Woodville Village Masterplan

FINAL REPORT

DECEMBER 2010
PREPARED FOR **THE CITY OF CHARLES STURT**
AND
THE LAND MANAGEMENT CORPORATION

Government of South Australia

lmc

City of Charles Sturt

Jensen PLANNING + DESIGN

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STUDY TEAM

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Ian Robertson Design

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EXECUTIVE SUMMARY

Woodville is a community set to undergo significant change and revitalisation over the next thirty years - an influx of about 2,000 - 3,000 residents in the adjacent St Clair Development, rail line electrification, a new Transit Oriented Development (TOD) around Woodville Station, major upgrades at the Queen Elizabeth Hospital, and new residential development on the Land Management Corporation (LMC) land next to the Woodville Railway Station.

The 30-Year Plan for Greater Adelaide identifies Woodville Village as one of 14 significant TODs in the Metropolitan area. Furthermore, the Adelaide - Outer Harbour and Grange rail lines are identified as "major corridors" for growth, while both Port and Torrens Roads are also identified as growth corridors. The Plan seeks quality, affordable and higher density mixed use / residential development in TODs and on growth corridors, aiming for a more sustainable city with a much greater reliance on public transport, with growth of the city less reliant on expansion of the metropolitan fringe.

The time is right for a new Vision and Masterplan for Woodville Village to provide a solid foundation on which to build upon over the coming period of growth and change. It is strongly evident that the Woodville community is proud and robust, and that it values cultural diversity, open space, active and passive recreation, transparency in decision making, and the history of local built form and culture. But its local heart - Woodville Road located between Torrens Road and Port Road, is an area visibly shabby and under-developed, and is one that bears little resemblance to the thriving main street that was once close to the heart of the Eagles Football Club and the General Motors Holden plant.

The Masterplan is a guiding document and has inherent flexibility to accommodate change over the years. The document details a series of plans for Woodville Village that build upon the agreed Vision, a summary of which is:

a community that is
thriving, diverse, proud, robust and active
and a place that is a
destination for the western suburbs

The Masterplan will guide future decisions regarding the use of land, the management of traffic and rail, the design and height of buildings, public art and events, streetscapes and landscaping. It will inform the City of Charles Sturt's and State Government's investment decisions, policy approaches and prioritisation of works.

This Masterplan recognises the key community expressions of the importance of valuing multicultural diversity, providing generous open space and greenery, protecting important heritage elements, management of flooding risk, creating a place for people not dominated by traffic, improving safety and amenity and ensuring that development, while likely to be at higher densities and with taller buildings than currently existing, is sympathetic and reflective of key aspects of the local character.

During the development of the Masterplan, community and stakeholder input has been actively sought and highly valued, and the way in which the Masterplan responds to feedback is documented in a related report "Woodville Village Masterplan: Community Engagement Outcomes". A robust and comprehensive community and stakeholder process involving a 6 day intensive day and night Design Charrette and two community open days contributed to the development of the Masterplan.

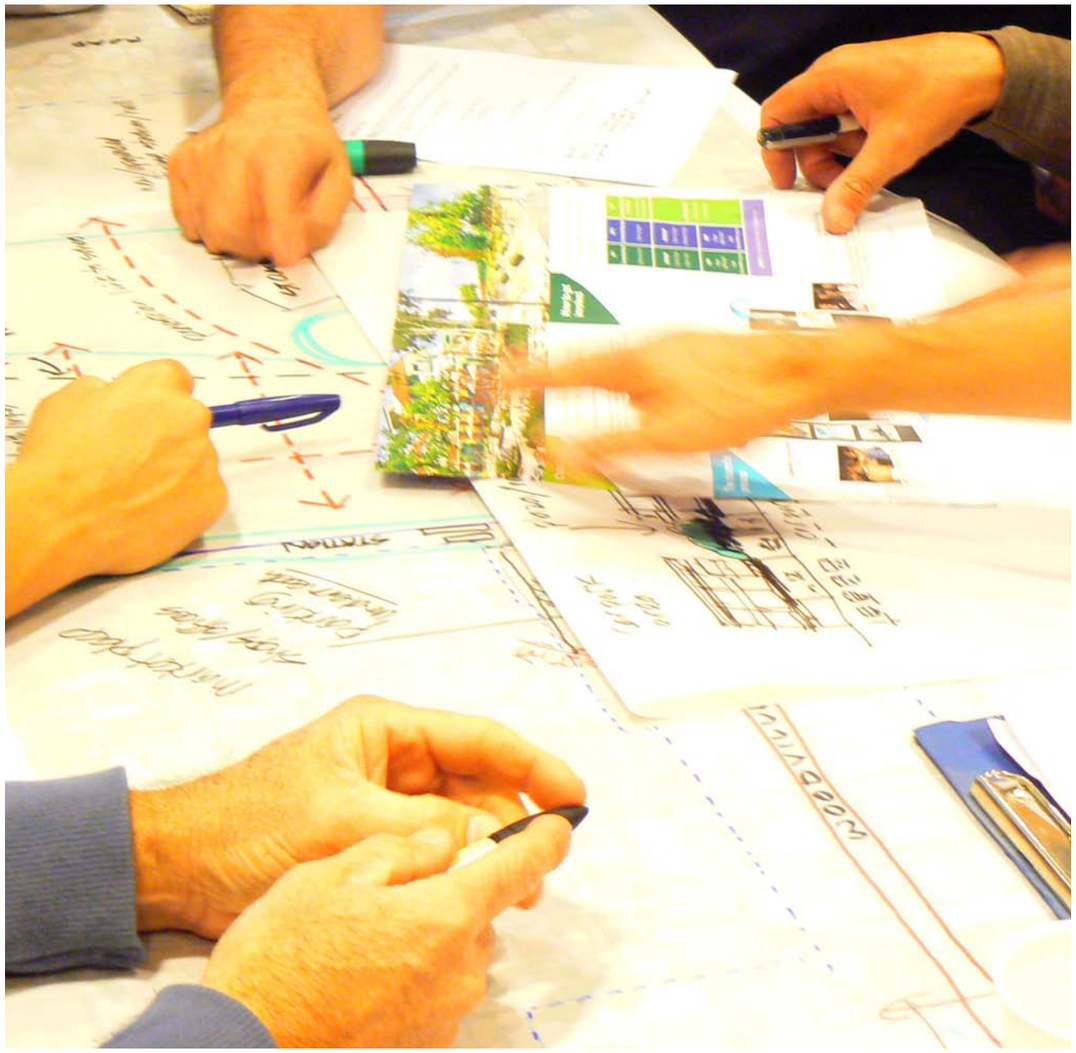
This document provides:

- A background to the Plan (the study process, the study area and strategic context, social, environmental, cultural and land use characteristics of the area)
- An outline of investigations undertaken in relation to traffic management, the local property market, infrastructure and public art and event opportunities
- Masterplans for each smaller Precinct area in Woodville Village (the Port Road/QEH Gateway, the Retail and Civic Heart, the Train Station, the LMC Land, the Recreation, Sport and Education Precinct and the Torrens Road Gateway)
- Frameworks for Traffic Management and Parking, Art and Culture, and Future Investment
- An Implementation Plan

The Plan's Vision includes:

- A Port Road/QEH Gateway providing a strong sense of arrival to Woodville Village - integrated public art with strong vertical elements, increased densities up to 4-6 storeys, mixed use with a focus on health services
- A vibrant and active Civic and Retail Heart - traffic calming with wider footpaths, a diverse retail, residential and commercial mix in 4 - 6 storey buildings lining Woodville Road, alfresco dining, strong linkages across a new public plaza to Woodville train station, new multi - deck car parking near the Railway Station, major streetscape improvements
- Woodville Rail Station - a key landmark within the centre of the Village and integral to the TOD, linking directly to adjacent community plazas
- New residential development on the LMC Land- attractive, high quality and sustainable residential precincts with a mixture of medium and higher density housing options in medium - rise buildings. Pedestrian friendly environments featuring internal green spaces for residents which have potential for growing food, protecting trees and high quality landscaping/playgrounds etc.
- Recreation, Sport and Education Precinct - providing an expanded range of sports and playground facilities and open spaces with strong pedestrian and cycle linkages to Woodville High School, Woodville Train Station and green areas
- A Public Art and Culture Framework - providing guidance for the staged implementation of public art and cultural improvements throughout the Village

Contents



Introduction

BACKGROUND

The City of Charles Sturt has identified the need for a structured revitalisation strategy to inform the future development of the Woodville Road Precinct. The area is changing and growing as a result of the proposed new St Clair development on the Cheltenham Racecourse, as well as other development associated with the QEH and the proposed rail electrification, and a clear strategic and visionary direction relating to the Precinct is required.

In 2008 Council began discussions with LMC and the Woodville Joint Venture Pty Ltd ('Woodville JV') to investigate the St Clair land swap. The land swap proposed the LMC acquiring a 4.7ha portion of the Sheridan site from the Woodville JV to be developed as a public reserve. LMC would then 'swap' the new reserve for a 4.7ha portion of the Council owned St Clair Reserve with the intention of developing the site for housing/mixed use development and open space. This would result in no net loss of open space, 'like for like' improved recreational facilities and a range of other community benefits.

Specifically, swapping the location of the public open space would achieve the following positive outcomes for the community:

- Create a continuous parkland comprising of 28 hectares of accessible public open space all the way from Woodville Road through to Cheltenham Parade
- Provide brand new and enhanced change rooms, facilities and playing fields for the local sporting clubs who use St Clair Reserve
- Keep Brocas Avenue closed (as a no through road) to maintain safety for Woodville High School students
- Develop a Transit Oriented Development (TOD) adjacent to the Woodville Railway station to provide diverse and sustainable housing options and be the catalyst for revitalising Woodville Road, improving services and facilities available to existing and future residents
- Construct a new road to serve as an attractive boulevard allowing easy access to the proposed St Clair development from Woodville Road

In December 2009 and following consultation, the land revocation, whereby Council formally revoked the 'community land' status of part of the open space at St Clair Reserve, took place. In August 2010 the land was formally transferred to the ownership of the LMC (herein referred to as the 'LMC land').

During 2008-2010 - the State Government prepared and finally endorsed the 30-Year Plan for Greater Adelaide. This Plan provides a "blueprint" for future development for Adelaide over the next 30 years, and has significant implications for the City of Charles Sturt in terms of the identification of growth areas and all other aspects of future urban development. It was in this Plan that Woodville Village was identified as one of 14 significant TODs, resulting in a clear direction for the future of the whole Precinct from Port Road through to Torrens Road, centring on Woodville Station.

Following the revocation of part of the St Clair Reserve community land status, Council and the LMC engaged a multidisciplinary consultant team led by Jensen Planning + Design to undertake a comprehensive Woodville Village Masterplan involving significant community and stakeholder engagement through a process known as a 'Charrette'.

The Masterplan is informed by the directions established through the land revocation and swap, by Council's Community Plan, by the State Government's commitment to electrify the Woodville to Outer Harbor Rail Line and construct a new Woodville Station and by the policy thrust contained in the 30-Year Plan for Greater Adelaide.

Specifically, the Woodville Village Masterplan has been required to:

- Retain Brocas Avenue as a no through road
- Incorporate a new road to provide access between Woodville Road and the new St Clair development
- Ensure no net loss of public open space arising from the "land swap"
- Provide a 'core area' of the Transit Oriented Development on both sides of the Woodville Railway station
- Provide for a new railway station that will accommodate future electrification of the rail line

The Woodville Village Masterplan has been prepared for the City of Charles Sturt and the Land Management Corporation to guide future development and prioritize work within the Woodville Village precinct.

PROJECT BRIEF

The Project Brief has been jointly developed by the Land Management Corporation, the Department of Transport, Energy and Infrastructure and the City of Charles Sturt.

The overall aim of the Woodville Village Masterplan is to ensure that the key objectives of the State Government's 30-Year Plan for Greater Adelaide (now incorporated into the Planning Strategy for South Australia) and key objectives in Council's Community Plan as they relate to the Study Area are met. That is, guidance is required to be provided for the development of the area to help create a vibrant, higher density mixed use precinct for the enjoyment of the surrounding community.

SPECIFIC OBJECTIVES OF THE PROJECT BRIEF INCLUDE THE FOLLOWING:

1. Establish an urban design framework for the Woodville Road precinct, including:

- Urban design principles
- Urban design framework and masterplan
- Public realm initiatives
- Key actions relevant to the precinct, specific areas within the precinct and key sites
- Options for managing traffic and parking including the proposed treatment at Port Road and Torrens Road entrances and options for the new road to link Woodville Road and Actil Avenue

2. Establish an investment framework for the study area, including:

- Demand for commercial uses
- Integration of commercial and residential development opportunities
- Identification of project partners

3. Outline Council's role in facilitating a range of development opportunities to promote the economic revitalisation of the Woodville Road precinct.

4. Provide a practical implementation strategy.

5. Prepare a Concept Plan for the LMC land adjacent Woodville Station. The Concept Plan should include:

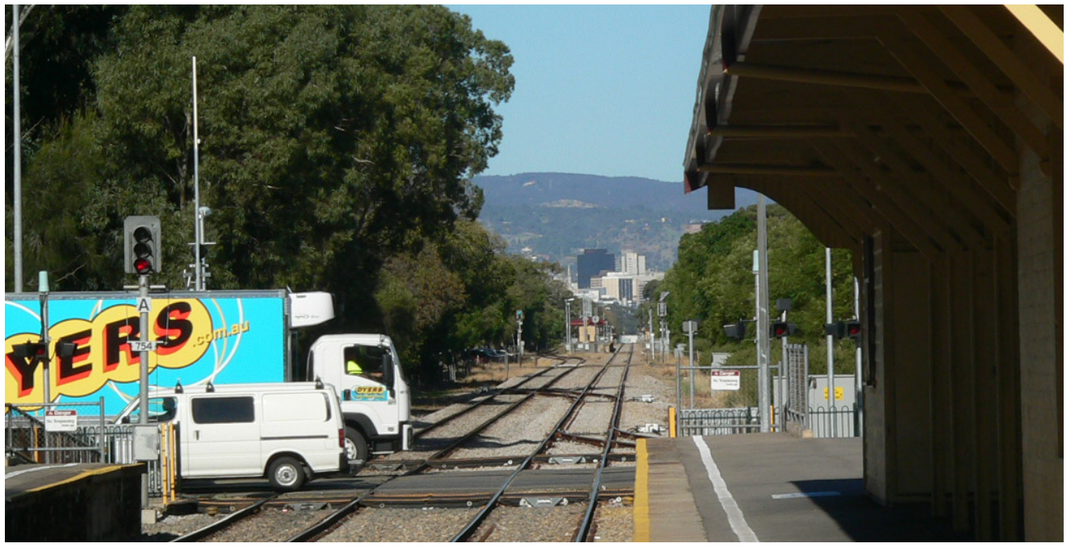
- A mix of open space, residential and commercial uses that complement rather than compete with the Woodville District Centre and are in line with the objectives of the 30-Year Plan for Greater Adelaide
- Integration with the adjacent uses, including:
  - Woodville Rail Station
  - The St Clair development
  - St Clair Reserve
  - A 'greenway' along the rail corridor
- Retention of healthy significant trees
- A preferred alignment of the future road linking Actil Avenue with Woodville Road

6. Prepare a Concept Plan for Woodville Station. The Concept Plan should include:

- The adjacent LMC land
- A 'greenway' along the rail corridor
- The adjacent Council owned car park
- The Circle Bus Line

STUDY AREA

The Study Area can generally be described as all of the land within the Woodville District Centre Zone adjacent to Woodville Road. A variety of land uses are contained within the Zone, including land near the QEH hospital land and nearby health and community related uses, commercial uses on Port Road, retail, commercial and civic uses along Woodville Road, the Woodville Rail Station, land owned by the LMC (the "land swap" land on St Clair Reserve), St Clair Recreation Reserve and Centre, the Brocas and adjoining Council-owned land and Woodville High School.



STUDY TEAM AND ACKNOWLEDGEMENTS

The Consultant Team assembled to undertake this project has been led by **Jensen Planning + Design,** and comprises the following team members:

- **Jensen Planning + Design** - Strategic planning, master planning, urban design, transportation planning, project management
- **Hames Sharley** - Architecture, master planning
- **Ian Robertson Design** - Master planning, urban design
- **Aurecon** - Transport planning, physical infrastructure assessment
- **Realty Solutions** - Commercial property advice, investment framework
- **Monom Design + Constructions** - Art and cultural framework
- **Sinclair Knight Merz / Grieve Gillet**t - Woodville Station design concept
- **Alexander Symonds** - Surveying

In addition, key consultants have been engaged independently to assist in the production of the Masterplan:

- **Natalie Fuller & Associates** - Community and stakeholder engagement
- **Village Well** - Development of vision, placemaking roadmap

Jensen Planning + Design also wishes to sincerely thank Stephen Smith and Barb Dickens from the Land Management Corporation and various members of staff of the City of Charles Sturt, especially Adam Mrotek, Anna Pullen, Michelle Mader and Henry Inat for their valuable input into the Study throughout the process, and their valuable contribution during the Design Charrette.

Study Process

PROJECT MANAGEMENT

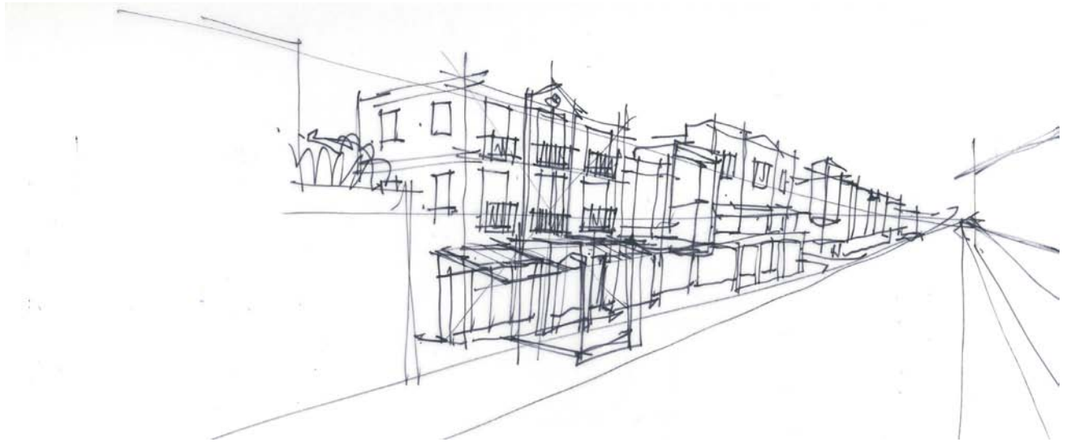
The Project has been jointly funded by the Land Management Corporation and the City of Charles Sturt.

A **Principal Stakeholder Group** was established comprising relevant State Government Agencies and the City of Charles Sturt, and included the following representatives:

- **Wayne Gibbings** - Land Management Corporation
- Department for Transport, Energy and Infrastructure
- **Greg Slattery** - Department of Planning and Local Government
- **Henry Inat** - City of Charles Sturt

Day to day management of the Study occurred through a **Project Team**, comprising representatives of the Land Management Corporation, Jensen Planning + Design and the City of Charles Sturt.

Progress at key stages was also reported to Council's City Development Committee, to the full Council, and to an internal Council staff coordinating group.



SUMMARY OF INVESTIGATIONS

The process of developing a Masterplan must first begin with detailed investigations relating to the physical, social, economic, cultural and environmental influences. Investigations have generally incorporated one to one meetings and workshops with key stakeholders and specialists, assessment of other previous studies and relevant literature, field work and site visits, scenario building and testing, modelling where appropriate, anecdotal stories that bring to life past experiences and history of the area, and peer review.

The key detailed additional investigations have included a:

- Transport assessment
- Market analysis
- Assessment of opportunities relating to art and culture
- Infrastructure assessment

Other previous studies that have informed the Woodville Village Masterplan have included an assessment of significant trees, Woodville Road Revitalisation preliminary investigations, History of Woodville, Retail Needs Analysis, Stormwater Management Plan, Woodville Road Cultural Framework, Woodville Railway Station Heritage Assessment and St Clair Open Space Management Plan.

A full list of references used can be found at the end of this report.

COMMUNITY AND STAKEHOLDER ENGAGEMENT

OVERVIEW OF THE PROCESS

STAGE 1 - CREATING THE VISION

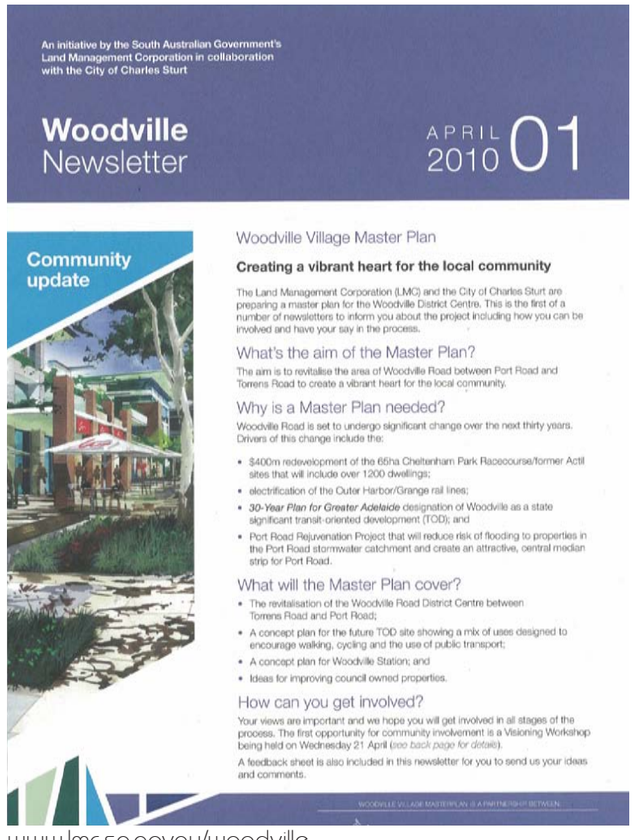
- Newsletter with feedback sheet
- Advertorial
- 'Walk the Beat'
- Meetings with specific interest groups
- Visioning Workshops

STAGE 2 - DEVELOPING OPTIONS

- Newsletter
- 6 day Urban Design Workshop (Charrette) with:
  - 2 public workshops
  - 2 stakeholder workshops
  - Open Day
  - Meetings with specific interest groups

STAGE 3 - PREPARING THE MASTERPLAN

- Newsletter
- Open Day
- Four-week comment period



An initiative by the South Australian Government's Land Management Corporation in collaboration with the City of Charles Sturt

Woodville Newsletter

APRIL 2010 01

Community update

Woodville Village Master Plan

Creating a vibrant heart for the local community

The Land Management Corporation (LMC) and the City of Charles Sturt are preparing a master plan for the Woodville District Centre. This is the first of a number of newsletters to inform you about the project including how you can be involved and have your say in the process.

What's the aim of the Master Plan?

The aim is to revitalise the area of Woodville Road between Port Road and Torrens Road to create a vibrant heart for the local community.

Why is a Master Plan needed?

Woodville Road is set to undergo significant change over the next thirty years. Drivers of this change include the:

- $400m redevelopment of the 66ha Cheltenham Park Racecourse/former Actil sites that will include over 1200 dwellings;
- electrification of the Outer Harbor/Grange rail lines;
- *30-Year Plan for Greater Adelaide* designation of Woodville as a state significant transit-oriented development (TOD); and
- Port Road Rejuvenation Project that will reduce risk of flooding to properties in the Port Road stormwater catchment and create an attractive, central median strip for Port Road.

What will the Master Plan cover?

- The revitalisation of the Woodville Road District Centre between Torrens Road and Port Road;
- A concept plan for the future TOD site showing a mix of uses designed to encourage walking, cycling and the use of public transport;
- A concept plan for Woodville Station; and
- Ideas for improving council owned properties.

How can you get involved?

Your views are important and we hope you will get involved in all stages of the process. The first opportunity for community involvement is a Visioning Workshop being held on Wednesday 21 April (*see back page for details*).

A feedback sheet is also included in this newsletter for you to send us your ideas and comments.

WOODVILLE VILLAGE MASTERPLAN IS A PARTNERSHIP BETWEEN

www.lmc.sa.gov.au/woodville

COMMUNITY AND STAKEHOLDER ENGAGEMENT

CREATING THE VISION

INITIAL COMMUNICATIONS

Extensive engagement with the wider community took place prior to developing the Masterplan to help develop an overall vision for Woodville Village. This work was led by Natalie Fuller and members of the Village Well team, in association with the Jensen Planning + Design team.

Information about the project was widely distributed to about 3,500 properties within approximately 2 kilometres of the Woodville Train Station. This information was also available on the LMC's web site as well as at the Council office.

Properties on or near Woodville Road were door knocked and owners / tenants approached for their views. Advertisements and articles were prepared for the local press, with the general aim of raising awareness and encouraging the participation of key community groups, traders, business operators and near-by residents in the subsequent planning phases.

WALK THE BEAT

Village Well conducted a "Walk the Beat" as part of a Place Audit. This involved speaking with people on the street and in their businesses to get a feel for the place, their aspirations and ideas. It also provided an opportunity to promote subsequent workshops and opportunities for community engagement.

INITIAL INPUT ON IDEAS AND ISSUES

The first newsletter distributed incorporated a feedback sheet inviting people to comment on their current experiences and perceptions of the precinct, their vision for the precinct and how it could be revitalised, and their vision for the LMC - owned land.

LIAISON WITH KEY STAKEHOLDER GROUPS

Meetings to discuss the scope of the project and the community engagement process were held prior to the Visioning Workshops with representatives of the following groups:

- Orion Tennis Club
- Woodville High School
- Woodville Historical Society
- Bicycle Institute of South Australia
- St Clair Reserve Ratepayers Association
- Western Adelaide Coastal Residents Association (WACRA)

Early discussions were also held with CASA Leisure who operates St Clair Recreation Centre.

A combined meeting was held with representatives of concerned community residents' groups (St Clair Reserve Ratepayers Association, WACRA, RINWAI and the Cheltenham Park Residents Association) and the CEOs of LMC and the City of Charles Sturt. The meeting provided an opportunity to discuss the intent and process for developing the Masterplan as well as events, including the St Clair Reserve land swap, that preceded the Masterplan process.

VISIONING WORKSHOPS

Three Visioning Workshops were conducted by Village Well with the following groups:

- Staff from relevant State Government agencies and the City of Charles Sturt
- City of Charles Sturt Councillors
- The general community

A similar workshop was conducted by Natalie Fuller + Associates with senior year Woodville High School students.

COMMUNITY AND STAKEHOLDER ENGAGEMENT

DESIGN CHARRETTE

A key component in the development of the draft Woodville Village Masterplan involved the wider community and stakeholders in a 6 day Design Charrette held on 17th - 22nd May at the City of Charles Sturt. It brought together a wide range of interested parties – including residents, property owners, traders, community and sporting groups – as well as State Government and Council staff. Various sessions were held throughout the week during the day and night and on the weekend and provided an opportunity for people to provide their ideas and feedback on design options for revitalising the area. During the week of the Charrette, draft ideas were generated, reviewed by community and stakeholders, and then further refined.

The preliminary Masterplan for Woodville Village was then presented at an Open Day held on Saturday 22 May 2010 at the City of Charles Sturt Civic Centre for review and feedback.

During the Design Charrette, the following ideas and options were explored:

QEH / PORT ROAD GATEWAY

Create an area of new activities with a focus on commercial development, housing development and health facilities, greater building heights along Port Road near the gateway, and improve the look and function of the gateway with public art, up lighting, pedestrian linkages and flooding management.

CIVIC AND RETAIL HEART

Establish 3-4 storey buildings with housing above shops and include restaurants/cafes, speciality shops, a mini supermarket, health services and civic services. Widen footpaths, promote day as well as night activity, more street tree planting and incorporate new car parking at the back of the Civic Centre and behind shops.

RAILWAY STATION

Different options were explored to achieve an attractive new station with improved pedestrian linkages to adjacent residential areas and a public plaza linking the station to the adjacent open space and retailing areas.

LMC LAND

Three options were considered with different amounts of open space and primary heights of buildings - 15%, 22% and 38% open space.

RECREATION, OPEN SPACE AND EDUCATION PRECINCT

Three options were considered for the Recreation Centre:

- Upgrade existing recreation centre (more financially realistic)
- Redevelopment of a new recreation centre on current site
- Redevelopment of a new recreation centre on school gym site

A proposal for a regional playground was also presented.

WOODVILLE ROAD TRAFFIC MANAGEMENT

Different options for traffic management were explored, including two cross section options for Woodville Road and options for the location of St Clair Avenue.

ART AND CULTURAL FRAMEWORK

An overall strategy was presented together with specific ideas for each 'precinct' and for Events and Walking Trails.

COMMUNITY AND STAKEHOLDER ENGAGEMENT

DRAFT MASTERPLAN

FURTHER INVESTIGATIONS AND STAKEHOLDER ENGAGEMENT

Following the Charrette and a review of feedback, further investigations were undertaken to prepare the draft Masterplan. This included ongoing discussions with a number of key agencies and stakeholders, including:

- DTEI
- Woodville High School
- Representatives of QEH and a range of other health agencies within the precinct
- Property owners and traders along Woodville Road
- Representatives of St Clair Reserve Ratepayers Association
- Representatives of Residents of Inner North West Adelaide Inc (RINWAI)

COMMUNITY OPEN DAY

An Open Day was held at the City of Charles Sturt Civic Centre on Saturday 7th August to present and seek feedback on the draft Masterplan. Approximately 170 people attended. The various components of the Masterplan - the Woodville Railway Station, the QEH/Port Road Gateway, the main Retailing and Commercial Heart, the LMC land and the Open Space and Recreation Precinct were displayed in large panels, and the project team staff were available to answer questions and listen to issues raised. A presentation summarising the draft Masterplan was presented by the Consultant Team Leader every hour during the Open Day.

COMMUNITY AND STAKEHOLDER ENGAGEMENT

COMMUNITY FEEDBACK SUMMARY

Formal response to the draft Masterplan was obtained via feedback sheets, received at both the Open Day and during the subsequent consultation period. Community members had the opportunity to complete feedback sheets and rate on a 5 - point scale the extent to which they opposed or supported specific elements of the draft Masterplan and to provide explanatory comments.

A total of 84 feedback sheets were received. Based on collation of the ratings provided by these 84 respondents, overall levels of opposition (combined 1 and 2 ratings) and support (combined 4 and 5 ratings) are summarized in relation to the overall vision for Woodville Village, as well as feedback on the individual precincts and topics.

The following summarises the feedback received on the overall vision for Woodville Village, as well as feedback on the individual precincts and topics.

OVERALL VISION AND DRAFT MASTERPLAN

Views were quite polarised regarding the extent to which those completing the Feedback Forms support the Vision Statement for Woodville Village, with 37% opposed and 44% in support. Similarly, equal numbers supported and opposed the overall draft Masterplan.

TRAFFIC MANAGEMENT

Mixed views were recorded, with overall less support (38% opposed and 27% in support).

QEH / PORT ROAD GATEWAY

Mixed views were recorded, with overall more support (25% opposed and 38% in support).

CIVIC AND RETAIL HEART

Mixed views were recorded, with 33% opposed and 31% in support.

LMC LAND

Mixed views were recorded, with overall less support (47% opposed and 26% in support).

RECREATION, OPEN SPACE AND EDUCATION PRECINCT

Mixed views were recorded, with overall more support (25% opposed and 45% in support).

TRAIN STATION DESIGN

Mixed views were recorded, with overall more support (26% opposed and 38% in support).

IDEAS FOR ARTS AND CULTURE ON WOODVILLE ROAD

Mixed views were recorded, with overall more support (23% opposed and 44% in support).

A more comprehensive description of the feedback received can be found in the accompanying report: Woodville Village Masterplan: Community Engagement Outcomes (prepared by Natalie Fuller and Associates).

COMMUNITY AND STAKEHOLDER ENGAGEMENT

SUMMARY OF HOW THE MASTERPLAN ADDRESSES THE FEEDBACK ON THE DRAFT PLAN

There were many issues that were raised in the feedback, but the two most consistently raised issues related to concern about traffic management on Woodville Road, and concern about the proposed heights of development adjacent to the train station.

Other more localised issues related to development adjacent to Yarinda Street associated with proposals for retail / mixed use / community plaza, the amount of retail proposed, the proposal for a community plaza, proposals for decked car parks, proposals for pedestrians and cyclists, the location of the station and local flooding.

TRAFFIC IMPACTS

There are two main concerns identified relating to traffic impacts:

- The increase in development in and nearby to the Study Area could result in increased traffic volumes and added congestion
- The proposal to reduce Woodville Road to one lane in each direction could lead to further congestion and could impair movement for emergency vehicles, and may lead to increased traffic using nearby local streets (as short cuts)

Traffic modelling based on all known new development in the area (ie, the St Clair development plus additional development within the Study Area) has been completed and indicates that traffic volumes on Woodville Road will remain roughly the same as they currently are. This is due to the fact that, over time, improvements in the regional road network will result in slightly reduced pressure on Woodville Road as a through link.

There is no doubt that there is significant new development envisaged within and nearby to Woodville Village, and that traffic and parking needs to be carefully managed. On the other hand, the community has clearly supported a Vision whereby Woodville Road is more 'pedestrian friendly', with wider footpaths and a facility for cycle lanes, with a reduced focus on providing easy access for through traffic.

As outlined in this Report, further more detailed traffic modelling is required by the Department for Transport, Energy and Infrastructure to determine what scope exists to reduce the number of lanes from two in each direction to one in each direction, and what traffic management improvements might be needed to bring this into effect. Whatever strategy is preferred it will be of paramount importance to ensure that the requirements for emergency vehicles are met, that traffic continues to be discouraged from using local streets as 'short cuts' and that congestion is kept at reasonable levels.

Notwithstanding this need for additional investigations, this Masterplan addresses some of the issues raised and provides a traffic assessment of the proposals that indicates that the overall directions are likely to be able to be supported. More specifically, a number of recommendations are made including reducing the length of time that the rail crossing boom gates are down to reduce queuing, better provision for parking, implementing streetscape improvements, reducing the speed limit to 50km/h for the whole length of the road and improvements to pedestrian and cyclist safety and amenity (refer to the Movement, Traffic Management and Parking section of this report).

DEVELOPMENT OF THE LMC LAND AND BUILDING HEIGHTS

While there was mixed support for the development of the LMC land, a common issue of concern was the proposed height of some of the buildings (generally those of 5 storeys or more which represent approximately 40% of the building sites on the land). Some of the reasons for concern given included impact of overshadowing on nearby existing residences on the western side of the railway line, a view that taller buildings are out of character and too high for the area , and that taller buildings attract 'undesirable' households and this might lead to the creation of a housing 'slum'.

The Design Team has reviewed the potential of the proposed buildings to overshadow residential properties on the western side of the railway line which are those properties closest to the building. This has been undertaken by modelling the potential for overshadowing at different times on June 21st which is the day of the year when the sun is at its lowest, as well as for mid - summer (refer to Appendix 1). It has been confirmed that overshadowing of the nearest dwellings on the western side of the railway line will not take place. Furthermore, most of the taller buildings located nearest to the railway line are shielded to a large extent by the existing tall trees which will be retained as part of the development, (and cast their own shadows, particularly in mid - winter).

The Design Team is aware that the LMC land is part of one of the 14 major transit oriented developments (TODs), identified by the State Government in the 30-Year Plan for Greater Adelaide, and is in fact the closest land within the TOD to the Station. It is relatively unconstrained in terms of proximity to existing development, and the State Government policy relating to development within TODs encourages buildings up to 10 storeys in height.

Given the character of the locality the Design Team is recommending that buildings generally be 3 to 6 storeys with an 8 building storey building being the exception. The proposed building heights are therefore less than those encouraged by the State Government for TOD's, take into account local character and ensuring no overshadowing onto nearby residences will occur.

COMMUNITY AND STAKEHOLDER ENGAGEMENT

SUMMARY OF HOW THE MASTERPLAN ADDRESSES THE FEEDBACK ON THE DRAFT PLAN (CONT)

Some members of the community expressed concern at the need for a new road (St Clair Avenue) linking Woodville Road through into the St Clair development. The Design Team is aware of contractual obligations for LMC to construct such a road in order to provide adequate vehicular access to the new development (and to the extensive parklands to be created) on the basis that Brocas Avenue is to remain closed to through traffic. The Design Team has therefore focussed on identifying the preferred location for St Clair Avenue where it adjoins Woodville Road, rather than whether or not the road should be provided.

DEVELOPMENT ADJACENT TO YARINDA STREET

The Masterplan for the Retail and Civic Heart Precinct identifies a proposed expansion of the District Centre on the southern side of Yarinda Street. Some residents have expressed concern at the scale of future development proposed in this extended area.

The purpose of this proposed expansion is to strengthen the retail, commercial and residential mixed use opportunities in proximity to the Woodville Station. This is a typical issue in the revitalisation of "Main Street" precincts where the depth of the retail / commercial area often needs to be increased to better provide for car parking and appropriate residential interfaces with adjoining residential properties. Incorporating additional properties enables a more integrated design approach without having to be constrained by "artificial" zone boundaries that might compromise better design outcomes for the community.

Within the current City of Charles Sturt, land along Yarinda Street is zoned to provide for a mix of residential dwellings up to two storeys in height, and so two storey buildings could be developed now .

However, to limit the potential visual impacts of taller buildings, it is proposed that the height of development scales down from Woodville Road to Yarinda Street, and that non residential uses are focussed more towards Woodville Road. On Woodville Road, buildings may be 3-4 storey mixed use development (retailing, commercial, residential), with the height of buildings decreasing as buildings are located closer to Yarinda Street.

It is envisaged that the area closest to Yarinda Street is developed primarily for two storey residential development (as is currently allowed for in the existing zoning), and that there should be an attractive interface with surrounding residential development. Furthermore, development in this location should ensure that traffic is directed towards Woodville Road rather than the local streets.

Any proposals to rezone land from one land use to another requires a Development Plan Amendment, during which there will be community consultation with the wider community as well as individual owners. At no time is any compulsory acquisition of properties required or envisaged.

PROPOSED RETAIL DEVELOPMENT NEAR STATION

Some members of the community have expressed doubts as to the desirability and viability of a small supermarket in this location. The small supermarket is considered a critical element in the retail mix on Woodville Road near the Station, as it will serve as a retail "magnet" for shoppers (including local residents and people who want to purchase daily goods once they get off the train). These shoppers will, in turn, attract additional smaller shops to this location and assist to make them commercially viable, as well as helping achieve the vision for Woodville Village as being an active and vibrant area with signs of people and activity during the day and evenings. The demand for this mini supermarket has been confirmed by market analysis, there have already been approaches from supermarket operators wanting to develop in this location, and some of the existing owners of properties on Woodville Road have also expressed an interest in incorporating a small supermarket. It is therefore intended to retain this element within the Masterplan.

COMMUNITY AND STAKEHOLDER ENGAGEMENT

SUMMARY OF HOW THE MASTERPLAN ADDRESSES THE FEEDBACK ON THE DRAFT PLAN (CONT)

COMMUNITY PLAZA

Some members of the community indicated their opposition to the development of a community plaza adjacent the station. However, the Design Team is very keen to ensure that such a plaza is incorporated as part of future development of the existing car park site, to be associated with new retail / commercial uses with apartment dwellings above. This represents 'best practice' in terms of creating an attractive meeting place for the community, planning for intensified development around train stations, providing for activation, and ensuring safety and amenity both during the day and evening.

Other members of the community have expressed concerns that the proposed Plaza is too small for its intended purpose. It is acknowledged that creating a Plaza of the 'right' size is critical to its success. Whilst the role of this Masterplan is to present broad concepts, more detailed investigations will take place as part of the detailed concept development phase for this site prior to determining the preferred size and dimensions. The more detailed investigations would follow decisions about the extent of the District Centre Zone and will need to more closely explore the nature of events and activities on the Plaza - layout, management, frequency, infrastructure required, mix, seasonal changes etc.

MULTI - DECK CAR PARKS

Some in the community remain concerned at the proposed decked car park on the existing car park site behind the Council offices between Kemp and Norman Streets.

The Plans have been modified to provide for wide, heavily landscaped buffers on the three sides of the proposed car park that address neighbouring residential properties, ensuring an attractive presentation and no overshadowing of these nearby properties.

The number of levels of such a car park has not been determined, but will be subject to more detailed assessment and costing. Developing such a car park would also include a traffic impact assessment on surrounding streets to ensure that adverse traffic impacts are minimised.

It is likely that, with the redevelopment of the existing Council owned car park across the road from Council offices, additional car parking to the rear of Council offices will be required, particularly given the future more intensive use of the Town Hall and the frontage of the Council building for community uses.

FACILITIES FOR PEDESTRIANS AND CYCLISTS

Some comments have sought clarification as to the extent of new initiatives to make the area more 'friendly' for pedestrians and cyclists.

A number of initiatives have been included:

- Proposals for wider footpaths where possible along Woodville Road
- Improvements to the pedestrian crossing of Port Road
- Improved linkages between rear car parks and new retail area along Woodville Road

- Two new pedestrian plazas adjacent Woodville Station
- Improved pedestrian crossing points along Woodville Road if the "one lane in each direction" option is implemented Provision of cycle lanes along Woodville Road if the "one lane in each direction" vision is implemented
- Implementation of the 'Greenway' pedestrian and cycle path alongside the rail line
- A shared use path for pedestrians and cyclists linking Woodville Station through St Clair Reserve to Cheltenham Parade
- Improved bicycle parking facilities throughout Woodville Village and at Woodville Station
- Improved pedestrian / cycle path linking Woodville Station through St Clair Reserve to Woodville High School (the Masterplan has been modified to reinforce this linkage)

COMMUNITY AND STAKEHOLDER ENGAGEMENT

SUMMARY OF HOW THE MASTERPLAN ADDRESSES THE FEEDBACK ON THE DRAFT PLAN (CONT)

LOCATION OF WOODVILLE STATION

Some concerns were raised that Woodville Station is too close to Woodville Road and should be relocated much further away from Woodville Road towards the new St Clair housing development.

There are a number of technical and other reasons why Woodville Station needs to remain in its current location. These include:

- The station needs to be located between Woodville Road and the Grange spur line
- Anew station has been proposed near Cheltenham Parade as part of the St Clair development, and therefore the existing Woodville Station should not be located too close to this new station
- The existing location is on a bus route on Woodville Road and allows interchange between buses and trains
- The existing station site is close to the LMC land and the Council car park site, both of which are available for higher density development and can be integrated with the station
- Stations are considered much safer places (particularly after day light hours) for rail passengers where they are located close to and within view of busy roads
- The cost of relocating the station to a new site would be significantly higher than redeveloping it on its existing site
- Many of the users (eg, QEH) are best served by a station on Woodville Road providing easy pedestrian access in both directions along Woodville Road

LOCAL FLOODING

As Council and its community is aware, localised flooding is experienced on Port Road in the vicinity of Woodville Road during major storm events. The Port Road Rejuvenation Project identifies solutions to flood protection, but the works are to be staged with Stage 1A commencing in 2011.

Council has sought technical advice as to what can be done in the shorter term until such time as the major works downstream are developed.

As outlined in more detail in this Masterplan Report, future development of the LMC land will see stormwater drain effectively to the Torrens Road Catchment via the St Clair housing development parklands and wetlands. However, localised flooding is expected to continue during major storm events along Woodville Road west of the railway line to Port Road until such time as the main Port Road trunk main is upgraded northwards along Port Road. It will therefore be important for new developments along Woodville Road to incorporate stormwater management techniques to reduce stormwater runoff where possible.

Strategic Framework

SOUTH AUSTRALIA'S STRATEGIC PLAN

South Australia's Strategic Plan is a commitment to making South Australia the best place that it can be. Prosperous, environmentally rich, culturally stimulating, and offering its citizens every opportunity to live well and succeed. The Plan expresses the community's values, and its targets reflect the priorities of the broader community.

The Plan has been active since 2004 and its achievements are being carefully measured. A series of progress reports have been released since the Plan's inception, the most recent in 2010.

This year the Premier has asked the Community Engagement Board to find opportunities for all South Australians to get involved in the development of the new Plan.

THE PLAN HAS 6 KEY OBJECTIVES, NAMELY:

- **Objective 1** Growing prosperity
- **Objective 2** Improving wellbeing
- **Objective 3** Attaining sustainability
- **Objective 4** Fostering creativity and innovation
- **Objective 5** Building communities
- **Objective 6** Expanding opportunity

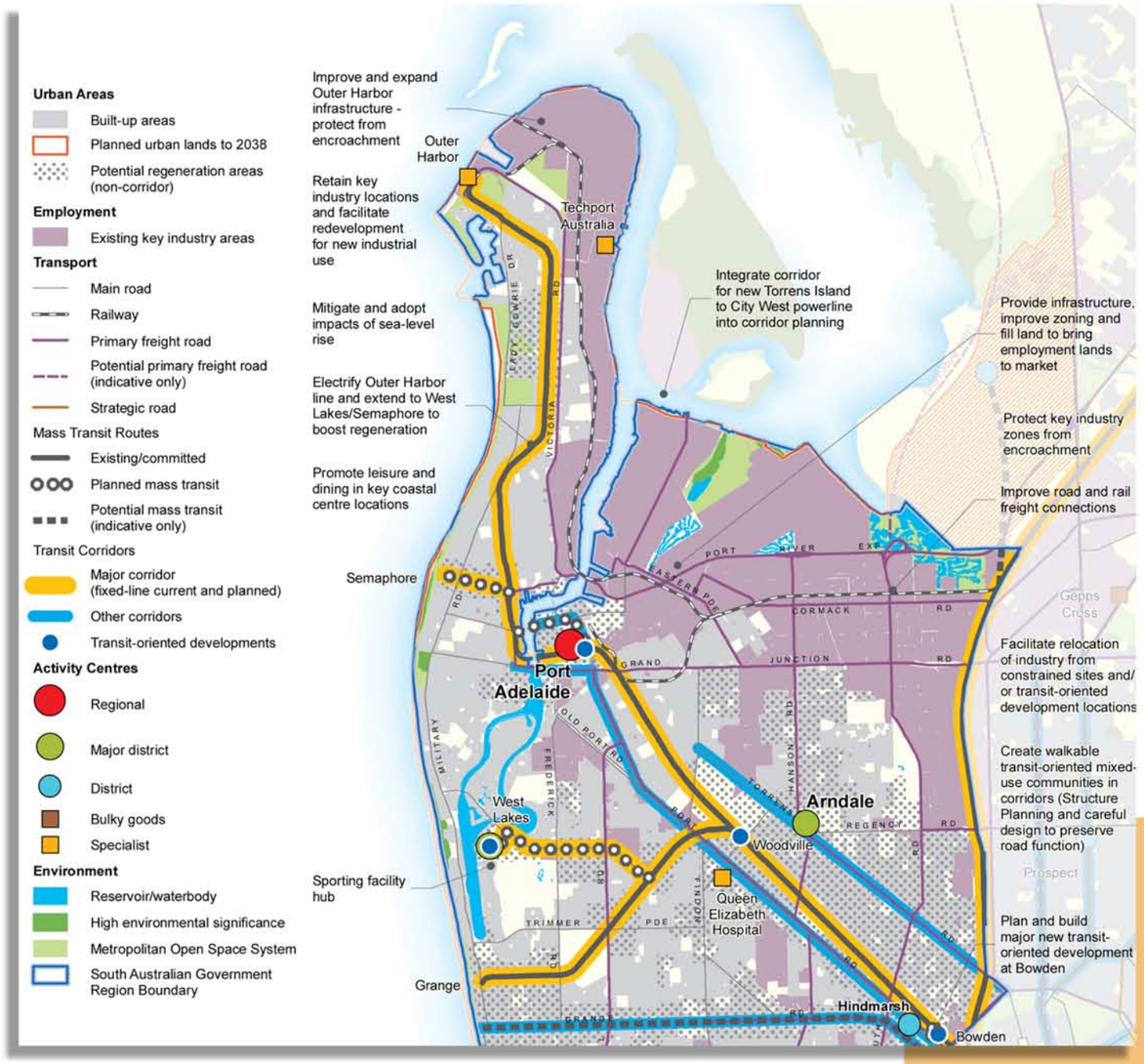
The Plan also incorporates a number of Targets under each of these Objectives, many of which have relevance for the Woodville Village Masterplan.

THESE INCLUDE TARGETS UNDER THE FOLLOWING HEADINGS:

- **T1.21** Strategic Infrastructure
- **T1.22** Population Growth
- **T2.3** Sport + Recreation
- **T2.8** Public Safety
- **T3.5** Greenhouse Gases
- **T3.6** Use of Public Transport
- **T3.7** Ecological Footprint
- **T3.9** Sustainable Water Supply
- **T3.12** Renewable Energy
- **T3.14** Energy Efficiency
- **T4.8** Broadband Usage
- **T6.7** Affordable Housing
- **T6.10** Disability Housing

SOUTH AUSTRALIA'S STATE STRATEGIC PLAN

THE 30YEAR PLAN FOR GREATER ADELAIDE



The 30 - Year Plan for Greater Adelaide **is the State Government's policy direction for the future development of Adelaide's urban areas.**

It sets clear targets to provide for population growth of about **560,000 people** over the next 30 years.

About **70% of all new housing** will be built in existing urban areas, including within proposed mass public transport corridors and Transit Oriented Developments (TODs).

It plans for about **60%** of metropolitan Adelaide's growth to be within 800 metres of current or mass public transport routes.

The Plan indicates that only 20% of metropolitan Adelaide needs to change significantly to accommodate these targets.

Woodville Village is identified by the State Government as one of the state's 14 TODs. TODs are high density, mixed use, vibrant places within close walking distance of major rail stations for living, working, shopping and recreation. TODs are active day and night, meaning less need for cars and commuting, and encouraging greater use of the public transport system.

SOUTH AUSTRALIA'S STATE STRATEGIC PLAN

WESTERN ADELAIDE GROWTH AREAS

HIGH ORDER TOD SITES AT:

- **Woodville**
- Bowden
- West Lakes
- Port Adelaide

INCREASED DENSITIES AROUND:

- **Adelaide - Outer Harbour rail corridor**
- **Woodville - Grange rail corridor**
- **Grange line - West Lakes planned mass transit corridor**
- **Grange Road potential mass transit corridor**
- **Road Corridors** eg. Port and Torrens Roads
- **Activity Centres** Seaton, Albert Park, Kilkenny and QEH

TARGETS FOR WESTERN ADELAIDE

The growth target is an additional 42,560 dwellings, 83,000 people and 40,500 additional jobs.

Source: The 30Year Plan for Greater Adelaide

Population and Dwellings	**Net Additional Dwellings**	**Net Additional Population**
Within Corridors (inc TODs)	33,060	62,100
Outside Corridors	9,500	20,900
TOTAL	42,560	83,000
Affordable Housing	**Net Additional Dwellings**	
	6,400	
Employment	**Net Additional Jobs**	
	40,500	
Gross Land Supply	**Hectares**	
Infill up-zonings	4,650	

LOCAL STRATEGIES

RELEVANT STRATEGIES FROM THE CITY OF CHARLES STURT COMMUNITY PLAN

The City of Charles Sturt Community Plan provides the overall strategic framework for responding to the community's aspirations and goals for the city. The Masterplan supports the following Community Plan strategies:

Appropriately located, **mixed density housing** that caters for our diverse population

A safe network of connected **cycle and pedestrian routes**

A connected, reliable, safe and well maintained **public transport** system including options for tram-trains

Attractive landscaped streetscapes which incorporate principles of water sensitive urban design

An accessible network of developed **open space** that responds to the recreation and sporting needs of the community

Energy efficiency and greenhouse gas emission reductions across the community

Reduced water consumption throughout the community

Development controls reflect the principles of **ecologically sustainable development**

Water sensitive urban design (WSUD) in all new developments

Sustainable stormwater management practices that reduce discharge into the Gulf

Ensure the community is **well informed** and **actively engaged**

Council's Community Plan is the 'umbrella' plan that provides overall strategic guidance for any new development or infrastructure within the Council area

Engage the community in ways that enable Council to make balanced and well informed decisions

AREA CONTEXT

The broader locality surrounding the Woodville Village study area contains a variety of land uses, but importantly is an area undergoing significant development and change.

ST CLAIR HOUSING DEVELOPMENT

The development of "St Clair" has commenced on the former Sheridan / Actil site, and will continue over the medium term through the former Cheltenham Racecourse site. Key features of this project include:

- Approximately 1200 new dwellings in the form of houses, townhouses and apartments
- 15% affordable housing
- A new Station on the Outer Harbour line near Cheltenham Parade
- A neighbourhood shopping centre near the new station
- Significant areas of public open space totalling 28 hectares, incorporating 5-6 hectares of wetlands. This open space will provide a direct linkage between Woodville Road and Cheltenham Parade through a public open space network, incorporating pedestrian and cycle paths

ARNDALE 'CENTRO' SHOPPING CENTRE

Arndale is a 'district level' shopping centre in the retail hierarchy, and is located approximately one kilometre from the Woodville Station. It has a wide range of retail, office and community services on offer, together with the Cinema complex. It also has an important bus interchange located within it.

QUEEN ELIZABETH HOSPITAL (QEH)

The QEH is one of Adelaide's major hospitals serving the western suburbs, and is currently undergoing redevelopment and improvement in a staged development program. As a result of its presence a large number of related medical services are located nearby.

PORT ROAD

Port Road is a major transport route from the City to the north western suburbs. It is a main arterial road which carries approximately 40,000 vehicles per day. It is characterised by a range of commercial, office, recreational and retail uses along its length.

TORRENS ROAD

Torrens Road runs parallel to Port Road and is an arterial road carrying approximately 33,000 vehicles per day.

RESIDENTIAL

Surrounding residential development is generally low density, with pockets of unit development scattered in some areas. Significant parts of the nearby residential suburbs are within a Residential Character Zone. Most of the residential areas between the railway line and Port Road lie within more typical Residential Zones that allow for some redevelopment in the form of a mix of dwelling types.

AREA CONTEXT

AREA CHARACTERISTICS

PEOPLE AND HOUSING

POPULATION GROWTH*

Prior to 2006 the population of Charles Sturt had been growing at a very slow rate. Between 2001 and 2006, the population of the City increased by only 0.2 per cent (319 people), to a total population of 100,529. However, by 2009 the population grew to approximately 106,000 people (2009 Estimated Resident Population, ABS), ranking the City of Woodville as the 21st fastest growing SA local government area out of a total of 59 assessed local government areas.

The study area is located in the suburb of Woodville and is home to around 1,976 people as at the 2006 Census. Of course it will also be visited by people in the surrounding areas - Woodville South has around 2,700 people, Woodville Park has around 1,600 people, Woodville West about 2,900 people, Cheltenham about 2,100 and the new St Clair Residential Development about 2-3,00 people.

CULTURAL DIVERSITY

The City of Charles Sturt is culturally diverse, with representation from indigenous people as well as that of European, Anglo Saxon, Asian, and Middle Eastern descent.

The Vision for Woodville Village is to value and nurture that diversity through designs of public spaces, public art, food, events and land uses. Woodville Village will become a truly "global village". To examine the cultural diversity, it is useful to compare the statistics for country of birth of the broader Metropolitan Adelaide Statistical Division with the area defined by the Woodville Postcode (5011). This area comprises Woodville South, Woodville Park, Kilkenny, Woodville West and Cheltenham, so in order to provide a useful comparison, the postcode area provides a good representation of the cultures that will shop at, live in, visit and travel through Woodville Village.

Within the Council area there is an indigenous population of 1216 people, or 0.4 per cent of the City's population.

In Woodville (5011), there are a greater number of people from Bosnia and Herzegovina, Croatia, Egypt, Greece, India, Lebanon, Poland and Vietnam than there are in the Metropolitan Adelaide Statistical Division.

* Note that population figures have been derived from the 2006 ABS Census Data, and so they are now several years old

The following table shows how many people and what percentage of the total number of people in Woodville (postcode 5011) and in the Adelaide Statistical Division they represent.

	Nos of people in 5011	% of people in 5011	% of people in Adelaide Statistical Division
Country of Birth			
Australia	6,540	70.4	70.7
Bosnia and Herzegovina	36	0.4	0.2
Croatia	98	1.1	0.3
Egypt	14	0.2	0.1
Greece	127	1.4	0.9
India	113	1.2	0.6
Italy	304	3.3	1.9
Lebanon	23	0.2	0.1
Poland	76	0.8	0.5
Vietnam	130	1.4	0.9

AN AGEING POPULATION

In 2006 the area had an ageing population, with 19 per cent of the population comprising people of 65 years and older. This is significantly higher than the Adelaide Metropolitan Area as a whole (12.3%)

All age groups under 54 years contain a lower percentage of the City of Charles Sturt's population than for the same cohorts in metropolitan Adelaide as a whole. There is a decreasing number of children and middle-aged residents in the area. The age group of 15 - 24 year olds recorded no growth between 2001 and 2006.

AREA CHARACTERISTICS

PEOPLE AND HOUSING (CONT)

A TREND IN SMALLER HOUSEHOLD TYPES

In 2006 the City contained a total of approximately 40,870 dwellings, with an average of 2.3 persons in each house (this is lower than in Adelaide Metropolitan area which averages 2.7 persons per house).

Of these, 66% were occupied by families, 31% comprised lone persons, and 3% were shared housing. Since 2001 the number of nuclear families in the City of Charles Sturt has decreased by 8%, the number of child-free couples increased by 6%, and the number of one parent families increased by 2%.

HIGH LEVEL OF HOME OWNERSHIP

In 2006 the City of Charles Sturt has a high percentage of properties that are fully owned (37 %). This is higher than for Metropolitan Adelaide. 26% are being bought, and 29 % are rented or rent-free.

The median house price in February 2010 is approximately $430,000.

Of the approximate 40,870 private dwellings in Charles Sturt in 2006, 3,347 of these were vacant. 72% of the occupied dwellings were detached dwellings, with other forms including semi-detached houses (15%) and flats (12%). In 2006, the median monthly mortgage payment in Charles Sturt was $1,100 per month, which was considerably less than the Adelaide Metropolitan average of $1,800.

LOW LEVELS OF INCOME

In 2006 the median weekly income in Charles Sturt for individuals was $406 a week. This is lower than the Metropolitan average. The figures for families and households were also lower in Charles Sturt compared to Metropolitan Adelaide, with families earning a median income of $1093/week in Charles Sturt compared to $1350/week in Adelaide.

However, given the new developments in St Clair, proposed development on the LMC land and the generally higher house prices in the local area, it is likely that the spending power of the local community will increase over time and contribute to the revitalisation of Woodville Village.

ENVIRONMENT

SIGNIFICANT TREES

The Moreton Bay Fig (Ficus macrophylla) located on St Clair Reserve is in a severe state of decline. Council has sought advice from two independent arborists seeking their opinion on the health and structure of the tree and to recommend immediate and ongoing management of the tree. Both arborist's reports indicate that the tree is in severe state of decline and is an immediate safety hazard. The City of Charles Sturt is committed to keeping the public safe and has erected a fence around the tree to minimise risk of injury due to the possible danger of falling branches. Other significant trees are present within the Council-owned car park, and on the St Clair Reserve. Many of these trees are located along the eastern edge of the rail corridor.

The immediate locality features St Clair Reserve (which includes an area of land now owned by the Land Management Corporation), local open spaces within easy walking distance of the Woodville Road corridor and a small park at the intersection of Torrens and Woodville Roads. Public open space will be significantly increased as part of the St Clair project, which will include large park and wetland areas linking all the way through to Cheltenham Parade.

AREA CHARACTERISTICS

WOODVILLE'S HISTORY

It is acknowledged that the area referred to in this Masterplan and that we occupy today as 'Woodville Village' is the traditional lands for the Kaurna people. We respect their spiritual relationship with their country. We also acknowledge the Kaurna people as the custodians of the greater Adelaide region and that their cultural and heritage beliefs are still as important to the living Kaurna people today.

The suburb of Woodville was formally established in 1849, designed around Main Street (now known as Woodville Road) that connected Port and Torrens Road and two cross streets near each end.

The commercial centre was originally situated along Port Road, as Woodville Road was predominantly rural, with open land ideal for farming either side. With average size blocks of 5 acres Woodville was advertised as a desirable place to live and farm being 'richly wooded' and conveniently located between the Port and the City. These qualities attracted a number of prominent colonial businessmen, particularly those with companies in the Port.

For many Woodville was a retreat from working life amongst country estates with grand residences (of which few remain, the most well known being 'The Brocas'). Described as the 'landed gentry' residents of Woodville engaged in the hosting hunts and balls and become increasingly involved in civic life.

As Woodville evolved, the commercial centre became more focused towards Woodville Road which developed from its rural road function into an important centre for civic and social activities and functions.

Reinforcing the civic role of the commercial centre on Woodville Road, in 1903 the Council offices relocated from Port Road to a new building on Woodville Road that now comprises part of the Woodville Town Hall. This was expanded upon with the celebrated opening of the Town hall in 1927.

Red Cross Ball, Woodville Town Hall

General Motors Holden arrived in the area in the 1920's and this started the transformation of the Woodville district from a rural village to suburban manufacturing area. Further introduction of industry took place in the 1930's, particularly in the lead up to WW2 (eg. Actil Cotton Mill), and then during the war with munitions works, etc.

During World War Two (WW2) soldiers marching up and down Woodville Road were a familiar sight (from the training depot set up at Cheltenham) and it became an even busier local centre in the 1950's and 60's.

AREA CHARACTERISTICS

WOODVILLE'S HISTORY

Woodville Road also has a strong sporting history. Early on cricket matches where played in a paddock opposite the current Civic Centre. In 1962 Woodville proudly opened South Australia's first major indoor youth centre and sports stadium, now known as the St Clair Recreation Centre.

Woodville Road established itself as a shopping strip when Weinert's Shopping Centre opened in 1959 on the corner of Port and Woodville Roads. It described itself as 'the very latest in shopping centres' with 11 shops all under one roof.

In the 1960/70's, many health services move into Woodville Road resulting in the demolition of many homes and cottages. Since this time Council have sought to promote Woodville Road as a regional centre for government services.

During the 1980's and 1990's, Woodville and its surrounds became home to many Vietnamese refugees from the Vietnam War. Decline set in upon the closure of the Cheltenham plant of General Motors Holden and the emergence of regional shopping centres which has continued to have an impact on the success and vibrancy of Woodville Road since.

Building on its government services base, a number of migrant support services, centres and facilities, including churches, have moved to Woodville Road, reflecting the wider cultural change occurring in the western suburbs, and its increasingly multicultural resident population.

Woodville Road upgrade works (before and after) 1989

AREA CHARACTERISTICS

WOODVILLE'S HERITAGE

The Study Area contains a number of State and Local Heritage sites, along with numerous contributory items.

A summary of the buildings on the State and Local Heritage list is shown in the following table.

State and Local Heritage places

Status	Building	Address
State	St Margaret's Anglican Church and Lychgate	789-791 Port Road Church
State	The Brocas House	111 Woodville Road
Local	Woodville Railway Station	Woodville Road
Local	State Bank	65 Woodville Road
Local	Town Hall and Council Chambers	72 Woodville Road
Local	Woodville High School	Leslie Street West
Local	St Clair Youth Complex	Woodville Road
Contributory	House	86 Woodville Road
Contributory	House	86a Woodville Road
Contributory	House	88 Woodville Road
Contributory	Church	90a Woodville Road
Contributory	House	90 Woodville Road
Contributory	House	94 W Woodville Road
Contributory	House	92 Woodville Road
Contributory	House	96 Woodville Road
Contributory	House	104 Woodville Road
Contributory	House and Surgery	106 Woodville Road

AREA CHARACTERISTICS

WOODVILLE'S HERITAGE

AREA CHARACTERISTICS

ZONING

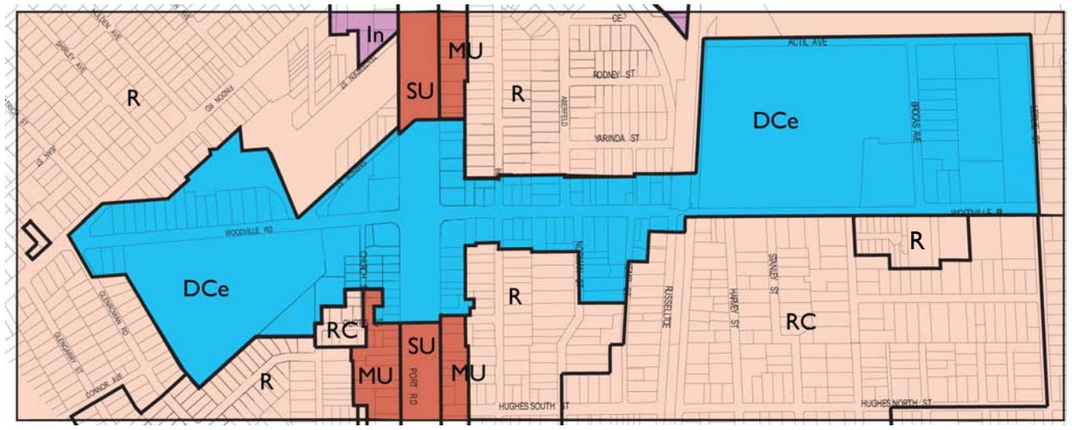
The Study Area is wholly located within the District Centre Zone. The main objectives for the District Centre Zone encourage a range of retail, offices, consulting rooms, and cultural, community, public administration, entertainment, educational, religious and residential facilities serving the community in a visually cohesive and integrated form.

The Study Area is also wholly within Woodville Policy Area 5. The Objectives and Desired Character for this Policy Area generally align with the Vision outlined in the Woodville Village Masterplan, although modifications will be required in several areas.

Policy Area 5 is also divided into the following Precincts:

- Precinct 18 Woodville Road Medical
- Precinct 19 Woodville Road Gardens
- Precinct 20 Civic
- Precinct 21 Recreation/Education

These Precincts align to some extent with the 'precincts' identified in the Woodville Village Masterplan and again modifications will be required as part of any review of zoning / policy.



Overall, the current zoning policy in Council's Development Plan envisages the general form of development as outlined in this Masterplan, but some important modifications will be required as part of the review.

Land surrounding the Study Area is residential, and is located in both the Residential Zone and the Residential Character Zone. Those areas in the Residential Zone are located in Mid Suburban Policy Area 16. These areas are located to the west of the railway line and in proximity to Torrens Road and provide for a mix of dwelling types up to two storeys in height with minimum site areas ranging from 250 - 400m2 (depending on the type of dwelling).

Much of the residential areas to the south of Woodville Road (particularly to the east of the railway line, but generally on both sides of the railway line) are located within the Residential Character Zone in Precinct 76 Woodville.

The objectives of this Zone and Precinct are to preserve the existing development patterns and built form, with limited opportunities for infill development. Increases in density are only envisaged on corner sites or where dwellings replace a non-complying use or an existing building is not listed as a Contributory Item. In this Precinct minimum site area requirements range from 400 - 500m2 (depending on dwelling type). Many properties in the Precinct are listed as Contributory Items in terms of their contribution to the heritage character of the area.

DCe - District Centre
R - Residential
RC - Residential Character
MU - Mixed Use
SU - Special Use
In - Industry

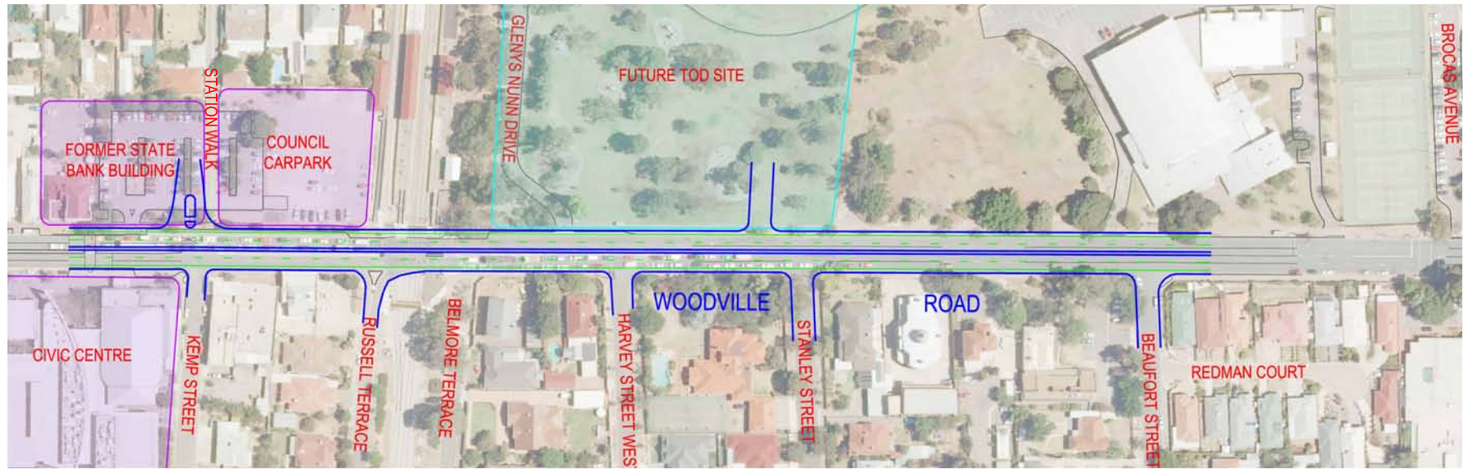
AREA CHARACTERISTICS

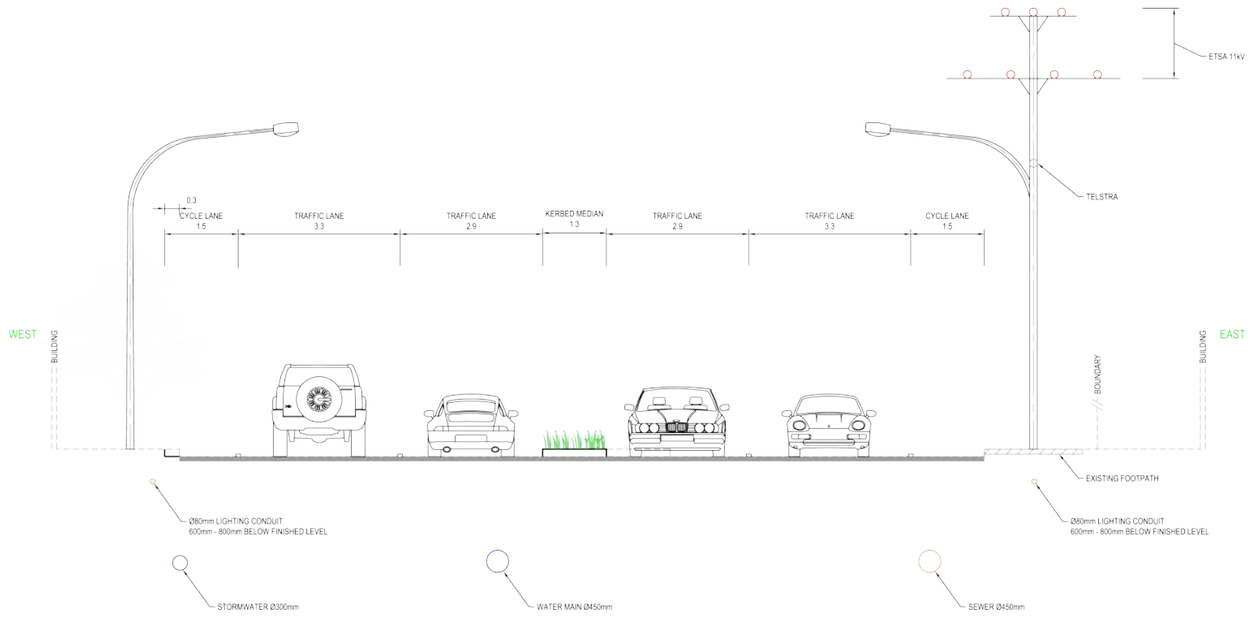
UTILITIES AND SERVICES

An important feature in any development or re-development is the provision of utilities to service the residents and businesses. This is specifically an issue with the change in land use and increased density in a specific developed location. This is the situation along Woodville Road not only at the LMC site, but also along the alignment where there is expected to be changes in some land use and also an increase in commercial and residential density.

A desktop services investigation has been carried out in order to assess the services requirements of the Woodville Village precinct and determine whether the existing infrastructure can accommodate the possible increase in demand.

The following plans indicate the approximate location of underground services in Woodville Road:

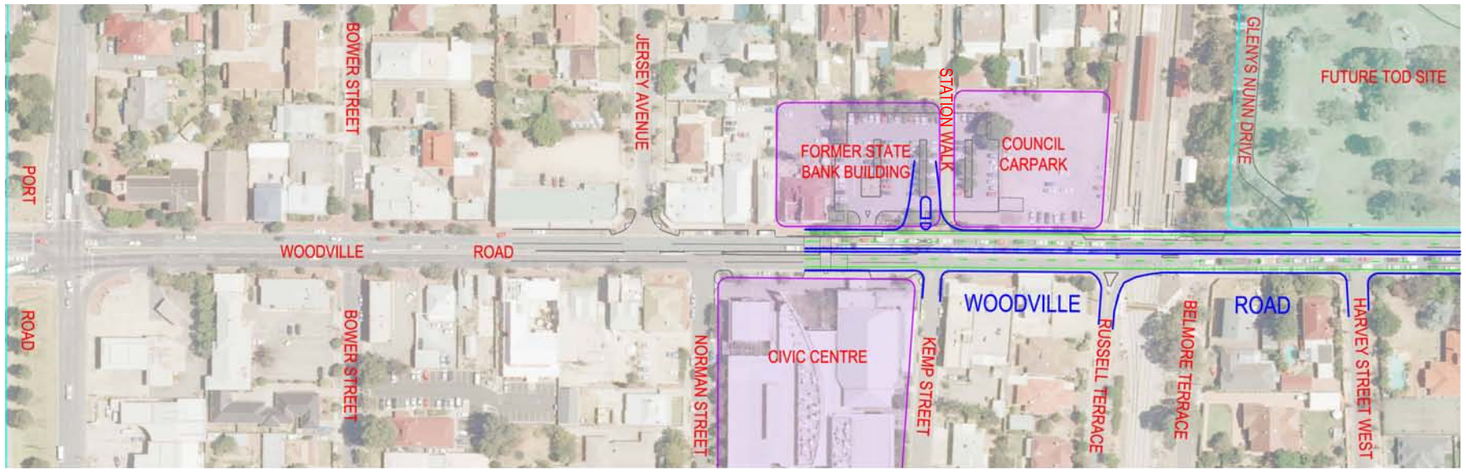


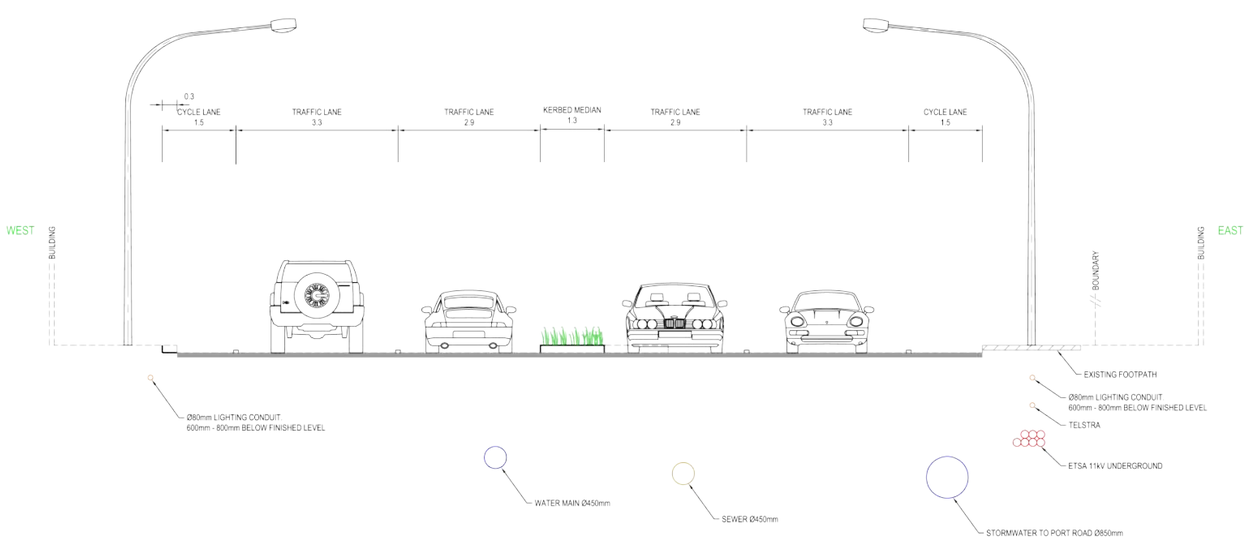


NOTE
1. STORMWATER SIDE ENTRY CATCHMENT PITS ARE GENERALLY SPACED AT 70m INTERVALS
2. STREET LIGHTING POLES WITH ASSOCIATED LIGHTING PITS ARE GENERALLY SPACED AT 50m INTERVALS

AREA CHARACTERISTICS

UTILITIES AND SERVICES (CONT)





NOTE
1. STORMWATER SIDE ENTRY CATCHMENT PITS ARE GENERALLY SPACED AT 70m INTERVALS
2. STREET LIGHTING POLES WITH ASSOCIATED LIGHTING PITS ARE GENERALLY SPACED AT 50m INTERVALS

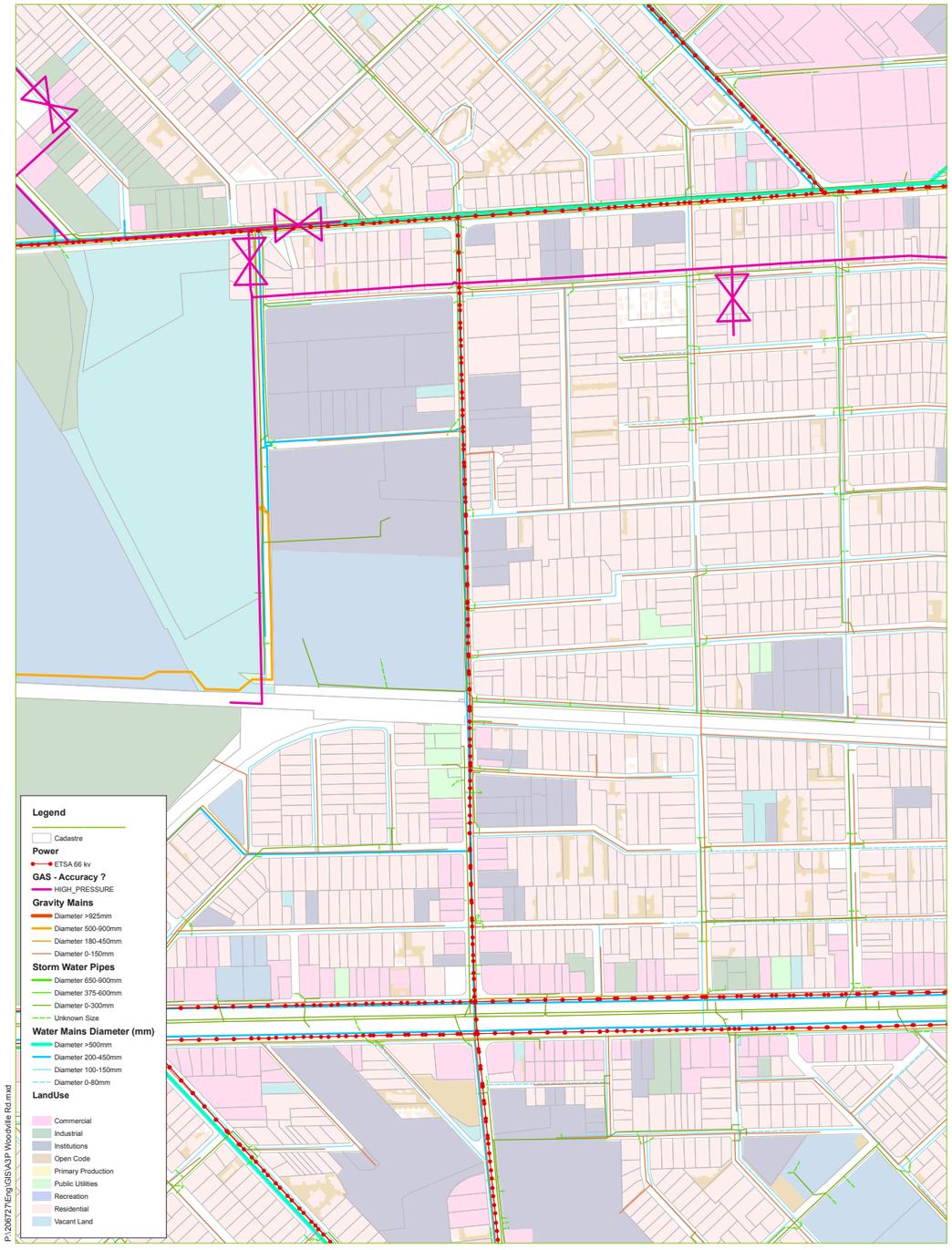
POWER

The Woodville Precinct is located nearby the Kilkenny substation which would provide the power required for the new development. This coupled with the Electranet Power connector which is expected to increase capacity for greater Adelaide. Therefore it is believed that there is sufficient accessibility to power, especially when coupled with the use of energy efficient design and sustainable energy principles.

Generally all power is provided through an overhead system, although parts of Woodville Road (close to the Civic Centre) have been undergrounded. Street lights are in mixed ownership (ETSA and DTEI) and are generally suitable for arterial road lighting. Given the objectives of the Masterplan to create an active, pedestrianised main street, PLEC funding should be sought to underground the remaining power along Woodville Road and install appropriate street and pedestrian lighting.

POTABLE WATER

There is a large water main running the entire length along Woodville Road, as well as a major main along Actil Avenue. The current infrastructure should be able to cater for the new developments, especially if new buildings make use of water saving measures and water reuse. This will reduce the demand and make better use of the high quality potable water.



Services Location Plan

AREA CHARACTERISTICS

UTILITIES AND SERVICES (CONT)

SEWER

Sewer mains of various diameters are located along Woodville Road and in side streets to adequately service expected growth in development along Woodville Road.

A large diameter sewer main (>925mm) is located in Actil Avenue and drains northward along the rail line, and has capacity to cater for the St Clair development and proposed development on the LMC land.

GAS

There are a number of high pressure gas trunk mains within the area, which include a number of pressure reduction valves to reduce the pressure so that gas can be used in service mains. It is expected that the capacity of the gas mains and the greater supply of the gas will be able to cater for the increase in demand produced by the rejuvenation project.

STORMWATER

The Woodville Village Masterplan Study Area lies within two stormwater catchments. East of the railway line land lies within the Torrens Road Catchment, while areas west of the line lie within the Port Road Catchment.

The main change envisaged in the Torrens Road Catchment is the future development of the LMC land, which will result in an increase in stormwater runoff. Fortunately this land lies adjacent to the St Clair housing development, which incorporates a significant stormwater management system in the form of stormwater detention basins, wetlands and aquifer storage and recharge.

It is understood that all runoff from the LMC land can be directed to the ASR and wetlands at the St Clair development and that stormwater infrastructure within the St Clair project has the capacity to take additional stormwater from the LMC site.

The Port Road Catchment has been the subject of significant focus in recent times, culminating in the preparation of a Stormwater Management Plan (Port Road Rejuvenation Project) for the catchment, approved by the Stormwater Management Authority (2007). As an older part of Adelaide, the stormwater systems have a poor level of performance relative to contemporary standards. Investigations have confirmed that there are significant deficiencies, particularly associated with the main drain aligned with the Port Road median.

AREA CHARACTERISTICS

UTILITIES AND SERVICES (CONT)

The Stormwater Management Plan recommended that a significant amount of infrastructure be upgraded in order to provide a performance standard consistent with current community expectations. The works, consisting of replacement of the main drain aligned with Port Road and Old Port Road, and upgrading of major lateral drains that feed into the main drain, was estimated to have a construction cost of approximately $55m.

The value of these required infrastructure upgrading works clearly represents a significant undertaking for Council, and delivery of these works over a lengthy time frame can be expected due to the budget limitations of both Council and the Stormwater Management Authority. Nevertheless construction drawings for the whole length of Port Road through to Woodville Road have now been completed, and funding has been secured for the construction of the upgrade within Old Port Road. Construction of this first stage is expected to be completed by 2012/13. The time frame for the delivery of further stages is uncertain, although it is anticipated that completion of the main drain through to Woodville Road will retain an elevated priority with Council.

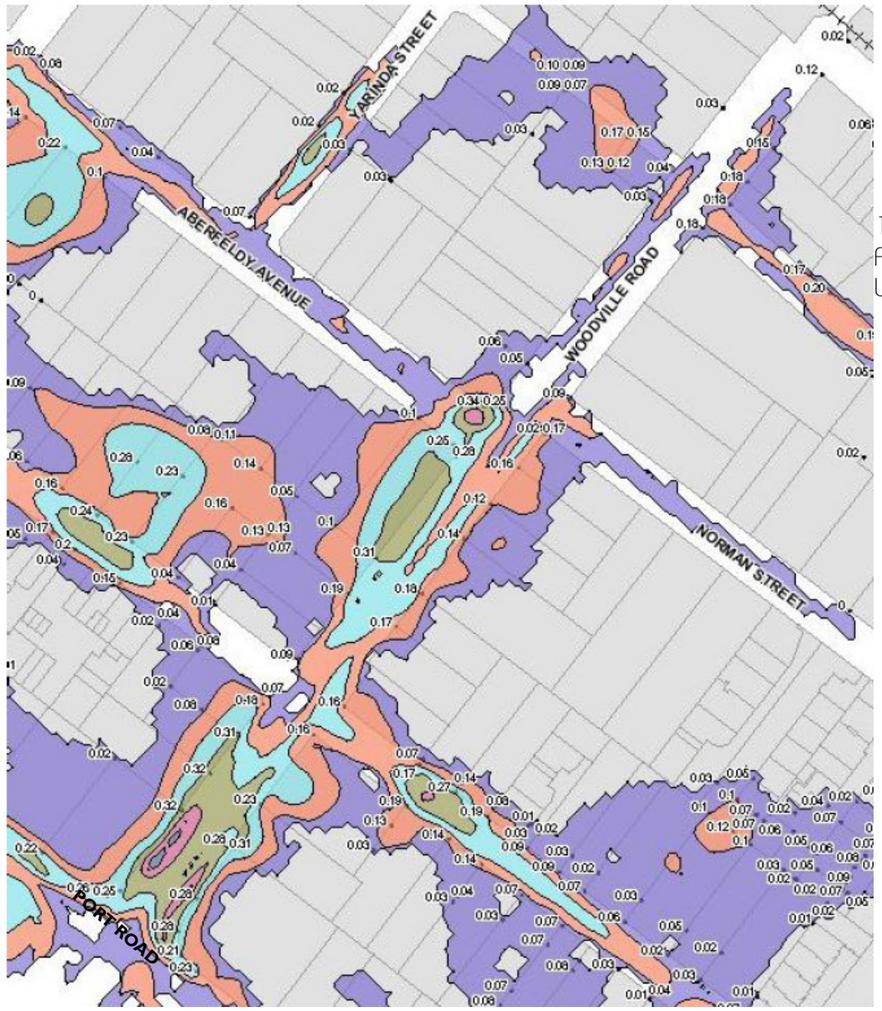
Until such time as the main drain through to Woodville Road is upgraded, it is anticipated that there will be minor flooding in the vicinity of Port Road / Woodville Road and along Woodville Road (refer to the 100 year ARI Flood Plain Map for Woodville Road).

Woodville Road is serviced by a lateral drain to the Port Road main drain. The drain within Woodville Road was upgraded in the 1980's, to a standard (approximately 5 year ARI) that is appropriate. However, this drain is unable to perform at full capacity due to the significant deficiencies associated with the Port Road main drain. Significant improvements, therefore, will only occur when the Port Road main drain is upgraded. During high rainfall events the main drain is at capacity and water levels back up along Woodville Road and surcharge onto the roadway.

In terms of expected increases in stormwater runoff, increased development within the Woodville Village Precinct along Woodville Road west of the rail line will generally be over the top of existing "impervious" surfaces, thereby not significantly increasing stormwater runoff. However, it is expected that there will be some increase, and therefore it will be important to incorporate stormwater detention / retention measures within new development as appropriate.

Techniques that should be investigated / incorporated include:

- Green roofs
- Greater application of WSUD measures (eg, large rainwater tanks, car parks designed to promote infiltration, etc.)



100 Year ARI Flood Plain - Woodville Road

CONCLUSION

While current services and utilities can support the proposed development it is considered relevant to advise that all future development within Woodville Village should incorporate design measures to reduce the reliance on 'mains' infrastructure such as power, potable water and stormwater.

Urban Design Framework

OVERVIEW

Urban Design Frameworks provide high level strategic direction to guide the future development of towns and cities. They respond to the investigations undertaken and also guide the development of more specific plans, including Masterplans, Concept Plans, Streetscape Plans, etc.

Generally, Urban Design Frameworks are prepared for areas that are undergoing change or are in need of revitalisation. They help identify broad strategic goals with the view to helping create places that reflect community values, and are vibrant, economically and environmentally sustainable.

The Urban Design Framework is based on a 'Vision' and a set of principles that provide direction for future improvements to an area over time. The framework:

- Establishes a Vision for future land use and development
- Provides guidance to development within an overall strategic planning framework
- Incorporates a rationale that supports proposals for improvement
- Includes a range of opportunities and planning and development initiatives to revitalise an area

In preparing an Urban Design Framework multidisciplinary teams, working with the community, generate ideas leading to the preparation of realistic design concepts, based on:

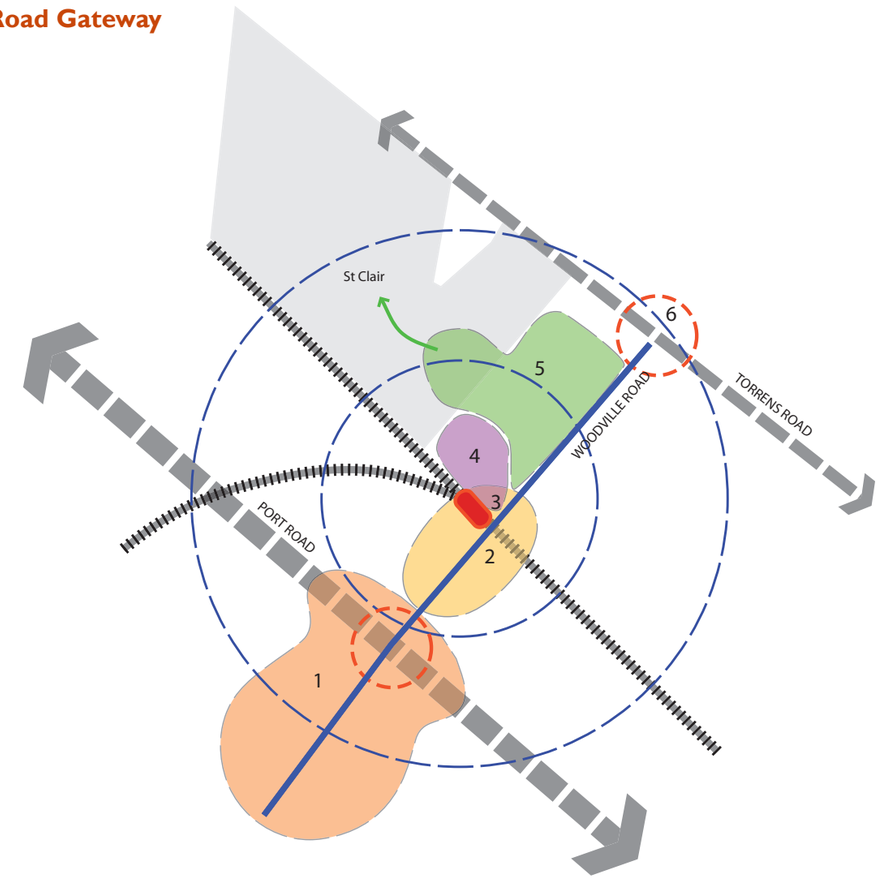
- Consultation
- Research
- Analysis
- Assessment (leading to recommendations for the Vision, Strategy and Framework)

As a prelude to the preparation of the Urban Design Framework and Woodville Village Masterplan, Village Well was engaged to work with stakeholders and the wider community to develop a 'Place Making Roadmap' for the study area to help guide all subsequent work.

PRECINCT ANALYSIS

KEY PRECINCTS

1. **QEH / Port Road Gateway**
2. **Civic and Retail Heart**
3. **Train Station**
4. **LMC Land**
5. **Open Space / Recreation / Education**
6. **Torrens Road Gateway**



PLACE MAKING ROADMAP

As outlined earlier the LMC and the City of Charles Sturt engaged Village Well to produce a Place Making Roadmap to inform the Woodville Village Masterplan. This work involved visioning workshops, 'walking the beat', site assessment, research and analysis.

The Village Well Place Making process was conducted through the following report stages:

LAY OF THE LAND

An analysis of the place including the physical and social background and the values and context for the Place Making Strategy. Develops a clear story for the place and its people from which the Place Essence is drawn.

PLACE MAKING STRATEGY

The 5Ps of Place Making are analysed to develop Place Making principles to provide clear directions and high-level strategic recommendations.

PLACE MAKING OVERLAY

Using the Place Making Strategy and building on the 5Ps, this report provides detailed recommendations that support the above principles and show the project owner how to activate the Place Essence.

IMPLEMENTATION

This includes activation of the Place Essence including public art, place branding, event management and community art projects.

PLACE MAKING ROADMAP

THE PLACE AUDIT

The following collates the findings resulting from a Place Audit exercise conducted by Village Well whilst on site at Woodville Road. The purpose of a Place Audit is to identify the key issues, opportunities and connections that could contribute to the improvement of Woodville Village.

PUT PEDESTRIANS FIRST

Crossings over major roads need to be made far safer for pedestrians. In general, Woodville Road is very traffic dominated and pedestrians have traditionally taken a back seat in the planning process for vehicle access. To create a truly successful TOD and active Village, pedestrian access is a key priority. This may include the reduction of traffic speed limit to 50km per hour, increasing footpath widths for pedestrian traffic and outdoor dining would also provide a more active, safe pedestrian experience.

MIXED USE REDEVELOPMENT

Woodville Village would benefit from an 'intensification' of uses. There are a number of future development and redevelopment sites within the Village that could provide a mixed-use, live work and play experience. This would activate Woodville Rd and contribute to the amenity and service provision for local residents.

FOOD AND BEVERAGE

There are already some great emerging new operators in Woodville Road, and there is great opportunity for more. 4-5 cafes and a small supermarket would support the convenience of the centre for locals and commuters.

TRANSIT - ORIENTED CONVENIENCE RETAIL

Convenience retail will enhance the commuter experience but also potentially encourage commuters to see Woodville Village as a place to spend time in rather than just pass through.

21ST CENTURY SCHOOL

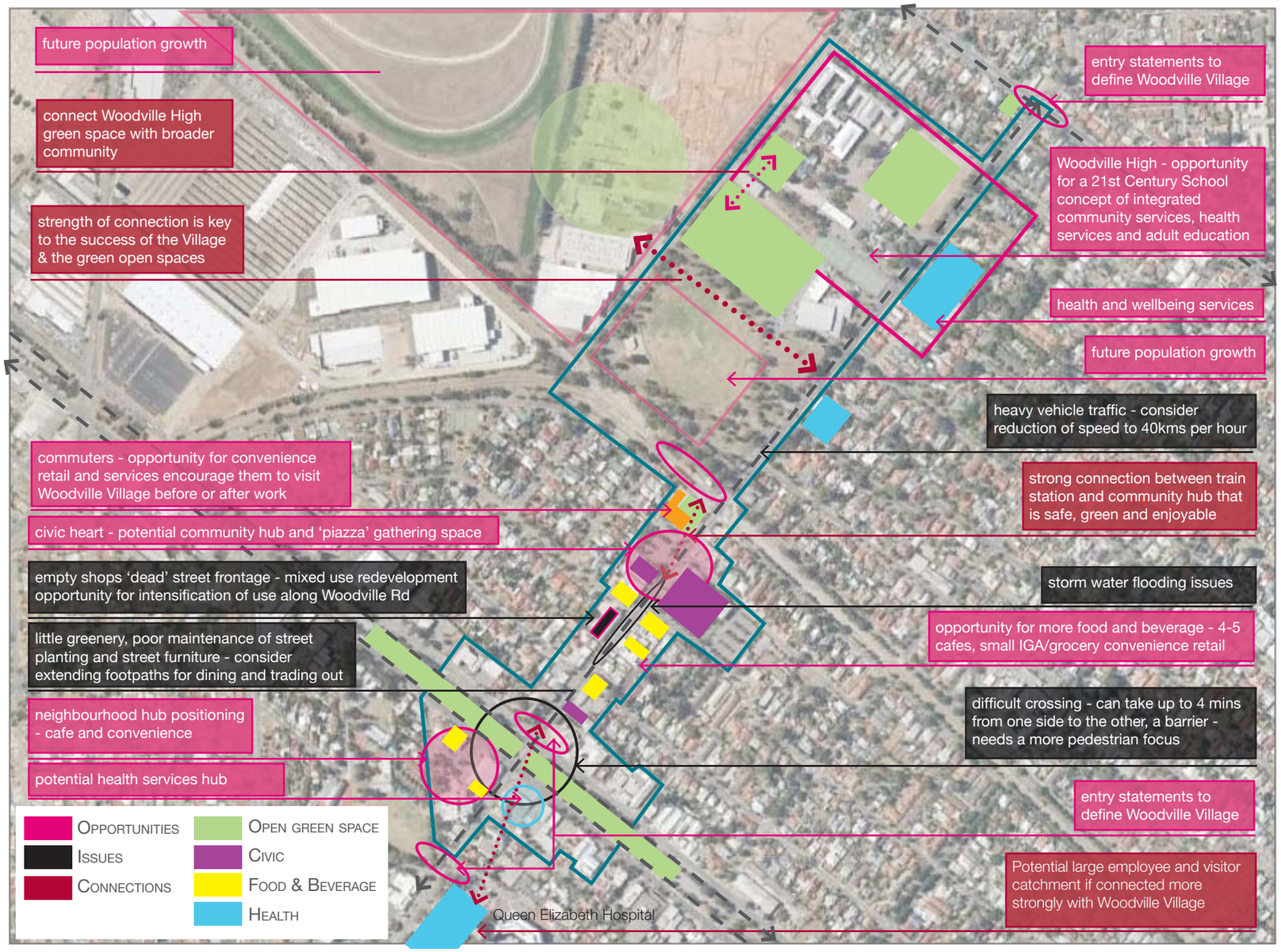
Integrating community, education and health services could provide a 21st Century School concept for Woodville High with adjacent Recreation Centre and health services located across the road.

HOSPITAL HEALTH SERVICES HUB

There is opportunity as the area evolves to develop a health services hub that links back to the Queen Elizabeth Hospital near the corner of Woodville and Port Roads.

PLACE MAKING ROADMAP

THE PLACE AUDIT MAP



PLACE MAKING ROADMAP

WOODVILLE PLACE ESSENCE

A fundamental aspect of Place Making is determining the essence of a place by examining the characteristics of that place and teasing out the elements that make it unique. The Place Essence is a dedicated response to the community engagement undertaken and the community's belief and understanding of a place and how it can be represented in the physical, social, environmental and cultural expression of that place.

The Place Essence informs everything we will do to make Woodville a great place in which to live, work, play and visit. It seeks to inform the feel, positioning and quality elements such as the built form, landscaping, welcome and directional signage and seating.

The Place Essence described in the statement that follows is a dedicated response to the community engagement undertaken representing the community's belief and understanding of the place and how it can be represented in the physical, social, environmental and cultural expression of Woodville.

Woodville Village is the local lifeblood and civic heart of Charles Sturt.

A unique destination, it celebrates its proud heritage and embraces its diversity with food, colour and music on the street.

Well connected throughout, it is easy to access the multiple experiences and services within Woodville Village and those beyond.

Woodville Village supports a health and wellbeing lifestyle for all ages with a variety of spaces from tranquil to vibrant.

PLACE PRINCIPLES

The following Place Principles have been distilled from community feedback. They represent fundamental factors that will need to be addressed for successful activation of Woodville Village.

SUSTAINABLE - ENVIRONMENTALLY, SOCIALLY AND ECONOMICALLY

Support the intensification of use in Woodville Village in a manner that promotes Woodville as a leader in sustainability.

OPEN AND TRANSPARENT

Open and transparent communication to build and strengthen collaborative local partnerships and relationships.

WORK, LIVE, PLAY - THE LOCAL

Get the mix right; a civic heart that offers employment, affordable housing and a great place to meet up with friends, both day and night. A place that serves its locals first, and as a result is loved by visitors.

GREENERY AND OPEN PUBLIC SPACE

Green the public realm to add beauty and encourage people to get active. Diversity of outdoor public spaces with quality recreation areas that encourage al fresco dining, events and meeting friends.

RESPECTS THE PAST - A CLEAR IDENTITY

Celebrate Woodville's heritage throughout the public realm with community and public art, and carefully considered new development. 'Woodville Village' triggers an image and identity that is unique to this place.

PLACE MAKING ROADMAP

PLACE PRINCIPLES (CONT)

BRING TO LIFE - A DESTINATION FOR ALL AGES

Activate, activate, activate. Activate the streets with markets, movies at the Town Hall or on-the-street trading and cultural programs. It has a pulling power to attract beyond the local with attractions for all ages and backgrounds.

CONNECTED - A WALKABLE, CYCLABLE VILLAGE WITHIN AND BEYOND

Woodville is pedestrian and cyclist friendly, and provides access for all ages and abilities. Connected public transport nodes make it easy to reach and experience its multiple destinations and the broader area.

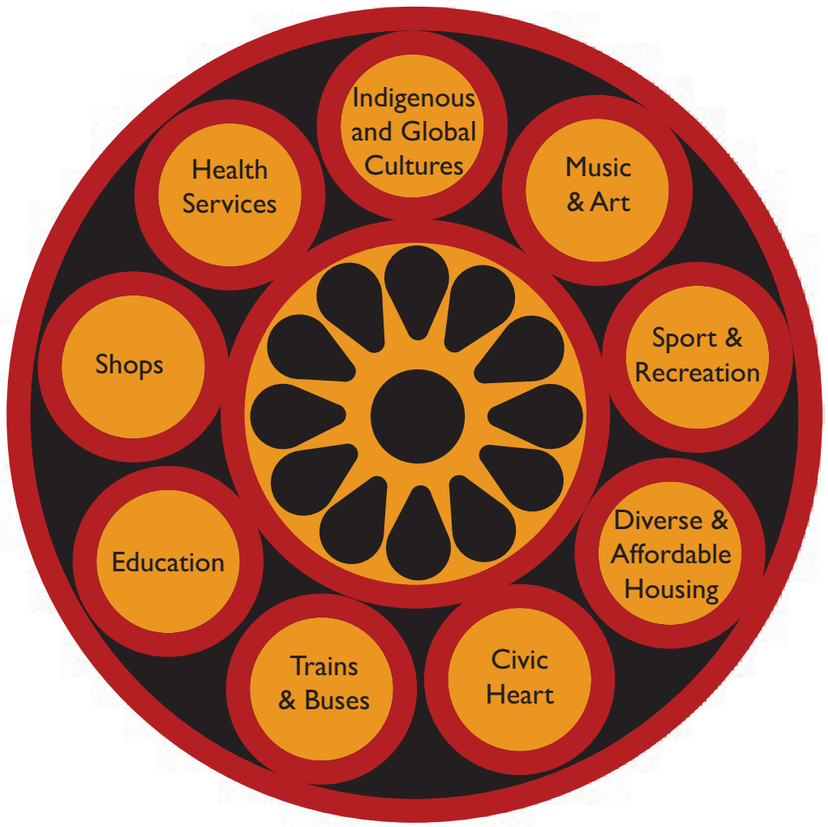
HEALTH AND WELLBEING

Build on the strengths of the hospital, local health services and recreation centre to become a health and wellbeing hub for the community and utilise the principles of health promoting design.




VISION STATEMENT

Woodville Village is an exciting destination for both the locals and the broader community. It is an area framed by a mixture of mostly medium to higher density housing, offices, shops, health and education facilities, and an expansive green open parkland. At its heart is a bustling train station, community plazas, civic facilities, cafes and shops. It celebrates its proud heritage and embraces its diversity with food, colour, art, greenery and activity on the street, in the community markets, in the open spaces and recreation areas.



A community that is thriving, diverse, proud, robust and active ...

A place that is a destination for the Western suburbs

Place

Community

Vision

A thriving, vibrant retailing and business **community**	A **place** for inside and alfresco multicultural cuisine and a range of shops
A progressive **community**	A **place** to learn
A caring, well managed and open **community**	A **place** with civic heart
A diverse and multicultural **community**	A **place** that respects, celebrates and nurtures families from different backgrounds
A new **community** growing with older and existing **communities**	A **place** that offers diverse housing choice and styles
A destination in itself	A **place** attracting locals and visitors from other areas
A 'green' road precinct	A **place** that showcases environmentally sustainable principles, that feels green and shady
A proud and robust **community**	A **place** with a sense of history and culture
A healthy and active **community**	A **place** that provides for the needs of our health and makes it easy to lead active lives

GUIDING PRINCIPLES

LAND USES

- Carefully locate key uses to help activate parts of the Village
- Promote mixed use with 'active' uses at ground level
- Encourage a diverse mix of interesting retail and "fresh food" to create a distinctive shopping and entertainment precinct
- Agglomerate similar uses that link and are a further attractor to a main destination
- Create an environment that encourages residential
    - Above ground in core areas
    - At ground at residential interface

A PLACE FOR PEOPLE

- A vibrant, unique place that everyone from local areas and further afield can access, enjoy and benefit from
- Streetscapes that enable people to move around easily and safely, that give people a sense of 'place', are shady and sheltered and that link easily from one place of activity to another
- Public space activated by uses around its edges
- Provision of seating and attractive street furniture
- Simple ground surface materials to unify the space
- Fountains, sculpture and works of art are encouraged (but should not clutter the space)
- Planted with appropriate, shade-giving, street enclosing trees
- Retail and other activities (eg. markets) that provide for evening and weekend activity

BUILDING APPEARANCE AND CHARACTER

- Design sympathetically with existing surrounding buildings
- Modern design but complementary to Woodville's character (walls to have high 'solid to void' ratio, careful selection of building materials)
- Development is scaled to match the desired character of the area
- Street facades to have a strong sense of verticality
- Diversity of materials, roofs and fenestration
- Balconies and verandahs or awnings incorporated for pedestrian shelter
- Buildings are aligned close to the street
- Commercial/retail buildings have active frontages
- Primary entrance of all retail is via the street (not internal arcades)
- Large footprint buildings framed by fine-grain retail or mixed use buildings

ENRICH THE EXISTING

- A distinctive development that integrates into the existing natural and built urban form
- Development designed to utilise and value the study area's unique and intrinsic physical and cultural resources (people, their culture and history, climate, ecology, vernacular character, transport linkages)

MAKE CONNECTIONS

- A physically and visually integrated environment that creates connections between people and places

MANAGE INVESTMENT

- Economically viable, appropriately delivered and public areas well maintained
- Long term commitment from community and Council
- Increase land values

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

- Locate public areas adjacent to active streets for added security, particularly at night
- Canopy shade trees consistently spaced at 10 - 15m intervals to enable security by allowing visibility through all areas.
- 'Mixed use' and residential buildings overlooking public spaces
- Street frontages for all park spaces
- 'Eyes on the street and park' from town houses and apartments to provide casual surveillance
- Provide lighting for key pedestrian/cyclist pathways through parks
- Park spaces and other public spaces to be activated by uses around the edges

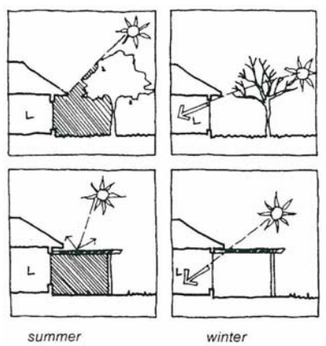
GUIDING PRINCIPLES

DESIGN FOR CHANGE

- Flexible design that is responsive to changes in lifestyle and demography
- Energy and resource efficient
- Adaptable to new approaches to transportation

AN ENVIRONMENTALLY SUSTAINABLE APPROACH

- Maximise solar orientation while responding to other design parameters
- Incorporate places to grow and harvest food
- Design and management of open space should incorporate biodiversity and sustainable water resource management goals
- Local destinations should be walkable
- Provide opportunities to harness energy



Market Analysis

MARKET ANALYSIS

OVERVIEW

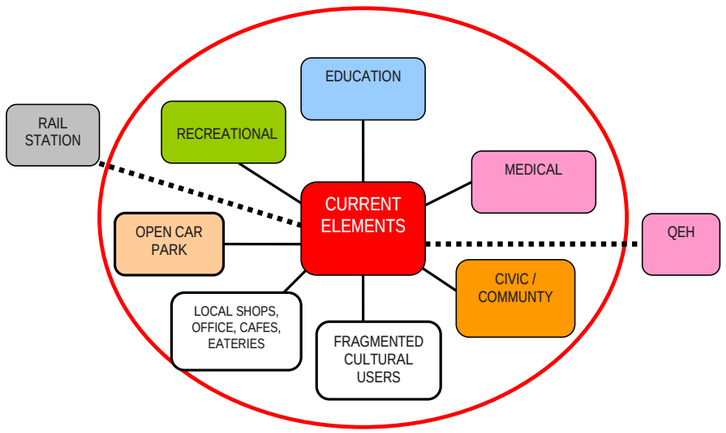
The assessment of market demand for various land use types within the Woodville Village Study Area has focussed on the land between QEH and Woodville Station (both sides of Woodville Road) and on the LMC site to the north of Woodville Road and east of the Station.

Realty Solutions Australia was engaged to assist the Study Team in determining desirable future land uses and built form within Woodville Village, taking into account previous work undertaken by them and other research relating to retail and commercial demand and supply.

The general conclusion is that the Woodville Village 'commercial' area is dominated by two primary anchors in the form of the Queen Elizabeth Hospital and the City of Charles Sturt Civic Centre / Library / Town Hall. While the area is zoned "District Centre", it is more characteristic of a local or small neighbourhood centre in the retail / commercial hierarchy.

Notwithstanding this, there is a growing number of small scale retail and commercial uses that are bringing some level of vitality to the street, while the new GP Plus centre is a new attractor for people using that facility.

The following diagram provides a summary of the current elements within Woodville Village:



DEMANDS AND DRIVERS

It is clear that currently Woodville Road acts as very much a local retail and commercial "centre" with the dominant land uses being Council's Civic Centre and the Queen Elizabeth Hospital. Without the potential impact of the St Clair development (former Cheltenham Racecourse and Sheridan/Actil site) and the development of the LMC land, it is difficult to imagine that the area would evolve over the medium to longer term to other than its current 'local' centre status.

However, the impact of the St Clair development, the development of the vacant Council and LMC land and some of the privately owned development sites along Woodville Road will lead to a transformation of the area and significantly increase the "catchment" for retail and related services. In addition, the electrification of the railway line, the large investment into the QEH and the construction of a new Station at Woodville will help to activate the precinct.

Earlier studies have been undertaken by Colliers International Consulting Services (SA) and Alistair Tutte Pty Ltd investigating the demand and supply for retail uses, in particular taking into account the new St Clair housing development, the Woodville Village Study Area and existing retail centres within the catchment. As a result of these earlier investigations it has been concluded that a Neighbourhood Centre comprising up to 5000m2 of retail floor space plus non retail space is to be established within the St Clair project adjacent to Cheltenham Parade and the railway line (linked to a proposed new Station).

During the Woodville Village investigations and Design Charrette it has been concluded that a smaller supermarket of approximately 1,000m2 should be located on Woodville Road close to Woodville Station, which will help "anchor" additional speciality retail shopping and commercial development and support the additional residential population to be located close by. Such a smaller supermarket will not adversely impact on any future Centre at St Clair near Cheltenham Parade, nor on the retail trade of the much larger Arndale District Shopping Centre. It is also expected that the existing small supermarket on Port Road will be able to continue to trade successfully given the large increase in additional population envisaged close to Woodville Station.

It was also concluded that the general retail 'experience' on Woodville Road should primarily focus on more distinctive retail shops and restaurants / cafes, rather than the more traditional and larger shops that are generally found in large retail centres.

It is this more eclectic and distinctive retail and restaurant mix that will act as an 'attractor' to the wider resident population of the western suburbs.

MARKET ANALYSIS

DEMANDS AND DRIVERS (CONT)

The following table provides a summary of the key drivers and indicative demand for each likely land use along Woodville Road.

Fundamentally, it is expected that demand for all land uses along Woodville Road will increase over the next 5 – 10 year time period, primarily (but not limited to) as a direct result of the residential development within the St Clair development and on the LMC land (potentially in the order of 1,600 new dwellings).

LAND USE	DRIVERS	INDICATIVE DEMAND
RETAIL	• Introduce Anchor • Central • Ground Level • Not Vertical • Transport Orientated • Grouping / Place Making • Cultural Base • Night Time Economy	• Potential for 800 - 1,000sqm Supermarket • Opportunity to establish an 'Eats Street' theme: clustering restaurants & cafes • There may be demand for say 15+ new small tenancies (pending surrounding development and land use structure of the precinct)
COMMERCIAL / OFFICE	<u>Regional</u> • Requires Key Sites • Destinational / Multi Level <u>Local Service</u> • Grouped Together • Convenience Based	<u>Regional</u> • (e.g. Government Departments) • Potentially 1 x large footprint with multi-level options providing say 1,000 - 5,000sqm in total <u>Local</u> • Potentially up to 20 x small tenancies of 50-200sqm each to support local business/ consulting room/ professional services growth
COMMUNITY	• In Existence • Major Draw Cards • Destinational • Niche Community Groups • Provide Anchors • Provide Employment • Trade Area = Wide Pull	• Potential expansion of existing services to accommodate increase in population from St Clair and LMC site, over the next 5 year time period • Potential requirement to expand Council's offices and/ or relocate the library to accommodate same.
RESIDENTIAL	• LMC Site – Higher Density, Short Term Release • Rail Station Development • Long Term Vision • Flexibility • Staged Development • Links To Transport • Market Competition (St Clair, Other TODS in proximity) • Aging population in local area	• Opportunity for residential housing located above new retail / commercial development along Woodville Road • Anecdotal evidence of existing demand is reflected in development approvals for residential dwellings above retail in two separate Woodville Road applications • Options for housing linked to medical precinct, serviced apartments etc • Potential demand for apartment style retirement housing as part of the mix in LMC land
HOSPITALITY AND ENTERTAINMENT	<u>Hotel</u> • Licence Capacity <u>After Hours Economy</u> • Requires Critical Mass of Restaurants, Cafes and Other Services • Linked to Anchors • Safety / Parking / Transport	<u>Hotel</u> • Potential demand for an office bar / pub <u>Main Street Precinct</u> • Cultural Influence / grouped services notionally clustered, creating demand in the order of up to 500sqm
MEDICAL	• Increase Density & Activate Ground Floor • Port Road West And East • Link To Village Core • Parking • Security • Accommodation for employees – within corridor, • QEH Redevelopment – long term commitment	• Demand for private medical services (as per private development at 844 Port Road) • Potentially multiple tenancies of 500sqm each) • Future demand for allied State Government Agencies (Potentially multiple tenancies of 250sqm each)
CAR PARKING	<u>Corporate Model</u> • Cost • Multiple Use (Day/Night and across Land Uses) • Access • Maximize Potential of Precinct	• Anecdotally existing parking opportunities fully utilised • Forecast increase in demand / supply for retail / commercial land use likely to significantly increase car parking demand • Council require additional car parking - potential medium term demand for 1 or 2 multi deck car parks

Precinct Masterplans

INTRODUCTION

As outlined in the Urban Design Framework, the Woodville Village Study Area has been divided into Precincts for the purposes of preparing specific Masterplans which provide overall direction and guidance for their future development.

Due to the nature of these "high level" Masterplans more detailed site analysis and investigations may be required as part of fine tuning concepts and developing new policies for incorporation into Council's Development Plan.

Each Precinct Masterplan is comprised of the following:

DESIGN INFLUENCES

The Design Influences are an amalgamation of technical influences, community input, State and Local Government policy directions and key agency input, market assessment and consultant knowledge. The various influences have been balanced against each other to meet the overall vision for Woodville Village.

DESIRED CHARACTER

A Desired Character 'vision' has been prepared for each Precinct, together with other descriptive material illustrating the intended future character of the Precinct.

MASTERPLAN

This is the Plan (with accompanying Legend) that visually illustrates the key ideas for the future development of each Precinct.

The Masterplans are sometimes supported with other written and graphic material to illustrate specific elements of the Masterplan.

QEH / PORT ROAD GATEWAY

DESIGN INFLUENCES

QEH / GATEWAY

- QEH is a major destination in the area that brings lots of visitors and workers
- QEH will have increasing numbers of staff who live locally or who catch the train to Woodville
- QEH is undergoing substantial new development. This will be 3 – 4 storeys in some areas with attractive vegetation along Woodville Road
- The Masterplan should reflect and harness this activity.
- Gateway features required to highlight entry to Woodville Village

TALLER BUILDINGS

- 30 Year Plan identifies Port Road as priority for higher density housing (ie. 4+ storeys)
- This should extend back from Port Road

PEDESTRIANS AND LINKAGES

- Pedestrian safety for QEH visitors and workers needs improvement
- It is likely that there will be an increase in younger nursing staff working at QEH, some will rent and some will catch the train
- The route along Woodville Road should be safe and pleasant for nurses who live in the area, who catch the train, and for visitors at QEH who want to visit the rejuvenated Woodville Road shopping precinct

FLOODING

- Council and the community have recognised that improved flood management is required at the Port Road/Woodville Road intersection

Looking north along Port Road at the Woodville Road intersection

QEH / PORT ROAD GATEWAY

DESIRED CHARACTER

BUILDINGS AND USES OF LAND

- A major activity zone for health, offices and housing
- New development, building extensions and associated landscaping at QEH
- Sufficient hospital parking provided on site
- 4-6 storey buildings along Port Road, with buildings up to 8 storeys near Woodville Road - residential on upper storeys
- Expand the District Centre Zone to Bower Street through to Jones street, with lower scale residential buildings facing Bower Street. This is desirable to provide better opportunities for integrated mixed use development along the Port Road 'corridor', while ensuring an attractive interface with residential areas across the road

ART AND LANDSCAPING

- Landscaping, public art and strong vertical elements in the central median to bring attention to the entry into Woodville Road
- Enhance Churches and other historic buildings through up lighting at night
- Strong landscaping around the gateway to link with open landscaped feel of QEH

PEDESTRIANS AND LINKAGES

- Improve pedestrian linkage and safety across Port Road and at QEH
- Provide a safe and pleasant pedestrian route from train station to the QEH

INFRASTRUCTURE

- Options for flood mitigation measures on Port Road are currently being assessed

A focus on health facilities, commercial buildings and housing located on upper storeys of buildings that are predominantly 4-6 storeys (or higher on corner sites). Very green and landscaped, with strong vertical public art elements on the Port Road median. These elements provide a strong sense of arrival into Woodville Village and the QEH Precinct.

PORT ROAD / QEH GATEWAY

MASTERPLAN

KEY

- 4 - 6 Storey commercial, retail and housing. Up to 8 storeys near Woodville Road. A focus on health facilities
- 1 Improve pedestrian safety at new QEH
- 2 New buildings, extensions and associated landscaping at QEH
- 3 Gateway landscaping, public art and strong vertical elements
- 4 Improved pedestrian linkage across Port Road and at QEH
- 5 Port Road Rejuvenation Project to address localised flooding
- 6 Potentially expand the District Centre Zone to Bower Street through to Jones Street with medium density housing and rear car parking
- 7 Uplighting at night to St. Margaret's Church
- District Centre Zone boundary
- Potential expansion of District Centre Zone boundary

RETAIL AND CIVIC HEART

DESIGN INFLUENCES

BUILDINGS AND USES OF LAND

- In keeping with policy direction for higher density buildings within activity centres and corridors established in 30 Year Plan
- More housing and employment opportunities brings more people – people bring vitality, energy, activity and also generate local income
- Community has identified need for local shopping precinct to sell daily, fresh goods
- The area does not need a large supermarket (close to West Lakes, Arndale and smaller supermarkets)
- Provide more opportunities to locate health and allied services in keeping with focus on health precinct
- Expansion of commercial area is in keeping with policy direction in 30 Year Plan for higher density within 400 metres of train stations, and to ensure integrated centre and parking solutions

FOOTPATHS

- Wider footpaths and increased building setbacks provide space for activity spilling out onto the footpath and for increased street tree planting.
-

PARKING

- Parking behind shops, including links between, to increase ease of use
- Multi - deck carparks where sufficient land and close to high activity areas
- Reduce on-street parking over time to increase width of footpaths and pedestrian amenity

RETAIL AND CIVIC HEART

DESIRED CHARACTER

A vibrant and active shopping, office, entertainment, civic and residential precinct connecting to an open plaza at Woodville train station and easy and safe access to St Clair, Woodville High and QEH. Activities during day and night with more footpath space for people and slower traffic. Less parking on the street but easy and well designed parking at rear of buildings.

BUILDINGS AND USES OF LAND

- Ground floor retail and commercial with 2-3 storey offices and apartments above
- Eclectic mix of restaurants, cafes, speciality shops and a mini supermarket
- Health and Civic services
- Multi-use of Town Hall, including entertainment
- Potential expansion of District Centre to Yarinda Street near the train station
- Buildings to reflect a diversity of architectural styles but incorporate elements of the local Woodville building character
- Buildings to incorporate environmentally sustainable design principles

ACTIVITIES

- Community markets on plaza next to train station
- Day, night and weekend activities
- Activities on plaza in front of council chamber
- Outdoor al fresco style cafes and eateries on wider footpaths

LANDSCAPING

- More landscaping and tree planting along the street to give a much greener feel

FOOTPATHS

- Wider footpaths and building setbacks create opportunities for activity spilling out onto the footpath (eg. dining, social meeting places, public art)

PARKING

- Parking primarily behind shops, with some on street, with arcade links between
- Decked carpark behind council offices to cater for Council, Town Hall activities and the retail precinct

RETAIL AND CIVIC HEART

MASTERPLAN

KEY

- 3 - 4 Storey shops and offices, apartments above with rear car parking
- 1 Investigate new use for former Civic Library
- 2 Potential expansion of current District Centre, with lower scale residential facing Yarinda Street and existing houses
- 3 Activities on plaza in front of Council Chamber
- 4 New community plaza next to shops and station
- 5 Outdoor al fresco style cafes and eateries on wider footpaths
- 6 Wider footpaths and building set backs from road provide space for more trees and alfresco dining
- 7 Decked car park behind Council offices and heavily landscaped around edges
- 8 Connect car park from Norman Street through to GP Plus car park
- 9 Connect rear car park through to Aberfeldy Avenue
- 10 Rear car parks
- 11 New four - way traffic signals at Kemp Street providing access to shops and car parks and safe pedestrian crossing (crossing replaces existing pedestrian signals opposite Council offices)
- District Centre Zone boundary
- Potential expansion of District Centre Zone boundary

RETAIL AND CIVIC HEART

INDICATIVE BUILDING STYLES ALONG WOODVILLE ROAD

KEY

1. Active retail/restaurant frontages with verandahs providing shelter
2. Distinctive signage creating interest
3. Offices and apartments above
4. Balconies and terraces
5. Smaller building footprints creating interesting architecture along the street
6. Arcades linking to rear car parks
7. Heritage buildings protected

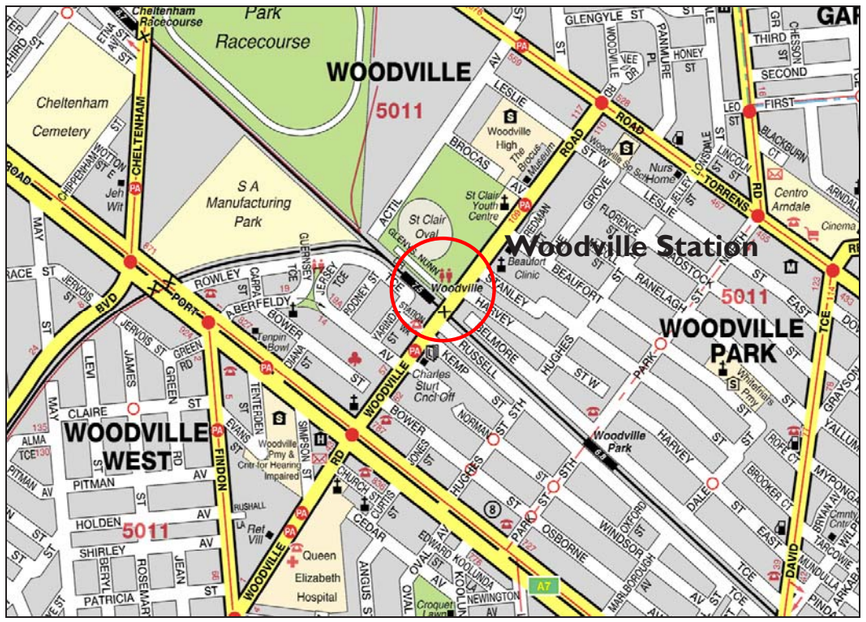
WOODVILLE STATION

CURRENT STATUS

LOCATION

Woodville Station is located in Woodville, within the City of Charles Sturt Council area. It is located on the Outer Harbor Line and is approximately 7.5km (by railway) north-west of Adelaide Railway Station. Woodville station is the junction for the Grange Line branch of the Adelaide Railway network. The station was first opened in 1856 and was one of the original stations on the Adelaide to Port Adelaide line.

Location Plan



EXISTING STATION SITE DESCRIPTION

The existing station includes one side and one island platform. There are three tracks at the station, all run by the Public Transport Services Division of DTEI servicing both the Grange and Outer Harbor lines. No freight trains run through Woodville Station. The station site contains the additional amenities of a kiosk building (no longer operational), vending machines and bike lockers. Free commuter parking is provided on both sides of the station reserve.

PATRONAGE

Surveyed daily patronage figures provided by DTEI for Woodville Station are shown below.

Woodville Station Daily Patronage Figures (2008)

	Boarding	Alighting	Totals
Up track (to city)	200 (4 bikes)	157 (11 bikes, 3 MA*)	**357**
Down track (from city)	213 (15 bikes, 2 MA*)	251 (8 bikes)	**464**
Totals	**413**	**408**	***821***

*Mobility Aid

Currently in SA, approximately 5% of all journeys are made by public transport. The SA Government's objective of achieving 10% of all metropolitan weekday journeys being on public transport by 2018 indicates that patronage at Woodville station may increase significantly by 2018. There is also significant current and planned urban development within and around the area. This substantiates the need to provide improved station facilities to be able to cope with increasing future demand forecasts.

TRAIN SERVICES

The train frequency at Woodville station is every 10 - 30 minutes in each direction at peak, and every 30 minutes at inter-peak on Monday to Fridays. The frequency lessens to 15 - 45 minutes during weekends and at night (all days). DTEI is considering further increases in train service frequencies, up to 15 minute frequencies in both directions between 7am and 7pm on weekdays.

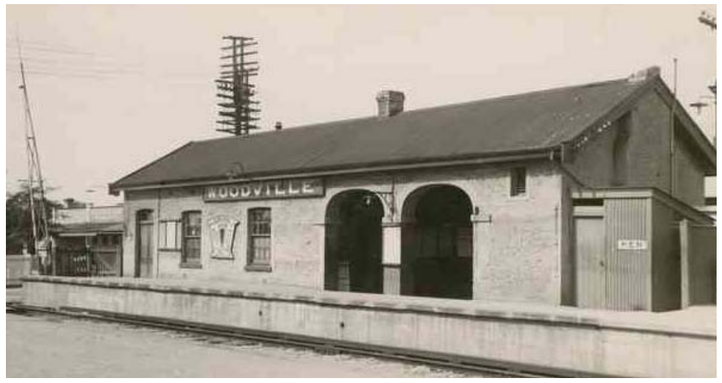
WOODVILLE STATION

CURRENT STATUS (CONT)

Bus Services in Proximity to Woodville Station (Adelaide Metro 2010)

BUS SERVICES

There are currently approximately eight local bus service routes that stop near the station that provide links to many of the north western suburbs, such as Port Adelaide, West lakes, Largs Bay and Osborne. The map below shows bus services in proximity to Woodville Station from Adelaide Metro. Bus services are currently operated by SouthLink and Torrens Transit under contract to the S.A. Government's Office of Public Transport.



HERITAGE AND CHARACTER

The original station at Woodville opened in 1856. It was completely rebuilt in the 1940's as a part of the redevelopment of the line for the war effort, and further alterations were made in the 1990's after the closure of the Finsbury spur line.

The Woodville Station is a local Heritage Place identified in the City of Charles Sturt Development Plan. The station was listed as a it displays historical, economic or social themes important in the local area, and it has played an important role in the lives of local residents.

A heritage value assessment undertaken in May 2010 by McDougall and Vines concluded that while Woodville Station's location and use have heritage value the station elements themselves do not. In fact the existing shelters on the platforms are relatively recent additions to the station, with the original brick shelters being demolished in 1942. McDougall and Vines have concluded that it is important to maintain the station platforms at their current location, but that new structures could be constructed.

Given the need to raise and significantly modify the station platforms to comply with the new electrified rail system, redevelopment of the station is necessary. However, it is recommended that the architectural style of any new infrastructure, including canopies to provide shade and shelter, should reflect key aspects of the architectural character of the local area while introducing a contemporary, progressive form.

1. Platforms and pedestrian bridge - 1942
(Source: State Library of South Australia B 21377)
2. 1942 view of Woodville Railway Station, just prior to demolition
(Source: State Library of South Australia B 11391)
3. Platform 1 and pedestrian bridge - c 1890
(Source: State Library of South Australia B 20174)

WOODVILLE STATION

CURRENT STATUS (CONT)

PUBLIC SAFETY AND AMENITY

The station currently has some CCTV coverage, though the shelters have closed ends and therefore block sight lines creating opportunities for unsocial behaviour. It is intended that CCTV coverage will be significantly improved with upgrades planned by DTEI.

DISABILITY DISCRIMINATION ACT (DDA)

No DDA assessment of the current station access points has been undertaken at this point. As part of any redevelopment all access points will be made DDA compliant. Disability access to the platform is currently provided through ramps.

INTEGRATION WITH OTHER TRANSPORT MODES

Integration with bus transport is currently limited. There is a bus stop located on Woodville Road in close proximity to the station, but it only services one route. Other bus services are located on Port and Torrens Roads approximately 600m from the station.

Car parking is available on both sides of the station and the area is very accessible by road. Equally, cyclists are catered for, with easy access to the station and five bike lockers are available on site close to Woodville Road. Pedestrians can access the station from the surrounding roads and parklands.

INTEGRATION WITH LOCAL AREA

The station was opened in 1856 and has had various upgrades and additions since this time. As such it is very well integrated into its surroundings. The surrounding land is used for car parking, residential and open space.

HISTORY / ISSUES / RISKS

A risk assessment undertaken by TransAdelaide (now the Public Transport Services Division of DTEI) in 2005/06 concluded that the pedestrian crossing at Woodville station was a high risk crossing. This was due to the combination of a high number of pedestrians crossing over three tracks, with a high frequency of trains using the line. As a result of this, active pedestrian maze ways were installed to enhance pedestrian safety.

WOODVILLE STATION

PROPOSED CONCEPT DESIGN AND COMMUNITY PLAZA

KEY

1. Potential train / tram stops linking directly into adjacent plazas
2. New train station platforms and canopies designed to complement the local character
3. Retail 'Heart' with mini - supermarket, shops and cafes
4. Apartments / offices over shops
5. Opportunities for public art
6. Greenway alongside rail line (east side) for cyclists / pedestrians linking the Port with the city

The Woodville Station will be a key landmark within the Village, providing modern public transport services attracting increased patronage. The electrified service will lead to increased frequency and reliability, commuter amenity and safety will be improved with new platforms, shelters, lighting, ramps and other facilities. The use of tram-trains is being further investigated for the Outer Harbour line. This could see additional tram-train platforms integrated with the two public plazas either side of the Station to help activate these important community spaces for extended periods.

WOODVILLE STATION

PRELIMINARY CONCEPTS

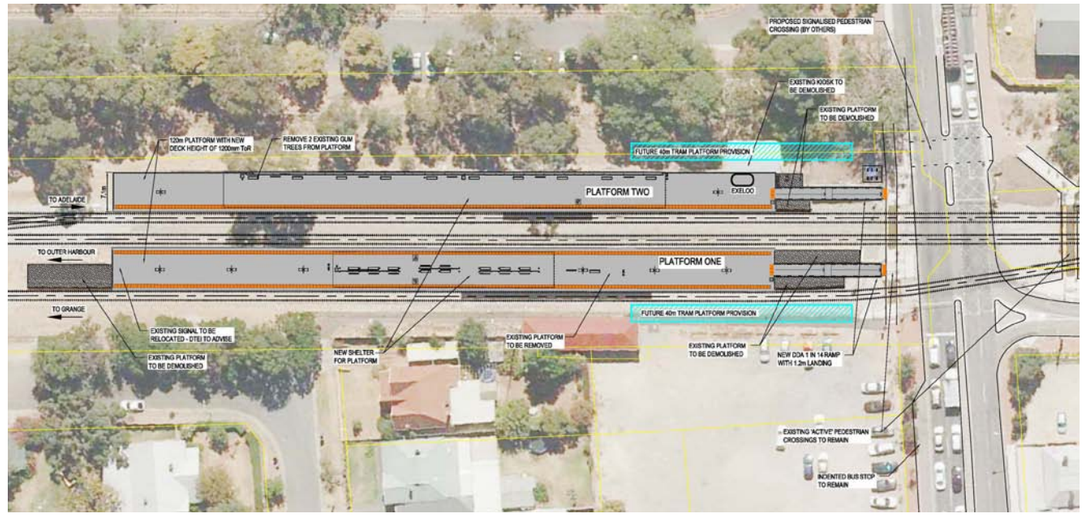
TYPE OF UPGRADE

The concept design considers two options, both of which involve retaining the position of the two existing platforms. The first option is to upgrade the existing platforms as they are in their current position; the second option is to reduce the width of platform 2 from its current width of 7m to 4.5m to accommodate a future tram-train line and stop on the eastern side of the existing platform. Both options involve extending the platforms to 120m in length and raising the surface to 1200mm above the top of rail (ToR).

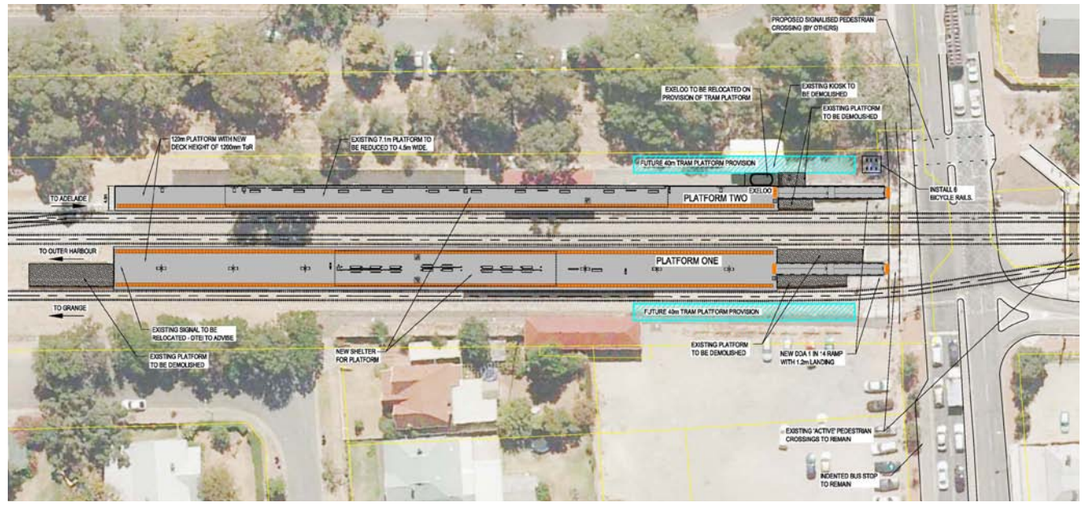
DESIGN OBJECTIVES

The draft concepts have been specifically developed to:

- Promote public safety by maximising surveillance opportunities
- Facilitate easy and legible access for passengers, pedestrians, bicycles and vehicles
- Maximise value for money
- Minimise impact on the existing natural environment
- Maximise the use of standard and reusable materials
- Integrate and connect with the immediate area and surrounding urban environment
- Take effective account of the development plans that have been produced for the areas around the station site
- Produce a 'future proofed' design that can accommodate the vision expressed in the Woodville Village Masterplan for the Woodville Station precinct
- Provide a 'Kiss and Go' facility in the form of 5 minute indented car parks on Woodville Road



Option 1 - Wide Platform Two



Option 2 - Narrow Platform Two

WOODVILLE STATION

PRELIMINARY CONCEPTS (CONT)

DESIGN FEATURES

The intent of the design can be summarised as follows:

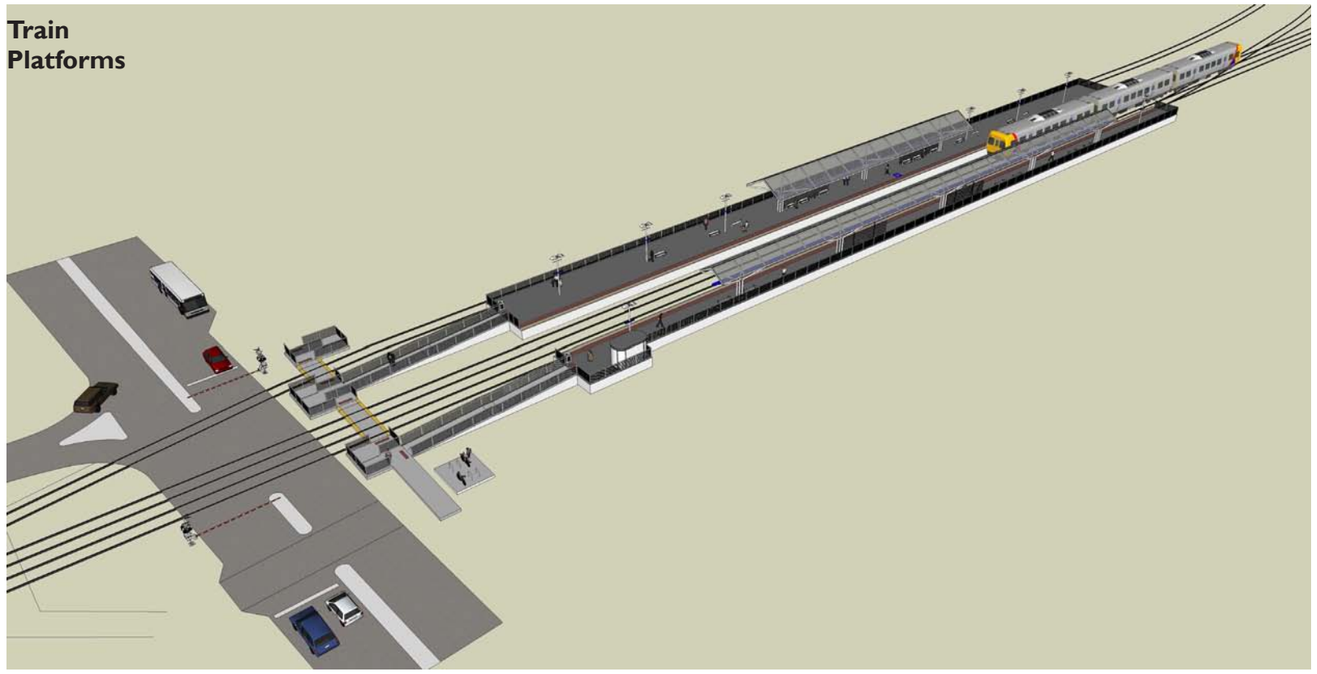
- Upgrade existing platforms
- Provide an architecturally designed shelter/ canopy with integral lighting and subtle line branding
- Provision of DDA compliant platform access to the station site and to each platform;
- Supply new toilet, bicycle enclosure and rails, seats, bins and signage, emergency phone, annunciator, hearing loop and train information systems
- Provision of selected fencing sections along perimeters of the corridor to channel people to cross at designated points
- New CCTV to platform and surrounds (includes control room and recording equipment);
- 'At-grade' landscaping – removal of excess 'non-significant' vegetation to facilitate improved surveillance from surroundings to platform and vice versa (CPTED)

OPTIONS FOR TRAM-TRAINS

The Government is investigating the potential to incorporate tram-trains utilising the rail corridor. Tram-trains are currently used in several countries, where trams have been designed to be able to travel along both tram tracks through streets as well as along the fixed 'heavy' rail lines. As a result options have been prepared for Woodville Station whereby the initial development is for a redeveloped heavy rail station only, with the potential to add two tram-train platforms on the eastern and western sides which will integrate directly on to pedestrian plazas either side.

The following two aerial views show an indication of the design solution.

Tram-trains are used in some countries, combining trams that are designed to also use the fixed heavy rail lines



WOODVILLE STATION

PRELIMINARY CONCEPTS (CONT)

PUBLIC SAFETY

The following design features have been incorporated to promote public safety (CPTED):

- Illumination levels on key pedestrian routes will meet DTEI Station Design Guidelines Part 5 – Electrical Infrastructure and Lighting
- CCTV will be provided in accordance with DTEI Station Design Guidelines Part 4 – CCTV – Stations and Car Parks
- Emergency telephone connections will be provided for enhanced public confidence and safety
- Clear and easily visible signage to provide a constant reminder of available facilities

CIRCULATION

The concept design will enhance easy and safe passage to and from the station facility for all patrons. This will tie in with the Woodville Village Masterplan, by promoting easy access to proposed adjacent plazas and retail outlets.

ACCESS COMPLIANCE

Through discussions with DTEI and our DDA consultant, it is proposed that appropriate DDA access may only be provided for the main access route to each platform.

The main access route is determined by surveying the number of people approaching and leaving the station and mapping the routes and access zones they utilise. This approach lends itself to a realistic, responsible and cost effective outcome.

VALUE FOR MONEY

Cost effective aspects of the station proposal include:

- Simple architectural forms using standard structural sections
- Use of simple cost effective materials assembled as part of a more dynamic architectural form
- Use of base material finishes which will reduce long term maintenance costs
- Simple architectural construction detailing that performs numerous functions concurrently (ie. weather protection canopy which shades the platform, contains light spill at night, allows controlled natural ventilation but can also shield from prevailing winds) will be utilised

FITTINGS AND FIXTURES

All seats, light fittings, platform furniture and other items will be chosen for their robustness, attractiveness and to minimise support for and impact from anti-social activities.

VANDAL RESISTANCE

The delivery of a facility that embodies vandal resistance is essential for all-of-life performance, durability, visual appeal and perceived passenger safety. Vandal resistance at Woodville station will be integral to design decisions made for this project.

WOODVILLE STATION

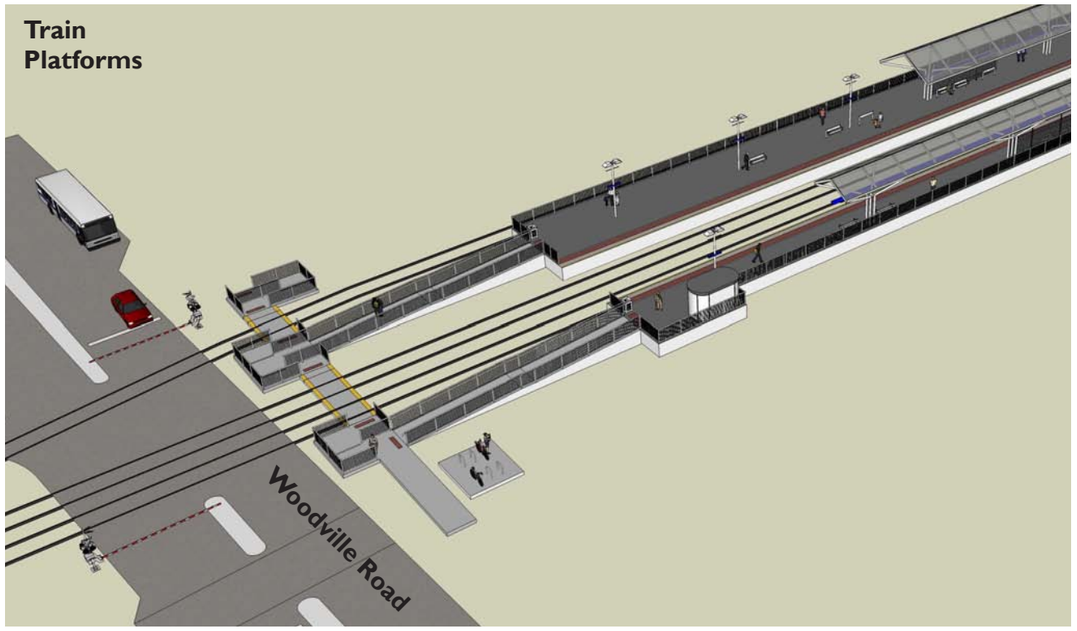
PRELIMINARY CONCEPTS (CONT)

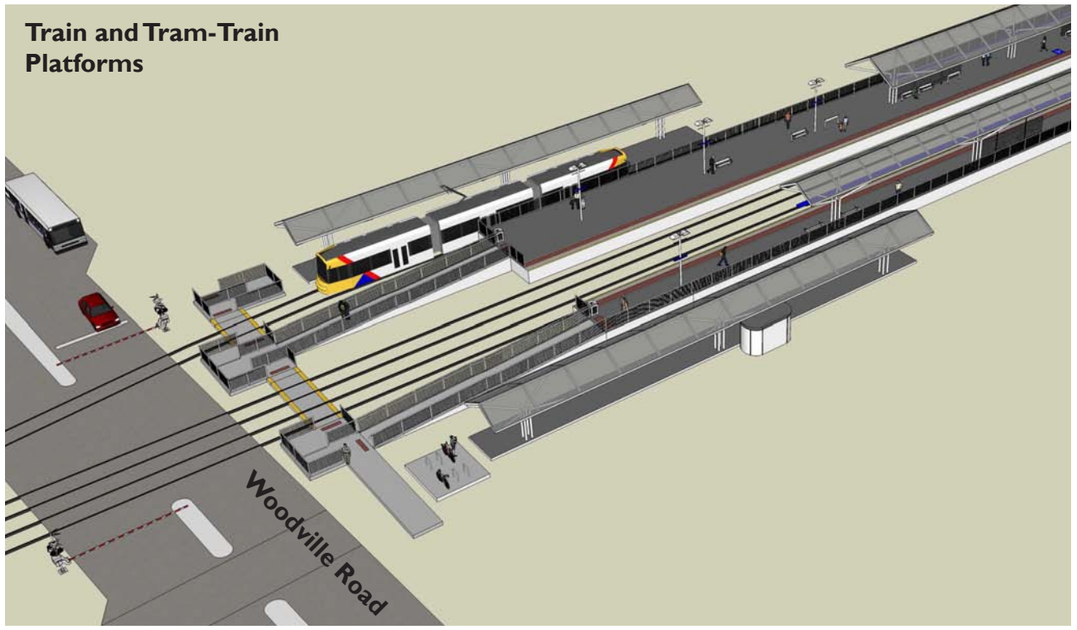
ENERGY USE

Energy consumption will be minimised through the use of appropriate energy efficient lighting. This low energy/ high output long life lighting also has a low unit cost. Platform shelter features have been designed to offer maximum protection for users. Detailing of the shelter will facilitate natural ventilation and maximises user comfort.

LIGHTING

Integrated discrete, code compliant lighting will provide sufficient light for safe embarking and disembarking, and precinct surveillance without visual interference or glare. Lighting will be designed to limit spill to the immediate surrounding area but also to incrementally graduate down away from the platform area, easing the transition through platform lighting levels, access ramp, progressing to local street lighting levels.





WOODVILLE STATION

PRELIMINARY CONCEPTS (CONT)

ENHANCED SECURITY (CPTED AND CCTV)

The station is to be designed to the DTEI standards which are a hybrid assimilation of the P2 and P3 requirements from the National Code of Practice (NCP) 2006.

Our design has been developed in accordance with the South Australian Government's guidelines for 'Crime Prevention through Environmental Design and Urban Design'. Provision is made for open, visually transparent structures maximising surveillance opportunities both within and surrounding the facility.

Monitored CCTV security cameras will be integrated, comprehensively covering the platform access areas and platform choke points.

Cameras will be evident but not confronting, so that they provide discreet electronic surveillance, discouraging antisocial behaviour without imparting the perception that the precinct is inherently dangerous or unsafe. An emergency phone point will also be provided on each platform, with associated active CCTV (linked to Police Security Services Branch - PSSB) cameras and linked public address system to render immediate response prior to arrival of physical assistance.

The design is an easily maintained durable facility which, through its robust presentation, discourages vandalism and therefore presents as an inherently safe environment.

PLATFORM HEIGHT AND GAP CLEARANCES

The introduction of the Disability Discrimination Act 1992 has placed additional importance on resolving height discrepancies in the design of new works. In order to match the platform with existing and new rolling stock floor levels, the new platforms will be constructed to 1200mm above top of rail.

PREFERRED OPTION

DTEI has advised that based on the preliminary cost estimates, functionality and reduced land requirements, Option 2 is the proposed Woodville Station Concept.

Train Platforms - view from Woodville Road

Train and Tram-Train Platforms - view from Woodville Road

LMC LAND

DESIGN INFLUENCES

- Ensure no net loss of public open space arising from the St Clair land swap
- Maximise visual exposure of St Clair Reserve to Woodville Road
- Provide medium rise higher density housing in accordance with the State Government's 30-Year Plan for Greater Adelaide
- Create a public activity area (cafes, restaurants, shops) close to station to provide interest, amenity and after hours security
- Create a flexible space on Woodville Road for potential community markets and special events
- Locate taller buildings to reduce overshadowing effects
- Create an environment where cars are second to pedestrians and cyclists
- Design landscaping for amenity and food production
- Include diverse and affordable housing based upon the State Government's 30 Year Plan and Council's Community Plan
- Open up centre of site to recognise former oval location and provide visual link to St Clair Reserve
- Create interesting building shapes and spaces between buildings to allow space for significant internal landscaping and visitor parking
- Provide energy efficient housing
- Provide some recognition of former oval use and protect as many trees as possible
- Decked carpark near supermarket to cater for retail, commercial and apartments




LMC LAND

DESIRED CHARACTER

OPEN SPACE AND VEGETATION

- 22% (approx) public open space and adjacent 'greenway' land and communal 'green' areas
- Wide Woodville Road frontage to St Clair Reserve
- Retention of majority of healthy significant trees (including those along the rail corridor to be part of the cycle greenway)
- Retention of large fig tree (currently in decline)
- Small central park built around the centre of the former oval (part of the proposed heritage trail) linking to St Clair reserve

USE OF THE LAND

- Mixed use retail / restaurant precinct overlooking plaza and station
- Potential for weekend / monthly markets on plaza and spilling into park
- Direct pedestrian promenade between rail station and St Clair Reserve, with after hours security features

ROADS

- New St Clair Avenue connecting Woodville Road to 'St Clair' project, and providing access to new restaurants/shops
- Retention of Glynis Nunn Drive with commuter / visitor parking (review desirability of retaining link to Woodville Road)
- Creation of a central, pedestrianised housing precinct with high landscape amenity

HOUSING

- Lower height housing around perimeter of St Clair Reserve and opposite new proposed townhouses on Actil Avenue, with 6-8 storey apartments closer to rail line
- Smaller buildings with strong variation in elevations, balconies (recessed and projecting), interesting roof shapes, window shading, sympathetic and interesting colour selection, use of light and shade, use of a variety of materials to create interest

HIGH LEVELS OF SUSTAINABLE DESIGN

- Passive energy design
- Attention to overshadowing impacts
- Energy generation
- Lower provision for on-site car parking
- Water conservation and recycling
- Waste minimisation
- High quality and sustainable landscaping
- Rooftop gardens
- Food production

HOUSING DENSITY INCLUDING AFFORDABLE HOUSING

- 1, 2 and 3 bedroom apartments
- 2 and 3 bedroom townhouses
- 1 and 2 bedroom 'walk-up' apartments
- Work from home options
- Small affordable 'mews' homes over garaging
- Minimum 15% affordable housing provided
- Torrens and Community titles

LMC LAND INDICATIVE CONCEPT PLAN

KEY

1. Wide park frontage to Woodville Road
2. Fig tree retained in pocket park
3. Central Park that recognises former oval / pitch and opens up to St Clair Reserve
4. 'Greenway' for cyclists and pedestrians
5. Central 'pedestrianised' precinct including community garden
6. Retain oval mound and trees
7. Parking along Glynis Nunn Drive with significant trees retained
8. Mixed use buildings - restaurants, cafes, local businesses and dwellings
9. Plaza for community activities and markets linking to station
10. Apartments overlooking St Clair Reserve
11. Town houses linking in with St Clair development
12. 8 storey apartments
13. 3 storey 'walk up' apartments
14. Intersection with traffic lights
15. St Clair Avenue - attractive tree lined boulevard connecting Woodville Road to 'St Clair' and providing access to local shops, restaurants etc.

Retention of all but one healthy significant trees (based on tree health survey)

22% public open space plus incidental open space around apartments, along roads and greenway

A mixture of housing types: 3-8 storeys

Total 400-430 (approx) dwellings (minimum 15% affordable)

Spaces and landscaping that value and recognise elements of St Clair Reserve

LMC LAND ARTIST ILLUSTRATION (INDICATIVE)

An attractive, high quality and sustainable residential precinct providing a mix of medium and higher density housing options within a landscaped setting.

A precinct where cars don't dominate and pedestrians and cyclists can move freely and safely. Paths through the site link through to nearby shops, community facilities, the train station, High School, St Clair Reserve and to the cycling track alongside the rail line connecting the site to the City and the Port.

Internal parks provide 'green' spaces for residents and potential for growing food. Roof spaces provide potential for gardens and solar power generation and solar water heating.

Small scale shops, restaurants, cafés and businesses face a new public plaza and pedestrian promenade within the park frontage to Woodville Road. These 'active' uses add safety and social life and help to knit the 'Retail and Civic Heart' and the Station with St Clair Reserve and the Recreation Centre.

LMC LAND

PUBLIC OPEN SPACE, LANDMARKS AND VISTAS

KEY

22% (approx) Public Open Space

Vistas

Landmark Buildings and Spaces

Boundary of Existing Oval

Central park space opens up to St Clair Reserve - recognises former oval pitch

Fig Tree Park

Wide park frontage to Woodville Road

BUILDING HEIGHTS

KEY

Medium - Rise Apartments

3 Level 'Garden' Apartments

3 Level Terraces with Rear Lane / Mews

5 Indicative Number of Building Levels

Central Pedestrianised Area

RECREATION, SPORT AND EDUCATION

DESIGN INFLUENCES

- St Clair Recreation Centre is 'tired' and needs upgrading or redeveloping to bring it to contemporary standards
- The Centre should cater for a greater diversity of needs, including performing arts
- Access into the Centre from the 'rear' car park needs to be improved
- The rear car park needs upgrading with better lighting and security
- Explore potential for school gym to collocate inside Centre
- Woodville needs a large, regional playground for all age groups
- Woodville needs a large, challenging skate park
- Open up the views to Brocas House
- Explore need for additional tennis / multi - use courts
- Link this precinct north into the St Clair parklands and wetlands
- Improve connections between the community and Woodville High School, and foster shared use of facilities, including the community garden
- Ensure that Brocas Avenue remains closed and pedestrian safety is a priority.
- Improve safety for students crossing Woodville Road and walking to/from Station

RECREATION, SPORT AND EDUCATION

DESIRED CHARACTER

LAND USE ACTIVITY

- Undertake feasibility study to upgrade St Clair Recreation Centre to contemporary standards, including cost / benefit of integrating Woodville High School gym and performing arts
- Ensure any upgrade better addresses car parking and safe and convenient entries
- Improve road access to main car park via new St Clair Avenue
- Provide improved tennis club facilities next to courts, and investigate need for additional courts
- Develop regional playground / skate park next to Recreation Centre with good visibility to Woodville Road and with shared car parking
- Identify new site for public change rooms

LANDSCAPE

- Protect as many healthy trees as possible and plant additional trees to improve habitat and amenity
- Retain some of the existing mounds to protect trees, and remove mounds near oval to open up views and improve safety and security
- Open up views into park and to Brocas House from Woodville Road
- Expand existing High School community garden to allow for wider community use

PEDESTRIANS AND CYCLISTS

- Incorporate generous, well-lit and safe pedestrian and cycle paths linking through to High School, Station and the St Clair development, parks and wetlands to the north

The St Clair Recreation Centre and Oval precinct will be a focus for sport, recreation and education in the Woodville community, providing an expanded range of facilities for all age and interest groups supported by adequate and attractively landscaped car parking.

The strong landscaped, treed character and views into the park will be maintained along Woodville Road, with access into the wider open space / recreation network opened up via the new St Clair Avenue and the major pedestrian / cycle path system.

RECREATION, SPORT AND EDUCATION

MASTERPLAN

KEY

1. Major upgrade of centre to improve recreation facilities, including new tennis club room and second entry from main car park
2. Investigate potential to co - locate school gym and performing arts inside an upgraded St. Clair Recreation Centre
3. Relocate two tennis courts to northern side to improve reserve presentation to Woodville Road and open views to Brocas House
4. Potential additional courts
5. New pedestrian refuge to improve safety for students crossing Woodville Road
6. School and community food garden
7. Pedestrian / cycle paths between school, Recreation Centre and Woodville Station
8. Upgraded and landscaped car park, with new access from St Clair Avenue
9. Regional adventure playground and skate park
10. Parts of existing mounds with tree planting retained
11. Shared bicycle / pedestrian pathway connecting Woodville Station to Cheltenham Parade via St Clair
12. Relocated Oval with preferred North - South orientation
13. Views and surveillance to reserve from St Clair Avenue to improve safety
14. Potential location for new change rooms and car park
15. Retain vast majority of existing, healthy trees and improve landscape and biodiversity
16. St Clair Avenue - Major tree lined boulevard with native trees
17. Brocas Avenue remains closed
18. Remove parts of stone retaining wall to open up access and views to park

TORRENS ROAD GATEWAY

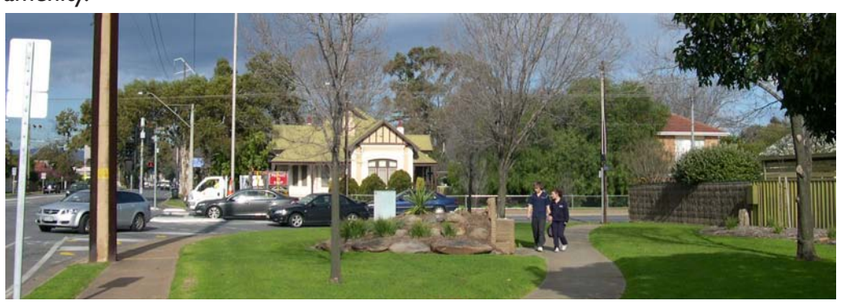
ART AND LANDSCAPING

There is opportunity to brand / sign post the intersection with large artistic 3D letters that spell out Woodville Road and arc around the front edge of the park to increase legibility of Woodville Road, and to lead people/ vehicles around the intersection into Woodville Road.

There is further opportunity to provide a solid backdrop to the park through the installation of a 2m tall solid sound wall. This wall can be a canvas for public art or temporary murals which the adjacent school could update every year. This backdrop will act to enliven the park and give people a reason to use the park as a destination. It would also act to highlight the artistic nature of the community as well as the intersection itself.

Lighting can provide additional safety and amenity at night. Coloured lighting could act to reinforce the legibility of the junction and highlight the artistic nature of the community.

A series of strong vertical elements (such as flag poles) are sometimes used in design to mark important areas for people moving through an area. There is opportunity to integrate a series of large vertical markers at this intersection to further highlight it as being of great importance. A series of arbors placed along the existing pathway that extends diagonally across the park could provide this verticality, and can be landscaped with climbing plants to increase amenity.



Woodville Road is an important linkage / junction point with Torrens Rd and the intersection treatment should highlight and reinforce this junction.

The existing park on the south western corner of the junction provides an excellent refuge from the busy intersection. The existing landscaping is in good conditions, and any new work should build on the existing character and amenity of the park.

Looking south across Woodville Road and Torrens Road intersection

Movement, Traffic Management & Parking

SUMMARY

A traffic study has been undertaken to consider the impact of the Woodville Village Masterplan on the operation of Woodville Road.

- The Masterplan aims to redevelop Woodville Road from Port Road to Torrens Road incorporating residential, retail, commercial developments, improvements to Woodville Station, the development of LMC Land and improved recreation facilities near the St Clair Recreation Centre
- Traffic forecasts for Woodville Road show a slight increase in traffic volumes to 2021 followed by a drop to levels lower than current volumes by 2031. A greater reduction in traffic volumes is expected if Woodville Road is reduced to one lane in each direction
- The number of trains crossing Woodville Road is expected to increase during the peak periods following electrification of the railway. A further increase in the number of trains may occur if the tram-train is extended from the Entertainment Centre to West Lakes/ Semaphore
- The impact of the increase in train crossings may be able to be offset by the removal of the express train, improved timetabling and a better Grade Crossing Predictor system at the Woodville Road rail crossing
- Further modelling of the predicted traffic volumes is required to assess the operation of Woodville Road, using AIMSUN or TRANYST microsimulation software
- A parking survey shows a current parking demand of 744 spaces, occupying 80% of the available parking. 120 parked vehicles were drivers parking and riding using Woodville Station
- The estimated parking demand for the development shown in the Masterplan is 1,110 spaces
- To accommodate the parking demand the following measures are to be implemented:
  - Potential three level decked car park located at the rear of the Civic Centre
  - Car parking areas provided behind proposed developments
  - Connection of existing car parking areas, improving access and increasing the car parking area
  - Providing pedestrian links from existing car parking areas through to the high street
  - Better signage to parking areas
  - On-street parking outside of the peak traffic periods
  - Indented parking operational during both peak and off peak periods
- Preliminary investigations undertaken by DTEI place a Greenway signal controlled crossing on Woodville Road opposite Belmore Terrace
- No additional pedestrian activated signals are proposed for the remainder of Woodville Road
- A high number of crashes have been recorded on Woodville Road. A number of intersections may be eligible for Black Spot funding

The findings of this study indicate that the Masterplan can be supported on traffic engineering grounds. However, a more comprehensive traffic assessment should be undertaken as part of the concept design, using reliable traffic volume data and traffic intersection analysis software such as AIMSUN or TRANYST microsimulation software.

The Phase 1 Improvement Options for Woodville Road

- Maintaining the existing Woodville Road cross-section but allow on-street parking outside of peak traffic times - not currently supported by DTEI and subject to further traffic modelling
- Reduce the speed limit to 50km/h
- Provide a wider footpath or indented parking as required
- A new signalised access into a proposed mixed use area, forming a four-way intersection with Kemp Street (subject to DTEI approval and further traffic modelling)
- A new signalised intersection with pedestrian facilities connects Woodville Road to the St Clair housing project
- SIDRA (Signalised and unsignalised Intersection Design and Research Aid) modelling of the new intersections indicates that they will operate satisfactorily but vehicles may queue over the rail crossing. A QRS (Queue Relocation System) would have to be considered for the two intersections and rail crossing, although DTEI has a preference for a design solution that avoides the need for a QRS
- The combination of a lower speed limit, wider footpaths, public plazas and additional crossings at the two proposed signalised intersections improve amenities for pedestrians
- Secure cycle parking should be provided for at least ten bicycles with an area reserved for future bicycle parking demand

The Phase 2 Improvement Options for Woodville Road

- Reducing Woodville Road to one lane in each direction with a wide median and the provision of cycling lanes and indented parking where required
- Traffic is expected to divert from Woodville Road to more convenient routes. SIDRA modelling of the adjacent intersections indicate that they are expected to accommodate the diverted traffic
- SIDRA modelling of the new Kemp Street and St Clair intersections indicates that they will operate satisfactorily but vehicles may queue over the rail crossing. A Queue Relocation System would have to be considered for the two intersections and rail crossing
- The predicted peak traffic volumes for Woodville Road operating with one lane in each direction are similar to the current Kilkenny Road volumes measured at the rail crossing. It is therefore expected that Woodville Road with one lane will experience queues similar to those Kilkenny Road experiences currently. These queue lengths will not interfere with the operation of Port Road and Torrens Road
- The Vision further encourages the change to sustainable transport modes by providing walking and cycling facilities such as cycle lanes and wider footpaths on Woodville Road
- The demand for secure cycle parking should be assessed and additional parking provided if necessary
- The demand for additional bus services should be assessed and provided for

WOODVILLE ROAD TRAFFIC AND CAR PARKING STRATEGY

PHASE 1

Improvement Options
(short to medium term)

CHARACTERISTICS

Reduce speed limit to 50 km/h

No stopping during peak periods (ie, two travel lanes each direction)

Construct new St Clair Avenue including traffic/pedestrian lights

Increase footpath widths in limited locations where footpaths are narrow with owner/trader support to improve pedestrian friendliness and provide outdoor dining opportunities and opportunities for streetscaping

Grade Crossing Predictor System to reduce boom gate downtime

'Greenway' crossing for cyclists and pedestrians at rail crossing

Woodville Rd/Kemp St/Station Walk new intersection to provide sheltered turn right lanes and pedestrian crossing

Connect existing rear of property parking areas with property owner support

Incorporate directional signage

TIME FRAME (APPROX)

Year 1

BENEFITS

People friendly environment

Safer environment with lower traffic speed and with fewer incidents resulting in injury

Reduced downtime of boom gates

Improved scheduling of trains to coincide down/up track arrival of trains and therefore times boom gates are down

Increased landscaping

More accessible and efficient use of carparking

Less through traffic and more 'destinational' traffic supporting local business

Bicycle lanes connecting Torrens, Greenway and Port Rd

Reduction in total volume of traffic by 2021

Year 10

PHASE 2

Improvement Options
(longer term)

Subject to further modelling, DTEI approval and consultation, reduce to one lane each way incorporating:

Bicycle lanes

Wider footpaths

Additional landscaping (centre median)

Protected right turn lanes

Year 20

EXISTING CONDITIONS

SITE LOCATION

The study area can be generalised into two sections, with the railway forming a boundary. South and west of the railway the majority of the land is currently used for retail, with a mix of office and medical based consulting rooms, with the Civic Centre and Town Hall. To the north and east of the railway there is the St Clair Recreation Centre and Woodville High School on the west side of Woodville Road and, religious centres, the Spastic Society of SA Centre and residential developments on the eastern side.

Key industrial and commercial precincts are located in Woodville North, and Cheltenham to the west. The Queen Elizabeth Hospital (QEH) is located on Woodville Road to the south-west of the subject area. A large population also resides nearby in existing neighbouring residential areas which comprise the north-western suburbs of Adelaide, including Woodville West and South, Woodville Park and Woodville Gardens.

ROAD NETWORK - MAJOR ROADS

Woodville Road, Torrens Road and Port Road are arterial roads under the care and control of the Department for Transport, Energy and Infrastructure (DTEI). The remaining road network in the vicinity of the subject area is under the care and control of the City of Charles Sturt (CCS).

Port Road and part of Torrens Road are Primary Freight Routes in the 30-Year Plan for Greater Adelaide.

Signalised junctions within the study area are located at:

- Port Road / Woodville Road Intersection
- Torrens Road / Woodville Road Intersection

PORT ROAD

In the study area Port Road is an arterial road providing access between the CBD and southern Metropolitan area to the LeFevre Peninsula and national freight routes. Port Road forms part of the DTEI designated Heavy Vehicle Access Framework.

The road comprises a dual carriageway with three traffic lanes and a bicycle lane in each direction with sheltered turn lanes and a 35m wide median accommodating 90 Degree parking areas.

The Port Road intersection with Woodville Road is controlled by traffic signals. The posted speed limit on Port Road is 60km/h.

TORRENS ROAD

Torrens Road is an arterial road consisting of two lanes and a bicycle lane in each direction divided by a central median. Turning lanes for right turning traffic are provided at all side roads in the vicinity of the study area. Torrens Road forms part of the DTEI designated Heavy Vehicle Access Framework.

The Torrens Road / Woodville Road intersection is controlled by traffic signals. The speed limit is 60 km/h.

WOODVILLE ROAD

Woodville Road is an arterial road linking Findon Road, to the south-west, to Torrens Road in the north-east and is divided by the Outer Harbour railway line with an actively controlled crossing and boom gates and signals.

To the north-east of the railway crossing, Woodville Road has two lanes in each direction with a short length of solid median at its approach to the crossing, and no median or turning lanes until its signal controlled intersection with Torrens Road. Lengths of on-street parking are available outside of peak hours. A pedestrian actuated crossing is located near the Brocas Avenue junction.

South-west of the rail/road crossing, Woodville Road has two lanes in each direction divided by a narrow median, with lengths of indented parking and no turn lanes until its signal controlled intersection with Port Road. A pedestrian actuated signal is located between the junctions of Norman Street and Kemp Street.

At the junction with Bower Street, on the north-west side of Woodville Road, the side road carriageway has been raised to match the level of the adjacent Woodville Road footpath, forming a continuous footway across Bower Street and along Woodville Road. A distinctive paved area of carriageway has been provided across Aberfeldy Avenue at its junction with Woodville Road.

EXISTING CONDITIONS

ROAD NETWORK - LOCAL ROADS

ABERFELDY AVENUE

Aberfeldy Avenue is a local street indirectly connecting Port Road, via traffic signals, to Woodville Road at a priority controlled junction. There is no restriction of turning movements at these intersections. Aberfeldy Avenue has one lane in each direction and provides access to the residential area to the west of Woodville Road, linking a number of residential streets, including Bower Street, and has direct access from residential properties. Contrasting pavement colours at all intersections and a road closure have been employed as traffic calming measures, with the road closure requiring traffic to divert to Guernsey Terrace, Rowley Terrace and Jersey Terrace to rejoin Aberfeldy Avenue. Lengths of indented parking are provided intermittently on both sides of the avenue, with continuous paved footpaths on both sides of the avenue also provided.

BOWER STREET

Bower Street is a local street crossing Woodville Road providing access to the residential areas to the west and east of Woodville Road. Bower Street operates with one lane in each direction, providing a connection from Aberfeldy Avenue and Diana Street to a road closure on the western side of Woodville Road. Bower Street to the east of Woodville Road, connects Woodville Road to Park St South/Osborne Avenue.

To the west of Woodville Road, Bower Street has direct access for residential properties and also provides a rear access for Broons Hire, AMF Bowling Centre. To the east of Woodville Road, Bower Street provides access to a shared car parking area behind a row of medical consultant properties on Woodville Road.

Roundabouts are installed at the intersections with Hughes South Street and Park Street South. On-parking and continuous paved footpaths are provided on both sides of the street.

BROCCAS AVENUE

Brocas Avenue is a local street running north-west between Woodville Road and Actil Avenue, operating with one lane in each direction, primarily providing access from Woodville Road to the Woodville High School. This avenue is divided by a road closure that is permeable by cyclists. The eastern portion of Brocas Avenue is a defacto car parking area, with 90o angle parking on the south side, for the Woodville High School, adjacent leisure centre and Brocas Museum.

This length of Brocas Avenue connects the school's off-street parking area with Woodville Road, and has a footpath on the northern side. No turning movements are restricted at its junction with Woodville Road.

The western portion of Brocas Avenue connects to Actil Avenue, and to the St Clair Cheltenham (Woodville Growth Areas) development, via a roundabout. The St Clair Cheltenham road network is currently being constructed, but once completed will connect to both Cheltenham Parade and Torrens Road. Indented parallel parking is provided on the southern side of this length of Brocas Avenue, and a footpath on the northern side.

Both lengths of Brocas Avenue have no direct residential access.

LESLIE STREET WEST

Leslie Street West is a local street running north-west to south-east and is divided by Woodville Road. Leslie Street West provides access from Woodville Road to the growing St Clair Cheltenham residential area to the west and to the established residential area to the east.

EXISTING CONDITIONS

ROAD NETWORK - LOCAL ROADS (CONT)

The western length connects Actil Avenue to Woodville Road, operating with two unmarked lanes in each direction from Actil Avenue, to within 20m of Woodville Road, where the street is narrowed to one lane operating as one-way, with traffic exiting onto Woodville Road. This prohibits the turning movements from Woodville Road into Brocas Avenue at the Woodville Road junction. Direct access is provided to residential properties on the northern side, with two driveways on the southern side providing access to Woodville High School. On-street parking is restricted on the southern side, footpaths are provided on both sides.

The eastern length connects Woodville Road to The Grove with one traffic lane in each direction. A road closure at the junction of Leslie Street West, Leslie Street East and The Grove prevents vehicular traffic from connecting directly from Leslie Street West to Leslie Street East, but allows vehicles to turn directly to The Grove. Direct residential access is provided on both sides, with access to a small specialist school on the northern side, near the road closure. Footpaths and on-street parking are provided on both sides. All turning movements are permissible at its junction with Woodville Road.

NORMAN STREET, KEMP STREET, RUSSEL TERRACE, BELMORE TERRACE, GLENYS NUNN DRIVE, HARVEY STREET WEST, STANLEY STREET AND BEAUFORT STREET

Generally, these are local streets connecting Woodville Road to the residential areas to the west and east of Woodville Road, operating with one lane in each direction, and having direct residential access, on-street parking and footpaths on both sides. Their intersections with Woodville Road have no restriction on turning movements.

The following streets have additional notable characteristics and roles:

- Norman Street and Kemp Street also provide access to the Council / Civic car park. Norman Street has a road closure located to the east of the car park access. Kemp Street is narrowed to one lane at a pinch point, located to the east of the car park access. At the pinch point Kemp Street is reduced to one-way traffic operation; allowing north-west bound traffic access from the residential area to Woodville Road.
- The Russell Terrace/Woodville Road junction has turning movements restricted to left-in/left-out only. At the junction of Russell Terrace/Hughes Street South, traffic is restricted from entering Russell Terrace south-east of Hughes Street South.
- Belmore Terrace is closed at its junction with Woodville Road, but allows access for cyclists.
- Glenys Nunn Drive is a defacto 'park-n-ride' parking area, adjacent to Woodville Station, and provides access to the St Clair Oval off-street car parking area.
- The Harvey Street West/Woodville Road junction has turning movements restricted to left-in/left-out only. Harvey Street West is closed to the west of its intersection with Park Street North and Harvey Street East

EXISTING CONDITIONS

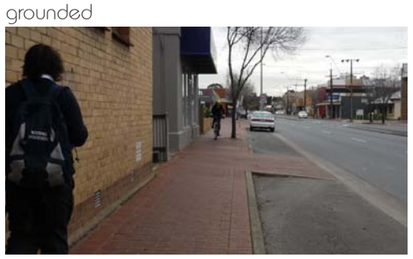
WOODVILLE ROAD: EXISTING CONDITIONS

The need to transform Woodville Road to help create 'Woodville Village':

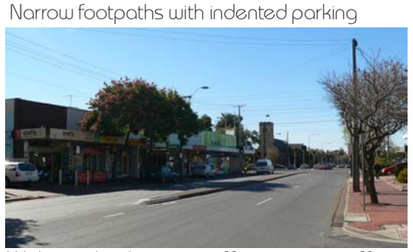
- Desire to transform Woodville Road from 'through road' to 'High Street'
- Desire to reduce traffic speed and significantly improve safety for traffic, pedestrians and cyclists
- Encourage outdoor dining, social activities in the street, and high quality landscaping
- Need to provide more places for pedestrians to safely cross Woodville Road
- Need to manage existing traffic flow as well as catering for additional traffic resulting from new development
- Need to reduce congestion caused by train crossings
- Desire to increase parking at rear of development and compensate for loss of parking next to Station when this site is redeveloped

Traffic queuing at rail boom gates

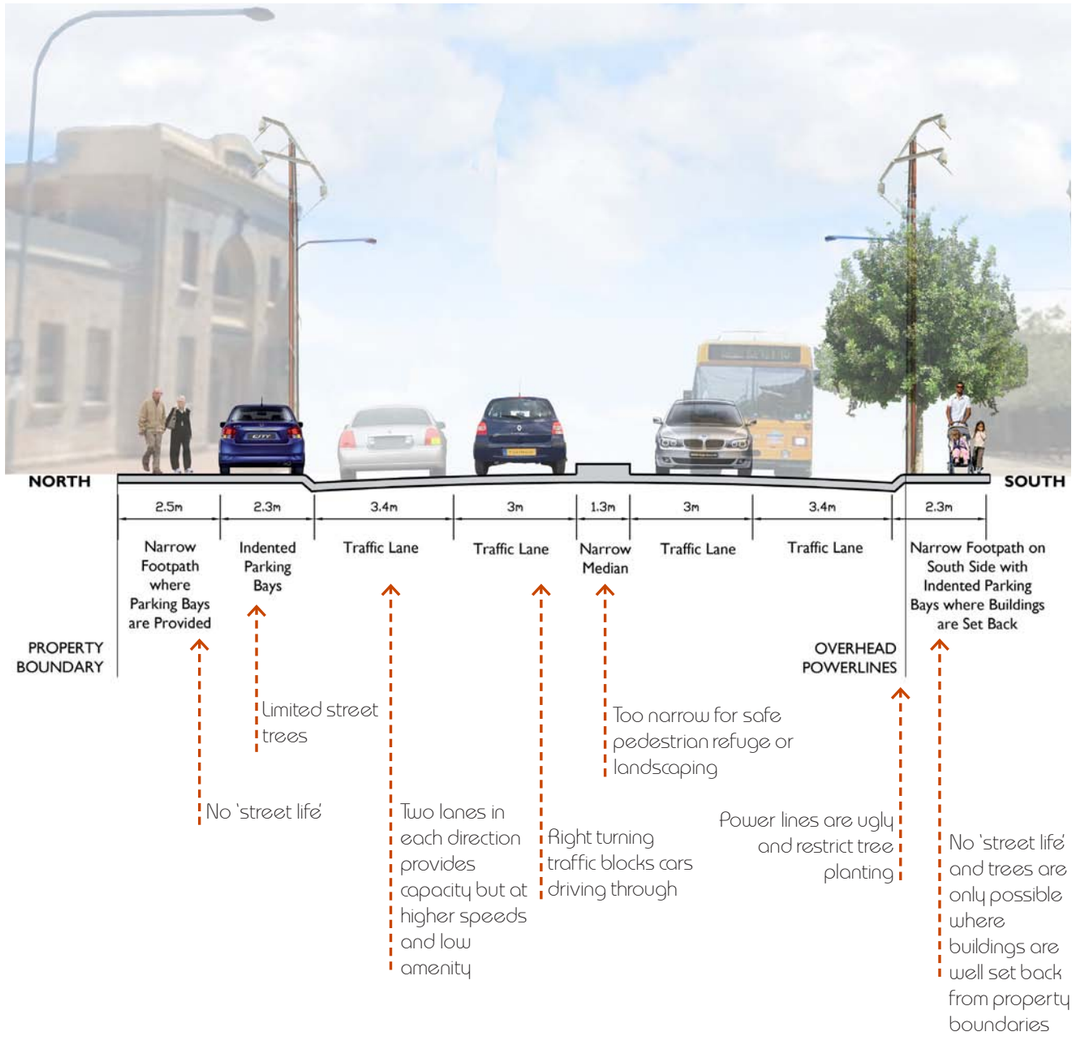
Not all power lines have been under grounded



Narrow footpaths with indented parking



Wide road with spare traffic capacity in off peak periods



EXISTING CONDITIONS

TRAFFIC VOLUMES

Traffic surveys were undertaken during April and May 2010 to ascertain the volume of traffic using Woodville Road and its connecting side roads. Additional traffic data for the road network was supplied by DTEI and from the City of Charles Sturt. The existing daily, am and pm peak period traffic volumes are shown in Appendix 2. Additional peak periods occur during the typical lunchtime and school pick up times, these traffic volumes are also shown in Appendix 2.

The traffic surveys indicate that traffic peak periods occur on Woodville Road during the following times and with the following characteristics:

- 08.15 am to 09.15 am peak period representing between 8% and 9% of daily traffic volumes (commuter traffic)
- 12.30 pm to 1.30 pm peak period (lunch time), representing 7% of daily traffic volumes
- 3.00 pm to 4.00 pm peak period (school pick-up), representing 9% of daily traffic volumes
- 4.30 pm to 5.30 pm peak period representing 9% of daily traffic volumes (commuter traffic)
- 5% of daily traffic are commercial vehicles

The peak traffic volumes on the approaches to the railway level crossing are as follows:

- AM commuter peak period: 1,060 on the south-west approach and 1,160 on the north-east approach
- PM commuter peak period: 1,030 on the south-west approach and 1,140 on the north-east approach

WOODVILLE ROAD AND KILKENNY ROAD / DAVID TERRACE RAILWAY CROSSINGS

The Outer Harbor / Grange railway line crosses Woodville Road 400m north-east of the Port Road / Woodville Road intersection and Kilkenny Road 350m north-east of Port Road. For both roads the railway crossing is actively controlled with boom gates that stop vehicular traffic to let a train pass.

To ascertain the effect of the at-grade railway crossing on the flow of traffic, site observations were undertaken in November 2009 and May 2010 during the am and pm commuter peak periods at both the Woodville Road and Kilkenny Road crossings (the survey at Kilkenny Road provides a useful comparison in terms of traffic volumes, queues and boom gate down time). The time and duration the road was closed for a train crossing and the resultant queue lengths were recorded.

A summary of the observations for Woodville and Kilkenny Roads is included below:

Woodville Road Rail Crossing Queue Lengths and Duration

	South-west approach		North-east approach		Duration of Road Closure	
	Average queue length and clearance time	Maximum queue length and clearance time	Average queue length and clearance time	Maximum queue length and clearance time	Average	Maximum
am	160 m	400 m	165 m	300 m	77 s	180 s
pm	90 m (Cleared in 25 s)	190 m (Cleared in 45 s)	115 m (Cleared in 45 s)	270 m (Cleared in 80 s)	61 s	141 s

The longest queue lengths on Woodville Road occurred when three trains crossed Woodville Road within two minutes of each other, with the boom gates lowered for up to 180 seconds. This situation occurred once during each of the peak periods observed. Woodville Road was closed ten times during both the am and pm road traffic peak periods, with an average road closure of 77 seconds for the am peak and 61 seconds during the pm peak.

Kilkenny Road / David Terrace Road Rail Crossing Queue Lengths and Duration

	South-west approach		North-east approach		Duration of Road Closure	
	Average queue length	Maximum queue length	Average queue length	Maximum queue length	Average	Maximum
am	195 m	360 m	210 m	360 m	65 s	97 s
pm	190 m	280 m	170 m	310 m	76 s	120 s

The longest queue lengths on Kilkenny Road /Davis Terrace occurred when two trains crossed within 60 seconds of each other, with the boom gates lowered for up to 120 seconds. This situation occurred once during the pm peak period. Kilkenny Road / David Terrace were closed seven times during the am road traffic peak period and eight times during the pm peak, with an average road closure of 65 seconds for the am peak and 76 seconds during the pm peak. A similar condition occurs in Cheltenham Parade. However the level crossing is only for the Outer Harbor line (compared to the Woodville Road rail crossing that carries trains destined for both Outer Harbor and Grange), so that the number of train services is less and for this reason has been excluded from further consideration.

EXISTING CONDITIONS

CRASH HISTORY

Crash data from 2005-2009 has been analysed and reveals that the following junctions / intersections and lengths of road, have a high number of casualty crashes (those crashes under the categories of doctor treated and admitted):

- Torrens Road / Woodville Road Intersection with 16 casualty crashes
- Between Brocas Avenue and Leslie Street with six casualty crashes
- Woodville Road / Kemp Street Junction with three casualty crashes
- Woodville Road / Norman Street Junction with three casualty crashes
- Woodville Road / Bower Street Intersection with three casualty crashes
- Port Road / Woodville Road Intersection with 33 casualty crashes

Due to the high number of crashes these intersections may be eligible for Black Spot funding. A more detailed analysis is required to assess if the cost benefit ratio required by the Black Spot program can be achieved.

RAIL NETWORK

An analysis of published train timetables for Woodville Station shows that, during the AM road traffic peak period of 8 am to 9 am, there are 13 trains crossing Woodville Road, with eight trains heading towards the city and five trains heading away from the city. During the PM road traffic peak period of 4.30 pm to 5.30 pm, there are also 13 trains crossing Woodville Road, with seven to and six from the city.

BUS

The 'Adelaide Metro' public transport system operates one bus route along Woodville Road; other bus services are located on Port and Torrens Roads. The bus service operating on Woodville Road is the 100/100A circle line route connecting the suburbs immediately surrounding the city, using the following roads in both clockwise and anti-clockwise directions; Woodville Road, Torrens Road, Regency Road, Portrush Road, Cross Road, Marion Road, Holbrooks Road, Crittenden Road, Findon Road and back to Woodville Road. This bus route connects to numerous other bus services that service the city centre and outer suburbs. This service operates Monday to Friday, from 6.50 am to 6.40 pm up to 15 minute intervals at the peak periods, and at 45 minute intervals on a Saturday from 7.50 am to 5.10 pm.

Bus stop 221 on the eastern side, is located outside the GP Plus building, to the north of Bower Street. The footpath in this location is narrow and is not ideal for a bus stop. No indented bay is provided. On the western side the bus stop is situated on a wide footpath. Both western and eastern side bus stops do not have a shelter.

Bus stop 222 is located close to Woodville Station and provides a connection between bus and rail services. On the western side, the bus stop is located opposite Harvey Street and is 70m from Woodville Station and has a 50m long indented bay. Bus stop 222 on the eastern side, is located opposite Harvey Street and is 100m from Woodville Station via the cycle/pedestrian crossing. No indented bay is provided. Both western and eastern side bus stops have a shelter.

Bus stop 223 on the western side is located outside the St Clair Recreation Centre on a wide footpath. A shelter is provided. On the eastern side the bus stop is located opposite the western stop on a wide footpath but no shelter is provided. Bus stop 223 is utilised by children attending the Woodville High School and is located within walking distance of the pedestrian actuated crossing.

Bus stop 224 on the western side is located outside the Woodville High School playing fields, south of Leslie Street, on a narrow footpath. A shelter is provided. On the eastern side the bus stop is located north of Leslie Street, approximately 60m north of the western stop, on a wide footpath. No shelter is provided.

The location of the bus stops is biased towards the length of Woodville Road to the north-east of the rail line, with just one bus stop located in the civic/retail area to the south-west of the rail line. All bus stops did not have tactile paving indicators installed; these are required for Disability Discrimination Act (DDA) compliance and to meet the Public Transport Division (PTD) requirements.

WALKING AND CYCLING

Pedestrian facilities along the length of Woodville Road to the south-west of the rail/road crossing are generally poor, footpath widths vary with pinch points created by street furniture, indented parking and buildings. Two formalised pedestrian crossing points are provided, a pedestrian activated crossing outside the Civic Centre and a signalised crossing at the Port Road / Woodville Road intersection.

EXISTING CONDITIONS

WALKING AND CYCLING

To the north-east of the rail/road crossing the footpath widths are more generous and consistent but road crossing facilities are poor. A short length of median is provided which can shelter crossing pedestrians; this is located near the rail line crossing. Only two formalised crossing facilities are provided; a cycle/pedestrian crossing opposite Belmore Terrace and a pedestrian activated crossing located near Brocas Avenue to cater for children attending the adjacent Woodville High School.

The following pedestrian facilities are provided:

- Pram ramps where the Woodville Road footpath crosses side roads
- Woodville Road northern footpath continued across Bower Street, with Bower Street narrowed at this point and closed 30m away from the footpath
- A narrow median in Woodville Road. The width of the median does not meet the Standard and cannot accommodate pedestrians with prams or wheelchairs.
- A pedestrian actuated crossing on Woodville Road outside the Civic Centre
- Pen type pedestrian crossings of the railway on both sides of Woodville Road
- A cycle/pedestrian crossing on Woodville Road opposite the Belmore Terrace road closure. A narrow median is provided here.
-

Cyclists are currently not provided for on Woodville Road. There are no marked bike lanes on Woodville Road and few end of trip facilities, such as cycle racks. Secure cycle parking for four bicycles is provided near Woodville Station.

CURRENT PARKING FACILITIES AND OPERATION

A survey of the off-street and on-street car parking areas along Woodville Road was undertaken during April and May 2010. The southern portion of Woodville Road, from Port Road to the railway, was surveyed on a weekday as the predominately office and medical land use has a peak parking demand occurring at this time. Preliminary site observations established that the northern portion of Woodville Road, from the railway to Brocas Avenue, experiences a peak parking demand on a Saturday, due to the organised sporting events held on the St Clair Oval.

Parking areas south-west of the Glenys Nunn Drive and Brocas Avenue were surveyed every 40 minutes from 8.30 am to 5.15 pm on Wednesday 28th April, to establish the current parking demand during a weekday. The survey showed that the total number of parking spaces available was 934. The peak occupancy of the 24 parking areas occurred between 1.30 pm and 2.20 pm with 744 spaces or 80% of all spaces occupied.

Parking areas north-east of the railway, including Brocas Avenue, were surveyed every 30 minutes from 9.30 am to 10.30 am on Saturday 15th May 2010.

The peak occupancy and the corresponding time for each car parking area is shown in Appendix 2.

It should be noted, however, that at the time of the survey, works were being undertaken on the Outer Harbor Rail Line that led to greater patronage of the park 'n ride and other car parks near the station.

From the parking survey the following parking characteristics were observed:

- The Council - owned car parks next to the station had a high occupancy rate; from 81% to 100% from 8.30 am to 5.15 pm. The north and south car parks were near to capacity during the late morning to early afternoon period. It was observed that from 7.30 am to 8.30 am the drivers of 60 vehicles (or 30% of the parking capacity) were parking and riding on the train from these car parks.
- The Glenys Nunn Drive parking area (Location 12) also experienced a high demand, with an occupancy rate between 61% and 97%. This car park is also used as part of a 'park and ride' system. It was noted that by 4.30 pm the majority of train passengers who had parked here had already departed, with just 14 train passenger / car drivers leaving the car park between 4.30 pm to 5.30 pm. However, up to 50 vehicles entered this car park between 4.30 pm and 5.30 pm and waited for up to 15 minutes to pick up passengers disembarking from the trains.
- Both the on-street and off-street parking areas in the vicinity of Mahony's Lawyers, the Council Offices and Town Hall were heavily utilised, with an average occupancy rate of 67% and a peak parking occupancy rate of 100% during the afternoon. The exception was the on-street parking located on Woodville Road outside the Council Offices and Town Hall, with a peak occupancy rate of 50%.
- On the Woodville Road eastern kerb line, south of Kemp Street to Port Road, the on-street parking is restricted for much of its length, with no parking allowed from 7 am to 9 am, and 4 pm and 6 pm, Monday to Friday. Four off-street parking areas are located behind buildings fronting this length of Woodville Road. These car parks experienced the following peak parking occupancy rates:
  - Royal Indian Restaurant – 85% from 1.30 pm to 2.10 pm
  - Civil Contractors House – 58%, from 9.30 am to 10.10 am
  - GP Plus – 73%, from 1.30 pm to 2.10 pm
  - Woodville Pizza Bar – 26%, 1.30 pm to 2.10 pm

EXISTING CONDITIONS

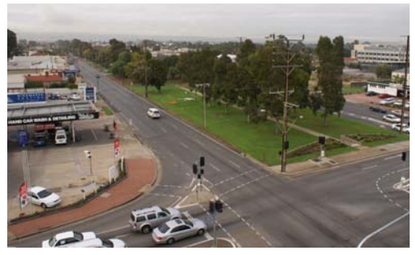
CURRENT PARKING FACILITIES AND OPERATION (CONT)

It is expected that the car parking areas associated with restaurants would experience a higher parking demand outside of standard office hours, but this occurs when the parking demand from neighbouring offices is low.

The strip of offices, shops and the dentist clinic, located on the west side of Woodville Road from the Brock Real Estates Office to the CP & A offices, have 41 off-street parking spaces in their vicinity and a total of 25 on-street parking spaces along their frontages.

- It was observed that the indented on-street parking areas experienced a high level of turn-over during the peak traffic periods, with drivers stopping for short periods of time visiting the shops. The peak occupancy of the on-street parking ranged from 50% to 67%, from 9.30 am to 2.10 pm.
- The Woodville Dental Clinic off-street parking area had a peak occupancy rate of 27%, from 8.30 am to 2.10 pm and the off-street parking area associated with the seven shops of No 57 Woodville Road peaked at 37%, from 11.30 am to 12.10 pm.
- The off-street occupancy rates are considered low. However, it was noted that three of the seven shops of the 57 Woodville Road building were unoccupied.

The parking areas surrounding the St Clair Oval area had high levels of occupancy, ranging from 97% to 100%, on Saturday from 9.30 am to 10.30 am. The exception was Actil Avenue, with a recorded peak parking occupancy of 10%. It was observed that a high number of vehicles were using Woodville Road as a drop off area for children attending the organised sporting activities on St Clair Oval.



CURRENT AND FUTURE TRANSPORT PLANS

Current and proposed industrial, commercial and residential development in the region will change the pattern and volume of traffic on the existing road network. Improvements to the state road network, railways, trams, buses and cycling infrastructure will also influence the movement of vehicles and people on the transport networks. The State Government is promoting the use of sustainable modes of transport through sustainable transport and health initiatives. These initiatives are likely to increase the number of trips made by walking, cycling and public transport. Discussions were held with the various divisions of DTEI to develop an appreciation of the likely shape of future traffic movements and the impact these could have on Woodville Road.

UNDERLYING TRAFFIC GROWTH AND ROAD NETWORK GROWTH

The State Government's 30-Year Plan outlines the future direction of the transport system, with a pronounced shift towards more sustainable forms of transport. The Plan identifies sites for transit-orientated developments and transit corridors, with Cheltenham/Woodville identified as a priority TOD and Port Road as a major transit corridor. The higher residential density development and the sustainable transport philosophies in the Plan will have a dramatic effect on traffic movements in the whole of the Greater Adelaide region.

An estimation of the effects of these future developments as shown in the 30-Year Plan, is simulated in the DTEI Metropolitan Adelaide Strategic Transport Evaluation Model (MASTEM) of the Greater Adelaide Region.

DTEI were asked to model the effect on traffic movements on the arterial roads of reducing Woodville Road to one lane using MASTEM. The MASTEM traffic predictions for Woodville Road and the surrounding road network were made available for this study by DTEI, for both two lane and one lane configurations of Woodville Road. The predicted traffic volumes are shown below.

Existing and MASTEM Traffic Volumes

Location	Existing (2010)	MASTEM 2021 – Woodville Rd 2 lanes	MASTEM 2021 – Woodville Rd 1 lane	MASTEM 2031 – Woodville Rd 2 lanes	MASTEM 2031 – Woodville Rd 1 lane
Woodville Rd – South of Torrens Rd	Daily: 22,000 am: 2,000 pm: 2,000	Daily: 22,500 am: 2,070 pm: 1,890	Daily: 19,200 am: 1,750 pm: 1,750	Daily: 21,900 am: 1,930 pm: 1,920	Daily: 19,100 am: 1,730 pm: 1,660
Woodville Rd – at rail crossing	Daily: 23,000 am: 2,200 pm: 2,200	Daily: 23,500 am: 1,930 pm: 2,120	Daily: 20,500 am: 1,780 pm: 1,880	Daily: 22,900 am: 1,790 pm: 2,150	Daily: 20,400 am: 1,640 pm: 1,790
Woodville Rd – North of Port Rd	Daily: 22,100 am: 1,800 pm: 2,000	Daily: 23,200 am: 1,970 pm: 2,050	Daily: 20,000 am: 1,760 pm: 1,810	Daily: 22,600 am: 1,830 pm: 2,080	Daily: 19,900 am: 1,740 pm: 1,720

Based on the DTEI population and transport infrastructure predictions, the following changes to the traffic volumes can be seen:

- The traffic volumes on Woodville Road are either to remain constant (2 lane operation) or reduce (1 lane operation). The outcome is the result of the MASTEM model considering the impact of the future improvements to the road network and the shift to sustainable transport modes, in particular the improvements to the strategic north-south corridor, linking the Northern Expressway, the proposed Northern Connector, the Port River Expressway, South Road and the Southern Expressway. The strategic north-south corridor, amongst other transport factors, is expected to reduce the volumes of traffic on Woodville Road.
- The daily and peak 2010 traffic volumes on Woodville Road, if two lanes in each direction are maintained, are to peak in the year 2021 and then reduce to 2010 levels by the year 2031
- Reducing Woodville Road to one lane in each direction will reduce the 2010 traffic volumes by up to 12% by the year 2021. By the year 2031 the traffic volumes have reduced by up to a further 5%, notwithstanding the increases in population in the region predicted
- A greater reduction in traffic volumes on Woodville Road occurs by the year 2031 if Woodville Road is reduced to one lane in each direction

Considering the current layout of Woodville Road, the predicted reduction in traffic volumes during the peak periods will reduce the amount of congestion occurring when Woodville Road is closed by a train crossing.

The turning volumes for the new Woodville Road / St Clair Avenue junction were extracted from the Woodville Growth Areas Traffic Study (2), but modified to reflect the changes to the proposed Woodville Growth Areas, in particular the change in location of the proposed supermarket from the Woodville Road area to the Cheltenham Parade area. This model calculated the traffic volumes expected from the development of the following areas:

- St Clair Cheltenham Development – 1,100 dwellings, 5,000 m2 shopping centre and 1,250 m2 gaming complex, 3,750 m2 supermarket
- St Clair Oval Development – 390 dwellings and 1,000 m2 offices
- Trident Development – Site of Trident Plastics developed as 60 dwellings
- Sheridan Development – 190 dwellings

The WGA model assumed that Brocas Avenue remain closed. The model was modified to represent the recent change in the WGA development with the St Clair Cheltenham Development shopping centre relocated from fronting Woodville Road to Cheltenham Parade.

CURRENT AND FUTURE TRANSPORT PLANS

FUTURE RAIL DEMAND AND OTHER SUSTAINABLE TRANSPORT

A key element of the 30-Year Plan is the provision and use of sustainable forms of transport and the provision of transit-orientated developments and transport corridors. Cheltenham / Woodville has been identified as a potential site for a transit-orientated development, where mixed land uses and higher density residential development will be centred on major public transport access points. The Outer Harbor train line has been designated as a Priority 1 fixed-line transit corridor, where the development of land within the corridor is to be encouraged to provide housing, land uses that will provide jobs and service outlet uses.

Investment in sustainable transport as part of the 30-Year Plan includes the electrification and modernisation of the existing rail system, as well as the creation of Green travel corridors to encourage walking and cycling. To ascertain the short and medium term effects of the 30-Year Plan on the rail and other sustainable transport modes on and near Woodville Road, meetings were held with the relevant DTEI departments. The outcomes of these meetings are given in the following sections.

FUTURE RAIL AND BUS

The Outer Harbor line is to be electrified with work starting in 2013 and continuing through to 2015. A number of existing diesel trains will be converted to use the electrified line together with new electric powered rolling stock. By 2016 the timetables will be revised to reflect the more frequent services resulting from the electrification of the line; increasing from the current 13 to 16 train services per hour during the peak periods. It should be noted that after electrification every train will stop at Woodville Station, removing the current express service that passes through Woodville Station.

From 2015 through to 2017 / 18 a tram extension is proposed; from the Entertainment Centre to West Lakes/Semaphore. This proposal is at an early stage with no details finalised, as such impact this proposal has not been assessed as part of this study. The future tram programme will have a significant impact upon the operation of Woodville Road. An increase in the number of tram or train/tram services using this line will increase the likelihood of road traffic delays at the crossing, although these can be offset through improvements to the operation of the road/rail crossing. The uncertainty of the future tram programme makes traffic modelling of the road/rail crossing and Woodville Road difficult, and with a degree of uncertainty.

The more frequent train service running on the electrified Outer Harbor line will increase the total number of trains crossing Woodville Road. The majority of the increase in crossings will occur outside of the peak traffic periods, as the train service will be increased to run every 15 minutes throughout the day (compared to the current 30 minute intervals during the morning and afternoons and every 60 minutes in the evening). However, the more frequent service will result in an increase of trains crossing Woodville Road in the traffic peak periods, increasing from 16 trains to up to 24 trains by 2018.

It has been suggested that the 24 trains will be timetabled so that the city bound and outbound trains coincide at Woodville Road. This would result in 12 crossings per peak hour or one crossing every 5 minutes.

To offset the impact of the increased number of services crossing an improved Grade Crossing Predictor system could be employed to reduce the length of time the boom gates are deployed and Woodville Road is closed. This system has been successfully installed where the Outer Harbor line crosses Park Terrace, near Bowden Station, although at a high financial cost.

The design of a new Woodville Station is at an early stage, with train/tram options still to be determined by DTEI. The layout of the Station is dependant on the train/tram option to be employed and as such has not been finalised.

The Passenger Transport Division (PTD) have indicated that there are currently no plans to increase bus services along Woodville Road. Currently a passenger connection from Woodville Station to the nearest bus stops on Woodville Road is not formally scheduled in train and bus timetables and is likely to remain this way.

The PTD are undertaking an ongoing program of improvements to the facilities at bus stops throughout the Greater Adelaide area.

FUTURE WALKING AND CYCLING

The 30-Year Plan promotes walking and cycling and states that the bicycle network will be extended across Greater Adelaide using bike lanes and cycle ways, and will provide direct and safe cycling links to public transport stations and interchanges. This expanded network involves the creation of Greenways or Green Travel Corridors; corridors that are dedicated walking and cycling routes alongside existing rail corridors.

The Outer Harbor line has been identified as a potential Green Travel Corridor, connecting the Adelaide CBD, via Woodville, to Outer Harbor to the north-west and to Grange to the south-west of the study area. The concept of Greenways or Green Travel Corridors was also highlighted in the Greenways and Bicycle Paths policy.

CURRENT AND FUTURE TRANSPORT PLANS

DTEI have undertaken preliminary investigation of a fully linked Greenway along the Outer Harbor line. Results of the preliminary investigation place the Greenway on the northern side of the line, with consideration to making Belmore Terrace and Glenys Nunn Drive more cycling and pedestrian friendly, with the Greenway continuing as a 4m wide shared path through the Cheltenham development. The current shared path link, with median cut through on Woodville Road, connecting Belmore Terrace and Glenys Nunn Drive, is envisaged as being upgraded to a pedestrian and cyclist actuated crossing, in line with current Greenway standards. This will provide direct access to the proposed redevelopment of Woodville Station for cyclists and pedestrians using the Greenway. Marked cycle lanes along the length of Woodville Road have been considered by DTEI but have been discounted due to the desire to maintain the current four lane operation, to maintain capacity, of Woodville Road.

The development of mixed-use facilities as earmarked for Woodville, that provides a combination of higher density dwellings with commercial, retail and leisure facilities all in close proximity to each other will result in less vehicle trips made than traditional residential developments with large shopping centres located remotely. The mixed-use facilities will need to be designed to allow easy and direct pedestrian and cycling movements within it and provide good connections to the external pedestrian and cycling facilities.

FURTHER TRAFFIC MODELLING REQUIRED

The Masterplan has two phases of implementation; Phase 1 (short to medium term) Options and Phase 2 (longer term) Options.

For both Phase 1 and Phase 2 for Woodville Road the intersection analysis has been undertaken utilising SIDRA, a micro-analytical computer model used to analyse isolated intersections.

It is advisable that a more comprehensive traffic assessment be undertaken as part of the concept design, using reliable traffic volume data and traffic intersection analysis software such as AIMSUN or TRANSYT micro simulation software. Such software provides the benefit of a holistic overview of the proposed intersections and how they interact together.

These software packages can:

- Model the blocking back effect of intersections when queue lengths are large, and
- Co-ordinate the traffic signals to provide progression or a 'green wave' for vehicles travelling through multiple high priority intersections.

The traffic impact of each of the two phases is considered in the following sections.

TRANSPORT VISION

Through the consultation process a set of desirable outcomes has been established:

- A desire to transform Woodville Road from a 'through road' to a 'High Street'
- A desire to reduce the traffic speed and significantly improve safety for traffic , pedestrians and cyclists
- A desire to encourage outdoor dining, social activities in the street, and a high quality of landscaping
- A need to reduce congestion caused by train crossings
- A desire to increase parking at the rear of development and compensate for the loss of parking next to the Station when this site is developed (noting that Woodville Station is not identified as a Park n' Ride station in the 30-Year Plan for Greater Adelaide)

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

Phase 1 (Short - Medium Term) Improvement Options for Woodville Road are envisaged over the next 5 - 10 years and are aimed at achieving a number of desirable outcomes to support the overall Vision for Woodville Village while generally retaining the existing road cross section.

PHASE 1 - WOODVILLE ROAD CROSS SECTION

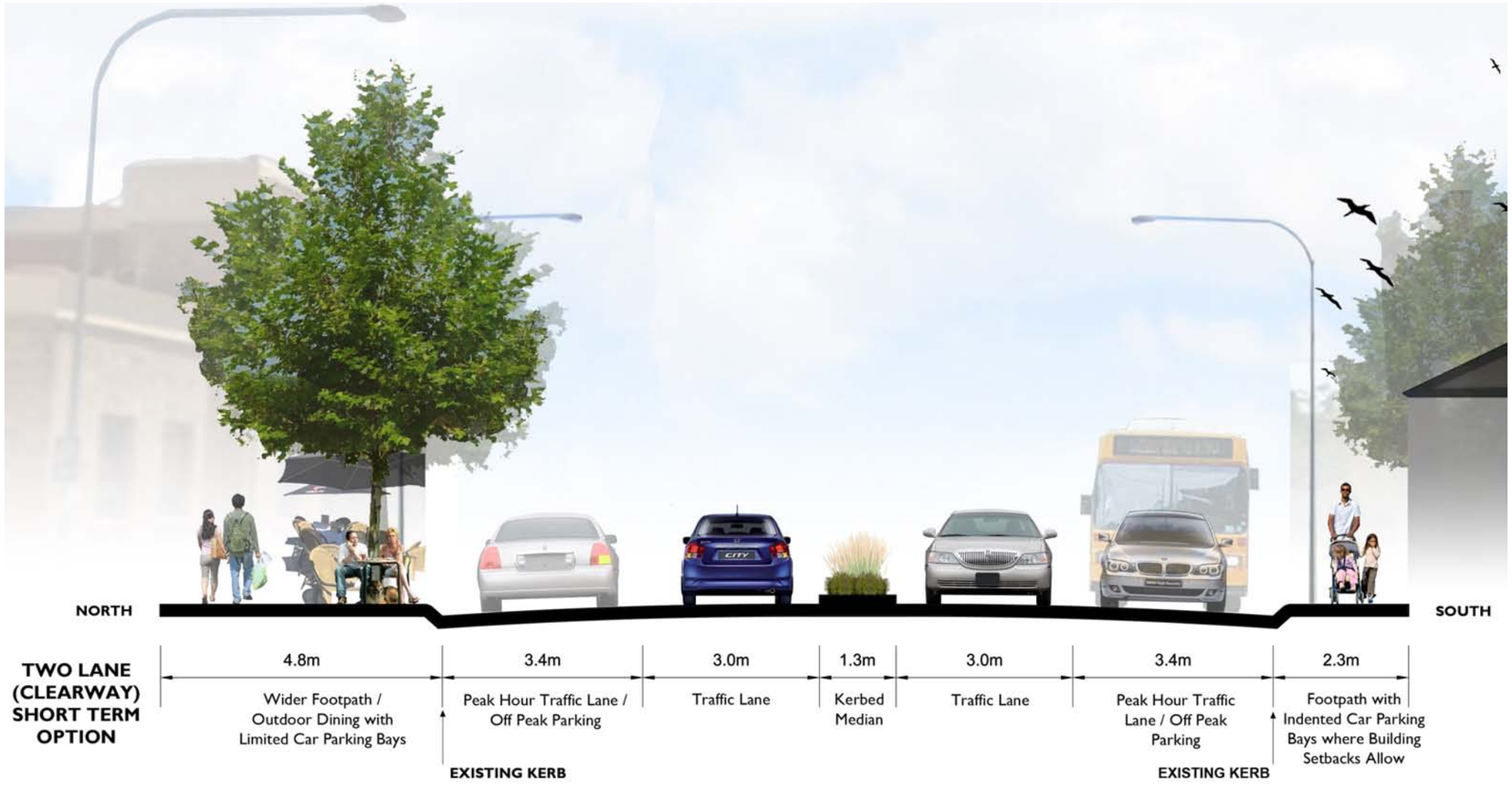
Phase 1 will introduce time limited kerb side parking along the length of the road (including potential for areas with no parking during peak periods) while maintaining the existing cross section (which comprises a 3.4m kerb side lane, 3m wide median lane and a 1.2m kerbed median). On the northern side some lengths of indented parking can be converted to a wider footpath. On the southern side the footpath can be converted to indented parking where the buildings are set back further from the road.

This cross-section will be used for the whole length of Woodville Road with local widening occurring at intersections, with the existing approaches to Port Road and Torrens Road maintained. For the length of Woodville Road to the north-east of the rail/road crossing, the cross-section will need to be modified to use the indented width on the northern kerb for bus stops or parking where necessary and no indented parking on the southern kerb.

This cross-section has the following pros and cons:

- Maintains the existing road capacity during peak periods
- Flexibility - allows for either a wider footpath or indented parking
- On-street parking permitted outside of the peak traffic periods
- Some pedestrian permeability; the kerbed median does not meet the minimum width required to accommodate pedestrians but does allow some refuge for pedestrians crossing Woodville Road (not pedestrians with prams)
- Vehicles turning right will still delay following vehicles
- The cross-section width is too narrow for cycle lanes. If cycle lanes were to be provided then the kerb lanes would need to be widened, removing indented parking or reducing the width of the footpaths unacceptably

This cross-section maintains the existing road capacity and will not affect the Level of Service.



PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

PHASE 1 - WOODVILLE ROAD CROSS SECTION (CONT)

Indented parking is to be operational during both peak and off peak periods. It is to be provided where it is beneficial to the adjacent business. Where a business would prefer a wider footpath instead of the indented parking (eg, to form an outdoor dining area), then the indented parking can be converted to footpath / outdoor dining area.

On-street parking in the kerb lane outside of the peak traffic periods will remain. This effectively reduces the number of traffic lanes down to one in each direction during these times. This operation is not dissimilar to other arterial routes that currently operate with one lane in each direction with similar daily traffic volumes.

The off-peak parking is on-street parallel to the kerb. The 3.4m wide kerb side lane allows approximately a 1.2m width for a cyclist, measured from a parked car to the lane marking.

DTEI has advised that it is not supportive of this Phase 1 treatment as it will result in right turning vehicles stopping through traffic or dangerous weaving manoeuvres. Further investigations and discussions with DTEI are therefore required.

REDUCTION OF WOODVILLE ROAD SPEED LIMIT

The existing speed limit of 60 km/h is proposed to be reduced to 50 km/h to improve the road environment for pedestrians and to improve safety for drivers and pedestrians on Woodville Road. The reduced speed limit will start from the existing 50 km/h limit on Woodville Road, near the Queen Elizabeth Hospital, and will continue through to Torrens Road.

Benefits of lowering the speed limit include:

- A reduction in delays for traffic turning into and out of intersections as the lower speed of vehicles on Woodville Road provides more opportunity for vehicles on side roads, and vehicles turning from Woodville Road, to make their turn
- Analysis of accident data of roads that have had their speed limit reduced generally shows that the number and severity of accidents reduces after a lower speed limit is introduced
- An improved environment; vehicles travelling at lower speeds burn less fuel and produce less pollution in the air. Noise pollution generally drops when vehicles travel at lower speeds
- The more vulnerable members of society, especially the young and the old, have less ability to judge the approach of vehicles when deciding to cross a road. The lower vehicle speeds allow these pedestrians to better assess crossing opportunities
- Improved safety for outdoor diners, although energy absorbing bollards will still be required for most anticipated locations

A reduction in the speed limit will improve the general environment along Woodville Road, which will make Woodville Road a more pleasant place for outdoor dining uses.

The lower speed limit is unlikely to increase the average journey time for vehicles travelling the length of Woodville Road due to the stoppages that currently occur at the pedestrian actuated crossings and the rail/road crossing.

The lowering of the speed limit has been discussed with the DTEI Planning team who acknowledged that it would be feasible. The impact on travel time for vehicles travelling along Woodville Road would be minimal given the delays experienced at the rail crossing and adjacent intersections.

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

WOODVILLE ROAD / KEMP STREET / STATION WALK INTERSECTION

The length of Woodville Road from Kemp Street to Beaufort Street will include two signalised intersections and one rail crossing controlled by signals and boom gates.

The existing car parks located opposite Kemp Street are to be developed as a mixed use and retail area. These car parks are temporary and were purchased by Council in the 1980's for redevelopment purposes. The primary access to this area is to be via a new access point, referred to as Station Walk, connecting the development to Woodville Road, opposite Kemp Street, forming a four-way signalised intersection. This intersection would incorporate signalised pedestrian crossings, which would replace the existing pedestrian actuated signal located outside the Council offices.

This junction has the following pros and cons:

- Connects the Civic area to the proposed retail and mixed use area, especially for pedestrians (although there is already an existing pedestrian signalised crossing at this location)
- Reduces traffic passing through residential streets to access the retail / mixed use area, Station Plaza and Mini Supermarket
- Improved access and safety for Kemp Street traffic
- Provides safer / improved access from Woodville Road to the car park behind Council offices
- Wider road footprint than the existing layout
- Greater congestion for Woodville Road traffic when compared with a three-way intersection
- May cause queing over the rail crossing

The junction layout shown in Figure 6 with Woodville Road operating with two lanes in each direction was modelled using SIDRA with traffic volumes from the MASTEM model for the years 2021 and 2031 and an estimated 300 vehicles per hour turning into and out of Station Walk,

This volume of peak hour traffic would represent the following land use combinations:

- Shopping Centre of 1,650m2 gross leasable floor area, 300 high density dwellings, 500m2 of offices and 150m2 of café/restaurants, or
- Local retail of 1,000m2 gross leasable floor area, 300 high density dwellings, 1,500m2 of offices and 1,500m2 of café/restaurants, or
- Shopping Centre of 2,400 m2 gross leasable floor area

In the worst case the junction operates with capacity to spare and operates at a Level of Service B (level of service ranges from A through to F, with A representing the best level of service) with the following 95th percentile queues:

- Woodville Road north approach: 100m, resulting in traffic queuing over the rail crossing
- Kemp Street approach: 15m queue with a 50 second delay. This delay may result in vehicles leaving the Council car park diverting to Norman Street, which is acceptable given the low traffic volumes (expected to be less than 50 vehicles per hour)
- Woodville Road south approach: 90m queue. This queue length will result in vehicles tailing through the Norman Street junction and up to the Aberfeldy Avenue junction. Box markings may be required at the junction of Woodville Road and Norman Street to allow right turning traffic from Norman Street to enter Woodville Road.
- Station Walk: 70m queue, with a 55 second delay. This delay to traffic may encourage vehicles to divert to Yarinda Street or Aberfeldy Avenue if a link is provided in the next stage of concept design

Due to the probability of vehicles queuing over the rail crossing a Queue Relocation System would have to be considered for the two intersections and rail crossing. This system would give a green signal to traffic that would otherwise queue across the crossing before the boom gates at the crossing are deployed. The performance of such a system would need to be modelled using AIMSUN microsimulation software. The future rail programme will need to be finalised to accurately model the operation of Woodville Road. Currently the future rail programme has not been finalised and may have a significant impact on the efficiency of road traffic using Woodville Road.

Concerns were raised during the consultation process that providing a link from Woodville Road, through the proposed mixed use area, to Yarinda Street or Aberfeldy Avenue may encourage rat-running traffic to use Yarinda Street or Aberfeldy Avenue. Measures to reduce this possibility should be considered during the concept design phase of the mixed use area.

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

RAIL CROSSING

Currently the rail crossing closes Woodville Road up to 10 times during the peak traffic periods, with closures ranging from 40 seconds to 3 minutes in duration. The duration of the closures could be reduced by the installation of the latest Grade Crossing Predictor system and through changes to time tabling. The limitations of the current prediction system are particularly noticeable for trains approaching the crossing from Outer Harbor, as it is unable to distinguish between a train stopping at the station or a train continuing through as an express. For both these trains the boom gates would be deployed, even though the train stopping at the station will not interfere with road traffic. An updated Grade Crossing Prediction system would be able to distinguish between express trains and through trains and reduce the duration of the road closures.

The future of the railway and possible introductions of tram-trains, will affect the number and duration of the road closures at the at grade railway crossing.

It is believed that the impact of the increase in the number of rail crossings can, to an extent, be offset by the following measures:

- Improved Grade Crossing Predictor system
- No express trains (every train stops at Woodville Station), which will reduce down time as the predictor system can be based on 'all trains stopping'
- Tram-trains time tabled so City bound and outbound coincide at Woodville Road

For the short to medium term future it is believed that the delays and queues associated with the rail crossing will be similar to that experienced currently. The planning of the tram-trains is at an early stage, making it difficult to assess the impact the possible future tram-train services will have on Woodville Road. Once the planning of the future tram-train services has been finalised the performance of Woodville Road at the rail crossing should be re-assessed.

GREENWAY CROSSING

As part of the Greenway or Green Travel Corridors, a pedestrian and cyclist actuated crossing in accordance with current Greenway standards, would be located at the site of the current shared path link crossing point on Woodville Road, between Belmore Terrace and Glenys Nunn Drive.

WOODVILLE ROAD / ST CLAIR AVENUE JUNCTION

The new St Clair Avenue is required to provide access to the 'St Clair' housing project and mixed use development.

The following options for the location of this junction were considered:

- Option 1 Opposite Ukrainian Church – This option reduces the St Clair Reserve frontage but has little impact on the operation of the local streets and has the most space between the rail crossing and the junction, allowing plenty of room for queuing traffic
- Option 2 Opposite Stanley Street – This option will encourage the use of traffic on Stanley Street and reduces the St Clair Reserve frontage. The space between the rail crossing and the junction is still generous, allowing plenty of room for queuing traffic
- Option 3 South of Stanley Street – Best overall traffic conditions allowing room for queuing traffic to the rail crossing, results in a more even distribution of traffic to the local streets and results in a wide St Clair Reserve frontage
- Option 4 Opposite Harvey Street – This option has the greatest traffic impact on local streets and may result in traffic queuing over the rail crossing. It also limits the operation of Glenys Nunn Drive and narrows the LMC TOD frontage

After discussions with the key stakeholders it was decided to use Option 3, locating St Clair Avenue to the south of Stanley Street. The junction would include a shared left turn and straight lane on the Woodville Road south approach to reduce the overall width of the junction. This shared left and straight lane can be converted to a left turn only slip lane should Woodville Road be converted to one lane in each direction. No left turn slip is provided for the St Clair Avenue approach to the junction to improve pedestrian safety via a fully signalised crossing facility, as pedestrian activity is to be encouraged adjacent to the mixed use developments.

This junction has the following features and pros and cons:

- Locates St Clair Avenue close to the proposed plaza and commercial area just north-east of the railway station, offering commercial benefits as well as helping activate the plaza and station precinct

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

WOODVILLE ROAD / ST CLAIR AVENUE JUNCTION (CONT)

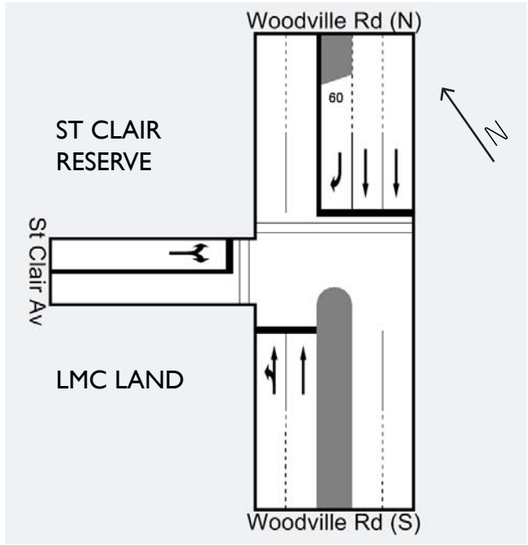
- The junction is located 115m away from the rail crossing (and 110m away from the Greenway crossing); allowing enough storage, should Woodville Road be converted to one lane in each direction, for vehicles queuing from the Woodville Road south approach stop line to the Greenway crossing Allows for a wide St Clair reserve frontage favoured by the community
- Has minimal impact on turning movements in and out of the residential area to the east of Woodville Road, with all turning movements allowed from / to Harvey St West, but Stanley Street reduced to left in / left out operation only. Harvey St West daily traffic volumes will increase from about 360 to approximately 760, which is within the 1,000 vehicles per day defined by CCS for a local street
- Results in an even spacing of pedestrian crossing facilities (with the Greenway crossing near the railway to the south and the signalised pedestrian crossing outside the school to the north)
- An existing domestic access onto Woodville Road may need to be relocated to Harvey Street West

The junction layout shown below was modelled using SIDRA with the following parameters:

- Traffic volumes from the MASTEM model for the years 2021 and 2031,
- Turning volumes from the modified WGA model and
- Woodville Road operating with two lanes in each direction.

In the worst case the junction operates at a Level of Service A with a 95th percentile queue of 75m for the Woodville Road south approach.

Phase 1 – Woodville Rd / St Clair Ave Junction SIDRA Layout



In the worst case the junction operates with capacity to spare and operates at a Level of Service A (level of service ranges from A through to F, with A representing the best level of service) with the following 95th percentile queues:

- Woodville Road south approach: 75m, resulting in no queuing traffic over the rail crossing
- Woodville Road north approach: 30m queue. Even though tis queue length is considered minor, queuing vehicles will prevent Stanley Street traffic entering and leaving Woodville Road. However, the through traffic on Woodville Road experiences average delays of less than 5 seconds. Which in turn will delay Stanley Street traffic for very short periods of time
- St Clair Avenue: 65m queue. A delay of 60 seconds is associated with this queue length. This is considered acceptable given that this access is considered a secondary access to the future development of the LMC TOD and the Woodville Growth Areas. The primary access points for the Woodville Growth Areas are provided by connections to Torrens Road and Cheltenham Parade

It is noted that DTEI has advised that it will require two approach lanes at the intersection in St Clair Avenue.

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

LOCAL STREETS

The effect of the Masterplan on the local streets either side of Woodville Road is considered minimal and is limited to the following areas:

- Woodville Road / St Clair Avenue junction – The arrangement of this junctions will change turning movements in and out of the residential area to the east of Woodville Road as all turning movements will be allowed from/to Harvey Street West with Stanley Street reduced to left in/out operation only. Harvey Street West daily traffic volumes will increase from 360 to approximately 760 vehicles per day, which is within the 1,000 vehicles per day defined by CCS for a local street. The estimated changes in traffic volumes associated with this junction layout is shown below.

Estimated changes to local streets

	Harvey Street West	Stanley Street	Beaufort Street
Turning Movements			
Current	Left in, Left out	All movements	All movements
Proposed	All movements	Left In, Left out	All movements
Daily Traffic Volumes			
Current (vpd)	360	865	1860
Proposed (vpd)	760	415	1910

Note 1: There is no change to Belmore Terrace
Note 2: The City of Charles Sturt defines a local street as having a maximum traffic volume of approximately 1,000 vehicles per day (vpd)

Traffic volumes on Harvey Street West are expected to increase by approximately 400 vehicles per day or, 60 vehicles per hour during the peak traffic periods which is one vehicle per minute.

- Woodville Road / Kemp St / Station Walk Intersection – This intersection will have a minor effect on the traffic volumes to either side of Woodville Road. To the east of Woodville Road, Kemp Street has a road narrowing operating in one direction only which will deter additional traffic from using Kemp Street to access Woodville Road. Delays experienced at the proposed signals may encourage traffic to divert to Norman Street, possible up to 50 vehicles per hour which is considered minor. The Station Walk arm of the proposed intersection will provide a direct link to the rear car parks of the proposed Retail and Civic Heart precinct. During the detailed design phase care will need to be taken to ensure that this connection does not become attractive for traffic to bypass the Port Road/ Woodville Road intersection by using the Aberfeldy Avenue/Yarinda Street/Station Walk route. This rat-running route was identified during the consultation process as an existing problem, with residents concerned that the proposed intersection may exacerbate the problem.

PARKING STRATEGY

The land uses defined in the Masterplan will generate a parking demand in addition to the surveyed parking demand of the existing businesses, Council offices and Park n' Ride commuters. To create a vibrant place activities are planned, such as movie nights at the town hall, and these events will attract visitors to the area and will increase the demand on parking.

The parking surveys undertaken during April and May 2010 identified the Station Walk and Glenys Nunn Drive parking areas were used as a Park n' Ride facility, with a total of 120 vehicles parked. It was also noted that Glenys Nunn Drive was used as a set down/drop off area, with 50 vehicles picking up passengers during the pm peak period.

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

PARKING STRATEGY (CONT)

The overall parking demand has been estimated in the Table below:

Estimated Parking Demand

Area	Assumed land uses	parking demand spaces			
		Monday to Thursday			Saturday
		6 am -9 am	9am - 5pm	5 pm - 8 pm	11 am – 2 pm
Health & Commercial (from Bower St to Aberfeldy Ave)	General Retail: 300m², Restaurant/Café:100m² Offices:100m², Consulting Rooms:350m² Apartments (80m²):50 dw	60	70	100	90
Civic Heart (from Aberfeldy Ave to railway)	Supermarket Retail: 1,500m², General Retail: 500m², Restaurant/Café:150m² Offices:500m², Apartments (80m²):150 dw, Civic Centre and Park 'n' Ride*: 425 spaces	550	600	580	320
LMC Site (from railway to St Clair Av)	General Retail: 500m², Restaurant/Café:150m², Townhouses (220m²): 35 dw, Shop-top (80m²): 12 dw, TOD Apartment (80m²): 150 dw, TOD Apartments (60m²): 200 dw	370	230	430	310
	Total	**980**	**900**	**1110**	**720**

*An additional 50 spaces has been assumed for the future Park n' Ride demand.

The Station Walk and Glenys Nunn Drive areas located adjacent to Woodville Station will be developed as part of the Masterplan. This will result in a loss of 250 parking spaces.

It is noted that current car park areas are only used at about 80% capacity in the busiest periods, and therefore the focus should be on utilising existing car parks more effectively and improving linkages between them before more interventionist solutions (such as decked car parks) are constructed.

Notwithstanding this, to accommodate expected parking demand the following measures are suggested:

- Potential decked car park located at the rear of the Civic Centre
- Car parking areas provided behind proposed developments
- Connection of existing car parking areas, improving access and increasing the car parking area
- Providing pedestrian links from existing car parking areas through to Woodville Road
- Better signage to parking areas
- On-street parking outside of the peak traffic periods
- Indented parking operational during both peak and off peak periods
- Establishing agreements between property owners to share car park areas and use

SUSTAINABLE TRANSPORT

The Short Term Strategy has the potential for providing the facilities to encourage the use of sustainable transport modes.

The following sustainable transport elements, with further suggestions, are described below:

- The design of a new Woodville Station is at an early stage, with train/tram options still to be determined by DTEI. The layout of the Station is dependant on the train/tram option to be employed and as such a detailed analysis of the interconnection with the other transport modes has not been undertaken. However, a high standard of pedestrian, cycling, park and ride and bus connections, including the use of advanced wayfinding techniques, from the Station to the proposed plaza areas and residential areas should be provided to form a state of the art transport hub, reinforcing the TOD principle of the surrounding development

PHASE 1 (SHORT - MEDIUM TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

SUSTAINABLE TRANSPORT (CONT)

- To encourage and promote the use of cycling an increase in number of secure bicycle parking should be provided at the redeveloped Woodville Station. The Australian Bureau of Statistics 2006 census data indicates that 10 people in the Woodville area use a bicycle and train to travel to work. As a first instalment 10 spaces should be provided, with an area reserved for an increase in the amount of secure bicycle parking should the need arise.

- The Short Term strategy does not provide for cycle lanes on Woodville Road due to the minimum traffic lane width requirements of a 3.3m kerb lane for buses and 3.0m for the median lane. However, the reduction to a 50km/h speed limit will improve the safety of cycling on Woodville Road.

- The PTD have indicated in discussions that there are no current plans to increase bus services to Woodville Road. However the demand for an additional bus service may come apparent once the St Clair Cheltenham development is more advanced, and should be assessed at this stage. To reduce travel times and for a more convenient public transport journey, a bus service should be targeted to coincide with the future train timetables. It should be noted that this is contrary to current PTD policy.

- All except one of the existing bus bays are on-street and not indented. PTD have traditionally expressed a preference for keeping the buses on the road and not in an indented bay so the bus is not delayed when waiting to enter the traffic stream. The one indented bus bay is located close to Woodville Station, it maybe advantageous to keep this as an indented bay as if a targeted bus/train service is provided in the future the buses will need a standing area out of the traffic lane to avoid unnecessary congestion on Woodville Road.

- The Short Term strategy will improve pedestrian facilities by local widening of the footway on the northern side of Woodville Road, the community plaza areas, pedestrian crossings at the proposed Woodville Road / Kemp Street /Station Walk signal controlled intersection and the lowering of the speed limit.

PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

OVERVIEW

Phase 2 (Longer Term) Improvement Options for Woodville Road are likely to take place beyond 2020 and are aimed at encouraging less through traffic and more 'destinational' traffic supporting local business. In addition there would be greater opportunities for wider footpaths and outdoor dining and social activity on the street, on - road bicycle lanes in each direction, and much safer pedestrian crossing opportunities along the length of the road. Importantly, traffic and pedestrian safety is likely to improve as a result of fewer accidents.

Phase 2 would see the conversion of the current two lane operation to one traffic lane in each direction, and can only be implemented with DTEI approval and subject to the following:

- Local area traffic modelling that indicates its feasibility
- Traffic management if required to stop through traffic in local streets
- Further, more detailed consultation with property owners and businesses along the road
- Consultation with emergency service agencies to identify any issues and ensure adequacy of safety and efficiency

SURROUNDING ARTERIAL ROAD NETWORK

Woodville Road is currently used by the majority of traffic as a through route, connecting Findon / Port Road to Torrens Road. Phase 2 for Woodville Road will require Woodville Road to operate with one lane in each direction. This will reduce the capacity of the road which will discourage a number of drivers from using this route, causing them to divert to other roads that offer a quicker alternative.

To predict the effect of reducing Woodville Road to one lane in each direction a MASTEM model was produced by DTEI for the years 2021 and 2031. The model predicted the volume of traffic diverting to use alternative routes, in particular Cheltenham Parade and Kilkenny Road/David Terrace, from Woodville Road.

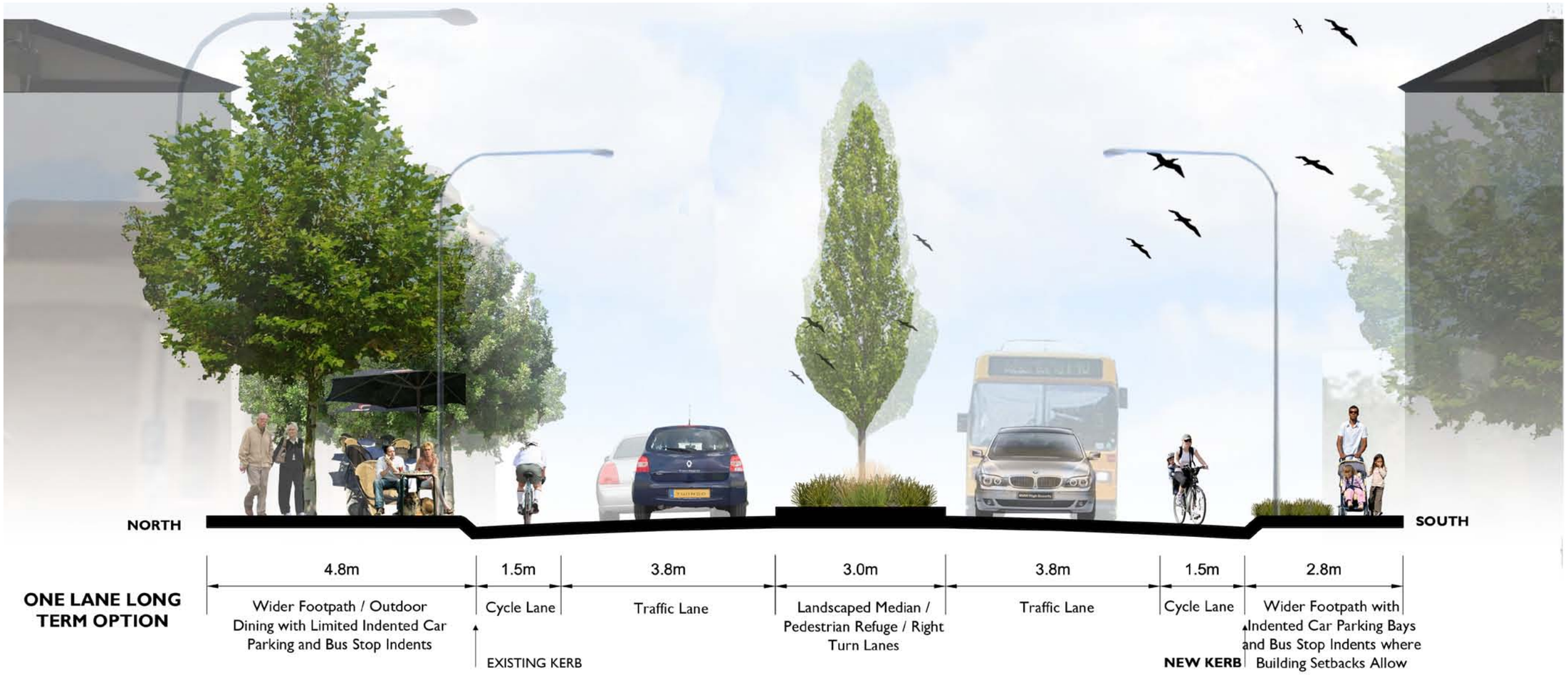
To gauge the effect of reducing Woodville Road to one lane on the surrounding arterial road intersections, the following intersections were modelled with SIDRA using the 2021 and 2031 two lane traffic volumes predicted by MASTEM and comparing the results with the one lane traffic volumes predicted by MASTEM:

- Port Road / Woodville Road Intersection
- Port Road / Aberfeldy Avenue Junction
- Port Road / / Kilkenny Road Junction
- Port Road / West Lakes Boulevard
- Torrens Road / Woodville Road Intersection
- Torrens Road / Hanson Road Junction
- Torrens Road / Cheltenham Parade / Addison Road Intersection

The results indicate that the intersections will operate at a similar level of service with Woodville Road operating with one or two lanes in each direction for 2021 and 2031. However, it is expected that traffic diverting to Cheltenham Parade and Kilkenny Road / David Terrace will increase congestion at the railway crossings.

PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

PHASE 2 - WOODVILLE ROAD CROSS SECTION



PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

PHASE 2 - WOODVILLE ROAD CROSS SECTION (CONT)

The Phase 2 cross-section for Woodville Road will have the following elements:

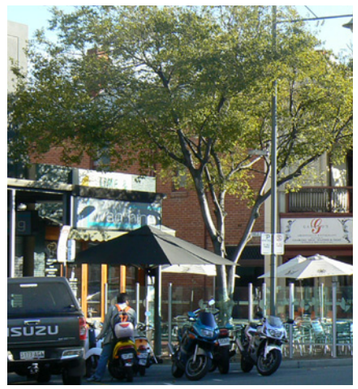
- Northern footpath: Widened to 4.8m for use as footpath or outdoor dining area with short lengths of combined footpath and indented parking
- Cycle lanes: On-street 1.5m wide cycle lane
- Traffic lanes: 3.8m wide
- Median: 3.0m wide median accommodating areas of landscaping, right turn traffic lane or lengths of pedestrian refuge
- Southern footpath: Widened to 2.8m for use as footpath and some lengths of combined narrower footpath and indented parking where the building setback allows

This cross-section will be used for the whole length of Woodville Road with local widening occurring at intersections, with the existing approaches to Port Road and Torrens Road maintained. For the length of Woodville Road to the north-east of the rail/road crossing, the cross-section will need to be modified to use the indented width on the northern kerb for a bus stop or parking where necessary with no indented parking on the southern kerb. This cross-section will reduce the existing road capacity of Woodville Road. However, the one lane in each direction proposed for Woodville Road is similar to Kilkenny Road which operates with 19,300 vehicles per day and a one-way peak of up to 890 vehicles per hour.

Kilkenny Road runs parallel to and to the south-east of Woodville Road and has an at-grade rail crossing on the same train line that crosses Woodville Road. Kilkenny Road has an existing daily traffic volume within 3%, and a peak one way volume within 7%, of the volumes predicted for Woodville Road operating with one lane in each direction as shown by the MASTEM model. Given the above it is expected that Woodville Road will operate at a similar level of service as Kilkenny Road. The impact of the post-electrification train timetable is explored in the following 'Rail crossing' section.

PARKING

Indented parking is to be operational during both peak and off peak periods. It is to be provided only where it is beneficial to the adjacent business. Where a business would prefer a wider footpath instead of the indented parking, to form an outdoor dining area, then the indented parking can be converted to footpath / outdoor dining area.



PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

WOODVILLE ROAD / KEMP STREET / STATION WALK INTERSECTION

The length of Woodville Road from Kemp Street to Beaufort Street will include two signalised intersections and one rail crossing controlled by signals and boom gates.

WOODVILLE ROAD / KEMP STREET / STATION WALK INTERSECTION

The existing car parks located opposite Kemp Street are temporary and were purchased by Council in the 1980's for redevelopment purposes, are as part of the Masterplan will be developed as a mixed use and retail area. The primary access to this area is a four-way intersection with the western arm, referred to as Station Walk, connecting the development to Woodville Road, opposite Kemp Street.

The proposed junction layout shown below was modelled using SIDRA with the following parameters:

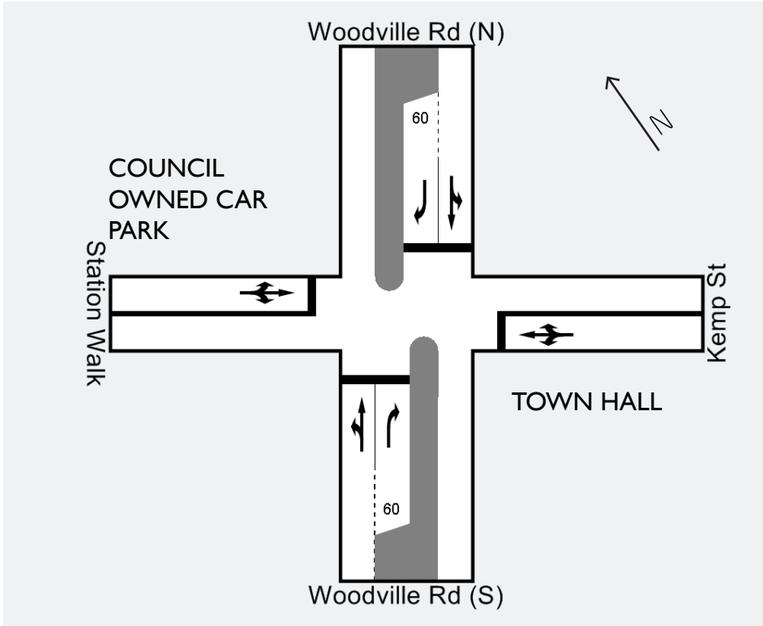
- Traffic volumes from the MASTEM model for the years 2021 and 2031
- An estimated 300 vehicles per hour turning into and out of Station Walk
- Woodville Road operating with one lane in each direction

In the worst case the junction operates with capacity to spare and operates at a level of Service A (level of service ranges from A through to F, with A representing the best level of service) with the following 95th percentile queues:

- Woodville Road north approach: 130 m, resulting in traffic queuing over the rail crossing
- Kemp Street approach: 20m queue with a 60 second delay. This delay may result in vehicles leaving the Council car park diverting to Norman Street, which is acceptable given the low traffic volumes (expected to be less than 50 vehicles per hour)
- Woodville Road south approach: 110m queue. This queue length will result in vehicles tailing through the Norman Street and Aberfeldy Avenue junctions. Box markings may be required at these junctions to allow right turning traffic from Norman Street and Aberfeldy Avenue to enter/exit Woodville Road.
- Station Walk: 85m queue, with a 55 second delay. This delay to traffic may encourage vehicles to divert to Yarinda Street or Aberfeldy Avenue if a link is provided in the next stage of concept design

It is noted that DTEI has advised that it will require two approach lanes at the intersection in Station Walk.

Phase 2 – Woodville Rd / Kemp St / Station Walk Intersection SIDRA Layout



Due to the probability of vehicles queuing over the rail crossing a Queue Relocation System would have to be considered for the two intersections and rail crossing. This system would give a green signal to traffic that would otherwise queue across the crossing before the boom gates at the crossing are deployed. The performance of such a system would need to be modelled using AIMSUN micro simulation software.

PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

RAIL CROSSING

The Phase 2 Improvement Options for Woodville Road reduce the number of traffic lanes to one lane in each direction on each approach to the rail crossing. As discussed previously this arrangement is similar to Kilkenny Road, which has a single lane in each direction with similar traffic volumes.

A survey of queue lengths occurring at the rail crossing on Kilkenny Road was undertaken during May 2010. The survey measured the length of queues and the duration of the closure during the traffic peak periods.

A comparison of the predicted one lane Woodville Road volumes and the current volumes of Kilkenny Road, together with the surveyed queue lengths at Kilkenny Road, are shown in the following Table.

Comparison of Woodville Road 1 lane MASTEM and Kilkenny Road Traffic Volumes

Location	Kilkenny Road (existing 2009)	Longest recorded Queue (m)	MASTEM 2021 – Woodville Rd 1 lane	2021 Difference (vehicles and %)	MASTEM 2031 – Woodville Rd 1 lane	2031 Difference (vehicles and %)
Daily Volume	21,000		20,500	- 500 (- 2%)	20,400	- 600 (- 3%)
at rail crossing, northbound AM peak	725	360 (100 second closure)	870	+ 145 (+ 20%)	870	+ 145 (+ 20%)
at rail crossing, northbound PM peak	870	280 (85 second closure)	820	- 50 (- 6%)	860	- 10 (- 1%)
at rail crossing, southbound AM peak	760	360 (80 second closure)	790	+ 30 (+ 4%)	770	+ 10 (+ 1%)
at rail crossing, southbound PM peak	890	310 (110 second closure)	950	+ 60 (+ 7%)	930	+ 40 (+ 5%)

From this analysis it can be seen that an existing one-way peak of 890 vehicles per hour occurs on Kilkenny Road. The worst case peak predicted for Woodville Road operating with one lane in each direction is 950 vehicles per hour for the year 2021. This is a 7% or 1 vehicle per minute increase over the current Kilkenny Road one-way peak. Given the similarity in arrangement and traffic volumes it is expected that Woodville Road, with one lane in each direction, will operate in a similar manner as Kilkenny Road until the rail line is electrified. The longest queue length recorded on Kilkenny Road was 360m. If this queue length was transplanted to the Woodville Road rail crossing, it would stretch southwards past Bower Street but not to Port Road. North of the rail crossing, it would stop between Beaufort Avenue and Brocas Avenue, but not to Torrens Road.

Currently the rail crossing closes Woodville Road up to 10 times during the peak traffic periods, with closures ranging from 40 seconds to 3 minutes in duration. The duration of the closures can be reduced by the installation of the latest grade crossing predictor system.

As described earlier the future of the railway, and possible tram-trains, will affect the number and duration of the road closures at the at grade railway crossing. It is believed that the impact of the increase in the number of rail crossings can, to an extent, be offset by the following measures:

- Improved Grade Crossing Predictor system
- No express trains, every train stops at Woodville Station
- Tram-trains time tabled so City bound and outbound coincide at Woodville Road

To provide an indication of the impact of an increase in trains crossing Woodville Road, preliminary SIDRA modelling of the MASTEM 2021 and 2031 traffic volumes for Woodville Road operating with one lane in each direction was undertaken using the following assumptions:

- An increase in road closures from the current 10 (with 13 trains) to 12 (short term future of 16 trains) during the peak periods to reflect the electrification timetable and
- A road closure occurring every 5 minutes (300 seconds)

The results of the preliminary SIDRA modelling indicate that for both the years 2021 and 2031 the maximum closure time before the queue lengths reach either Port Road or Torrens Road is 75 seconds. However, AIMSUN micro simulation software should be used to more accurately assess the performance of the at-grade crossing.

GREENWAY CROSSING

No change from the Phase 1 Strategy.

PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

WOODVILLE ROAD / ST CLAIR AVENUE JUNCTION

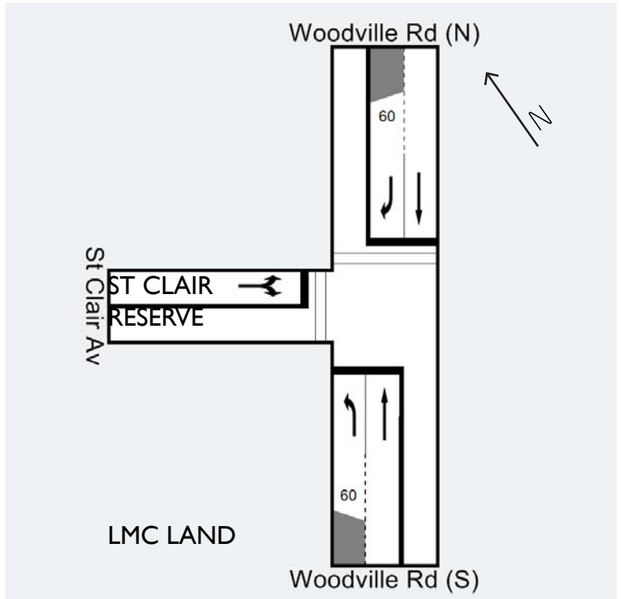
The new St Clair Avenue is required to provide access to the 'St Clair' housing project and LMC mixed use development.

The proposed Woodville Road / St Clair Avenue junction has a left turn lane on the Woodville Road south approach and a right turn lane on the north approach. No left turn slip is provided for the St Clair Avenue approach to the junction to provide a better pedestrian crossing facility as walking is to be encouraged as part of the Masterplan.

The junction layout shown below was modelled using SIDRA with the following parameters:

- Traffic volumes from the MASTEM model for the years 2021 and 2031,
- Turning volumes from the modified WGA model and
- Woodville Road operating with one lane in each direction.

Phase 2 - Woodville Road / St Clair Avenue Junction SIDRA Layout



In the worst case the junction operates with capacity to spare and operates at a Level of Service A (level of service ranges from A through to F, with A representing the best level of service) with the following 95th percentile queues:

- Woodville Road south approach: 100m, resulting in no queuing traffic over the rail crossing
- Woodville Road north approach: 100m queue. Even though this queue length is considered minor, queuing vehicles will prevent Stanley Street traffic entering and leaving Woodville Road. However, the through traffic on Woodville Road experiences average delays of less than 5 seconds. Which in turn will delay Stanley Street traffic for very short periods of time
- St Clair Avenue: 75m queue. A delay of 75 seconds is associated with this queue length. This is considered acceptable given that this access is considered a secondary access to the future development of the LMC TOD and the Woodville Growth Areas. The primary access points for the Woodville Growth Areas are provided by connections to Torrens Road and Cheltenham Parade

LOCAL STREETS

The effect of the Masterplan on the local streets is similar to that detailed in Section 5.1.4 Short Term Strategy Local Streets, with the following notable exception:

- The cross-section proposed for The Vision provides a dedicated right turn lane at the majority of local streets intersecting Woodville Road. This will provide improve safety at these intersections for vehicles turning from Woodville Road and those vehicles approaching from behind

PARKING STRATEGY

The estimated parking demand and the parking strategy to accommodate the demand is similar to that detailed in the Phase 1 Strategy. The reduction of Woodville Road to one lane in each direction will remove the on-street off-peak parking. However, indented parking can be accommodated in the wider footpath if demand requires.

PHASE 2 (LONGER TERM) IMPROVEMENT OPTIONS FOR WOODVILLE ROAD

SUSTAINABLE TRANSPORT

The sustainable transport benefits of The Vision are similar to the Short Term Strategy detailed in Section 5.1.6, with the following additional suggestions and benefits:

- The provision of secure bicycle parking should be re-assessed for The Vision, with surveys undertaken to assess the amount of parking needed to meet demand.
- The Vision does provide for cycle lanes on Woodville Road by reducing the number of lanes from two to one in each direction. This will provide a good connection from the cycle lanes on Port Road to the cycle lanes on Torrens Road, completing a strategic link in the Adelaide cycling network. The Woodville Road cycle lanes also provide a good connection from the local streets to the destinations along Woodville Road.
- The PTD have indicated in discussions that there are no current plans to increase bus services to Woodville Road. However the demand for an additional bus services should be assessed for The Vision. To reduce travel times and for a more convenient public transport journey, a bus service should be targeted to coincide with the future train timetables. It should be noted that this is contrary to current PTD policy.
- The Vision will further improve pedestrian facilities by further widening of the footway on the both sides of Woodville Road and by providing a wide kerbed median, providing shelter for crossing pedestrians

Art & Cultural Framework

OVERVIEW

BACKGROUND

The City of Charles Sturt has a culturally diverse population. Through policies and many services it has encouraged a global perspective and citizenship. This approach reflects an understanding of the contemporary global demands where interchange between various cultures is imperative for our sustainable future. The cultural diversity concept is well expressed through the " I am Charles Sturt …" promotion.
The revitalisation of Woodville Village would benefit from a holistic design approach where cultural diversity is celebrated by being integrated into design and development of new infrastructures.

the revitalisation of Woodville Village would benefit from an

holistic design approach where cultural diversity is celebrated

by being integrated into design and development of new infrastructures.

WOODVILLE VILLAGE

PUBLIC ART AND CULTURAL FRAMEWORK

During the preparation of the Masterplan public forums and intensive consultations with various communities were conducted from March – August 2010. All community forums embraced public art as a significant component that will contribute towards strengthening the sense of place while promoting the vision for Woodville Village.

People of various cultural backgrounds have expressed delight in seeing their culture respected though various images and references and they supported the overall celebration of the City of Charles Sturt's multicultural phenomena.

Woodville High School, whose core values are 'global citizenship, success and creativity' - was an important local community who offered many ideas and suggestions throughout the various consultative stages. The school leadership participated in a number of workshops, while year 11 art students participated in a public art workshop. This workshop has led to a decision by the visual arts teaching staff to incorporate public art into the semester 2 art curriculum. The students will develop ideas and concepts that address a number of themes and sites specific to Woodville Village. The school staff were keen to learn more about the future plans for Woodville Village and have asked to have the final Masterplan presented during one of their staff meetings. Many teachers are not local residents, but knowledge of positive developments in the area may be helpful in enthusing students and others to become greater custodians of new open spaces and public art, which helps in prevention against graffiti and vandalism.

The Woodville Historical Society has been generous with it's help and information on the heritage of the local area. Their wealth of knowledge will be of vital importance, especially in preparation of various public art project briefs.

It was very clearly demonstrated that the people of Charles Sturt Council are ready for a *major leap* in the improvement of Woodville Road and it's environs. They wanted improvements in commercial and residential development, transport, and to 'give life' to the area. The younger generation was particularly keen to see safe and desirable destinations created, especially during the night.

The recent renovation of the Town Hall opens up many opportunities for the council to set up programs that will bring critical mass to the precinct.
It is vital to develop clear guidelines and an implementation strategy for public art and cultural programs. This could be best achieved by developing a 5 Year Plan for Public Art and Cultural Programs. (Refer to the Implementation Strategy for further detail).

VISION AND KEY OBJECTIVES

KEY OBJECTIVES

- Create a welcoming, safe, enjoyable and fun public realm
- Create a special Woodville Village 'sense of place' by integrating public art and artistic interventions into all new development and infrastructure
- Create a unique destination: elevating Woodville Village / Charles Sturt Council on the cultural map
- Celebrate the fact that Woodville has so much to offer: health,

cuisine, education, culture, civic, recreation, open space...

all within walking distance

In the City of Charles Sturt, people make the difference - people of all cultural backgrounds and with differing experiences of the local place and region

Holistic and integrated art and design based on cultural diversity and reciprocity will encourage cultural harmony and consequently improve quality of life for the whole population

An eclectic design approach derived from diverse cultural aesthetics but unified by contemporary Australian art, architecture, history and references to the natural and built environment - creating a specific "Woodville Village" sense of place.

KEY

1. Entry Statements
2. Events
3. Art at Station Plaza
4. Art at Railway Station
5. Art at Regional Playground
6. Streetscape Furniture and Lighting

Cultural Walking Trail

EVENT OPPORTUNITIES

A range of events could be held regularly or as 'one offs' that promote Woodville Village as a destination for locals and visitors, and celebrates the thriving, diverse, proud, active and robust community.

- Program the Town Hall and Civic Centre with performances, guest speakers, community cafes, art exhibitions and other activities
- Have regular movie nights at the Town Hall
- Hold monthly community market in the new plazas with local traders, producers and produce from the Woodville Community Garden, as well as artisans and artists that promote Woodville Village as a great place
- Hold an annual multicultural 'food and wine' street fair
- Highlight the historical buildings and places in Woodville Village and surrounds
- Hold cultural walk events through Woodville Village
- Hold recreational and sporting events that promote and celebrate active living on the new St Clair Reserve for the community
- Hold an annual skaters competition at the new skate park

REGIONAL PLAYGROUND

Celebrating fun, play and fitness for all age groups

ARTWORK STYLE

- Interactive
- Large scale
- Community art projects
- Robust

THEMES

- Play and sport
- All age groups
- References to aboriginal and culturally diverse children's games

MAJOR ART WORK

CIVIC PLAZA, TOWN HALL

ART WORK STYLE

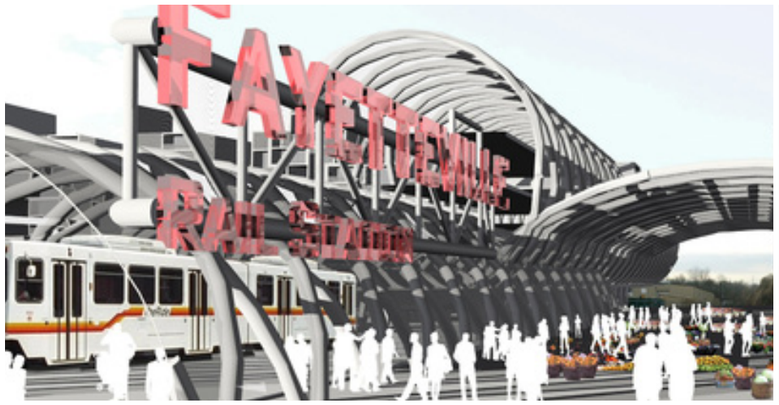
- Figurative work - stone, bronze, steel
- Projection Wall - *"Hello, I am Charles Sturt"* concept: stone or concrete with relief pattern for projection at night

THEME

- The World at Your Feet - an art work that celebrates multiculturalism. It may consist of a world map etched into paving, with *"You are here"* text. Also a free standing figurative art work. (See example)

Note 1: This major art work will serve as a starting point for walking trails throughout the area

MISCELLANEOUS AND INTEGRATED ART WORK



WAYFINDING

- Railway Station signage
- St Claire Recreation Centre signage

WOODVILLE ROAD STREET LIGHTS

WOODVILLE ROAD STREET FURNITURE

FEATURE LIGHTING

- Up lighting of landmarks Eg. St Margaret's Church

PORT / TORRENS ROAD ENTRY STATEMENTS




Strong vertical public art and landscaping at Port Road / Woodville Road and Torrens Road / Woodville Road intersections will help to create a "gateway " to Woodville Village, and create Landmark entrances

ARTWORK STYLE

- Strong, free-standing vertical elements that celebrate multicultural diversity in Woodville
- Significant lighting and feature lighting of key buildings
- Indigenous art
- Integrated with green landscaping

THEMES

- Cosmopolitan life style
- Global cuisine
- Café and night life
- Cultural diversity
- Natural environment

CULTURAL WALKING TRAILS



To meander through Woodville Village, highlighting and explaining aspects of past and contemporary indigenous, European settler, and other cultures that have shaped and continue to shape Woodville's character and sense of place. Stops at key locations such as the Community Plazas, St Clair Oval Playground and Brocas House.

ARTWORK STYLE

- Paving inlays and text
- Sculptures
- Sound posts
- Small art works (eg. GMH whistle)

THEMES

- Local history and culture
- Interactive, Informative, Educational

RAILWAY STATION ENVIRONS

Embellishment to the platform environs to help create a unique feel at the station and reinforce its place in local history

The station belongs to the community
- through referencing local history and culture
it becomes a valued part of the journey

ARTWORK STYLE

- Integrated Art Works - Integrate art and text into station furniture, shelter and paving, whimsical and kinetic - subject to Department for Transport Energy and Infrastructure Guidelines
- Entry Statements - Totem like patterns on power poles mark the entrance into the station

THEMES

- City of Charles Sturt and Woodville Station History
- Departures/arrivals
- Local histories with references to European and Asian architectural styles
- Transport and renewable energy

STATION AND COUNCIL PLAZAS

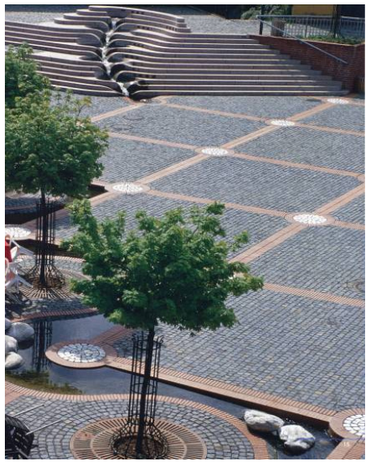
Lively, interesting places where public and community art celebrates the diversity of people who make up the community

ARTWORK STYLE

- Integrated artworks with furniture, paving, fountains, etc.
- Interactive solar or light sculptures

THEMES

- Cultural diversity
- Environment
- Travel
- Shopping
- Working life
- Civic life
- Transit Oriented Development (TOD)



STAGED IMPLEMENTATION

Recommendations relating to the proposed Art and Cultural Framework as developed through this Masterplan are ambitious in their scope, and represent the significant level of support that they received during the community engagement process. As a result of this wide scope, implementation will need to be staged and ongoing over a long period of time.

Notwithstanding this, and in order to progress this exciting component of the Masterplan, it is recommended that a 5 year Public Art and Cultural Plan be developed incorporating philosophical concepts that unify expression, the image, essential character, purpose and underlying essence of Woodville Village. This level of conceptualisation will bring a sense of place to the Precinct, ensuring the feeling that a particular site is of special significance, a special meaning beyond beauty and function…..(Genius loci - Spirit of the Place). The Plan will become a blueprint for public art and cultural expression.

The Plan will encourage a new and more creative approach to new residential and commercial developments within the City of Charles Sturt. Ensuring that a fixed percentage of all new development / construction projects is allocated to public art will accelerate implementation and demonstrate Council commitment to these art and cultural programs within its community.

The following topics would typically be addressed within such a 5 year Plan:

- Develop a Council public art and cultural policy and philosophy (including various approaches to public art - urban, community, architecture, open space)
- Investigate all potential funding sources, both public and private (grants, sponsorships, donations)
- Identify potential sites that can be improved by public art, or identify regular cultural program events (as outlined in this strategy)
- Develop conceptual themes and philosophies that inform artist briefs, specific to each project
- Investigate the potential to employ a dynamic, Cultural Development Officer to manage the public art and cultural program - a person with global citizenship philosophy and experience
- Establish an independent, local and professional Public Art Selection Committee to work with Council on the program
- Marketing and promotion
- Public art risk and maintenance

Investment Framework

INVESTMENT FRAMEWORK

KEY PROPERTIES

In developing an Investment Framework for Woodville Village, it is important to identify and comment upon the range of properties that are significant within the Study Area, including those that have development opportunities.

The consultant team has identified many such sites, and has also discussed some of these with the owners, some of whom have either recently obtained planning approval for significant new developments or have recently lodged applications for new development.

Various consultations have taken place outside of the Design Charrette with property owners and stakeholders such as the Queen Elizabeth Hospital and others involved in the 'medical precinct', and a specific meeting was held with several key owners to discuss opportunities and constraints to revitalising the area.

One of the key landowners is, of course, the City of Charles Sturt. While opportunities have been identified for future development on Council land within this Masterplan report, a more detailed study has been commissioned by Council which will provide a more comprehensive investment framework for Council owned properties within Woodville Village.

THE FOLLOWING PLAN IDENTIFIES THE LOCATION OF EACH COUNCIL OWNED SITE AS FOLLOWS:

- **Former Council Library (60 Woodville Road)**
- **Civic Complex, Town Hall and Car Park, 72-76 Woodville Road**
- **Former Bank, 65 Woodville Road & at grade car park**
- **St Clair Recreation Centre**
- **Brocas House & Adjoining Buildings (3 titles)**

INVESTMENT FRAMEWORK

PARTNERSHIPS

To maximise the investment potential within Woodville Village it will be important to encourage a 'partnership approach' between private landowners and property developers, the City of Charles Sturt and State Government agencies, in particular the LMC.

The role of Council will be important given its landholdings in the area, particularly the car park site adjacent Woodville Station. Council will also be critically involved in assisting in the development and implementation of appropriate car parking within the precinct.

Several private property owners are keen to develop their properties, with some having already lodged development applications or received planning approval for projects that are generally consistent with the vision developed in this Masterplan.

Partnerships may also be required to assist in strategic property acquisition to amalgamate sites and create more appropriate development parcels that can better deliver the vision for Woodville Village, in particular rear of site car parking and connections between car parks.

Finally, it will also be important for Council to encourage appropriate development within Woodville Village, through regular dialogue with key property owners and early discussions with property owners prior to the lodgement of development applications to help maximise the potential community benefit of projects.

TIMING

There is expected to be significant Government investment in Woodville Village, in particular through the release of the LMC land for development, the redevelopment of Woodville Station and the electrification of the rail line and the potential development of the Council car park site next to the station. In addition, rejuvenation of Woodville Road with associated streetscape improvements is envisaged.

It is therefore critical to ensure that maximum public benefit is derived from public investment in the public realm and in public works, and therefore the timing of the release of land for development is important relative to the timing of various infrastructure improvements.

A coordinated and strategic approach is therefore recommended to ensure maximum benefit to the community.

Implementation Plan

INTRODUCTION

Implementation of the Woodville Village Masterplan will require the commitment of a number of key stakeholders, primarily being the City of Woodville, key State Government agencies and the private sector. While some elements of the Masterplan can be implemented immediately or in the short term, other components will require further investigation and sourcing the necessary funds required for their implementation. Furthermore, some initiatives are dependent on other components being developed before they can be successfully implemented.

The Implementation Strategy has been prepared in close collaboration with the City of Charles Sturt, and forms the initial basis for progressing the project. However, the Strategy needs to be reviewed continually and opportunistically as funding sources are found and priorities change.

KEY INITIATIVES

The Implementation Strategy incorporates a number of key initiatives, each of which is outlined in more detail. They include:

- Further Studies and Investigations
- Concept Planning and Policy
- Detailed Design and Construction
- Communications, Engagement and Liaison

DRAFT IMPLEMENTATION STRATEGY

FURTHER STUDIES AND INVESTIGATIONS

Task/initiative	Details	Timeframe	Responsible
Further Studies and Investigations			
Woodville Village Delivery Model	Investigate delivery model options that maximise partnership and funding opportunities with the Federal and State government and private sector.	2010/11 – 2011/12 (immediate)	Council (Development Policy and Finance Business Units)
Woodville Village Car Parking Plan	Undertake investigations for a car parking strategy, including locations and mechanisms to provide and fund a coordinated approach to parking. Include analysis of impacts of parking on local road network.	2010/11-2011/12	Council (Development Policy & Transport Services Business Units)
St Clair Recreation Centre Improvements Feasibility Study	Undertake further scoping and investigations for the upgrade and improvement of the St Clair Recreation Centre, including further investigations into combining Woodville High School gym and a new performing arts space. Including liaison with stakeholders, users, and indicative costing.	2011/12	Council (Property Services), Office of Rec and Sport, Woodville High School
Council Car Park (South of Woodville Station) Development Feasibility Study	Undertaken a detailed feasibility study on the development and delivery model for a mixed use development including public plaza on the Council car park adjacent the Woodville train station.	2011/12	Council (Development Policy and Finance Business Units)
Five Year Public Art and Cultural Plan	Create a plan to further investigate and implement the framework provided in the master plan. To include an art philosophy, delivery models and funding opportunities.	2011/12	Council (Community Services Business Unit)

DRAFT IMPLEMENTATION STRATEGY

CONCEPT PLANNING AND POLICY

Task/initiative	Details	Timeframe	Responsible
Concept Planning and Policy			
Woodville Village and Environs Development Plan Amendment (DPA) and Urban Design Guidelines	• DPA for Woodville District Centre – including zoning boundary changes, desired character, structure plan • Urban Design Guidelines (which should reflect the Public Art framework) • Concepts/guidelines for three corner sites on Port Road intersection	2010/11 (Immediate)	Council (Development Policy Business Unit)
Woodville Village Streetscape – Concept Design and Consultation	Prepare a streetscape design and plan based on work done for Woodville Village Master Plan. To include lighting analysis, reflect Public Art framework and recommendation for staging of works, to include detailed services survey	2011/12	Council (Transport Services Business Unit) & DTEI
Adelaide to Outer Harbor Greenway	Concept planning, detailed design and construction for a greenway (shared bike path) from the City to the Port	2010/11 (ongoing)	Council (Engineering & Construction), Adelaide City Council, City of Port Adelaide Enfield, LMC, DPLG, DTEI (Office of Cycling and Walking)
Woodville Road Stormwater Management Opportunities	To compliment the longer term flood mitigation strategy contained in the Port Road Rejuventation Project investigations being undertaken by Tonkin Consulting to look at opportunities for stormwater management design measures for new development in Woodville Village.	2010/11 (ongoing)	Council (Engineering and Construction)

DRAFT IMPLEMENTATION STRATEGY

DETAILED DESIGN AND CONSTRUCTION

Task/initiative	Details	Timeframe	Responsible
Detailed Design and Construction			
St Clair Avenue – Detailed Design and Construction	LMC to prepare documentation and oversee the construction of St Clair Avenue based on Council requirements	2010/11-2011/12	Council (Transport Services) & LMC
St Clair Reserve Rejuvenation Project – Detailed Design and Documentation & Works	Detailed design and documentation for remaining portion of St Clair Reserve, which will require landscaping and works following the construction of St Clair Avenue, including Actil Avenue landscaping	2011/12	Council (Open Space and Recreation Business Unit)
Woodville Village Streetscape – Detailed Design Development and Documentation	Prepare documentation for works based on staging recommended.	2012/13	Council (Transport Services) & DTEI
Woodville Village Streetscape - Construction	Construction and works	2013 +	Council (Transport Services) & DTEI
Woodville High School Community Garden	Woodville High School are expanding their school garden with the help of funding from the LMC to create a community garden for the wider St Clair community to enjoy	2010/11 (ongoing)	Woodville High School, LMC, local stakeholders, St Clair JV, Council

DRAFT IMPLEMENTATION STRATEGY

COMMUNICATION, ENGAGEMENT AND LIAISON

Task/initiative	Details	Timeframe	Responsible
Communications, Engagement and Liaison			
Reduce speed limit to 50kph	Liaise with DTEI to obtain approval for a reduced speed limit for Woodville Road from Torrens to Port Road from 60kph to 50kph	2010/11 (Immediate)	Council (Transport Services) & DTEI
Reduce boom gate down time	Liaise with DTEI to reduce the down time of boom gates at railway crossing as part of Outer Harbour line electrification and upgrade.	2012/13	Council (Transport Services) & DTEI
Brocas Avenue Closure	Council to formally acknowledge the continued closure of Brocas Avenue for the safety of Woodville High School students	2010/11 (Immediate)	Council (Transport Services)
Communications and Engagement Plan	Create a Communications and Engagement Plan for the implementation stages of the Woodville Village Master Plan project	2010/11 (Immediate)	Council (Community Engagement)
Traders Association & engagement with property owners and occupiers	Investigate models and process for a traders association, including economic models	2011/12	Council (Development Policy)
Create a branding identity for Woodville Village	Create a strategy for branding, including a logo and set of marketing materials (eg signs) for Woodville Road that fits in with City of Charles Sturt branding	2010/11 – 2011/12	Council (Marketing and Communications)
Events calendar	Investigate opportunities for public/community events in Woodville Village – including the use of local venues (eg Town Hall) and other stakeholders and service providers who may have events within precinct	2011/12	Council (Marketing and Communications Business Unit)

Note: Some smaller projects can be accommodated within the current general operating budget, while others will be subject to individual budget proposals.

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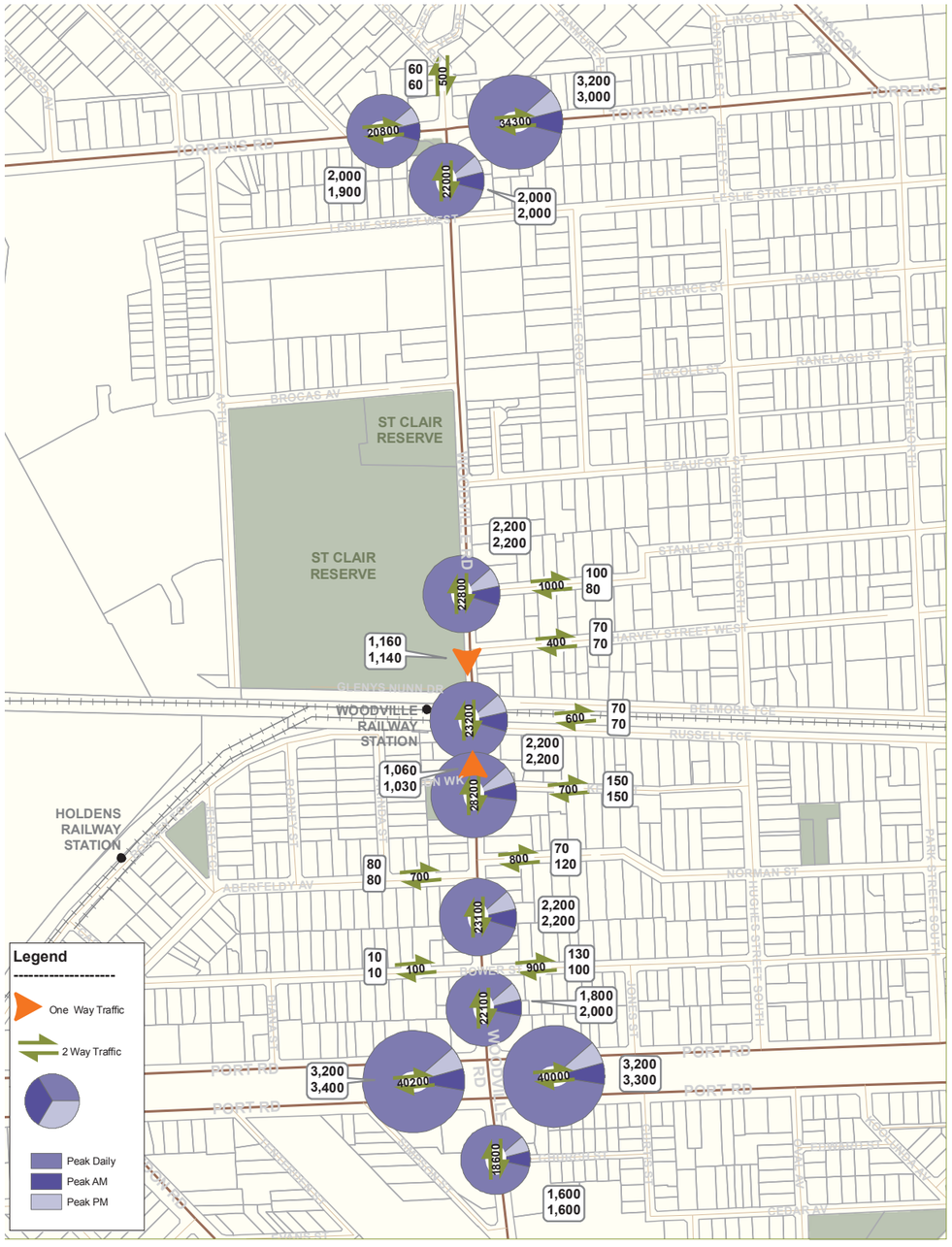
Appendix

APPENDIX 1 : SHADOWING DIAGRAMS FOR MID - WINTER (21ST JUNE)

APPENDIX 1 : SHADOWING DIAGRAMS FOR MID - SUMMER (21ST DECEMBER)

APPENDIX 2 : WOODVILLE ROAD TRAFFIC VOLUMES

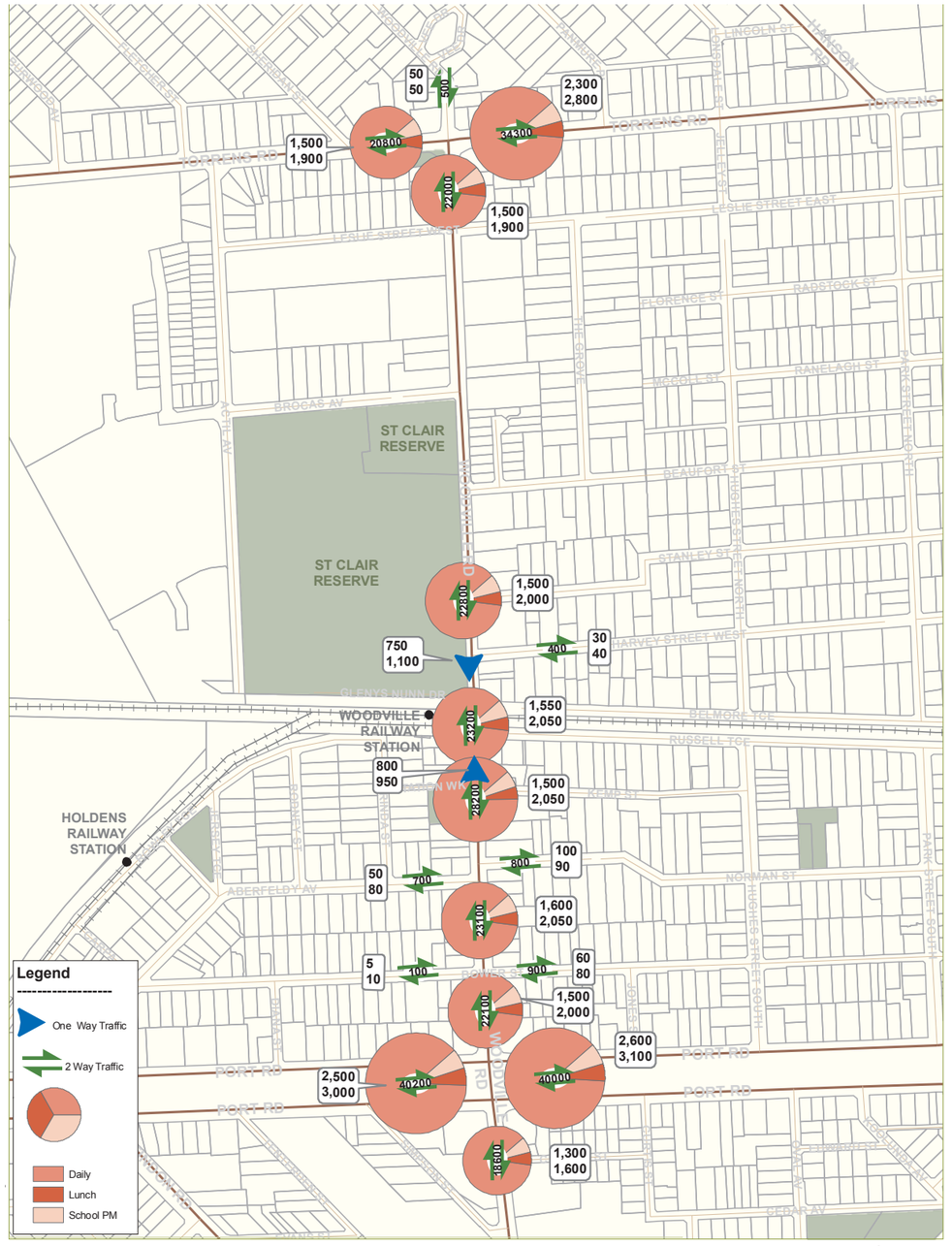


SCALE @ A4:1:7,500
0 0.05 0.1km

Date: 24/08/2010 **Source:** DTEI
Datum: MGA Zone 54 **Projection:** Transverse Mercator

Existing Daily, AM And PM Peak Period Traffic Volume On The Road Network

Existing daily, AM and PM peak period traffic volumes on the road network



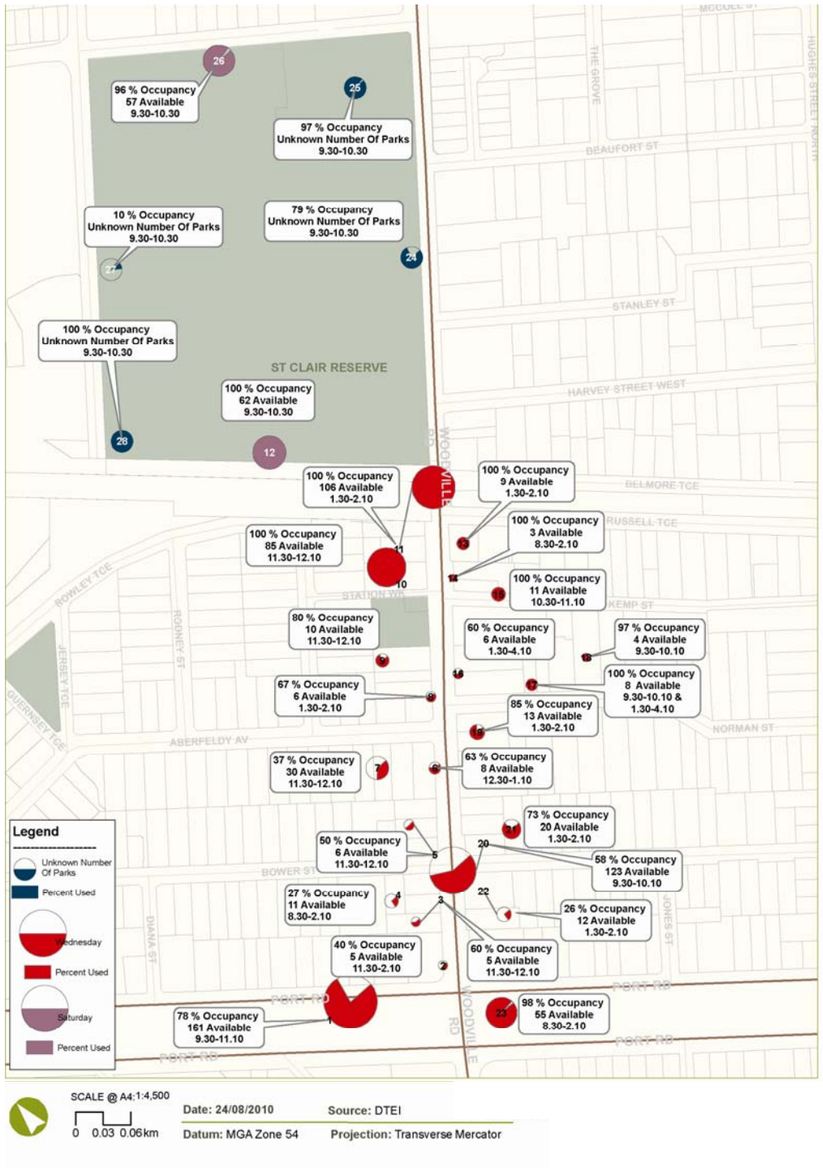
SCALE @ A4:1:7,500
0 0.05 0.1km

Date: 24/08/2010 **Source:** DTEI
Datum: MGA Zone 54 **Projection:** Transverse Mercator

Existing Daily, Off-Peak Period Traffic Volume On The Road Network

Existing daily, lunchtime and school pick up peak period traffic volumes on the road network

APPENDIX 2 : WOODVILLE ROAD TRAFFIC VOLUMES



Parking Areas Surveyed and their Peak Time and Occupancy