

Chapter 49

Warnervale East and Wadalba North West Urban Release Area

OBJECTIVES

The Chapter aims to facilitate development for primarily residential purposes in accordance with the provisions of Wyong Local Environmental Plan 1991 (Amendment No 2, No 96 and No 163) in a manner that will:

- Provide a high quality and varied residential environment with accessible open space, retail and community facilities;
- Provide attractive streetscapes which reinforce the function of a street and enhance the amenity of dwellings;
- Provide opportunity for a variety of housing types;
- Provide a safe and efficient system of roads and pathways for vehicular, pedestrian and cycle movements;
- Provide for the protection and enhancement of the environment.

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APPENDICES

- A EXTRACT FROM LANDSCAPE POLICY GUIDELINES**
- B EXTRACT FROM STREETSCAPE DESIGN GUIDE FOR SOUTH AUSTRALIA; SOUTH AUSTRALIAN STATE PLANNING AUTHORITY, 1980**
- C STREET TREE PALETTE**
- D EXTRACT FROM ROAD NOISE MANUAL, DMR, 1987**
- E EXTRACT FROM AUSTRALIAN MODEL CODE FOR RESIDENTIAL DEVELOPMENT (1990)**
- F CONCURRENCE LETTER AND MAP FROM THE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.**

1.0 CITATION AND APPLICATION

- a This document and accompanying plans shall be cited as "Wyang Development Control Plan 49 - Warnervale/Wadalba Release Area" (herein called the "PLAN" See Development Concept Figures attached to this DCP document).
- b This plan is a Development Control Plan prepared and adopted pursuant to Section 72 of the Environmental Planning and Assessment Act 1979. It is a policy document for the general guidance of Council in the exercise of its duties and functions under the Act.
- c The Plan applies to all land to which Wyong Local Environmental Plan 1991 (Amendment No 2, No 96, No 121, No 131 and No 163) applies. The Plan also shows general development concepts for adjoining areas proposed for future residential development. Development potential of such lands will be determined at the time of rezoning and the concepts on this plan should not be assumed as representing future zoning proposals.
- d The Plan should be read in conjunction with the Australian Model Code for Residential Development (1990). ***An extract from which is attached at Appendix E***, and the Warnervale East/Wadalba North-West Development Contribution Plans. This Plan, unless otherwise specified, adopts the objectives and certain performance criteria of AMCORD.
- e This Plan takes precedence over other Council Codes and Policies unless otherwise specified.

2.0 AIMS AND OBJECTIVES

- a The Plan aims to facilitate development for primarily residential purposes in accordance with the provisions of Wyong Local Environmental Plan 1991 (Amendment No 2, No 96 and No 163) in a manner that will:
 - Provide a high quality and varied residential environment with accessible open space, retail and community facilities;
 - Provide attractive streetscapes which reinforce the function of a street and enhance the amenity of dwellings;
 - Provide opportunity for a variety of housing types;
 - Provide a safe and efficient system of roads and pathways for vehicular, pedestrian and cycle movements.
 - Provide for the protection and enhancement of the environment.

3.0 ADVICE TO APPLICANTS

3.1 Philosophy

The Warnervale/Wadalba Urban Release Area represents a significant expanse of land that is capable of supporting in excess of 10,000 dwellings. Council intends that development of this area is well planned and more importantly developed to provide an efficient and attractive environment for those who will come to live there in the future.

Council has prepared a design concept for the area which identifies the main local features including landscape, movement and activity centres. From this, major street networks, open spaces, and pedestrian linkages have been identified.

This Control Plan adopts the principles and objectives of AMCORD with particular attention being given to street design speeds and the appearance of the streetscape. This Control Plan does not, however, adopt all of the prescriptive controls of AMCORD relating to street width, public open space and drainage.

The quality of the subdivision will be influenced to a great extent by the appearance and function of the streetscape. The streetscape is an element which influences the physical environment of any community more than any other single element of a plan.

To this end Council requires in support of any application for development within the Warnervale/Wadalba Urban Release Area, the preparation of streetscape plans prepared by an approved landscape architect in accordance with Council's Landscape Policy. The requirements of a streetscape plan are provided in Section 8.0.

The Louisiana Road Infill Precinct (LRIP) has been subject to the development of an area specific Structure Plan and Master plan titled 'Hamlyn Terrace Master Plan Draft April 2006' prepared by Annand Alcock Urban Design. While many of the principles set out in AMCORD remain relevant to this Precinct, the preparation of the Structure Plan is underpinned by the philosophy, New Urbanism. Therefore development in the LRIP firstly adopts the principles and objectives outlined in 'Hamlyn Terrace Master Plan Draft August 2006 prepared by Annand Alcock Urban Design'. A copy of this document can be provided upon request.

3.2 Applications for Development

- a Development consent is obtained by lodging a development application for approval by Council in accordance with the provisions of the Environmental Planning and Assessment Act 1979.
- b Applicants are required to consult with Council prior to lodging an application for subdivision/development.
- c Each application shall be considered on its merits. Council may vary its requirements depending on the circumstances of individual applications. Sympathetic consideration will be given to subdivision plans of innovative design and which are consistent with the objectives and performance criteria of AMCORD.

3.3 Use of Qualified Personnel

Approaches to subdivision design over recent years have emphasised engineering, surveying and lot yield efficiency. While all these are important, the primary objective in planning a new residential area is the creation of a design that is safe and creates a range of innovative design opportunities that are stimulating to the observer. Fundamental to this is the concept of variety, notably in the design of streetscapes, subdivision patterns, open spaces and activity areas.

To this end developers are encouraged to employ the services of urban designers who have a demonstrated capacity to create innovative and attractive residential subdivisions. Developers are also reminded that it is a requirement of Council to employ a Council approved Landscape Architect to prepare a landscape design report which must accompany any subdivision application or major building proposal.

There has been a tendency for applicants to employ the landscape architect once the subdivision plan has been formulated. This practice is unsatisfactory. As a consequence, applicants are advised that it is Council's requirement that the landscape architect be employed prior to the formulation of any subdivision plan to ensure that landscaping considerations, particularly those related to the streetscape, are adequately incorporated in the subdivision design.

3.4 Developer Contributions

Section 94 of the Environmental Planning and Assessment Act 1979 provides that where development increases the need or the demand for services or facilities in an area, Council may require developers to contribute to the costs associated with the provision of such services. Contributions may be in the form of a monetary contribution or in some circumstances may be carried out as "works in kind".

Wyong Council's Contributions Plan No. 7A provides details of the contributions which apply in Warnervale East/Wadalba North-West towards Community Facilities, Open Space, Drainage and Roads. The Plan sets out the basis for contributions sought and has been prepared in accordance with Section 94 of the Environmental Planning and Assessment Act 1979. The Contributions Plan makes provision for monetary contributions, land dedication, works in kind etc and should be read in conjunction with this Plan.

Wyong Council's Contributions Plan No WS7A provides details regarding developer contributions towards Water supply and Sewerage. Contributions Plan No WS7A should also be read in conjunction with this Plan.

Planning Agreements

Section 93F of the EP&A Act 1979 provides that a Planning Agreement may be entered into between Council and the developer/s either in lieu of all or part of the Section 94 Contributions or in addition to them. A planning Agreement may be entered into at land rezoning stage or at development application stage. For more information of Planning Agreements and when and how they may be implemented please refer to the Department of Planning web page at www.planning.nsw.gov.au.

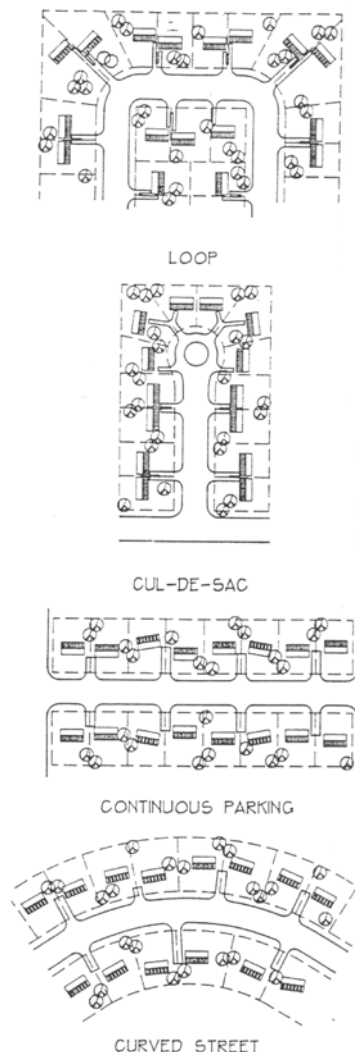
4.0 SITE PLANNING CONCEPTS AND DEVELOPMENT PRINCIPLES

4.1 Application Procedure

Subdivision is generally the first stage of development in residential release areas.

Different development approval processes apply, depending on the form of development proposed:

- Where it is proposed to subdivide into allotments of area greater than 450 square metres, a development application may be made for subdivision alone. Further applications must be made for all residential development - building applications for detached dwellings and development applications for all other forms of housing including villa homes, town houses and dual occupancies.
- Where it is proposed to subdivide into allotments of area less than 450 square metres, a development application must be made for both the subdivision and the development proposed. No further development application is required for this form of residential development known as "integrated housing" (though Construction Certificate applications must be made). This form of development is permissible in the Zone No 2 (b) (Multiple Dwelling).



4.2 Residential

Planning for the Warnervale/Wadalba Urban Release Area has been based on the achievement of a gross residential density of 12.5 dwellings per hectare. The densities for these areas is further refined in the Residential Development Strategy 2002. The gross residential density for the overall Louisiana Road Infill Precinct has been identified as 13 dwellings per hectare with further detail provided in Section 4.15.2. The densities recognise the trend to smaller allotments. The definition for gross residential density is taken from draft SEPP 66 – Integration Land Use and Transport. Gross residential density means a density expressed in dwelling per hectare that excludes regional facilities (such as TAFE colleges, hospital facilities and higher and secondary education facilities, regional transport infrastructure and the like) but includes residential development, local open space and drainage, local roads, neighbourhood centres and primary schools.

4.2.1 General Requirements

Smaller allotments, particularly those less than 450 square metres, require a more thoughtful approach to house siting and design. This will involve some additional design at the subdivision stage to ensure that appropriate attention is given to architectural design, solar access, outdoor open space, parking, driveway locations, fencing and landscaping.

Council sees it as desirable to encourage variety in the appearance of houses, notably facades, on smaller allotments. As a general rule there should be at least significant variations in the external appearance of any group of six (6) adjoining dwellings. Notwithstanding, dwellings should be compatible in terms of bulk and height.

Zero lot line developments are particularly appropriate for allotments less than 450 square metres. Zero lot line developments involve placing one windowless wall on or within 150mm of the side boundary.

- a The ground floor level of all residential buildings shall have a minimum freeboard of 600mm above the designated 1:100 year flood level to compensate for possible mine subsidence in the future. Other development is to be a minimum of 300mm above the designated 1:100 year flood level.
- b Warnervale East and Wadalba North-West are subject to a Ministerial decision which sets maximum subsidence parameters of 3mm/metre strain and 4mm/metre tilt which requires a general restriction to single storey brick veneer construction. However, two storey buildings have been approved where the subsidence criteria can be met.

West Urban Release Area designated on the development concept as the high/primary school, playing fields, courts and part of the local centre are outside. All proposals in the area should be discussed with the Mine Subsidence Board in the early planning stage to ascertain their requirements. The Board's approval is required for all building work in the area of the Plan.

NB: Areas within the Wadalba North hat area proposed to be mined. However, consultation with the Mines Subsidence Board is required for all applications within the area of the Plan.

- c All applications for "integrated development" as defined in this plan, shall:
 - i Identify a building envelope for the proposed dwelling which specifies:
 - o Side and front setbacks;
 - o The maximum continuous length of an external wall for a dwelling on each boundary; and

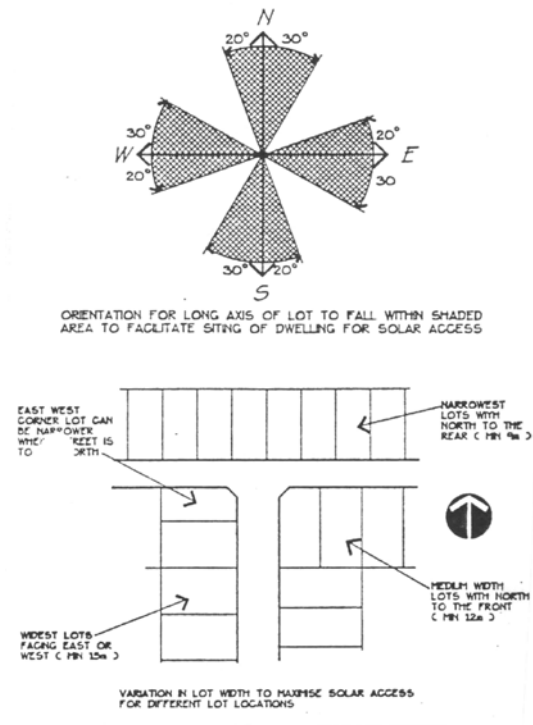
- o Any restrictions to the location, including setbacks, of any windows due to considerations of solar access and privacy issues.
- ii The relationship of private open spaces to the proposed dwelling specifying minimum area, slope and dimensions.
- iii Restrictions on the design of internal living areas within a proposed dwelling to ensure direct orientation and access to private open space.
- iv Typical architectural details for the dwelling facade, garages, carports and front fences and privacy screens, including a schedule of external finishes and colour schemes.
- v Preferred driveway locations and carparking locations.
- vi For the LRIP, a complete set of architectural plans and supporting consultant reports addressing the applicable dwelling standards are required to be provided.

Developers are encouraged to execute a memorandum of encumbrance over those allotments less than 450 square metres reflecting building requirement determined after consideration of the above elements.

- d Special consideration shall be given to location of allotments less than 450 square metres. Such allotments shall:
 - i Avoid sites of over 5% slope or with direct access to busy streets such as collector roads and higher road classifications;
 - ii Be located on sites around landscaped cul-de-sac containing additional parking except in the LRIP where cul-de-sac's are not encouraged;
 - iii Be located on sites adjacent to open space areas where the dwellings are designed to directly front onto parks and other open space.
- e Except where there are significant constraints, lots shall be orientated to facilitate siting of dwellings to take advantage of solar access by ensuring the:

Long axes of lots are within the range N20°W to N30°E, or E20°N to E20°S; and

Dimensions of lots are adequate to protect solar access on site, taking into account likely dwelling size and the relationship of each lot to the street.



- f Lots less than 450 square metres shall be rectangular in shape. Cul-de-sac heads servicing such lots shall be designed as either a basic T-form or Y-form. Cul-de-sacs are discouraged in the LRIP.

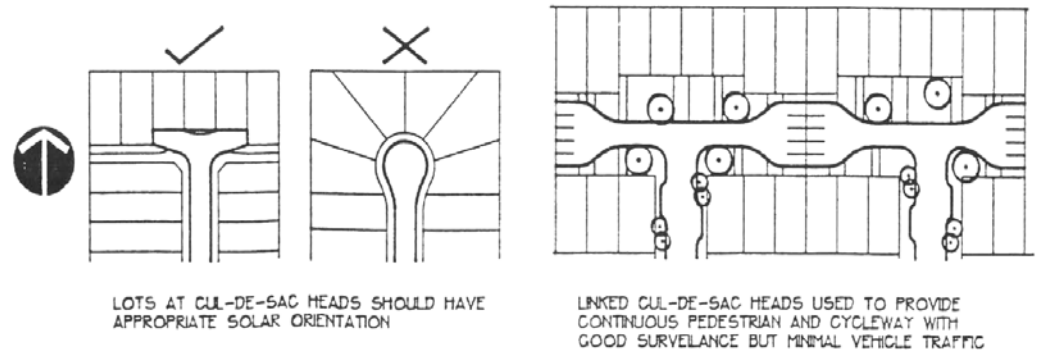


Figure 2

- g In respect to zero lot line developments a maintenance easement shall be provided in conjunction with an adjacent zero lot line to ensure satisfactory clearance between structures on adjacent properties and to provide an area in which to repair and maintain a structure erected on the property line. The maintenance easement shall be maintained as an open space (including pergolas) and shall be not less than 1.0 metres in width extending along a property line of the lot where the adjacent property has a designated zero lot line. A pergola may be erected over the easement providing it can be demonstrated that it will not interfere with the maintenance of an adjacent zero lot line dwelling.
- h Where "superlots" (lots in excess of 1,000 square metres intended for future development) are proposed, the applicant is required to demonstrate that the allotment(s) can be appropriately developed in the future by submitting concept plans at the initial subdivision stage. In this regard "superlots" should be purpose designed to accommodate an identified future use.

4.2.2 Requirements Specific to Warnervale East and Wadalba North West Infill Precinct (refer to Section 4.15 for requirements specific to Louisiana Road)

- a The minimum building line setback from the street boundary to the main facade (includes porches and verandas) of a residential dwelling shall be 3 metres providing the setback for any group of dwellings proposed within a subdivision/building application have an average setback specified in Table 1. The minimum side setback shall be as nominated in Table 1.

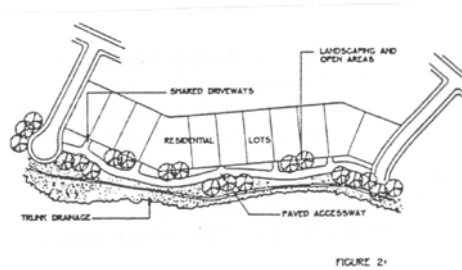


FIGURE 2:

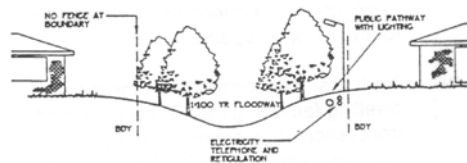


FIGURE 3: TREATMENT IN VICINITY OF TRUNK DRAINAGE AND CHANNELS

STREET TYPE	AVERAGE FRONTAGE SETBACK (M)	MINIMUM SIDE STREET SETBACK (M)
Access Place	4	2
Access Street	5	3
Collector Street/ Bus Route	5	4

Table 1 Relationship between Street Type and Building Line Setback

- b Subject to Clause 4.2.2 a, subdivision applications shall identify a variation in building lines in order to create interesting building street scenes as illustrated.
- c Notwithstanding any other provisions of this plan, adjacent residential development shall front onto drainage reserves, open space and the like in accordance with Figure 2. A grassed swale is to be provided on the reserve side of the street. In the limited case where the adjacent development cannot front the reserve, the rear fences shall be constructed in accordance with Figure 4.

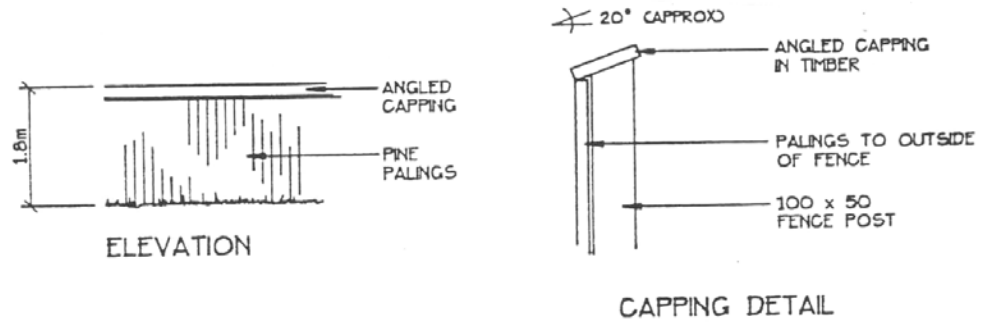


FIGURE 4: TYPICAL FENCE ADJACENT TO OPEN SPACE / DRAINAGE AREAS

- d Building siting and design is to comply with Elements B2 and B3 of AMCORD.

See Appendix E

- e Notwithstanding any other provision of this PLAN, applicants are to ensure that the setback of the north wall of a future dwelling from the north boundary is sufficient to meet the requirements of Table 2 for all integrated developments.

Lot Width	Nth Rear Boundary*	Nth Side Boundary**	Nth Front Boundary ^o
	Min-Ideal	Min-Ideal	Min
9m	9m-11m	-	6m
10m	7m-11m	-	5m
11m	7m-11m	-	5m
12m	6m-9m	6m-9m	4m
13m	6m-9m	6m-9m	4m
14m	6m-9m	6m-9m	4m
15m	6m-9m	6m-9m	4m
* Assumes length of north glass at ground floor is equal to lot width less 2 metres and two storey development permitted within 1.7 metres of north boundary on adjacent lot.			
** Assumes a minimum length of 10 metres of north glass at ground floor and two storey development permitted on adjacent lot within 1.7 metres of north boundary.			
^o Provides adequate setback to protect window from shadowing by tall front or side fences and assumes solar access from the street.			
x Setbacks may be reduced by 2 metres where there is a likelihood that two storey development will not occur on an adjacent lot.			

Table 2 Setback of north wall from north boundary of solar lot

- f The minimum frontage of residential allotments along collector or higher road classifications shall be 18 metres.
- g Allotment size and orientation shall comply with Element B1 of AMCORD.

See Appendix E

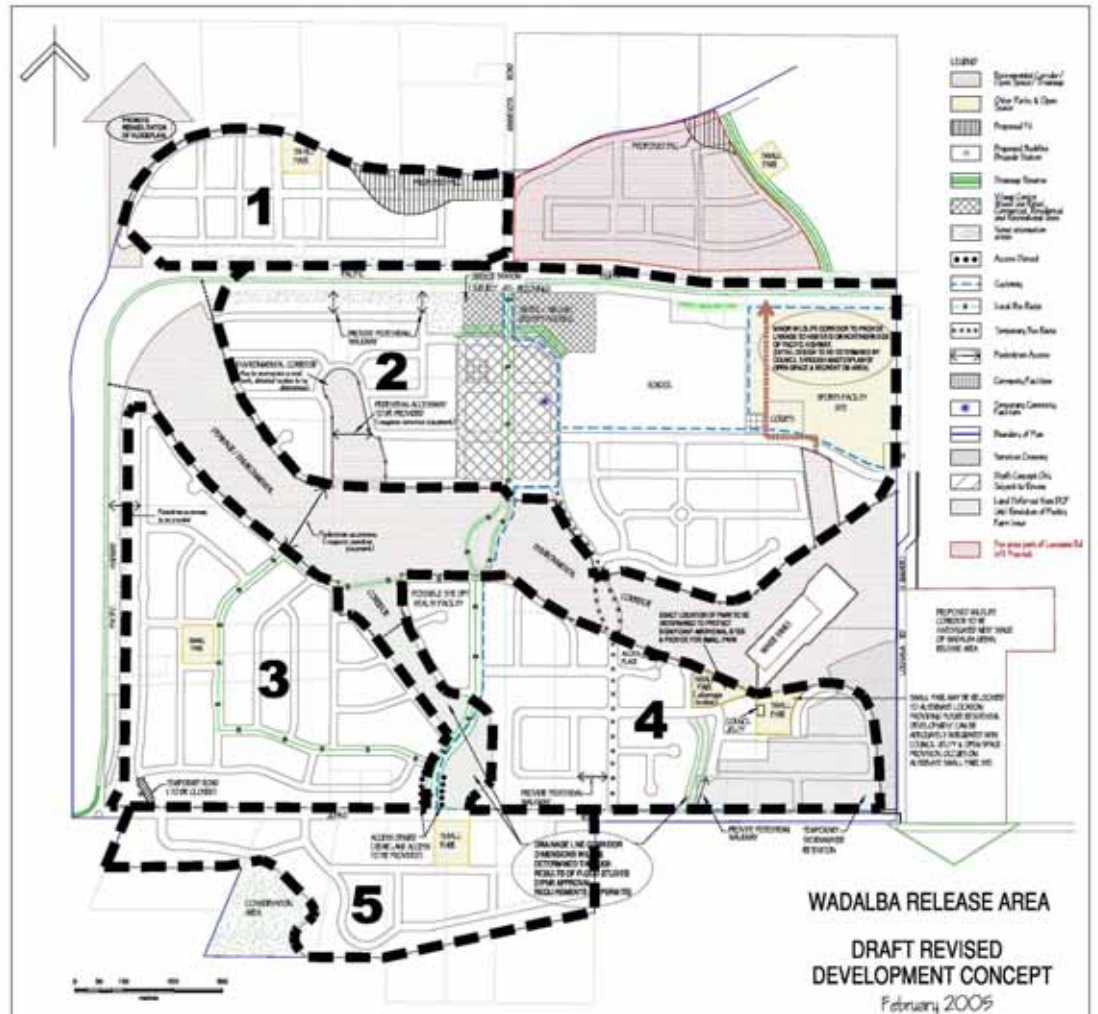
- h **Wadalba North West Urban Release Area – Specific Urban Design Principles**

The Concept Plan for Wadalba North West was redesigned in 1998 to provide a superior layout and form of development for this part of the release area than would be achieved under the previous concept adopted in 1993. Additional provisions are incorporated within this plan specific to the Wadalba North West Urban Release Area. Where there is an inconsistency between these provisions and those provisions that apply generally throughout all of the Warnervale East/Wadalba North West Urban Release Area, the provisions described below will prevail.

- i **Creation of Distinct Neighbourhoods (Wadalba North West)**

Five distinct neighbourhoods are to be created within the Wadalba North West Urban Release Area. These neighbourhoods are physically separated by the Pacific Highway, the drainage or environmental corridor or Johns Road. These neighbourhoods should be distinguished by variety in the architectural character and building materials used while being related to the whole Wadalba Village through the use of a consistent palette of street landscaping. The five neighbourhoods include:

- i* Land north of the Pacific Highway. Small scale neighbourhood of two sub-precincts on either side of Minnesota Road.
- ii* Neighbourhood surrounding the local centre and school. Maximum residential densities permitted under the provisions of the Wyong Local Environmental Plan 1991 are encouraged within this neighbourhood (with the exception of steeply sloping and elevated sites adjoining the Environmental Corridor).
- iii* Neighbourhood bounded by the Pacific Highway, Johns Road and the drainage corridor. This neighbourhood is to be developed to maximise surveillance of and views to the drainage corridor. Higher density development is encouraged in those areas in close proximity to the proposed bus route.
- iv* Neighbourhood on the southern side of the Environmental Corridor, east of the drainage corridor and bounded by Johns Road to the south. Development is to maximise views to the environmental corridor and views out of the site to the south.
- v* Land south of Johns Road Development is to maximise views to the proposed environmental corridor within Wadalba. Larger allotments are to be created as the elevation increases and slope increases at the southern boundary of this neighbourhood.



Neighbourhoods – Wadalba North West

General - Development within all neighbourhoods is to maximise the pedestrian and cyclists movements to the proposed local centre and community facilities including the playing fields and primary/high school.

j Residential Development Generally (Wadalba)

Residential development within the Wadalba North West Urban Release Area will achieve a high standard of urban form through:

- A variety of lots sizes and opportunities to increase housing choice;
- Balconies, planters, verandas, steps in the roofline and other architectural features to provide visual relief and individual identity;
- A variety of finishes used on external materials;
- Building designs which encourage neighbourly communication and surveillance of streets and public spaces;
- Garages and parking structures are to be sited and designed to reduce their impact on the street;

4.3 Road Hierarchy and Layout

- a The Plan identifies a conceptual road layout. The underlying objective of the concept plan is to establish a road hierarchy which by design distinguishes between access places, access streets and collector roads. Whilst consideration will be given to varying the standards specified in the plan, the hierarchy identified is to be maintained. A maximum design speed of 20km/hour will apply to access places, whilst a maximum design speed of 40km/hour will apply to access streets. Collector roads shall have a maximum design speed of 50km/hour.

4.3.1 Wadalba North West and Warnervale East

- b The road design and layout for development of the LRIP is outlined in the Structure Plan for this precinct (refer to Section 4.15). Development within the LRIP shall comply with this layout. The relevant provisions of B6 and B7 of AMCORD are generally applicable with notable exceptions relating to 4-way intersection treatments. **Where the following sections of the PLAN conflict with the LRIP Structure Plan (section 4.15), the latter shall prevail.**
- c Subject to the provisions of the PLAN, applicants are required to comply, with the relevant provisions of ELEMENT's B6 and B7 of AMCORD. Specifically, these include:
- i Items D1, D2, D3, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16 and D17 of ELEMENT B6; and
 - ii Items D9, D10, D11, D12 and D14 of ELEMENT B7 of AMCORD.

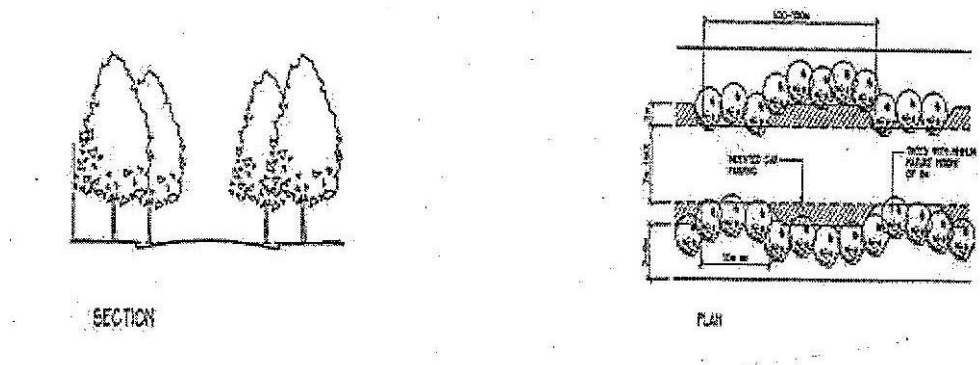


Figure 5 Landscape concept for plans nominated in clause 4.3e

See Appendix E

- d Roads shown with solid lines on **the Plan** shall be located generally in the position indicated. Variations in alignment along the general route, is encouraged to facilitate an interesting streetscape and the nominated street design speed.
- d Except as indicated on the Plan, all roads nominated in Clauses 4.3.e and 4.3.f shall generally have an average road reserve width of 22 metres to provide an 11 metre pavement and variable width verges as illustrated. Minor variations will be accepted to accommodate existing developments.
- e Subject to Clause 4.3.d Louisiana, Minnesota (including extension to Hiawatha) and Johns Roads and the new link road between Louisiana Road and Wyong Hospital shall generally be landscaped in accordance with Figure 5.
- f Mataram and Warnervale Roads shall generally be landscaped in accordance with Figure 6.
- g The landscaped medians within Mataram, Hiawatha and Warnervale Roads shall be 3metres in width. The length of the medians are variable.

Generally, they will have a minimum length of 20 metres and a maximum length of 50 metres and shall be located so as to:

- i* Break-up the gun barrel nature of the nominated roads;
 - ii* Act as traffic calming mechanisms by adopting the guidelines specified in Table B6.3 of AMCORN; and
 - iii* Not prohibit safe access to individual residential lot. No on-street carparking shall be provided along the length of the landscaped median.
- h* Each of the roads nominated in Clauses 4.3e and 4.3f shall be designed for a maximum design speed of 50km/hr.
- i* All roads, other than those for which specific criteria are set in Clauses 4.3b -4.3g, shall satisfy the objectives and performance criteria set in elements B6 and B7 of AMCORN.

Development proposals shall include documentation to demonstrate how the development:

- i* Establishes a road hierarchy which distinguishes between access places, access streets and collector roads in a manner legible to road users and consistent with the indicative maximum traffic volumes shown in Table 3a and 3b.
 - ii* By design, achieves typical traffic speeds not exceeding the maximum street speeds specified in Table 3a and 3b.
 - iii* Represents an integrated approach to road and streetscape design by also addressing the objective and performance criteria of element B5 of AMCORN, subject to the provisions of Section 8 of this plan.
- j* Where development proposals are designed in full compliance with all standards specified in Table 3a or 3b, the requirements of Clause 4.3h shall be deemed to be satisfied.

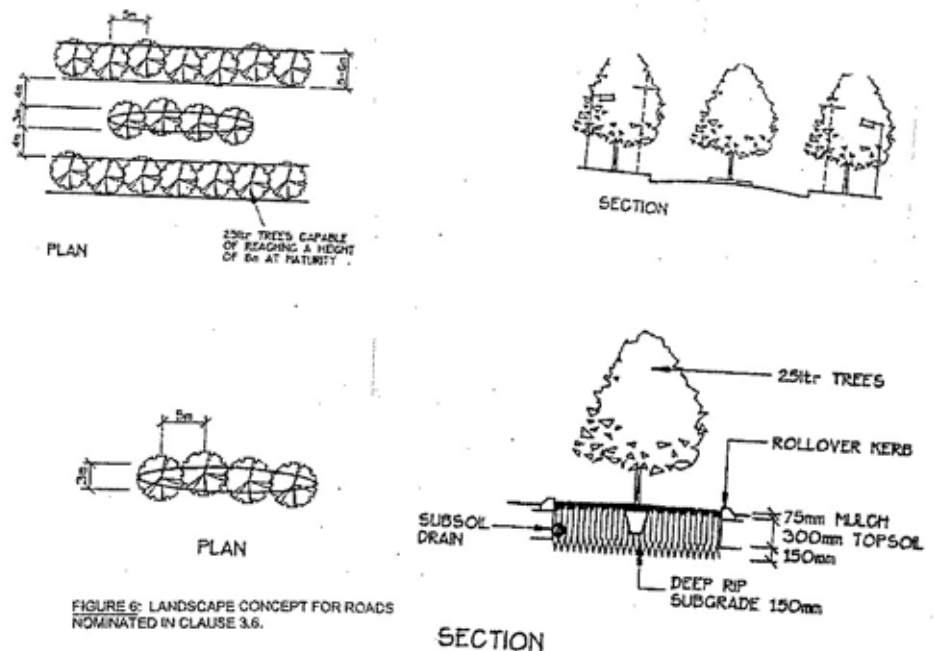


Figure 6

Landscape concept for roads nominated in clause 4.3f

- k Subject to Clause 4.3d, variations in verge widths to accommodate wider areas for massed landscaping, parking, etc. and to allow the footpath to meander relative to the kerb and property lines will be favourably considered providing:
 - i* The sum of the verge widths on each side of the street adds up to the sum of the minimum verge width specified in Table 3a or 3b for each side of the nominated road classifications; and
 - ii* The minimum verge width is 3 metres.

- l Developments (including redevelopment) shall be required to replace existing direct vehicular access to either Sparks Road or the Pacific Highway with access to the adjoining local road system.

TABLE 3a: CHARACTERISTICS OF STREET TYPES FOR WARNERVALE URBAN RELEASE AREA

STREET TYPE	#1 INDICATIVE MAXIMUM TRAFFIC VOLUME	MAXIMUM STREET SPEED (KM/HR)	#2 PREFERRED CARRIAGEWAY/ PAVEMENT WIDTH	PARKING PROVISION WITHIN STREET RESERVE	#3 KERBING	PAVED FOOTPATH PROVISION	CYCLEWAY PROVISION	#4 VERGE WIDTH	LONGITUDINAL GRADIENT
Access Place Development one side only.#6	150	20	3.5m	1 hardstanding verge space per 2 lot	Roll Top	1.2m wide footpath (development side)	No	See Note #5 <i>Minimum 4.5m each side</i>	0.5% to 16%
Access Place Development both sides.#6	150	20	5m	1 hardstanding verge space per 2 lot	Roll Top	1.2m wide footpath (both sides)	No	See Note #5 <i>Minimum 4.5m each side</i>	0.5% to 16%
Access Street#6	500	30	5.5m	Carriageway	Roll Top	1.2m wide footpath (both sides)	Not Required	Minimum 5.5m each side	0.5% to 16%
	1,000	40	6.0m	Carriageway	Roll Top	1.2m wide footpath (both sides)	Not Required	Minimum 5.5m each side	
Collector Street#6	2,000	50	7.0m	Carriageway	Roll Top	1.2m wide footpath (both sides)	As shown on The Plan	Minimum 5.5m each side	0.5% to 16%
Bus Route – major #6		50	11m	Carriageway	Upright	1.2m wide footpath (both sides)	As shown on The Plan	Minimum 5.5m each side	0.5% to 14%
Bus route - minor #6		40-50	9m	Carriageway	Upright	1.2m wide footpath (both sides)	AS shown on The Plan	Minimum 5.5 m each side	0.5% to 14%

NOTES

- #1 For single dwelling lots apply traffic generation rate of 10 vehicles per day (veh/day) per lot (equivalent to approximately 1 veh/day in the peak hour) unless a lower rate can be demonstrated. Lower rates can be applied to multi-unit dwellings based on locally derived rates.
- #2 Width is measured from kerb invert to invert. Widening may be required at bends to allow for wider vehicle paths (using NAASRA Turning Templates).
- #3 Where drainage is not required a flush pavement edge treatment can be used.
- #4 Verge includes footpaths. Additional width of 1 metre is required where a cycle path is to be provided.
- #5 Minimum verge width of 4.5 metres to residential development side. Where no or minimal service corridors or footpaving is required, width on non-development side may be reduced to 1 metre.
- #6 For development one side only (all streets) a grassed swale is to be provided adjoining the reserve.

TABLE 3B: CHARACTERISTICS OF STREET TYPES FOR WADALBA NORTH WEST URBAN RELEASE AREA

	Max Daily Traffic	Target Speed	Verge Minimum	Parking Indented (1 hardstanding verge space per 2 lot)	Footpath provision	Carriageway Width	Bike Lane (Both sides)	Median	Total Reserve	See Diagram
Access Street - 5.5m carriageway	500	30	4.5		1.2 m wide (both sides)	5.5			14.5	A1
Access Street - 7.0 m carriageway	1000	40	5.5		1.2 m wide (both sides)	7.0			18	A2
Access Street - High Density Parking	2000	40	4.0	2	1.2 m wide (both sides)	5.8	0.4		18.6	A3
Neighbourhood Connector	5000	45	3.5	2	Both sides	5.8	1.4		19.6	C1
Neighbourhood Connector - Major Bus	6000	50	3.5	2	Both sides	6.0	1.5		20	C2
Divided Neighbourhood connector with bus	10000	50	3.5 (+2.5 Cycleway)	2	Both sides 2.5m cycleway on one side	2/3	1.5	3	23	

TABLE 3C: CHARACTERISTICS OF STREET TYPES FOR LOUISIANA ROAD INFILL PRECINCT

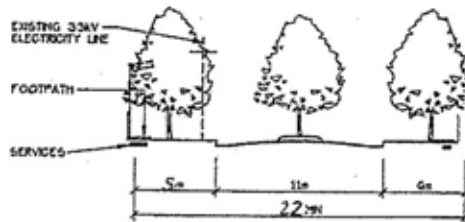
STREET TYPE	INDICATIVE MAX VOLUME (Per day)	MAX STREET SPEED (KM/HR)	ROAD RESERVE WIDTH (M)	PREFERRED CARRIAGEWAY / PAVEMENT WIDTH (M)	PARKING PROVISIONS WITHIN ROAD RESERVE	KERBING	PAVED FOOTPATH PROVISION	CYCLEWAY PROVISION	VERGE WIDTH (M)	LONGITUDINAL GRADIENT
Avenue Collector	2000	50	22	11	2.5m parking on both sides within carriageway	Upright sides both	1.2 one side 2.5 other side	2.5 off road on one side	5.5m both sides	0.5% to 14%
Avenue Collector – Bush Edge	2000	50	20	11	2.5m parking on both sides within carriageway	Upright sides both	1.2m one side	2.5m Adjacent to but not within road reserve	3.5m Open Space side 5.5m houses side	0.5% to 14%
Avenue Collector with Bio Swale	2000	50	20	10	2.5m parking both sides within carriageway	Upright side swale other side one kerb	1.2m both sides	None	6.5m to accommodate swale 3.5m on other side	0.5% to 14%
Local Street with Bio-swales	1000	40	16	7	Within carriageway	Swale kerb one side rolled kerb other side	1.2m both sides	# None	5.5m to accommodate swale 3.5m on other side	0.5% to 14%
Minor Local Street	1000	40	16	7	Within carriageway	Rolled kerb both sides	1.2m both sides	# None	4.5m both sides	0.5% to 14%
Highway Edge Road	500	30	15	5.5	Within carriageway	Upright Highway side rolled other side	1.2m houses side	Yes on road	4.5m to houses 5m to highway	0.5% to 14%
Bush Edge Road with Cycleway	1000	40	15	8	Within carriageway	Upright bush side rolled other side	1.2m houses side	2.5m Adjacent to but not within road reserve	5.5m to houses 1.5m other side – Fire track overrun	0.5% to 14%

STREET TYPE	INDICATIVE MAX VOLUME (Per day)	MAX STREET SPEED (KM/HR)	ROAD RESERVE WIDTH (M)	PREFERRED CARRIAGEWAY / PAVEMENT WIDTH (M)	PARKING PROVISIONS WITHIN ROAD RESERVE	KERBING	PAVED FOOTPATH PROVISION	CYCLEWAY PROVISION	VERGE WIDTH (M)	LONGITUDINAL GRADIENT
Bush Edge Road no Cycleway	1000	40	15	8	Within carriageway	Upright bush side rolled other side	1.2m houses side	None	5.5m to houses 1.5m other side – Fire track overrun	0.5% to 14%
Rear Access Laneway	150	20	8	6	None	Rolled both sides		None	0.5m one side 1.5m other side	0.5% to 14%
Shareway	150	20	11	5.5	Within carriageway	Upright both sides	1.2m houses side	None	4.5m to houses 1m other side	0.5% to 14%

* Minor Local Street – Vertical kerb adjacent to Reserves

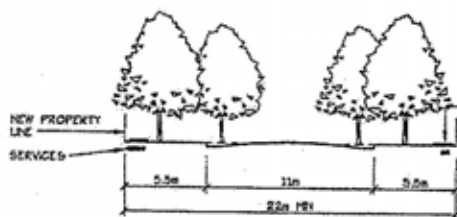
Local Street – 2.0m wide off road cycleway as shown on Figure 19

+ Where upright kerbs are proposed rather than rolled kerbs identified in this table, an additional 0.3m width is to be added to the carriageway pavement and therefore to the overall road reserve width.



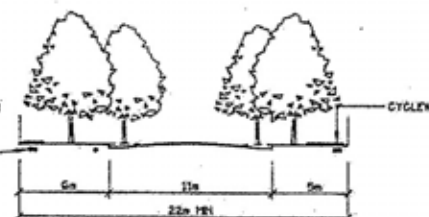
NOTE: WIDEN TWO(2) METRES ON SOUTHERN SIDE OF EXISTING ROAD RESERVATION LANDSCAPED MEDIANS AT SELECTED LOCATIONS

WARNERVALE ROAD DEVIATION



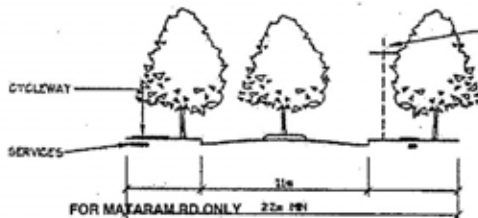
NOTE: WIDEN ONE(1) METRE EITHER SIDE OF EXISTING ROAD RESERVATION AND UNDERGROUNDING OF EXISTING ELECTRICITY LINES

MINNESOTA (INCLUDING EXTENSION TO HIAWATHA), LOUISIANA (INCLUDE. MOUNTAIN VIEW DRIVE)



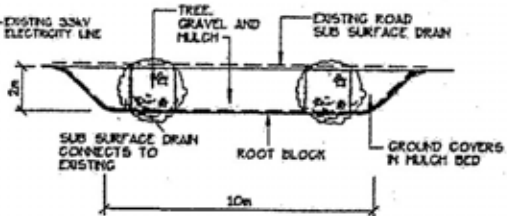
NOTE: WIDEN EXISTING ROAD RESERVATION TWO (2) METRES (VARIABLE SIDES) AND UNDERGROUNDING OF EXISTING ELECTRICITY LINES

JOHNS ROAD



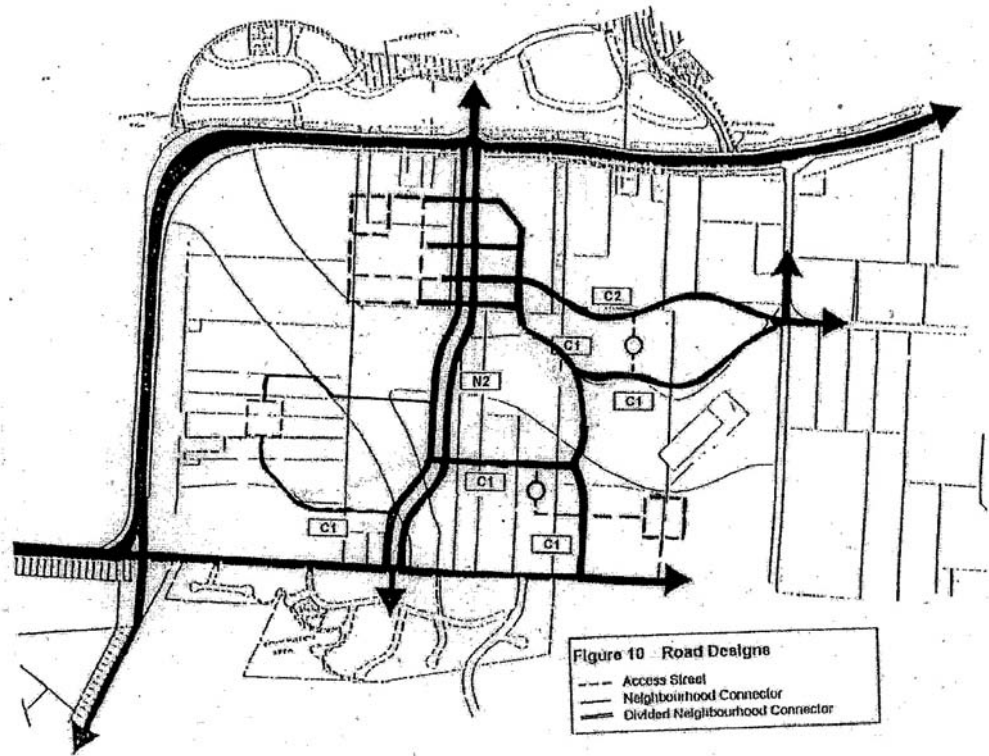
NOTE: WIDEN 1.5 METRES ON NORTHERN SIDE AND 0.5 METRES ON SOUTHERN SIDE OF EXISTING ROAD RESERVATION LANDSCAPED MEDIANS AT SELECTED LOCATIONS

MATARAM ROAD AND HAKONE ROAD

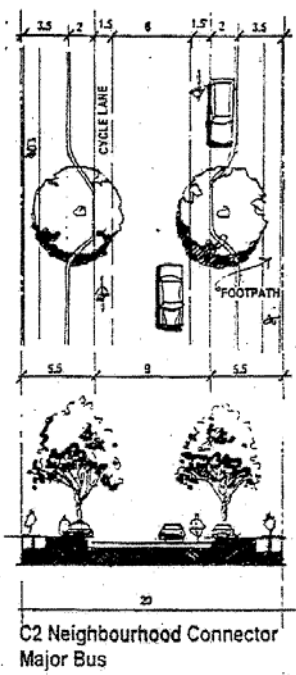
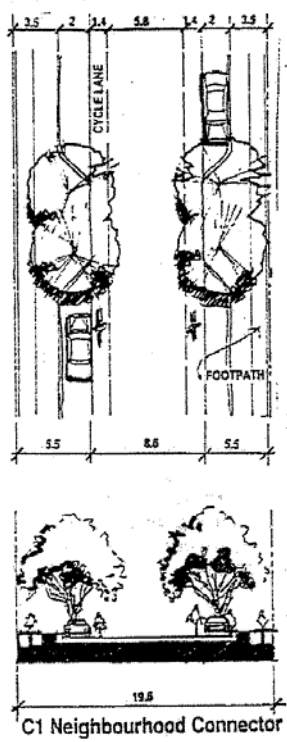
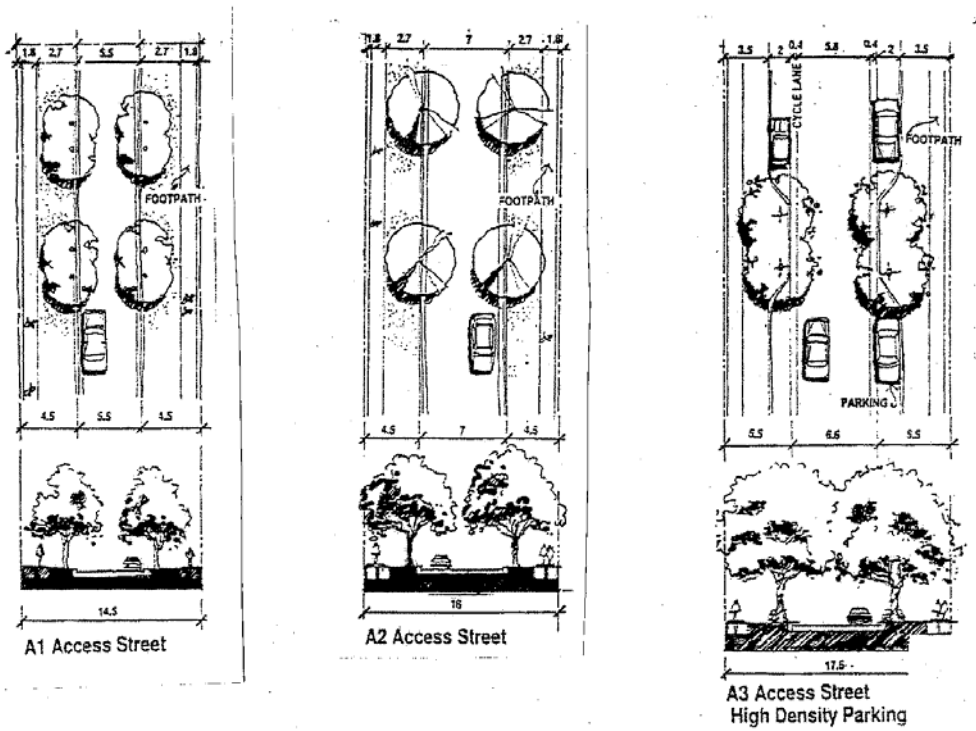


TYPICAL PLAN OF PROTRUDENCES INTO PAVEMENT WARNERVALE ONLY

Typical cross-sections for various roads in Warnervale/Wadalba Urban Release Area (other than for Louisiana Road Infill Precinct)



Typical cross sections and plan view for roads in the Wadalba North West Urban Release Area - road categories



Typical Cross Sections and Plan View for Roads In The Wadalba North West Urban Release Area (other than for Louisiana Road Infill Precinct)

4.3.2 Layout and Design Treatment of Roads within the Wadalba Local Centre

a Fig Tree Boulevard

Fig Tree Boulevard will be provided with two lanes each way (one parking/cycleway and one transit).

Trees are to be placed within parking lanes after every second or third parking bay. Trees are also to be placed along the median and in the roundabouts proposed at the northern and southern ends of the local centre. The selection of trees should ensure that the safety of motorists, cyclists and pedestrian are not compromised.

Proposed street tree planting within these areas is to be designed to allow for root penetration by trees whilst achieving required compaction requirements for roadworks. This may require that the minimum footpath and median reservation and therefore road reservation be increased in some areas to allow for the planting of large trees.

Footpath materials and detailing is to complement the materials and detailing throughout the local centre.

Adequate lighting is to be provided to ensure the safe movement of pedestrians throughout the local centre whilst reducing potential impacts upon residential dwellings.

b Community Axis (Blocks C, D, E and F)

The community axis is to be provided with two lanes each way (one for parking and one for transit)

Footpath widening is to be provided at each corner to facilitate pedestrian visibility and increase pedestrian safety.

Cycleway to be provided on footpath area.

Footpath width is to be 6.5 metres with 3 metres under verandas.

Trees are to be provided near the kerb edge within footpaths.

Footpath materials and detailing is to complement the materials and detailing throughout the local centre.

c Other Streets (Blocks A,B,C,D,E,F,G and H)

Two lanes to be provided each way including shared cycle access and a 3.5 metre footpath

Trees are to be regularly spaced along the street placed near the kerb edge

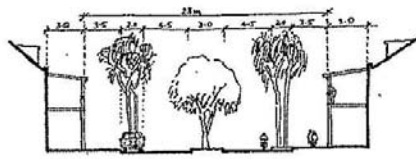
A grassed nature strip is to be provided for up to half of the footpath width (except the village core of Blocks C, D, E and F).

d Laneways

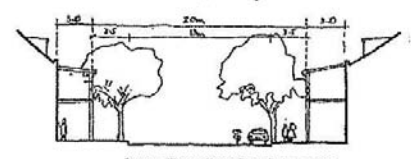
Tree planting in selective locations adjacent to boundaries or entries is to be provided

Regularly spaced pole mounted lighting is to illuminate public access but prevent light intruding into surrounding residences.

Planter edges and paving edge treatments along building or property boundaries to be a consistent, high quality to match footpath treatment within the local centre.



SOURCE: WADALBA VILLAGE DESIGN GUIDELINES, 1993
FIGURE PREPARED BY KEYS YOUNG



SOURCE: WADALBA VILLAGE DESIGN GUIDELINES, 1993
FIGURE PREPARED BY KEYS YOUNG

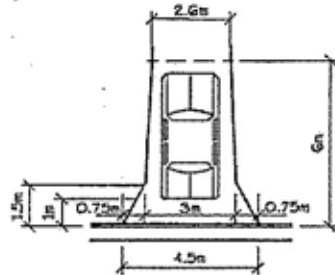
4.4 Vehicle Parking

Subject to the provisions of this plan vehicle parking is to comply with Element B4 of AMCORD.

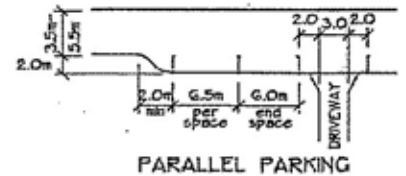
See Appendix E

- a Vehicle kerb cross overs are to accord with the following:
 - i Single vehicle cross overs of 4.5 metres wide on streets of 5.5 metres or less. If crossings are paired, cross over widths of 8.1 metres.
 - ii Single vehicle cross overs of 3.8 metres on streets > 5.5 metres wide. If crossings are paired, cross over widths of 7.6 metres.
 - iii Double vehicle cross overs limited to lots of 16.5 metres minimum frontage.
- b Visitor carparking is to be provided in accessways and access places. Such carparking is to be provided in accordance with the diagram below

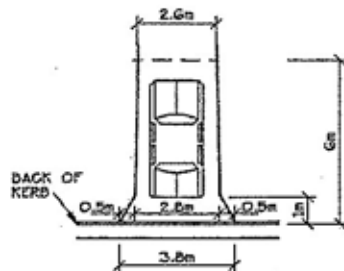
KERB CROSSOVER DIMENSIONS



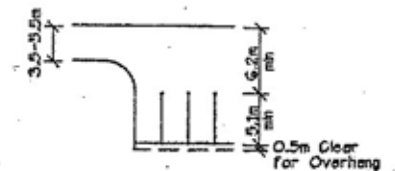
DRIVEWAY AND KERB CROSSOVER DESIGN FOR NARROW STREETS, WHERE PAVEMENT IS 3.5m OR LESS IN WIDTH



PARALLEL PARKING



DRIVEWAY AND KERB CROSSOVER DESIGN FOR WIDER STREETS WHERE PAVEMENT IS GREATER THAN 5.5m WIDE



90 DEGREE PARKING

4.5 Bus Routes

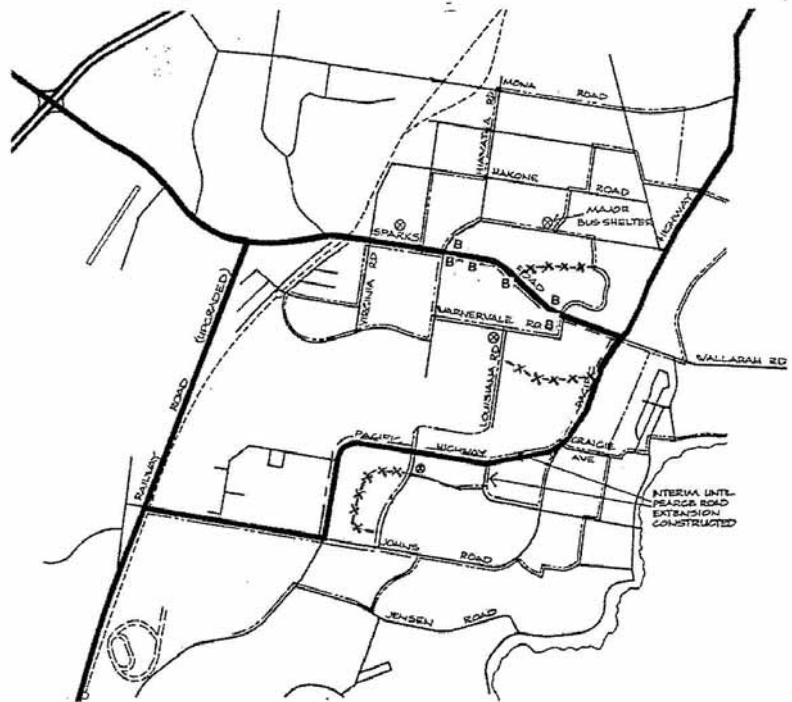
An overall scheme has been prepared for permanent bus routes in the Warnervale/Wadalba Urban Release Area (Figure 7). These bus routes are expected to become high frequency routes at the end of the development cycle of 15-20 years.




- a Permanent high frequency bus routes shall conform with the locations shown on Figure 7.
- b A bus shelter large enough to accommodate ten persons shall be provided at each bus stop location shown on Figure 7. Other bus shelters will be located in consultation with Council and the relevant bus company.
- c Applicants are required to consult with the relevant bus company to identify:
 - i* Suitable bus stop locations; and
 - ii* The need for alternate bus routes.

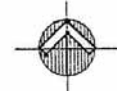
The subdivision design shall facilitate pedestrian movements to bus stop locations.

Copies of correspondence between the applicant and the bus company shall be provided in support of any subdivision application.

- d Low frequency bus routes (less than a total of six bus movements per day) will be allowed on a 9 metre road pavement within an 18 metre road reservation.
- e The Louisiana Road Infill Precinct Structure Plan in Section 4.15 superceeds Figure 7 in respect to the location of bus routes within this precinct.



- LEGEND**
-  FUTURE BUS ROUTE
 -  BUS STOP
 -  LOCAL BUS ROUTE
 - B** BUS LAY-BY



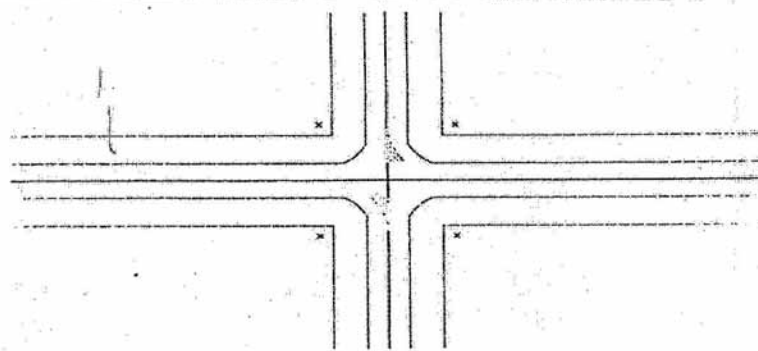
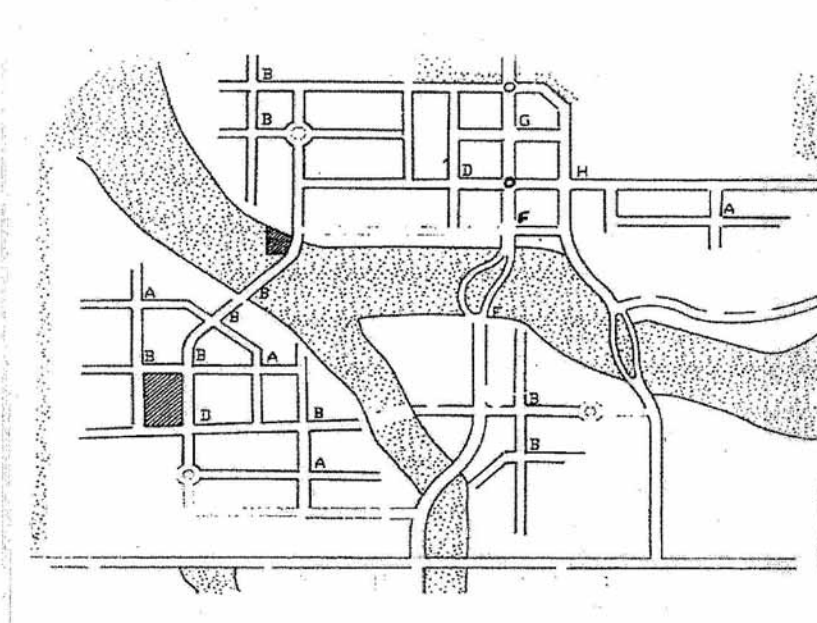
See Wadalba Release Area - Development Concept for detailed information on bus routes.

FIGURE 7 : WARNERVALE / WADALBA URBAN RELEASE AREA FUTURE BUS ROUTES

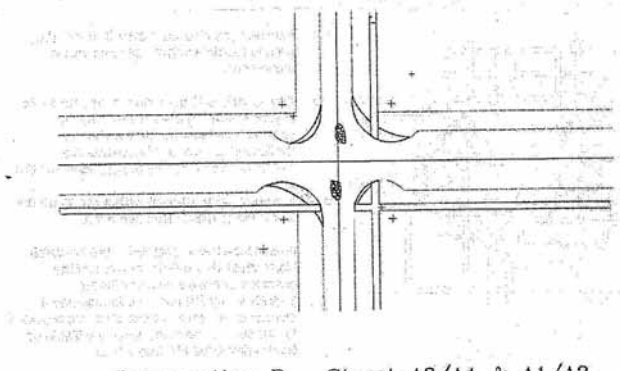
4.6 Major Intersections

- a Intersections shall be provided as per the plan to facilitate vehicle and pedestrian movements.
- b Any variations to the requirements for traffic signals shown on **the plan** will only be considered where alternate means of facilitating pedestrian movements are identified and funded by the applicant or RTA.
- c Intersection treatment within the Wadalba North West Urban Release Area.

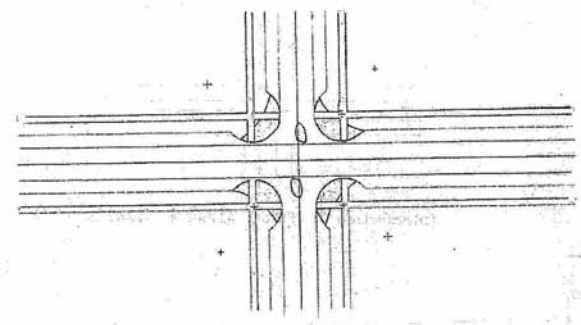
Intersection treatments within the Wadalba North West Urban Release Area will be designed to allow safe and efficient pedestrian, cyclist and vehicle movements. Indicative intersection treatments are provided for various intersections within the Wadalba North West Urban Release Area.

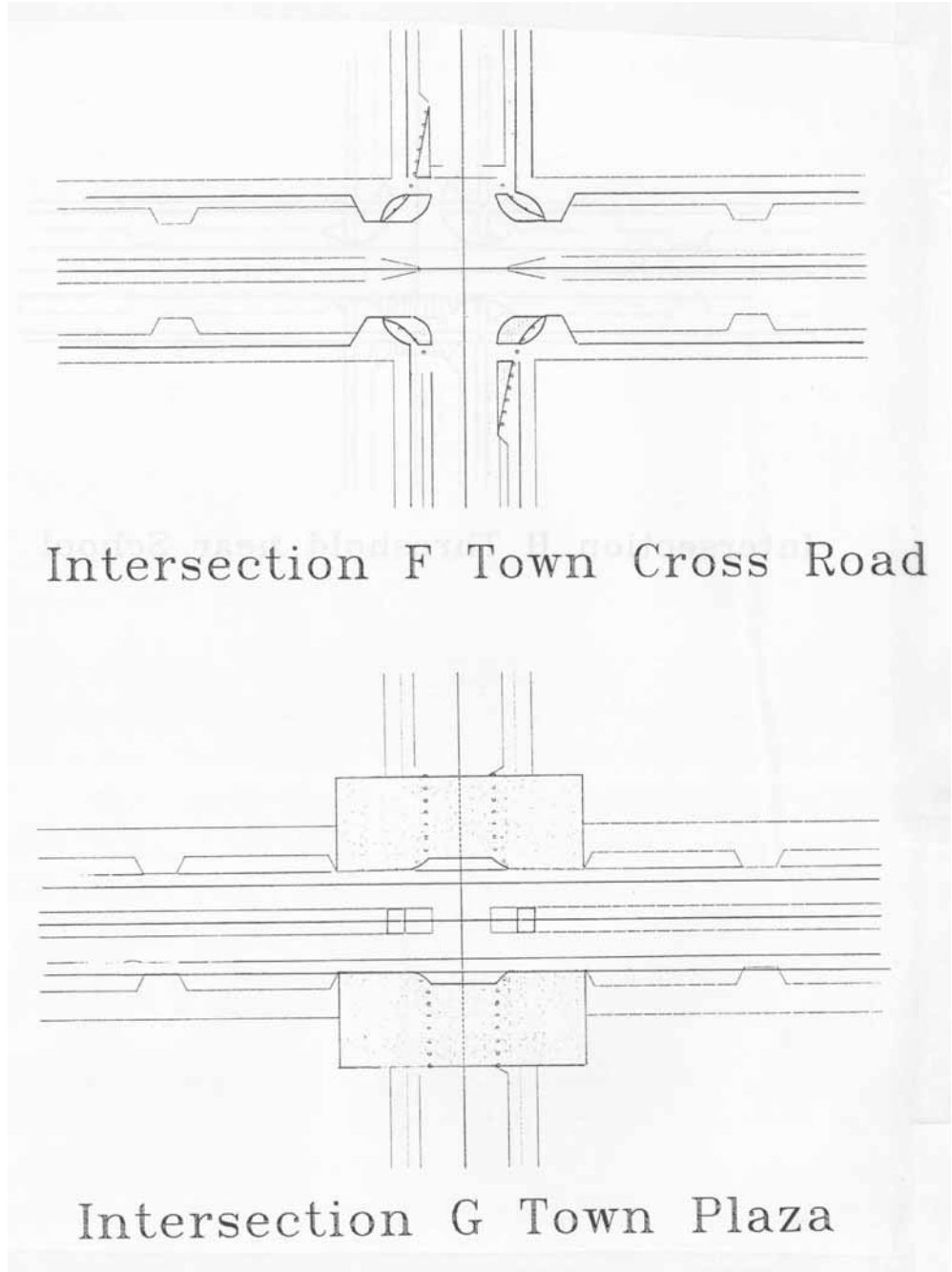


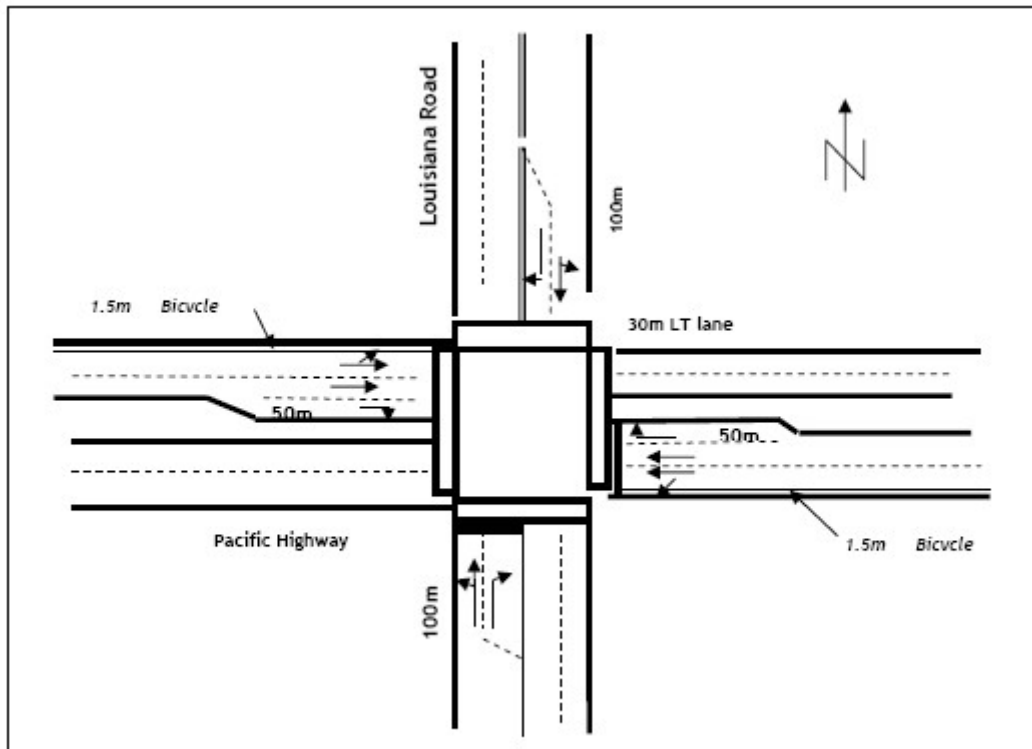
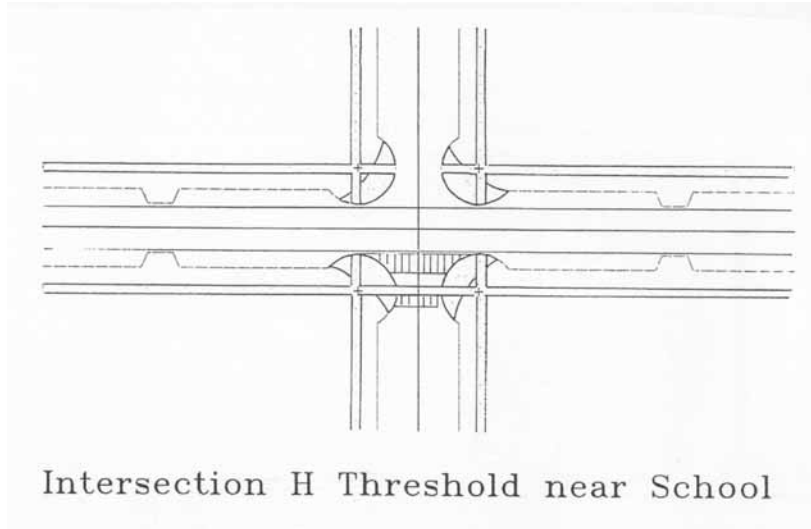
Intersection A Street A1/A2 & A1/A2



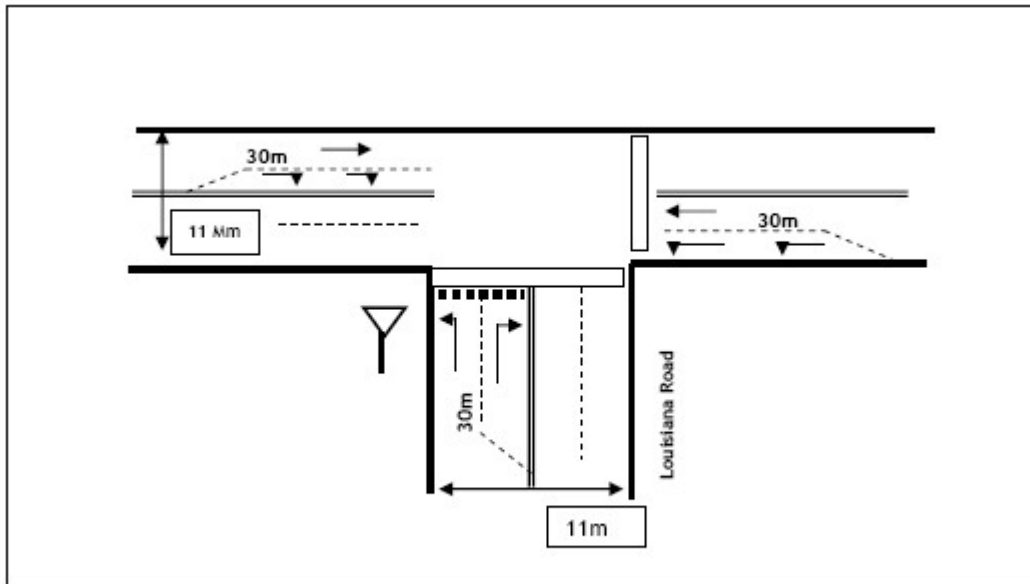
Intersection B Street A3/A4 & A1/A2







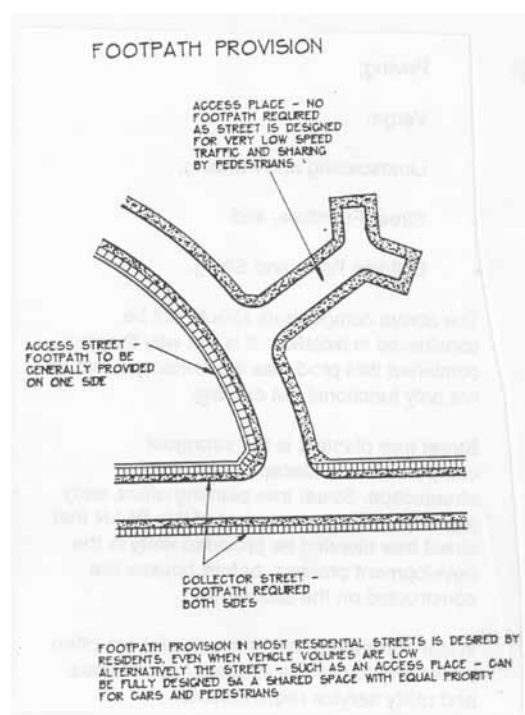
Pacific Highway and Louisiana Road Intersection



Pacific Highway and Warnervale Road Intersection

4.7 Cycleway and Footpath System

- a Cycleway systems shall be provided generally in the locations shown by the Plan and shall consist of a rigid pavement of 2.4 metres within a minimum 5.0 metre reservation. **For the location of cycleway networks within the LRIP refer to Setion 4.15.11.**
- b Subject to Clause 4.7a the design of the shared pedestrian/cycleways shall be in accordance with Austroads.
- c Public pedestrian accessways should be provided to connect the major areas of residential use with recreational areas, and other community facilities and services such as schools, shops, child care and neighbourhood centres. Pedestrian Road crossings should coincide with slow points designed to limit the travel speed of vehicles.
- d Concrete footpaths shall be provided in accordance with *Table 3* of this PLAN.
- e The pedestrian and cycleway links shall utilise the proposed traffic signals at the Pacific Highway and Louisiana Road intersection.



4.8 Streetscape

Streetscape concerns the character, appearance and landscaping of the street in residential areas and the siting of buildings in relation to them. The character and appearance of the streetscape is important in determining the value and image of properties and contributes significantly to the identity and amenity of an area.

Elements of the streetscape can be grouped into the following components:

- Paving;
- Verge;
- Landscaping and Fencing;
- Street Furniture; and
- Building Form and Siting.

The above components should not be considered in isolation. It is the way they are combined that produces a streetscape that is not only functional but exciting.

Street tree planting is the strongest component of landscaping within the streetscape. Street tree planting offers early amenity. It is a requirement of this PLAN that street tree planting be provided early in the development process, before houses are constructed on the allotments.

Wider verges (up to 6 metres wide) are often necessary to provide space for larger trees and utility service requirements.

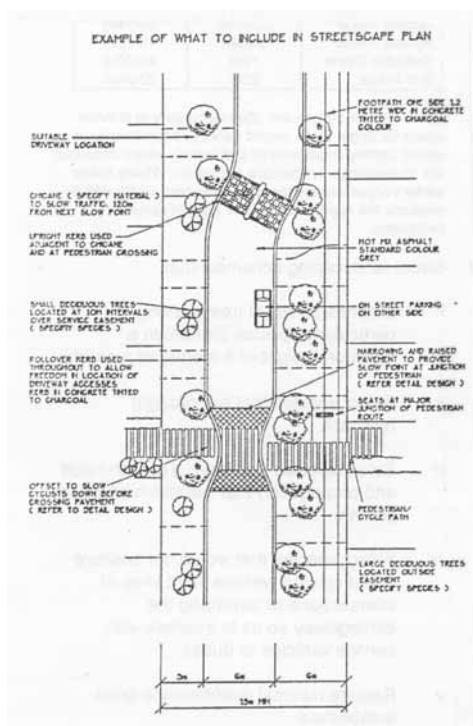
This document adopts the streetscape design principles contained in the publication Streetscape Design Guide for South Australia (South Australian State Planning Authority 1980). Chapter 2 of the document has been attached as **Appendix B**.

- a Subject to Section 4.8 b the streetscape is to be considered as an entity embodying the performance criteria for ELEMENT B5 and related elements in AMCORD.

See Appendix E

- b A streetscape plan is to be prepared and submitted as part of a Category 3 Landscape Design Report with each subdivision application. The streetscape shall show:
- i* The street reserve together with typical cross sections;
 - ii* Location and detailing of carriageway pavement, parking bays, bus stops, kerbs, footpath, cycle paths and speed control devices;
 - iii* Location and species of proposed trees or other vegetation;
 - iv* Location of existing vegetation to be retained and proposed treatments to ensure its health;
 - v* Typical dwelling front alignments including any setback variations together with any building detailing proposed to promote special character or identity;
 - vi* Any relevant details for front garden treatment, e.g.. fences, driveways and landscape themes;

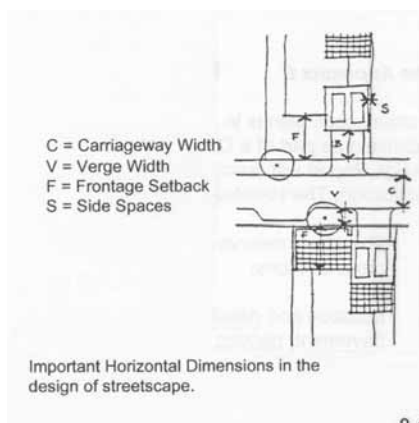
- vii Any relevant details for the design and location of street furniture - lighting, seats, bus stops, street signs, etc.



- c Applicants are required to consult with Council to ascertain preferred design standards for street furniture prior to the lodgement of a subdivision application.

NOTE: Wider verges are often necessary to provide space for larger trees, varied service requirements or varied parking requirements particularly where densities are 15 dwellings per hectare or greater. Where these wider verges are required, the reserve width will be towards the higher end of the typical range indicated. For the Street and Reserve width requirements in the LRIP refer to Section 4.15.3.

- d Street landscaping schemes shall:
- i Emphasise street tree planting particularly species that attain a minimum height of 8 metres at maturity;
 - ii Select species that are drought resistant;
 - iii Select species that are locally occurring where possible;
 - iv Select species that have a growth habit and propagation that would inhibit weed growth;
 - v Select species that would not obscure street lighting, vehicle sight lines at intersections **or** overhang the carriageway so as to interfere with service vehicles or buses;
 - vi Require minimal maintenance once established.
 - vii Be consistent with the principles outlined in the attachments at Appendix B.



A palette of suitable street trees is attached as Appendix C. This list is not exhaustive.

Note: Grassing shall not be adopted in areas which are unlikely to be maintained by adjoining residents.

- e All intersections nominated on the PLAN with a threshold symbol shall generally be landscaped in a distinctive manner. Landscaping shall address:
- i Changes in paving material to signal changes in street use and character;
 - ii Planting in accordance with the requirements of Clause 8.4; and
 - iii Structures that generally have a 20 year maintenance free period and are consistent with the character being sought for the residential area. Massive masonry structures should generally be avoided.

f **Crossing Of Environmental Corridors / Warnervale Floodplain**

Those areas identified on the plan as “**sensitive crossings**” will be constructed having regard to the following:

- i Tree canopy to continue across the road corridor to facilitate the movement of arboreal fauna;
- ii Roads to be split to reduce the width of the crossing;
- iii Pavement to be designed to reduce the concentration of runoff to within the corridor;
- iv Landscaping is to be provided within the road reserve to facilitate the regeneration of the canopy overhanging the road.
- v Road crossings are to be designed with features to assist with fauna movement and to reduce mortality. (e.g.. Underpasses, landscaping, lighting issues, speed suppression, glide poles – as appropriate).

4.9 Open Space and Landscaping

- a Local open space shall be provided in the locations identified on the Plan, subject to the specific notations on the Plan and the requirements of Table 4. Minor variations in the location and configuration of open space, as a result of subdivision design are acceptable.
- b The location and size of local open space in the Louisiana Road Infill Precinct including small parks and semi-natural parks shall be in accordance with the LRIP Structure Plan in Section 4.15 and specifically sections 4.15.5 and 4.15.10.
- c Open space types and area to be provided are:

OPEN SPACE TYPE	NUMBER	REQUIREMENTS
Small Parks	19-20	Minimum area of 0.5 hectare and not less than 30 metres wide. Locate within 500 metres of all residential areas.
Large Parks	1	Minimum area of 6 hectares protecting small knoll north of Sparks Road, above 40 metre contour. NB - large park requirement for Wadalba included in land proposed to be acquired as part of the Environmental Corridor.
Playing Fields	4	Minimum dimensions of 200 metres x 200 metres. Locate within 1km of all residential areas and school sites.
Courts	3	Minimum dimensions of 100 metres x 100 metres. Locate within 1km of all residential areas and school sites.
Semi-Natural Parks (including Wadalba North west Environmental Corridor)		See notes on the PLAN. To be fenced to limit disturbance limit disturbance. Fencing to allow movement of ground dwelling mammals.
Cycleways		Minimum of 2.5 metres wide within a 5 metre reservation.

Table 4. Open Space and Landscaping Requirements

- d No trees shall be removed from areas designated on the plan as open space, drainage corridor or environmental corridor unless approved by Council.
- e Where appropriate, small parks should be landscaped prior to each land release and designed to create attractive usable focal points.
- f Noise amelioration areas, trunk drainage, and areas below the 1:100 year flood line (other than those identified on the plan as open space shall not be accepted as contributing to open space requirements of a subdivision).
- g Small parks shall generally be located adjacent to low speed streets (less than 40km/h) and designed to:
 - i* Deter impulsive moves onto the street through the judicious use of planting and/or fencing.
 - ii* Maximise visibility to passing drivers.
 - iii* Be accessed via road crossings located at slow points designed to limit the travel speed of vehicles.
- h Additional open space may be provided by the applicant providing it can be clearly demonstrated that it is likely to require minimal maintenance or be maintained by adjoining residents. Any additional open space will not be credited against any S.94 charges.

As a general rule these additional open space areas will not be grassed. They are more likely to be landscaped with shrubs, trees and ground covers that are drought resistant and have a growth and propagation that would inhibit weed growth.

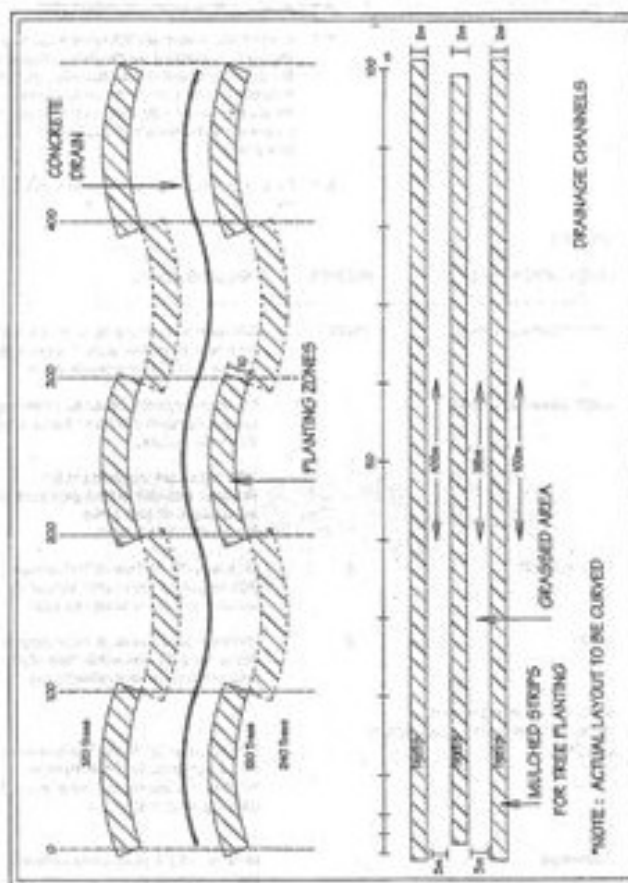
4.9.1 Drainage Reserves - Landscape Treatment

(Excluding Catchment F - Wadalba North West)

Engineering civil works shall leave the drainage channel and batters with natural soil profiles, with good depth of top soil, minimum 150mm and established grass growth. Landscape treatment for the drainage reserves shall be generally in accordance with the diagram shown for costing purposes with trees planted in belts in curvilinear forms within the drainage channel.

Tree planting shall be concentrated in the concave area of the curved alignment to the tree drainage channel but suggest the channel moving around existing trees when trees reach maturity. Trees shall be selected to form clean trunks and shall be mass planted within the belts with understorey planting to reduce the need for mowing. Wherever areas of bare soil or mulch occur these shall be netted with environmental control treatments to ensure scour is reduced in storm events. Wherever possible, trees shall be planted to form continuous belts throughout the drainage channel using species suitable for the conditions likely to occur which will include waterlogging soils and chemically hostile sub-soils.

Consultants should always ensure soil chemical analyses are completed prior to final selection and amelioration works. Planting techniques shall be in accordance with Council's preferred techniques and shall ensure adequate drainage is maintained within all planting holes and adequate fertiliser and weed control treatment occurs to all planting beds.



Tree species shall be selected to satisfy the physical requirements of the drainage channel and to provide maximum faunal habitat value within the drainage channels. Species suggested include *Eucalyptus tereticornis*, *Eucalyptus robusta*, *Casuarina glauca*, *Melaleuca quinquenervia*, *Melaleuca styphelioides*, *Acacia irrorata*, *Angophora floribunda*.

Council wishes to encourage the use of alternative ground cover species to grass within drainage channels. Consideration should be given for the use of densely matting ground covers within drainage channels and underneath trees. It is critical that any such plant material shall be able to resist the likely scour within the drainage channel based on the design capacity of the channel.

Modules of sedges should be used as consolidated areas at points of junctions between drainage channels and to break up long stretches of grass channel. Sedges should be selected for their ability to maintain close healthy growth within the conditions likely to occur in the channel and such as their mature height does not impede the likely design capacity of the drain. Sedges are seen as a benefit in providing nutrient and sediment interception within the drains and in reducing the need to mow grass within the drainage channels.

In all cases where top soiling occurs re-emergent sprays should be considered to ensure that any plantings or techniques have minimum weed intrusion. It is important to ensure that such pre-emergent sprays will not attack the preferred plant species being used.

Landscape Treatment – Wadalba North West (Catchment F)

The primary drainage corridor identified on the plan is proposed as a “natural corridor”. The extent of the corridor has been determined based upon the 1 in 100 year flood level and the retention of a sustainable environmental corridor.

The acquisition of the corridor has been identified within the accompanying Section 94 Contributions Plan. Embellishment within the corridor is limited to regeneration of previously cleared areas and stabilisation works required to ensure that the “natural” channel does not erode.

Tree species for revegetation of previously cleared areas within the channel shall be selected to provide maximum faunal habitat value within the corridor. Species suggested include *Eucalyptus tereticornis*, *Eucalyptus robusta*, *Casuarina glauca*, *Melaleuca quinquenervia*, *Melaleuca styphelioides*, *Acacia irrorata*, *Angophora floribunda*.

Retention Basins

Retention basins identified as temporary on the plan will be at full cost to the developer.

4.9.2 Environmental Corridor (Wadalba North West)

- a Any facilities within the environmental corridor including, but not limited to roads, drainage works, small parks should:
- Not result in the clearing or significant fragmentation of the area;
 - Services such as water, power and telecommunications that are unavoidably required to be within the wildlife corridor are to be sensitively placed so as to avoid, protect or retain known habitat features (e.g. hollow bearing trees, dams, drainage lines, etc).
 - Retain corridors of woodland around, and where possible over, the proposed facilities.

- Not impact on the necessary glide angles and widths in relation to the squirrel glider and
 - Not compromise the value and connectivity of the environmental corridor.
- b No fencing which would prevent movement of ground dwelling mammals, including ground dwelling medium sized mammals, should be erected within the identified environmental corridor.
- c There is to be minimal use of overhead lighting within the environmental corridor (to ensure nocturnal movements of native species along fauna corridors are maintained and native species are not disturbed by lighting).
- d All necessary fire protection measures (asset protection zones, fuel free and fuel reduced zones) are not to impact on the wildlife corridor area.
- e Placement and construction of any detention/water treatment structures required within the wildlife corridor are located sensitively and designed and landscaped to enhance habitat values for threatened amphibians and mitigate Identified Key Threatening Processes (e.g.. *Gambusia* and frog chytrid).
- f Properties adjoining, abutting or adjacent to the wildlife corridor (including those separated by only a roadway) are to be provided with a restriction as to user covenant with respect to cat ownership.
- g **Deemed Concurrence from the Department of Environment and Conservation (DEC) for developments involving removal of threatened species habitat.**

The Department of Environment and Conservation (DEC) has issued Council with a deemed concurrence to deal with subdivision proposals which have “significant” impacts on a number of threatened species listed on the *Threatened Species Conservation Act, 1995* within the Wadalba Urban Release Area. In effect this switches off concurrence provisions of the *Threatened Species Conservation Act, 1995* within the area which it applies. A copy of this letter is provided in Appendix F. This letter outlines the conditions under which the deemed concurrence can be used. Individual Species Impact Statements (SISs) are not required for developments which involve removal of threatened species habitat. The conditions outlined by DEC need to be satisfied in order for DEC’s concurrence to be assumed under Section 64 of the *Environmental Planning and Assessment Regulations, 2000*. It should also be noted that the following documents are required to be prepared prior to using these provisions:

- i A community education strategy is to be developed prior to release of construction certificates for any approved developments in the blue stippled areas (See Appendix F) of the subject land and implemented by the proponents to raise resident/landowner awareness of the purpose of the corridor, its biodiversity/ecological and cultural values, the need for long term management and the desired community role in assisting with meeting these objectives.
- ii A management plan (MP) is to be prepared and implemented for the identified wildlife corridor (green crosshatched areas on Map F2004/06924 in Appendix F) to the satisfaction of the Director General of DEC prior to release of construction certificates for any developments in accordance with this assumed concurrence. This Management Plan will need to address a range of issues including signage; weed control; bushfire management; rubbish dumping; prohibited uses; cultural values; community education; stormwater structure management; storm water quality; community vigilance and reporting; habitat enhancement initiatives including artificial hollows; habitat tree relocations/maintenance; frog habitat

features; and a monitoring and reporting regime that requires a bi-annual report being forwarded to DEC.

4.10 Community and Local Centres

- a A total of 3.7 hectares of land shall be provided for the establishment of community centres.

The sites shall be generally located in the areas shown by the plan and shall accommodate community facilities such as a child care centres and neighbourhood centres, plus associated carparking and public toilets; and

- i* be located on a pedestrian route;
- ii* be near a school;
- iii* be easily accessibly by both bus and car;
- iv* be adjacent to an areas of open space.

- b Local centres are identified on the plan and are intended to accommodate:

- i* The WLEP 1991 identifies a maximum retail floor space of 1,000 square metres and a maximum commercial floor space to 200 square metres. However, Council anticipates that floor area of 700-800 square metres will be sufficient to serve the needs of local residents. The site area of each local centre is estimated to be approximately 2,000 square metres to accommodated sufficient parking, vehicular circulation and landscaping.

- c Applicants are required to prepare a masterplan for the development of any proposed local or community centre in support of either a rezoning application in the event that the establishment of commercial/retail facilities is sought, or a development application where consent is sought for the establishment of community facilities.

The master plan shall be prepared by an appropriately qualified architect and shall show:

- i* The arrangement of community facilities, retail/commercial buildings, access roads, parking areas, pedestrian ways, street furniture, lighting, landscaping, paving etc, at a scale of 1:500;
- ii* Elevations indicating main architectural character of the proposed buildings and related elements including external finish and materials at a scale of 1:250. (It may be necessary to show some details at a scale of 1:100).
- iii* Details of typical advertising signs and structures, including:
 - o Choice of colours;
 - o Choice of lettering; and
 - o Location and size.

The master plans area required to establish a distinctive and pleasing character for each centre. The integration of landscape treatment and architectural design of buildings and outdoor spaces is of paramount importance.

4.10.1 Development within the Wadalba Local Centre

The Wadalba Local Centre is proposed to have an integrated mix of retail, commercial, community and residential uses. In order to maximise the utilisation of

local services and to provide a high degree of surveillance, a minimum gross density of 25 dwellings per hectare is to be achieved within the Local Centre.

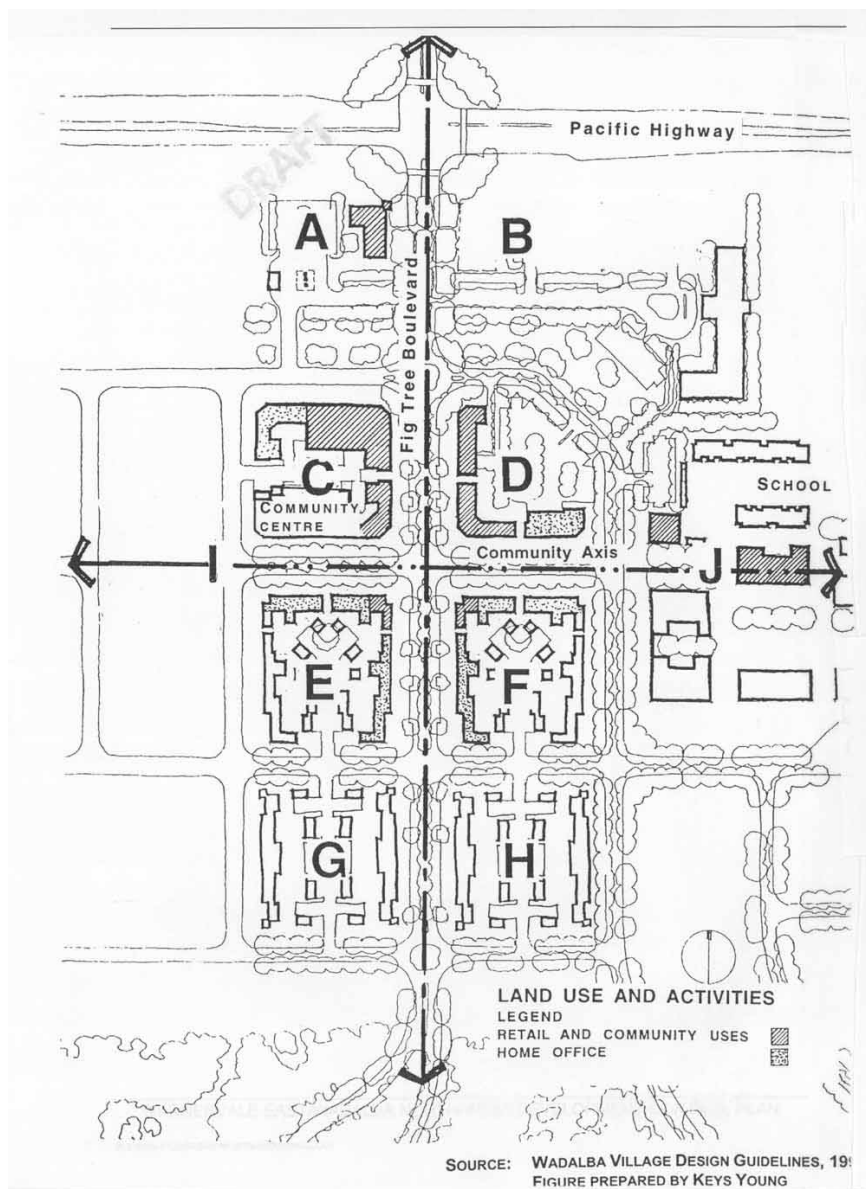
The Wadalba Local Centre is to provide community facilities and shopping to meet the needs of the Wadalba Release Areas. The retail, commercial, leisure and community facilities are to be located along traditional shopping streets. This is to maximise the ability of these facilities to create vitality, visual interest and to provide a strong community focus.

The main streets to form the focus of these activities are Fig Tree Boulevard and the Community Axis. Retail/community uses are to be mixed with residential development to provide a centre which is active day and night.

This DCP (Clause 4.10c) requires that a master plan be prepared by any proposed development of a local or community centre in the event of the establishment of commercial or retail facilities or where consent is sought for the establishment of community facilities.

A series of design guidelines have been prepared by Key Young on behalf of Westminster Developments for the Wadalba Local Centre. The primary land uses and activities for the Wadalba Centre are described below and displayed on Land Use and Activities –Pg 49.

These guidelines have been adapted and included within this DCP. The master plan forms Appendix F to this plan. The masterplan for the Local Centre must be read in conjunction with the design guidelines included within this DCP.



Proposed Land Uses - Wadalba Local Centre

BLOCK	PROPOSED LAND USE	COMMENTS
A	Service Station	This land use requires rezoning of the land as service stations are not permitted within the 2(b) Residential zone. The use of this site as a service station will be dependent upon assessment of a rezoning and subsequent development application.
B	Motel	The development of a motel may include restaurant facilities, however, these facilities must be integrated within the motel complex and cannot be developed as separate buildings. If a motel is not developed, the site should be developed with integrated housing.

C	Community facility, retail and residential and car parking	
D	Retail/Commercial and Residential	
E	Residential/ retail and commercial	
F	Residential/retail and commercial	
G	Residential	
H	Residential	

Subject to the provisions of the Wyong Local Environmental Plan 1991 (as amended) "home occupations" and "home businesses" may be provided within residential development within the local centre.

4.10.1.1 Design of Community Facilities

Community Facilities within the Local Centre are to be designed to complement the built form and streetscape of the local centre. The design of the community facilities shall be of a high standard recognising these facilities as an important part of the local community.

a Wadalba Local Centre Community Building

The community building is to be located on the south west corner of Block C. The community building is to be designed such that it forms an integral component of the local centre.

Council will consider the development of the community centre at the western end of the Community Axis if it can be demonstrated that a number of objectives can be met including:

minimal impact upon the amenity of future residents by way of noise, reductions in privacy, safety issues and increased traffic and parking pressures within the residential area.

Surrounding residential premises and the community centre are to be designed such that their amenity would not be adversely affected by the operation of the community centre during the day or night.

The community facility is to provide:

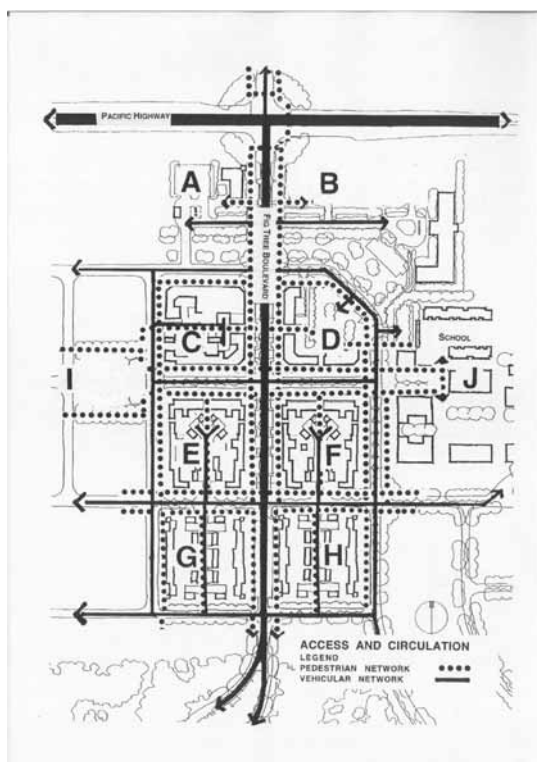
- Offices for community organisations and outreach services to be provided, such as an early childhood sister, health services etc.
- A hall for playgroups, functions etc.
- Activity rooms for craft classes etc.
- Meeting rooms,
- Fenced playground area
- Storage spaces

The community centre must also provide disabled access to all areas.

Prior to development, Council will prepare a detailed design brief for the proposed facility to ensure that the facility meets the community's requirements.

Provision is to be made for a community facility within the Wadalba North West Urban Release Area prior to the release of the 200th residential allotment within Wadalba North West. Council will consider the provision of a temporary facility to meet this requirement.

4.10.1.2 Access, Circulation and Carparking within the Wadalba Local Centre



A traditional street grid with primary streets and secondary lanes provides vehicular, pedestrian and cycle access throughout the Wadalba local centre connecting with adjacent residential precincts. The primary circulation pattern for the local centre is shown opposite.

Fig Tree Boulevard is the primary road connecting the local centre and the adjacent residential precincts of Wadalba to the Pacific Highway.

Car parking is to be provided along the kerbside as well as in garages accessed from rear lanes. Car parks located at the rear are to be positioned and designed such that they are overlooked by buildings to increase surveillance of these areas.

Parking areas for facilities such as the community centre, retail and commercial facilities are to be located within close proximity to the facilities they serve.

Pedestrian access is to be provided along footpaths and shared zone laneways.

Traffic calming within the local centre is to be achieved by roundabouts and footpath widening at intersections. Road carriageway widths are to accommodate shared cycle access.

The drop-off and pick-up lay-by for the school is to be located along the school's western and southern edge to avoid congestion within the local centre.

Refer to Section C3 Road Hierarchy and Layout for details of street treatment within the local centre.

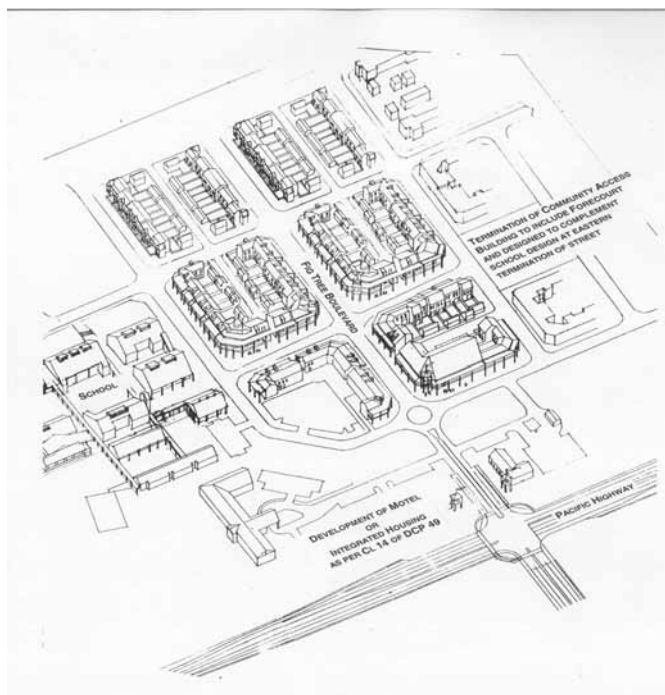
4.10.1.3 Residential Development Within the Wadalba Local Centre

Residential development within the Wadalba Local Centre shall meet the following criteria:

- Care is to be taken to ensure bedroom and living spaces are not adversely affected by the noise and lighting generated by retail loading and unloading areas etc. The centre shall be designed to minimise the entry of high levels of external noise to dwellings.
- Building are to be a maximum of two and a half storeys (two storeys with a third substantially within the roof space)
- Off street parking is to be provided in accordance with Council's Car Parking Development Control Plan;
- Adequate usable open space and solar access is to be provided to each dwelling.
- Dwellings with ground level private open space are to have minimum of 45 square metres of open space with a minimum dimension of 4.5 metres.
- Dwellings over shops or commercial premises are to have a minimum of 15 square metres of balcony space with a minimum dimension of 3 metres.
- Variations to the setbacks within DCP 49 may be considered within the local centre where it can be demonstrated that the proposed reduced setback will achieve a superior urban design for the local centre or where variations are used to create streetscape variety and interest.
- Dwelling entries are to be clearly visible from the street. All dwellings are to have balconies or other spaces which overlook the street and provide opportunities for casual surveillance.
- Bicycle racks are to be provided in safe and convenient locations throughout the local centre in areas with easy access to the existing and proposed cycle paths.

Streets within the local centre are to provide a high level of internal accessibility for local vehicle, public transport, pedestrian and cycle movements while controlling vehicle speeds to levels which create safe pedestrian and cyclist movement.

4.10.1.4 Subdivision Pattern and Built Form within the Wadalba Local Centre



The subdivision pattern and built form is to reinforce the development of a compact urban centre that maximises the opportunities for interaction between the residents and enables the surveillance of public spaces whilst providing privacy.

A consistent scale and character is to be provided by 2 storey buildings (with the potential to provide attic space within the roof). Where this scale conflicts with the operation of a facility (e.g. the community facility) Council will consider a variation to this requirement.

Buildings of Blocks C, D, E, F, G and H are to be in the form of terrace houses that are parallel to and address the street. Each dwelling will therefore address the street and have a private courtyard or garden at the rear. Private residential vehicular access is to be provided from the rear lane. The rear lane and surrounding development is to be designed such that the lane is overlooked by surrounding dwellings.

Verandas are to define the core of the local centre and are to provide all weather protection along Fig Tree Boulevard and the road leading to the school and Community Centre.

Further detail on the form, setbacks and facade for each of the blocks to be developed in the local centre is provided below.

4.10.1.5 Design Criteria for Built Form and Edges within the Local Centre

a Fig Tree Boulevard

Form

- Row of dwellings in a building parallel to street frontage, 2 storey plus attic space within roof.
- Buildings to be stepped to reflect the topography and to expose side gable ends of the roofs of the higher adjoining dwelling.

- Roof ridge parallel to street, dormer windows with pitched gable ended roofs are permitted - regularly spaced, corresponding to windows of the levels below.
- Lightly framed verandas are to be separate structures added to each dwelling to respond to the topography.



Setbacks

- 3 metre setback is to be dedicated to Council and will become public space. Verandas are permitted over the public space.
- Ground level under the veranda is to be graded so as to be continuous with the street footpath.
- Zero setback side boundaries to be provided to the full depth of the building.
- Verandas of individual dwellings to be separated by 1 metre.

Verandas, Entries and Terraces

- Underside of veranda to be a minimum of 3.5 metres and a maximum of 4.5 metres height above the footpath level.
- Veranda posts to be evenly spaced within each separate veranda structure
- Veranda roof is to be separate from the main building room
- Each individual veranda attached is to have similar roof pitch, post and beam sizes. Variation of balustrade and screen wall detailing is permitted but with the same material palette (e.g. timber capping and rails to veranda)
- Front door entries to be recessed to provide a entry porch as a transition from the public to the private realm.
- Internal floor level may be higher than footpath level to a maximum of 1.2 metres.

Walls and Windows

- The stepping of buildings is to be used to break up the long building into bays to reflect individual dwellings.
- Individuality of roof eaves, dormers, verandas, windows are permitted within similarly divided and proportioned 'bays'.
- Windows and doorways are to be generally vertically proportioned and evenly spaced within bays.

- Window sills on the ground level are to no higher than 1.5 metres from street ground level. Where this brings a window close to ground floor level of the dwelling (due to the slope of the street), Juliette balcony or recessing of the opening behind a planter may be used to provide privacy and visual interest.



Community Access Frontage

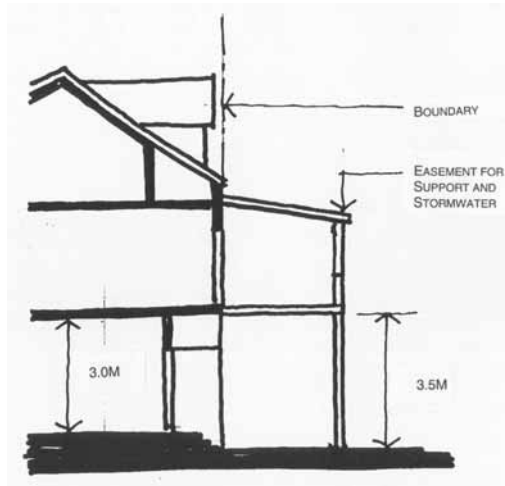
Form

- Buildings are to be parallel to the street frontage, 2 storey plus half floor contained within roof space.
- Hipped roof, ridge parallel to street.
- Roof pitch to be the same for all buildings in the row (25-30 degrees).
- Dormer windows with pitched, gable ended roofs at regular spacings - corresponding to window locations on floors below.
- Verandas to provide a light outer layer to the building row.



Setbacks

- 3 metre setback is to be dedicated to Council and will become public space.
- Verandas will be permitted over the public space. Ground level under the veranda is to be graded so as to be continuous with the street footpath.
- Zero setback to side boundaries to be provided to the full depth of the building.



Verandas, Entries and Terraces

- Recessed entry porches and doors to provide transition between public/private space
- Underside of veranda to be a minimum 3.5 metres above footpath level
- Internal footpath level may be up to 0.5 metres higher than footpath level (vertical separation between inside and outside increases privacy, yet retains sense of overlooking of street)
- Veranda posts to be evenly spaced along the street boundary line for all buildings
- Veranda roof is to be separate from main building roof.



Walls and Windows

- Each building is to be divided into bays to reflect property boundaries and to break up the block into a 'street of buildings' rather than a single development
- Windows and doors to be vertically proportioned and placed symmetrically within each secondary bay.

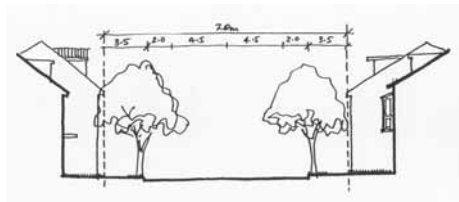


Source: *Wadalba Village Design Guidelines, 1999 Figure Prepared by Keys Young*

b

Other Streets - except laneways (Blocks A, B, C, D, E, F, G and H)

Other streets are part of the pedestrian and vehicular access network of the local centre. These streets are to provide continuous and safe pedestrian access along footpaths with places to sit and safe opportunities to cross the street.



Kerbside parking is to be provided in these streets.

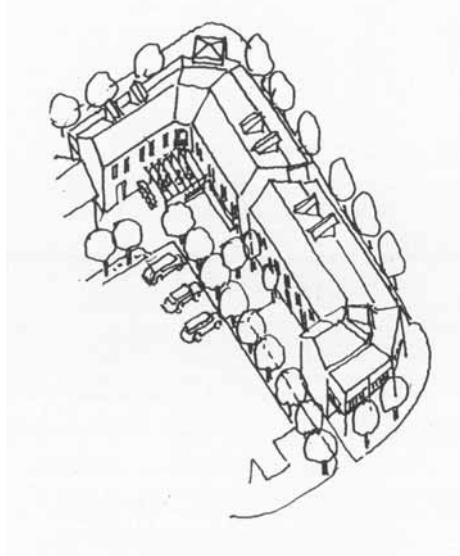
Buildings are to overlook the street to provide surveillance of the area.

c Block D (Local Shops)**Form**

Buildings are to be built parallel to the street and laneway.

Rear building to be setback 8 metres from the rear boundary.

No side setbacks are required where it can be demonstrated that pedestrian amenity will not be affected by the design of the building

**Entries and Courtyard**

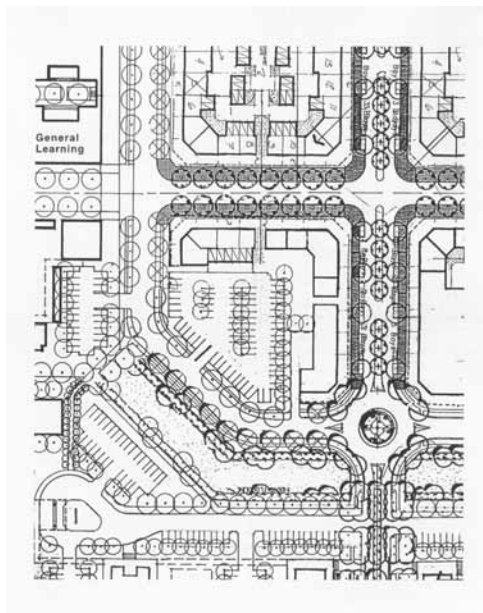
Landscaping and openings for pedestrian access are to be provided to reduce the dominance of service areas. Pedestrian access is to be designed such that pedestrian safety is maximised.

Clear pedestrian access routes are to be provided along the rear of buildings

Any outdoor eating/cafe area is to be located such that it faces north. This area is to be defined by low walls, planters, trellises and pergolas. Landscaping should also allow for the penetration of winter sun whilst shading from the summer sun.

All garbage and storage areas are to be screened from public places including pedestrian thoroughfares.

The building(s) are to be divided into bays with rear projections to reflect separate uses of individual premises.



d Lane Frontage - Block c (Rear of Gymnasium, Community Facility)**Form**

Hipped roofs with ridge parallel to the street

Verandas to continue around corner from the street and along laneway edge.

Setbacks

Verandas built to rear lane property boundaries

Zero side set back permitted where it can be demonstrated that the amenity of adjoining development will not be affected by the operation of the gymnasium or community facility.

Verandas, Entries, Courts

Veranda roof to be separate from the main building to break up the mass of the building

Clear pedestrian access is to be provided along laneways. Access is to be designed to provide all weather protection whilst maintaining surveillance from adjoining development.

Clear and identifiable rear lane access is to be provided between carpark areas and the gymnasium and community centre.

Walls and Windows

Verandas and Posts to divide length of buildings along laneway into bays

Windows to be evenly spaced within each bay

Ground level windows to provide visual interest facing the lane - no extensive blank walls to be provided.

e Terrace House Street Frontage (Blocks G and H)**Form**

Row of dwellings in a 2 storey building parallel to the street frontage

hipped roof with ridge parallel to the street, gable ends to the exposed sides of building row, occasional feature gable ends turn toward street

Roof pitch to be consistent throughout the row (approx 25°)

Rows of dwellings to be articulated by dividing each dwelling into two unequal bays, with varied treatment of each dwelling and each bay:

- The narrower bay projecting forward with roof gable facing the street;
- The other bay to provide ground level and upper level veranda; or
- Both bays may be verandas but with different balustrade treatment in each bay.

Setbacks

Front setbacks to be varied between 3 and 5 metres. The variation in setback is to be used to divide the row into individual, differentiated dwellings and provide a sense of enclosure to entry spaces.

Zero side setbacks are permitted.



Entrances, Front Gardens and Fences

Entrances are to be clearly identifiable and address the street.

A variety of treatments of front facades is to be provided including, but not limited to:

Feature windows, bay windows or Juliette balconies

Variation in balustrading, post, screen wall, sun shading. However, a restricted palette of materials is to be used.

Front gardens are to be provided with a clear pathway to the front gate with at least 70% of the area landscaped.

Front fences are to be transparent e.g. picket style fences with a variation in timber profiles, detailing and colours.

Gates and Letterboxes to be compatible with fence designs.

Walls and Windows

Windows to be vertically proportioned or divided into vertical bays and evenly placed within bays.

Window hoods, openable shutters or external louvres are required for sun shading. Although a variety of shading types may be used, the form, edge detailing and material finishes should form a common theme throughout the row.

f Pacific Highway Entry and Building Frontage (Blocks A and B)

The Pacific Highway Entry provides the principle entry point to the Wadalba North West Urban Release Area and the Wadalba Local Centre.

Form and Character

Vertical features to be provided to accentuate vertical proportion at the entry.

Signage and lighting is to be integrated with the vertical feature (Proliferation of towers/signs will not be permitted).

Finishes, materials and detailing to be consistent with adjoining development.

Scale of features to relate to both the pacific highway as well as the local street scale.

Vertical features should be of similar proportions, materials and details.

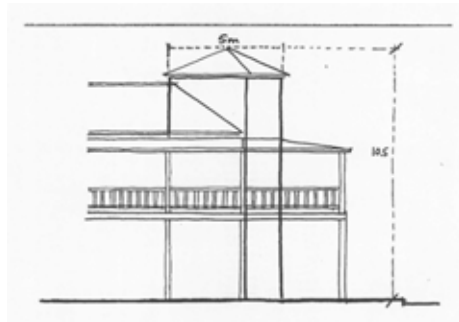
Any development within this area is to define a space at the entry corners to the wadalba local centre. Pedestrian and cyclist access should not be restricted due to the development of these facilities.

g **Village Core (Block C, D, E and F)**

Form and Character

Treatment of Corners

The four corners of the intersection of Fig Tree Boulevard and the community axis provides the main focus for the retail core of the Wadalba Local Centre.



Each building corner is to address the street with shop entries and shop windows and provide a visual feature at the junction of the adjacent 'street wall' frontages of the terrace buildings.

Corners are to be vertically proportioned. A third level will be allowed at the corner to a maximum height of 10.5 metres above natural ground level. This height may extend to a maximum of 5 metres along each street frontage and is subject to being contained within a pitched roof form.



Verandas are to be continued around the corner of each building.

The designs may vary the elements such as column supports, ballustrading, screens or feature panels to differentiate the corner while retaining the prevailing theme, palette of materials and detailing so as to be compatible with the building of which it is part.



h **Other Corners (Blocks C, D, E, F, G and H)**

The design should utilise the same elements that comprise the building such as roof shape and materials, column supports, balconies, verandas or Juliette balconies, feature panels and screens.

These corners may be used to provide a transition between the form and character of one building type to another.

The scale and design of these corners should preserve the visual prominence of the main, central core of the village at the intersection of Fig Tree Boulevard and the Community Axis.

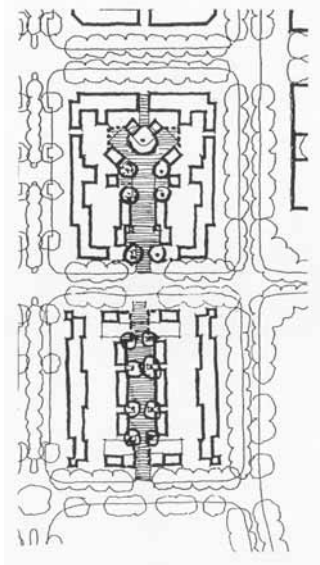


Laneway Frontages

Form

Buildings may provide projections and bays extending from the rear of buildings where this does not compromise security within the lane

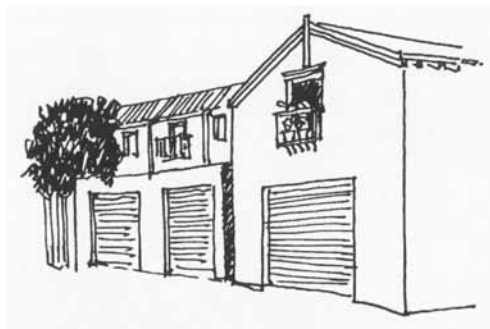
Garages and rear fences are to be parallel to the lane. Garages are to be single storey with two storey permitted at the ends of the laneway to provide an additional dwelling unit that overlooks the laneway.



Garages and dwellings above garages at corner blocks may be built to street and side boundaries

Garages and Rear Garden Fences

- Visual dominance of garage/carport structures to be reduced by:
 - Having no more than 2 car spaces (or garages) adjacent to each other and fronting the laneway
 - The separation between garages/ carports to be treated with a mix of solid fencing to a maximum of 1.8 metres in height and landscaping
 - A variety of garages and carports is to be used
 - Adequately sized enclosures for rubbish and recycling receptacles must be provided to meet the needs of households and garbage collection service.



Articulation of solid rear fences is to be provided with stepping and planter beds

A variety of rear gates and garages doors with a limited palette of materials and finishes is to be provided along rear lanes.

Windows facing onto the lane are to be vertically proportioned or divided into vertical panels

Privacy of an ground level openings to residences from the laneway is to be protected by a minimum window sill height of 1.5 metres above ground level or set back from the laneway behind a landscaped verge.



4.10.1.6 Solar Access to All Residential Buildings Within the Local Centre

Access to sunlight for living areas within dwellings and open spaces and verandas around dwellings is to be provided whilst limiting exposure to summer sun yet admit winter sun (wherever practical). Each dwelling should be oriented where possible so that habitable rooms and private open spaces face north.

4.11 Traffic Noise Amelioration (excluding the Louisiana Road Infill Precinct)

- a Areas labelled on the plan as "Noise Attention Areas - Mounds" along the Pacific Highway and Sparks Road shall generally be required to be dedicated to Council in accordance with Figure 8.
- b A noise study prepared by an appropriately qualified acoustic consultant shall accompany any development or subdivision application for existing properties with frontage to either the Pacific Highway or Sparks Road. The noise study shall identify appropriate noise amelioration measures including but not limited to (dwelling design and acoustic barrier design) to achieve noise goals set out in Clause 4.11 c. The design noise level shall be based upon estimated traffic flows, speeds and percentage of heavy goods vehicles for the year 2011. This information will be supplied by Council.

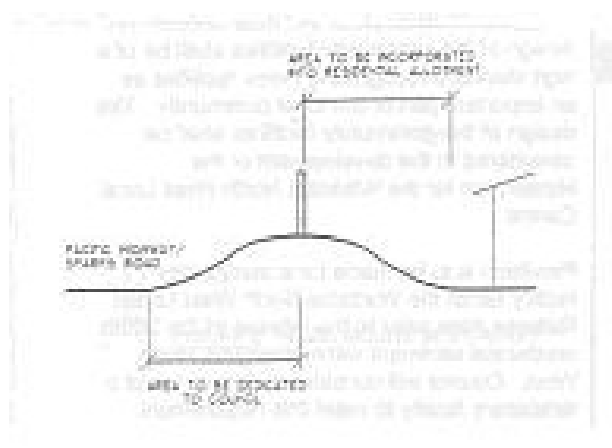


Figure 8

Noise Mound Dedication

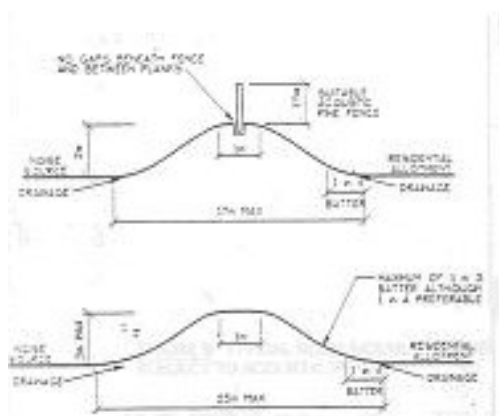


Figure 9 Typical noise mound profiles subject to acoustic report

- c **The environmental noise goal for new residences shall be 60dB(A) L₁₀ 18 hours at one metre from the facade of future residences or 45dB(A) L₁₀ 18 hours within those residences when tested in accordance with the Environmental Protection Authority's Guidelines. A relaxation of the external noise goal may occur providing it is based on sound economic and technical considerations and only on the basis of submission of proof that the internal noise standard specified in Australian Standard 2107-1987 can reasonably be achieved for each affected new residence.**
- d Notwithstanding Clause 4.11 c an acoustic mound shall be constructed in those areas labelled on the plan as "NOISE ATTENUATION AREA - MOUNDS". Typical profiles are illustrated by Figure 9.

4.11.1 Noise Amelioration Mounding - Landscape Treatment

Noise amelioration mounds should be treated with stepped construction of sub-grade to enable better keying of top soil to the subgrade mounds. Top soil should be a minimum of 200mm deep and no slope should have a greater than 1:3 batter. Mounds should be constructed with tree planting within batter grass treatments, grasses should only be planted as a temporary measure so that tree establishment is not hindered by competition with grassing.

Tree species preferred should be based on a major structural planting *Casuarina glauca* or other *Casuarina* species such as *dystila* or *toralosa* with intermittent planting of alternative species. *Casuarina*'s are preferred because of their drought resistance and ability to survive on low nutrient levels and their self mulching growth habit. In all cases, all beds should be mulched and wherever possible show tolerant ground covers used underneath the tree planting, native grasses are preferred wherever possible. All planting beds where they are adjacent to established turf or grassed areas should have a mowing edge treatment to them. Any structures such as fences which may atop the noise amelioration mound should be durable in both materials and design and not create the need for maintenance on a frequency more than once every two years nor should they be composed of materials that will not survive a period of at least five years from construction. In all cases, consideration should be given to the aesthetic affect of fences and walls and an attempt made to ensure the highest standard of visual impact while giving priority to the visual impact of the tree plantings on the noise amelioration mound.

- a In areas labelled on the plan as "NOISE ATTENUATION AREA - STRUCTURE IN ROAD RESERVE REQUIRED". Council has identified that an acoustic wall, constructed within the road reserve will most likely be required to achieve the environmental noise goal specified in Clause 4.11c. Should the applicant's noise study confirm this then it will be a requirement for such an acoustic fence to match the structures previously approved on the southern side of Sparks Road. Extensive landscaping is to be provided between the fence and Sparks Road. Should the noise study not confirm the abovementioned requirement then an acoustic mound shall be constructed in accordance with Clause 4.11 c.

Acoustic walls shall generally conform with the guidelines relating to visual form presented in Appendix D of the publication Road Traffic Noise (1987, DMR).

- b Notwithstanding the above, acoustic barriers shall:
- i* Require minimal maintenance once established. As a general rule structures shall have a design life in excess of 20 years and avoid finishes that require painting; and
 - ii* Be landscaped with species that:
 - o Are drought resistant;
 - o Have a growth habit and propagation that would inhibit weed growth; and
 - o Would not obscure street lighting, vehicle sight lines at intersections or overhang the carriageway so as to interfere with vehicles.
- c Amendments to the internal road layout may be considered adjoining the noise attenuation area where it can be demonstrated that:
- The internal road system will continue to operate efficiently;
 - The proposed development will meet those noise goals identified in Section 11.0
- d Amendment to the road and lot layout adjoining Johns Road will be considered where the following can be addressed:
- No rear fences or backyards face onto Johns Road;
 - Details of fence treatments and the location of private open spaces from the internal subdivision road are to be provided at the development application stage;
 - The northern frontage of dwellings are to avoid the appearance of 'backyards';
 - Regular and convenient pedestrian accessways are to be provided along Johns Road. These accessways and adjoining development are to be designed to maximise surveillance of these pedestrian/cyclist links;
 - The Johns Road street frontage is to be varied through the provision of double frontage blocks developed with single storey dual occupancy development where vehicle access is provided to Johns Road;
 - Any application for subdivision that includes lots along Johns Road that do not provide direct vehicular access to Johns Road is to provide detail of building envelopes, vegetation to be retained and proposed landscaping, the positioning of garages, carports and fences and the proposed treatments for these structures. The approved building envelopes etc. are to be reflected in a Section 88B Instrument applying to the land.

4.12 Utility Services

- a With the exception of existing or proposed 33kV or greater electricity services in Warnervale, Mataram, Sparks and Hiawatha Roads, undergrounding of all services (existing and proposed) shall be required in all developments or subdivisions.

The allocation of underground services is to be consistent with the Institute of Public Works Engineering Australia Ltd (IPWEA) Streets Opening Conference (SOC) or Energy Australia's published network standard US130 – "Specification for Laying of Underground Cables up to 22kv concerning allocation of services within footpath reservations" and the Guide to Codes and Practices for Street Opening 2002.

- b Gross pollutant traps required as part of the Warnervale East Trunk Drainage Scheme shall be constructed prior to subdivision of land within each of the defined drainage sub-catchments generally in accordance with the parameters identified in Table 3.1 of the Report entitled Trunk Drainage Investigation: Warnervale East 7B - Stage 2 - Flood Management Plan prepared by Willing and Partners unless applicants for development can satisfactorily demonstrate that temporary measures can be implemented in the context of staged development.
- c Council has adopted typical designs for major gross pollutant traps and drainage channels. Variations to these designs are encouraged providing it can be demonstrated that the alternate schemes:
- i* Can accommodate the predicted hydraulic parameters;
 - ii* Will not result in a significant increase in maintenance costs; and
 - iii* Are aesthetically pleasing.
- d The allocation of services within the footpath reservation shall generally be in accordance with Figure 10.

4.13 Development Within the Floodplain

- a Any proposal for developments within the floodplain shall comply with the requirements of the Wetland's Development Control Plan and Council's Flood Policy.
- b Subject to Clause 13.1 development for buildings should occur on land contiguous to the adjoining existing/proposed residential land.
- c The large floodplain may be susceptible to fire as urban development proceeds, hence the general requirement for dwellings to face on to this area, separated from the source of the fire hazard by a local road (such as an access place) and where appropriate a fire radiation zone.

Where this cannot be achieved, developers are required to identify feasible fire mitigation measures that can be incorporated in the design of the subdivision and which require minimal maintenance. These include:

- i* Use of fire retardant planting;
- ii* Alternate access to rear of dwellings for fire fighting vehicles; and
- iii* Fire radiation zone.

Applicants are required to consult with Council's Fire Control Officer prior to lodgement of any subdivision application.

4.14 Development at the Pacific Highway/Minnesota Road Intersection

The development of non-residential uses at the entrance to the Wadalba North West Estate should meet the following criteria:

Development should not interfere with pedestrian or vehicular access to the proposed primary/high school;

Any proposed facilities on the motel site (e.g. restaurants, conference facilities etc.) are to form an integral component of the operation of the motel.

Development is to be at a similar scale and bulk to the local centre. In this regard development shall be a maximum of two storeys.

No access/egress provided to the Pacific Highway

Movement of pedestrians through sites with frontage to the Pacific Highway is to ensure that all pedestrian movements across the Pacific Highway are channelled to the proposed signalised intersection with Minnesota Road.

Landscaping plans for sites fronting the Pacific Highway are to include the continuation of the landscaping treatment along the Pacific Highway frontage.

If the proposed motel development does not proceed the site is to be developed for integrated medium density housing