



Planning Approval Consistency Assessment Form

SM-17-00000111

Metro Body of Knowledge (MBoK)

Assessment name:	Temporary Transport Plan July 2021 school holidays
Prepared by:	Sydney Metro
Prepared for:	Sydney Metro
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For information – do not alter:

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The Planning Approval Consistency Assessment Form should be completed in accordance with [SM-17-00000103 Planning Approval Consistency Assessment Procedure](#).

1. Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

SSI_8256 Sydney Metro City & Southwest – Sydenham to Bankstown

SSI_8256 Sydney Metro City & Southwest – Sydenham to Bankstown Bankstown Station Modification 1 – October 2020

Date of determination: 12/12/2018

Type of planning approval: Critical State Significant Infrastructure

Description of existing approved project you are assessing for consistency:

Construction and operation of a metro rail line, approximately 13km long, between Marrickville and Bankstown, including ten metro stations and associated ancillary infrastructure. The works include station works, track and rail system facility works and other works to support metro operations.

The EIS presented a Temporary Transport Strategy (TTS) which outlined the use of bus replacement services over possession periods, periods when trains could not run on the T3 Bankstown Line, during construction. The possession periods that were assessed included school holiday possession periods (two (2) weeks in July and six (6) weeks in December/January for five (5) years), four (4) additional weekend possessions per year (in addition to the standard Sydney Trains possessions) and a final possession of up to six (6) months.

Following exhibition of the EIS, changes were made to the exhibited project in the Preferred Infrastructure Report (PIR). Given the reduction in the construction activities required to deliver the scope of works identified in the PIR, there was also a change to the proposed temporary transport arrangements. This included the provision of two month station closures where up to three stations would be closed at any one time, reduction of the closure during the December/January period and removal of the two (2) week possession periods in the July school holidays throughout the construction phase.

Relevant background information (including EA, REF, Submissions Report, Director General's Report, MCoA):

Sydenham to Bankstown Environmental Impact Statement (EIS) – September 2017

Sydenham to Bankstown Submissions and Preferred Infrastructure Report (SPIR) – June 2018

Sydenham to Bankstown Submissions Report (SR) – September 2018

Sydenham to Bankstown Modified Conditions of Approval – October 2020

All proposed works identified in the assessment would be undertaken in accordance with the mitigation measures identified in the EIS, SPIR and SR and the conditions of approval.

2. Description of proposed development/activity/works

An additional full line closure would be required for two weeks in July 2021 school holiday period (28 June- 11 July 2021) to enable construction of the approved project. Bus replacement services would be provided on seven routes on weekdays, and three routes on the weekend. These routes include:

Weekdays

- 10T3 – 10T3 Bankstown to Sydenham (All stops) – Commuter service to Sydenham
- Route 1 – Hurlestone Park to Sydenham (All stops) – Commuter service to Sydenham
- Route 2 – Bankstown then Padstow (Express) – Transport to T8 parallel line
- Route 3 – Punchbowl, Wiley Park then Beverly Hills (Express) – Transport to T8 parallel line
- Route 4 – Lakemba, Belmore then Kingsgrove (Express) – Transport to T8 parallel line
- 74T3 – 74T3 Campsie then Central (Express) – Transport to City
- Route 5 – Canterbury then Central (Express) – Transport to City

Weekends

- 10T3 - All stations between Bankstown and Sydenham
- 33T3 – Limited stops between Bankstown and Sydenham
- 13T3 – Express service between Campsie and Sydenham

AECOM has prepared a Traffic Consistency Assessment dated November 2020 (Appendix A) for the seven weekday bus routes.

3. Timeframe

When will the proposed change take place? For how long?

June/July 2021 for two weeks during school holidays (28 June- 11 July 2021).

4. Site description

The general extent of the project area is shown in Figure 2-1 of AECOM's Transport Consistency Assessment (Appendix A). The temporary bus stops and routes are in the streets surrounding the Sydenham to Bankstown rail corridor, as well as between the rail corridor and Central Station, Kingsgrove, Beverly Hills and Padstow.

5. Site Environmental Characteristics

Refer to the Environmental Impact Statement for a description of the existing environment. The proposed construction works would impact nearby receivers and the bus replacement services would impact on the pedestrian spaces around affected train stations and existing road network only.

6. Justification for the proposed works

A review of the construction scheduling identified a delay in the commencement of station construction due to the availability of possessions (rail shutdowns). This has implications on the date of station and milestone completion and therefore the wider Approved Project. The proposed activity is required to mitigate construction delays.

As a result of the proposed works (and other temporary transport arrangements as part of the existing planning approval), there is no longer a need for up to four two-month station closures where up to three station would be closed at one time. This is an improved overall customer outcome. A comparison of the approved possessions and closures against the proposed is as follows:

Rail Possessions and Closures	Approved Rail Possessions and Station Closures (Section 2.7.2 and Section 2.7.3 of the SPIR)	Proposed Rail Possessions and Station Closures
Standard weekend possessions (Sydney Trains possessions utilised by Sydney Metro)	Up to four weekends each calendar year.	No change.
Additional weekend possessions	Up to eight weekend possessions required each year.	No change.
School holiday possessions	Two week possessions of the T3 Bankstown line (either in part or full) during Christmas school holiday periods.	A two week possession during the Christmas school holiday periods was not undertaken in 2020. A two-week possession over the Christmas 2021 period will still be required.

		A two week possession during the July school holiday period is proposed for 2021 only.
Freight track possessions The section of rail corridor between east of Marrickville and west of Campsie is shared with freight tracks managed by ARTC.	Up to four weekend possessions a year (these periods coincide with the standard Sydney Trains possession described above).	No change.
Night-time weekday possessions	Required on an occasional basis to prepare the rail corridor ahead of weekend or school holiday possessions.	No change.
Final possession	Between three and six months once the stations have been upgraded.	No change.
Temporary station closures	Individual stations may be closed for up to 2 months to complete the station works. Up to three stations may be closed at any one time.	The proposed activity avoids the need for 4 two-month station closures (with a total impact of 8 months).

Consultation has been undertaken with Sydney Trains and the Customer Journey Planning team (previously known as Sydney Coordination Office- SCO) as well as Sydney Metro's Linewide and TSOM contractor on the proposed activity.

7. Environmental Benefit

The additional two-week possession will assist in mitigating construction delays. By ensuring the scheduling remains on time, this will reduce the period of time where environmental impacts are resulting from construction works. By providing the two-week possession this meant that the up to 4 two-month stations shutdowns would not be required in the future, which is also an improved overall customer outcome.

8. Control Measures

Will a project and site specific EMP be prepared? Are appropriate control measures already identified in an existing EMP?

The conditions of approval require a Temporary Transport Management Plan (TTMP) to be prepared in accordance with the Temporary Transport Strategy (TTS) which details the location of the elements of the TTS relevant to each station closure. The TTS identified a number of mitigation measures to minimise traffic and safety impacts. AECOM's Traffic Consistency Report identified an additional mitigation measure to be included in the TTMP. This includes the installation of traffic control during the AM and PM peak periods at the priority-controlled intersection at Burwood Road/ Bridge Road. This is to manage pedestrian safety and bus movements turning right from Bridge Road. The operation of this intersection would be monitored during the initial stages of the possession to determine the need for ongoing traffic management.

9. Climate Change Impacts

Is the site likely to be adversely affected by the impacts of climate change? If yes, what adaptation/mitigation measures will be incorporated into the design? N/A

10. Impact Assessment – Construction

Attach supporting evidence in the Appendices if required. Make reference to the relevant Appendix if used.

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No changed from Approved Project.	No additional measures required.	Y	Y	
Water	No changed from Approved Project.	No additional measures required.	Y	Y	
Air quality	The proposed temporary bus routes have the potential for localised air quality impacts however, this is anticipated to be balanced by the line-wide shutdown of the rail corridor during this period. Nevertheless, any localised air quality impacts are considered to be negligible relative to the Approved Project.	No additional measures required.	Y	Y	
Noise vibration	<p>The additional possession period and replacement bus services will result in minor noise impacts to nearby properties.</p> <p>The extent of construction noise and vibration impacts are expected to be similar to other possession periods assessed in the Approved Project. Construction noise and vibration was assessed in Volume 3, Technical Paper 2 of the EIS. These impacts will be mitigated in accordance with the measures contained within the Construction Noise and Vibration Management Sub-Plan.</p> <p>The construction traffic noise (including temporary buses) was assessed in Volume 3, Technical Paper 2 of the EIS. The proposed activity will result in noise impacts to new receivers due to two new bus routes and modifications of previously assessed bus routes. These impacts would be consistent with the</p>	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	noise impacts as assessed within the EIS and would be temporary in nature over the 2 week period. It is considered that the additional noise impacts from the bus routes presents a negligible change from the Approved Project. This is particularly considering that the additional July possession avoided the need for the Christmas 2020 shutdown and will avoid the need for up to 4 two-month station shutdowns in the future, thereby Thus removing construction traffic noise at other times.				
Indigenous heritage	No changed from Approved Project.	No additional measures required.	Y	Y	
Non-indigenous heritage	No changed from Approved Project.	No additional measures required.	Y	Y	
Community and stakeholder	There will be ongoing community and stakeholder engagement in relation to these proposed works.	No additional measures required.	Y	Y	
Traffic	<p>Traffic</p> <p>In accordance with Condition of Approval E48, a Temporary Transport Management Plan will be prepared.</p> <p>To support this Consistency Assessment, AECOM have prepared a Transport Consistency Assessment (Appendix A) for the proposed activity. It assessed the traffic impacts of seven weekday bus routes and construction vehicles. It was considered that the three weekend routes did not need further assessment as weekend background traffic is generally lower on the network when compared to peak periods.</p> <p>Route 2 (Express to Padstow Station), Route 3 (Express to Beverly Hills Station and Route 4 (Express to Kingsgrove Station) are new services</p>	<p>In accordance with Condition of Approval E48, the Temporary Transport Management Plan is to include the following mitigation measures:</p> <ol style="list-style-type: none"> 1. Traffic control would be installed during the July 2021 school holiday AM and PM peak periods at the priority-controlled intersection at Burwood Road/ Bridge Road to manage pedestrian safety and bus movements turning right from Bridge Road. The operation of this intersection 	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>proposed that were not previously included in the Approved Project. The traffic impact of these routes has been assessed as negligible. The maximum additional peak hour traffic added by the bus replacement services is 15 veh/h or less, with the increases in delay expected to be negligible. The impacts on key intersections were also considered acceptable, subject to the implementation of mitigation measures, and the assessment in the Transport Consistency Report (Appendix A) are summarised as follows:</p> <ul style="list-style-type: none"> Express routes to Central Station – Ten intersections were modelled along Route 74T3, Route 5 and the area surrounding Central Station. All ten intersections were assessed as having a reasonable level of impact, where the increase in delay is expected to be negligible. Sydenham Station – One intersection was modelled and it is expected that the proposed activity would have no noticeable delays. Marrickville Station – One intersection modelled and the additional delay is considered reasonable during the peak periods. Dulwich Hill Station – Three intersections modelled and the additional delay is considered reasonable during the peak periods. At the Wardell Road/ Dudley Street intersection, whilst the level of 	<p>would be monitored during the initial stages of the possession to determine the need for ongoing traffic management.</p> <p>2. Consultation is to be undertaken with businesses or other sensitive receivers impacted by the temporary loss of parking. Impact to these businesses is to be minimised where possible.</p>			

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>service will decrease, the impact is expected to be negligible.</p> <ul style="list-style-type: none"> Hurlstone Park Station – Two intersections modelled. The increase in delay is expected to be minimal and will not cause noticeable delays for commuters in peak hour. Canterbury Station – One intersection was modelled and it is expected that any impact to the level of service would be minor and would not warrant any mitigation. The level of impact is also consistent with the Approved Project. Campsie Station – Six intersections were modelled. Three of the intersections were modelled in the AM period and the impact is considered to be negligible. For three of the five intersections modelled during the PM peak period, the increase in delay is considered to be negligible during peak periods. The intersection of Beamish Street/ Evaline Street and Beamish Street/ North Parade are expected to experience a minor increase in delay however, this performance is considered reasonable during peak periods. Belmore Station – Eight intersections were modelled. The Burwood Road/ Bridge Road intersection is expected to result in the lowest level of service however, with proposed mitigation measures (as outlined 				

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>within this consistency assessment), the impact of the bus replacement services is considered to be minor.</p> <p>The remaining intersections would experience additional delays however, the resultant level of service is still considered to be reasonable during peak times.</p> <ul style="list-style-type: none"> Lakemba Station – One intersection was modelled and whilst there would be additional delays due to the additional bus services, the resultant level of service is still considered to be reasonable during peak times. Wiley Park Station – Five intersections were modelled. For three intersections, the increase in delay is expected to be reasonable during peak periods. The other two intersections, King Georges Road/ Mary Street and Canterbury Road/ King Georges Road, the increase of a maximum of two seconds in average delay is considered to be negligible and would not warrant mitigation. Punchbowl Station – One intersection was modelled and the additional bus services is expected to result in a negligible increase in delay during peak times. Bankstown Station – One intersection was modelled and the additional bus services is 				

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>expected to result in a negligible increase in delay during peak times.</p> <p>Parking</p> <p>The temporary bus stops and provision for bus layover and standby buses will temporarily impact street parking during the two-week possession period. Impacts to street parking have been minimised as much as possible by strategic location of the bus stops and where possible, limiting impacts only during weekday peak periods.</p> <p>During the possession, street parking would also be impacted by construction vehicle parking, and also the loss of some commuter car parking areas for use for material, equipment and machinery lay down areas.</p> <p>Street parking impacts are expected to be greatest in streets adjacent to stations, access areas to the rail corridor and commuter parking areas. This includes Lillian Street and South Parade in Campsie.</p> <p>Up to 10 car parking spaces may be provided at each construction site. However this will not accommodate the overall demand for construction worker vehicle parking during the possession period.</p> <p>Construction worker parking impacts would be managed in accordance with the Worker Car Parking Strategy and the Construction Traffic Management Plan prepared by Sydney Metro's Contractors, (requirement of REMM TC15) developed in consultation with the relevant local council. These encourage contractor staff to use public transport, car share, and park in designated</p>				

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				Y/N	Comments
	<p>off site areas and access construction sites via shuttle bus where these options are available.</p> <p>The occupation of commuter car parking areas for material, equipment and machinery laydown areas is to be undertaken through formal channels with the local council or land owner, and impacts are to be managed in line with the Contractor's CTMP.</p> <p>Commuter parking demand around the stations is expected to drop significantly during the possession period which will assist with offsetting parking impacts from construction worker vehicles and material, equipment and machinery laydown areas.</p> <p>Impact to street parking during possession periods was assessed in Volume 2, Technical Paper 1 of the EIS, and the proposed activity is considered to be consistent with the Approved Project. The Conditions of Approval require a Temporary Transport Management Plan to be prepared and this will incorporate measures to minimise impact to on-street parking and surrounding residences and commercial properties. In addition to this, a mitigation measure is proposed, requiring consultation to be undertaken with businesses impacted by temporary bus stops and loss of car parking.</p>				
Waste	No change from the Approved Project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Social	<p>The proposed activity would result in social impacts, by way of inconveniences and delays, as the train line will not be in operation for two weeks. However, there has been a significant attempt to mitigate these impacts by providing a variety of bus replacement routes, including express services, and also routes to other train lines which is anticipated to provide a more direct connection to Central than an all stops rail replacement service. In addition, the additional July possession removes social impacts which would have resulted from the Christmas 2020 possession and up to 4 two-month stations closures, which are no longer required due to the additional July 2021 possession.</p> <p>An additional mitigation measure is proposed requiring consultation with the local community prior to the July possession.</p>	Consultation with the local community is to be undertaken prior to the two week July possession.	Y	Y	
Economic	<p>There is potential for the proposed activity to result in economic impacts to businesses surrounding rail stations due to loss of rail patronage and some nearby car parking. However, the loss of rail patronage is temporary only and anticipated to be mitigated by additional patronage from construction workers and bus users. The car parking impacts are likely to be similar to other rail shutdowns being undertaken, for example over the Christmas possession. Any economic impact from the proposed activity is anticipated to be negligible relative to the Approved Project.</p>	No additional measures required.	Y	Y	
Visual	<p>Minor visual impacts would result from the temporary bus stops. However, this is considered to be temporary only and negligible relative to the Approved Project.</p>	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Urban design	No change from the Approved Project.	No additional measures required.	Y	Y	
Geotechnical	No change from the Approved Project.	No additional measures required.	Y	Y	
Land use	No change from the Approved Project.	No additional measures required.	Y	Y	
Climate Change	No change from the Approved Project.	No additional measures required.	Y	Y	
Risk	No change from the Approved Project.	No additional measures required.	Y	Y	
Other	No change from the Approved Project.	No additional measures required.	Y	Y	
Management and mitigation measures	The relevant mitigation measures identified in the approval documentation would continue to apply to Proposed activity.	Additional mitigation measures proposed as outlined above.	Y	Y	

11. Impact Assessment – Operation

The proposed works are during construction only.

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from the Approved Project.	No additional measures required.	Y	Y	
Water	No change from the Approved Project.	No additional measures required.	Y	Y	
Air quality	No change from the Approved Project.	No additional measures required.	Y	Y	
Noise vibration	No change from the Approved Project.	No additional measures required.	Y	Y	
Indigenous heritage	No change from the Approved Project.	No additional measures required.	Y	Y	
Non-indigenous heritage	No change from the Approved Project.	No additional measures required.	Y	Y	
Community and stakeholder	No change from the Approved Project.	No additional measures required.	Y	Y	
Traffic	No change from the Approved Project.	No additional measures required.	Y	Y	
Waste	No change from the Approved Project.	No additional measures required.	Y	Y	
Social	No change from the Approved Project.	No additional measures required.	Y	Y	
Economic	No change from the Approved Project.	No additional measures required.	Y	Y	
Visual	No change from the Approved Project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Urban design	No change from the Approved Project.	No additional measures required.	Y	Y	
Geotechnical	No change from the Approved Project.	No additional measures required.	Y	Y	
Land use	No change from the Approved Project.	No additional measures required.	Y	Y	
Climate Change	No change from the Approved Project.	No additional measures required.	Y	Y	
Risk	No change from the Approved Project.	No additional measures required.	Y	Y	
Other	No change from the Approved Project.	No additional measures required.	Y	Y	
Management and mitigation measures	No change from the Approved Project.	No additional measures required.	Y	Y	

12. Consistency with the Approved Project

Based on a review and understanding of the existing Approved Project and the proposed modifications, is there a transformation of the Project?	No. The proposed works would not transform the project. The project would continue to provide a metro rail line between Sydenham and Bankstown.
Is the project as modified consistent with the objectives and functions of the Approved Project as a whole?	Yes. The proposed works would be consistent with the objectives and functions of the Approved Project.
Is the project as modified consistent with the objectives and functions of elements of the Approved Project?	Yes. The changes identified in this assessment are consistent with the objectives and functions of the Approved Project.
Are there any new environmental impacts as a result of the proposed works/modifications?	No. The proposed works do not result in any new environmental impacts beyond those considered in the Approved Project.
Is the project as modified consistent with the conditions of approval?	Yes. The proposed works would be consistent with the conditions of approval.
Are the impacts of the proposed activity/works known and understood?	Yes. The impacts of the proposed works are understood.
Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?	Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.

13. Other Environmental Approvals

Identify all other approvals required for the project:


N/A

Author certification

To be completed by person preparing checklist.

I certify that to the best of my knowledge this Consistency Checklist:

- Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the Proposed Revision; and
- Examines the consistency of the Proposed Revision with the Approved Project; is accurate in all material respects and does not omit any material information.

Name:	Rachel Gardner	Signature:	
Title:	Planning Approvals Officer		
Company:	Sydney Metro	Date:	22.06.2021


This section is for Sydney Metro only.

Application supported and submitted by

Name:	Yvette Buchli	Date:	24/06/2021
Title:	Associate Director Planning Approvals	Comments:	
Signature:			

Based on the above assessment, are the impacts and scope of the proposed activity/modification consistent with the existing Approved Project?

- Yes The proposed activity/works are consistent and no further assessment is required.
- No The proposed works/activity is not consistent with the Approved Project. A modification or a new activity approval/ consent is required. Advise Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	Fil Cerone	Date:	24 June 2021
Title:	Director City & Southwest, Environment, Sustainability & Planning	Comments:	
Signature:			

Appendix A – July 2021 Possession Traffic Consistency Assessment

Sydney Metro City & Southwest Sydenham to Bankstown Upgrade

July 2021 Possession Traffic Consistency Assessment

Sydney Metro City & Southwest Sydenham to Bankstown Upgrade

July 2021 Possession Traffic Consistency Assessment

Client: Sydney Metro

ABN: 12 354 063 515

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Quality information

Document Sydney Metro City & Southwest Sydenham to Bankstown Upgrade

Ref 60489141

Date 25-Nov-2020

Prepared by Jacques Van den Heever, Christine Lee and Nathan Lowe

Reviewed by Tim Brown

Revision History


Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
C	25-Nov-2020	Final	Rachel O'Hara Principal Environmental Scientist	

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1.0 Introduction

1.1 Overview

Sydney Metro has received approval for the Sydenham to Bankstown upgrade component of the Sydney Metro City & Southwest (the project) in December 2018. The project involves upgrading 10 existing stations west of Sydenham (Marrickville to Bankstown inclusive), and a 13-kilometre-long section of the Sydney Trains T3 Bankstown Line, between west of Sydenham Station and east of Bankstown Station, to improve accessibility for customers and meet the standards required for metro operations. The project would enable Sydney Metro to operate beyond Sydenham, to Bankstown.

1.1.1 EIS (previous assessment)

An Environmental Impact Statement (EIS) for the project was exhibited in August 2017 (the exhibited project). The EIS presented a Temporary Transport Strategy (TTS) which outlined the use of bus replacement services over possession periods, periods when trains could not run on the T3 Bankstown Line, during construction.

This assessment analysed the potential impacts of the project during the required possession periods. The possession periods that were assessed included school holiday possession periods (two (2) weeks in July and six (6) weeks in December/January for five (5) years), four (4) additional weekend possessions per year (in addition to the standard Sydney Trains possessions) and a final possession of up to six (6) months.

Typical weekday demand on the T3 Bankstown Line was assumed in the assessment to be in the order of 90,000 trips per day, of which the vast majority were between Sydenham and Bankstown stations. A 6% per annum growth in demand was projected for the T3 Bankstown Line. To meet this demand, a Baseline Temporary Transport Plan (TTP) and a Refined TTP was developed which provided a potential network and frequencies of replacement bus services.

The EIS assessed the following scenarios:

- Scenario A: Existing 2016 background traffic flows for a typical day;
- Scenario B: Future 2023 traffic flows for a typical day;
- Scenario C: Future 2023 traffic + construction traffic;
- Scenario D: Future 2023 traffic + construction traffic + Baseline TTP; and
- Scenario E: Future 2023 traffic + construction traffic + Refined TTP.

The EIS was subsequently updated by the Preferred Infrastructure Report (PIR) in 2018.

1.1.2 PIR (previous assessment)

Following the exhibition of the EIS, several changes were proposed to the exhibited project. The 'preferred project' enabled a number of the issues raised in submissions to be addressed, but also significantly minimised potential impacts – especially in respect of construction noise, traffic, heritage and vegetation impacts.

Key changes during the assessment of the preferred project included:

- Changes to construction sequencing and possession periods;
 - Additional eight (8) weekend possessions per year,
 - Two (2) week possessions during December holiday periods only (July possession period excluded),
 - Occasional weekday night-time possessions.
- Concurrent closure of three (3) stations for up to two (2) months;
- Revised works to road bridges; and

- Retaining and enhancing existing station layouts to facilitate improved operations with supporting precinct improvements to promote customer service.

The PIR assessed the following scenarios:

- Scenario A: Future 2023 traffic flows for a typical day (from EIS);
- Scenario B: Future 2023 traffic + construction traffic + Refined TTP (from EIS);
- Scenario C: Future 2023 December traffic flows;
- Scenario D: Future 2023 December traffic + construction traffic; and
- Scenario E: Future 2023 December traffic + construction traffic + Refined TTP.

1.1.3 Sydenham to Bankstown (S2B) consistency assessment (this assessment)

An updated TTP network and service frequencies are proposed by Sydney Metro over the July 2021 school holiday period. This period was excluded from the PIR due to potential traffic impacts but was included under the EIS.

A full line closure would be required for two weeks in July 2021 and bus replacement services would be provided on seven routes to enable construction. The S2B consistency assessment (this assessment) (S2B CA) will assess the traffic impacts of providing bus replacement services along these seven routes. Two of these routes were previously assessed during a December holiday possession scenario, however, the routes have been modified which requires the assessment of new intersections along these routes. Two new routes are also proposed that were not previously assessed.

A Gap Analysis was conducted that laid the groundwork for this S2B CA. The Gap Analysis considered the proposed bus replacement service routes, frequencies, terminating and turn-around facilities as well as using a similar methodology to the EIS to determine the intersections requiring assessment. The methodology for this S2B CA is discussed in further detail in **Section 2.2**.

1.2 Document structure

This report is structured in a manner that broadly replicates the PIR. **Section 2.0** describes the general transport context of the S2B CA and project area, as well as providing details of the methodology used during this assessment. **Section 3.0** provides the assessment of impacts of the July 2021 possession during the construction phase. **Section 4.0** provides the updated mitigation measures required as an outcome from this S2B CA.

2.0 Methodology

2.1 Temporary Transport Strategy

Both the EIS and the PIR assessments were based on the potential service network and frequencies of the bus replacement services proposed by the Refined TTP. The TTS assumed for this S2B CA is detailed below. The general extent of the project area as well as the bus replacement services is shown in **Figure 2-1**.

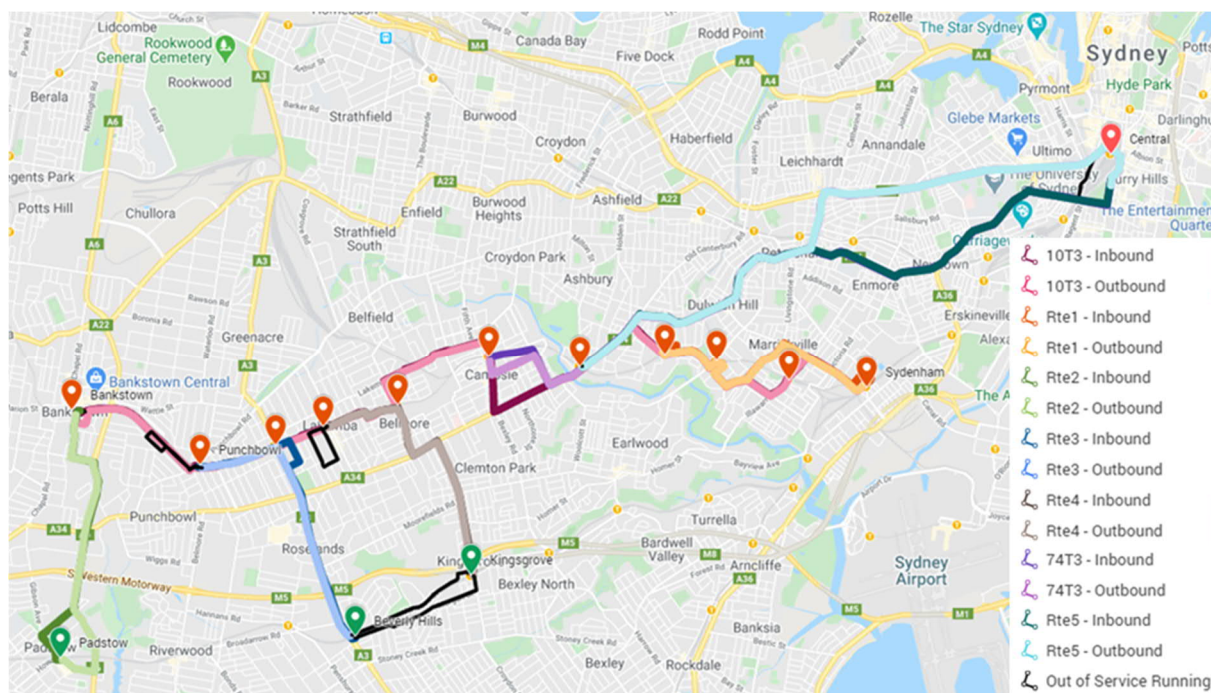


Figure 2-1: Project area and bus replacement services

2.1.1 Routes

Broad descriptions of the bus replacement services proposed for the July 2021 possession period for assessment in this S2B CA are given in **Table 2-1**.

Table 2-1: July 2021 possession bus replacement services

Route	Description	Service
10T3	10T3 Bankstown to Sydenham (All Stops)	Commuter service to Sydenham
Route 1	Hurlstone Park to Sydenham (All Stops)	Commuter service to Sydenham
Route 2	Bankstown then Padstow (Express)	Transport to T8 parallel line
Route 3	Punchbowl, Wiley Park then Beverly Hills (Express)	Transport to T8 parallel line
Route 4	Lakemba, Belmore then Kingsgrove (Express)	Transport to T8 parallel line
74T3	74T3 Campsie then Central (Express)	Transport to City
Route 5	Canterbury then Central (Express)	Transport to City

Route 10T3 and Route 1 are proposed to be east-west routes running parallel to the T3 line and are proposed to be all stops services. Route 10T3 will run the full length of the line possession area from Bankstown to Sydenham. Route 1 will service the eastern segment of possession area and only run between Hurlstone Park and Sydenham.

Route 2, Route 3 and Route 4 are proposed to service the western segment of the possession area by transporting passengers to the T8 parallel service to the south and are proposed to be express services. Route 2 will transport passengers to Padstow, Route 3 will provide services to Beverly Hills and Route 4 will provide services to Kingsgrove.

Route 74T3 and Route 5 are also proposed to service the eastern segment of the possession area as express services to Central station in the Sydney CBD. Detailed route layouts of each of the bus replacement services are provided in **Appendix A**.

Two additional weekend bus replacement services have also been proposed. These routes have not been assessed as part of this traffic assessment as weekend background traffic is generally lower on the network when compared to the peak periods and impacts are expected to be minor. The 33T3 service is proposed as a limited stops service between Bankstown and Sydenham while the 13T3 is proposed as an express service between Campsie and Sydenham.

2.1.2 Frequencies

The following frequencies of bus replacement services have been proposed for this S2B CA during the AM and PM peak periods as well as the Inter-Peak, Saturdays and Sundays (**Table 2-2**).

Table 2-2: Bus replacement service frequencies (services per hour)

Route	Direction	Frequencies (services/hr)				
		AM	PM	IP	Sat	Sun
10T3	Inbound	20	15	15	8	8
	Outbound	10	20	15	8	8
Route 1	Inbound	20	0	0	0	0
	Outbound	0	6	0	0	0
Route 2	Inbound	8	6	6	0	0
	Outbound	6	6	6	0	0
Route 3	Inbound	12	6	6	0	0
	Outbound	6	8	6	0	0
Route 4	Inbound	15	6	6	0	0
	Outbound	6	8	6	0	0
74T3	Inbound	24	10	12	0	0
	Outbound	8	18	6	0	0
Route 5	Inbound	12	6	6	0	0
	Outbound	6	8	6	0	0

The bus replacement service frequencies above were compared to the frequencies of the Refined TTP during the intersection selection process of the Gap Analysis, particularly to determine those intersections that were assessed during the previous assessments and that would potentially require reassessment.

Impacts of the bus replacement services during the Inter-Peak, Saturdays and Sundays have not been assessed during this S2B CA as weekend background traffic is generally lower on the network when compared to the peak periods and impacts are expected to be minor.

2.2 Modelling

2.2.1 Intersection selection methodology

The methodology used during the Gap Analysis to determine intersections for inclusion into this S2B CA, is detailed below. During the Gap Analysis, intersections were allocated to four different categories based on the data from previous assessments and as well as what is now being proposed. These categories are:

- No Reassessment;
- Reassessment;
- New Assessment; and
- New Assessment; but Disregarded.

The proposed seven routes as well as all of the intersections considered for assessment are shown in **Figure 2-2** below.

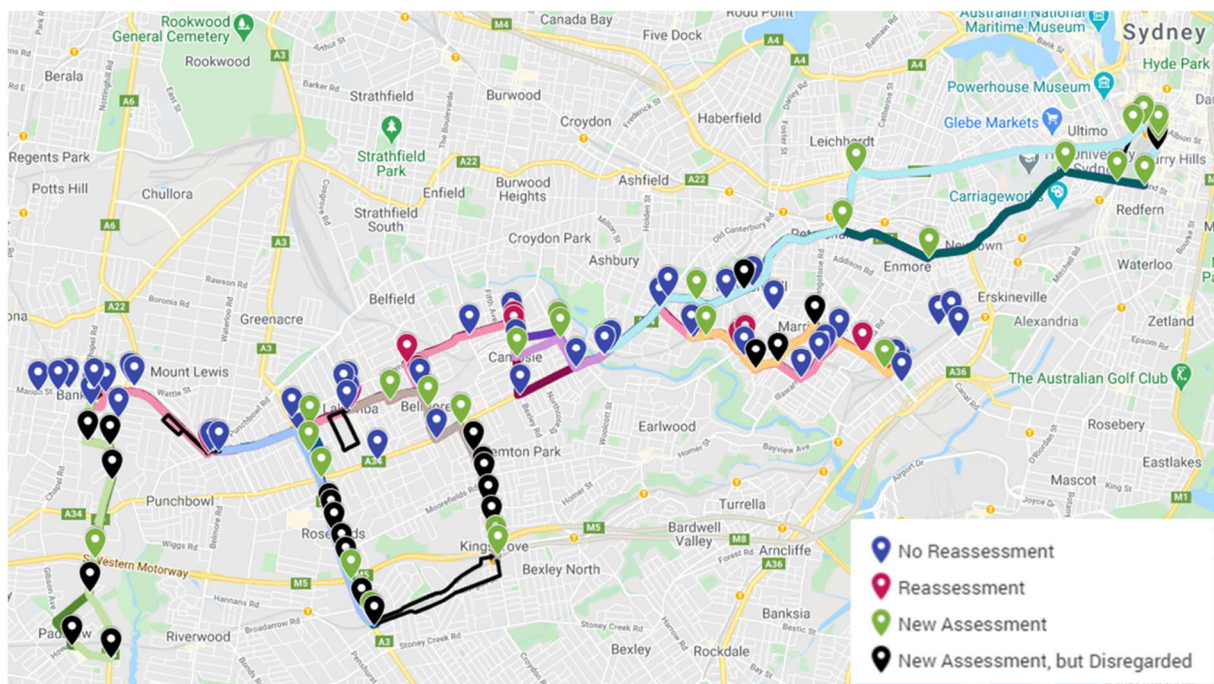


Figure 2-2: Proposed bus replacement routes and intersections for assessment

Intersections that were previously assessed during the EIS or PIR were further assessed and classified as either 'No Reassessment' (blue in **Figure 2-2** above) or 'Reassessment' (red in **Figure 2-2** above).

'No Reassessment' intersections were those intersections where only construction routes would pass and/ or where the proposed routes would pass but with similar or lower bus volumes when compared to the EIS and PIR. These intersections could therefore be reasonably expected to perform similarly or better during a July 2021 scenario as a worse-case scenario had already been assessed.

'Reassessment' intersections were those intersections where the proposed routes would pass with higher expected bus volumes than those previously assessed. In total, 48 intersections were determined as requiring 'No Reassessment' and 12 intersections were selected for 'Reassessment'. Of these 12 intersections, seven are signalised intersections and five are priority controlled.

A similar methodology used during the EIS to determine which of the new intersections required assessment was followed. Intersections were classified into 'New Assessment' (green in **Figure 2-2** above) or 'New Assessment, but Disregarded' (black in **Figure 2-2** above). The intersection selection methodology consisted of:

1. Intersections along the proposed bus replacement routes were identified and carried forward for further analysis.
2. Precinct information¹ was used as a second input where available. This included road hierarchy, existing bus volumes, proximity to the stations and 'Key Intersections'.
3. The form of intersection control was considered next. Signalised intersections identified in steps 1 and 2 were included and supplemented with priority-controlled locations where impacted by bus replacement traffic turning movements, or where it was required to assess the interaction between adjacent intersections.
4. For the remaining intersections, the road classification and presence of existing bus routes were considered. The importance of each intersection for modelling was analysed separately, but generally these remaining intersections were not considered critical for modelling.

In total, 27 intersection were determined as requiring 'New Assessment' and 28 intersections were selected for 'New Assessment, but Disregarded'. Of these 27 intersections, 20 are signalised intersections and seven are priority controlled.

Overall, a total of 39 intersections were selected for assessment during this S2B CA.

2.2.2 Assessment scenarios

The following scenarios have been assessed during this S2B CA (**Table 2-3**):

Table 2-3: Assessment scenarios

Scenario	Description
Scenario 1	Comparison 1 - EIS Scenario E (Typical 2023 Future + Construction + Refined TTP)
Scenario 2	Comparison 2 - PIR Scenario E (December 2023 + Construction + Refined TTP)
Scenario 3	July 2021 background traffic + construction traffic
Scenario 4	July 2021 background traffic + construction traffic + S2B CA bus traffic

Scenario 1 (assessed in EIS) and Scenario 2 (assessed in PIR) show reference conditions that have been forecast to exist in 2023 and December 2023, respectively. These scenarios serve as comparisons with Scenario 4. Scenario 3 is considered the applicable scenario to represent the baseline conditions for this traffic assessment as consent has already been obtained for construction during the July 2021 possession period.

2.2.3 Performance indicators

In order to assess the impact of the above scenarios on the performance of the intersections, the main indicators were:

- Degree of Saturation (DoS): the ratio between traffic volumes and capacity (v/c) of the intersection, used to measure how close to capacity an intersection is operating. The DoS is a direct measure of the congestion level of the intersection and as DoS approaches 1.0, both queue length and delays increase rapidly. Satisfactory operations usually occur with a DoS lower than 0.9.
- Average Delay: duration, in seconds, of the average vehicle waiting time at an intersection.
- Level of Service (LoS): a measure of the overall performance of the intersection. The levels of service (LoS) presented in **Table 2-4** are in accordance with the TfNSW (previously RMS) Traffic Modelling Guidelines and LoS gives an indication of how well the intersection is performing regarding delay incurred by vehicles. For signalised intersections the LoS is based on the average intersection delay, and the most delayed movement for priority-controlled intersections and roundabouts.

¹ Precinct Land Use and Infrastructure Analysis prepared by the Department of Planning and Environment (Oct 2015)

Table 2-4: Level of Service delay bands²

Level of Service (LoS)	Average Delay (sec/veh)	Traffic Signals and Roundabouts
A	Less than 14	Good operation
B	15 to 28	Good with acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals incidents would cause excessive delays
F	> 70	Exceeds capacity; roundabouts require other control mode

2.3 Baseline conditions

Several intersections under assessment have existing models as well as background traffic volumes, however these traffic volumes date back to 2016. Therefore, various growth factors have been applied to obtain representative July 2021 traffic volumes.

The majority of intersections were new for this S2B CA and did not have existing models. For the signalised intersections, November 2019 SCATS traffic data was obtained, and manual counts were conducted in September 2020 for the priority-controlled intersections. Likewise, various growth factors have been applied to obtain representative July 2021 traffic volumes. Furthermore, suitable reduction factors have been applied to factor 'typical weekday volumes' to be representative of 'July school holiday volumes' and Covid-19 adjustment factors have also been applied (in specific cases) to account for the likely impact on traffic. This is discussed in more detail below.

2.3.1 Growth factors to produce future 2021 traffic volumes

Both the EIS and the PIR applied growth factors obtained from forecasts by the Public Transport Project Model (PTPM) to the 2016 background traffic volumes in order to obtain future traffic volumes. These growth factors consisted of:

- 1.4% per annum for the AM peak hour volumes; and
- 1.5% per annum for the PM peak hour volumes.

To maintain consistency with the EIS and PIR assessments, the same PTPM growth factors of 1.4% in the AM peak and 1.5% in the PM peak were used during this traffic assessment to forecast 2021 traffic volumes.

2.3.2 Reduction factors to produce July 2021 traffic volumes

To determine suitable factors for July 2021, the traffic volume trends in the project area were analysed. The Transport for New South Wales Traffic Volume Viewer was used to obtain traffic volumes at chosen locations. Locations were selected on the basis of proximity to the project area and availability of data over the 2019 July school holiday period. Data was obtained for the month of July 2019 and compared to data from November 2019 to determine suitable reduction factors for July 2021.

Five traffic count sites were selected from the data available through the RMS viewer:

- Stoney Creek Road (20 m west of Illawarra Parade);
- Liverpool Road (40 m east of Gould Street);
- Enmore Road (60 m east of Bailey Street);
- Canterbury Road (30 m west of Sproule Street); and
- Hume Highway (70 m east of Stacey Street).

² Roads and Maritime Services Traffic Modelling Guidelines (Feb 2013)

Observing trends at each of the sites during the July school holiday period it was identified that the highest volumes were recorded on weekdays during the AM peak (6-10 am) and the PM peak (3-7 pm). These volumes were used as conservative estimates of traffic volumes during the July school holiday period. Traffic volumes were split into directions and simplified to citybound (north- and eastbound) and outbound (south- and westbound). Average weekday traffic volumes were determined for the entire month of July as well as the school holiday period (06/07 – 22/07) and compared to the November 2019 traffic volumes.

Table 2-5 and **Table 2-6** show the percentage reduction (highlighted in yellow) that was applied to both the light and heavy vehicles citybound and outbound, respectively, in the traffic modelling to represent the estimated decrease in traffic volumes during the July school holiday period.

Table 2-5: Percentage reduction in citybound traffic volumes during July 2019

Location Number	Count Location	AM		PM	
		July	School Holidays	July	School Holidays
1	Stoney Creek Rd	-4.73%	-6.47%	-5.65%	-6.94%
2	Liverpool Rd	-2.27%	-3.62%	0.87%	0.89%
3	Enmore Rd	-2.33%	-3.56%	-1.25%	-2.69%
4	Canterbury Rd	-2.31%	-16.89%	0.40%	0.22%
5	Hume Highway ³	3.51%	2.30%	12.35%	12.24%
Average		-2.91%	-7.63%	-3.45%	-4.81%

Table 2-6: Percentage reduction in outbound traffic volumes during July 2019

Location Number	Count Location	AM		PM	
		July	School Holidays	July	School Holidays
1	Stoney Creek Rd	-8.06%	-12.08%	-11.99%	-10.19%
2	Liverpool Rd	-7.76%	-14.14%	-0.24%	0.34%
3	Enmore Rd	-6.22%	-9.83%	-0.54%	-0.40%
4	Canterbury Rd	-7.09%	-12.12%	8.04%	8.98%
5	Hume Highway	-5.67%	-9.44%	-1.29%	-0.38%
Average		-6.96%	-11.52%	-3.52%	-3.66%

The data above shows a general trend of greater reductions in the morning peak compared to the evening peak. This is consistent with what is generally expected. Most commuters are still making their usual business trips during the AM peak, with a reduction in school run trips across the local road network. Additional leisure or retail trips are expected, but the timing of these recreational trips is more likely to occur after 9am with the return trip likely coinciding with the evening peak period. Therefore, whilst the AM peak shows larger reductions due to the removal of school run trips, the PM reduction is offset by an increase in recreational trips over the July school holiday period.

These percentages were applied to each turning movement of the intersection models to forecast July 2021 traffic volumes. Separate factors were applied to the AM and PM traffic volumes on the respective approaches of each intersection to reflect the differences in reductions shown above. Detailed intersection volumes can be found in **Appendix B**.

³ Hume Highway (AM) was excluded from the calculations as traffic volumes were atypical from the other data

2.3.3 Covid-19 adjustment factors

Manual traffic counts were conducted for the seven priority-controlled intersections selected for New Assessment in September 2020, during the global Covid-19 pandemic. In addition to the growth factors and reduction factors above, a suitable Covid-19 adjustment factor was determined in order to obtain representative July 2021 traffic volumes for these intersections.

In addition to the November 2019 SCATS traffic data collected for the signalised intersections, SCATS data was also collected for the same time period when the manual counts occurred (07/09/20-11/09/20). Comparing the November 2019 and September 2020 data enabled the calculation of a suitable factor, which was used to factor the manual traffic counts to pre-Covid-19 traffic volumes.

Table 2-7 shows the Covid-19 adjustment factors:

Table 2-7: Covid-19 adjustment factors

Number	Intersection	AM Factor	PM Factor
1	Beamish St / Evaline St	-0,14%	-0,01%
2	Canterbury Rd / King Georges Rd	-0,23%	-0,44%
3	Fairford Rd / S Western Motorway (M5)	0,91%	-0,18%
4	Leylands Pde / Burwood Rd	-0,16%	-0,09%
5	Parramatta Rd / Crystal St	0,25%	1,11%
6	New Canterbury Rd / Duntroon St	-0,72%	-0,11%
7	Marrickville Rd / Victoria Rd	0,12%	0,08%
8	Wardell Rd / Ewart St	0,65%	-0,97%
9	Beamish St / Clissold Pde	0,19%	0,11%
10	Burwood Rd / Lakemba St	-0,18%	-0,49%
11	Canterbury Rd / Sharp St	-0,12%	0,45%
12	Kingsgrove Rd / M5 East	-0,29%	-0,85%
13	Kingsgrove Rd / Commercial Rd	-2,44%	-0,76%
14	The Boulevarde / Haldon St	-0,06%	-0,50%
15	King Georges Rd / M5 East	0,73%	0,31%
16	King Georges Rd / Tooronga Ter	-1,14%	0,75%
17	Punchbowl Rd / South Ter	0,75%	4,53%
18	New Canterbury Rd / Shaw St	0,19%	-0,08%
19	Enmore Rd / Edgeware Rd	1,30%	1,10%
20	City Rd / Cleveland St	0,95%	-0,60%
21	Cleveland St / Regent St	-0,60%	-0,60%
22	Cleveland St / Chalmers St	0,78%	0,87%
23	Elizabeth St / Foveaux St	-6,15%	-5,07%
24	Elizabeth St / Eddy Ave	-2,34%	-2,53%
25	Eddy Ave / Pitt St	0,37%	-1,31%
26	Pitt St / George St	-0,89%	-1,49%
Average		-1.72%	-1.76%

As of September 2020, the data above shows that traffic volumes have decreased slightly (less than 2%) due to the impacts of Covid-19.

2.4 Construction haulage traffic

Construction haulage routes were also considered during the Gap Analysis in the selection of intersections for assessment. These routes were categorised as follows, as per the EIS:

- Primary routes forming the main access for construction haulage vehicles,
- Secondary routes providing links to the primary routes and to State Roads, and
- Tertiary (alternative) routes used as back-up routes to connect to the primary and secondary routes.

In the PIR, construction works associated with the preferred project were revised since the assessment of the exhibited project in the EIS. However, in traffic terms, the peak hourly volumes were found to be the same although there would be a reduction in the duration of the peak construction periods. So, whilst the total impact from construction may have been reduced as a result of the preferred project, the peak hourly volumes are expected to remain as per the EIS.

The EIS analysed the volumes of material required to be moved to and from each construction compound to determine the duration of construction and the total number of haulage vehicle movements required. A flat profile of haulage movements per day was assumed and a process of manual assignment of haulage vehicle movements to peak hours was undertaken.

Where daily haulage vehicle volumes to a compound was low (less than 10 per day), all haulage movements were assumed to take place during the peak hours. Where there were 10 or more haulage vehicles per day, 20% of vehicle movements were assigned to each of the peak hours.

This S2B CA follows the same methodology and uses the same construction traffic volumes as per the PIR.

2.5 Bridge works

One of the most significant changes as a result of the preferred project was the revised bridge works along the project area. The assessment described in the EIS showed that the bridge works required significant bridge closures and diversions and resulted in significant impacts to the road network.

The preferred project does not require the closure of the bridges for extended periods of time. Bridge works for the preferred project include the installation of new traffic barriers, anti-throw screens as well as other protection measures as required. It is anticipated that bridges would be able to remain open to traffic during the bridge works. Therefore, impacts as a result of bridge works have not been assessed as part of this S2B CA.

3.0 Construction assessment

3.1 Overview

This section presents the intersection modelling analysis undertaken for the July 2021 possession period (S2B CA). The EIS contained results for a typical 2023 weekday, whereas the PIR contained results for a weekday during the December 2023 Christmas period. These results are replicated below, Scenario 1 and Scenario 2 respectively, to assist with interpreting the potential impacts of construction traffic (Scenario 3) and bus replacement services (Scenario 4) during the July 2021 possession period (S2B CA). Detailed intersection modelling results are contained in **Appendix C**.

This section also presents the following:

- Signalised intersections, priority-controlled intersections or specific movements which have slight increases in delays as a result of the additional construction traffic and bus replacement services during the July 2021 possession period. These increased delays are generally very minor, less than 20 seconds, and so given the short period of works during the July 2021 school holiday period would not warrant specific mitigations to address and the impact on the public is minimal at this level of delay.
- Intersections with high existing background traffic where the impact of construction traffic and bus replacement services were considered minor or negligible and that mitigation would not be warranted. The results for these intersections are coloured **magenta** in the tables below.
- Where there are more significant delays, mitigation is discussed. The Temporary Transport Management Plans (TTMPs) that would be developed for the possession period, guided by the TTS, would seek to minimise delays during construction and opportunities to reduce the impacts of construction would be considered as part of this more detailed planning for these intersections.

Note: An asterisk (*) is indicated next to several intersections below. This denotes that these specific intersections are not expected to experience construction traffic during Scenario 3 and 4.

3.2 Padstow, Beverley Hills and Kingsgrove routes

Although Route 2 (Express to Padstow Station), Route 3 (Express to Beverly Hills Station) and Route 4 (Express to Kingsgrove Station) are new services proposed under this S2B CA, the potential impact is expected to be negligible along these routes. The maximum additional peak hour traffic added by the bus replacement services is 15 veh/h or less, with the increases in delay expected to be negligible. Therefore, only a small number of intersections have been assessed along these routes. Results for intersections along Route 4 are located under **Section 3.10** (Belmore Station), results for Route 3 are located under **Section 3.12** (Wiley Park Station) and results for Route 2 are located under **Section 3.14** (Bankstown Station).

3.3 Express routes to Central Station

Ten intersections were modelled along Route 73T3, Route 5 and the area surrounding Central Station, all of which are New Assessments. The majority of intersections are not expected to experience construction from the Project; however, all intersections are expected to be affected by bus replacement services.

Table 3-1 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-1: Central Station intersection assessments - AM peak

Central Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
New Canterbury Rd / Shaw St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3009	3064
Average Delay per Vehicle (Average over all arms in seconds)	-	-	63	78
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	0.99	1.04
Parramatta Rd / Crystal St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	Excluded AM assessment only. AM TTP bus volumes <15/h. Impact expected to be minor.			
Average Delay per Vehicle (Average over all arms in seconds)				
LoS (Overall)				
DoS (Worst Movement)				
Enmore Rd / Edgeware Rd (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3037	3076
Average Delay per Vehicle (Average over all arms in seconds)	-	-	32	31
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.75	0.77
City Rd / Cleveland St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3908	3947
Average Delay per Vehicle (Average over all arms in seconds)	-	-	25	27
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.72	0.87
Cleveland St / Regent St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	6053	6108
Average Delay per Vehicle (Average over all arms in seconds)	-	-	38	38
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.90	0.90
Cleveland St / Chalmers St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	3540	3594
Average Delay per Vehicle (Average over all arms in seconds)	-	-	30	30
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.74	0.79

Central Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Elizabeth St / Foveaux St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2245	2300
Average Delay per Vehicle (Average over all arms in seconds)	-	-	45	50
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.97	1.00
Elizabeth St / Eddy Ave (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2930	2984
Average Delay per Vehicle (Average over all arms in seconds)	-	-	34	34
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	1.00	1.00
Eddy Ave / Pitt St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2382	2437
Average Delay per Vehicle (Average over all arms in seconds)	-	-	32	32
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.69	0.69
Pitt St / George St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	3643	3698
Average Delay per Vehicle (Average over all arms in seconds)	-	-	31	31
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.60	0.60

For all nine intersections modelled during the AM peak period, the expected increase in delay due to the bus replacement services result in a LoS E or better. A LoS E would generally be considered reasonable during peak periods.

Table 3-2 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-2: Central Station intersection assessments - PM peak

Central Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
New Canterbury Rd / Shaw St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3346	3392
Average Delay per Vehicle (Average over all arms in seconds)	-	-	59	69
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.15	1.23
Parramatta Rd / Crystal St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	4145	4173
Average Delay per Vehicle (Average over all arms in seconds)	-	-	59	74
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.28	1.35
Enmore Rd / Edgeware Rd (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3391	3408
Average Delay per Vehicle (Average over all arms in seconds)	-	-	31	31
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.74	0.74
City Rd / Cleveland St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	4191	4209
Average Delay per Vehicle (Average over all arms in seconds)	-	-	30	31
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.83	0.88
Cleveland St / Regent St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	6543	6589
Average Delay per Vehicle (Average over all arms in seconds)	-	-	43	44
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.94	0.94
Cleveland St / Chalmers St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	3298	3344
Average Delay per Vehicle (Average over all arms in seconds)	-	-	28	28
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.68	0.73

Central Station – PM peak				
Elizabeth St / Foveaux St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2482	2528
Average Delay per Vehicle (Average over all arms in seconds)	-	-	61	72
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.02	1.06
Elizabeth St / Eddy Ave (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	3274	3320
Average Delay per Vehicle (Average over all arms in seconds)	-	-	24	25
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.99	1.03
Eddy Ave / Pitt St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2714	2760
Average Delay per Vehicle (Average over all arms in seconds)	-	-	36	36
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.81	0.81
Pitt St / George St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	4122	4168
Average Delay per Vehicle (Average over all arms in seconds)	-	-	32	32
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.67	0.71

All ten intersections modelled during the PM peak period, after the addition of bus replacement services traffic, are expected to result in a LoS E or better. LoS E is generally considered reasonable for peak periods. For these intersections, the increase in delay is expected to be negligible with the largest increase being 15 seconds at Parramatta Road / Crystal Street.

3.4 Sydenham Station

One intersection was modelled in the area surrounding Sydenham Station. The intersection is a New Assessment, having no previous results under Scenario 1 and Scenario 2 as shown below. Construction haulage routes and bus replacement services are expected to operate through this intersection.

Table 3-3 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-3: Sydenham Station intersection assessments - AM peak

Sydenham Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Marrickville Rd / Buckley St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	1347	1402
Average Delay per Vehicle (Average over all arms in seconds)	-	-	5	5
Average Delay per Vehicle (Worst Movement in seconds)	-	-	6	6
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.31	0.31

For the intersection modelled, the addition of the bus replacement services is expected to result in no increase in delay during the July 2021 school holiday period. The intersection performs with a LoS A which would not cause noticeable delays for commuters during the peak hour in Sydney.

Table 3-4 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-4: Sydenham Station intersection assessments - PM peak

Sydenham Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Marrickville Rd / Buckley St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	1620	1664
Average Delay per Vehicle (Average over all arms in seconds)	-	-	5	5
Average Delay per Vehicle (Worst Movement in seconds)	-	-	6	6
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.37	0.37

Similar intersection performance is expected during the PM peak period. The addition of bus replacement services is expected to result in no increase in delay and a LoS A.

3.5 Marrickville Station

One intersection was modelled in the area surrounding Marrickville Station. The intersection is a Reassessment, with comparative results under Scenario 1 and Scenario 2. Although no construction traffic is expected through this intersection, bus replacement services are expected to operate here.

Table 3-5 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-5: Marrickville Station intersection assessments - AM peak

Marrickville Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.18 Marrickville Rd / Victoria Rd (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	2345	1603	1834	1884
Average Delay per Vehicle (Average over all arms in seconds)	192	29	27	24
LoS (Overall)	F	C	B	B
DoS (Worst Movement)	1.38	0.84	0.88	0.92

For the Marrickville Road / Victoria Road intersection, the increase in delay during the July 2021 school holiday period due to the bus replacement services is expected to result in a LoS B. This is generally considered reasonable during the peak periods.

Table 3-6 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-6: Marrickville Station intersection assessments - PM peak

Marrickville Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.18 Marrickville Rd / Victoria Rd (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	2716	2500	2024	2067
Average Delay per Vehicle (Average over all arms in seconds)	71	53	30	30
LoS (Overall)	F	D	C	C
DoS (Worst Movement)	1.05	0.99	0.76	0.76

No increase in delay is expected due to the bus replacement services during the PM peak period. It is expected to result in a LoS C, which is generally considered reasonable during peak periods. The traffic volumes during Scenario 4 are expected to be significantly lower than Scenario 1 and 2, resulting in lower average delay.

3.6 Dulwich Hill Station

Two intersections were modelled in the area surrounding Dulwich Hill Station, both of which are Reassessments. While both construction traffic and bus replacement services are expected to operate through Wardell Road / Ewart Street, only bus replacement services are expected at Wardell Road / Dudley Street.

Table 3-7 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-7: Dulwich Hill Station intersection assessments - AM peak

Dulwich Hill Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.15 Wardell Rd / Ewart St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	1904	1338	1600	1651
Average Delay per Vehicle (Average over all arms in seconds)	179	30	39	69
LoS (Overall)	F	C	C	E
DoS (Worst Movement)	1.13	0.77	0.98	1.19
H.16 Wardell Rd / Dudley St (Priority)*		Year Capped: 2021		
Demand Flow (Veh)	1385	947	1173	1225
Average Delay per Vehicle (Average over all arms in seconds)	31	8	11	16
Average Delay per Vehicle (Worst Movement in seconds)	85	26	41	51
LoS (Worst Movement)	F	B	C	D
DoS (Worst Movement)	0.99	0.65	0.81	0.89

For the two intersections modelled, the expected increase in delay due to the bus replacement services would result in a LoS E or better. LoS E would generally be considered reasonable during peak periods. Overall, the delay during Scenario 3 and 4 is greater than Scenario 2. This is due to a significantly lower volume of vehicles during the December Christmas period. Intersection performance is expected to be better compared to Scenario 1.

Table 3-8 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-8: Dulwich Hill Station intersection assessments - PM peak

Dulwich Hill Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.15 Wardell Rd / Ewart St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2317	2159	2029	2070
Average Delay per Vehicle (Average over all arms in seconds)	88	61	33	36
LoS (Overall)	F	E	C	C
DoS (Worst Movement)	1.11	1.05	0.99	0.99
H.16 Wardell Rd / Dudley St (Priority)*		Year Capped: 2021		
Demand Flow (Veh)	1588	1460	1424	1465
Average Delay per Vehicle (Average over all arms in seconds)	13	10	8	9
Average Delay per Vehicle (Worst Movement in seconds)	73	50	42	47
LoS (Worst Movement)	F	D	C	D
DoS (Worst Movement)	0.85	0.78	0.76	0.76

For the two intersections modelled, the expected increase in delay due to the bus replacement services would result in a LoS D or better. LoS D would generally be considered reasonable during peak periods. For the Wardell Road / Dudley Street intersection, the LoS is forecast to decrease slightly from Scenario 3 to 4 due to the bus replacement services, however the increase in average delay of the worst movement is expected to be only 5 seconds which is considered negligible. Intersection performance is expected to be better compared to Scenario 1.

3.7 Hurlstone Park Station

Two intersections were modelled in the area surrounding Hurlstone Park Station, both of which are New Assessments with no results from the previous assessments. No construction traffic is expected on New Canterbury Road near Duntroon Street, however, construction traffic is expected near Garnet Street / Floss Street.

Table 3-9 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-9: Hurlstone Park Station intersection assessments - AM peak

Hurlstone Park Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
New Canterbury Rd / Duntroon St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2071	2126
Average Delay per Vehicle (Average over all arms in seconds)	-	-	13	13
LoS (Overall)	-	-	B	B
DoS (Worst Movement)	-	-	0.52	0.52
Garnet St / Floss St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	742	796
Average Delay per Vehicle (Average over all arms in seconds)	-	-	4	5
Average Delay per Vehicle (Worst Movement in seconds)	-	-	8	8
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.30	0.34

For the two intersections modelled, the increase in delay due to the addition of bus replacement services during the July 2021 school holiday period is expected to be minimal and to result in a LoS B or better. A LoS B would not cause noticeable delays for commuters in the peak hour.

Table 3-10 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-10: Hurlstone Park Station intersection assessments - PM peak

Hurlstone Park Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
New Canterbury Rd / Duntroon St (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2171	2217
Average Delay per Vehicle (Average over all arms in seconds)	-	-	11	11
LoS (Overall)	-	-	B	B
DoS (Worst Movement)	-	-	0.46	0.48
Garnet St / Floss St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	649	693
Average Delay per Vehicle (Average over all arms in seconds)	-	-	4	4
Average Delay per Vehicle (Worst Movement in seconds)	-	-	7	7

Hurlstone Park Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.24	0.26

For the two intersections modelled, no increase in delay is expected due to the addition of bus replacement services during the July 2021 school holiday period and to result in a LoS B or better.

3.8 Canterbury Station

One intersection was modelled in the area surrounding Canterbury Station. The intersection is a Reassessment, with comparative results under Scenario 1 and Scenario 2. Both construction traffic and bus replacement services are expected to operate through this intersection.

Table 3-11 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-11: Canterbury Station intersection assessments - AM peak

Canterbury Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
H.14 Canterbury Rd / Charles St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	3551	2422	3080	3142
Average Delay per Vehicle (Average over all arms in seconds)	6	1	2	2
Average Delay per Vehicle (Worst Movement in seconds)	608	78	195	229
LoS (Worst Movement)	F	F	F	F
DoS (Worst Movement)	0.60	0.40	0.52	0.54

The Canterbury Road / Charles Street intersection model results in LoS F for the worst movement during the July 2021 school holiday period. However, the average delay across all arms is approximately two seconds, implying that the main (through) movement is operating with negligible delay and the level of service is being heavily influenced by the low traffic volumes turning out of Charles Street.

The worst performing movement is forecast to be the right turning movement on Charles Street. The volumes executing this turn are <5 veh/h in both scenarios and can be expected to divert to other intersections. The delay is considered to be a natural feature of the priority-controlled intersection with large differences between major road and minor road traffic volumes during the peak hour.

It is also evident from Scenario 1 and especially Scenario 2 that background traffic volumes are high, even during a December Christmas period, and therefore the impact of the bus replacement services is considered to be minor and would not warrant any mitigation. The expected impact is also considered consistent with the impacts of the approved project (EIS/PIR).

Table 3-12 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-12: Canterbury Station intersection assessments - PM peak

Canterbury Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
H.14 Canterbury Rd / Charles St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	3978	3655	3635	3698
Average Delay per Vehicle (Average over all arms in seconds)	2	1	1	1
Average Delay per Vehicle (Worst Movement in seconds)	570	486	380	442
LoS (Worst Movement)	F	F	F	F
DoS (Worst Movement)	0.64	0.58	0.56	0.58

Similar intersection performance is expected during the PM peak period. The intersection is expected to result in LoS F for the worst movement during the July 2021 school holiday period. However, the average delay across all arms is approximately one second, implying that the main (through) movement is operating with negligible delay.

The worst performing movement is forecast to be the right turning movement on Charles Street. The volumes on this movement are also <5 veh/h in both scenarios and can be expected to divert to other intersections. It is also evident from Scenario 1 and Scenario 2 that background traffic volumes are high, even during a December Christmas period, and therefore the impact of the bus replacement services is considered to be minor and would not warrant any mitigation. The expected impact is also considered consistent with the impacts of the approved project (EIS/PIR).

3.9 Campsie Station

Six intersections were modelled in the area surrounding Campsie Station. Three of the intersections are Reassessments while the other three are New Assessments. The three intersection along Beamish Street at Clissold Parade, South Parade and North Parade were not assessed during the AM peak as a worse-case scenario had already been assessed under the EIS. The intersection of South Parade / Wonga Street was not assessed during the PM peak as bus replacement services are expected to be less than 15 veh/h and the impact is expected to be minor.

Table 3-13 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-13: Campsie Station intersection assessments - AM peak

Campsie Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.11 Beamish St / Clissold Pde (Signals)		Year Capped: 2021		
Demand Flow (Veh)	1739	1216	Excluded AM assessment only.	

Campsie Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Average Delay per Vehicle (Average over all arms in seconds)	38	12	EIS assessed worst-case (LOS C). Impact expected to be minor.	
LoS (Overall)	C	A		
DoS (Worst Movement)	0.92	0.50		
B.12 Beamish St / South Pde (Signals)		Year Capped: 2021		
Demand Flow (Veh)	1730	1204	Excluded AM assessment only. EIS assessed worst-case (LOS C). Impact expected to be minor.	
Average Delay per Vehicle (Average over all arms in seconds)	29	22		
LoS (Overall)	C	B		
DoS (Worst Movement)	0.91	0.95		
H.11 Beamish St / North Pde (Priority)		Year Capped: 2021		
Demand Flow (Veh)	1699	1200	Excluded AM assessment only. EIS assessed worst-case (LOS C). Impact expected to be minor.	
Average Delay per Vehicle (Average over all arms in seconds)	3	2		
Average Delay per Vehicle (Worst Movement in seconds)	38	35		
LoS (Worst Movement)	C	C		
DoS (Worst Movement)	0.72	0.37		
Beamish St / Evaline St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	1639	1681
Average Delay per Vehicle (Average over all arms in seconds)	-	-	29	31
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.76	0.93
South Pde / Wonga St (Priority)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	273	299
Average Delay per Vehicle (Average over all arms in seconds)	-	-	2	3
Average Delay per Vehicle (Worst Movement in seconds)	-	-	5	6
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.09	0.12
Evaline St / Wonga St (Priority)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	275	321
Average Delay per Vehicle (Average over all arms in seconds)	-	-	3	3

Campsie Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Average Delay per Vehicle (Worst Movement in seconds)	-	-	5	6
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.07	0.09

For all three of the intersections modelled during the AM peak period, the increase in delay due to the addition of bus replacement services is expected to be negligible and to result in a LoS C or better. A LoS C would generally be considered reasonable during peak periods.

Table 3-14 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-14: Campsie Station intersection assessments - PM peak

Campsie Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.11 Beamish St / Clissold Pde (Signals)		Year Capped: 2021		
Demand Flow (Veh)	1860	1712	1471	1506
Average Delay per Vehicle (Average over all arms in seconds)	180	62	15	17
LoS (Overall)	F	E	B	B
DoS (Worst Movement)	1.35	1.06	0.75	0.79
B.12 Beamish St / South Pde (Signals)		Year Capped: 2021		
Demand Flow (Veh)	1790	1648	1590	1635
Average Delay per Vehicle (Average over all arms in seconds)	93	32	26	33
LoS (Overall)	F	C	B	C
DoS (Worst Movement)	1.79	0.91	0.84	0.88
H.11 Beamish St / North Pde (Priority)		Year Capped: 2021		
Demand Flow (Veh)	1545	1614	1443	1479
Average Delay per Vehicle (Average over all arms in seconds)	3	3	3	3
Average Delay per Vehicle (Worst Movement in seconds)	43	45	32	33
LoS (Worst Movement)	D	D	D	D
DoS (Worst Movement)	0.67	0.66	0.32	0.32
Beamish St / Evaline St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	1732	1790

Campsie Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Average Delay per Vehicle (Average over all arms in seconds)	-	-	31	47
LoS (Overall)	-	-	C	D
DoS (Worst Movement)	-	-	0.83	1.11
South Pde / Wonga St (Priority)*		Year Capped: 2021		
Demand Flow (Veh)	Excluded PM assessment only. PM TTP bus volumes <15/h. Impact expected to be minor.			
Average Delay per Vehicle (Average over all arms in seconds)				
Average Delay per Vehicle (Worst Movement in seconds)				
LoS (Worst Movement)				
DoS (Worst Movement)				
Evaline St / Wonga St (Priority)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	309	362
Average Delay per Vehicle (Average over all arms in seconds)	-	-	3	3
Average Delay per Vehicle (Worst Movement in seconds)	-	-	5	5
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.09	0.13

For three of the five intersections modelled during the PM peak period, the increase in delay with the addition of bus replacement services is expected to be negligible and to result in a LoS C or better. A LoS C would generally be considered reasonable during peak periods.

The intersection of Beamish Street / Evaline Street is expected to experience a minor increase in delay when adding bus replacement services, decreasing from LoS C to LoS D. This performance would generally be considered reasonable during peak periods.

The intersection of Beamish Street / North Parade is expected to experience a minor increase in delay when adding bus replacement services, however remaining at LoS D. This performance would generally be considered reasonable during peak periods. All intersections demonstrate similar or better performance compared to previous assessments (where these have been conducted).

3.10 Belmore Station

Eight intersections were modelled in the area surrounding Belmore Station, three of which are Reassessments and the remaining five being New Assessments. The intersections along Kingsgrove Road at the M5 interchange and Commercial Road are not expected to experience construction traffic effects.

Table 3-15 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-15: Belmore Station intersection assessments - AM peak

Belmore Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.08 Burwood Rd / Bridge Rd (Priority)		Year Capped: 2021		
Demand Flow (Veh)	1826	1256	1720	1772
Average Delay per Vehicle (Average over all arms in seconds)	21	4	7	20
Average Delay per Vehicle (Worst Movement in seconds)	679	59	99	514
LoS (Worst Movement)	F	E	F	F
DoS (Worst Movement)	1.46	0.48	0.71	1.38
B.09 Burwood Rd / Redman Pde (Priority)		Year Capped: 2021		
Demand Flow (Veh)	1875	1290	1631	1662
Average Delay per Vehicle (Average over all arms in seconds)	5	2	3	3
Average Delay per Vehicle (Worst Movement in seconds)	130	32	57	65
LoS (Worst Movement)	F	C	E	E
DoS (Worst Movement)	0.74	0.53	0.62	0.64
H.20 Burwood Rd / Lakemba St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2202	1618	1854	1884
Average Delay per Vehicle (Average over all arms in seconds)	46	14	18	19
LoS (Overall)	D	A	B	B
DoS (Worst Movement)	1.03	0.48	0.64	0.73
Bridge Rd / Peel St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	572	628
Average Delay per Vehicle (Average over all arms in seconds)	-	-	3	3
Average Delay per Vehicle (Worst Movement in seconds)	-	-	7	9
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.16	0.17
Leylands Pde / Burwood Rd (Signals)		Year Capped: 2021		

Belmore Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Demand Flow (Veh)	-	-	1747	1770
Average Delay per Vehicle (Average over all arms in seconds)	-	-	62	67
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.05	1.05
Canterbury Rd / Sharp St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3134	3157
Average Delay per Vehicle (Average over all arms in seconds)	-	-	69	76
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.00	1.03
Kingsgrove Rd / M5 East (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2854	2877
Average Delay per Vehicle (Average over all arms in seconds)	-	-	23	23
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	0.98	0.98
Kingsgrove Rd / Commercial Rd (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2649	2672
Average Delay per Vehicle (Average over all arms in seconds)	-	-	51	58
LoS (Overall)	-	-	D	E
DoS (Worst Movement)	-	-	1.14	1.16

Seven of the eight intersections modelled during AM peak period are expected to perform at a LoS E or better. A LoS E would generally be considered reasonable during peak periods.

The Burwood Road / Bridge Road intersection is expected to result in LoS F for the worst movement during the July 2021 school holiday period. However, the average delay across all arms is approximately 20 seconds, implying that the main (through) movement is operating with minor delay and the level of service is being heavily influenced by the low traffic volumes turning right out of Bridge Road. The volumes for this movement are <50 veh/h in both scenarios and some vehicles can be expected to divert to other intersections. It is also evident from Scenario 2 that background traffic volumes are high, even during a December Christmas period.

However, manual traffic control has been implemented at this intersection during previous phases of construction to assist pedestrians crossing at this intersection. This mitigation measure would be improved and implemented during the July 2021 possession to not only cater for pedestrians but also the right turn from Bridge Road during the peak period (TC24). Therefore, the impact of the bus replacement services is considered to be minor.

Overall, all intersections demonstrate similar or better performance during Scenario 3 and 4 compared to previous assessments. **Table 3-16** provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-16: Belmore Station intersection assessments - PM peak

Belmore Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.08 Burwood Rd / Bridge Rd (Priority)		Year Capped: 2021		
Demand Flow (Veh)	1853	1703	1821	1870
Average Delay per Vehicle (Average over all arms in seconds)	24	12	9	15
Average Delay per Vehicle (Worst Movement in seconds)	679	241	119	322
LoS (Worst Movement)	F	F	F	F
DoS (Worst Movement)	1.46	0.96	0.77	1.13
B.09 Burwood Rd / Redman Pde (Priority)		Year Capped: 2021		
Demand Flow (Veh)	1857	1707	1703	1739
Average Delay per Vehicle (Average over all arms in seconds)	5	4	3	3
Average Delay per Vehicle (Worst Movement in seconds)	152	87	48	56
LoS (Worst Movement)	F	F	D	D
DoS (Worst Movement)	0.76	0.70	0.69	0.72
H.20 Burwood Rd / Lakemba St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2442	2403	2080	2115
Average Delay per Vehicle (Average over all arms in seconds)	57	21	17	18
LoS (Overall)	D	B	B	B
DoS (Worst Movement)	1.12	0.75	0.53	0.57
Bridge Rd / Peel St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	644	697
Average Delay per Vehicle (Average over all arms in seconds)	-	-	3	3
Average Delay per Vehicle (Worst Movement in seconds)	-	-	7	9
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.16	0.22
Leylands Pde / Burwood Rd (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	1865	1880
Average Delay per Vehicle (Average over all arms in seconds)	-	-	61	64
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.08	1.08
Canterbury Rd / Sharp St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	3304	3319

Belmore Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Average Delay per Vehicle (Average over all arms in seconds)	-	-	79	78
LoS (Overall)	-	-	E	E
DoS (Worst Movement)	-	-	1.29	1.05
Kingsgrove Rd / M5 East (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	3062	3077
Average Delay per Vehicle (Average over all arms in seconds)	-	-	19	19
LoS (Overall)	-	-	B	B
DoS (Worst Movement)	-	-	0.86	0.86
Kingsgrove Rd / Commercial Rd (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	2885	2900
Average Delay per Vehicle (Average over all arms in seconds)	-	-	44	47
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	1.03	1.10

For six of the eight intersections that were modelled during PM peak period, the increase in delay due to the addition of the bus replacement service was little to negligible resulting in a LoS E or better. A LoS E would generally be considered reasonable during peak periods.

The Burwood Road / Bridge Road intersection is expected to perform similarly during the PM peak period as in the AM peak, with LoS F for the worst movement. However, the average delay across all arms is less than 15 seconds, implying that the main (through) movement is operating with minor delay. The volumes on the minor road right turn are again <50 veh/h in both scenarios and some vehicles can be expected to divert to other intersections. Similarly, the mitigation through traffic control (TC24) would also be implemented during the PM peak to assist pedestrians as well as the right turn from Bridge Road. The impact of the bus replacement services at this intersection is therefore considered minor. Again, all intersections are expected to perform similarly or better compared to previous assessments.

3.11 Lakemba Station

One intersection was modelled in the area surrounding Lakemba Station, with the intersection being a Reassessment. Both construction traffic and bus replacement services are expected to operate through this intersection.

Table 3-17 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-17: Lakemba Station intersection assessments - AM peak

Lakemba Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.07 The Boulevard / Haldon St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2171	1485	1556	1610
Average Delay per Vehicle (Average over all arms in seconds)	108	22	25	61
LoS (Overall)	F	B	B	E
DoS (Worst Movement)	1.21	0.65	0.94	1.18

For the modelled intersection, the increase in delay due to the addition of the bus replacement services is expected to result in the level of service decreasing from a LoS B to LoS E during the July 2021 school holiday period. A LoS E would be considered reasonable during peak times. Intersection performance is expected to be better compared to Scenario 1.

Table 3-18 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-18: Lakemba Station intersection assessments - PM peak

Lakemba Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.07 The Boulevard / Haldon St (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2206	2027	1687	1739
Average Delay per Vehicle (Average over all arms in seconds)	99	46	35	60
LoS (Overall)	F	D	C	E
DoS (Worst Movement)	1.18	1.03	1.09	1.25

Similar intersection performance is expected during the PM peak period. The increase in delay due to the addition of the bus replacement services is expected to result in the level of service decreasing from a LoS C to LoS E during the July 2021 school holiday period. A LoS E would be considered reasonable during peak times. Intersection performance is expected to be better compared to Scenario 1.

3.12 Wiley Park Station

Five intersections were modelled in the area surrounding Wiley Park Station. All intersections are New Assessments, with the majority of intersections only being assessed during the AM peak as PM peak bus replacements services being less than 15 veh/h and the expected impact to be minor.

Table 3-19 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-19: Wiley Park Station intersection assessments - AM peak

Wiley Park Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
The Boulevard / Alice St S (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	944	990
Average Delay per Vehicle (Average over all arms in seconds)	-	-	2	2
Average Delay per Vehicle (Worst Movement in seconds)	-	-	8	9
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.24	0.28
King Georges Rd / Mary St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	4411	4431
Average Delay per Vehicle (Average over all arms in seconds)	-	-	9	11
Average Delay per Vehicle (Worst Movement in seconds)	-	-	1051	1043
LoS (Worst Movement)	-	-	F	F
DoS (Worst Movement)	-	-	1.69	1.74
Canterbury Rd / King Georges Rd (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	8271	8289
Average Delay per Vehicle (Average over all arms in seconds)	-	-	99	100
LoS (Overall)	-	-	F	F
DoS (Worst Movement)	-	-	1.13	1.13
King Georges Rd / M5 East (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	6464	6484
Average Delay per Vehicle (Average over all arms in seconds)	-	-	49	49
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.91	0.92
King Georges Rd / Tooronga Ter (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	-	-	5121	5141

Wiley Park Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Average Delay per Vehicle (Average over all arms in seconds)	-	-	33	33
LoS (Overall)	-	-	C	C
DoS (Worst Movement)	-	-	1.07	1.07

For three of the five intersections modelled during the July 2021 school holiday period, the increase in delay due to the bus replacement services is expected to result in a LoS D or better. LoS D is generally considered reasonable during peak periods.

The King Georges Road / Mary Street intersection and Canterbury Road / King Georges Road intersections forecast poor performance of LoS F, in both Scenario 3 and 4. The increase of at most two seconds in average delay due to the addition of bus replacement services is considered to be negligible, and that the poor traffic conditions are not a result of this additional volume but rather high background traffic volumes. The impact of the bus replacement services is therefore considered negligible and would not warrant mitigation.

For the King Georges Road / Mary Street intersection, the worst performing movement is forecast to be the right turning movement on Mary Street. The volumes on this turn are <10 veh/h in both scenarios and vehicles can be expected to divert to other intersections.

Table 3-20 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-20: Wiley Park Station intersection assessments - PM peak

Wiley Park Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
The Boulevard / Alice St S (Priority)		Year Capped: 2021		
Demand Flow (Veh)	-	-	937	982
Average Delay per Vehicle (Average over all arms in seconds)	-	-	2	2
Average Delay per Vehicle (Worst Movement in seconds)	-	-	9	9
LoS (Worst Movement)	-	-	A	A
DoS (Worst Movement)	-	-	0.25	0.27
King Georges Rd / Mary St (Priority)		Year Capped: 2021		
Demand Flow (Veh)	Excluded PM assessment only. PM TTP bus volumes <15/h. Impact expected to be minor.			
Average Delay per Vehicle (Average over all arms in seconds)				
Average Delay per Vehicle (Worst Movement in seconds)				

Wiley Park Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
LoS (Worst Movement)				
DoS (Worst Movement)				
Canterbury Rd / King Georges Rd (Signals)		Year Capped: 2021		
Demand Flow (Veh)	Excluded PM assessment only. PM TTP bus volumes <15/h. Impact expected to be minor.			
Average Delay per Vehicle (Average over all arms in seconds)				
LoS (Overall)				
DoS (Worst Movement)				
King Georges Rd / M5 East (Signals)		Year Capped: 2021		
Demand Flow (Veh)	Excluded PM assessment only. PM TTP bus volumes <15/h. Impact expected to be minor.			
Average Delay per Vehicle (Average over all arms in seconds)				
LoS (Overall)				
DoS (Worst Movement)				
King Georges Rd / Tooronga Ter Rd (Signals)*		Year Capped: 2021		
Demand Flow (Veh)	Exclude PM assessment only. PM TTP bus volumes <15/h. Impact expected to be minor.			
Average Delay per Vehicle (Average over all arms in seconds)				
LoS (Overall)				
DoS (Worst Movement)				

For The Boulevard / Alice Street South intersection, there is no expected increase in delay due to the bus replacement services during the July 2021 school holiday period and results in a LoS A.

3.13 Punchbowl Station

One intersection was modelled in the area surrounding Punchbowl Station, with the intersection being a Reassessment. Both construction traffic and bus replacement services are expected to operate through this intersection. The intersection was not assessed during the PM peak as the EIS assessed a worse-case scenario.

Table 3-21 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-21: Punchbowl Station intersection assessments - AM peak

Punchbowl Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.04 Punchbowl Rd / South Ter (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2709	1848	1949	2001
Average Delay per Vehicle (Average over all arms in seconds)	85	23	26	27
LoS (Overall)	F	B	C	C
DoS (Worst Movement)	1.03	0.48	0.59	0.65

For the Punchbowl Road / South Terrace intersection modelled during the July 2021 school holiday period, the increase in delay resulting from the addition of bus replacement services is expected to be negligible and to result in a LoS C. A LoS C would generally be considered reasonable during peak periods. The performance of Scenario 2 is slightly better when compared to Scenario 4, which is likely due to the lower volume of vehicles during the December Christmas holiday period.

Table 3-22 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-22: Punchbowl Station intersection assessments - PM peak

Punchbowl Station – PM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
B.04 Punchbowl Rd / South Ter (Signals)		Year Capped: 2021		
Demand Flow (Veh)	2622	2477	Excluded PM assessment only. EIS assessed worse-case scenario (LOS C).	
Average Delay per Vehicle (Average over all arms in seconds)	35	28		
LoS (Overall)	C	B		
DoS (Worst Movement)	0.91	0.73		

3.14 Bankstown Station

One intersection was modelled in the area surrounding Bankstown Station. The intersection is a New Assessment, having no previous results under Scenario 1 and Scenario 2 as shown below. Construction haulage routes and bus replacement services are expected to operate through this intersection.

Table 3-23 provides a summary of the intersection assessment undertaken for this station during the AM peak.

Table 3-23: Bankstown Station intersection assessments - AM peak

Bankstown Station – AM peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Fairford Rd / S Western Motorway (M5) (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	5762	5777
Average Delay per Vehicle (Average over all arms in seconds)	-	-	40	41
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.87	0.87

For the Fairford Road / South-Western Motorway (M5) intersection modelled, the increase in delay due to the bus replacement services is expected to be negligible and to results in a LoS D. This is considered reasonable during peak periods.

Table 3-24 provides a summary of the intersection assessment undertaken for this station during the PM peak.

Table 3-24: Bankstown Station intersection assessments - PM peak

Bankstown Station – PM Peak				
Scenario	Sc 1	Sc 2	Sc 3	Sc 4
	Future + Construction + Refined TTP (Typical Week 2023)	Future + Construction + Refined TTP (Dec 2023)	Future + Construction (July 2021)	Future + Construction + S2B CA TTP (July 2021)
Fairford Rd / S Western Motorway (M5) (Signals)		Year Capped: 2021		
Demand Flow (Veh)	-	-	6651	6664
Average Delay per Vehicle (Average over all arms in seconds)	-	-	51	52
LoS (Overall)	-	-	D	D
DoS (Worst Movement)	-	-	0.97	0.97

Similar results are expected during the PM peak period. The increase in delay resulting from the addition of bus replacement services is expected to be negligible and to result in a LoS D. This is considered reasonable during peak periods.

4.0 Mitigation measures

Table 4-1 provides the revised environmental mitigation measures, relating to Design/Pre-construction, Construction and Operation, as per the Bankstown Station Modification Report (May 2020). Additions to existing mitigation measures are shown in **bold** text below, with deletions shown with a ~~strike through~~. Note: A few organisational name changes have occurred since the original formulation of the mitigation measures below. These have been updated (in brackets).

The measures are broadly grouped according to the main stage of implementation. However, it is noted that the implementation of some measures may occur across several stages.

The location/s applicable to each mitigation measure are identified by using the unique identifiers as follows:

- All – Project as a whole
- BW – Bridge works
- AS – All stations
- MA – Marrickville Station
- DU – Dulwich Hill Station
- HP – Hurlstone Park
- CB – Canterbury Station
- CP – Campsie Station
- BE – Belmore Station
- LA – Lakemba Station
- WP – Wiley Park Station
- PB – Punchbowl Station
- BA – Bankstown Station
- SS – Substations

Table 4-1: Revised mitigation measures

ID	Impact	Mitigation measure	Relevant location(s)
Design / pre-construction			
TC1	<i>Temporary transport arrangements</i>	<p>Guided by the Temporary Transport Strategy, detailed temporary transport plan/s would be developed prior to construction to manage the movement of people along the T3 Bankstown Line during possession periods. The plans would be developed in consultation with key stakeholders (including Transport for NSW, Sydney Coordination Office (now Customer Journey Planning), Roads and Maritime Services (now Sydney Roads), Sydney Trains, local councils, emergency services, and bus operators), and would address the requirements specified by the Temporary Transport Strategy. The development of each plan would consider, as a minimum:</p> <ul style="list-style-type: none"> • A review of the road network constraints along any proposed rail replacement bus route • Further traffic analysis of key intersections used by rail replacement buses • Potential impacts to local road networks affected by rail passengers diverting to cars to reach their destinations • The design of temporary facilities at bus stop locations in consultation with the relevant road authority • Expected changes to parking demand at other stations, displacement of existing parking, and any upgrades that may be required. 	AS
TC2		Sydney Metro would consult with Transport for NSW, Roads and Maritime Services, the State Transit Authority, the Inner West and Canterbury-Bankstown councils, and bus operators, to identify opportunities to minimise impacts to bus layovers and existing bus stops during operation of rail replacement buses.	AS
TC3		<p>The impacts on the surrounding road network of lane closures resulting from bridge works across the rail corridor would be assessed in detail, to identify the suite of management measures to be implemented for each closure required. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, the Inner West and Canterbury-Bankstown councils, emergency services, and relevant bus operators.</p> <p>Planning for partial bridge closures would consider bus rerouting and timetabling, with the intention of minimising impacts to bus customers and bus operators.</p>	BW

ID	Impact	Mitigation measure	Relevant location(s)
TC4	<i>Parking impacts during construction</i>	Opportunities to reduce the loss of existing on- and off-street car parking (including the amount of spaces reduced and the time associated with this reduction) would be reviewed during detailed design and construction planning.	AS
TC5		Where parking spaces are lost or access is impeded, particularly for extended periods, alternative parking would be provided wherever feasible and reasonable. This would include consideration of other privately owned (or vacant) land within close proximity to affected stations.	AS
TC6	<i>Impacts of intersection performance</i>	<p>Further consideration of the need for intersection modifications would be undertaken, to improve intersection performance at locations most affected by the addition of construction heavy vehicles and rail replacement buses. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, and the relevant road authority. The improvements considered would include:</p> <ul style="list-style-type: none"> • Modification to the existing traffic signal phasing • Lane priority changes • Changing lane designations (line markings and signage) • Kerbside changes (such as removing on street parking or implementing no standing zones at peak times to increase lane capacity) • Physical geometric changes (such as minor kerb cut-backs to enable large vehicles to safely move through intersections) • Restricting turning movements where traffic demand is low. 	All
TC7	<i>Changes to cyclist facilities during construction</i>	Where existing cycle facilities (e.g. bike parking) would be temporarily unavailable at a station, suitable replacement facilities would be provided while the facility is unavailable.	AS
TO1	<i>Parking impacts during operation</i>	Further consideration of car parking management at stations would be undertaken in consultation with Roads and Maritime Services, the Sydney Coordination Office, and the Inner West and Canterbury-Bankstown councils, to minimise adverse impacts of operation on parking and other kerbside use in local streets.	AS
TO2	<i>Consideration of cross corridor connections</i>	Sydney Metro, in consultation with Canterbury-Bankstown Council, would investigate the feasibility of the provision of a cross-corridor connection between Bankstown and Punchbowl	All

ID	Impact	Mitigation measure	Relevant location(s)
		stations. Should a cross-corridor connection be deemed feasible, Sydney Metro would work with Canterbury-Bankstown Council and the Department of Planning and Environment to safeguard its future delivery.	
Construction			
TC8	<i>Management of traffic transport and access</i>	<p>A construction traffic management plan would be prepared and implemented prior to construction. The plan would be prepared in accordance with the Construction Environmental Management Framework, and would detail, as a minimum:</p> <ul style="list-style-type: none"> • How traffic would be managed when construction works are being carried out • The activities proposed and their impact on the road network and on road users • How these impacts would be addressed. <p>The plan would be prepared in consultation with the Traffic and Transport Liaison Group and would be approved by the relevant authority before construction commences.</p>	All
TC9	<i>Changes to public transport services and alternative transport arrangements</i>	Modification of existing bus stops, or implementation of new stops and alterations to service patterns, would be carried out by Sydney Metro in consultation with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and bus operators.	AS
TC10		<p>Sydney Metro would undertake an extensive community awareness and information campaign before changes to public transport services are implemented. This would include a range of communication activities such as:</p> <ul style="list-style-type: none"> • Information at stations • Wayfinding signage • Clearly marked bus stop locations • Letter box drops • Web based information and transport 'app' where changes to travel are found in a single place • Information via 131 500 • Advertising in local papers • Email information bulletins. 	As
TC11	<i>Impacts on special events</i>	Consideration of special events would be undertaken as part of construction work programming. For special events that require specific traffic and pedestrian management, measures would be developed and implemented in consultation with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and	All

ID	Impact	Mitigation measure	Relevant location(s)
		Canterbury-Bankstown councils, and the organisers of the event.	
TC12	<i>Impacts of construction compounds and work sites</i>	Vehicle access to and from construction sites would be managed to ensure pedestrian, cyclist, and motorist safety. Depending on the location, this may require manual supervision, barrier placement, temporary traffic signals, modifications to existing traffic signals, or police assistance.	All
TC13	<i>Construction vehicles</i>	Construction vehicles (including contractor staff vehicles) would be managed to: <ul style="list-style-type: none"> • Minimise parking or queuing on public roads • Minimise use of residential streets to gain access to work sites or compounds • Minimise vehicle movements near schools, particularly during school start and finish times. 	All
TC14	<i>Signage</i>	Directional signage and line marking would be used to direct and guide drivers, pedestrians, and other road users past construction compounds and work sites, and on the surrounding road network. This may be supplemented by variable message signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes.	All
TC15	<i>Construction parking impacts</i>	Construction sites would be managed to minimise construction worker parking on surrounding streets. A worker car parking strategy would be developed in consultation with the relevant local council to identify measures to reduce the impact on the availability of on-street and off-street parking. The strategy would identify potential mitigation measures including alternative parking locations. The strategy would encourage contractor staff to: <ul style="list-style-type: none"> • Use public transport • Car share • Park in a designated off-site area and access construction sites via shuttle bus. 	All
TC16	<i>Traffic incidents</i>	In the event of a traffic related incident, co-ordination would be carried out with the Sydney Coordination Office and Transport Management Centre's Operations Manager.	All
TC17	<i>Changes to road, pedestrian and cyclist networks</i>	The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community notification.	All
TC18	<i>Impacts on pedestrian or cyclist paths</i>	A condition survey would be undertaken to confirm changes to routes proposed to be used by pedestrians and/or cyclists are suitable (e.g. suitably paved and lit), with identified	All

ID	Impact	Mitigation measure	Relevant location(s)
		modification requirements discussed with the Inner West and/or Canterbury-Bankstown councils and implemented prior to use of the routes.	
TC19	<i>Pedestrian, cyclist and motorist safety</i>	<p>Pedestrian, cyclist, and motorist safety in the vicinity of the construction sites would be addressed during construction planning and development of the construction traffic management plan. Measures that may be implemented to assist in multi modal traffic management include:</p> <ul style="list-style-type: none"> • Speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers • A community engagement program to provide road safety education and awareness to road users about sharing the road safely with heavy vehicles • Heavy vehicle training for drivers to understand route constraints, safety issues, and limiting the use of compression braking • Safety technology and equipment installed on heavy vehicles to enhance vehicle visibility, eliminate vehicles' blind spots, and monitor vehicle location, speeding compliance, and driver behaviour. 	All
TC20	<i>Impact to access</i>	Access for residents, businesses, and community infrastructure would be maintained. Where disruption to access cannot be avoided, consultation would be undertaken with the owners and occupants of affected properties, to confirm their access requirements and to discuss alternatives.	All
TC21		Access to stations and surrounding properties for emergency vehicles would be provided at all times. Emergency service providers (i.e. police and ambulance) would be consulted throughout construction to ensure they are aware of station closures, changes to access, including bridge lane closures, and changes to station or rail corridor access.	All
TC22	<i>Co-ordination of cumulative traffic effects</i>	The potential cumulative effects of construction traffic from multiple construction sites within the project would be further considered during development of the construction traffic management plan. Where there is potential for cumulative impacts across the project, these issues would be addressed with the assistance of the Traffic and Transport Liaison Group.	All
TC23	<i>Impacts to intersection performance</i>	Intersection operation would be optimised, where reasonable and feasible, to improve intersection performance at the worst affected intersections along construction haulage routes and / or rail replacement bus routes. This may	All

ID	Impact	Mitigation measure	Relevant location(s)
		include modifying signal phase times or sequences at traffic signal controlled intersections.	
TC24		Traffic control would be installed during the July 2021 school holiday AM and PM peak periods at the priority-controlled intersection at Burwood Road / Bridge Road to manage pedestrian safety and bus movements turning right from Bridge Road. The operation of this intersection would be monitored during the initial stages of the possession to determine the need for ongoing traffic management.	BE
Operation			
TO3	<i>Walking and cycling</i>	Sydney Metro would develop a Walking and Cycling Strategy in consultation with Inner West Council, Canterbury-Bankstown Council and other relevant stakeholders, which would identify walking and cycling facilities to encourage active transport to the station precincts.	AS
TO4	<i>Bus</i>	Sydney Metro would work with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and bus operators to identify improvements to bus stops and services.	AS
TO5	<i>Commuter parking</i>	Sydney Metro would monitor the demand for additional commuter car parking spaces and consider opportunities for, and implications of, meeting this demand between Bankstown and Marrickville stations. Sydney Metro would investigate ways to manage demand, subject to consideration of local station and town centre implications, including local traffic conditions.	AS

Appendix A

Detailed bus
replacement service
route layouts



ST Replacement Bus Service



10T3

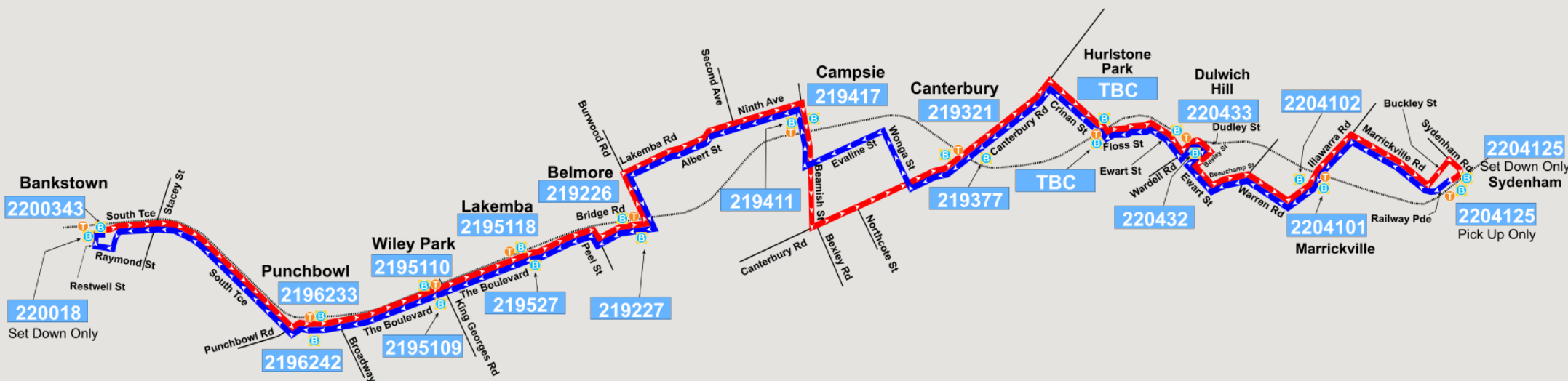
Bankstown to Sydenham

Both Directions

ALL STATIONS



Transport
for NSW



LEGEND



Bus stop



Bus stop #



Route outbound



Route citybound



Route turn around

ROUTE:
10T3

HEAVY RAIL

REPLACEMENT TRANSPORT Bankstown to Sydenham – All Stations



Transport
for NSW

Inbound – Up	Outbound – Down
BANKSTOWN STATION Commence trip from TSN 2200343 Stand G Bus Interchange LEFT into South Terrace CONTINUE along South Terrace LEFT Punchbowl Road RIGHT The Boulevarde Set down/pick up for Punchbowl Station in Bus Stop TSN 2196233	SYDENHAM STATION Commence trip from TSN 2204125 Railway Pde CONTINUE along Railway Parade (right hand lane through the traffic lights, then merge left) RIGHT into Marrickville Road LEFT into Illawarra Road Set down/pick up for Marrickville Station in Bus Stop TSN 2204101
PUNCHBOWL STATION – The Boulevard TSN 2196233 CONTINUE along The Boulevarde Set down/pick up for Wiley Park Station in Bus Stop TSN 2195110	MARRICKVILLE STATION – Illawarra Rd TSN 2204101 CONTINUE along Illawarra Road RIGHT into Warren Road LEFT into Beauchamp Street RIGHT into Ewart Street RIGHT into Bayley Street LEFT into Dudley Street Set down/pick up for Dulwich Hill Station in Bus Stop TSN 220432
WILEY PARK STATION – The Boulevard TSN 2195110 CONTINUE along The Boulevarde Set down/pick up for Lakemba Station in Bus Stop TSN 2195118	DULWICH HILL STATION – Dudley St TSN 220432 LEFT into Wardell Road RIGHT into Ewart Street turns into Floss Street RIGHT into Crinan Street Set down/pick up for Hurlstone Park Station in Bus Stop TSN TBC

ROUTE:
10T3

HEAVY RAIL

REPLACEMENT TRANSPORT
Bankstown to Sydenham – All Stations



Transport
for NSW

Inbound – Up	Outbound – Down
LAKEMBA STATION – The Boulevard TSN 2195118 RIGHT into Peel Street LEFT into Bridge Road Set down/pick up for Belmore Station in Bus Stop TSN 219226	HURLSTONE PARK STATION – Crinan St TSN TBC CONTINUE along Crinan Street LEFT into Canterbury Road Set down/pick up for Canterbury Station in Bus Stop TSN 219377
BELMORE STATION – Bridge Rd TSN 219226 LEFT into Burwood Road RIGHT into Lakemba Rd turns into Albert St turns into Ninth Ave RIGHT into Beamish Street Set down/pick up for Campsie Station in Bus Stop TSN 219417	CANTERBURY STATION – Canterbury Rd TSN 219377 CONTINUE along Canterbury Road RIGHT into Wonga Street LEFT into Evaline Street RIGHT into Beamish Street Set down/pick up for Campsie Station in Bus Stop TSN 219411
CAMPSIE STATION – Beamish St TSN 219417 CONTINUE along Beamish St LEFT into Canterbury Road Set down/pick up for Canterbury Station in Bus Stop TSN 219321	CAMPSIE STATION – Beamish St TSN 219411 LEFT into Ninth Ave turns into Albert St turns into Lakemba Rd LEFT into Burwood Road RIGHT into Bridge Road Set down/pick up for Belmore Station in Bus Stop TSN 219227
CANTERBURY STATION – Canterbury Rd TSN 219321 CONTINUE along Canterbury Road RIGHT into Crinan Street Set down/pick up for Hurlstone Park Station in Bus Stop TSN TBC	BELMORE STATION – Bridge Rd TSN 219227 RIGHT into Peel Street LEFT into The Boulevard Set down/pick up for Lakemba Station in Bus Stop TSN 219527

ROUTE:
10T3

HEAVY RAIL

REPLACEMENT TRANSPORT
Bankstown to Sydenham – All Stations



Transport
for NSW

Inbound – Up	Outbound – Down
<p>HURLSTONE PARK STATION – Crinan St TSN TBC</p> <p>LEFT into Floss Street turns into Ewart Street LEFT into Wardell Road RIGHT into Dudley Street</p> <p>Set down/pick up for Dulwich Hill Station in Bus Stop TSN 220433</p>	<p>LAKEMBA STATION – The Boulevard TSN 219527</p> <p>CONTINUE along The Boulevarde</p> <p>Set down/pick up for Wiley Park Station in Bus Stop TSN 2195109</p>
<p>DULWICH HILL STATION – Dudley St TSN 220433</p> <p>CONTINUE along Dudley Street RIGHT into Bayley Street LEFT into Ewart Street LEFT into Beauchamp Street RIGHT into Warren Road LEFT into Illawarra Road</p> <p>Set down/pick up for Marrickville Station in Bus Stop TSN 2204102</p>	<p>WILEY PARK STATION – The Boulevard TSN 2195109</p> <p>CONTINUE along The Boulevarde</p> <p>Set down/pick up for Punchbowl Station in Bus Stop TSN 2196242</p>
<p>MARRICKVILLE STATION – Illawarra Rd TSN 2204102</p> <p>CONTINUE along Illawarra Road RIGHT into Marrickville Road LEFT into Buckley Street RIGHT into Sydenham Road RIGHT into Railway Parade</p> <p>Set down for Sydenham Station in Bus Stop TSN 2204125</p>	<p>PUNCHBOWL STATION – The Boulevard TSN 2196242</p> <p>CONTINUE along The Boulevarde LEFT into Punchbowl Road, RIGHT into South Terrace LEFT into West Terrace RIGHT into Raymond Street RIGHT into Restwell Street</p> <p>Set down for Bankstown Station in Bus Stop TSN 220018</p>



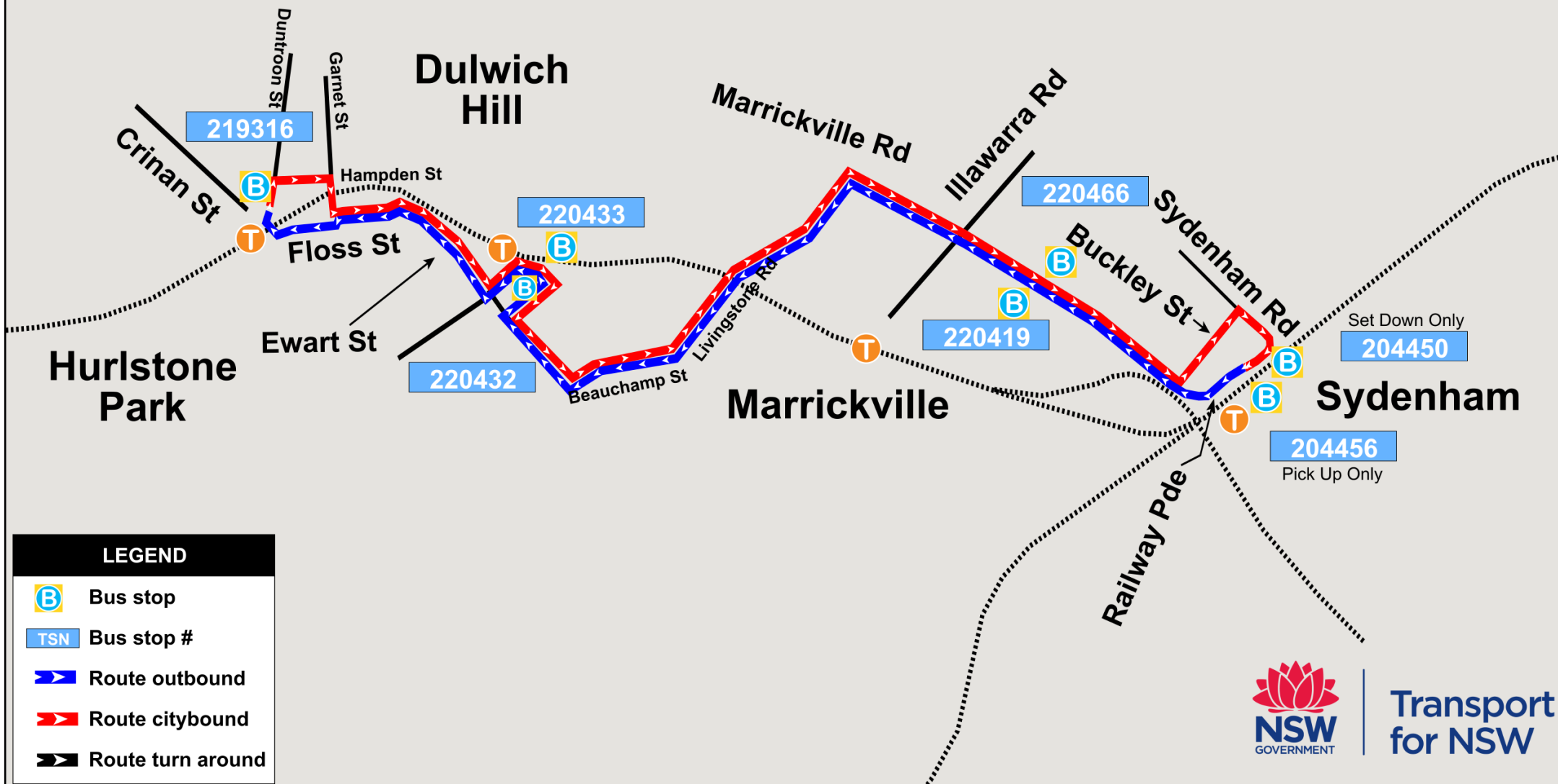
ST Replacement Bus Service



Rte1 Hurlstone Park to Sydenham

Both Directions

ALL STATIONS





Bankstown

2200343



ST Replacement Bus Service



Rte3

Bankstown to Padstow

Both Directions

ALL STATIONS

220018

Set Down Only



Restwell St

Stacey St

Macauley Ave

Canterbury Rd

M5

Watson Rd

Davies Rd

Cahors Rd



Howard Rd

Ryan Rd

Padstow

221115

LEGEND



Bus stop



Bus stop #



Route outbound



Route citybound



Route turn around



**Transport
for NSW**

ROUTE:

Rte3

HEAVY RAIL

REPLACEMENT TRANSPORT Bankstown to Padstow – Express



Transport
for NSW

Inbound – Up	Outbound – Down
BANKSTOWN STATION – Stand G TSN 2200343 Commence trip from TSN 2200343 Stand G CONTINUE along Restwell Street LEFT into Macauley Avenue RIGHT into Stacey Street turns into Davies Road RIGHT into Watson Road LEFT into Cahors Road LEFT into Howard Rd Set down/pick up for Padstow Station in Bus Stop TSN 221115	PADSTOW STATION – Howard Rd TSN 221115 Commence trip from TSN 221115 Howard Rd CONTINUE along Howard Rd LEFT into Ryan Road LEFT into Davies Street turns into Stacey Street LEFT into Macauley Avenue RIGHT into Restwell Street CONTINUE along Restwell Street Set down/pick up for Bankstown Station in Bus Stop TSN 220018



ST Replacement Bus Service



Rte4

Punchbowl, Wiley Park

then Beverly Hills

Both Directions

ALL STATIONS

Wiley Park

219416

Punchbowl

2196233



2196242

219413

The Boulevard

Alice St S

Mary St

Canterbury Rd

King Georges Rd

Moorefields Rd

M5

TBC

Padstow

Tooronga Tce

Morgan St

2196242

Stoney Creek Rd

LEGEND



Bus stop



Bus stop #



Route outbound



Route citybound



Route turn around



Transport
for NSW

ROUTE:

Rte4

HEAVY RAIL

REPLACEMENT TRANSPORT

Punchbowl, Wiley Park then Beverly Hills – Express



Transport
for NSW

Inbound – Up	Outbound – Down
<p>PUNCHBOWL STATION – The Boulevarde TSN 2196233</p> <p>Commence trip from TSN 2196233 The Boulevarde</p> <p>CONTINUE along The Boulevarde</p> <p>Set down/pick up for Wiley Park Station in Bus Stop TSN 219416</p>	<p>BEVERLY HILLS STATION – Tooronga Tce TSN TBC</p> <p>Commence trip from TSN TBC Tooronga Tce</p> <p>CONTINUE along Howard Rd RIGHT into King Georges Road LEFT into The Boulevarde</p> <p>Set down/pick up for Wiley Park Station in Bus Stop TSN 219413</p>
<p>WILEY PARK STATION – The Boulevarde TSN 219416</p> <p>CONTINUE along The Boulevarde RIGHT into Alice Street South RIGHT into Mary Street LEFT into King Georges Road LEFT into Morgan Street</p> <p>Set down/pick up for Beverly Hills Station in Bus Stop TSN 2196242</p>	<p>WILEY PARK STATION – The Boulevarde TSN 219416</p> <p>CONTINUE along The Boulevarde</p> <p>Set down/pick up for Punchbowl Station in Bus Stop TSN 2196242</p>



ST Replacement Bus Service



Rte5

Lakemba, Belmore
then Kingsgrove

Both Directions

ALL STATIONS

Lakemba

219518

Belmore

219226

219227

219527

2208135

220811

Kingsgrove

The Boulevard

Peel St

Bridge Rd

Burwood Rd

Canterbury Rd

William St

Moorefields Rd

Kingsgrove Rd

M5

Commercial Rd

LEGEND



Bus stop

TSN

Bus stop #



Route outbound



Route citybound



Route turn around



Transport
for NSW

ROUTE:

Rte5

HEAVY RAIL

REPLACEMENT TRANSPORT

Lakemba, Belmore then Kingsgrove – Express



Transport
for NSW

Inbound – Up	Outbound – Down
<p>LAKEMBA STATION – The Boulevarde TSN 219518</p> <p>Commence trip from TSN 219518 The Boulevarde</p> <p>CONTINUE along The Boulevarde RIGHT into Peel Street LEFT into Bridge Road</p> <p>Set down/pick up for Belmore Station in Bus Stop TSN 219226</p>	<p>KINGSGROVE STATION – Kingsgrove Rd TSN 220811</p> <p>Commence trip from TSN 220811 Kingsgrove Rd</p> <p>CONTINUE along Kingsgrove Road LEFT into Canterbury Road RIGHT into Burwood Road LEFT into Bridge Road</p> <p>Set down/pick up for Belmore Station in Bus Stop TSN 219227</p>
<p>BELMORE STATION – Bridge Rd TSN 219226</p> <p>RIGHT into Burwood Road LEFT into Canterbury Road RIGHT into Kingsgrove Road RIGHT into Commercial Road</p> <p>Set down/pick up for Kingsgrove Station in Bus Stop TSN 2208135</p>	<p>BELMORE STATION – Bridge Rd TSN 219227</p> <p>RIGHT into Peel Street LEFT into The Boulevarde</p> <p>Set down/pick up for Lakemba Station in Bus Stop TSN 219527</p>



Transport
for NSW



ST Replacement Bus Service

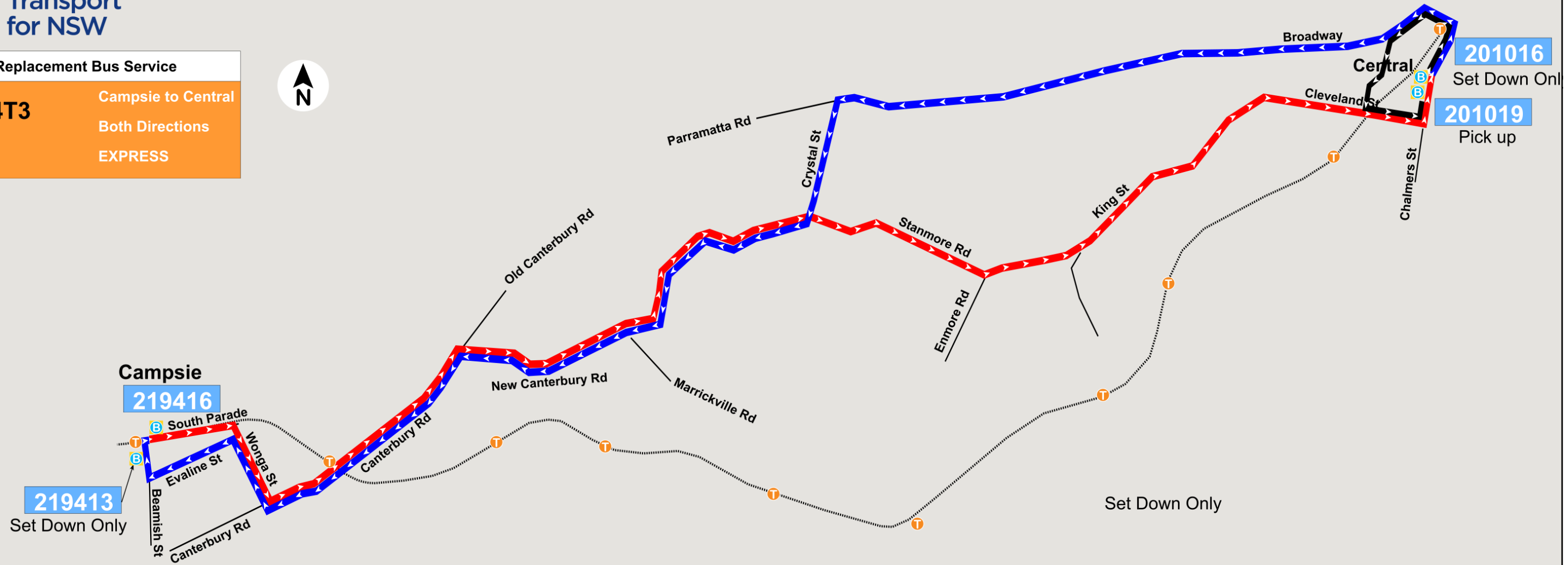


74T3

Campsie to Central

Both Directions

EXPRESS



LEGEND



Bus stop



Bus stop #



Route outbound



Route citybound



Route turn around

ROUTE:
74T3


HEAVY RAIL


REPLACEMENT TRANSPORT Campsie to Central – Express



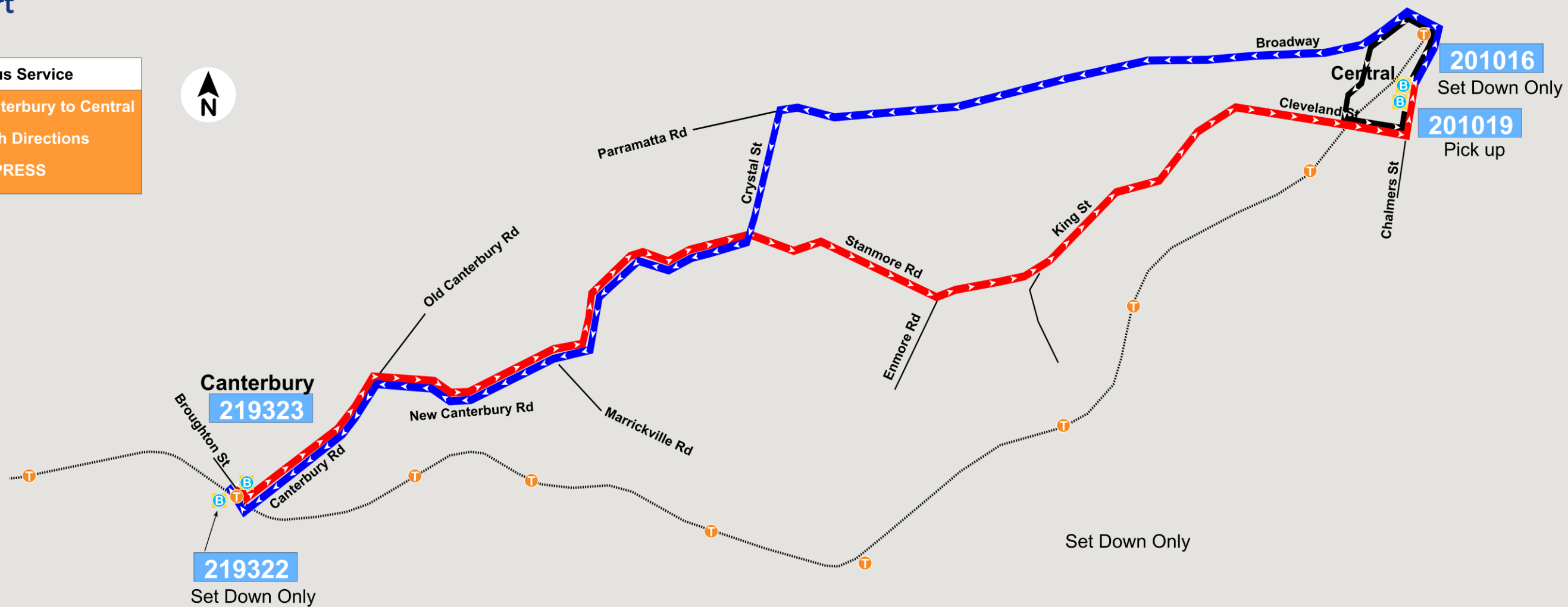
Transport
for NSW

Inbound – Up	Outbound – Down
<p>CAMPSIE STATION – South Parade TSN 219416</p> <p>CONTINUE along South Parade RIGHT into Wonga Street LEFT into Canterbury Road RIGHT into New Canterbury Road CONTINUE along Enmore Road CONTINUE along King St RIGHT into Cleveland Street LEFT into Chalmers Street</p> <p>Set down for Central Station in Bus Stop TSN 201016</p>	<p>CENTRAL STATION</p> <p>Commence trip from TSN 201019 Chalmers Street</p> <p>CONTINUE along Randle Street LEFT into Elizabeth Street LEFT into Eddy Ave LEFT into Pitt Street LEFT into Broadway CONTINUE along Parramatta Road LEFT into Crystal Street RIGHT into New Canterbury Road LEFT into Canterbury Road RIGHT into Wonga Street LEFT into Evaline Street RIGHT into Beamish Street</p> <p>Set down for Campsie Station in Bus Stop TSN 219413</p>
<p>*** TO TURNAROUND</p> <p>CONTINUE along Randle Street LEFT into Elizabeth Street LEFT into Eddy Ave LEFT into Pitt Street LEFT into Lee Street CONTINUE along Regent Street LEFT into Cleveland Street LEFT into Chalmers Street</p>	<p>NO Layover in Beamish Street</p> <p>*** TO TURNAROUND RIGHT into South Parade</p>






ST Replacement Bus Service


Rte5

Canterbury to Central
 Both Directions
 EXPRESS



LEGEND

-  Bus stop
-  Bus stop #
-  Route outbound
-  Route citybound
-  Route turn around

ROUTE:
Rte 5

HEAVY RAIL

REPLACEMENT TRANSPORT Canterbury to Central – Express



Transport
for NSW

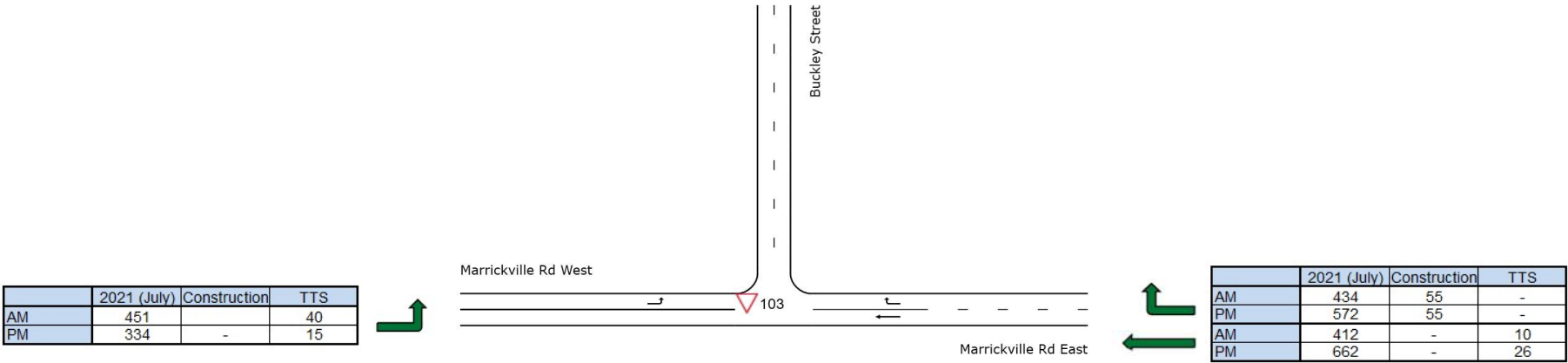
Inbound – Up	Outbound – Down
<p>CANTERBURY STATION</p> <p>Commence trip from Broughton Street TSN 219323</p> <p>LEFT into Canterbury Road RIGHT into New Canterbury Road CONTINUE along Enmore Road CONTINUE along King St RIGHT into Cleveland Street LEFT into Chalmers Street</p> <p>Set down for Central Station in Bus Stop TSN 201016</p>	<p>CENTRAL STATION</p> <p>Commence trip from TSN 201019 Chalmers Street</p> <p>CONTINUE along Randle Street LEFT into Elizabeth Street LEFT into Eddy Ave LEFT into Pitt Street LEFT into Broadway CONTINUE along Parramatta Road LEFT into Crystal Street RIGHT into New Canterbury Road LEFT into Canterbury Road RIGHT into Broughton Street</p> <p>Set down for Canterbury Station in Bus Stop TSN 219322</p>
<p>*** TO TURNAROUND</p> <p>CONTINUE along Randle Street LEFT into Elizabeth Street LEFT into Eddy Ave LEFT into Pitt Street LEFT into Lee Street CONTINUE along Regent Street LEFT into Cleveland Street LEFT into Chalmers Street</p>	

Appendix B

Detailed intersection
assessment diagrams

Sydenham Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



Marrickville Area

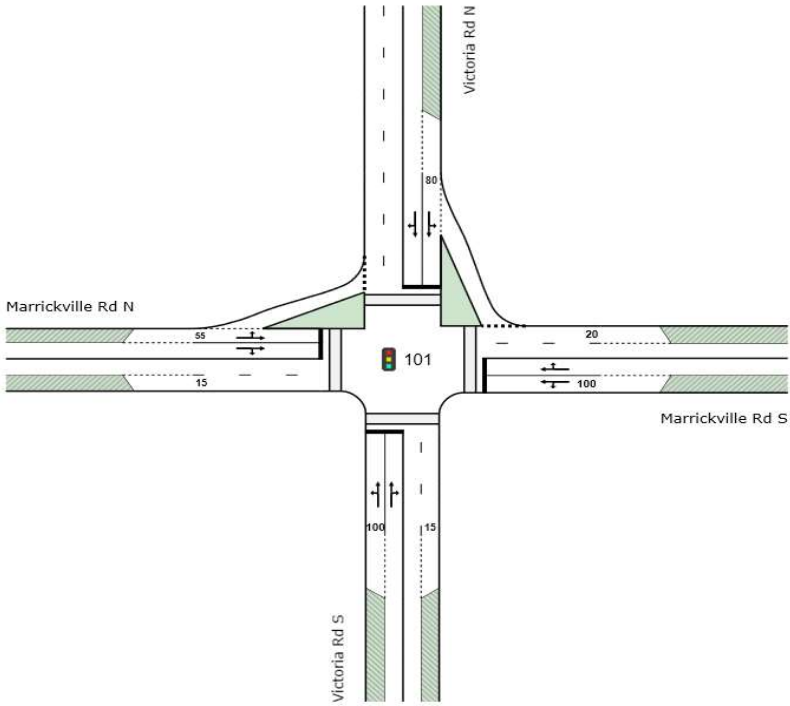
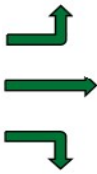
Traffic volume diagrams for modelled intersections (measured in number of vehicles)



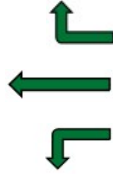
	AM	PM	AM	PM	AM	PM
2021 (July)	70	130	114	328	42	24
Construction	-	-	-	-	-	-
TTS	-	-	-	-	-	-



	2021 (July)	Construction	TTS
AM	191	-	-
PM	95	-	-
AM	514	-	40
PM	294	-	15
AM	28	-	-
PM	166	-	-



	2021 (July)	Construction	TTS
AM	39	-	-
PM	241	-	-
AM	239	-	10
PM	396	-	26
AM	61	-	-
PM	33	-	-

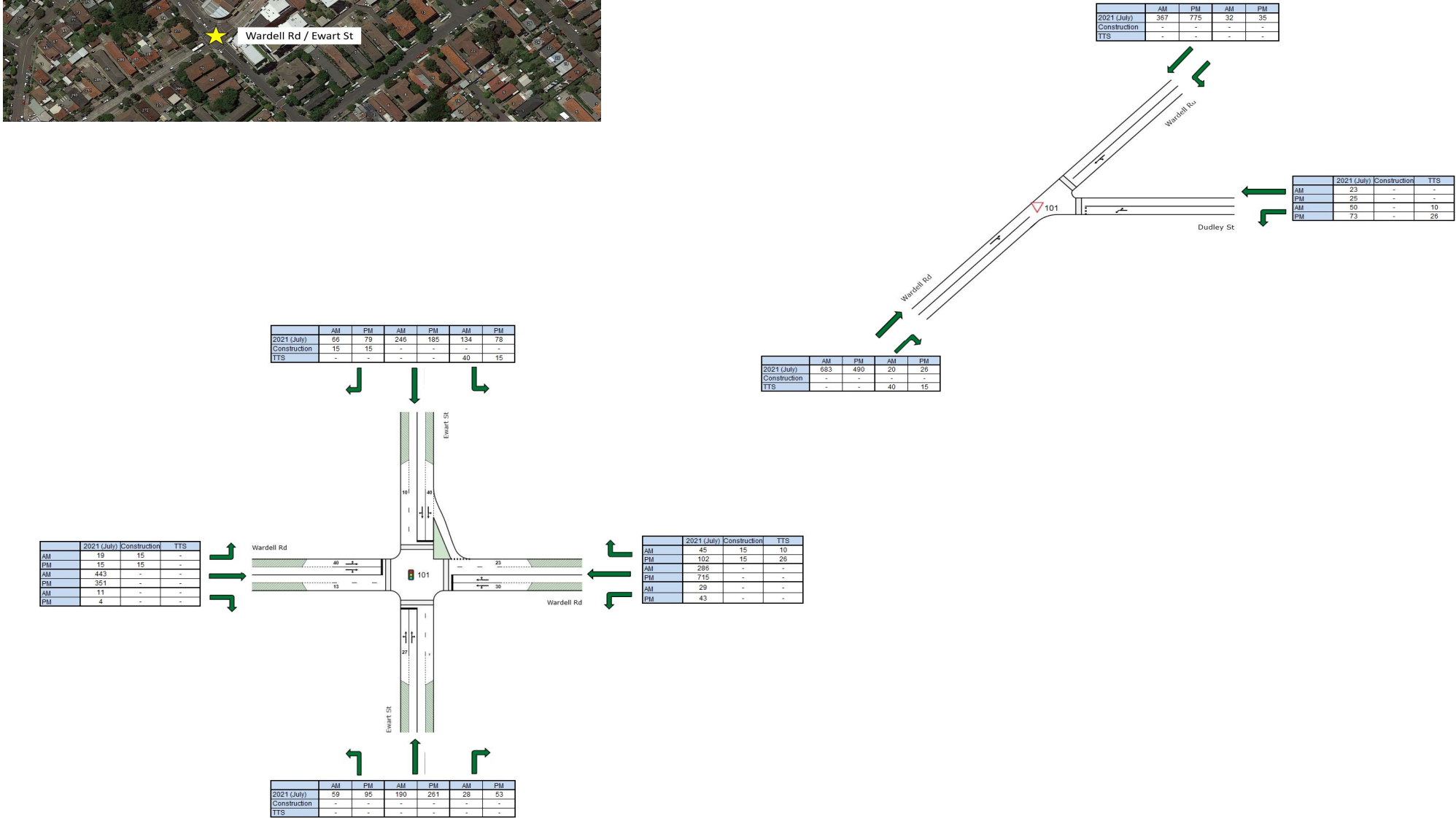


	AM	PM	AM	PM	AM	PM
2021 (July)	36	45	290	150	209	123
Construction	-	-	-	-	-	-
TTS	-	-	-	-	-	-



Dulwich Hill Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)

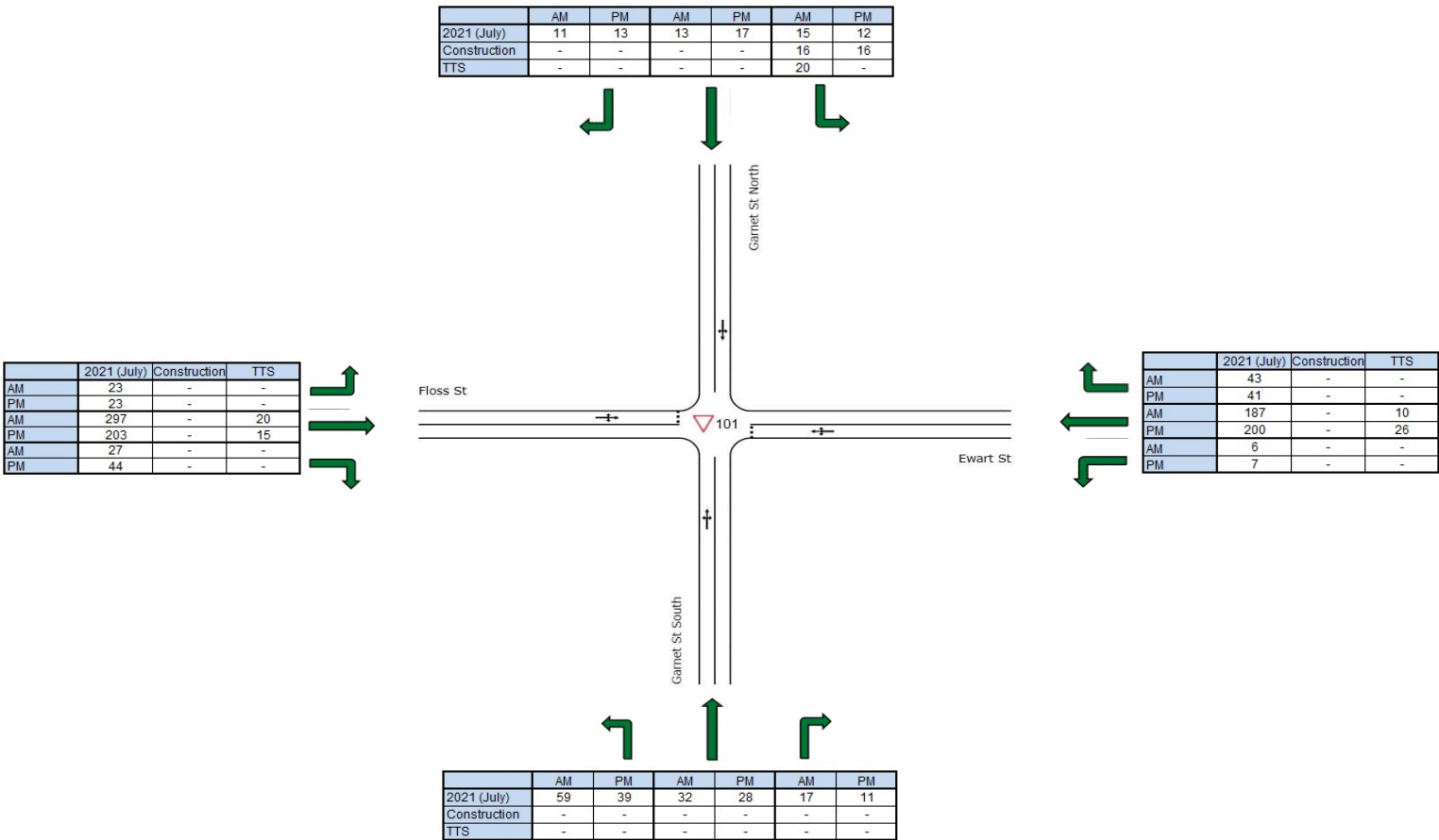
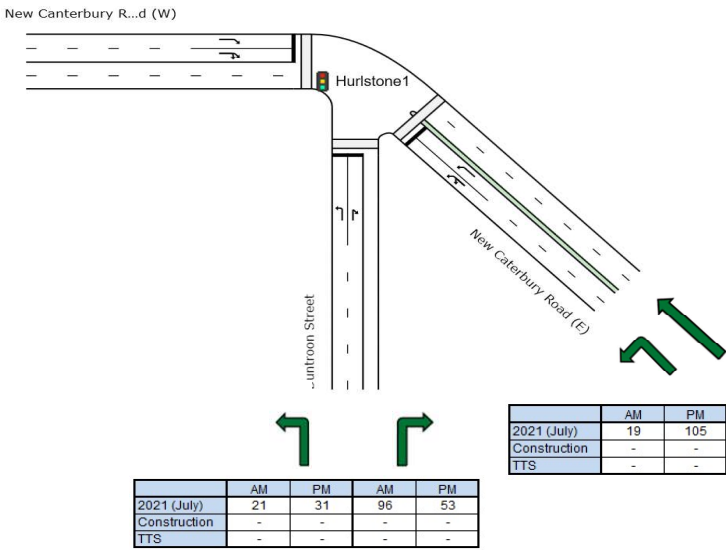


Hurlstone Park Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)

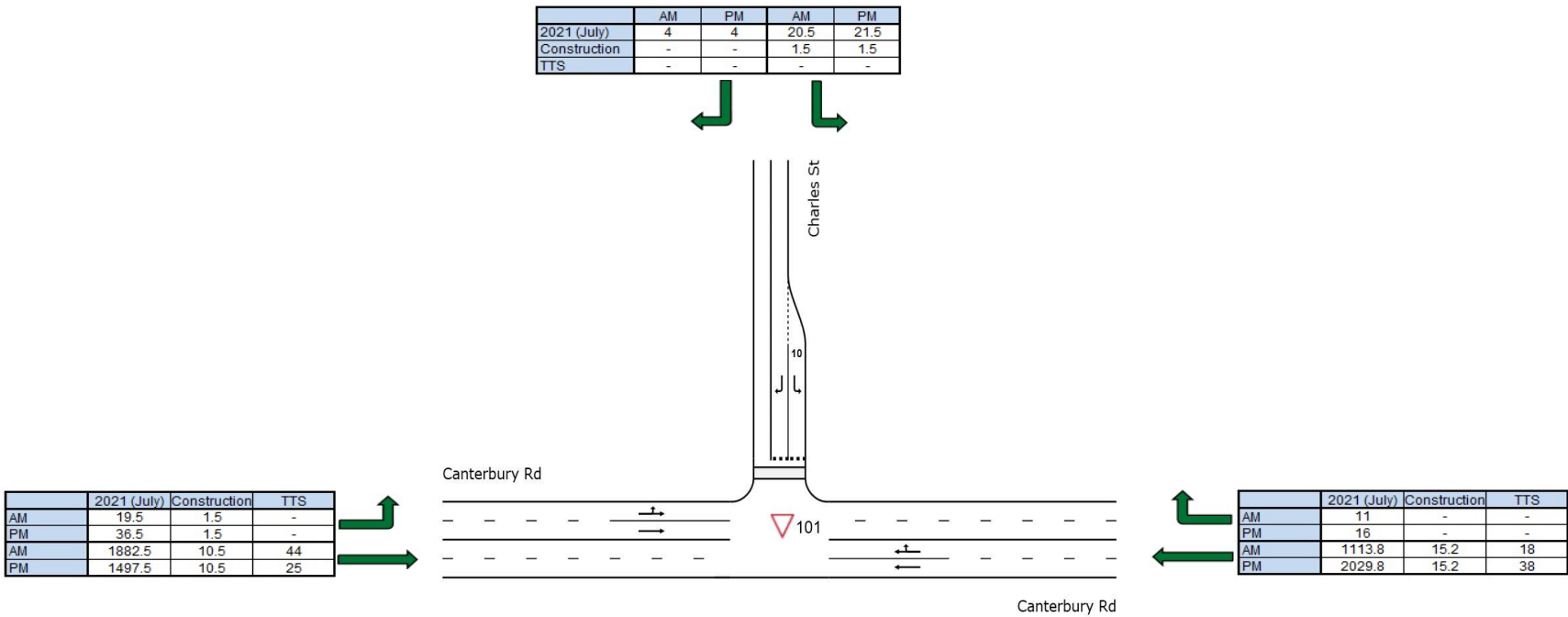


	2021 (July)	Construction	TTS
AM	1244	-	36
PM	714	-	16
AM	62	-	-
PM	63	-	-



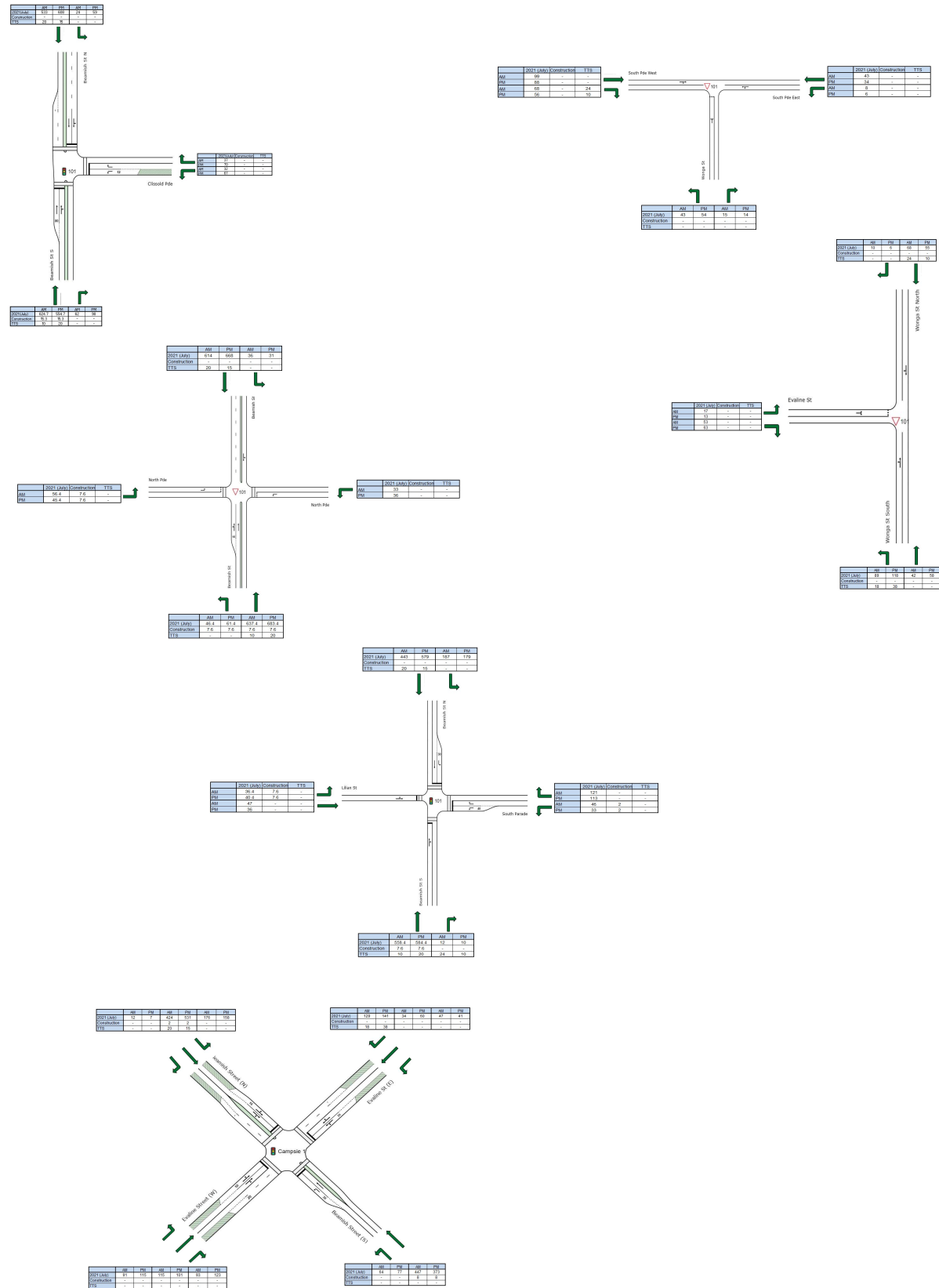
Canterbury Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



Campsie Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



Wiley Park Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)

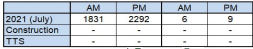
	2021 (July)	Construction	TTS
AM	362	15	20
PM	303	15	15
AM	48	-	15
PM	33	-	6

	2021 (July)	Construction	TTS
AM	299.4	6.6	10
PM	434.4	6.6	20
AM	51	-	-
PM	39	-	-



	AM	PM	AM	PM
2021 (July)	79	55	85	55
Construction	-	-	-	-
TTS	-	-	-	-

	AM	PM	AM	PM
2021 (July)	1831	2292	6	9
Construction	-	-	-	-
TTS	-	-	-	-

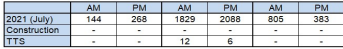


	2021 (July)	Construction	TTS
AM	10	-	-
PM	7	-	-
AM	18	-	12
PM	30	-	6

	AM	PM	AM	PM
2021 (July)	2466	1908	44	50
Construction	30	30	-	-
TTS	6	8	-	-

	AM	PM	AM	PM	AM	PM
2021 (July)	144	268	1829	2088	805	383
Construction	-	-	-	-	-	-
TTS	-	-	12	6	-	-

	2021 (July)	Construction	TTS
AM	878	-	-
PM	894	-	-
AM	743	-	-
PM	734	-	-
AM	106	-	-
PM	158	-	-

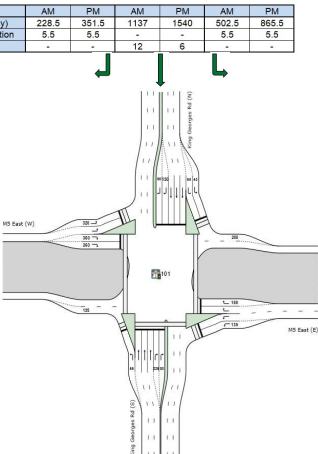


	2021 (July)	Construction	TTS
AM	161	-	-
PM	201	-	-
AM	834	-	-
PM	1099	-	-
AM	71	11	-
PM	88	11	-

	AM	PM	AM	PM	AM	PM
2021 (July)	213	290	2155	1807	292	221
Construction	-	-	30	30	-	-
TTS	-	-	6	8	-	-

	AM	PM	AM	PM	AM	PM
2021 (July)	228.5	381.5	1137	1540	502.5	865.5
Construction	5.5	5.5	-	-	5.5	5.5
TTS	-	-	12	6	-	-

	2021 (July)	Construction	TTS
AM	455	15	-
PM	310	15	-
AM	886	5	-
PM	767	5	-

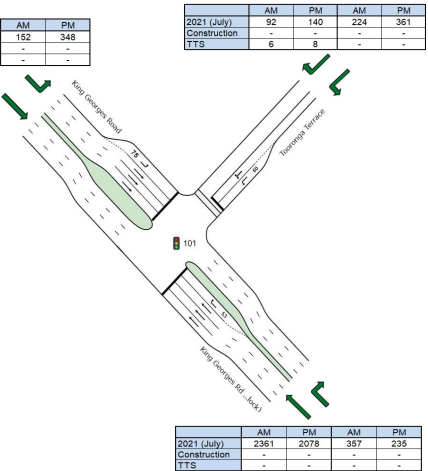


	2021 (July)	Construction	TTS
AM	689	15	-
PM	755	15	-
AM	118	-	-
PM	173	-	-

	2021 (July)	Construction	TTS
AM	813	587	1537
PM	1297	82	161
Construction	-	-	-
TTS	-	-	-

	AM	PM	AM	PM
2021 (July)	1938	2359	152	348
Construction	-	-	-	-
TTS	12	6	-	-

	AM	PM	AM	PM
2021 (July)	92	140	224	361
Construction	-	-	-	-
TTS	6	8	-	-

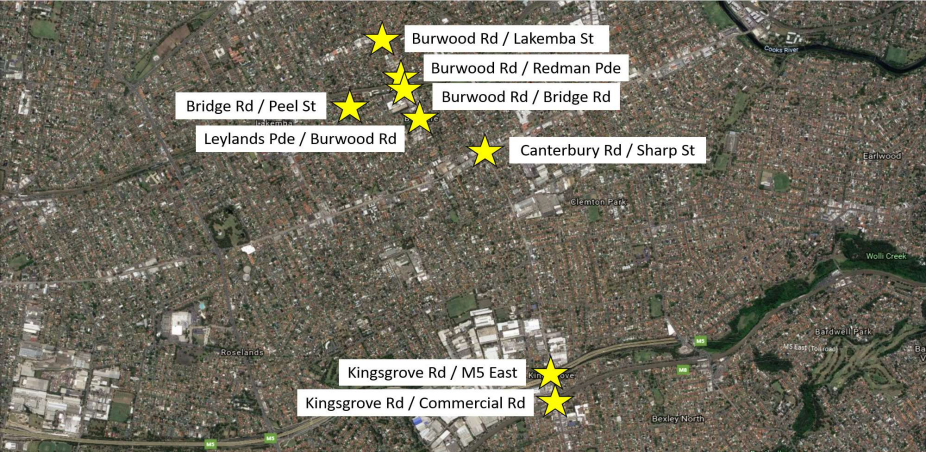
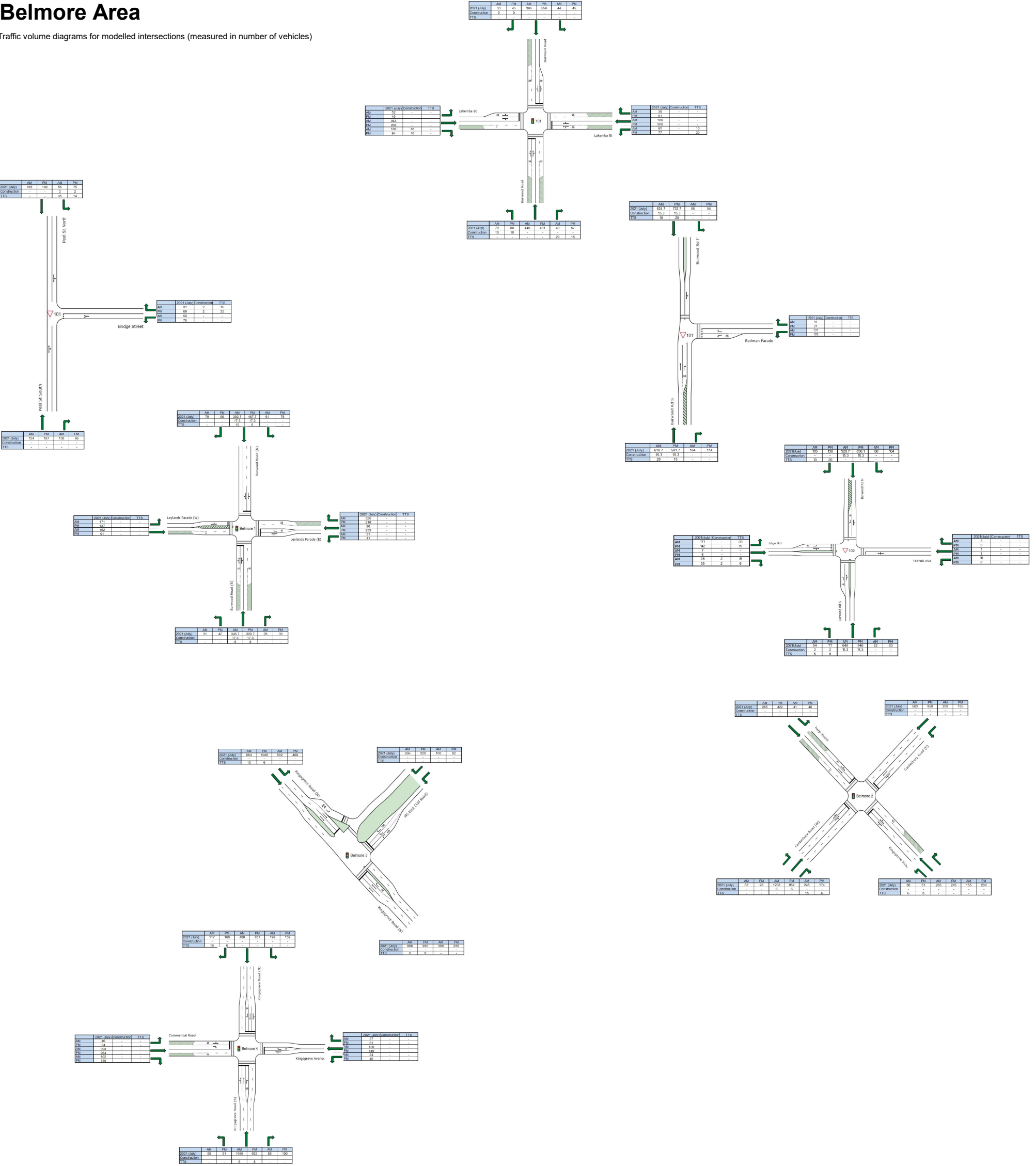


	AM	PM	AM	PM
2021 (July)	2361	2078	387	235
Construction	-	-	-	-
TTS	-	-	-	-



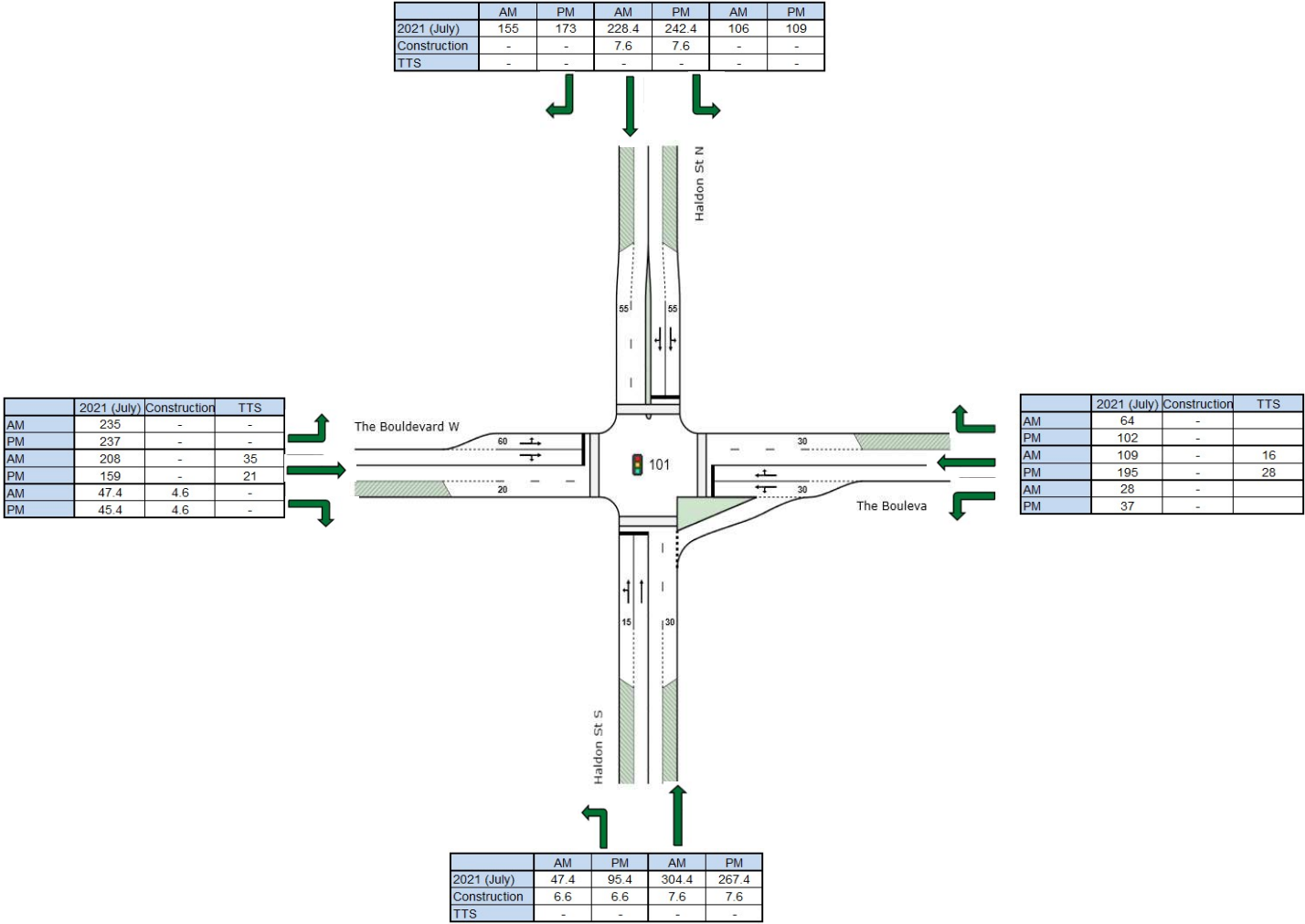
Belmore Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



Lakemba Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



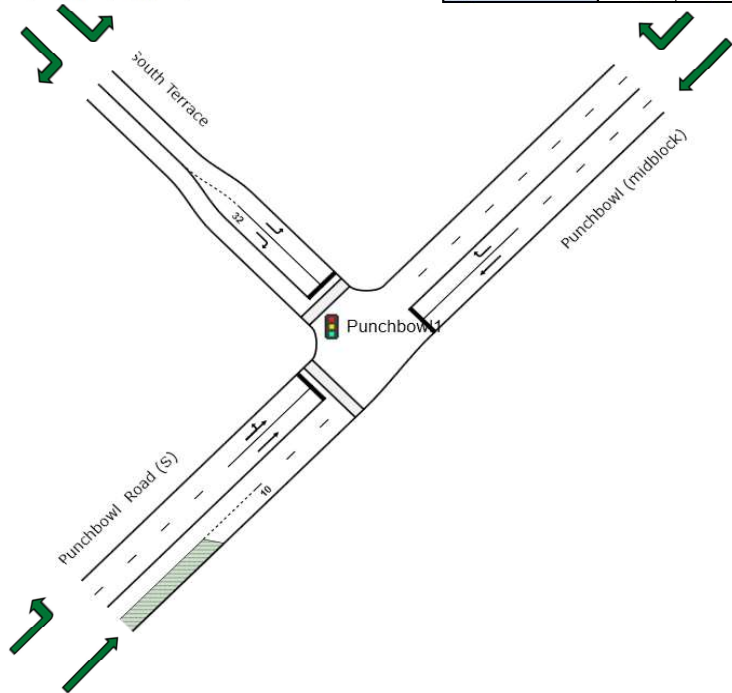
Punchbowl Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



	AM	PM	AM	PM
2021 (July)	91	139	485	525
Construction	-	-	6	6
TTS	-	-	32	21

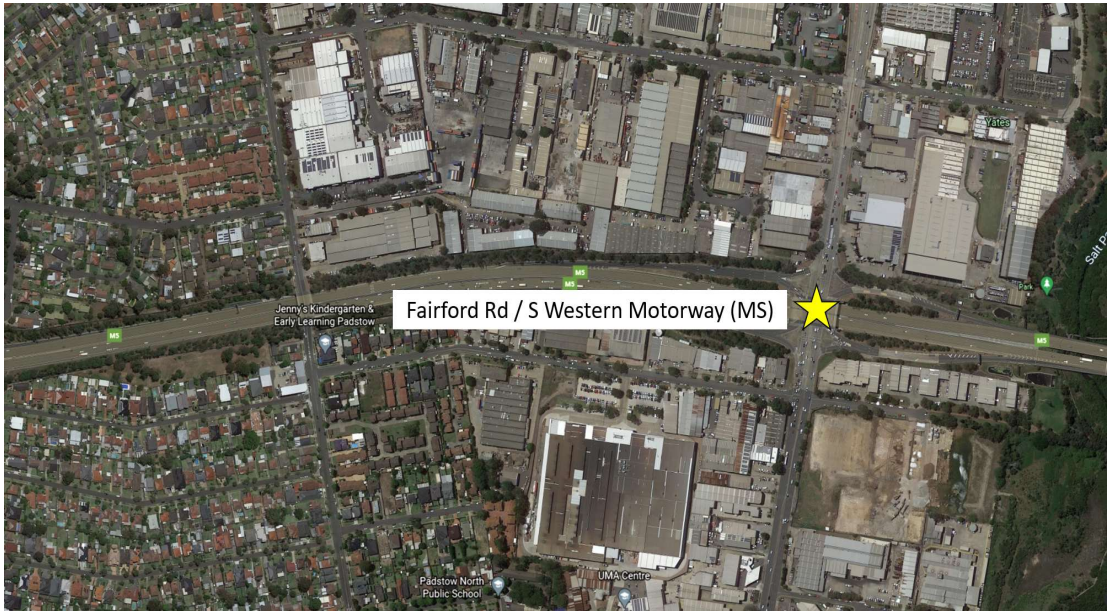
	AM	PM	AM	PM
2021 (July)	289	375	535	757
Construction	6	6	-	-
TTS	16	28	-	-



	AM	PM	AM	PM
2021 (July)	270	275	271	346
Construction	-	-	-	-
TTS	-	-	-	-

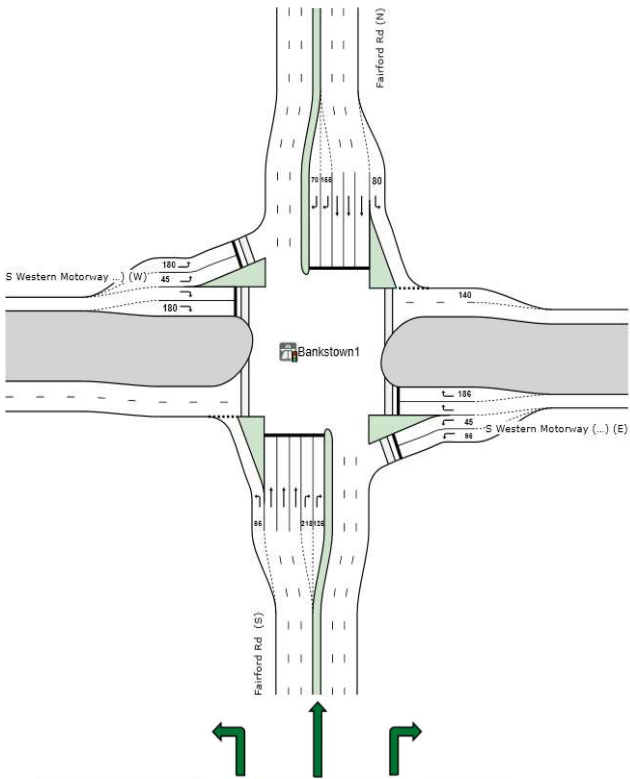
Bankstown Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



	AM	PM	AM	PM	AM	PM
2021 (July)	524.9	761.9	1104	2262	152.9	307.9
Construction	10.1	10.1	-	-	10.1	10.1
TTS	-	-	8	6	-	-

	2021 (July)	Construction	TTS
AM	646.9	10.1	-
PM	437.9	10.1	-
AM	316	-	-
PM	548	-	-

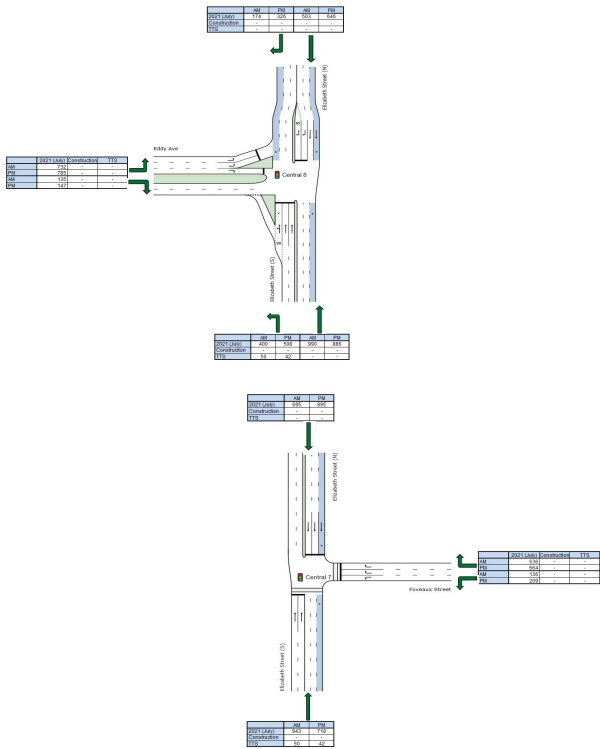
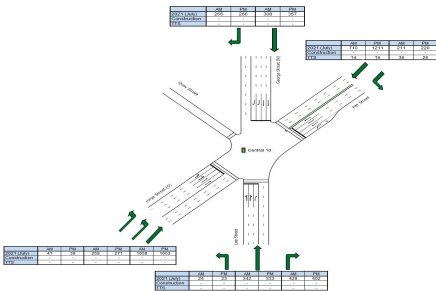
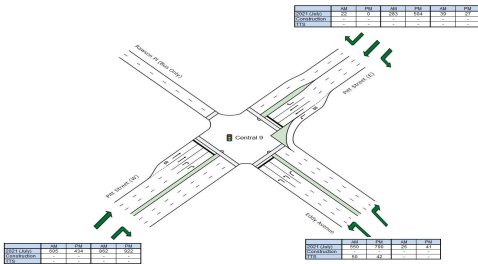
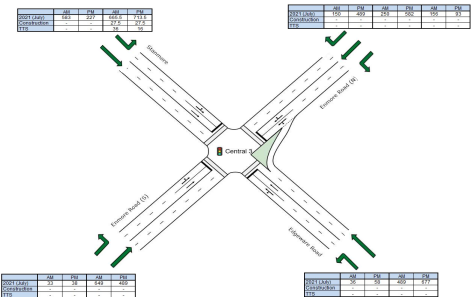
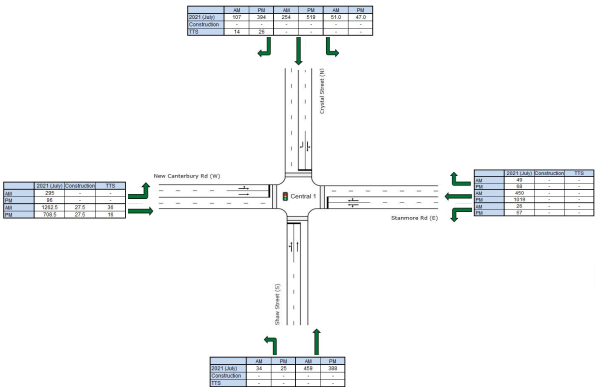
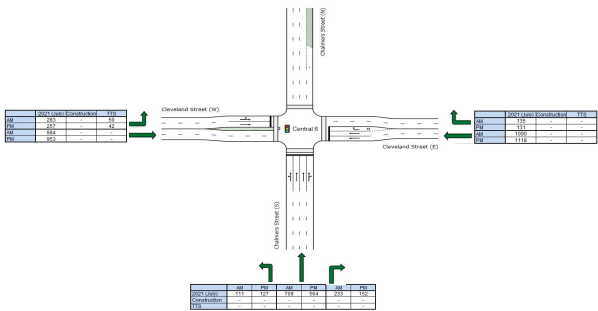
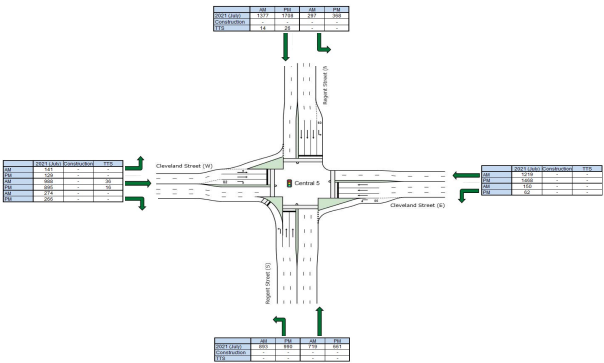
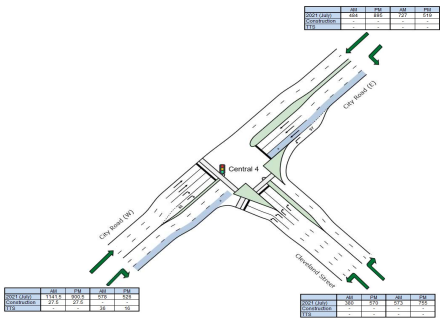
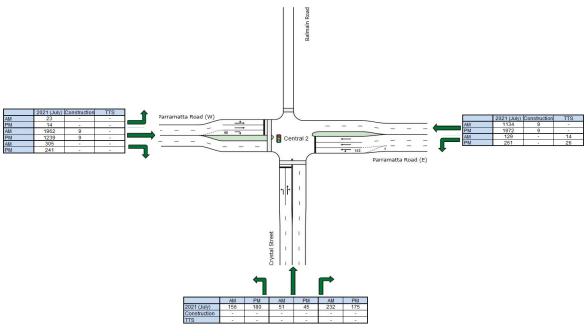


	2021 (July)	Construction	TTS
AM	308.9	10.1	-
PM	274.9	10.1	-
AM	155	-	-
PM	250	-	-

	AM	PM	AM	PM	AM	PM
2021 (July)	155	336	1833	1240	118	194
Construction	-	-	-	-	-	-
TTS	-	-	6	6	-	-

Central Area

Traffic volume diagrams for modelled intersections (measured in number of vehicles)



Appendix C

Detailed intersection
assessment tables

1.0 Sydenham Station

1.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
Marrickville Rd/Buckley St AM - Import	Marrickville Rd East	East	R2	489	31%	6.01	LOS A	0.0
Marrickville Rd/Buckley St AM - Import	Marrickville Rd East	East	T1	411	22%	4.21	LOS A	0.0
Marrickville Rd/Buckley St AM - Import	Marrickville Rd West	West	L2	447	25%	5.64	LOS A	0.0
Marrickville Rd/Buckley St PM - Import	Marrickville Rd East	East	R2	627	37%	5.90	LOS A	0.0
Marrickville Rd/Buckley St PM - Import	Marrickville Rd East	East	T1	660	34%	4.17	LOS A	0.0
Marrickville Rd/Buckley St PM - Import	Marrickville Rd West	West	L2	333	18%	5.60	LOS A	0.0

1.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
Marrickville Rd/Buckley St AM - Import	Marrickville Rd East	East	R2	489	31%	6.01	LOS A	0.0
Marrickville Rd/Buckley St AM - Import	Marrickville Rd East	East	T1	422	23%	4.24	LOS A	0.0
Marrickville Rd/Buckley St AM - Import	Marrickville Rd West	West	L2	491	29%	5.74	LOS A	0.0
Marrickville Rd/Buckley St PM - Import	Marrickville Rd East	East	R2	627	37%	5.90	LOS A	0.0
Marrickville Rd/Buckley St PM - Import	Marrickville Rd East	East	T1	688	37%	4.21	LOS A	0.0
Marrickville Rd/Buckley St PM - Import	Marrickville Rd West	West	L2	349	20%	5.65	LOS A	0.0

2.0 Marrickville Station

2.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd S	South	R2	209	56%	37.73	LOS C	9.5
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd S	South	T1	290	62%	35.04	LOS C	11.4
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd S	South	L2	36	62%	38.25	LOS C	11.4
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd S	East	L2	61	22%	22.87	LOS B	4.4
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd S	East	R2	39	44%	35.51	LOS C	6.5
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd S	East	T1	239	44%	25.59	LOS B	6.5
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd N	North	T1	114	55%	32.20	LOS C	5.7
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd N	North	L2	42	33%	25.82	LOS B	2.2
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd N	North	R2	70	55%	43.23	LOS D	5.7
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd N	West	R2	28	88%	26.26	LOS B	19.7
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd N	West	T1	514	88%	21.33	LOS B	19.7
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd N	West	L2	191	19%	7.56	LOS A	2.1
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd S	South	R2	123	76%	52.16	LOS D	10.1
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd S	South	T1	150	76%	46.83	LOS D	10.1
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd S	South	L2	45	42%	47.11	LOS D	4.9
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd S	East	L2	241	55%	23.87	LOS B	15.2
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd S	East	R2	33	33%	29.44	LOS C	6.9
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd S	East	T1	395	55%	21.82	LOS B	15.2
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd N	North	T1	328	66%	34.26	LOS C	10.0
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd N	North	L2	24	66%	38.06	LOS C	10.0
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd N	North	R2	130	66%	36.56	LOS C	9.7
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd N	West	R2	95	53%	33.94	LOS C	8.2
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd N	West	T1	293	53%	19.35	LOS B	8.8
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd N	West	L2	166	43%	17.64	LOS B	8.8

2.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd S	South	R2	209	83%	38.08	LOS C	8.3
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd S	South	T1	290	92%	42.43	LOS C	11.1
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd S	South	L2	36	92%	46.68	LOS D	11.1
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd S	East	L2	61	21%	15.88	LOS B	2.9
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd S	East	R2	39	43%	25.49	LOS B	4.6
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd S	East	T1	249	43%	16.93	LOS B	4.6
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd N	North	T1	114	76%	25.76	LOS B	4.2
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd N	North	L2	42	46%	21.21	LOS B	2.0
B.18 Marrickville Road / Victoria Road - AM	Victoria Rd N	North	R2	70	76%	36.90	LOS C	4.2
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd N	West	R2	28	87%	21.15	LOS B	16.0
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd N	West	T1	554	87%	16.40	LOS B	16.0
B.18 Marrickville Road / Victoria Road - AM	Marrickville Rd N	West	L2	191	19%	6.79	LOS A	1.5
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd S	South	R2	123	76%	52.16	LOS D	10.1
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd S	South	T1	150	76%	46.83	LOS D	10.1
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd S	South	L2	45	42%	47.11	LOS D	4.9
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd S	East	L2	241	60%	25.22	LOS B	17.0
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd S	East	R2	33	36%	31.29	LOS C	7.0
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd S	East	T1	422	60%	23.17	LOS B	17.0
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd N	North	T1	328	66%	34.73	LOS C	10.0
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd N	North	L2	24	66%	38.74	LOS C	10.0
B.18 Marrickville Road / Victoria Road - PM	Victoria Rd N	North	R2	130	66%	36.56	LOS C	9.7
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd N	West	R2	95	58%	36.84	LOS C	8.2
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd N	West	T1	309	58%	20.41	LOS B	10.1
B.18 Marrickville Road / Victoria Road - PM	Marrickville Rd N	West	L2	166	47%	18.98	LOS B	10.1

3.0 Dulwich Hill Station

3.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.15 Wardell Road / Ewart Street - AM	Ewart St	South	R2	28	52%	35.67	LOS C	8.2
B.15 Wardell Road / Ewart Street - AM	Ewart St	South	T1	190	52%	31.10	LOS C	8.2
B.15 Wardell Road / Ewart Street - AM	Ewart St	South	L2	59	11%	28.12	LOS B	1.8
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	East	L2	29	18%	14.65	LOS B	1.5
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	East	R2	60	88%	49.76	LOS D	15.4
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	East	T1	286	88%	39.59	LOS C	15.4
B.15 Wardell Road / Ewart Street - AM	Ewart St	North	T1	246	98%	67.74	LOS E	19.4
B.15 Wardell Road / Ewart Street - AM	Ewart St	North	L2	133	20%	10.60	LOS A	2.1
B.15 Wardell Road / Ewart Street - AM	Ewart St	North	R2	81	98%	78.31	LOS F	19.4
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	West	R2	11	78%	37.84	LOS C	16.2
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	West	T1	443	78%	31.37	LOS C	16.2
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	West	L2	34	18%	26.98	LOS B	2.9
B.15 Wardell Road / Ewart Street - PM	Ewart St	South	R2	53	72%	38.25	LOS C	7.1
B.15 Wardell Road / Ewart Street - PM	Ewart St	South	T1	261	72%	31.50	LOS C	7.1
B.15 Wardell Road / Ewart Street - PM	Ewart St	South	L2	95	58%	33.44	LOS C	7.0
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	East	L2	43	17%	10.30	LOS A	2.4
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	East	R2	117	86%	30.27	LOS C	20.5
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	East	T1	715	86%	22.15	LOS B	20.5
B.15 Wardell Road / Ewart Street - PM	Ewart St	North	T1	185	85%	24.51	LOS B	6.1
B.15 Wardell Road / Ewart Street - PM	Ewart St	North	L2	78	51%	21.63	LOS B	4.8
B.15 Wardell Road / Ewart Street - PM	Ewart St	North	R2	94	85%	47.10	LOS D	6.1
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	West	R2	4	99%	71.46	LOS F	17.7
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	West	T1	351	99%	63.16	LOS E	17.7
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	West	L2	30	22%	32.80	LOS C	1.9
H.16 Wardell Road / Dudley Street - AM	Dudley St	East	R3	23	28%	40.49	LOS C	0.9
H.16 Wardell Road / Dudley Street - AM	Dudley St	East	L1	50	28%	8.55	LOS A	0.9
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	NorthEast	L3	32	46%	10.33	LOS A	3.9
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	NorthEast	T1	367	46%	4.94	LOS A	3.9
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	SouthWest	R1	19	81%	18.05	LOS B	16.6
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	SouthWest	T1	683	81%	12.96	LOS A	16.6
H.16 Wardell Road / Dudley Street - PM	Dudley St	East	R3	25	38%	42.30	LOS C	1.3
H.16 Wardell Road / Dudley Street - PM	Dudley St	East	L1	73	38%	13.59	LOS A	1.3
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	NorthEast	L3	35	76%	13.41	LOS A	16.8
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	NorthEast	T1	775	76%	7.98	LOS A	16.8
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	SouthWest	R1	26	51%	16.41	LOS B	5.1
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	SouthWest	T1	490	51%	3.47	LOS A	5.1

3.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.15 Wardell Road / Ewart Street - AM	Ewart St	South	R2	28	64%	40.97	LOS C	8.4
B.15 Wardell Road / Ewart Street - AM	Ewart St	South	T1	190	64%	35.55	LOS C	8.4
B.15 Wardell Road / Ewart Street - AM	Ewart St	South	L2	59	13%	28.31	LOS B	2.2
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	East	L2	29	19%	14.72	LOS B	1.6
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	East	R2	70	93%	66.02	LOS E	18.1
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	East	T1	286	93%	52.50	LOS D	18.1
B.15 Wardell Road / Ewart Street - AM	Ewart St	North	T1	246	119%	202.83	LOS F	36.3
B.15 Wardell Road / Ewart Street - AM	Ewart St	North	L2	174	24%	9.73	LOS A	2.8
B.15 Wardell Road / Ewart Street - AM	Ewart St	North	R2	81	119%	225.66	LOS F	36.3
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	West	R2	11	78%	37.45	LOS C	16.1
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	West	T1	443	78%	31.05	LOS C	16.1
B.15 Wardell Road / Ewart Street - AM	Wardell Rd	West	L2	34	17%	26.97	LOS B	2.9
B.15 Wardell Road / Ewart Street - PM	Ewart St	South	R2	53	73%	36.82	LOS C	6.8
B.15 Wardell Road / Ewart Street - PM	Ewart St	South	T1	261	73%	30.14	LOS C	6.8
B.15 Wardell Road / Ewart Street - PM	Ewart St	South	L2	95	58%	32.12	LOS C	6.6
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	East	L2	43	18%	10.23	LOS A	2.4
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	East	R2	143	92%	40.71	LOS C	26.0
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	East	T1	715	92%	30.31	LOS C	26.0
B.15 Wardell Road / Ewart Street - PM	Ewart St	North	T1	185	86%	23.26	LOS B	6.3
B.15 Wardell Road / Ewart Street - PM	Ewart St	North	L2	93	52%	18.46	LOS B	4.1
B.15 Wardell Road / Ewart Street - PM	Ewart St	North	R2	94	86%	45.54	LOS D	6.3
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	West	R2	4	99%	72.56	LOS F	17.5
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	West	T1	351	99%	64.21	LOS E	17.5
B.15 Wardell Road / Ewart Street - PM	Wardell Rd	West	L2	30	22%	31.60	LOS C	1.7
H.16 Wardell Road / Dudley Street - AM	Dudley St	East	R3	23	35%	50.51	LOS D	1.2
H.16 Wardell Road / Dudley Street - AM	Dudley St	East	L1	60	35%	10.81	LOS A	1.2
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	NorthEast	L3	32	46%	10.33	LOS A	3.9
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	NorthEast	T1	367	46%	4.94	LOS A	3.9
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	SouthWest	R1	60	89%	31.21	LOS C	25.2
H.16 Wardell Road / Dudley Street - AM	Wardell Rd	SouthWest	T1	683	89%	20.45	LOS B	25.2
H.16 Wardell Road / Dudley Street - PM	Dudley St	East	R3	25	50%	47.13	LOS D	2.0
H.16 Wardell Road / Dudley Street - PM	Dudley St	East	L1	99	50%	19.00	LOS B	2.0
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	NorthEast	L3	35	76%	13.41	LOS A	16.8
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	NorthEast	T1	775	76%	7.98	LOS A	16.8
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	SouthWest	R1	41	58%	24.77	LOS B	6.8
H.16 Wardell Road / Dudley Street - PM	Wardell Rd	SouthWest	T1	490	58%	4.69	LOS A	6.8

4.0 Hurlstone Park Station

4.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
New Canterbury Rd / Duntroon St - AM	Duntroon Street	South	R3	96	52%	61.11	LOS E	5.5
New Canterbury Rd / Duntroon St - AM	Duntroon Street	South	L2	21	10%	56.47	LOS E	1.1
New Canterbury Rd / Duntroon St - AM	New Caterbury Road (E)	SouthEast	L3	19	24%	11.00	LOS B	5.4
New Canterbury Rd / Duntroon St - AM	New Caterbury Road (E)	SouthEast	L1	632	24%	9.04	LOS A	5.6
New Canterbury Rd / Duntroon St - AM	New Canterbury Road (W)	West	R2	62	47%	11.27	LOS B	13.9
New Canterbury Rd / Duntroon St - AM	New Canterbury Road (W)	West	R1	1241	47%	10.13	LOS B	14.1
New Canterbury Rd / Duntroon St - PM	Duntroon Street	South	R3	53	37%	65.88	LOS E	3.2
New Canterbury Rd / Duntroon St - PM	Duntroon Street	South	L2	31	20%	63.45	LOS E	1.8
New Canterbury Rd / Duntroon St - PM	New Caterbury Road (E)	SouthEast	L3	105	46%	10.95	LOS B	12.4
New Canterbury Rd / Duntroon St - PM	New Caterbury Road (E)	SouthEast	L1	1207	46%	8.97	LOS A	13.1
New Canterbury Rd / Duntroon St - PM	New Canterbury Road (W)	West	R2	63	26%	9.10	LOS A	6.0
New Canterbury Rd / Duntroon St - PM	New Canterbury Road (W)	West	R1	712	26%	7.93	LOS A	6.1
Garnet St/Floss St/Ewart St - AM	Garnet St South	South	R2	17	6%	4.71	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St South	South	T1	32	6%	0.06	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St South	South	L2	59	6%	4.60	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Ewart St	East	L2	6	23%	4.61	LOS A	0.9
Garnet St/Floss St/Ewart St - AM	Ewart St	East	R2	43	23%	7.58	LOS A	0.9
Garnet St/Floss St/Ewart St - AM	Ewart St	East	T1	186	23%	3.90	LOS A	0.9
Garnet St/Floss St/Ewart St - AM	Garnet St North	North	T1	13	4%	0.20	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St North	North	L2	30	4%	5.88	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St North	North	R2	11	4%	5.18	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Floss St	West	R2	27	30%	6.67	LOS A	1.4
Garnet St/Floss St/Ewart St - AM	Floss St	West	T1	295	30%	3.94	LOS A	1.4
Garnet St/Floss St/Ewart St - AM	Floss St	West	L2	23	30%	4.73	LOS A	1.4
Garnet St/Floss St/Ewart St - PM	Garnet St South	South	R2	11	4%	4.71	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St South	South	T1	28	4%	0.05	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St South	South	L2	39	4%	4.60	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Ewart St	East	L2	7	22%	4.62	LOS A	0.9
Garnet St/Floss St/Ewart St - PM	Ewart St	East	R2	41	22%	6.59	LOS A	0.9
Garnet St/Floss St/Ewart St - PM	Ewart St	East	T1	197	22%	3.75	LOS A	0.9
Garnet St/Floss St/Ewart St - PM	Garnet St North	North	T1	17	4%	0.13	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St North	North	L2	28	4%	5.93	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St North	North	R2	13	4%	5.03	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Floss St	West	R2	44	24%	6.55	LOS A	1.0
Garnet St/Floss St/Ewart St - PM	Floss St	West	T1	201	24%	3.77	LOS A	1.0
Garnet St/Floss St/Ewart St - PM	Floss St	West	L2	23	24%	4.66	LOS A	1.0

4.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
New Canterbury Rd / Duntroon St - AM	Duntroon Street	South	R3	96	52%	61.11	LOS E	5.5
New Canterbury Rd / Duntroon St - AM	Duntroon Street	South	L2	21	10%	56.47	LOS E	1.1
New Canterbury Rd / Duntroon St - AM	New Caterbury Road (E)	SouthEast	L3	19	25%	11.04	LOS B	5.6
New Canterbury Rd / Duntroon St - AM	New Caterbury Road (E)	SouthEast	L1	647	25%	9.10	LOS A	5.8
New Canterbury Rd / Duntroon St - AM	New Canterbury Road (W)	West	R2	62	49%	11.44	LOS B	14.8
New Canterbury Rd / Duntroon St - AM	New Canterbury Road (W)	West	R1	1280	49%	10.33	LOS B	15.0
New Canterbury Rd / Duntroon St - PM	Duntroon Street	South	R3	53	37%	65.88	LOS E	3.2
New Canterbury Rd / Duntroon St - PM	Duntroon Street	South	L2	31	20%	63.45	LOS E	1.8
New Canterbury Rd / Duntroon St - PM	New Caterbury Road (E)	SouthEast	L3	105	47%	11.05	LOS B	13.0
New Canterbury Rd / Duntroon St - PM	New Caterbury Road (E)	SouthEast	L1	1235	47%	9.09	LOS A	13.7
New Canterbury Rd / Duntroon St - PM	New Canterbury Road (W)	West	R2	63	27%	9.14	LOS A	6.2
New Canterbury Rd / Duntroon St - PM	New Canterbury Road (W)	West	R1	730	27%	7.99	LOS A	6.3
Garnet St/Floss St/Ewart St - AM	Garnet St South	South	R2	17	6%	4.81	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St South	South	T1	32	6%	0.10	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St South	South	L2	59	6%	4.63	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Ewart St	East	L2	6	25%	4.61	LOS A	1.0
Garnet St/Floss St/Ewart St - AM	Ewart St	East	R2	43	25%	8.14	LOS A	1.0
Garnet St/Floss St/Ewart St - AM	Ewart St	East	T1	197	25%	4.14	LOS A	1.0
Garnet St/Floss St/Ewart St - AM	Garnet St North	North	T1	13	6%	0.20	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St North	North	L2	51	6%	6.22	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Garnet St North	North	R2	11	6%	5.19	LOS A	0.1
Garnet St/Floss St/Ewart St - AM	Floss St	West	R2	27	34%	6.91	LOS A	1.6
Garnet St/Floss St/Ewart St - AM	Floss St	West	T1	317	34%	4.36	LOS A	1.6
Garnet St/Floss St/Ewart St - AM	Floss St	West	L2	23	34%	4.73	LOS A	1.6
Garnet St/Floss St/Ewart St - PM	Garnet St South	South	R2	11	4%	4.71	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St South	South	T1	28	4%	0.05	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St South	South	L2	39	4%	4.60	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Ewart St	East	L2	7	26%	4.62	LOS A	1.1
Garnet St/Floss St/Ewart St - PM	Ewart St	East	R2	41	26%	6.91	LOS A	1.1
Garnet St/Floss St/Ewart St - PM	Ewart St	East	T1	226	26%	4.09	LOS A	1.1
Garnet St/Floss St/Ewart St - PM	Garnet St North	North	T1	17	4%	0.13	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St North	North	L2	28	4%	5.93	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Garnet St North	North	R2	13	4%	5.03	LOS A	0.1
Garnet St/Floss St/Ewart St - PM	Floss St	West	R2	44	26%	6.99	LOS A	1.1
Garnet St/Floss St/Ewart St - PM	Floss St	West	T1	218	26%	3.97	LOS A	1.1
Garnet St/Floss St/Ewart St - PM	Floss St	West	L2	23	26%	4.66	LOS A	1.1

5.0 Canterbury Station

5.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	East	R2	11	35%	48.74	LOS D	2.6
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	East	T1	1129	35%	3.00	LOS A	2.6
H.14 Canterbury Road / Charles Street - AM	Charles St	North	L2	22	5%	10.80	LOS A	0.2
H.14 Canterbury Road / Charles Street - AM	Charles St	North	R2	4	14%	194.78	LOS F	0.6
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	West	T1	1893	52%	0.09	LOS A	0.5
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	West	L2	21	52%	8.44	LOS A	0.5
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	East	R2	16	56%	28.44	LOS B	1.4
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	East	T1	2045	56%	0.68	LOS A	1.4
H.14 Canterbury Road / Charles Street - PM	Charles St	North	L2	23	2%	8.10	LOS A	0.1
H.14 Canterbury Road / Charles Street - PM	Charles St	North	R2	4	22%	379.56	LOS F	1.1
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	West	T1	1508	41%	0.04	LOS A	0.4
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	West	L2	38	41%	6.31	LOS A	0.4

5.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	East	R2	11	36%	53.90	LOS D	11.7
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	East	T1	1147	36%	3.54	LOS A	11.7
H.14 Canterbury Road / Charles Street - AM	Charles St	North	L2	22	5%	11.34	LOS A	0.2
H.14 Canterbury Road / Charles Street - AM	Charles St	North	R2	4	16%	228.80	LOS F	0.6
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	West	T1	1937	54%	0.09	LOS A	0.5
H.14 Canterbury Road / Charles Street - AM	Canterbury Rd	West	L2	21	54%	8.57	LOS A	0.5
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	East	R2	16	58%	30.59	LOS C	1.6
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	East	T1	2083	58%	0.75	LOS A	1.6
H.14 Canterbury Road / Charles Street - PM	Charles St	North	L2	23	2%	8.31	LOS A	0.1
H.14 Canterbury Road / Charles Street - PM	Charles St	North	R2	4	25%	442.38	LOS F	1.2
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	West	T1	1533	42%	0.04	LOS A	0.4
H.14 Canterbury Road / Charles Street - PM	Canterbury Rd	West	L2	38	42%	6.33	LOS A	0.4

6.0 Campsie Station

6.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.11 Beamish Street / Clissold Parade - AM	Beamish St S	South	R2	62	63%	14.29	LOS A	23.1
B.11 Beamish Street / Clissold Parade - AM	Beamish St S	South	T1	640	63%	10.56	LOS A	23.1
B.11 Beamish Street / Clissold Parade - AM	Clissold Pde	East	L2	32	10%	40.42	LOS C	1.3
B.11 Beamish Street / Clissold Parade - AM	Clissold Pde	East	R2	37	17%	47.84	LOS D	1.7
B.11 Beamish Street / Clissold Parade - AM	Beamish St N	North	T1	532	33%	10.03	LOS A	8.6
B.11 Beamish Street / Clissold Parade - AM	Beamish St N	North	L2	24	33%	13.09	LOS A	8.4
B.11 Beamish Street / Clissold Parade - PM	Beamish St S	South	R2	98	71%	14.26	LOS A	17.5
B.11 Beamish Street / Clissold Parade - PM	Beamish St S	South	T1	569	71%	10.54	LOS A	17.5
B.11 Beamish Street / Clissold Parade - PM	Clissold Pde	East	L2	67	16%	39.60	LOS C	2.8
B.11 Beamish Street / Clissold Parade - PM	Clissold Pde	East	R2	70	43%	53.70	LOS D	3.6
B.11 Beamish Street / Clissold Parade - PM	Beamish St N	North	T1	607	75%	12.08	LOS A	19.8
B.11 Beamish Street / Clissold Parade - PM	Beamish St N	North	L2	59	5%	4.43	LOS A	0.4
B.12 Beamish Street / South Parade - AM	Beamish St S	South	R2	12	60%	19.44	LOS B	21.3
B.12 Beamish Street / South Parade - AM	Beamish St S	South	T1	566	60%	15.68	LOS B	21.3
B.12 Beamish Street / South Parade - AM	South Parade	East	L2	48	34%	50.72	LOS D	2.3
B.12 Beamish Street / South Parade - AM	South Parade	East	R2	121	65%	52.11	LOS D	6.0
B.12 Beamish Street / South Parade - AM	Beamish St N	North	T1	443	64%	13.41	LOS A	15.4
B.12 Beamish Street / South Parade - AM	Beamish St N	North	L2	187	23%	14.98	LOS B	5.7
B.12 Beamish Street / South Parade - AM	Lilian St	West	T1	47	35%	42.31	LOS C	4.1
B.12 Beamish Street / South Parade - AM	Lilian St	West	L2	44	35%	45.83	LOS D	4.1
B.12 Beamish Street / South Parade - PM	Beamish St S	South	R2	10	72%	23.50	LOS B	25.8
B.12 Beamish Street / South Parade - PM	Beamish St S	South	T1	592	72%	19.75	LOS B	25.8
B.12 Beamish Street / South Parade - PM	South Parade	East	L2	35	26%	53.09	LOS D	1.8
B.12 Beamish Street / South Parade - PM	South Parade	East	R2	113	60%	54.19	LOS D	5.9
B.12 Beamish Street / South Parade - PM	Beamish St N	North	T1	579	84%	24.63	LOS B	27.4
B.12 Beamish Street / South Parade - PM	Beamish St N	North	L2	179	23%	15.16	LOS B	5.8
B.12 Beamish Street / South Parade - PM	Lilian St	West	T1	36	33%	45.12	LOS D	4.0
B.12 Beamish Street / South Parade - PM	Lilian St	West	L2	48	33%	48.62	LOS D	4.0
H.11 Beamish Street / North Parade - AM	Beamish St	South	T1	51	31%	0.40	LOS A	8.5
H.11 Beamish Street / North Parade - AM	Beamish St	South	L2	605	23%	16.20	LOS C	0.8
H.11 Beamish Street / North Parade - AM	North Pde	East	L2	31	31%	21.70	LOS C	0.5
H.11 Beamish Street / North Parade - AM	Beamish St	North	T1	574	38%	0.50	LOS A	0.5
H.11 Beamish Street / North Parade - AM	Beamish St	North	L2	33	38%	7.40	LOS A	0.5
H.11 Beamish Street / North Parade - AM	North Pde	West	L2	61	41%	31.80	LOS D	1.5
H.11 Beamish Street / North Parade - PM	Beamish St	South	T1	644	32%	0.40	LOS A	11.4
H.11 Beamish Street / North Parade - PM	Beamish St	South	L2	64	32%	22.50	LOS C	1.1
H.11 Beamish Street / North Parade - PM	North Pde	East	L2	34	20%	13.80	LOS B	0.4
H.11 Beamish Street / North Parade - PM	Beamish St	North	T1	622	31%	0.30	LOS A	10.5
H.11 Beamish Street / North Parade - PM	Beamish St	North	L2	28	31%	7.00	LOS A	10.5
H.11 Beamish Street / North Parade - PM	North Pde	West	L2	50	30%	32.00	LOS D	1.2

Appendix C – Detailed Intersection Assessment Tables

Beamish St/ Evaline St - AM	Beamish Street (S)	SouthEast	T1	455	66%	26.15	LOS C	17.9
Beamish St/ Evaline St - AM	Beamish Street (S)	SouthEast	L2	64	6%	9.03	LOS A	0.8
Beamish St/ Evaline St - AM	Evaline St (E)	NorthEast	L2	47	27%	51.32	LOS D	2.3
Beamish St/ Evaline St - AM	Evaline St (E)	NorthEast	R2	127	76%	53.64	LOS D	8.3
Beamish St/ Evaline St - AM	Evaline St (E)	NorthEast	T1	34	76%	50.19	LOS D	8.3
Beamish St/ Evaline St - AM	Beamish Street (N)	NorthWest	T1	425	58%	16.83	LOS B	13.9
Beamish St/ Evaline St - AM	Beamish Street (N)	NorthWest	L2	176	30%	17.82	LOS B	4.7
Beamish St/ Evaline St - AM	Beamish Street (N)	NorthWest	R2	12	58%	20.28	LOS C	13.9
Beamish St/ Evaline St - AM	Evaline Street (W)	SouthWest	R2	93	71%	50.06	LOS D	10.4
Beamish St/ Evaline St - AM	Evaline Street (W)	SouthWest	T1	115	71%	46.62	LOS D	10.4
Beamish St/ Evaline St - AM	Evaline Street (W)	SouthWest	L2	91	17%	32.21	LOS C	3.4
Beamish St/ Evaline St - PM	Beamish Street (S)	SouthEast	T1	381	60%	28.59	LOS C	15.6
Beamish St/ Evaline St - PM	Beamish Street (S)	SouthEast	L2	77	8%	9.79	LOS A	1.1
Beamish St/ Evaline St - PM	Evaline St (E)	NorthEast	L2	41	20%	51.39	LOS D	2.0
Beamish St/ Evaline St - PM	Evaline St (E)	NorthEast	R2	137	83%	58.58	LOS E	11.1
Beamish St/ Evaline St - PM	Evaline St (E)	NorthEast	T1	60	83%	55.13	LOS E	11.1
Beamish St/ Evaline St - PM	Beamish Street (N)	NorthWest	T1	532	67%	19.23	LOS B	19.3
Beamish St/ Evaline St - PM	Beamish Street (N)	NorthWest	L2	158	29%	19.24	LOS B	4.5
Beamish St/ Evaline St - PM	Beamish Street (N)	NorthWest	R2	7	67%	22.66	LOS C	19.3
Beamish St/ Evaline St - PM	Evaline Street (W)	SouthWest	R2	123	72%	51.38	LOS D	11.7
Beamish St/ Evaline St - PM	Evaline Street (W)	SouthWest	T1	101	72%	47.94	LOS D	11.7
Beamish St/ Evaline St - PM	Evaline Street (W)	SouthWest	L2	115	20%	31.94	LOS C	4.3
South Pde/ Wonga St - AM	Wonga St	South	R2	15	4%	5.32	LOS A	0.2
South Pde/ Wonga St - AM	Wonga St	South	L2	43	4%	4.79	LOS A	0.2
South Pde/ Wonga St - AM	South Pde East	East	L2	8	3%	4.56	LOS A	0.0
South Pde/ Wonga St - AM	South Pde East	East	T1	43	3%	0.00	LOS A	0.0
South Pde/ Wonga St - AM	South Pde West	West	R2	65	9%	4.76	LOS A	0.4
South Pde/ Wonga St - AM	South Pde West	West	T1	99	9%	0.09	LOS A	0.4
South Pde/ Wonga St - PM	Wonga St	South	R2	14	5%	5.20	LOS A	0.2
South Pde/ Wonga St - PM	Wonga St	South	L2	54	5%	4.67	LOS A	0.2
South Pde/ Wonga St - PM	South Pde East	East	L2	6	2%	4.56	LOS A	0.0
South Pde/ Wonga St - PM	South Pde East	East	T1	34	2%	0.00	LOS A	0.0
South Pde/ Wonga St - PM	South Pde West	West	R2	55	8%	4.73	LOS A	0.3
South Pde/ Wonga St - PM	South Pde West	West	T1	88	8%	0.07	LOS A	0.3
Evaline St/ Wonga St - AM	Wonga St South	South	T1	42	7%	0.00	LOS A	0.0
Evaline St/ Wonga St - AM	Wonga St South	South	L2	87	7%	4.29	LOS A	0.0
Evaline St/ Wonga St - AM	Wonga St North	North	T1	66	4%	0.07	LOS A	0.1
Evaline St/ Wonga St - AM	Wonga St North	North	R2	10	4%	4.95	LOS A	0.1
Evaline St/ Wonga St - AM	Evaline St	West	R2	53	6%	5.25	LOS A	0.2
Evaline St/ Wonga St - AM	Evaline St	West	L2	17	6%	4.80	LOS A	0.2
Evaline St/ Wonga St - PM	Wonga St South	South	T1	58	9%	0.00	LOS A	0.0
Evaline St/ Wonga St - PM	Wonga St South	South	L2	115	9%	4.29	LOS A	0.0
Evaline St/ Wonga St - PM	Wonga St North	North	T1	54	3%	0.08	LOS A	0.0
Evaline St/ Wonga St - PM	Wonga St North	North	R2	6	3%	5.08	LOS A	0.0
Evaline St/ Wonga St - PM	Evaline St	West	R2	63	7%	5.25	LOS A	0.2
Evaline St/ Wonga St - PM	Evaline St	West	L2	13	7%	4.73	LOS A	0.2

6.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.11 Beamish Street / Clissold Parade - AM	Beamish St S	South	R2	62	66%	15.19	LOS B	24.1
B.11 Beamish Street / Clissold Parade - AM	Beamish St S	South	T1	650	66%	11.42	LOS A	24.1
B.11 Beamish Street / Clissold Parade - AM	Clissold Pde	East	L2	32	10%	40.42	LOS C	1.3
B.11 Beamish Street / Clissold Parade - AM	Clissold Pde	East	R2	37	17%	47.84	LOS D	1.7
B.11 Beamish Street / Clissold Parade - AM	Beamish St N	North	T1	553	35%	10.21	LOS A	9.0
B.11 Beamish Street / Clissold Parade - AM	Beamish St N	North	L2	24	35%	13.20	LOS A	8.8
B.11 Beamish Street / Clissold Parade - PM	Beamish St S	South	R2	98	78%	17.08	LOS B	21.8
B.11 Beamish Street / Clissold Parade - PM	Beamish St S	South	T1	590	78%	13.29	LOS A	21.8
B.11 Beamish Street / Clissold Parade - PM	Clissold Pde	East	L2	67	16%	39.60	LOS C	2.8
B.11 Beamish Street / Clissold Parade - PM	Clissold Pde	East	R2	70	43%	53.70	LOS D	3.6
B.11 Beamish Street / Clissold Parade - PM	Beamish St N	North	T1	623	79%	15.05	LOS B	22.6
B.11 Beamish Street / Clissold Parade - PM	Beamish St N	North	L2	59	5%	4.43	LOS A	0.4
B.12 Beamish Street / South Parade - AM	Beamish St S	South	R2	36	76%	26.37	LOS B	26.1
B.12 Beamish Street / South Parade - AM	Beamish St S	South	T1	576	76%	22.60	LOS B	26.1
B.12 Beamish Street / South Parade - AM	South Parade	East	L2	48	34%	50.72	LOS D	2.3
B.12 Beamish Street / South Parade - AM	South Parade	East	R2	121	65%	52.11	LOS D	6.0
B.12 Beamish Street / South Parade - AM	Beamish St N	North	T1	463	69%	14.07	LOS A	16.5
B.12 Beamish Street / South Parade - AM	Beamish St N	North	L2	187	23%	14.98	LOS B	5.7
B.12 Beamish Street / South Parade - AM	Lilian St	West	T1	47	35%	42.31	LOS C	4.1
B.12 Beamish Street / South Parade - AM	Lilian St	West	L2	44	35%	45.83	LOS D	4.1
B.12 Beamish Street / South Parade - PM	Beamish St S	South	R2	20	85%	37.32	LOS C	34.0
B.12 Beamish Street / South Parade - PM	Beamish St S	South	T1	612	85%	33.56	LOS C	34.0
B.12 Beamish Street / South Parade - PM	South Parade	East	L2	35	26%	53.09	LOS D	1.8
B.12 Beamish Street / South Parade - PM	South Parade	East	R2	113	60%	54.19	LOS D	5.9
B.12 Beamish Street / South Parade - PM	Beamish St N	North	T1	594	88%	31.36	LOS C	31.2
B.12 Beamish Street / South Parade - PM	Beamish St N	North	L2	179	23%	15.16	LOS B	5.8
B.12 Beamish Street / South Parade - PM	Lilian St	West	T1	36	33%	45.12	LOS D	4.0
B.12 Beamish Street / South Parade - PM	Lilian St	West	L2	48	33%	48.62	LOS D	4.0
H.11 Beamish Street / North Parade - AM	Beamish St	South	T1	615	31%	0.60	LOS A	9.1
H.11 Beamish Street / North Parade - AM	Beamish St	South	L2	51	24%	16.40	LOS C	1.0
H.11 Beamish Street / North Parade - AM	North Pde	East	L2	31	33%	23.80	LOS C	0.6
H.11 Beamish Street / North Parade - AM	Beamish St	North	T1	595	40%	0.50	LOS A	1.8
H.11 Beamish Street / North Parade - AM	Beamish St	North	L2	33	40%	7.50	LOS A	1.8
H.11 Beamish Street / North Parade - AM	North Pde	West	L2	61	40%	31.40	LOS D	1.5
H.11 Beamish Street / North Parade - PM	Beamish St	South	T1	664	30%	0.60	LOS A	11.2
H.11 Beamish Street / North Parade - PM	Beamish St	South	L2	64	30%	22.40	LOS C	1.1
H.11 Beamish Street / North Parade - PM	North Pde	East	L2	34	20%	13.90	LOS B	0.4
H.11 Beamish Street / North Parade - PM	Beamish St	North	T1	638	31%	0.30	LOS A	10.5
H.11 Beamish Street / North Parade - PM	Beamish St	North	L2	28	31%	7.00	LOS A	10.5
H.11 Beamish Street / North Parade - PM	North Pde	West	L2	50	31%	33.10	LOS D	1.3

Appendix C – Detailed Intersection Assessment Tables

Beamish St/ Evaline St - AM	Beamish Street (S)	SouthEast	T1	455	66%	26.15	LOS C	17.9
Beamish St/ Evaline St - AM	Beamish Street (S)	SouthEast	L2	64	6%	9.03	LOS A	0.8
Beamish St/ Evaline St - AM	Evaline St (E)	NorthEast	L2	47	27%	51.32	LOS D	2.3
Beamish St/ Evaline St - AM	Evaline St (E)	NorthEast	R2	147	92%	69.37	LOS E	11.0
Beamish St/ Evaline St - AM	Evaline St (E)	NorthEast	T1	34	92%	65.84	LOS E	11.0
Beamish St/ Evaline St - AM	Beamish Street (N)	NorthWest	T1	446	62%	17.92	LOS B	14.9
Beamish St/ Evaline St - AM	Beamish Street (N)	NorthWest	L2	176	31%	17.82	LOS B	4.7
Beamish St/ Evaline St - AM	Beamish Street (N)	NorthWest	R2	12	62%	20.84	LOS C	14.9
Beamish St/ Evaline St - AM	Evaline Street (W)	SouthWest	R2	93	71%	50.06	LOS D	10.4
Beamish St/ Evaline St - AM	Evaline Street (W)	SouthWest	T1	115	71%	46.62	LOS D	10.4
Beamish St/ Evaline St - AM	Evaline Street (W)	SouthWest	L2	91	17%	32.21	LOS C	3.4
Beamish St/ Evaline St - PM	Beamish Street (S)	SouthEast	T1	381	60%	28.59	LOS C	15.6
Beamish St/ Evaline St - PM	Beamish Street (S)	SouthEast	L2	77	8%	9.79	LOS A	1.1
Beamish St/ Evaline St - PM	Evaline St (E)	NorthEast	L2	41	24%	50.69	LOS D	2.4
Beamish St/ Evaline St - PM	Evaline St (E)	NorthEast	R2	179	111%	175.67	LOS F	24.8
Beamish St/ Evaline St - PM	Evaline St (E)	NorthEast	T1	60	111%	153.88	LOS F	24.8
Beamish St/ Evaline St - PM	Beamish Street (N)	NorthWest	T1	548	70%	20.08	LOS C	20.3
Beamish St/ Evaline St - PM	Beamish Street (N)	NorthWest	L2	158	29%	19.24	LOS B	4.5
Beamish St/ Evaline St - PM	Beamish Street (N)	NorthWest	R2	7	70%	23.13	LOS C	20.3
Beamish St/ Evaline St - PM	Evaline Street (W)	SouthWest	R2	123	72%	51.38	LOS D	11.7
Beamish St/ Evaline St - PM	Evaline Street (W)	SouthWest	T1	101	72%	47.94	LOS D	11.7
Beamish St/ Evaline St - PM	Evaline Street (W)	SouthWest	L2	115	20%	31.94	LOS C	4.3
South Pde/ Wonga St - AM	Wonga St	South	R2	15	4%	5.49	LOS A	0.2
South Pde/ Wonga St - AM	Wonga St	South	L2	43	4%	4.79	LOS A	0.2
South Pde/ Wonga St - AM	South Pde East	East	L2	8	3%	4.56	LOS A	0.0
South Pde/ Wonga St - AM	South Pde East	East	T1	43	3%	0.00	LOS A	0.0
South Pde/ Wonga St - AM	South Pde West	West	R2	92	12%	5.21	LOS A	0.5
South Pde/ Wonga St - AM	South Pde West	West	T1	99	12%	0.30	LOS A	0.5
South Pde/ Wonga St - PM	Wonga St	South	R2	14	5%	5.27	LOS A	0.2
South Pde/ Wonga St - PM	Wonga St	South	L2	54	5%	4.67	LOS A	0.2
South Pde/ Wonga St - PM	South Pde East	East	L2	6	2%	4.56	LOS A	0.0
South Pde/ Wonga St - PM	South Pde East	East	T1	34	2%	0.00	LOS A	0.0
South Pde/ Wonga St - PM	South Pde West	West	R2	66	9%	4.97	LOS A	0.4
South Pde/ Wonga St - PM	South Pde West	West	T1	88	9%	0.17	LOS A	0.4
Evaline St/ Wonga St - AM	Wonga St South	South	T1	42	9%	0.13	LOS A	0.0
Evaline St/ Wonga St - AM	Wonga St South	South	L2	107	9%	4.30	LOS A	0.0
Evaline St/ Wonga St - AM	Wonga St North	North	T1	92	6%	1.95	LOS A	0.1
Evaline St/ Wonga St - AM	Wonga St North	North	R2	10	6%	5.30	LOS A	0.1
Evaline St/ Wonga St - AM	Evaline St	West	R2	53	6%	5.48	LOS A	0.2
Evaline St/ Wonga St - AM	Evaline St	West	L2	17	6%	4.80	LOS A	0.2
Evaline St/ Wonga St - PM	Wonga St South	South	T1	58	13%	0.18	LOS A	0.0
Evaline St/ Wonga St - PM	Wonga St South	South	L2	156	13%	4.30	LOS A	0.0
Evaline St/ Wonga St - PM	Wonga St North	North	T1	65	4%	1.11	LOS A	0.0
Evaline St/ Wonga St - PM	Wonga St North	North	R2	6	4%	5.45	LOS A	0.0
Evaline St/ Wonga St - PM	Evaline St	West	R2	63	7%	5.45	LOS A	0.2
Evaline St/ Wonga St - PM	Evaline St	West	L2	13	7%	4.73	LOS A	0.2

7.0 Belmore Station

7.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.08 Burwood Road / Bridge Road - AM	Burwood Rd S	South	R2	52	71%	21.67	LOS B	12.7
B.08 Burwood Road / Bridge Road - AM	Burwood Rd S	South	T1	655	71%	3.57	LOS A	12.7
B.08 Burwood Road / Bridge Road - AM	Burwood Rd S	South	L2	56	4%	5.00	LOS A	0.2
B.08 Burwood Road / Bridge Road - AM	Tobruk Ave	East	L2	10	12%	11.87	LOS A	0.3
B.08 Burwood Road / Bridge Road - AM	Tobruk Ave	East	R2	3	12%	99.17	LOS F	0.3
B.08 Burwood Road / Bridge Road - AM	Tobruk Ave	East	T1	1	12%	51.15	LOS D	0.3
B.08 Burwood Road / Bridge Road - AM	Burwood Rd N	North	T1	544	59%	1.03	LOS A	5.1
B.08 Burwood Road / Bridge Road - AM	Burwood Rd N	North	L2	80	59%	5.34	LOS A	5.1
B.08 Burwood Road / Bridge Road - AM	Burwood Rd N	North	R2	104	16%	7.35	LOS A	0.6
B.08 Burwood Road / Bridge Road - AM	Bridge Rd	West	R2	31	59%	92.63	LOS F	1.9
B.08 Burwood Road / Bridge Road - AM	Bridge Rd	West	T1	7	59%	83.88	LOS F	1.9
B.08 Burwood Road / Bridge Road - AM	Bridge Rd	West	L2	177	32%	10.87	LOS A	1.3
B.08 Burwood Road / Bridge Road - PM	Burwood Rd S	South	R2	53	64%	18.49	LOS B	9.0
B.08 Burwood Road / Bridge Road - PM	Burwood Rd S	South	T1	561	64%	3.51	LOS A	9.0
B.08 Burwood Road / Bridge Road - PM	Burwood Rd S	South	L2	79	6%	5.15	LOS A	0.3
B.08 Burwood Road / Bridge Road - PM	Tobruk Ave	East	L2	8	30%	18.91	LOS B	0.9
B.08 Burwood Road / Bridge Road - PM	Tobruk Ave	East	R2	9	30%	82.67	LOS F	0.9
B.08 Burwood Road / Bridge Road - PM	Tobruk Ave	East	T1	7	30%	52.48	LOS D	0.9
B.08 Burwood Road / Bridge Road - PM	Burwood Rd N	North	T1	672	77%	5.14	LOS A	16.3
B.08 Burwood Road / Bridge Road - PM	Burwood Rd N	North	L2	104	77%	7.20	LOS A	16.3
B.08 Burwood Road / Bridge Road - PM	Burwood Rd N	North	R2	138	18%	6.75	LOS A	0.7
B.08 Burwood Road / Bridge Road - PM	Bridge Rd	West	R2	41	74%	118.69	LOS F	2.7
B.08 Burwood Road / Bridge Road - PM	Bridge Rd	West	T1	6	74%	103.30	LOS F	2.7
B.08 Burwood Road / Bridge Road - PM	Bridge Rd	West	L2	142	22%	8.85	LOS A	0.8
B.09 Burwood Road / Redman Parade - AM	Burwood Rd S	South	R2	164	31%	10.93	LOS A	1.3
B.09 Burwood Road / Redman Parade - AM	Burwood Rd S	South	T1	626	56%	0.42	LOS A	5.1
B.09 Burwood Road / Redman Parade - AM	Redman Parade	East	L2	131	24%	10.87	LOS A	0.9
B.09 Burwood Road / Redman Parade - AM	Redman Parade	East	R2	15	21%	57.43	LOS E	0.6
B.09 Burwood Road / Redman Parade - AM	Burwood Rd N	North	T1	640	62%	0.47	LOS A	6.2
B.09 Burwood Road / Redman Parade - AM	Burwood Rd N	North	L2	55	62%	7.02	LOS A	6.2
B.09 Burwood Road / Redman Parade - PM	Burwood Rd S	South	R2	114	19%	9.15	LOS A	0.7
B.09 Burwood Road / Redman Parade - PM	Burwood Rd S	South	T1	597	52%	0.07	LOS A	4.5
B.09 Burwood Road / Redman Parade - PM	Redman Parade	East	L2	170	37%	13.65	LOS A	1.5
B.09 Burwood Road / Redman Parade - PM	Redman Parade	East	R2	21	22%	48.39	LOS D	0.7
B.09 Burwood Road / Redman Parade - PM	Burwood Rd N	North	T1	748	69%	0.10	LOS A	8.6
B.09 Burwood Road / Redman Parade - PM	Burwood Rd N	North	L2	54	69%	7.40	LOS A	8.6

Appendix C – Detailed Intersection Assessment Tables

H.20 Burwood Road / Lakemba Street - AM	Burwood Road	South	R2	39	71%	27.64	LOS B	14.6
H.20 Burwood Road / Lakemba Street - AM	Burwood Road	South	T1	445	71%	22.44	LOS B	14.6
H.20 Burwood Road / Lakemba Street - AM	Burwood Road	South	L2	80	15%	19.04	LOS B	2.3
H.20 Burwood Road / Lakemba Street - AM	Lakemba St	East	L2	65	7%	18.29	LOS B	1.4
H.20 Burwood Road / Lakemba Street - AM	Lakemba St	East	R2	38	31%	25.47	LOS B	6.0
H.20 Burwood Road / Lakemba Street - AM	Lakemba St	East	T1	180	31%	20.89	LOS B	6.0
H.20 Burwood Road / Lakemba Street - AM	Burwood Road	North	T1	396	61%	21.56	LOS B	12.1
H.20 Burwood Road / Lakemba Street - AM	Burwood Road	North	L2	44	12%	18.66	LOS B	1.9
H.20 Burwood Road / Lakemba Street - AM	Burwood Road	North	R2	42	61%	27.38	LOS B	12.1
H.20 Burwood Road / Lakemba Street - AM	Lakemba St	West	R2	110	67%	28.56	LOS C	12.0
H.20 Burwood Road / Lakemba Street - AM	Lakemba St	West	T1	363	67%	21.49	LOS B	12.0
H.20 Burwood Road / Lakemba Street - AM	Lakemba St	West	L2	52	15%	18.81	LOS B	3.1
H.20 Burwood Road / Lakemba Street - PM	Burwood Road	South	R2	56	60%	26.67	LOS B	13.3
H.20 Burwood Road / Lakemba Street - PM	Burwood Road	South	T1	431	60%	21.02	LOS B	13.3
H.20 Burwood Road / Lakemba Street - PM	Burwood Road	South	L2	90	15%	16.99	LOS B	2.8
H.20 Burwood Road / Lakemba Street - PM	Lakemba St	East	L2	77	10%	19.79	LOS B	1.9
H.20 Burwood Road / Lakemba Street - PM	Lakemba St	East	R2	51	51%	28.89	LOS C	10.6
H.20 Burwood Road / Lakemba Street - PM	Lakemba St	East	T1	300	51%	24.14	LOS B	10.6
H.20 Burwood Road / Lakemba Street - PM	Burwood Road	North	T1	559	55%	18.34	LOS B	12.7
H.20 Burwood Road / Lakemba Street - PM	Burwood Road	North	L2	45	22%	17.34	LOS B	4.7
H.20 Burwood Road / Lakemba Street - PM	Burwood Road	North	R2	54	55%	25.72	LOS B	12.7
H.20 Burwood Road / Lakemba Street - PM	Lakemba St	West	R2	104	71%	34.79	LOS C	9.5
H.20 Burwood Road / Lakemba Street - PM	Lakemba St	West	T1	268	71%	24.78	LOS B	9.5
H.20 Burwood Road / Lakemba Street - PM	Lakemba St	West	L2	45	16%	20.17	LOS B	3.3
Bridge Rd/Peel St - AM	Peel St South	South	R2	138	16%	5.42	LOS A	0.8
Bridge Rd/Peel St - AM	Peel St South	South	T1	124	16%	0.66	LOS A	0.8
Bridge Rd/Peel St - AM	Bridge Street	East	L2	59	8%	5.13	LOS A	0.3
Bridge Rd/Peel St - AM	Bridge Street	East	R2	31	8%	6.82	LOS A	0.3
Bridge Rd/Peel St - AM	Peel St North	North	T1	165	12%	0.01	LOS A	0.0
Bridge Rd/Peel St - AM	Peel St North	North	L2	55	12%	4.67	LOS A	0.0
Bridge Rd/Peel St - PM	Peel St South	South	R2	96	16%	5.36	LOS A	0.6
Bridge Rd/Peel St - PM	Peel St South	South	T1	187	16%	0.42	LOS A	0.6
Bridge Rd/Peel St - PM	Bridge Street	East	L2	78	14%	5.04	LOS A	0.5
Bridge Rd/Peel St - PM	Bridge Street	East	R2	67	14%	6.90	LOS A	0.5
Bridge Rd/Peel St - PM	Peel St North	North	T1	140	11%	0.01	LOS A	0.0
Bridge Rd/Peel St - PM	Peel St North	North	L2	75	11%	4.60	LOS A	0.0
Leylands Parade / Burwood Rd - AM	Burwood Road (S)	South	R2	28	80%	34.64	LOS C	11.0
Leylands Parade / Burwood Rd - AM	Burwood Road (S)	South	T1	364	80%	27.17	LOS C	11.0
Leylands Parade / Burwood Rd - AM	Burwood Road (S)	South	L2	31	16%	19.86	LOS B	2.5
Leylands Parade / Burwood Rd - AM	Leylands Parade (E)	East	L2	31	16%	17.15	LOS B	2.6
Leylands Parade / Burwood Rd - AM	Leylands Parade (E)	East	R2	325	105%	108.69	LOS F	22.7
Leylands Parade / Burwood Rd - AM	Leylands Parade (E)	East	T1	96	16%	12.57	LOS B	2.6
Leylands Parade / Burwood Rd - AM	Burwood Road (N)	North	T1	410	100%	62.79	LOS E	24.1
Leylands Parade / Burwood Rd - AM	Burwood Road (N)	North	L2	61	20%	19.98	LOS B	3.2
Leylands Parade / Burwood Rd - AM	Burwood Road (N)	North	R2	79	100%	78.94	LOS E	24.1
Leylands Parade / Burwood Rd - AM	Leylands Parade (W)	West	T1	152	102%	80.70	LOS F	19.4
Leylands Parade / Burwood Rd - AM	Leylands Parade (W)	West	L2	171	102%	85.28	LOS F	19.4
Leylands Parade / Burwood Rd - PM	Burwood Road (S)	South	R2	30	70%	26.08	LOS C	8.2
Leylands Parade / Burwood Rd - PM	Burwood Road (S)	South	T1	325	70%	20.30	LOS C	8.2
Leylands Parade / Burwood Rd - PM	Burwood Road (S)	South	L2	42	14%	17.05	LOS B	1.8
Leylands Parade / Burwood Rd - PM	Leylands Parade (E)	East	L2	41	37%	18.45	LOS B	5.7
Leylands Parade / Burwood Rd - PM	Leylands Parade (E)	East	R2	310	103%	89.01	LOS F	18.1
Leylands Parade / Burwood Rd - PM	Leylands Parade (E)	East	T1	233	37%	13.87	LOS B	5.7
Leylands Parade / Burwood Rd - PM	Burwood Road (N)	North	T1	485	103%	74.59	LOS E	31.1
Leylands Parade / Burwood Rd - PM	Burwood Road (N)	North	L2	75	21%	17.31	LOS B	3.0
Leylands Parade / Burwood Rd - PM	Burwood Road (N)	North	R2	96	103%	90.88	LOS F	31.1
Leylands Parade / Burwood Rd - PM	Leylands Parade (W)	West	T1	91	108%	120.67	LOS F	16.3
Leylands Parade / Burwood Rd - PM	Leylands Parade (W)	West	L2	137	108%	125.25	LOS F	16.3

Appendix C – Detailed Intersection Assessment Tables

Canterbury Rd / Sharp St - AM	Kingsgrove Road	SouthEast	R2	155	91%	70.14	LOS E	20.1
Canterbury Rd / Sharp St - AM	Kingsgrove Road	SouthEast	T1	265	91%	54.24	LOS D	20.1
Canterbury Rd / Sharp St - AM	Kingsgrove Road	SouthEast	L2	35	19%	32.96	LOS C	4.4
Canterbury Rd / Sharp St - AM	Canterbury Road (E)	NorthEast	L2	209	100%	101.28	LOS F	29.4
Canterbury Rd / Sharp St - AM	Canterbury Road (E)	NorthEast	T1	563	100%	94.66	LOS F	32.8
Canterbury Rd / Sharp St - AM	Sharp Street	NorthWest	T1	285	100%	87.45	LOS F	18.6
Canterbury Rd / Sharp St - AM	Sharp Street	NorthWest	L2	41	38%	53.54	LOS D	4.4
Canterbury Rd / Sharp St - AM	Canterbury Road (W)	SouthWest	R2	243	95%	70.68	LOS E	37.5
Canterbury Rd / Sharp St - AM	Canterbury Road (W)	SouthWest	T1	1274	95%	53.79	LOS D	64.7
Canterbury Rd / Sharp St - AM	Canterbury Road (W)	SouthWest	L2	63	95%	54.70	LOS D	64.7
Canterbury Rd / Sharp St - PM	Kingsgrove Road	SouthEast	R2	204	93%	89.18	LOS F	26.6
Canterbury Rd / Sharp St - PM	Kingsgrove Road	SouthEast	T1	245	93%	62.93	LOS E	26.6
Canterbury Rd / Sharp St - PM	Kingsgrove Road	SouthEast	L2	50	19%	33.43	LOS C	6.3
Canterbury Rd / Sharp St - PM	Canterbury Road (E)	NorthEast	L2	155	102%	121.56	LOS F	55.2
Canterbury Rd / Sharp St - PM	Canterbury Road (E)	NorthEast	T1	950	102%	115.45	LOS F	57.7
Canterbury Rd / Sharp St - PM	Sharp Street	NorthWest	T1	422	105%	120.04	LOS F	35.4
Canterbury Rd / Sharp St - PM	Sharp Street	NorthWest	L2	46	40%	58.07	LOS E	8.6
Canterbury Rd / Sharp St - PM	Canterbury Road (W)	SouthWest	R2	173	90%	81.95	LOS F	26.3
Canterbury Rd / Sharp St - PM	Canterbury Road (W)	SouthWest	T1	960	90%	50.50	LOS D	59.9
Canterbury Rd / Sharp St - PM	Canterbury Road (W)	SouthWest	L2	98	90%	49.30	LOS D	59.9
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (S)	SouthEast	R2	300	98%	93.13	LOS F	23.3
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (S)	SouthEast	T1	998	33%	3.32	LOS A	7.5
Kingsgrove Rd/ M5 East - AM	M5 East (Toll Road)	NorthEast	L2	105	17%	32.65	LOS C	4.1
Kingsgrove Rd/ M5 East - AM	M5 East (Toll Road)	NorthEast	R2	266	67%	59.85	LOS E	7.5
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (N)	NorthWest	T1	683	40%	13.86	LOS B	13.1
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (N)	NorthWest	L2	502	46%	10.17	LOS B	9.7
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (S)	SouthEast	R2	236	86%	62.93	LOS E	14.1
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (S)	SouthEast	T1	929	32%	3.69	LOS A	7.1
Kingsgrove Rd/ M5 East - PM	M5 East (Toll Road)	NorthEast	L2	82	14%	31.28	LOS C	3.0
Kingsgrove Rd/ M5 East - PM	M5 East (Toll Road)	NorthEast	R2	320	72%	57.24	LOS E	8.7
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (N)	NorthWest	T1	1025	61%	15.36	LOS B	22.7
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (N)	NorthWest	L2	469	45%	9.21	LOS A	8.0
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (S)	South	R2	85	18%	24.60	LOS C	2.9
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (S)	South	T1	1066	77%	28.25	LOS C	29.1
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (S)	South	L2	58	77%	32.00	LOS C	29.1
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Avenue	East	L2	24	45%	50.79	LOS D	7.3
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Avenue	East	R2	57	31%	57.26	LOS E	3.0
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Avenue	East	T1	120	45%	46.21	LOS D	7.3
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (N)	North	T1	488	33%	15.22	LOS B	10.1
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (N)	North	L2	199	33%	17.82	LOS B	9.8
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (N)	North	R2	116	94%	81.00	LOS F	7.9
Kingsgrove Rd / Commercial Rd - AM	Commerical Road	West	R2	102	53%	58.83	LOS E	5.6
Kingsgrove Rd / Commercial Rd - AM	Commerical Road	West	T1	293	114%	195.30	LOS F	39.9
Kingsgrove Rd / Commercial Rd - AM	Commerical Road	West	L2	40	114%	199.92	LOS F	39.9
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (S)	South	R2	100	27%	28.25	LOS C	3.7
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (S)	South	T1	931	79%	31.64	LOS C	28.5
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (S)	South	L2	91	79%	35.47	LOS D	28.5
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Avenue	East	L2	40	64%	50.63	LOS D	9.6
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Avenue	East	R2	61	32%	55.70	LOS E	3.2
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Avenue	East	T1	149	64%	46.05	LOS D	9.6
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (N)	North	T1	781	45%	17.13	LOS B	14.8
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (N)	North	L2	139	45%	20.45	LOS C	14.6
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (N)	North	R2	160	103%	116.71	LOS F	13.5
Kingsgrove Rd / Commercial Rd - PM	Commerical Road	West	R2	135	68%	59.07	LOS E	7.4
Kingsgrove Rd / Commercial Rd - PM	Commerical Road	West	T1	264	103%	116.12	LOS F	26.6
Kingsgrove Rd / Commercial Rd - PM	Commerical Road	West	L2	34	103%	120.74	LOS F	26.6

7.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
B.08 Burwood Road / Bridge Road - AM	Burwood Rd S	South	R2	52	71%	21.67	LOS B	12.7
B.08 Burwood Road / Bridge Road - AM	Burwood Rd S	South	T1	655	71%	3.57	LOS A	12.7
B.08 Burwood Road / Bridge Road - AM	Burwood Rd S	South	L2	62	5%	5.11	LOS A	0.2
B.08 Burwood Road / Bridge Road - AM	Tobruk Ave	East	L2	10	13%	11.87	LOS A	0.4
B.08 Burwood Road / Bridge Road - AM	Tobruk Ave	East	R2	3	13%	108.36	LOS F	0.4
B.08 Burwood Road / Bridge Road - AM	Tobruk Ave	East	T1	1	13%	53.32	LOS D	0.4
B.08 Burwood Road / Bridge Road - AM	Burwood Rd N	North	T1	544	59%	1.03	LOS A	5.1
B.08 Burwood Road / Bridge Road - AM	Burwood Rd N	North	L2	80	59%	5.34	LOS A	5.1
B.08 Burwood Road / Bridge Road - AM	Burwood Rd N	North	R2	115	19%	8.01	LOS A	0.7
B.08 Burwood Road / Bridge Road - AM	Bridge Rd	West	R2	46	138%	513.47	LOS F	13.7
B.08 Burwood Road / Bridge Road - AM	Bridge Rd	West	T1	7	138%	476.86	LOS F	13.7
B.08 Burwood Road / Bridge Road - AM	Bridge Rd	West	L2	197	40%	12.51	LOS A	1.8
B.08 Burwood Road / Bridge Road - PM	Burwood Rd S	South	R2	53	64%	18.49	LOS B	9.0
B.08 Burwood Road / Bridge Road - PM	Burwood Rd S	South	T1	561	64%	3.51	LOS A	9.0
B.08 Burwood Road / Bridge Road - PM	Burwood Rd S	South	L2	87	7%	5.29	LOS A	0.3
B.08 Burwood Road / Bridge Road - PM	Tobruk Ave	East	L2	8	33%	21.31	LOS B	1.0
B.08 Burwood Road / Bridge Road - PM	Tobruk Ave	East	R2	9	33%	93.53	LOS F	1.0
B.08 Burwood Road / Bridge Road - PM	Tobruk Ave	East	T1	7	33%	58.16	LOS E	1.0
B.08 Burwood Road / Bridge Road - PM	Burwood Rd N	North	T1	672	78%	5.33	LOS A	16.8
B.08 Burwood Road / Bridge Road - PM	Burwood Rd N	North	L2	104	78%	7.40	LOS A	16.8
B.08 Burwood Road / Bridge Road - PM	Burwood Rd N	North	R2	158	24%	7.76	LOS A	1.0
B.08 Burwood Road / Bridge Road - PM	Bridge Rd	West	R2	47	113%	321.56	LOS F	8.5
B.08 Burwood Road / Bridge Road - PM	Bridge Rd	West	T1	6	113%	290.56	LOS F	8.5
B.08 Burwood Road / Bridge Road - PM	Bridge Rd	West	L2	157	27%	9.84	LOS A	1.1
B.09 Burwood Road / Redman Parade - AM	Burwood Rd S	South	R2	164	32%	11.32	LOS A	1.4
B.09 Burwood Road / Redman Parade - AM	Burwood Rd S	South	T1	646	59%	0.46	LOS A	5.6
B.09 Burwood Road / Redman Parade - AM	Redman Parade	East	L2	131	25%	11.17	LOS A	0.9
B.09 Burwood Road / Redman Parade - AM	Redman Parade	East	R2	15	23%	64.46	LOS E	0.7
B.09 Burwood Road / Redman Parade - AM	Burwood Rd N	North	T1	650	63%	0.49	LOS A	6.5
B.09 Burwood Road / Redman Parade - AM	Burwood Rd N	North	L2	55	63%	7.10	LOS A	6.5
B.09 Burwood Road / Redman Parade - PM	Burwood Rd S	South	R2	114	20%	9.74	LOS A	0.8
B.09 Burwood Road / Redman Parade - PM	Burwood Rd S	South	T1	612	54%	0.07	LOS A	4.8
B.09 Burwood Road / Redman Parade - PM	Redman Parade	East	L2	170	40%	14.61	LOS B	1.6
B.09 Burwood Road / Redman Parade - PM	Redman Parade	East	R2	21	25%	55.97	LOS D	0.8
B.09 Burwood Road / Redman Parade - PM	Burwood Rd N	North	T1	768	72%	0.11	LOS A	9.7
B.09 Burwood Road / Redman Parade - PM	Burwood Rd N	North	L2	54	72%	7.64	LOS A	9.7

Appendix C – Detailed Intersection Assessment Tables

H 20 Burwood Road / Lakemba Street - AM	Burwood Road	South	R2	60	73%	26.15	LOS B	14.4
H 20 Burwood Road / Lakemba Street - AM	Burwood Road	South	T1	445	73%	20.74	LOS B	14.4
H 20 Burwood Road / Lakemba Street - AM	Burwood Road	South	L2	80	16%	19.07	LOS B	2.4
H 20 Burwood Road / Lakemba Street - AM	Lakemba St	East	L2	75	10%	18.63	LOS B	1.6
H 20 Burwood Road / Lakemba Street - AM	Lakemba St	East	R2	38	26%	20.87	LOS B	5.2
H 20 Burwood Road / Lakemba Street - AM	Lakemba St	East	T1	180	26%	16.28	LOS B	5.2
H 20 Burwood Road / Lakemba Street - AM	Burwood Road	North	T1	396	56%	18.26	LOS B	10.9
H 20 Burwood Road / Lakemba Street - AM	Burwood Road	North	L2	44	11%	18.59	LOS B	1.8
H 20 Burwood Road / Lakemba Street - AM	Burwood Road	North	R2	42	56%	23.55	LOS B	10.9
H 20 Burwood Road / Lakemba Street - AM	Lakemba St	West	R2	110	56%	22.90	LOS B	10.8
H 20 Burwood Road / Lakemba Street - AM	Lakemba St	West	T1	363	56%	17.46	LOS B	10.8
H 20 Burwood Road / Lakemba Street - AM	Lakemba St	West	L2	52	13%	18.65	LOS B	2.5
H 20 Burwood Road / Lakemba Street - PM	Burwood Road	South	R2	72	57%	21.62	LOS B	12.0
H 20 Burwood Road / Lakemba Street - PM	Burwood Road	South	T1	431	57%	16.44	LOS B	12.0
H 20 Burwood Road / Lakemba Street - PM	Burwood Road	South	L2	90	14%	16.94	LOS B	2.6
H 20 Burwood Road / Lakemba Street - PM	Lakemba St	East	L2	97	14%	20.37	LOS B	2.2
H 20 Burwood Road / Lakemba Street - PM	Lakemba St	East	R2	51	42%	23.46	LOS B	9.3
H 20 Burwood Road / Lakemba Street - PM	Lakemba St	East	T1	300	42%	18.89	LOS B	9.3
H 20 Burwood Road / Lakemba Street - PM	Burwood Road	North	T1	559	48%	14.84	LOS B	11.4
H 20 Burwood Road / Lakemba Street - PM	Burwood Road	North	L2	45	19%	17.15	LOS B	4.0
H 20 Burwood Road / Lakemba Street - PM	Burwood Road	North	R2	54	48%	20.40	LOS B	11.4
H 20 Burwood Road / Lakemba Street - PM	Lakemba St	West	R2	104	54%	25.79	LOS B	8.8
H 20 Burwood Road / Lakemba Street - PM	Lakemba St	West	T1	268	54%	19.76	LOS B	8.8
H 20 Burwood Road / Lakemba Street - PM	Lakemba St	West	L2	45	12%	19.89	LOS B	2.4
Bridge Rd/Peel St - AM	Peel St South	South	R2	138	17%	5.68	LOS A	0.8
Bridge Rd/Peel St - AM	Peel St South	South	T1	124	17%	0.88	LOS A	0.8
Bridge Rd/Peel St - AM	Bridge Street	East	L2	59	12%	5.12	LOS A	0.4
Bridge Rd/Peel St - AM	Bridge Street	East	R2	49	12%	8.76	LOS A	0.4
Bridge Rd/Peel St - AM	Peel St North	North	T1	165	15%	0.17	LOS A	0.0
Bridge Rd/Peel St - AM	Peel St North	North	L2	93	15%	5.17	LOS A	0.0
Bridge Rd/Peel St - PM	Peel St South	South	R2	96	17%	5.46	LOS A	0.7
Bridge Rd/Peel St - PM	Peel St South	South	T1	187	17%	0.47	LOS A	0.7
Bridge Rd/Peel St - PM	Bridge Street	East	L2	78	22%	5.05	LOS A	0.8
Bridge Rd/Peel St - PM	Bridge Street	East	R2	106	22%	8.90	LOS A	0.8
Bridge Rd/Peel St - PM	Peel St North	North	T1	140	13%	0.08	LOS A	0.0
Bridge Rd/Peel St - PM	Peel St North	North	L2	91	13%	4.82	LOS A	0.0
Leylands Parade / Burwood Rd - AM	Burwood Road (S)	South	R2	28	82%	35.75	LOS D	11.4
Leylands Parade / Burwood Rd - AM	Burwood Road (S)	South	T1	370	82%	28.15	LOS C	11.4
Leylands Parade / Burwood Rd - AM	Burwood Road (S)	South	L2	31	16%	19.90	LOS B	2.5
Leylands Parade / Burwood Rd - AM	Leylands Parade (E)	East	L2	31	16%	17.15	LOS B	2.6
Leylands Parade / Burwood Rd - AM	Leylands Parade (E)	East	R2	325	105%	108.69	LOS F	22.7
Leylands Parade / Burwood Rd - AM	Leylands Parade (E)	East	T1	96	16%	12.57	LOS B	2.6
Leylands Parade / Burwood Rd - AM	Burwood Road (N)	North	T1	426	104%	79.74	LOS E	28.8
Leylands Parade / Burwood Rd - AM	Burwood Road (N)	North	L2	61	21%	20.03	LOS C	3.3
Leylands Parade / Burwood Rd - AM	Burwood Road (N)	North	R2	79	104%	99.79	LOS F	28.8
Leylands Parade / Burwood Rd - AM	Leylands Parade (W)	West	T1	152	102%	80.70	LOS F	19.4
Leylands Parade / Burwood Rd - AM	Leylands Parade (W)	West	L2	171	102%	85.28	LOS F	19.4
Leylands Parade / Burwood Rd - PM	Burwood Road (S)	South	R2	30	72%	26.72	LOS C	8.5
Leylands Parade / Burwood Rd - PM	Burwood Road (S)	South	T1	334	72%	20.98	LOS C	8.5
Leylands Parade / Burwood Rd - PM	Burwood Road (S)	South	L2	42	14%	17.10	LOS B	1.9
Leylands Parade / Burwood Rd - PM	Leylands Parade (E)	East	L2	41	37%	18.45	LOS B	5.7
Leylands Parade / Burwood Rd - PM	Leylands Parade (E)	East	R2	310	103%	89.01	LOS F	18.1
Leylands Parade / Burwood Rd - PM	Leylands Parade (E)	East	T1	233	37%	13.87	LOS B	5.7
Leylands Parade / Burwood Rd - PM	Burwood Road (N)	North	T1	491	105%	83.98	LOS F	33.7
Leylands Parade / Burwood Rd - PM	Burwood Road (N)	North	L2	75	21%	17.34	LOS B	3.0
Leylands Parade / Burwood Rd - PM	Burwood Road (N)	North	R2	96	105%	102.16	LOS F	33.7
Leylands Parade / Burwood Rd - PM	Leylands Parade (W)	West	T1	91	108%	120.67	LOS F	16.3
Leylands Parade / Burwood Rd - PM	Leylands Parade (W)	West	L2	137	108%	125.25	LOS F	16.3

Appendix C – Detailed Intersection Assessment Tables

Canterbury Rd / Sharp St - AM	Kingsgrove Road	SouthEast	R2	155	87%	66.28	LOS E	20.9
Canterbury Rd / Sharp St - AM	Kingsgrove Road	SouthEast	T1	265	87%	53.96	LOS D	20.9
Canterbury Rd / Sharp St - AM	Kingsgrove Road	SouthEast	L2	42	18%	35.07	LOS D	4.4
Canterbury Rd / Sharp St - AM	Canterbury Road (E)	NorthEast	L2	209	101%	108.02	LOS F	31.8
Canterbury Rd / Sharp St - AM	Canterbury Road (E)	NorthEast	T1	563	101%	101.39	LOS F	35.2
Canterbury Rd / Sharp St - AM	Sharp Street	NorthWest	T1	285	103%	107.25	LOS F	21.7
Canterbury Rd / Sharp St - AM	Sharp Street	NorthWest	L2	41	39%	58.12	LOS E	4.8
Canterbury Rd / Sharp St - AM	Canterbury Road (W)	SouthWest	R2	260	96%	79.58	LOS E	42.3
Canterbury Rd / Sharp St - AM	Canterbury Road (W)	SouthWest	T1	1274	96%	60.53	LOS E	73.3
Canterbury Rd / Sharp St - AM	Canterbury Road (W)	SouthWest	L2	63	96%	60.98	LOS E	73.3
Canterbury Rd / Sharp St - PM	Kingsgrove Road	SouthEast	R2	204	93%	82.69	LOS F	25.8
Canterbury Rd / Sharp St - PM	Kingsgrove Road	SouthEast	T1	245	93%	61.70	LOS E	25.8
Canterbury Rd / Sharp St - PM	Kingsgrove Road	SouthEast	L2	59	19%	31.65	LOS C	5.6
Canterbury Rd / Sharp St - PM	Canterbury Road (E)	NorthEast	L2	155	105%	137.74	LOS F	56.7
Canterbury Rd / Sharp St - PM	Canterbury Road (E)	NorthEast	T1	950	105%	131.72	LOS F	59.5
Canterbury Rd / Sharp St - PM	Sharp Street	NorthWest	T1	422	108%	131.07	LOS F	36.3
Canterbury Rd / Sharp St - PM	Sharp Street	NorthWest	L2	46	41%	55.42	LOS E	7.9
Canterbury Rd / Sharp St - PM	Canterbury Road (W)	SouthWest	R2	180	92%	81.28	LOS F	25.7
Canterbury Rd / Sharp St - PM	Canterbury Road (W)	SouthWest	T1	960	92%	53.18	LOS D	60.2
Canterbury Rd / Sharp St - PM	Canterbury Road (W)	SouthWest	L2	98	92%	52.98	LOS D	60.2
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (S)	SouthEast	R2	300	98%	93.13	LOS F	23.3
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (S)	SouthEast	T1	1004	34%	3.34	LOS A	7.6
Kingsgrove Rd/ M5 East - AM	M5 East (Toll Road)	NorthEast	L2	105	17%	32.65	LOS C	4.1
Kingsgrove Rd/ M5 East - AM	M5 East (Toll Road)	NorthEast	R2	266	67%	59.85	LOS E	7.5
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (N)	NorthWest	T1	699	42%	14.13	LOS B	13.7
Kingsgrove Rd/ M5 East - AM	Kingsgrove Road (N)	NorthWest	L2	502	46%	10.17	LOS B	9.7
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (S)	SouthEast	R2	236	86%	62.93	LOS E	14.1
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (S)	SouthEast	T1	938	32%	3.72	LOS A	7.3
Kingsgrove Rd/ M5 East - PM	M5 East (Toll Road)	NorthEast	L2	82	14%	31.28	LOS C	3.0
Kingsgrove Rd/ M5 East - PM	M5 East (Toll Road)	NorthEast	R2	320	72%	57.24	LOS E	8.7
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (N)	NorthWest	T1	1032	61%	15.44	LOS B	23.0
Kingsgrove Rd/ M5 East - PM	Kingsgrove Road (N)	NorthWest	L2	469	46%	9.21	LOS A	8.0
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (S)	South	R2	85	18%	24.60	LOS C	2.9
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (S)	South	T1	1072	78%	28.73	LOS C	29.6
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (S)	South	L2	58	78%	32.45	LOS C	29.6
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Avenue	East	L2	24	45%	50.79	LOS D	7.3
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Avenue	East	R2	57	31%	57.26	LOS E	3.0
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Avenue	East	T1	120	45%	46.21	LOS D	7.3
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (N)	North	T1	488	33%	15.22	LOS B	10.1
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (N)	North	L2	199	33%	17.82	LOS B	9.8
Kingsgrove Rd / Commercial Rd - AM	Kingsgrove Road (N)	North	R2	132	116%	215.89	LOS F	16.2
Kingsgrove Rd / Commercial Rd - AM	Commerical Road	West	R2	102	53%	58.83	LOS E	5.6
Kingsgrove Rd / Commercial Rd - AM	Commerical Road	West	T1	293	114%	195.30	LOS F	39.9
Kingsgrove Rd / Commercial Rd - AM	Commerical Road	West	L2	40	114%	199.92	LOS F	39.9
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (S)	South	R2	100	27%	28.25	LOS C	3.7
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (S)	South	T1	940	80%	32.48	LOS C	29.2
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (S)	South	L2	91	80%	36.25	LOS D	29.2
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Avenue	East	L2	40	64%	50.63	LOS D	9.6
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Avenue	East	R2	61	32%	55.70	LOS E	3.2
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Avenue	East	T1	149	64%	46.05	LOS D	9.6
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (N)	North	T1	781	45%	17.13	LOS B	14.8
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (N)	North	L2	139	45%	20.45	LOS C	14.6
Kingsgrove Rd / Commercial Rd - PM	Kingsgrove Road (N)	North	R2	166	110%	164.85	LOS F	17.2
Kingsgrove Rd / Commercial Rd - PM	Commerical Road	West	R2	135	68%	59.07	LOS E	7.4
Kingsgrove Rd / Commercial Rd - PM	Commerical Road	West	T1	264	103%	116.12	LOS F	26.6
Kingsgrove Rd / Commercial Rd - PM	Commerical Road	West	L2	34	103%	120.74	LOS F	26.6

8.0 Lakemba Station

8.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
The Boulevard / Haldon Street - AM	Haldon St S	South	T1	312	45%	16.64	LOS B	6.8
The Boulevard / Haldon Street - AM	Haldon St S	South	L2	54	16%	21.17	LOS B	2.2
The Boulevard / Haldon Street - AM	The Boulevard E	East	L2	28	11%	19.92	LOS B	1.5
The Boulevard / Haldon Street - AM	The Boulevard E	East	R2	64	52%	33.62	LOS C	4.5
The Boulevard / Haldon Street - AM	The Boulevard E	East	T1	108	52%	24.80	LOS B	4.5
The Boulevard / Haldon Street - AM	Haldon St N	North	T1	236	94%	24.45	LOS B	11.6
The Boulevard / Haldon Street - AM	Haldon St N	North	L2	106	23%	11.48	LOS A	4.0
The Boulevard / Haldon Street - AM	Haldon St N	North	R2	155	94%	56.52	LOS E	11.6
The Boulevard / Haldon Street - AM	The Boulevard W	West	R2	52	64%	32.16	LOS C	8.4
The Boulevard / Haldon Street - AM	The Boulevard W	West	T1	206	64%	27.47	LOS B	8.4
The Boulevard / Haldon Street - AM	The Boulevard W	West	L2	235	30%	18.59	LOS B	5.3
The Boulevard / Haldon Street - PM	Haldon St S	South	T1	275	50%	17.99	LOS B	7.0
The Boulevard / Haldon Street - PM	Haldon St S	South	L2	102	26%	28.67	LOS C	2.9
The Boulevard / Haldon Street - PM	The Boulevard E	East	L2	37	20%	19.39	LOS B	2.6
The Boulevard / Haldon Street - PM	The Boulevard E	East	R2	102	68%	33.90	LOS C	7.3
The Boulevard / Haldon Street - PM	The Boulevard E	East	T1	193	68%	23.41	LOS B	7.3
The Boulevard / Haldon Street - PM	Haldon St N	North	T1	250	109%	29.48	LOS C	16.8
The Boulevard / Haldon Street - PM	Haldon St N	North	L2	109	34%	14.36	LOS A	6.1
The Boulevard / Haldon Street - PM	Haldon St N	North	R2	173	109%	135.22	LOS F	16.8
The Boulevard / Haldon Street - PM	The Boulevard W	West	R2	50	52%	29.78	LOS C	6.3
The Boulevard / Haldon Street - PM	The Boulevard W	West	T1	158	52%	25.11	LOS B	6.3
The Boulevard / Haldon Street - PM	The Boulevard W	West	L2	237	28%	16.92	LOS B	5.0

8.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
The Boulevard / Haldon Street - AM	Haldon St S	South	T1	312	45%	16.64	LOS B	6.8
The Boulevard / Haldon Street - AM	Haldon St S	South	L2	54	16%	21.17	LOS B	2.2
The Boulevard / Haldon Street - AM	The Boulevard E	East	L2	28	22%	24.46	LOS B	2.8
The Boulevard / Haldon Street - AM	The Boulevard E	East	R2	64	100%	76.57	LOS F	6.1
The Boulevard / Haldon Street - AM	The Boulevard E	East	T1	125	100%	39.80	LOS C	6.1
The Boulevard / Haldon Street - AM	Haldon St N	North	T1	236	94%	24.45	LOS B	11.6
The Boulevard / Haldon Street - AM	Haldon St N	North	L2	106	23%	11.48	LOS A	4.0
The Boulevard / Haldon Street - AM	Haldon St N	North	R2	155	94%	56.52	LOS E	11.6
The Boulevard / Haldon Street - AM	The Boulevard W	West	R2	52	118%	213.39	LOS F	31.6
The Boulevard / Haldon Street - AM	The Boulevard W	West	T1	243	118%	208.70	LOS F	31.6
The Boulevard / Haldon Street - AM	The Boulevard W	West	L2	235	30%	18.59	LOS B	5.3
The Boulevard / Haldon Street - PM	Haldon St S	South	T1	275	50%	17.99	LOS B	7.0
The Boulevard / Haldon Street - PM	Haldon St S	South	L2	102	26%	28.67	LOS C	2.9
The Boulevard / Haldon Street - PM	The Boulevard E	East	L2	37	38%	27.01	LOS B	4.9
The Boulevard / Haldon Street - PM	The Boulevard E	East	R2	102	125%	271.45	LOS F	20.7
The Boulevard / Haldon Street - PM	The Boulevard E	East	T1	223	125%	94.30	LOS F	20.7
The Boulevard / Haldon Street - PM	Haldon St N	North	T1	250	109%	29.48	LOS C	16.8
The Boulevard / Haldon Street - PM	Haldon St N	North	L2	109	34%	14.36	LOS A	6.1
The Boulevard / Haldon Street - PM	Haldon St N	North	R2	173	109%	135.22	LOS F	16.8
The Boulevard / Haldon Street - PM	The Boulevard W	West	R2	50	91%	50.62	LOS D	10.0
The Boulevard / Haldon Street - PM	The Boulevard W	West	T1	180	91%	45.95	LOS D	10.0
The Boulevard / Haldon Street - PM	The Boulevard W	West	L2	237	28%	16.92	LOS B	5.0

9.0 Wiley Park Station

9.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
The Boulevard/Alice St - AM	Alice St	South	R2	85	21%	8.16	LOS A	0.8
The Boulevard/Alice St - AM	Alice St	South	L2	79	21%	4.57	LOS A	0.8
The Boulevard/Alice St - AM	The Boulevard East	East	L2	51	19%	4.59	LOS A	0.0
The Boulevard/Alice St - AM	The Boulevard East	East	T1	305	19%	0.03	LOS A	0.0
The Boulevard/Alice St - AM	The Boulevard West	West	R2	48	24%	6.26	LOS A	0.5
The Boulevard/Alice St - AM	The Boulevard West	West	T1	375	24%	0.64	LOS A	0.5
The Boulevard/Alice St - PM	Alice St	South	R2	55	15%	8.46	LOS A	0.5
The Boulevard/Alice St - PM	Alice St	South	L2	55	15%	5.22	LOS A	0.5
The Boulevard/Alice St - PM	The Boulevard East	East	L2	39	25%	4.59	LOS A	0.0
The Boulevard/Alice St - PM	The Boulevard East	East	T1	439	25%	0.02	LOS A	0.0
The Boulevard/Alice St - PM	The Boulevard West	West	R2	32	20%	6.93	LOS A	0.4
The Boulevard/Alice St - PM	The Boulevard West	West	T1	317	20%	0.78	LOS A	0.4
King Georges Rd/Mary St - AM	King Georges Rd South	South	R2	44	67%	87.77	LOS F	2.1
King Georges Rd/Mary St - AM	King Georges Rd South	South	T1	2496	46%	0.08	LOS A	0.0
King Georges Rd/Mary St - AM	Mary St	East	L2	17	169%	815.74	LOS F	10.4
King Georges Rd/Mary St - AM	Mary St	East	R2	10	169%	1051.32	LOS F	10.4
King Georges Rd/Mary St - AM	King Georges Rd North	North	T1	1831	34%	0.03	LOS A	0.0
King Georges Rd/Mary St - AM	King Georges Rd North	North	L2	6	34%	3.53	LOS A	0.0
King Georges Rd/Mary St - PM	King Georges Rd South	South	R2	50	257%	1572.34	LOS F	25.3
King Georges Rd/Mary St - PM	King Georges Rd South	South	T1	1937	51%	5.42	LOS A	6.1
King Georges Rd/Mary St - PM	Mary St	East	L2	29	126%	410.95	LOS F	7.9
King Georges Rd/Mary St - PM	Mary St	East	R2	7	126%	736.84	LOS F	7.9
King Georges Rd/Mary St - PM	King Georges Rd North	North	T1	2292	40%	0.04	LOS A	0.0
King Georges Rd/Mary St - PM	King Georges Rd North	North	L2	9	40%	3.44	LOS A	0.0
King Georges Road / Canterbury Road - AM	King Georges Road	South	R2	292	104%	144.04	LOS F	15.7
King Georges Road / Canterbury Road - AM	King Georges Road	South	T1	2184	102%	109.38	LOS F	84.0
King Georges Road / Canterbury Road - AM	King Georges Road	South	L2	213	19%	16.66	LOS B	6.3
King Georges Road / Canterbury Road - AM	Canterbury Road	East	L2	82	6%	36.89	LOS D	1.9
King Georges Road / Canterbury Road - AM	Canterbury Road	East	R2	161	106%	160.95	LOS F	18.4
King Georges Road / Canterbury Road - AM	Canterbury Road	East	T1	834	96%	90.07	LOS F	38.4
King Georges Road / Canterbury Road - AM	King Georges Road	North	T1	1828	95%	72.24	LOS E	65.0
King Georges Road / Canterbury Road - AM	King Georges Road	North	L2	805	76%	30.46	LOS C	36.0
King Georges Road / Canterbury Road - AM	King Georges Road	North	R2	144	101%	126.13	LOS F	14.2
King Georges Road / Canterbury Road - AM	Canterbury Road	West	R2	106	69%	81.38	LOS F	8.0
King Georges Road / Canterbury Road - AM	Canterbury Road	West	T1	743	104%	136.50	LOS F	49.4
King Georges Road / Canterbury Road - AM	Canterbury Road	West	L2	878	113%	163.08	LOS F	98.3
King Georges Road / Canterbury Road - PM	King Georges Road	South	R2	221	34%	62.96	LOS E	7.1
King Georges Road / Canterbury Road - PM	King Georges Road	South	T1	1868	108%	158.48	LOS F	85.4
King Georges Road / Canterbury Road - PM	King Georges Road	South	L2	280	28%	21.00	LOS C	10.2
King Georges Road / Canterbury Road - PM	Canterbury Road	East	L2	111	7%	32.50	LOS C	2.4
King Georges Road / Canterbury Road - PM	Canterbury Road	East	R2	201	102%	131.31	LOS F	20.6
King Georges Road / Canterbury Road - PM	Canterbury Road	East	T1	1099	158%	579.42	LOS F	129.5
King Georges Road / Canterbury Road - PM	King Georges Road	North	T1	2087	123%	281.98	LOS F	131.0
King Georges Road / Canterbury Road - PM	King Georges Road	North	L2	383	33%	14.98	LOS B	10.8
King Georges Road / Canterbury Road - PM	King Georges Road	North	R2	268	80%	73.10	LOS E	19.9
King Georges Road / Canterbury Road - PM	Canterbury Road	West	R2	158	79%	81.07	LOS F	12.0
King Georges Road / Canterbury Road - PM	Canterbury Road	West	T1	734	120%	255.13	LOS F	59.7
King Georges Road / Canterbury Road - PM	Canterbury Road	West	L2	594	69%	39.41	LOS D	26.5

Appendix C – Detailed Intersection Assessment Tables

King Georges Road / M5 east - AM	King Georges Rd (S)	South	R2	82	12%	58.74	LOS E	2.5
King Georges Road / M5 east - AM	King Georges Rd (S)	South	T1	1537	91%	63.74	LOS E	50.2
King Georges Road / M5 east - AM	King Georges Rd (S)	South	L2	813	80%	16.50	LOS B	29.0
King Georges Road / M5 east - AM	M5 East (E)	East	L2	118	15%	33.29	LOS C	2.2
King Georges Road / M5 east - AM	M5 East (E)	East	R2	704	63%	52.35	LOS D	21.7
King Georges Road / M5 east - AM	King Georges Rd (N)	North	T1	1136	60%	39.79	LOS D	23.6
King Georges Road / M5 east - AM	King Georges Rd (N)	North	L2	508	20%	12.55	LOS B	5.8
King Georges Road / M5 east - AM	King Georges Rd (N)	North	R2	234	39%	61.76	LOS E	8.4
King Georges Road / M5 east - AM	M5 East (W)	West	R2	891	88%	70.42	LOS E	34.3
King Georges Road / M5 east - AM	M5 East (W)	West	L2	441	64%	65.81	LOS E	15.0
King Georges Road / M5 east - PM	King Georges Road (S)	South	R2	161	27%	73.73	LOS E	5.9
King Georges Road / M5 east - PM	King Georges Road (S)	South	T1	1296	76%	54.05	LOS D	37.2
King Georges Road / M5 east - PM	King Georges Road (S)	South	L2	587	53%	19.02	LOS B	21.5
King Georges Road / M5 east - PM	M5 East (E)	East	L2	173	22%	41.47	LOS D	4.2
King Georges Road / M5 east - PM	M5 East (E)	East	R2	810	82%	78.12	LOS E	29.0
King Georges Road / M5 east - PM	King Georges Road (N)	North	T1	1539	75%	44.37	LOS D	43.8
King Georges Road / M5 east - PM	King Georges Road (N)	North	L2	871	34%	16.37	LOS B	13.9
King Georges Road / M5 east - PM	King Georges Road (N)	North	R2	357	54%	48.70	LOS D	9.3
King Georges Road / M5 east - PM	M5 East (W)	West	R2	772	87%	83.48	LOS F	33.9
King Georges Road / M5 east - PM	M5 East (W)	West	L2	325	44%	45.80	LOS D	7.6
King Georges Road / Tooronga Terrace - AM	King Georges Rd (midblock)	SouthEast	R2	357	107%	162.75	LOS F	44.8
King Georges Road / Tooronga Terrace - AM	King Georges Rd (midblock)	SouthEast	T1	2361	66%	11.42	LOS B	34.2
King Georges Road / Tooronga Terrace - AM	Tooronga Terrace	NorthEast	L2	224	38%	45.32	LOS D	12.6
King Georges Road / Tooronga Terrace - AM	Tooronga Terrace	NorthEast	R2	91	63%	79.04	LOS E	6.8
King Georges Road / Tooronga Terrace - AM	King Georges Road	NorthWest	T1	1936	74%	32.55	LOS C	39.4
King Georges Road / Tooronga Terrace - AM	King Georges Road	NorthWest	L2	152	13%	16.98	LOS B	4.7
King Georges Road / Tooronga Terrace - PM	King Georges Rd (midblock)	SouthEast	R2	235	87%	69.07	LOS E	17.1
King Georges Road / Tooronga Terrace - PM	King Georges Rd (midblock)	SouthEast	T1	2078	54%	8.21	LOS A	23.0
King Georges Road / Tooronga Terrace - PM	Tooronga Terrace	NorthEast	L2	361	90%	73.84	LOS E	28.3
King Georges Road / Tooronga Terrace - PM	Tooronga Terrace	NorthEast	R2	139	126%	309.75	LOS F	23.0
King Georges Road / Tooronga Terrace - PM	King Georges Road	NorthWest	T1	2359	80%	25.50	LOS C	47.9
King Georges Road / Tooronga Terrace - PM	King Georges Road	NorthWest	L2	348	28%	13.91	LOS B	10.0

9.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
The Boulevard/Alice St - AM	Alice St	South	R2	85	22%	8.93	LOS A	0.8
The Boulevard/Alice St - AM	Alice St	South	L2	79	22%	4.65	LOS A	0.8
The Boulevard/Alice St - AM	The Boulevard East	East	L2	51	20%	4.62	LOS A	0.0
The Boulevard/Alice St - AM	The Boulevard East	East	T1	316	20%	0.05	LOS A	0.0
The Boulevard/Alice St - AM	The Boulevard West	West	R2	61	28%	7.19	LOS A	0.7
The Boulevard/Alice St - AM	The Boulevard West	West	T1	397	28%	1.31	LOS A	0.7
The Boulevard/Alice St - PM	Alice St	South	R2	55	16%	9.20	LOS A	0.6
The Boulevard/Alice St - PM	Alice St	South	L2	55	16%	5.41	LOS A	0.6
The Boulevard/Alice St - PM	The Boulevard East	East	L2	39	27%	4.63	LOS A	0.0
The Boulevard/Alice St - PM	The Boulevard East	East	T1	461	27%	0.07	LOS A	0.0
The Boulevard/Alice St - PM	The Boulevard West	West	R2	39	23%	8.02	LOS A	0.5
The Boulevard/Alice St - PM	The Boulevard West	West	T1	333	23%	1.41	LOS A	0.5
King Georges Rd/Mary St - AM	King Georges Rd South	South	R2	44	67%	87.77	LOS F	2.1
King Georges Rd/Mary St - AM	King Georges Rd South	South	T1	2502	46%	0.09	LOS A	0.0
King Georges Rd/Mary St - AM	Mary St	East	L2	30	174%	798.93	LOS F	14.4
King Georges Rd/Mary St - AM	Mary St	East	R2	10	174%	1033.96	LOS F	14.4
King Georges Rd/Mary St - AM	King Georges Rd North	North	T1	1831	34%	0.03	LOS A	0.0
King Georges Rd/Mary St - AM	King Georges Rd North	North	L2	6	34%	3.53	LOS A	0.0
King Georges Rd/Mary St - PM	King Georges Rd South	South	R2	50	257%	1572.34	LOS F	25.3
King Georges Rd/Mary St - PM	King Georges Rd South	South	T1	1946	51%	5.50	LOS A	6.2
King Georges Rd/Mary St - PM	Mary St	East	L2	36	129%	407.74	LOS F	9.4
King Georges Rd/Mary St - PM	Mary St	East	R2	7	129%	730.05	LOS F	9.4
King Georges Rd/Mary St - PM	King Georges Rd North	North	T1	2292	40%	0.04	LOS A	0.0
King Georges Rd/Mary St - PM	King Georges Rd North	North	L2	9	40%	3.44	LOS A	0.0
King Georges Road / Canterbury Road - AM	King Georges Road	South	R2	292	104%	144.04	LOS F	15.7
King Georges Road / Canterbury Road - AM	King Georges Road	South	T1	2191	102%	112.16	LOS F	85.3
King Georges Road / Canterbury Road - AM	King Georges Road	South	L2	213	19%	16.66	LOS B	6.3
King Georges Road / Canterbury Road - AM	Canterbury Road	East	L2	82	6%	36.89	LOS D	1.9
King Georges Road / Canterbury Road - AM	Canterbury Road	East	R2	161	106%	160.95	LOS F	18.4
King Georges Road / Canterbury Road - AM	Canterbury Road	East	T1	834	96%	90.07	LOS F	38.4
King Georges Road / Canterbury Road - AM	King Georges Road	North	T1	1841	96%	76.54	LOS E	67.3
King Georges Road / Canterbury Road - AM	King Georges Road	North	L2	805	76%	30.46	LOS C	36.0
King Georges Road / Canterbury Road - AM	King Georges Road	North	R2	144	101%	126.13	LOS F	14.2
King Georges Road / Canterbury Road - AM	Canterbury Road	West	R2	106	69%	81.38	LOS F	8.0
King Georges Road / Canterbury Road - AM	Canterbury Road	West	T1	743	104%	136.50	LOS F	49.4
King Georges Road / Canterbury Road - AM	Canterbury Road	West	L2	878	113%	163.08	LOS F	98.3
King Georges Road / Canterbury Road - PM	King Georges Road	South	R2	221	34%	62.96	LOS E	7.1
King Georges Road / Canterbury Road - PM	King Georges Road	South	T1	1877	109%	163.96	LOS F	87.2
King Georges Road / Canterbury Road - PM	King Georges Road	South	L2	280	28%	21.00	LOS C	10.2
King Georges Road / Canterbury Road - PM	Canterbury Road	East	L2	111	7%	32.50	LOS C	2.4
King Georges Road / Canterbury Road - PM	Canterbury Road	East	R2	201	102%	131.31	LOS F	20.6
King Georges Road / Canterbury Road - PM	Canterbury Road	East	T1	1099	158%	579.42	LOS F	129.5
King Georges Road / Canterbury Road - PM	King Georges Road	North	T1	2094	124%	286.62	LOS F	132.4
King Georges Road / Canterbury Road - PM	King Georges Road	North	L2	383	33%	14.98	LOS B	10.8
King Georges Road / Canterbury Road - PM	King Georges Road	North	R2	268	80%	73.10	LOS E	19.9
King Georges Road / Canterbury Road - PM	Canterbury Road	West	R2	158	79%	81.07	LOS F	12.0
King Georges Road / Canterbury Road - PM	Canterbury Road	West	T1	734	120%	255.13	LOS F	59.7
King Georges Road / Canterbury Road - PM	Canterbury Road	West	L2	594	69%	39.41	LOS D	26.5

Appendix C – Detailed Intersection Assessment Tables

King Georges Road / M5 east - AM	King Georges Rd (S)	South	R2	82	12%	58.74	LOS E	2.5
King Georges Road / M5 east - AM	King Georges Rd (S)	South	T1	1543	92%	65.46	LOS E	51.2
King Georges Road / M5 east - AM	King Georges Rd (S)	South	L2	813	80%	16.50	LOS B	29.0
King Georges Road / M5 east - AM	M5 East (E)	East	L2	118	15%	33.29	LOS C	2.2
King Georges Road / M5 east - AM	M5 East (E)	East	R2	704	63%	52.35	LOS D	21.7
King Georges Road / M5 east - AM	King Georges Rd (N)	North	T1	1149	61%	40.00	LOS D	24.1
King Georges Road / M5 east - AM	King Georges Rd (N)	North	L2	508	20%	12.55	LOS B	5.8
King Georges Road / M5 east - AM	King Georges Rd (N)	North	R2	234	39%	61.76	LOS E	8.4
King Georges Road / M5 east - AM	M5 East (W)	West	R2	891	88%	70.42	LOS E	34.3
King Georges Road / M5 east - AM	M5 East (W)	West	L2	441	64%	65.81	LOS E	15.0
King Georges Road / M5 east - PM	King Georges Road (S)	South	R2	161	27%	73.73	LOS E	5.9
King Georges Road / M5 east - PM	King Georges Road (S)	South	T1	1305	77%	54.41	LOS D	37.7
King Georges Road / M5 east - PM	King Georges Road (S)	South	L2	587	53%	19.02	LOS B	21.5
King Georges Road / M5 east - PM	M5 East (E)	East	L2	173	22%	41.47	LOS D	4.2
King Georges Road / M5 east - PM	M5 East (E)	East	R2	810	82%	78.12	LOS E	29.0
King Georges Road / M5 east - PM	King Georges Road (N)	North	T1	1546	76%	44.54	LOS D	44.2
King Georges Road / M5 east - PM	King Georges Road (N)	North	L2	871	34%	16.37	LOS B	13.9
King Georges Road / M5 east - PM	King Georges Road (N)	North	R2	357	54%	48.70	LOS D	9.3
King Georges Road / M5 east - PM	M5 East (W)	West	R2	772	87%	83.48	LOS F	33.9
King Georges Road / M5 east - PM	M5 East (W)	West	L2	325	44%	45.80	LOS D	7.6
King Georges Road / Tooronga Terrace - AM	King Georges Rd (midblock)	SouthEast	R2	357	107%	162.75	LOS F	44.8
King Georges Road / Tooronga Terrace - AM	King Georges Rd (midblock)	SouthEast	T1	2361	66%	11.42	LOS B	34.2
King Georges Road / Tooronga Terrace - AM	Tooronga Terrace	NorthEast	L2	224	38%	45.32	LOS D	12.6
King Georges Road / Tooronga Terrace - AM	Tooronga Terrace	NorthEast	R2	98	71%	81.03	LOS F	7.4
King Georges Road / Tooronga Terrace - AM	King Georges Road	NorthWest	T1	1950	75%	32.76	LOS C	39.9
King Georges Road / Tooronga Terrace - AM	King Georges Road	NorthWest	L2	152	13%	16.98	LOS B	4.7
King Georges Road / Tooronga Terrace - PM	King Georges Rd (midblock)	SouthEast	R2	235	87%	69.07	LOS E	17.1
King Georges Road / Tooronga Terrace - PM	King Georges Rd (midblock)	SouthEast	T1	2078	54%	8.21	LOS A	23.0
King Georges Road / Tooronga Terrace - PM	Tooronga Terrace	NorthEast	L2	361	91%	76.94	LOS E	28.9
King Georges Road / Tooronga Terrace - PM	Tooronga Terrace	NorthEast	R2	148	139%	423.02	LOS F	29.0
King Georges Road / Tooronga Terrace - PM	King Georges Road	NorthWest	T1	2365	80%	25.59	LOS C	48.3
King Georges Road / Tooronga Terrace - PM	King Georges Road	NorthWest	L2	348	28%	13.91	LOS B	10.0

10.0 Punchbowl Station

10.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
Punchbowl Rd / South Ter - AM	Punchbowl (midblock)	NorthEast	R2	294	59%	45.04	LOS D	15.0
Punchbowl Rd / South Ter - AM	Punchbowl (midblock)	NorthEast	T1	535	42%	9.74	LOS A	14.3
Punchbowl Rd / South Ter - AM	South Terrace	NorthWest	L2	488	50%	19.30	LOS B	15.3
Punchbowl Rd / South Ter - AM	South Terrace	NorthWest	R2	91	20%	44.26	LOS D	4.3
Punchbowl Rd / South Ter - AM	Punchbowl Road (S)	SouthWest	T1	271	41%	32.94	LOS C	12.4
Punchbowl Rd / South Ter - AM	Punchbowl Road (S)	SouthWest	L2	270	41%	38.49	LOS D	12.4
Punchbowl Rd / South Ter - PM	Punchbowl (midblock)	NorthEast	R2	378	74%	47.27	LOS D	20.4
Punchbowl Rd / South Ter - PM	Punchbowl (midblock)	NorthEast	T1	757	61%	11.88	LOS B	24.3
Punchbowl Rd / South Ter - PM	South Terrace	NorthWest	L2	529	57%	18.80	LOS B	16.4
Punchbowl Rd / South Ter - PM	South Terrace	NorthWest	R2	139	30%	44.39	LOS D	6.5
Punchbowl Rd / South Ter - PM	Punchbowl Road (S)	SouthWest	T1	346	51%	34.57	LOS C	14.6
Punchbowl Rd / South Ter - PM	Punchbowl Road (S)	SouthWest	L2	275	51%	39.77	LOS D	14.2

10.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
Punchbowl Rd / South Ter - AM	Punchbowl (midblock)	NorthEast	R2	311	65%	45.94	LOS D	16.3
Punchbowl Rd / South Ter - AM	Punchbowl (midblock)	NorthEast	T1	535	42%	9.74	LOS A	14.3
Punchbowl Rd / South Ter - AM	South Terrace	NorthWest	L2	523	56%	20.04	LOS C	17.2
Punchbowl Rd / South Ter - AM	South Terrace	NorthWest	R2	91	20%	44.26	LOS D	4.3
Punchbowl Rd / South Ter - AM	Punchbowl Road (S)	SouthWest	T1	271	41%	32.94	LOS C	12.4
Punchbowl Rd / South Ter - AM	Punchbowl Road (S)	SouthWest	L2	270	41%	38.49	LOS D	12.4
Punchbowl Rd / South Ter - PM	Punchbowl (midblock)	NorthEast	R2	409	84%	54.98	LOS D	24.8
Punchbowl Rd / South Ter - PM	Punchbowl (midblock)	NorthEast	T1	757	61%	11.88	LOS B	24.3
Punchbowl Rd / South Ter - PM	South Terrace	NorthWest	L2	552	61%	19.27	LOS B	17.7
Punchbowl Rd / South Ter - PM	South Terrace	NorthWest	R2	139	30%	44.39	LOS D	6.5
Punchbowl Rd / South Ter - PM	Punchbowl Road (S)	SouthWest	T1	346	51%	34.57	LOS C	14.6
Punchbowl Rd / South Ter - PM	Punchbowl Road (S)	SouthWest	L2	275	51%	39.77	LOS D	14.2

11.0 Bankstown Station

11.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (S)	South	R2	118	15%	48.29	LOS D	3.3
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (S)	South	T1	1833	87%	43.32	LOS D	44.5
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (S)	South	L2	563	43%	10.52	LOS B	10.4
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (E)	East	L2	155	17%	48.76	LOS D	4.0
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (E)	East	R2	319	55%	62.64	LOS E	9.7
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (N)	North	T1	1103	41%	22.97	LOS C	15.4
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (N)	North	L2	163	11%	7.22	LOS A	0.8
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (N)	North	R2	535	60%	54.92	LOS D	13.6
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (W)	West	R2	316	53%	62.19	LOS E	9.6
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (W)	West	L2	657	70%	56.96	LOS E	17.6
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (S)	South	R2	194	25%	51.00	LOS D	5.8
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (S)	South	T1	1240	56%	31.52	LOS C	21.8
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (S)	South	L2	336	27%	12.56	LOS B	7.0
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (E)	East	L2	250	29%	51.73	LOS D	6.8
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (E)	East	R2	285	47%	61.77	LOS E	8.6
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (N)	North	T1	2262	94%	56.21	LOS E	65.4
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (N)	North	L2	318	21%	7.57	LOS A	2.5
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (N)	North	R2	772	83%	64.13	LOS E	23.7
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (W)	West	R2	548	97%	100.40	LOS F	27.2
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (W)	West	L2	448	48%	50.13	LOS D	10.0

11.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (S)	South	R2	118	15%	48.29	LOS D	3.3
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (S)	South	T1	1839	87%	44.29	LOS D	45.3
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (S)	South	L2	563	43%	10.52	LOS B	10.4
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (E)	East	L2	155	17%	48.76	LOS D	4.0
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (E)	East	R2	319	55%	62.64	LOS E	9.7
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (N)	North	T1	1112	41%	23.06	LOS C	15.6
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (N)	North	L2	163	11%	7.22	LOS A	0.8
Fairford Rd / S Western Motorway (M5) - AM	Fairford Rd (N)	North	R2	535	60%	54.92	LOS D	13.6
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (W)	West	R2	316	53%	62.19	LOS E	9.6
Fairford Rd / S Western Motorway (M5) - AM	S Western Motorway (M5) (W)	West	L2	657	70%	56.96	LOS E	17.6
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (S)	South	R2	194	25%	51.00	LOS D	5.8
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (S)	South	T1	1246	57%	31.61	LOS C	22.0
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (S)	South	L2	336	27%	12.56	LOS B	7.0
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (E)	East	L2	250	29%	51.73	LOS D	6.8
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (E)	East	R2	285	47%	61.77	LOS E	8.6
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (N)	North	T1	2268	94%	57.95	LOS E	66.5
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (N)	North	L2	318	21%	7.57	LOS A	2.5
Fairford Rd / S Western Motorway (M5) - PM	Fairford Rd (N)	North	R2	772	83%	64.13	LOS E	23.7
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (W)	West	R2	548	97%	100.40	LOS F	27.2
Fairford Rd / S Western Motorway (M5) - PM	S Western Motorway (M5) (W)	West	L2	448	48%	50.13	LOS D	10.0

12.0 Central Station

12.1 Scenario 3: Future + construction (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
New Canterbury Rd / Shaw St - AM	Shaw Street (S)	South	T1	459	90%	64.81	LOS E	16.1
New Canterbury Rd / Shaw St - AM	Shaw Street (S)	South	L2	34	90%	70.58	LOS E	15.6
New Canterbury Rd / Shaw St - AM	Stanmore Rd (E)	East	L2	26	34%	16.44	LOS B	10.2
New Canterbury Rd / Shaw St - AM	Stanmore Rd (E)	East	R2	49	34%	46.17	LOS D	6.6
New Canterbury Rd / Shaw St - AM	Stanmore Rd (E)	East	T1	450	34%	16.58	LOS B	10.2
New Canterbury Rd / Shaw St - AM	Crystal Street (N)	North	T1	254	61%	40.38	LOS D	14.9
New Canterbury Rd / Shaw St - AM	Crystal Street (N)	North	L2	51	61%	44.85	LOS D	14.9
New Canterbury Rd / Shaw St - AM	Crystal Street (N)	North	R2	105	84%	70.92	LOS E	6.5
New Canterbury Rd / Shaw St - AM	New Canterbury Rd (W)	West	T1	1287	99%	78.54	LOS E	65.2
New Canterbury Rd / Shaw St - AM	New Canterbury Rd (W)	West	L2	295	99%	83.73	LOS F	62.2
New Canterbury Rd / Shaw St - PM	Shaw Street (S)	South	T1	388	75%	54.50	LOS D	12.0
New Canterbury Rd / Shaw St - PM	Shaw Street (S)	South	L2	25	75%	60.14	LOS E	11.7
New Canterbury Rd / Shaw St - PM	Stanmore Rd (E)	East	L2	57	70%	28.67	LOS C	28.6
New Canterbury Rd / Shaw St - PM	Stanmore Rd (E)	East	R2	68	70%	39.42	LOS D	21.2
New Canterbury Rd / Shaw St - PM	Stanmore Rd (E)	East	T1	1019	70%	27.41	LOS C	28.6
New Canterbury Rd / Shaw St - PM	Crystal Street (N)	North	T1	519	78%	35.72	LOS D	28.7
New Canterbury Rd / Shaw St - PM	Crystal Street (N)	North	L2	47	78%	40.15	LOS D	28.7
New Canterbury Rd / Shaw St - PM	Crystal Street (N)	North	R2	392	115%	207.14	LOS F	48.1
New Canterbury Rd / Shaw St - PM	New Canterbury Rd (W)	West	T1	734	83%	48.51	LOS D	24.3
New Canterbury Rd / Shaw St - PM	New Canterbury Rd (W)	West	L2	96	83%	53.84	LOS D	23.6
Parramatta Rd / Crystal St - AM	Crystal Street	South	R2	232	99%	111.14	LOS F	26.1
Parramatta Rd / Crystal St - AM	Crystal Street	South	T1	51	99%	106.71	LOS F	26.1
Parramatta Rd / Crystal St - AM	Crystal Street	South	L2	156	43%	36.37	LOS D	6.6
Parramatta Rd / Crystal St - AM	Parramatta Road (E)	East	L2	127	46%	64.19	LOS E	8.0
Parramatta Rd / Crystal St - AM	Parramatta Road (E)	East	T1	1143	71%	30.93	LOS C	32.7
Parramatta Rd / Crystal St - AM	Parramatta Road (W)	West	R2	305	84%	46.06	LOS D	15.8
Parramatta Rd / Crystal St - AM	Parramatta Road (W)	West	T1	1971	87%	16.62	LOS B	54.4
Parramatta Rd / Crystal St - AM	Parramatta Road (W)	West	L2	23	87%	26.24	LOS C	54.4
Parramatta Rd / Crystal St - PM	Crystal Street	South	R2	175	94%	93.95	LOS F	18.3
Parramatta Rd / Crystal St - PM	Crystal Street	South	T1	45	94%	89.52	LOS F	18.3
Parramatta Rd / Crystal St - PM	Crystal Street	South	L2	180	95%	98.45	LOS F	15.1
Parramatta Rd / Crystal St - PM	Parramatta Road (E)	East	L2	259	114%	211.12	LOS F	13.5
Parramatta Rd / Crystal St - PM	Parramatta Road (E)	East	T1	1981	91%	33.16	LOS C	71.2
Parramatta Rd / Crystal St - PM	Parramatta Road (W)	West	R2	241	128%	325.17	LOS F	40.2
Parramatta Rd / Crystal St - PM	Parramatta Road (W)	West	T1	1248	44%	5.14	LOS A	13.8
Parramatta Rd / Crystal St - PM	Parramatta Road (W)	West	L2	14	44%	10.69	LOS B	13.8
Enmore Rd / Edgeware Rd - AM	Edgeware Road	SouthEast	T1	489	37%	28.32	LOS C	11.0
Enmore Rd / Edgeware Rd - AM	Edgeware Road	SouthEast	L2	36	37%	33.89	LOS C	10.9
Enmore Rd / Edgeware Rd - AM	Enmore Road (N)	NorthEast	L2	156	38%	21.79	LOS C	12.7
Enmore Rd / Edgeware Rd - AM	Enmore Road (N)	NorthEast	R2	150	38%	37.83	LOS D	8.6
Enmore Rd / Edgeware Rd - AM	Enmore Road (N)	NorthEast	T1	250	38%	19.27	LOS B	12.7
Enmore Rd / Edgeware Rd - AM	Stanmore	NorthWest	T1	583	75%	33.67	LOS C	32.2
Enmore Rd / Edgeware Rd - AM	Stanmore	NorthWest	L2	690	75%	27.72	LOS C	32.2
Enmore Rd / Edgeware Rd - AM	Enmore Road (S)	SouthWest	T1	649	62%	40.86	LOS D	17.4
Enmore Rd / Edgeware Rd - AM	Enmore Road (S)	SouthWest	L2	33	62%	45.31	LOS D	17.2
Enmore Rd / Edgeware Rd - PM	Edgeware Road	SouthEast	T1	677	58%	36.07	LOS D	18.1
Enmore Rd / Edgeware Rd - PM	Edgeware Road	SouthEast	L2	58	58%	41.62	LOS D	17.8
Enmore Rd / Edgeware Rd - PM	Enmore Road (N)	NorthEast	L2	93	61%	22.02	LOS C	25.6
Enmore Rd / Edgeware Rd - PM	Enmore Road (N)	NorthEast	R2	489	74%	40.80	LOS D	20.8
Enmore Rd / Edgeware Rd - PM	Enmore Road (N)	NorthEast	T1	582	61%	17.63	LOS B	25.6
Enmore Rd / Edgeware Rd - PM	Stanmore	NorthWest	T1	227	35%	32.84	LOS C	10.1
Enmore Rd / Edgeware Rd - PM	Stanmore	NorthWest	L2	739	62%	17.56	LOS B	24.2
Enmore Rd / Edgeware Rd - PM	Enmore Road (S)	SouthWest	T1	489	60%	46.14	LOS D	14.2
Enmore Rd / Edgeware Rd - PM	Enmore Road (S)	SouthWest	L2	38	60%	50.59	LOS D	13.8

Appendix C – Detailed Intersection Assessment Tables

City Rd / Cleveland - AM	Cleveland Street	SouthEast	R2	573	53%	41.32	LOS D	14.0
City Rd / Cleveland - AM	Cleveland Street	SouthEast	L2	380	19%	16.59	LOS B	5.0
City Rd / Cleveland - AM	City Road (E)	NorthEast	L2	727	41%	4.46	LOS A	0.0
City Rd / Cleveland - AM	City Road (E)	NorthEast	T1	484	39%	33.79	LOS C	10.1
City Rd / Cleveland - AM	City Road (W)	SouthWest	R2	575	72%	51.63	LOS D	16.0
City Rd / Cleveland - AM	City Road (W)	SouthWest	T1	1169	54%	15.36	LOS B	19.9
City Rd / Cleveland - PM	Cleveland Street	SouthEast	R2	755	63%	40.82	LOS D	19.1
City Rd / Cleveland - PM	Cleveland Street	SouthEast	L2	570	29%	18.67	LOS B	8.6
City Rd / Cleveland - PM	City Road (E)	NorthEast	L2	519	29%	4.44	LOS A	0.0
City Rd / Cleveland - PM	City Road (E)	NorthEast	T1	895	66%	36.71	LOS D	20.3
City Rd / Cleveland - PM	City Road (W)	SouthWest	R2	524	83%	63.06	LOS E	16.6
City Rd / Cleveland - PM	City Road (W)	SouthWest	T1	928	46%	16.69	LOS B	15.9
Cleveland St / Regent St - AM	Regent Street (S)	South	T1	719	62%	38.23	LOS D	18.0
Cleveland St / Regent St - AM	Regent Street (S)	South	L2	893	90%	40.08	LOS D	53.4
Cleveland St / Regent St - AM	Cleveland Street (E)	East	L2	150	19%	20.39	LOS C	4.8
Cleveland St / Regent St - AM	Cleveland Street (E)	East	T1	1219	66%	35.82	LOS D	21.2
Cleveland St / Regent St - AM	Regent Street (N)	North	T1	1391	87%	51.37	LOS D	31.3
Cleveland St / Regent St - AM	Regent Street (N)	North	L2	282	57%	44.37	LOS D	14.2
Cleveland St / Regent St - AM	Cleveland Street (W)	West	R2	274	77%	57.13	LOS E	16.1
Cleveland St / Regent St - AM	Cleveland Street (W)	West	T1	985	52%	15.71	LOS B	19.2
Cleveland St / Regent St - AM	Cleveland Street (W)	West	L2	141	52%	20.89	LOS C	18.2
Cleveland St / Regent St - PM	Regent Street (S)	South	T1	661	48%	25.92	LOS C	12.3
Cleveland St / Regent St - PM	Regent Street (S)	South	L2	990	94%	48.27	LOS D	60.6
Cleveland St / Regent St - PM	Cleveland Street (E)	East	L2	62	9%	20.73	LOS C	1.7
Cleveland St / Regent St - PM	Cleveland Street (E)	East	T1	1468	93%	56.22	LOS E	30.5
Cleveland St / Regent St - PM	Regent Street (N)	North	T1	1734	91%	47.58	LOS D	36.0
Cleveland St / Regent St - PM	Regent Street (N)	North	L2	340	57%	33.90	LOS C	13.7
Cleveland St / Regent St - PM	Cleveland Street (W)	West	R2	266	94%	70.51	LOS E	16.5
Cleveland St / Regent St - PM	Cleveland Street (W)	West	T1	894	54%	17.82	LOS B	16.9
Cleveland St / Regent St - PM	Cleveland Street (W)	West	L2	129	54%	22.47	LOS C	16.0
Cleveland St / Chalmers St - AM	Chalmers Street (S)	South	R2	233	56%	48.19	LOS D	12.3
Cleveland St / Chalmers St - AM	Chalmers Street (S)	South	T1	709	58%	42.73	LOS D	14.5
Cleveland St / Chalmers St - AM	Chalmers Street (S)	South	L2	111	58%	46.81	LOS D	13.6
Cleveland St / Chalmers St - AM	Cleveland Street (E)	East	R2	135	63%	61.20	LOS E	7.9
Cleveland St / Chalmers St - AM	Cleveland Street (E)	East	T1	1090	46%	12.78	LOS B	16.0
Cleveland St / Chalmers St - AM	Cleveland Street (W)	West	T1	984	73%	27.82	LOS C	30.8
Cleveland St / Chalmers St - AM	Cleveland Street (W)	West	L2	278	73%	31.69	LOS C	29.2
Cleveland St / Chalmers St - PM	Chalmers Street (S)	South	R2	152	38%	46.25	LOS D	7.6
Cleveland St / Chalmers St - PM	Chalmers Street (S)	South	T1	564	51%	42.07	LOS D	12.0
Cleveland St / Chalmers St - PM	Chalmers Street (S)	South	L2	127	51%	46.86	LOS D	11.1
Cleveland St / Chalmers St - PM	Cleveland Street (E)	East	R2	131	65%	61.99	LOS E	7.7
Cleveland St / Chalmers St - PM	Cleveland Street (E)	East	T1	1118	47%	12.46	LOS B	16.2
Cleveland St / Chalmers St - PM	Cleveland Street (W)	West	T1	953	68%	25.70	LOS C	27.7
Cleveland St / Chalmers St - PM	Cleveland Street (W)	West	L2	253	68%	29.56	LOS C	26.4
Elizabeth St / Eddy Ave - AM	Elizabeth Street (S)	South	T1	990	54%	5.60	LOS A	3.6
Elizabeth St / Eddy Ave - AM	Elizabeth Street (S)	South	L2	396	54%	5.60	LOS A	3.3
Elizabeth St / Eddy Ave - AM	Elizabeth Street (N)	North	T1	503	22%	0.00	LOS A	2.7
Elizabeth St / Eddy Ave - AM	Elizabeth Street (N)	North	R2	174	84%	72.90	LOS E	3.5
Elizabeth St / Eddy Ave - AM	Eddy Ave	West	R2	135	100%	114.60	LOS F	7.3
Elizabeth St / Eddy Ave - AM	Eddy Ave	West	L2	732	98%	87.50	LOS F	14.4
Elizabeth St / Eddy Ave - PM	Elizabeth Street (S)	South	T1	866	70%	12.10	LOS B	4.2
Elizabeth St / Eddy Ave - PM	Elizabeth Street (S)	South	L2	504	70%	9.00	LOS A	3.8
Elizabeth St / Eddy Ave - PM	Elizabeth Street (N)	North	T1	646	26%	0.00	LOS A	8.3
Elizabeth St / Eddy Ave - PM	Elizabeth Street (N)	North	R2	326	55%	65.80	LOS E	6.8
Elizabeth St / Eddy Ave - PM	Eddy Ave	West	R2	147	99%	115.00	LOS F	8.5
Elizabeth St / Eddy Ave - PM	Eddy Ave	West	L2	785	66%	31.60	LOS C	11.2

Appendix C – Detailed Intersection Assessment Tables

Elizabeth St / Foveaux St - AM	Elizabeth Street (S)	South	T1	878	24%	73.50	LOS E	20.2
Elizabeth St / Foveaux St - AM	Foveaux Street	East	L2	136	5%	31.20	LOS C	3.3
Elizabeth St / Foveaux St - AM	Foveaux Street	East	R2	536	5%	33.20	LOS C	7.6
Elizabeth St / Foveaux St - AM	Elizabeth Street (N)	North	T1	695	20%	20.50	LOS C	4.2
Elizabeth St / Foveaux St - PM	Elizabeth Street (S)	South	T1	714	25%	125.50	LOS F	25.2
Elizabeth St / Foveaux St - PM	Foveaux Street	East	L2	209	5%	26.40	LOS C	5.3
Elizabeth St / Foveaux St - PM	Foveaux Street	East	R2	664	9%	26.50	LOS C	8.8
Elizabeth St / Foveaux St - PM	Elizabeth Street (N)	North	T1	895	4%	37.10	LOS D	4.4
Eddy Ave / Pitt St - AM	Eddy Avenue	SouthEast	R2	26	4%	31.11	LOS C	1.0
Eddy Ave / Pitt St - AM	Eddy Avenue	SouthEast	L2	545	33%	25.51	LOS C	10.1
Eddy Ave / Pitt St - AM	Pitt Street (E)	NorthEast	L2	39	2%	2.90	LOS A	0.0
Eddy Ave / Pitt St - AM	Pitt Street (E)	NorthEast	R2	22	40%	70.18	LOS E	1.4
Eddy Ave / Pitt St - AM	Pitt Street (E)	NorthEast	T1	283	39%	46.15	LOS D	7.3
Eddy Ave / Pitt St - AM	Pitt Street (W)	SouthWest	R2	862	69%	39.18	LOS D	21.6
Eddy Ave / Pitt St - AM	Pitt Street (W)	SouthWest	T1	605	33%	19.57	LOS B	10.6
Eddy Ave / Pitt St - PM	Eddy Avenue	SouthEast	R2	41	7%	30.08	LOS C	1.5
Eddy Ave / Pitt St - PM	Eddy Avenue	SouthEast	L2	786	50%	28.90	LOS C	16.1
Eddy Ave / Pitt St - PM	Pitt Street (E)	NorthEast	L2	27	2%	2.90	LOS A	0.0
Eddy Ave / Pitt St - PM	Pitt Street (E)	NorthEast	T1	504	65%	46.59	LOS D	13.4
Eddy Ave / Pitt St - PM	Pitt Street (W)	SouthWest	R2	922	81%	47.09	LOS D	25.9
Eddy Ave / Pitt St - PM	Pitt Street (W)	SouthWest	T1	434	20%	12.73	LOS B	5.9
Pitt St / George St - AM	Lee Street	South	R1	429	59%	41.98	LOS D	12.8
Pitt St / George St - AM	Lee Street	South	T1	342	59%	40.45	LOS D	13.0
Pitt St / George St - AM	Lee Street	South	L1	24	59%	42.43	LOS D	13.0
Pitt St / George St - AM	Pitt Street	NorthEast	L1	208	19%	12.05	LOS B	4.7
Pitt St / George St - AM	Pitt Street	NorthEast	T1	709	38%	28.70	LOS C	10.1
Pitt St / George St - AM	George Street (N)	North	T1	308	34%	37.59	LOS D	7.0
Pitt St / George St - AM	George Street (N)	North	R1	266	30%	38.73	LOS D	5.9
Pitt St / George St - AM	George Street (S)	SouthWest	T1	1058	54%	31.02	LOS C	15.3
Pitt St / George St - AM	George Street (S)	SouthWest	L1	258	26%	10.89	LOS B	6.7
Pitt St / George St - AM	George Street (S)	SouthWest	L2	41	26%	12.09	LOS B	6.7
Pitt St / George St - PM	Lee Street	South	R1	402	57%	41.65	LOS D	12.1
Pitt St / George St - PM	Lee Street	South	T1	333	57%	40.11	LOS D	12.3
Pitt St / George St - PM	Lee Street	South	L1	23	57%	42.09	LOS D	12.3
Pitt St / George St - PM	Pitt Street	NorthEast	L1	229	21%	12.18	LOS B	5.3
Pitt St / George St - PM	Pitt Street	NorthEast	T1	1199	67%	32.21	LOS C	20.3
Pitt St / George St - PM	George Street (N)	North	T1	357	40%	38.19	LOS D	8.2
Pitt St / George St - PM	George Street (N)	North	R1	266	30%	38.73	LOS D	5.9
Pitt St / George St - PM	George Street (S)	SouthWest	T1	1003	51%	30.64	LOS C	14.4
Pitt St / George St - PM	George Street (S)	SouthWest	L1	271	27%	10.96	LOS B	7.0
Pitt St / George St - PM	George Street (S)	SouthWest	L2	39	27%	12.16	LOS B	7.0

12.2 Scenario 4: Future + construction + S2B CA TTP (July 2021)

Scenario	Approach Name	Approach Direction	OD Movement	Demand Volumes	Deg. Satn	Average Delay (sec)	Level of Service	95th Percentile Queue (Veh)
New Canterbury Rd / Shaw St - AM	Shaw Street (S)	South	T1	459	90%	64.81	LOS E	16.1
New Canterbury Rd / Shaw St - AM	Shaw Street (S)	South	L2	34	90%	70.58	LOS E	15.6
New Canterbury Rd / Shaw St - AM	Stanmore Rd (E)	East	L2	26	34%	16.44	LOS B	10.2
New Canterbury Rd / Shaw St - AM	Stanmore Rd (E)	East	R2	49	34%	46.17	LOS D	6.6
New Canterbury Rd / Shaw St - AM	Stanmore Rd (E)	East	T1	450	34%	16.58	LOS B	10.2
New Canterbury Rd / Shaw St - AM	Crystal Street (N)	North	T1	254	61%	40.38	LOS D	14.9
New Canterbury Rd / Shaw St - AM	Crystal Street (N)	North	L2	51	61%	44.85	LOS D	14.9
New Canterbury Rd / Shaw St - AM	Crystal Street (N)	North	R2	121	104%	128.71	LOS F	10.8
New Canterbury Rd / Shaw St - AM	New Canterbury Rd (W)	West	T1	1326	103%	102.55	LOS F	75.4
New Canterbury Rd / Shaw St - AM	New Canterbury Rd (W)	West	L2	295	103%	108.37	LOS F	74.0
New Canterbury Rd / Shaw St - PM	Shaw Street (S)	South	T1	388	75%	54.50	LOS D	12.0
New Canterbury Rd / Shaw St - PM	Shaw Street (S)	South	L2	25	75%	60.14	LOS E	11.7
New Canterbury Rd / Shaw St - PM	Stanmore Rd (E)	East	L2	57	70%	28.69	LOS C	28.6
New Canterbury Rd / Shaw St - PM	Stanmore Rd (E)	East	R2	68	70%	39.50	LOS D	21.2
New Canterbury Rd / Shaw St - PM	Stanmore Rd (E)	East	T1	1019	70%	27.44	LOS C	28.6
New Canterbury Rd / Shaw St - PM	Crystal Street (N)	North	T1	519	78%	35.72	LOS D	28.7
New Canterbury Rd / Shaw St - PM	Crystal Street (N)	North	L2	47	78%	40.15	LOS D	28.7
New Canterbury Rd / Shaw St - PM	Crystal Street (N)	North	R2	420	123%	274.14	LOS F	60.5
New Canterbury Rd / Shaw St - PM	New Canterbury Rd (W)	West	T1	752	85%	50.14	LOS D	25.4
New Canterbury Rd / Shaw St - PM	New Canterbury Rd (W)	West	L2	96	85%	55.48	LOS E	24.7
Parramatta Rd / Crystal St - AM	Crystal Street	South	R2	232	99%	111.14	LOS F	26.1
Parramatta Rd / Crystal St - AM	Crystal Street	South	T1	51	99%	106.71	LOS F	26.1
Parramatta Rd / Crystal St - AM	Crystal Street	South	L2	156	43%	36.37	LOS D	6.6
Parramatta Rd / Crystal St - AM	Parramatta Road (E)	East	L2	143	55%	65.51	LOS E	9.2
Parramatta Rd / Crystal St - AM	Parramatta Road (E)	East	T1	1143	71%	30.96	LOS C	33.2
Parramatta Rd / Crystal St - AM	Parramatta Road (W)	West	R2	305	84%	46.06	LOS D	15.8
Parramatta Rd / Crystal St - AM	Parramatta Road (W)	West	T1	1971	87%	16.62	LOS B	54.4
Parramatta Rd / Crystal St - AM	Parramatta Road (W)	West	L2	23	87%	26.24	LOS C	54.4
Parramatta Rd / Crystal St - PM	Crystal Street	South	R2	175	94%	93.95	LOS F	18.3
Parramatta Rd / Crystal St - PM	Crystal Street	South	T1	45	94%	89.52	LOS F	18.3
Parramatta Rd / Crystal St - PM	Crystal Street	South	L2	180	95%	98.45	LOS F	15.1
Parramatta Rd / Crystal St - PM	Parramatta Road (E)	East	L2	287	135%	384.75	LOS F	12.5
Parramatta Rd / Crystal St - PM	Parramatta Road (E)	East	T1	1981	92%	37.10	LOS D	75.9
Parramatta Rd / Crystal St - PM	Parramatta Road (W)	West	R2	241	128%	325.17	LOS F	40.2
Parramatta Rd / Crystal St - PM	Parramatta Road (W)	West	T1	1248	44%	5.14	LOS A	13.8
Parramatta Rd / Crystal St - PM	Parramatta Road (W)	West	L2	14	44%	10.69	LOS B	13.8
Enmore Rd / Edgeware Rd - AM	Edgeware Road	SouthEast	T1	489	37%	28.32	LOS C	11.0
Enmore Rd / Edgeware Rd - AM	Edgeware Road	SouthEast	L2	36	37%	33.89	LOS C	10.9
Enmore Rd / Edgeware Rd - AM	Enmore Road (N)	NorthEast	L2	156	38%	21.79	LOS C	12.7
Enmore Rd / Edgeware Rd - AM	Enmore Road (N)	NorthEast	R2	150	38%	37.83	LOS D	8.6
Enmore Rd / Edgeware Rd - AM	Enmore Road (N)	NorthEast	T1	250	38%	19.27	LOS B	12.7
Enmore Rd / Edgeware Rd - AM	Stanmore	NorthWest	T1	583	77%	34.83	LOS C	33.2
Enmore Rd / Edgeware Rd - AM	Stanmore	NorthWest	L2	729	77%	26.44	LOS C	33.2
Enmore Rd / Edgeware Rd - AM	Enmore Road (S)	SouthWest	T1	649	62%	40.86	LOS D	17.4
Enmore Rd / Edgeware Rd - AM	Enmore Road (S)	SouthWest	L2	33	62%	45.31	LOS D	17.2
Enmore Rd / Edgeware Rd - PM	Edgeware Road	SouthEast	T1	677	58%	36.07	LOS D	18.1
Enmore Rd / Edgeware Rd - PM	Edgeware Road	SouthEast	L2	58	58%	41.62	LOS D	17.8
Enmore Rd / Edgeware Rd - PM	Enmore Road (N)	NorthEast	L2	93	61%	22.02	LOS C	25.6
Enmore Rd / Edgeware Rd - PM	Enmore Road (N)	NorthEast	R2	489	74%	40.80	LOS D	20.8
Enmore Rd / Edgeware Rd - PM	Enmore Road (N)	NorthEast	T1	582	61%	17.63	LOS B	25.6
Enmore Rd / Edgeware Rd - PM	Stanmore	NorthWest	T1	227	35%	32.84	LOS C	10.1
Enmore Rd / Edgeware Rd - PM	Stanmore	NorthWest	L2	757	64%	17.93	LOS B	25.5
Enmore Rd / Edgeware Rd - PM	Enmore Road (S)	SouthWest	T1	489	60%	46.14	LOS D	14.2
Enmore Rd / Edgeware Rd - PM	Enmore Road (S)	SouthWest	L2	38	60%	50.59	LOS D	13.8

Appendix C – Detailed Intersection Assessment Tables

City Rd / Cleveland - AM	Cleveland Street	SouthEast	R2	573	53%	41.32	LOS D	14.0
City Rd / Cleveland - AM	Cleveland Street	SouthEast	L2	380	19%	16.59	LOS B	5.0
City Rd / Cleveland - AM	City Road (E)	NorthEast	L2	727	41%	4.46	LOS A	0.0
City Rd / Cleveland - AM	City Road (E)	NorthEast	T1	484	39%	33.79	LOS C	10.1
City Rd / Cleveland - AM	City Road (W)	SouthWest	R2	614	87%	63.15	LOS E	19.8
City Rd / Cleveland - AM	City Road (W)	SouthWest	T1	1169	54%	15.36	LOS B	19.9
City Rd / Cleveland - PM	Cleveland Street	SouthEast	R2	755	63%	40.82	LOS D	19.1
City Rd / Cleveland - PM	Cleveland Street	SouthEast	L2	570	29%	18.67	LOS B	8.6
City Rd / Cleveland - PM	City Road (E)	NorthEast	L2	519	29%	4.44	LOS A	0.0
City Rd / Cleveland - PM	City Road (E)	NorthEast	T1	895	66%	36.71	LOS D	20.3
City Rd / Cleveland - PM	City Road (W)	SouthWest	R2	542	88%	68.10	LOS E	18.1
City Rd / Cleveland - PM	City Road (W)	SouthWest	T1	928	46%	16.69	LOS B	15.9
Cleveland St / Regent St - AM	Regent Street (S)	South	T1	719	62%	38.23	LOS D	18.0
Cleveland St / Regent St - AM	Regent Street (S)	South	L2	893	90%	40.08	LOS D	53.4
Cleveland St / Regent St - AM	Cleveland Street (E)	East	L2	150	19%	20.41	LOS C	4.8
Cleveland St / Regent St - AM	Cleveland Street (E)	East	T1	1219	66%	35.82	LOS D	21.2
Cleveland St / Regent St - AM	Regent Street (N)	North	T1	1391	88%	52.01	LOS D	31.7
Cleveland St / Regent St - AM	Regent Street (N)	North	L2	297	71%	45.92	LOS D	15.4
Cleveland St / Regent St - AM	Cleveland Street (W)	West	R2	274	77%	57.13	LOS E	16.1
Cleveland St / Regent St - AM	Cleveland Street (W)	West	T1	1024	55%	16.41	LOS B	20.0
Cleveland St / Regent St - AM	Cleveland Street (W)	West	L2	141	55%	21.75	LOS C	20.0
Cleveland St / Regent St - PM	Regent Street (S)	South	T1	661	48%	25.92	LOS C	12.3
Cleveland St / Regent St - PM	Regent Street (S)	South	L2	990	94%	48.27	LOS D	60.6
Cleveland St / Regent St - PM	Cleveland Street (E)	East	L2	62	9%	21.30	LOS C	1.7
Cleveland St / Regent St - PM	Cleveland Street (E)	East	T1	1468	93%	56.22	LOS E	30.5
Cleveland St / Regent St - PM	Regent Street (N)	North	T1	1734	92%	49.24	LOS D	36.9
Cleveland St / Regent St - PM	Regent Street (N)	North	L2	368	77%	38.58	LOS D	16.4
Cleveland St / Regent St - PM	Cleveland Street (W)	West	R2	266	94%	70.51	LOS E	16.5
Cleveland St / Regent St - PM	Cleveland Street (W)	West	T1	911	56%	18.08	LOS B	17.3
Cleveland St / Regent St - PM	Cleveland Street (W)	West	L2	129	56%	22.74	LOS C	16.5
Cleveland St / Chalmers St - AM	Chalmers Street (S)	South	R2	233	56%	48.19	LOS D	12.3
Cleveland St / Chalmers St - AM	Chalmers Street (S)	South	T1	709	58%	42.73	LOS D	14.5
Cleveland St / Chalmers St - AM	Chalmers Street (S)	South	L2	111	58%	46.81	LOS D	13.6
Cleveland St / Chalmers St - AM	Cleveland Street (E)	East	R2	135	63%	61.20	LOS E	7.9
Cleveland St / Chalmers St - AM	Cleveland Street (E)	East	T1	1090	46%	12.78	LOS B	16.0
Cleveland St / Chalmers St - AM	Cleveland Street (W)	West	T1	984	79%	29.48	LOS C	34.6
Cleveland St / Chalmers St - AM	Cleveland Street (W)	West	L2	333	79%	34.41	LOS C	31.3
Cleveland St / Chalmers St - PM	Chalmers Street (S)	South	R2	152	38%	46.25	LOS D	7.6
Cleveland St / Chalmers St - PM	Chalmers Street (S)	South	L2	564	51%	42.07	LOS D	12.0
Cleveland St / Chalmers St - PM	Chalmers Street (S)	South	T1	127	51%	46.86	LOS D	11.1
Cleveland St / Chalmers St - PM	Cleveland Street (E)	East	R2	131	65%	61.99	LOS E	7.7
Cleveland St / Chalmers St - PM	Cleveland Street (E)	East	T1	1118	47%	12.46	LOS B	16.2
Cleveland St / Chalmers St - PM	Cleveland Street (W)	West	T1	953	73%	26.63	LOS C	30.6
Cleveland St / Chalmers St - PM	Cleveland Street (W)	West	L2	299	73%	30.78	LOS C	27.5
Elizabeth St / Eddy Ave - AM	Elizabeth Street (S)	South	T1	990	67%	6.30	LOS A	3.7
Elizabeth St / Eddy Ave - AM	Elizabeth Street (S)	South	L2	450	67%	5.90	LOS A	3.3
Elizabeth St / Eddy Ave - AM	Elizabeth Street (N)	North	T1	503	22%	0.00	LOS A	1.8
Elizabeth St / Eddy Ave - AM	Elizabeth Street (N)	North	R2	174	68%	61.40	LOS E	3.0
Elizabeth St / Eddy Ave - AM	Eddy Ave	West	R2	135	97%	90.40	LOS F	5.9
Elizabeth St / Eddy Ave - AM	Eddy Ave	West	L2	732	90%	54.90	LOS D	10.5
Elizabeth St / Eddy Ave - PM	Elizabeth Street (S)	South	T1	886	76%	11.40	LOS B	4.2
Elizabeth St / Eddy Ave - PM	Elizabeth Street (S)	South	L2	550	76%	8.30	LOS A	3.7
Elizabeth St / Eddy Ave - PM	Elizabeth Street (N)	North	T1	646	26%	0.00	LOS A	7.9
Elizabeth St / Eddy Ave - PM	Elizabeth Street (N)	North	R2	326	57%	66.90	LOS E	6.9
Elizabeth St / Eddy Ave - PM	Eddy Ave	West	R2	147	103%	142.70	LOS F	9.9
Elizabeth St / Eddy Ave - PM	Eddy Ave	West	L2	785	68%	33.50	LOS C	11.7

Appendix C – Detailed Intersection Assessment Tables

Elizabeth St / Foveaux St - AM	Elizabeth Street (S)	South	T1	993	100%	88.00	LOS F	26.4
Elizabeth St / Foveaux St - AM	Foveaux Street	East	L2	136	19%	26.00	LOS C	2.9
Elizabeth St / Foveaux St - AM	Foveaux Street	East	R2	536	57%	26.00	LOS C	7.3
Elizabeth St / Foveaux St - AM	Elizabeth Street (N)	North	T1	695	34%	22.00	LOS C	4.2
Elizabeth St / Foveaux St - PM	Elizabeth Street (S)	South	T1	760	106%	154.00	LOS F	29.7
Elizabeth St / Foveaux St - PM	Foveaux Street	East	L2	209	25%	28.00	LOS C	5.5
Elizabeth St / Foveaux St - PM	Foveaux Street	East	R2	664	75%	31.00	LOS C	9.5
Elizabeth St / Foveaux St - PM	Elizabeth Street (N)	North	T1	895	46%	35.00	LOS C	4.2
Eddy Ave / Pitt St - AM	Eddy Avenue	SouthEast	R2	26	4%	31.11	LOS C	1.0
Eddy Ave / Pitt St - AM	Eddy Avenue	SouthEast	L2	600	39%	26.53	LOS C	11.4
Eddy Ave / Pitt St - AM	Pitt Street (E)	NorthEast	L2	39	2%	2.90	LOS A	0.0
Eddy Ave / Pitt St - AM	Pitt Street (E)	NorthEast	R2	22	40%	70.18	LOS E	1.4
Eddy Ave / Pitt St - AM	Pitt Street (E)	NorthEast	T1	283	39%	46.15	LOS D	7.3
Eddy Ave / Pitt St - AM	Pitt Street (W)	SouthWest	R2	862	69%	39.18	LOS D	21.6
Eddy Ave / Pitt St - AM	Pitt Street (W)	SouthWest	T1	605	33%	19.57	LOS B	10.6
Eddy Ave / Pitt St - PM	Eddy Avenue	SouthEast	R2	41	7%	30.08	LOS C	1.5
Eddy Ave / Pitt St - PM	Eddy Avenue	SouthEast	L2	832	55%	29.83	LOS C	17.5
Eddy Ave / Pitt St - PM	Pitt Street (E)	NorthEast	L2	27	2%	2.90	LOS A	0.0
Eddy Ave / Pitt St - PM	Pitt Street (E)	NorthEast	T1	504	65%	46.59	LOS D	13.4
Eddy Ave / Pitt St - PM	Pitt Street (W)	SouthWest	R2	922	81%	47.09	LOS D	25.9
Eddy Ave / Pitt St - PM	Pitt Street (W)	SouthWest	T1	434	20%	12.73	LOS B	5.9
Pitt St / George St - AM	Lee Street	South	R1	429	59%	41.98	LOS D	12.8
Pitt St / George St - AM	Lee Street	South	T1	342	59%	40.45	LOS D	13.0
Pitt St / George St - AM	Lee Street	South	L1	24	59%	42.43	LOS D	13.0
Pitt St / George St - AM	Pitt Street	NorthEast	L1	247	24%	12.96	LOS B	5.9
Pitt St / George St - AM	Pitt Street	NorthEast	T1	724	40%	29.03	LOS C	10.7
Pitt St / George St - AM	George Street (N)	North	T1	308	34%	37.59	LOS D	7.0
Pitt St / George St - AM	George Street (N)	North	R1	266	30%	38.73	LOS D	5.9
Pitt St / George St - AM	George Street (S)	SouthWest	T1	1058	54%	31.02	LOS C	15.3
Pitt St / George St - AM	George Street (S)	SouthWest	L1	258	26%	10.89	LOS B	6.7
Pitt St / George St - AM	George Street (S)	SouthWest	L2	41	26%	12.09	LOS B	6.7
Pitt St / George St - PM	Lee Street	South	R1	402	57%	41.65	LOS D	12.1
Pitt St / George St - PM	Lee Street	South	T1	333	57%	40.11	LOS D	12.3
Pitt St / George St - PM	Lee Street	South	L1	23	57%	42.09	LOS D	12.3
Pitt St / George St - PM	Pitt Street	NorthEast	L1	246	23%	12.58	LOS B	5.8
Pitt St / George St - PM	Pitt Street	NorthEast	T1	1227	71%	33.01	LOS C	21.4
Pitt St / George St - PM	George Street (N)	North	T1	357	40%	38.19	LOS D	8.2
Pitt St / George St - PM	George Street (N)	North	R1	266	30%	38.73	LOS D	5.9
Pitt St / George St - PM	George Street (S)	SouthWest	T1	1003	51%	30.64	LOS C	14.4
Pitt St / George St - PM	George Street (S)	SouthWest	L1	271	27%	10.96	LOS B	7.0
Pitt St / George St - PM	George Street (S)	SouthWest	L2	39	27%	12.16	LOS B	7.0