

UNLEY INTEGRATED TRANSPORT STRATEGY

REPORT

November 2002

Westerman Consultants Pty Ltd in association with Geoplan Pty Ltd

TABLE OF CONTENTS

Executive summary

Part A: Context

Chapter 1: Introduction	3
Chapter 2: Regional context	6
Chapter 3: Transport, land use and environment in Unley	11
Chapter 4: A strategic framework	20
Chapter 5: Comments on Draft Strategy and responses	22

Part B: Strategies

Strategy 1: Reducing the pressure on Unley	33
Strategy 2: Managing transport corridors and their associated land use environment	36
Strategy 3: Preserving and enhancing the concept of the City of Villages	49
Strategy 4: Preserving and enhancing the quality of the local environment	53
Strategy 5: Improving local accessibility, safety and convenience, and increase choice in transport mode	57
Strategy 6: A single management strategy	64

Appendices

Appendix A Desired outcomes and performance criteria for corridors	68
Appendix B Action plan	79

Executive summary

Unley is exposed to heavy regional and sub-regional traffic and is also one of the potential destination areas for urban regeneration. Unley is committed to the City of Villages Concept as part of its urban regeneration strategy and has been active in addressing the problem of through traffic by adopting a series of precincts where speeds are intended to be reduced to 40 km/h.

The purpose of the Unley Integrated Transport Strategy is to develop a consolidated and integrated approach towards the management of transport and its impact on the local community and business environment.

There are regional and local issues. The regional approach is to provide for the transport demand by making maximum use of the existing transport infrastructure, including rationalisation of the transport space by clearways and other traffic management measures. The local approach is that the impact of traffic on local communities and businesses must be reduced and the quality of the local environment be improved.

The study attempts to find a balance between competing regional transport demands and the protection and enhancement of local amenity and accessibility. It does this through the development of six interrelated strategies

Strategy 1 Reducing the pressure on Unley

Strategy 2 Managing transport corridors and their associated land use environment

Strategy 3 Preserving and enhancing the concept of the City of Villages

Strategy 4 Preserving and enhancing the quality of the local environment

Strategy 5 Improving local accessibility, safety and convenience, and choice in transport mode

Strategy 6 A single management strategy

The first strategy addresses the regional issues and has been formulated in close association with Transport SA and Planning SA. It is agreed that travel demand management at the regional level must be actively pursued, and that the emphasis should shift from moving cars to moving people.

The second strategy introduces the notion of corridors where the transport function, transport space and transport performance are related to the frontage function and performance, access and parking and protection of the environment. The corridors are categorised and desired outcomes for them are determined. These outcomes are to be

achieved through an integrated range of performance conditions which cover transport, land use and the environment.

The third strategy deals with the City of Villages Concept and indicates how it could be adapted to meet both local needs and the regional transport needs.

The fourth strategy suggests ways of preserving and enhancing the local environment. The strategy proposes smaller and more residential precincts where traffic is subservient and amenity is paramount. Desired outcomes are specified and the means to achieve them are outlined.

The fifth strategy deals with local networks and proposes ways of improving local accessibility, safety and convenience, and increase choice in transport mode. The existing local network is substantially retained but there are some additions. All links in the local network should be considered from a road environment point of view so that the local environment is protected.

The last strategy provides the link between the previous strategies. It is stressed that the strategy is an integrated package, a framework to be used as the basis for subsequent actions and decisions.

The potential benefits of the strategy are:

- 1 An integrated approach towards regional and local needs;
- 2 A basis for dealing with future development along transport routes;
- 3 A context for urban regeneration, including the development of Unley as the City of Villages;
- 4 Additional protection for the residential environment; and
- 5 It enables improvements to be made in local accessibility without encouraging through traffic.

The principles involved have been subject to consultation and extensive discussion, but the strategy is not a blue print. There will be a need for detailed study and extensive consultation over time.

The Report consists of two Parts and two Appendices.

Part A explains the context for the strategy and comprises Chapters on the regional context, the local context and the conceptual framework. Part B sets out the six strategies, with each strategy given its own Chapter. Appendix A provides details on the desired outcomes for the corridors and Appendix B contains the Action Plan.

PART A

Table of contents Part A

Chapter 1 Introduction

3

Background	3
Purpose of the project	4
Scope	4
Objectives	4
Process	4
Structure of the report	4
Status	5
Acknowledgements	5

Chapter 2 Regional context

6

Introduction	6
The transport system	6
Land use in the central Metropolitan sector	7
Integration of transport and land use	7
Urban regeneration	8
Transport routes	8
Performance outcomes for transport routes	10
Planning Bulletin on Arterial Roads.	10
Conclusion	11

Chapter 3 Land use, transport and environment in Unley

12

Existing development pattern	12
Land use and trip making	12
Networks and accessibility	13
Regional links	13
Sub-regional links	15
Intercity routes	16
Intracity routes	16
Road hierarchy	16
Public transport	17
Cycleways	17
Pedestrian ways	17
Use of the network	18
Precincts	18
Development and current planning intentions	19
Summary of issues	19

Table of Contents Part A (ctd)

Chapter 4: A strategic framework		20
Introduction	20	
Integrated planning	20	
Integrated process	21	
Strategic framework	21	
Explanation of the structure of the chapters	21	
Chapter 5: Comments on Draft Strategy and responses		22
Introduction	22	
Strategy 1 - Reducing the pressure on Unley	22	
Strategy 2 – Corridors	23	
Strategy 3 - Preserving and enhancing the City of Villages	24	
Strategy 4 - The quality of the local environment	25	
Strategy 5 – Local networks and accessibility	25	
Comments by Transport SA	27	
Interpretation	29	
Matters requiring revision	31	

Chapter 1

Introduction

Background

The City of Unley is an area comprising some 14 km², which abuts the southern edge of Adelaide's CBD. The City's boundaries are formed by major arterial roads and the local street network is characterized by a grid system. Unley is traversed by major north/south arterials with strip centres along them. The activities in these centres are integral to the economy and vitality of the city, but are compromised by the dominant transport functions. On the other hand, the frontage activities affect the performance of the transport performance of the roads.

Steady growth of traffic over the past few decades due to urban expansion to the south and the demands and needs of mobility have placed significant stress upon the arterial roads that traverse Unley and the internal local road network. Critical issues are the dominance of through traffic, the loss of amenity, safety (both real and perceived), congestion during peak periods, accessibility provided by the local network, and the impact on the business environment.

Council responded to these pressures by developing a City Traffic Plan in 1995, including a road hierarchy and by introducing a 40 km/h speed limit in all areas except the major through routes in 1999, after an initial trial period. The City Traffic Plan, whilst a comprehensive document, failed in regard to its priorities associated with the management of roads in the hierarchy, but the 40 km/h speed limit survived. A review and evaluation of the Unley City Wide 40 km/h Speed Limit was undertaken in 2000, which concluded that the overall effects had been favourable. Speed and volumes have decreased but the benefits have largely been outside peak periods. A recurring problem was that of keeping speeds down on wide and long streets.

Council also looked for ways of improving some of the existing major routes, supported by the Street Life Trust. King William Road and its shopping centre were converted into a paved street and the heritage character of the centre was preserved and enhanced. A working group, comprising representative from the Unley Association, the City of Unley, Planning SA and Transport SA was established which developed options for Unley Road. They were presented earlier this year to the public which indicated their preference for Option 2 with a median which facilitates crossing and provides for right hand turning bays. The trade-off was that the

regional bike route had to be relocated (Rugby/Porter St).

In 1999, the then Minister for Transport and Urban Planning issued a green paper on urban Generation: A Better Place to Live: Revitalising Urban Adelaide. The release of this document coincided with the Council's own initiative to pursue its City of Villages Concept which is in effect an Urban Regeneration Strategy, as it intended to maximise Unley's advantage as a focus for inner-city renewal and minimise the negative effects of its position. The Council envisaged that the development of this strategy would underpin all future development, viz; social, environmental and physical. The strategy was approved by Council in October 2000 and provides for 5 hubs or villages with distinct characteristics and living and working opportunities. The access and movement strategy of the Concept aims to maximise access to needed facilities and services and minimise the need for transport.

In July 2001, Council received a draft management report advocating a *Road Environment Approach* to managing traffic that recognises the need to balance the function and performance of transport routes in Unley with protection of the road environment, whilst responding to and enhancing the City's Urban Regeneration Strategy.

The report proposed the development of a '*Road Environment Management Strategy*', with a major focus on land-use and its relationship to the transport functions that roads fulfil. It would include a process of categorisation of transport routes and their land use environments as 'corridors', identifying different types, considering the friction and impact along each, the desired future outcomes for each and the land use and transport performance criteria appropriate for each corridor.

The report expressed the expectation that development of such a strategy would:

- Ensure better integration of Unley's land-use and transport management system by providing a coordinated approach to traffic, transport and land-use management within Unley.
- Preserve and enhance residential amenity and commercial prosperity.
- Facilitate the ability of Unley's road system to manage both local and external traffic.

- Provide a framework for decisions/responses relating to requests for traffic management devices, street closures, safety issues, speed and volume issues.
- Provide a reference for proposed development and business investment.
- Contribute positively to protecting and enhancing the urban and natural environment.
- Contribute to an efficient economy and support sustainable economic growth .
- Improve safety for all road users
- Provide a basis for the development of good public transport links to regional and neighbourhood centres
- Provide good transport, bicycle and pedestrian links between villages.
- Promote accessibility to everyday facilities for all, especially those without cars.
- Promote Unley as an attractive place to live, work and visit.
- Provide a better and efficient transport system .
- Promotes a sense of community.

The strategy would provide a framework for the management of traffic in Unley, including but not limited to the development of precinct management plans, corridor management plans, a speed management plan and a pedestrian management plan.

However, prior to developing the Road Environment Management Strategy, it was realised that an up-front process would be required to clarify the future status of major transport corridors which traverse and surround Unley to ensure the viability of the 'Village' concept.

Council decided to proceed with this approach in August 2001.

Purpose of the project

The purpose of this project is to develop an integrated approach towards the management of land use, transport and the environment which responds to the City of Villages concept and has a special focus on:

- transport routes and their land use environment ('corridors'), and
- the development of precincts for residential and commercial areas in which transport is subservient to the need for environmental quality.

As Unley is part of the urban region, the role and management of the major transport corridors through the local areas cannot be considered in isolation and the project should address the

relationship between regional and local needs and how they can best be resolved.

Scope

The project was to develop a transport strategy, which is part of the overall Urban Regeneration Strategy and provide a basis for specific actions in future. However, it is not to be a transport plan which usually is based on detailed forecasts of future traffic volumes.

Objectives

The objectives of the strategy are to:

- Clearly define regional transport corridors and identify performance criteria for land use, transport and the environment of these corridors;
- Confirm or propose adaptation of the Village Concept so that there is no conflict with the regional corridors;
- Defined secondary transport corridors with performance criteria appropriate for the integrated management of land use, transport and the environment along such corridors, including the criteria necessary for implementing the Village concept and for supporting business activity in Unley;
- Identify precincts for environmental protection;
- Recommend a local street network which provides for local accessibility and connectivity, as well as access to the regional and secondary corridors; and
- Recommend a speed and safety environment which preserves/enhances the quality of the local environment and deters through traffic.

These objectives were to be achieved through a process of consultation with state authorities and the local stakeholders.

Process

The process consisted of a series of steps and consultation at critical points. Working papers were produced at each stage in the process. The process is illustrated in Figure A1-1.

A draft of the strategy was released for comment in August 2002. The comments received were analysed (Chapter A-5) and incorporated in the final report.

Structure of the report

The report has two parts and two appendices. Part A provides the context; Part B sets out the strategies.

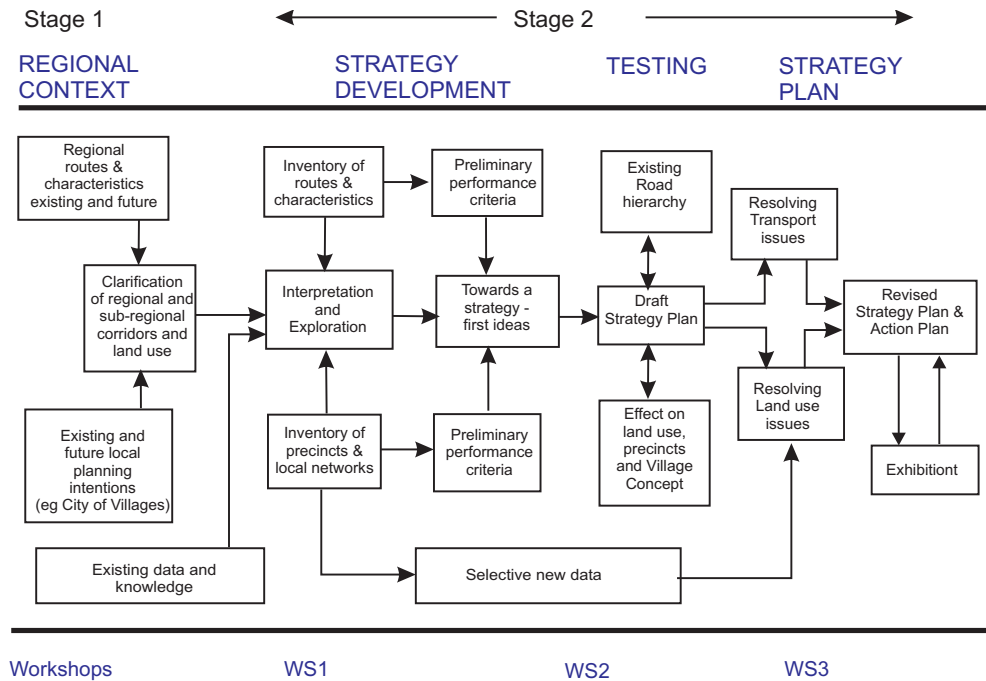


Figure A1-1 Process and consultation

Part A – The context and concept

1. Introduction
2. Regional context
3. Local context: land use, transport and environment in Unley
4. A strategic framework
5. Comments on Draft Strategy and responses

Part B – The Strategy

1. Reducing the pressure on Unley
2. Managing transport corridors and their associated land use environment
3. Preserving and enhancing the concept of the City of Villages
4. Preserving and enhancing the quality of the local environment
5. Improving local accessibility, safety and convenience, and increase choice in transport mode
6. A single management strategy.

Appendices

Appendix A: Desired outcomes and performance criteria for corridors

Appendix B: Action plan

Status

If adopted by Council, this document will form the basis for integrated transport management in the City of Unley.

Acknowledgements

The project could not have been accomplished without the astute leadership of Ron Green, City Manager, the active support of the Mayor, Councillors and the Council’s Steering Committee, the constructive partnership with Transport SA, Planning SA and the Public Transport Board, the participation of community representatives at the workshops, The Unley Street Life Trust and the residents who commented on the draft strategy.

My special thanks to Heather Barclay, Coordinator Traffic Management and Project Manager, for her efficient and thoughtful role throughout the process. I also want to acknowledge the unstinting support of Ludwig Kraayenbrink – Manager Strategic and Commercial Services, Steve Day, Technical Officer Traffic and Justine Short, Administrative Assistant Traffic Management

Chapter 2

Regional context

Introduction

The City of Unley adjoins the City of Adelaide immediately to south of the parklands and has always reflected the growth and change of the Adelaide urban area. It was settled with a mixture of housing, industry and commerce, largely in a grid pattern within a 'supergrid' formed by main roads such as Main South, Goodwood, Unley and Fullarton Roads running north-south and Greenhill and Cross Roads running east-west. With the development of railways and tramways, another pattern was superimposed on the western part of Unley, fragmenting the grid pattern in this area.

The growth of Adelaide in a predominantly north-south direction meant that the main roads through

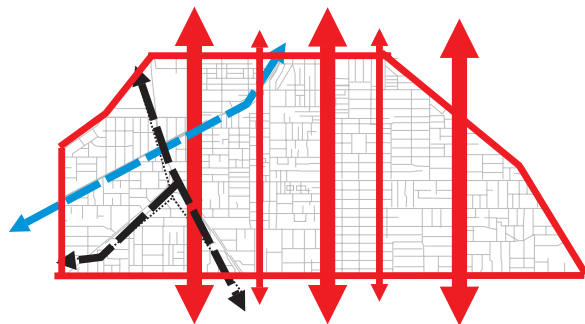


Figure A2-1 Through traffic is dominant

Unley had to cope with ever increasing traffic volumes and today some 120,000 vehicles travel along the transport routes through Unley every weekday.

However, the pattern of regional development is changing from continuing residential expansion on the fringes to urban regeneration of inner and intermediate areas. There are also some changes in employment locations but the movement to and from the CBD will continue to be dominant. All these trends affect Unley.

The transport system

Adelaide's road network has many unique characteristics when compared to other cities in Australia, not the least of which is its optimum location of the CBD (between the hills and the coast) and the grid-like road network. The north-south and east-west grid is bisected by four radial routes in a NW, NE, SW and SE direction.

Traffic is very tidal during the peak period, with growing pressure on the north-south and radial routes to cater for future traffic growth. Traffic volumes on the 18 routes entering the city has fallen from 465,000 trips per day to 438,000 trips per day between 1987 and 1997 (5.8% decrease). This is partly due to a decline in shopping trips and business activity in the city but also because of the further development of the ring route surrounding the city.

The 'Adelaide Better Roads' project is aiming to remove some 25% of 'through' traffic, travelling to a destination other than the city. The Ring Route projects aim to both remove traffic congestion from city streets; to improve traffic flow between centres and to remove inner city suburb "rat running".

Adelaide will always have to rely on the efficient functioning of the majority of its north-south routes. This involves an emphasis on routes surrounding the CBD, including the ring route as described above, and capacity at various network convergent points. The development of a 'Strategic Network' is important to support the safety and efficiency of all modes of travel including cars, trucks, buses and bikes.

Transport SA comments that the level of arterial traffic access is increasing throughout the inner suburban areas, in particular the Unley, Mitcham, and Edwardstown areas as well as Burnside, Prospect and the Norwood and Kensington areas. The Department says that *"this can be avoided if arterial roads can function with less congestion or local area traffic management measures are increased. However, the proper balance must be found. On-street parking issues arise on radial routes with shopping precincts eg. Unley and Prospect Roads, where a conflict between local shopping demand and clearway requirements for the arterial function has created competition for road space. Yet, off-road space remains under-utilised parking resource"*.

As our business practices change and our travel expectations increase the demand for access to residential areas, education and shopping facilities, areas of employment, transport hubs, depots and terminals, and recreational and community services will increase. While travel demand management initiatives are proposed in the latest version of the Metropolitan Planning Strategy (2002), the explanation in the document also says that *"motor vehicles will dominate road-based travel well into the future. It is therefore vital that the road network*

provides for safe, reliable and efficient travel from and to these many and diverse opportunities for all modes of travel”.

Key themes in a transport strategy include:

- better integration between transport and land-use planning;
- better use of the transport system to move people rather than cars;
- reducing the impact of cars on the environment
- improving the movement of goods.

Land use in the central Metropolitan sector

The priorities in the central sector of Adelaide are set out in the Metropolitan Planning Strategy. The central sector comprises the City of Adelaide and adjoining inner suburbs including the whole of Unley. The priorities in the central sector as a whole are to encourage population and economic growth and regenerate established living areas that are degraded or disadvantaged. The central sector population is projected to increase by about 33,200 people from approximately 656,800 in 2001 to 690,000 by 2016, an increase of about 5%. This represents about 58% of the projected population for the metropolitan area in 2016.

It is expected that the number of people over 65 years in Adelaide will increase significantly over the next fifteen years and so the number of older and smaller households is expected to continue to increase. At present, the largest concentrations of aged people are found in the inner and middle suburbs.

An increase of 11,000 people aged 65 years and over is expected between 2001 to 2016, representing an increase within this sector of about 9%. This compares with an estimated increase of 28% in this age group for the metropolitan area within the same period.

The central sector is expected to contain 62% of the metropolitan population aged 65 years or older in the Adelaide Statistical Division by 2016, compared to 75% in 1996.

This change would represent a decrease of 13% in the sector’s share of the total metropolitan numbers of people aged 65 years and over by 2016. It reflects a higher rate of increase of numbers of older people in the northern and southern sectors, and the attraction of younger families back into the central sector.

Between 2001 and 2016 an additional 33,200 people are expected to be housed in the central sector. The average number of people per house in the central sector is expected to steadily reduce from 2.3 in 1996 to 2.1 in 2016.

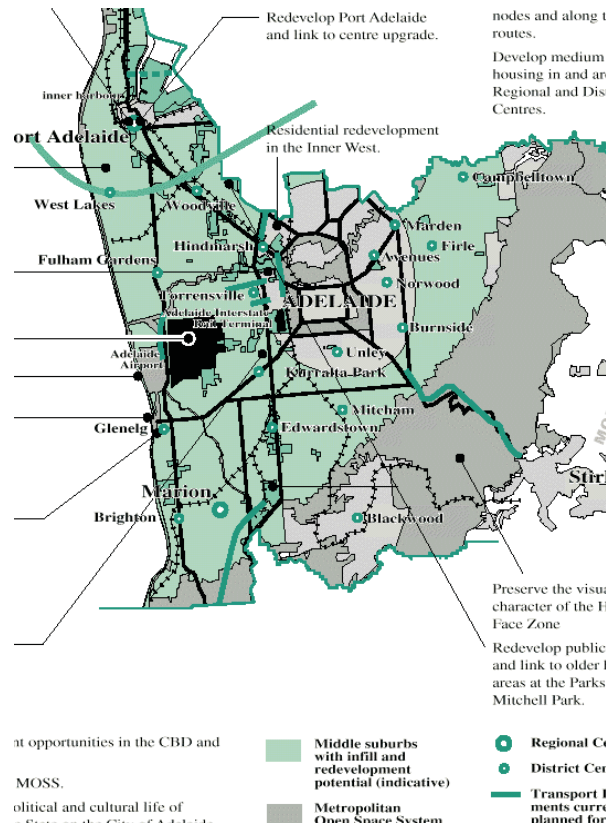


Figure A2-2 Regional planning strategy

The central sector contained nearly 278,600 houses in 1996. An estimated 53,400 new houses will be needed between 2001-2016, representing 57% of estimated new houses in the metropolitan area. This demand for new houses is likely to be met from the release of government and private land, from subdivision and from replacement through demolition. Achieving these numbers in the central sector will depend heavily on redevelopment that is sensitive to local character and heritage.

Integration of transport and land use

A key aspect of the Planning Strategy is to achieve greater integration of transport and land use. Three of the components of this strategy, relevant to the Unley context, are the focus on major centres; access and travel demand management, and development along arterial roads.

CENTRES

Metropolitan Adelaide has several regional centres of activity, including the Adelaide City Centre, which is the principal focus for the economic, social and political life of metropolitan Adelaide, and the State. Each of these major nodes is well served by public transport with high frequency services along major corridors. District centres do not, however,

have the same level of public transport service as the city but are well served by the road network.

Strip centres, such as Unley Road, are supported by the Adelaide Metropolitan Planning Strategy. The strategy document comments that they suffer from parking, traffic and pedestrian conflicts and this is one of the issues addressed in the Unley Integrated Transport Management Strategy.

ACCESS AND TRAVEL DEMAND MANAGEMENT

Planning SA comments that people have different views about access in Adelaide. There are strong arguments in favour of limiting the use of the car, to reduce environmental damage, particularly in fuel use and the contribution to greenhouse gas emission. In addition, the adverse effect of traffic in local streets is a major concern.

Nevertheless, there is a widespread preference for, and reliance on, private transport. The Planning Strategy states that personal mobility should not be unnecessarily constrained, but that alternative modes of transport deserve more attention.

Public transport has a crucial role to play in a sustainable transport system. It is an everyday necessity for people who cannot drive nor have access to a car. This group includes a large proportion of the aged, people with disabilities, the unemployed and home carers.

A greater emphasis is being placed on housing redevelopment and renewal around centres and along major transport routes. The city structure is such, however, that public transport alone cannot be an alternative to all who travel by car in the foreseeable future.

The Planning Strategy includes current or draft strategies to:

- Develop higher residential densities in strategic locations around centres and transport nodes and interchanges to provide housing choice and support public transport use.
- Recognise, maintain and improve existing strip centres:
 - a) Promote integrated and planned management of strip centres;
 - b) Reduce conflicts between arterial road traffic, customer parking and pedestrian movement;
 - c) Prepare on and off street parking plans for centres; and
 - d) Improve the interface between centres and housing areas.
- Ensure that a range of transport options serve and are accommodated in centres:
 - a) Provide access to and within centres for people without cars, pedestrians, cyclists, and people with disabilities;
 - b) Provide space for public transport and interchanges in major centres which are centrally located relative to major activities; protect people from the weather and maximise passenger security; and accommodate a range of public transport services and vehicles;
 - c) Preserve land in centres for acquisition and development of public transport where appropriate;
 - d) Provide adequate parking in centres and car and cycle access; and
 - e) Encourage users within centres to share car parking.

Urban regeneration

Development is now focussed in a number of areas: the affordable market on the fringe in response to rising land values in the inner suburbs; the gentrification of the middle and western suburbs; an expanding hills market; and an accelerating inner city apartment market. The more recent and significant shifts in Planning SA's assumptions about Adelaide are that the population of inner suburbs will increase and the increase in outer suburbs will be reduced.

The Department believes that the development of nodes of activity in the central sector should recognise the historic development of Adelaide as a series of villages. "*These village centres should be used as catalysts for development within existing suburban communities*". The Planning Strategy lists as successful examples Unley Road, The Parade, Norwood, and Jetty Road, Glenelg.

At the neighbourhood level, the Planning Strategy proposes that additional activities be incorporated in the redesign of strip shopping centres and that pedestrian and bicycle access from surrounding residential neighbourhoods be improved.

Transport routes

ROADS

Transport SA is developing functional categories and performance outcomes for regional routes (see Figure B1 in Chapter B-1). The functional categories include strategic routes, primary and secondary car routes, public transport routes, primary and secondary freight routes, primary and secondary cycle routes and zones with different levels of pedestrian intensity. Detailed performance criteria and measures are being developed for primary car routes, bus routes and freight routes.

Initial discussions focussed on the following routes and potential functions:

South Road (40,000vpd) a strategic route, primary car route, primary freight route, bus route (Go Zone), secondary cycling route and medium pedestrian zone.

Goodwood Road (35,000 vpd) a primary car route, bus route (Go Zone), secondary cycling route, high pedestrian zone.

Unley Road (30,000 vpd): secondary car route, bus route (Go Zone), primary cycling route, high pedestrian zone.

Fullarton Road (30,000 vpd); strategic route, primary car route, bus route, secondary cycle route, medium pedestrian zone.

Greenhill Road (47,000 vpd at the western end and 36,000 at the eastern end): strategic route, primary car route, primary freight route, primary cycle route, medium pedestrian zone.

Cross Road (30,000 vpd at the western end reducing to 17,000 at the eastern end): strategic route, secondary car route, secondary freight route, secondary cycle route, medium pedestrian zone.

Glen Osmond Road (24,000 vpd): strategic route, primary car route, primary freight route, bus route (Go Zone), primary cycle route, high pedestrian zone.

Anzac Highway (45,000 vpd): strategic route, primary car routes, secondary freight route, bus route (future Go Zone), medium pedestrian zone.

TRAIN AND TRAM

Train and tram services operate through and provide services to the western parts of Unley, as follows:

Adelaide – Belair Train Service

Services operate every 15 to 25 minutes in peak periods, and half hourly during the weekday

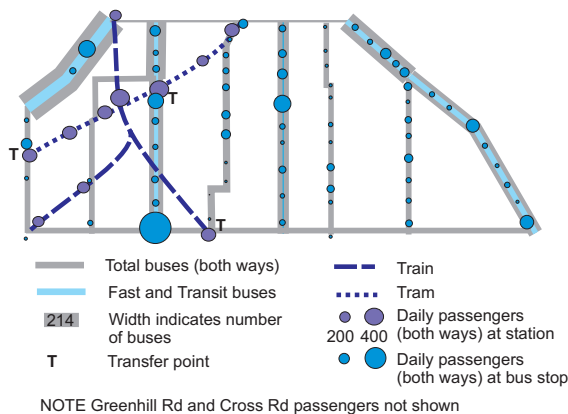


Figure A2-3 Public transport routes and volumes

interpeak. Approximately 3,000 passengers daily travel on trains on this line through Unley. There are stations at Keswick, Goodwood and Unley Park.

Adelaide – Tonsley and Noarlunga Centre Train Service

Approximately 10,000 passengers daily travel on trains on this line through Unley. There are stations at Keswick, Goodwood, Clarence Park and Emerson. Trains serve these stations approximately every 20 minutes in peak periods, and half hourly during the weekday interpeak. Many additional trains operate express to /from points in the outer southern suburbs beyond Brighton.

Victoria Square – Glenelg Tram Service

Approximately 5,500 passengers daily travel on trams on this line through Unley. There are stops at Greenhill Road, Moresby Street, Goodwood Road, Leah Street, Fourth Avenue and South Road. Services along the line (which is a Go Zone) operate approximately every 10 minutes in peak periods and every 15 minutes during the weekday inter-peak.

The number of passengers daily boarding / alighting from trains and trams at stations in Unley is shown in Table A2-1.

Train		Tram	
Keswick	140	Greenhill Road	330
Goodwood	400	Moresby Street	160
Unley Park	330	Goodwood Road	410
Clarence Park	200	Leah Street	330
Emerson	250	Fourth Avenue	280
		South Road	290

Patronage at inner suburban stations is generally low (in comparison with outer stations) as, due to the location of Adelaide Station and City tram terminus some distance from central city activities, travel by bus or car to the City is generally more convenient from inner suburbs than travel by train or tram. The advantages of rail travel over bus and car increase with distance from the City.

Nevertheless, locations close to train and tram stations are well served by public transport, a fact not reflected or supported by current population densities close to those stations. Actions to increase density in these areas would support the significant investment in infrastructure and services that is provided.

BUS

High Quality Bus Services

The “Go Zones” through Unley, along Glen Osmond, Unley, Goodwood and South Roads (plus non-Go Zone Anzac Highway), are areas in which greater advantage should be taken of the high quality of public transport service being provided, particularly by such methods as increasing population densities. Even on non-Go Zone routes, such as King William Road, potential exists to increase patronage and therefore increase service levels (or vice versa).

Nodes or concentrations of public transport also occur at locations such as Glen Osmond, Fullarton / Glen Osmond Roads, Cross/Goodwood Roads, the Goodwood area between the station, tram stops and Goodwood Road, and South Road / Tram Line and South Road / Anzac Highway. These are also locations of land use opportunity in terms of good public transport.

Bus Stops

Bus stops in Unley (for all except Transit link and express buses) are generally spaced at about 3 to the kilometre, or an average 330 metre spacing, consistent with practice in many cities. In fact, in some cities, stops are placed more closely, at about 5 to the kilometre. Stop spacing is a compromise between maximising average bus speed and minimising walking distances. As the population ages, there is pressure on the Passenger Transport Board by many residents to provide a greater number of stops, not less. It should be noted that all stops are “request” stops – so that all buses (even the “all stops” buses) do not stop at every stop. Peak period peak direction “all stops” buses will stop at most stops: in the interpeak they would generally stop at 2 out of 3 stops, and at night or on weekends they would stop, on average, only at one in every 3 to 5 stops.

If “long distance” buses were prevented from using any stops in Unley, this would result in a drastic reduction in service frequency for residents of Unley, and in loss of access from inner to outer suburbs. The result would be a significant decrease in patronage (and therefore increased car use). If “local” services had their frequencies increased to compensate, the cost would involve millions of dollars per annum in increased operating cost with little offsetting revenue.

Performance outcomes for transport routes

Transport SA has identified desired outcomes for each route function by using the following criteria:

Traffic signals

- Coordination

- Operation (eg providing for right hand turns, priority to particular road user)
- Frequency

Lanes

- Parking control (eg to provide clear lane)
- Lane widths (eg where kerb lane is shared)
- Priority

Access Control

- Property access
- Side road access

Roadside environment

- Median
- Speed limits
- Landscaping and road furniture
- Pedestrian facilities

Planning Bulletin on Arterial Roads.

The Bulletin (Planning SA, July 2001) addresses land use, transport and the transport space for arterial roads. Some of the most relevant policies are:

- Limit office development along arterial roads and outside designated centres to complement and encourage centre development;
- Contain existing commercial areas within defined zones. Resist creep of commercial development and be made non-complying;
- Minimise conflict between arterial road traffic and local businesses by encouraging the use of side road access and lanes to the rear of properties for access to integrated car parking areas;
- Low traffic-generating uses, such as retail showrooms are acceptable provided entry and exit points are properly designed;
- Encourage higher density housing on major public transport systems and where the potential for infill or redevelopment is high;
- Encourage higher density housing along arterial roads provided they are designed for noise protection;
- Minimise the number of access points give preference to access via collector roads and service lanes;
- Ensure good visibility for all road users entering and leaving a development, minimise right hand turn movements and keep access points clear of intersections and junctions;

- Provide for bus bays and bus lanes to improve bus operation efficiency;
- Reduce conflict between pedestrians and vehicles by planning linkages and relating pedestrian-generating activities to crossings;
- Clearly defined cycling lanes, continuous and unobstructed by motor vehicles; and
- Focus on urban design principles, including landmarks, gateway entrances, signage, tree planting and undergrounding of services.

Conclusion

The integrated strategy for Unley needs to incorporate these regional strategic directions developed by Transport SA and Planning SA, but this 'top down' approach should be balanced by a 'bottom up' approach which recognises the impact of transport on the inner suburban communities. Two of the consequences of such an integrated approach are that:

- (i) strategic travel demand management at the regional level should recognise (inter alia) that there is not only a physical capacity constraint, but also an environmental capacity limit for transport routes through inner areas, and
- (ii) a shift in focus from car routes to people movement routes can contribute to alleviate some of the pressures which currently exist.

These are important issues because there are different land use associations with people movement routes than there are with car routes, and the outcome of this debate will influence the extent and location of urban generation projects.

These issues are reflected in Strategy 1 and 2 (Chapters B-1 and B-2 respectively).

Apart from these issues, there is considerable convergence in the regional objectives and those to be considered for Unley.

Chapter 3

Land use, transport and environment in Unley

Existing development pattern

Unley has always had a dominant residential function. However, its regional and district accessibility, combined with the exposure of frontages along busy transport routes, led to the development of commercial and office functions along these routes. One of the notable features of urban development in Unley is the commercial development along major roads ('ribbon' or 'strip' development) through the City and along the roads which surround it. The exceptions are Fullarton Road and Cross Road which kept much of their residential character.

This symbiosis between transport function and adjoining land use is not necessarily a blessing in disguise. The advantages of accessibility and exposure of business in Unley are being eroded progressively by increased traffic volumes, congestion, access and parking restrictions (such as clearways), loss of amenity and noise and air pollution.

Another feature of Unley's development is that of urban regeneration of some residential sites for medium density housing. The process of regeneration reflects the value which the market attaches to an inner urban location with a high level of accessibility and proximity to major employment, commercial services and public facilities.

Unley also accommodates the Showgrounds with their associated land use activity and traffic at major events.

The overall pattern which has emerged is that of a still predominantly residential area, flanked by commercial development on the edges, especially along Greenhill and Glen Osmond Roads, and a mixture of retail and service strip development along many of the north south through routes.

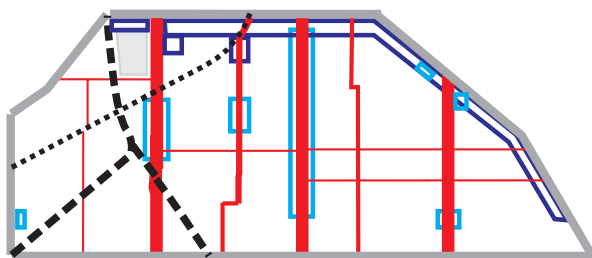


Figure A3-1 Generalised pattern of development

Local centres serving the local community are also located along these routes. The Council acknowledged this pattern and developed a Village Centre strategy with the aim to improve their character and quality.

Land use and trip making

The various land use activities generate trips and the distribution of these activities determines the intensity and distribution of trips. These trips are made by different modes and routes.

Unley residents and businesses make about 100,000 trips per day (weekday) of which 56 per cent are intercity trips and 44 per cent intracity trips (1994 data, Rust PPK).

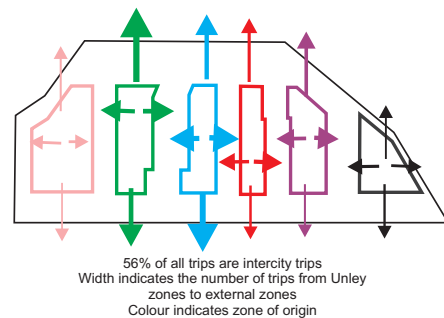


Figure A3-2 Intercity trips

Figure A3-2 shows the distribution of intercity trips. An almost equal number of trips are made in each direction, but there are some variations for the six zones used for data collection and analysis.

Figure A3-3 shows in diagrammatic form the distribution of intracity trips between the six zones and within each zone. The data do not permit

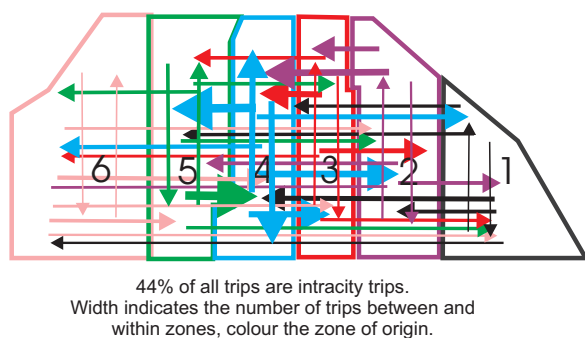


Figure A3-3 Intracity trips

analysis of trip movements between precincts, and for this reason the movements between zones are shown horizontally and those within the zone vertically. As would be expected, the greatest concentration occurs in the three central zones.

Networks and accessibility

There are four types of networks:

- 1 Vehicle networks for the movement of cars, commercial vehicles and buses
- 2 Public transport networks
- 3 Cycle networks
- 4 Pedestrian networks

The vehicle network consists of four components:

- (a) Regional and sub-regional links
- (b) Intercity links
- (c) Intracity links
- (d) Site access streets

Regional links

There are four north south routes with a regional function:

- South Road carrying about 40,000 vpd and serving a general purpose function, but with a relatively high proportion of commercial vehicle traffic. It is also a regional bus route.
- Goodwood Road, carrying about 35,000 vpd, also serving a general purpose. It is also a major bur route (Go Zone).
- Unley Road, carrying about 30,000 vpd plays an important role as a car route during peak periods and a bus route (Go Zone). However, it is straddled with commercial strip development.
- Fullarton Road, carrying about 30,000 vpd serves as a general purpose route, but with few bus services.

There are two east-west routes:

- Greenhill Road, carrying about 47,000 vpd at the western end and 36,000 at the eastern end. It serves a major cross route as well as a distributor of traffic to the north south routes.
- Cross Road, carrying 30,000 vpd at the western end reducing to 17,000 at the eastern end. It too serves both as a through route and distributor.

Two routes are diagonals:

- Glen Osmond Road, the main entry into Adelaide from the eastern States, carries about 24,000 vpd and is multi-purpose in function.

- Anzac Highway, the main link from the CBD to the south west, carrying 45,000 vpd and serving as a multi purpose route.

All these routes, except Cross Road, have clearways applied at specific times.

Most routes are close to capacity during the peak periods. The capacity is greatly influenced by the capacity of the intersections and can be expressed by the level of service (LOS – ie. the ratio of volume/capacity). It reaches level F (the worst condition in the rating scale) along most of the intersections along Cross Road during the evening peak. The mid-block LOS for most routes is C, but D for parts of South Road in the PM peak and for parts of Anzac Highway in the AM peak.

Signal coordination is used extensively to improve traffic flow and most signals are coordinated to favour the dominant flow during peak periods.

In the following sub-sections, the principal characteristics and issues are identified. A more detailed analysis is available in the working papers prepared for this project.

GREENHILL ROAD

Greenhill Road is a major cross link in the region. It is a primary vehicle route, a strategic route, a regional cycle route and a bus route. It is not only a through route, but also serves as an arterial distributor route linking the major north south routes to the City of Adelaide.

Integration between transport and land use function is reasonably effective. However, many of the properties have frontage access and driveways.

Integration in the use of the transport space is another issue. Greenhill Road is primarily a vehicle route and not a major public transport route. There are bus services, with bus stops at 350m interval, but some stops are not near signal controlled intersections where pedestrians can safely cross.

The absence of a dedicated cycle way may be one of the reason for the high incidence of accidents involving cyclists.

Integration between regional and local functions and networks is a further issue. The lack of E-W routes within the northern part of Unley means that Greenhill Road is also used for intracity movement. There are numerous side streets, especially in the eastern section of Greenhill Road, which bring local traffic onto a major regional transport route.

GLEN OSMOND ROAD

A strategic route into Adelaide with many functions: primary vehicle route, primary freight route, cycle route and a collection of bus routes which are a GO ZONE.

The integration between the transport and land use functions is poor in the north-western section. There are problems with access and parking, especially at the fashion discount centre.

The integration in the use of the transport space is also unsatisfactory. Bus stops are on-lane, there is no designated cycle path and pedestrian safety is affected by the insufficient crossing facilities. There is no median.

Integration between regional and local functions and networks is affected by the numerous side streets with angled junctions. Some intracity movement has to use the road and some commercial traffic to frontage activities has to use local streets. Circulation and access between frontages has to use the local street system.

The Gateway master plan addresses some of these issues, but does not consider frontage issues and parking.

CROSS ROAD

Cross Road is a major east west route of strategic importance. It is a secondary car and freight route, a secondary cycle route and a bus route. The integration between the transport and land use functions is satisfactory except in respect of access driveways and noise exposure. There an absence of rear access and any regeneration would have to be considered on a street block basis, so that alternative access (and noise protection) can be provided.

The integration in the use of the transport space can be improved. There is no median in the eastern section of Cross Road, yet there are many local junctions where drivers want to make a right hand turn. The absence of bus bays and separate cycleways is another issue.

The integration between regional and local networks is a problem in some sections. Intracity trips are forced onto Cross Road because of a lack of opportunities for cross movement. This is especially the case in the western section. It should be noted that the community bus route also has to make use of Cross Road to serve the adjoining precincts.

SOUTH ROAD

A major north-south route of strategic significance. South Road is a primary vehicle route, a secondary cycle route and a bus route which is a GO ZONE. It has a high proportion of commercial vehicles.

The integration between the transport and land use function is confused. Apart from the vehicle oriented commercial uses, the relationship between the transport function and land use is poor. The absence of rear access makes it difficult to address the friction associated with frontage access.

There are also problems associated with the integration between transport modes in the transport space. For example, the allocation of transport space to bus stops and cyclists needs to be addressed.

The integration between regional and local networks is another issue. There are side streets which provide for intracity movement (including the community bus). Circulation and access between some of the frontages has to use the local street system

ANZAC HIGHWAY

Anzac Highway is also a major transport route of strategic importance. It is a primary vehicle route, a primary cycle route and a bus route.

The integration between transport and land use function is acceptable in the residential section except that there is a dependence on frontage access which makes it difficult to provide adequate noise protection. There is poor integration with the commercial sites and there are side streets which cannot be closed.

The integration in the use of the transport space can be improved by addressing the safety issues and the provision of indented bus stops. The location of bus stops without provision for controlled pedestrian crossing is another issue which needs to be considered.

The integration between regional and local networks is also an issue. The Everard Park area is virtually locked in by the presence of major transport barriers.

GOODWOOD ROAD

The dominant characteristics are

- Principally a regional traffic route. There are two lanes and clearway conditions in the direction of peak flow;
- Sub-regional and local bus route with four bus routes and a frequency of 15 min (GO ZONE). Bus stops are at approximately 350m interval;
- Intercity route for Unley with one set of signals and right hand turning movements at Leader St which also provides access to the Showgrounds;
- Intracity route providing access to commercial, residential and civic sites; and
- Secondary regional cycle route

Goodwood Road is a major vehicle through route both during the peak and off-peak, but has no single land use footprint. The northern section is clearly oriented towards sub-regional commercial and service industrial purposes and the critical issues here are those of commercial vehicle access in an

road space which is congested during morning peak periods and fast moving traffic at other times. Although properties are generally large, much depends on side street access and facilities for right hand turning movement. There are special needs during show days.

The middle section is a mixture of local services, secondary retailing, a cinema, housing and a school. The centre is in a transition mode. Off street parking and much of the retail function is on the eastern side and the issue here is whether to confine major future pedestrian-generating activities to the eastern side, create a distinctive precinct from among the generally old buildings, concentrate pedestrian and cyclist movement at the existing crossing, and improve the quality of the frontage without encouraging further pedestrian and pavement activity there.

The residential section in the south needs protection from traffic noise. Site access is also an issue if traffic volumes increase. Further regeneration should aim to provide alternative means of access. This may be difficult with sites which are relatively small.

The strategic regional transport function is unlikely to change. Goodwood Road will remain a major transport corridor, but the central issues are how to improve the efficiency and safety of the route and the overall quality of the road space and the built environment.

The many bus stops are an issue, not only because of the friction they cause, but also because they attract pedestrians across the road at points where there are no dedicated pedestrian crossings and vehicle speeds are high. Friction and impact management may need to focus on reducing friction, not only by public transport, but also on account of the numerous and uncontrolled junctions and the very few right hand turning facilities.

FULLARTON ROAD

The dominant characteristics are

- Principally a regional traffic route. There are two lanes and clearway conditions in the direction of peak flow;
- Local bus route with two bus routes terminating in Mitcham. Bus stops are at approximately 350m interval;
- Intercity route for Unley with three sets of signals which link intracity roads to the corridor;;
- Intracity route providing access to commercial, residential and civic sites; and
- Secondary regional cycle route.

Fullarton Roads is a significant regional corridor, with a better overall relationship between transport

and the adjoining land use environment than the other corridors.

Friction and impact management may need to focus on reducing impact of traffic noise, improving crossability and improved management of the many uncontrolled junctions.

Sub-regional links

UNLEY ROAD

The dominant characteristics are

- Sub-regional traffic route, especially in the peak hour when there are two lanes and clearway conditions in the direction of peak flow;
- Sub-regional and local bus route with four bus routes and a frequency of 15 min. Bus stops are at approximately 350m interval;
- Intercity route for Unley with signals at intracity routes and right hand turning movements;
- Intracity route providing access to commercial and civic sites; and
- Primary regional cycle route.

Unley Road shows that there is a close association between transport and frontage which evolved over time, but has now broken down. The transport function has become more dominant and Unley Road is no longer an intensive shopping strip. It is now a mix of secondary retailing and personal services, serving passing trade as well as the local community at the rear.

The northern section of Unley Road has developed as an off peak business location but with the important advantage of an address and free advertising. The more intensive retailing is now concentrated near the Arthur St/Oxford Terrace intersection and dominated by the Unley Shopping Mall. It is a staggered intersection and the combination of turning movements, bus stop and crossing pedestrians is an issue to be considered.

The transport function is unlikely to change. It will remain a sub-regional corridor. There are questions about the future land use function with a further decline, stabilisation or renewal of business activity. Irrespective of the answer to this question are issues of how to improve safety for all users and the amenity of the road space and the built environment. It is significant that Unley Road now is a GO ZONE for public transport with frequent stops. Urban regeneration around these stops (both along the frontage and at the rear) could improve the land use environment and the built form and forge a closer integration between transport and adjoining development.

Friction and impact management may need to focus on selectively reducing friction, especially for public transport (without increasing vehicle speed), ameliorating impact on business activity in general and pedestrian activity in particular. Increased opportunities for crossing and right hand turning movements could be on the agenda. In short, Unley Road is a typical Type II corridor, but there is considerable room for improvement.

KING WILLIAM ROAD/VICTORIA AVENUE

King William Road and Victoria Avenue are bundled together because functionally they constitute a significant north south route. Unless specifically mentioned, we will refer to the two routes as King William Road. The dominant characteristics are

- Principally an intercity traffic route for Unley residents and businesses with through traffic superimposed during peak periods. There is one moving lane and a parking lane in each direction;
- Two bus routes with an additional bus route (coming from the north) terminating at the northern end. Bus stops are at approximately 350m interval; and
- A 'spinal' intracity route for cross links between other parts of Unley and an access route to the shopping centre in Hyde Park.

King William Road is a significant multi-functional route, without a single land use footprint. Its function is unlikely to change, and the three main issues are how to (i) reduce the impact of traffic on the built environment in all sections, (ii) adapt the transport space in the shopping core to make it more pedestrian friendly, and (iii) to increase parking space and access to the Hyde Park centre.

GEORGE STREET/DUTHY STREET

George Street/Duthy Street is a subregional, intercity and intracity traffic route, a bus route and sub-regional cycle route. It operates close to capacity as a two lane road during the peak period when there is a significant amount of through traffic.

Its land use footprint is simple: apart from a few retail outlets, most of which are no longer functioning, the predominant land use is detached housing.

The only issues are related to the narrow reservation width in part of George Street, the dog leg at Maud Street, the impact of traffic noise and vehicle speed.

Intercity routes

Intercity accessibility is a particular problem for the western part of Unley caused by the railway and tramway barriers and an absence of intercity links to

the west. Goodwood Road plays a key role, but it does not perform this role well because of the limited number of signal controlled intersections.

It is conceded that additional signal controlled junctions may affect the efficiency of traffic on Goodwood Road, but with signal coordination and good design, the effects may be relatively small. In any event, integration involves aligning regional and local agendas and there may be situations where the local issues are so important that a trade-off decision must be made. This could be one of those situations.

Many of the regional and all the subregional routes perform as intercity routes, but require right hand turns for intercity movement. Intersection design should not create a potential for "rat running" through the local network.

Intracity routes

Issues associated with the intracity street network were that there are de-facto routes, not designed for this purpose and affecting the quality of the residential environment. We also identified a lack of intracity routes in the road hierarchy in the northern part (east-west) and the north eastern part of Unley (north-south) serving the commercial development along Greenhill Road and Glen Osmond Road.

The intercity network is also part of the intracity network, but there are additional routes used for intracity movement. Some of these routes are on streets not designed for this purpose and affect the quality of the residential environment.

Road hierarchy

The existing road hierarchy consist of primary arterial links, secondary arterial links, major crossing links and local crossing links. Figure A3-4

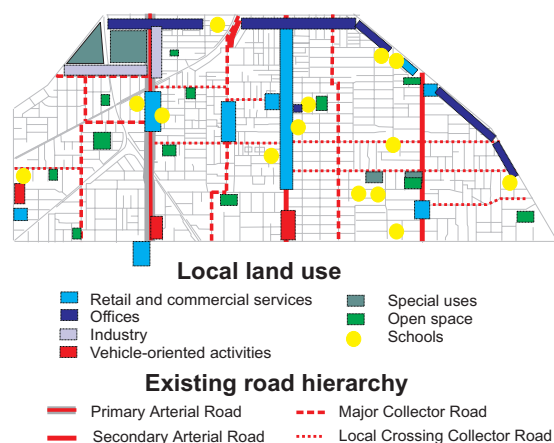


Figure A3-4 Road hierarchy and land use

also shows how the local network is related to land use activities.

There is a lack of intracity routes in the northern part (east-west) and the north eastern part of Unley (north-south) serving the commercial and higher density development along Greenhill Road and Glen Osmond Road.

Public transport

Unley is well served by bus, with north-south services to/from the City along all major north-south roads, and east-west cross suburban services along the arterial roads bordering Unley (see Figure A 2-3). The only poorly served area is that part of Myrtle Bank between Glen Osmond and Fullarton Roads, where there are lengthy walking distances to radial bus services. There are also no east-west services through the middle of Unley, but past experience indicates that if there were such services they would be very poorly patronised.

All bus routes run north south through Unley and east west along the boundaries. There is no cross bus route east west through Unley itself. This means that residents wanting to visit the Unley Mall or council offices, for instance, have to catch three buses or travel via the city centre, catching two buses (unless they live close to Unley Road).

There is a community bus which connects all the centres (shown on Figure B5-7), but the frequency of service is low.

Cycleways

A network of cycleways has been developed by Frank Siow and Associates. It consists of arterial routes, bicycle paths and bike routes (shared pavement). The networks is based not only on intercity needs, but also on intracity links. Cyclist-generating activities are identified and the network ensures that all these activities can be reached by bicycle. The network is shown in Part B, Figure B5-3.

Pedestrian ways

There is no network for pedestrian ways and data on pedestrian movements are not available.. Signal controlled pedestrian crossings are provided near centres along major transport routes, but there are no clearly defined pedestrian ways to the main pedestrian-generating activities.

Use of the network

TRAFFIC VOLUMES

Average daily traffic volumes are shown on Figure A3-5. Volumes of less than 1000 vpd are not shown.

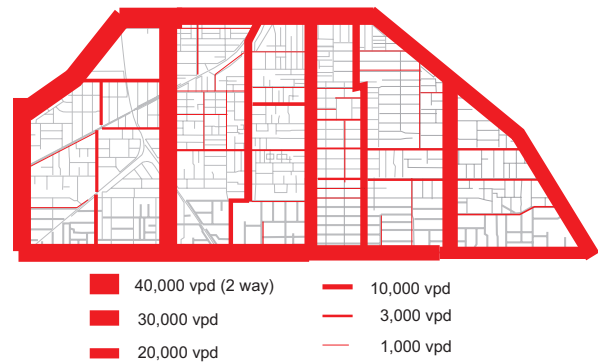


Figure A3-5 Daily traffic volumes

TRAFFIC SPEED

Unley has two main speed zones: 60 km/h for major transport routes and 40 km/h for all other areas. Actual speeds are shown in Figure A3-6.

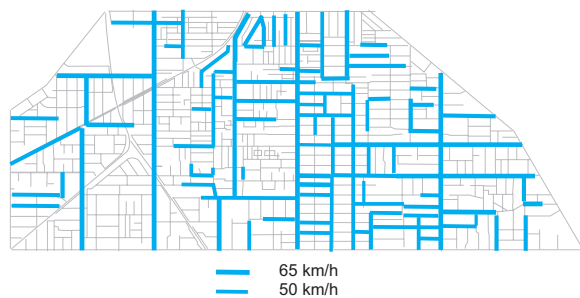


Figure A3-6 Traffic speed

Speeds of less than 50km/h are not shown and data are not available for all routes. However, the overall pattern is not affected.

SAFETY

There are several indicators to gain an understanding of safety. One these is the location of pedestrian accidents. Figure A3-7 shows the

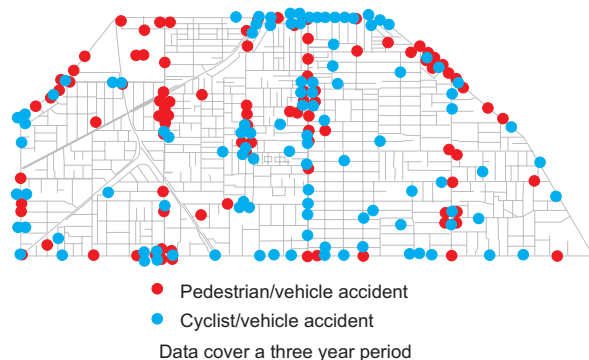


Figure A3-7 Pedestrian and cyclist accidents

distribution and concentration of pedestrian and cyclist accidents over a three-year period.

When this pattern of accidents is analysed, it becomes apparent that there is a clear correlation with land use activities, traffic volumes, vehicle speed and the absence of facilities for crossing.

The location and concentration of cyclists accidents shows a different pattern, but here, too, there is a link with land use activities, traffic volumes and speed, and a lack of facilities for crossing and turning.

Another aspect of safety is that of vehicle crashes, but not discussed here.

Precincts

CENTRES

There are 8 centres:

- Goodwood Road
- Hyde Park (King William Road)
- Unley Road District centre
- Unley Road strip centre (with a number of nodes embedded in it)
- Glen Osmond Road (Arkaba Sopping Centre, and the Fashion Discount Centre)
- Fullarton Road
- South Road

An examination of these centres shows that they cannot be regarded as true precincts in their current form (with the possible exception of the Arkaba centre) and that few are pedestrian-friendly. The Unley District Centre has a pedestrian-friendly core, but the connections with adjoining areas leaves much to be desired. Most centres are strip centres along corridors and dominated by traffic. Although there is heavy traffic in the Hyde Park centre, it has an identity which sets it apart from a conventional strip centre.

RESIDENTIAL PRECINCTS

The Council has already defined 21 local traffic precincts (Figure A3-8).

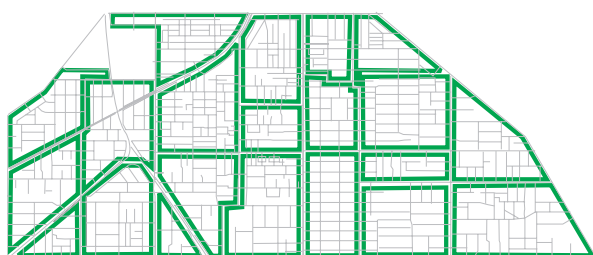


Figure A3-8 Existing local area precincts

In a report prepared by the City of Unley (City Traffic Plan, 1995), a set of objective criteria, known as the 'Traffic Warrant', were formulated in order to rank the precincts in order of priority action. The warrant is based on three traffic characteristics: traffic volume, traffic speed and accidents.

Local streets with traffic volumes of more than 1000vpd are considered to have an unacceptable exposure to traffic. The warrant is used to measure the proportion of total street length in a precinct with the greatest exposed to more than 1000vpd and this produces a ranking of precincts.

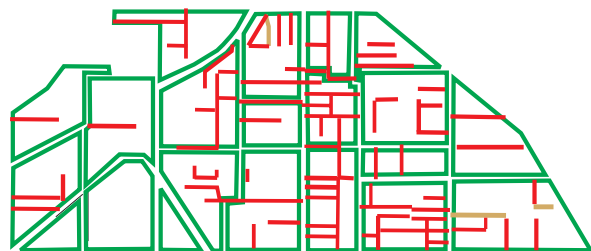


Figure A3-9 Vehicle speeds in precincts in excess of 40 km/h

Vehicle speed data in local streets is incomplete and the warrant is based on the street characteristics which create a high speed environment. They are: a measured 85th percentile speed of greater than 55km/h (where available) or a street segment greater than 300 metres and no physical speed control devices. This produced another ranking of precincts.

The results need to be interpreted against the background of the road hierarchy, as some streets, designated as local crossing roads, are located within precincts. These streets perform local network functions and are bound to attract local traffic. The question then arises whether precincts should be defined so that these links are excluded and whether there are different performance conditions for such links then streets within a precinct.

There are also questions arising from the use of (straight) street length as the only proxy for traffic speeds. Wide pavements are another factor inducing higher speeds.

An evaluation of the Unley City Wide 40km/h limit by the University of South Australia suggested that speed behaviour had much to do with the appearance of the street and this is also reflected in AMCORD (1995) which distinguished between different types of residential streets, with different target speeds and volumes, pavement width and other design elements, designed to achieve a desired driver behaviour.

Future development and current planning intentions

The Development Plan (2001) set out the basis for the management of future development in Unley. However, there have been many studies on various aspects of future development. Of these the most relevant are:

Unley Street Life (1998) Hassell. This study presents a programme for 'Sustainable Revitalisation of Inner City Retail' and is the outcome of a community workshop. The Vision focuses on 'positioning' of the different centres. It examines the key characteristics of the existing centres and proposes inter alia that

1. Traffic be managed and controlled to enhance the shopping environment
2. Parking provision be improved
3. The links between Unley Road, King William Road and Goodwood Road be improved;
4. Pedestrian movement between the precincts be improved; and
5. Character lighting be introduced for beautification and enhanced safety.

Precincts Reports on Centres (2000) Retail Synergy Group. These reports cover the strengths and weaknesses, and threats and challenges of centres in Unley Road, Goodwood Road, King William Road and Glen Osmond Road.

Unley Centres Development Concepts (2000). SSG, in association with Dolphinium, Ross, and Colliers Jardine. The report makes a number of recommendation on retail development, capital works, planning, design, car parking and business development and concludes that:

"Unley's strip centres have a potential to be exciting and vibrant concentrations of economic and social activities. The key elements of the strips may be:

- i. A retail core specialising in niche markets and providing a high level of pedestrian amenity and a unique experience;
- ii. Vibrant clusters of niche economic and cultural activities;
- iii. Opportunities for in-centre living in shop tops, higher densities abutting the strip and in strategically located apartment buildings; and
- iv. Car parking in strategically located garages behind the strip, ultimately integrated into mixed use developments."

Charles St Urban Design and Traffic Study (1999) Jensen Planning and Design. The overall objective of

the study was to formulate a concept plan to aid the transformation of the Charles Street Light Industry Zone to medium/high density residential use. The study found that the Charles Street precinct is ideally suited for medium density residential development and that it can be achieved with minimal impact on the amenity of existing surrounding dwellings considering traffic, overlooking and overshadowing.

There are three other important reports:

Unley Road New look (2001) Transport SA;

Greenbill Road Market and Policy Review,(2000) Quigley Property Services Pty Ltd.; and

Glen Osmond Road Gateway to City Master Plan (2001) EDAW (Aust) Pty Ltd et al.

Summary of issues

Figure 3-10 summarises the issues which the strategy should address.

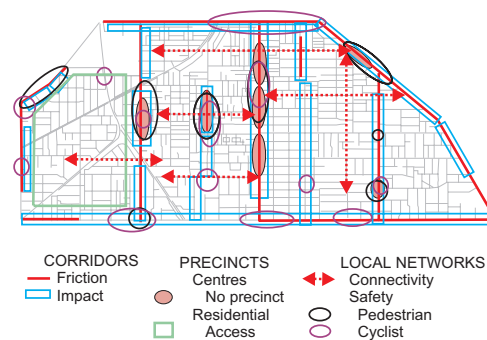


Figure A3-10 Summary of issues

- There is generally an unsatisfactory relationship between the major transport routes and adjoining frontage activities. They are no integrated transport corridors. Frontage activities and turning movement cause friction for the transport performance, while traffic volumes, vehicle speeds and traffic management have an impact frontage development.
- Few of the centres serve as villages where vehicle traffic is subservient to the needs for pedestrian access and pedestrian friendliness. There is a conflict between these centres and through traffic.
- Residential precincts have traffic volumes and vehicle speeds in excess of what can be regarded as acceptable limits and this affects their amenity.
- Local networks do not adequately provide for local intercity and intracity movements. There is also a safety problem in relation to pedestrian and cyclists.

Chapter 4

A strategic framework

Introduction

The previous chapters have shown that Unley is at the cross roads, not only in a figurative sense due to its location, but also in regard to its future. Its unique position of an inner suburban area adjoining the Central Business District of Adelaide across the parklands gives it exceptional accessibility, but makes it vulnerable to through traffic. Apart from the pressure of increasing traffic, there is now also the pressure of increasing re-urbanisation. Unley has considerable potential for urban regeneration, but the local amenity needs to be safeguarded and business activity should not be impaired by the continuing growth of traffic.

It is important to develop a strategic framework, which recognises the inherent conflicts between the regional transport demand and urban regeneration on the one hand, and the need to preserve and enhance the quality and vitality of the local environment on the other. The key to this framework lies in integrated planning.

Integrated planning

Integrated planning takes account of the relationship between transport, land use and the environment; and between regional and local interests. Integrated planning involves a concern with the whole; agreement on the kind of outcomes we wish to achieve; having the means of achieving them; and a collective commitment to make it happen. Integration, therefore, is more than co-ordination, which still allows different outcomes to be pursued.

Integration centres on 'corporate' outcomes, not only for the whole of government, but also for urban regions or local areas as a whole. Integration involves both public and private sectors, the relationships between different spheres of government, and between organisations and the community.

A concern with the whole means that the Unley strategy cannot be considered without taking account of the regional strategy, but the converse applies too: the regional strategy should not be considered without taking account of desired local outcomes. Similarly, a concern with extracting the most from existing transport routes must take account of existing and potential land use associations along such routes and the impact on the local environment.

The application of integrated planning to the issues identified devolves around the following principles:

- Regional interests need to be balanced with local interests. The assumption that regional transport strategy should satisfy demand and be given priority irrespective of local impact needs to be challenged. A balanced approach involves regional travel demand management, a focus on moving people rather than cars and the management of peak hour travel which does not impede local accessibility, safety and amenity.
- All transport routes should be seen as corridors in which the transport function and adjoining land use environment are always considered together.
- Centres are carefully arranged locations of accessible activities where people and vehicle-oriented activities are not in conflict.
- Precincts are areas where the transport function is subservient to the quality and amenity of the environment.
- Local networks do not attract through traffic, provide for locally generated intercity and intracity movements and offer a choice in transport mode.

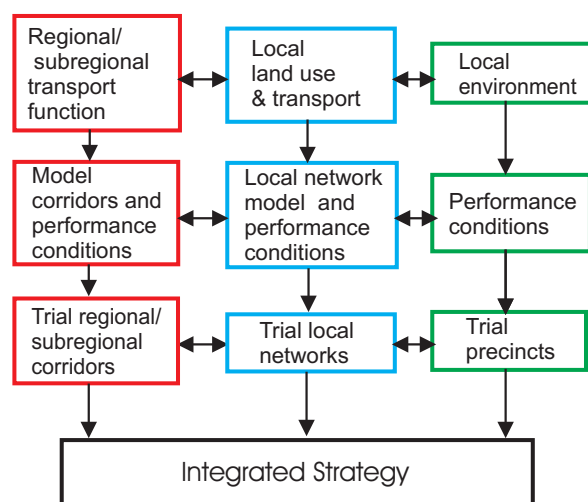


Figure A4 -1 Process towards an integrated strategy

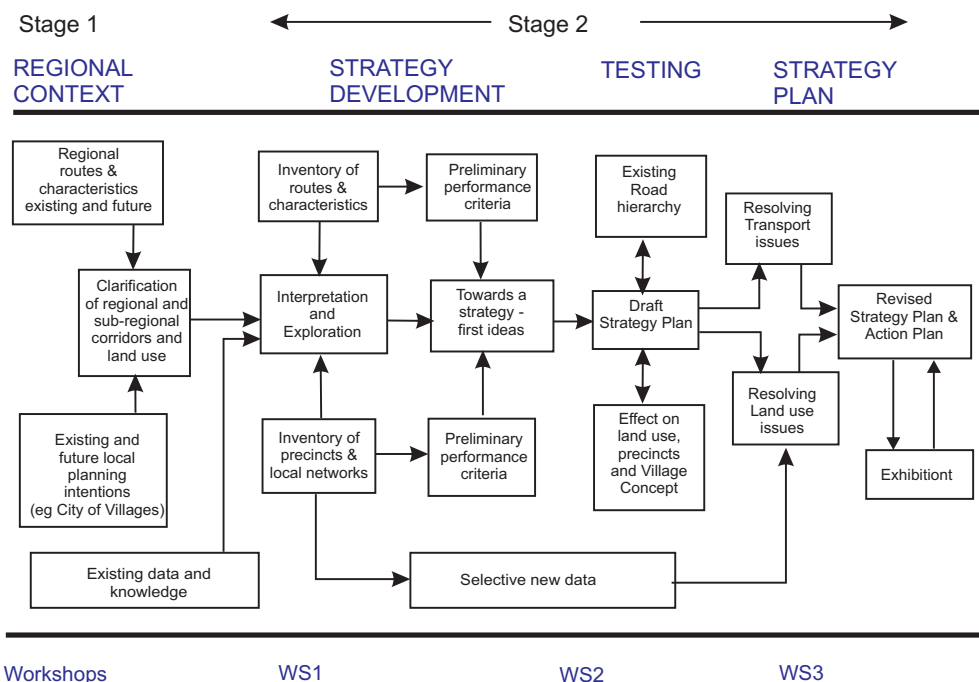


Figure A4-2 Steps in the process and consultation

- Corridors, centres, precincts and local networks must be made to work together so that the achievement of one objective does not prevent the achievement of other objectives.

These principles should be incorporated into a single package so that the relationship between the strategies achieve an acceptable overall outcome.

Integrated process

The process which has been followed in the development of the strategy was aimed at ensuring that the different interests were recognised. To this end, a major component of the consultation program involved an exploration of the relationship between regional and local interests. A joint working group with State Government agencies identified regional corridors and desired outcomes which reflect not only regional but also local interests.

The integration between transport, land use and the environment greatly influenced the approach. The core issues of the strategy are (i) the regional and sub-regional corridors; (ii) the local networks; and (iii) the precincts – both commercial and residential. Each of these three issues needs to be considered in an integrated way, but also need to be related to each other. This is shown in Figure A4-1. Consultation with the local community, the Street Life Trust, Councillors and council officials covered all of them and progressively. In cases where it was difficult to agree on common outcomes, modification of the draft strategies was necessary. This included adopting different time frames for certain integrated

approaches, accept variable conditions for peak and off-peak situations and follow up action to work through the details.

Strategic framework

The strategic framework developed for Unley recognises the above principles and processes and consists of the following strategies:

- Strategy 1 – Reducing the pressure on Unley
- Strategy 2 – Managing transport corridors and their associated land use environment
- Strategy 3 Preserving and enhancing the concept of the City of Villages
- Strategy 4 Preserving and enhancing the quality of the local environment
- Strategy 5 Improving local accessibility, safety and convenience, and increase choice in transport mode
- Strategy 6 Integrating the above strategies into a single strategy.

Explanation of the structure of the chapters

The strategies are set out in Part B. In each of the Chapters there is an explanation, a strategy statement and a comment on the statement. The comment provides information for the interpretation of the strategy.

The strategies are numbered and set out in a different font.

Chapter 5

Comments and responses

Introduction

The consultation process aimed to make Unley residents and business people aware of the draft strategy and seek their comments through a carefully managed process undertaken in August 2002. The results are set out in the report by the Consultation Consultants, Janet Gould and Associates.

About 130 people attended the community forums and more than 700 people answered the questions in the questionnaire or made submissions.

This interest is gratifying as a strategy is a much more difficult document to comprehend and comment on than a specific plan or policy which clearly shows how people and businesses may be affected. The strategy focuses on longer term directions and establishes principles which need to be worked through subsequently in order to implement them. In the Unley Integrated Transport Strategy, there are some new concepts, especially related to transport routes as corridors which are not simple to understand.

The overall response to the draft strategy can be interpreted as positive with support rates (strongly support and support) for each of the six strategies of 65-75%.

A wide range of comments were made on various aspects of the strategies and these will be responded to in this Chapter. Some of these comments are in conflict and this is not surprising as people have different needs and perceptions. The strategy aims to find a balance between these interests. As Kerry Bangle of Planning SA said at her presentation at a community consultation forum: *“Transport decisions are never simple. There always seems to be 100 reasons to do something and 100 reasons not to do something. It is about finding a balance. Finding out what the community want, and what the wider context is.”*

The responses to the comments are set out under the headings of the six strategies. A separate subsection reports on comments made by Transport SA and our responses to them. The Chapter concludes with an interpretation and the changes to be made. At the end of the Chapter, any changes which have been made to the draft strategies and to the Report in the light of the comments will be summarised.

Strategy 1 - Reducing the pressure on Unley

C: The plan does not balance regional and local needs. It doesn't consider sharing the burden and expresses an inevitability that is just wishful thinking.

R: The strategy is a response to concerns expressed at the first workshop. The strategy recognises that Unley can't reduce the pressure on its own. It can't put up gates on the routes through the city, but the council can be proactive in seeking behavioural change and enlisting support from other inner councils in approaches to the State Government and this is what the strategy proposes.

C: The strategy should deal with regional transport on regional routes. The Plan credits 5% of the residents as 2nd class citizens exposed to 15000vpd at 60km/h compared with the 95% in residential precincts with < 2000vpd and 40km/h. They 5% need protection not the 95%.

R: All residents need protection from traffic noise. The problem of people living on busy traffic routes is acknowledged, and the Report addresses it. Appendix A proposes that Council require noise protection measures for all new development along regional corridors, but it is impossible to retrofit existing dwellings and prevent traffic noise entering across driveways.

C: “Traffic volumes may have to be accepted” fails to tackle one of the key problems of too much vehicular traffic. For example: the strategy is heavily biased towards cars and trucks. It acknowledges cycling but does not actively encourage it as a viable alternative. There are no (cycle) crossings between Park Street and Greenhill Road on King William Road. How is it viable to implement safer passage for cyclists and pedestrians without having impact on traffic flow in peak hours? Increased car parking at centres is not consistent with the “village-like charm” vision. We need a strategy to change community culture.

R: The strategy stresses the importance of a shift in regional transport policy from moving cars to moving people (and suggests several corridors as ‘people movement routes’ including high occupancy vehicles) and facilitating other transport modes.

Cycling is one of these. The Report supports the existing strategy, but also mentions the need for detailed consideration of cycle crossings and right

hand turns. It recommends a new crossing of King William Road between Park Street and Greenhill Road.

Cyclist and pedestrian crossings do have an impact on traffic flow at peak periods and is one of the aspects which require further study. However, the strategy also indicates possible locations for further intersection treatment and many of those could be designed to facilitate cyclist and pedestrian crossing.

Increased car parking at centres is necessary for the continued viability of the existing centres and need not be in consistent with the “village-like charm”, provided they are well located and well designed. As land prices increase it is likely that some new car parking areas will be below or above ground.

Yes, there is a need for cultural shift towards alternative modes, but it needs to be accompanied by improvements in safety and accessibility for cyclists and pedestrians. These improvements should recognise the wide diversity and changing characteristics of the population (including aged people). As others have pointed out, walking and cycling is not an option for some people with mobility difficulties, in which case use of cars is critical to maintaining independence.

C: What is urban renewal, and what areas would /should it be applied to?

R: Urban renewal, also described as urban regeneration, is the process of urban change. It is an ongoing process and generally based on changes in market demand, associated with economic growth and social change (such as changes in the household and age structure). In most Australian cities, there is now a growing demand for inner urban living. It is important that this development is encouraged in areas accessible to public transport) such as Transit Oriented Development) (and this is) and that conditions are created to ensure that the new development fits in with existing development. The former is what the strategy sets out to do. It identifies areas with urban regeneration potential. The desired design qualities and conditions of such development are not covered in the strategy and need to be followed up in the context of the Unley Development Plan. There is no suggestion of wholesale destruction of existing suburbs and their character.

C: “Clearways reduce congestion. I prefer clearway times to be extended, eg 7 to 10am and 3 to 7pm, well over school & work times”. and “Extension of clearways would attract more traffic and kill business. Present clearways are bad enough”.

R: A wide range of comments were made about clearways. It should be understood that the management of clearway conditions is the

responsibility of Transport SA and not of the Council. The strategy aims to find a balance between moving people and protecting the local business environment. It suggests that the Council enter into discussions with Transport SA on the basis that (i) existing clearway conditions controls be not extended on secondary routes (such as Unley Road) and (ii) on primary (regional) routes only after the preparation of an impact statement and contributions to mitigate to consequences of such extension (such as contributions towards the provision of off-street parking).

Strategy 2 – Corridors

C: Obviously we have to consider how to balance regional and local interests, but who decides what is balanced and what changes are you actually proposing?

R: The proposed categorisation is the outcome of discussions over a 12 month period between Transport SA, Planning SA, the Public Transport Board and the Unley Council. The Council stressed the importance of adjoining land uses, the integrity of the Village concept, the local network and the quality of the local environment. Transport SA and the PTB presented their agendas and took note of the Council’s concerns. The end result reflects the compromises which were made and recognises that there is a difference between (i) regional and sub-regional routes; (ii) longer term and short term outcomes; and (iii) the management of the routes during peak and off-peak conditions.

Goodwood Road and Fullarton Road are categorised as regional transport routes with Goodwood Road being categorised as a corridor where the movement of people will be given priority in the long term.

C: Ribbon development on Anzac Highway, South Road, Cross Road and Glen Osmond are not addressed.

R: Ribbon development with major pedestrian elements has been addressed (eg Glen Osmond Road). The South Road centre is entirely off-road. Most remaining ribbon development is vehicle-oriented and new development along these routes is covered in Appendix A. It should be noted that the strategy envisages the preparation of Integrated Corridor Management Plans for all corridors. This will have to be done progressively as it is a big task.

C: Category of south King William Road and Victoria Avenue should not be the same as north King William Road – these are residential areas, and have a different character. Not wide enough for through traffic, should be 40 km/h zones.

R: Yes, they are different, but this does not necessarily mean that the category as a sub-regional car route should be changed. The current road hierarchy is that of a major collector because the road carries through traffic from Mitcham to the CBD. The proposed categorisation recognises this function, but also reflects the importance of the Hyde Park centre where the categorisation changes to that of an Activity Street.

It is possible that some through traffic may divert to other routes, because vehicle speeds through the centre may be lower. However, this is unlikely to change the significance of the route. It should be noted that it is also a bus route and the Passenger Transport Board is reluctant to support lowering speeds on bus routes.

The section of King William Road through Hyde Park is quite narrow; it widens south whilst Victoria Avenue is wider still. There may be opportunities to reduce the carriageway in Victoria Av, create a better relationship between the residential frontages and further enhance the already attractive landscape. This could be designed so that speeds do not exceed 60 km/h and not disadvantage buses. Whilst the proposed categorisation as a basis for integrating the transport function and adjoining land use is appropriate, there is scope for addressing the issues of concern during the preparation of a corridor management plan.

C: Category of George Street should not be the same as Duthy Street. George Street is residential and of different character, it has a narrow road and footpath (significant resident turning in and pedestrian safety issues). Mitigating strategies listed for Type 11a corridor (Duthy Street) are not available in George Street.

R: Yes, they are different and George Street requires a different treatment from that in Duthy Street. This will need to be addressed in the working up of a corridor management plan, but this does not necessarily mean that the category as a sub-regional car route should be changed. The current road hierarchy is that of a major collector because the road carries through traffic from Mitcham to the CBD especially at peak periods. Appendix A provides guidelines on traffic and land use management for both Duthy and George Streets, but it should be understood that as far as access is concerned, the principles apply only to new development and they do not apply to existing development.

C: There is a need to get through traffic across Unley without being impeded by local traffic.

R: Ideally, this is true, but we don't start with a clean slate. The reality is that the existing through routes are also more attractive for some local movements and that discouragement would mean more local

traffic on existing residential streets. There is an inherent conflict between the need for regional north-south through movement and local east west movement. The strategy attempts to address this by proposing some additional intersection treatments on regional routes but this will have to be worked through with State transport authorities.

Strategy 3 - Preserving and enhancing the City of Villages

C: Main roads should not divide strip developments in a precinct. Traffic should be eliminated from shopping areas, but there is also a need to provide for transport by citizens who cannot walk long distance or carrying shopping bags.

R: Yes, a main road through strip developments in a precinct is generally not desirable, but the strips are accidents of history and it is impossible to relocate the traffic elsewhere. There are opportunities for a compromise, depending on the type of route and the characteristics of traffic. For this reason, the strategy suggests different responses for different routes.

In the case of the Unley District Centre, the emphasis is on dynamic management in which the pedestrian movements across Unley Road are given priority in the off peak period. The longer term future of the commercial functions of the strip development on the northern and southern sections of Unley is not yet clear, but if they were to become active pedestrian centres, additional measures to ensure pedestrian safety and crossability will need to be considered. In the case of the Hyde Park Centre, the strategy suggests that pedestrians and the shopping environment be given greater weight and a Sharing the Main Street scheme may become feasible. Such schemes have been introduced in many centres on busy traffic routes elsewhere and been successful.

Where centres are developed as precincts, there generally needs to be a core where pedestrians are given priority. This does not always mean an absence of vehicular traffic, but any such traffic should clearly be slowed down and not become dominant. In this way, the special needs for vehicular access by people who cannot walk long distances or have special needs can be provided for. These matters can be addressed in detailed plans and designs and the strategy proposes the preparation of an integrated plan for most of Unley's centres.

Strategy 4 - The quality of the local environment

C: *Precincts and corridors.*

- *We only support the concept of precincts if so-called local corridors are restricted to local residents only. They are not wide enough to handle large volumes of traffic and there are families with children. We are concerned about increases in traffic flow and vehicle speed. Do we not have to construct fences?*
- *Local traffic will be pushed onto precinct borders, so people in the precinct will enjoy less traffic, while those on local corridors get more with a degrading of their way of life.*
- *The caveat must be that this should not lead to a significant increase in traffic along local corridors. If this is not the case, it is best if it is equally shared rather than concentrated.*
- *Nice idea for those inside the precinct, but not for those on the border, bearing the brunt of redirected traffic.*
- *Signs are not enough, you have to use physical barriers to slow traffic.*

R: The strategy is to use the local corridors only for locally generated traffic. There is a need to provide for local connectivity as well as the preservation of local amenity and this is already in place in the local road hierarchy and precincts established in 1995. What is different is that the strategy proposes (i) more, but smaller, precincts with more attention to amenity and (ii) treats the local connecting routes as local corridors to highlight the need for careful management of traffic in relation to the adjoining environment (which the current road hierarchy does not do).

There are few streets in the proposed precincts with traffic volumes exceeding acceptable limits. The real problem is that of vehicle speed. If and when measures are introduced to reduce it, some local traffic may shift to other streets, until speed reduction measures are introduced there too. Overall, progressive extension of speed management through design should lead to small changes in the distribution of traffic of local traffic, but not in any significant way.

We agree that signs alone are not enough to elicit appropriate driver behaviour and the strategy proposes that the local corridors be also subject to speed reduction measures.

For more comments on local corridors see the next section.

C: *Action plans are to be developed to address issues in residential precincts where vehicle speeds are in excess of 40 km/h, there is a high incidence of accidents, or streets*

are wide and long. There should be an additional criterion: 'where footpaths are too narrow'.

R: This is a valid point and should be included.

C: *The RAA has already shown that restricting speed limits does not reduce accidents*

R: There also is evidence that the **severity** of accidents is directly related to vehicle speed.

C: *Sheltered right turn lines at the expense of bike lanes, contributes to "booting out" the cyclists to the less direct, out of sight back streets. Corridors should not be too dangerous for cyclists who also prefer direct routes.*

R: We are aware of this problem. The strategy proposes that detailed work be undertaken on the cycle strategy to ensure safety and convenience of cyclists.

Strategy 5 – Local networks and accessibility

C: *The assertion that there are east-west access problems was challenged, but alternative views were also expressed and specific access difficulties were highlighted.*

R: The comment in the Report is based on independent professional assessment. It is supported by those sections of the community who are affected and have to use indirect and major external routes instead. However, the concerns by others about the potential impact of their streets if measures were introduced to improve east west connectivity are understood and acknowledged. It is an issue which cannot be ignored but will require detailed investigation and consultation.

C: *Categorisation of specific roads in the Draft Strategy as L1, L2 and L3; in particular the L1 grouping.*

R: It needs to be understood that all local corridors are local routes intended for local traffic and that existing traffic volumes determined the categorisation. The proposed categorisation is much more sensitive than the existing road hierarchy which has no limit on traffic volumes and a uniform speed limit of 60km/h. The strategy proposes three subcategories, with L1 ranging from 3000-8000vpd and speeds ranging from 40-60km/h; and L2 with 2000-3000vpd and a maximum speed of 40km/h.

Mitchell St, Park St, Wattle St, Fisher St and Arthur St all carry more traffic at present than the limits for L2 and it is not possible to reduce it without inconveniencing local residents or redirecting some of this traffic to other streets nearby. They are de-facto L1 routes, but this categorisation does not

imply that they are candidates for increased traffic volumes and higher speeds.

For example, in Mitchell St, speed reducing measures should be an intrinsic element of any future Local Corridor Management Plan for the road and speed limits should not be changed. In Arthur St, the target speed should not exceed 40km/h. In Fisher St and Wattle St., the existing speed limit is 60km/h but this is exceeded and the strategy suggests that design measures be introduced to ensure compliance.

Leah St/East Av is a major collector road at present and also a bus route. The possibility of reducing the existing speed of 60km/h was explored with the PTB, but not favoured on the grounds that they did not want to discourage bus travellers from using the route. It may be possible to reduce speeding in East Av (south) through redesign and this is a matter for consideration at a later stage.

C: *Mitchell St and Park St. Concerns about:*

- *L1, L2 and L3 categories in report, in particular Mitchell St and Park St listed as L1 category. Perception that as written in Draft Strategy proposal is to increase traffic volumes and potentially raise speed limit to 60 km/h;*
- *Aenity, quality of life, privacy at risk*
- *Traffic lights at Mitchell Road/Goodwood Road intersection with potential for increased traffic;*
- *Residential streets which should not be through corridors. Narrow roadways with limited off street parking;*
- *Oppose to increasing volumes of through traffic, raising 40 km/h speed limit, and removal of speed humps/plateaux.*

R: The categorisation of Mitchell and Park Streets as L1 reflects the existing road hierarchy categorisation as a Local Crossing Collector. There are no proposals in the Strategy Report for raising traffic volumes or maximum speeds. As a consequence, there is no change in the amenity, quality of life and privacy. The categorisation of the route as L1 means that all future development, including any proposals to change transport, land use or traffic management will require rigorous scrutiny from an integrated planning perspective. And that includes any installation of traffic lights at Goodwood Road. It should be appreciated that the strategy takes an overview and considers the long term interests of all residents and not only those in a particular street.

C: *The Draft Strategy does not appear to recognise/understand relationship and impact of transport in Victoria Ave, Northgate, Grove, Wood and Mitchell Streets and King William Road.*

We understand the concerns about Grove Street and the suggestions for traffic calming are supported, but they will need to be considered when local precinct plans are prepared. In respect to Victoria Av, and King William Road, see comments and response under Strategy 2.

C: *Objection to Mary Street being treated as a local corridor, particularly given the significant increases in traffic volumes that will arise from the intense development in the RC 120-180 zone, much of which drain onto Mary Street.*

R: Mary Street is seen as a local link route (L3) and not a significant traffic route (volumes < 2000 vpd). The fact that local redevelopment drains into it suggests that a local corridor categorisation is appropriate. With this categorisation, there is an opportunity to closely consider the relationship between traffic and the adjoining environment.

C: *The plan also needs to look at streets like Arthur Street, Mary Street, Hughes Street, that are seen as links between corridor roads. These roads are now heavily used and this could increase if main roads are restricted.*

R: Arthur Street is categorised as a local corridor (L1) and target speeds should not exceed 40km/h because it is so narrow. Mary Street performs a function as a link street (L3) with volumes less than 2000 vpd and speeds of 40km/h. Hughes Street is seen as a residential street and is not intended to carry local through traffic. This can be prevented by detailed traffic management measures (especially at the intersections and should be considered in the preparation of the local precinct plan for the area.

C: *What about residents on "main roads"? The report does not accept that these people are much worse off yet expresses the opinion that < 2000 vpd 40km/h is unacceptable. Where is the equity?*

R: This comment indicates a misreading of the Report. The impact of traffic noise on regional and sub-regional corridor is addressed. See earlier response under Strategy 1.

C: *Negative impacts for collector roads, but "car free areas" for new precincts. Concern about encouraging "corridor" mentality, and inequities. Some suggestions: Shared routes – buses down one street, cars down another; on/off peak different routes; one way systems.*

R: We can't have precincts for environmental protection without corridor for movement. The critical point is that corridors should be seen as transport routes AND their adjoining land use environment, so that the relationship between them is always acknowledged. The suggestions are interesting but a little hard to consider in the Unley context. It would involve a major shift in exposure

to traffic with many more people being affected and have all kinds of engineering consequences, such as intersection design and treatment.

C: *Suggest look at using one-way systems that flow easily around and through narrow streets, for example, villages in UK.*

R: One-way systems are generally introduced only when there is little choice or where there is a need to maximise traffic capacity. These conditions do not exist in Unley. See also our response to the previous question.

C: *Movements across arterial roads better catered for by staggering movement, encouraging left out movement from side roads, into right bays to turn right.*

R: This depends on the characteristics of flow on both the arterial road and the cross route. Heavy cross flow is better managed through a signal controlled intersection and with heavy flows along the arterial road, right hand turns become difficult (unless there are signals at each right hand turn). However, in off-peak conditions and few cross movements, a staggered system could work well

Comments by Transport SA

Categorisation

C: *Categorisation in Unley Strategy is based on width, where Transport SA categorisation is based on the role of the road in the network and what travels on it.*

R This is a misconception which we have responded to before, but keeps coming back. Transport SA should understand that the categorisation is based on BOTH function and width.

NOTE: Because of this misunderstanding, Transport SA proposes a number of changes which are not justified. There is one exception: Goodwood Road, currently categorised as the PR3 route in the short term, which should be changed to PR2 in the short term, but with revised performance conditions to reflect the uniqueness of Goodwood Road, as opposed to Glen Osmond Road and Fullarton Road.

As a result of the above, the following revisions were made:

Page 36, inclusion of PR2-GR, specifically for Goodwood Road. This involved making changes in the definition on (page 36), revision of Figure B2-8, Table B5-1, and Appendix-A (Table 1 and Table 2).

C: *There is no SR1 category included in the table.*

R: The categorisation was set up as a Model Categorisation, so that it could be used in other areas. This means that there are some categories which don't happen to occur in Unley, like SR1.

Clearways

C: *Transport SA would not support limiting 'Clearways' on the arterial road network. "Clearway provisions provide a tool to appropriately manage limited road capacity and safety during peak travel times".*

R: This is understandable from their perspective. The strategy does not propose limiting clearways on Type I routes (these are typically arterial roads) and there is no disagreement. However, it does propose limits to the extension of clearway hours on Type II routes, which are subregional and major district routes and which perform important commercial frontage functions. The strategy presents a local perspective and is an attempt to open discussion. The proposed State integrated transport strategy may present an opportunity for further exploration of this issue.

C: *In commenting on the proposition that there should be an impact statement when clearways are extended and funds be made available for off-street parking, Transport SA comments that the Development Act (through Planning SA) has provision to establish a carpark fund from development applications.*

R: This is true, but the point is that there is no provision for councils to obtain contributions arising from changes in traffic management which reduce or eliminate access to on-street parking on which the community relies.

Interaction between frontage land use and transport function

In responding to question 2b in the questionnaire: "To what extent do you agree or disagree that transport functions along corridors through core precincts be more attuned to adjacent land use...?", Transport SA commented that "*What is important here is not that the road function be subservient to land use needs, but the two are developed in an integrated manner to achieve both transport and land-use objectives across the council area. In a number of cases (for example Glen Osmond Road and Goodwood Road), it can be argued that the land-use development has progressed to the detriment to transport function. It needs to be recognised that under a hierarchical arrangement, land-use should be more attuned to transport function where regional needs are important (ie: higher order arterial roads), but in other cases transport function should be attuned to land-use (ie: local roads). Middle order roads need to be flexible to cater for both transport and land-use needs where possible. Again using the Unley Road example, the road serves as a commuter route during morning and afternoon peaks, but is constricted (by parked vehicles) during shopping hours.*"

R: The way the question was put in the questionnaire was oversimplified and I agree with Transport SA. Indeed, this is what the strategy aims to do.

General speed limit

C: With the introduction of the new Australian Road Rule, Council roads will be designated 50km/h. It is expected that the existing speed limits along arterial roads under the care and control of Transport SA will typically remain the same (ie: 60km/h). However, during commuter peaks (due to general congestion) and during other parts of the day (due to slow moving vehicles parking/unparking) the actual travel speeds along the road will be reduced.

R: This comment assumes that the Government will legislate to apply a 50km/h speed limit across metropolitan Adelaide and, that the majority of “Arterial Roads”, under the care control and management of Transport SA will retain a 60km/h speed limit.

While this is Transport SA’s current position, the Development of Integrated Corridor Management Plans (ICMP’s) for major corridors will need to be developed in consultation with Transport SA and appropriate speed limits and/or target speed environments will need to be negotiated and determined over time.

In summary, the creation of different speed environments for different types of corridors will need to be determined by negotiation and through a consultative process when developing ICMP’s.

As a result of the above, an additional paragraph has been inserted in Chapter B-3 (p48).

Intersections with regional network

C Transport SA support the provision of right turn lanes, where they can be accommodated within the road reserve. Intersection control would only be considered where the warrant existed (for traffic signals). An increase in the numbers of traffic signals undermines the performance of transport corridors (where they are intended to cater for regional needs).

Roundabouts would not be considered along arterial roads, as they provide priority to the minor movement. They would also need to be large to accommodate movement of large vehicles. Movements across arterial roads are better catered for by staggering the movement, encouraging left out movement from side roads, into right turn bays to turn right into opposite side road.

R: This is an understandable comment and I generally agree with it. It should be understood that the question to which Transport SA responded related to transport corridors generally (including those that do not serve regional needs). The only problem I can see with Transport SA’s position is

that the warrants do not always reflect the needs for critical local accessibility and connectivity. In practice, the intersection management along regional corridors will need to be considered as part of the corridor management plan

C: Additional signal controlled junctions along Goodwood Road may help east west access but it would not be an advantage to the efficiency of traffic on Goodwood Road and could potentially increase the incidence of “rat running” through the local network.

R It is conceded that additional signal controlled junctions may affect the efficiency of traffic on Goodwood Road, but with signal coordination and good design, the effects may be relatively small. In any event, integration involves aligning regional and local agendas and there may be situations where the local issues are so important that a trade-off decision must be made. This could be one of those situations. It is agreed that intersection design should not create a potential for “rat running” through the local network.

Heavy vehicle routes

C: Only Restricted Access Vehicles (eg B Doubles) can be controlled as far as access to roads is concerned (through permits and gazetted routes). Semi – Trailers are able to access whole of arterial road network”. Semi-trailer vehicles can still use Glen Osmond Road even if a heavy vehicle route is established on Fullarton Rd (Nth) and Greenhill Roads.

R. This is understood, but the question of semi-trailers is a matter which the LGA may want to take up with Transport SA. The strategy simply indicates a desired outcome, but the details will require negotiation and may eventually lead to additional controls as Unley is not the only council seeking greater protection.

Unley Road

C: Transport SA believe that Unley Road should be Type 1 PR3.

R The categorisation of Unley Road was discussed during the first 6 months of the study with Transport SA, Planning SA and the Passenger Transport Board. It was clearly understood that the proposed categorisation was agreed to.

C: The plan for Unley Road transport space has not been approved – design plans have only recently been completed.

R: This requires a small change to the text, but does not affect the strategy. We were not aware that the design plans had been completed, but wonder why Council has not been consulted especially as the strategy has been under development during last 12

months and Unley Road is a key feature of the strategy.

As a result of the above, the following revision has been made:

Chapter B2, Page 42, under Transport Space for Unley Road, the first sentence has been replaced with: “A concept plan for adapting the transport space has been prepared (with Option 2 being the community favourite). It is understood that design plans have recently been completed, but not yet approved by the Minister for Transport”.

C Target speed of 40km/h has not been approved by Transport SA and would be subject to a metropolitan wide policy.

R: This is understood. The strategy simply suggests a desired outcome from the Council’s perspective.

The questionnaire

C: Transport SA considers that the questionnaire was “leading” and that it therefore was not surprising that the results were so positive.

R: It is conceded that the questionnaire was simplified so that the issues on which comment was invited were not too complex. It is possible that this introduced some bias in favour of the strategy. However, one needs to analyse the responses in detail (as the consultants for the consultation program have

done) and the questionnaire was not the only source of feedback. Overall, there can be no doubt that the community response to the draft strategy showed strong support.

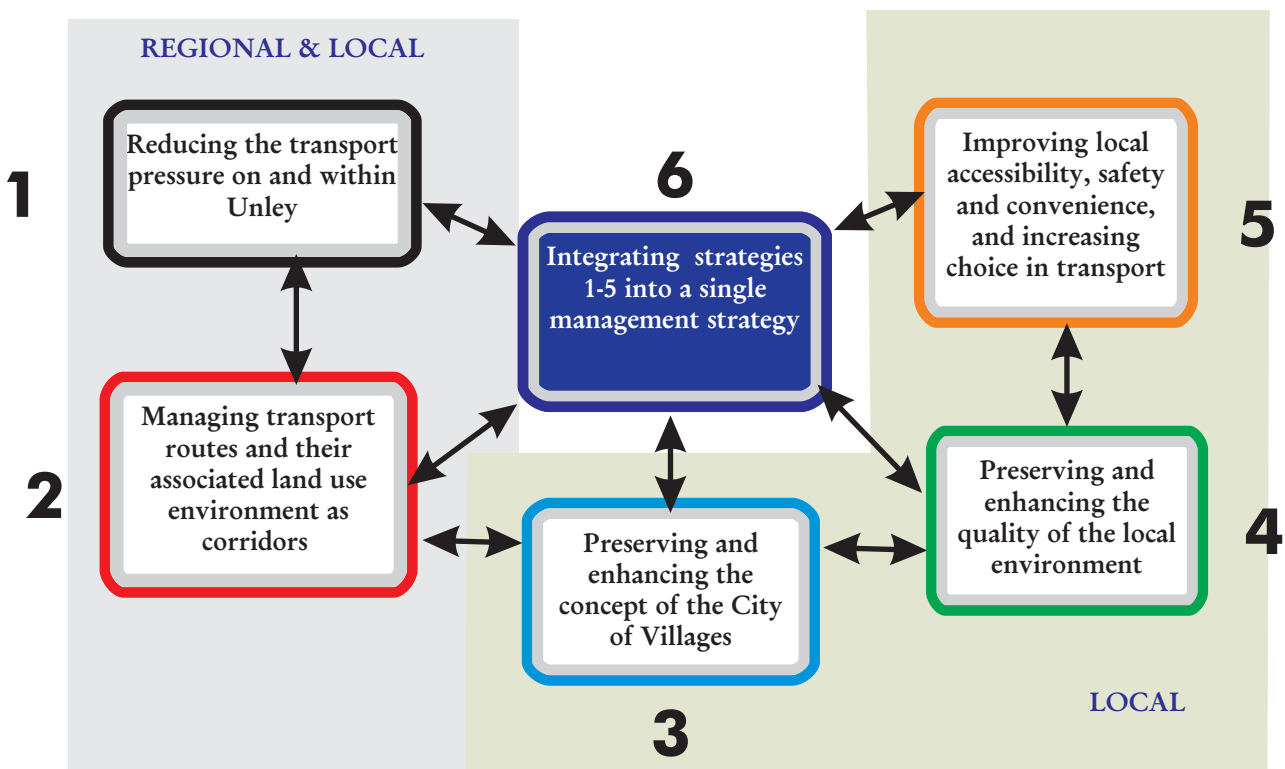
Interpretation

The Draft Strategy generated a considerable amount of interest and many of the comments made showed a commendable understanding of the issues and understandable concerns. In the community forums, participants were asked to focus on the big picture, the overall interests of the Unley community and by and large this was done. Most people understood that a strategy for an inner area such as Unley is a matter of balance and generally supported to proposals made.

However, it is also clear that people are concerned about the possible impact of the strategy on their immediate environment and wanted to raise specific local issues which were not part nor intended to be part of the strategy. Some people are reluctant to support a strategy which does not spell out how it is going to affect them in detail. This, too, is understandable as the devil is in the details.

However, the strategy is an integrated framework establishing desired outcomes for Unley as a whole and how they will be achieved ultimately depends on detailed actions and discussions. Acceptance of the strategy implies a commitment to the principles

Figure A5-1 Six interlocking concepts



it contains and the outcomes it seeks to achieve. It also implies a commitment to taking the actions necessary to make it work. But the strategy is not a blueprint immutable to change and adaptation as the details are worked through.

The central feature of the strategy is the interlocking nature of six strategies. One cannot establish precincts without examining local networks. Local networks, in turn, depend on the relationship with regional and sub-regional corridors and the role they may play in future. It is this integrated feature which distinguishes the Unley strategy from previous attempts. It is important to make a final judgment on the value which such an approach offers to the City, its citizens and the business community..

Strategy 1 Reducing the pressure on Unley

The strategy aims to balance regional and local needs and this ultimately depends on the understanding and support of the regional community and State agencies. This was generally understood, but people sought more information on some aspects. The most important of these is that of urban regeneration. There is a need not only to identify areas with potential for urban regeneration (as the strategy does), but also to ensure that such development occurs in a manner where it adds value to the City and does not have undesirable side effects. The strategy highlights areas with superior public transport accessibility as prime candidates, but it is important for the Council to follow this up with the formulation of development conditions before such development occurs.

The Adelaide City Council suggested that two strategies be added:

1.10: Discuss with the Minister for Transport/Minister for Urban Planning, options to improve the transport hub and community facilities surrounding the Goodwood Railway Station & Tram Stop; and

1.11 Actively pursue and support initiatives to encourage 'Park & Ride' Facilities within and outside of Unley.

Both these suggestions have merit and should be included except that the provision of park and ride facilities within Unley for people who can catch the train 'up-stream' should not be encouraged.

Strategy 2 Managing transport corridors and their associated land use environment

There appeared to be a good understanding of, and support for, the proposed strategy, but there was concern about some routes notably George St/Duthy St and King William/Victoria Av. The problem with George St. is that it is narrower than Duthy St. and that people living along it are

experiencing difficulties getting out at peak periods and are affected by traffic noise. In the case of King William Road and Victoria Av, the point was made that Victoria Av was different from the rest of King William Road and needed different treatment.

These comments are valid and need to be considered when corridor management plans are prepared. It should be noted that sections along a corridor can be managed differently depending on particular conditions in that section. This should be made clearer in the Report than it is, but does not require a change in the strategic categorisation.

The comment about the impact of traffic noise on residential properties is important. It does not change the categorisation, but clearly is a significant issue which needs to be addressed in all new residential development along corridor routes.

Strategy 3 Preserving and enhancing the City of Villages

Clearly there is solid support for the strategy and the principles involved. There are no issues which warrant reconsideration.

Strategy 4 - Preserving and Enhancing the Quality of the Local Environment

There is strong support for the concept of precincts being designed or adapted to minimize through traffic and to ensure vehicle traffic is compatible with the quality of the local environment. Concerns have been expressed about the possible redistribution of traffic and the impact on local streets identified as precinct boundaries. As pointed out in our response, the main problem in residential precincts is that of vehicle speed and reducing it in some streets may redistribute some local traffic until speed management has been extended to all streets which require it. However, the impact is expected to be insignificant and not an issue for concern.

Strategy 5 - Improving local accessibility, safety & convenience, and increase choice in transport mode

Whilst there is general support for the strategy, the concerns centre around the identification and performance of local corridors and what it means for individual streets.

In addressing these concerns, Council needs to be aware that the strategy does not change the existing situation, but establishes a more sensitive system than the present road hierarchy, which take no account of adjoining development. The proposed local network recognises the needs for local connectivity and environmental protection. The proposed categories are based on current traffic volumes and the strategy suggests that the

management of traffic take account of adjoining residential development. This is the principle. How it is applied in practice will need to be worked through in consultation with the people affected.

Strategy 6 – A single management strategy

There is strong support for integrating all the above strategies.

Overall, there is encouraging general support for the strategies. Much depends on the action plan and priority given to them. It is also important to build on the understanding and goodwill which the project has generated. Ongoing communication of progress and adequate consultation for each project should achieve this.

Matters requiring revision

There is little in the draft strategy which requires revision. The following changes are proposed.

Matters requiring revision

There is little in the draft strategy which requires revision. The following changes are proposed.

1. **Clarification** where there has been misinterpretation, a lack of information or new information (viz; Corridor Management Plans, further explanation on Local Corridors)
 - Areas with a potential for urban regeneration
 - The treatment of regional and sub-regional corridors can vary along its length to reflect different frontage conditions;
 - The treatment of local corridors;
 - The special conditions which apply to George St.. and
 - The Unley Road design plans

2. **Changes to the strategy**

- Addition of strategy 1-10 and 1.11

1.10: Discuss with the Minister for Transport/Minister for Urban Planning , options to improve the transport hub and community facilities surrounding the Goodwood Railway Station & Tram Stop; and;

1.11 Actively pursue and support initiatives to encourage 'Park & Ride' Facilities outside Unley.

- Change categorisation of Goodwood Road from PR3 to PR2 GR
- Insert for Cross Road strategy 4: Encourage Transport SA to investigate pedestrian and cyclist safety issues
- Amend strategy 4.3:

4.3 Proposed precinct plan

- Adoption of the plan in principle as the basis for further development.
- Adoption of the criteria set out in 4-2.
- Adoption of the criteria set out in Strategy 4-3 as the basis for determining priorities
- Amend strategy 4.4

4.4 Criteria for establishing priorities

- Use existing list but add “streets with narrow footpaths”
- Add strategy 4.5

4.5 Action Plan

- Considering the criteria set out in Strategy 4-4, establish priorities.
- Develop action plans for precincts and specific areas in consultation with the community
- Remove strategy 5—6 and renumber.

3. Changes to the Appendices

- A footnote in Table 3 and 4 in relation to George Street to indicate the need for a local study and development plan before detailed performance criteria are established
- Table 1: Travel lane width changed from >3.5 to >=3.5m
- Table 2 Parking change from On-street parking off peak only to Off-street parking
- Action Plan (Strategy 5) remove 5-3, 4, 5, 6 and 7 and replace with revised actions.

TABLE OF CONTENTS

Strategy 1		
Reducing the pressure on Unley		33
EXPLANATION	33	
STRATEGY	34	
Strategy 2		
Managing transport corridors and their associated land use environment		36
EXPLANATION	36	
Categorisation	38	
Performance conditions	39	
Each corridor is unique	39	
Integrated corridor management plans	39	
STRATEGY	40	
Strategy 3		
Preserving and enhancing the concept of the City of Villages		49
EXPLANATION	49	
STRATEGY	50	
Strategy 4		
Preserving and enhancing the quality of the local environment		53
EXPLANATION	53	
STRATEGY	55	
Strategy 5		
Improving local accessibility, safety and convenience, and increase choice in transport mode		57
EXPLANATION	57	
STRATEGIES	61	
Strategy 6		
An integrated strategy		64
EXPLANATION	64	
Regional and local relationships	64	
Local networks and accessibility	66	
Quality of the local environment	66	
City of Villages concept	66	
STRATEGY	67	

Strategy 1

Reducing the pressure on Unley

EXPLANATION

Unley is surrounded and traversed by transport routes, used for the movement of people and goods throughout the southern part of the Adelaide region. It is impossible to develop a transport management strategy for Unley without understanding and acknowledgment of the regional transport needs.

According to Transport SA, Adelaide will always have to rely on the efficient functioning of the majority of its north-south routes. The level of arterial traffic access is increasing throughout the inner suburban areas, in particular the Unley, Mitcham, and Edwardstown areas as well as Burnside, Prospect and the Norwood and Kensington areas. Transport SA believes that “this can be avoided if arterial roads can function with less congestion or local area traffic management measures are increased”.

Transport SA has developed a strategic network and identified the functions of the routes within and around Unley (Figure B1-1).

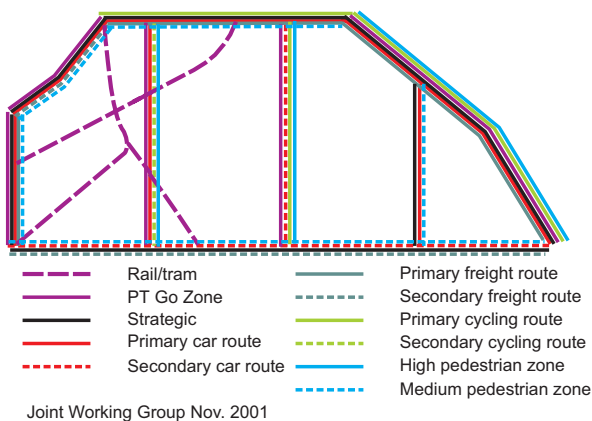


Figure B1-1 Potential regional transport functions

Current approaches to transport and urban regeneration are set out in the Planning Strategy for the Development of Metropolitan Adelaide (Draft for discussion, 2002). The strategies include an urban growth boundary and travel demand management, such as ‘reduce travel demands for journey to work; reduce travel through better urban planning and regeneration; promote alternative modes; maximise the use of the dedicated public transport corridors; and give priority to buses’.

However, the strategy also includes the management of road network capacity, such as ‘reduce congestion through traffic management measures; implement special vehicle lanes for important road functions, ensure development and access locations adjacent to the road transport system are consistent with the role and function that that road performs’.

These strategies highlight the importance of urban regeneration near locations with high public transport accessibility (and Unley has some unique qualities in this respect), increasing choice in transport mode, and identification of regional and subregional transport routes as corridors. The critical issues for the Unley strategy are how to balance the regional transport with the local transport needs, how to protect the integrity of the City of Villages concept, and how to manage urban regeneration so that the advantages of accessibility are maximised without loss in environmental quality.

The first strategy aims to reduce the pressure of increasing traffic on Unley. This pressure should not be taken for granted and the participants at the community workshops have made it clear that this is a matter of high priority. The aim of the strategy is to press upon State Government agencies and the regional community that there is a need for regional policies to reduce the growth and impact of vehicle traffic and that there are environmental capacity limits of the transport routes in inner urban areas.

There are several strands in Strategy 1.

TRAVEL DEMAND MANAGEMENT

The first strand is to encourage the State Government to develop and implement travel demand management and travel behaviour policies. There is a range of possibilities here, but it will take time and considerable effort to implement them, because they involve fundamental shifts in the form and direction of future urban development and in travel behaviour. Current metropolitan planning strategies are (slowly) moving in this direction, but there are powerful forces which will make implementation difficult.

PEOPLE MOVEMENT, NOT CAR MOVEMENT

The second strand is to encourage the development of some regional transport routes as people movement routes. This means that the regional

public transport function of some routes be clearly identified and that on such routes public transport and high occupancy vehicles are given priority. This goes beyond the GO ZONE concept because there would be no mix of public transport vehicles with trucks and other forms of transport which could conflict with the efficient functioning of people movement corridors. Such routes should also be seen as people-generating routes and prime candidates for urban regeneration, supporting the public transport infrastructure.

TRANSIT ORIENTED DEVELOPMENT

The third strand takes the notion of people movement routes further and involves the encouragement of additional population in areas which have high public transport accessibility. Areas near stations and tram stops are opportunity areas and urban regeneration near them can contribute in reducing the pressure on Unley. In this connection, it has been suggested that the State Government be approached about the reopening of the Millswood station.

The Passenger Transport Board has pointed out that the station was very poorly patronised when it was open and that the area is already served by a Go Zone bus route which operates more frequently than do the trains and provide good access to the major city destinations. To reopen the station would be very costly and adversely impact on the travel time along the existing line inducing passengers to travel by car instead. The majority of passengers on the line would be inconvenienced for the benefit of a minority. The PTB concludes that the rail system is more effective for long distance travel, while the bus services are often better for travel from inner suburbs.

The Unley Council understands these arguments, but would like to review the future of the station in the long term context of urban regeneration.

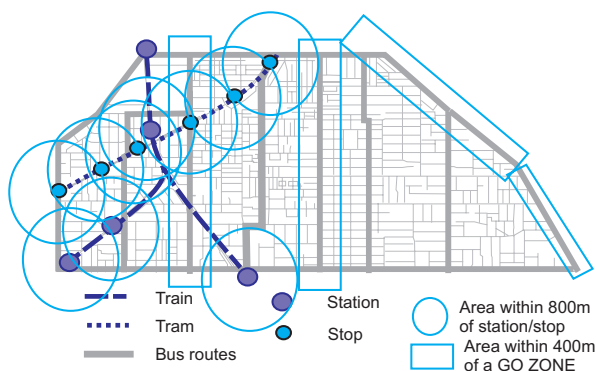


Figure B1-2 Locations within 800m of stations and tram stops and 400m of Go Zones

PEAK HOUR TRAFFIC MANAGEMENT

The fourth strand concerns peak hour traffic management. It is proposed that the extension of clearways be limited to strategic routes and be subject of an impact statement and accompanied by measures to mitigate the adverse impact on existing businesses. There is provision through the Planning Act for local councils to establish a parking fund to create off-street parking zones.

SMART LOCAL TRAVEL

Finally, the Unley strategy should make an active commitment to increase choice in transport mode and facilitate sustainable forms of transport, such as cycling and walking.

STRATEGY

- 1-1 Actively pursue, in association with other local authorities and the State Government, the development and implementation of metropolitan policies designed to reduce the regional demand for travel by car and increase vehicle occupancy rates in peak periods.**
- 1-2 Support initiatives by metropolitan transport and planning authorities to shift from moving vehicles to moving people in peak periods and encourage their application on regional and sub-regional routes through Unley.**
- 1.3 Encourage policies of urban regeneration in locations which have a high level of public transport accessibility.**
- 1-4 Regard locations within 800m of railway stations and tram stops and 400m of Go Zones as opportunity areas for urban regeneration.**
- 1.5 Negotiate limiting the application of clearway conditions to selected regional routes only.**
- 1-6 Request impact statements along routes where clearways are to be introduced or the hours are to be extended and insist on contributions towards the mitigation of adverse effects.**
- 1-7 Negotiate the designation of routes for heavy vehicles to routes which are not environmentally sensitive.**
- 1-8 Introduce measures within Unley to increase choice in transport modes, increase awareness of these choices and promote changes in travel behaviour.**

1-9 Review the future of the (now closed) Millswood station.

1-10 Discuss with the Minister for Transport/Minister for Urban Planning options to improve the transport hub and community facilities surrounding Goodwood railway station and tram stop.

1-11 Actively pursue and support initiatives to encourage park and ride facilities outside the City of Unley.

COMMENT

Identification of potential areas for urban regeneration, based on a high level of public transport accessibility, provides a focus and a guide for developers considering urban regeneration projects. It is important, however, to ensure that the form and design of such projects fit in with the

existing character of Unley and that any additional traffic can be accommodated without adverse effect on the precincts and local network. For these reasons, it is desirable for Council to establish design and siting parameters before proposals are submitted.

The integrated strategy questions the basic premise that regional travel demand must be met irrespective of the impact on the transport corridors in inner suburban communities. It is argued that strategic travel demand management at the regional level should be based (inter alia) on the environmental capacity of the regional transport routes and that there should be a shift from car routes to people movement routes.

Although Unley has demonstrated a remarkable ability to make its voice heard, there is much to be gained by seeking the support of other inner councils (who have the same kind of problem) in approaching the Government to take action.

Strategy 2

Managing transport corridors and their associated land use environment

EXPLANATION

THE CONCEPT OF CORRIDORS

An integrated approach to transport corridors is based on the following premises:

- All transport routes have a 'land use environment footprint' extending beyond the road reservation;
- Planning, development and management of transport routes and their footprints are always considered together;
- Corridors are categorised according to their desired performance;
- Desired outcomes for each corridor are determined; and
- Performance measures for each category become the basis for corridor management.

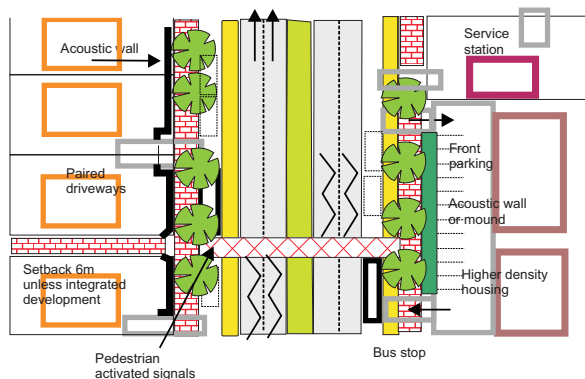


Figure B2-1 Corridors are transport routes AND their land use environment

TWO BASIC TYPES OF CORRIDOR:

1. Type I corridors are major transport routes where the transport function is dominant and the road environment is adapted.
2. Type II corridors are secondary transport routes where both the transport and frontage function are important and attuned to each other.

Type I corridors, typically, are regional routes of strategic importance. All routes surrounding Unley fall into this category and Goodwood Rd and Fullarton Rd are also major regional routes. Type II corridors are sub-regional and local corridors which

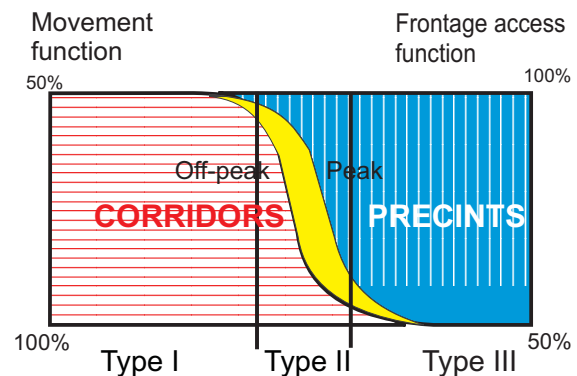


Figure B2-1 Road/environment corridor types

have significant transport functions but also can have important frontage functions. Unley Road and King William Road belong to this category.

VEHICLE AND PEOPLE MOVEMENT CORRIDORS

Some routes are major public transport routes (Go Zone) and adjoining land uses should support the available infrastructure (eg PRB and SRB routes). Other routes are dominated by vehicle movement and people-generating activities along them should generally not be encouraged. There are some special categories, such as 'Activity Streets' which carry traffic but can be adapted to make them more pedestrian-friendly (eg King William Road through Hyde Park centre).

VARIABLE CONDITIONS DURING THE DAY

Most inner urban routes carry heavy traffic in peak periods but can be adapted for local movement and activities during the off-peak period. This applies, for example, to Unley Road.

FRICITION AND IMPACT MANAGEMENT

The transport performance is affected by friction and the land use/environment performance is affected by impact.

Friction can be defined as the impedance of the traffic performance of the transport route and can be attributed to: (i) frontage related activities (eg. on-street parking, pedestrians crossing, jaywalking, vehicles entering access drives, buses stopping, delivery vehicles stopping on-street to load/unload, visual distraction, obtrusive advertising); (ii) road

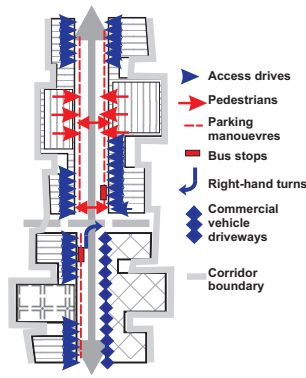


Figure B2-4 Friction

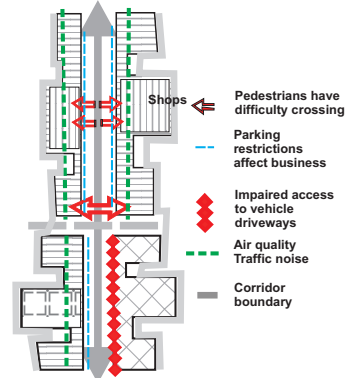


Figure B2-5 Impact

design and management factors (eg. intersection spacing, traffic signals, turning movements, speed controls); and (iii) traffic composition and conditions.

Impact can be defined as the effects of roads and traffic on adjoining land use and quality of the environment, such as air pollution, traffic noise, run-off and water quality. There may also be impacts related to the safety of crossing pedestrians, cyclists and vehicles entering and exiting driveways, and impacts related to business activity, on-street parking, loading and delivery. Urban arterials may also become barriers between local communities.

Integrated management involves considering both friction and impact. The solution to problems in one corridor may lie in the form of frontage development; in another in transport management; and in many cases in both. This is reflected in different strategies for each corridor.

DESIRED OUTCOMES

Desired outcomes for corridors need to address not only friction and impact but other elements such as transport function, transport space, transport performance, land use function, land use performance, and associated management. There is a relationship between all these factors. For example, pedestrian-generating activities along the frontage

create a demand for crossing facilities and parking which have a bearing on transport performance. On-street parking has an impact on business activity which depends on the passing trade. The allocation of the transport space (ie the space between property boundaries) to the different users of the space is therefore not only important for the transport function and performance, but also for the frontage activity.

These associations have always existed but the growth and change in transport function are generally not being matched by changes in the land use environment and this creates a mismatch between desired and actual footprint. For example, the introduction of clearways and the parking restrictions associated with them have an impact on the accessibility of frontage activities. Another example is that increasing traffic volumes can raise noise exposure to levels unacceptable for existing frontages without noise protection measures.

Conversely, changes in frontage development can cause constraints to the transport function and performance and mismatches can arise. The issue of trade-offs then arises: should the transport function be compromised or should the land use be adapted instead?

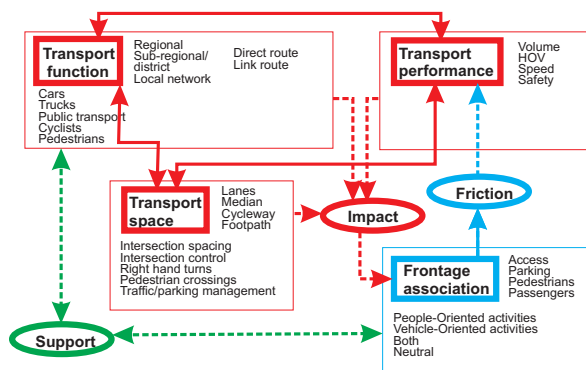


Figure B2-6 Critical parameters - transport

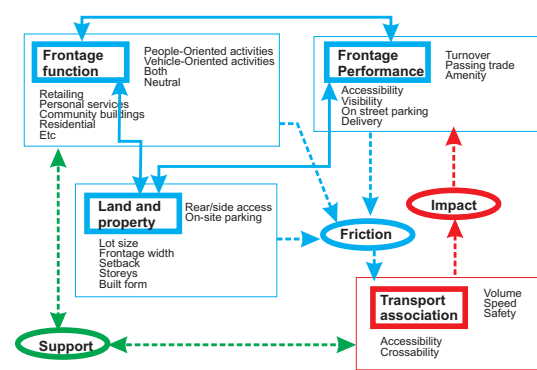


Figure B2-7 Critical parameters - land use

Tables have been prepared which show for each corridor type how these elements fit into the strategy for the corridor (Appendix A). They should be used in preparing and implementing corridor management plans and when proposals for transport, traffic management, access, frontage development, building setback, parking are considered.

LONG AND SHORT TERM STRATEGIES

There may be different desired outcomes for intermediate and long term conditions. For example, Goodwood Road presently serves as a relief to South Road during peak periods and is a primary car route at those times. However, in the longer term, it may be possible and desirable to regard Goodwood Road as a people movement route with priority to buses and high occupancy vehicles. The 'footprint' in these situations will be quite different.

Land use adaptation is a slow process. A strategic framework should have a long term horizon and take account of the critical interactions between transport functions and frontage activities over time.

SUB-CATEGORIES

Within the basic categories, there are sub-categories. For example, there are different combinations of functions (e.g mixed traffic, truck routes, bus routes) and the transport space influences the available options. Many roads have a reservation width of 20 metres and priorities have to be established for competing demands of this space.

The corridor approach is a tool for the integrated management of transport and frontage development for all transport routes. In this section, the focus is on regional and sub-regional corridors (Type I and Type IIa). There also are corridors for the local network (Type IIb) and these are considered in Section 8.

Categorisation

TYPE I CORRIDORS

Type I corridors are regional routes. There are two broad categories: PRV = Primary Route for Vehicles and PRY = commuter railway transport.

The sub-categorisation of a Primary Route depends on several factors, but the three with the most significance for friction and impact management are: strategic function (where friction has to be minimised), primary car route or Go Zone which have different footprints, and the reservation width. In reality, many transport routes have a mix of functions and it is difficult to separate them. There are trade-offs in any model, but it is still worthwhile to establish strategic desired outcomes in a longer term context. This will become evident when pressures on the limited transport space increase and

priorities for different transport functions have to be established.

The strategic function is of paramount importance, but the reservation width for most regional routes in Adelaide is the limiting factor. Most of the transport routes have a width of about 20 metres, although some routes have greater width. Where the routes are wider, there are opportunities for combining transport functions, such as separate bicycle ways. Within a reservation of 20 metres it is difficult to avoid sharing of the carriageways by cyclists and this is not a desirable outcome when target speeds are high and there are many vehicle turning movements.

Based on these considerations, the model contains four PRV sub-categories:

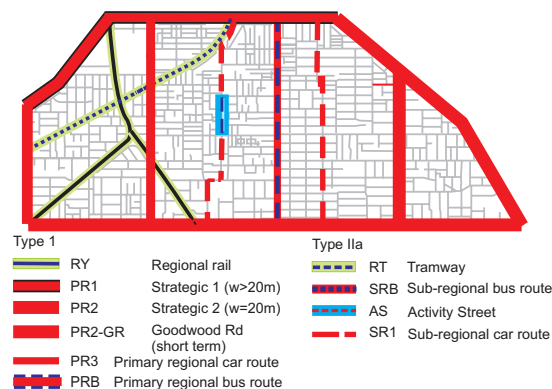
PR1 – strategic regional route with a reservation width > 20m and capacity for at least two lanes in each direction. It has an overlay of functions including a separate primary cycle route. The overlay of a public transport function is primarily express and fast services, but there also are many stopping services.

PR2 – strategic regional route with a reservation width of 20m and capacity for two lanes in each direction at least during peak periods. It also has an overlay of functions, but is always a primary car route. There is a special category for Goodwood Road PR2-GR because the relationship between the transport and frontage functions is different from other PR2 routes.

PR3 – a regional route with a primary car route and bus route.

PRB - a regional route with potential of becoming a high occupancy vehicle (HOV) route with fast buses and priority to HOV. This is a corridor where frontage adaptation is designed to increase public transport oriented activities.

TYPE II CORRIDORS



Categorisation - regional context

Figure B2-8 Categorisation of major corridors (regional and subregional)

Type II corridors are secondary routes. Some routes carry significant traffic volumes, but the performance conditions reflect that there are important land use associations which may act as an environmental capacity constraint. A distinction can be made between vehicle traffic routes and people carrying routes (eg. buses and high occupancy vehicles), with the latter clearly linked to more intensive forms of people – generating activities and higher density housing. For this reason, there is a sub-category named AS (for Activity Street) where the principles of Sharing the Main Street could apply.

There are routes which carry sub-regional traffic (SR – Secondary route) as well as intercity and intracity traffic. Routes which only carry intra-city traffic will be considered later (under Local Land Use and Networks).

SR1 – a sub-regional route which also serves as an intercity route with a width (>20m) for a range of functions, including a secondary car and freight route.

SR2 - a sub-regional route which also serves as an intercity route, but within a reservation width of 20m. It will generally be a secondary car route, but may also be a secondary bus route.

SR3 – a sub-regional route with a one lane in each direction (up to 15000 vpd).

SRB - a sub-regional route which serves primarily as a people movement route with Go Zone buses.

AS – an ‘Activity Street’ serving as a general purpose route, but with a focus on people-generating activities where the principles of Sharing the Main Street are applied. Its capacity is limited to one lane in each direction (ie < 15,000 vpd) and has a variable vehicle speed in sections with a high level of pedestrian activity.

TY – tramway on its own right of way or shared with road-based traffic.

Performance conditions

Performance criteria are matters to be taken into account and because the strategy covers both transport and the adjoining land use environment, the criteria include matters related to transport and adjoining development.

There are eight groups of performance criteria:

1. Transport function - cars, freight, public transport, cycle, pedestrian route;
2. Transport space - carriageway (number of lanes for moving vehicles), lane width, median, bus lane, cycle lane;

3. Transport performance - capacity, target speed, signal coordination, lane for high occupancy vehicles, but priority signals;
4. Friction management - on-street parking, intersection spacing, intersection type, local street junctions, uncontrolled intersections, right hand turns, bus stops, pedestrian/cyclist crossing, access driveways and laneways, frontage activity;
5. Land use function - residential, retailing, personal services, service establishments;
6. Land use performance - vehicle-generating activities, pedestrian-generating activities, mixed activities, dependence on passing traffic for trading;
7. Impact management - building setbacks, frontage width, access, parking, pedestrian crossability, acoustic protection; and
8. Associated management - streetscape design, building height, advertisement control.

The tables in Appendix A indicate a wide range of these conditions. Some are indicative and require detailed consideration when corridor management plans are prepared.

As an illustration, protection from exposure to traffic noise is linked with frontage access. It is possible to design dwellings with acoustic protection, but a driveway cannot easily be screened from traffic noise. With amalgamation fewer driveways will be required and noise protection be made more effective. Another example is that of pedestrian crossings. Safety is greatly enhanced by concentrating pedestrian frontage activity with corresponding reduction in vehicle speed; in other words, the speed profile should be attuned to the frontage activity profile. There are clear land use and traffic management implications which should be reflected in the performance conditions.

Each corridor is unique

Each corridor comes with its own baggage of history and accumulation of decisions (with some less fortunate than others). Integrated management needs to recognise these constraints and the generally slow process of adaptation and regeneration. The purpose of the strategy is to provide a co-ordinated basis for making decisions which should lead to the desired outcome in the longer term. Such a basis does not presently exist.

Integrated corridor management plans

Categorisation of corridors through Unley is an essential element of the strategy because it identifies the desired outcome for a corridor in the long term. However, it needs to be followed up by the preparation and implementation of Integrated Corridor Management Plans. This involves detailed consideration of the eight performance groups referred to above and their application in a specific case, such as Goodwood Rd. Appendix A provides an indication of matters to be considered.

It is important to analyse the characteristics of different sections, because there will be different relationships between adjoining land use and the transport function. For example, there are about 4 main sections with different characteristics along Goodwood Rd. The management approach for each section can then be established.

This means that an Integrated Corridor Management Plan is not a uniform application of performance measures along its length, but a variable response to the conditions in each section (Figure B2-10). Consultation with Transport SA, PTB and the local community affected should be part of this process.

STRATEGY

2-1 Categorisation of major corridors

- ❑ There are regional and subregional corridors.
- ❑ In regional corridors the transport function is of regional importance and the land use environment is adapted to minimise impact and friction.

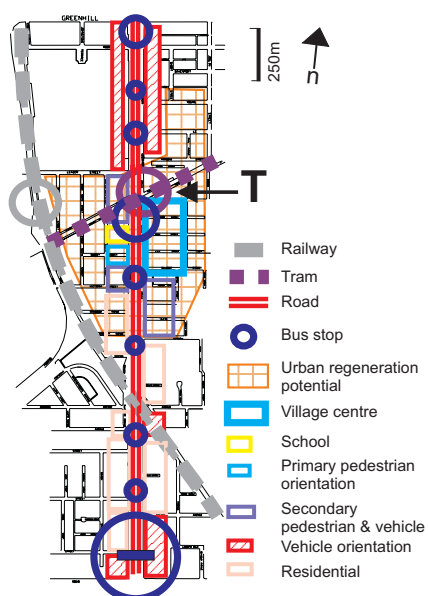


Figure B2-9 Goodwood Rd strategy

- ❑ In sub-regional corridors, both the transport function and frontage function are important and adjusted to each other.

2-2 Desired outcome of corridors

- ❑ Strategic desired outcomes are determined for each corridor type and these are set out in Tables (at the end of this section).

2-3 Corridor identity

- ❑ Each corridor through Unley should have a particular identity expressed through landscape, design of the transport space, and built form

2.4 Corridor management plans

- ❑ Integrated plans are to be prepared for each corridor reflecting the particular theme and providing the basis for transport management and development control.

2-5 GOODWOOD ROAD (PR2-GR/ PRB)

- ❑ Primary vehicle route and Go Zone, but progressive adaptation to people movement corridor (PRB) in the long term
- ❑ Potential for residential urban regeneration
- ❑ Core zone (PRB) with improved management for pedestrian crossing (see Strategy 3)
- ❑ Exploration of peak and off-peak management techniques
- ❑ Additional signal-controlled intersections for intercity and intracity movement
- ❑ Median

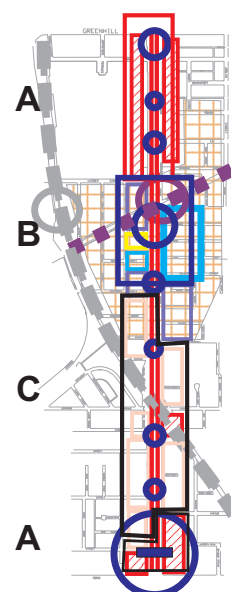


Figure B2-10 Integrated Corridor Management Plan need to reflect conditions for different sections

- ❑ Access management and improved off street parking
- ❑ Indented bus stops at major locations

COMMENT

Transport function

The regional transport function is a mixture of primary car route (overflow for South Road) and public transport (Go Zone). However, it is also an important link in the local network, providing intra-city connectivity. These functions are somewhat conflicting.

In the first place, the primary car route and the public transport function have different land use footprints and this issue cannot be resolved in the short term. There is considerable potential for urban regeneration in the middle section (between the tramway and Mitchell St). The area is highly accessible and if regeneration were to occur, the demand for public transport would increase. The function of Goodwood Road could change and become a primary route for high occupancy vehicles (including public transport) in the longer term.

Secondly, Goodwood Road performs a critical role in intracity and intercity movement. Improved crossability for vehicles, pedestrians and cyclists involves greater intersection control and this conflicts with the function as a primary regional car route. There are no alternatives for intracity movements, but signal coordination may mitigate the effect on traffic flow. Increasing the number of signals along the route can also serve to improve pedestrian safety at bus stops.

Transport space

There are some specific conflict zones, requiring an integrated approach. The greatest conflict occurs in the middle section near the Goodwood centre, where there is an unacceptable degree of jay running. This can be reduced by rearranging the transport space (eg a median) and by traffic management (signal settings and barriers), but these solutions do not address the cause. For this, we need to consider land use solutions.

Land use solutions involve controlling or managing the location of active pedestrian generating activities. In this way, the demand for pedestrians to cross and the locations where they can cross safely can be better managed. For this reason, it is suggested that internalizing future development in the Goodwood Centre to the eastern side of Goodwood road could be a longer term solution to the conflict. This would need to be investigated as part of the regeneration strategy for this centre. Critical factors include land-use, traffic and pedestrian management, circulation and access, and overall design character.

Goodwood Road is also an important public transport route which generates its own crossing movements. Furthermore, there are extensive opportunities for regeneration on the western side (and there is also a school). All this suggests that additional pedestrian crossing facilities should be provided in the core zone but channelled so that jay running is eliminated. Indented bus bays are also needed in the core zone. This will put pressure on on-street parking spaces, but space is available and can be extended at the rear (on both the eastern and western side).

Traffic management

Traffic management in the core zone needs to focus on safety (all road users) and traffic flow (all flows, and not only those associated with through movement). The option of applying different traffic management techniques during peak and off peak conditions should be explored. If the actions identified above are carried out, there is probably no need to reduce vehicle speed below 60 km/h, but it is not proposed that it should be increased. On-street parking may still be possible in the off-peak, but alternative provision for off-street parking space in the Goodwood centre should be made so that any restrictions in future will not affect the viability of business activity.

Outside the core zone, there clearly are trade-offs in relation to additional signals at some intersections. It is essential to recognise the need to facilitate intra-city movements (because there is no alternative and for this reason, additional signals should be considered at Mitchell St and possibly at Victoria St so that it can be combined with a pedestrian crossing (there is also a bus stop in this location).

Land use and access

The strategy is to reinforce the sub-regional commercial and service industrial purposes at the northern end, but to improve side street access and facilities for right hand turning so that any future restrictions on frontage access do not affect land use performance. Any new developments should have rear and/or side access.

As mentioned above, the core section between the tramway and Mitchell St requires careful land use, access and off-street parking management. There are opportunities for integrated regeneration (with incidental commercial uses) at the western side. One of the difficult issues is that of the Albert Street intersection close to the tramway (there is no right hand turn at present and this is not proposed). Other issues concern the presence of side streets in the core zone. It may be possible for some of them to be closed, provided attractive alternatives are provided, but some streets may become more important local routes than they are at present.

Rear access should also be considered for commercial activities on the western frontage. None of these matters can be resolved in isolation and a detailed plan should be prepared for the Goodwood Centre.

In the southern, mainly residential, section, land use management will revolve around reducing the number of access driveways and reducing the impact of traffic noise. This will normally be possible only if and when there are proposals for redevelopment.

Pedestrian-generating uses should not be considered in the northern and southern sections. In the centre (core) section they should be encouraged provided they are part of integrated development for the Goodwood Village centre and where there are - or are planned to be - pedestrian signals along Goodwood Road.

Built form and development control

Setbacks should be determined for each section on the basis of a corridor management plan. They would apply only when there is new development or redevelopment. It is proposed that the setbacks in the core section should provide for more space for pedestrians, landscaping and street furniture. As a long term target, a minimum footpath width of 4 metres is recommended.

Regeneration for residential development in all sections should ensure that there is adequate noise protection.

Parking and business environment

Parking is always a critical issue for business activities but it is not a significant problem in the case of the Goodwood centre. Improved signage to available off-street parking areas would ensure less frustration and more efficient use of available spaces.

Quality of the local environment

Goodwood Road has some attractive and historically interesting buildings, but there is no coherent character for the road as a whole. It is important that Goodwood Road (and other corridors, for that matter) be given a distinct functional identity and through a streetscaping theme, pavement details, street furniture, signage, policies on setbacks, awnings and advertising image.

These elements should all be part of the corridor management plan and certainly for the Goodwood core zone.

Conclusion

Goodwood Road is a complex corridor and will require further and more detailed study, particularly within the centre zone. However, categorisation as a PR2 with a PRB in the core zone is a practical strategy in the short term with an extension of the

PRB categorisation to other sections in the longer term.

2-6 KING WILLIAM ROAD/VICTORIA AV (SR3 AND AS)

- ❑ Secondary vehicle route, bus route and route for intercity and intracity movement
- ❑ Core zone (AS) with adaptation to an activity street and no increase in vehicle movement space (see Strategy 3).
- ❑ Additional -controlled intersections for intercity and intracity movement.
- ❑ Improved cyclist crossing near tramway.

COMMENT

Transport function

The central issue is the conversion of the core zone in the Hyde Park to create a pedestrian-friendly environment, using the principles of 'Sharing the Main Street'. The traffic volumes through the centre are at the top end of a 'Sharing the Main Street' project and one of the practical consequences of adaptation is that there will be cap on the number of vehicles and that drivers may be diverted to Goodwood Rd or Unley Rd.

Transport space

Existing vehicle speeds during the peak hour are already low, because of local congestion, but with the rearrangement of the transport space, low vehicle speeds will become the norm during all periods.

The road reservation within the centre is only 15.1 metres and the width of the carriageway (including on-street parking) is 10.9. Footpaths are narrow and there is no space for pavement activity. Adaptation of the transport space will involve providing a minimum width for moving lanes and the issue will be whether to widen the footpath for increased pedestrian activity and seating and use some of the road space for streetscaping, or make maximum use for on-street parking. This issue will need to be worked through in consultation with the local community and the business community.

It should be noted that Victoria Av is quite different and that the transport space is wider than it needs to be for the transport function. The treatment for this transport space, therefore, would be different to that of sections further north along the route (such as in the Hyde Park Centre).

Transport management

King William Rd is an important link in the intercity and intracity movement system. Arthur St links the Unley Rd Centre and the Hyde Park

centre and marks the northern end of the centre. Intersection management at this point is essential. Signals could achieve several objectives. They will facilitate right hand turns, can be used to regulate flow through the Hyde Park Centre, remove a black spot in accidents and assist pedestrian crossing. If a roundabout is preferred (and this is an option), pedestrian crossing opportunities should be created elsewhere.

King William Rd is also a bus route and this will act as constraint in any redesign of the road space.

Land use and access

The draft strategy generally reinforces existing land use but encourages improvements in site access at the northern end.

Built form and development control

The corridor management plan should establish the set back arrangements for the various sections of King William Road and they would become part of the Development plan.

Parking and business environment

Parking is of critical importance in the Hyde Park Centres. As noted above, there may be options, and they should be explored through a detailed study.

Quality of the built environment

The draft strategy aims to build on the distinctive character which has already been created in sections of King William Rd.

In Victoria Av, there may be scope for considering a rearrangement of the transport space to achieve greater environmental protection for adjoining properties and create a better relationship between the road and the environment.

Conclusion

King William Road's categorisation as a SR3 route is practical and achievable, but there is potential in the Hyde Park centre to convert it into an Activity Street, where the pedestrian environment is given special attention. Because of the narrow transport space in the centre, some difficult decision have to be made about what elements to give priority. The conditions elsewhere along the corridor vary and these differences need to be addressed in an Integrated Corridor Management Plan. These matters will need to be resolved at a detailed stage, but don't affect the proposed categorisation.

2-7 UNLEY ROAD (SR2 - SRB)

- ❑ Secondary vehicle route, go zone, route for intercity and intracity movement

- ❑ Support for the implementation of the preferred scheme, prepared by Transport SA and Planning SA in association with the Council, to adapt the transport space (Option 2)
- ❑ Core zone with dynamic management for peak and off-peak movement (see Strategy 3)
- ❑ Mixed vehicle-oriented activities at the northern section, people-oriented activity in the core zone and special retailing zone south
- ❑ Support for integrated urban regeneration in the above sections
- ❑ Vehicle-oriented activities at the southern end
- ❑ Additional signal-controlled intersections for intercity and intracity movement
- ❑ Access management and improved off street parking
- ❑ Indented bus stops at major locations.

COMMENT

Transport function

The existing transport function is that of a sub-regional commuter traffic route in peak periods, and an intercity and intracity link route and access route to local services in off-peak periods.

Although on the basis of this function a categorisation of SR2 is more appropriate, it is proposed that the function of the route during the peak periods in the longer term becomes that of a sub-regional people movement route (without

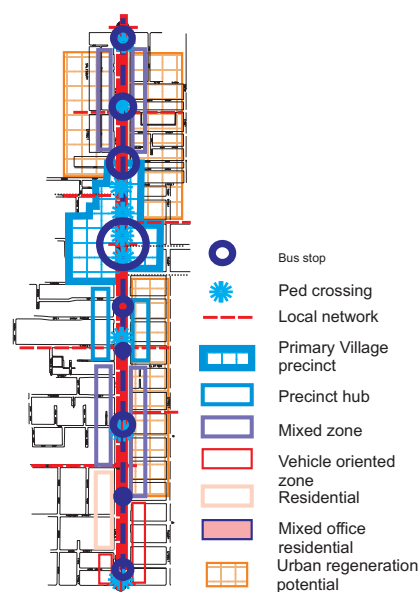


Figure B2-11 Unley Road strategy

changing its off peak function as a local access route). This means that in the longer term priority will be given to high occupancy vehicles (such as buses) and that the 'land use footprint' should focus on developing people-generating activities (including urban regeneration along and above frontage sites). This process will take time but the important point is that the land use strategy should aim to facilitate this process.

Transport space

A concept plan for adapting the transport space has been proposed (with option 2 being the community favourite). It is understood that design plans have recently been completed, but it is not yet clear whether the strategy proposals have been incorporated into the design. A key area of conflict is the main Unley Village centre and it has been proposed that a dynamic system of management be put in place which gives priority to vehicles in the peak periods and to pedestrians in the off-peak periods in this core zone.

Traffic management

Traffic management in the core zone needs to focus on safety, especially of pedestrians and cyclists, on traffic flow, bus stops and turning movements. The aim of achieving safe and efficient vehicle flow in the core zone depends on creating conditions which elicit appropriate driver and pedestrian behaviour. High vehicle speeds are inappropriate even during vehicle peak periods. It should be remembered that the greatest throughput of vehicles is achieved by vehicle speeds of about 30km/h, provided even flows are maintained and this depends to a great extent on the co-ordination of signal settings.

The situation in the core zone is complicated by the fact that there are not only significant vehicle and pedestrian volumes, but that there also are significant cross and right-hand turn movements. In addition, the core zone is an important bus stop.

Dynamic traffic management involves (inter alia):

- changing signal cycle settings during peak and off-peak conditions to facilitate pedestrian crossing during off-peak periods;
- right-hand turn bans during peak periods;
- banning on-street parking at particular times (eg clearway conditions); and
- variable on-street parking/loading times.

It is proposed that designs be prepared for the core zone which permit dynamic traffic management with a target vehicle speed of 40 km/h (all periods), provide for several pedestrian crossings (including for the elderly) but prevent jaywalking and running. The proposed median should be wide enough to

enable people to cross in stages during vehicle peak periods.

In order to achieve appropriate driver and pedestrian behaviour, the design of the transport space in the core should be distinctive and the approach zone should be marked by portals (see *Sharing the Main Street*, 2000).

Land use and access

The boundaries of the core zone extend beyond that of the District Centre Zone shown in the Unley Development Plan (consolidated December 2001). The main difference is that the Village zone has been extended north along Unley Road to include existing pedestrian-generating activity (Figure B3-3).

There are opportunities for urban regeneration in adjoining areas and above some of the frontages along Unley Road. This should be seen as a progressive process of adaptation and not a wholesale change.

Access is of critical importance and additional traffic measures may be required to cater for local cross movement and turning movements. A detailed study is necessary of the needs for circulation and access for pedestrians, cyclists, buses, goods movement and delivery, and access to parking areas.

Built form and development control

The core zone has buildings of significant heritage character and also includes the Soldiers Memorial Gardens, but lacks an overall design theme which builds on these assets and creates a distinguished character for this, the most important, Village in Unley. It is proposed that an urban design study be made as part of the land use, access and circulation study. The study should also determine appropriate setbacks, signage and the development control conditions for urban regeneration along Unley Road as well as the interface between the Village Zone and adjoining residential development.

Parking and business environment

It should be assumed that there will be continuing pressure on the on-street parking spaces in Unley Road. In the core zone, in particular, there will be a need to give priority to moving vehicles, buses, pedestrians and cyclists. The redesign of the transport space in the core zone is likely to lead to a reduction in on-street parking and action must be taken to increase off-street parking and improve signposting to off-street parking areas.

One aspect which should be given careful thought is how off-street parking areas can be linked, so that searching for a parking space does not force drivers on adjoining streets. This may require additional

development control conditions and proactive parking access management. In addition, it may include creating incentives for property owners and developers to integrate/up-grade off-street parking areas (Off-Street Parking Fund). It is in the collective interests of the business community to provide for integrated parking accessibility.

Quality of the local environment

Unley Road at present is unattractive. It has a poor safety record and there is little amenity for people visiting the centre. Improvement is not a matter of changing the pavement or introducing shrubbery and a few trees. It requires a fundamental review of what the centre could be like, even if it takes time to implement the details.

Conclusion

It is clear that Unley Road and the core zone in particular, has considerable potential, but that much work is needed over an extended period to convert the concept of a Village Centre into an attractive reality. The proposed categorisation and performance conditions are a step along the way, but there is need for a commitment by Council, the State Government and the local community to support detailed action on the basis of an integrated planning and design of transport, built form and the environment.

2-8 FULLARTON ROAD (PR2)

- Strategic route, primary car route and bus route, route for intercity movement
- Improved crossability
- Median
- Avenue treatment
- Built-in noise protection for new development.

COMMENT

Transport function

Fullarton Road is a significant Type I corridor, of strategic importance, a secondary cycle route and a minor bus route. Fullarton Road serves an important function in intercity and intracity movement.

Transport space

The main option would appear to be the adjustment of the transport space to improve pedestrian safety and crossability. This could take the form of a median, but detailed study would be required to determine the feasibility.

Traffic management

There are many uncontrolled junctions. With a median, there is an opportunity to limit right hand turns other than at signal controlled intersections/junctions, but this requires detailed study.

Land use and access

There is a need to reduce the impact of traffic on adjoining residential development. The land use options (apart from its northern end and the small shopping centre near Carlton Street) are limited, but further residential regeneration is a possibility.

Built form and development control

Existing planning controls are adequate, but future development should be based on limiting the number of access driveways and reducing the impact of traffic noise.

Parking and business environment

There are no significant issues here.

Quality of the local environment

The overall appearance can be improved by additional street trees so that Fullarton Road becomes a tree-lined avenue, appropriate for its dominant residential character.

Conclusion

There is a better overall relationship between transport and the adjoining land use environment than other corridors in Unley.

2-9 GREENHILL ROAD (PR1)

- Strategic route, primary car route, goods movement, and cycle route
- Explore separate cycleway in parklands
- Potential for urban regeneration (requiring an amendment of the Development Plan)
- Pedestrian boulevard with people-oriented activities along southern frontage, provided there is a significant setback of new buildings and separation from moving traffic
- On-site parking with access from the rear and side streets

COMMENT

Transport function

The regional transport function is not at issue, although questions can be raised about the desirability of a primary freight route when the possibility of converting Greenhill Rd into a

tree-lined boulevard on the southern side has been suggested. This is a matter which Unley Council will need to pursue in future. It is also questionable whether it is desirable to treat Greenhill Road as a primary cycle route without making provision for a separate cycle way.

Transport space

The cycleway could perhaps be located in the parklands on the northern side (as is done in West Terrace). However, this is beyond the boundary of Unley.

The possible redevelopment of the southern frontage and creation of tree-lined boulevard will affect the transport space and involve consultation with State planning and transport authorities. It should be noted that the proposal does not involve reducing the existing carriageway. The boulevard would be achieved by increased setbacks.

Transport management

There is a high level of accidents, which is not altogether surprising considering the high level of traffic volumes, mix of transport modes and complex turning movements. This is a matter, which Council should raise with Transport SA.

Land use and access

Greenhill Road is an edge, a major address with considerable redevelopment potential. The feasibility study, which Council commissioned during the development of the Urban Regeneration Strategy in 2000, demonstrated that high density development for offices/residential development with a large setback to create a boulevard could be a practical proposition. The draft strategy supports this. Integrated redevelopment of the Greenhill Rd. frontage hinges on the provision of rear access. This is possible, but, there is one section (east of Unley Rd.) where a new rear lane should be considered. This will involve detailed investigation and consultation. It should be noted that it is proposed to create an 'opportunity zone' in this section and this offers scope for considering local circulation, urban regeneration and amenity at the same time.

Built form and development control

The Development Plan currently designates the area as an Office 3 Zone with a maximum of three storeys west of Goodwood Rd and two storeys east of Goodwood Rd. The proposed urban regeneration will involve an amendment of the Development Plan.

Parking and business environment

The off-street provision for parking and rear/side access are important conditions for a desired outcome for frontage regeneration.

Quality of the local environment

The proposed redevelopment will have a major impact on the quality of the local environment, provided there is an overall design concept and individual redevelopment projects are developed in accordance with the concept.

Conclusion

Integrated frontage redevelopment and the creation of a pedestrian boulevard and activity space as part of such regeneration is highly desirable and the draft strategy supports it. There will be a need for detailed planning and consultation to resolve issues related to access and design.

2-10 GLEN OSMOND ROAD (PR2)

- Strategic route, primary car route, freight route and bus route
- Explore rerouting of heavy vehicles to Fullarton Rd (north) and Greenhill Rd
- Improve pedestrian crossing facilities
- Access management and improved off street parking
- Built-in noise protection for new development

COMMENT

Transport function

The categorisation of Glen Osmond Road as a Type 1 PR2 is not at issue. The problem is that Glen Osmond Road is to perform many functions within a restricted transport space of 20 metres and the real issue is which functions are to be given priority at particular times. There are reports of increased use of Glen Osmond Road by heavy vehicles (B doubles). However, it should be noted that Fullarton Road, north of Glen Osmond Road is the by-pass route (part of the Metropolitan Freight Network) for heavy vehicles. This network is supported by the proposed up-grade of the Glen Osmond Road /Fullarton Road intersection under the banner of the Glen Osmond Road Master Plan. Glen Osmond Road is also an important public transport route. The footprints for these functions are very different and the design and performance conditions should reflect the dominant function.

This issue cannot be resolved within the scope of this study. It is assumed that Glen Osmond Road will continue to be a multifunctional road in a confined space and that friction (as well as impact) should be minimised.

Transport space

The Gateway Master Plan addresses the rearrangement and design of the transport space and will not be considered here.

Traffic management

There are three problem areas. The first occurs at the Arkaba Centre where there is an unacceptable level of jay running. There is a legal pedestrian crossing and the problem can be resolved by the construction of barriers and a median.

The second problem area is the fashion discount centre. Here, too, there are a large number of jay crossers and jay runners. The real problem is the existing land use development: the fashion discount centre is located on both sides of the road without pedestrian crossing facilities (except at one extreme end), and parking and access arrangements are inadequate.

Existing zoning (Office 1 Zone) discourages pedestrian-generating activities and relocation of the centre may need to be considered as an option/or desirable outcome in the future. However, this is a location where Council would like to encourage redevelopment and urban regeneration. Therefore any solution would require detailed investigation and a separate study to consider critical factors such as traffic management, land-use zoning, pedestrian management, parking access and parking provision. This would require consultation with Transport SA, Planning SA and the Burnside Council.

The third problem is the friction and safety issues caused by the number of angled junctions with side streets. It may not be possible to close them, but a median will limit right hand turns. Local accessibility and the local road network would need to be considered if restricted access arrangement were pursued within the Glen Osmond Road transport space.

Land use and access

The proposed land use is generally consistent with the Unley Development Plan, which provides for Office Zones (1 and 2) which permit small scale offices and medium density housing (two storey maximum) and discourages pedestrian-generating developments. However, there appears to be an inconsistency in that the principles of development control also aim to achieve a gradual transition from Young St to Greenhill Rd by increasing building scale and height (principle 8(a)). The principle is supported and is consistent with the redevelopment strategy for Greenhill Rd, but it would require reconsideration of objective 1 (which has the limit of two storeys).

The principles of development control also include a reference to the need to limit direct vehicular access to Glen Osmond Road, but does not specify the necessary performance condition. It is proposed to require that access be limited to movement in a forward direction, and that side or rear access be provided wherever possible.

The zoning on the Burnside frontage is that of a Business (Glen Osmond Rd) Zone. Objective 1 for the zone is to provide for offices, commercial and residential development with low traffic-generating characteristics and vehicle movements which do not disrupt the free flow of traffic on Glen Osmond Road or generate large traffic volumes in residential areas. "Car parks should be constructed with two way access and an adequate turning area, so that vehicles do not have to reverse onto Glen Osmond Road and minimize the number of access points onto that Road". Here too, there is reference in the principles of development control to increase height near Greenhill Rd, but development above two storeys is not permitted. This seems an anomaly which should be addressed.

Built form and development control

The Development Plan covers the most important issues, but does not specify the requirements for noise mitigation and impact management. It is proposed that new residential development should be required to incorporate noise attenuation design elements.

It should be noted that there are no requirements for site amalgamation (as there are for Zone RC150 along Anzac Hwy and South Rd). It would be useful to incorporate them in the Development Plan, because it creates better opportunities for noise impact management and site access.

Setback requirements are specified on the Unley frontage in the Unley Development Plan. They are 8 metres, except for Arkaba. In the Office Zone 1, the Development Plan requires that the built form should complement the existing character. In Burnside the minimum setback is 3 metres. It should be noted that the recommended set back for a PR2 route is 8 metres.

Parking and business environment

A corridor management plan should be prepared which addresses an improved parking and business environment. For example, the management plan should identify opportunities and incentives to improve and integrate off-street parking.

Quality of the local environment

The improvements proposed in the Gateway Master plan will go a long way to create a more attractive environment. However, the impact of traffic noise,

especially that associated with heavy vehicles, may involve additional measures. This matter is covered in the Development Plan, viz noise attenuation along arterial roads.

Conclusion

The steps taken to reconstruct the transport space and the strategies recommended should go some way to improve the corridor. The conflict in function of Glen Osmond Road as a major public transport route and a freight route for heavy vehicles and the added possibility of urban regeneration at one or more nodes require further study.

2-11 CROSS ROAD (PR2)

- ❑ **Strategic route, primary car route, goods movement and bus route**
- ❑ **Median in the eastern section with right-hand turning bays, provided this does not diminish the integrity of adjoining residential precincts**
- ❑ **Access management and built-in noise protection for new development**
- ❑ **Encourage SA Transport to investigate pedestrian and cyclist safety issues.**

COMMENT

Transport function

The strategic importance of Cross Rd as a major east-west route is accepted. However, it is also a significant link for intra-city movement. It is not practicable to internalise these movements within Unley without affecting the amenity of adjoining precincts.

Transport space

It is important, therefore, to ensure that safe right hand turns into selected streets are possible without encouraging 'rat running'. This was considered in 1996 before the existing median was constructed and the subject of extensive consultation with the community and the two councils involved.

The strategy envisages the extension of the median to the eastern section of Cross Road with turning bays to provide access to some local streets. This would require the same care as was taken in the section referred to above. It is possible that there could be some spillover effects: a median will block right hand turns from local streets and the streets which offer an entry into Unley will require treatment to achieve the speed appropriate for them. This matter should be dealt with in the context of Precinct Management.

Traffic management

There are a number of conflict points with relatively high pedestrian and cyclist accidents rates. These aspects are not addressed in the draft strategy, but could be taken up by Council with Transport SA separately.

Land use and access

The Development Plan provides for residential zones along most of the Cross Rd frontage. This is consistent with the proposed strategy. However, the strategy also proposes the introduction of performance conditions regarding traffic noise and access which should be applied when there are proposals for urban regeneration. The requirements are set out in Principle 112 of the Development Plan. However, it should be noted that the weak elements in noise attenuation are the entrance driveways. Site amalgamation and integrated redevelopment enable greater opportunities for noise sensitive design and also make it possible to modify access, and thereby avoid the need for vehicles to reverse on to the road (Principle 113).

The Tables, setting out the desired outcomes and performance criteria to achieve them, can be found in Appendix A

2-12 GEORGEST/DUTHY ST (SR3)

- ❑ **Secondary vehicle route, bus route and route for intercity and intracity movement**
- ❑ **Additional controlled intersections for intercity and intracity movement..**

COMMENT

The categorisation reflects the current function as a sub-regional through route during the peak period, a bus route, and a significant route for local intercity and intracity movement. In order to improve safety and local connectivity, some intersections require treatment.

The George St section is much narrower than Duthy St. and residents are affected by access and egress problems and traffic noise. An Integrated Corridor Management Plan is needed, especially for George St.

Strategy 3

Preserving and enhancing the concept of the City of Villages

EXPLANATION

THREE TYPES OF CENTRES

A major element of Unley’s urban regeneration strategy is the Villages Concept. One of the principal objectives of the integrated transport management strategy is to incorporate the Village Concept in a practical way.

The Village Concept identifies three types of ‘villages’: primary centre, secondary hubs, and tertiary nodes.

CENTRES AS PRECINCTS

The integrated planning approach to the City of Village concept is predicated on the idea of development and enhancement of the centres as precincts. In the context of the strategy developed as part of this project, precincts are defined as areas where vehicle traffic is sub-servient to the needs for a safe and attractive environment. Most of the centres are affected by major transport routes and the central issue is whether it is possible to adapt either the transport performance on such routes or the boundaries of, and conditions within, the precinct areas.

PLANNING AND DEVELOPMENT CRITERIA

The criteria in planning and developing centres as precincts can be defined as follows:

- a range of services and facilities, offering choice;
- a sense of place - a place where people want to come because it is safe, convenient and attractive;
- carefully managed accessibility with an emphasis on a pedestrian-friendly environment and priority to public transport modes in the core;

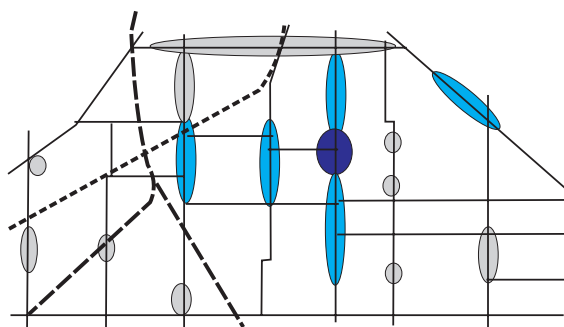


Figure B3-1 City of villages concept

- carefully arranged location of activities to ensure that people and vehicle-oriented activities are not in conflict; and
- close attention to streetscape, public spaces and the siting and design of buildings.

None of the centres meets the criteria for a precinct, especially those related to the need for a pedestrian-friendly environment in which traffic is subservient. All centres were developed at a time when traffic volumes and vehicle speeds were relatively low.

ISSUES WHICH THE STRATEGY AIMS TO ADDRESS

A resolution of the conflict between centres as pedestrian-friendly precincts and the performance of the corridors as major transport routes is essential. The conflict is obvious when the incidence of jay-running is examined. Jay running is a measure of random pedestrian crossings and the proportion of jay runners to jay walkers is a powerful indicator of a safety risk. If more than 5 percent of pedestrians run, a problem exists. Observations at Goodwood Road, Unley Road and Glen Osmond Road far exceeded this level (Figure 6-2) and proportions as high as 30 per cent have been recorded.

It is possible to apply traffic calming in some cases and improve facilities for pedestrian crossings, but this will affect the transport performance. This may be acceptable in some locations or at certain times. However, another approach is to consider the causes which lead to this conflict. There may be land use and development solutions in the longer term, such as concentrating future development

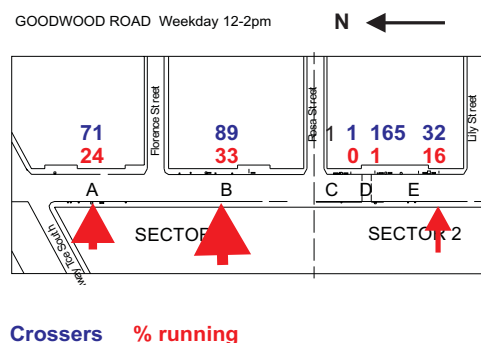


Figure B3-2 Jay running at Goodwood Road

Table B3-1 Explanation of the strategy for the Villages

Element	Location	Comment
Primary centre	Unley Road	The 'heart' of Unley. Needs an integrated policy and action plan, addressing urban design, parking and access, and interface with adjoining residential precincts.
Secondary hub	Goodwood Rd centre	Urban regeneration /redevelopment potential on both sides. Needs an integrated policy and action plan, linked with a corridor management plan for Goodwood Road.
	Hyde Park	Potentially a high quality centre, but needs more parking space and an integrated transport and land use management plan (application of "Sharing the Main Street").
	Unley Rd North	Vehicle flow given preference, pedestrian crossability at signals. Urban regeneration potential on both sides. Needs integrated corridor management plan.
	Unley Rd South	Vehicle flow given preference, pedestrian crossability at signals. Urban regeneration potential on eastern side. Needs integrated corridor management plan.
	Glen Osmond Rd	Pedestrian crossing barriers to prevent jay walking.
Tertiary Nodes	Greenhill Rd	Important address with major potential; requires proactive approach towards rear access. Interface with adjoining precinct requires attention.
	South Rd	No change in the existing situation.
	Goodwood Rd North	Dubious as a hub in a congested environment. Low priority; unless urban regeneration were to occur.
	Highgate centre	Improve pedestrian safety at crossing.

away from heavy traffic and taking particular care in locating pedestrian-generating activities so that there is minimal impact on traffic.

The strategy is based on such an integrated approach and as a result there are different desired outcomes for the centres and hubs.

However, it should be stressed that integrated development plans should be prepared for most of the centres as part of the action plan program. Table B3-1 sets out the elements of the original concept and how the proposed strategy responds to the Concept.

There will be a need to negotiate with Transport SA on vehicle speeds in centres as part of the corridor management plans.

STRATEGY

3-1 Primary Village Centre Unley Road

- Clearly defined core zone
- Dynamic management of traffic along Unley Road
- Target speed of 40 km/h,
- Increased safety and crossability

- Improved pedestrian and vehicular access
- Improved connectivity between parking areas
- Promotion of urban regeneration above frontage activities
- Improved overall quality and identity of the centre
- Portals in approaches to the centre
- Preparation of an integrated plan for the centre

COMMENT

This is the 'heart' of Unley. It is proposed to create a Village Precinct across Unley Road to incorporate the Town Hall, Library, Church and active shopping frontages on the eastern side. Pedestrian and cyclist connectivity and safety should be enhanced. It is the most important centre in Unley, but much work is needed to convert it into a pedestrian-friendly precinct with a high level of amenity and accessibility.

The transport space in Unley Road should be adapted to favour pedestrian movements during the off-peak period. This involves dynamic

management of the transport space, giving priority to vehicle and public transport movements during the peak period and priority to pedestrian crossing movements during the off-peak period. It would be desirable if this were incorporated in the detailed design of Option 2.

The detailed design and transport management should also address urban design, parking and access, and the interface with adjoining residential precincts.

3-2 Goodwood Road centre

- Explore redevelopment/urban regeneration of the centre on the eastern side
- Consider a small centre on the western side as part of an integrated urban regeneration study
- Increased safety and crossability
- Negotiate with Transport SA on a target speed of 40 km/h in the core zone during off-peak periods
- Reduce the number of intersections of side streets with Goodwood Road
- Prepare an integrated plan for the centre

COMMENT

There are problems with pedestrians crossing and the level of jay running is far too high. Most of the commercial and civic activity is on the eastern side where there is also more off-street parking space. It is proposed that major future commercial development be concentrated on the eastern side which can be converted into a more pedestrian-friendly and attractive centre. If it is decided to proceed with pedestrian-generating activities on the eastern side, it is proposed that another precinct be created on the western side and pedestrian crossing movements be strictly controlled, a median be introduced and vehicle speed at the approach to the crossing be reduced.

There is urban regeneration/redevelopment potential on both sides. The link between the two sides across a strategic Type I corridor will require detailed study and an action plan should be prepared.

3-3 Hyde Park centre

- Adapt the road space to increase pedestrian friendliness
- Retain existing traffic function but reduce vehicle speed through design
- Additional off-street parking
- Improved linkage between parking areas
- Portals to define the core

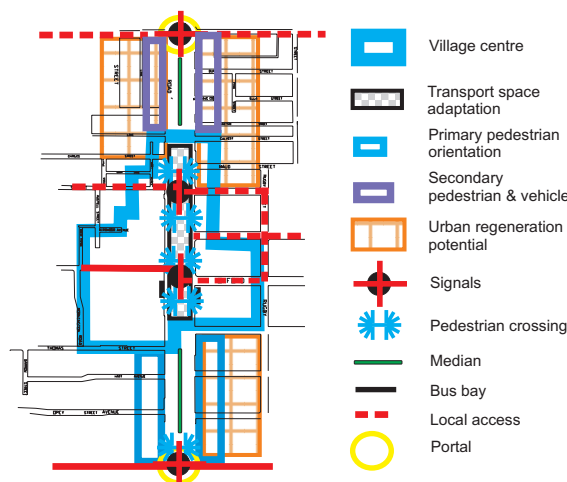


Figure B3-3 Unley Centre strategy

- Prepare an integrated plan for the centre

COMMENT

The Hyde Park centre is potentially a high quality centre, but needs more parking space and an integrated transport and land use management plan. It is a classic candidate for a 'Sharing the Main Street' approach, which accepts the existing transport function, but modifies transport performance to achieve a more pedestrian-friendly environment through redesign of the transport space and a reduction of vehicle speed within the centre. One of the consequences is that there will be a cap on traffic volumes (one lane in each direction) and on vehicle speed, and some drivers may divert to Unley or Goodwood Rd. Additional parking areas at the rear should eventually be interconnected.

There are options and these should be explored in consultation with the business community and the local community.

3-4 Unley Road north

- Mixed use orientation with low level of pedestrian generation
- Potential for a specialized hub in the longer term
- Potential for urban regeneration
- Improved off-street parking and access
- Mitigate impact on adjoining residential precincts

COMMENT

There is no clearly defined node in the northern section of Unley Road and no market indication that it could become a 'vibrant' village centre. However, if market conditions change and proposals for more intensive development are being

considered, there should be an effort to concentrate pedestrian activity and create a Village precinct. Such a precinct should preferably be confined to one side, and not across Unley Road, unless the option of a 'people intensive corridor' is pursued and Unley Road becomes an 'activity street'. It should be noted that urban regeneration is occurring already on disused industrial land on the western side nearby.

3-5 Unley Road south

- Northern section (to Beaconsfield St) pedestrian orientation
- A separate western and eastern hub
- Potential for urban regeneration on eastern side, but requires development plan and performance criteria

COMMENT

Vehicle flow should be given preference, providing for pedestrian crossability at signals. There is urban regeneration potential on the eastern side, but it needs an integrated corridor management plan. The rest of Unley Road (moving southwards) is far from homogeneous. There are several minor nodes, but they are drive-in centres, and not capable of being converted into pedestrian friendly village centres, without major redevelopment and investment.

3-6 Glen Osmond centres

- Improved safety in pedestrian accessibility at the Arkaba centre
- Consider the possibilities for redevelopment/urban regeneration at the fashion discount centre

COMMENT

The Arkaba centre is well integrated and already has a precinct character, but safety (jay running) is a problem and pedestrian crossing barriers are needed to prevent jay walking.

There is a need to consider the future of the discount centre. It has poor access and parking, straddles a strategic Type I corridor and has a poor pedestrian safety record. It would be desirable to encourage integrated redevelopment for a more appropriate purpose.

3-7 Greenhill Road

- A special urban regeneration zone with mixed residential/offices
- On-site parking and rear access

COMMENT

The recommendations of the feasibility study of the potential for integrated redevelopment of the

frontages to Greenhill Road are supported. It is proposed to create a special zone for this hub, which has the potential to project a new image of Unley to the north. It is an exceptional redevelopment opportunity, but much care is needed to ensure that any redevelopment is of high quality and that site access does not depend on Greenhill Road.

A proactive approach is needed towards the provision of rear access and the interface with adjoining precinct requires careful attention.

3-8 South Road

- Retain, no change

3-9 Goodwood Road north

- Discourage pedestrian-generating activities and encourage vehicle-oriented uses opposite the showgrounds

COMMENT

Dubious as a hub in a congested environment. Low priority as a centre; unless urban regeneration were to occur.

3-10 Highgate centre

- Retain as a local service centre.

COMMENT

This centre serves a local function, but is divided by Fullarton Road. It is in need of a major upgrade, but this may not happen unless there is considerable regeneration in this part of Unley.

The recommended approach for the strategy is to convert the Villages to precincts and adapt the transport performance of the relevant corridor section, wherever possible, and to use zones for those locations where this cannot be done.

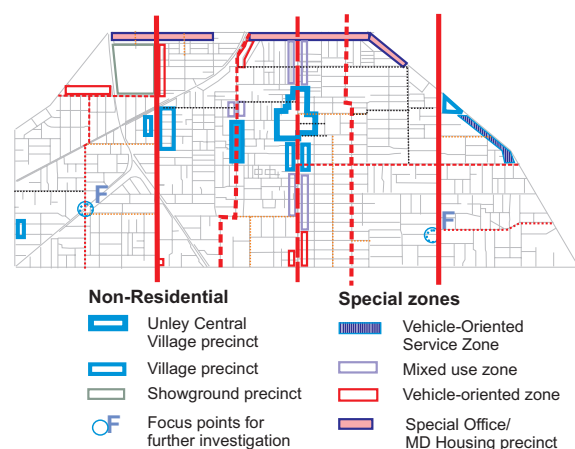


Figure B3-4 City of Villages strategy

Strategy 4

Preserving and enhancing the quality of the local environment

EXPLANATION

FACTORS WHICH DETERMINE THE QUALITY OF THE LOCAL ENVIRONMENT

The quality of the local environment is influenced by safety, absence of through traffic and traffic noise, traffic volumes and speeds appropriate for the type of environment, attractive streetscapes, accessibility to local facilities and public transport, the provision of cycleways and footpaths, and the siting and design of buildings which respect the character and privacy of adjoining buildings.

In Unley's case, one of the important criteria is that of the impact of traffic on the local environment.

PREVIOUS STUDIES

The City Traffic Plan (1995), prepared in association with Dorrestyn & Co, proposed a vision and a philosophy for residential streets and arterial roads, which combined the need for movement and access with the need for environmental protection. Four solutions were proposed:

- A residential street network based on the existing road hierarchy and precincts;
- A systematic and proactive program to deal with accident locations;
- A hierarchical amenity system, which addresses not only the transport function of particular traffic routes but also the amenity of these routes; and
- Arterial roads - better utilisation of the available space in the side streets and better pedestrian crossing facilities in non-peak periods.

The Unley Council pioneered the 40km/h speed limit in residential streets in South Australia which was introduced in 1999. A comprehensive study of its performance and resident attitudes was undertaken by Transport Systems Centre, Centre for Applied Behavioural Science and Marketing Centre, University of South Australia: *Evaluation of the Unley City Wide 40 km/h Limit* (2000).

In this study, traffic was monitored and analysed, telephone surveys were conducted and focus group discussion were held. The conclusions were that the lower 40km/h speed limit had achieved favourable effects overall. Community support for maintaining a 40km/h limit was moderately strong despite firm reservations about perceived effectiveness of

enforcement. Speed and volumes had decreased, but the benefits had largely been outside peak periods.

People were asked what they thought about a 50km/h (non-arterial) general urban limit. It was found that 65% didn't support it, but 50% of people surveyed thought that 50km/h on some local streets, such as collectors, could be acceptable. The reports commented that the ramifications of having three different graduated speed limits had not been explored and that a unified approach towards streetscape design (reflecting the desired driver behaviour) seemed worth pursuing.

PRECINCTS

In corridors, the transport function is generally dominant. In precincts, on the other hand, protection of the quality of the environment is paramount. Precincts, typically, are 'Type III road environments' where traffic is subservient.

There are distinct reasons for the creation of precincts. A high level of amenity can be created, in which vehicle traffic is sub-servient, conflict between vehicles, pedestrians and cyclists can be resolved, and the impact of traffic on the local environment can be reduced. Precincts can be developed with their own identity and character. Precincts provide an effective basis for the location of economic activities, which benefit from association. Precincts also can facilitate social interaction.

There are different types of precinct, such as commercial and community centres and residential areas. There are also special precincts where there is a primary activity and a range of associated activities, such as the Showgrounds and the Keswick Barracks. The common element is that traffic volumes and vehicle speed are subordinate to the function of the land use activity within the precinct and the preservation of the quality of its environment.

The creation of a precinct involves some trade-offs. There will always be a need for access and internal circulation. The balance varies with the type of precinct. In addition, precincts should be connected to each other, but not attract through traffic.

INTEGRATED PLANNING OF PRECINCTS

Integrated approaches towards the planning of residential precincts can:

- create environments for living, adapt existing residential areas as precincts, which are safe, convenient to live in, with a high level of amenity;
- ensure that such precincts are designed or adapted to prevent through traffic, and that vehicle traffic is compatible with the quality of the environment;
- ensure such precincts are designed or adapted with a high level of pedestrian and cyclist access, and convenient access to public transport; and
- ensure that there are opportunities for mixed development and a range of housing types, without adverse impacts on the quality of the environment.

ISSUES WHICH THE STRATEGY AIMS TO ADDRESS

The issues which the strategy aims to address are:

- prevention of through traffic;
- traffic volumes, vehicle speeds and driver behaviour are compatible with the quality of the environment;
- a high level of pedestrian and cyclist access, and convenient access to public transport; and
- opportunities for mixed development and a range of housing types, without adverse impacts on the quality of the environment.

It does this by several means. First, transport routes do not penetrate into precincts. Precinct boundaries are formed by transport corridors and other barriers. There may be activity streets with commercial and retail activities in some residential precincts. However, the general principle that amenity comes first and traffic is subservient always applies.

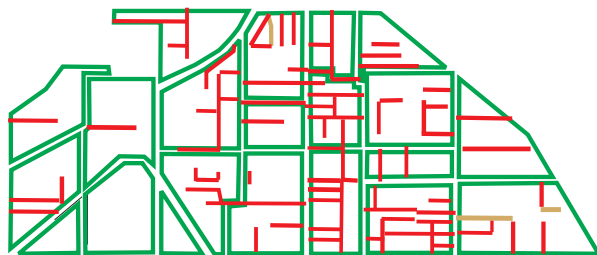


Figure B4-1 Existing precincts and speeds >40kmh

Secondly, the amount of local traffic and the desired vehicle speed do not exceed levels inappropriate for the precinct. In Unley, they are generally 2000 vpd and 40 km/h respectively.

Thirdly, the target speeds within precincts are achieved through the application of design and traffic management measures. In other words, the desired outcomes are to be achieved through changes in driver behaviour in response to the design and management of the street and do not rely on policing. A range of techniques is available to achieve the desired speed environment.

LIMITATIONS OF THE EXISTING PRECINCTS

There are 20 precincts in Unley at present. Some have traffic in them with volumes which are greater than desirable and there are many streets with vehicle speeds in excess of 40km/h. Some precincts include commercial activities.

PROPOSED PRECINCTS

The strategy proposes that the number of residential precincts be increased to 36 and the village centres be excluded. The result is that the precincts are smaller and there is greater opportunity for traffic management in achieving the desired precinct environment. A few precincts are divided into sub-precincts. There also are some precincts with potential for progressive redevelopment or regeneration. Community bus routes and cycle routes are not affected.

An important feature of the proposed precincts is that traffic volumes and vehicle speeds do not exceed environmental limits. However, the detailed application of these techniques require investigation and consultation.

The definition of the proposed precincts is predicated on the proposed local network identified in Strategy 5. Clearly the two strategies are complementary and modification of one strategy could have repercussions for the other.

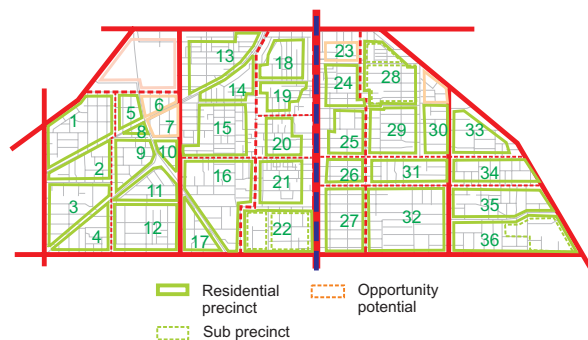


Figure B4-2 Proposed precincts in relation to network

STRATEGY

4-1 Precincts are created where traffic is subservient

4-2 Conditions for residential precincts

- Target vehicle speed is 40km/h (or less);
- The desired driver behaviour is achieved through design and management of the road space;
- Traffic volumes generally are less than 2000vpd;
- Connectivity without attracting through traffic;
- Accessibility for local bus;
- Safe movement of cyclists and pedestrians.

4-3 An action plan is to be developed with the aim of meeting the conditions progressively and giving priority to street and intersection treatment, using the following criteria

- Streets within precincts with vehicle speeds over 40km/h
- Wide carriageways
- Long sections
- Intersections with an accident record
- Narrow footpaths

COMMENT

Preliminary testing of these precincts was undertaken by applying the criteria regarding vehicle speed and traffic volumes.

The results show that there are no residential precincts with streets with more than 3000 vpd., but there are some precincts with more than 1500 vpd. in some streets. They are:

Precinct 13: Joslin St – 2700 vpd; Rose Terrace – 1500 vpd.

Precinct 15: Lily St – 1500 vpd; Weller St – 1800 vpd.

Precinct 18: Young St – 1600 vpd.

Precinct 19 Mary St – 1800 vpd

Precinct 24: Maud St – 1600 vpd (short section only)

Precinct 25: Oxford St – 1900 vpd; Edmund Av 1800 vpd. Cambridge Tce – 2300 vpd

Precinct 26: Cambridge Tce – 2300 vpd.

Precinct 27: Marlborough St – 1500 vpd.

The objective of a maximum of 2000 vpd in residential precincts is generally achieved. One could

expect traffic volumes in some streets in precincts adjoining centres to be a little higher and this is the case around Unley Centre and near Goodwood centre.

There are many precincts (and routes between precincts) where the target speed of 40 km/h (60 km/h respectively) is exceeded. The new precinct boundaries in themselves do not change current behaviour, but provide a practical basis for actions to achieve the target speed.

The factors which influence driver behaviour are set out in strategy 4-3. Using those factors shows that precincts 18, 25, 27, 30 and 32 may need to be given priority. Other precincts warranting attention are: precinct 3, 14, 16 and 28.

There is a need for caution in interpreting these data. Some of the data are not recent and not all streets have been surveyed. It would be useful to commit resources to establish a proper inventory if the data are to be used in allocating priorities for action.

There are actions which can be taken to manage the problem of excessive speed in precincts. A range of techniques is available to achieve speed reduction and some have already been applied in Unley. The important point is that street design and management should elicit appropriate speed behaviour and not rely solely on speed limits and their policing. For example, speed behaviour on long straight sections can be modified by narrowing carriageways, introducing axial shifts, carefully designed thresholds, tree planting and placement of on-street parking spaces.

Connectivity between precincts is another criterion. Most precincts are well connected, but some are not. This applies to precincts 5, 11, 13 and 17, because of the barriers of railway and tramlines. There is little that can be done and the new precincts have the same limitations as those in the existing definition.

Precinct 23 may be a special case. It is not well connected to Unley centre, because of street closures designed to stop through traffic. There are opportunities to improve local access without attracting through traffic, but this could involve making some changes to existing access restrictions. However, the possibilities and likely consequences of any changes should be explored with local residents before adopting a strategy.

There are some precincts with potential for progressive redevelopment or regeneration. These precincts are so well located that market interest in urban regeneration is a distinct possibility and it is important to be prepared for this eventuality. It is not suggested that precincts with such opportunity potential would involve a wholesale change to the

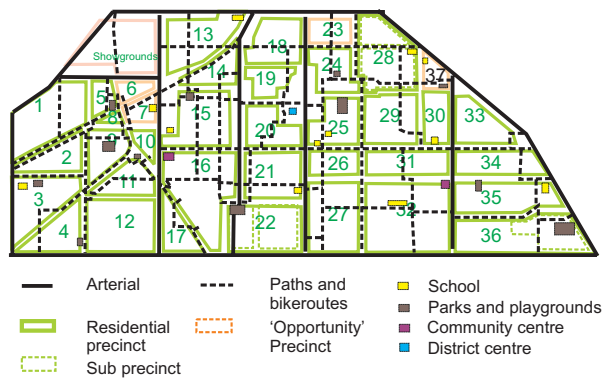


Figure B4-3 Precincts and cycle routes

area. It should be seen as a possible progressive adaptation.

It is possible that some minor redistribution of local traffic would occur when measures are introduced to reduce vehicle speeds in precincts. Some local traffic may shift to other streets, until traffic control measures are introduced there too. Overall, progressive extension of speed management through design should lead to small changes in the

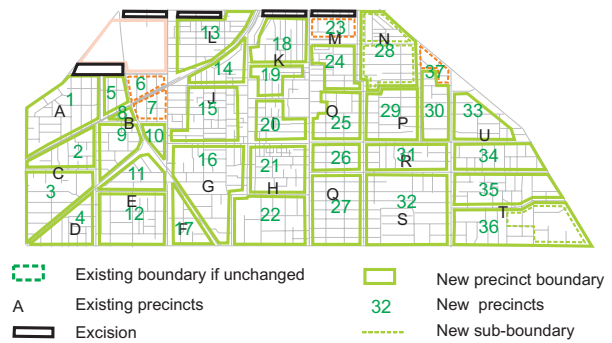


Figure B4-4 Existing and new precincts

distribution of traffic of local traffic, but not in any significant way.

The impact on cycleways is shown in Figure B4-3. There are no complications, but there could be some minor adjustments when detailed traffic management are prepared for the new precincts.

Figure B4-4 compares the existing precincts with the proposed (residential) precincts

The proposed precincts need to be examined in detail and the actions needed to achieve the desired outcomes should be identified. This is one of the actions which flow from the adoption of the strategy.

Strategy 5

Improving local accessibility, safety and convenience, and increase choice in transport mode

EXPLANATION

INTRODUCTION

This strategy concerns the development and management of local networks which provide local accessibility, safety and convenience.

There are four types of networks:

- 1 Vehicle network
- 2 Local bus network
- 3 Cycle network
- 4 Pedestrian network

The networks need to provide choice in access to shops, businesses, schools and other activities and to residential areas and a high level of safety.

VEHICLE NETWORK

The local road and street system serves three functions:

1. Intercity movement – the trips made to and from Unley from and to adjoining districts This includes trips using the regional network.
2. Intracity movement – the trips made between different parts of Unley;
3. Circulation and access movement – trips made on local streets for the purpose of gaining access to sites.

INTERCITY ROUTES

Intercity routes provide access to and from parts of Unley to other parts of the metropolitan area. Generally Unley is well connected to other areas, but intercity accessibility is a particular problem for the western part of Unley caused by the railway and tramway barriers and an absence of intercity links to the west. Goodwood Road plays a key role, but it does not perform this role well because of the limited number of signal controlled intersections with opportunities for right hand turns.

Many of the regional and all the subregional routes function as intercity routes, but require right hand turns for intercity movement. It is important to facilitate intercity movements so that trips to and from Unley make minimal use of the intra-city network. However, it is even more important that any improvements for intercity trip making do not lead to additional through movement in Unley.

INTRACITY ROUTES

Intracity routes provide for movements within the city of Unley. Some of existing links in the local street network are de-facto routes, not designed for this purpose and affecting the quality of the residential environment. There is also a lack of intracity routes in the road hierarchy in the northern part (east-west) and the north eastern part of Unley (north-south) serving the commercial development along Greenhill Road and Glen Osmond Road. Intracity vehicle movement needs a permeable network which enables people to get access to the centres, services and facilities. However, local movement should not have an adverse impact on the quality of residential precincts.

EXISTING ROAD HIERARCHY

The existing vehicle network is categorized in the form of a road hierarchy (Figure B5-1). Whilst it provides for regional and sub-regional routes and for intercity and intracity movements, it does not satisfy all the criteria for an integrated approach towards land use, transport and the environment. Specifically, the network needs to be adapted to reflect:

- the approach towards the integration of roads and their environment;
- the regional context;
- the need to provide better local accessibility; and
- the need to give better protection of residential precincts.

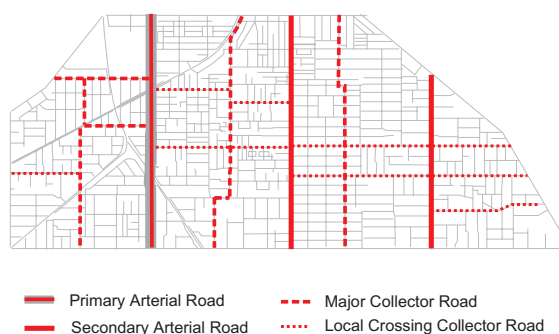


Figure B5-1 Existing road hierarchy

Table B5-1 Adaptation of the road hierarchy – Regional and sub-regional network

EXISTING ROAD HIERARCHY		PROPOSED ROAD/ENVIRONMENT CATEGORISATION	
<i>Primary Arterial Road</i>	South Road Anzac Hwy Greenhill Rd Glen Osmond Rd Cross Rd	<i>Type I Regional corridor</i>	South Road PR2 Anzac Hwy PR1 Greenhill Rd PR1 Glen Osmond Rd PR2 Cross Rd PR2 Goodwood Road PR2-GR but PRB in the long term Fullarton Rd PR2
<i>Secondary Arterial Road</i>	Goodwood Rd Unley Rd Fullarton Rd	<i>Type IIA Sub-regional corridors</i>	Unley Rd SR2 but SRB in the long term King William Rd SR3 with AS in Hyde Park George St/ Duthy St SR3

The starting point is the recognition of the regional and sub-regional corridors. The need for these corridors and the conditions in which they are to perform are derived from considerations which extend beyond the Unley area (see strategy 2).

Table B5-1 shows how the road hierarchy can be adapted to reflect the corridor approach.

It should be noted that Goodwood and Fullarton Road become regional corridors in accordance with Transport SA strategic intentions.

King William Rd and George/Duthy St. are changed from major collector to sub-regional corridors, because of the function they perform.

PRINCIPLES FOR THE LOCAL NETWORK

- 1 The network should provide access to local activities and connectivity between precincts without dependence on the external corridors;
- 2 Through traffic should not be facilitated or encouraged;
- 3 Routes which presently carry more than 2000 vpd (other than the corridors already identified) should not be part of a residential precinct, but become edges;
- 4 Intersection design and operation of the corridors through Unley should facilitate intercity and intracity movement; and
- 5 The network links should be treated as local corridors so that the transport function and the adjoining land use environment can be better managed.

LOCAL ACCESSIBILITY

The need to improve local accessibility is tied up with the barriers which the regional corridor provide, the location of Villages centres and hubs, and the process of urban regeneration. There are a number of local roads and streets which carry traffic greater than what would normally be desirable in residential streets. There also are missing links. The selection of local links is partly based on what actually occurs and partly on the opportunity to create smaller precincts where amenity is the dominant consideration. The adaptation of the local network, therefore, must be viewed in relation to the proposals for precincts which are addressed in the previous chapter.

One area of special concern is that between Greenhill Road, King William Road, Hughes Street and Unley Road which is hemmed in on three sides by Type I and Type II corridors and the drainage channel. The need for a safe access will become more pressing as Unley Road becomes busier in future.

LOCAL CORRIDOR CATEGORIES

The proposed categorisation of local corridors is largely influenced by existing traffic volumes and the need to ensure that these links can perform with minimal effect on the local environment (Figure B5-2). It is important to appreciate that the categorisation is not simply a matter of identifying a local transport function. The environmental performance of the route and the development conditions to minimise impact are an essential part

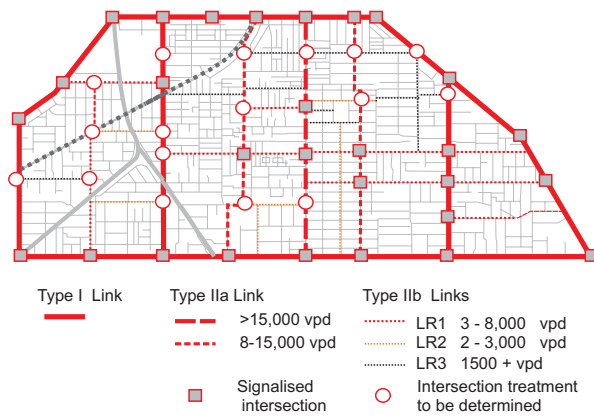


Figure B5-2 Proposed local network

of the package (which is not the case with the existing road hierarchy).

The result is a network with some additional links (most of which are boundaries to the new precincts) and a categorisation of links as local corridors (there are three sub-categories). The intersections with the regional and sub-regional corridors are important and detailed investigation is needed to determine the most suitable form of treatment.

PERFORMANCE OF THE LOCAL NETWORK

The existing road hierarchy defines local network links as Major and Local Crossing Road and all have a maximum target speed of 60km/h. This is not happening; on some routes speeds appear to be higher. Vehicle speed can be relatively low on the intercity and intracity links in the local network (60 km/h and 50km/h respectively, provided routes are direct.

Traffic volumes on primary intercity links in the local network should not exceed 8000vpd and those on the secondary intercity/intracity links should be less than 4000vpd. However, all these links should be approached as local Type II corridors so that the relationship between transport function and adjoining land use environment can be properly considered.

The local street network should be based on local transport performance as follows:

Type	Desired max. speed	Traffic volume
L1	40-60 km/h*	3000-8000 vpd
L2	40 km/h	2000-3000 vpd
L3	40 km/h (or less)	1500-2000 vpd

* Speeds are ranges with the actual speed depending on local corridor

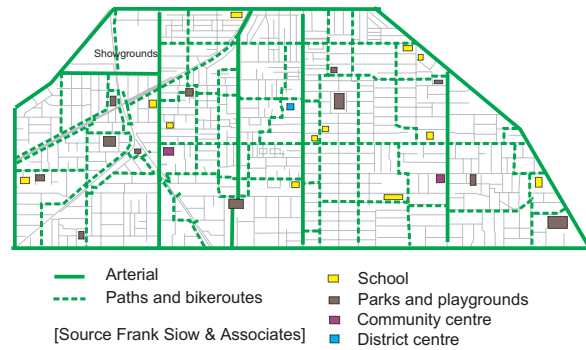


Figure B5-3 Existing cycle way strategy

The speed performance should be achieved through design and traffic management.

CYCLE NETWORK

The network developed by Frank Siow and Associates would seem to fit the needs well. However, it needs to be developed in relation to the provision for crossing and turning movements and the performance conditions for routes where sharing the carriageway (or footpath) is involved.

PEDESTRIAN NETWORK

As many people are car owners, the use of the private vehicle as a transport mode is the preferred mode for even very short trips locally. This has resulted in greater emphasis being placed in planning on vehicular accessibility and an even greater disenfranchisement of those who are not car drivers or who do not have easy access to a car. This imbalance needs to be addressed and a pedestrian network should be developed which serves all the centres, schools, parks and other community activities. There are no data regarding pedestrian movement and there is no pedestrian plan. However, some comments on the criteria to be used in planning pedestrian routes is appropriate.

The criteria are legibility, continuity, directness, safety and comfort. The relative importance between them varies depending on whether walking is for recreation or being undertaken as a transport mode.

Legibility - refers to users understanding where the route leads and this can be enhanced by signage, information booths and appropriately distributed maps (eg Council’s Bike Plan brochure);

Continuity - refers to the need for routes to be of a continuous and consistent standard to be useable as a transport mode;

Directness - refers to the value most users place on travel time and the need for a route to use the

shortest combination of usable paths possible to a destination;

Safety - refers to the personal and traffic safety which is necessary for a route to be used; and

Comfort - refers to the general amenity of a route and would include occasional seating, handrails, low gradients, toilets, choice of path materials, bus shelters.

For transport purposes, pedestrians will choose the route of shortest length or least resistance to reach a pedestrian attractor. On the other hand, directness may not be a consideration for recreation walking where the comfort and attractiveness of a recreation route would encourage its greater use by a wider range of the public.

The starting point in developing a pedestrian network is that of accessibility to the major pedestrian-generating activities.

WALKING DISTANCES

In planning pedestrian routes, it is necessary to be realistic about the distances people are prepared to walk to a particular pedestrian node. Additionally those who must rely on walking and public transport must be given a level of priority within the network design and implementation.

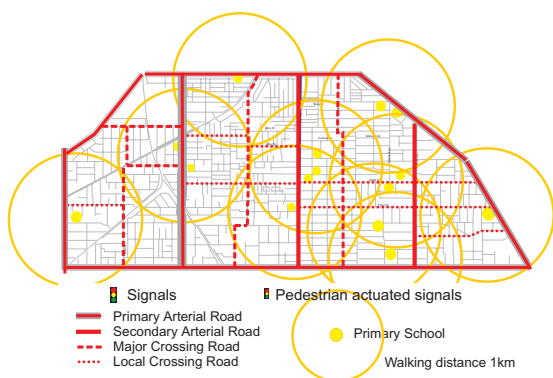


Figure B5- 4 Catchments primary schools

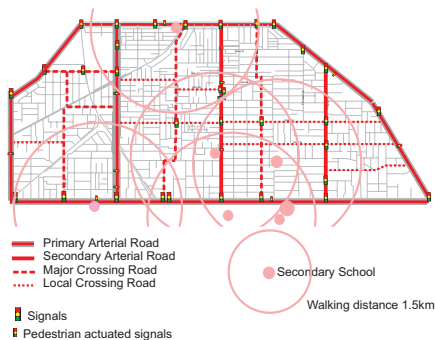


Figure B5-5 Catchments secondary schools

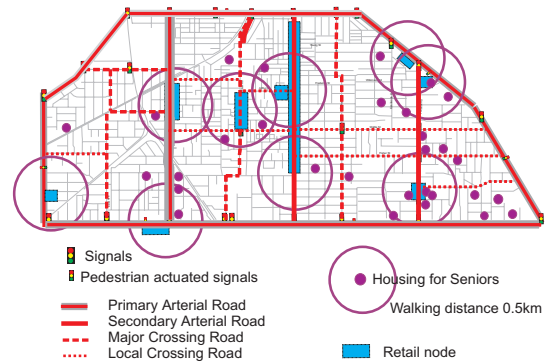


Figure B5-6 Location of senior's housing in relation to centres

In determining walking distances, consideration should be given to existing guidelines, prevailing physical conditions, the permeability of a network and regulatory matters. AUSTRROADS suggests that the practical limit for most non-recreational trips is 1.5km and 4km for recreational trips. This assumes 0.5km travelled in 5 minutes.

The walking catchments for routes proposed in Unley are listed in Table B5-3. The assumptions on walking pace are based on a W.A. study referenced in the AUSTRROADS Guidelines, and distances are based on a range of assumed distances grouped around the average 15minute accessibility distance

Crossing facilities for pedestrians are a crucial component of planning for pedestrians. Guidelines for appropriate crossing facilities are generally related to the class (or function) of road. Road classification inherently implies traffic volume and speed.

BUS ROUTES

All bus routes run north south through Unley and east west along the boundaries. There is no cross bus route east west through Unley itself. The inconvenience this causes was referred to in Chapter A3. There is a community bus which connects all the centres (shown on Figure B5-7), but the frequency of service is low. It is proposed that consideration be given to provide personal public

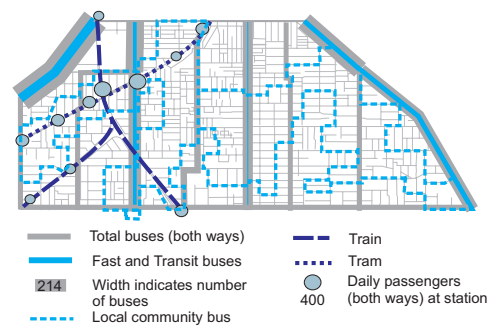


Figure B5-7 Public transport networks

Table B5-3 Proposed Walking Route Planning Distances to Attractors

Pedestrian Attractor	Accessibility Time	NORMAL		MOBILITY IMPAIRED	
		Walking Pace	Average distance (straight line)	Walking Pace	Average distance (straight line)
Primary School	15min	1.13m/s	1km		
Secondary School	20min	1.41m/s	1.6km		
Local Shopping	15min	1.13m/s	1km	0.8m/s	500m
Local Sporting Facilities	20min	1.41m/s	1.6km		
Key Bus Stop	8min	1.13m/s	400m	0.8m/s	300m
Seniors Attractor	8min	1.0m/s	300m	0.8m/s	300m

transport (on call) services to complement the community bus service.

There is also scope for improvements to bus movements along minor bus routes on local roads, such as George/Duthy St., King William Rd, Leader St., and Leah/East Av. These are matters to be considered when precinct and local network plans are being prepared.

STRATEGIES

- 5-1 The local network should provide accessibility for movements within Unley (intracity trips) and for movement to and from Unley (intercity trips) without attracting through traffic.**
- 5-2 The local network should provide convenient and safe access for all transport modes.**
- 5-3 Links in the local network which carry vehicles (other than buses) should generally not penetrate residential precincts.**
- 5-4 Links in the local street network should be managed as local corridors where both the transport function and the adjoining environment are considered together.**
- 5-5 The local street network should be based on local transport performance as shown in Table B5-2.**
- 5-6 An action plan is to be developed with the aim of meeting the**

conditions progressively and giving priority to streets and intersections with the greatest need for speed reduction.

5-7 The existing cycle network strategy should be developed in relation to the provision for crossing and turning movements and the performance conditions for routes where sharing the carriageway (or footpath) is involved.

5-8 A pedestrian accessibility network needs to be developed.

COMMENT

Intercity and intracity accessibility depends on connections with Type I and IIA corridors and local links with land use activities.

Good connections with, and across, the regional and sub-regional corridors are essential and right hand turns where local network links connect require intersection treatment. The strategy identifies intersections where treatments are proposed (Figure B5-2). The form of treatment will depend on detailed study.

The local links are of two kinds: intercity links which attract significant local traffic (LR1) and intracity links which have lower volumes and lower speeds (LR2 and LR3). Intersection treatments are also needed and desired performance outcomes are indicated in the tables in Appendix A. Here, too, the form they take will depend on detail study.

All local corridors are local routes intended for local traffic. The categorisation is based on existing traffic volumes and should not be construed as a means of increasing it. The proposed categorisation

Table B5-4 Adaptation of the road hierarchy – Local network			
EXISTING ROAD HIERARCHY		PROPOSED ROAD/ENVIRONMENT CATEGORISATION	
<i>Major collector road</i>	Leah St/East Av King William Rd/Victoria Av George St/ Duthy St Leader St	<i>L1 (3000-8000 vpd; 40-60km/h) (See Note)</i>	Leah St/East Av Leader St Mitchell St Arthur St Park St Wattle St Fisher St
<i>Local Crossing Collector road</i>	Forest St Victoria St Mills St Albert St Mitchell St Arthur St Park St Wattle St Fisher St Ferguson Av	<i>L2 (2000-3000 vpd; 40 km/h)</i>	Frederick St Cambridge Grove St Victoria St Mills St Ferguson Av
		<i>L3 (local connecting links with relatively low traffic volumes, but which are precinct boundaries or require special attention)</i>	Forest St Albert St Young St Mary St Oxford Terrace Edmund Av Kenilworth Rd Scott St Campbell Rd

NOTE: the references to km/h and vpd are ranges with the actual target volumes and speeds to be determined for each local corridor.

hierarchy which has no limit on traffic volumes and a uniform speed limit of 60km/h. The strategy has three subcategories, with L1 ranging from 3000-8000vpd and speeds ranging from 40-60km/h; and L2 with 2000-3000vpd and a maximum speed of 40km/h.

Mitchell St, Park St, Wattle St, Fisher St and Arthur St all carry more traffic at present than the limits for L2 and it is not possible to reduce it without inconveniencing local residents or redirecting some of this traffic to other streets nearby. They are de-facto L1 routes, but this categorisation does not imply that they are candidates for increased traffic volumes and higher speeds.

For example, in Mitchell St, it is not proposed that speed reducing devices or measures would not be an

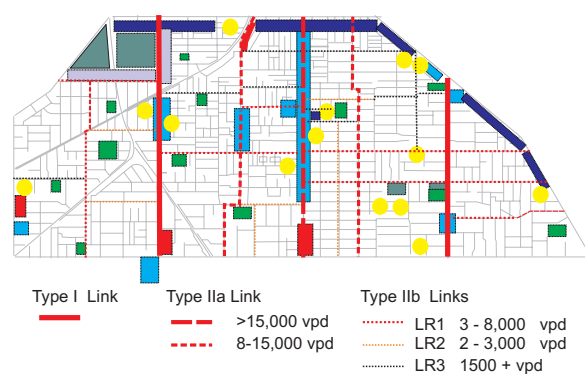


Figure B5-8 Local network and land use

intrinsic element of any corridor management plan developed and speed limits should be changed. In Arthur St, the target speed should not exceed 40km/h. In Fisher St and Wattle St., the existing speed limit is 60km/h but this is exceeded and the strategy suggests that design measures be introduced to ensure compliance.

It is useful to relate the local land use pattern to the local network. This is illustrated in Figure B5-8 and

shows that the proposed local network is well integrated with the land use activities.

The main focus of any future activity should be on the development of a pedestrian network based on the accessibility principles set out in the explanation. Additional pedestrian crossings may be needed. They will require careful study to ensure they are safe and do not unduly delay bus movements.

Strategy 6

An integrated strategy

EXPLANATION

INTRODUCTION

Transport management plays a crucial role in Unley. As an inner urban area, it is exposed to all the pressures of regional and sub-regional traffic and its impact on the local environment. The purpose of the strategy is to find a balance between the need for movement and the need for environmental quality. This can only be done by considering all aspects of land use, transport and the environment together, and by ensuring that regional needs are balanced against local needs.

The strategy is also a critical part of the urban regeneration policy for Unley. Urban regeneration is inevitable and the important factor is where it occurs and how it is done. The City of Villages is one, but a major, element of the urban regeneration policy and cannot be implemented without considering the relationship with the transport routes through Unley. The strategy addresses this relationship and proposes certain actions which should over time lead to an acceptable balance.

Urban regeneration transcends the City of Villages concept. Unley has exceptional accessibility and it would be desirable to encourage urban regeneration in locations served by public transport and in a form where the quality of the local environment is not impaired.

All the strategies which address these issues are interlinked. It follows that the strategy should be seen as a consolidated package and that any subsequent decisions should be based on an understanding of the relationship between the elements of the strategy. This is the purpose of Strategy 6.

In this Chapter the preceding strategies are summarized and put into an overall context.

Regional and local relationships

There are two critical interactions:

- Regional transport routes and their relationship with local accessibility and the local environment; and
- Locations for urban regeneration.

TRANSPORT FUNCTION

The regional and sub-regional routes are clearly defined in the strategy. The function of some routes

may change over time. Specifically, the Unley Transport Management strategy envisages the progressive adaptation of Goodwood Road and Unley Road from vehicle to people-movement corridors. The change in Goodwood Road is seen as a long term objective whilst the adaptation of Unley Road may be achievable in the intermediate term.

The strategy also highlights the fact that the capacity of the regional and sub-regional corridors through Unley should recognise the intercity and intracity movement needs of the Unley community. It is impossible to develop a wholly independent local network, and significant improvements in intersection treatment along the regional and sub-regional corridors are necessary to facilitate these movements. Regional and sub-regional considerations are important, but the need for local accessibility cannot be set aside. These issues are of particular relevance in the case of Unley Rd and, to a lesser extent, in regard to Goodwood Rd.

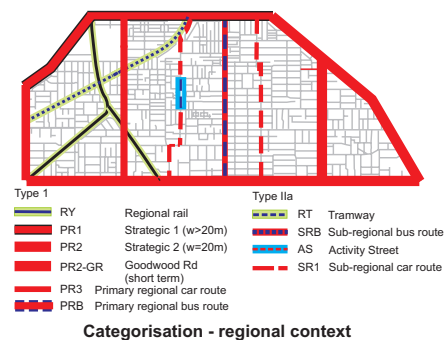


Figure B6-1 Corridor categories (regional and sub-regional)

TRANSPORT SPACE

The same issues arise in relation to the allocation of the transport space. Regional pressures will call for the extension of clearways and clearway hours in order to extract the maximum use of the limited transport space. This may need to be accepted in the case of regional routes, but there are local consequences. For example, there will be a need to provide alternative parking space and access for the businesses affected. Local authorities should be provided with funds to mitigate such impact. The strategy proposes that Council (perhaps in association with other councils) call on State authorities to prepare impact statements and provide funds for mitigation.

For sub-regional routes the situation is different. Many of these routes (and Unley Road and King William Road are cases in point) serve as overflow links during the peak hour, but as local activity centres during the day. They also have potential for urban regeneration. The strategy proposes that the extension of clearway hours along these corridors be opposed.

There are residual conflicts between functions along some corridors. This applies, in particular, to cycleways which are incorporated within the carriageway and exposes cyclists to fast moving traffic and creates potentially hazardous conditions at intersections (eg right hand turns). This conflict has not been resolved in the strategy (as it is a metropolitan-wide problem) and should be pursued subsequently.

TRAFFIC MANAGEMENT

There are other conflicts, such as that of jay running and walking. Some of these conflicts stem from the fact that pedestrian-generating activities have been allowed to be developed and extended along busy routes without sufficient provisions for crossing. Bus stops without proper pedestrian crossings are also a cause of accidents.

The strategy identifies problem locations and proposes traffic management action in some cases (Goodwood Rd., Unley Rd. and Glen Osmond Rd - Arkaba), and land use actions in other situations.

Dynamic traffic management is proposed for Unley Rd (Unley centre). The Hyde Park centre along King William Rd is a special case and traffic management is proposed to give priority to pedestrians.

LAND USE AND ACCESS

Land use strategy is a fundamental element in the strategy and, in relation to the regional and sub-regional corridors, centres around friction and impact management. In essence, the strategy is to ensure that land use activities along transport corridors are compatible with, and support, the transport function.

For those regional corridors, which are not people movement routes, the strategy is to discourage further people-generating activity and reduce direct vehicle access. The Development Plan already reflects this intention but it is not yet fully consistent with it. It is proposed that the Development Plan be further examined and adapted where necessary. This applies in particular to Glen Osmond Rd, Goodwood Rd and Cross Rd. The Development plan provision along Greenhill Rd needs an amendment to enable the strategy for a boulevard to be implemented.

For sub-regional corridors, land use management is very different and depends on the particular outcome for the corridor or sections of it. This is clearly illustrated in the case of King William Rd where there is a different package of categorisation and performance outcomes than for the northern section and for Victoria Av.

BUILT FORM AND DEVELOPMENT CONTROL

The strategy does not address the desired built form for each of the corridors in detail. There are several corridors where urban regeneration could be encouraged and the performance outcomes identify some of the critical factors. However, the strategy envisages that detailed management plans be prepared for corridors with regeneration potential. The corridor management plans should address matters such as setback, building height, land use mix, access, on-site parking, landscaping, signs, illumination, heritage preservation, pavement and street furniture. Priority areas are Unley Road, King William Rd, Glen Osmond Rd, Greenhill Rd and Goodwood Rd.

PARKING AND BUSINESS ENVIRONMENT

In regional corridors, the strategy aims to reduce the risk of increased traffic and parking restrictions by creating a business environment which does not depend on on-street parking and direct access from regional corridors. The desired outcome is to increase off-street parking and rely on side or rear streets for property access. In sub-regional corridors, the strategy aims to create a good pedestrian environment where people want to come and convenient access to off-street and on-street parking areas.

However, the strategy suggests to limit the location of pedestrian-oriented activities to those sections where the impact of pedestrian traffic is compatible with the transport function and where adequate pedestrian crossing facilities are provided.

This strategy does not preclude the possibility of encouraging pedestrian activities at specific nodes and changing the transport function at different times of the day. Indeed, this possibility is envisaged for the Unley Centre zone along Unley Road.

AREAS WITH URBAN REGENERATION POTENTIAL

There are several locations with opportunities for urban regeneration. These occur near railway stations and tramway stops, along Go Zones (Unley Road and Glen Osmond Road, and along Goodwood Road in the longer term) and along Greenhill Road (Figure B6-2).

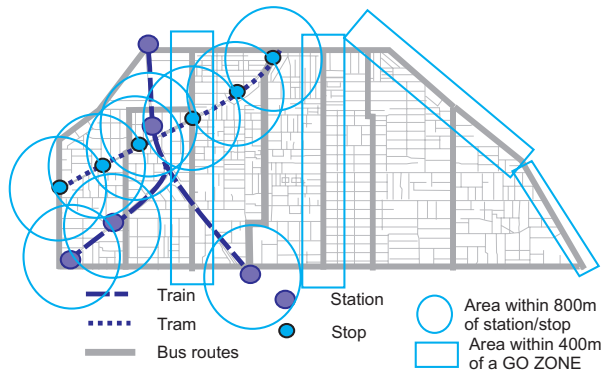


Figure B6-2 Areas with high regional accessibility

Local networks and accessibility

Intercity and intracity accessibility depend on:

- connections with Type I and IIA corridors
- local links with and between land use activities, such as shops, schools, facilities and services.

Good connections with, and across, the regional and sub-regional corridors are essential and right hand turns where local network links connect require intersection treatment. The strategy identifies intersections where treatments are proposed (Figure B6-3). The form of treatment will depend on detailed study.

The local links are of two kinds: intercity links which attract significant local traffic (LR1) and intracity links which have lower volumes and lower speeds (LR2 and LR3). Intersection treatments for some local links are also needed and desired performance outcomes are indicated, but the form they take should be determined after detail study and consultation.

The relationship between land use activities and the local network is shown in Figure B5-8 and takes account of areas with urban regeneration potential.

There is a strategic network for cyclist accessibility, but it may be useful to undertake some further

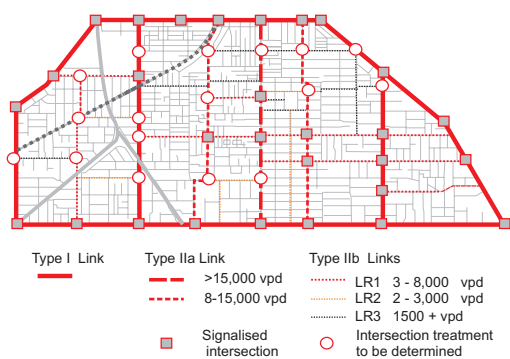


Figure B6-3 Local street/road network

studies to determine intersection treatment and the relationship between cycle routes and vehicle traffic.

One of the aspects which require further data and study is that of pedestrian accessibility. It has not been possible to include specific strategies, but general principles are included.

Quality of the local environment

The quality of the local environment is of great importance, because it is this, more than anything else, which determines the livability and uniqueness of the City of Unley. This aim is already reflected in the performance criteria and design techniques set out in the Development Plan, in the attention to preserving buildings and areas with heritage, and in Council’s commitment to traffic calming.

PRECINCTS

The quality of the local environment depends on the creation of precincts where amenity is paramount and traffic is subservient. More and smaller precincts are proposed to be used as the basis for traffic calming measures. The desired speed behaviour should be the result of street design, speed reducing measures and traffic management.

The definition of precincts is influenced by the local network and the converse also applies. Precinct boundaries are formed by network links so that through traffic does not enter precincts.



Figure B6-4 Residential precincts

City of villages concept

It is in this overall context that the City of Villages Concept can be revisited. The integrated planning strategy for the City of Village concept is predicated on the idea of development and enhancement of the centres as precincts. In the context of this strategy, precincts are defined as areas where vehicle traffic is subservient to the needs for a safe and attractive environment.

The strategy varies with the particular centre, but in all cases, the relationship with the transport

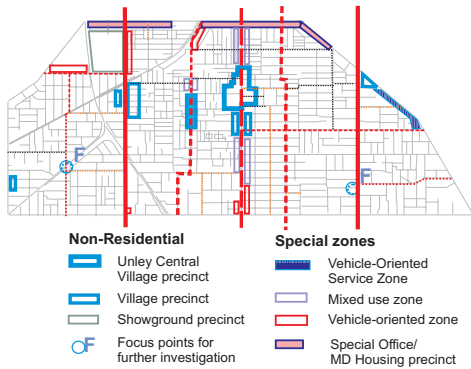


Figure 6-5 Adaptation of the Villages concept

corridors and adjoining residential precincts and the accessibility provided by the local networks must be considered. For example, the strategy for the Unley centre, proposes measures which give priority to pedestrian during off-peak periods. In the case of the Goodwood centre, the strategy aims to consolidate and improve the centre primarily on the eastern side. In the Hyde Park centre, the strategy proposes the eventual conversion to a Sharing the Main Street plan.

Parking, improved and safer pedestrian and cyclist access are on the agenda for most centres, but detailed plans are needed to achieve such outcomes.

STRATEGY

6-1 The strategy takes account of the relationship between transport, land use and the environment and recognises the need for movement and urban regeneration, as well as the preservation and enhancement of the Unley environment.

6-2 The proposals for corridors, precincts and local networks are integrated and changes in one element are likely to affect the other elements.

6-3 The strategy is not a blue print. It charts future directions and desired outcomes, but its implementation depends on the actions that follow.

6-4 It provides a context and a basis for corporate, integrated decision-making.

COMMENT

There are some important points in interpreting this strategy.

- 1 The strategy is a package. The parts interlock and it would be counterproductive if decisions were made on an ad-hoc basis. If there are aspects which require revision in the light of public comment or because of new developments which were not foreseen when the strategy was prepared, it is important to review the package as a whole.
- 2 A strategy charts directions. It is not a development plan or a master plan. There may be expectations of rapid implementation, but much work is needed in detail and it will take time to implement all elements of the strategy.
- 3 The strategy, when it has been adopted by Council, should become part of its corporate plan so that staff with different responsibilities all work towards common outcomes.
- 4 It is important to set targets in implementation and review progress on an annual basis and as part of the review of the corporate plan.

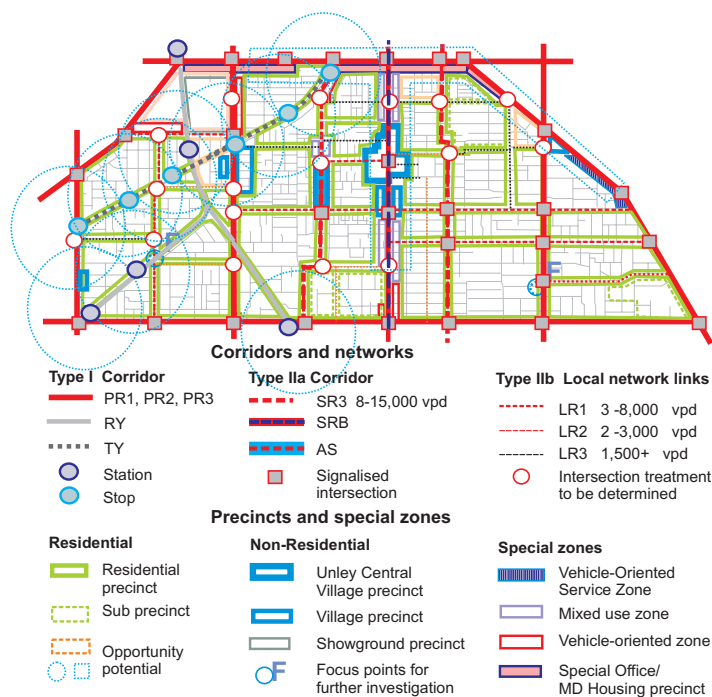


Figure B6-6 Integrated strategy

Appendix A

Desired outcomes and performance criteria for corridors

Table 1 Performance conditions for Type I Corridors (transport)

Category		TYPE I Regional				
Generic description		Primary Vehicle Route			Primary Public Transport	
Sub-category		PR1	PR2	PR2-GR	PRB	RY
Reservation width		> 20m	20m	20m	20m	na
PERFORMANCE CRITERIA		DESIRED OUTCOMES				
		GREENHILL ANZAC HW	FULLARTON GLEN OSM CROSS SOUTH	GOODWOOD Short term	[GOOD WOOD] Longer term	RAIL WAY
Transport function	General function	Strategic, regional, general transport	Strategic, regional, sub-regional	Regional, sub-regional, intercity	Regional people moving priority	Railway
	Car route	Primary	Primary	Primary	HOV	na
	Freight route	Primary	Primary	Secondary	No	na
	Public transport	X, F and T buses, some stopping	X, F and T buses, some stopping	Mostly X, F and T buses	All bus services	rail
	Cycling	Only if separate path on or off-road	Only if separate path on or off-road	Optional	Doubtful	Optional sub-regional
	Pedestrians	Basic facilities only	Basic facilities only	Basic facilities only	Yes	Only at stations
Transport space	Carriageway	2+2 or 3+3 lanes, median	2+2 or 3+3 lanes, median	2+2 or 1+2 median	2+2 or 1+2 median	na
	Lane width	≥3.5m kerbside; 3.0 other	≥3.5m kerbside; 3.0 other	≥3.5m kerbside; 3.0 other	≥3.5m kerbside; 3.0 other	na
	Clear lane	2 travel lanes	2 travel lanes during peak	2 travel lanes during peak	1 travel lane	na
	Median	Wide	Variable	Depending on configuration	Variable	na
	Cycleways	Separate paths	Separate paths	Optional	Doubtful	Optional
Transport performance	Capacity	> 40,000vpd	15000 - 40000vpd	15000 - 40000vpd	> 20,000 ppd	na
	Target speed	60 km/h	60 km/h	60km/h*	Variable	na
	Signal coordination	Yes	Yes	Yes	Bus priority	na
	Lanes for HOV peak	Optional	Optional	Optional	Yes	na
	Bus priority signals	Optional	Optional	Optional	Yes	na
Friction management	On-street parking	Off-street parking	Off-street parking	Off-peak if at all	Off-peak if at all	na
	On-street delivery	Off-peak	Off-peak	Off-peak	Off-peak	na
	Intersection spacing	< 1/km	< 1/km	< 1/km	Optional	na
	Intersection type	Signal or grade separation	Signals	Signals	Signals	No level crossing
	Local st. junctions	< 5/km	< 5/km	< 6/km	< 7/km	na

Uncontrolled intersections	T-junction, left hand turns	T-junction, left hand turns	T-junction, left hand turns	T-junction, left hand turns	No
Right hand turns	At controlled intersections with bays	At controlled intersections with bays	Where gaps in traffic stream	Where gaps in traffic stream	na
Bus stops	Off-lane and only where pedestrian refuge	Off-lane and only where pedestrian refuge	Off-lane and only where pedestrian refuge	Off-lane and only where pedestrian refuge	na
Pedestrians/cyclists crossing	Signal control or refuge	Signal control or refuge	Signal control or refuge	Signal control or refuge	Signal control/under or overpass
Access driveways/laneways	Forward direction only	Forward direction only	Forward direction only	Forward direction only	na
Frontage activity	See under Land Use Function and Performance				na

* Target speed may vary depending on the outcome of an Integrated Corridor Management Plan.

Table 2 Performance conditions for Type I Corridors (Land use)

Category		TYPE I (Regional)				
Generic description		Primary Vehicle Route			Primary Public Transport	
Sub-category		PR1	PR2	PR2-GR	PRB	RY
Reservation width		> 20m	20m	20m	20m	na
PERFORMANCE CRITERIA		DESIRED OUTCOMES				
		GREENHILL ANZAC HW	FULLARTON GLEN OSM CROSS SOUTH	GOODWOOD Short term	[GOODWOOD] Long term	RAIL WAY
Land use function	See Unley Development Plan and indicative corridor strategy	Performance outcomes related to: <ul style="list-style-type: none"> • Access control • Noise protection • Pedestrian-generation (see below) • Off street parking • Design control (see below) 	Performance outcomes related to: <ul style="list-style-type: none"> • Access control • Noise protection • Pedestrian-generation (see below) • Off street parking • Design control (see below) 	Performance outcomes related to: <ul style="list-style-type: none"> • Access control • Noise protection • Pedestrian-generation (see below) • Off street parking • Design control (see below) 	Urban regeneration Medium density housing preferred, including above active retailing and personal services at ground level in activity centres	Transit-oriented development near stations
Land use performance	Vehicle-generating activities Pedestrian-generating activities Mixed veh/ped activities	Yes, subject to access controls No, except at nodes and where signal control No pedestrian-generating activities along frontage	Yes, subject to access controls No, except at nodes and where signal control No pedestrian-generating activities along frontage	Yes, subject to access controls No, except at nodes and where signal control No pedestrian-generating activities along frontage except in locations identified in Corridor Management Plan	No Yes Yes but pedestrian active frontage	na Yes, near stations Optional
Impact management	Building set-back Frontage width Access Parking	8m for new development except for areas set out in Table Un/2* 40+m for new development Rear/side access for new development Off-street	8m for new development except for areas set out in Table Un/2* 30+m for new development Rear/side access for new development Off-street	8m for new development except for areas set out in Table Un/2* 20+m for new development Rear/side access for new development Off-street	Depending on urban design scheme No minimum Rear/side access for new development At rear or side, public/ private	na na na Yes near stations

Associated management	Pedestrian crossability	Near bus stops, schools, health and other ped. generating activities	Near bus stops, schools, health and other ped. generating activities	Near bus stops, schools, health and other ped. generating activities	Near bus stops, schools, health and other ped. generating activities	Essential
	Acoustic protection	See Dev. Plan	See Dev. Plan	See Dev. Plan	See Dev. Plan	Yes
	Advertisement control	Subject to Code and urban design outcomes	Subject to Code and urban design outcomes	Subject to Code and urban design outcomes	Subject to Code and urban design outcomes	Yes
	Building height	See Dev Plan	See Dev Plan	See Dev Plan	Revise Dev Plan	na
	Streetscape design	Corridor management Plan	Corridor management Plan	Corridor management Plan	Corridor management Plan	na

Note * See Table Un/2 (Building setbacks) in Unley Development Plan 2002

Comment

Although the general principles used in the Tables are addressed in the Report, some of the performance criteria used require an explanation.

Vehicle-generating activities

Typical activities include service stations, commercial and industrial establishments, wholesaling, retailing of white goods and bulk goods, building supplies, show rooms.

Pedestrian-generating uses

Typical activities include, schools, personal service establishments and agencies, offices, comparison shopping, community centres, libraries.

Mixed vehicle/pedestrian generating activities

Take-away food outlets, supermarkets and other convenience shopping type outlets. Some of these establishments can be located with a pedestrian frontage to an activity street or pedestrian route and vehicle frontage to a parking area or street at the rear. Off-street parking in front where there is a walkway (as has occurred in some sections along Unley Rd) should no longer be approved.

Building setback

Building setbacks are required for all activities. On Type I and Type II routes this is necessary to protect properties from traffic noise and air pollution, to provide on-site access to and from parking areas and off-street loading and unloading opportunities. It is also required to achieve an appropriate relationship between adjoining buildings and with the road or street. The actual amount of setback required can vary. For example, a setback

along active retail frontage may not be necessary provided the footpath width is adequate (4m+). There are some sections along King William Rd (in the Hyde Park centre) and along Goodwood Rd (in the Goodwood centre) where this is not the case. These deficiencies and the urban design requirements for setbacks should be addressed in the corridor management plan. Setbacks in residential corridor streets (L1-3) should allow for a vehicle to be parked on site outside the garage (5.5m minimum between garage and property boundary).

Frontage width

The indicative strategies in relation to frontage width are based on the need to reduce the number of frontage access points on busy transport routes to a minimum as they cause friction, cross the pedestrian walkways with often very restricted visibility and can create a safety problem. Wider frontage also assists in the provision of noise protection measures (eg walls without gaps).

Access and access driveways

Access driveways cause friction to transport performance and increase the risk of accidents. Rear and side access are much safer and desirable outcomes for new development along Type I and Type IIa corridors. As pointed out under frontage width above, fewer access drives can also increase the effectiveness of noise protection measures. Where rear or side access cannot be achieved, conditions should be imposed to ensure that entry and exit to any site is always in a forward direction with adequate visibility especially for exiting from driveways and laneways.

Table 3 Performance conditions for Type II Corridors (transport)

Category		TYPE II ^A Sub-regional, Intercity (Intracity)			
Generic description		Secondary Vehicle Route	Mixed		Public transport
Sub-category		SR3	SR2/SRB	AS	TY
Reservation width		20-m	20 + m	17 + m	na
PERFORMANCE CRITERIA		DESIRED OUTCOMES			
		KING WILLIAM DUTHY/GEORGE*	UNLEY RD	HYDE PARK	TRAM
Transport function	Type	Sub-Regional, Intercity, intracity -	Sub-Regional people movement, intercity, intracity	Activity Street Intercity, Intracity	Tramway
	Car route	Secondary	Secondary at peak period only	General	na
	Freight	May be secondary	Incidental	No	na
	Public transport	Local buses	Bus priority, Go Zone	All bus services	Tram
	Cycling	Optional on or off-road	No	Yes	No
	Pedestrians	Yes	Yes	Yes	Only at stops
Transport space	Carriageway	1+1, or 1+2	1+2 (or 2+2 in peak periods)	1+1	na
	Lanes for HOV peak	No	Yes	No	na
	Lane width	3.5 kerbside; 3.0 on other	3.5m	3.0m	na
	Median	At ped. crossings and nodes	At ped. crossings and nodes	At ped. crossings and nodes	na
	Cycleways	Optional	No	Shared	na
Transport performance	Capacity	< 15,000vpd	> 20,000 ppd	< 15,000vpd	
	Target speed	60km/h	60 - km/h and variable	25-40km/h and variable	> 60 km/h but less in mixed traffic
	Signal coordination	Optional	Yes during peaks	No	na
	Bus priority signals	Optional	Essential	Optional	na
Friction management	On-street parking	Any time	Off-peak only if at all	Yes	na
	Parking design	Parallel only	Parallel only	Parallel or angle forward	na
	On-street delivery	Any time	Off-peak only	Off-peak only	na
	Intersection spacing	<4/km	<5/km	No limit	na
	Intersection type	Selective signal control (roundabout)	Signal control	Selective signal control or roundabout	na
	Local st. junctions	<7/km	<6/km	No limit	na

Uncontrolled intersections	T-junction and left turns	T-junction and left turns	T-junction and left turns	Stop
Right hand turns	With bays, if gaps in traffic stream	At controlled intersections with bays	With bays, if gaps in traffic stream	na
Bus stops	Optional pedestrian refuge	Signals or pedestrian refuge	Pedestrian crossing refuge or crossing	na
Pedestrian/cyclists crossing	Signal control or refuge	Signal control or refuge	Pedestrian crossing refuge or crossing	Signal control only
Access driveways/laneways	Forward direction only	Forward direction only	Forward direction only	na
Frontage activity	See next Table			na

NOTES

- 1 SR1 is not shown because it does not apply to Unley (>20m width) and inclusion would have reduced legibility of the Table.
- 2 George St requires an integrated corridor management study and plan in order to determine the specific application of the performance criteria

Table 4 Performance conditions for Type II Corridors (Land use)

Category		TYPE IIA Sub-regional, Intercity (Intracity)			
Generic description		Secondary vehicle route	Mixed		Public transport
Sub-category		SR3	SR2/SRB	AS	TY
Reservation width		20-m	20m	17 + m	na
PERFORMANCE CRITERIA		DESIRED OUTCOMES			
		KING WILLIAM DUTHY/GEORGE*	UNLEY RD	HYDE PARK (KING WILLIAM RD)	TRAM
Land use function	See Unley Development Plan and indicative corridor strategy	Performance outcomes related to: <ul style="list-style-type: none"> • Access control • Noise protection • Pedestrian- generation (see below) • Off street parking • Design control (see below) See AS for Hyde Park	Performance outcomes related to: <ul style="list-style-type: none"> • Access control • Off-street parking • Design Medium density housing (except where vehicle-oriented development) possibly above active retailing and personal services at ground level	People-generating activities in selective locations Medium density housing, possibly above active retailing and personal services at ground level	Transit oriented development near stops
Land use performance	Vehicle-generating activities	Yes, subject to access controls	No, except where identified in the corridor management plan.	No	na
	Pedestrian-generating activities	Confined to nodes	Yes	Yes	Yes, near stops
	Mixed veh/ped activities	Yes, but no pedestrian-generating activities along frontage	Yes but active pedestrian frontage	Yes but active pedestrian frontage	Depends on detailed design
Impact management	Building set-back*	Depending on management plan	Depending on management plan	Depending on management plan	na
	Frontage width*	10 + m	No minimum	No minimum	na
	Access*	Rear/side street access for new development	Alternative access for new development	Encourage alternative access for new development	na
	Parking	On-street off peak only	At rear or side, public/ private	on corridor management plan for centre	Near stops unless transit-oriented development
	Pedestrian crossability	Near bus stops, schools, health and other ped. generating activities	Near bus stops and pedestrian routes and ped.-generating activities	Near bus stops, schools, health and other ped. generating activities	Essential
	Acoustic protection	See Dev Plan	See Dev Plan	See Dev Plan	na

Associated management	Advertisement control	Subject to Code and urban design outcomes	Subject to Code and urban design outcomes	Subject to Code and urban design outcomes	na
	Building height	Subject to Code	Subject to Code	Subject to Code	na
	Streetscape design	Corridor management Plan	Corridor management Plan	Corridor management Plan	na

NOTES:

* See Comment after Table 3.

Table 5 Performance conditions for Type II Local Corridors

Category		TYPE Intercity and Intracity		
Sub-category		LR1	LR2	LR3
Reservation width		20m	Variable	Variable
PERFORMANCE CRITERIA		DESIRED OUTCOMES		
Transport function	Type	Intercity, Intracity	Intracity	Intracity
	Public transport	Local bus	Optional	Optional
	Cycling	Optional	Optional	Optional
	Pedestrians	Yes	Yes	Yes
Transport space	Carriageway	2	2	2
	Carriage width	6.0 - 7.5	5.5 - 6.5	5.0 - 6.0
	Median	no	no	no
	Cycleways	Depends on reservation width	Shared	Shared
Transport performance	Traffic volumes	< 8,000vpd	< 3000vpd	< 2000vpd
	Target speed	50-60 km/h	40 km/h	40 km/h or less
Friction management	On-street parking provision	Depends on reservation width	Depends on reservation width	Yes
	Parking management	Support speed management	Support speed management	Support speed management
	On-street delivery	Optional	Optional	Optional
	Intersection spacing	< 8/km	No limit	No limit
	Intersection type	Signal or roundabout	Roundabout with other network links	Priority signs
	Uncontrolled intersections	Stop	Stop	Stop
	Right hand turns	Bays and line marking	Line marking	Line marking for major turns only
	Bus stops	Optional	Optional	Optional
	Crossability	Wombat	Selectively, Emu	No requirement
	Access driveways	Optional	Optional	Optional
Land use function	Residential	Yes, but see impact management	Impact management conditions	No requirement
	Non residential	Yes, but additional conditions for vehicle traffic generators	Yes, but additional conditions for vehicle traffic generators	Yes, but additional conditions for vehicle traffic generators
Land use performance	Vehicle-generating activities	Optional, but special provision for access	Not in residential precincts	Not in residential precincts
	Pedestrian-generating activities	Optional, but see crossability	Optional, but see crossability	Optional, but see crossability
	Mixed veh/ped activities	See access and crossability	See access and crossability	See access and crossability
Impact management	Building set-back*	5m for new development	See Unley Development Plan	See Unley Development Plan
	Frontage width*	Depends on activity and need for access and egress in forward direction	No restriction	No restriction
	Access*	Forward direction	No restriction	No restriction

Associated management	Pedestrian crossability	Where pedestrian-generating activities, marked crossing with speed reduction measures	Where pedestrian-generating activities, marked crossing with speed reduction measures	Integrated with speed reducing measures
	Acoustic protection	Yes for new development	Not a requirement	Not a requirement
	Advertisement control	No adverts except in commercial streets	No adverts except in commercial streets	No adverts except in commercial streets
	Streetscape design	Yes	If required	If required

* see Comments after Table 2

Appendix B

Action Plan

Strategy 1 Reducing the transport pressure on and within Unley

Strategy	Action	Comment	
		SEE NOTE	
1-1	Influence regional travel demand	Arrange meeting with other inner urban councils to discuss a joint response to the Draft Metropolitan strategy	Internally
1-2	Shift towards moving people rather than car	As above plus Council submission to Minister	Internally
1-3	Urban regeneration based on accessibility	As above plus Council submission to Minister	Internally
1-4	Identify areas with urban regeneration potential	Undertake study to assess potential and possible actions to facilitate regeneration process	Desirable
1-5	Limit application of clearway conditions	Submission to Minister and raise with LGA	Internally
1-6	Impact statements for clearways	Submission to Minister and raise with LGA	Internally
1-7	Heavy vehicle routes	Submission to Minister on Glen Osmond Road	Internally
1-8	Increase local choice in transport mode and influence travel behaviour	See Strategy 5	Desirable
1-9	Review future of Millswood station	Submission to Minister	Internally
1-10	Goodwood transport hub	Submission to Minister	Highly desirable
1-11	Park and Ride elsewhere	Submission to Minister	Internally

NOTE

The relative importance is expressed in Essential, Highly desirable, Desirable (but this is subjective)

Strategy 2 Managing transport corridors and their associated land use environment

Strategy		Action	Comment
2-1	Categorisation of corridors	Adopt as the basis for integrated management	Internally
2-2	Desired outcome of corridors	Incorporate the performance criteria (set out in the Tables) into Council's traffic management and development control system (internal action)	Internally
2-3	Corridor identity	Commission the preparation of a concept theme for each of the regional and sub-regional corridors through Unley	Essential
2-4	Corridor management plans	Establish the content, approach, outcomes and process (including consultation) for the preparation of a corridor management plans	Essential
2-5	Goodwood Road	Commission the preparation of a corridor management plan, incorporating the strategies outlined for Goodwood Road. See also 3-4	Highly desirable
2-6	King William Road	Commission the preparation of a corridor management plan, incorporating the strategies outlined for King William Road	Desirable. Excludes Hyde Park centre
		Develop an improved cyclist crossing near tramway	Essential
2-7	Victoria Avenue	Commission the preparation of a corridor management plan	
	Unley Road	Commission the preparation of a corridor management plan, incorporating the strategies outlined for Unley Road and Option 2	Desirable
2-8	Fullarton Road	Commission the preparation of a corridor management plan, incorporating the strategies outlined for Fullarton Road	The lowest priority of the corridor management plans
2-9	Greenhill Road	Seek the support of Transport SA and Planning SA. Commission in the preparation of a corridor management plan, incorporating the strategies outlined and the proposals for urban regeneration along the southern frontage	Joint study, and important to catch new development before it is too late
		Undertake a study of the rear access arrangements and their impact on adjoining precincts and prepare an action plan regarding the missing link	Desirable if regeneration is to be encouraged
2-10	Glen Osmond Road	Consult with Burnside Council, Transport SA and Planning SA on integrated frontage management and improvements in pedestrian crossing facilities	Internally
2-11	Cross Road	Consult with Mitcham Council, Transport SA and Planning SA on median extension and safety issues	Internally
2-12	George St	Commission the preparation of a corridor management plan,	Desirable
	Duthy St	Commission the preparation of a corridor management plan,	Desirable

Strategy 3 Preserving and enhancing the concept of the City of Villages

Strategy		Action	Comment
3-1	Primary village Centre	Commission the preparation of an integrated development plan for the Unley Centre	Highly desirable
3-2	Goodwood Rd centre	Commission the preparation of an integrated development plan for the Goodwood centre and the potential urban regeneration areas to the west and north	Essential
3-3	Hyde Park Centre	Commission the preparation of concept options for the adaptation of the Hyde Park centre	Highly desirable. Note: this is not a plan yet, but it should lay the foundation
3-4	Unley Rd North	Incorporate the strategies in the Unley Road corridor management plan	Desirable
3-5	Unley Rd South	Incorporate the strategies in the Unley Road corridor management plan	Desirable
3-6	Glen Osmond Rd centres	Address the issues raised with State authorities and Burnside Council	Desirable
3-7	Greenhill Rd	Initiate discussions with Transport SA and Planning SA	Highly desirable

Strategy 4 Preserving and enhancing the quality of the local environment

Strategy		Action	Comment
4-1	Precincts where traffic is subservient	Adoption of the concept	Internally
4-2	Conditions for residential precincts	Adoption of the principles	Internally
4-3	The proposed precinct plan	Adoption in principle as the basis for further development Adoption of the criteria set out in 4-2.	Internally
4.4	Action plan	Adoption of the criteria set out in Strategy 4-3 as the basis for determining priorities. Establish priorities after considering the criteria set out in Strategy 4-3 Develop action plans for precincts and specific areas in consultation with the community	Highly desirable

Strategy 5 Improving local accessibility, safety and convenience, and increase choice in transport mode

Strategy		Action	Comment
5-1	Accessibility	Investigation of intersections of local network with the corridors to determine whether, what and when additional treatments are needed	Highly desirable
5-2	Convenient and safe access	Commission a study of accessibility, convenience and safety for different groups by different transport modes (including pedestrian data)	Highly desirable, with a priority focus on pedestrians
5-3	The proposed network	Adopt in a principle,	Internally
5.4	Local network performance	Refine performance conditions, taking account of transport functions and the way they are arranged in the transport space, transport performance, access to sites and the amenity of the adjoining road/street environment	Internally
5-5	Action plan	Develop priorities	Internally
		Develop action plans for implementation in consultation with the community	Internally
5-6	Cycle network strategy	Develop performance conditions for routes and crossing and turning opportunities	Internally
5-7	Pedestrian network	Develop a data base of pedestrian activities, develop accessibility criteria, study route and design criteria,s and develop a pedestrian network	The missing link in the present network. High priority.
		Identify priority routes and select one for immediate implementation.	Essential as a practical outcome of the strategy

Strategy 6 Integrating the above strategies into a single management strategy

Strategy		Action	Comment
6-1	The strategy requires an integrated management approach	Incorporate the strategy into council's corporate plan	Incorporate the strategy into council's corporate plan
6-2	Changes in any elements to be assessed in regard to the whole	Institute internal procedures for dealing with changes to the strategy	Institute internal procedures for dealing with changes to the strategy
6-3	The strategy is not a blue print	Review the strategy at least once every three years	Review the strategy at least once every three years
6.4	Use the strategy as the basis for integrated decision-making	Identify internal responsibilities for implementation and maintain a record of decisions and outcomes	Identify internal responsibilities for implementation and maintain a record of decisions and outcomes