - Dark and light toned bricks of different colours shall not be used together in the same brickwork, so that the brickwork does not detract from the appearance of the streetscape.
 - Darker and lighter toned bricks of the same colour may be used in brickwork where the colour and appearance of the different tones add interest and are sympathetic to the streetscape.
 - Mottled colours and mottled tones of the same colour in the composition of individual bricks, may be used in brickwork where the colours and appearance are sympathetic to the streetscape.

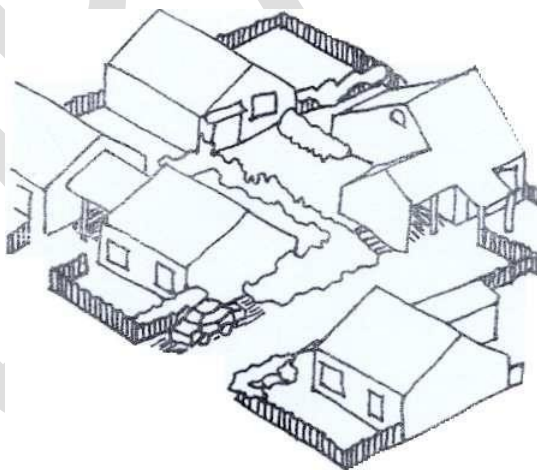
5. All building elements are to be integrated in design detailing, including the design of carports, garage openings, verandah and balcony balustrades, gateways and fencing.
6. Cement rendering or textured finish is only to be used where brick and tile colours cannot be matched. Bagged finishes are discouraged for use where brick and tile colours cannot be matched, due to the difficulty in applying the finish and the poor result often achieved.

Colours used on the proposed finishes are to be natural/subdued tones that are not bright or white so that they do not detract from the streetscape. Where cement rendering or textured finishes are proposed to be used, the colours of the proposed finishes are to be provided by way of colour charts submitted with the development application.

7. Council will also consider the use of other materials provided the applicant can prove the following has been considered:
 - The aims and objectives of Part B are not compromised.
 - The materials are compatible and sympathetic with the streetscape and the dwelling style.
 - Non-brick extensions are not visible from the street.
 - First floor additions in brick can not be supported by existing ground floor foundations. An engineer's certificate must accompany such applications.
 - Non-tile roofing materials such as corrugated colour coated metal (eg colourbond) and the like are architecturally appropriate to the style of the dwelling and the locality.
8. The dwelling/s facing the street frontage shall have their entry readily apparent from the street so as to convey a sense of individual street address (refer to Figure 10).
9. Garages and parking structures, shall be sited and designed not to dominate the street frontage (refer to Figure 11).



**FIGURE 10: BUILDING ENTRY READILY APPARENT FROM THE STREET
CONVEYING A SENSE OF ADDRESS**



*planting, fences or natural slope can be used
to reduce impact of garages and parking*

**FIGURE 11: GARAGES AND PARKING STRUCTURES SITED AND
DESIGNED NOT TO DOMINATE THE STREET FRONTAGE.**

Source: AMCORD 1997

10. Developments adjoining a major road or railway line shall take into consideration impacts of the noise source on the future amenity of residents on the site, ensuring noise sensitive uses are placed in more shielded locations (refer to Figure 12). Development is to take into consideration and address the various matters raised within the State Rail's publication titled *Rail Related Noise and Vibration*. Such sites are also required to demonstrate adequate noise attenuation can be achieved within all dwellings through the use of materials and mitigative measures such as double glazing in windows. The cost of any on-site noise attenuation measures required for the amenity of a development are to be borne entirely by the developer.

Council may require a Noise Assessment report to be submitted with such applications, evaluating the likely noise environment of proposed residents.

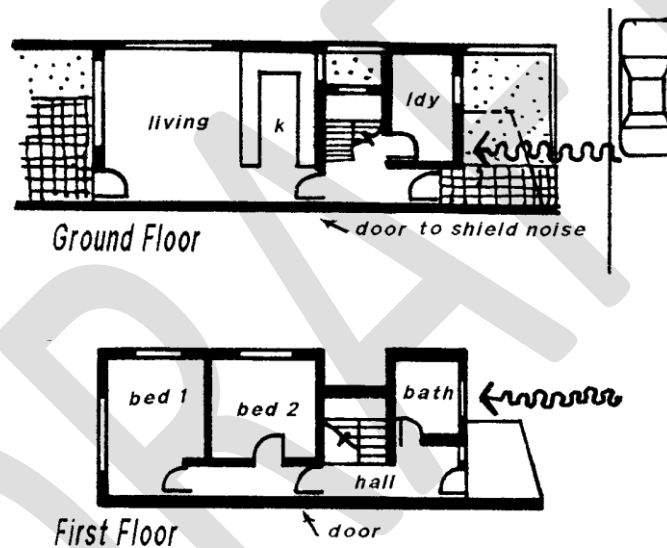
Front Fences

1. Fences and gates are to be sympathetic to the design of the development to maintain and unify the character of both the dwellings and the street.
2. Front fences or side fences forward of the building line shall generally not exceed a height of 900mm.
3. Wrought iron or similar fencing may be constructed on the street alignment to a maximum height of 1.8 metres. Similarly, fences consisting of 900mm in height of solid brickwork and 900mm open wrought iron or similar material supported at a minimum of 3 metre centres on brick columns, may be constructed directly on the street alignment.
4. Solid fences or fences with less wrought iron inserts than specified above, over 900mm in height, must be setback a minimum of 1.5 metres from the street alignment and the setback area is to be suitably landscaped to Council's satisfaction to effectively screen the fence.
5. Council may agree to solid fences being a maximum height of 1.8 metres if the applicant can satisfy Council that:
 - the fence is compatible with the architecture of the development; and
 - the fence would provide an interesting facade when viewed from the street and would not conflict with the streetscape or fences on adjoining properties.
6. Provision is to be made for access to public utility installations by the relevant authorities, ie electricity, gas and water meters. If the gate is to be locked, an intercom system is to be provided at the front gate.

Side and rear fences

1. Side and rear fences are to be no more than a maximum 1.8 metres in height (including any retaining walls).
2. Side and rear fences on a slope must be designed to allow water to flow through.
3. Side fences forward of the front building line are to taper down to the height of the front fence line. Solid sections of the side fence forward of the front building line shall not exceed a height of 900mm. A transparent section of the fence is therefore required to taper down from the height of the side fence to the height of the front fence. Piering above 900mm will be permitted to support the transparent section.

4. Where the front fences of adjoining properties are dissimilar in height, the owners of both properties are to come to an agreement on which front fence the side fence is to taper down to.
5. Side fences forward of the front building line are to be constructed in the same materials as the front fences of the adjoining dwellings. Where they are dissimilar, the owners of adjoining dwellings are to come to an agreement on the materials in the construction of the fence. The materials used must be in keeping with the architectural styles and materials of both dwellings and must not dominate or detract from the streetscape.
6. The transparent section of the fence may be constructed with open inserts of wrought iron, timber or similar materials. To be considered transparent, the inserts must be spaced apart so that the dwelling/s and the property forward of the front building line are clearly visible through the fence from the street.



**FIGURE 12: SERVICE ROOMS LOCATED CLOSE TO NOISE SOURCE
SHIELDING NOISE SENSITIVE ROOMS**

Source:

AMCORD 1997

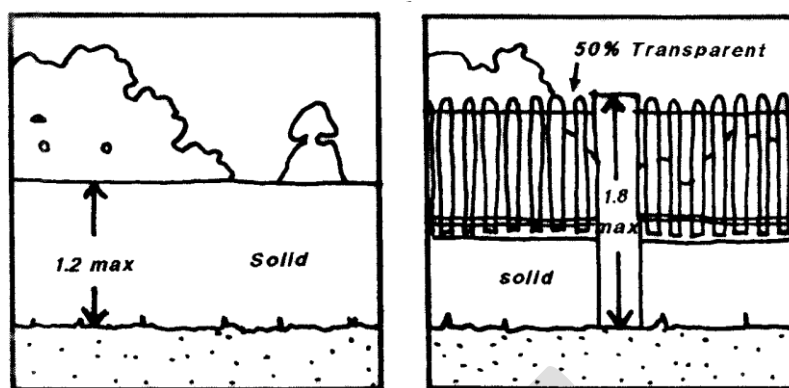


FIGURE 13: MAXIMUM FENCE HEIGHTS

Source: AMCORD 1997

2.6 Heritage and Conservation

Strathfield Council is committed to the conservation of buildings and structures of special significance within the local government area where there are a number of buildings and structures listed as heritage items in areas where multiple unit development is permissible. Special requirements apply to applications involving or affecting heritage items. Schedule 9 of the SPS lists the heritage items within the Strathfield Municipality. The Scheme also provides requirements for submitting applications relating to sites with heritage items or adjoining other sites containing a heritage item.

Objectives

- a) Protect and enhance items of environmental and heritage significance; and;
- b) All new developments and works to existing developments or adjoining heritage properties are to be designed to be compatible with the heritage significance of listed heritage items.

Guidelines and Controls

1. Proposed developments involving heritage items or adjoining heritage properties are to be designed to be compatible with the heritage significance of listed heritage items.
2. When submitting an application in respect of or adjoining a heritage item, the onus is on the applicant to demonstrate that the heritage significance of the item or structure would not be compromised by the proposal.
3. Where a development involves or adjoins a heritage item, Council requires that a statement of effect be lodged with a development application. That statement must set out the heritage significance of the structure or place and the effect the proposed works will have on the significance of the heritage item.

2.7 Open Space and Landscaping

Objectives:

- a) To ensure that adequate land is provided around the building for landscaping, ventilation and sunlight penetration between dwellings;
- b) To ensure open landscaped space relates well to the living areas of dwellings;
- c) To ensure that within environmentally sensitive areas, buildings do not dominate or degrade the quality of the environment;
- d) To maintain the park-like vistas of the Council area; and
- e) To retain existing vegetation where appropriate.

Guidelines:

Landscape design should be used to provide attractive and useable outdoor living areas. The design should also aim to protect the privacy of occupiers and neighbours and define the function of buildings and spaces within the development.

Development Standard

- 1. A minimum of 40% of the site area is to be landscaped open space or private yard space.
- 2. For dual occupancy development each dwelling shall be immediately adjacent to and have direct access to private landscaped open space with a minimum boundary length of 4 metres and a minimum area of 40m². Private open space fulfils a number of functions (refer to Figure 14).
- 3. Any landscaped area having a width and depth of less than 2 metres shall not be counted as part of the required landscaped open space unless densely planted for screening purposes.
- 4. Areas used for driveways, carparking and other service areas will not be included as part of the required landscaped open space.
- 5. A landscape strip of 1 metre width is to be provided between the driveway and the boundary fence where the driveway on the adjoining property is not on the same boundary.
- 6. The whole of the site other than the area of the site occupied by buildings is to be landscaped.

The preferred shape and aspect of private open space areas in dual occupancy development is shown in Figure 15.

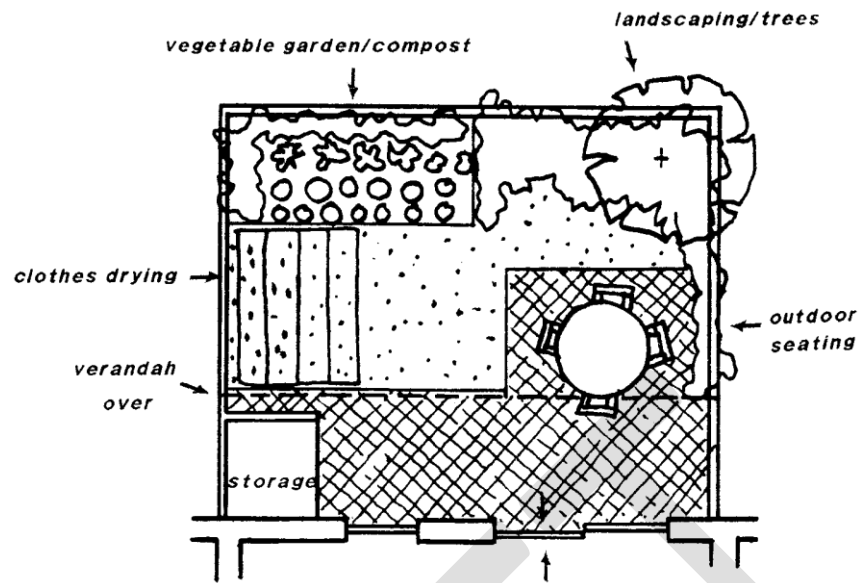


FIGURE 14: PRIVATE OPEN SPACE FULFILS A NUMBER OF FUNCTIONS

Source: AMCORD 1997

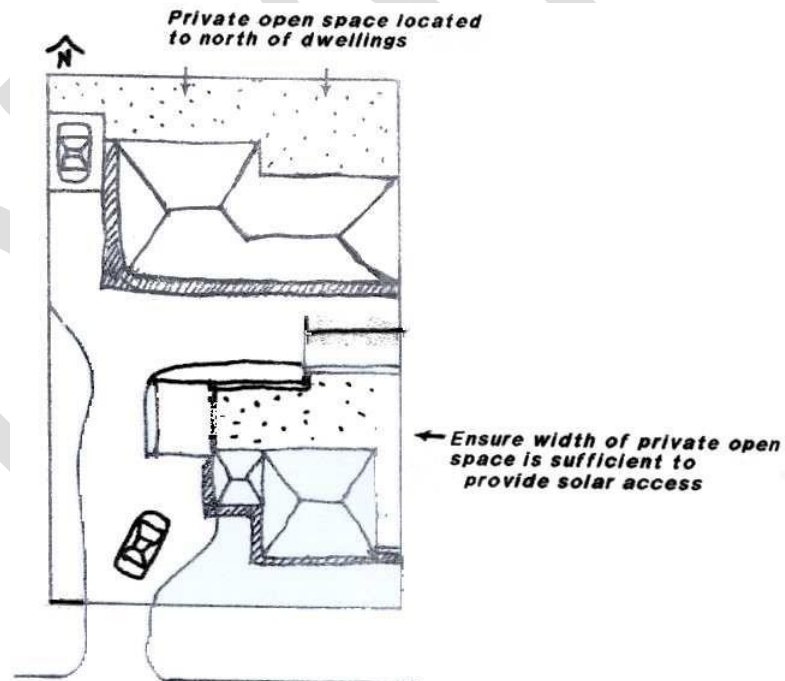


FIGURE 15: PREFERRED SHAPE AND ASPECT OF PRIVATE OPEN SPACE IN DUAL OCCUPANCY DEVELOPMENTS

Source: AMCORD 1997

7. For the purposes of calculating a courtyard, areas under balconies or eaves can be included where the projection or overhang does not extend more than 1500mm from the external face of the building at the courtyard level.
8. Exceptions to the above standards may be considered where it can be demonstrated that a slightly reduced amount of landscaped open space is adequately compensated by the amount, position and quality of the open space provided.
9. Trees and shrubs with invasive root systems must not be planted over existing service infrastructure.

2.8 Privacy and Security

Objectives:

- a) To ensure the siting and design of buildings provides visual privacy for residents and their neighbours in their dwellings and open space areas; and
- b) To provide personal and property security for residents and visitors and enhance perceptions of community safety.

Guidelines:

1. The privacy aspects of all development shall be considered in the context of the development itself and its relationship to surrounding development. The siting and layout of buildings shall ensure that windows and doors are to be designed/located to reduce direct overlooking into an adjoining dwelling. Where the windows are less than 9 metres apart from an adjoining dwelling, the windows in the proposed dwelling:
 - are to be offset from the edge of the windows in the adjoining dwelling by a distance of at least 0.5 metres (refer to Figure 16); or
 - have a sill height of at least 1.7 metres above the floor; or
 - have fixed obscure glazing in any part of the window below 1.7 metres above the floor.

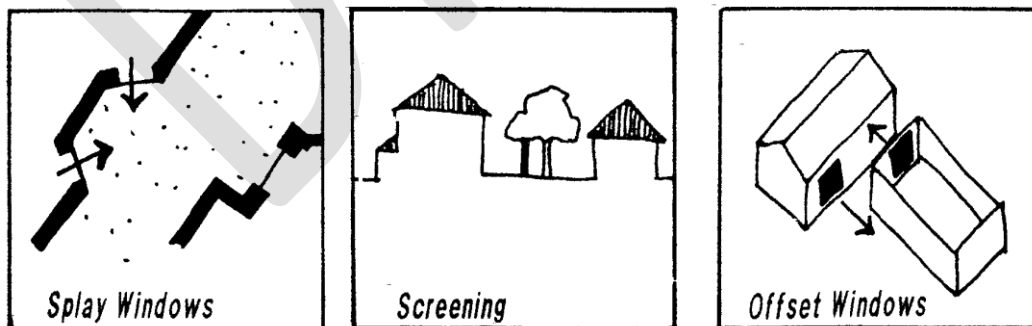


FIGURE 16: WINDOWS LOCATED TO LIMIT OVERLOOKING

Source: AMCORD 1997

2. Suitable screening shall be provided within developments when direct overlooking is likely from proposed dwellings to the private open space areas of adjacent existing dwellings, or to balcony or private open space areas of dwellings on the same allotment (refer to Figure 17).

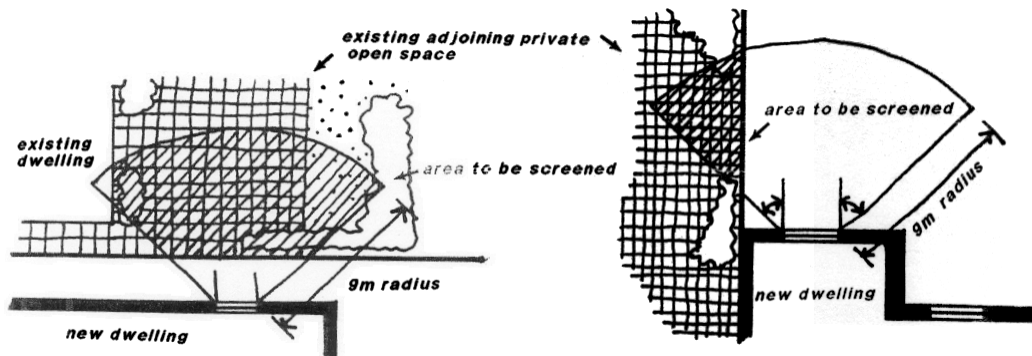


FIGURE 17: SCREENING VIEWS TO ADJACENT PRIVATE OPEN SPACE

Source: AMCORD 1997

3. The acoustic privacy of residents shall be considered in the context of the proposed development itself and its relationship to the surrounding. The site layout and building design shall ensure that:
- (i) communal areas, parking areas, accessways and service equipment areas are separated from bedrooms and minimise the entry of high levels of external noise to dwellings;
 - (ii) bedrooms of one dwelling do not adjoin living rooms or garages of adjacent dwellings; and
 - (iii) dwellings close to high-noise sources (such as busy roads, railway lines and industry) are designed to locate habitable rooms and private open space away from noise sources and are protected by appropriate noise-shielding devices (refer to Figure 18). Also refer to the State Rail Document *Rail related Noise and Vibration*.
4. The security aspects of all development shall be considered in the context of the proposed development itself. The siting and layout of buildings shall ensure that buildings adjacent to public streets or spaces are designed to allow casual surveillance and should have at least one habitable room window facing that area (refer to Figure 19).

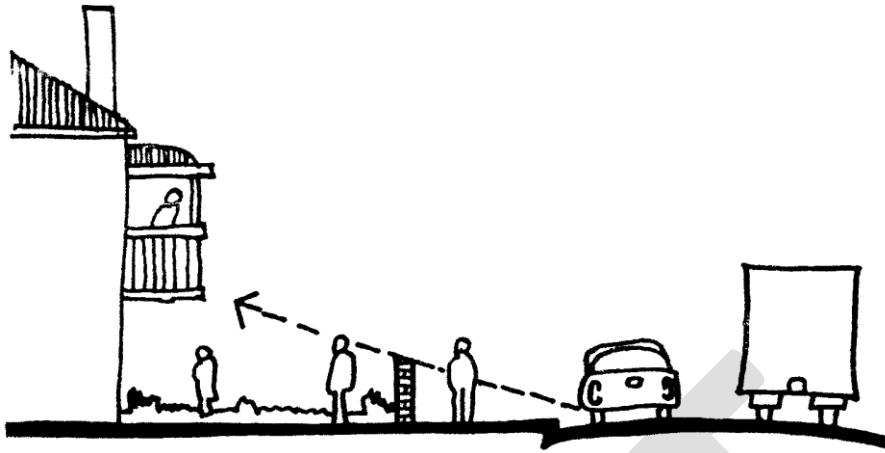


FIGURE 18: LOW FRONT FENCES WILL BLOCK SOME NOISE AND ALLOW INTERACTION AND SURVEILLANCE

Source: AMCORD 1997

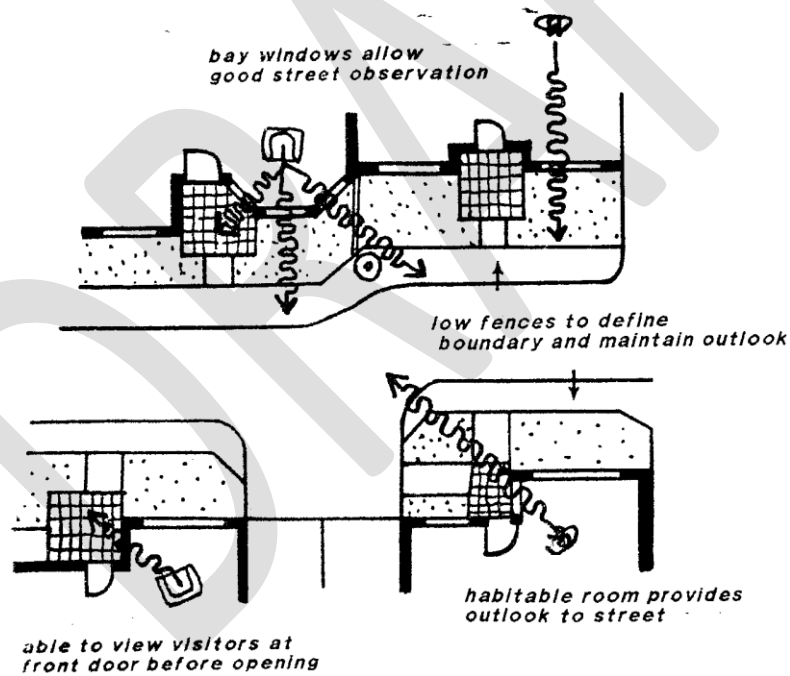


FIGURE 19: SECURITY BY DESIGN - CASUAL SURVEILLANCE OF THE STREET

Source: AMCORD 1997

2.9 Access and Parking

Objectives:

- a) To provide adequate off-street car parking for residents and visitors for each dwelling;
- b) To ensure that access driveways and manoeuvring areas are provided which are adequate for the convenience and safety of residents and visitors to the site; and
- c) To encourage the integrated design of access and parking facilities to minimise visual and environmental impacts.

Development Standards:

- 1. A minimum of 1 carparking space for each dwelling with a gross floor area of 150m² or less shall be provided on site.
- 2. For dwellings exceeding 150m² in gross floor area, Council will require an additional on-site space for the occupants. Car parking spaces may be stacked, but only to the extent of one car space behind one other for each dwelling.
- 3. Dimensions of access driveways and manoeuvring areas are to be in accordance with the provisions of "Policy and Guidelines for Traffic Generating Developments" published by the RTA.
- 4. The minimum size for spaces is 5.5m x 2.5m (open parking).
- 5. Minimum internal dimensions of a single lock up garage are 3m x 5.5m unobstructed, with any car access opening being at least 2.4m wide.
- 6. Where practicable, garage doors shall **not** be sited to face the street to which the building has its main frontage.
- 7. Driveways are classified as hardpaving and must be included within the 65% maximum built on site coverage and frontage standards contained in Section 2.5 of Part B.
- 8. Construction materials used must blend architecturally with the development. If concrete is to be used and is visible from a public road, all paved areas, including driveways, pedestrian ways or any other hardpaved areas are to be coloured charcoal or brown or finished in exposed aggregate. Other paving materials will be considered on their merits. However, grasscrete (or similar) is not favoured for permanent parking spaces or for turning areas.
- 9. Driveway widths are to be kept to a minimum to allow for maximum landscaped areas. The maximum width of driveways at the property boundary is to be 3 metres.
- 10. Vehicular turning paths for garages should be a minimum of 6 metres wide. Where the turning path is less, the garage should be widened accordingly.
- 11. For sites fronting main roads, it is required that where possible cars be able to enter and leave the site in a forward direction, ie they be able to turn on site.

12. No additional driveway can be installed without the prior consent of Council.
13. Council may consider the construction of dual driveways on an allotment, in lieu of Council's frontage provisions for site coverage, providing:
 - any repositioning of an existing driveway is considered necessary for solar access to the site and/or adjoining sites;
 - any new driveway or repositioned driveway does not involve the removal of any street trees;
 - the streetscape will not be unduly impacted upon; and
 - it is not possible to design a driveway on the site that allows a vehicle to be turned on site and leave the site in a forward direction.

2.10 Site Facilities and Water Management

Objectives:

- a) To preserve and protect the amenity and property of residents, property owners and the community;
- b) To ensure the safety of residents and the community;
- c) To protect the physical environment and receiving waters of the catchment;
- d) To ensure that site facilities and essential services and amenities are well integrated into residential developments, and are unobtrusive; and
- e) To ensure that site facilities are adequate, convenient and easy to maintain.

Guidelines:

Site Drainage and Water Management:

1. Stormwater runoff from all roof and paved surfaces is to be collected and discharged by means of a gravity pipe system to the Council's drainage system.
2. Where gravity drainage is not feasible to the street frontage, a private easement for stormwater drainage must be obtained to enable gravity discharge of stormwater from the site. Where private easements are used, the Certificate of Title, both of the dominant and subservient tenement, must be submitted to Council before construction certificate plans are released, to ensure that the grants of the easement have been registered and such easements must contain a clause that they shall not be extinguished without the written consent of the Council.
3. In accordance with Council's Stormwater Management Code, the development is required to include a system of on-site stormwater detention and provision for overland flow of stormwater.
4. A Positive Covenant under Section 88E of the Conveyancing Act will be required to be created on the title of the property detailing the on-site stormwater detention system and surface flowpaths.
5. In accordance with Council's Stormwater Management Code the development is required to provide and regularly maintain during construction measures to prevent sediment and polluted waters discharging from the site.

6. Pervious areas shall adjoin paved areas to reduce stormwater run-off (refer to Figure 20).



FIGURE 20: PERVIOUS AREAS ADJOINING PAVED AREAS REDUCE STORMWATER RUN-OFF

Source: *AMCORD 1997*

Garbage Facilities

Refer to Part H – Waste Management.

Letterboxes:

Provision shall be made for street mail delivery service by Australia Post in accordance with the following:

- letterboxes are to be chosen to suit the front fence and dwelling;
- deliveries will only be provided to one point at each property;
- the point of delivery should entail the least possible deviation by delivery staff from the public footpath;
- letterboxes shall be between 900mm and 1200mm from the ground;
- letterboxes shall be included in or on the structure of the front fence or be a separate structure located within the property along the pedestrian accessway;
- letterboxes are to be in clear view from the public footpath and not surrounded by trees, shrubs and rocks that make it difficult to deliver mail; and
- letterboxes are to have Australia Post approved minimum dimensions which include the following:
 - * 230mm wide;
 - * 330mm long;
 - * 160mm high; and
 - * the slot should be the full width of the box (230mm), 30mm deep and be positioned at least 130mm above the base of the box.

In all developments, the existing house number is to be retained. One dwelling will have an 'A' number and the second dwelling will have a 'B' number. This will also apply to development on corner allotments. A separate number will not be allocated

to the dwelling house facing the secondary street. Council will advise of house numbers at the time of approval of the development application.

Clothes Drying Facilities:

Each dwelling must contain a separate laundry of sufficient area to contain at least one washtub and clothes washing facilities - and if a clothes dryer is not provided, external clothes drying areas shall be provided. All such external clothes drying areas shall be completely screened from any public road.

2.11 Section 94 Contributions

Council has the ability under the Environmental Planning and Assessment Act to charge a developer/applicant a monetary contribution towards the provision of community infrastructure such as open space, traffic management and community facilities. Please refer to Council's Section 94 Developer Contributions Plan for details of contributions.

2.12 Subdivision

The subdivision of attached or detached dual occupancy developments within the 2(a) Residential zone is prohibited under the Strathfield Planning Scheme Ordinance. Subdivision of dual occupancy developments within the 2(b) Residential zone only is permitted.

2.13 Excavation of Sites

The following guidelines refer to works that require deep excavation such as basements, cellars and in ground pools:

- 1) All areas of excavation shall be setback from property boundaries in accordance with the building setbacks required in section 2.2 – Front Setbacks and Side and Rear Boundary Setbacks. No cut shall be made to the ground within the required setbacks.
- 2) Where excavation work is proposed, the work shall not affect or undermine the soil stability or structural stability of any buildings on adjoining properties. Adequate precautions must be undertaken during excavation to ensure there is no soil subsidence or slip. Council encourages the consideration of soil subsidence and slip issues at the design stage of a proposed development.
- 3) The provisions of the Building Code of Australia must be complied with to ensure that earthworks will be carried out safely and avoid potential damage to adjoining structures and property through soil collapsing or subsiding during building works.
- 4) All excavations and backfilling associated with the erection or demolition of a building must be executed safely and in accordance with appropriate professional standards.

- 5) All excavations associated with the erection or demolition of a building must be properly guarded and protected to prevent them from being dangerous to life or property.
- 6) The applicant is required to produce a dilapidation report for all buildings, which adjoin proposed excavation areas.

Note: The owner of the adjoining allotment of land is not liable for any part of the cost of the work carried out, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

Note: Plans prepared by a qualified Structural Engineer indicating the design details and specifications of the basement walls and excavation shall be submitted with the development application. The plans shall include sections and plan views showing the extent of excavation and setbacks from boundaries. A qualified Structural Engineer shall certify that the excavation works will not result in damage to adjoining properties.

3.0 APPENDIX 1

3.1 Streetscape Analysis

General

Streetscape, in general terms, refers to the area between the building alignment of a development extending through to the building development on the other side of the street. Strathfield's streetscape has been developed chiefly by a combination of quality building stock, landscaping of private gardens and extensive use of street trees.

The maintenance and enhancement of the streetscape is of paramount importance in preserving neighbourhood character.

Streetscape elements that should be taken into account in the design of the residential development are:

Topography - The topography of the street is the most immediate feature when analysing streetscape. For example:

- an undulating topography offers vistas within the street due to elevation; and
- a street with a marked cross fall has a strong bearing on the way height of dwellings are perceived in the streetscape.

Width of Carriageway - Width of road, nature strips and footpaths should be considered in residential design. A narrow carriageway, with an avenue of street trees and single storey development, creates an intimate character. Two storey or more developments placed too close to a narrow street may dominate the streetscape.

Street Tree Planting - Streets lined with mature trees are a prominent feature of the Strathfield Municipality. Mature plantings form framed vistas which add to the quality and character of streets. Where street plantings are removed, new developments become far more dominating. The pattern of street plantings should be taken into account in residential design, particularly in the design of driveways. All care should be taken to preserve street plantings.

Allotment Size/Width - The size and shape of the lot should be a major consideration in residential design. The general pattern of development in the Municipality is of larger properties with substantial dwellings having large setbacks from the street and smaller lots with smaller dwellings having less setback from the street frontage.

Boundary Fences - The boundary fence establishes a relationship between private property and public property. The majority of housing in the Strathfield Municipality has low scale period fences, which contribute to the character of the street. Low scale fences allow a visual link with the street, while large masonry fences can interrupt the link. Fences that use similar or harmonious materials to the development are preferred.

Existing Building Line - Existing building line setbacks for the majority of the municipality were established by the estate subdivisions of the late nineteenth and early twentieth centuries. Increased building line setbacks contribute to the

amenity of the streetscape. The impact of new developments is reduced by an increased setback allowing:

- more landscaping to soften the appearance of the development; and
- the existing development and character to dominate (See section 2.2, 2.3 and 2.5 of this DCP for details).

Building Character - When development within the street is of similar scale and architectural style, a strong relationship is formed that unifies the streetscape. A departure from that character, usually designed with no consideration of scale, bulk or mass, introduces an inappropriate contrasts that detracts from the quality of the streetscape.

Roof Forms - Roof forms should relate to those in the adjoining neighbourhood in style and pitch. Roofing materials should also be carefully selected to harmonise with neighbouring buildings (refer to Figure A).

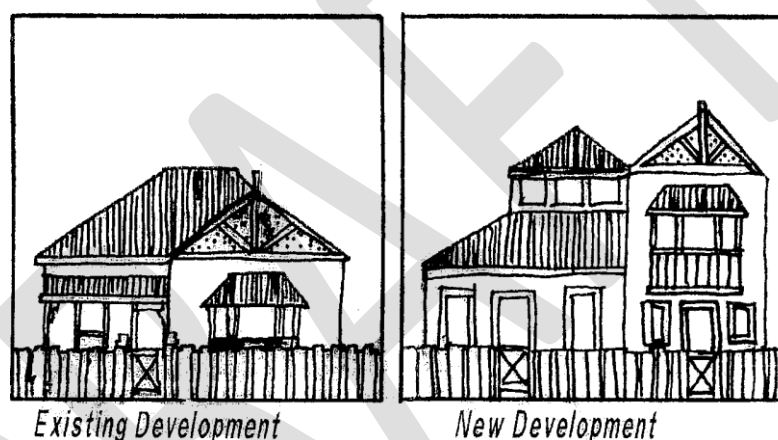


FIGURE A: ROOF FORMS SHOULD RELATE TO THOSE IN THE ADJOINING NEIGHBOURHOOD

Source: AMCORD 1997

Landscaping - Planting on individual allotments can complement and support street planting thereby contributing to the overall character of the street (refer to Figure B). It is important in new developments that hard landscaped areas (concrete paving and bitumen) are kept to a minimum. Hardpaving is not in keeping with the grassed front yards of the prevailing early twentieth century housing stock in the Municipality. Trees and mature shrubs help screen new development consisting of 2 stories.

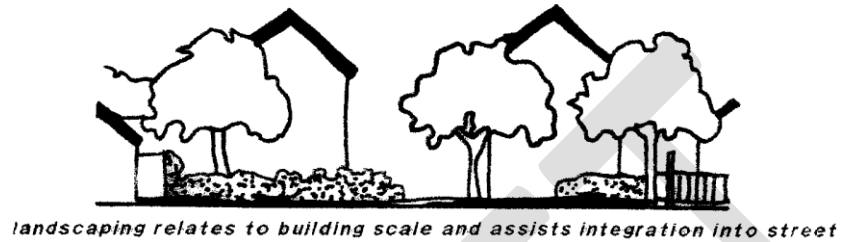
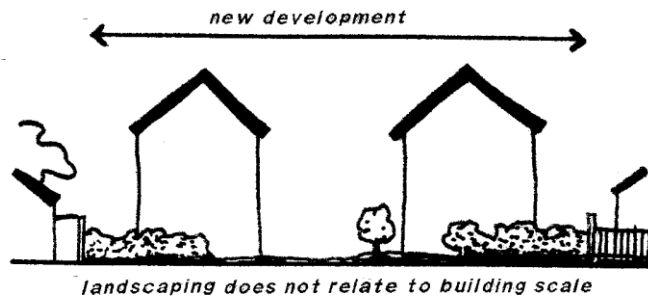


FIGURE B: LANDSCAPING SHOULD BE DESIGNED TO INTEGRATE NEW DEVELOPMENT INTO A STREET

Source: AMCORD 1997

Any new development should respond to each of these elements and the streetscape should be considered as a total of all these elements.

SMC121842