

# **DEVELOPMENT CONTROL PLAN NO. 19**

## **MIXED DEVELOPMENT**

Adopted by Council 27th April 1999

Effective from 30th April 1999

Amended \_\_\_\_\_

30th April 1999

**What is this plan called?**

Development Control Plan No. 19 – Mixed Development.

**Where does this plan apply?**

To the Business 3(a) Zone, as depicted in the map shown at Attachment A1

**What planning instrument is this plan made under?**

Griffith Local Environmental Plan 1994.

**When does this plan come into force?**

Council adopted this plan at its meeting of 27th April 1999.

The plan took affect on 30th April 1999.

## 1. What are the aims of this plan?

- to set minimum standards for quality multiple dwelling development.
- to protect the prime retail and commercial street level frontages of Banna Avenue and Yambil Street.
- to provide for a variety of housing opportunities and residential lifestyle choices.
- to promote the establishment of a high quality and varied environment through the implementation of innovative design standards.
- to enable development of business zoned land for residential use where the Council is satisfied that adequate amenity will be provided for residents and the land will not be required for commercial or retail use.
- to alert potential developers of Railway Operational Land to the possibility that part of the land may be contaminated.
- to ensure that development does not adversely affect the heritage significance of identified heritage items and Heritage Conservation area.

## 2. Definitions

In this plan:

"commercial premises"	means "a building or place used as an office or for other business or commercial purposes, but does not include a building or place specifically defined elsewhere for the purposes of this Plan".	
"construction certificate"	means "being a certificate to the effect that work completed in accordance with specified plans and specifications will comply with the requirements of the regulations", (EP & A Regulation 1994 Part 7A Division 2)	
"dual occupancy development"	means "dual occupancy attached development or dual occupancy detached development on a single allotment or portion of land on which a dwelling is permissible."	
"dual occupancy attached development"	means:	
	(a)	where no dwelling or dwelling-house exists on the allotment or portion – the erection of 2 attached dwellings; or
	(b)	where a dwelling-house exists on the allotment or portion – the effecting of alterations or additions to the existing dwelling-house so as to create 2 attached dwellings;
	on a single allotment or portion of land on which a dwelling is permissible;	
"dual occupancy detached development"	means:	
	(a)	where no dwelling or dwelling-house exists on the allotment or portion – the erection of 2 detached dwelling-houses; or
	(b)	where a dwelling-house exists on the allotment or portion – the erection of a second and detached dwelling-house;
	on a single allotment or portion of land on which a dwelling is permissible."	

"dwelling"	means "a room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile."
"dwelling-house"	means "a building containing 1 but not more than 1 dwelling."
"dwelling-large"	means "a dwelling of generally 3 bedrooms or more, have a floor area of > 110m <sup>2</sup> (floor area excludes balconies, patios, garages and carports)."
"dwelling-medium"	means "a dwelling of generally 2 bedrooms having a floor area of between 75m <sup>2</sup> and 110m <sup>2</sup> (floor area excludes balconies, patios, garages and carports)."
"dwelling-small"	means "a dwelling of generally 1 bedroom having a floor area of < 75m <sup>2</sup> (floor area excludes balconies, patios, garages and carports)."
"height"	in relation to a building means: "the vertical distance measured between ground level at any point at which the building is sited, and the ceiling of the topmost floor of the building above that point."
"heritage conservation area"	means "land shown by fine diagonal hatching on the LEP map and referred to as a conservation area in Schedule 1 of the LEP and includes buildings, works, relics, trees and places situated on or within that land."
"heritage item"	means "a building, work, relic, tree or place (which may or may not be situated on or within land that is a heritage conservation area) described as a heritage item in Schedule 1". (LEP 1994)
"heritage significance"	means "historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance."
"integrated housing development"	means "development which results in the subdivision of land into 5 or more allotments each containing a dwelling house."
"landscaped area"	means "the part of a site area used or to be used for swimming pools, recreation areas, lawns, gardens or other landscaping, but does not include driveways, parking areas or drying yards."
"mixed development"	means "mixed retail, commercial and residential uses."
"multiple dwelling development"	means "a development on one lot comprising two or more dwelling units or residential flats" and incorporating "dual occupancy development"
"occupancy rates"	means "by household size (number of bedrooms) Griffith LGA, 1996 1 bedroom occupancy rate - 1.3 persons 2 bedroom occupancy rate - 1.94 persons 3 bedroom occupancy rate - 2.87 persons
"residential flat building"	means "a building containing 3 or more dwellings."
"shop"	means "a building or place used for the purposes of selling, exposing or offering for sale by retail, goods, merchandise or materials."

### 3. Where are "mixed use" developments allowed and at what density of development?

#### (i) Development Density Table

Residential Development Precinct Population Density		Minimum size for new allotment created by subdivision (any method). <sup>1</sup>	Minimum amount of site area required for each dwelling unit. <sup>2</sup>
<b>Map</b>			
No.1	Central Griffith 115 persons per ha Residential component	250m <sup>2</sup>	250m <sup>2</sup> for each larger unit (> 110m <sup>2</sup> ) or 3+ bedrooms 170m <sup>2</sup> for each medium unit (75m <sup>2</sup> - 110m <sup>2</sup> ) or 2 bedrooms. 113m <sup>2</sup> for each small unit (<75m <sup>2</sup> ) or 1 bedroom.

(ii) Commercial/Retail Component:

Minimum area of 50 percent of the gross floor area of any building or buildings occupying the Banna Avenue, Olympic Street and Yambil Street levels or adjacent gross floor area to any arcade frontage.

**Notes:**

1. Subdivision by strata title excluded.
2. Occupancy rate by household size used in calculation:-
  - Large unit (>110m<sup>2</sup>) or 3 bedrooms 2.87 persons.
  - Medium unit (75m<sup>2</sup> – 110m<sup>2</sup>) or 2 bedrooms 1.94 persons.
  - Small unit (<75m<sup>2</sup>) or 1 bedroom 1.3 persons.
  - Source ABS 1996.

**4. Is a Development consent required as well as a Construction Certificate?**

Yes. If the proposal meets the requirements of Attachment A and the minimum standards of Attachment B and the Building Code of Australia requirements a Development Application and Construction Certificate Application may be submitted together.

**5. What standards apply?**

Those shown in Attachment B and Griffith Local Environmental Plan 1994 provisions.

**6. If I have a development that does not conform with the standards in Attachment B can it still be considered?**

Yes, but it will be necessary for the applicant to justify the variations. All such applications will be advertised for public comment as they depart from Council's policies as set out in the Development Control Plan. Council will determine whether the variations are acceptable on the merits of the case. A separate Development Application and Construction Certificate Application are required to be submitted.

A number of the existing buildings in the subject area would not be able to meet some of the standards as set out. This is largely due to the fact that a proportion of shopping centre buildings are closely built for obvious reasons. Council in considering applications requesting variations from the standards will give greater flexibility to existing buildings that do not comply as opposed to new developments.

**7. What other Development Control Plans apply to my development?**

- DCP No. 11 – Urban Subdivision.

**Note:**  
**DCP No. 11 is under review. DCP No. 19 shall prevail with respect to minimum areas for subdivision.**

- Contributions Plan No. 1, for off-street carparking contribution where on-site carparking cannot be provided.
- DCP No. 20 - Off Street Parking Policy.
- Contribution Plan No. 3 - Open Space.

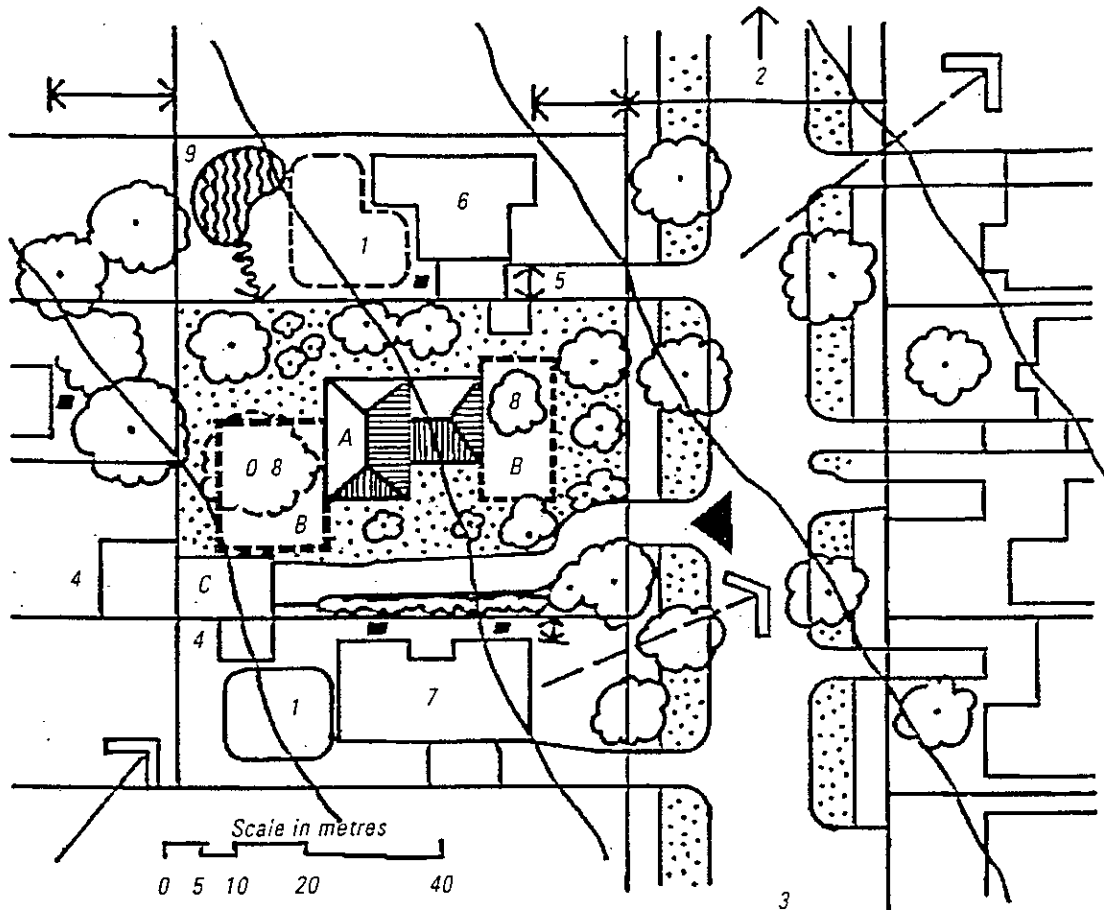
**8. Site Analysis**

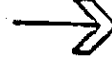
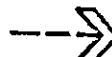





Each development application is to be accompanied by a detailed site analysis drawn to scale which considers the existing characteristics, opportunities and constraints of the site and its surrounds to result in a design which is sensitive to its environment and of high quality.

Components of a site analysis:

The Site	The Surrounds
<ul style="list-style-type: none"> <li>• Site dimensions and site area.</li> <li>• Hard stand areas for driveways, carparks or other uses, including dimensions.</li> <li>• Spot levels, contours and north point.</li> <li>• Easements for drainage and services.</li> <li>• Location of existing vegetation, including the height and spread of established trees.</li> <li>• Location of buildings and other structures including dimensions and area.</li> <li>• Heritage features including archaeology.</li> <li>• Orientation, micro climates and significant noise sources.</li> <li>• Views to and from the site.</li> <li>• Pedestrian and vehicle access.</li> <li>• Identification of previous use and any contaminated soils or filled areas.</li> <li>• Location of fences, boundaries and any other notable features (natural or historical).</li> <li>• Prevailing winds.</li> <li>• Natural drainage.</li> <li>• Overshadowing of the site by neighbouring structures.</li> </ul> <p>The site analysis should indicate the proposed arrangement of buildings and spaces on the site.</p>	<ul style="list-style-type: none"> <li>• The location, height and use of neighbouring buildings (including location of any facing doors and windows) and out-buildings.</li> <li>• The built form and character of adjacent and nearby development, including characteristic fencing and garden styles.</li> <li>• Abutting secluded private open spaces and living room windows which have outlooks towards the site, particularly those within 9 metres of the site.</li> <li>• The heritage significance of surrounding buildings and landscape.</li> <li>• Characteristics of any adjacent public open space.</li> <li>• Location and height of walls built to the site's boundary.</li> <li>• Views and solar access enjoyed by adjacent residents.</li> <li>• Major trees on adjacent properties, particularly those within 9 metres of the subject site.</li> <li>• Street-frontage features such as poles, street trees, kerb crossings, bus stops and other services.</li> <li>• Directions and distances to local shops, schools, public transport, parks and community facilities.</li> <li>• The difference in levels between the subject land and adjacent properties at their boundaries.</li> <li>• Sources of nuisance such as flight paths, noisy roads or industries and the like.</li> </ul>

## Example of a Site Analysis

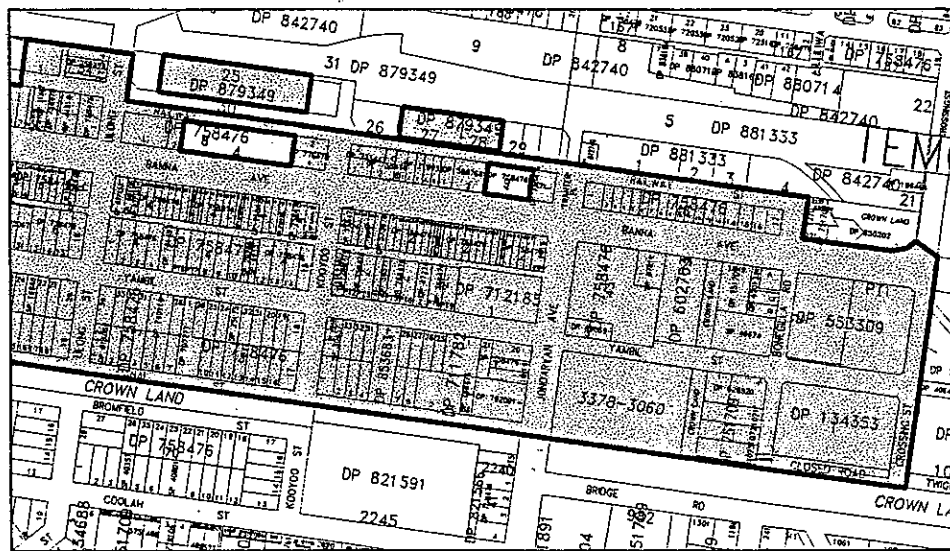
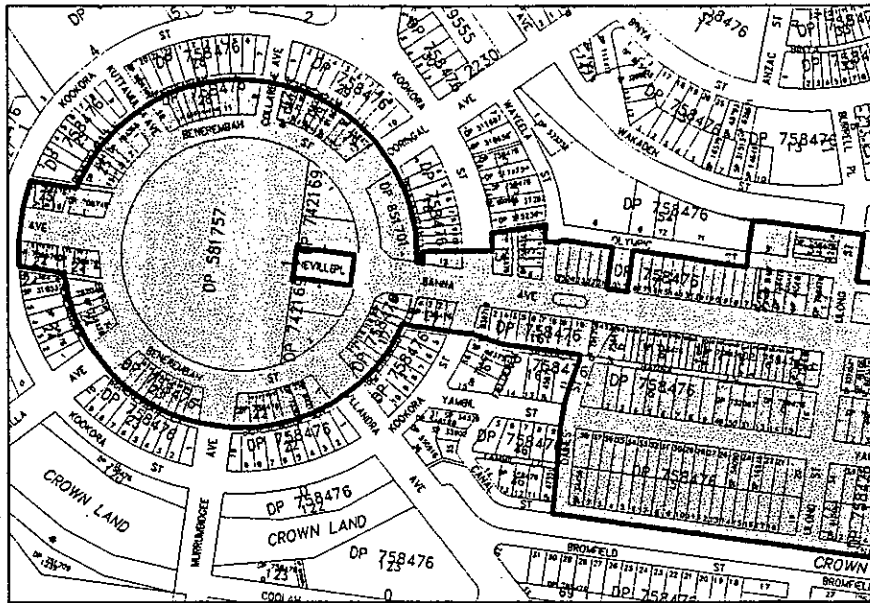


-  Prevailing winds
-  Views (e.g. to hills or city skyline)
-  Existing trees to be retained
-  Neighbourhood windows facing site
-  Noise (e.g. from pool area)
-  Vehicular site entry
-  Contours

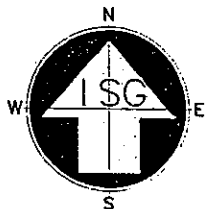
- A Existing two-storey dwelling to be retained
- B Proposed additional units
- C Existing garage
- 1 Secluded private open space
- 2 Public transport 200m
- 3 School 500m
- 4 Garden shed
- 5 Carport
- 6 Two-storey dwelling
- 7 Single-storey dwelling
- 8 Trees on site to be removed
- 9 Swimming pool (or other external active recreation area)

Source: AMCORD (1995) p. 62

# ATTACHMENT A1



ZONE TABLE / SUBJECT LAND SHOWN THUS



CENTRAL BUSINESS DISTRICT

SCALE 1:10,000 LOCALITY: GRIFFITH

## ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979 GRIFFITH DEVELOPMENT CONTROL PLAN No 19



## ATTACHMENT B

### Setbacks:

#### Residential Component

#### Objective:

- To provide setbacks that improves the visual amenity, provides for landscaping and protects the privacy of and sunlight to adjacent dwellings.
- To ensure that the appearance of housing is of a high visual quality, enhances the streetscape and complements good surrounding development.

#### 1. Front Boundary

Front setback requirements shall be generally consistent with the street setback with a nominal requirement of 6 metres.

#### 2. Corner allotments – Front Setbacks

The building on primary frontage shall have a minimum setback of 6 metres with side street setback of 3 metres. The other buildings facing the secondary frontage on a same allotment shall have a front setback of 4.5 metres along with provisions of garage setback of 5.5 metres from the property boundary.

#### 3. Side Boundary Setbacks

Side setbacks for dwellings should generally be a minimum of 1 metre. Zero boundary setbacks will be considered having regard to the above objectives, AMCORD principles and the Building Code of Australia (BCA). An appropriate provision should be made to provide adequate privacy and solar access for adjoining lots.

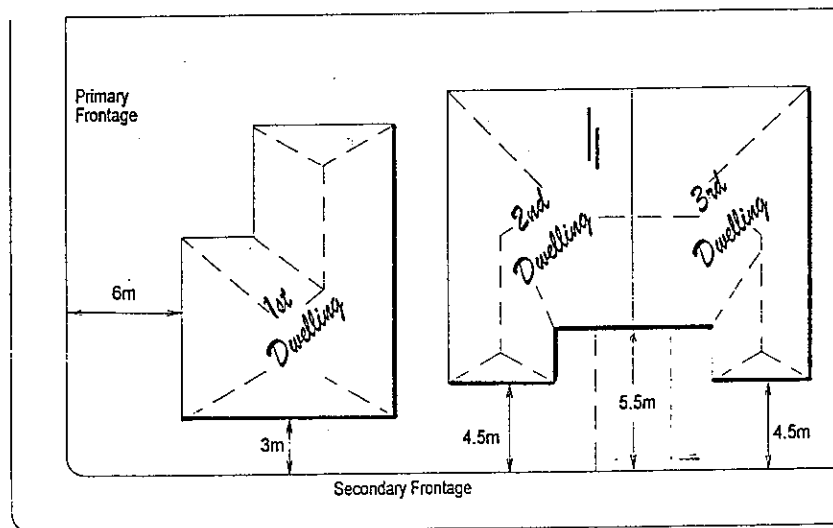


Figure 1 – Corner Allotment, Front Setback

#### 4. Rear Boundary Setbacks

An appropriate setback provision should be made to provide adequate privacy and solar access for adjoining lots.

For development adjacent to a railway line, a rear setback of at least 20 metres should be maintained from the centre of the railway line. Landscaping, roads, driveways, open space and car parking will be permitted within the 20 metre setback.

5. The building design, detailing and finish shall provide an appropriate scale to the street, add visual interest and enable differentiation between dwellings when viewed from public streets.
6. Garages and parking structures are to be sited and designed NOT to dominate the street frontage.

**Note: Setback areas are to be predominantly used for landscaping purpose only.**

7. In general the front fences shall have a maximum height of 1.2 metres, however where:
  - the main private open space is at the front of the dwelling; or
  - the site is located on a road with high traffic noise, the maximum height of 2 metres may be permitted.

#### **Design Criteria for Solid Screen Front Fences**

- a) Solid screen front fences are generally not permitted where the locality has an established heritage character;
- b) the length of the fence is to be limited to 75% of the frontage; and
- c) the fence is not to exceed 2.5 metres in length without some articulation or detailing to provide visual interest. Possible measures to provide visual interest to the fence may include, staggered alignments, varying heights, different materials and also the planting of vegetation in front of the fence.

**Note: Setbacks are progressively to be increased as wall heights increase to reduce bulk and overshadowing.**

## **Commercial/Retail Component**

### **Objective:**

- **To ensure setbacks are consistent with the established form of the street.**

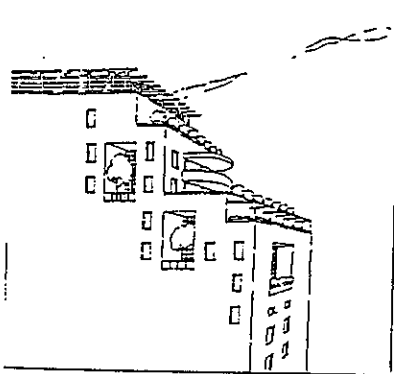
#### **1. Front Boundary**

Where the street level activity is commercial or retail the minimum front boundary setback shall be the front property boundary.

#### **2. Side and Rear Boundary**

Buildings may be erected up to the side and rear boundaries.

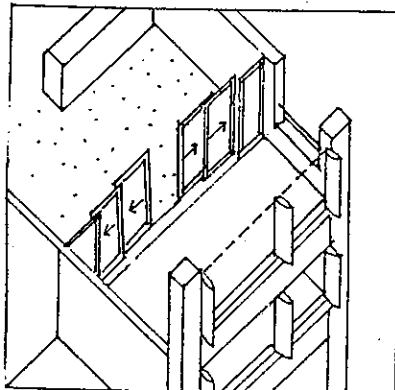
#### **3. Garages and Parking structures are to be sited and designed so as to not dominate the street frontage.**



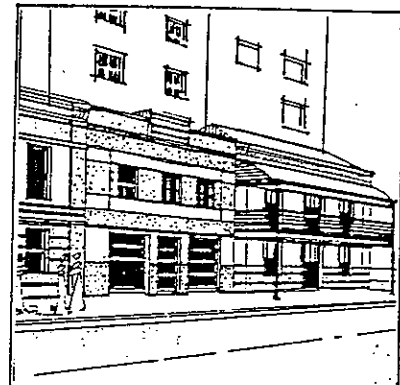
Stepping tops of balconies can offer opportunities for large terraces with good views



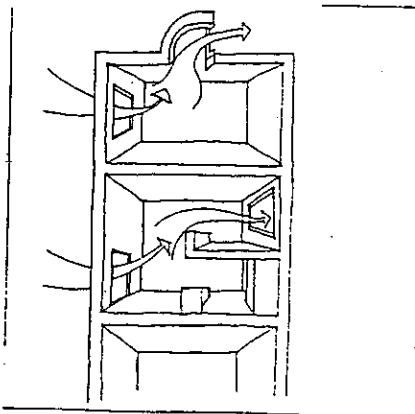
Strongly vertical proportions conflict with the predominantly horizontal streetscape



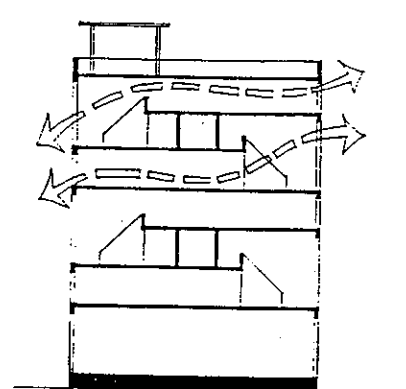
Balconies with screens can act as outdoor rooms and living areas



A balance of horizontal and vertical proportions contributes to the streetscape  
*Source: City of Adelaide Plan, 1995*



Cross ventilation can be achieved through roof vents and air shafts. Apartments with mezzanines and two-storey apartments assist in air movement



Good cross ventilation can be achieved with double orientation apartments, having split levels and corridors on alternate floors

Figure 2 - Design Elements

**Note:**

These drawings are illustrations only. Griffith City Council only allows a maximum of three storeys at the street frontage.

## ATTACHMENT B

### Design:

#### Residential Component

#### Objective:

- **To promote housing design that is consistent with and enhances the character and amenity of the area and has regard for the topography and existing adjoining land uses.**
1. Development should be consistent with the dominant better design themes of the precinct. Poor designs themes which create monotony are to be avoided.
  2. Front walls in any one dwelling are not to exceed 5 metres in length without a physical change, ie windows, or a directional change. Blank street frontage facades with no windows will not be permitted. Buildings are to be designed with interesting and varied facades. The side walls in any one dwelling are not to exceed 10 metres in length without a physical change.
  3. All site services including electricity, pay TV, gas, telephone and cabling for street lighting should be placed underground. Shared trenches should be utilised wherever possible.
  4. Buildings are to be sited and designed to ensure:
    - reasonable daylight to habitable rooms in adjacent dwellings;
    - overshadowing of neighbouring secluded open spaces or main living area windows is kept to a minimum;
    - that consideration has been given to energy efficiency.
  5. Building form and design are to allow for view sharing where possible.
  6. The building design, roof form, details and material are to be appropriately scaled to enable differentiation and visual interest between the dwellings when viewed from public streets.
  7. Development within the vicinity of a heritage item or within the heritage conservation area shall assess the impact and provide measures to conserve the significance of the item or area.

#### Note:

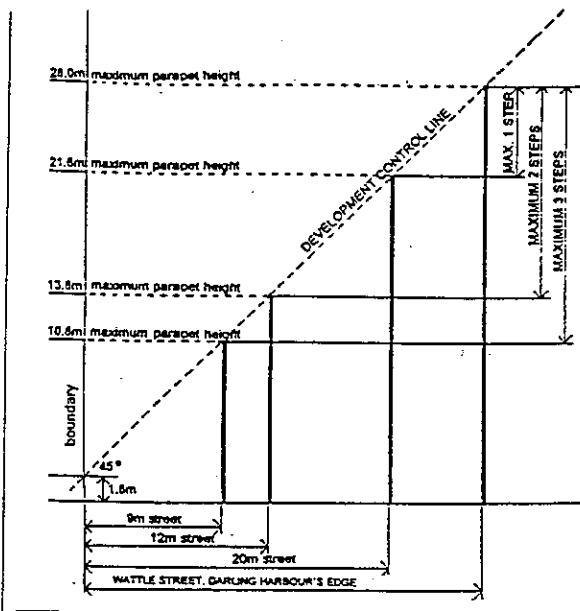
- **Composite elevations showing all proposed buildings are to be submitted for all multiple developments.**
- **For heritage items and heritage conservation area refer to Griffith Local Environmental Plan 1994.**

## **Commercial/Retail Component.**

### **Objective:**

- **To allow flexibility in siting buildings and ensure bulk and scale of new development protects reasonable resident amenity.**
1. Entries from the street to residential areas should have sufficient and clearly identifiable access without breaking retail/commercial continuity.
  2. Venting from ground floor occupancies should minimise negative impacts of any cooking smells or other odours on upper-storey occupants.
  3. Fire egress and separation requirements in the Building Code of Australia and any other fire safety regulations must be observed.
  4. Development of the public car parking areas shall be generally in accordance with "Guide to Traffic Generating Developments, December 1993, Roads and Traffic Authority and Development Control Plan No. 20 - Off Street Parking Policy.
  5. Development within the vicinity of a heritage item or within the Heritage Conservation area shall assess the impact and provide measures to conserve the significance of the item and the Heritage Conservation area.
  6. Griffith Rail Yard Study - Structure Plan, November 1997 has identified potential contaminated sites.

No change of use of these sites which may increase the risk of harm will be recommended until the land has been investigated and a remediation plan put in place.

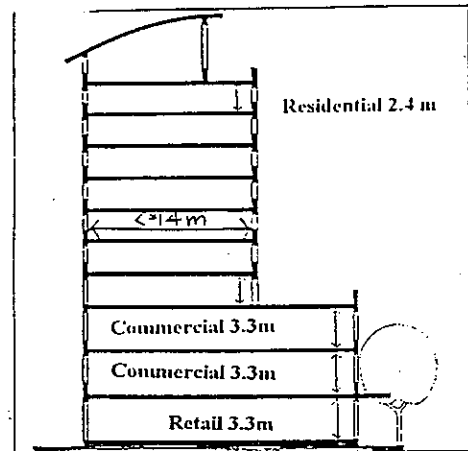


Example of street wall controls

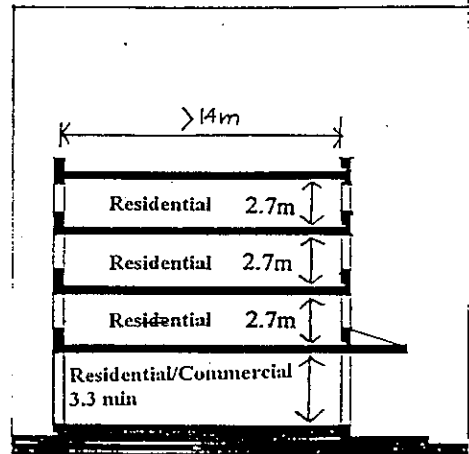
$$H = D + 1.6$$

- H = maximum parapet height
- D = street width
- 1.6 = pedestrian eye level

Example of development controls and minimum setbacks. Well proportioned streets are generally 1:1 street width to building height.  
Source: NSW Department of Planning, 1995



Mixed use development of this type can be encouraged in commercial centres



3.3 m floor to ceiling height on the ground floor offers flexibility for the introduction of mixed uses

Figure 3 - Building Height

**Note:**  
 These drawings are illustrations only. Griffith City Council only allows a maximum of three storeys at the street frontage.

## ATTACHMENT B

### Height:

#### Objective:

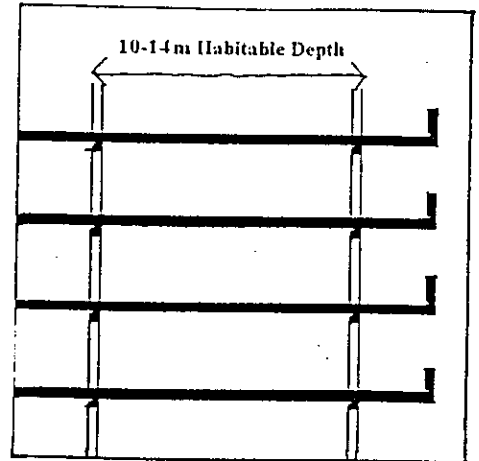
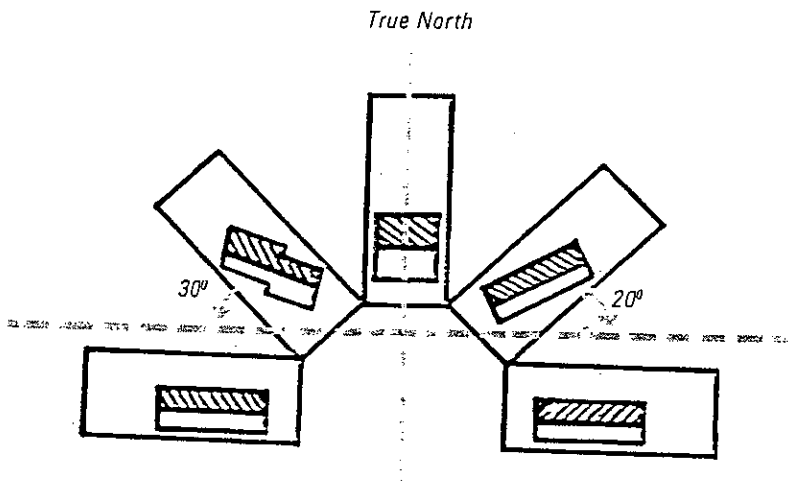
- **To control the height of buildings in order to maintain a consistent residential character and maximise privacy, solar access and views.**
1. Height should suit the streetscape and maintain view corridor and not unreasonably restrict sunlight to adjacent properties.
  2. To maintain Griffith's built character, multi-unit dwellings should generally be two storey. However Council will allow three storey at the street frontage where it does not adversely impact upon the streetscape, privacy and solar access enjoyed by adjacent properties.
  3. Where the residential storeys exceed a rise of more than two storeys from the entry level, a lift shall be provided.





### Best Orientation of Buildings

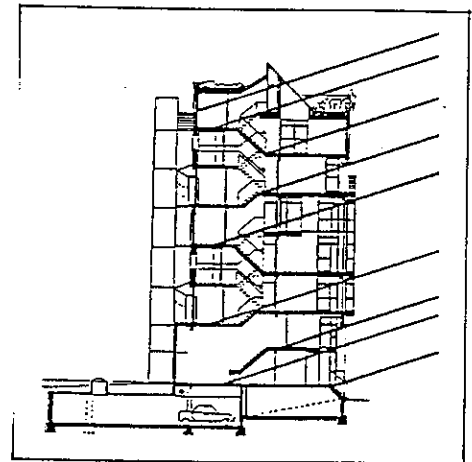
Shaded areas indicate location of main living areas



Narrow footprint buildings allow good daylight access

Source: AMCORD (1995) p. 188

- There is a minimum rating of four stars for any dwelling proposed to be on its own separate lot, or four stars for 50 percent of dwellings and three stars for the remaining dwellings within a multi-unit housing development, under a nationally accredited House Energy Rating Scheme.
- Windows are appropriately sized, located and shaded to reduce summer heat load and permit entry of winter sunlight.
- Shading devices are used such as:
  - overhanging balconies
  - wide eaves
  - verandahs
  - pergolas
  - window shutters
  - adjustable louvres.
- Living areas are located on the north side of the dwelling.
- Avoid large windows in west facing walls.
- At least one north facing living area of a proposed dwelling receives at least three hours of sun between 9.00 a.m. and 5.00 p.m. on 21 June (this may be in any one of the living area rooms at different times of the day).



Narrow buildings allow good daylight access. Split level plans can enhance environmental quality

Figure 4 - Orientation of Buildings

#### Note:

These drawings are illustrations only. Griffith City Council only allows a maximum of three storeys at the street frontage.

## ATTACHMENT B

### Energy Efficiency:

#### Objective:

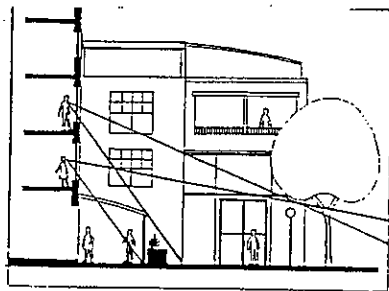
- **To provide reasonable access to sunlight to living areas within buildings and to open space around buildings and reduce energy consumption.**
1. Where possible, buildings should be oriented on a north-south, east-west axis to maximise solar access to living areas.
  2. Solar access should be available between the hours of 9am and 5pm for a minimum duration of 3 hours to any living area on the 21<sup>st</sup> June by appropriate shadow line orientation diagrams as calculated for each respective unit. Shadow diagrams are to be submitted for dwellings in close proximity to adjoining dwellings.
  3. Windows are to be located and shaded so as to reduce summer heat load and to permit entry of winter sunlight.
  4. Exterior shading devices to protect from summer sun may be used.
  5. Living areas should be located on the north side of the dwelling.
  6. Outdoor clothes drying areas with access to sunlight and breezes are to be provided. Note: An installed clothes drier is a non-preferred but acceptable alternative.
  7. Building materials and insulation should be selected so as to assist thermal performance and maintain internal comfort levels.
  8. Selected landscape design is to assist in micro-climate management and to reduce energy use.

## ATTACHMENT B

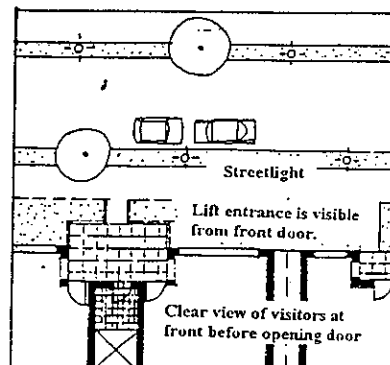
### Privacy and Security

#### Objectives:

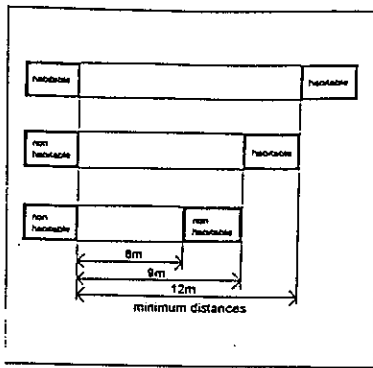
- To ensure the visual and acoustic privacy for residents and neighbours in their dwellings and private open spaces.
  - To provide personal and property security for residents and visitors and enhance perceptions of community safety.
1. The layout should ensure that windows do not provide direct and close views into the windows, balconies or private open space of adjoining dwellings.
  2. Habitable room windows of adjacent dwellings within a distance of 9 metres;
    - a) are to be offset by a suitable distance to limit views between windows; or
    - b) have sill heights of 1.7 metres above floor level, or have fixed translucent glazing in any part of the window within 1.7 metres of the floor level.
  3. The outlook from within a development is to be obscured or screened when a direct view is available into the private open space of another dwelling.
  4. Site layout is to separate active communal areas, parking areas, access ways and service equipment areas from bedrooms and to minimise the entry of external noise to dwellings.
  5. Shared pedestrian entries should be capable of being locked and serve a limited number of dwellings.
  6. Where a development is served by a central driveway a minimum 9 metre separation should be provided between the windows of habitable rooms of facing dwellings that abut a driveway. This distance should be increased to 12 metres for windows above first floor level.



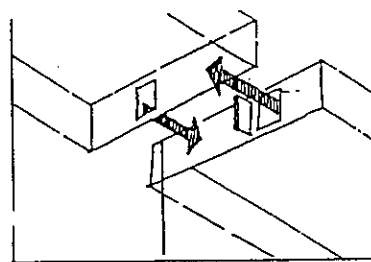
Overlooking of entrances and courtyards increases security



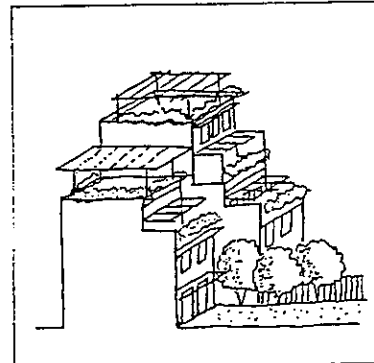
Promote security through siting of buildings and internal layouts  
Source: City of Adelaide, 1995



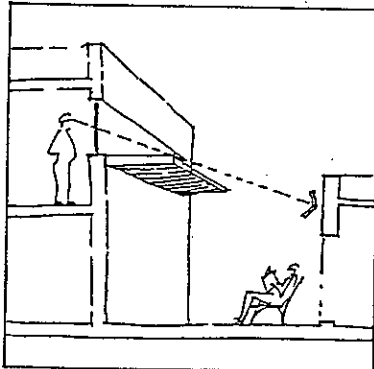
Suggested minimum privacy distances between different types of rooms in neighbouring properties (based on AMCORD, used in NSW Department of Planning, 1995)



Stagger windows to improve privacy

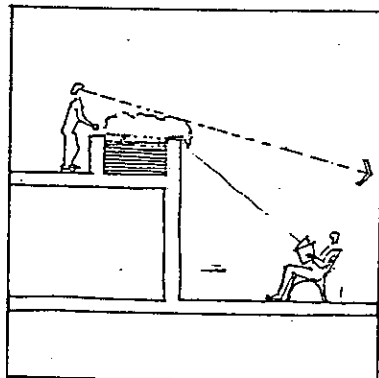


Solid side walls and screens improve privacy of adjoining balconies

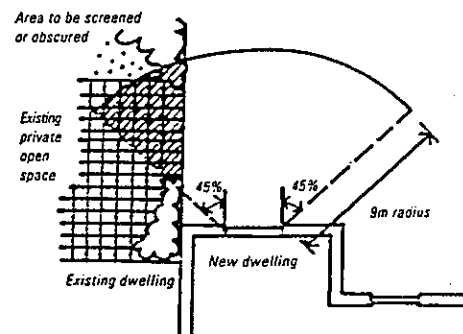
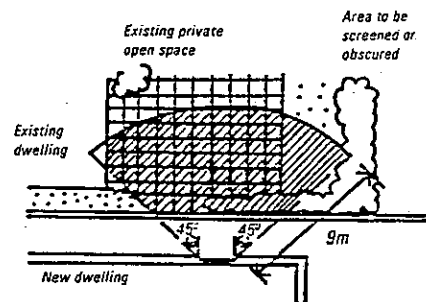


Awnings and pergolas prevent overlooking of lower outdoor areas

### Screening Views to Adjacent Private Open Spaces



Deep planter boxes prevent overlooking of lower outdoor areas



Source: AMCORD (1995) p. 168



Figure 5 - Screening Views to Adjacent Private Open Space

#### Note:

These drawings are illustrations only. Griffith City Council only allows a maximum of three storeys at the street frontage.

## ATTACHMENT B

### Private Open Space:

#### Objective:

- To provide private open space which meets user requirements for outdoor activities and use.
- To provide private open space areas that relate well to the living areas of dwellings.

1. The private open space to ground floor units shall be;

- 70m<sup>2</sup> for 3 bedrooms or more;
- 47m<sup>2</sup> for 2 bedrooms; and
- 32m<sup>2</sup> for 1 bedroom, and

shall incorporate an envelope of 4 metres x 4 metres which is directly accessible from a living room. 50% of this envelope must receive direct sunlight for three hours between 9am and 4pm on 21<sup>st</sup> June.

2. The private open space for upper levels shall be;

- 12m<sup>2</sup> for 3 bedrooms or more;
- 8m<sup>2</sup> for 2 bedrooms; and
- 5m<sup>2</sup> for 1 bedroom; and

shall have a minimum dimension of 2 metres x 2.5 metres width. Balconies must incorporate planter boxes along the full width of the edge to protect resident privacy and to enhance the visual amenity. At least one balcony shall have direct access to a living room and be capable of receiving direct sunlight for three hours between 9am and 4pm on 21<sup>st</sup> June.

3. Private open space areas should generally be provided in locations where boundary setbacks are 4 metres or greater and has direct access from a living area of the dwelling.

4. Private open space does not include driveways, turning areas, car spaces, narrow elongated curtilage areas within boundary setbacks areas and service areas. Screening shall be provided to ensure privacy to users of the open space.

5. If applicable communal open space shall:

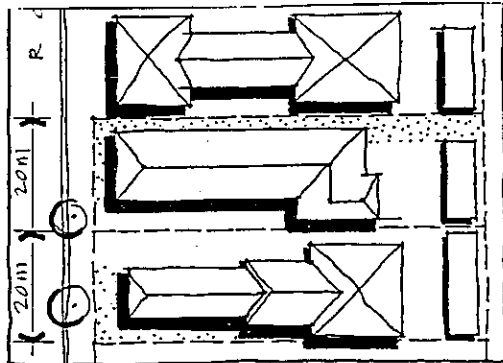
- contribute positively to the character of the development;
- provide for a range of uses and activities; and
- contribute to stormwater management.

**Note:**

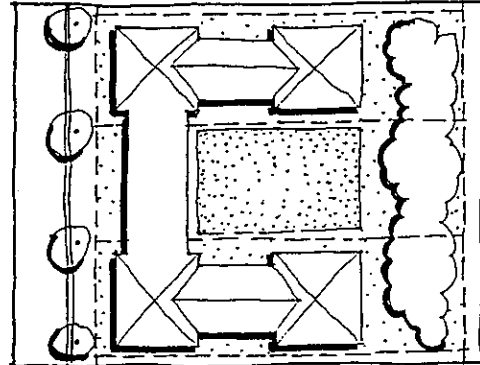
Open space around dwellings should be allocated to individual units as far as practicable to facilitate management and minimise communal maintenance costs.



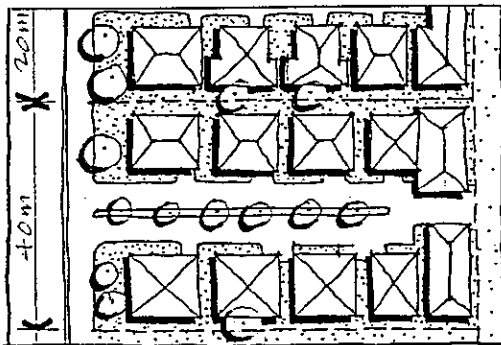
NEIGHBOURHOOD  
CHARACTER



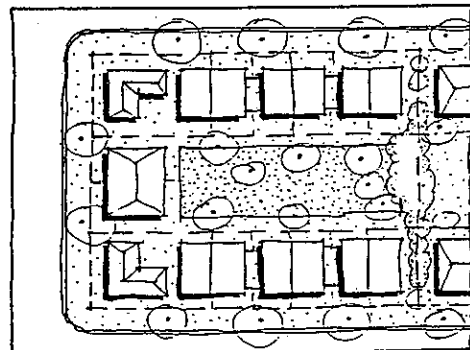
Existing three-storey walk-ups



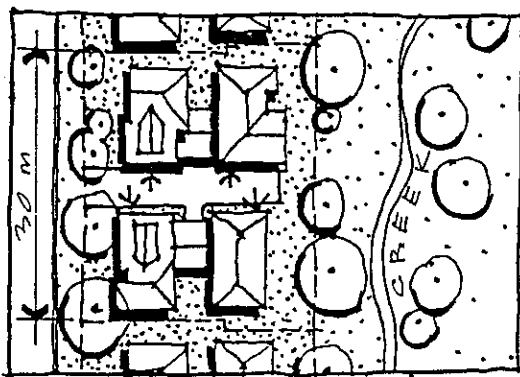
Potential three-storey walk-ups



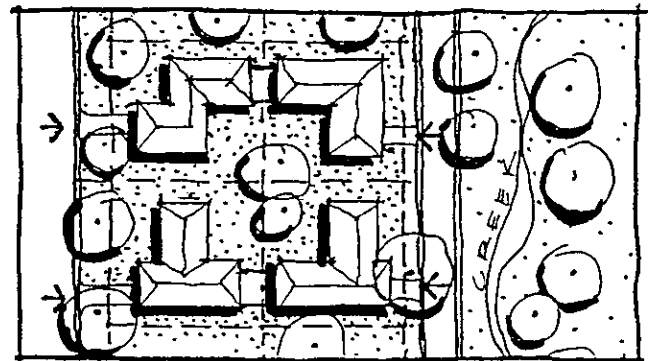
Existing villa development



Alternative villa development



Existing townhouses



Potential townhouse scenario

Figure 6 - Landscape Treatment

**Note:**

These drawings are illustrations only. Griffith City Council only allows a maximum of three storeys at the street frontage.

## ATTACHMENT B

### Landscaping:

#### Objective:

- To provide an attractive landscape which reinforces the function of a street and enhances the appearance, amenity and energy efficiency of urban housing through integrated landscape design.

1. The landscape design is to specify landscape themes and vegetation and show the locations, names, mature heights and spread of shrub and tree species proposed to be planted, major existing trees, the location of grassed areas and paved areas and proposed lighting and irrigation systems.

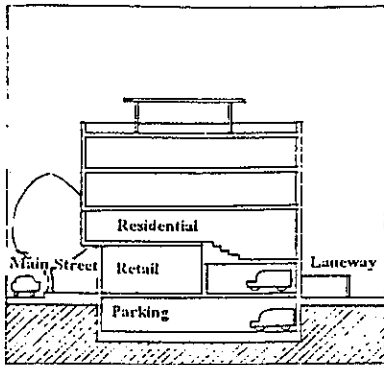
The landscape plan shall be drawn to scale (minimum scale 1:200).

Where possible, major existing trees are to be retained.

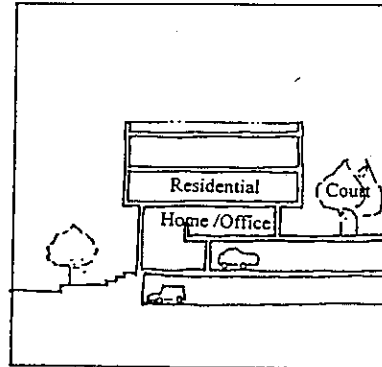
2. The landscaped area required shall generally be not less than 40% site coverage.
3. Landscaping shall include a suitable proportion of trees, other than palms, capable of reaching a mature height of 6 metres or more in order to:
  - reduce the visual impact of buildings;
  - shade their western elevations from the hot afternoon summer sun;
  - promote privacy between sites; and
  - promote shade for car parking areas, outdoor recreation areas and children's play areas.
4. Landscape design should take into account the placement of evergreen and deciduous tree species to ensure winter sun penetration into the buildings and outdoor open space/recreations areas.
5. Where there are existing trees on the site and in the locality, the planting should include a proportion of similar species so as to retain the street character.
6. A significant amount of advanced tree and shrub species shall be incorporated into the landscaping at the street frontage of the site, in order to provide immediate impact and screening to the development.
7. Thick plantings shall also be used to reduce the visual impact of parking and service areas, and to act as windbreaks and privacy screens for outdoor open space areas.

8. The designer is to find out the characteristics of the tree prior to planting. Don't plant large trees:-
- of greater than 15 metres in height;
  - within 5 metres of a building, sewer or other services;
  - under power lines; and
  - bushy trees near driveways because they can obstruct vision.

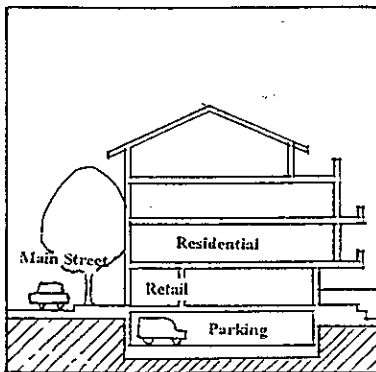




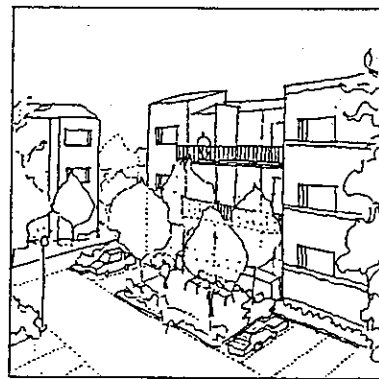
Laneways allow parking access from the rear of the building. Parking screened from street by activity use



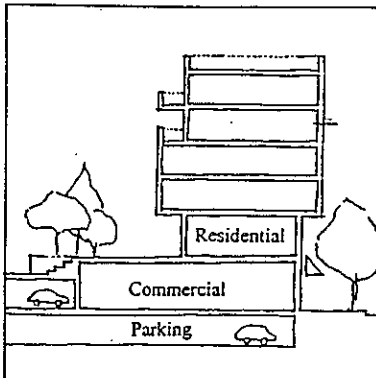
Carparking screened from the street



Underground carparking provides economical site coverage and ensures that carparking access and garage requirements do not dominate the street



On site carparking should be screened by extensive planting



Above-ground carparking should be screened from the street and decked over to provide usable open space on site

Figure 7 - Circulation and Parking Design

**Note:**

**These drawings are illustrations only. Griffith City Council only allows a maximum of three storeys at the street frontage.**

## ATTACHMENT B

### Vehicle Access and Parking:

#### Residential Component

##### Objective:

- To ensure that vehicular access to and through the development is safe, and maintains the amenity of adjoining properties and dwellings within the development.
  - To provide sufficient and convenient parking for residents and visitors so as to maintain the amenity of the site and adjoining properties.
1. Each unit shall have an exclusive entitlement to at least one secure, undercover private parking space.

##### Number of spaces required:

Dwelling Size or Number of Bedrooms	Average Car Parking Spaces per Dwelling
• Small (<75m <sup>2</sup> ) or 1 bedroom	1.0
• Medium (75m <sup>2</sup> - 110m <sup>2</sup> ) or 2 bedroom	1.5
• Large (>110m <sup>2</sup> ) or 3 + bedrooms	2.0
• Visitor spaces	0.25

(Refer to DCP No. 20 - Off Street Parking Policy)

2. Design of driveway, parking spaces, stormwater etc, shall be generally in accordance with Roads and Traffic Authority's Manual - "Guide to Traffic Generating Developments".
3. Accessways and driveways are designed to enable vehicles to:
  - enter the parking space in a single turning movement; and
  - leave the parking space in no more than two turning movements.
4. Open car parking spaces, accessways and driveways shall be, generally hard standing with decorative finish. The use of permeable paving may be appropriate in some small scale developments.
5. Driveways are to be designed to allow cars to enter and leave the site in a forward direction.

6. The width of the driveways between the property boundary and the kerbline shall be to a minimum of 6 metres in width.

Internal driveways shall generally be 3.5 meters in width.

(Refer to DCP No. 20 – Off Street Parking Policy)

7. Residential vehicle access to properties fronting Banna Avenue shall be via Olympic, Railway Streets, or Banna Lane.

Residential vehicle access to properties fronting Yambil Street (north side) shall be via Banna Lane.

Residential vehicle access to properties fronting Yambil Street (south side) shall be via Canal Street or side streets.

**Note:**

**For fractions within 0.25 of the next whole number, the total number of spaces shall be increased to that whole number.**

### **Commercial/Retail Component**

**Objective:**

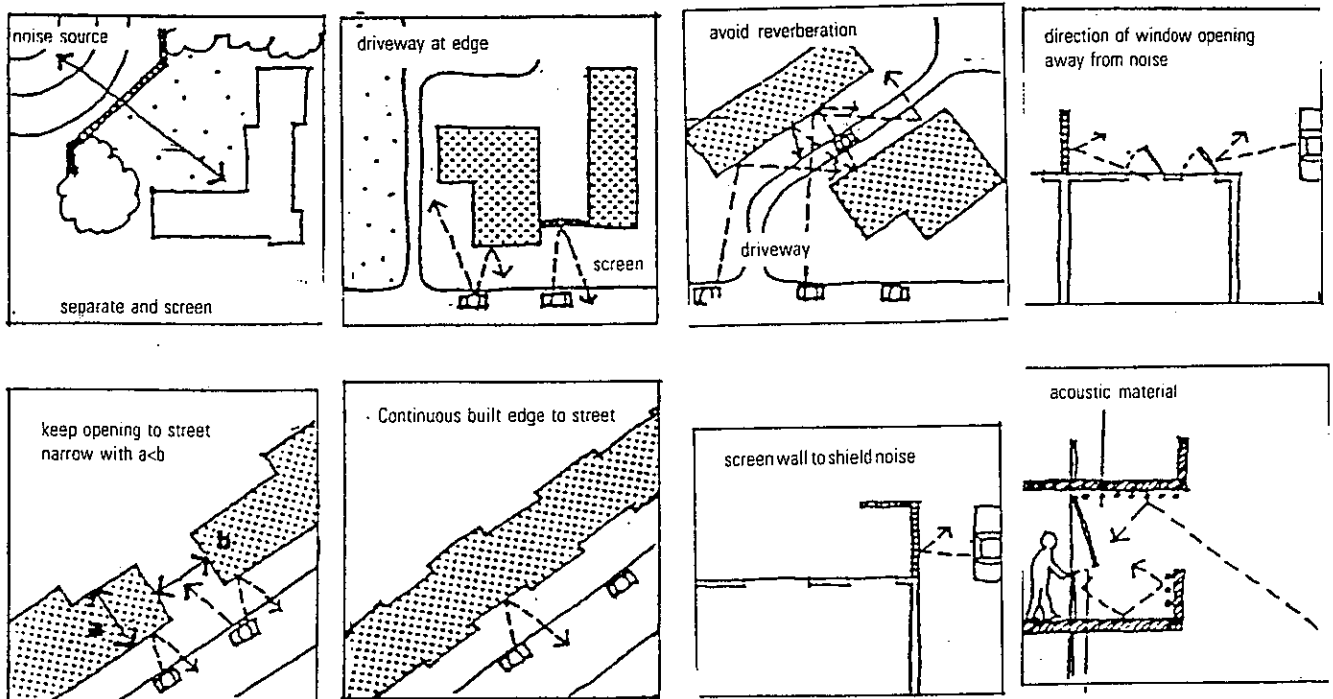
- **To provide self-sufficient, convenient and safe pedestrian, car and bicycle access and parking that meets the needs of customers.**
1. The development shall generally provide one car space per 37 square metres of gross floor area used for commercial/retail. (Refer to DCP No. 20 - Off Street Parking Policy for specific requirements).
  2. Access from parking spaces to residential/commercial/retail areas should be efficient and safe, particularly for residents/customers at night.

## ATTACHMENT B

### Acoustics:

#### Objective:

- To provide a reasonable acoustic environment for residents.
1. Development adjoining a railway line, busy roads and industry is to be sited, designed and constructed in a manner which minimises adverse noise and vibration effects. Noise sensitive areas, such as living and sleeping areas should be located away from the rail line, busy road and noise source.
- The design is to comply with noise levels specified by the Environment Protection Authority and State Rail Publication, "Rail Related Noise and Vibration Guidelines".
2. Noise tolerable areas should be located closer to the internal noise sources and noise sensitive areas located further from the internal noise source areas such as kitchen, laundries etc.
  3. Shared walls and floors between dwellings are to be constructed in accordance with the noise transmission and insulation requirements of the Building Code of Australia.



Acoustic privacy can be improved in these ways. Source: AMCORD, 1995

Source: AMCORD, 1995

## ATTACHMENT B

### Water Management:

#### Objective:

- To control stormwater and minimise discharge impacts on adjoining properties.
  - To minimise wastage of water by reusing, recycling and harvesting stormwater.
  - To encourage reduced water consumption.
1. To minimise the affects of local flooding there should be on-site stormwater retention in either storage tanks, soakage trenches or the like so as to allow slow release of stored water into the development's landscaping and then by controlled flow to street drainage works.
  2. Landscape design is to assist on-site infiltration of stormwater run-off by:
    - grading, locating and maximising unpaved or unsealed landscaped areas; and
    - by providing permeable paving where appropriate.
  3. Water consumption can be minimised by:
    - landscaping with plant species which require minimal water;
    - using appropriate mulches to planting beds;
    - minimising the grassed area;
    - irrigating landscaped areas with drip irrigation systems; and
    - using water-efficient accessories, washing machines, dishwashers and toilets.

## ATTACHMENT B

### Site Facilities:

#### Objective:

- To ensure that site facilities are thoughtfully integrated into the development and are unobtrusive.
1. Waste and recycling bin enclosures are to be conveniently located, adequate in size, durable, waterproof, blend in with the development and avoid visual clutter.
  2. Open air clothes drying facilities are to be provided in a secure and convenient location which is adequately screened from streets and other public places and where possible, separated from private open space.
  3. All uses shall have appropriate delivery and garbage collection access and related impacts on residents from early morning or evening movements should be mitigated.

