



CITY OF WEST TORRENS STRATEGIC BICYCLE PLAN REVIEW FINAL REPORT

November 2006

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1.0 INTRODUCTION

The City of West Torrens Local Area Bike Plan was prepared in the 1994. Since that time, Council has implemented many of the recommendations in that Plan, including behavioural programs, such a community cycling events, Bike Ed for primary schools etc.

There have been significant changes that have occurred in cycling in recent times. On a strategic level, the Department of Transport, Energy and Infrastructure (DTEI) has implemented the metropolitan-wide Bikedirect networks. Significant land use changes have also occurred in the City of West Torrens in recent years, including the large-scale developments within the Adelaide Airport. Within the City, rejuvenation of residential areas and residential land divisions have also contributed to changes to traffic flow patterns.

As a consequence of these changes, a review of the previous Bicycle Plan was considered to be necessary.

FIGURE 1 shows the original Bicycle Plan adopted by the Council in 1994.

2.0 THE STUDY AREA

The Western Region is currently experiencing unprecedented growth, due in part to large scale commercial and retail developments such as at the Adelaide Airport, rejuvenation of residential areas and increasing travel demands generated both within and outside of the region. This region not only provides major employment opportunities, but is also a transport, tourism and recreational hub of Adelaide.

Within the City of West Torrens itself, the past few years have seen significant industrial, residential and commercial developments occurring and the Adelaide Airport has added to this development mix with the recent construction of a major IKEA retail store and the opening of the Harbourn town retail complex. The Airport Masterplan envisages that large parcels of Airport land would come on stream in the next few years, as development opportunities are pursued by AAL.

The implication on the road networks (and bicycle needs) created by such large-scale developments is a major consideration for such a strategic review. The need to undertake a comprehensive review and assessment of the bicycle network, as part of any transport network review, is also reinforced by the increasing congestion and traffic flows that have occurred to the arterial road networks. Demand for cyclists to utilise alternative roads away from the busy arterial roads is an important consideration.

3.0 THE STUDY OBJECTIVES

It is proposed that a strategic review be undertaken, rather than focusing on localised cycling issues.

The following are considered important factors in this review:

- Review the appropriateness of the previous local bicycle route network, having regard to changes to traffic patterns, new developments and new cycling demands.
- Review the appropriateness of the Bikedirect network within the City of West Torrens, having regard to future arterial road projects and other DTEI projects that may offer opportunities for bicycle access.
- Assess the potential demands for bicycle facilities associated with the Adelaide Airport developments, having regard to the proposals in the Adelaide Airport Master Plan, such as the potential connection of Morphet Road to Richmond Road.
- Review the opportunity to reinforce the River Torrens path linkage between South Road (Brickworks) and west to Jervois Street, in light of the road changes that have occurred to Ashwin Parade.
- Review opportunities for enhancing bicycle linkages to the established off-road path system, for example Kings Reserve to the River Torrens, Sturt Creek Linear Park to the coast and to the City of Marion, Underdale land division to the River Torrens etc.
- Assess the current characteristics of the 3 main off-road paths within the City of West Torrens, ie River Torrens Linear Park, Westside Bikeway and Reece Jennings Bikeway.
- Carry out a review and report on new cycling programs and initiatives that may be of interest to the Council and to consider for implementation in future years, if beneficial to the community.
- Make recommendations on a revised Strategic Bike Plan, following the review and assessment undertaken above, for Council consideration.

As part of this review, a general assessment has also been made of the conditions of the current bicycle networks in the Council area.

4.0 THE CHANGES IN THE CITY OF WEST TORRENS

Some of the more significant land use, road and bicycle infrastructure changes that have occurred in the City of West Torrens since 1994 are discussed below.

4.1 BIKEDIRECT

At the time of the original Bicycle Plan in 1994, the Bikedirect network was not in place. The Bikedirect network is the metropolitan bicycle network prepared and implemented by the Department for Transport, Energy and Infrastructure (DTEI). It is a network of bicycle routes that has been developed to encourage cycling by providing a variety of options for cyclists with different needs and abilities. The network identifies main roads, bicycle lanes, local streets and off-road paths within the Adelaide metropolitan area.

Since the first Bikedirect network and maps were produced, there have been a number of updates undertaken, as bicycle routes are amended or added to.

FIGURE 2 shows the current version of the Bikedirect network in the City of West Torrens.

4.2 MILE END COWANDILLA STORMWATER OUTFALL PROJECT

The stormwater project includes the development of a linear trail/shared use path along Sir Donald Bradman Drive, from May Terrace (adjacent to the Airport) and extending west across Tapleys Hill Road to West Beach Road. A shared use bridge is proposed at the intersection of Tapleys Hill Road/Sir Donald Bradman Drive which would allow cyclists to cross using the traffic signals to the Reece Jennings Bikeway on the western side of Tapleys Hill Road.

From the Reece Jennings Bikeway, a shared use path is also proposed in a diagonal direction to West Beach Road terminating opposite the AAL's Tapleys West Precinct (see Section 4.10).

The shared use path proposed as part of the stormwater project would have links to the Bikedirect bicycle route on the northern side of Sir Donald Bradman Drive via the newly installed traffic signals for the Adelaide Airport Business Park development.

At the termination of the shared use path at the May Terrace end, cyclists would have to use the road carriageway. DTEI is currently considering the implementation of on-road bicycle lanes on Sir Donald Bradman Drive on this section of road. If implemented, it would allow cyclists using the shared use path to continue east to Airport Road (where bicycle lanes are currently present) or to Clifford Street (which forms part of the important north-south Bikedirect bicycle route).

4.3 ADELAIDE AIRPORT MASTER PLAN

The Master Plan envisages significant development opportunities around the Airport. Some of the large scale developments that have taken place and those that are currently being planned for the near future are described below.

FIGURE 3 identifies the Airport Master plan and the various policy areas for future developments.

4.4 NEW TERMINAL AND IKEA STORE

The IKEA store at the corner of Sir Donald Bradman Drive/Airport Road provides approximately 24,000m² of retail floor area and over 900 car parks.

The Airport Terminal and internal road upgrades have resulted in changes to the road patterns within the Airport. The previous Adelaide Airport Bikeway linking Sir Richard William Avenue to the City of Adelaide, via Airport Road, Beachway Avenue, Autumn Avenue and the River Torrens, has been retained. It would be desirable for bicycle lanes to be included in the main terminal roadways (Sir Richard Williams Avenue) thereby linking in with the existing Airport Road bicycle lanes and the future Sir Donald Bradman Drive bicycle lanes. However, AAL has advised that it has no plans to implement bicycle lanes on Sir Richard Williams Avenue at present.

From discussions with AAL, another option canvassed is to consider a shared use path along the northern verge of Sir Richard Williams Avenue linking to Airport Road or the rear of the IKEA store. These proposals should be reviewed further in consultation with AAL.

AAL has also advised that it is considering a plan to create a bicycle assembly area with compressor facilities to allow cyclists to assemble or dis-assemble bicycles at the terminal. A likely location for this facility is in the vicinity of the valet parking area. This dedicated facility would cater for those passengers who wish to transport bicycles with their flights. Such a plan was discussed many years previously during the development of the Adelaide Airport Bikeway project. The AAL proposal, if implemented, would allow this original plan to be finally achieved.

4.5 ADELAIDE AIRPORT TAPLEYS EAST PRECINCT

The development of the Tapleys East Precinct includes the retail hub of Harbourtown and further developments of other retail and fast food outlets. Traffic patterns have changed along Tapleys Hill Road, in particular with the signalisation of West Beach Road/Tapleys Hill Road. AAL is currently reviewing access options along Tapleys Hill Road to facilitate access for further developments in the future. The Reece Jennings Bikeway is located on the western side of Tapleys Hill Road. To access the Tapleys East Precinct from this bikeway, cyclists could use the pedestrian facilities at the signals.

The possibility of creating a linear trail alongside the drainage creek on the eastern side of Tapleys Hill Road was discussed with AAL. Such a trail may require the existing fence to be altered due to the width constraints to the creek channel. The trail would provide opportunities for cyclists and pedestrians to access the Tapleys East Precinct and connected to the shared use path that has been constructed along the southern verge of Sir Donald Bradman Drive as part of the Mile End Cowandilla Stormwater Outfall project. AAL has indicated support to review this option in the future.

4.6 ADELAIDE AIRPORT TAPLEY WEST PRECINCT

AAL has advised of the future potential to develop this precinct into a recreational type use.

Currently, Council's Mile End Cowandilla Stormwater Outfall project includes a shared use path which would connect the Reece Jennings Bikeway with West Beach Road in a diagonal direction.

The Tapleys West Precinct is located opposite this stormwater project. If the development of the Tapleys West Precinct proceeds, this shared use path could then link into a recreational path system within the AAL land, thereby providing significantly enhanced recreational opportunities for cyclists.

West Beach Road is also currently part of the Council's bicycle route which links the Reece Jennings Bikeway to the Military Road Bikedirect bicycle route and Coast Park.

The development of the shared use path as part of the Council's stormwater project, the future potential to develop recreational trails within the Tapleys West Precinct and linkages to the Bikedirect routes and Coast Park all indicate the potential for very significant cycling opportunities in the area.

4.7 ADELAIDE AIRPORT BURBRIDGE PRECINCT

Development of the Burbridge Business Park precinct has commenced with warehouse/office type uses along the Sir Donald Bradman Drive frontage. The Business Park, when completed would cater for over 100,000m² of floor area for such uses.

Traffic signals have been installed at the main access point to the Business Park in Sir Donald Bradman Drive. An additional left in left out access point has also been provided to service the site. As a result of the above development, DTEI has reduced the previous speed limit of 70 kph to 60 kph. In addition, DTEI has advised that there is a proposal to implement on-road bicycle lanes along Sir Donald Bradman Drive, between Tapleys Hill Road and the IKEA traffic signals, in response to AAL developments along this road.

On the northern side of Sir Donald Bradman Drive, there is a Bikedirect and Council bicycle route located between Tapleys Hill Road and May Terrace,

which utilise a service roadway (where the residential land uses are) and a shared use path alongside the Kooyonga Golf Course. This route is now linked to the shared use path on the southern side of Sir Donald Bradman Drive (part of the Mile End Cowandilla project) via the newly installed traffic signals for the Business Park.

4.8 ADELAIDE AIRPORT EAST PRECINCT

The Airport East precinct has been earmarked for large scale developments of office/warehouse type uses. The Airport East precinct is the area abutting Transport Avenue, Morley Street and Richmond Road. These developments would impact on the current Bikedirect route that utilises Beare Avenue and Transport Avenue. The types of land uses envisaged would generate significant volumes of large vehicles, including semi trailers and potentially B Doubles.

AAL is currently reviewing access options for the development of the Airport East and Morphett precincts.

Transport Avenue currently forms an important part of the DTEI Bikedirect and Council's local bicycle route, linking with Morley Street to the north. A re-assessment of this route would be necessary to ensure that the safety of cyclists is maintained along this bicycle route when further developments occur in this precinct.

The Master Plan also envisages the linking of Morphett Road with Richmond Road. The creation of such a link would have advantages for the bicycle network, however, suitable facilities for cyclists should be considered as part of the road design to maintain safety for cyclists.

AAL is currently reviewing the possibility of a formal road link between Richmond Road and the terminal, via Export Park, as part of its access study. There is an existing service road around the perimeter of the Airport that is located outside of the security fence. The possibility of using this service roadway for pedestrians and cyclists was discussed with AAL and could be considered in the future. This would provide a good bicycle link between the Watson Avenue area and the terminal (via Export Park). From there, cyclists could then continue west to IKEA or the terminal.

As the access study for the Airport is currently in progress, these options should be further discussed with AAL in the future.

4.9 ADELAIDE AIRPORT MORPHETT PRECINCT

The Morphett Precinct has been earmarked for a recreation type development. This precinct extends a significant distance from the Tapleys Hill Road direction east towards the Airport East Precinct.

The opportunity to provide a significant off-road shared use path is evident. The AAL Master Plan identifies such a link. Part of a shared use path has already

been implemented between Watson Avenue and the rear of the Council's Waste Transfer Station in Morphett Road.

If fully implemented, the AAL shared use path would enable cyclists using the north-south Bikedirect bicycle route of Beare Avenue-Transport Avenue to use this future path to connect to the Reece Jennings Bikeway in Tapleys Hill Road. The future path would also complement the current on-road bicycle lane Sir James Melrose Road and Warren Avenue, providing an alternative off-road path for cyclists.

4.10 NORTH PLYMPTON INDUSTRIAL AREA

A major industrial area is located within North Plympton abutting Mooringe Avenue and west of Streeters Road. Over the last few years, there have been many new developments of office/warehouse type uses and redevelopments of existing buildings that have occurred in the area.

Traffic volumes have been increasing along the major collector roads that provide access to this precinct, notably Morphett Road. Council has recently completed the reconstruction of Morphett Road, however, due to road constraints, there has only been a very minor widening of the roadway. There are bicycle lanes located along Morphett Road, partly along Mooringe Avenue and along James Melrose Road/Warren Avenue. The reconstruction of Morphett Road has retained the previous part-time bicycle lane arrangement and would continue to provide access for cyclists until such time as the extension of Morphett Road to Richmond Road is proposed, when a review of the bicycle routes through this area would become necessary.

4.11 TORRENSVILLE/UNDERDALE INDUSTRIAL AREA

A major industrial area is located in the area north of Ashwin Parade. As a major collector road, Ashwin Parade functions as a critical access route to service this large industrial area from South Road. There have been numerous large scale warehousing and transport related developments that have occurred in recent years.

In response to this transport demand, major reconstruction of Ashwin Parade has occurred. Council's desire to facilitate this movement function for industries has meant that there has been a slight change in focus from the provision for cyclists on this road to the needs of industries. Ashwin Parade had been part of the City to Henley Beach Bikeway route and part-time bicycle lanes have been marked along the carriageway. However, with the transport function now being the major focus, the reconstruction of Ashwin Parade has resulted in the removal of the bicycle lanes and replaced with a wide kerbside lane on one side and part-time bicycle lanes on the northern side during peak hours to maintain cyclist access. DTEI had previously disagreed with Council's views and advised that it is not supportive of the removal of the bicycle lanes in Ashwin Parade.

Council has also redeveloped Kings Reserve, located on the southern side of Ashwin Parade opposite the Brickworks site. The redevelopment included the provision of shared use paths around the reserve, linking Ashley Street with Ashwin Parade for pedestrians and cyclists. As part of this redevelopment, a refuge island has been implemented in Ashwin Parade and a new shared use path constructed to link Kings Reserve with the River Torrens linear park.

Council had previously advised DTEI that it would investigate options to redirect the bikeway to the River Torrens linear park path at the rear of the Brickworks site. Further investigations have been undertaken for this review and comments made in later sections of this report (see Section 6.3.4).

4.12 CITY WEST BYPASS ROAD PROJECT

This project has recently been completed and links Port Road with South Road. As part of this road project, Council has, with DTEI's funding assistance, implemented a shared use path between South Road and James Congdon Drive, which is the extension of the Westside Bikeway.

The City West Bypass includes on-road bicycle lanes, in addition to the shared use path on the western side, thereby providing enhanced cycling facilities in this area. The Westside Bikeway is now predominantly an off-road path system between Sir Donald Bradman Drive to the north and Anzac Highway to the south. As a result, the William Street portion (on-road bicycle lanes) of the previous Westside Bikeway could now be removed.

At the southern end of the bypass road, Council has constructed an off-road path between the South Road traffic signals and Fleet Street, which is a no through road. In the longer term, it is intended to continue the off-road path of the Westside Bikeway from the South Road traffic signals to the start of the off-road path further to the south. This would require changes to an existing car park within the bikeway reserve. A more detailed assessment is recommended to complete this off-road link of the Westside Bikeway.

North of Sir Donald Bradman Drive, a shared use path has also been implemented on the western side of James Congdon Drive up to the Railway Terrace traffic signals. From here, the shared use path then continues east across James Congdon Drive and links in with the existing shared use path alongside the Santos Stadium. In the future, this path may continue north towards Port Road and eventually to the City of Adelaide's Parklands near the Adelaide Gaol. Previous discussions with the City of Adelaide indicate that the transfer of part of the SA Water land (narrow strip) next to the train line would allow the linking of the path towards the Adelaide Gaol direction to occur, however, such a proposal is still under consideration by the relevant authorities.

Following recent discussions with DTEI as part of the Bakewell Bridge project, DTEI has agreed to extend the shared use path on the western side of James Congdon Drive, from the junction of James Congdon Drive/Railway Terrace to King Street. This would then link in with the DTEI Bikedirect bicycle route in Victoria Street.

The City of Adelaide has also previously advised of the feasibility of implementing a shared use path along the northern side of Port Road and North Terrace, between Adelaide Gaol and Montefiore Road.

Therefore, it would seem that the opportunity to reinforce the shared use path linkages between the Westside Bikeway and the Adelaide Parklands would result in a greatly enhanced route for cyclists, by providing essentially an off-road facility that would benefit all categories of cyclists.

The Home Maker centre adjacent to the City West Bypass is one of the largest bulky goods developments in the City. Increasing developments for large retail/showroom uses are also occurring in the area south of the Home Maker centre. The shared use path on the City West Bypass, implemented as part of the City West Bypass road project, and the on-road bicycle lanes, would be conveniently located to provide cyclist access to this important retail area.

4.13 BAKEWELL BRIDGE REPLACEMENT PROJECT

DTEI has commenced the replacement of the Bakewell Bridge. The proposal identified a road underpass on Henley Beach Road with on-road bicycle lanes included on both sides of the new road.

Provision has been made to maintain a north-south shared use path over the underpass and a shared use path would also be located along the southern side of the underpass next to Henley Beach Road. These on-road and off-road provisions would cater for a wide range of cyclists that may use this portion of Henley Beach Road.

4.14 SOUTH ROAD UNDERPASS PROJECT

DTEI is currently preparing design proposals for the underpass of South Road. There are no bicycle lanes in South Road at present. On Anzac Highway, there are currently bicycle lanes that operate during the clearway periods. While the final design plans have not been finalised at present, it is envisaged that the bicycle lanes on Anzac Highway would be retained.

The provision for cycling on South Road is still under consideration by DTEI. At this stage, it is uncertain if bicycle lanes would be provided along the main carriageway or if cyclists would be directed to a future service road arrangement. Council is currently liaising with DTEI on the project and future information on the "final" DTEI provision for cycling would be incorporated into the Council's bicycle plan in due course.

DTEI's Bikedirect bicycle route of Beckman Street-Gray Street-Westside Bikeway provides an alternative north-south bicycle route to using South Road at present.

4.15 STURT CREEK LINEAR PARK

Council has spent a considerable amount of funds, with assistance from DTEI, to implement a shared use path along the western side of the Sturt Creek between Anzac Highway and Pine Avenue. The purpose of this path was to complete the link from the current shared use path in the City of Marion to the Reece Jennings Bikeway and beyond. When completed, it would provide a most significant off-road shared use path system from Bedford Park to Port Adelaide (via the Coast Park system). From Bedford Park, the off-road shared use path system continues via the Southern Expressway to the southern suburbs. The regional significance of this path network is evident.

The missing gap in this path system is in the City of Holdfast Bay, more particularly in the section between the tram line and Anzac Highway, and between Pine Avenue and Tapleys Hill Road. Discussions with the City of Holdfast Bay have indicated that only the short section between the tram line and Anzac Highway has been considered for funding at present.

4.16 COAST PARK

The Coast Park extends from Sellicks Beach in the south to North Haven in the north. The section of Coast Park that is located in the City of West Torrens is between Anderson Avenue and Barcoo Road. This shared use path link was completed some years ago with funding from Planning SA. When it is eventually completed, the Coast Park would have approximately 70 kilometres of public linear park along the metropolitan coastline.

Planning SA has recently approved funding for Adelaide Shores to review the shared use path linkage between Military Road and the Coast Park, using Hamra Avenue. The preliminary proposal is to provide shared access for pedestrians and cyclists from Coast Park east to Military Road, via Hamra Avenue. At Military Road, kerb extensions are envisaged to assist pedestrians and cyclists in crossing Military Road to link to the existing shared use path on the eastern side of Military Road.

4.17 TRAMLINE PROJECT

This study involves a number of stakeholders including Councils that abut the tram line corridor, TransAdelaide, DTEI and Planning SA. The study considers the feasibility of developing a linear park along the tram corridor with linkages from this new linear park to existing bikeways and bicycle routes, such as the Westside Bikeway. DTEI has previously advised that initial assessments of the crossing issues for the tramway route, such as on Morphet Road and Goodwood Road, would be undertaken in the near future.

5.0 ASSESSMENT OF CURRENT BICYCLE NETWORK

5.1 EXISTING NETWORK

FIGURE 1 shows the existing bicycle network from the original Bicycle Plan that was adopted by Council in 1994. The works associated with the designation of this network have been completed for some years. Works implemented include bicycle lanes (full-time and part-time), bicycle route markers on local streets, bicycle crossing points and bicycle parking facilities.

As the Bicycle Plan was adopted prior to the amalgamation with Thebarton Council, the Bicycle Plan in FIGURE 1 shows only the pre-amalgamation bicycle routes of the City of West Torrens. Following the amalgamation with Thebarton Council and following the implementation of the DTEI's Bikedirect network, the Bikedirect-designated routes in the previous Thebarton Council area were subsequently assumed to form of the City-wide bicycle network.

A number of bicycle routes in the City of West Torrens have been added in recent years. They include the shared use path along the Sturt Creek, currently linking Anzac Highway with Pine Avenue. In the future, it is envisaged that the Holdfast Bay Council would extend this link northwards to the Reece Jennings Bikeway and the major recreational facility at Africaine Road.

The Council is currently looking at replacing the existing footbridge across the drainage creek between Carnavon Street and Walter Street in Richmond. Previously, it was considered that the location of this new bridge should be at Morley Street-Lyons Street to make the north-south bicycle route more direct. However, following further assessment by Council, it was considered that replacing the existing footbridge at Carnavon Street would be of more benefits overall to cater for a wider catchment of pedestrians and cyclists, rather than locating this new bridge further to the western end. This project is being fully funded by Council without funding assistance from the State Bicycle Fund. When completed, it would provide an upgraded bridge for pedestrian and cyclists and would benefit the current Bikedirect route.

5.2 ASSESSMENT OF THE CURRENT ROUTE CONDITIONS

TABLE 1 – ARTERIAL ROAD NETWORK

ARTERIAL ROAD	AADT (Source TSA AADT Nov 2006)	CURRENT PROVISION	COMMENT
Airport Road	13,300 vpd	Bicycle lanes present.	Links Henley Beach Road with Sir Donald Bradman Dr and also forms part of the Adelaide Airport Bikeway via Beachway Avenue and Autumn Avenue.
Anzac Highway	52,500 vpd (south of	Bicycle lanes during	Important commuter route to the City. Road pavement

	Everard Ave)	clearway periods.	upgraded as part of the bicycle lane provisions some years back, between Marion Road and Richmond Road.
Sir Donald Bradman Dr	30,800 vpd (east of South Rd)	Bicycle lanes present.	The section between Hilton Bridge and Brooker Terrace has bicycle lanes provided as part of the previous Adelaide Arrive upgrade of the road. West of Brooker Terrace, wide kerbside lanes are present. Unaware of any DTEI's proposal to extend the bicycle lane provision further west.
Henley Beach Road	22,600 vpd (East of South Rd)	Bicycle lanes during clearway periods.	The section between Bakewell Bridge and Marion Road has clearway bicycle lanes provided as part of the road upgrade some years back. Recently, the bicycle lanes have been extended further west to Airport Road. West of Airport Road, wide kerbside lanes are present.
Holbrooks Road	23,900 vpd (north of Henley Beach Rd)	Wide carriageway with centrelines.	No provision for bicycle facilities on this road. Future realignment of Marion Road with Holbrooks Road contemplated by DTEI, however, details are unknown at this stage. Cycling conditions are difficult during peak periods when traffic flows are high.
James Congdon Dr	15,500 – 24,300 vpd	Bicycle lanes present.	Bicycle lanes are present on both sides of the road.
Marion Road	34,300 vpd (north of Mooringe Ave)	Wide kerbside lanes.	No specific provision for cycling facilities, however, wide kerbside lanes are present. While cycling conditions are generally good, the presence of parked vehicles on the section where shops are present squeeze points for cyclists during peak periods. While DTEI had previously considered implementing clearways for Marion Road, this proposal appears to have been dropped.
Port Road	61,700 vpd (north of George St)	Bicycle lanes present.	Bicycle lanes are present on both sides of the road.
Railway Terrace	16,700 vpd	Wide carriageway with centrelines.	While this road is not part of the local bicycle network or the Bikedirect network, the bulky goods development, Santos stadium and ETSA Park are uses that may encourage

			cycling trips along this road. The road conditions are currently poor, with poor pavement surface and relatively high traffic volumes, particularly heavy vehicles.
Richmond Road	29,800 vpd (east of Railway Tce)	Bicycle lanes present.	A short section of bicycle lanes is present between South Road and Railway Terrace as part of resealing works some years ago. West of South Road, wide kerbside lanes are present. However, due to high on-street parking demands, these parked vehicles represent squeeze points for cyclists. There are no clearways present on this road west of South Road.
Rowells Road	15,400 vpd (north of Henley Beach Rd)	Wide carriageway with centrelines.	No provision for bicycle facilities. Cycling conditions are difficult during peak periods when traffic flows are high.
South Road	34,900 vpd (north of Tennyson St)	Kerbside lanes 3.7 to 3.8m.	High traffic flows, high heavy vehicle volumes and relatively narrow kerbside lanes make cycling conditions difficult on this road.
Tapleys Hill Road	45,400 vpd (south of Sir Donald Bradman Dr)	Bicycle lanes present.	A short section of bicycle lanes is present between Warren Avenue and Africaine Road. North of Africaine Road, there are no on-road bicycle lanes. The high speed limit and high traffic volumes make the conditions for on-road cycling difficult. The Reece Jennings Bikeway is an alternative that is available for all cyclists.
City West Bypass	7,700 vpd	Bicycle lanes present.	The bypass road and the extension of James Congdon Drive have on-road bicycle lanes. In addition, Westside Bikeway off-road path extension is also available for cyclists to use.

TABLE 2 – PRINCIPAL LOCAL ROUTES

PRINCIPAL ROUTE	CURRENT PROVISION	COMMENT
Albert St, Thebarton	Minor collector road.	Part of the Bikedirect bicycle route linking Parker St to the south and Holland St to the north. Cycling conditions appear to be reasonable.
Alexander Ave, Ashford	Local street.	Characterised by high on-street parking demands due to nearby Ashford Hospital.

		However, volumes are not known to be high and use of this street as part of the local bicycle network is acceptable. This route also forms part of the Bikedirect route linking Leader St (City of Unley) with the City of West Torrens.
Ashley St, Torrensville	Partly local street and partly major collector road.	Ashley Street is part of the east-west route that utilises George Street, Danby Street to join with Ashley Street to Holbrooks Road. Angled parking in Danby Street is not conducive to cycling. The western section of Ashley Street, between Hardys Road and Holbrooks Road, carry significant volumes of traffic including heavy vehicles. Cycling conditions are difficult during peak periods when traffic flows are high. It is proposed to amend the route to use North Parade instead. North Parade is a local street with roundabout controls (see Section 6.0).
Bagot Ave, Mile End	Collector road with bicycle parking lanes and Route signage.	The southern section, between Hounslow Avenue and Sir Donald Bradman Drive, has bicycle parking lanes. North of Hounslow Avenue, Bagot Avenue has no specific bicycle provisions but carries relatively high volumes of traffic. The bicycle route then deviates to Henley Street (a local street) to Henley Beach Road. On-street parking commonly occurs in this area, however, the use of Henley Street is lieu of Bagot Avenue is preferable. This described route is also part of the Bikedirect network.
Barwell Ave, Marleston	Local street.	Local street which provides an east-west linkage to Everard Avenue where traffic signals are present to assist the crossing of South Road. Also part of the Bikedirect network. No specific bicycle provisions present and not necessary as well.
Brooker Tce, Richmond	Major collector road with marked parking lanes.	A major collector road carrying significant volumes of traffic. On-street parking is not a high demand and cyclists are able to use the parking lanes. Also part of the Bikedirect network.
Claremont St, Mile End	Local street.	Currently part of the north-south Bikedirect route from William St. A shared use path has been extended from the Westside Bikeway north to King St and this local street route is proposed to be deleted (see Section 6.1)
Clifford St, Brooklyn Park	Local street.	Local street which continues the north-south bicycle route from Morley Street to Autumn Avenue and the River Torrens. No specific bicycle provisions required for this quiet residential street. Also form part of the Bikedirect network.
Clifford St, Thebarton	Local street.	Local street which connects Henley Beach Road to the River Torrens direction via Ashwin Pde.

Croydon Rd, Keswick	Local street.	While a local street, it is located in a commercial area which is characterised by high on-street parking demand. Specific bicycle provisions are not feasible as a result. It provides a link north to Railway Terrace, which currently has poor cycling conditions. Croydon Road also forms part of the Bikedirect network.
Everard Ave, Keswick	Collector road with bicycle lanes.	This road has recently been resurfaced by Council. Bicycle lanes and parking lanes are present. It continues the east-west route from Barwell Avenue to Anzac Highway.
Everett St, Brooklyn Park	Local street.	Quiet residential street that was part of the previous Bike Plan strategy to cross over the Keswick Creek via the Morley Street route. The Council has funds to provide a new pedestrian/cyclist bridge at the Carnavon Avenue to replace the extg footbridge. The Everett St route can be deleted.
Galway Ave, Marleston	Major collector road with bicycle and parking lanes provided.	This road is a major collector road with traffic signals at Marion Road. It services a major industrial and commercial area. It also forms part of the Bikedirect network.
Garden Tce, Underdale	Collector road.	A collector road which carries relatively high traffic volumes. The street was the subject of a recent major traffic investigation by Council, during which residents of the street have not supported the implementation of speed cushions in the street. At the western end at Pierson Street/Rowells Road, DTEI has commenced installation of traffic signals. This would encourage more traffic to use the street. The relatively narrow carriageway width and on-street parking, particularly adjacent to the school, would not create good cycling conditions as a result. The River Torrens provides a convenient alternative to this road using any of the north-south roads such as Autumn Avenue or Lasscock Avenue, and therefore, in view of the road conditions mentioned, deletion of this route has been considered (see Section 6.0).
George St, Thebarton	Collector road.	Forms part of the Bikedirect bicycle route. Carries relatively high traffic volumes and the road is relatively narrow. At Port Road, traffic signals are present to assist cyclists in crossing the road.
Gray St, Kurralta Park	Collector road.	The road is relatively narrow and carries a significant volume of traffic at the southern end where it meets Anzac highway. This area is currently the subject of a traffic management investigation. It is an important route that continues south to Beckman Street and then into the bicycle routes of the

		City of Marion. The cycling conditions are difficult during peak periods when traffic volumes are very high. It also forms part of the Bikedirect network. It is an important north-south route where alternative direct routes are not readily available. The traffic management investigation may consider measures that would assist cycling, by say reducing traffic speeds and volumes. This road is retained in the bicycle network at this time.
Grove Ave, Marleston	Major collector. Bicycle lanes present.	This road is a major collector road which carries significant volumes of traffic and heavy vehicles. In recent years, there have been a number of major transport companies that have relocated to premises in the street. Bicycle lanes are present to assist cycling. It also forms part of the Bikedirect network.
Henley St, Torrensville	Local street.	It forms part of the Bikedirect bicycle route. At Henley Beach Road there is a pedestrian signal present to assist cyclists in crossing the road.
Holland St, Thebarton	Local street.	Part of the Bikedirect bicycle route linking via a bridge over the River Torrens.
Hounslow Ave, Cowandilla	Minor Collector road. Bicycle lanes present.	Bicycle parking lanes are present. It is a minor collector road and cycling conditions are considered to be good.
James Melrose Ave, Novar Gardens	Major collector road. Bicycle lanes present.	The lack of an east-west road network, because of the Adelaide Airport, makes the role of this road important in providing access to the industrial area of North Plympton and to travel between Tapleys Hill Road and Marion Road. Bicycle lanes are present. Cycling conditions are considered to be reasonable, albeit, traffic speeds are relatively high, due to the lack of land uses abutting the roadway. It also forms part of the Bikedirect network.
King St, Mile End	Local street.	Extension of the Bikedirect and Council bicycle route in the east direction. Quiet residential street. A median break has been provided across the South Road carriageway to assist cyclists in crossing the road.
Lasscock Ave, Lockleys	Local street.	Quiet residential street which previously provided the linkage from Henley Beach Road to the River Torrens. However, since then, the Adelaide Airport Bikeway has been implemented using Autumn Avenue instead of Lasscock Avenue. As a result, it is considered that the Lasscock Avenue route could be deleted (see Section 6.0).
Lipsett Tce, Brooklyn Park	Local street.	Part of an important east-west bicycle route connecting the suburbs of Lockleys with the City of Adelaide via, Hounslow Avenue,

		<p>Roebuck Street and King Street to the east. A relatively quiet street where the previous school has been closed and sub-divided for housing. Some complaints of speeding has been received by Council, however, the cycling conditions are considered to be good. It also forms part of the Bikedirect network.</p>
Mellor Ave, Lockleys	Local street.	<p>It originally formed part of the north-south bicycle route from Henley Beach Road to the Underdale High School. However, as Autumn Avenue has been designated as part of the Adelaide Airport Bikeway route, the Mellor Avenue route could be deleted (see Section 6.0).</p>
Military Rd, West Beach	Major collector road.	<p>Wide carriageway with centreline markings. South of Anderson Avenue is in the City of Holdfast Bay and north of Barcoo Road is in the City of Charles Sturt. Council has recently reconstructed the carriageway at the bend to address the design radii issue. As a consequence, the carriageway has been narrowed, albeit the lane widths provided are in the range of 4.2m to 4.5m. While a dedicated bicycle lane could not be provided, it is considered that the relatively wide lane width would be able to cater for the cyclist movement. An alternative off-road path on the eastern side of the road is also available for cyclists to use.</p>
Mooringe Ave, North Plympton	Major collector road with bicycle lanes.	<p>It services a very large industrial area and carries significant volumes of traffic including heavy vehicles. The eastern section has bicycle lanes between Marion Road and Errington Street. The western section to Morphett Road has wide kerbside traffic lanes and parking lanes. Given the lack of a convenient east-west bicycle route due to the Airport, this bicycle route should be maintained. It also forms part of the Bikedirect network. Should the Richmond Road to Morphett Road extension be implemented in the future, there may be an opportunity to replace the Mooringe Avenue bicycle route with this new extension road, for instance by incorporating on-road bicycle lanes into the design.</p>
Morley St, West Richmond	Local street.	<p>Quiet residential street that provides an important north-south alternative to Marion Road for cyclists. Because of the Airport, the streets within this precinct are no through roads and the low traffic usage means that cycling conditions are good. It also forms part of the Bikedirect network.</p>
Morphett Rd, Camden Park	Major collector road. Bicycle	<p>This is an important collector road that provides access to the major industrial area</p>

	lanes present.	of North Plympton and to nearby schools. Currently there are bicycle lanes present during peak periods. This road has recently been reconstructed by Council and the previous bicycle lanes would be reinstated. It carries significant volumes of traffic,. It also forms part of the Bikedirect network.
Neston Ave, North Plympton	Local street.	Quiet residential street which linkages the north-south Morley Street bicycle route to the Westside Bikeway. It also provides the local linkage to the school in Errington Street. It also forms part of the Bikedirect network.
Parker St, Thebarton	Minor collector road.	Traffic volumes do not appear to be high. There are traffic calming devices also present. Cycling conditions look reasonable.
Phillips St, Thebarton	Major collector road. Bicycle lanes present.	Bicycle lanes are present. This route forms part of the City to Henley Beach Bikeway.
Press Rd, Brooklyn Park	Local Street.	Quiet residential street that forms part of the Morley Street bicycle route to Clifford Street. The Bikedirect route uses Lyons Street instead of Press Road. It is considered that the Press Road route could be deleted and replaced with Lyons Street, particularly when the new bridge is constructed across the Keswick Creek at Everett Street.
Raffles Cres, North Plympton	Local street	Quiet residential street which forms part of the north-south bicycle route linking Neston Avenue with the Westside Bikeway. It also forms part of the Bikedirect network.
Sheriff St, Underdale	Local street.	The original route commences from the Marion Road/Henley Beach Road intersection. However, access to this road from Henley Beach Road or Marion Road is difficult due to the high traffic volumes at the intersection. The need for this north-south bicycle route is, to a certain extent, achieved by the use of Henley Street-Clifford Street in Torrensville. As indicated earlier for Ashley Street, it is proposed that North Parade be used as the east-west west bicycle route to replace Ashley Street. If so, the part of Sheriff Street between North Parade and Chatswood Grove could be retained for the linkage to the River Torrens. This route amendment is discussed in Section 6.0.
Stonehouse Ave, Camden Park	Collector road. Bicycle lanes present one side.	Bicycle lanes are present on this collector road. It carries relatively high traffic volumes. Given the wide carriageway, cycling conditions are considered to be good. It also forms part of the Bikedirect network.
Tilden St, Plympton	Local street.	Quiet residential street which connects the Gray Street bicycle route to the Westside Bikeway. It also forms part of the Bikedirect network.

Transport Ave, West Richmond	Local street. Bicycle lanes present one side.	Bicycle lanes are present on one side. It previously provided a local access function and is a no through road. However, with the proposed developments planned for the Airport East precinct, this road would become busier and would be expected to carry more heavy vehicles. Consideration for dedicated bicycle lanes would be required to protect the cyclists that would continue to use this important north-south bicycle route. It also forms part of the Bikedirect network.
Victoria St, Mile End	Collector road.	A street with a number of roundabout controls and traffic signals at Henley Beach Road. The existing carriageway provides reasonable access for cyclists and the traffic signals assist cyclists in crossing Henley Beach Road.
Warren Ave, Novar Gardens	Collector road. Bicycle lanes present.	It forms the continuation of the James Melrose Road bicycle route to Tapleys Hill Road. It is also part of the Bikedirect network.
West Thebarton Rd, Thebarton	Collector road. Bicycle lanes present.	Bicycle lanes are present. This route forms part of the City to Henley Beach Bikeway.
William St, Mile End South	Local street. Bicycle lanes present.	Bicycle lanes are currently present. It forms part of the current Westside Bikeway route. (This route is proposed to be removed see Section 6.1).

TABLE 3 – OTHER LOCAL ROUTES

There are a number of low-key bicycle routes that provide specific access to local facilities. Since the original report, it is now commonly accepted that every street is a bicycle street and the need to designate short routes (using specific streets) to access a particular local destination is generally unnecessary. Some of these low-key bicycle routes could now be deleted.

Other low-key bicycle routes that would still form important and convenient east-west or north-south connecting routes are considered suitable for retention.

OTHER ROUTE	CURRENT PROVISION	COMMENT
Ashburn Ave, Fulham	Local Street.	Consider for deletion.
Beauchamp St, Kurralt Park	Local Street.	Consider for deletion. The alternative is to use the Westside Bikeway.
Bice St, Marleston	Local Street.	Consider for deletion (continuation of the Beauchamp St route).
Bickford St Richmond	Local Street.	This provides the east-west bicycle route located between the arterial roads of Richmond Road and Sir Donald Bradman Drive. This route

		should be retained.
Bonython Ave, Novar Gardens	Collector road. Bicycle lanes present.	A local collector road which does not carry significant volumes of traffic. Bicycle parking lanes are present for the section between Morphett Road and Pine Avenue. It forms an important alternative route to James Melrose Road, but because of the low traffic volumes and lower speeds compared to James Melrose Road, this route should be retained.
Clyde Ave, Lockleys	Local Street.	Quiet residential street. At the northern end, there is bridge over the River Torrens where the bicycle route could be conveniently linked to the bicycle routes in the City of Charles Sturt. In the south, it would connect to Rutland Avenue. The importance of this route could be reinforced as developments progressed within the Airport's Burbridge Business Park precinct. This route should be retained.
Coorilla Ave, Novar Gardens	Local Street.	Quiet residential street, although there have been concerns about this road being used as a through traffic route to Immanuel College from Tapleys Hill Road. It forms part of the Bikedirect network and provides a convenient link to the Sturt Creek linear park. This route should be retained.
Cross St, Lockleys	Local Street.	Quiet residential street. This route should be retained in view of the increasing importance of the May Terrace route as the Airport developments progress.
Errington St, North Plympton	Local street. Bicycle lanes present.	A local street which provides access to the school. Bicycle lanes are present. This route should be retained.
George St, Thebarton	Local Street.	This is a local bicycle route that connects Bonython Park (Adelaide Parklands) with North Parade in Torrensville. It is an alternative route to West Thebarton Road where traffic volumes are significantly higher. This route should be retained.
Grallina St, Lockleys	Local Street.	This is a local bicycle route that provides access to a school. As it is not necessary to specifically designate such a route for a specific local access, this route should be considered for deletion.

Jenkins St, Cowandilla	Local Street.	This is a local bicycle route that provides access to a school. As it is not necessary to specifically designate such a route for a specific local access, this route should be considered for deletion.
Kingston Ave, Richmond	Local Street. Bicycle lanes present one side.	Bicycle parking lanes are present. This route is part of the east-west bicycle route linking Morley Street with the Westside Bikeway. It is also part of the Bikedirect network. This route should be retained.
Long St, Plympton	Local Street. Bicycle lanes present.	Bicycle parking lanes are present. This is a local bicycle route that provides access to a school. As it is not necessary to specifically designate such a route for a specific local access, this route should be considered for deletion.
May Tce, Brooklyn Park	Major collector road. Bicycle lanes present.	This route could become more important with the developments envisaged for the Airport. It provides a direct north-south route from the Airport to the River Torrens via Cross Street and Torrens Street Lockleys. This route should be retained and upgraded to a more important bicycle route.
Mortimer St, Kurralta Park	Local Street.	Consider for deletion.
Myer Ave, North Plympton	Local Street.	This is a local bicycle route that provides access to a school. As it is not necessary to specifically designate such a route for a specific local access, this route should be considered for deletion.
Passmore St, West Richmond	Local Street.	This route is part of the east-west route between Morley Street and the Westside Bikeway via Kingston Avenue and Bickford Street. This route should be retained.
Penong Ave, Camden Park	Local Street.	The previous school in Penong Avenue has been closed and the site subdivided for residential uses (retirement village). This route should be considered for deletion.
Pine Ave, Novar Gardens	Local Street.	This route provides an alternative to the use of Morphett Road. It is a very wide road which carries significantly less traffic than Morphett Road. This route should be retained.
Raws Rd, Brooklyn Park	Local Street.	Consider for deletion.
Rutland Ave, Lockleys	Collector road.	This is a local collector road where speed cushions have recently been

		installed. As the Airport development progress, this route may become more important in providing convenient and direct bicycle access to/from the north (River Torrens and City of Charles Sturt). This route should be retained.
Saratoga Dr, Novar Gardens	Local Street.	This route forms part of the Coorilla Avenue and linkage to Morphett Road. It also forms part of the Bikedirect network and should be retained.
Torrens Ave, Lockleys	Local Street. Bicycle lanes Present.	Quiet residential street with bicycle and parking lanes present. At the northern end, there is a bridge which connects the route to the City of Charles Sturt. It also forms part of the Bikedirect network and should be retained.
Watson Ave, Netley	Local Street.	It forms part of the linkage between the bicycle route of Galway Avenue with the Morley Street route. It is also part of the Bikedirect network and should be retained.
West Beach Rd, West Beach	Major collector.	This route would assume more importance as more developments proceed with the Airport's Harbourn town precinct. It provides a direct route to and from the beach direction. The road is very wide and there is also a service road type arrangement on the southern side of the road. This route should be retained and upgraded in future.
White Ave, Lockleys	Local Street.	Autumn Avenue provides the more convenient linkage to the River Torrens. This route should be considered for deletion.

5.3 BIKEWAYS IN THE CITY

There are 3 major bikeways in the City of West Torrens. These bikeways are:

- River Torrens Linear Park Bikeway;
- Reece Jennings Bikeway; and
- Westside Bikeway.

These bikeways are of regional significance and connect to areas well beyond the Council boundaries. The bikeways also offer recreational cycling opportunities for local residents, linking to many parks and reserves.

River Torrens Linear Park Bikeway

The River Torrens Linear Park has shared use paths on both sides of the river. The northern side path is the main continuous path to the City of Adelaide from Henley Beach. The River Torrens path continues north-east to the City of Tea Tree Gully.

The northern path has been used for many years by both recreation and commuting cyclists. While the southern path is dis-jointed on some sections, this path nevertheless provides good cycling facilities for local trips. At major crossing points, such as Henley Beach Road, Holbrooks Road, South Road and Port Road, grade separation is provided for the main northern path which allows cyclists to cross safely.

The Council's bicycle network provides a number of linkages between the local areas and the River Torrens path. At some locations, bridges are located in close proximity to allow cyclists to cross between the two sides of the river.

Reece Jennings Bikeway

The Reece Jennings Bikeway is located on the western side of Tapleys Hill Road. This shared use path commences in the south near Warren Avenue and links to the north to the River Torrens Linear Park. A major recreational hub is located adjacent to this bikeway at Africaine Road. A shared use path connection was implemented by the Council a few years ago between the bikeway and this recreational hub.

The Harbourside retail precinct is also accessible from this bikeway, via the recently installed Tapleys Hill Road/West Beach Road signals.

Westside Bikeway

This bikeway has been in existence for many years. It connects the bicycle lanes in Sir Donald Bradman Drive to Camden Oval before continuing south through the City of Holdfast Bay to Glenelg.

This bikeway is an important commuting route for cyclists, given its directness to and from the City direction. At Marion Road, Richmond Road and South Road, cyclist push buttons have been incorporated into the traffic signal layout to allow cyclists to cross safely.

With the completion of the City West Bypass, the off-road path has now been extended to Sir Donald Bradman Drive. Previously, cyclists were required to use William Street to access Sir Donald Bradman Drive.

5.4 BEHAVIOURAL PROGRAMS IMPLEMENTED IN THE PAST

Council has conducted Bike Ed for all of the primary school located in the City of West Torrens. In some cases, the Bike Ed programs have been repeated at some of the schools. The value of these programs have been acknowledged by the schools that have participated in the program and from Council's

perspective this has been a beneficial program for improving safety for school cyclists.

The Council had also previously established and actively supported a local Bicycle User Group and conducted local community rides as part of the Encouragement programs for cycling. This local BUG was very active in raising local issues of concern and in partnership with Council, has resulted in many localised cycling issues being addressed.

However, following a review of funding expenditure, the Council has decided to refocus on the infrastructure improvements and the Bike Ed program and other Encouragement programs have not been considered for the last few years. This is expected to be case for some time in the future.

6.0 THE REVISED NETWORK

6.1 PROPOSED AMENDMENTS TO THE ORIGINAL BICYCLE PLAN

As assessed in Section 5.1 and 5.2, the following bicycle routes in the original Bicycle Plan for the City of West Torrens are amended as follows:

PROPOSED DELETIONS OF PREVIOUS BICYCLE ROUTES

From the TABLE 2 network:

Ashley Street, Torrensville

- High volumes at the western end.
- North Parade and Golden Glow Avenue would be an alternative route, with an existing pedestrian signal at Holbrooks Road that can safely assist cyclists to cross to the high school in Underdale.
- The North Parade alternative route would be closer to George Street to continue the east-west linkage to the City of Adelaide Parklands.

Everett Street, Brooklyn Park

- New pedestrian/cyclist bridge at Carnavon Street to replace the existing footbridge.

Garden Terrace, Underdale

- Road conditions not as conducive for cycling, due to on-street parking, relatively narrow carriageway and relatively high traffic volumes.
- The River Torrens linear park provides an alternative for the east-west bicycle route.

Lasscock Avenue, Lockleys

- Autumn Avenue provides an alternative north-south route to the River Torrens and is also part of the Adelaide Airport Bikeway route.

Mellor Avenue, Lockleys

- Autumn Avenue provides an alternative north-south route to the River Torrens and is also part of the Adelaide Airport Bikeway route.

Press Road, Brooklyn Park

- Lyons Road provides the alternative route to Clifford Street and is also part of the Bikedirect network.

Sheriff Street, Torrensville

- Access from Henley Beach Road is difficult due to the intersection with Marion Road.
- The north-south bicycle route to and from the River Torrens linear park is provided by Clifford Street, which is part of the Bikedirect network.

- As North Parade is proposed to replace Ashley Street as an east-west route, the section of Sheriff Street, between North Parade and the River Torrens could be retained for access to the linear park.

William Street, Mile End South

- Previously part of the Westside Bikeway route from Sir Donald Bradman Drive.
- The City West Bypass shared use path and extension of this path north to King St now provides a more superior off-road link north to Victoria St, which is part of the Bikedirect bicycle route.

From the TABLE 3 network:

Ashburn Avenue, Fulham

- A local route that is not considered to be necessary from a network perspective.

Beauchamp Avenue, Kurralta Park

- A local route that is not considered to be necessary from a network perspective.
- The Westside Bikeway provides a convenient alternative for City-bound trips.

Bice Street, Kurralta Park

- A local route that is not considered to be necessary from a network perspective.
- The Westside Bikeway provides a convenient alternative for City-bound trips.

Grallina Street, Lockleys

- A local route that provides access to the Lockleys North School, is not considered to be necessary from a network perspective.

Jenkins Street, Cowandilla

- A local route that provides access to the Cowandilla School, is not considered to be necessary from a network perspective.

Mortimer Street, Kurralta Park

- A local route that is not considered to be necessary from a network perspective.

Penong Avenue, Camden Park

- A local route that is not considered to be necessary from a network perspective.
- The previous primary school has also closed.

Raws Road, Brooklyn Park

- A local route that is not considered to be necessary from a network perspective.

White Avenue, Lockleys

- Autumn Avenue, which is part of the Adelaide Airport Bikeway, provides the alternative to this street.

PROPOSED ADDITIONS TO THE BICYCLE NETWORK**North Parade-Golden Glow Avenue, Underdale**

- As replacement for the Ashley Street route.

Autumn Avenue, Underdale

- Part of the Adelaide Airport Bikeway route.

Hamra Avenue, West Beach

- New link between Coast Park and the Military Road shared use path.

Mile End Cowandilla Stormwater Outfall project

- New shared use path between Tapleys Hill Road and May Terrace.
- New shared use path between the Reece Jennings Bikeway and West Beach Road.

Westside Bikeway extension

- New shared use path between South Road and Fleet Street.
- New City West Bypass shared use path and extension north to King St.
- Denote in the strategy that in the longer term the Fleet Street entrance would be deleted and that the off-road path would continue south to match in with the existing Westside Bikeway path.

FIGURE 4 shows the proposed amendments to the bicycle networks as described above. For convenience, the amended bicycle networks have been super-imposed onto the DTEI's Bicycle map.

6.2 DTEI PROPOSALS FOR MAIN ROADS

DTEI has advised that there are number of bicycle initiatives planned for the main roads within the City. They include proposals for:

- Bicycle lanes in Sir Donald Bradman Drive, between Marion Road and Airport Road, where on-street parking may need to be prohibited at peak times.
- Bicycle lanes in Sir Donald Bradman Drive, between Airport Road and Tapleys Hill Road, in association with the Airport development projects.
- Bicycle lanes in Henley Beach Road, between Rowells Road and Tapleys Hill Road, where on-street parking may be prohibited during peak times.

It is understood that DTEI would consult with Council when initial proposal plans have been finalised.

6.3 KEY ISSUES FOR THE NEW NETWORK

6.3.1 ADELAIDE AIRPORT

The Adelaide Airport site occupies a very large area in the middle of the City of West Torrens. The Master Plan for the Airport creates opportunity to provide a number of bicycle linkages to enhance the bicycle networks in the City.

Following discussions with AAL, a number of opportunities have been identified within the Airport boundaries, some of which, if implemented would enhance cycling in the area. These are discussed in detailed in Sections 4.3 to 4.9 and summarised below.

- **Sir Richard Williams Avenue** – review options for on-orad bicycle lanes or a shared use path on the northern verge of the road.
- **Tapleys Hill Road airport drain** – review options for a shared use path linking the shared use path of the Mile End Cowandilla Stormwater Outfall project to Harbourtown in the south.
- **Extension of the shared use path into the Tapleys West Precinct** – review options for extending the shared use path into the future recreational uses in this precinct.
- **Airport East Precinct** – ensure that cyclist needs are accommodated within the new road networks within the airport.
- **Morphett Precinct** – support AAL in creating a future shared use path on the southern side of this precinct which would link the existing path from the Watson Avenue area west to the Reece Jennings Bikeway.

It is recommended that Council work with AAL and DTEI to facilitate and ensure that these bicycle linkage opportunities are maximised.

6.3.2 STURT CREEK

The missing link in the Sturt Creek Bikeway is in the City of Holdfast Bay. It is a regional route of significance and the City of Holdfast Bay should be encouraged to complete this link in the near future so that the full benefits of the bikeway for recreational purposes are realised.

The City of Holdfast Bay expect to implement the first stage shortly, ie between the tram line and Anzac Highway.

Council should indicate its support to the City of Holdfast Bay for the completion of the Sturt Creek Bikeway and work with the City of Holdfast Bay to integrate the existing path with the new path across Pine Avenue.

6.3.3 TRAM LINE PROJECT

The bikeway along the tram route would be of regional significance. Consideration could be given to assess potential linkages from this future linear park to the Westside Bikeway, Reece Jennings Bikeway, Coast Park and other significant bicycle routes.

6.3.4 RIVER TORRENS ADJACENT TO BRICKWORKS

The River Torrens linear park shared use path on the northern side of the river provides the continuous path connection between the beach and the City of Adelaide. On the City of West Torrens side of the river, there are a number of dis-continuities in the path system, between Port Road and Autumn Avenue. These dis-continuities are caused by a number of factors, including site constraints, steep embankments etc.

The previous City to Henley Beach Bikeway utilises Ashwin Parade as part of the bicycle route. However, as discussed in previous sections of this report, Ashwin Parade is an important access road for the large industrial area. As a consequence, the previous bicycle lanes have been removed and replaced with wide kerbside lanes and parking prohibitions during peak periods to maintain a reasonable level of cycling access in the street.

Council had previously indicated to DTEI that it would investigate the feasibility of upgrading the current narrow path on the southern side of the river between the Brickworks site and Hardys Road. As part of the Kings Reserve redevelopment on the southern side of Ashwin Parade, the Kings Reserve shared use path has been aligned to cross over Ashwin Parade to the new shared use path along the western boundary of the Brickworks site. From here, the path then joins to the shared use path along the southern side of the river. A bicycle refuge has been provided to assist in the crossing of Ashwin Parade.

Preliminary investigations have been undertaken on options for upgrading the existing shared use path on the southern side of the river. The current path is characterised by narrow widths on sections, due to property boundaries and embankments. However, an option to widen the existing path has been considered which could address the width constraint issue. This upgraded path could then be linked back to Hardys Road and continue via Chatswood Grove to the river.

FIGURE 5 shows the concept for such a path extension.

Another alternative considered is to provide a new bridge crossing where the current weir is located to the west of the Brickworks site. At this location, it would seem that suitable verge areas would be available on both sides of the river to allow new path alignments to be developed with less steep grades. A kit-form low-level bridge could be considered without the side railings to overcome flooding issues for instance, similar bridges could be found in the City of Adelaide along the river. This option would allow cyclists to divert to the path on the northern side of the river.

It is noted that there are many existing properties that back onto the river. However, it would appear that redevelopments of these sites have started occurring and there may be an opportunity to secure additional land from these redevelopments that could assist in providing wider paths in the future.

A more formal approach could be adopted in a PAR process whereby principles of development could be incorporated into the Development Plan to secure the additional land adjacent to the river.

It is recommended that Council further consider options for upgrade of the path on the southern side of the river between the Brickworks site and Hardys Road.

It is also recommended that principles of development control be included in the Development Plan, as part of future PARs, to secure a strip of additional land from private properties to upgrade the path along the southern side of the river in the future. In the interim, should development proposals be received, Council should request that the additional strip of land be provided through the process of negotiation.

6.3.5 BAKEWELL BRIDGE REPLACEMENT AND CITY OF ADELAIDE

The Bakewell Bridge project and the City West Bypass project would allow the Westside Bikeway extension to occur northwards to the River Torrens and Adelaide Parklands.

The City of Adelaide has previously advised of future consideration, subject to SA Water agreement, to continue a shared use path alongside the train line corridor and connecting across Port Road to the Adelaide Gaol direction. An alternative of using Deviation Road as part of the bicycle route linkage was also previously considered. From there, the path or bicycle route could be linked to the River Torrens or extend eastwards via the Parklands towards Montefiore Road in the City.

It is recommended that Council indicate its support and work with the City of Adelaide to facilitate the extension of the Westside Bikeway shared use path northwards to the Parklands and beyond.

7.0 IMPLEMENTATION STRATEGY

Section 6.1 identifies the proposals for deletion and additions to the bicycle networks in the City of West Torrens. As the proposed works mainly involve the installation of signage, line marking or both, it is considered that following adoption of this revised Bicycle Plan for the City of West Torrens, these minor works could be undertaken as part of the maintenance process.

The proposed amendments to the bicycle networks in the City of West Torrens are not extensive. At the start, a logical and convenient network of low-stress bicycle routes have been devised and over time, these routes have been found to be practical from a cycling perspective. Indeed, many of the bicycle routes in the City of West Torrens now form part of the metropolitan Bikedirect network.

The key issues for the Bicycle Plan of the City of West Torrens are listed in Section 6.3. However, of the 5 main issues listed, only the River Torrens path adjacent to the Brickworks site (see Section 6.3.4) is directly under the control of the Council. Further investigations are recommended to assess the options for upgrade of the path along the southern side of the river and/or to integrate the path from Kings Reserve and the City to Henley Beach Bikeway route with that of the River Torrens, as an alternative to using Ashwin Parade.

The other 4 main issues are within areas controlled by other Councils, DTEI or AAL. Council participation in the discussions concerning these 4 issues would be essential so that Council's views on the desired bicycle linkages can be made known to other stakeholders.

The most significant issue would, however, be related to the Adelaide Airport. The scale of the development proposals, as outlined in the Airport Master Plan, are such that there is an opportunity to develop and enhance pedestrian and cyclist linkages both to the new land uses within the Airport and to enhance linkages on a regional level that previously were not available. AAL has indicated that it would work with Council to maximise the cycling opportunities within the Airport.

DTEI has agreed to provide Council with a GIS mapping base plan of its Bikedirect network for the City of West Torrens area. This would then form the base onto which the Council's bicycle routes would be incorporated and linked eventually to Council's GIS database. FIGURE 4 in this report shows a very preliminary layout of the GIS map and, in the final layout, appropriate use of line types, line colours etc would be adopted to produce a good quality map as an end product.

MAINTENANCE

The document, Austroads Part 14, provides very detailed guidelines on the maintenance of off-road paths and carriageways that would facilitate cycling.

It is not intended to repeat these maintenance strategies in this report and it is recommended that the above-mentioned document be the source of reference when Council staff carried out works on roads and paths.

BEHAVIOURAL PROGRAMS

As indicated previously, Council's focus in the past few years have been on infrastructure-type works, rather than programs of Education, Encouragement or Enforcement.

Council has, during the initial years of the Bicycle Plan implementation, provided many such programs, such as setting up and running the local Bicycle User Group, carrying out community-type bicycle rides, implementing Bike Ed for primary schools etc. It is unlikely that these programs would be considered by Council in the foreseeable future.

COSTING OF PROPOSALS

DTEI has requested that indicative costings and a priority of works be included in the report to allow future funding requests to be sought. Most of the recommended works involve further review and assessment of linkage opportunities for the bicycle networks. A summary of the proposed works, indicative costs and a prioritisation of the works is listed in TABLE 4 below.

Proposal	Description	Cost	Priority
AAL related projects	Refer AAL Master Plan Also refer to Sections 4.3 to 4.9.	Part of AAL site	Short-term (discussions and preliminary input). Long-term design input (dependent on progress of the AAL Master Plan implementation).
Westside Bikeway (Deacon Avenue section)	Review options to extend the shared use path from South Road to match to the extg shared use path further south.	\$3000 for design investigation.	Short-term. Year 2007/08.
River Torrens Rear of Brickworks	Detailed investigations on options for upgrading the shared use path at the rear of Brickworks to Hardys Road (refer to the preliminary investigation in Section 6.3.4).	\$5000 for detailed engineering investigation.	Year 2007/08
Extension of the Westside Bikeway north to the Parklands	Future extension of the shared use path within the City of Adelaide boundaries	NA	Short-term (discussions with ACC).
Extension of the Sturt Creek linear park north to Tapleys Hill Road	Future extension of the shared use path within the City of Holdfast Bay. NA	NA	Short-term (discussions with the City of Holdfast Bay).

8.0 CONCLUSIONS

The review of the Bicycle Plan for the City of West Torrens have highlighted a number of amendments to the bicycle networks that would be required on a strategic level to better respond to the demands and needs of cycling from a network perspective.

The proposals contained in this report are considered to appropriate and would enhance the bicycle networks in the City of West Torrens for both local trips and regional type cycling trips.

APPENDIX

FIGURE 1	1994 BICYCLE PLAN NETWORK
FIGURE 2	DTEI BIKEDIRECT NETWORK
FIGURE 3	ADELAIDE AIRPORT MASTERPLAN
FIGURE 4	AMENDED 2006 BICYCLE NETWORK
FIGURE 5	CONCEPT RIVER TORRENS PATH WIDENING

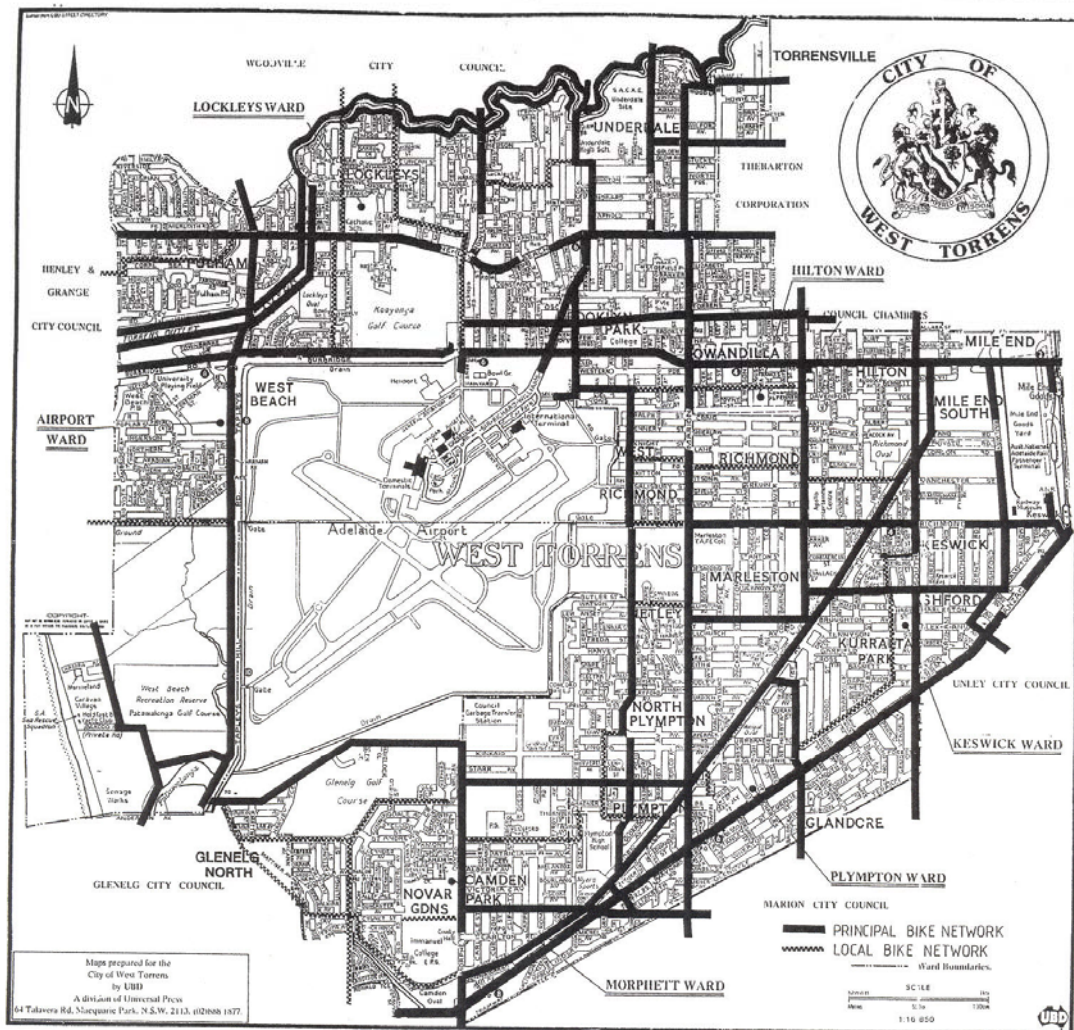


FIGURE 1
ORIGINAL BICYCLE PLAN NETWORK

