

ROAD MANAGEMENT PLAN

(SHORT TO MEDIUM TERM)

BRIGHTON ROAD

**(ANZAC HIGHWAY, GLENELG
TO SCHOLEFIELD ROAD, SEACLIFF PARK)**

OCTOBER 2017



Government of South Australia

Department of Planning,
Transport and Infrastructure

Date	Revisions	Amended by
Aug 2010	Rev A - Draft for consultation	A Townsend
Feb 2011	Rev B – Re-formatting and updating	D Lee
Jan 2012	Rev C – Incorporation of feedback from the City of Holdfast Bay and the City of Marion.	R Timmings
Sept 2013	Rev D – Further amendments following council and community consultation. Comments and response attached as appendix.	Martin Elsworthy
Oct 2014	Rev E – Bike lane operating times updated to reflect approved times	K Aryan
Dec 2014	Rev F - Crash data updated to reflect the recent 2009 to 2013 crashes	K Aryan
Jan 2017	Final - updated crash data (2011 to 2015), completed treatments and re-formatting/editing	P McBride

TABLE OF CONTENTS

1 OVERVIEW- 1 -	
2 EXISTING ROAD ENVIRONMENT	- 2 -
2.1 GENERAL DESCRIPTION	- 2 -
2.2 BEHAVIOUR OF TRAFFIC AND LAND USE	- 3 -
2.3 ROAD CROSS SECTION	- 6 -
2.4 PARKING PROVISION	- 9 -
2.4.1 On Road Parking	- 9 -
2.4.2 Off Road Parking	- 9 -
2.5 PUBLIC TRANSPORT	- 9 -
2.6 METROPOLITAN AREA ROAD WIDENING PLAN (MARWP)	- 11 -
2.7 ASSET SUSTAINMENT (ASSET MANAGEMENT)	- 11 -
2.7.1 Road Pavement	- 11 -
2.7.2 Structures	- 12 -
2.7.3 Electrical Assets	- 12 -
2.7.4 Routine Maintenance	- 12 -
3 ROAD ROLE AND FUNCTION	- 14 -
3.1 FUNCTIONAL OUTCOMES	- 14 -
4 ROAD SAFETY	- 16 -
4.1 SIGNALISED INTERSECTION CRASHES	- 16 -
4.2 UNSIGNALISED INTERSECTION CRASHES	- 18 -
4.3 SPEED ENVIRONMENT	- 19 -
4.4 PEDESTRIANS	- 19 -
4.4.1 Schools	- 19 -
4.4.2 Train/Tram Station Pedestrian Movements	- 20 -
4.4.3 Glenelg Oval	- 20 -
4.5 BICYCLE LANES	- 22 -
4.6 ROAD LIGHTING	- 24 -
5 ROAD CAPACITY	- 25 -
5.1 INTERSECTION PERFORMANCE	- 25 -
5.2 MID-BLOCK PERFORMANCE	- 25 -
6 TRAFFIC ISSUES AND RECOMMENDATIONS	- 27 -
6.1 RECOMMENDATIONS FOR SIGNALISED INTERSECTIONS	- 27 -
6.1.1 Brighton Road / ANZAC Highway / Tapleys Hill Road	- 27 -
6.1.2 Brighton Road / Jetty Road (Glenelg)	- 27 -
6.1.3 Brighton Road / Diagonal Road / Pier Street	- 28 -
6.1.4 Brighton Road / Whyte Street / Oaklands Road	- 30 -
6.1.5 Brighton Road / The Crescent	- 31 -
6.1.6 Brighton Road / Jetty Road (Brighton)	- 32 -
6.1.7 Brighton Road / Sturt Road	- 34 -
6.1.8 Brighton Road / Seacombe Road	- 34 -
6.2 RECOMMENDATIONS FOR UNSIGNALISED INTERSECTIONS	- 37 -
6.2.1 General Recommendations	- 37 -
6.2.2 Brighton Road / Augusta Street	- 37 -
6.2.3 Brighton Road / High Street	- 38 -
6.2.4 Brighton Road / Tassie Street	- 39 -
6.2.5 Brighton Road / Cudmore Street / Elgar Road	- 41 -
6.2.6 Brighton Road / Holder Road	- 42 -
6.2.7 Brighton Road / Crombie Street	- 43 -
6.2.8 Brighton Road / Keelara Street	- 44 -
6.2.9 Brighton Road / Hartley Road	- 46 -
6.2.10 Brighton Road / Yarmouth Street	- 46 -
6.2.11 Brighton Road / Scholefield Road / Ocean Boulevard	- 48 -
6.3 RECOMMENDATIONS FOR MID-BLOCK SECTIONS	- 50 -
6.3.1 Section 1 – ANZAC Highway to Jetty Road (Glenelg)	- 51 -
6.3.2 Section 2 – Jetty Road (Glenelg) to Diagonal Road	- 52 -
6.3.3 Section 3 – Diagonal Road to Oaklands Road	- 53 -
6.3.4 Section 4 – Oaklands Road to The Crescent	- 53 -
6.3.5 Section 5 – The Crescent to Jetty Road (Brighton)	- 54 -

6.3.6	Section 6 – Jetty Road (Brighton) to Sturt Road	- 55 -
6.3.7	Section 7 – Sturt Road to Seacombe Road	- 55 -
6.3.8	Section 8 – Seacombe Road to Scholefield Road	- 56 -
6.3.9	General Recommendations – Bus Stops	- 57 -
6.4	OTHER TRAFFIC MANAGEMENT / COMMUNITY CONCERNS	- 58 -
7	TREATMENT SUMMARY	- 59 -
7.1	INTERSECTION/ JUNCTION TREATMENTS	- 59 -
7.2	MID-BLOCK TREATMENTS	- 60 -
8	CONCLUSION	- 61 -
APPENDIX A – INTERSECTION CRASH DATA		- 62 -
APPENDIX B – MID-BLOCK CRASH DATA		- 69 -
APPENDIX C – SIDRA MODELLING RESULTS		- 71 -
APPENDIX D – COUNCIL AND COMMUNITY FEEDBACK		- 1 -

GLOSSARY

AADT	Average Annual Daily Traffic – The number of axle pairs crossing at a specific site per year and dividing this number by 365
DDA	Disability Discrimination Act 1992
DPTI	Department of Planning, Transport and Infrastructure
Intersection	Place where two or more roads cross
Junction	Place where two or more roads meet
MARWP	Metropolitan Area Road Widening Plan
Pedestrian Refuge	An island in a carriageway set aside for the exclusive use of pedestrians
PDO	Property Damage Only
RMP	Road Management Plan
PAC	Pedestrian Actuated Crossing

1 OVERVIEW

This Road Management Plan (RMP) provides an overview of the existing operational and safety issues along Brighton Road, as well as identifying short to medium term traffic management treatment options to be implemented. The RMP covers the section of Brighton Road from its intersection with ANZAC Highway (Glenelg) to the junction of Scholefield Road (Seacliff Park).

The RMP is not intended to address potential longer term major road improvement needs (e.g. the addition of extra lanes or duplication) resulting from future residential and industrial development. Major road improvements that would significantly change the operation of the road corridor are highlighted where known, however extensive investigations of any major improvements are outside the scope of this document.

This document is focussed at identifying potential short term road improvement needs to improve safety and traffic operations of the existing roads.

The process undertaken to identify existing traffic management issues included:-

- Research of historical transport investigation records
- Site auditing and observations
- Analysis of recorded crash data and traffic flow statistics
- Preliminary discussions with council officers and through information gained from the local community and officers of the Metropolitan Region of DPTI

By looking at a road on a route basis, traffic management improvements can be developed to take into account a range of factors including:-

- Broader transport objectives
- Role and function of the road
- Needs of all modes of transport including, freight, buses, bicycles and pedestrians
- Community needs and expectations
- Ensuring that any treatments are consistent with longer term plans for the road or area where these are known
- Application of appropriate standards and guidelines to ensure consistency and effectiveness of any proposed treatments

This RMP will form the basis for discussion and comment with the City of Holdfast Bay and the community along the length of the route with a view to further development and eventual implementation of the plan. The initial draft RMP was released for consultation in 2011 and although a number of recommended treatments have been funded and installed within the intervening years, it should be noted that the majority of recommended treatments are presently not funded. Funding for any improvements will need to be considered against other state-wide priorities in future financial years. This approach ensures that the funds available each year are allocated to the projects where the greatest benefit can be provided to the community as a whole.

2 EXISTING ROAD ENVIRONMENT

2.1 GENERAL DESCRIPTION

This report focuses on a section of Brighton Road, from ANZAC Highway to Scholefield Road which is a total length of approximately 7 km running in a north-south direction. The road runs through two council areas, City of Holdfast Bay and City of Marion.

Brighton Road plays a key role for the movement of commuter traffic (particularly longer distance coastal movements), by providing access between high density residential areas and employment locations. While at a lower strategic level than Marion Road and South Road, Brighton Road also facilitates freight access between the southern and north western industrial areas. It also provides parallel access for north-south movements between the City and Southern Suburbs via ANZAC Highway, complimenting both South Road and Marion Road.

Due to its location close to Adelaide's coastline, there is a significant component of tourist and recreational travel using Brighton Road for access to popular beaches and entertainment districts such as Mosley Square in Glenelg. The corridor is also used by a substantial number of recreational cyclists, either travelling North / South or crossing Brighton Road while heading towards the Esplanade/beach.

Brighton Road is a significant Public Transport corridor, serviced by bus routes and intersected by the rail lines for trams and trains.

For the purposes of this report, Brighton Road has been divided into eight sections, with each section being located between major signalised intersections as follows:

- Section 1: Brighton Road between ANZAC Highway and Jetty Road (Glenelg)
- Section 2: Brighton Road between Jetty Road (Glenelg) and Diagonal Road
- Section 3: Brighton Road between Diagonal Road and Oaklands Road
- Section 4: Brighton Road between Oaklands Road and The Crescent
- Section 5: Brighton Road between The Crescent and Jetty Road (Brighton)
- Section 6: Brighton Road between Jetty Road (Brighton) and Sturt Road
- Section 7: Brighton Road between Sturt Road and Seacombe Road
- Section 8: Brighton Road between Seacombe Road and Scholefield Road

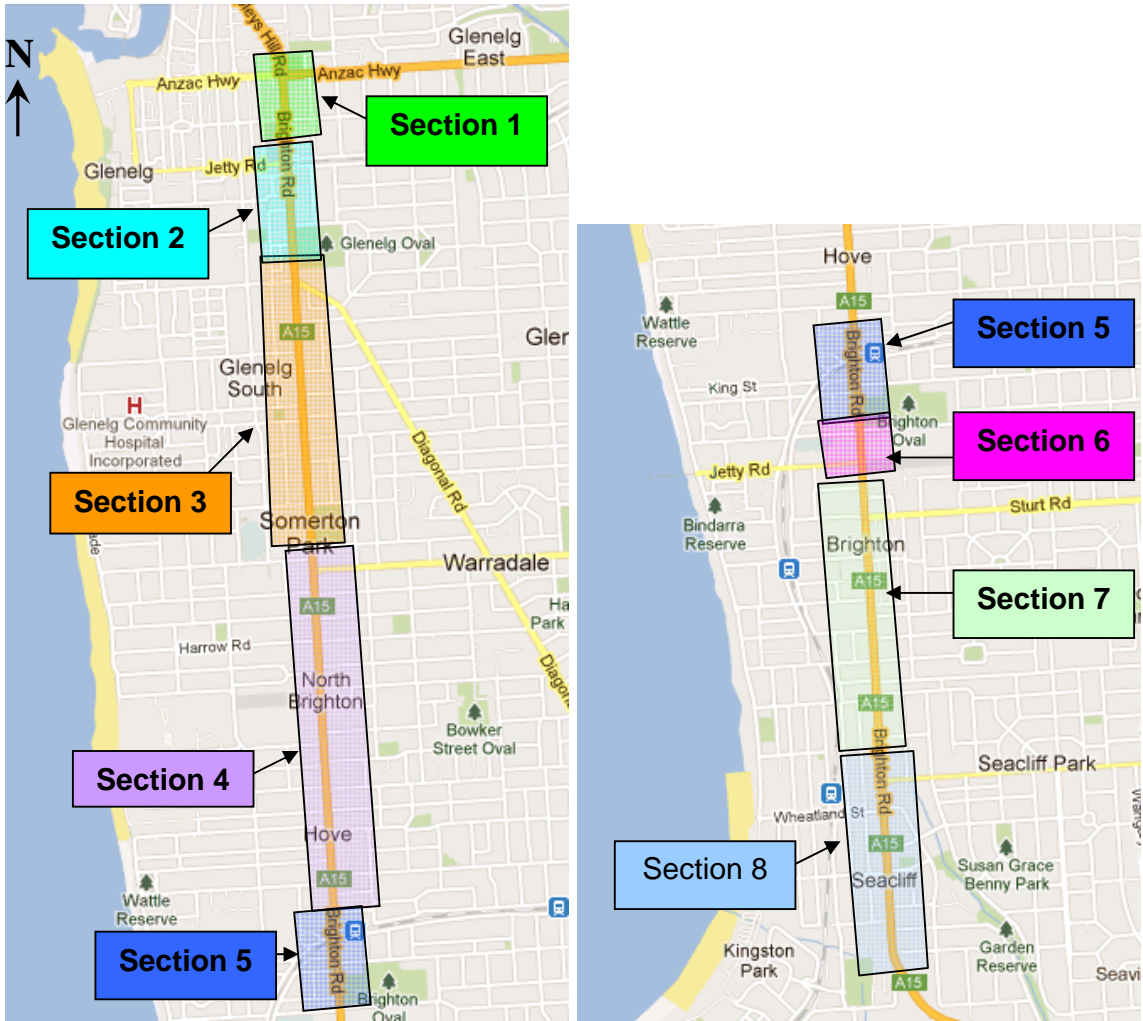


Figure 2-1 – Length of study along Brighton Road and its relative sections

2.2 BEHAVIOUR OF TRAFFIC AND LAND USE

Traffic volumes vary along the length of this section of Brighton Road. Average Annual Daily Traffic (AADT) for different road sections is depicted in Figure 2.3.

The land use along Brighton Road consists of a mix of predominantly residential properties with sections of commercial and retail properties along the corridor.

A number of educational and large recreational facilities are also located along or in the immediate vicinity of the road.

The road environment can be considered in three sections, each with a different predominant land use adjacent to it (refer to Figure 2.2):

Northern section: ANZAC Highway to Jetty Road, Glenelg (analysis section 1). This is focussed around tourist and recreational use.

Central section: Jetty Road, Glenelg to Jetty Road, Brighton (analysis sections 2, 3, 4 & 5). These are focussed around residential use.

Southern section: Jetty Road, Brighton to Scholefield Road (analysis sections 6, 7 & 8). These are focussed around commercial use.

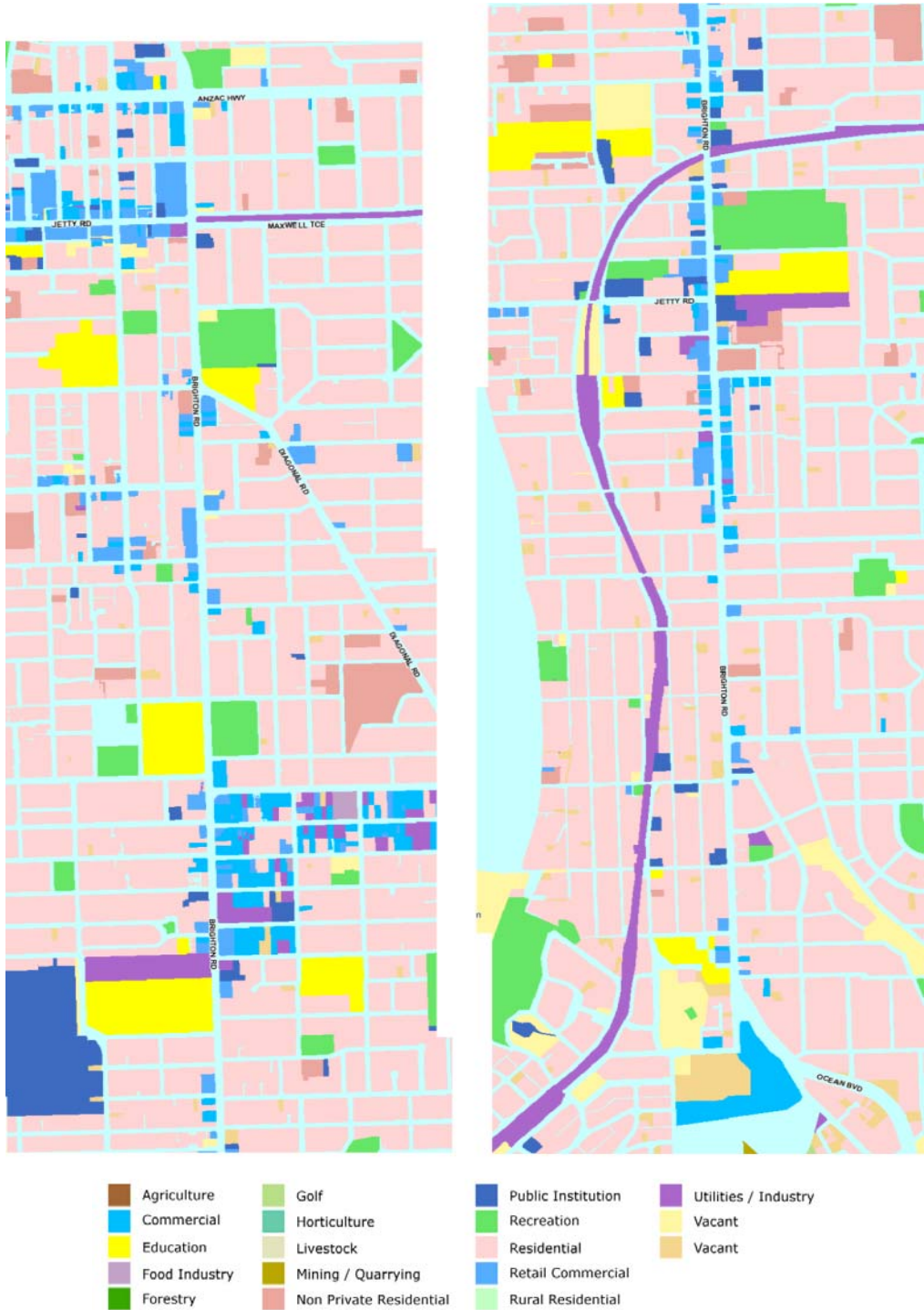


Figure 2-2 – Land Use in region adjacent to area of study

As a result of these differing types of adjacent land uses, Brighton Road caters for a wide range of often competing traffic demands. This includes motorists using the road for trips to and from the Adelaide CBD, to the retail and commercial districts situated on Brighton Road, northbound / southbound through trips and for access to the adjacent coastline.

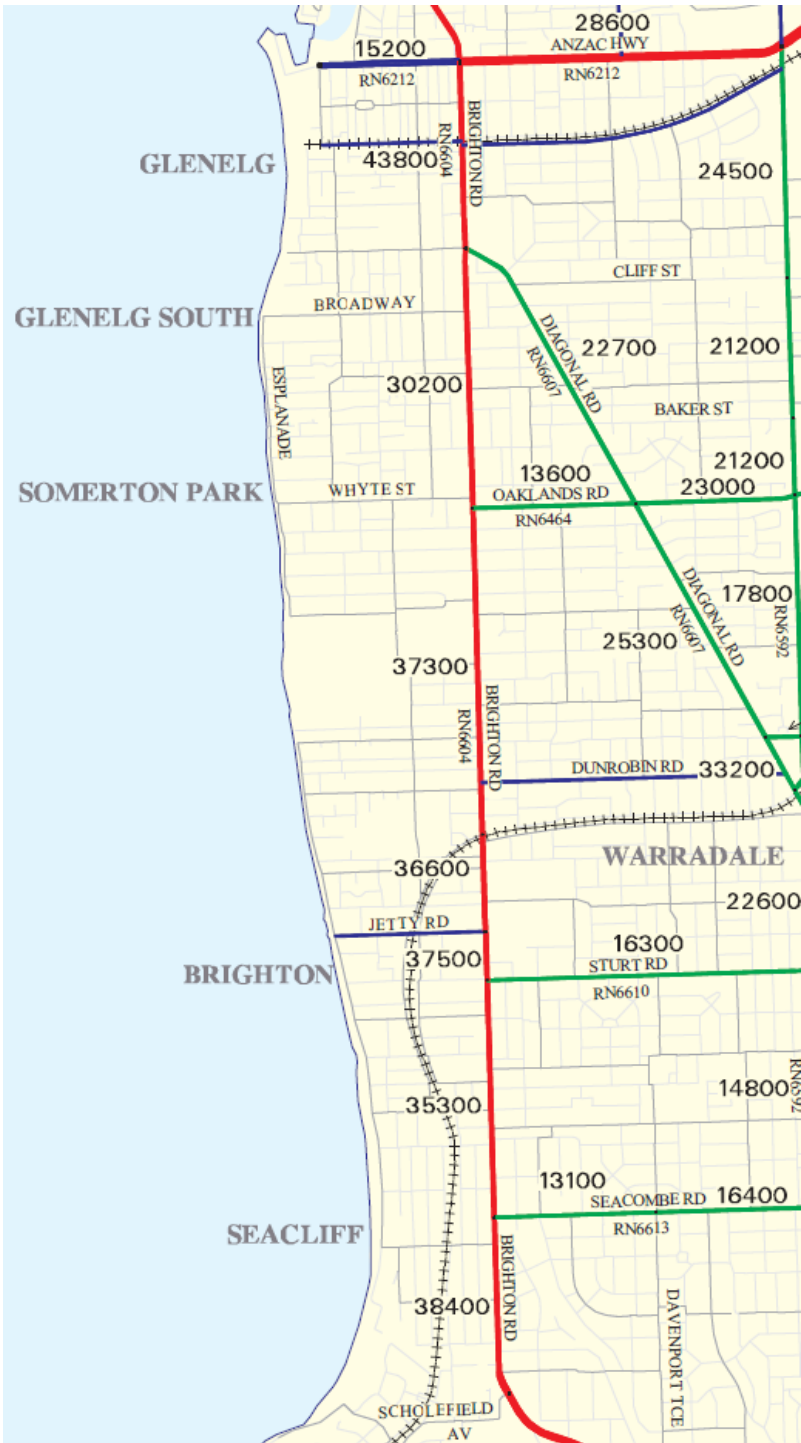


Figure 2-3 – Average Annual Daily Traffic (AADT) as of September 2015

2.3 ROAD CROSS SECTION

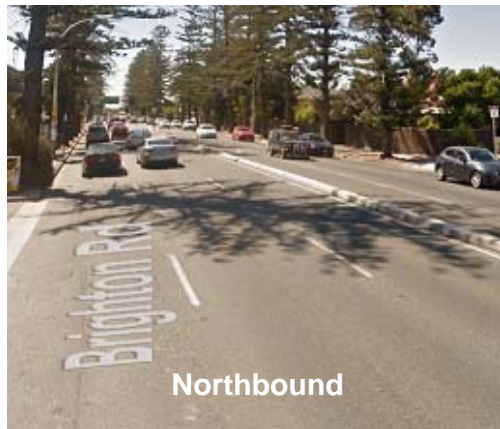
Brighton Road through the length of this study is between two to three lanes wide in the northbound carriageway and two lanes wide for the southbound carriageway. More detailed information about the cross sections for each section of the road is given below.

A raised median, ranging in width between 0.5m and 2.7m, is installed along the entire length of road. This allows for the provision of protected right turn lanes (an area where turning traffic can store out of the main traffic flow) into the majority of the local roads intersecting Brighton Road, whilst also providing protection for pedestrians crossing the road.

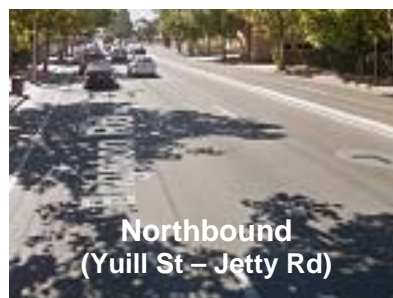
The road's pavement width (kerb to kerb) is typically 19m wide, with 2 to 3m wide footpaths on either side of the road. Consequently, road space available for widening or reallocation to pedestrians or cyclists is limited, without undertaking land acquisition to widen the road corridor.

The typical cross sections for each section of Brighton Road are listed below:

- **Section 1:** ANZAC Highway to Jetty Road (Glenelg) – this section consists of 3 traffic lanes in the northbound direction and 2 traffic lanes in the southbound direction, within a typical road width of 18m.



- **Section 2:** Jetty Road (Glenelg) to Diagonal Road – this section consists of 2 traffic lanes and a bicycle lane between Diagonal Road and Yuill Street and 3 traffic lanes and a bicycle lane between Yuill Street and Jetty Road in the northbound direction, and 2 traffic lanes and a bicycle lane in the southbound direction, within a typical road width of 20m.



- **Section 3:** Diagonal Road to Oaklands Road – this section consists of 2 traffic lanes and a bicycle lane in both the northbound and southbound directions within a typical road width of 19m.



- **Section 4:** Oaklands Road to The Crescent – this section consists of 2 traffic lanes and a bicycle lane in both the northbound and southbound directions within a typical road width of 19m.



- **Section 5:** The Crescent to Jetty Road (Brighton) – this section consists of 2 traffic lanes and a bicycle lane in both the northbound and southbound directions within a typical road width of 19m.



- **Section 6:** Jetty Road (Brighton) to Sturt Road – this section consists of 2 traffic lanes and a bicycle lane in both the northbound and southbound directions within a typical road width of 19m.



- **Section 7:** Sturt Road to Seacombe Road – this section consists of 2 traffic lanes and a bicycle lane in both the northbound and southbound directions within a typical road width of 19m.



- **Section 8:** Seacombe Road to Scholefield Road – this section consists of 2 traffic lanes and a bicycle lane in both the northbound and southbound directions within a typical road width of 19m.



2.4 PARKING PROVISION

2.4.1 On Road Parking

On road parking is currently allowed along the majority of the length of Brighton Road outside of the peak operating hours of the on road bicycle lanes; 7.00 am - 9.00 am and 4.00 pm – 7.00 PM, Monday to Friday.

For the section of Brighton Road between ANZAC Highway and Jetty Road (Glenelg), parking is prohibited by yellow lines. Outside of the bicycle lane operating hours, the remaining sections of Brighton Road have parking available adjacent to businesses and residences. The allowed time limits of parking adjacent to businesses vary, as do the times that these limits are applicable. Parking adjacent to residences does not have time restrictions.

On road parking is used more frequently in the vicinity of businesses compared to on road parking within residential areas along Brighton Road.

The kerbside lane widths along Brighton Road are not wide enough to allow large vehicles to travel past parked vehicles without encroaching into the adjacent lane. This limits the road capacity to a single lane when vehicles are parked.

2.4.2 Off Road Parking

There are a significant number of locations along Brighton Road where off road parking is provided as part of the adjacent commercial and retail developments. The largest of these areas are located at the Bay Shopping Centre, Glenelg Oval, adjacent to the tram and train lines and a number of small to medium sized shops.

Whilst a car parking survey has not been undertaken, it would appear that there are substantially more car parks available off road behind adjacent retail and commercial facilities than what is currently available on road along Brighton Road. On-site observations also indicate that the majority of these off road parking areas are generally underutilised.

2.5 PUBLIC TRANSPORT

Brighton Road has numerous Adelaide Metro bus services operating along and across it, as well as stations for both the Glenelg Tram and Seaford Rail line adjacent to it. These services can be seen on the Adelaide Metro service map in Figure 2.4.

There are two rail level crossings on Brighton Road; the Glenelg Tram line crossing at the intersection with Jetty Road (Glenelg) and the Seaford Rail line crossing at the intersection with the Crescent and Addison Road, Hove.



Figure 2-4: Bus Routes on Brighton Road in the area of the study (Source: Adelaide Metro, updated Mar 2015)

2.6 METROPOLITAN AREA ROAD WIDENING PLAN (MARWP)

The MARWP Act was developed in 1972 as a means to control building development so that land would be available for the widening of existing arterial roads and the construction of future arterial roads with minimum disruption to abutting property, should this need arise in the future.

For Brighton Road, MARWP requirements have been identified for a number of key signalised intersections along the arterial route. MARWP requirements exist at the following intersections:

- ANZAC Highway
- Diagonal Road
- Jetty Road (Glenelg)
- Oaklands Road
- Sturt Road

Whilst MARWP requirements have been identified at the above locations, land is generally not acquired by the Commissioner of Highways (CoH) until a project is approved and funded. Furthermore, whilst the plan shows that land is possibly required for widening, the CoH may at some time negotiate for the acquisition of land in accordance with the Highways Act and the Land Acquisition Act.

Currently, there are no mid-block (sections between major intersections) MARWP requirements along the extent of Brighton Road. However this may be reviewed in future in line with any development in the area that may increase traffic volumes thus necessitating road widening.

2.7 ASSET SUSTAINMENT (ASSET MANAGEMENT)

DPTI undertake a number of asset sustainment activities across the road network, including the following:

2.7.1 Road Pavement

The following pavement rehabilitation works have been undertaken on Brighton Road:

- 2008/09 financial year – between Jetty Road (Glenelg) and Diagonal Road, and between Downing Road and Sturt Road,
- 2014/15 financial year – between Sturt Road and Arthur Street (southbound),
- 2015/16 financial year – between College Road and Diagonal Road, and
- 2016/17 financial year – between Diagonal Road and Oaklands Road.

Brighton Road will continue to be monitored as part of the ongoing assessment of the Adelaide metropolitan road network, with future rehabilitation or improvement projects identified and implemented as deemed necessary.

2.7.2 Structures

The only major structure identified within the section of Brighton Road being investigated as part of this RMP is the gantry 270 m north of Jetty Road (Glenelg). This gantry spans 20.6 m and supports Advanced Directional signage. It was last inspected in August 2006 and its overall condition was rated as 'Very Good'. At this time, the suggested reconstruction of this structure would be no sooner than year 2057.



Figure 2-5: Gantry with Advance Directional signage on Brighton Road

2.7.3 Electrical Assets

DPTI manage traffic signals, pedestrian crossings and road lighting mounted on tubular lighting poles. Of the roads under the care control and management of the Commissioner of Highways, about 50% of the road lighting is on SA Power Networks (SAPN) stobie poles. DPTI pay a tariff to SAPN to maintain and repair lamps on their infrastructure and DPTI collect 50% of that tariff from council where it is deemed to provide a service to the public such as lighting footpath areas.

Between Anzac Highway and Jetty Road (Glenelg) the majority of the road lighting is mounted on DPTI tubular light poles. For the remainder of the corridor between Jetty Road (Glenelg) and Scholefield Road the road lighting is primarily mounted on ETSA stobie poles.

Road lighting on DPTI arterial roads are audited as required by the Auditor General and maintenance and repair is carried out as reported to the Traffic Management Centre.

2.7.4 Routine Maintenance

Routine maintenance activities on this section of road are typically carried out by DPTI staff or an external contractor under a contract. The routine maintenance service agreement addresses the minor maintenance issues; with larger issues being addressed on a priority basis as funding becomes available.

Routine maintenance includes:

- repair of potholes and pavement failures,
- maintenance of the roadside including the moving of grass and trimming of vegetation
- cleaning and replacement of signs and guard fence; and
- grading and repairing potholes on unsealed shoulders

The activities undertaken as part of routine maintenance are:

- the regular inspection, recording and reporting of defects; and
- preparing a prioritised Maintenance program and works program to address the defects

3 ROAD ROLE AND FUNCTION

Brighton Road is defined as a 'Strategic Route', a 'Primary Commuter Access Route' and a 'Primary Cycling Route'.

- Strategic routes typically carry high volumes of traffic travelling over long distances throughout the day and connect major metropolitan and state regional centres.
- Commuter routes cater for the safe and efficient movement of people in cars travelling over longer distances, typically between home and employments / educational areas.
- Cycling routes enable the direct, efficient and safe travel for the effective movement of people travelling by bicycle.

It is also a significant Public Transport corridor, serviced by up to three bus routes along various sections. Additionally, it is intersected by the Glenelg Tram line at Jetty Road (Glenelg) and by the Noarlunga Train line at Hove.

3.1 FUNCTIONAL OUTCOMES

Functional outcomes are safety and operational objectives to assist in the selection of traffic management components such as traffic signals, traffic lanes, access control, roadside environment and pedestrian facilities.

A functional outcomes analysis has been used to develop an overall plan of how the arterial road being considered in this RMP should look and operate.

Table 3-1 shows the functional outcomes and recommended design and operational requirements for arterial roads across Adelaide.

Table 3-1 - Functional Outcomes and recommended design and operational requirements for Brighton Road

System Management Components	Functional Outcomes	Recommended Design and Operational Requirements
CAPACITY / LANES	<ul style="list-style-type: none"> • Provide adequate road space and number of lanes to ensure safe and efficient operation • Cater for bicycles 	<ul style="list-style-type: none"> • Provide an adequate number of lanes to cater for peak flow volumes in both directions • Provide cycle lane, or wider kerb lane, or sealed shoulder to accommodate bicycles
TURNING TRAFFIC	<ul style="list-style-type: none"> • Traffic turning right or U turning, should not interfere with the flow of through traffic 	<ul style="list-style-type: none"> • Provide right turn storage lanes at key intersections or at busy access points • Median to be provided where possible to separate the through movements • Raised median to be used at critical locations • Ban U turns and Right turns at critical junctions
ACCESS	<ul style="list-style-type: none"> • In general, maintain existing level of access to local areas. • Limit direct access where safety or efficiency takes 	<ul style="list-style-type: none"> • Use sheltered or painted turn lanes to provide safe access to local roads • Provide raised medians to prevent undesirable movements / access.

Brighton Road - Road Management Plan

System Management Components	Functional Outcomes	Recommended Design and Operational Requirements
	precedence	
SPEED LIMITS	<ul style="list-style-type: none"> • Speed limits appropriate to road environment and adjacent development • Speed limits to provide safe and efficient travel on Brighton Road 	<ul style="list-style-type: none"> • Maintain existing speed limits
TRAFFIC MANAGEMENT AND SAFETY AT INTERSECTIONS	<ul style="list-style-type: none"> • Minimise conflict points at busy intersections to reduce crashes 	<ul style="list-style-type: none"> • Provide active control (e.g. traffic signals, roundabouts) at major intersections if warranted and ensure that current locations are optimised • Where possible, minimise conflict points at uncontrolled intersections to improve safety (e.g. ban turn or cross movements) • Use raised medians at intersections where clearer traffic control is needed
PEDESTRIANS AMENITY AND SAFETY	<ul style="list-style-type: none"> • Ensure a safe accessible road environment for pedestrians • Consider needs of more vulnerable user groups (e.g. children, older pedestrians) 	<ul style="list-style-type: none"> • Provide raised medians / walk throughs at busy pedestrian crossing points • Provide kerb ramps or cut outs at all road crossing points • Provide appropriately designed footpaths with appropriate clear width and height clearances (Council) • Provide road lighting to appropriate standards • All pedestrian facilities to be DDA compliant
LANDSCAPING AND ROADSIDE FURNITURE	<ul style="list-style-type: none"> • Remove or protect roadside hazards 	<ul style="list-style-type: none"> • Trim or remove vegetation where necessary for road safety • Remove unprotected roadside obstacles or drop offs (e.g. exposed surface drainage/culverts) • Ensure new landscaping / urban design elements do not create a new hazard

The aim is for Brighton Road to satisfy most of the requirements shown in the table above, and these guidelines have been considered when developing the recommendations in Section 6 of the report.

4 ROAD SAFETY

4.1 SIGNALISED INTERSECTION CRASHES

Analysis of the crash data includes only those recorded events that resulted in casualties (i.e. personal injuries or fatalities) or property damage where the estimated value of damage was greater than \$3000 (shown as PDO \$3000+ in the following tables).

Table 4.1 shows the signalised intersection crash data for Brighton Road. The intersections with the total casualty crashes of three and above have been investigated further. The complete intersection crash data can be found in Appendix A.

Table 4-1 - Signalised Intersection Crashes 2011-2015

<i>Sect.</i>	<i>Intersection</i>	<i>Crash Type</i>	<i>PDO \$3000+</i>	<i>Casualty</i>	<i>Total</i>
1	ANZAC Highway	Head On		1	1
		Hit Fixed Object	4		4
		Hit Pedestrian		1	1
		Other		1	1
		Rear End	41	15	56
		Right Angle	1	1	2
		Right Turn	4	2	6
		Side Swipe	8	1	9
		Total	58	22	80
2	Jetty Road (Gleneig) / Maxwell Terrace	Hit Pedestrian	1		1
		Rear End	11	4	15
		Right Angle	4	2	6
		Right Turn	3	3	6
		Side Swipe	3	3	6
		Total	22	12	34
3	Diagonal Road / Pier Street	Right Angle		2	2
		Right Turn	6	1	7
		Rear End	10	4	14
		Hit Fixed Object	2		2
		Side Swipe	2		2
		Roll Over		1	1
Total	20	8	28		
3	Whyte Street	Hit Fixed Object		1	1
		Right Angle	3	1	4
		Rear End	6	3	9
		Side Swipe	1		1
		Total	10	5	15

Brighton Road - Road Management Plan

4	Oaklands Road	Hit Fixed Object	1		1
		Hit Parked Vehicle	1		1
		Rear End	11	5	16
		Right Angle	1		1
		Side Swipe	1		1
		Total	15	5	20
5	The Crescent	Hit Fixed Object	1		1
		Right Turn		2	2
		Rear End	2	2	4
		Total	3	4	7
6	Jetty Road (Brighton)	Rear End	4	8	12
		Right Turn	3	2	5
		Side Swipe	2		2
		Total	9	10	19
6	Hartley Road	Rear End	2	2	4
		Right Angle		1	1
		Total	2	3	5
6	Voules Street	Right Angle		1	1
		Total	0	1	1
7	Sturt Road/ Old Beach Rd	Hit Fixed Object	2		2
		Rear End	20	13	33
		Right Angle	1		1
		Right Turn	16	8	24
		Side Swipe	3		3
		Total	42	21	63
8	Seacombe Road	Head On	1		1
		Hit Fixed Object	7	1	8
		Rear End	13	6	19
		Right Angle	2	1	3
		Right Turn	10	2	12
		Side Swipe	1		1
		Total	34	10	44

It should be noted that, in general terms, the department prioritises specific crash sites using a ranking system aligned to the criteria to determine a 'Black Spot'. These sites are ranked based on the number of casualty crashes that have occurred in the most recent five year period. The ranking of both signalised and unsignalised intersections is reviewed each year.

4.2 UNSIGNALISED INTERSECTION CRASHES

Table 4.2 shows the unsignalised intersection crash data for the unsignalised intersections where there have been at least three casualty crashes in the period 2011 to 2015. There are a number of unsignalised intersections where the number of casualty crashes warrants further investigation and where appropriate, recommendations have been made in Section 6.2 of this report. The complete intersection crash data can be found in Appendix A.

Table 4-2 - Unsignalised Intersection Crashes 2011-2015

<i>Sect.</i>	<i>Intersection</i>	<i>Crash Type</i>	<i>PDO \$3000+</i>	<i>Casualty</i>	<i>Total</i>
1	Augusta Street	Hit Fixed Object	2		2
		Rear End	7	4	11
		Right Angle	3	1	4
		Right Turn	19	1	20
		Roll Over		1	1
		Side Swipe	4		4
		Total	35	7	42
2	High Street	Rear End	1	1	2
		Right Angle	1		1
		Right Turn	7	3	10
		Total	9	4	13
3	Broadway	Right Angle	6	2	8
		Rear End	2	2	4
		Total	8	4	12
3	Harris Street	Hit Pedestrian		1	1
		Right Angle		2	2
		Rear End	1		1
		Total	1	3	4
4	Wattle Avenue	Rear End	3		3
		Right Angle	4	2	6
		Right Turn	1		1
		Side Swipe		1	1
		Total	8	3	11
5	Preston Avenue	Right Angle	1		1
		Rear End	1	3	4
		Total	2	3	5
5	Hight Avenue	Hit Pedestrian		2	2
		Rear End	3	4	7
		Right Angle	2	1	3
		Right Turn	2		2
		Total	7	7	14

6	Hartley Road	Rear End	2	2	4
		Right Angle		1	1
		Total	2	3	5
7	Edwards Street	Hit Fixed Object		1	1
		Hit Parked Vehicle	1		1
		Rear End	1		1
		Right Angle	4	1	5
		Side Swipe	1	1	2
		Total	7	3	10
8	Wheatland Street	Rear End	6	1	7
		Right Angle	15	2	17
		Right Turn	2	2	4
		Side Swipe	1		1
		Total	24	5	29
8	Scholefield Road / Ocean Boulevard	Hit Fixed Object	1		1
		Rear End	8	4	12
		Right Angle	1		1
		Total	10	4	14

4.3 SPEED ENVIRONMENT

The existing speed limit is 60 km/h along the entire length of Brighton Road. At this time, DPTI considers the posted speed limit is appropriate for the current road environment.

4.4 PEDESTRIANS

There are many pedestrian generators in and around Brighton Road including parks, ovals, the beach, schools, shopping facilities and public transport. A wide raised median is installed along the entire length of Brighton Road, which allows for pedestrians to stand within the median and cross only one traffic stream at a time. There are many pedestrian openings along Brighton Road which have been constructed to current design standards. However, there are also significant sections along Brighton Road that contain either non-standard openings or none at all.

A number of pedestrian actuated crossings (signalised pedestrian crossings) have been installed, predominantly in the vicinity of schools or shopping precincts. Pedestrian facilities are identified in the following sections and in Figure 4.1.

4.4.1 Schools

There are a number of schools located along Brighton Road. Safe crossing points across Brighton Road have been provided for each of these schools as detailed below:

- Saint Peters Woodlands Grammar and Glenelg Junior and Primary;

- Pedestrian crossing facilities at the signalised intersection of Diagonal Road and Pier Street
- Sacred Heart Catholic College;
 - Signalised pedestrian crossing near Cudmore Street; two pedestrian walkthroughs in median across school frontage and pedestrian crossing facilities at the Whyte Street signalised intersection
- Brighton Secondary;
 - Signalised pedestrian crossing north of Balmoral Avenue
- Brighton Primary and Special School;
 - Signalised pedestrian crossing north of Jetty Road, Brighton and pedestrian crossing facilities at the signalised Jetty Road (Brighton) junction
- Seacliff Primary School
 - Signalised pedestrian crossing near Barwell Avenue at which there has been considerable improvements over recent years including improved kerb ramps, microwave detection and road safety signage.

4.4.2 Train/Tram Station Pedestrian Movements

Signalised pedestrian crossings have been provided near Hove Railway station at the intersection of Brighton Road / The Crescent / Addison Road.

At Jetty Road (Glenelg), pedestrians have the ability to cross Brighton Road on both the north and south sides of the tram crossing.

4.4.3 Glenelg Oval

The safest and closest pedestrian crossing across Brighton Road to access the Glenelg Oval is via the traffic signals at the Diagonal Road intersection. Based on the preliminary consultation undertaken in the preparation of this report, an issue was raised whereby on days when the Oval is being used (i.e. football is being played) pedestrians undertake unsafe crossing practices to access the bus-stop on the western side of the road. This is addressed in section 6.2.4.

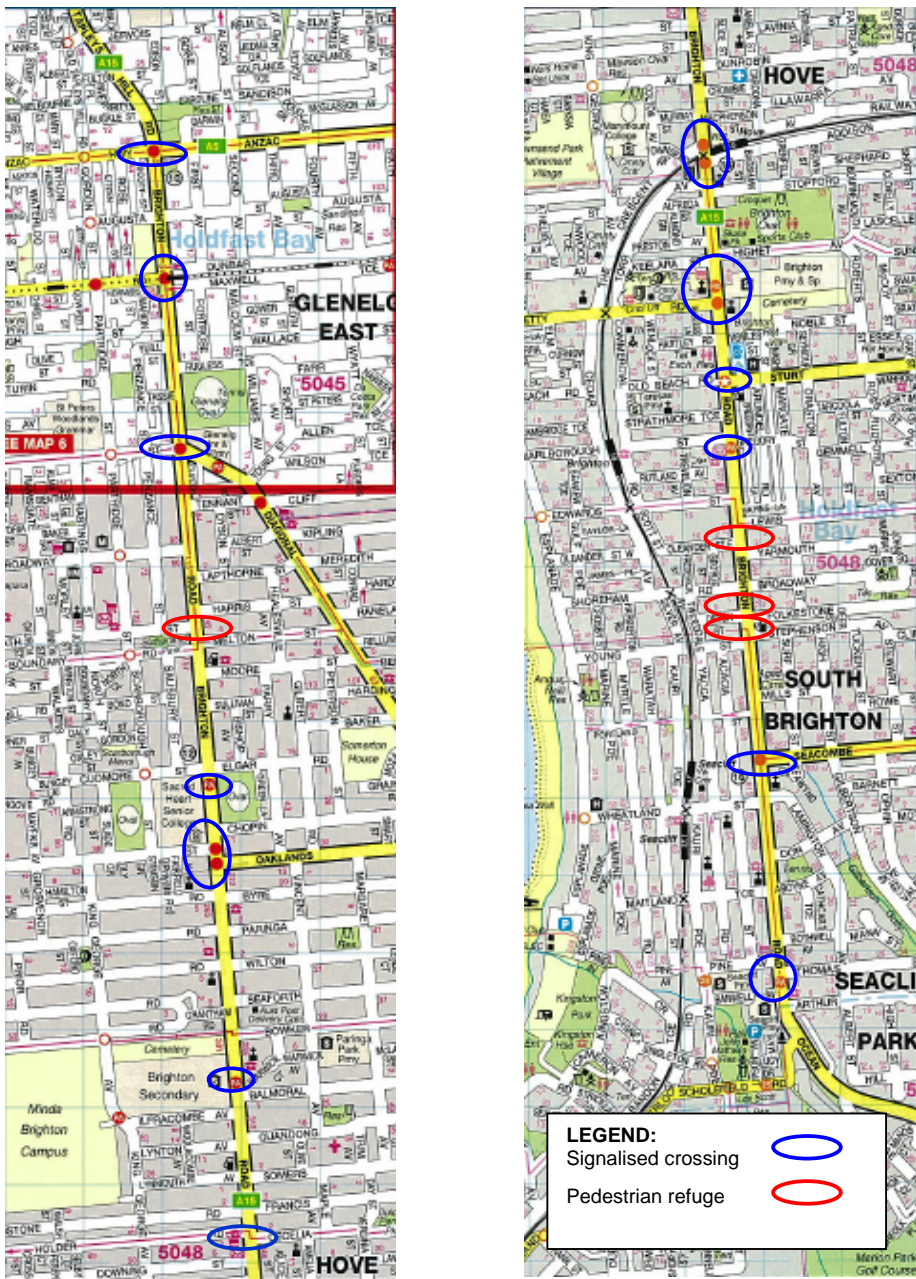


Figure 4-1 Dedicated Pedestrian Crossing Facilities along Brighton Road

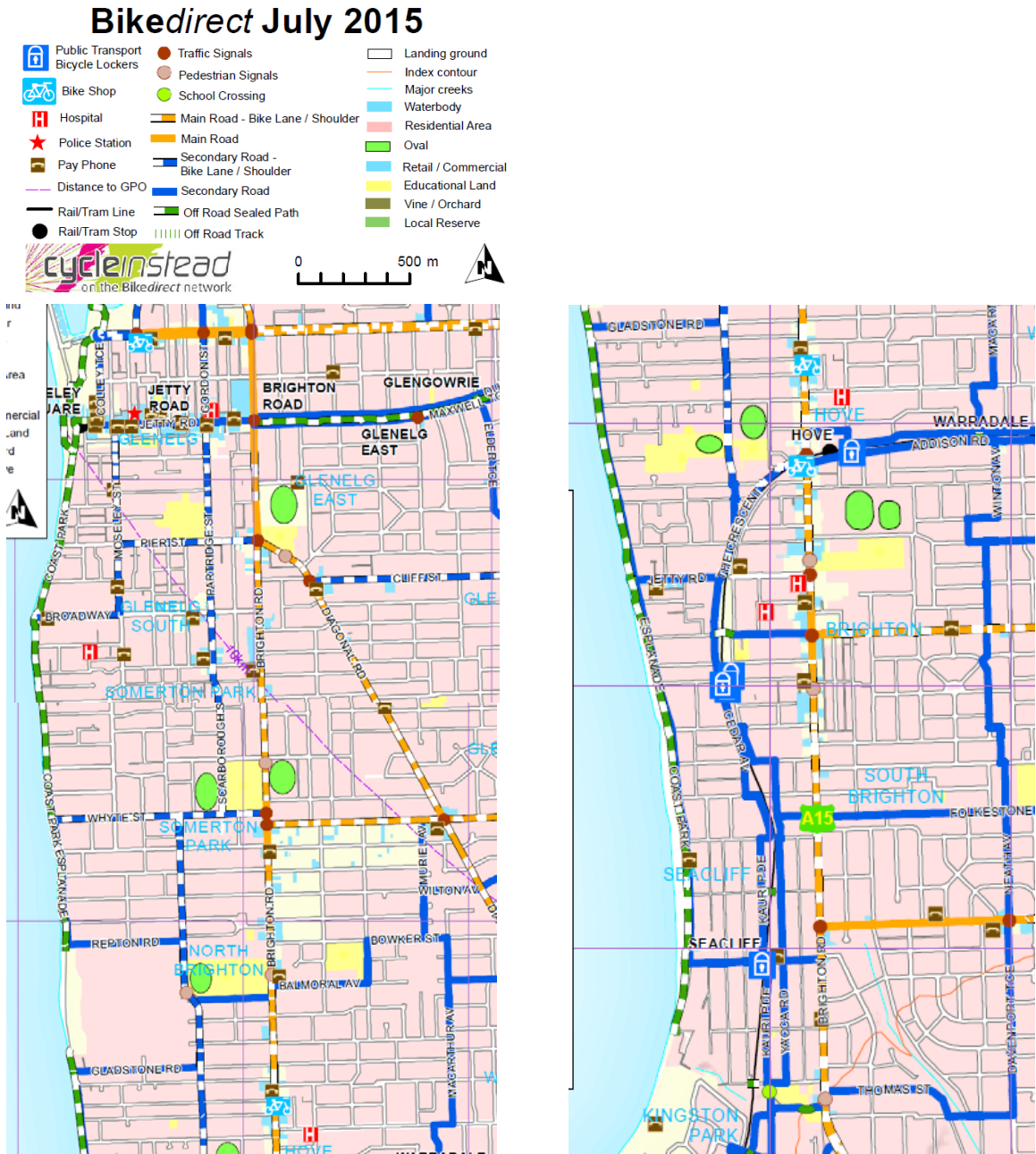
4.5 BICYCLE LANES

It is a priority of DPTI to consider the installation of bicycle facilities as a part of any road upgrade, particularly on arterial roads strategically identified as major cycling routes. As such, DPTI installed peak hour bicycle lanes in both directions on Brighton Road between Jetty Road, Glenelg and Clubhouse Road, Seacliff Park between the times of 7.00 am – 9.00 am and 4.00 pm – 7.00pm, Monday to Friday in October 2014.

There were many midblock sections where the current corridor width was adequate for the installation of bicycle lanes. Where the existing kerbside lane width did not have adequate width, bicycle lanes were installed through either the re-adjusting of the existing lane widths, minor road widening or narrowing of the raised median.

Due to additional through and turning lanes, the signalised intersections on Brighton Road were not wide enough to accommodate bicycle lanes. Therefore minor widening was carried out to achieve the desired width in some sections. In some locations road widening was required to ensure the bicycle lanes were continued through intersections to the advanced stop line provided for cyclists, just ahead of the regular stop line.

The installation of the bicycle lanes filled in a missing link in the bicycle lane network. See the most current Bike Direct Map below (Figure 4.2).



Due to its close proximity to the beach and the length of Brighton Road, there are a number of secondary cycling routes that cross Brighton Road. Whilst many of these occur through signalised intersections there are a number that do not, including:

- Tassie Street & Rugless Terrace
- Ilfracombe Avenue & Balmoral Avenue
- Tennant Street & Broadway Street
- Devon Street & Folkstone Road
- Moore Street.

4.6 ROAD LIGHTING

As previously stated in Section 2.7.3, between Anzac Highway and Jetty Road (Glenelg) road lighting is mounted on DPTI tubular light poles. For the remainder of the corridor between Jetty Road (Glenelg) and Scholefield Road the road lighting is primarily mounted on SAPN stobie poles.

The vast majority of the road lighting on Brighton Rd is 90w (Orange) Low Pressure Sodium luminaires and, according to DPTI plans, were installed in the early 1970s. These would have been installed to the standard of the time but are now well below the current lighting standard. The current lighting standard for DPTI maintained arterial roads is V3 which is described in AS1158 Part 1.1: Lighting for roads and public spaces – Vehicular traffic (Category V) lighting – Performance and design requirements. V3 standard lighting is usually achieved using 250w High Pressure Sodium luminaires.

5 ROAD CAPACITY

Brighton Road is predominantly a four lane (two lanes in each direction) urban arterial road with traffic volumes ranging from 30200 to 43800 vehicles per day (vpd) with between 4% and 5% commercial vehicles.

A review of the metropolitan Adelaide Strategic Transport Evaluation Model (MASTEM) daily volume predictions for Brighton Road indicates that in the medium term it is not expected that traffic volumes will substantially increase. This is primarily due to Brighton Road already carrying a high traffic volume during the commuter peaks and the lack of vacant land available in the surrounding area for significant additional housing development to be undertaken causing a significant increase in traffic movements.

5.1 INTERSECTION PERFORMANCE

Major signalised intersections have been analysed using the Signalised (and Unsignalised) Intersection Design & Research Aid (SIDRA) computer modelling package to provide an overall Level of Service (LoS) for the intersection. The LoS range is a measure describing the operational conditions within a traffic stream, ranging from LoS A (best case) to LoS F (worst case). These results are summarised in Table 5-1.

The capacity analysis has been undertaken using 2009 traffic volume data from the DPTI database.

Table 5-1: Signalised intersection Level of Service summary (based on 2009 traffic volumes)

Intersection	LoS (AM Peak)	LoS (PM Peak)	Comments
ANZAC Highway	F	E	
Jetty Road (Glenelg)	E	F	includes tram movements
Diagonal Road	F	F	
Oaklands Road / Whyte Street	C	C	
The Crescent / Addison Road	E	F	includes the rail level crossing delays
Jetty Road (Brighton)	B	B	
Sturt Road	C	C	
Seacombe Road	B	D	

Recommendations to address safety and capacity issues for each of these intersections are made in Section 6.1 and more detailed tables showing the LoS for each intersection and their individual movements can be found in Appendix C.

5.2 MID-BLOCK PERFORMANCE

A review of the peak hour traffic volumes indicates that between 950 and 2550 vehicles travel along Brighton Road during the weekday peak hour periods as shown in Figure 5.1.

Austrroads Guide to Traffic Management Part 5 (2008) stipulates that where traffic volumes exceed 800 vehicles per hour for one clear lane of traffic and 1600 vehicles per hour for two clear lanes of traffic then clearways should be installed. Whilst the Austrroads Guide refers to

the installation of clearways, it is considered that on road bicycle lanes involving parking restrictions provide the same level of traffic flow improvements with the additional benefit of providing cyclists with a safe area to travel within.



Figure 5-1 One-way peak hour flows (2012-2017)

6 TRAFFIC ISSUES AND RECOMMENDATIONS

6.1 RECOMMENDATIONS FOR SIGNALISED INTERSECTIONS

6.1.1 Brighton Road / ANZAC Highway / Tapleys Hill Road

The ANZAC Highway / Brighton Road / Tapleys Hill Road intersection experienced a total of 22 casualty crashes in the period 2011 to 2015, with the majority being rear end type crashes. This location meets the Black Spot criteria on a crash basis. There are 41 other signalised intersections with a worse crash history than this site within the metropolitan area.

Table 6-1- Summary of crashes at ANZAC Highway / Tapleys Hill Road intersection

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
1	ANZAC Highway	Head On		1	1				
		Hit Fixed Object	4		2	1		1	
		Hit Pedestrian		1		1			
		Other		1		1			
		Rear End	41	15	18	12	14	9	3
		Right Angle	1	1			1	1	
		Right Turn	4	2	2	1	2	1	
		Side Swipe	8	1	2	4		1	2
		Total	58	22	25	20	17	13	5

The majority of the rear end type crashes have occurred on the Brighton Road approach to the intersection. The intersection already has a mast arm traffic signal installed on this approach, on the western traffic signal pole. Mast arms provide overhead signals which greatly improve the visibility of signals for vehicles approaching the intersection, thereby reducing the probability of rear end crashes.

An additional mast arm could be installed on the eastern side of Brighton Road. Installing an additional right turn lane on both approaches of ANZAC Highway will enable more right turning vehicles to clear the intersection in a shorter time. The time that is saved can then be allocated to the north-south movements to extend this phase; thereby reducing congestion and potentially reducing the probability of rear end type crashes.

6.1.2 Brighton Road / Jetty Road (Glenelg)

The junction of Jetty Road (Glenelg) experienced a total of 12 casualty crashes in the period 2011 to 2015, with the predominant crash type being rear end. There are 192 other signalised intersections with a worse crash history than this site within the metropolitan area

Table 6-2 - Summary of crashes at Jetty Road (Glenelg) junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
2	Jetty Road (Glenelg) / Maxwell Terrace	Hit Pedestrian	1					1	
		Rear End	11	4	4	3	3	2	3
		Right Angle	4	2			3	3	
		Right Turn	3	3	3	2		1	
		Side Swipe	3	3		3	2		1
		Total	22	12	7	8	8	7	4

Trams at the Jetty Road (Glenelg) intersection are required to obey the same signal control as all other vehicles using the road network, allowing the crossing to essentially operate as a regular signalised intersection but with reduced capacity to the side road because of the space taken up by the tram.

The department undertook works in December 2008 which included extending the right turn lane and controlling the right turn movement in the off-peak periods, which has resulted in a reduction in the incidence of right turn crashes at this location. It is considered that the works already undertaken are appropriate and that the intersection is to be monitored further to assess the effectiveness of these improvements.

6.1.3 Brighton Road / Diagonal Road / Pier Street

The intersection of Brighton Road / Diagonal Road / Pier Street experienced a total of 8 casualty crashes in the period 2011 to 2015, with the predominant crash types being rear end and right turn. There are 242 signalised intersections with a worse crash history than this site within the metropolitan area.

Table 6-3 - Summary of crashes at Diagonal Road / Pier Street intersection

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
3	Diagonal Road / Pier Street	Right Angle		2	1				1
		Right Turn	6	1	2	1	3	1	
		Rear End	10	4	1	6	1	4	2
		Hit Fixed Object	2			1		1	
		Side Swipe	2			1			1
		Roll Over		1				1	
		Total	20	8	4	9	5	6	4

The SIDRA modelling, utilising 2009 traffic volume data, indicates that the intersection operates at a LoS of F, resulting in significant delays for motorists at this intersection. Based on traffic turning data and site observations, the following improvements will improve the level of service of the intersection and thereby reduce the delays to motorists (shown in

Figure 6-1):

- Extend the right turn lane on Brighton Road into Pier Street though a reduction in the right turn lane length into the Glenelg Oval and minor narrowing of the median;

- The installation of a second 45m long left turn lane into Diagonal Road;
- Realigning the kerbing on the south-west corner of the intersection to improve the left turn movements of large vehicles into Pier Street if possible. Pedestrian safety is to be maintained at this location.

Based on these improvements being implemented, the level of service for the intersection would be improved to a LoS D, which is considered acceptable. Additionally, to address the crashes that have occurred at this intersection, the following treatments are proposed:

- Installation of traffic signals on mast arms to reduce rear end crashes; and
- Control right turn movements from Brighton Road in the off-peak traffic periods

It should be noted that whilst all of the above improvements should be undertaken at the same time to achieve the benefits discussed, the improvements could be staged to commence achieving safety and efficiency benefits in the short term.

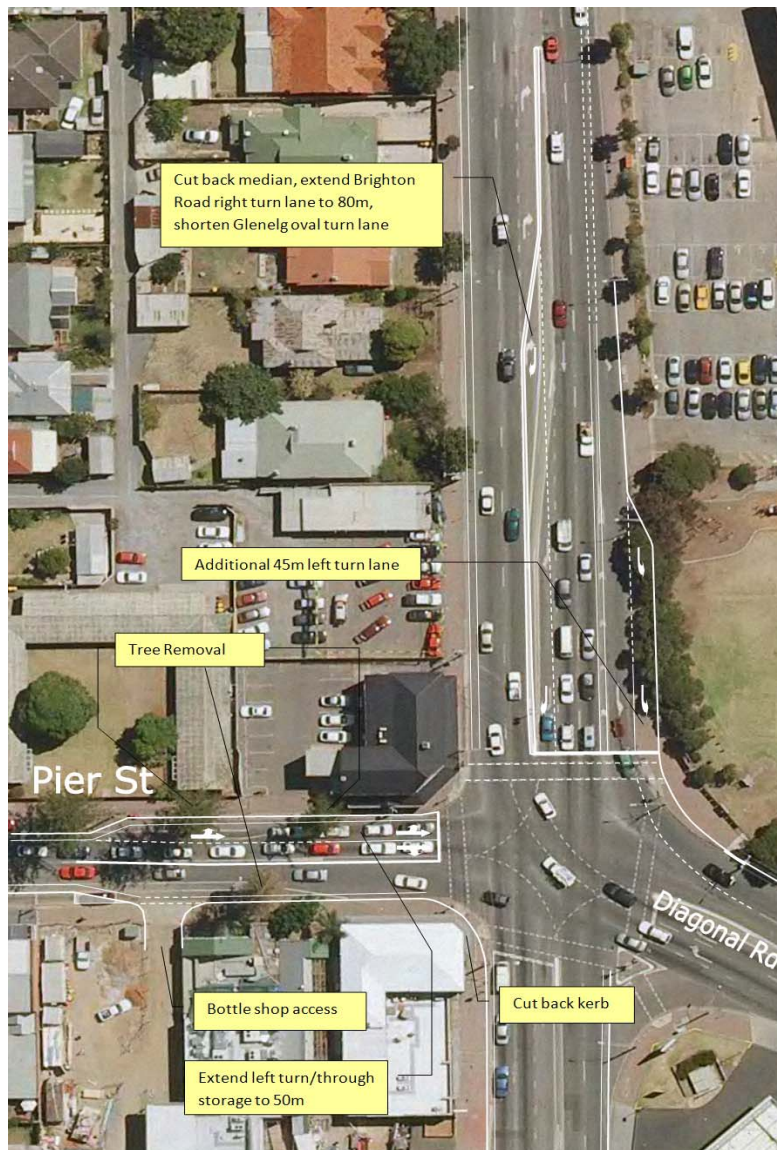


Figure 6-1: Proposed Brighton Road / Diagonal Road / Pier Street Improvements**6.1.4 Brighton Road / Whyte Street / Oaklands Road**

The intersections of Brighton Road / Whyte Street and Brighton Road / Oaklands Road form a signalised staggered T-junction with Whyte Street approximately 50 metres north of Oaklands Road.

The intersection of Brighton Road / Whyte Street experienced a total of five casualty crashes in the period 2011 to 2015. There are 415 signalised intersections with a worse crash history than this site within the metropolitan area. The intersection of Brighton Road / Oaklands Road also experienced a total of five casualty crashes in the period 2011 to 2015. There are 339 signalised intersections with a worse crash history than this site within the metropolitan area.

Table 6-4 - Summary of crashes at Whyte Street / Oaklands Road intersection

<i>Sect.</i>	<i>Intersection</i>	<i>Crash Type</i>	<i>PDO \$3000+</i>	<i>Casualty</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
3	Whyte Street	Hit Fixed Object		1					1
		Right Angle	3	1	1	1	2		
		Rear End	6	3	2	3	1		3
		Side Swipe	1		1				
		Total	10	5	4	4	3	0	4
4	Oaklands Road	Hit Fixed Object	1				1		
		Hit Parked Vehicle	1			1			
		Rear End	11	5	3	5	4	1	3
		Right Angle	1		1				
		Side Swipe	1				1		
		Total	15	5	4	6	6	1	3

A review of the details of the casualty crashes at these two intersections revealed that the majority of the crashes are caused by driver inattention, particularly the rear ends involving vehicles turning left from Oaklands Road to head south on Brighton Road. Rear ends in the middle of the intersection suggest there may be an issue with vehicles attempting to get through the intersection in one signal phase and crashing into vehicles in front that stop. However this is difficult to verify given the lack of detailed information in the crash reports. There are no sight distance issues at the intersection as the vertical alignment of the intersection is consistent and there are no obstructions to the driver's view of the signals.

While it is generally desirable to realign this type of intersection into a standard four-leg signalised intersection, it is not possible to do so without impacting the properties adjacent to the intersection. Also, SIDRA modelling utilising 2009 traffic volume data, indicates that this intersection operates at a reasonable LoS C in both peak periods, with the Brighton road through movements in the AM peak period performing at LoS B. Therefore no recommendations are made for this intersection at this stage.



Figure 6-2: Existing Layout of Brighton Road / Whyte Street / Oaklands Road intersection

6.1.5 Brighton Road / The Crescent

There have only been seven crashes at this intersection in the period 2011 to 2015; four of which resulted in casualties. Among these casualty crashes two crashes were rear end type and two crashes were right turn. There are 521 other signalised intersections in the metropolitan area with a worse crash history in the same period.

Table 6-5 - Summary of crashes at The Crescent intersection

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
5	The Crescent	Hit Fixed Object	1					1	
		Right Turn		2	1		1		
		Rear End	2	2		1	2		1
		Total	3	4	1	1	3	1	1

This intersection is impacted on by the location of Hove railway station, as a westbound train stopping at the station will close off the intersection from when it first arrives at the station until all commuters have boarded/alighted and it has crossed Brighton Road. With the planned future increase in train frequency along this line, the impact of this level crossing is set to increase further. Therefore any changes to Brighton Road close to the crossing must take into consideration the potential for significant train delay.

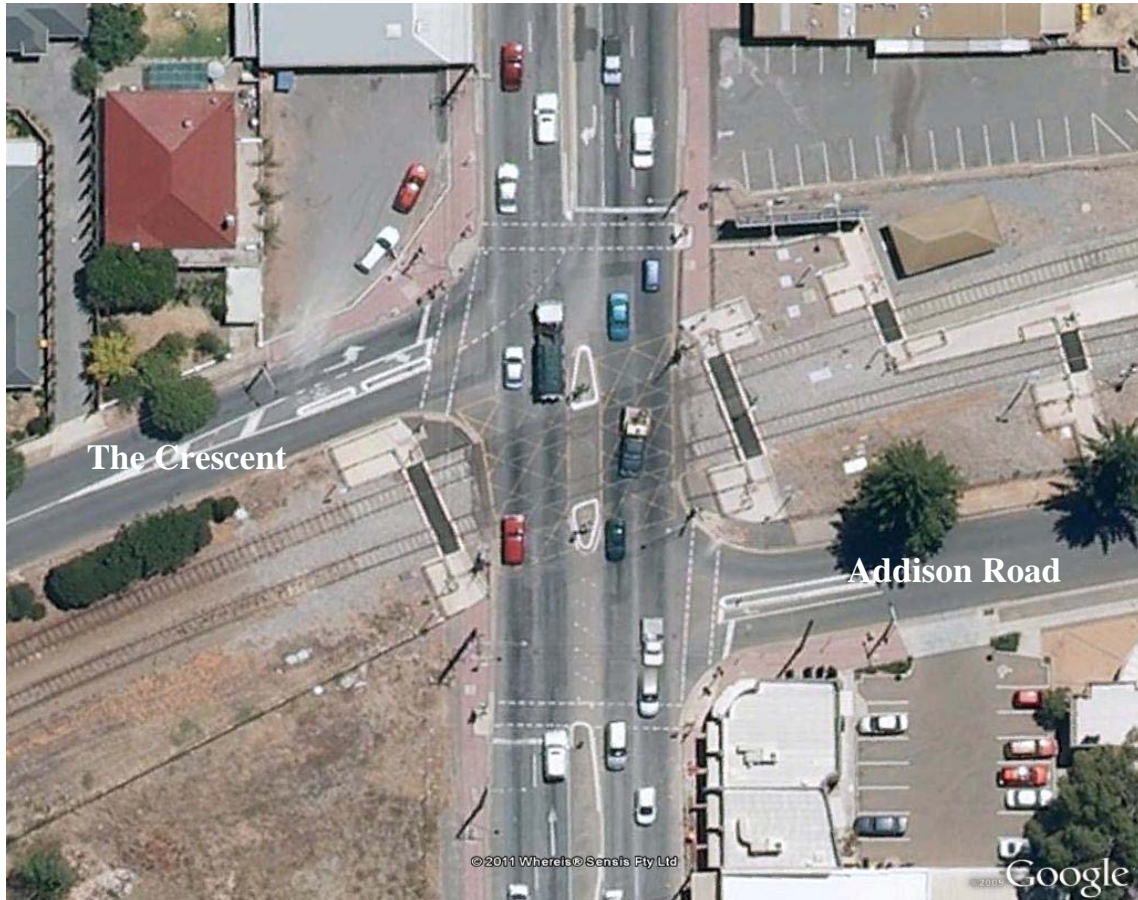


Figure 6-3: Existing Layout of Brighton Road / The Crescent / Addison Road intersection

6.1.6 Brighton Road / Jetty Road (Brighton)

The junction of Brighton Road / Jetty Road (Brighton) experienced a total of 19 crashes in the period 2011 to 2015; ten of which resulted in casualties. Eight of these casualty crashes were Rear End type crashes. There are 349 other signalised intersections in the metropolitan area which have had more crashes in the same period.

Table 6-6 - Summary of crashes at Jetty Road (Brighton) junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
6	Jetty Road (Brighton)	Rear End	4	8	2	1	1	4	4
		Right Turn	3	2	2	1	2		
		Side Swipe	2			1			1
		Total	9	10	4	3	3	4	5

The SIDRA modelling utilising 2009 traffic volume data, indicates that this junction appears to be performing well in both the AM and PM peak periods, with the Brighton Road through movements operating at LoS B or better. The right turn lane from Brighton Road into Jetty Road is 20m in length and was sufficient to cater for the 2009 traffic demand in both peak periods, however it is not unreasonable to assume that a future volume increase will necessitate extending the right turn lane and this may impact upon the PAC located just north of the end of the taper. The operation of this PAC is linked to the signals at the intersection to better coordinate the movements at this location.

A short term solution would be to extend the right turn lane by shortening the taper length. Extending the left turn lane on Jetty Road should also be considered as there appears to be provision to do so within the existing footpath.

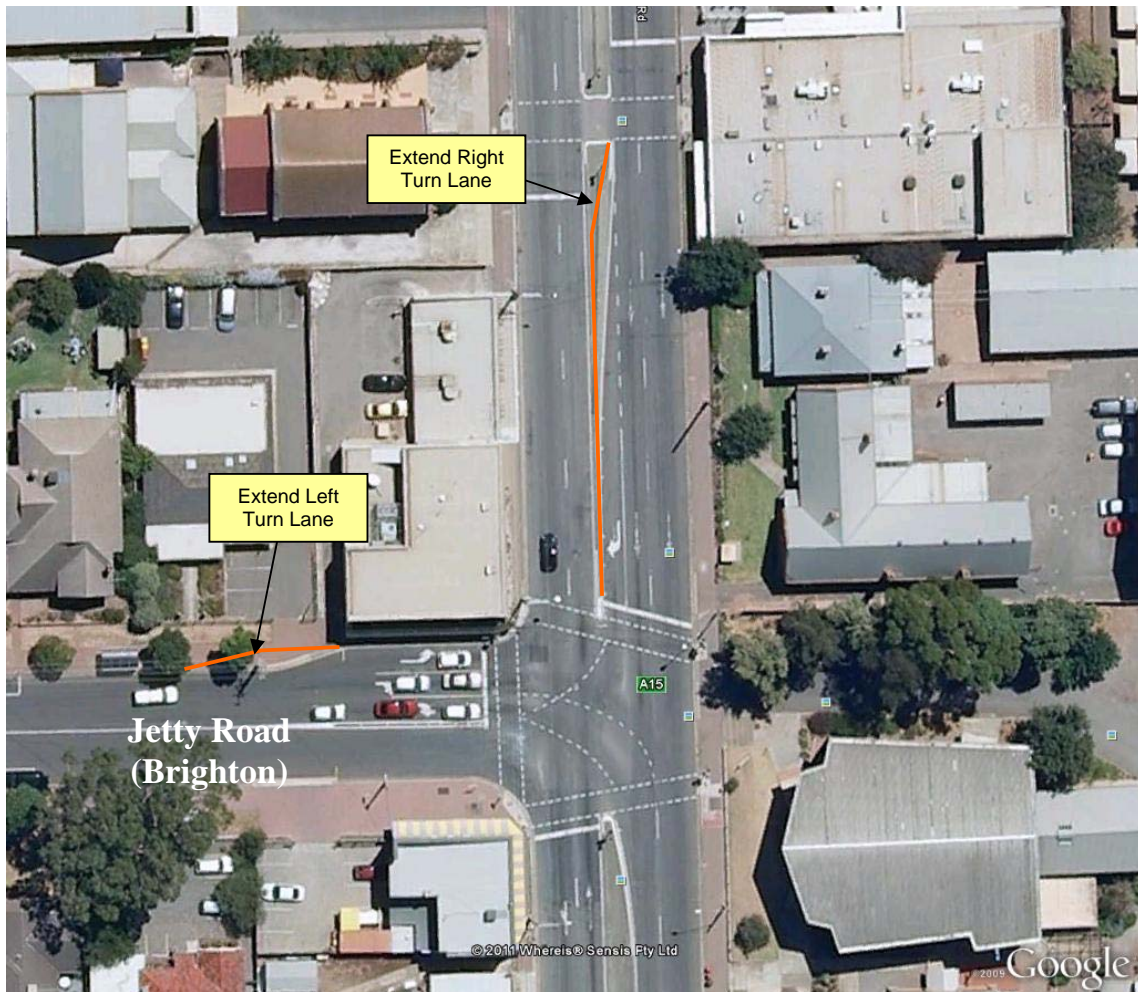


Figure 6-4: Proposed Brighton Road / Jetty Road (Brighton) Improvements

6.1.7 Brighton Road / Sturt Road

There have been 63 crashes at this intersection from 2011 to 2015; 21 of which were casualty crashes. There are 69 other signalised intersections in the metropolitan area which have had more crashes in the same period. The predominant types of crashes at this intersection are rear end and right turn.

Table 6-7 - Summary of crashes at Sturt Road intersection

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
7	Sturt Road/ Old Beach Rd	Hit Fixed Object	2		1	1			
		Rear End	20	13	10	11	7	3	2
		Right Angle	1		1				
		Right Turn	16	8	1	6	5	5	7
		Side Swipe	3			1	2		
		Total	42	21	13	19	14	8	9

In 2008 a second right turn lane and high entry left turn lane was installed on the Sturt Road approach of the intersection.

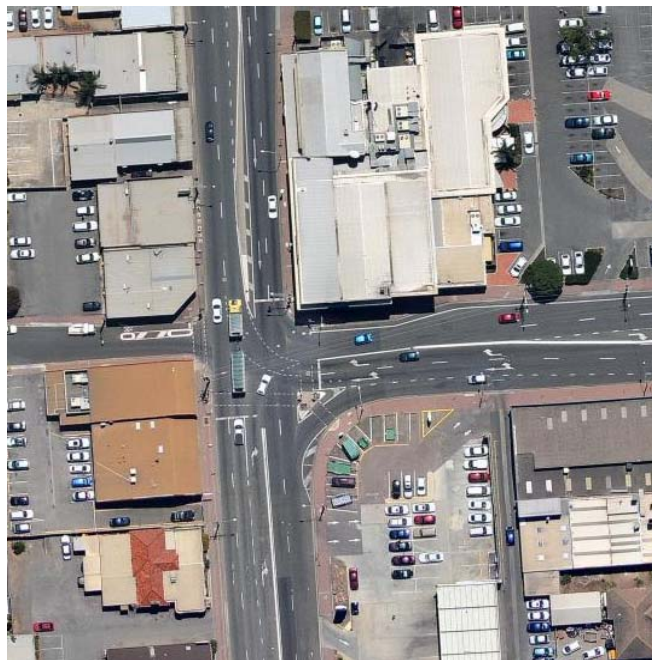


Figure 6-5: Brighton Road / Sturt Road

6.1.8 Brighton Road / Seacombe Road

A review of the crash history shows there have been 44 crashes at this intersection from 2011 to 2015; ten of which were casualty crashes. There are some other 142 signalised intersections with a worse crash history than this site within the metropolitan area. The predominant crash type at this intersection is rear end.

Table 6-8 - Summary of crashes at Seacombe Road junction

<i>Sect.</i>	<i>Intersection</i>	<i>Crash Type</i>	<i>PDO \$3000+</i>	<i>Casualty</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
8	Seacombe Road	Head On	1					1	
		Hit Fixed Object	7	1	2	2		2	2
		Rear End	13	6	5	7	3	2	2
		Right Angle	2	1				2	1
		Right Turn	10	2	1	2	4	2	3
		Side Swipe	1		1				
		Total	34	10	9	11	7	9	8

Concerns have been raised about merging issues for left turn movements from Seacombe Road into Brighton Road. Currently, the intersection contains an unsignalised left turn with a short auxiliary acceleration lane which becomes a third through lane before terminating about 45 m north of Lamington Avenue. This layout is undesirable as there is no defined merge point for left turn traffic and the proximity of the next downstream intersection is likely to be critical for weaving manoeuvres. Furthermore, the Austroads Guide to Traffic Engineering Practice Part 5 suggests a minimum desirable acceleration lane length of 125m for merging onto a 60 km/h road, a length which would extend the lane past Lamington Avenue.

Due to the lack of available space for extending the current acceleration lane to an acceptable length, it is suggested that the intersection be modified to include a 70 degree channelised left turn treatment without acceleration lane, as shown in Figure 6.6. This will allow motorists to approach Brighton Road at an angle giving a safe sight distance, provide greater delineation of the give way priority and eliminate the current merging issues. This type of treatment is consistent with the majority of signalised locations across the arterial road network.

An additional improvement to the intersection is the installation of a mast arm traffic signal on the Brighton Road northern approach. Mast arms provide overhead signals which greatly improve the visibility of signals for vehicles approaching the intersection, thereby reducing the probability of rear end crashes.



Figure 6-6: Proposed Brighton Road / Seacombe Road Improvements

6.2 RECOMMENDATIONS FOR UNSIGNALISED INTERSECTIONS

6.2.1 General Recommendations

Brighton Road has median openings provided into most local side streets. Many of these openings have created passive four-way intersections, thus increasing potential conflict points, whilst many others result in the creation of off-set T-junctions that are in close proximity to each other. Many of these off-set T-junctions (known as left-right staggered T-junctions) have created areas which could cause confusion among motorists wishing to exit Brighton Road as it is not clear who has priority should there be another vehicle wishing to turn right from the opposite direction.

Furthermore, a number of the right turn lanes have short storage lengths and should more than one vehicle wish to turn right into the same side street then there is the potential for vehicles to queue back into the flow of traffic.

To improve overall road safety and to assist in the flow of traffic along Brighton Road, it is recommended that the median openings along Brighton Road be rationalised by implementing the following:

- Four-way median openings be restricted to a T-junction into one of the side streets to reduce the number of conflict points at that location,
- Left right staggered T-junctions be restricted to a single T-junction into one of the side streets to reduce confusion and the potential for collisions,
- Protected right turn lanes within the raised median that are less than 12m in storage length be lengthened where possible or alternatively closed off permanently.

Prior to implementing any of these changes, extensive consultation will need to be undertaken with Council to ensure local access is maintained and that traffic changes are distributed over the local road network.

6.2.2 Brighton Road / Augusta Street

A review of the crash history at this intersection indicates a significant right turn crash history for vehicles wishing to turn right from Brighton Road to head west along Augusta Street, with 35 crashes resulting in 7 casualties from 2011 to 2015. 19 right turn crashes, of which 1 was a casualty crash, have also been recorded due to motorists crossing this uncontrolled 5-lane section of Brighton Road to head in a westerly direction. There are only 10 other unsignalised intersections in the metropolitan area with more crashes over the same period, indicating that safety issues at this intersection need to be addressed.

Table 6-9 - Summary of crashes at Augusta Street intersection

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
1	Augusta Street	Hit Fixed Object	2			1	1		
		Rear End	7	4	3	3	2	3	
		Right Angle	3	1	1	1	2		
		Right Turn	19	1	14	6			
		Roll Over		1	1				
		Side Swipe	4		1	3			
		Total	35	7	20	14	5	3	0

In 2012, a project to prevent right turns into Augusta Street (west) was implemented to treat the majority of crashes at the intersection, post which there has been a dramatic reduction in crashes; with no right turn crashes recorded between 2013 and 2015.

It is considered that these intersection improvements do not pose any significant access issues for motorists attempting to enter Augusta Street West from the North or East as safer alternatives exist via ANZAC Highway, Old Tapleys Hill Road and Gordon Street. These works also allow a safer crossing point for pedestrians wishing to cross either Brighton Road or Augusta Street through the provision of safe areas within the raised median.



Figure 6-7: Completed Brighton Road / Augusta Street Improvements

6.2.3 Brighton Road / High Street

A review of the crash history at this junction indicates that there have been 10 crashes resulting in three casualties from 2011 to 2015. There are 249 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-10 - Summary of crashes at High Street junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
2	High Street	Rear End	1	1		1			1
		Right Angle	1		1				
		Right Turn	7	3	2	6	2		
		Total	9	4	3	7	2	0	1

Earlier crash history indicated that there was a substantial number of right turn crashes for vehicles turning right from Brighton Road into High Street (29 collisions resulting in 5 casualties from 2009 to 2013). Brighton Road at this location consists of three northbound lanes and it is likely that motorists were attempting to carry out the right turn manoeuvre

without selecting an appropriate gap in the oncoming traffic stream, which may be difficult due to having to cross three lanes of through traffic.

In 2013 a project to close off the median and remove the right turn lane into High Street was implemented, resulting in High Street becoming left in/left out only, post which there has been a reduction in crashes; with no right turn or right angle crashes recorded between 2014 and 2015.

It is considered that this road safety improvement will not pose any significant access issues for motorists as safer alternatives exist via Jetty Road (Glenelg) and Pier Street.



Figure 6-8: Completed Brighton Road / High Street Improvements

6.2.4 Brighton Road / Tassie Street

Tassie Street is located immediately opposite Glenelg Oval. A review of the crash history at this junction indicates that there were 3 rear end crashes recorded from 2011 to 2015, 2 of which were casualty crashes. Preliminary consultation undertaken as part of this RMP identified that when sporting events are held at the oval, pedestrians often attempt unsafe crossings of Brighton Road to access Bus Stop 24 located opposite the Glenelg Oval.

Table 6-11 - Summary of crashes at Brighton Road / Tassie Street junction

<i>Sect.</i>	<i>Intersection</i>	<i>Crash Type</i>	<i>PDO \$3000+</i>	<i>Casualty</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
2	Tassie Street	Rear End	1	2		1	1	1	
		Total	1	2	0	1	1	1	0

To improve road safety, and in particular the safety of unprotected road users, it is recommended the right turn lane into Tassie Street be closed off and a pedestrian refuge provided in the median to allow pedestrians and cyclists to stand clear of through traffic.

Bus Stop 24, located in the immediate vicinity should be relocated further from the adjacent side roads and indented to allow buses to park clear of these side roads. These upgrades are shown in Figure 6.13.

It is considered that this road safety improvement will not pose any significant access issues for motorists as safer alternatives exist via Pier Street and Yuill Street.



Figure 6-9: Bus Stop on Brighton Road north of Tassie Street



Figure 6-10: Proposed Brighton Road / Tassie Street Improvements

6.2.5 Brighton Road / Cudmore Street / Elgar Road

A review of the crash history shows that there have been 4 crashes at this intersection in the years 2011 to 2015; 1 of which resulted in a casualty. There are 1760 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-12 - Summary of crashes at Cudmore Street / Elgar Road intersection

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
3	Cudmore Street / Elgar Road	Hit Fixed Object	1				1		
		Rear End	1				1		
		Right Angle	1				1		
		Side Swipe		1			1		
		Total	3	1	0	0	4	0	0

There is no obvious trend in terms of the crashes that have occurred at this junction. There is no underlying problem with the intersection itself therefore no recommendations are considered necessary.



Figure 6-11: Existing layout of Brighton Road / Cudmore Street / Elgar Road intersection

6.2.6 Brighton Road / Holder Road

A review of the crash history shows that there have been 3 crashes at this intersection in the years 2011 to 2015 with 1 being a casualty. There are 2452 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-13 - Summary of crashes at Holder Road junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
4	Holder Road	Rear End	1	1		1		1	
		Right Angle	1		1				
		Total	2	1	1	1	0	1	0

A review of the detailed crash reports revealed that these crashes have been caused by driver error and given the low number of crashes at this location, no treatments are considered necessary.



Figure 6-12: Existing Layout of Brighton Road / Holder Road junction

6.2.7 Brighton Road / Crombie Street

A review of the crash history shows that there have been 2 crashes at this intersection in the years 2011 to 2015. There are 4176 other unsignalised intersections in the metropolitan area with more casualty crashes during this period.

Table 6-14 - Summary of crashes at Crombie Street junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
4	Crombie Street	Rear End	1			1			
		Right Turn	1		1				
		Total	2	0	1	1	0	0	0

Only one right turn crash has occurred at this junction, however a review of the crash details revealed that this is due to driver failing to stand and wait for appropriate gaps in the oncoming traffic before making the turn into Crombie Street. There is no underlying problem with the junction itself therefore no recommendations are considered necessary.



Figure 6-13: Existing Layout of Brighton Road / Crombie Street junction

6.2.8 Brighton Road / Keelara Street / Highet Avenue

A review of the crash history at the Brighton Road / Keelara Street junction shows that 6 crashes have occurred in the years 2011 to 2015, with 1 resulting in a casualty. There are 1046 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-15 - Summary of crashes at Keelara Street junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
5	Keelara Street	Hit Parked Vehicle	1				1		
		Rear End	1	1				1	1
		Right Angle	2				1	1	
		Right Turn	1			1			
		Total	5	1	0	1	2	2	1

A review of the crash history at the Brighton Road / Highet Avenue junction shows that 11 crashes have occurred in the years 2011 to 2015, with seven resulting in casualties. There

are 316 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-16- Summary of crashes at Hight Avenue junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
5	Hight Avenue	Hit Pedestrian		2	2				
		Rear End	2	4	1	3	1		1
		Right Angle	1	1				1	1
		Right Turn	1						1
		Total	4	7	3	3	1	1	3

The offset T-junctions of Hight Avenue and Keelara Street currently cause confusion to motorists as to who would have priority should more than one motorist wishes to turn right from opposing directions. Possible treatments to address this issue include restriction of some movements or signalisation of the junction.

It is also worth considering a full time parking ban between Hight Avenue and Jetty Road (Brighton) as there is adequate off-road parking within this area. This will improve traffic flow in this section and also prevent any possibility of vehicles colliding with parked vehicles.



Figure 6-14: Existing Layout of Brighton Road / Keelara Street / Hight Avenue intersection

6.2.9 Brighton Road / Hartley Road

A review of the recorded crash data shows that there have been 5 crashes at this intersection in the years 2011 to 2015. 3 crashes resulted in casualties. There are 1161 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-17 - Summary of crashes at Hartley Road junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
6	Hartley Road	Rear End	2	2			1	2	1
		Right Angle		1				1	
		Total	2	3	0	0	1	3	1

A review of the detailed crash reports revealed that these crashes have been caused by driver error, and, given the low number of crashes at this location, no treatments are considered necessary.



Figure 6-15: Existing Layout of Brighton Road / Hartley Road junction

6.2.10 Brighton Road / Yarmouth Street

A review of the crash history shows that there have been 3 crashes at this intersection in the years 2011 to 2015; none of which resulted in casualties. There are 2757 other unsignalised intersections in the metropolitan area with more crashes over the same period.

Table 6-18 - Summary of crashes at Yarmouth Street junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
7	Yarmouth Street	Roll Over	1				1		
		Right Angle	2		2				
		Total	3	0	2	0	1	0	0

A review of the detailed crash reports revealed that these crashes have been caused by driver error, and, given the low number of crashes at this location, no treatments are considered necessary.



Figure 6-16: Existing Layout of Brighton Road / Yarmouth Street junction

6.2.11 Brighton Road / Wheatland Street

A review of the crash history at this junction shows that 29 crashes have occurred in the period 2011 to 2015, with 5 of those resulting in casualties. Of those crashes, right turn and right angle crashes are the most common. There are 29 other unsignalised intersections within the metropolitan area with more casualty crashes over the same period.

Table 6-9 Table - Summary of crashes at Wheatland Street junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
8	Wheatland Street	Rear End	6	1	5	1			1
		Right Angle	15	2	8	5			4
		Right Turn	2	2		1	1	2	
		Side Swipe	1			1			
		Total	24	5	13	8	1	2	5

Possible treatments to address these type of crashes include the restriction of some movements along Wheatland Street and/or Brighton Road and potentially Lamington Avenue.



Figure 6-17: Existing Layout of Brighton Road /Wheatland Street /Lamington Avenue intersection

6.2.12 Scholefield Road / Ocean Boulevard

A review of the crash history at this junction shows that 14 crashes have occurred in the period 2011 to 2015, with 4 of those resulting in casualties. Of those crashes, rear end crashes are the most common. There are 250 other unsignalised intersections within the metropolitan area with more casualty crashes over the same period.

Table 6-20 - Summary of crashes at Scholefield Road / Ocean Boulevard junction

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015
8	Scholefield Road / Ocean Boulevard	Hit Fixed Object	1			1			
		Rear End	8	4	4	3	2	1	2
		Right Angle	1			1			
		Total	10	4	4	5	2	1	2

Based on discussions with Council officers and submissions by the community, the safety of this junction has been raised as a concern and the installation of traffic signals has been proposed to address these concerns. An initial review of this junction indicated that it did not meet the warrants for the installation of traffic signals based on traffic volume or crash data. Typically, warrants for signals at a T-junction do not consider the left turn movements from the minor road (Scholefield Road), unless special circumstances exist. From the latest traffic survey data conducted in 2015, it was found that the left turn movement from Scholefield Road accounts for 88% of the total movement from that approach. Therefore, it is considered that the left turn volumes should be included in the traffic volume analysis. Using this method, signals could be warranted at this junction.

Furthermore, it should be noted that a new residential development has been planned adjacent to the junction. Completion of this development will most likely result in increased traffic volumes at the junction, hence at this time; assessment of the junction for installation of signals should be revisited.

It is proposed to extend the right turn lane to accommodate more right turning traffic onto Scholefield Road and to reduce the possibility of rear end crashes.

On-site observations identify concerns with sight distance, the grade of Brighton Road (north and southbound), the percentage of commercial vehicles and the speed of vehicles travelling north down the hill. Each of these observations would require careful consideration should the installation of traffic signals be considered at this site in the future.



Figure 6-18: Existing Layout of Brighton Road / Scholefield Road / Ocean Boulevard Junction

6.3 RECOMMENDATIONS FOR MID-BLOCK SECTIONS

Mid-block crashes which occurred between 2011 and 2015 are listed in Table 6.13 below. A more detailed table can be found in Appendix B.

The data collected relies on accurate recording by the police officer or personnel involved. In some cases the exact location is not known and therefore recorded as an unknown location. These crashes have been included within the mid-block crash data.

Rear end type crashes are the most prevalent in all of the sections. However further investigation of the crash reports suggests that the majority of these rear end crashes occur due to queues from the signalised intersections. Therefore these crashes will be treated as intersection rather than mid-block crashes.

The crash data includes a number of hit parked vehicle and side swipe crashes, which may be the result of lane changing movements to avoid parked cars. The installation of extended parking restrictions and installation of bicycle lanes is an effective measure to mitigate these types of crashes.

Table 6-21 – Mid-block Crashes for 2011-2015

<i>Sect.</i>	<i>Mid-block Section</i>	<i>Crash Type</i>	<i>PDO \$3000+</i>	<i>Casualty</i>	<i>Total</i>	<i>AADT</i>
1	ANZAC Highway - Jetty Road (Glenelg)	Hit Fixed Object	2		2	43200
		Rear End	13	11	24	
		Right Angle	2	1	3	
		Head On		1	1	
		Hit Parked Vehicle		2	2	
		Hit Pedestrian		3	3	
		Roll Over		1	1	
		Side Swipe	9		9	
		Total	26	19	45	
2	Jetty Road (Glenelg) - Diagonal Road	Hit Fixed Object	1		1	43200
		Hit Parked Vehicle	2		2	
		Rear End	19	4	23	
		Right Angle	2		2	
		Right Turn	7	1	8	
		Side Swipe		1	1	
				Total	31	
3	Diagonal Road - Oaklands Road	Hit Fixed Object	2	1	3	30300
		Hit Parked Vehicle	8	2	10	
		Rear End	19	7	26	
		Side Swipe	3	1	4	
			Total	32	11	

Brighton Road - Road Management Plan

4	Oaklands Road - The Crescent	Hit Fixed Object	2	1	3	38100
		Hit Parked Vehicle	8	5	13	
		Other	1		1	
		Hit Pedestrian		1	1	
		Rear End	19	12	31	
		Side Swipe	6	3	9	
		Total	36	22	58	
5	The Crescent - Jetty Road (Brighton)	Hit Fixed Object	1		1	36600
		Hit Parked Vehicle	3		3	
		Hit Animal	1		1	
		Rear End	14	3	17	
		Side Swipe	3		3	
		Total	22	3	25	
6	Jetty Road (Brighton) - Sturt Road	Hit Parked Vehicle	3	1	4	37500
		Hit Pedestrian		1	1	
		Rear End	5	2	7	
		Side Swipe	1		1	
		Total	9	4	13	
7	Sturt Road - Seacombe Road	Hit Fixed Object	5	1	6	35300
		Hit Parked Vehicle	7	3	10	
		Hit Pedestrian	1	1	2	
		Rear End	9	7	16	
		Right Angle	2	1	3	
		Right Turn	1		1	
		Side Swipe	7	1	8	
		Total	32	14	46	
8	Seacombe Road - Scholefield Road	Hit Fixed Object	4	2	6	38400
		Hit Parked Vehicle	2	2	4	
		Rear End	15	11	26	
		Other	1		1	
		Right Angle	1		1	
		Side Swipe	2	1	3	
		Total	25	16	41	

6.3.1 Section 1 – ANZAC Highway to Jetty Road (Glenelg)

The section of Brighton Road between ANZAC Highway and Jetty Road is kerbed on both sides of the road, with an 18.0 m typical road carriageway width. This section has three through lanes in the northbound direction and two through lanes in the southbound direction. The AADT for this section is 43200 vehicles per day and there are three bus stops within this section of Brighton Road; two on the western side and one on the eastern side.

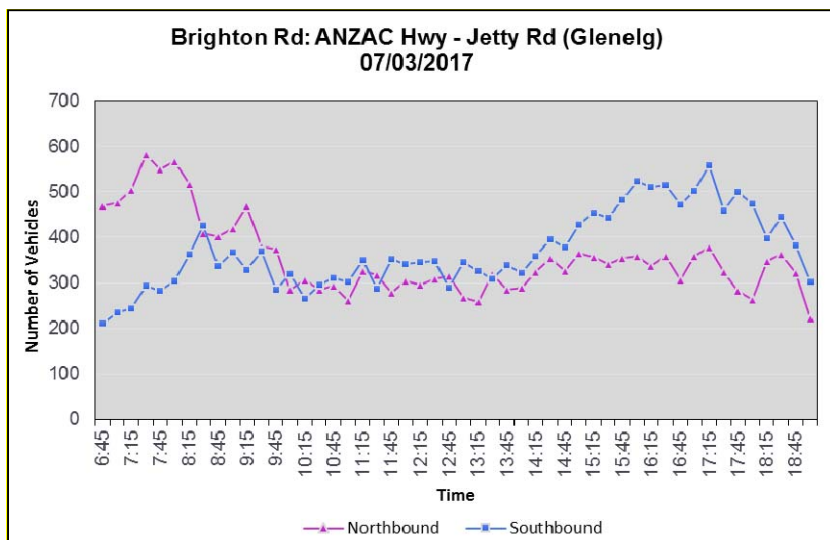


Figure 6-19: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 1: ANZAC Highway – Jetty Road (Glenelg)

6.3.2 Section 2 – Jetty Road (Glenelg) to Diagonal Road

The section of Brighton Road between Jetty Road (Glenelg) and Diagonal Road is kerbed on both sides of the road, with a 20.0 m typical road carriageway width. This section has three through lanes and a bicycle lane in the northbound direction between Jetty Road and Yuill Street, and two lanes and a bicycle lane between Yuill Street and Diagonal Road. There are two through lanes and a bicycle lane through this section in the southbound direction. The AADT for this section is 43800 vehicles per day and there are two bus stops within this section of Brighton Road; one on each side.

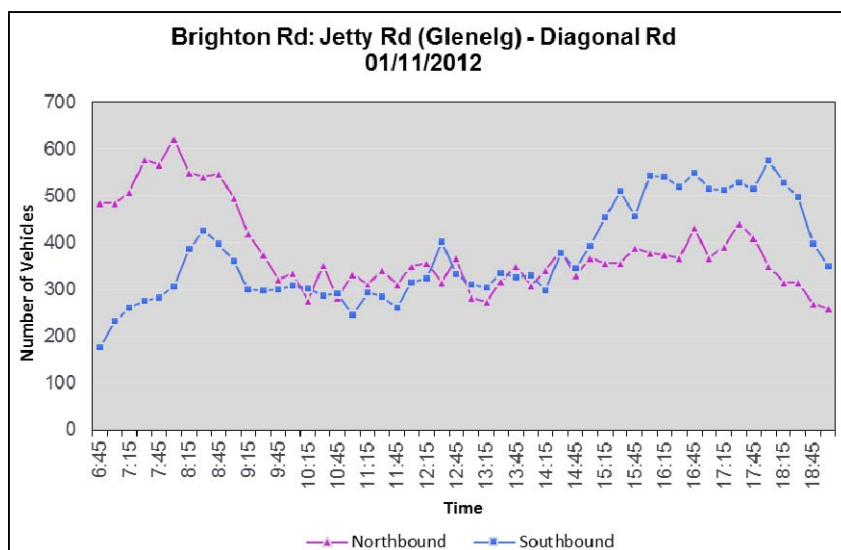


Figure 6-20: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 2: Jetty Road (Glenelg) – Diagonal Road

6.3.3 Section 3 – Diagonal Road to Oaklands Road

The section of Brighton Road between Diagonal Road and Oaklands Road is kerbed on both sides of the road, with a 19.0 m typical road carriageway width and two through lanes and a bicycle lane in each direction. The AADT for this section is 30300 vehicles per day and there are nine bus stops in this section of Brighton Road; four on the western side and five on the eastern side.

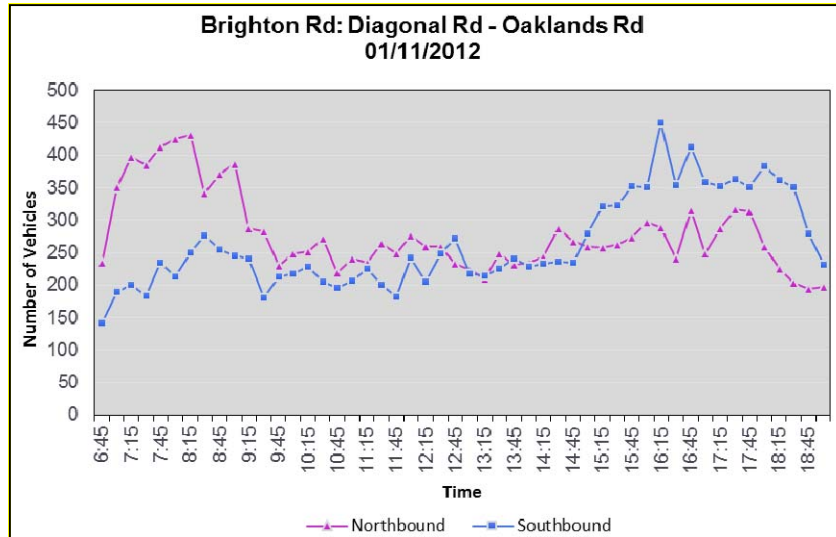


Figure 6-21: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 3: Diagonal Road – Oaklands Road

6.3.4 Section 4 – Oaklands Road to The Crescent

The section of Brighton Road between Oaklands Road and The Crescent is kerbed on both sides of the road, with a 19.0 m typical road carriageway width and two through lanes and a bicycle lane in each direction. The AADT for this section is 38100 vehicles per day and there are six bus stops within this section of Brighton Road; three on each side.

The Seaford Rail Line level crossing has a substantial impact on this section of Brighton Road, especially during the AM and PM commuter peaks when the high volume of traffic is interrupted by frequent train crossings.

A project to install a pedestrian activated crossing at the Hove Shopping Centre adjacent to Cecelia Street and Downing Street was completed in August 2014.

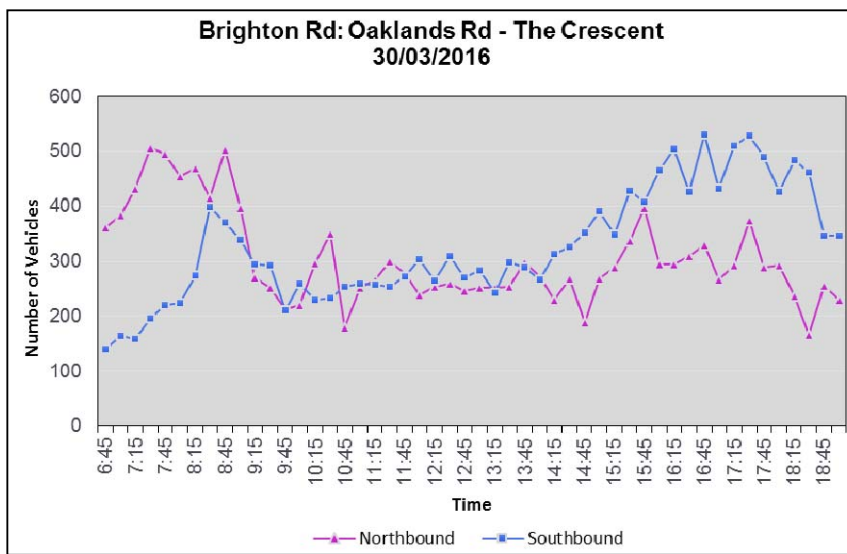


Figure 6-22: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 4: Oaklands Road – The Crescent

6.3.5 Section 5 – The Crescent to Jetty Road (Brighton)

The section of Brighton Road between The Crescent and Jetty Road (Brighton) is kerbed on both sides of the road, with a 19.0 m typical road carriageway width and two through lanes and a bicycle lane in each direction. The AADT for this section is 36600 vehicles per day and there are two bus stops within this section of Brighton Road; one on each side.

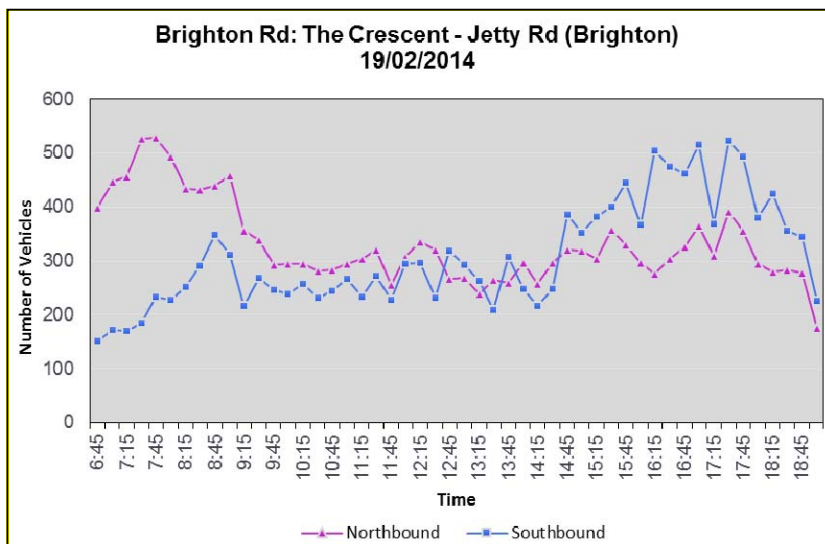


Figure 6-23: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 5: The Crescent – Jetty Road (Brighton)

The Seaford Rail Line level crossing has a substantial impact on this section of Brighton Road, especially during the AM and PM commuter peaks when the high volume of traffic is interrupted by frequent train crossings.

6.3.6 Section 6 – Jetty Road (Brighton) to Sturt Road

The section of Brighton Road between Jetty Road (Brighton) and Sturt Road is kerbed on both sides of the road, with a 19.0 m typical road carriageway width and two through lanes and a bicycle lane in each direction. The AADT for this section is 37500 vehicles per day and there are no bus stops within this section of Brighton Road.

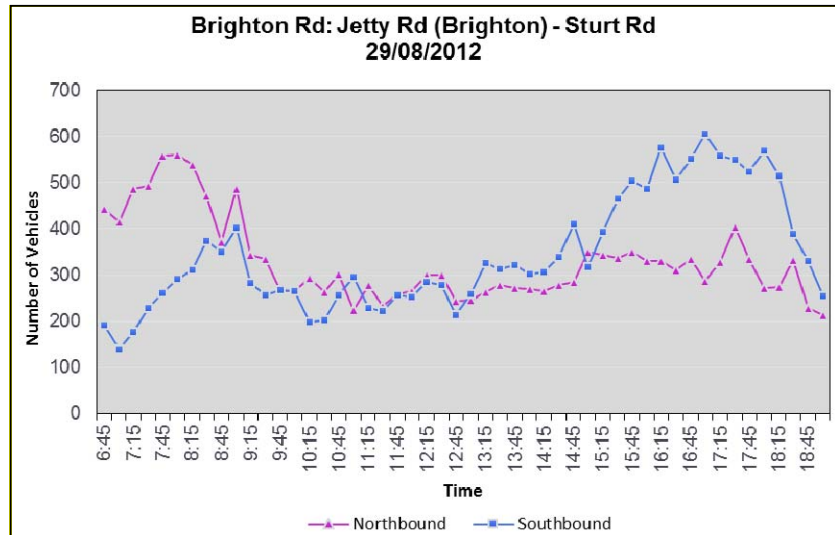


Figure 6-24: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 6: Jetty Road (Brighton)– Sturt Road

6.3.7 Section 7 – Sturt Road to Seacombe Road

The section of Brighton Road between Sturt Road and Seacombe Road is kerbed on both sides of the road, with a 19.0 m typical road carriageway width and two through lanes and a bicycle lane in each direction. The AADT for this section is 35300 vehicles per day and there are five bus stops within this section of Brighton Road; two on the western side and three on the eastern side.

It is recommended that the existing median cut-out just south of Edwards Street, near bus stop 37 on the western side of Brighton Road, be formalised to provide a pedestrian walkthrough with kerb ramps and handrails.

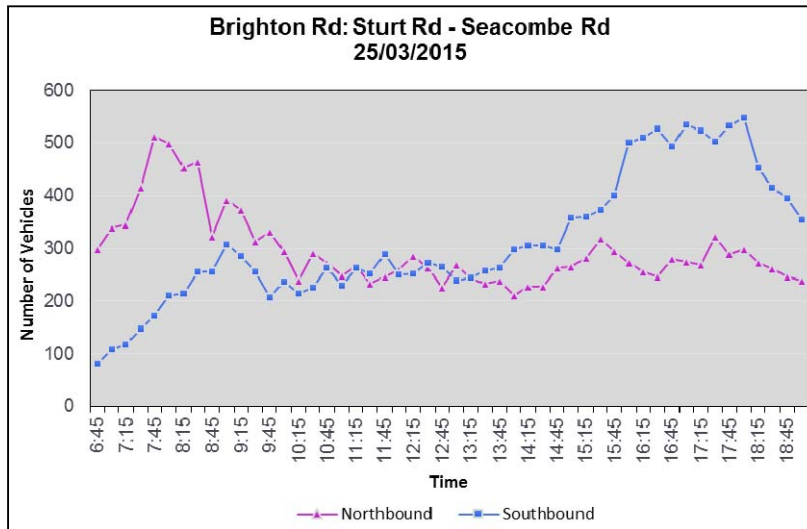


Figure 6-25: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 7: Sturt Road – Seacombe Road

6.3.8 Section 8 – Seacombe Road to Scholefield Road

The section of Brighton Road between Seacombe Road and Scholefield Road is kerbed on both sides of the road, with a 19.0 m typical road carriageway width and two through lanes and a bicycle lane in each direction. The AADT for this section is 38400 vehicles per day and there are four bus stops within this section of Brighton Road; two on each side.

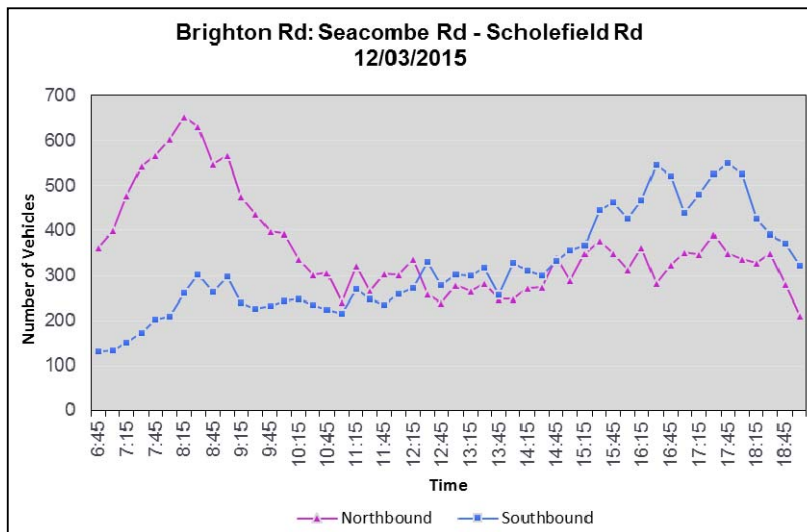


Figure 6-26: Traffic Volumes (at 15 minute intervals) for Brighton Road Section 8: Seacombe Road – Scholefield Road

6.3.9 General Recommendations – Bus Stops

As per DPTI Road Design Standards & Guidelines, a 5.7m wide kerbside lane is required to allow vehicles to pass a stationary bus whilst remaining within the kerbside lane. The kerbside lane width along the entire length of Brighton Road is less than 5.7m and does not allow vehicles to safely pass a stationary bus without encroaching into the adjacent travelling lane.

It is recommended that wherever possible, partially indented bus bays are installed to provide increased road capacity, particularly in the peak periods (enabling two clear lanes to be used by through traffic) as well as road safety benefits by minimising potential for rear end and side swipe type crashes. Where bus shelters are required to be moved or installed, a minimum 2.5m wide footpath must be provided to meet DDA requirements.

6.4 OTHER TRAFFIC MANAGEMENT / COMMUNITY CONCERNS

The community often raises concerns with regards to road safety or operational issues with DPTI or Council. Issues relating to the roads in this RMP have been identified from DPTI records and are listed below.

No.	Concerns	Action
1	Dunrobin Road / Wattle Avenue – Uncontrolled Staggered T-junctions	<ul style="list-style-type: none"> • Consider banning of parking between Hulbert Street and Crombie Street • Consider banning right turns into Dunrobin Road and Wattle Avenue • Assessment of change of access to local road network will need to be undertaken with council
3	Maitland Terrace / Aboyne Avenue	<ul style="list-style-type: none"> • Consider making Aboyne Avenue left in / left out to reduce number of conflicting movements • Assessment of change of access to local road network will need to be undertaken with council
6	Yarmouth Street – request for installation of PAC	<ul style="list-style-type: none"> • Pedestrian survey indicates low numbers at this area; PAC is not warranted • Consider additional pedestrian refuge within raised median
7	Brighton Primary School PAC – red light runners	<ul style="list-style-type: none"> • Consider installation of mast arm to improve visibility of lantern

7 TREATMENT SUMMARY

A number of traffic management and road maintenance improvements have been recommended in this report. Recommendations are summarised in the following tables, included in the table is a priority rating for each recommendation.

Three levels of priority are indicated – High (RED), Medium (ORANGE) and Low (YELLOW). The priority of treatments has been determined based on:

- safety benefits, to improve safety for vulnerable road users,
- reducing roadside hazards
- improving amenity and appearance of the roads
- benefit/cost appraisal of treatment

7.1 INTERSECTION/ JUNCTION TREATMENTS

INTERSECTION / JUNCTION	TREATMENT	PRIORITY
Brighton Rd / Diagonal Rd / Pier St	Extend Right Turn Lane into Pier St	Low
	Install second Left Turn Lane into Diagonal Rd	High
	Install mast arms	High
	Control Right Turns from Brighton Rd in off peak	High
Brighton Rd / Jetty Rd (Brighton)	Extend Right Turn lane into Jetty Rd	Medium
	Extend Left Turn lane into Brighton Rd	Medium
Brighton Rd / Seacombe Rd	Install 70 degree Channelised Left Turn from Seacombe Rd	High
Brighton Rd / Tassie St	Ban Right Turn into Tassie St by closing median and install pedestrian refuge	Low
Brighton Rd / Cudmore St / Elgar Rd	Prevent Through movements from minor approaches	Low

INTERSECTION / JUNCTION	TREATMENT	PRIORITY
Brighton Rd / Scholefield Rd / Ocean Bvd	Installation of traffic signals	Low

7.2 MID-BLOCK TREATMENTS

ROAD SECTION	TREATMENT	PRIORITY
Whole Corridor	Partially or fully indent bus stops where possible	High
Section 7 – Just south of Edwards Street	Upgrade pedestrian walkthrough with median cut out, kerb ramp and handrails.	Medium

8 CONCLUSION

This RMP has been prepared to address the operational and safety issues identified along the Brighton Road corridor.

The proposed treatments will be used as the basis for further discussion with the Holdfast Bay and Marion Councils before their implementation. The funding for the treatments contained in this RMP is subject to normal budgetary processes and priorities.

It is understood that the treatments in this plan will be implemented so that areas identified as being higher priority will be targeted first with the aim of reaching the long term functional outcomes of the corridor.

APPENDIX A – INTERSECTION CRASH DATA

Sect.	Intersection	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015	Total
1	ANZAC Highway	Head On		1	1					1
		Hit Fixed Object	4		2	1		1		4
		Hit Pedestrian		1		1				1
		Other		1		1				1
		Rear End	41	15	18	12	14	9	3	56
		Right Angle	1	1			1	1		2
		Right Turn	4	2	2	1	2	1		6
		Side Swipe	8	1	2	4		1	2	9
		Total	58	22	25	20	17	13	5	80
1	Augusta Street	Hit Fixed Object	2			1	1			2
		Rear End	7	4	3	3	2	3		11
		Right Angle	3	1	1	1	2			4
		Right Turn	19	1	14	6				20
		Roll Over		1	1					1
		Side Swipe	4		1	3				4
		Total	35	7	20	14	5	3	0	42
2	Jetty Road (Glenelg) / Maxwell Terrace	Hit Pedestrian	1					1		1
		Rear End	11	4	4	3	3	2	3	15
		Right Angle	4	2			3	3		6
		Right Turn	3	3	3	2		1		6
		Side Swipe	3	3		3	2		1	6
		Total	22	12	7	8	8	7	4	34
2	Newmans Lane	Side Swipe	1			1				1
		Total	1	0	0	1	0	0	0	1
2	High Street	Rear End	1	1		1			1	2
		Right Angle	1		1					1
		Right Turn	7	3	2	6	2			10
		Total	9	4	3	7	2	0	1	13
2	Rugless Terrace	Rear End	1	1		1		1		2
		Right Angle	1		1					1
		Side wipe	1				1			1
		Total	3	1	1	1	1	1	0	4
2	Tassie Street	Rear End	1	2		1	1	1		3
		Total	1	2	0	1	1	1	0	3
3	Diagonal Road / Pier Street	Right Angle		2	1				1	2
		Right Turn	6	1	2	1	3	1		7

Brighton Road - Road Management Plan

		Rear End	10	4	1	6	1	4	2	14
		Hit Fixed Object	2			1		1		2
		Side Swipe	2			1			1	2
		Roll Over		1			1			1
		Total	20	8	4	9	5	6	4	28
3	Broadway	Right Angle	6	2	1			5	2	8
		Rear End	2	2			1	1	2	4
		Total	8	4	1	0	1	6	4	12
3	Lapthorne Street	Hit Fixed Object	1					1		1
		Rear End	1						1	1
		Right Angle	1					1		1
		Total	3	0	0	0	0	2	1	3
3	Harris Street	Hit Pedestrian		1				1		1
		Right Angle		2			1		1	2
		Rear End	1			1				1
		Total	1	3	0	1	1	1	1	4
3	Bath Street	Hit Fixed Object	1		1					1
		Rear End	2						2	2
		Right Angle	4	1		2	3			5
		Total	7	1	1	2	3	0	2	8
3	Melton Street	Right Angle	1	1			2			2
		Rear End	2				2			2
		Total	3	1	0	0	4	0	0	4
3	Boundary Road	nil								0
		Total	0	0	0	0	0	0	0	0
3	Moore Street	Rear End	1			1				1
		Right Angle	1	1	1	1				2
		Total	2	1	1	2	0	0	0	3
3	Sullivan Street	Hit Fixed Object	1				1			1
		Rear End		1	1					1
		Total	1	1	1	0	1	0	0	2
3	Cudmore Street / Elgar Road	Hit Fixed Object	1				1			1
		Rear End	1				1			1
		Right Angle	1				1			1
		Side Swipe		1			1			1
		Total	3	1	0	0	4	0	0	4
3	Whyte Street	Hit Fixed Object		1					1	1
		Right Angle	3	1	1	1	2			4
		Rear End	6	3	2	3	1		3	9
		Side Swipe	1		1					1
		Total	10	5	4	4	3	0	4	15

Brighton Road - Road Management Plan

4	Oaklands Road	Hit Fixed Object	1				1			1
		Hit Parked Vehicle	1			1				1
		Rear End	11	5	3	5	4	1	3	16
		Right Angle	1		1					1
		Side Swipe	1				1			1
		Total	15	5	4	6	6	1	3	20
4	College Road	Right Angle	1					1		1
		Total	1	0	0	0	0	1	0	1
4	Byre Avenue	Nil								0
		Total	0	0	0	0	0	0	0	0
4	Eton Road	Right Turn	1			1				1
		Side Swipe	1		1					1
		Total	2	0	1	1	0	0	0	2
4	Paringa Avenue	Nil								0
		Total	0	0	0	0	0	0	0	0
4	Harrow Road / Wilton Avenue	Right Angle	2			1		1		2
		Right Turn		1		1				1
		Total	2	1	0	2	0	1	0	3
4	Seaforth Avenue	Rear End	1			1				1
		Total	1	0	0	1	0	0	0	1
4	Grantham Road	Side Swipe		1	1					1
		Total	0	1	1	0	0	0	0	1
4	Bowker Street	Hit Object on road	1			1				1
		Right Angle		1				1		1
		Total	1	1	0	1	0	1	0	2
4	Balmoral Avenue	Hit fixed Object	1	1		1		1		2
		Total	1	1	0	1	0	1	0	2
4	Ilfracombe Avenue	Right Angle	1	1		1		1		2
		Side Swipe	1				1			1
		Total	2	1	0	1	1	1	0	3
4	Quandong Street	Right Turn	1						1	1
		Total	1	0	0	0	0	0	1	1
4	Lynton Avenue	Rear End	1		1					1
		Total	1	0	1	0	0	0	0	1
4	Lynmouth Avenue	Head On		1	1					1
		Total	0	1	1	0	0	0	0	1
4	Somers Street	Rear End		1				1		1
		Right Turn	1				1			1
		Total	1	1	0	0	1	1	0	2
4	Francis Street	Right Angle	2	1		1		1	1	3
		Side Swipe	1		1					1

Brighton Road - Road Management Plan

		Total	3	1	1	1	0	1	1	4
4	Holder Road	Rear End	1	1		1		1		2
		Right Angle	1		1					1
		Total	2	1	1	1	0	1	0	3
4	Cecelia Street	Hit Pedestrian		1	1					1
		Total	0	1	1	0	0	0	0	1
4	Downing Street	Hit Parked Vehicle	1			1				1
		Rear End		2	1			1		2
		Right angle	4		2		1		1	4
		Side Swipe	1			1				1
		Total	6	2	3	2	1	1	1	8
4	Hulbert Street	Hit Parked Vehicle	2		1	1				2
		Rear End	1		1					1
		Right Angle	1			1				1
		Total	4	0	2	2	0	0	0	4
4	Dunrobin Road	Rear End	3	2	1	2	1	1		5
		Right Angle	2				1		1	2
		Right Turn	1			1				1
		Side Swipe	1					1		1
		Total	7	2	1	3	2	2	1	9
4	Wattle Avenue	Rear End	3		2	1				3
		Right Angle	4	2	1	1		3	1	6
		Right Turn	1			1				1
		Side Swipe		1	1					1
		Total	8	3	4	3	0	3	1	11
4	Crombie Street	Rear End	1			1				1
		Right Turn	1		1					1
		Total	2	0	1	1	0	0	0	2
5	The Crescent	Hit Fixed Object	1					1		1
		Right Turn		2	1		1			2
		Rear End	2	2		1	2		1	4
		Total	3	4	1	1	3	1	1	7
5	Addison Road	Rear End	2	2	1	2		1		4
		Side Swipe	1		1					1
		Total	3	2	2	2	0	1	0	5
5	Stopford Road	Hit Parked Vehicle		1		1				1
		Rear End	1				1			1
		Right Angle	2	1		2		1		3
		Right Turn	1			1				1
		Side Swipe	1				1			1
		Total	5	2	0	4	2	1	0	7

Brighton Road - Road Management Plan

5	Alfreda Street	Rear End		2	1				1	2
		Total	0	2	1	0	0	0	1	2
5	Preston Avenue	Right Angle	1				1			1
		Rear End	1	3	1			2	1	4
		Total	2	3	1	0	1	2	1	5
5	Hihet Avenue	Hit Pedestrian		2	2					2
		Rear End	3	4	1	3	1	1	1	7
		Right Angle	2	1			1	1	1	3
		Right Turn	2			1			1	2
		Total	7	7	3	4	2	2	3	14
5	Keelara Street	Hit Parked Vehicle	1				1			1
		Rear End		1					1	1
		Right Angle	1					1		1
		Total	2	1	0	0	1	1	1	3
6	Jetty Road (Brighton)	Rear End	4	8	2	1	1	4	4	12
		Right Turn	3	2	2	1	2			5
		Side Swipe	2			1			1	2
		Total	9	10	4	3	3	4	5	19
6	Hartley Road	Rear End	2	2			1	2	1	4
		Right Angle		1				1		1
		Total	2	3	0	0	1	3	1	5
6	Voules Street	Right Angle		1					1	1
		Total	0	1	0	0	0	0	1	1
7	Sturt Road/ Old Beach Rd	Hit Fixed Object	2		1	1				2
		Rear End	20	13	10	11	7	3	2	33
		Right Angle	1		1					1
		Right Turn	16	8	1	6	5	5	7	24
		Side Swipe	3			1	2			3
		Total	42	21	13	19	14	8	9	63
7	Strathmore Terrace	Other		1		1				1
		Right Angle	1	1	1			1		2
		Total	1	2	1	1	0	1	0	3
7	Marlborough Street	Side Swipe	1			1				1
		Total	1	0	0	1	0	0	0	1
7	Gregory Street	Rear End	1	1	1	1				2
		Total	1	1	1	1	0	0	0	2
7	Edwards Street	Hit Fixed Object		1				1		1
		Hit Parked Vehicle	1			1				1
		Rear End	1		1					1
		Right Angle	4	1		1	3	1		5
		Side Swipe	1	1				2		2

Brighton Road - Road Management Plan

		Total	7	3	1	2	3	4	0	10
7	Lewis Street	Hit Parked Vehicle	1		1					1
		Rear End	1				1			1
		Side Swipe	1		1					1
		Total	3	0	2	0	0	1	0	3
7	Oleander Street East	Right Angle		1	1					1
		Total	0	1	1	0	0	0	0	1
7	Yarmouth Street	Roll Over	1				1			1
		Right Angle	2		2					2
		Total	3	0	2	0	1	0	0	3
7	Shoreham Road / Broadway	Rear End	2		1	1				2
		Right Angle	6		1	2	1		2	6
		Total	8	0	2	3	1	0	2	8
7	Folkestone Road	Hit Fixed Object	1		1					1
		Right Angle	1	1	1			1		2
		Total	2	1	2	0	0	1	0	3
7	Mills Street	Hit Parked Vehicle	1						1	1
		Rear End	1	1	1		1			2
		Total	1	0	0	0	0	0	1	1
8	Seacombe Road	Head On	1					1		1
		Hit Fixed Object	7	1	2	2		2	2	8
		Rear End	13	6	5	7	3	2	2	19
		Right Angle	2	1				2	1	3
		Right Turn	10	2	1	2	4	2	3	12
		Side Swipe	1		1					1
		Total	34	10	9	11	7	9	8	44
8	Lamington Avenue	Rear End		1			1			1
		Total	0	1	0	0	1	0	0	1
8	Wheatland Street	Rear End	6	1	5	1			1	7
		Right Angle	15	2	8	5			4	17
		Right Turn	2	2		1	1	2		4
		Side Swipe	1			1				1
		Total	24	5	13	8	1	2	5	29
8	Maitland Terrace / Aboyne Avenue	Hit Fixed Object	1			1				1
		Right Angle	2			2				2
		Rear End		1	1					1
		Right Turn		1				1		1
		Total	3	2	1	3	0	1	0	5
8	Bothwell Avenue	Rear End	4			2	1	1		4
		Right Turn	1		1					1
		Total	5	0	1	2	1	1	0	5

Brighton Road - Road Management Plan

8	Pine Avenue	Right Angle	1	1		1			1	2
		Right Turn		1			1			1
		Total	1	2	0	1	1	0	1	3
8	Thomas Street	Rear End	3	1	1	2		1		4
		Right Angle		1	1					1
		Total	3	2	2	2	0	1	0	5
8	Barwell Avenue	Rear End	1		1					1
		Total	1	0	1	0	0	0	0	1
8	Scholefield Road / Ocean Boulevard	Hit Fixed Object	1			1				1
		Rear End	8	4	4	3	2	1	2	12
		Right Angle	1			1				1
		Total	10	4	4	5	2	1	2	14

APPENDIX B – MID-BLOCK CRASH DATA

Sect.	Mid-block Section	Crash Type	PDO \$3000+	Casualty	2011	2012	2013	2014	2015	Total
1	ANZAC Highway - Jetty Road (Glenelg)	Hit Fixed Object	2		1			1		2
		Rear End	13	11	5	4	7	4	4	24
		Right Angle	2	1	1		1	1		3
		Head On		1	1					1
		Hit Parked Vehicle		2			1	1		2
		Hit Pedestrian		3		1	1		1	3
		Roll Over		1			1			1
		Side Swipe	9		3	1	2	2	1	9
		Total	26	19	11	6	13	9	6	45
2	Jetty Road (Glenelg) - Diagonal Road	Hit Fixed Object	1					1		1
		Hit Parked Vehicle	2					1	1	2
		Rear End	19	4	4	5	6	2	6	23
		Right Angle	2			2				2
		Right Turn	7	1	4	2		2		8
		Side Swipe		1				1		1
		Total	31	6	8	9	6	7	7	37
3	Diagonal Road - Oaklands Road	Hit Fixed Object	2	1			3			3
		Hit Parked Vehicle	8	2	5		3	1	1	10
		Rear End	19	7	7	4	6	1	8	26
		Side Swipe	3	1	2			1	1	4
		Total	32	11	14	4	12	3	10	43
4	Oaklands Road - The Crescent	Hit Fixed Object	2	1	2		1			3
		Hit Parked Vehicle	8	5		5	2	6		13
		Other	1			1				1
		Hit Pedestrian		1				1		1
		Rear End	19	12	6	5	8	6	6	31
		Side Swipe	6	3		3	2	2	2	9
		Total	36	22	8	14	13	15	8	58
5	The Crescent - Jetty Road (Brighton)	Hit Fixed Object	1						1	1
		Hit Parked Vehicle	3			1	1		1	3
		Hit Animal	1		1					1
		Rear End	14	3	5	4	2	3	3	17
		Side Swipe	3			2		1		3
		Total	22	3	6	7	3	4	5	25
6	Jetty Road (Brighton) - Sturt Road	Hit Parked Vehicle	3	1	1	1	2			4

Brighton Road - Road Management Plan

		Hit Pedestrian		1		1				1
		Rear End	5	2		1	3	3		7
		Side Swipe	1						1	1
		Total	9	4	1	3	5	3	1	13
7	Sturt Road - Seacombe Road	Hit Fixed Object	5	1	1	2	2		1	6
		Hit Parked Vehicle	7	3	3	2	1	2	2	10
		Hit Pedestrian	1	1		1		1		2
		Rear End	9	7	4	5	4	2	1	16
		Right Angle	2	1	2	1				3
		Right Turn	1		1					1
		Side Swipe	7	1		3	2	3		8
		Total	32	14	11	14	9	8	4	46
8	Seacombe Road - Scholefield Road	Hit Fixed Object	4	2	2	1		2	1	6
		Hit Parked Vehicle	2	2	4					4
		Rear End	15	11	2	4	12	5	3	26
		Other	1						1	1
		Right Angle	1			1				1
		Side Swipe	2	1	1	2				3
		Total	25	16	9	8	12	7	5	41

APPENDIX C – SIDRA MODELLING RESULTS

MOVEMENT SUMMARY Brighton Rd / ANZAC Hwy AM Peak

Site: ts125am Count Date
24/03/2009 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

ANZAC HwyRN6212-Brighton RdRN6604-Tapleys Hill RdRN5833 24/03/09 * TS125AM *
I/S125 AM - TG735266 - Glenelg 4 ARM-1[E]2[S]3[W]4[N]5[]
Signals - Fixed Time Cycle Time = 130 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	sec		Vehicles	Distance		per veh	km/h	
			v/c			veh	m				
South: Brighton Road [S] RN6604											
1	L	43	4.7	1.122	310.3	LOS F	155.6	972.5	1.00	2.34	6.4
2	T	1727	4.1	1.126	302.0	LOS F	155.6	972.5	1.00	2.34	6.4
3	R	340	4.9	1.082	246.6	LOS F	49.3	310.4	1.00	1.61	7.8
Approach		2110	4.3	1.126	293.3	LOS F	155.6	972.5	1.00	2.22	6.6
East: ANZAC Highway [E] RN6212											
4	L	341	5.6	0.301	36.8	LOS D	10.7	67.6	0.73	0.77	30.1
5	T	348	3.3	0.604	56.3	LOS E	12.1	75.3	0.98	0.80	22.6
6	R	187	2.9	1.058	177.8	LOS F	21.9	135.5	1.00	1.35	10.3
Approach		876	4.1	1.058	74.6	LOS E	21.9	135.5	0.89	0.91	19.5
North: Tapleys Hill Rd [N]RN5833											
7	L	144	4.9	0.079	7.7	NA ⁹	NA ⁹	NA ⁹	NA ⁹	0.60	49.8
8	T	1064	7.7	0.696	34.0	LOS C	28.1	181.7	0.89	0.79	29.7
9	R	27	33.3	0.119	33.0	LOS C	1.3	10.2	0.84	0.70	32.0
Approach		1235	7.9	0.696	30.9	LOS C	28.1	181.7	0.78	0.77	31.2
West: ANZAC Highway [W] RN6212											
10	L	76	10.5	0.148	22.0	LOS C	3.2	21.5	0.52	0.69	37.7
11	T	636	2.8	1.077	229.1	LOS F	45.4	280.3	1.00	1.76	8.1
12	R	126	0.0	1.091	260.8	LOS F	19.3	115.9	1.00	1.52	7.4
Approach		838	3.1	1.091	215.1	LOS F	45.4	280.3	0.96	1.62	8.6
All Vehicles		5059	4.9	1.126	178.4	LOS F	155.6	972.5	0.92	1.54	10.1

MOVEMENT SUMMARY Brighton Rd / ANZAC Hwy PM Peak

Site: ts125pm Count Date
24/03/2009 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

ANZAC HwyRN6212-Brighton RdRN6604-Tapleys Hill RdRN5833 24/03/09 * TS125PM *
I/S125 PM - TG735266 - Glenelg 4 ARM-1[E]2[S]3[W]4[N]5[]
Signals - Fixed Time Cycle Time = 130 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	sec		Vehicles	Distance		per veh	km/h	
			v/c			veh	m				
South: Brighton Road [S] RN6604											
1	L	70	0.0	0.697	43.4	LOS D	28.5	174.8	0.90	0.90	28.5
2	T	998	2.4	0.698	35.3	LOS D	28.5	175.3	0.90	0.80	29.1
3	R	279	0.7	0.944	93.3	LOS F	23.3	140.8	1.00	1.11	16.9
Approach		1347	1.9	0.944	47.7	LOS D	28.5	175.3	0.92	0.87	25.3
East: ANZAC Highway [E] RN6212											
4	L	576	0.7	0.506	40.6	LOS D	17.9	108.2	0.80	0.81	28.6
5	T	426	1.6	0.729	59.0	LOS E	14.8	90.4	1.00	0.87	22.1
6	R	157	0.0	0.640	50.2	LOS D	9.8	58.8	1.00	0.81	25.3
Approach		1159	0.9	0.729	48.7	LOS D	17.9	108.2	0.90	0.83	25.4
North: Tapleys Hill Rd [N]RN5833											
7	L	82	0.0	0.044	7.6	NA ⁹	NA ⁹	NA ⁹	NA ⁹	0.60	49.8
8	T	1465	1.3	0.956	74.3	LOS E	61.7	374.8	1.00	1.19	19.1
9	R	39	25.6	0.143	26.1	LOS C	1.6	11.9	0.73	0.72	35.5
Approach		1586	1.8	0.956	69.7	LOS E	61.7	374.8	0.94	1.15	20.0

Brighton Road - Road Management Plan

West: ANZAC Highway [W] RN6212											
10	L	45	11.1	0.085	13.3	LOS B	1.2	8.3	0.34	0.66	44.3
11	T	477	1.5	0.801	62.1	LOS E	17.1	104.1	1.00	0.92	21.4
12	R	156	0.0	0.901	85.2	LOS F	13.0	77.8	1.00	1.02	18.0
Approach		678	1.8	0.901	64.2	LOS E	17.1	104.1	0.96	0.92	21.2
All Vehicles		4770	1.6	0.956	57.6	LOS E	61.7	374.8	0.93	0.96	22.7

**MOVEMENT SUMMARY
Brighton Rd / Jetty Rd (Glenelg) AM Peak**

**Site: ts312am Count Date
09/05/2006 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo**

* BEHAVES AS 3-ARM * Brighton RdRN6604-Jetty Rd-Maxwell 09/05/06 * TS312AM *
I/S312 AM - TG735262 - Glenelg 4 ARM-1[N]2[E]3[S]4[W]5[]
Signals - Fixed Time Cycle Time = 130 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	72	4.2	0.999 ³	69.7	LOS E	49.9	310.4	1.00	1.01	21.4
2	T	2011	3.6	1.010	106.0	LOS F	74.7	464.3	1.00	1.35	14.9
Approach		2083	3.6	1.010	104.8	LOS F	74.7	464.3	1.00	1.33	15.1
East: Maxwell/Dunbar Terrace[E]											
4	L	48	2.1	0.045	32.0	LOS C	1.4	8.3	0.74	0.71	31.9
Approach		48	2.1	0.045	32.0	LOS C	1.4	8.3	0.74	0.71	31.9
North: Brighton Road [N] RN6604											
7	L	7	0.0	0.760	40.5	LOS D	36.0	229.9	0.91	0.91	29.8
8	T	1333	6.5	0.784	32.1	LOS C	36.0	229.9	0.91	0.83	30.4
9	R	51	3.9	0.323	42.7	LOS D	2.9	17.8	0.99	0.73	27.6
Approach		1391	6.3	0.784	32.5	LOS C	36.0	229.9	0.91	0.82	30.3
West: Jetty Road [W]											
10	L	43	4.7	0.931	93.9	LOS F	10.1	66.5	1.00	1.08	16.8
12	R	65	13.8	0.927	94.0	LOS F	10.1	66.5	1.00	1.08	16.8
Approach		108	10.2	0.927	94.0	LOS F	10.1	66.5	1.00	1.08	16.8
All Vehicles		3630	4.8	1.010	75.8	LOS E	74.7	464.3	0.96	1.12	18.9

**MOVEMENT SUMMARY
Brighton Rd / Jetty Rd (Glenelg) PM Peak**

**Site: ts312pm Count Date
09/05/2006 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo**

* BEHAVES AS 3-ARM * Brighton RdRN6604-Jetty Rd-Maxwell 09/05/06 * TS312PM *
I/S312 PM - TG735262 - Glenelg 4 ARM-1[N]2[E]3[S]4[W]5[]
Signals - Fixed Time Cycle Time = 130 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	80	0.0	0.663	48.9	LOS D	24.2	147.7	0.91	0.91	26.6
2	T	1238	2.0	0.663	39.2	LOS D	24.2	147.7	0.91	0.81	27.6
Approach		1318	1.9	0.663	39.8	LOS D	24.2	147.7	0.91	0.81	27.5
East: Maxwell/Dunbar Terrace[E]											
4	L	58	0.0	0.054	31.2	LOS C	1.6	9.6	0.75	0.71	32.2
Approach		58	0.0	0.054	31.2	LOS C	1.6	9.6	0.75	0.71	32.2
North: Brighton Road [N] RN6604											
7	L	7	0.0	1.205	551.2	LOS F	269.4	1648.0	1.00	3.25	3.8
8	T	2147	2.0	1.267	545.4	LOS F	269.4	1648.0	1.00	3.32	3.7
9	R	50	0.0	0.250	36.8	LOS D	2.9	17.2	0.87	0.74	29.8
Approach		2204	1.9	1.267	533.8	LOS F	269.4	1648.0	1.00	3.26	3.8
West: Jetty Road [W]											
10	L	73	0.0	1.183	422.1	LOS F	36.5	218.8	1.00	1.92	4.7
12	R	107	0.0	1.184	422.0	LOS F	36.5	218.8	1.00	1.92	4.8
Approach		180	0.0	1.184	422.1	LOS F	36.5	218.8	1.00	1.92	4.8
All Vehicles		3760	1.8	1.267	347.6	LOS F	269.4	1648.0	0.96	2.30	5.6

MOVEMENT SUMMARY
Brighton Rd / Diagonal Rd / Pier St AM Peak

Site: ts104am Count Date
 26/02/2009 {Verify Phasing &
 Variable Parameters-Ban Ped.
 Movement Definitions fo

Brighton Road RN6604-Diagonal Road RN6608-Pier Street 26/02/09 * TS104AM *
 I/S104 AM - TG736256 - Glenelg East 4 ARM-1[N]2[SE]3[S]4[W]5[]
 Signals - Fixed Time Cycle Time = 130 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	27	3.7	1.163	345.2	LOS F	126.1	782.8	1.00	2.02	5.8
2	T	1360	3.5	1.159	350.3	LOS F	132.3	821.2	1.00	2.33	5.6
3	R	40	12.5	0.263	42.2	LOS D	2.4	16.5	0.92	0.74	28.0
Approach		1427	3.7	1.159	341.6	LOS F	132.3	821.2	1.00	2.28	5.7
South East: Diagonal Road [SE] RN6607											
21	L	13	0.0	0.920	67.6	LOS E	20.0	122.9	0.93	0.86	21.4
22	T	299	2.7	0.939	65.3	LOS E	20.0	122.9	0.93	0.85	21.4
23	R	1140	1.8	1.140	339.1	LOS F	103.4	631.2	1.00	1.94	5.8
Approach		1452	1.9	1.140	280.3	LOS F	103.4	631.2	0.98	1.71	6.9
North: Brighton Road [N] RN6604											
7	L	524	5.7	0.750	22.5	LOS C	17.8	112.9	0.66	0.79	37.2
8	T	914	8.0	0.794	46.2	LOS D	27.9	181.0	0.98	0.90	25.4
9	R	44	2.3	0.284	43.5	LOS D	2.7	16.3	0.98	0.73	27.4
Approach		1482	7.0	0.794	37.7	LOS D	27.9	181.0	0.87	0.86	28.6
West: Pier Street [W]											
10	L	51	3.9	1.000 ³	62.9	LOS E	7.1	43.6	0.99	0.78	22.2
11	T	276	2.2	1.140	292.3	LOS F	62.0	381.6	1.00	1.82	6.6
12	R	120	3.3	1.139	343.1	LOS F	62.0	381.6	1.00	2.03	5.8
Approach		447	2.7	1.140	279.8	LOS F	62.0	381.6	1.00	1.76	6.9
All Vehicles		4808	4.1	1.159	223.7	LOS F	132.3	821.2	0.95	1.62	8.3

MOVEMENT SUMMARY
Brighton Rd / Diagonal Rd / Pier St PM Peak

Site: ts104pm Count Date
 26/02/2009 {Verify Phasing &
 Variable Parameters-Ban Ped.
 Movement Definitions fo

Brighton Road RN6604-Diagonal Road RN6608-Pier Street 26/02/09 * TS104PM *
 I/S104 PM - TG736256 - Glenelg East 4 ARM-1[N]2[SE]3[S]4[W]5[]
 Signals - Fixed Time Cycle Time = 130 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	54	0.0	0.676	45.6	LOS D	27.7	171.3	0.87	0.93	27.7
2	T	1012	3.3	0.675	35.1	LOS D	27.7	171.3	0.87	0.79	29.2
3	R	73	1.4	0.487	43.4	LOS D	3.6	22.1	1.00	0.75	27.5
Approach		1139	3.0	0.675	36.1	LOS D	27.7	171.3	0.88	0.79	29.0
South East: Diagonal Road [SE] RN6607											
21	L	15	0.0	0.855	98.5	LOS F	19.7	120.3	1.00	0.96	16.5
22	T	217	1.8	0.855	96.2	LOS F	19.7	120.3	1.00	0.96	16.4
23	R	546	1.1	1.030	166.3	LOS F	31.3	190.0	1.00	1.44	10.7
Approach		778	1.3	1.030	145.5	LOS F	31.3	190.0	1.00	1.30	12.0
North: Brighton Road [N] RN6604											
7	L	688	1.5	1.000 ³	32.6	LOS C	27.3	166.2	1.00	0.90	31.6
8	T	1610	1.1	1.020	135.2	LOS F	92.3	559.6	1.00	1.53	12.4
9	R	62	1.6	0.282	32.5	LOS C	3.1	19.0	0.84	0.75	31.8
Approach		2360	1.2	1.020	102.6	LOS F	92.3	559.6	1.00	1.33	15.4
West: Pier Street [W]											
10	L	34	5.9	1.004	61.2	LOS E	7.1	43.4	1.00	0.78	22.7
11	T	324	0.6	1.053	168.1	LOS F	49.6	301.1	1.00	1.41	10.7

Brighton Road - Road Management Plan

12	R	131	2.3	1.053	199.9	LOS F	49.6	301.1	1.00	1.58	9.3
Approach		489	1.4	1.053	169.2	LOS F	49.6	301.1	1.00	1.41	10.6
All Vehicles		4766	1.7	1.053	100.5	LOS F	92.3	559.6	0.97	1.20	15.7

MOVEMENT SUMMARY
Brighton Rd / Whyte St / Oaklands Rd AM
Peak

Site: ts105am Count Date
08/03/2007 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

Brighton Road RN6604 - Oaklands Road RN6464 08/03/07 * TS105AM *
 I/S105 AM - TG737243 - Somerton Park 4 ARM-1[N]2[E]3[S]4[W]5[]
 Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	81	2.5	0.726	27.1	LOS C	32.2	198.9	0.80	0.94	36.2
2	T	1516	3.0	0.724	18.8	LOS B	32.2	198.9	0.80	0.73	37.5
3	R	241	2.9	0.558	26.6	LOS C	10.4	64.3	0.71	0.81	34.7
Approach		1838	3.0	0.724	20.2	LOS C	32.2	198.9	0.79	0.75	37.0
East: Oaklands Road [E] RN6464											
4	L	383	2.3	0.405	11.9	LOS B	9.4	57.4	0.46	0.74	45.3
5	T	152	1.3	0.720	49.3	LOS D	12.7	77.3	1.00	0.87	24.1
6	R	176	2.3	0.720	61.1	LOS E	12.7	77.3	1.00	0.87	22.7
Approach		711	2.1	0.720	32.0	LOS C	12.7	77.3	0.71	0.80	31.7
North: Brighton Road [N] RN6604											
7	L	48	4.2	0.417	29.7	LOS C	18.2	115.7	0.61	0.97	34.3
8	T	857	6.4	0.418	17.8	LOS B	18.2	115.7	0.61	0.55	38.6
9	R	42	11.9	0.511	50.4	LOS D	3.2	21.2	0.89	0.81	25.3
Approach		947	6.5	0.510	19.9	LOS B	18.2	115.7	0.62	0.59	37.5
West: Whyte Road [W]											
10	L	20	20.0	0.588	49.3	LOS D	11.5	71.0	0.92	0.85	26.8
11	T	210	1.0	0.586	41.2	LOS D	11.5	71.0	0.93	0.77	26.8
12	R	119	4.2	0.586	56.4	LOS E	9.0	55.9	0.98	0.81	23.7
Approach		349	3.2	0.586	46.8	LOS D	11.5	71.0	0.94	0.79	25.6
All Vehicles		3845	3.7	0.724	24.7	LOS C	32.2	198.9	0.75	0.72	34.7

MOVEMENT SUMMARY
Brighton Rd / Whyte St / Oaklands Rd PM
Peak

Site: ts105pm Count Date
08/03/2007 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

Brighton Road RN6604 - Oaklands Road RN6464 08/03/07 * TS105PM *
 I/S105 PM - TG737243 - Somerton Park 4 ARM-1[N]2[E]3[S]4[W]5[]
 Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	48	2.1	0.463	23.8	LOS C	17.3	109.2	0.64	0.94	37.8
2	T	942	5.7	0.463	15.6	LOS B	17.3	109.2	0.64	0.57	40.1
3	R	253	4.3	0.794	48.4	LOS D	15.4	96.4	0.94	0.95	25.8
Approach		1243	5.3	0.794	22.6	LOS C	17.3	109.2	0.70	0.66	36.0
East: Oaklands Road [E] RN6464											
4	L	403	2.5	0.495	23.9	LOS C	15.5	95.5	0.77	0.89	36.5
5	T	164	3.0	0.717	48.3	LOS D	13.3	81.7	1.00	0.87	24.4
6	R	194	1.5	0.717	59.9	LOS E	13.3	81.7	1.00	0.87	22.9
Approach		761	2.4	0.717	38.3	LOS D	15.5	95.5	0.88	0.88	29.1
North: Brighton Road [N] RN6604											
7	L	92	7.6	0.657	32.9	LOS C	27.4	169.6	0.76	0.97	33.0
8	T	1340	2.7	0.659	21.2	LOS C	27.4	169.6	0.76	0.70	36.1
9	R	23	4.3	0.115	30.5	LOS C	1.2	7.6	0.65	0.73	32.7
Approach		1455	3.0	0.659	22.1	LOS C	27.4	169.6	0.76	0.72	35.8
West: Whyte Road [W]											
10	L	41	4.9	0.504	47.9	LOS D	10.0	62.1	0.90	0.83	26.8
11	T	138	2.9	0.504	39.6	LOS D	10.0	62.1	0.90	0.74	27.2

Brighton Road - Road Management Plan

12	R	175	0.0	0.797	63.6	LOS E	11.7	70.3	1.00	0.92	21.9
Approach		354	1.7	0.797	52.4	LOS D	11.7	70.3	0.95	0.84	24.2
All Vehicles		3813	3.5	0.797	28.3	LOS C	27.4	169.6	0.78	0.74	32.9

MOVEMENT SUMMARY
Brighton Rd / The Crescent AM Peak

Site: ts445am Count Date
06/07/2005 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

* BEHAVES AS 3-ARM * Brighton Rd RN6604-Addison Rd 06/07/05 * TS445AM *
 I/S445 AM - TG738226 - Hove / Brighton 4 ARM-1[N]2[E]3[S]4[W]5[]
 Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue	Prop. Queued	Effective Stop Rate	Average Speed		
		veh/h	%	v/c	sec	Vehicles	Distance	per veh	km/h		
						veh	m				
South: Brighton Road [S] RN6604											
1	L	15	6.7	0.974	90.9	LOS F	62.0	384.7	1.00	1.38	17.8
2	T	1591	3.4	0.973	81.7	LOS F	69.8	433.2	1.00	1.33	17.9
Approach		1606	3.4	0.973	81.8	LOS F	69.8	433.2	1.00	1.33	17.9
East: Addison Road [E]											
4	L	6	0.0	0.009	31.9	LOS C	0.3	2.1	0.65	0.64	31.9
Approach		6	0.0	0.009	31.9	LOS C	0.3	2.1	0.65	0.64	31.9
North: Brighton Road [N] RN6604											
7	L	37	0.0	0.952	84.5	LOS F	43.2	278.4	1.00	1.23	18.6
8	T	1043	8.0	0.952	76.5	LOS E	43.2	278.4	1.00	1.24	18.7
9	R	89	1.1	0.708	74.6	LOS E	7.2	43.6	1.00	0.92	19.6
Approach		1169	7.2	0.952	76.6	LOS E	43.2	278.4	1.00	1.21	18.8
West: The Crescent [W]											
10	L	140	0.7	0.170	29.6	LOS C	6.4	38.9	0.64	0.77	33.0
Approach		140	0.7	0.170	29.6	LOS C	6.4	38.9	0.64	0.77	33.0
All Vehicles		2921	4.8	0.973	77.1	LOS E	69.8	433.2	0.98	1.26	18.7

MOVEMENT SUMMARY
Brighton Rd / The Crescent PM Peak

Site: ts445pm Count Date
06/07/2005 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

* BEHAVES AS 3-ARM * Brighton Rd RN6604-Addison Rd 06/07/05 * TS445PM *
 I/S445 PM - TG738226 - Hove / Brighton 4 ARM-1[N]2[E]3[S]4[W]5[]
 Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue	Prop. Queued	Effective Stop Rate	Average Speed		
		veh/h	%	v/c	sec	Vehicles	Distance	per veh	km/h		
						veh	m				
South: Brighton Road [S] RN6604											
1	L	4	0.0	0.724	41.7	LOS D	25.7	157.2	0.90	1.05	29.4
2	T	1139	1.8	0.727	32.7	LOS C	28.5	174.4	0.90	0.84	29.9
Approach		1143	1.8	0.727	32.7	LOS C	28.5	174.4	0.90	0.84	29.9
East: Addison Road [E]											
4	L	18	0.0	0.040	44.6	LOS D	1.2	7.4	0.79	0.70	26.9
Approach		18	0.0	0.040	44.6	LOS D	1.2	7.4	0.79	0.70	26.9
North: Brighton Road [N] RN6604											
7	L	44	0.0	1.026	141.7	LOS F	94.6	572.3	1.00	1.59	12.5
8	T	1658	0.9	1.022	133.7	LOS F	94.6	572.3	1.00	1.60	12.6
9	R	93	0.0	0.426	51.1	LOS D	6.8	40.7	0.97	0.82	24.9
Approach		1795	0.8	1.022	129.6	LOS F	94.6	572.3	1.00	1.56	12.9
West: The Crescent [W]											
10	L	56	0.0	0.064	26.7	LOS C	2.6	15.7	0.58	0.73	34.6
Approach		56	0.0	0.064	26.7	LOS C	2.6	15.7	0.58	0.73	34.6
All Vehicles		3012	1.2	1.022	90.4	LOS F	94.6	572.3	0.95	1.26	16.8

MOVEMENT SUMMARY
Brighton Rd / Jetty Rd (Brighton) AM Peak

Site: ts120am Count Date
06/05/2008 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

* 3-ARM * Brighton Road RN6604 - Jetty Road RN65800 06/05/08 * TS120AM *
 I/S120 AM - TG735262 - Glenelg 3 ARM-1[N]2[S]3[W]4[]5[#E]
 Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	% v/c	sec		veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	132	4.5	0.718	23.1	LOS C	33.1	206.6	0.74	0.94	38.5
2	T	1627	4.0	0.719	14.8	LOS B	33.1	206.6	0.74	0.68	40.4
Approach		1759	4.0	0.719	15.4	LOS B	33.1	206.6	0.74	0.70	40.3
North: Brighton Road [N] RN6604											
8	T	1060	6.5	0.376	5.6	LOS A	12.3	78.5	0.39	0.35	50.4
9	R	75	8.0	0.360	23.3	LOS C	2.9	18.9	0.76	0.77	36.8
Approach		1135	6.6	0.376	6.7	LOS A	12.3	78.5	0.42	0.38	49.2
West: Jetty Road [W]											
10	L	52	9.6	0.443	41.6	LOS D	3.1	20.3	0.79	0.73	28.1
12	R	345	2.0	0.696	56.7	LOS E	12.3	75.5	0.98	0.85	23.5
Approach		397	3.0	0.696	54.7	LOS D	12.3	75.5	0.96	0.83	24.0
All Vehicles		3291	4.8	0.719	17.1	LOS B	33.1	206.6	0.65	0.61	39.5

MOVEMENT SUMMARY
Brighton Rd / Jetty Rd (Brighton) PM Peak

Site: ts120pm Count Date
06/05/2008 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

* 3-ARM * Brighton Road RN6604 - Jetty Road RN65800 06/05/08 * TS120PM *
 I/S120 PM - TG735262 - Glenelg 3 ARM-1[N]2[S]3[W]4[]5[#E]
 Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	% v/c	sec		veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	86	2.3	0.556	25.0	LOS C	22.4	137.2	0.70	0.93	37.1
2	T	1135	1.9	0.556	16.8	LOS B	22.4	137.2	0.69	0.63	39.1
Approach		1221	1.9	0.556	17.3	LOS B	22.4	137.2	0.69	0.65	39.0
North: Brighton Road [N] RN6604											
8	T	1794	0.9	0.681	12.0	LOS B	30.9	187.1	0.67	0.62	43.0
9	R	56	3.6	0.215	19.8	LOS B	1.7	10.7	0.65	0.73	39.0
Approach		1850	1.0	0.681	12.3	LOS B	30.9	187.1	0.67	0.62	42.9
West: Jetty Road [W]											
10	L	58	5.2	0.428	35.1	LOS D	3.1	19.5	0.72	0.73	30.6
12	R	432	1.2	0.665	48.8	LOS D	15.2	92.5	0.93	0.83	25.6
Approach		490	1.6	0.665	47.2	LOS D	15.2	92.5	0.91	0.82	26.1
All Vehicles		3561	1.4	0.681	18.8	LOS B	30.9	187.1	0.71	0.66	38.2

**MOVEMENT SUMMARY
Brighton Rd / Sturt Rd AM Peak**

**Site: ts121am Count Date
27/08/2008 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo**

* Behaves as 3-ARM * Brighton Rd RN6604-Sturt Rd RN6610 27/08/08 * TS121AM *
I/S121 AM - TG739218 - Brighton 4 ARM-1[N]2[E]3[S]4[W]5[]
Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	23	4.3	0.699	21.8	LOS C	29.3	184.0	0.70	0.97	39.7
2	T	1666	4.5	0.702	13.4	LOS B	29.4	184.2	0.70	0.65	41.7
3	R	276	3.3	0.775	44.5	LOS D	12.3	76.1	1.00	0.96	27.0
Approach		1965	4.3	0.776	17.9	LOS B	29.4	184.2	0.75	0.70	38.7
East: Sturt Road [E] RN6610											
4	L	156	5.8	0.169	15.9	LOS B	4.7	29.7	0.47	0.71	42.0
5	T	60	0.0	0.505	47.1	LOS D	9.1	55.5	0.96	0.78	24.4
6	R	208	3.8	0.505	55.1	LOS E	9.1	55.5	0.96	0.80	24.0
Approach		424	4.0	0.505	39.5	LOS D	9.1	55.5	0.78	0.76	28.7
North: Brighton Road [N] RN6604											
7	L	203	3.0	0.766	36.0	LOS D	28.5	180.6	0.91	0.90	31.3
8	T	1044	7.0	0.765	27.7	LOS C	28.7	184.1	0.91	0.82	32.2
Approach		1247	6.3	0.765	29.0	LOS C	28.7	184.1	0.91	0.83	32.0
West: Old Beach Road[W](Cycles)											
10	L	1	0.0	0.031	63.3	LOS E	0.3	1.9	0.97	0.63	22.1
11	T	1	0.0	0.031	55.1	LOS E	0.3	1.9	0.97	0.61	22.3
12	R	1	0.0	0.031	63.3	LOS E	0.3	1.9	0.97	0.63	22.2
Approach		3	0.0	0.031	60.6	LOS E	0.3	1.9	0.97	0.62	22.2
All Vehicles		3639	5.0	0.776	24.3	LOS C	29.4	184.2	0.80	0.75	34.8

**MOVEMENT SUMMARY
Brighton Rd / Sturt Rd PM Peak**

**Site: ts121pm Count Date
27/08/2008 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo**

* Behaves as 3-ARM * Brighton Rd RN6604-Sturt Rd RN6610 27/08/08 * TS121PM *
I/S121 PM - TG739218 - Brighton 4 ARM-1[N]2[E]3[S]4[W]5[]
Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
1	L	9	0.0	0.366	13.4	LOS B	11.3	69.4	0.38	1.01	45.3
2	T	1033	2.3	0.370	5.2	LOS A	11.3	69.4	0.38	0.34	50.9
3	R	187	2.1	0.892	69.6	LOS E	11.9	72.7	1.00	1.10	20.6
Approach		1229	2.3	0.892	15.0	LOS B	11.9	72.7	0.47	0.46	41.5
East: Sturt Road [E] RN6610											
4	L	368	1.4	0.222	8.0	LOS A	2.1	12.8	0.13	0.63	49.0
5	T	43	0.0	0.570	47.7	LOS D	10.1	64.0	0.98	0.79	24.1
6	R	263	1.5	0.571	55.6	LOS E	10.1	64.0	0.97	0.80	23.9
Approach		674	1.3	0.571	29.1	LOS C	10.1	64.0	0.51	0.71	33.3
North: Brighton Road [N] RN6604											
7	L	223	0.4	0.891	35.9	LOS D	54.6	330.4	0.93	1.00	31.5
8	T	1868	1.0	0.891	27.6	LOS C	55.0	333.0	0.93	0.93	32.2
Approach		2091	0.9	0.891	28.5	LOS C	55.0	333.0	0.93	0.94	32.2
All Vehicles		3994	1.4	0.892	24.5	LOS C	55.0	333.0	0.72	0.75	34.8

MOVEMENT SUMMARY Brighton Rd / Seacombe Rd AM Peak

Site: ts122am Count Date
22/11/2007 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

* 3-ARM * Brighton Road RN6604 - Seacombe Road RN6613 22/11/07 * TS122AM *
I/S122 AM - TG740206 - South Brighton 3 ARM-1[N]2[E]3[S]4[]5[#W]
Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
2	T	1879	3.5	0.670	7.5	LOS A	25.8	160.3	0.55	0.52	47.6
3	R	451	3.3	0.700	21.3	LOS C	13.9	86.2	0.89	0.86	38.0
Approach		2330	3.5	0.700	10.2	LOS B	25.8	160.3	0.62	0.58	45.4
East: Seacombe Road [E] RN6613											
4	L	260	7.3	0.145	7.8	NA ⁹	NA ⁹	NA ⁹	NA ⁹	0.60	49.8
6	R	262	3.1	0.606	55.6	LOS E	10.3	64.0	0.97	0.80	23.8
Approach		522	5.2	0.606	31.8	LOS C	10.3	64.0	0.48	0.70	32.2
North: Brighton Road [N] RN6604											
7	L	84	7.1	0.089	9.3	LOS A	1.0	6.4	0.24	0.65	48.0
8	T	941	7.8	0.691	31.4	LOS C	22.1	143.1	0.91	0.80	30.8
Approach		1025	7.7	0.691	29.6	LOS C	22.1	143.1	0.85	0.79	31.7
All Vehicles		3877	4.8	0.700	18.2	LOS B	25.8	160.3	0.66	0.65	38.8

MOVEMENT SUMMARY Brighton Rd / Seacombe Rd PM Peak

Site: ts122pm Count Date
22/11/2007 {Verify Phasing &
Variable Parameters-Ban Ped.
Movement Definitions fo

* 3-ARM * Brighton Road RN6604 - Seacombe Road RN6613 22/11/07 * TS122PM *
I/S122 PM - TG740206 - South Brighton 3 ARM-1[N]2[E]3[S]4[]5[#W]
Signals - Fixed Time Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m		per veh	km/h	
South: Brighton Road [S] RN6604											
2	T	1130	2.1	0.400	5.4	LOS A	12.4	76.1	0.39	0.35	50.5
3	R	321	0.8	1.000 ³	93.2	LOS F	22.4	135.3	1.00	1.21	16.9
Approach		1451	1.8	1.000	24.8	LOS C	22.4	135.3	0.53	0.54	35.1
East: Seacombe Road [E] RN6613											
4	L	525	1.7	0.282	7.7	NA ⁹	NA ⁹	NA ⁹	NA ⁹	0.60	49.7
6	R	129	1.6	0.294	53.0	LOS D	5.4	33.1	0.92	0.76	24.5
Approach		654	1.7	0.294	16.6	LOS B	5.4	33.1	0.18	0.63	41.4
North: Brighton Road [N] RN6604											
7	L	177	0.0	0.189	10.3	LOS B	3.1	18.5	0.28	0.66	46.7
8	T	1990	0.9	0.955	58.3	LOS E	73.2	443.0	1.00	1.19	22.2
Approach		2167	0.8	0.955	54.4	LOS D	73.2	443.0	0.94	1.15	23.2
All Vehicles		4272	1.3	1.000	38.5	LOS D	73.2	443.0	0.68	0.86	28.4

APPENDIX D – SUMMARY OF COUNCIL AND COMMUNITY FEEDBACK

Comments received from the City of Marion Council, elected members and members of the community.

No.	Location / Issue	Comment	DPTI Response
1	Brighton Road / Dunrobin Road	Council request this junction to be assessed as part of the RMP.	This location has a low crash history. A traffic management scheme was implemented in 2004 to ban right turns into Dunrobin Road and Wattle Ave during peak hours. There are no short to medium term plans for this junction at this time, however DPTI will continue to monitor the location.
2	PAC near Barwell Avenue	The crossing is only mentioned briefly in the RMP. Concern with red light running at the PAC due to northbound traffic travelling downhill. A pedestrian footbridge has been suggested or further works at the Scholefield Road intersection.	<p>The line marking at this pedestrian activated crossing was re-marked in early 2013 and Australian Standard warning signs are installed. There are no plans for a red light camera at this location. Motorists running red lights are a matter to be discussed with SAPOL.</p> <p>A footbridge is not supported by the department due to the large cost involved. This is considered a major infrastructure upgrade and is considered outside the scope of the RMP.</p> <p>With regard to further works at the Scholefield Road intersection, the RMP has been updated and recommends an extension of the right turn lane from Brighton Road into Scholefield Road.</p>
3	Clearways (Public)	Request for Clearways to operate twice a day (AM & PM Peak) along Brighton Road	The RMP proposes the installation of bike lanes to operate between 7-10 am and 3-7 pm on both sides of the road, effectively creating a clearway during these peak periods.
4	Brighton Road / Scholefield Road (Council & Public)	Request for signals at this junction and extension to right turn lanes	<p>The installation of traffic signals at the Scholefield Road intersection has been added to the department's Traffic Signal Priority List, however they are a low priority at this time. DPTI will continue to monitor this location.</p> <p>Concerns regarding the length of right turn lane are noted and have been added to the RMP.</p>

Brighton Road - Road Management Plan

5	Cyclists Route	Resident - There is no evidence of cyclists numbers or times, and there are much safer alternative routes	<p>Cycling has health, social and sustainability benefits. Increasing the use of cycling as 'active transport' makes finding time for exercise much easier for those who choose to ride a bicycle instead of driving a car as well as contributing to a decrease in greenhouse gas emissions.</p> <p>Brighton Road is a strategic cycling route for its direct connectivity to regional activity centres and so peak time bike lanes have been recommended. There are also secondary cycling routes that cross Brighton Road, providing cyclists an opportunity to take more direct routes and hence encouraging cycling.</p>
6	Residential Developments and Lonsdale Link Road	RMP does not mention residential development that has occurred on the western side of Brighton Road as well as the impacts on traffic due to the Lonsdale Link Road.	<p>Traffic modelling has been completed for Brighton Road taking into account future growth volumes. Traffic modelling at key intersections has also been completed and as a result, short to medium term recommendations have been suggested.</p> <p>The proposed north-south corridor has the aim of reducing urban congestion on the metropolitan Adelaide road network and improving accessibility for freight vehicles. It is expected that Brighton Road will benefit from the development of this corridor in terms of a reduction in traffic and freight volumes.</p>
7	Residential Developments and Lonsdale Link Road	There is a suggestion for more signalised intersections to access Lonsdale/Brighton Road from the new residential developments.	DPTI will continue to monitor the safety and efficiency of intersections along Brighton Road. Traffic signals are installed at locations which meet the warrants outlined the Austroads Guidelines.

Comments Received from the City of Holdfast Bay Council

No.	Location / Issue	Comment	DPTI Response
8	Railway Crossing at Hove	Council have expressed disappointment that the major traffic issue at the Hove level crossing has not been addressed and that there is no information about policy directions that may be considered.	The RMP has not identified any short to medium term recommendations for the Hove level crossing. DPTI consider longer term plans such as grade separation to be a low priority based on other improvement needs across the state transport network, as identified in the Strategic Infrastructure Plan.
9	30-Year Plan for Greater Adelaide / Southern Growth Areas	No reference is made to the 30-Year Plan and impacts caused by Southern growth areas. Does MASTEM incorporate wider strategic goals for growth?	<p>The 30 year plan has broad directives and objectives and proposes to be a key input to major infrastructure and government investment decisions. The role and function of the 30 year plan is to integrate land use priorities with Adelaide's existing transport networks and long term transport and infrastructure plans. In addition the plans function is to drive better infrastructure planning by describing the type of infrastructure that will be needed over the long term.</p> <p>As part of the RMP, major road improvements that would significant change the operation of the road corridor are highlighted where known, however extensive investigations of any major improvements are outside the scope of this document.</p> <p>The RMP document and its recommendations support the departments Road Safety Strategy, which seeks to apply a road classification and functional hierarchy that reflects the 30 year plan for Greater Adelaide and supports safe management of the network.</p> <p>The 30 year plan identifies the need for community engagement and partnerships with local government as a way of assisting execution of the plan (principle 14). Consultation has been completed as part of the RMP and will continue through implementation of the recommendations.</p> <p>The proposed north-south corridor has the aim of reducing urban</p>

Brighton Road - Road Management Plan

			<p>congestion on the metropolitan Adelaide road network and improving accessibility for freight vehicles. It is expected that Brighton Road will benefit from the development of this corridor in terms of a reduction in traffic and freight volumes.</p> <p>DPTI's most recent strategic modelling which takes account of the effects of projects such as the Southern Expressway duplication is consistent with earlier modelling underpinning the Road Management Plan.</p>
10	No acknowledgment of Council concept from August 2011	RMP does not acknowledge Council's concept of Brighton Road as public open space	<p>The concept presented in the workshop in 2011 suggested Brighton Road should be regarded as a public open space and as such Council / residents were keen for trees to be planted down the central medians of Brighton Road. Council also commented that the amenity and attractiveness of Brighton Road should be a high priority.</p> <p>DPTI advise that the issue of tree plantings in central medians and the amenity and attractiveness of Brighton Road are issues outside the scope of the RMP. The RMP's purpose is to improve traffic efficiency and safety along Brighton Road.</p>
12	Functional Outcomes Table	Too generic; difficult to make sense of and contradictory (pg 15, speed limits)	The Functional Outcomes Table has been updated in the RMP.
13	Speed Limit Changes	Suggest a speed limit review around Brighton Shopping Centre	Brighton Road is a strategic arterial road recognised as a major traffic route as identified in the Functional Road Hierarchy. Road lanes are separated by a solid median to reduce conflicts and the department has no plans at this stage to alter the speed limit.
14	Bike Lane Operating Hours	Council seek clarification that bike lanes are single peak operation, not dual peak. In addition, Council recommend 6-9 am and 3-6 pm operating times.	DPTI propose bike lanes operating between 7-10 am and 3-7 pm in both directions.
15	PAC at Hove Shopping Centre	Suggest making reference to the proposal in Section 6.3.4 of the RMP and identifying project as HIGH priority	This project has been funded for the 13/14 financial year. The RMP has been updated.

Brighton Road - Road Management Plan

16	Council Projects – Aurecon Report	Council request that DPTI consider recommendations made in Aurecon’s Traffic Report (among others: signalling intersections of Brighton/Keelara and Brighton/Edwards) for further discussion	Traffic signals are not warranted at this stage at the intersections of Brighton Road and Keelara Street or Brighton Road and Edwards Street. DPTI will continue to monitor these locations and should circumstances change DPTI will assess the locations for traffic signals against the relevant guidelines.
17	Council Projects – Urban Design Framework	Council request clarification from DPTI on what type of landscaping is allowable (i.e. not determined to be a roadside hazard)	Council should refer to the Operational Instruction 19.8 - 'Trees in Medians in Urban Environments' which has been previously provided to council.
18	Road lighting	Council recommend DPTI upgrade lighting along Brighton Road to appropriate standard	This section of Brighton road is included on the departments Road Lighting Planning List which identifies Brighton Road as a medium to low priority at this time.
19	Funding	Inconsistency regarding funding status of projects between RMP and other correspondence with Council (bike lanes funded yet DPTI say proposals are not funded and PAC)	The PAC has been funded for the 13/14 financial year. The RMP has been updated. DPTI are proposing bike lanes be installed on Brighton Road between 7-10 am and 3-7 pm in both directions.
20	Brighton Road / Diagonal Road / Pier Street	Council not in favour of any changes to Pier Street as shown in RMP as these will require tree removals. Council support extension of Right Turn lane on Brighton Road but recommend changing it to a Low Priority	It should be noted that these modification are preliminary concepts, further consultation will be undertaken should DPTI progress these concepts. The RMP has been updated and DPTI have amended the priority for extending the right turn lane to low.
21	Brighton Road / Jetty Road (Brighton)	Council propose retaining Right Turn lane on Brighton Road at its existing length due to queuing caused by level crossing operation on Jetty Road	The right turn lane from Brighton Road into Jetty Road will be slightly extended, no reduction or removal of turn movement is proposed.
22	Brighton Road / Augusta Street	Council not in favour of Option 2 as it impacts on road width for bicycle lanes along this section	This project was completed in 2012. Bike lanes are not proposed along this section of Brighton Road. The RMP proposed bike lanes be install along Brighton Road between Jetty Road (Glenelg) and Clubhouse Road.

Brighton Road - Road Management Plan

23	Brighton Road / Tassie Street	Council propose that consultation for bus stop relocation is conducted by PTSD	<p>The RMP has recommended infilling the median and banning the right turn into Tassie Street while providing a pedestrian refuge and ultimately indenting the bus stops. These alterations would provide for a more formalised crossing environment for pedestrians.</p> <p>PTS have been consulted and are currently investigating the relocation of these bus stops taking into account driveway locations and footpath widths.</p>
24	Brighton Road / Cudmore Street / Elgar Road	Council do not support banning of east-west cross movement due to proximity of school and PAC.	<p>From a Safe Systems Approach, the proposed treatment reduces conflict points. Updated crash statistics for the period from 2008 to part 2013 show a total of 6 crashes, 3 were right angle type, and 1 resulted in a causality, caused by drivers disobeying the stop signs.</p> <p>This recommendation is a low priority at this time.</p>
25	Brighton Road / Keelara Street	Council would like to retain right turn from Brighton Road into Keelara Street for access to local shops	<p>For Keelara Street, updated crash statistics show for the period between 2008 to part 2013 a total of 9 crashes occurred with 4 resulting in causality. Two of these were rear end type crashes and there was 1 right turn crash along with 1 hit pedestrian crash.</p> <p>At Highet Ave for same period there were 10 crashes. Five have resulted in causalities.</p> <p>There are a number of conflict points and possible confusion from this staggered- T arrangement. Motorists can use Preston Ave which has a right turn lane as a minor detour and then Torr Ave to get to Keelara Street.</p> <p>This recommendation is currently a low priority.</p>

Comments Received from the Community

No.	Location / Issue	Comment	DPTI Response
26	Section 1	<p>Brighton Rd / Schofield Rd: As a local resident who uses this crossing with my school aged children I have concern over the crossing and proposed installation of lights at Scholefield Rd. Ideally a pedestrian overpass would reduce risk of school children or other pedestrians being injured or killed. The lights are slow to change and this encourages children and other users to run across when a gap in the traffic occurs. On occasion I have seen vehicles run a red light and I am always very cautious and ensure the traffic stops before children cross. many times I think vehicles, especially large trucks are not going to stop.</p>	Please refer to previous comments(2 and 4)
27	Section 1	<p>We are very much opposed to the projected changes to the intersection of Brighton Rd with Augusta St, Maxwell Tce/ Jetty rd, and High St Glenelg. We live in Glengowrie, one street Sth of Maxwell tce, and we use all three intersections regularly and often. The lights at Maxwell tce are the safest way for us to cross either to Jetty rd , or the car park for Woolworths or Genesis gym, or to get to High St and the Catholic Church and Parish Centre; our alternatives are to use the more difficult and dangerous right turn from Rugless Tce into Brighton Rd, or to turn left into Brighton Rd at the lights and then U turn at the High St intersection, or to cross the tramline at Sixth Ave and reach them via the Anzac hwy. Getting back across Brighton rd from these places is difficult enough, and will become much more so under the proposed changes. to get from the Woolworths car park across Brighton rd we now wait for a proposed break in Brighton Rd traffic (the Jetty Rd lights provide these) and cross to do a right turn into Augusta st; under your proposal we would have to either join the already overburdened right turn from Brighton Rd into Anzac hwy, and then thread our way through the number of avenues to cross the tramline at sixth ave or else go back west to Gordon st and around the block to the right turn into Brighton rd at the jetty rd lights.</p> <p>Once again, the line-up in Jetty rd for the lights is already too long and the extra traffic will also hold up the trams. The right turn from High St into Brighton rd is more difficult and dangerous but is the best way to come from Catholic church or the Partridge st car park. Continued next page . . .</p>	<p>Brighton Rd / Augusta St intersection was upgraded in 2012 to reduce the number of crashes at this intersection. There is alternative access available.</p> <p>The High Street median has now been closed. A Traffic Impact Assessment was completed with computer modelling showing limited effect on the adjacent signalised intersections.</p> <p>"Keep Clear" pavement messages are generally only used at locations adjacent to emergency service facilities, or where traffic blocking a junction occurs on a frequent basis and has the potential to create a serious road safety hazard. In addition, using "Keep Clear" markings at some locations and not others may confuse motorists into believing that it is only illegal to block intersections where the "Keep Clear" message exists.</p>

		<p>Rather than closing it off, you should make it safer by having a 'keep clear' zone across the western half of the intersection and signage to indicate cars may be crossing when others are stopped in other lanes at the intersection. Otherwise we will be forced to join either of the already crowded Jetty Rd or Pier St intersections. Whilst we understand you need to maintain the flow of traffic in Brighton Rd, you should also consider the inconvenience the proposals will cause for all those living south of the tram line in either Glenelg or Glenelg east.</p>	
28	Section 1	<p>Lane Layout on the western lanes approaching Anzac Hwy- No mention is made of correcting the lane layout on the approach to Anzac Hwy. As currently arranged, many hazardous 'last minute' lane changes occur that need to change lanes to proceed straight ahead. Where else is it necessary to change lanes to proceed straight ahead? This could be so easily corrected to a logical and safe arrangement but it is not mentioned in the plan.</p>	<p>The large overhead gantry located approx. 130m from stop bar shows the lane designation. There is limited space due to trees for modifications of the road layout. There are no short to medium term changes recommended for this section.</p>
29	Section 1	<p>Brighton Rd / ANZAC Hwy: I have travelled on this section of rd for the last 20yrs heading to work. My concern on a daily basis is where the left hand lane going north splits into two lanes heading north. Traffic in the right hand lane that wishes to travel north, at the intersection of Brighton Rd/ Anzac Hwy are forced to do a lane change. This lane change can be quite dangerous as most want to complete the change before the lights at Jetty Rd. Those who are not successful have to do this shortly after the lights and if they are doing this from a standing start as the lights, then it is a race to beat the traffic in the centre lane and push themselves in. Because of the way the lanes are designed, it is the bully boys, sometimes in trucks, (often the ones going north from Lindwood Quarry) who win by just forcing their way in from the right lane into the centre lane, then a quick dash into the left lane for good measure. This is a daily occurrence. My submission is that the left lane markings are changed. Instead of the left hand lane splitting into two northbound lanes, the left hand lane stays as a single lane, and the right hand lane splits. In splitting the right hand lane it will make the passage of traffic far more efficient and certainly a lot safer from the bullies. If the right hand lane splits into a north bound and right turn option this will also mean that there is a longer lane for traffic turning right into Anzac Hwy.</p>	<p>The number of north bound lanes and the exiting road layout provide the most efficient capacity for traffic within the limited space available.</p> <p>The overhead gantry located approx. 130m from stop bar shows the lane designation.</p>

Brighton Road - Road Management Plan

30	Section 1	<p>I note that there have been a large number of accidents along the straight stretch of road between Jetty Rd and Augusta St. Coincidentally this is the section of rd adjacent to the Bay Mall complex, which contains both an ingoing and out coming access to/from the shopping and parking area. Short of blocking of the westerly lane I can see no solution to this situation. I refer to you for consideration</p>	<p>Brighton Rd / Augusta St intersection was upgraded in 2012 to reduce the number of crashes at this intersection.</p>
31	Section 1	<p>Right turn from Brighton Rd west into Augusta St: We are supportive of the proposed change to current arrangements. This is dangerous turn- the number of accidents we have observed at this intersection over the last ten years is considerable. Vehicles trying to turn across three lanes of traffic are often turning blind across the last lane and this is when accidents invariably happen. It is only a matter of time until someone dies at this intersection.</p>	<p>Refer above.</p>
32	Section 1	<p>The Brighton Rd/ Augusta St intersection is an important intersection that allows the commuters travelling south on Brighton Rd turning right (west) into Augusta St. In almost every instance this has occurred as a result of vehicles banking back from Anzac Hwy/Brighton Rd intersection travelling north along Brighton Rd trying to turn right (east on Anzac Hwy) (option 1). The incidents have occurred because the traffic heading north on Brighton Rd in right hand lanes turning right into Anzac Hwy has stopped and the other two lanes of traffic are continuing to move and the vehicles turning west into Augusta St are unable to see the vehicles travelling north on Brighton Rd. In almost each of the reports incidents this has been the cause of the actual accident. Short Term Solution: 1. The right lane (Brighton Rd turning east up Anzac Hwy) should be increased at peak times to avoid banking back down Brighton Rd. Presently the amount of traffic that turns east up Anzac Hwy is far greater than the traffic signals allow for and often it takes several sets of green lights to be able to turn right onto Anzac Hwy. Long Term Solutions: 2. The intersection at Brighton Rd/Anzac Hwy should be expanded with an additional turning lane being introduced for vehicles to turn east up Anzac Hwy. This would improve traffic flow, safety and reduce banking back of cars and incidents. 3. Should option 1 or 2 not be feasible signalised intersection must be considered for Brighton Rd/Augusta St. The traffic lights at both intersections should then work in sync with each other to maintain traffic flow and improve safety an disprove access. Continued next page . . .</p>	<p>Community engagement regarding the upgrade was undertaken, and the feedback received was considered by DPTI and City of Holdfast Bay. The improvements to safety were considered to be the main priority and consequently the Brighton Rd / Augusta St intersection was upgraded in 2012 to reduce the number of crashes at this intersection.</p>

		<p>4. Closing this intersection as considered 6.2.2 (option 2) would adversely affect the operation of the shopping centre together with the commuters wishing to travel west into Augusta St.</p> <p>5. Closing of Brighton Rd turning lane (west) into Augusta St would place further traffic congestion on Jetty Rd as people would need to turn right on to Jetty Rd which is already over congested. Currently there are difficulties with the amount of vehicles versus trams versus buses and commuters should be able to safely and conveniently access the local centre and streets. It would also put pressure on surrounding streets. Both owners and traders are deeply concerned with the suggestion of restricting or closing access from Brighton Rd (Sth bound) vehicles turning west into Augusta St. Traders voted unanimously that this intersection must be maintained i.e. Kept open but safety improvements are urgently required. The centre owners are grossly concerned and without question any restriction or closure would have an adverse effect on trade bad access to this centre and affect the community's ability to conveniently access the shopping precinct.</p>	
33	Section 1	Section 1 is a hugely dangerous area and I think they have covered off on remediation of this quite well.	Noted
34	Section 2	Right turn from Brighton Rd west into High St and Tassie St: We are very supportive of the proposal to prevent right hand turns for south bound traffic on Brighton Rd into both High St and Tassie St as there are numerous minor accidents, at the High St and Tassie St intersection in particular.	Noted
35	Section 2	If both High St & Tassie St are made "No Right Hand Turn" from Brighton Rd when heading south, the result will be at least double the normal traffic to Yuill and Penzance sty (at this end) are only 7 metres wide. It is suggested that for the purpose if cornering the north side of Yuill and Penzance would be most serviceable and safe for "No Parking". Parking in Yuill and Penzance Sts has increased over the recent months due to time restrictions in streets adjacent to Jetty Rd. This has forced Jetty Rd workers to look all day for parking elsewhere. Also long term shoppers to look for longer free parking.	<p>Comments noted regarding Tassie St right turn ban. This recommendation is a low priority at this time and there will be further consultation should implementation occur.</p> <p>The median has been closed off removing the right turn lane into High Street in the interest of road safety. The length of the right turn lane into Yuill Street has been maintained to the existing length. DPTI will continue to monitor this location.</p>

Brighton Road - Road Management Plan

		It will also be necessary to extend the length of the right hand turning bay on Brighton Rd to accommodate the additional turning traffic in peak periods. The minimum length required to service the Yuill St turn will need to be extended to join onto the current High St right hand turn lane.	Parking in side roads is a matter to be discussed with Council.
36	Section 2	Residents of Yuill St have NO off-street parking. So both sides of the st are full of parked cars a considerable part of the time. Several 'Cheap As Chips' staff park here during the day & many who like to shop on Jetty rd. When events are on at Partridge House (or anywhere else at the Bay) Penzance St is also fully parked on both sides. I frequently see large vehicles having to back up along the st because it has become too narrow for their vehicle to continue. It is always a case of one vehicle pulling over if another approaches from the opposite direction. Add the hoon drivers and we are already an accident waiting to happen. and you want to increase the traffic flow and congestion? On 3 occasions since I have lived here, vehicles have failed to notice the 90 degree bend in the rd. Cars travelling along Penzance St at night have mounted the footpath and crashed through the veranda walls of no.5 coming to a halt on the front veranda. It is a difficult corner to negotiate, even in day light when cars are parked both sides and traffic is approaching from both directions. Frequently cars need to back -up to let each other through. Please do not increase the numbers of vehicles trying to use this sty. It is difficult enough for residents as it is! I fail to see the problem on Brighton Rd. There are slip lanes. I've lived here for 36 years, do not fix what isn't broken.	Council roads are not part of the Bright Road RMP and parking queries need to be referred to Council for consideration.
37	Section 2	I (along with several other members of my household), utilise the right hand turn at Brighton Rd/Tassie St several times a day, to u-turn on Brighton Rd so as (to face north) to approach and enter my property. My friends also utilise this intersection to enter my property and to park on Tassie St. I have never found it to be dangerous or inconvenient to do this as there is plenty of time during traffic light changes on Diagonal Rd intersection for the U turn. It would be very inconvenient, to put it mildly. For me to have to access alternative routes in order to face north on Brighton Rd to enter my property. And I would vehemently oppose this, as there is no danger at this intersection, no reason for its closure! I have never come across pedestrians wanting to cross here either- pretty insane to do that, and Diagonal Rd lights for pedestrians are very close by. I think that this proposal is totally unwarranted and yet severely inconvenient to the residents on this side of Brighton Rds. It seems ridiculous.	Updated crash analysis for the period 2008 - part 2013 revealed there have been a total of 3 crashes at this location and 1 causality. This recommendation to close the right turn from Brighton Road into Tassie Street is a low priority at this time, the department will continue to monitor the location and implementation will be subject to further consultation with council and the community.

Brighton Road - Road Management Plan

38	Section 2	<p>The Brighton Rd / Diagonal Rd intersection has a significant impact on slowing traffic during the morning peak time travelling north, often being significantly slow just north from the Oaklands Rd intersection. Consequently, a number of vehicles choose to turn left either Whyte St or one of several further North on Brighton RD, and use roads parallel to Brighton Rd.</p>	<p>The department acknowledges that Brighton Road is busy during peak hours and motorists may choose alternative routes.</p>
39	Section 2	<p>Brighton Rd / Pier Street: All proposed DPTI changes will encourage traffic volumes to increase on the predominantly residential Pier Street. There are already a significant number of taxis and buses using Pier Street and traffic speed is an issue, particularly close to St Peters Woodlands School. This intersection is dominated by 3 legs (Brighton Road North, South and Diagonal Road) and so the smooth flow of traffic along these legs should be the focus and not widening the entry into Pier Street. The proposal shows a realignment of the kerbing on the south-west corner of the intersection "to improve the left turn movements of large vehicles into Pier Street" - at the expense of pedestrian safety by reduction of footway. There is also proposed tree removal - the trees are a feature of Pier Street and should be maintained.</p>	<p>Proposed improvements would improve the capacity of Brighton Road. Comments regarding pedestrian safety and tree removal will be considered should any work be undertaken at this intersection.</p>
40	Section 2	<p>Glenelg Gateway Apartments are a small business and the proposed changes in the RMP will have a large impact on their business. They are located on the west side of Brighton Rd, between Newman's Lane and High St. They face Brighton Rd, but also face Newman's Lane on the north and Marion St at the rear. Small business with 8 one bedroom apartments and a 3 bedroom house, average of 10 new visitors per week or about 500 new visitors a year. The proposal to ban right turn at High St for cars travelling south on Brighton Rd will have a major impact on our business because it will make it very difficult for non-locals to gain access to our apartments. This will make instructions to access our property very complicated. High St closure may force our business to quit offering short term holiday accomm and instead simply offer permanent rental - at personal loss and damage to our business. I think that left turns out of High St onto Brighton Rd are unsafe due to the sudden veering of cars into the 3rd lane, just when you are ready to turn left into the 3rd lane, a car from the middle lane suddenly veers into the 3rd lane. In my opinion the solution is simple: Start the 3rd lane NOT at Yuill St, but at High St or even at Newman's Lane (to mirror the current scenario where the 3rd lane can turn left to Jetty Rd or continue onto Brighton Rd. If the 3rd lane commences after the Jetty Rd section, the proposal to create on road bike lanes between Yuill St and Jetty Rd will no longer be an issue (p. 53 of RMP).</p>	<p>The median has been closed off removing the right turn lane into High Street in the interest of road safety.</p> <p>Three lanes on the approach to Jetty Road are required for capacity. The 3rd lane is established at Yuill Street which is offset approx. 70m from High Street and assists with separating traffic when queues develop back from the traffic signals at Jetty Road.</p> <p>Between the period 2008 – part 2013 there are no recorded crashes at this location involving the left turn onto Brighton Road. The location will continue to be monitored.</p>

<p>41</p>	<p>Section 3</p>	<p>Right turn from Brighton Rd west into Yuill St: We propose an additional restriction to prevent right hand turns into Yuill St from Brighton Rd, noting that this would mean that local residents would have to turn at either Jetty Rd and travel along Partridge St or turn off Brighton Rd at Pier St. Currently the vast majority of traffic in Yuill, Tassie and Penzance streets is due to drivers seeking to avoid the traffic lights at Diagonal Rd/Brighton RD lights and/or seeking a short cut to Jetty Rd (most drivers do not realise there is no direct access from Penzance st). This is particularly so in the mornings for school drop-offs and peak hour commuters, and also on busy weekends. This has been a concern for local residents for some years due to the number and speed of vehicles along this stretch and the narrowness of the streets.</p> <p>We are aware that the representations have been made to the Holdfast bay Community Council over the past ten years to no avail. The proposed closure of the right hand turn into Tassie St will potentially make traffic in the Yuill to Tassie St section of Penzance sty even worse as drivers will instead turn at Yuill sty. This would provide the opportunity for drivers to accelerate along a longer stretch of road bad reach higher speeds along Penzance St. Currently this is an issue particularly on weekends with visiting drivers searching for cut-through to Jetty rd to avoid congestion at the Brighton Rd and Jetty Rd intersections. This is of particular concern to local residents as the Partridge st park is frequently accessed from this stretch of Penzance st and many young families and children use the park. Also residents, visitors to the Partridge St parkland some Jetty rd workers, park their cars on the street. Parking is currently allowed on both sides of the sty and this means that this stretch of rd is narrow and requires cautious and alert driving with frequent stopping required to allow cars to pass safely. (proposed developments at the Cowper St (cinema) and Partridge St (retail) sites have the potential to create even greater traffic flows in these back sts).</p> <p>Risks could be migrated by speed control measures being implemented on Penzance sty, by parking only being allowed on one side of the st and by the signs being placed on Brighton Rd and Pier St clearly stating that there is no through access to Jetty rd from Penzance St. This has been suggested to the Holdfast Bay Council previously but no action taken to date. Changes to Brighton Rd/ Pier St/ Diagonal Rd intersection are also supported.</p>	<p>The RMP is not recommending an additional restriction to the right turns into Yuill Street from Brighton Road. Vehicles speeding along Yuill Street and Penzance Street are matters to be discussed with SAPOL.</p> <p>The RMP recommendation to remove the right turn into Tassie Street is a low priority at this time and will be subject to further consultation and monitoring prior to any implementation. Should access changes be implemented in this location signage advising no through access to Jetty road from Penzance Street will be considered.</p> <p>Speed control measures and parking controls along Penzance Street should be discussed with council and are outside the scope of the RMP.</p>
-----------	-------------------------	--	---

Brighton Road - Road Management Plan

42	Section 3	There appears to have been no consideration of Broadway & Brighton Rd intersection, despite the number of shops, cafes, motels and a pub.	There is a low crash history at this junction and there are no short to medium changes recommended as part of the RMP.
43	Section 4	<p>Median openings at Dunrobin/Wattle- It is accepted the current layout is unsatisfactory but to close the medians appears draconian.</p> <p>It would appear most of the safety benefits could be obtained by upping the compliance with the time restrictions on the right turns from Brighton Rd. Currently compliance is poor account inadequate enforcements, SAPOL need to focus on these types of offences.</p> <p>Long-term observations are that those who ignore turning controls also display similar behaviour in regard to other road rules and so focusing on enforcement offence is likely to encourage better compliance in other areas.</p>	<p>This site has a low crash history. A traffic management scheme was implemented in 2004 to ban right turns into Dunrobin and Wattle during peak hours. There are no further recommendations at this time.</p> <p>Motorists disobeying these restrictions is a matter to be referred to SAPOL.</p>
44	Section 4	Banning right hand turns into Dunrobin Rd would impact on our service delivery as there are two major health care facilities on this road. In an emergency the responding vehicle to these facilities may be from any suburb south west of Seacombe rd and they would proceed down Brighton Rd with a right hand turn into Dunrobin Rd	Refer Comment Above.
45	Section 4	Hove Railway Crossing- (over or underpass): for the train or traffic. Traffic lights for vehicles at Dunrobin and Brighton Rd, or pedestrian lights there or at Hove Foodland. Peak hour traffic always a problem and heavy vehicles. Unfortunately we do not have an alternative. A bonus would be for Dunrobin Rd to be widened at Griffith Hospital to Crombie St. Not always a clear view for going to Brighton Rd.	<p>Rail grade separation is considered a major infrastructure change and is outside of the scope of the RMP.</p> <p>The implementation of a pedestrian activated crossing at the shopping centre has been funded for the 2013/14 financial year.</p> <p>The Brighton Rd and Dunrobin site has a low crash history and there are no short to medium term plans to modify this location.</p>
46	Section 4	I do not agree to a pedestrian crossing at Hove. We have enough along Brighton Rd. More crossings mean more delays. If one is put in I can't see why traffic can't turn right onto Dunrobin Rd. You will then get delays and breaks in traffic flow. At Hove crossing turning right into the Crescent the arrow takes a very long time to turn green this adds to the build up of traffic along Brighton Rd. Overpass needed.	<p>Pedestrian crossings are installed where the number of pedestrians meets the warrant under Australian Standards.</p> <p>Overpasses are very expensive and are considered major infrastructure change. This is outside the scope of the RMP.</p>

Brighton Road - Road Management Plan

47	Section 4	<p>Reduce speed limit to 50kph all along the stretch, provide a pedestrian crossing at the Hove Shopping Centre - yes a provision for cyclists is a must. The level crossing at Hove is a major hold up. Can an overpass or some other system be provided? I am really glad some improvements are being looked at. Brighton rd is getting busier all the time as developments progress further down south. Provide storage for vehicles turning right form Wattle Ave and other side sets.</p>	<p>Brighton road is a strategic arterial road recognised as a major traffic route as identified in the functional road hierarchy. Road lanes are separated by a solid median to reduce conflicts; there are no plans at this stage to alter the speed limit.</p> <p>The implementation of a pedestrian activated crossing at the shopping centre has been funded for the 2013/14 financial year.</p> <p>No additional storage is proposed for the right turn into Wattle Ave due to the space available at the site. A traffic management scheme was implemented in 2004 to bans right turns into Dunrobin rd and Wattle during peak hours.</p>
48	Section 4	<p>Request the RMP assess an appropriate treatment at the junction of Brighton Rd/Dunrobin Rd (running between Brighton Rd and Diagonal Rd). We note that at some stage both these junctions will require traffic management treatment.</p>	<p>Please refer to previous comments (43)</p>

49	Section 4	<p>I wish to comment on the proposed pedestrian crossing across Brighton Rd adjacent to Hove Shopping Centre that is listed as High priority in the draft Road Management Plan for Brighton Rd. I believe that this pedestrian activated crossing is absolutely necessary due to the increase in traffic along Brighton Rd, and danger involved crossing a 4 lane rd. I have often spent greater than 10 minutes before being able to cross this rd, only to find myself and family/pets stuck in the middle on the island for a further lengthy time. To attempt to cross this rd when bike riding and fit the family with all the bikes in the gap in the medium strip, is a scary experience. our dog panics with traffic going in front and behind him, to the point that we now avoid taking him across Brighton rd. There are many young families and also aged residents residing in aged care facilities in this area which will benefit from this pedestrian activated crossing which will provide safety and convenience for the local community. When speaking to many local residents, so many people told me that they had given up even attempting to walk across Brighton rd to the Hove Shopping Centre, So many get in their car and drive down Brighton Rd completing U-turns to cross over to Hove Shopping Centre, further attributing to the traffic. About 95% of the local residents that I have spoken to are in favour of this much needed pedestrian activated crossing. A pedestrian survey of this area would not be a true reflection of numbers, due to the reduction of people even attempting to cross this busy street. Many local school children cross to utilise the shops prior to and after school, and with my own school children in mind as well- I dread to think that we have to wait for a fatality to happen for something to be done. I urge all of the Council to positively vote and support the installation of the proposed pedestrian crossing across Brighton Rd adjacent to the Hove Shopping Centre that is listed as a high priority in the draft rd management plan for Brighton Rd.</p>	<p>The implementation of a pedestrian activated crossing at the shopping centre has been funded for the 2013/14 financial year.</p>
50	Section 4	<p>I believe that there should be a crossing -pedestrian- on Brighton Rd at the Hove shopping Centre</p>	<p>Please refer comment above.</p>
51	Section 5	<p>Brighton rd/ The Crescent- It is particularly disappointing that there has been no recommendation for a road or rail overpass at the Hove level crossing. It is at this point that traffic at peak times significantly slows; for northbound traffic in the morning peak time it can be as far south as Sturt Rd.</p>	<p>Rail grad separation is considered a major infrastructure change. This is outside the scope of the RMP.</p>

52	Section 5	<p>I disagree with the assumption that traffic will not substantially increase in the medium term and question the modelling used. The reason of lack of land available for development, does not take into consideration the urban infill taking place along the corridor and surrounding areas. This infill is happening now and will continue well into the medium term. (Consider the development at Townsend House and the proposed development at Mind House and the Urban infill taking place in Sth Brighton, Dover gardens and Warradale). This infill consists of increased building in the form of medium and higher density housing. Many single homes are being demolished and replaced by two or more homes, equating to at least one car per new property possibly two. I suggest reviewing the modelling.</p>	<p>DPTI's most recent strategic modelling which takes account of the effects of projects such as the Southern Expressway duplication is consistent with earlier modelling underpinning the Road Management Plan.</p>
53	Section 5	<p>Hove railway crossing suggestion: Remove the red arrow from traffic light into The Crescent from Brighton Rd, there is 3 nearby junctions Brighton Rd/Jetty Rd-Brighton, Brighton Rd/Jetty Rd-Glenelg and Sturt Rd/Morphett Rd which have 10 times more traffic where the red light goes allowing cars to turn right with care but not at the Hove crossing.</p> <p>Currently cars sit there waiting to turn when the nearest north travelling car could be as far away as the church by Iga supermarket. Some cars out of frustration go thru the red arrow so when the oncoming cars arrive they too are held up as well as the lights have changed but all the right turning cars have gone thru..Even look at keeping red arrow thru peak times such as 6am-9am and 4pm to 6pm Monday-Friday and have weekends and other times turn right with care.</p> <p>Another light to look at is coming out of Addison rd to Brighton rd, currently it is left turn only but has a pole for pedal bike riders to push to get over Brighton rd but currently lazy car drivers are pulling up getting out the car and pushing button which in turn stops traffic both ways so they can do a illegal right turn into Brighton rd, so at times they could stop up to 60 or more cars so 1 car can turn right!!!...maybe extend medium strip to rail crossing to deter this but leave gap for pedestrians and bikes can still cross. Many thanks for taking time to read my ideas</p>	<p>While it would be possible to change the operation at many sites to allow filter turns, the current DPTI focus is about reducing the potential for crashes.</p> <p>Filter turns are currently permitted due to the closure of the Noarlunga and Tonsley train lines for the Goodwood Underpass upgrade. DPTI will re assess the location once the rail line is up and running again.</p> <p>The cyclist access at the Hove Level crossing with drivers using the push button and performing illegal right turns is a matter to be referred to SAPOL.</p>

Brighton Road - Road Management Plan

54	Section 6	<p>Intersection of Brighton/Whyte/ Oaklands. I disagree that this intersection be kept in its current state. The realignment to a standard four leg signalised intersection should receive high priority. A realigned intersection could potentially eliminate a proportion of accidents, improve traffic flow and improve overall traffic and pedestrian safety.</p> <p>Junction of Seacombe Rd/Brighton Rd. This junction should really be treated as such. (In fact I couldn't find Brighton/Wheatland in the unsignalised section. If Wheatland st has been omitted I recommend it be included as suggested above and appropriate research undertaken to ascertain traffic/pedestrian movement. I agree with the installation of a mast arm. I disagree with the treatment given to the left turn lane from Seacombe into Brighton.</p> <p>At this time I suggest this should become a signalised left turn (the same as the left turn from Oaklands to Brighton RD) This would allow traffic wanting to access Wheatland St to move safely from Seacombe across Wheatland/Brighton junction. This traffic movement is particularly prevalent over the summer months with people wanting to access the Seacliff Beach, the Seacliff Surf life Saving Club and people travelling with yachts to attend the Brighton and Seacliff Yacht Club (With this in mind, there is vacant land on the north west corner of Wheatland and Brighton. Some of this land could be utilised to accommodate a slight realignment of Brighton Rd to facilitate a longer right hand turn from Brighton into Wheatland)</p>	<p>There are no recommendations for the Brighton Road/ Whyte Street and Oaklands Road intersections due to the impact on adjacent properties required for realignment.</p> <p>The Seacombe Road left turn proposal to make a 70 degree corner island will assist traffic wanting to turn right into Wheatland Street by slowing vehicles turning left onto Brighton Road enabling them to select appropriate gaps in traffic to continue safely south or enter the right turn lane to turn into Wheatland Street. There are no plans to signalise this left turn.</p> <p>In addition there are no recommendations to alter the length of the right turn lane into Wheatland Street as part of the RMP. The location will continue to be monitored.</p>
55	Section 7	<p>Please consider closing the gap in the median strip opposite the northern side of Brighton Foodland 525 Brighton Rd, Brighton.</p> <p>Cars travelling south on Brighton rd turning right into the car park as there is a gutter on the western edge of Brighton Rd adjoining the footpath, cars have to brake as they enter the car park. There are many 'near misses' as cars travelling north have to brake suddenly.</p>	<p>The department has no plans to close the median in this location as it would restrict traffic movements in the area.</p> <p>The issue of the gutter on the western edge of Brighton road adjoining the footpath is a matter to be discussed with council.</p>
56	Section 7	<p>As a motorist and a pedestrian I suggest the pedestrian crossing across Brighton Rd to and from Foodland at Hove would be better placed on the north side of Cecilia St and the south side of Holder Rd. As traffic out of these two can only turn left and therefore would not be a hazard to pedestrians nor would pedestrians impede the flow of traffic onto Brighton Rd from these two streets.</p>	<p>Please refer previous comment (49)</p>

	Section 7	Council supports the RMP proposal to construct a pedestrian activated crossing near the Hove Foodland Shopping Centre. This should be undertaken as a matter of high priority as it will make a significant difference to safety and convenience for the local community.	Please refer previous comment (49)
57	Section 8	<p>Brighton Rd/Seacombe Rd - It is particularly frustrating when turning right from Brighton Rd to Seacombe Rd at the non-peak times and weekends one encounters a red arrow, which is not in use to the same degree at peak times; this means at peak times one can turn right when it is safe to do so, and yeast at non- peak times, when there is often no traffic travelling Sth on Brighton rd, one has to wait for the green arrow before being able to turn. Changing the sequencing of these lights would be a significant improvement.</p> <p>Brighton Rd / Scholefield Rd intersection: I would certainly strongly urge that traffic lights be installed at this intersection; it could be argued that it would be more appropriate to have lights at this intersection and remove the pedestrian lights a few metres north - or at least, have the pedestrian lights synchronised with the lights at the intersection. I am one of the drivers who might account for 90% of total movement blight a left turn north into Brighton Rd as, for much of the time, it is a dangerous and very slow option to turn right to go south on Ocean Blvd. This is particularly fraught when we are towing our caravan and, with a very good caravan park at Kingston Park, others may have to make the same choice when they are towing. For many years we have considered it esse4ntial to have lights installed at this intersection. The reduction in speed to 60km/h further south has been an improvement in recent years, however.</p>	<p>The decision whether to have controlled right turns, filter turns (red arrow turned off), or a combination of the two is made after considering the speed environment, the vehicle and pedestrian volumes, the geometry of the site, visibility of oncoming traffic, analysis of any road crash data, the sequence of the signals, and the proximity to other signalised sites for traffic flow coordination.</p> <p>Controlled turns where the red arrow remains on during the through vehicle phase are generally used where there is a history of right turn crashes where visibility of oncoming traffic is less than required for safe gap selection, and where the volume of right turn traffic and/or opposing through traffic are high.</p> <p>The installation of traffic signals at the Scholefield Road intersection has been added to the department's Traffic Signal Priority List, however they are a low priority at this time.</p>

<p>58</p>	<p>Section 8</p>	<p>Schofield Rd/Ocean Blvd intersection:</p> <ol style="list-style-type: none"> 1. The increase of pedestrians using the pedestrian crossing at peak times morning and afternoon. Seacliff Primary School enrolment is now 385 compared to 220 in 2002. This enrolment trend will continue in the future and is estimated to peak at approx 420-450 students. A significant proportion lives in Seacliff Park and use the pedestrian crossing at least twice-daily. 2. Due to this increases enrolment there has been a substantial increase (off Brighton Rd) at peak times. This can lead to quite dangerous situations developing on Brighton Rd as cars are trying to enter into Barwell Ave but are being blocked off by the congestion already in Barwell St. The potential for rear end accidents on Brighton Rd in this situation is very high due to the lack of effective speed control on Ocean Blvd. The proposed housing development in the old Boral site off Scholefield Rd which appears to be gaining momentum will only increase the pressure on this area. 3. The increase of vehicle movement on Brighton rd over the last 15 years as verified by traffic studies over that period. 4. The increase in the amount of heavy vehicles using Brighton Rd. This has got to the point where the school can no longer use a classroom due to the traffic noise generated by large vehicle's engines travelling down Ocean Blvd and Brighton Rd. This was not an issue 10 years ago. 5. The volume and speed of traffic north bound peak times in the morning. We suggest the study data would support the speed of traffic through the pedestrian crossing as being one of the fastest on Brighton Rd. An analysis of the Brighton Rd Movement Summary and average speed shows that Seacombe Rd intersection by far the highest average speed of all the intersections studies. While there is a lack of Movement Summary data for Scholefield Rd in the RMP, the combination of the Ocean Blvd gradient and the lack of any other effective traffic control, combined with anecdotal observation is highly likely to show a very high average speed through pedestrian crossing at Seacliff. 6. The amount of traffic violations that occur despite clear speed limit signage on Ocean Blvd, at the pedestrian crossing i.e. motorists not stopping at the red lights. Observations have included; a truck failing to stop peak hour morning time and crashing through the pedestrian safety fence then continuing on. On 11 Feb 2008 between 3.05 and 3.10pm a truck crashed at the pedestrian crossing. Numerous accounts of cars failing to stop. 7. While the frequency data may not be the highest when compared to the other sites around Adelaide, the potential for a large scale accident is much higher due to the combination of rd gradient and lack of other traffic speed regulation i.e.; traffic lights, traffic warning lights <p>8. When prioritising the Scholefield Rd intersection we believe that Traffic Management Study needs to take into account the number of vehicles turning left at Scholefield Rd into Brighton Rd as this would greatly add to the tally (this is also recommended in the report). We are also aware of many community members who exit left from Scholefield rd to travel north along Brighton Rd only to do a U turn just after the pedestrian crossing to travel south. This unnecessarily complicates the traffic patterns between Scholefield rd and Pine Ave as in peak hour traffic it is very difficult to cross lanes in such a short distance. A solution to this traffic behaviour would be lights at Scholefield Rd. HIGHER CONSIDERATION MUST BE GIVEN TO:</p> <ol style="list-style-type: none"> 1. Pedestrian bridge at Seacliff to replace the pedestrian lights or, 2. Traffic lights at Scholefield Rd or, 3. Traffic warning lights of the pedestrian lights about to turn red. 	<p>The installation of traffic signals at the Scholefield Road intersection has been added to the department's Traffic Signal Priority List. The installation of Traffic Signals is expensive and funding for this project will need to be considered against other state-wide priorities in future financial years. This approach ensures that the funds available each year are allocated to the projects where the greatest benefit can be provided to the community as a whole. The department will continue to monitor this location. Pedestrian bridges are very expensive and require a large footpath width to meet all necessary requirements. This is not feasible option at this time and considered a major infrastructure change. This is outside the scope of the RMP.</p> <p>Australian Standard warning signs are installed in advance of the crossing. The addition of further warning lights indicating that the pedestrian lights are about to turn red are not supported by the department. Drivers under the Australia Road Rules are required to stop when faced with a red light at traffic signals. The 60km/h speed limit heading northbound towards the crossing was shifted further south up Cement Hill in 2008 to ensure motorist travel at a safe speed through the crossing and along Brighton Road. Motorists disobeying the road rules and speeding are matters to be discussed with SAPOL.</p> <p>The school monitors the crossing to ensure children do not cross until the traffic has stopped. Correct crossing behaviour is taught in the school and the school participates in the 'Way to Go' program. Guard rail is installed for shop frontages at the crossing. There are no current plans for a red light camera at this location. The line marking at the pedestrian crossing was re marked in early 2013.</p> <p>The proposed north-south corridor has the aim of reducing urban congestion on the metropolitan Adelaide road network and improving accessibility for freight vehicles. It is expected that Brighton Road will benefit from the development of this corridor in terms of a reduction in traffic and freight volumes.</p>
-----------	-------------------------	---	--

Brighton Road - Road Management Plan

59	Section 8	Regarding Schofield Rd - we need to advocate for that area as I think that if users of this road were actively engaged DPTI would have a better reflection of the priority that lights and safety remediation have for this section. We usually access Cove Rd to get south and then backtrack down Lonsdale Hwy to avoid this section. I hope we can get some outcome for this section as it is extremely dangerous and also puts about 10-15 minutes during peak hours on your trip waiting to get through.	The installation of traffic signals at the Scholefield Road intersection has been added to the department's Traffic Signal Priority List, however they are a low priority at this time. DPTI will continue to monitor this location.
60	Section 8	City of Marion council staff strongly support installation of traffic signals at Ocean Boulevard/Scholefield Rd junction. City of Marion received comments from a parent of Seacliff Primary School. She is concerned about safety. CoMarion state: seems to be valid evidence to support this. Works at Scholefield Rd however could be used to mitigate risk at the school. the traffic study does not address any detail on the Seacliff Primary School crossing, except to say that it is there and improvements have been made to it.	Please refer previous comments (59) and (58)
61	Section 8	I have two school children attending Seacliff Primary School at Barwell Ave (and right next to the point where Brighton Rd turns into Ocean Blvd) This crossing on Ocean Blvd/Brighton Rd is right at the bottom of the hill leading toward Hallet Cove which also has a right turn in it. Traffic has little time to break if the lights have backed traffic up to the turn itself. Traffic (including large trucks) have regularly sped through red lights while I have been waiting with children, whether from inability to brake while speeding down the hill or failing to notice the lights altogether. I have witnessed multiple accidents involving trucks either pushing smaller cars into the crossing or having to steer up the curb trying to avoid rear-ending the smaller cars. I have also regularly witnessed cars passing through the red lights while children have been crossing. It is only a matter of time before there will be a horrible accident involving school children and trucks and I implore you to do something about the area in which many children cross before and after school	There has been 1 recorded causality rear end crash at the crossing in 2013 over the last 5 years. The crash was attributed to driver inattention. Please refer to previous comments (58) regarding the pedestrian crossing.

62	Section 8	<p>I have been concerned about using the Brighton Rd pedestrian crossing adjacent to Seacliff Primary School for years. So much so that I have taught my 7yo and 9yo not to immediately cross on the green walk signal but to first look at first look at the oncoming cars (both ways) particularly the ones coming down hill to make sure they are going to stop first! We do this because we have witnessed cars go through on red lights because they are speeding or inattentive. This actually happened to us today which is why I am writing this! We have also witnessed the aftermath of a truck crashing into a car and totalling it just metres past the stop lights. Shop keepers have told me of their concerns of cars/trucks crashing through their shop fronts because of the speed of the cars here and the position of the crossing. We would like action before a child is hit, not after!</p>	Please refer to previous comments(58)
63	Section 8	<p>As a parent of children at Seacliff Primary School, I attempt to cross Brighton Rd on average 4 times a day, using the pedestrian lights north of Scholefield rd. I am constantly amazed that no one gets injured at that site weekly. I have only lived in the area for 8 months yet on nearly a daily basis, vehicles(mostly cars) speed through the lights on a yellow or red signal & heavy vehicles come careering down 'Cemented Hill' with absolutely no hope of stopping. I am aware that there has been previously a suggestion of a pedestrian bridge, obviously (to me anyway) that is simply not feasible, but something has to be done to slow vehicles down before reaching the crossing. As previously lived at Sheidow Park and Trott Park, I am well aware that the speed zones were changed years ago, yet this had not had the desired effect. The only way I can see to make the crossing safer for everyone (including elderly who I see on a daily basis using the lights) is to install the proposed traffic lights at Scholefield Rd. I am also aware that the traffic attempting to get on and off Brighton Rd (both north and south) is becoming congested. These proposed lights will address both issues and the only economical way I can see that our kids can remain safe. There is also some questions in regards to the said lights sequence. Many days kids are running and taking risks to get across the lights as if you miss the green light, you may be standing on a very narrow strip of footpath for upwards of 5 minutes waiting for the lights to change. Yesterday alone I witnessed three separate adults press lights, wait and then attempt to cross the road only to be caught in the middle of the road, unable to go any further and wait another minute or so before the light changed.</p>	Please refer to previous comments(58)

Brighton Road - Road Management Plan

64		<p>Living in Lucy May Drive, Seacliff for the past 7 years, I feel the need to weigh in on any upgrade to Brighton Rd/Scholefield Rd intersection. With our kids attending Seacliff Primary School, and my husband and I working in Hallett Cove, we use the intersection multiple times a day. I read that your latest survey found that 90% of traffic on Scholefield turns left, well so do I most days! It is very difficult turning right during the day, competing with the downhill traffic, and those turning right into Scholefield from Brighton rd. So I turn left and then do a U turn at Bothwell Ave saving a long wait to turn right up the hill. If traffic lights still aren't warranted there even when the new residential development is commenced, at the very least a roundabout to slow down the traffic coming down hill, and making it easier for those who live in Seacliff/Marino to get out safely would be a smart idea.</p>	<p>Please refer previous comments (59). A roundabout is not suitable at this location.</p>
65	Section 8	<p>I am a father of two young daughters who attend Seacliff Primary School, and each day, use the pedestrian crossing on Brighton Rd at Seacliff Park. I am concerned for the safety of my children, and others, who use this crossing because of the position of the crossing, right at the foot of Ocean Blvd Hill, which makes for an accident waiting to happen. I have heard mention of possibly installing traffic lights at Scholefield Ave and Ocean Blvd. I personally think this would be an effective way of slowing the traffic before it reaches the pedestrian crossing and thereby reducing the risk of accidents</p>	<p>Please refer to previous comments (58 and 59)</p>
66	Section 8	<p>Need for a longer turn right lane (Brighton Rd into Scholefield) as often cars can't get into the lane and stick out, thus causing traffic hazards and the possibility of rear-end crashes. This intersection should be considered for signalised crossing to assist with traffic moving south towards Hallett Cove (right turn south).</p>	<p>Please refer to previous comments (59) Concerns regarding length of right turn lane are noted and have been included in the RMP.</p>
67	Section 8	<p>The study mentions proposed developments at the old Monier site as possibly increasing traffic from Scholefield Rd, there is no mention of the hundreds of houses and units that have recently been constructed west of Brighton Rd/Ocean Boulevard and the ONLY lights to access this route are at the Hallett Cove Shopping Centre and Jetty Rd Brighton. It takes no account of the huge increase in traffic during recent years since the opening of the Lonsdale Link Road.</p>	<p>Please refer to previous comments (59) The proposed improvements outlined in the RMP would improve the capacity of Brighton Road and aims to improve traffic flow.</p>
68	Section 8	<p>City of Marion elected member/s believe that there may be valid evidence to support a pedestrian footbridge spanning the road at the Brighton Rd / Ocean Boulevard intersection. Works at Schofield Road however, could perhaps be used to mitigate risk at the school. the traffic study does not address any detail on the Seacliff Primary School crossing, except to say that it is there and improvements have been made to it.</p>	<p>Please refer to previous comments (2)</p>

69	Indented Bus Bays and Bus Lanes	I agree with and approve the installation of bus lanes (please ensure that they can accommodate articulated buses)	Noted
70	Indented Bus Bays and Bus Lanes	Indenting of bus stops: A good idea. Will help to improve traffic flow especially at peak travel times; will mean traffic will not be reduced to one lane whilst waiting for buses to load or off-load passengers	Noted
71	Indented Bus Bays and Bus Lanes	Install bus lanes	There are no recommendations for bus lanes along Brighton road at this time. Bike lanes have been recommended to operate during peak periods which aims to improve traffic flow along Brighton Road. This should contribute to public transport efficiencies as well.
72	Indented Bus Bays and Bus Lanes	RE: Bus stop north Seacliff Pedestrian Lights: Consideration must be given to a partially indented bus bay. Traffic is unable to move past a stationary bus at this point. This has the effect of making the pedestrian crossing more dangerous as vehicles change lanes across the pedestrian crossing to avoid the left lane being blocked.	The RMP recommends that wherever possible, partially indented bus bays are installed to provide increased road capacity, particularly in the peak periods (enabling two clear lanes to be used by through traffic) as well as road safety benefits by minimising potential for rear end and side swipe type crashes. Bus Stop 42 north of the seacliff pedestrian lights is in between two high voltage power lines and partially indenting the bus stop may require relocation of one of these, drainage alterations while maintaining the footpath width. Funding for any improvements will need to be considered against other state-wide priorities in future financial years. This approach ensures that the funds available each year are allocated to the projects where the greatest benefit can be provided to the community as a whole.
73	Bike Lanes	Full length bikeways with applicable times - From my knowledge, past research by UNI SA showed no measurable safety benefits of having painted bikeways with no physical separation, against the current situation on Brighton Rd with no bike lanes. What has changed to now justify introduction of these lanes with possible substantial disbenefits to residents (parking restrictions) and business alike?	Cycling has health, social and sustainability benefits. Increasing use of cycling as 'active transport' makes finding time for exercise much easier for those who choose to ride a bicycle instead of driving a car as well as contributing to a decrease in greenhouse gas emissions. Brighton Road is a strategic cycling route for its direct connectivity to regional activity centres and so peak time bike lanes have been recommended. There are also secondary cycling routes that cross Brighton road, providing cyclists an opportunity to take more direct routes and hence encouraging cycling.

Brighton Road - Road Management Plan

			A significant compromise between the desire to safely provide for cyclists at all times and the conflicting desire by business customers and residents to park on this arterial road has already been made in only proposing prohibiting car parking on Brighton Road in peak periods.
74	Bike Lanes	I agree with and approve the installation of bike lanes	Noted
75	Bike Lanes	Do not agree with bike lanes on Brighton Rd, the current bike lane along King George Ave to and from Glenelg is much better and safer.	Brighton Road is a strategic cycling route for its direct connectivity to regional activity centres and so peak time bike lanes have been recommended. There are also secondary cycling routes that cross Brighton Road, providing cyclists an opportunity to take more direct routes and hence encouraging cycling.
76	Bike Lanes	I was at a loss to understand why Brighton Rd is seen by the study authors as an important cycle route. There was no evidence of cycle numbers and the times that cycle numbers may have been observed. As a cyclist I can tell you that Brighton Rd / Ocean Boulevard is far too dangerous compared to the alternative side routes.	Please refer to comments above.
77	Bike Lanes	Do not introduce bike lanes. Brighton rd is too narrow and far too busy to allow for cyclists to travel in safety, even with designated bike lanes. There is already a perfectly adequate bike lane along King George Ave which is well used by bikers	Please refer to previous comments (75). The kerbside lane widths along Brighton Road are not wide enough to allow large vehicles to travel past parked vehicles without encroaching into the adjacent lane. This limits the road capacity to a single lane when vehicles are parked impacting the efficiency of public transport along the road. Brighton Road is one of the few strategic roads across Adelaide that does not have peak hour parking restrictions or on road bike lanes. Restricting parking increases the capacity of the road, whilst also providing greater road space to support a safer road environment for pedestrian and cyclists. Bicycle riders include people with a very wide range of skills and ages and diverse network requirements.

Brighton Road - Road Management Plan

78	Bike Lanes	I live in Seaview Downs and regularly travel around the area covered by the plan. I am also a keen cyclist and try to do as many trips as possible by bicycle rather than car. However I am a little confused by the statement that Brighton rd has been identified as a 'strategic cycle route'. I avoid cycling on Brighton rd as much as possible and the addition of white line demarcating a bike lane will not encourage me to use it. I strongly feel that any cycling infrastructure money should instead be spent on improving the flow of cycle routes along backstreets or paths parallel to Brighton rd.	Medians will be narrowed where possible to maintain bike lanes, and Brighton Road is a strategic cycling route for its direct connectivity to regional activity centres and so peak time bike lanes have been recommended.
79	Bike Lanes	We own a small bakery on Brighton Rd and 95% of our early trade is from truck drivers, tradies and night shift workers. There is off street parking available and the 7am-10am hours for the proposed cycle lanes will impact on our business with a significant loss of income. Will we be compensated for the loss of income? There are no loading zones near our shop and we receive several deliveries each day from our suppliers. Where are these deliveries supposed to park? Brighton Rd is an extremely busy rd and adding cyclists to the congestion would just make it very dangerous. We have been in this business for 7 years and each year the road has become busier. We find it hard to believe that so much money is to be spent on this project when cyclists contribute nothing to use the roads, no registration, insurance or licensing is required.	<p>A significant compromise between the desire to safely provide for cyclists at all times and the conflicting desire by business customers and residents to park on this arterial road has already been made in only proposing prohibiting car parking on Brighton Road in peak periods.</p> <p>Registration for bicycles and licensing for bicycle riders does not occur elsewhere in Australia and is not common practice in other countries. Registration fees are collected on the basis of the wear and tear caused by the type of vehicle on the road network. As the impact of bicycles on the road network is very low, a registration charge for bicycles is unnecessary. The administration costs of introducing and operating a registration and licensing scheme for cyclists would far outweigh the benefits and this government is not considering introducing such a scheme. Additionally there are a range of fees, taxes and charges that form the revenue base that pays for road infrastructure. Many cyclists still pay those, for example income tax.</p>
80	Bike Lanes	Unhappy about proposed bicycle lanes on Brighton Rd, particularly as her daughter lives at 641 Brighton Rd. Bike lanes are unsafe on this road because it is too busy & means that residents cannot park on Brighton Rd.	A parking ban during the bike lane times will allow traffic to travel more efficiently and parking will still be available outside the peak times.
81	Bike Lanes	Sturt Local Service Area would support the implementation of 'all times bicycle lanes' as opposed to the planned peak hour only bike lanes. This would enhance cyclist safety and remove confusion for those parking in the bike lane.	The department has recommended bike lanes to operate between 7-10am and 3-7pm to provide a balance between peak hour traffic flows and off-peak parking requirements.

Brighton Road - Road Management Plan

82	Bike Lanes	Support the proposed bike lanes along the length of Brighton Road.	Noted
83	Bike Lanes	<p>Council support the installation of part-time bicycle lanes on Brighton Rd, but must not operate in both directions at once. Should operate from 6.00am - 9.00am northbound and from 3.00pm - 6.00pm southbound.</p> <p>Council has considered the potential implications for traders, and agrees with DPTI's rationale (i.e., that there is adequate parking opportunity to the rear of Brighton Rd businesses to support the operations of the businesses during these hours). Not only will this enable cyclists a faster alternative route, it will also heighten the exposure of cyclists, with Council hopes will continue the psychological shift within the community to support alternative transport modes. One way operation at any one time will also provide parking opportunities on the opposite side of the road, which will lessen impact on traders. In addition, installing bike lanes will potentially provide a catalyst for local Brighton Road traders to recognise the need for improved linkages between rear parking and to improve signage (both of which council would like to support).</p>	Please refer to previous comments (81)
84	General Comments	In the plans displayed in the Holdfast Bay area there is a proposal shown to ban the right turn of vehicles from Maxwell Tce into Brighton Rd and into Jetty Rd. Currently when the tram services is terminated at Brighton Rd stop a replacement bus service is employed to take passengers on to the Moseley Sqr terminus using this route. Has this been considered?	There are no plans to ban right turns from Maxwell Terrace. There are however existing restrictions. DPTI is not aware of any conflict with turning movements and Bus routes.
85	General Comments	I am a 68 yr old woman who lives in Novar Gardens and I drive along Brighton Rd to access Glenelg (Jetty Rd & Maturin Rd) North Brighton and Seacliff Park, also Hallett Cove occasionally. I liked the plan. Cutting out various right-hand turns is a good safety measure. The pedestrian crossing at Hove (near Dunrobin rd) is much needed. The whole road (Brighton Rd) is too narrow for a major through rd and too dangerous for cyclists. I am skeptical about whether a cycle lane would assist. The left lane is too narrow to pass parked cars at present. (but better than Unley Rd) I also saw the display at Village Shopping Centre, Glenelg - Very clear.	Noted

Brighton Road - Road Management Plan

86	General Comments	<p>provide storage for right turn from wattle ave reduce speed to 50 PED crossing at Hove shopping centre overpass for level crossing</p>	<p>At the junction with Wattle Avenue there is a median opening. Vehicles when correctly positioned may store in this opening. There is limited space available and the department has no short to medium term plans to alter the traffic management at this location. Please refer to previous comments (13) Please refer to previous comments (15) A level crossing overpass is a major infrastructure upgrade and this is outside the scope of the RMP.</p>
87	General Comments	<p>ETSA Utilities has a substantial electricity infrastructure along Brighton Rd, Anzac Highway and Scholefield Rd, such as overhead lines, underground cables and poles. Any development along the above mentioned roads should take into consideration these assets. Matters relating to building near power lines and other infrastructure and/or the use of heavy plant or equipment(including backhoes and cranes), fall under the control of the Office of technical Regulator and the Council would be strongly advised to discuss the proposal with that Office (telephone no. 8226 5500) before committing to any physical works. It is also recommended that the Developer undertake a Dial Before You Dig inquiry to ensure there are no underground electricity or other utility cables, pipes or services in the area. Your inquiry may be lodged online http://www.110.com.au/ or by calling telephone no.110. Should the proposed development necessitate an upgrade of power supply in the area, or an upgrade or modification of electricity infrastructure, Council and the prospective developer should contact ETSA Utilities' builders and Contractors' line in this regard on telephone no. 1300 650 014</p>	<p>SA Power Networks will be consulted if any works are likely to affect their infrastructure.</p>
88	General Comments	<p>Page 54: More trains coming in along this line. "Overpass" required if extended and electrified. Could purchase council land left hand side) old council chambers. Vacant chemist block (is there more data). Page 79: Traffic flow around train line data too old</p>	<p>Assumed comments are referring to the Noarlunga Line level crossing. There are no short to medium term plans at this time to provide a train overpass. This is considered a major infrastructure change and is outside of scope of the RMP. Traffic data collected in 2009 shows a similar traffic volume on The Crescent. (2005 data was used originally in RMP)</p>

<p>89</p>	<p>General Comments</p>	<p>After thoroughly reading the DPTI is pretty obvious that Brighton Rd in its current shape is too busy and too narrow to adequately fulfil the proposal of all three uses as a 'Strategic Route', a 'Primary Commuter Access Route' and a 'Primary Cycling Route' in a safe and acceptable manner. It simply cannot be done without millions of dollars of major works. Ideally one side or both sides of Brighton Rd needs to be demolished and the current rd changed to six lanes with protected bicycle lanes on both sides to cope with current and proposed traffic flows. What the RMP has done is proposed a short to medium patchwork fix. This seems fine, except that the draft report mentions and raises the possibility of MARWP (section 2.6) without any substantial elaboration. Unfortunately, the first sentence in the last paragraph of section 2.6 does not make grammatical sense. The last sentence of the last paragraph of S2.6 only reinforces my view that this current proposal is a quick fix and not enough homework has been done at this stage to address all the major traffic flow problems and demographics of the areas along Brighton Rd. The Draft Report mentions MARWP but do not elaborate on its possible future extent. Why? This only raises expectations, doubts and suspicions alike for residents, shop owners, businesses and other users. The draft report does not address the problem of only one right turn lane from Brighton Rd to Anzac Hwy north and south.</p> <p>It is a true problem during peak periods. The draft report claims that there is going to be no substantial change to the demographics of Brighton Rd and its side sts. This is false. As I write there is constant development change going on all the time. Houses on Brighton Rd are being replaced by medical facilities i.e. doctors surgeries, physiotherapists chiropractors, sports medicine, alternative medicine, dental clinics etc all which require constant additional in-out daily traffic. Furthermore in places where there are single residential dwellings of one or two cars there are proposals for multi level town houses with dozens of extra cars. One only has to drive along Feeder St onto Brighton Rd to see where all the single dwellings are being replaced by multivilla units and/or dual dwellings. This trend is obvious as Glenelg, Glenelg Sth, Glenelg Est, Brighton , Hove, Seacliff, Seacliff Park, Kingston Park, Somerton Park are highly desirable residential areas and developers together with council/s blessings are trying to fit as many new dwellings on to existing blocks as far as possible- unfortunately this increases traffic. The traffic from Sheidow Park, Hallett Cove and further Sth has not been fully investigated. The numbers increase annually have been doing for the last few decades. Unless, the problem of solving traffic from over the top of the hill is fixed, nothing will be solved further down the hill.</p>	<p>The RMP has recommended additional right turn lanes on both approaches of ANZAC highway. Funding for this potential project will need to be considered against other state-wide priorities in future financial years. This approach ensures that the funds available each year are allocated to the projects where the greatest benefit can be provided to the community as a whole.</p> <p>Please refer to previous comments (6) and (8)</p>
-----------	--------------------------------	--	--

90	General Comments	<p>Having used the entire length of Brighton Rd regularly for the past 28 years, I've seen it change from a modest suburban main rd to a major truck way that is easily congested and frustrating as the equivalent section of south rd, that is, Tonsley to Anzac rd. In this period there has been understandably) a large increase in car traffic, but its been on top of a much greater increase in bus and heavy haulage usage. I accept that getting the best result for the available dollar is at the heart of any corridor of improvement, but surely one scenario for consideration should be to spend money on the OFF-STREET PARKING and making a large section of it (Sturt rd to Anzac hwy at least) into a 24/7 NO PARKING CLEARWAY EACH WAY with a DEDICATED BIKE LANE each way, as the road at its present is far too narrow to allow parking along it, which effectively makes into one lane each way and the cyclists - many of them school kids - must take their chances. And I am not a cyclist. Surely there is simply TOO MUCH HEAVY HAULAGE TRAFFIC to simply do a cosmetic fiddle with the intersections and the turnoffs.</p>	<p>The department is not proposing to install fulltime clearways on Brighton Road. The current proposal is to install bike lanes operating between 7-10am and 3-7pm to provide balance between peak hour traffic flows and off-peak parking requirements.</p>
----	-------------------------	---	---

<p>91</p>	<p>General Comments</p>	<p>Filter Right Turns- The current application of these is frustratingly inconsistent for local residents. Filter turns are allowed at, for instance, both Jetty Rds but not at Hove level crossing into the Crescent. I am told this is "because of the queue controls on Brighton rd southbound". However, no evidence has ever been provided other than " that this is the way it is and we (DTEI) are not going to change it" Aside- The Department appears prepared to construct other intersections that do not comply with design standards and leave them that way. For most of the 24hours of each day there is no need for any queue control (at the Hove crossing) and so, even if there was some effect on right turn safety from this , surely for those other 23 hours of the day, filter turns at this location are quite safe. Was there a statistically significant increase of right turn in front crashes during the rail track closure, when at my request filter turns were allowed at the Hove crossing? Local residents are extremely frustrated at this arbitrary control, and in turn this causes more right turns from Brighton Rd into Wattle, or simply ignoring the red arrow at the crossing. It was suggested that a suitable solution at the Crescent was to introduce the flashing yellow arrow when filter turns were allowed, to reinforce the need for care but turns were permitted in turn a cheaper and more logical indication that the meaningless signs exhorting "Turn with care". for example, in Germany, a country with similar levels of motorisation to Australia, with four times the population but around half the crash rate of Aus measured against all indicators, a flashing yellow arrow indicates filter turns allowed. If Germans can cope, surely with this simple clear advice in regard to making safe turns. This writers observation has been that delays of 150 seconds to turn right at the Crescent from Brighton Rd are not uncommon, especially frustrating when during those 150 seconds there are no north bound vehicles on Brighton Rd north of Jetty Rd! Why can we not have filter turns?</p>	<p>The decision whether to have controlled right turns, filter turns (red arrow turned off), or a combination of the two is made after considering the speed environment, the vehicle and pedestrian volumes, the geometry of the site, visibility of oncoming traffic, analysis of any road crash data, the sequence of the signals, and the proximity to other signalised sites for traffic flow coordination.</p> <p>Controlled turns where the red arrow remains on during the through vehicle phase are generally used where there is a history of right turn crashes, where visibility of oncoming traffic is less than required for safe gap selection, and where the volume of right turn traffic and/or opposing through traffic are high.</p> <p>Filter turns are currently permitted due to the closure of the Noarlunga and Tonsley train lines for the Goodwood Underpass upgrade. DPTI will re assess the location once the rail line is up and running again.</p>
<p>92</p>	<p>General Comments</p>	<p>The community expectations summary they have provided us with an understanding of what they think the community concerns are - I hope I am right to assume that this is the process where they check in with this and ask for some more representative feedback? however, besides clicking on your link to the website info this is the only avenue for feedback and I'm not aware of any other techniques used to actively seek feedback from road users. I understand it's a bit tricky with so many technical and safety considerations that are not negotiable but I think road users input is also critical. I would hate for Brighton Rd to become another Greenhill Rd of congestion and narrow lanes so am glad that they are focusing on this road.</p>	<p>Noted</p>

Brighton Road - Road Management Plan

<p>93</p>	<p>General Comments</p>	<p style="text-align: center;">OVERALL TRAFFIC MANAGEMENT STRATEGY:</p> <p>It is not clear what the overall strategy is. Brighton Rd is the main distributor road which should safely feed onto the secondary roads i.e.; destination areas such as Jetty Rd (Glenelg & Brighton) and Broadway- places where people go to work, shop or entertainment. Traffic should be kept away from residential areas where possible.</p> <p>With this in mind I believe that the major signalised intersections should be "discouraged" from using Pier St and directed into Broadway which has large number of shops and cafes.</p> <ol style="list-style-type: none"> 1. Consider stopping up access into Pier St from Brighton Rd 2. If the above is not considered acceptable, Pier sty should be subject to traffic calming measures 3.Undertake a bus & passenger survey on Pier St. The 190 & 300 services are approximately every 15 minutes & is not due to the number of passengers from Pier street more convenient route to access the bus terminus on Moseley sty 4.Undertake a feasibility study for a new bus terminus off Brighton Rd. Suggestions are Glenelg Oval car park with provision for a pedestrian crossing over Brighton RD, or the Partridge ST car park 5. Consider the use of Broadway St as a distributor rd using an appropriate intersection layout 6. Partridge ST is a distributor rd between Broadway and Jetty rd bad is used as a 'rat-run' in peak hour traffic as it is generally faster than Brighton RD. This should be prevented. 	<p>Pier St, The Broadway and Partridge Street are roads under the care, control and management of council and therefore traffic management issues need to be discussed with council.</p> <p>The department has previously put forward a proposal to alter the bus services in Glenelg however these were not supported by the community.</p> <p>The department is now liaising with council to develop a new proposal for the bus services in this area.</p> <p>Further consultation will be undertaken once the proposal is completed.</p>
<p>94</p>	<p>General Comments</p>	<p>SA Ambulance Service would like DPTI to consider implementing a community contact liaison officer or point of contact with which we could regularly communicate regarding the project implementation about traffic restrictions which may result from the plan on a week to week basis so that we can provide up to date information to our staff so they can consider alternative routes if possible.</p>	<p style="text-align: center;">Bill Zissopoulos - Project Manager Bernadette Sahb - Community Consultation</p>

Brighton Road - Road Management Plan

95	General Comments	<p>Has any study/research/ assessments been done considering pedestrian/bicycle movements in key areas such as schools, shopping precincts, ovals etc? If not I believe that this should receive high priority and the findings integrated into the above study.</p> <p>Pedestrian Safety: commence pedestrian education program (perhaps this could involve local government, the Motor Accident Commission, RAA DPTI and other interested groups.) It could particularly targeted to residents living in that area on how and where to safely cross, (similar to the Safe Routes to School initiative) Perhaps as part of this program appropriate fencing could be installed along selected sections of the median strip with appropriate openings to encourage pedestrian crossing at these points only.</p> <p>I suggest the building of Pedestrian Overpasses (as over Sth tce Adelaide) to separate pedestrian and vehicle traffic. Pedestrian Overpasses would allow the safe crossing of pedestrians and improve traffic flow. Brighton Rd could become a 'special project' in the greater Adelaide area to realise this proposal. I suggest the DPTI in conjunction with the City of Holdfast Bay undertake community consultation to further investigate this proposal in particular relation to the construction of a pedestrian crossing at Sacred Heart College, Brighton Secondary School, Brighton Primary School and Special School and Brighton Shopping Centre and Seacliff Primary School could all be replaced with Pedestrian overpasses.</p> <p>Reduce speed limit adjacent shopping areas through Brighton and Hove to 50km/ph between the hours of 1000-1600, install electronic speed warning signs used on the M1 to advise the appropriate speed limit.</p>	<p>Cycle lanes have been proposed as part of the RMP to tie in with strategic cycle routes and secondary routes.</p> <p>Pedestrian safety programs for schools should be discussed with council.</p> <p>Fencing is not supported by the department as it encourages pedestrians to cross half of the road and walk along medians, creating safety concerns. In addition there would still be gaps in fencing for median openings providing access for pedestrians. Fencing can also cause visibility issues for drivers.</p> <p>Overpasses are very expensive and require a large footpath width to meet Disability Discrimination Act requirements. This is not feasible at this time and outside the scope of the RMP.</p> <p>Please see previous comments (13)</p>
96	General Comments	<p>My assessment of the Transport Department study is that it is severely lacking in research and demonstrates poor assessment of risk from the limited information on crash statistics provided. If it was a study assignment, I would fail it.</p>	<p>Significant research, investigation, modelling, consultation and planning has been completed to produce the RMP.</p>
97	General Comments	<p>There is a need for a clearway twice a day (AM and PM peak times) along Brighton Road.</p>	<p>Bike lanes are proposed to operate between 7-10am and 3-7pm on both sides of Brighton Road. There will be no parking permitted during this time.</p>

