

Chapter 13 — Residential Areas: Appendices

APPENDIX 1

‘Design Code for Intensive Housing’

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SECTION A

NEIGHBOURHOOD DESIGN

Introduction

This design code shall be used for the assessment of applications for land use and subdivision consents for intensive housing, either in the Integrated Intensive Housing Zone or in the Main Residential Zone.

The provisions of this code are based on the relationships between development design elements and the following desirable environmental qualities:

- a high degree of SAFETY for pedestrians, cyclists, residents and children at play
- a high degree of SECURITY of dwellings from intrusion and burglary, and of cars from vandalism and theft
- a high degree of aural and visual PRIVACY for residents when engaged in indoor and private outdoor activities
- a high degree of AMENITY PROTECTION in respect of visual quality, sunlight, daylight, outlook, and landscaping
- a high degree of SOCIAL INTERACTION in the public realm with an overlap of day and night-time activities
- a high degree of RESOURCE EFFICIENCY including savings in energy costs
- a high degree of NATURAL FEATURES PROTECTION.

Code provisions for critical design elements are grouped under two headings according to scale of environmental effects:

- A Neighbourhood Design
(context, circulation, streets, public open space, parking, dwelling group).
- B Site Design
(frontages, private open space, building envelope, etc).

The desired performance of each design element is described by:

- 1 Objectives
- 2 Criteria
- 3 Standards.

The prescribed standards do not exclude other design solutions. The standards are defined measures which indicate only one way of achieving the stated design objectives and performance criteria necessary for achieving well designed intensive housing. Development not complying with these standards will be assessed on their merits on the basis of the objectives and criteria of this design code.

The graphics are illustrative solutions showing only some of the ways by which the objectives of this design code may be met; they do not exclude other possible solutions.

Acknowledgment

This design code incorporates some of the ideas and illustrative material of the Victoria Code for Residential Development (Multi-dwellings) with the kind permission of the Department of Planning and Development, Victoria, Australia.

A.1 Linkages

OBJECTIVES

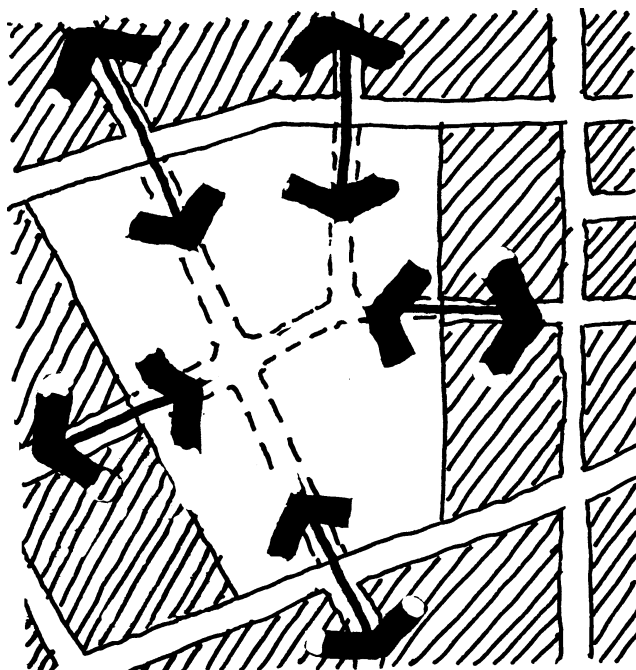
- To enhance user safety in the street and security of property by ensuring a high degree of mutual surveillance takes place due to the higher usage of the movement systems.
- To promote social interaction between residents and other users by encouraging movement to different parts of the city.
- To promote energy savings through reducing length of travel by maximising linkages to the existing street system.

CRITERIA

- Provide the best linkage between the proposed street system and existing streets without creating pedestrian or cycle only routes which are isolated and dangerous and which compromise the privacy and security of dwellings and private out door spaces.
- Provide for a continuous street system at all future stages of development.

STANDARDS

- Link all proposed streets to existing streets where practically possible.
- Link all proposed streets to possible future streets where relevant.



A.2 Street Layout

OBJECTIVES

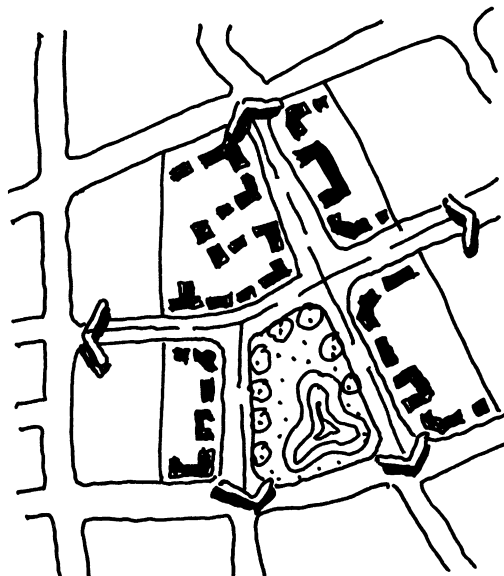
- To enhance user safety in the street and security of property by ensuring a high degree of permeability of the street system.
- To promote convenience, social interaction and energy savings by providing a choice of direct through streets.
- To promote energy savings and protection of amenity through solar orientation of the street system.
- To protect natural features as part of the street system.

CRITERIA

- Street layout shall be highly permeable.
- Street layout shall maximise winter solar access to dwellings.
- Street layout shall be integrated with and protect natural features as part of the public realm.

STANDARDS

- Street layout shall be a well inter-connected network, easy to comprehend and continuous.
- Street layout shall favour east-west and north-south alignments to maximise north-facing lots.
- Significant natural features shall be incorporated into the street system.
- Street formation shall be appropriate for their function. Refer 'Constructional Standards for Roads' Appendix 2 Chapter 9 Land Modification, Development and Subdivision.
- Avoid cul-de-sac streets unless very short and completely visible from its intersection with a through street.



A.3 Pedestrian/Cycle Routes

OBJECTIVES

- To enhance user safety in the street and security of property by ensuring a high degree of mutual surveillance takes place due to higher and combined use of the street system.
- To promote social interaction between residents and other users by encouraging movement to different parts of the city.
- To promote energy savings through reducing length of travel by maximising linkages to the existing street system.

CRITERIA

- To provide the best linkage between the proposed street system and existing streets without creating pedestrian or cycle only routes which are isolated and dangerous and which compromise the privacy and security of dwellings and private out door spaces.

STANDARDS

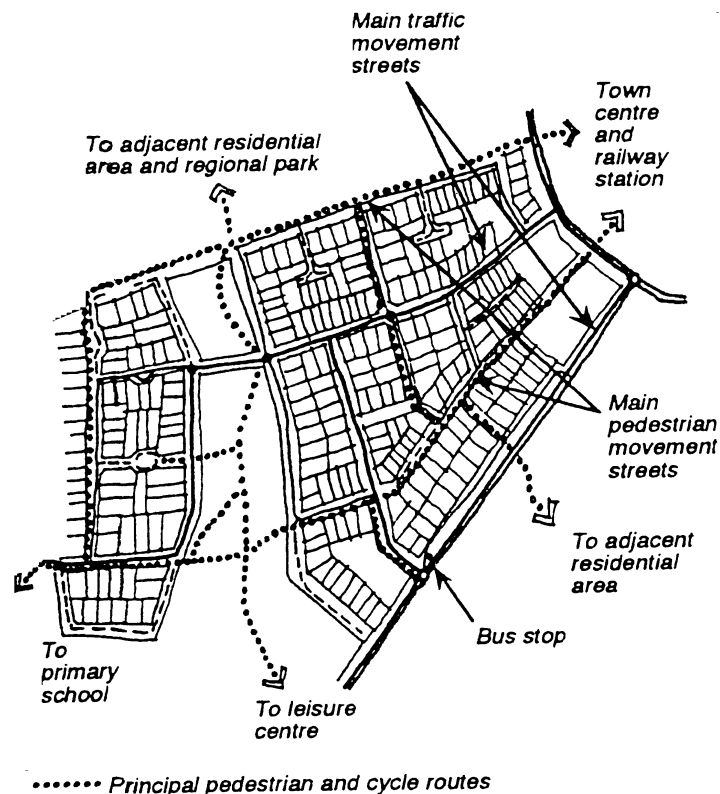
- Link all proposed streets to existing streets where practically possible.
- Avoid pedestrian or cycle only routes where possible, especially adjacent to private open space.

WHEN PEDESTRIAN OR CYCLE ONLY LINKS ARE UNAVOIDABLE

Where the benefits of providing a pedestrian/ cycle only link is perceived to be significant, the link should meet the following standards:

- The entire route should be visible from public streets
- The total length should not exceed 20m unless bounded by significant public open space
- The route should be well lit.

NETWORK OF PEDESTRIAN AND CYCLE ROUTES



Most pedestrian routes are provided along streets with houses fronting them, giving surveillance and interest for pedestrians.

Pedestrian and cycle routes are provided by quiet residential streets which give direct connections to local facilities and attractions.

A connected street system provides for ease of pedestrian and cyclist movement throughout the development, with a range of traffic management solutions restricting through traffic movement and limiting vehicle speeds.

A.4 Service Roads

OBJECTIVE

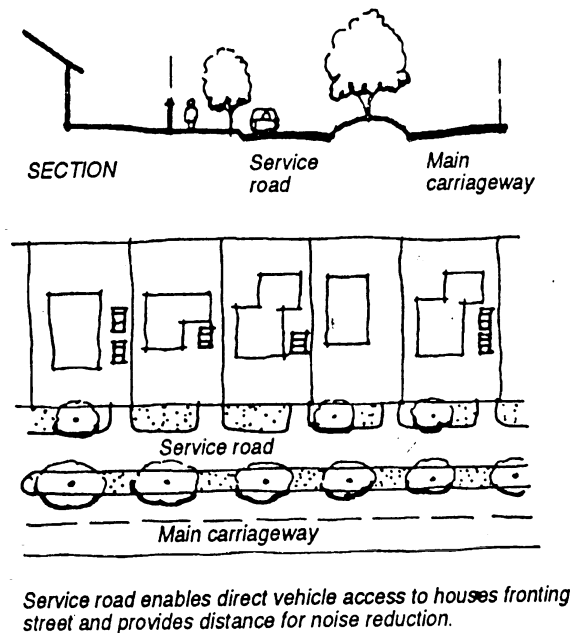
- To enhance safety, security and privacy by avoiding back yards fronting onto streets where direct vehicular access is not permitted from major arterials.

CRITERIA

- Service roads, where required, shall be integrated with building frontages and existing roads to enable buildings to front major arterials.
- Service roads shall be safely integrated with adjoining principal and arterial roads

STANDARDS

- Locate service roads alongside the central arterial route (East Tamaki corridor).
- Where possible, do not locate back yards of dwellings fronting the central arterial route.

**A.5 Street Frontages****OBJECTIVES**

- To enhance user safety in the street and in dwellings by ensuring a high degree of mutual surveillance takes place between the street and housing frontages.
- To enhance the security of dwellings and private outdoor areas by ensuring that opportunities for burglaries and undetected intrusion into private property be minimised.
- To promote social interaction between residents and other users by creating opportunities to meet.

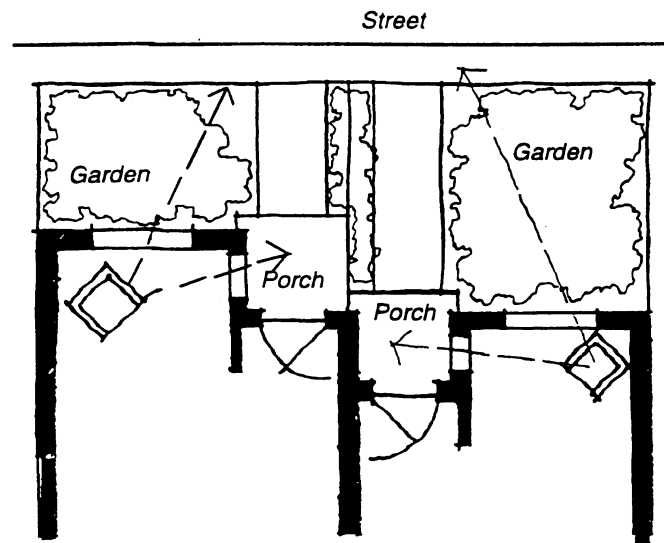
CRITERIA

- To ensure good mutual visual communication is maintained between the users of the street and buildings.
- Ensure that private open space which is not visible from the street is not readily accessed by intruders.

STANDARDS

- Building entries shall have a transitional space that is easily visible from the street.

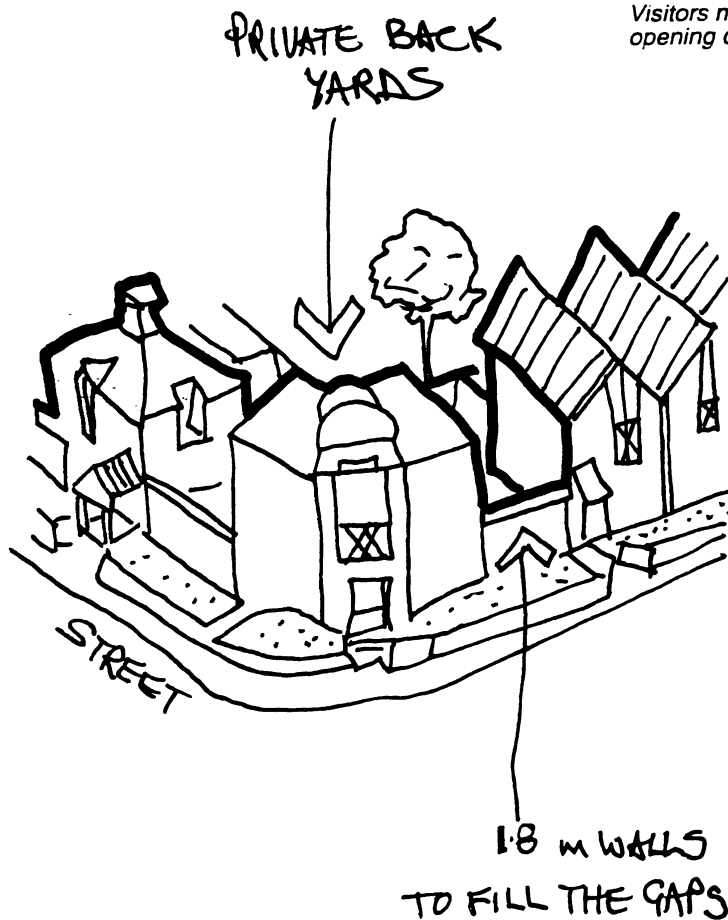
- Visitors may be seen from within the dwelling without opening the door.
- Provide continuity of walls at least 1.8 m high at street frontages, but not forward of the streetside building face.



Entries have a transitional space and are easily visible from the street

Views to street are available from front room

Visitors may be seen from within dwelling without opening door



A.6 Interfacing Development

OBJECTIVES

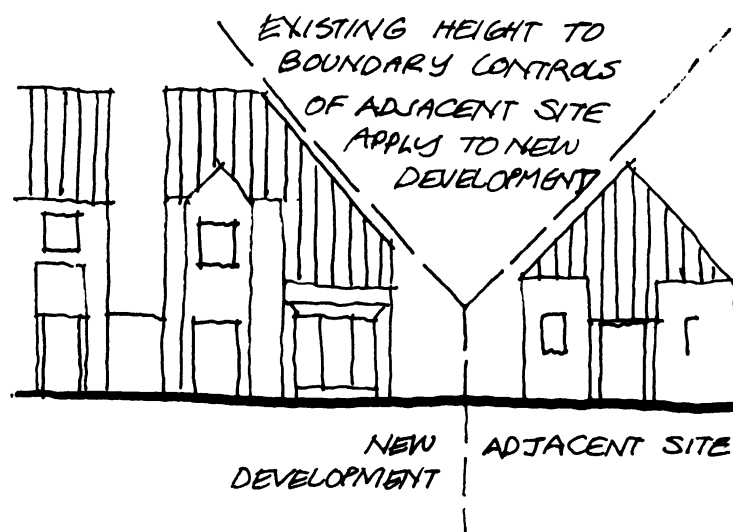
- To protect neighbourhood amenity.

CRITERIA

- To protect amenity of interfacing residential activities.
- To protect amenity of dwellings from interfacing commercial and industrial activities.
- Changes of primary activities (eg residential / industrial) are best achieved along the back of common boundaries rather than from one side of a street to the other.

STANDARDS

- Controls in relation to the proposed development boundary shall be as applies on the opposite side of the development boundary.
- Dwellings shall be insulated from existing and potential off-site noise so as to achieve a maximum inside noise level resulting from the off-site source of Ldn 45 dBA.



A.7 Traffic Calming

OBJECTIVES

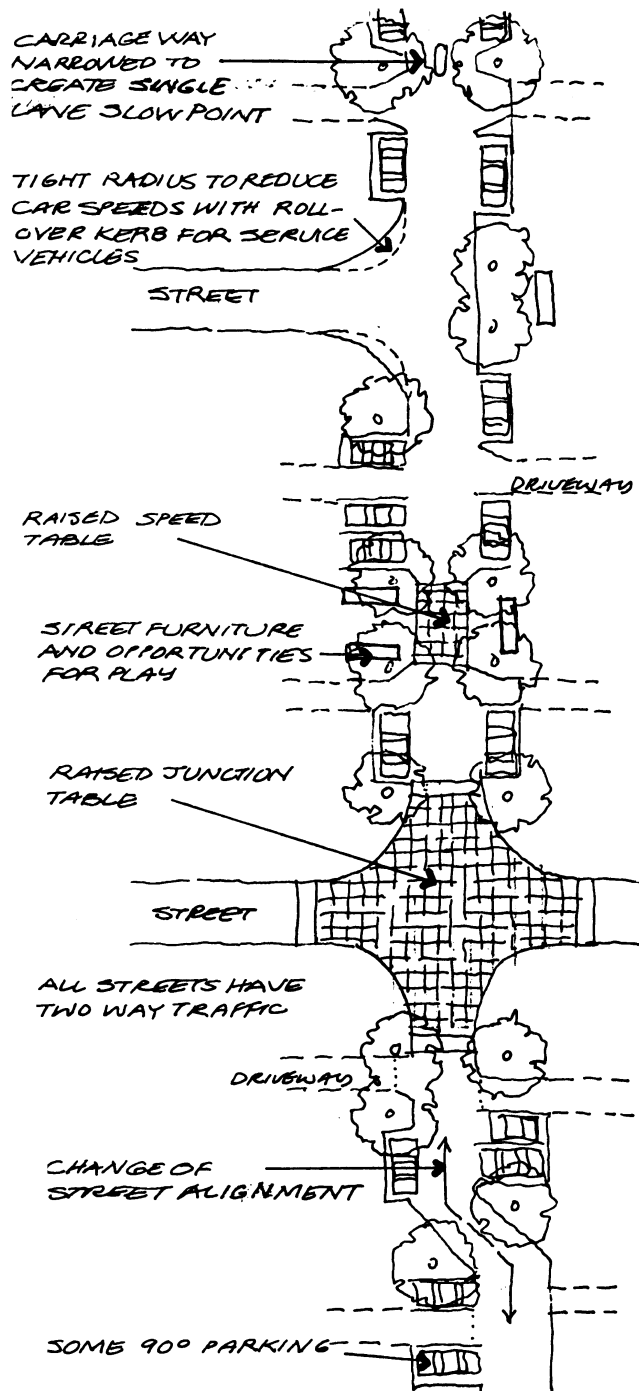
- To enhance pedestrian safety and social interaction / recreation in street by physical means of slowing vehicular traffic.

CRITERIA

- To design local access streets in such a way as to prevent vehicles travelling fast and to create a road that can be safely used for childrens play.

STANDARDS

- Residential service and secondary streets shall incorporate traffic calming measures where appropriate.



A.8 Vehicle Access

OBJECTIVES

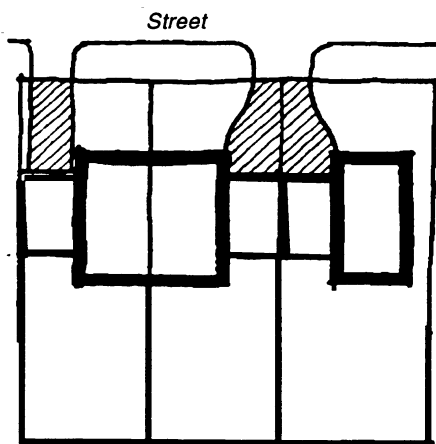
- To ensure streets provide safe and convenient vehicle access to dwellings..
- To minimise detrimental effects of vehicle access on amenity of the neighbourhood and of the development.

CRITERIA

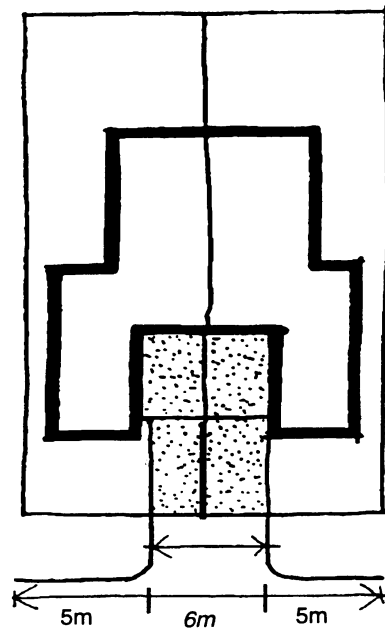
- Where development abuts Principal Roads minimise number of access points and ensure vehicles egress in a forward direction.
- Minimise areas to be managed by bodies corporate.
- Minimise loss of on-street parking on secondary roads.

STANDARDS

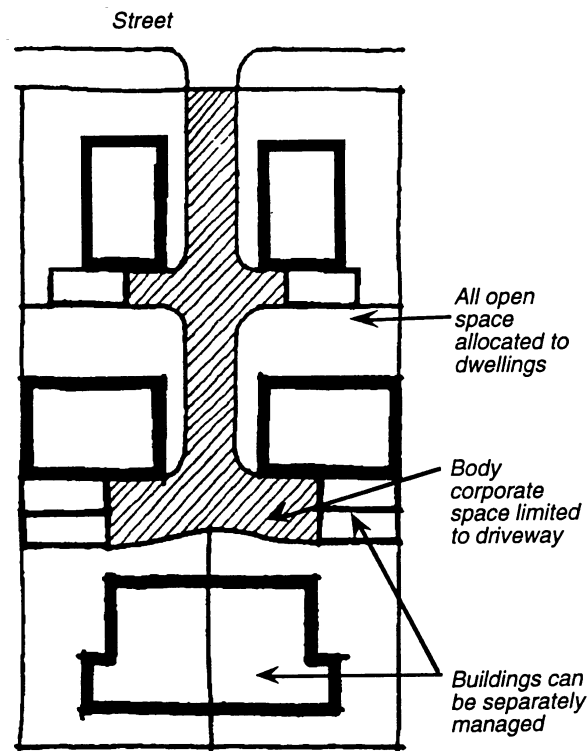
- Refer 'Constructional Standards for Roads' Appendix 2 Chapter 9 Land Modification, Development and Subdivision.



Multi-dwelling layouts that have no shared open spaces, drives or communal areas avoid the need for a body corporate.



Limit the amount of development frontage taken up by vehicle accessways or car parking



Minimising the area to be maintained by the body corporate: in this example only the driveway needs body corporate management. Public, communal and private spaces are clearly defined.

A.9 Public Open Space

OBJECTIVES

- To enhance user safety in public open space by ensuring a high degree of surveillance of public open space.
- To protect significant natural features and to maximise public accessibility to them.
- To protect privacy of dwellings from public use of open space.

CRITERIA

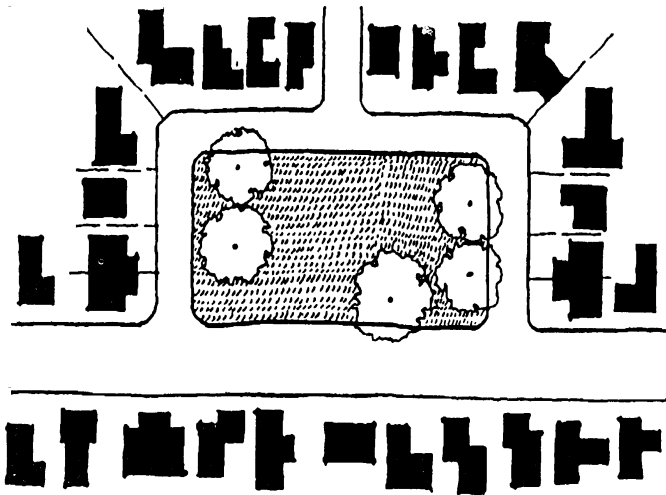
- To locate public open space adjacent to public streets, and to avoid backyards located adjacent to public open space.
- To locate public open space to include areas of significant natural features.

STANDARDS

- Public open space shall be bordered by public streets which are fronted by buildings.

- Public open space shall be located to include areas of significant natural features.

[Refer also A.11 Landscape Provisions]



Public open space should generally be bordered by streets which are fronted by dwellings and which are part of the public street network.

A.10 Parking

OBJECTIVES

- To provide residents and visitors with the amenity value of conveniently located parking which does not unduly intrude on the character of the street or reduce the visual connection between dwellings and the street.
- To enhance the security of property by reducing opportunities for car theft and vandalism to occur undetected.

CRITERIA

- To minimise on-site parking.
- To locate on-site parking in close proximity to the street and in close proximity of associated buildings.
- Locate on-site parking facilities in a manner which is the least visually intrusive from the street.
- On-street parking shall be maximised where possible on secondary roads only.

STANDARDS

	A		B		C	
	On site	On street	On site	On street	On site	On street
Dwelling Gross Floor area						
under 80 m ²	1	0	0.5	0.25	0	0.5
80–100 m ²	2	0.25	1	0.5	0	1.0
above 100 m ²	2	0.5	1	1	0	1.5

- A combination of on-site and on-street parking in accordance with Options A, B and C above is required.
- On-street parking bays should be located within 20m of the front door of the dwelling concerned.

GARAGE LOCATION



Avoid allowing garages and carports to dominate the street as it spoils the residential character, reduces surveillance and deters pedestrian activity.



If garages must front the street, ensure they are set back behind the dwelling frontage and are detailed to provide visual interest

A.11 Landscape Provision

OBJECTIVES

- To promote social interaction by making safe provision for social activities within streets.

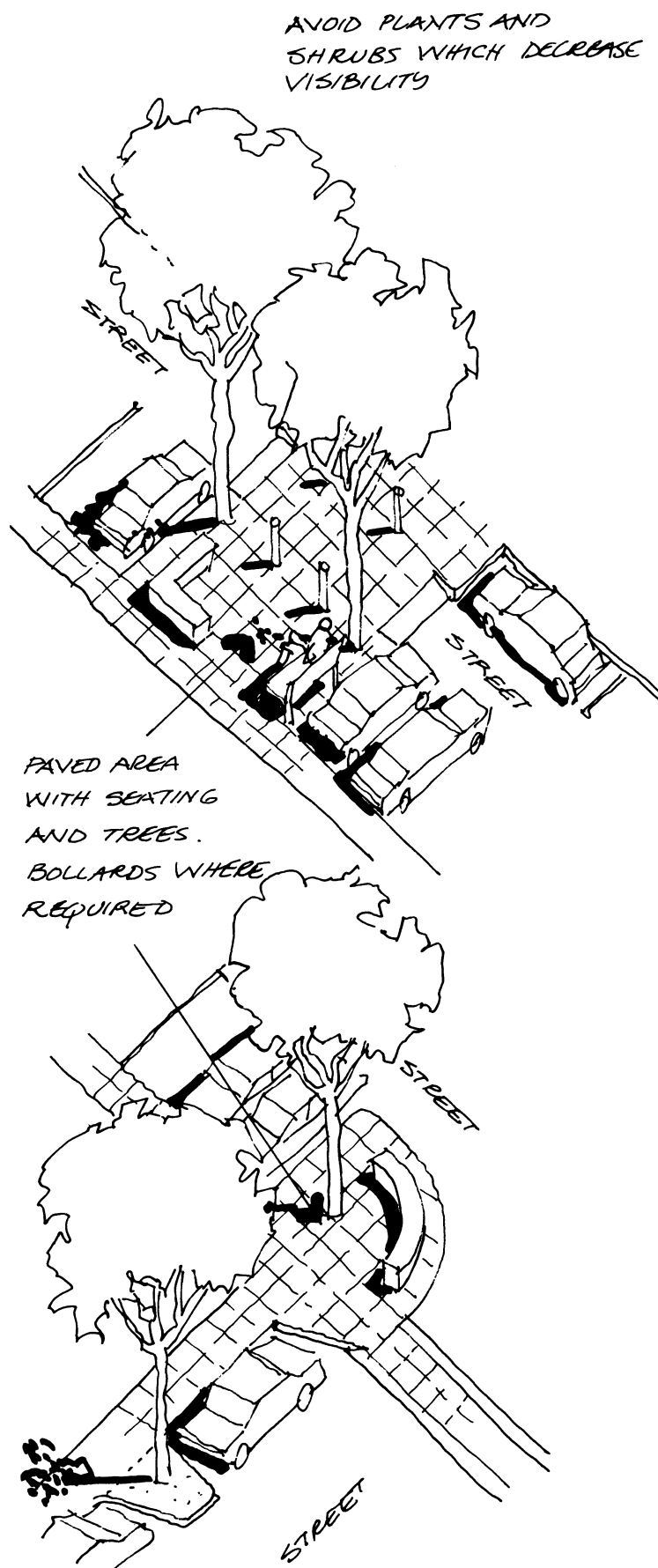
- To conserve and enhance neighbourhood landscape visual amenity values.

CRITERIA

- Provide safe, paved seating and playing areas within street spaces, visible from the public street system.
- Conserve existing trees which contribute significantly to landscape amenity.
- Include tree planting within public open space (including streets) consistent with local landscape identity.

STANDARDS

- Comply with Tree Policy Manukau City Council 1992 in respect of tree removal and tree planting.



SECTION B

SITE DESIGN

B.1 Front Yards

OBJECTIVES

- To enhance user safety in the street and in dwellings by ensuring a high degree of mutual surveillance takes place between the street and housing frontages.
- To enhance the security of dwellings and private outdoor areas by ensuring that opportunities for burglars and intruders to enter private properties undetected are minimised.
- To ensure the efficient use of land by limiting front yards to a practical minimum.
- To conserve prevailing streetscape character where identified in the District Plan.

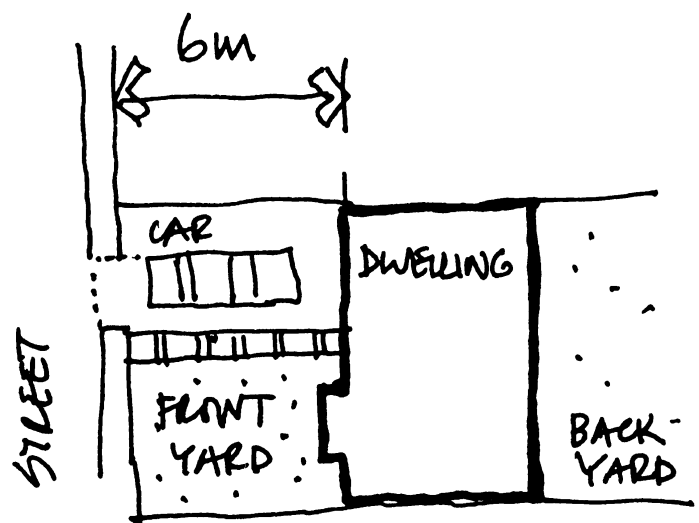
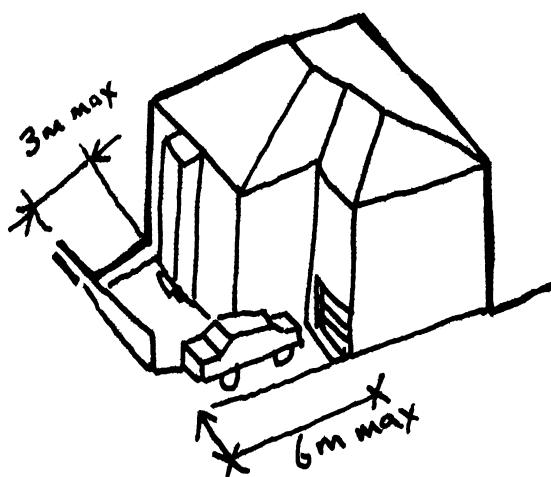
CRITERIA

- Keep frontage of dwellings as close to the street boundary as practically possible.
- Ensure good mutual visual communication is maintained between the users of the street and buildings.

STANDARDS

Front yard distances:

- 0m–3m maximum where parking is provided on the street or elsewhere, subject to prevailing streetscape character.



- 6m maximum if parking on a site where no parking is otherwise provided.

B.2 Front Doors

OBJECTIVES

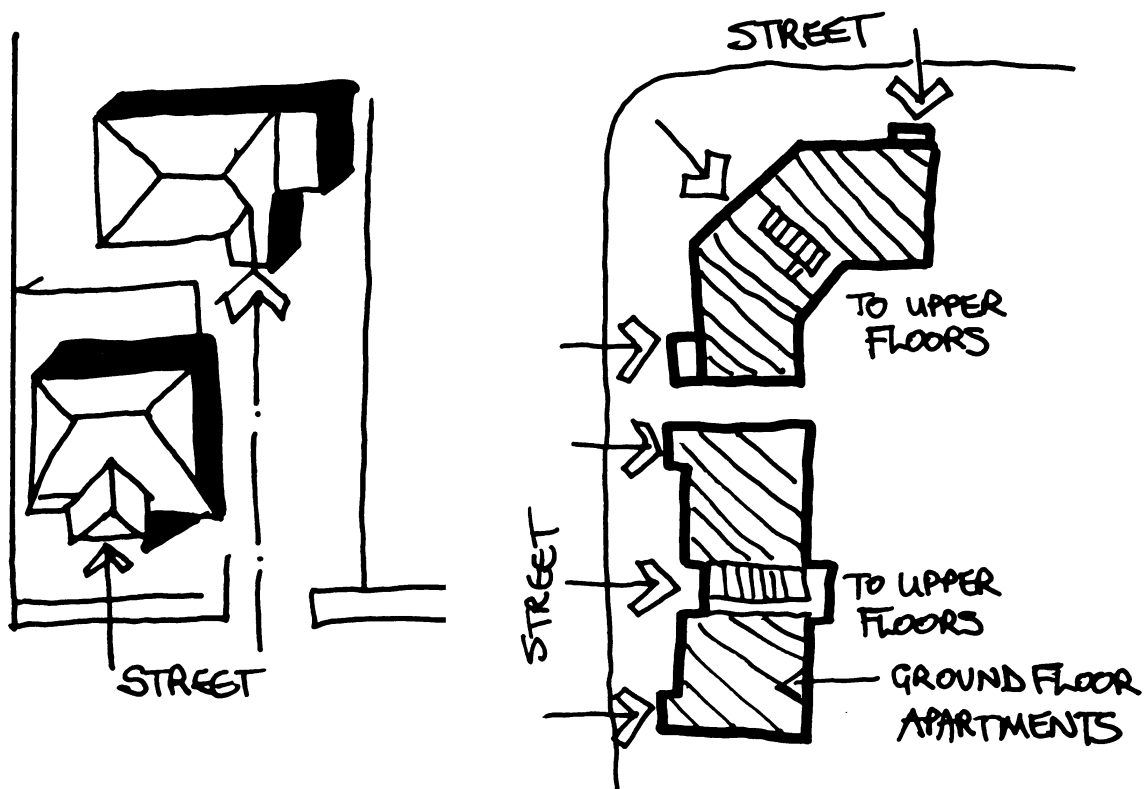
- To enhance user safety in the street and in dwellings by ensuring a high degree of mutual surveillance takes place between the street and housing entrances.
- To enhance the security of dwellings and private outdoor areas by ensuring that opportunities for burglaries and undetected intrusion into private property be minimised.
- To promote social interaction between residents by maximising the opportunities to meet.

CRITERIA

- Locate front doors and multiple entrances where they are clearly visible from the street.

STANDARDS

- Front doors clearly visible from the street where possible.
- Ground floor apartments:
- Provide a separate front door directly off the street.
- Upper floor apartments:
- Provide separate ground floor entry directly off street with vertical circulation serving 1–2 units per floor. Avoid entry to upper floor apartments off long corridors or access balconies.



TERRACE HOUSING

B.3 Back Yards & Balconies

OBJECTIVES

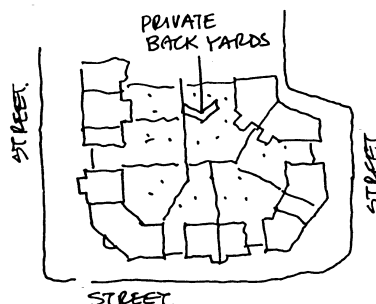
- To enhance the amenity value for residents by providing outdoor areas which are private, secure and sunny.
- To ensure the efficient use of resources by limiting private open space at ground level to a practical minimum.

CRITERIA

- Private open space shall be provided wherever practical in the form of back yards or balconies.
- Private open space shall receive some sunlight wherever practical.
- Back yards shall not be visible from the street and shall not be easily accessed by intruders without detection.

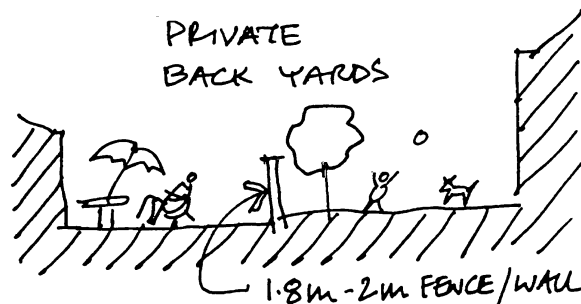
STANDARDS

- Limit back yards to a size determined by the least restrictive of the following:
 - building envelope requirements (refer B.4)
 - dwelling width x 10.0m
 - sunlight access at equinox
 - height in relation to boundary requirements
 - 100 sq.m for up to 10 apartments (min dimension of 10m) for communal back yards (not accessible to the public).
- Screen users in back yards from those in other back yards and in other open space.
- Small walled back courts which are attached to ground floor flats, where an additional private communal back yard is provided, have no minimum size requirement.
- Dwellings wholly on upper floors (except for access) need not include back yards but shall each have at least one balcony with plan dimensions not less than 3.0 x 2.0 m.
- All back yards and balconies (other than communal private open space) shall be readily accessible from a habitable room.



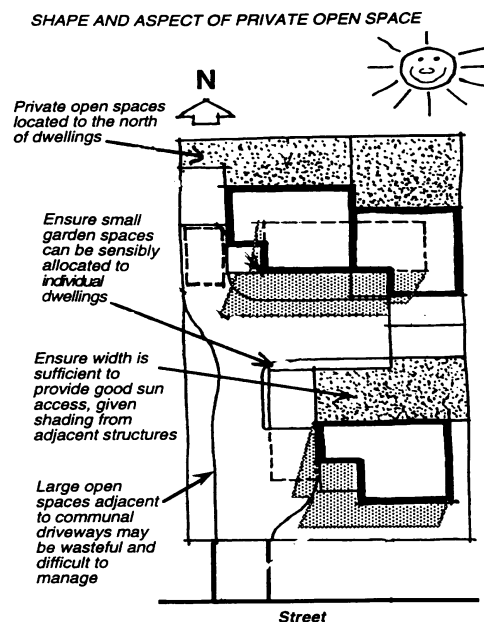
Back onto backs

- Locate back yards adjacent to other back yards where possible to avoid compromising security considerations or creating blank walls onto the street.



Back fences:

- Provide back fences of 1.8m height.
- Fences should be solid or have a very low degree of transparency.



B.4 Building Envelope

OBJECTIVES

- To ensure a reasonable standard of privacy is provided for residents when in their dwellings or private back yards.
- To provide residents with the amenity value of naturally lit dwellings and sunlight access.

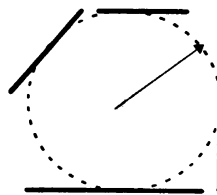
- To promote energy saving by reducing heating requirements.
- To provide residents with the amenity value of a minimum of outlook.
- To promote high density forms of housing while ensuring human scale and appropriate amenity values.

CRITERIA

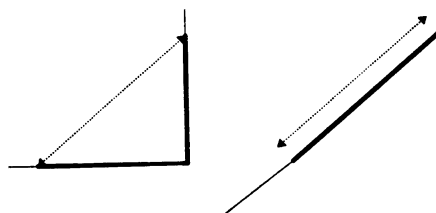
- Maintain sufficient distances between windows and doors of opposing dwellings and minimise views from other dwellings into private back yards.
- The majority of living rooms shall receive some sunlight at equinox.
- Buildings that are walk-up (3 stories + attic maximum height) and attached to adjacent buildings to form continuous development will be encouraged.

STANDARDS

- Maintain a minimum privacy distance across the backs of dwellings of 20 m described by a circle which allows for the distance to reduce as the opposing angles decreases.
- Maintain a minimum privacy distance between fronts across a street or accessway of 12 m providing it is not possible to see into the private open space of other dwellings.
- Front all buildings onto the street or accessway where possible.
- Height of buildings shall not exceed 9.5 m.
- Side yards at internal site boundaries can be reduced to 0 m.
- Building height in relation to boundary control shall not apply at the boundaries of streets or vehicular accessways.

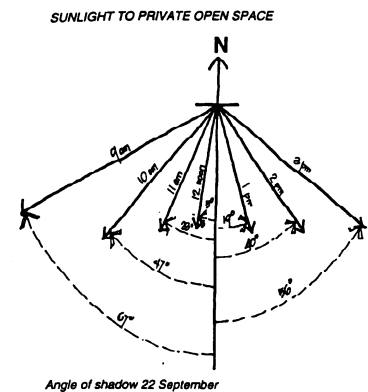
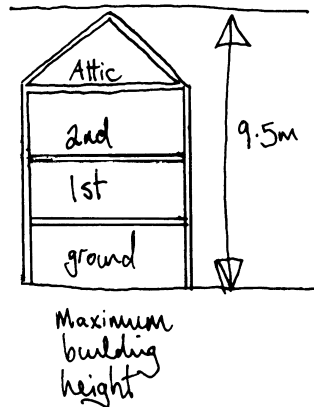
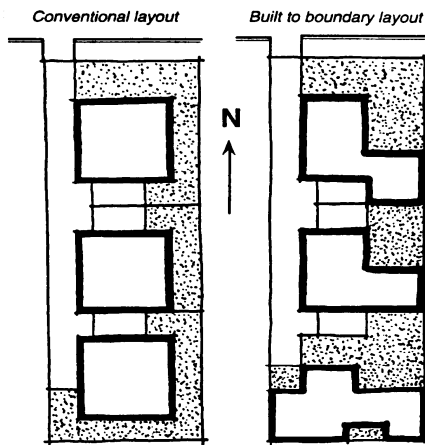


- A 10 m radius circle to ensure back to back privacy.



- A minimum of 4 m between windows of adjacent dwellings at corners of 135° or less.

BUILDING ON THE BOUNDARY



B.5 Building Frontages

OBJECTIVES

- To enhance user safety in the street and in dwellings by ensuring a high degree of natural surveillance takes place between the street and building frontages.
- To enhance the security of buildings and private outdoor areas by ensuring that opportunities for burglars and intruders to enter private properties undetected are minimised.
- To promote social interaction between residents and other users by creating opportunities to meet.

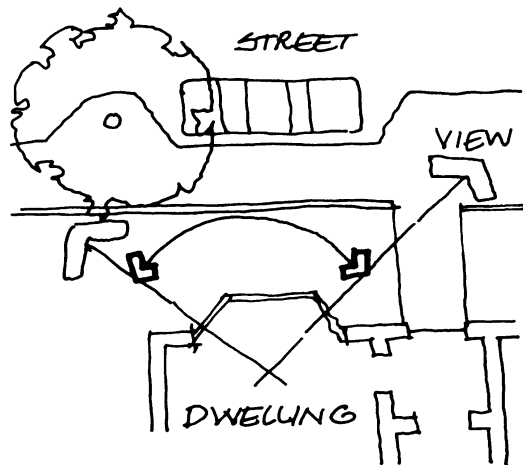
CRITERIA

- Ensure majority of dwellings front onto streets.
- Ensure majority of dwellings have at least one habitable room other than a bedroom facing the street.

STANDARDS

- Position a kitchen, living room or workroom fronting the street.

- At least one front room of each dwelling shall have a view to the street or accessway.



- Use bay windows or other devices to enhance the occupiers visual contact with street.



- Elevate dwelling ground floors to a maximum of 1 m where convenient, this enhances the occupiers visual contact with street whilst offering a degree of privacy, consider the implications on disabled access.

B.6 Landscape Provision

OBJECTIVES

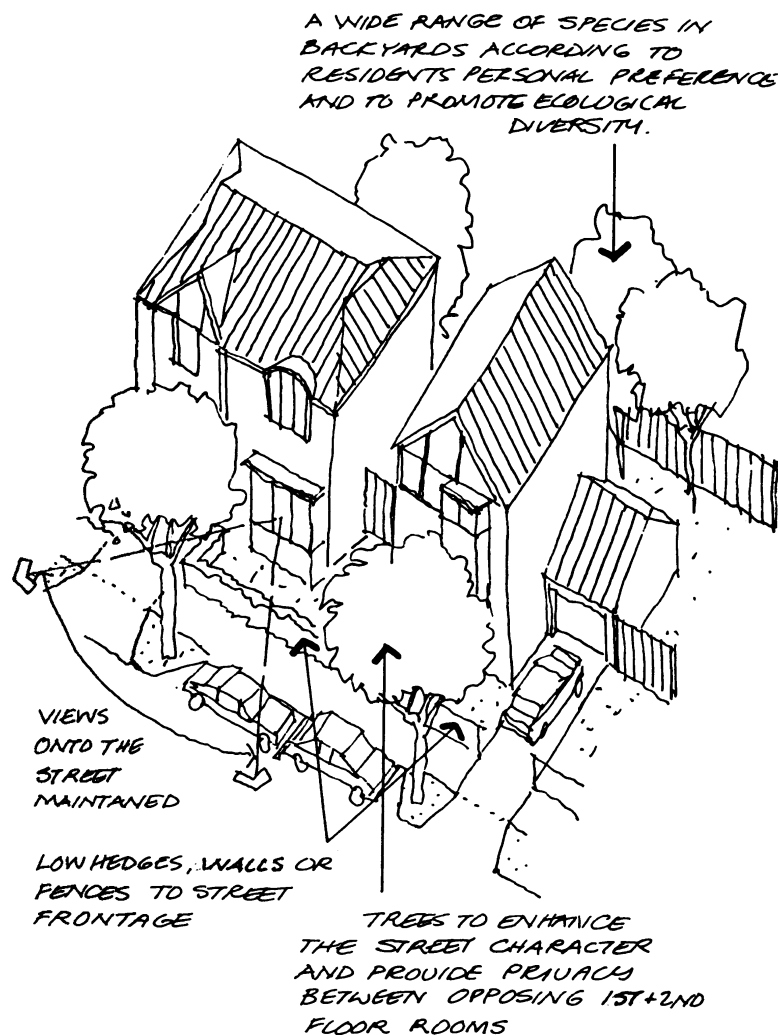
- Promote safety of users in the street by not obscuring surveillance of street from buildings by
- landscaping.
- Promote neighbourhood amenity.
- Protect existing trees of value.

CRITERIA

- Landscaping of front yards shall maintain open visibility between the ground floor of building frontages and the street.

STANDARDS

- Front yard landscaping shall be predominantly trees (not bushes or shrubs). At least one tree/dwelling or building site on average.
- Maximum height of solid street frontage walls or fences shall be 0.8 m.

**B.7 Vehicle Access****OBJECTIVES**

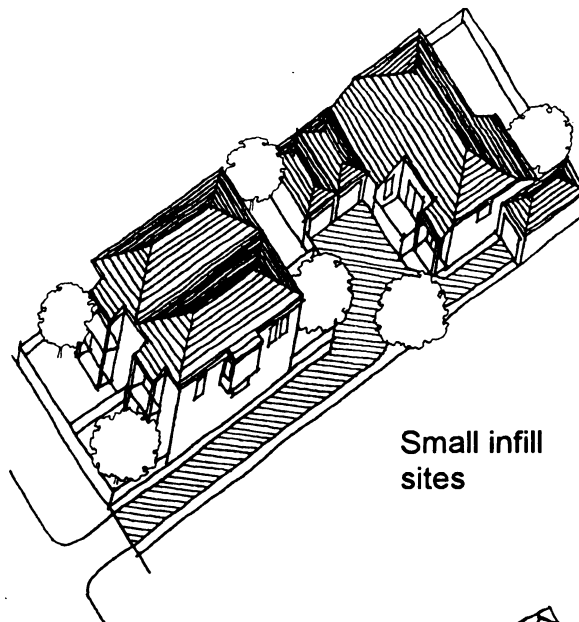
- To minimise detrimental effects of vehicle access and parking on amenity of dwellings.

CRITERIA

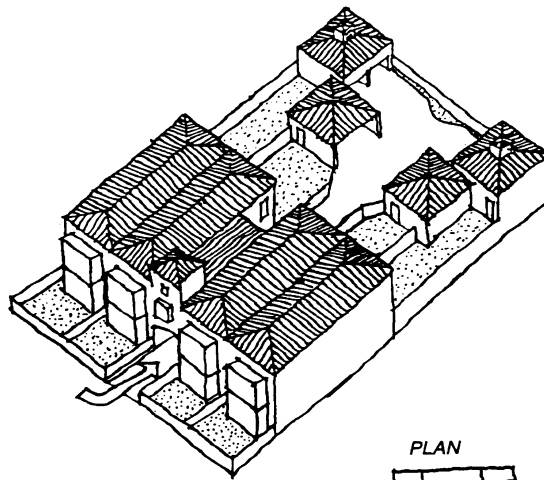
- All driveways safe and convenient.
- Car parking facilities do not dominate view of development from the street or accessway.
- Dwellings provide good surveillance of driveways and parking areas.
- Separate driveways from habitable rooms.

STANDARDS

- Shared driveways shall be a minimum of 1.5 m away from facing windows of a habitable room, unless dwelling floor level at least 1.0 m above driveway level.
- Front dwellings onto shared driveways unless driveways are secured from illegal entry.



Garages are conveniently located below some of the dwellings, and do not dominate the streetscape. Good surveillance of parking areas and the street is provided from dwellings.



The layout avoids garages dominating the streetscape

The single accessway also enables maximum retention of kerbside for on-street parking

The accessway may be fitted with security gates

Accessway landscaping and maintenance can be minimised

