traffic + transport

Transport Assessment

Cabramatta East Development Application

for

Moon Investments

Document Control

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Revision History

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Table of Contents

1 Introduction

1.1 Overview

arc traffic + transport has been engaged by Moon Investments to prepare a Transport Assessment in regard to **Cabramatta East**, a mixed-use development on land east of Cabramatta Railway Station (**Cabramatta Station**). Cabramatta East is generally bordered by properties fronting Fisher Street to the north, Cabramatta Road East to the south, commercial development and the Cumberland Street Car Park (the **Cumberland Street Car Park**) to the east and Broomfield Street to the west.

Cabramatta East is comprised of 4 stages; the Development Application (**DA**) that this Transport Assessment accompanies specifically relates to **Stage 1 and Stage 2** of Cabramatta East (the **DA Proposal**). Notwithstanding, **Stage 3** of Cabramatta East has also necessarily been considered in this Transport Assessment, particularly as access to future parking and servicing for Stage 3 will be provided via the same access driveways as proposed in the DA Proposal.

Stage 4 of Cabramatta East relates to land at the south-eastern corner of Broomfield Street & Fisher Street; access to Stage 4 would be via Fisher Street, potentially via a shared driveway at the Fisher Street Car Park; while Stage 4 has also been assessed in this Transport Assessment, there is no information available as to the possible timeframe for Stage 4.

The DA Proposal includes:

- 358 high density residential units;
- Retail and commercial floorspace at Ground, Mezzanine and First floor levels;
- New access driveways to Broomfield Street and to the local road section of Cabramatta Road East;
- New pedestrian and active transport paths to and through the Site; and
- Significant internal access, parking and servicing infrastructure.

A breakdown of the land uses and yields for each of the Cabramatta East development stages is provided in Table 1; it is noted that **GFA** references Gross Floor Area and **GLA** references Gross Leasable area.

Full details of the DA Proposal are provided in the broader DA which this Transport Assessment accompanies, which will be submitted to Fairfield City Council (**Council**) for assessment.

Table 1: Cabramatta East Development Stages

Cabramatta East Stages	Dwellings			Retail	Child Care	Medical	Gym	Tavern	Church	Office
	1 Bed	2 Bed	3 Bed	GLA m^2	Places	GFA m^2	GFA m^2	GLA m^2	GFA m^2	GFA m^2
Stage 1	80	128	22	1,197	80					
Stage 2	42	61	25	554		548	507	690		
DA Proposal Total	122	189	47	1,751	80	548	507	690	0	0
Stage 3	25	24	15	409						
Stage 4	22	42	7	1,006					1,036	1,438
Cabramatta East Total	**169**	**255**	**69**	**2,160**	**80**	**548**	**507**	**690**	**1,036**	**1,438**

1.2 Transport Assessment Tasks

This Transport Assessment examines the relevant access, traffic and parking characteristics of the DA Proposal; this has included consideration of the following:

- Existing and future base traffic and transport conditions in the local road network providing Site access;
- Existing and future public and active transport services and infrastructure;
- Proposed vehicle and pedestrian access points;
- The future vehicular trip generation and distribution of the Site, and the potential impact of those trips on the local road network;
- The potential for additional uplift across what is referenced as Cabramatta Town Centre Precinct 4 (**Precinct 4**) to ensure that the development of Cabramatta East does not rule out, or be ruled out by, the redevelopment of Precinct 4;
- Parking requirements and provisions; and
- A design assessment of all access, parking and servicing areas.

1.3 Reference Documents

1.3.1 Planning Controls and Strategies

The Site lies within the Fairfield Local Government Area (**Fairfield LGA**); key Council, State Government and Transport for NSW (**TfNSW**) planning and strategic documents referenced in the preparation of this Transport Assessment include:

- Cabramatta Town Centre Development Control Plan 2014 (**CTC DCP**);
- Fairfield City Wide Development Control Plan 2013 (**Fairfield DCP**);
- Fairfield Local Environmental Plan 2013 (**Fairfield LEP**);
- Fairfield City Local Housing Strategy 2022 (the **Housing Strategy**);
- Fairfield City Centres Policy 2015 (**City Centres Policy**);
- Fairfield City Transport Study 2021, GTA (**FCTS 2021**);
- Fairfield Residential Development Strategy 2009 (**RDS 2009**);
- Fairfield Residential Development Strategy Transport Assessment for the Centres 2009, ARUP (**RDS 2009 TA**);
- Cabramatta Transport Management and Accessibility Study 2013, GTA Consultants (**Cabramatta TMAP**);
- Future Transport Strategy 2056, NSW State Government (**FTS 2056**);
- A Metropolis of Three Cities - Greater Sydney Region Plan 2018, Greater Sydney Commission (**3 Cities Plan**);

- Planning Guidelines for Walking & Cycling 2004, NSW State Government (**Walking Guidelines**);
- Sydney's Rail Future – Modernising Sydney's Trains 2013, TfNSW (**Rail Future**);
- Sydney's Bus Future - Simpler, Faster, Better Bus Services 2013, TfNSW (**Bus Future**);
- Sydney's Walking Future - Connecting People and Places 2013, TfNSW (**Walking Future**); and
- State Environmental Planning Policy (Transport & Infrastructure) 2021 (**SEPP 2021**).

1.3.2 Previous Site Assessments

arc traffic + transport was originally engaged to assess a Planning Proposal for the Site in 2017 (**PP 2017**), and has subsequently prepared additional reports further to changes to proposed Site access; the staging of development; and in specific response to information requests from TfNSW and Council. More details in this regard are provided in Section 1.4 below, and in the broader DA submission.

While this Transport Assessment provides in and of itself a detailed assessment of the DA Proposal, reference is also made to past assessments prepared by arc traffic + transport, including:

- Cabramatta East Traffic & Transport Assessment July 2017 (**TA 2017**);
- Cabramatta East Traffic & Transport Assessment Addendum 1 June 2021 (**TA Addendum 1**); and
- Cabramatta East Traffic & Transport Assessment Addendum 2 September 2021 (**TA Addendum 2**).

1.3.3 Traffic and Transport Guidelines

This Transport Assessment also references general traffic and transport guidelines, including:

- Guide to Traffic Generating Developments 2002, Roads & Traffic Authority (**RTA Guide**);
- Guide to Traffic Generating Developments – Updated Traffic Surveys 2013, Roads & Maritime (**RMS Guide**);
- Validation Trip Generation Surveys: Child Care Centres Analysis Report 2015, Roads & Maritime (**RMS Child Care Report**);
- Trip Generation and Parking Demand Surveys of Gymnasiums Data and Analysis Report 2014, Roads & Maritime (**RMS Gymnasiums Report**);
- Trip Generation Surveys: Medical Centres Analysis Report 2015, Roads & Maritime (**RMS Medical Centre Report**);
- Traffic Modelling Guidelines 2013, Roads & Maritime (**RMS Modelling Guidelines**);
- New South Wales Travel Zone Projections (TZP22) Technical Guide 2022, TfNSW (**TZP22 Guide**);
- State Environmental Planning Policy 65: Design Quality of Residential Apartment Development (**SEPP 65**);

- Apartment Design Guide 2015, Department of Planning & Environment (**ADG**);
- Disability (Access to Premises — Buildings) Standards 2010, Australian Government (**Disability Standards**);
- National Construction Code 2022, Australian Building Codes Board (**NCC 2022**);
- Australian Standard 2890.1: Parking Facilities – Off-Street Car Parking 2009 (**AS 2890.1**);
- Australian Standard 2890.2: Parking Facilities – Off-Street Commercial Vehicle Facilities 2018 (**AS 2890.2**);
- Australian Standard 2890.3: Parking Facilities – Bicycle Parking Facilities 2015 (**AS 2890.3**);
- Australian Standard 2890.6: Parking Facilities – Off-Street Parking for People with a Disability 2009 (**AS 2890.6**);
- Austroads Research Report AP-R528-16: Bicycle Parking Facilities: Updating the Austroads Guide to Traffic Management 2016 (**Austroads Bicycle**); and
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.

1.4 Site History

1.4.1 Overview

From a traffic and transport perspective, it is important from the outset to provide a brief discussion of previous Site proposals and assessments, specifically in regard to the scope/scale of development; access locations; and the broader **Study Area** previously identified by TfNSW and Council as providing for future development uplift.

1.4.2 Planning Proposal 2017

In 2016, Moon Investments and their representative held a number of pre-lodgement meetings with Council to discuss the opportunity to progress a Planning Proposal on land along Cabramatta Road East, Broomfield Street and Fisher Street. PP 2017 also included the Fisher Street car park and other smaller sites in Fisher Street and Broomfield Street including the Seventh Day Adventist Church (the **Church**); these sites are referred to as Stage 4 of Cabramatta East.

This broader parcel of land - as well as the Cumberland Street Car Park and additional retail and commercial sites along Cabramatta Road East - is described as Precinct 4 in the CTC DCP, and was previously identified in RDS 2009 for considerable uplift.

However, RDS 2009 was subsequently replaced by the Housing Strategy, which significantly reduced the scale of uplift in Precinct 4 (and across residential areas to the east of the railway line) given – amongst other reasons - concerns by TfNSW for increased development potential (and associated traffic increases) on the western side of the rail line.

Further to extensive consultation with TfNSW, Council and other relevant authorities, PP 2017 was lodged in August 2017 to increase heights and floor space ratios (**FSR**s) across the land described above; however, PP 2017 was subsequently withdrawn after Council determined that the rezoning of the Fisher Street Car Park was not supported.

It is noted that TA 2017 was a supporting document to PP 2017.

1.4.3 Planning Proposal 2018

A revised Planning Proposal (**PP 2018**) was submitted in July 2018 which provided for development across all the land identified in PP 2017, but excluding the Fisher Street Car Park. PP 2018 was supported by Council subject to a minor reduction in height limits.

The subsequent PP 2018 Gateway Determination issued by the Department of Planning and Environment (**DPE**) required exhibition based on the heights proposed in PP 2018. Further to the exhibition period, Council sought a Gateway Review, which resulted in the Independent Planning Commission (**IPC**) confirming the originally proposed (in PP 2018) heights. However, this Gateway Determination was subsequently revoked by DPE, as there was considered to be insufficient time following the IPC review to then complete a site-specific Development Control Plan (**Site DCP**) and Planning Agreement (**PA**).

It is noted that TA 2017 was again a supporting document to PP 2018, even though TA 2017 included consideration of the Fisher Street Car Park.

1.4.4 Planning Proposal 2021

PP 2018 was re-lodged in April 2021 (**PP 2021**), essentially providing for the same development as proposed in PP 2018.

The PP 2021 assessment pathway was stalled further to additional information requests, including a request from TfNSW for new traffic surveys and analysis given the period that had elapsed since the original surveys and analysis reported in TA 2017.

TfNSW also determined that they would no longer support the provision of a pedestrian bridge between the Mezzanine level of the Site and the Cabramatta Station concourse; the pedestrian bridge had been a central component of all previous Planning Proposals and had been specifically identified as an important piece of active transport infrastructure by Council, and indeed had been included in the CTC DCP since 2013.

This pedestrian bridge is the subject of a Planning Agreement between Moon Investments and Council, which requires the construction of the pedestrian bridge as part of the current DA Proposal (should TfNSW reverse their decision), or otherwise that a commensurate contribution be given to Council for the provision of other local community services and facilities.

1.4.5 Site History Summary

In support of the numerous Planning Proposal submissions, Moon Investments have undertaken two urban design reports; an independent urban design review; a Visual Impact Assessment as part of the IPC hearing; variously detailed schemes to advance discussion; the resolution of various aspects of the development; and consultation with TfNSW on the design and function of the pedestrian bridge.

Significant consultation has also been undertaken with TfNSW and Council in regard to the traffic and transport characteristics of each Planning Proposal, most recently through 2021 and 2022 in regard to Site access and traffic modelling.

Over this period, Council has also progressed its own Accelerated Planning Proposal that increased the height and FSR of land along the Cabramatta Road East frontage east of the Site and the Fisher Street Car Park, though development of these sites is entirely separate from the DA Proposal (and broader Cabramatta East proposal).

1.5 Consultation

As discussed in Section 1.4, the Project Team assessing the DA Proposal has had the opportunity on numerous occasions between 2016 and 2023 to discuss the development of Cabramatta East with officers from Council, TfNSW, DPE and other State agencies as required.

arc traffic + transport has also specifically engaged with Council, TfNSW and Sydney Trains over a number of years in regard to traffic and transport issues. This consultation also specifically defined an approved scope of work for TA 2017 and subsequent addendums, particularly in regard to:

- The Study Area;
- The potential for additional uplift within the Study Area; and
- The roads, intersections and future traffic scenarios to be assessed.

This consultation also provided surety in regard to some of the key traffic (and parking) characteristics applied in TA 2017 and subsequent addendums, including:

- Trip rates referencing the RMS Guide;
- Trip distribution profiles based on Journey to Work (**JTW**) and other available data; and
- Parking provision, noting that the use of maximum parking rates (as recommended by TfNSW) provides for a reduction in trip rates (in accordance with the RMS Guide).

In 2021 and 2022, arc traffic + transport also consulted on numerous occasions with TfNSW and Council in regard to traffic and transport issues relating to PP 2021 (which as discussed still referenced TA 2017).

Of primary note in regard to this Transport Assessment is that new traffic surveys and traffic modelling have been undertaken that allows for the appropriate assessment of current and future base traffic conditions; appropriate modelling of potential uplift across Precinct 4 (as provided for in the Housing Strategy); and moreover the development of the Site in accordance with the DA Proposal.

1.6 Summary TA References

Given the significant amount of consultation (as described above) and the different responses to TfNSW Requests for Information (**RFI**s) prepared by arc traffic + transport over a number of years, the tables below provide a summary response to each of the issues raised by TfNSW in RFIs dated 21 March 2021, 1 May 2021 and 1 September 2021.

These tables also provide a reference to where each of these issues is addressed in further detail in this Transport Assessment.

Table 2: TfNSW Request for Information 19 March 2021

Information Request	Summary Response	TA Reference
Updated traffic surveys and analysis	The traffic analysis references 2023 traffic surveys at all key intersections.	Section 5.3
Consideration of other development in the vicinity of the Site	The traffic analysis considers potential development east of the railway line in accordance with the Housing Strategy.	Section 2.2
Submission of SIDRA files (electronic)	All SIDRA files have been submitted in electronic form with this Transport Assessment.	Attached
Cabramatta Road East & Cumberland Street upgrade	An upgrade of this intersection is not required.	Section 7
Signal box, Cabramatta Road East & Broomfield Street	The installation of a signal box is the responsibility of TfNSW.	N/A
Direct access to Cabramatta Road East	Direct access is not proposed to the sub-arterial section of Cabramatta Road East, but only to the short local section of Cabramatta Road East immediately east of Broomfield Street.	Section 6.2.1
Turning restrictions at proposed access driveways	All access intersections have been assessed to determine which turning movements can be appropriate accommodated.	Section 6.2
Assessment of revised access driveway locations	This Transport Assessment examines the revised access driveway locations.	Section 6.2
Pedestrian connection to Cabramatta Station overbridge	Further to recent discussions with Sydney Trains, the DA Proposal no longer includes a pedestrian bridge from the Mezzanine level to the Cabramatta Station concourse. However, the DA Proposal plans provide for a future connection should such be approved by Sydney Trains.	Section 6.3.2
All parking and servicing facilities to be provided on-site	All parking and servicing facilities are provided on-site.	Section 8
Provision of maximum parking rates	Parking for the residential component of the DA Proposal is provided in accordance with the maximum rates detailed in the CTC DCP.	Section 8.1
Measures to accommodate additional pedestrian demands	The DA Proposal includes footpath widening and other additional internal and external pedestrian infrastructure.	Section 6.3
Potential for separated and shared pedestrian and cycle paths	The DA Proposal includes footpath widening and other additional internal and external pedestrian infrastructure, and on-site bicycle parking well in excess of that required.	Section 6.3
Identification of any infrastructure upgrade requirements	The traffic analysis has determined that few upgrades are required in the local road network simply as a function of the very minor traffic which will generated by the DA Proposal and by the development of other sites in Precinct 4.	Section 7

Table 3: TfNSW Request for Information 1 May 2021

Information Request	Summary Response	TA Reference
2016 and 2021 data comparison	The traffic analysis references 2023 traffic surveys at all key intersections.	Section 5.3
2020 survey accuracy (COVID)	The traffic analysis references 2023 traffic surveys at all key intersections.	Section 5.3
Consideration of other development in the vicinity of the Site	The traffic analysis considers potential development across Precinct 4 in accordance with the Housing Strategy.	Section 2.2
Trip rates	The trip rates adopted in the traffic analysis reference RMS surveys and are the same as those previously been agreed with TfNSW and Council.	Section 7.1

Table 4: TfNSW Request for Information 1 September 2021

Information Request	Summary Response	TA Reference
Identification of appropriate travel management strategies	A suite of travel management strategies are proposed to minimise private vehicle trips, noting that the primary means by which to reduce these trips is the proximity of the Site to Cabramatta Station, and the use of maximum residential parking rates.	Section 4 Section 6.3 Section
Identification of infrastructure upgrades	The traffic analysis has determined that few upgrades are required simply as a function of the very minor traffic which will generated by the DA Proposal and by the development of other sites in Precinct 4.	Section 7
Discrepancies in yields	Minor discrepancies in Site yields were determined in some reports based on minor changes to the development plans between 2016 and 2022. The yields for the Site as detailed in the DA are the same as those adopted in this Transport Assessment.	Section 6.1
Maximum parking rates	Parking for the residential component of the DA Proposal is provided in accordance with the maximum rates detailed in the CTC DCP.	Section 8.1
Vehicle access to Cabramatta Road East	Direct access is not proposed to the sub-arterial section of Cabramatta Road East, but only to the short local section of Cabramatta Road East immediately east of Broomfield Street.	Section 6.2.1
Voluntary Planning Agreement	Moon Investments entered into a Voluntary Planning Agreement to ensure that all external infrastructure and other works are appropriately funded; however, the traffic analysis has determined that no upgrades of roads or intersections in the broader local road network are required to appropriately accommodate future traffic volumes.	Section 7.4 Section 7.6
SIDRA Modelling	SIDRA modelling has been revised based on the recent 2023 traffic surveys. All SIDRA files have been submitted in electronic form with this Transport Assessment.	Attached
Approach lane lengths	All approach lane lengths have been reviewed as part of the revised SIDRA analysis in accordance with TfNSW modelling guidelines.	Section 5.4
Pedestrian volumes	All pedestrian volumes have been reviewed as part of the revised SIDRA analysis in accordance with TfNSW modelling guidelines.	Section 5.4
Peak Flow Factor, Late Start Period and Signal Phasing and Timing	The Peak Flow Factor, Late Start Period and Signal Phasing and Timing at all signalised intersections has been reviewed as part of the revised SIDRA analysis in accordance with the RMS Modelling Guidelines.	Section 5.4
SIDRA and SIDRA Network	SIDRA has been used for the analysis of all stand-alone intersections, while SIDRA Network has been used for the assessment of coordinated intersections along Hume Highway.	Section 5.4

1.7 Agreed Assessment Parameters

Further to the above, it is again important to note that many of the key assessment parameters detailed this Transport Assessment have been previously discussed and agreed with TfNSW and Council. These include:

- The key roads and intersections to be assessed;
- Residential trip generation rates, which reference the maximum parking rates adopted in the DA Proposal, and in turn the trip generation rates **per parking space** as detailed in the RMS Guide;
- Retail and commercial trip generation rates, which reference the traffic surveys and the most current RMS trip generation research;
- Trip distribution, which references the traffic surveys and available JTW data;
- The appropriate traffic model for use in the traffic analysis, being SIDRA for all stand-alone intersections, and SIDRA Network for the coordinated signalised intersections along Hume Highway;
- The appropriate data for determining future base traffic conditions (**Base 2033**), and specifically reference to data provided by TfNSW from the most recent release (2023) of the Sydney Strategic Traffic Forecast Model (**STFM**); and
- The appropriate data inputs and general parameters of the traffic modelling in accordance with the RMS Modelling Guidelines.

Further details in regard to all of these parameters are provided where relevant in this Transport Assessment.

2 The Site and Study Area

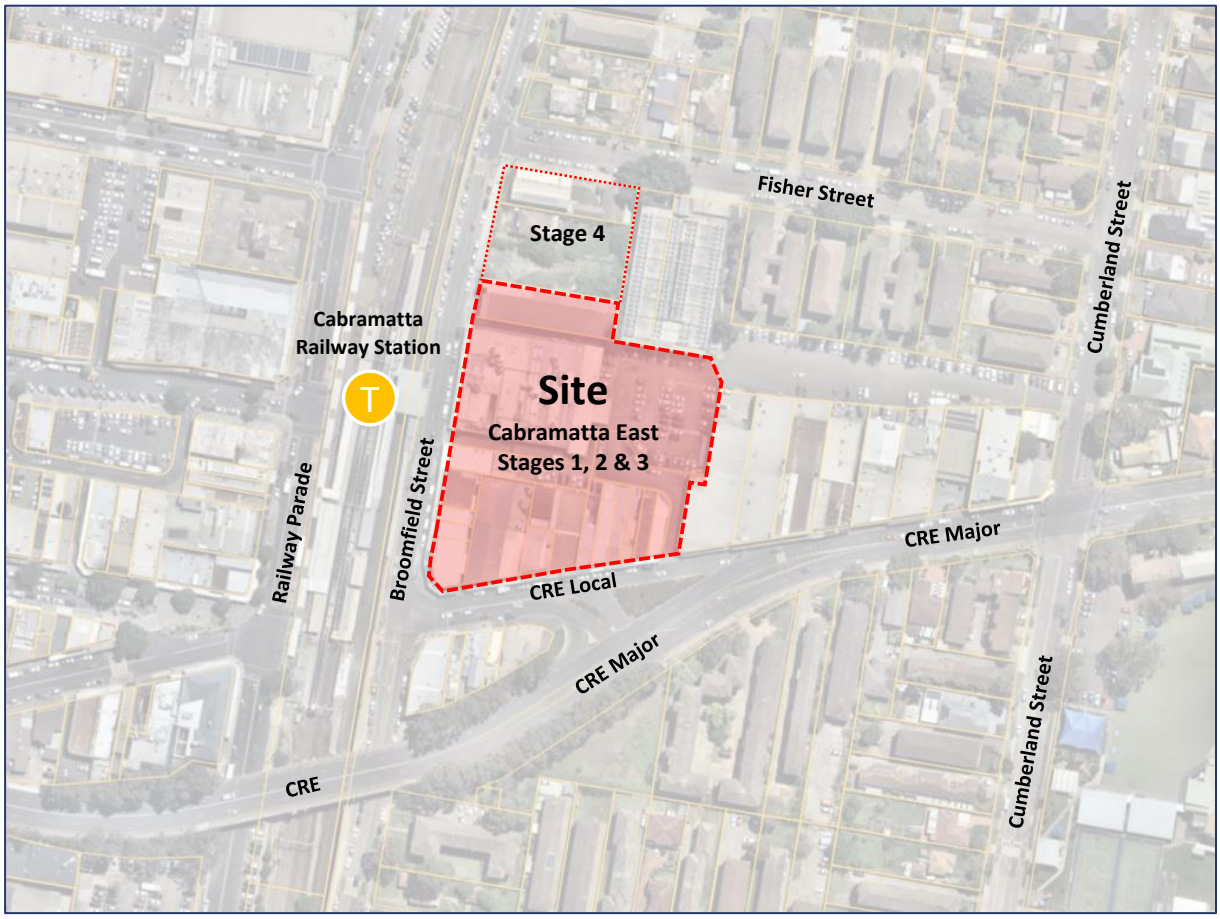
2.1 Site Location

The **Site** is defined as including Stage 1 and Stage2 of Cabramatta East (per the DA Proposal) as well as Stage 3 given the proposed shared access arrangements; it is located immediately east of Cabramatta Station, and is generally bordered by the Fisher Street Car Park and 74 Broomfield Street to the north; Cabramatta Road East to the south; the Cumberland Street Car Park and commercial development to the east; and Broomfield Street to the west.

From the outset, it is noted that this Transport Assessment has termed the local section of Cabramatta Road East running along the southern boundary of the Site east from Broomfield Street as **CRE Minor**, and the classified section of Cabramatta Road East running east-west from Hume Highway to the railway line as **CRE Major** for ease of reference.

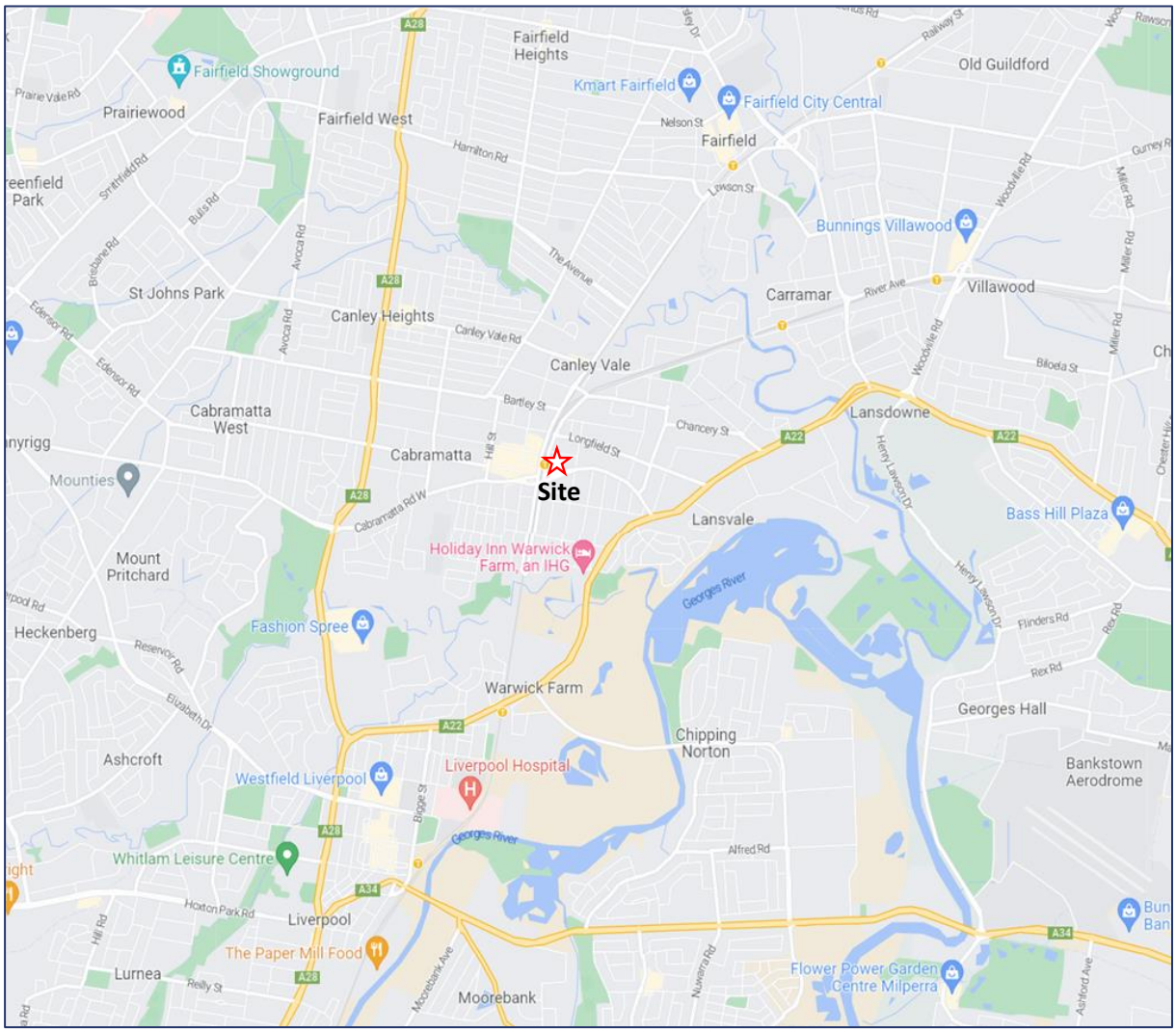
The Site is shown in its local and sub-regional context in the figures below.

Figure 1: Site Location Local Context



Source: Nearmap

Figure 2: Site Location Sub-Regional Context



Source: Google

2.2 Study Area

Further to our initial discussions with TfNSW and Council in 2016, it was determined that the traffic assessment of PP 2017 (i.e. TA 2017) include not only the Site, but also the potential for very significant uplift in what were considered to be under-utilised parts of Cabramatta east of the railway line towards Hume Highway.

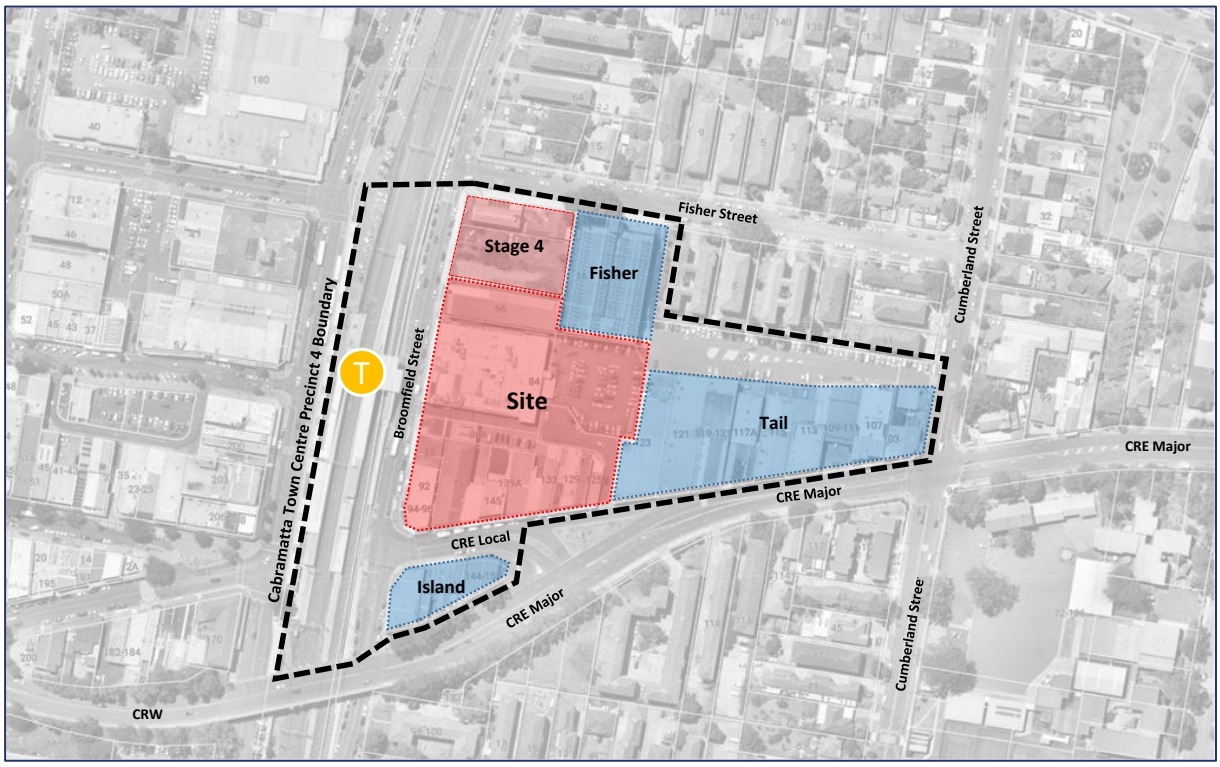
In this regard, GLN Planning identified a number of precincts with redevelopment potential within this broader area, which generally aligned with the (eastern) precincts previously identified in the Cabramatta TMAP for potential uplift. The identification of these precincts allowed for further detail to be provided in regard to specific yields across the different parts of Precinct 4 and eastern Cabramatta, which in turn informed the detailed trip generation and trip distribution assessment provided in TA 2017.

As discussed however, the uplift scenarios assessed in TA 2017 were based on RDS 2009, which identified the potential for approximately 3,000 new dwellings (including the Site) and retail/commercial floorspace across Precinct 4 and the broader eastern Cabramatta area. However, the Housing Strategy has subsequently revised the extent of uplift previously identified in RDS 2009, essentially focusing uplift (residential, retail and commercial) only within Precinct 4.

Other than at the Site therefore, the remaining uplift in residential and retail/commercial floorspace would potentially occur on sites within Precinct 4 surrounding the Site, including Stage 4 and what have previously been referred to as the **Fisher Site**, the **Tail Site** and the **Island Site**.

Figure 3 shows each of these individual sites within Precinct 4.

Figure 3: Precinct 4 Sub-Sites



Source: Nearmap

2.3 Study Area Road Network

Notwithstanding the revised sites to be assessed in this Transport Assessment for potential uplift, the broader Study Area remains unchanged from that previously agreed with TfNSW and Council, and moreover the key roads and intersections previously identified for assessment are unchanged, and discussed further in Section 5.

3 Study Area Transport Characteristics

3.1 Trip Generation

3.1.1 Overview

The trip generation characteristics of the Site and other sites in Precinct 4 are detailed below, noting that the additional development potential provided for by the DA Proposal (and similar uplift across Precinct 4) would result in existing land uses being entirely replaced by – it is anticipated – high density residential development including retail/commercial floorspace at Ground and First level similar to that provided in the DA Proposal.

As such, it is important to identify the existing trip generation of the Site and Precinct 4 sites so as to appropriately identify future **additional** traffic volumes in the local and sub-regional road network.

3.1.2 Precinct 4 Trip Characteristics

Traffic surveys were conducted in March 2023 at key intersections across the Study Area as agreed with TfNSW and Council, and arc traffic + transport also undertook observations and spot-surveys across Precinct 4 throughout the preparation of this Transport Assessment (and indeed over the past 7 years).

Based on a review of the traffic surveys (see Section 5.3) and these observations, some of the general trip generation characteristics across Precinct 4 include: -

- Precinct 4 generates significantly fewer trips than would be estimated with reference to the RMS Guide, for example based on a standard 'shopping centre' definition. This is a factor of:
  - The proximity of Precinct 4 to the Town Centre west of the railway line, and in turn a higher percentage of shared and active transport trips;
  - The proximity of Precinct 4 to Cabramatta Station and bus interchange, and in turn a high number of public transport trips;
  - The 'localised' nature of the existing retail and commercial land uses across Precinct 4;
  - The current under-utilisation of some individual sites within Precinct 4; and
  - Land uses with minimal trip generation during the AM and PM commuter peak periods, including for example the **slow retail** floorspace across the Tail Site.

  It is noted that the DA Proposal and potential uplift across Precinct 4 is expected to reinvigorate Precinct 4 to a large extent, but that many of these trip reduction characteristics are expected to remain in place.
- Further to the identification of shared trips between Precinct 4 and the Town Centre west of the railway line, there is also a level of shared trips between sites within Precinct 4 itself.

For example, the car park at the rear of the Stardust Hotel is used by hotel patrons and also by those visiting other sites fronting both CRE Minor, CRE Major and Broomfield Street. Similarly, the Cumberland Street Car Park is used by visitors to sites across Precinct 4, as well as for commuter set down.

- arc traffic + transport also observed a high number of shared trips, being a public transport trip and a retail/commercial trip, i.e. commuters visiting sites within Precinct 4 either on their way to or from Cabramatta Station.

These are of course features of any town centre, and again point to the broader reduction in vehicle trips that would otherwise be determined based on an assessment of individual sites using standard retail and commercial trip rates.

3.1.3 Existing Trip Rates

With reference to the above, and based on the traffic surveys and our observations of the Site and across Precinct 4, the existing trip generation rates of the different land uses across Precinct 4 are essentially unchanged from those agreed with TfNSW and Council, and adopted in TA 2017 and subsequent addendums; these trip rates are estimated at:

- **General Retail**
  - 1.0 trips per 100m^2 GLA in the AM peak
  - 3.0 trips per 100m^2 GLA in the PM peak
- **Slow Retail**
  - 0.25 trips per 100m^2 GLA in the AM peak
  - 0.75 trips per 100m^2 GLA in the PM peak
- **Commercial**
  - 1.5 trips per 100m^2 GFA in the AM peak
  - 1.2 trips per 100m^2 GFA in the PM peak
- **Stardust Hotel**
  - 0.1 trips per 100m^2 GLA in the AM peak
  - 1.5 trips per 100m^2 GLA in the PM peak
- **Seventh Day Adventist Church**
  - 0.1 trips per seat in the AM peak
  - 0.1 trips per seat in the PM peak
- **Fisher Street Car Park**
  - 25 vehicle trips per hour (**vph**) in the AM peak.

- 25 vph in the PM peak.

3.2 Trip Distribution

3.2.1 Origin & Destination Profile

With reference to the available JTW and Household Travel Survey (**HTS**) data, and a review of the traffic surveys, the origin/destination profile for each of the individual sites within Precinct 4 adopted in the traffic analysis is summarised in Table 5, noting that this distribution profile is essentially unchanged from that previously agreed with TfNSW and Council and adopted in TA 2017 and subsequent addendums.

Table 5: Precinct 4 Trip Origin and Destination Profile

Origin/Destination	Residential	Retail	Commercial	Fisher Street Car Park
Hume Highway Nth	35%	30%	30%	15%
Hume Highway Sth	15%	10%	10%	15%
Cabramatta Road West	15%	15%	15%	20%
Bareena Street	20%	20%	20%	15%
Internal (Study Area)	15%	25%	25%	35%
Total	**100%**	**100%**	**100%**	**100%**

With reference to Table 5, it is noted that:

- Trips to/from Bareena Street have been assigned to Bareena Street west of Broomfield Street, i.e. across the railway bridge;
- Trips to/from Hume Highway north have been assigned to both CRE Major and local routes (including Longfield Street to Hume Highway) based on the comparable travel times via the two routes; and
- Internal trips include those to/from (for example) local schools, retail, commercial and recreational sites within the Study Area road network.

The assignment of trips to these routes is essentially unchanged from that previously agreed with TfNSW and Council and adopted in TA 2017 and subsequent addendums.

3.2.2 Arrival & Departure Profile

With reference to the traffic surveys and standard TfNSW guidelines, the existing arrival/departure profile for each of the different land use components in Precinct 4 adopted in the traffic analysis is summarised in Table 5, noting that this distribution profile is essentially unchanged from that previously agreed with TfNSW and Council, and adopted in TA 2017 and subsequent addendums.

Table 6: Precinct 4 Arrival & Departure Profile

Origin/Destination	Residential	Retail	Commercial	Fisher Street Car Park
AM Arrival	25%	55%	80%	90%
AM Departure	75%	45%	20%	10%
PM Arrival	75%	45%	40%	15%
PM Departure	25%	55%	60%	85%

3.3 Existing Trip Assignment

3.3.1 Existing Site Trips

The peak period trip generation of the Site (as determined in Section 3.1) has been assigned to the local road network in accordance with the trip distribution profiles outlined in Section 3.2. The resulting estimates of existing traffic volumes at key intersections generated by the Site are shown in the figures below.

As discussed previously, these existing Site trips will be entirely replaced by the trips generated by the Site further to the full development of the DA Proposal (and Stage 3).

Figure 4: 2023 AM Peak Hour Existing Site Trips

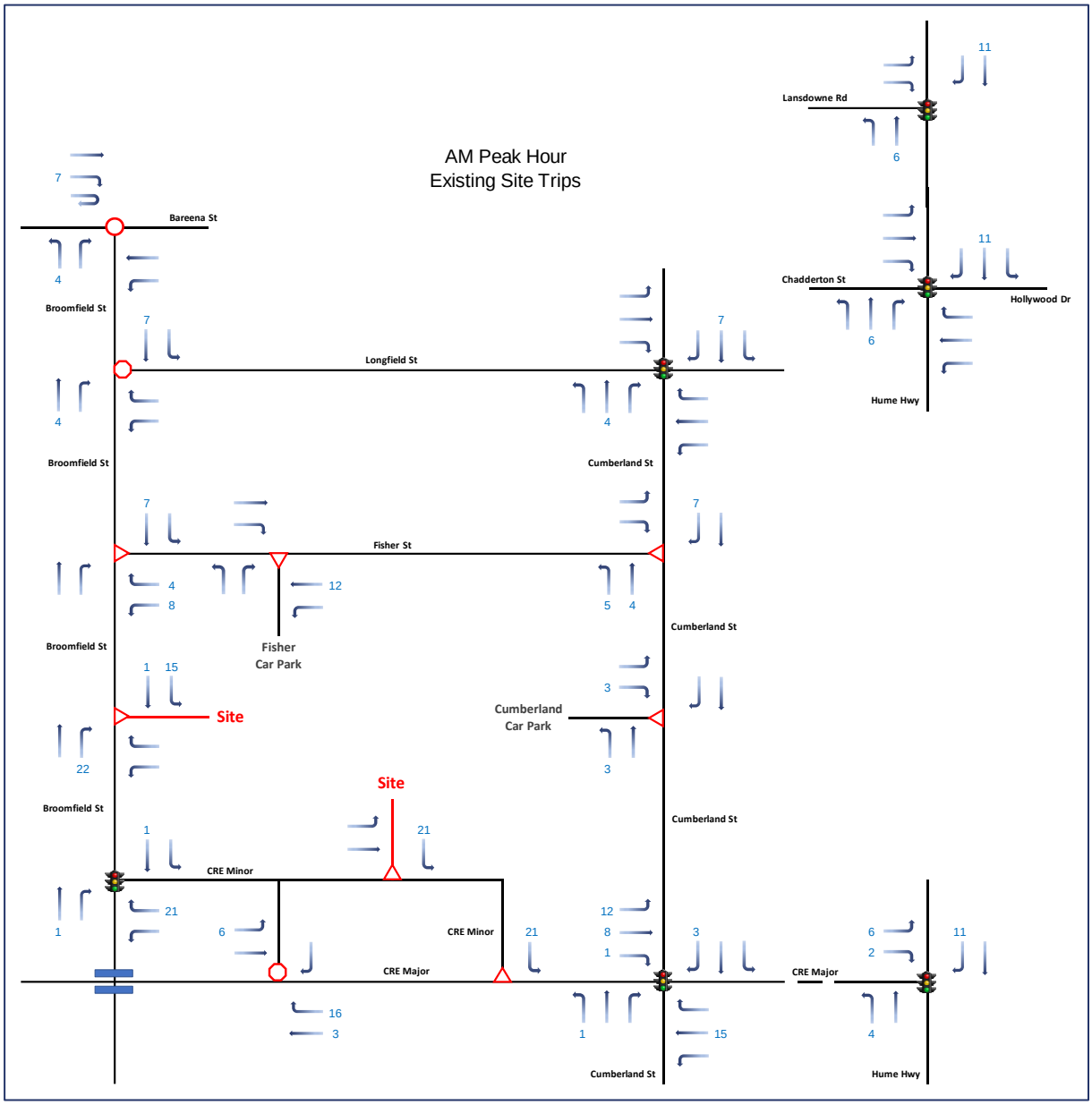
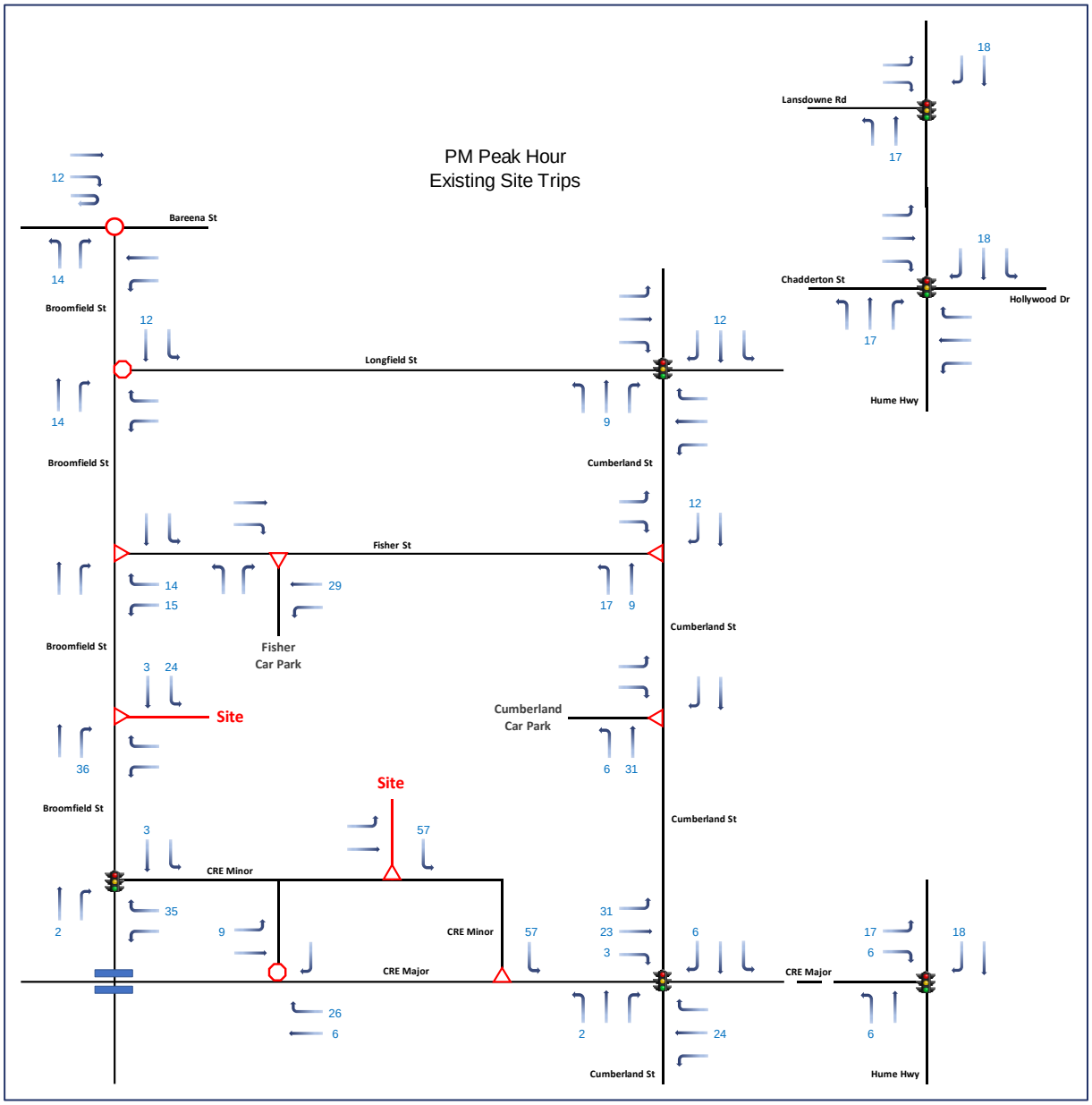


Figure 5: 2023 PM Peak Hour Existing Site Trips



3.3.2 Existing Precinct 4 Trips

The existing peak period trip generation of Precinct 4 (including the Site) has also been assigned to the local road network in accordance with the trip distribution profiles outlined in Section 3.2. The resulting estimates of existing flows at key intersections generated by all of Precinct 4 are shown in the figures below, again noting that these trips would be entirely replaced further to the full development of Precinct 4 in accordance with the Housing Strategy.

Figure 6: 2023 AM Peak Hour Precinct 4 Existing Trips

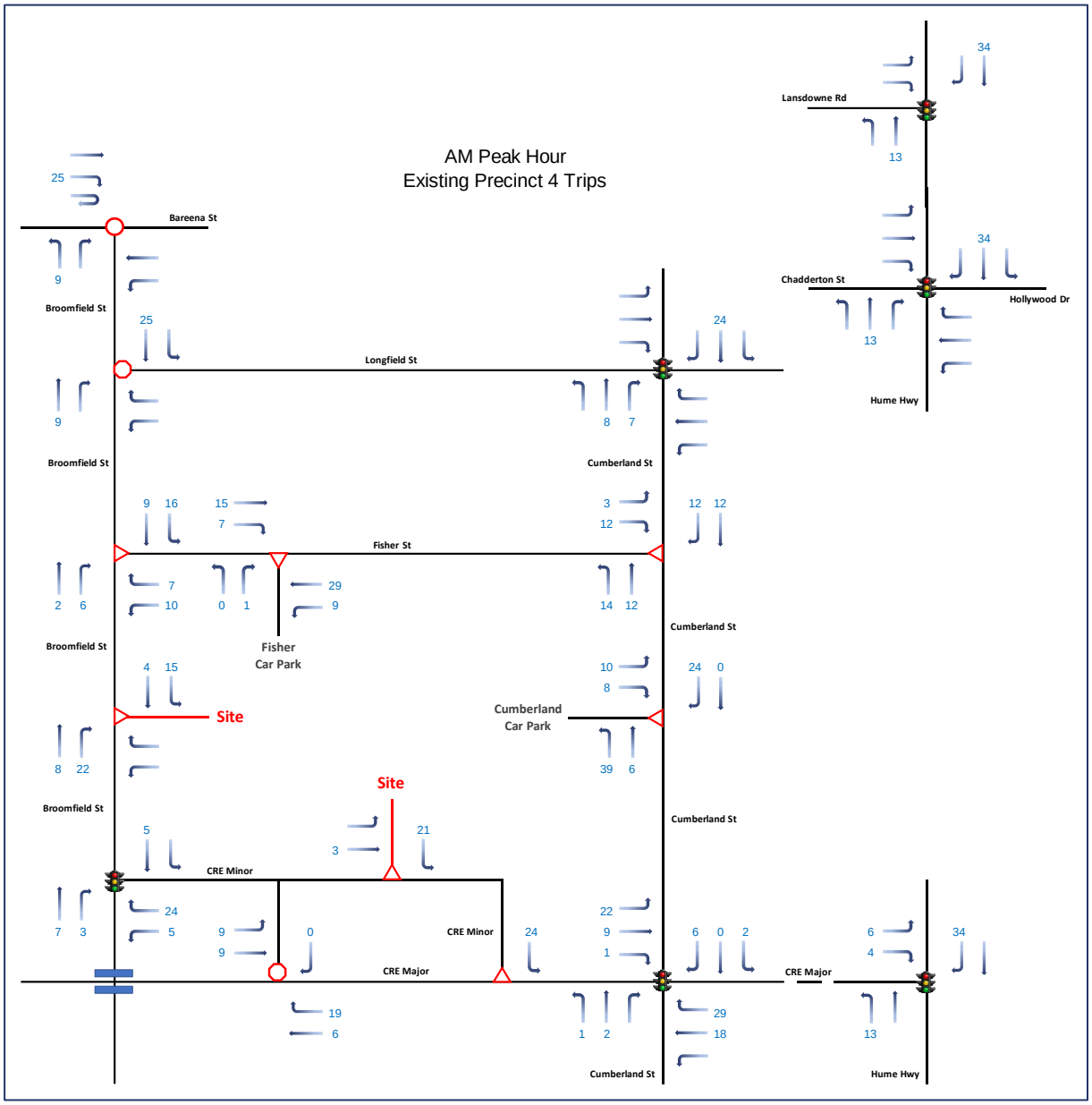
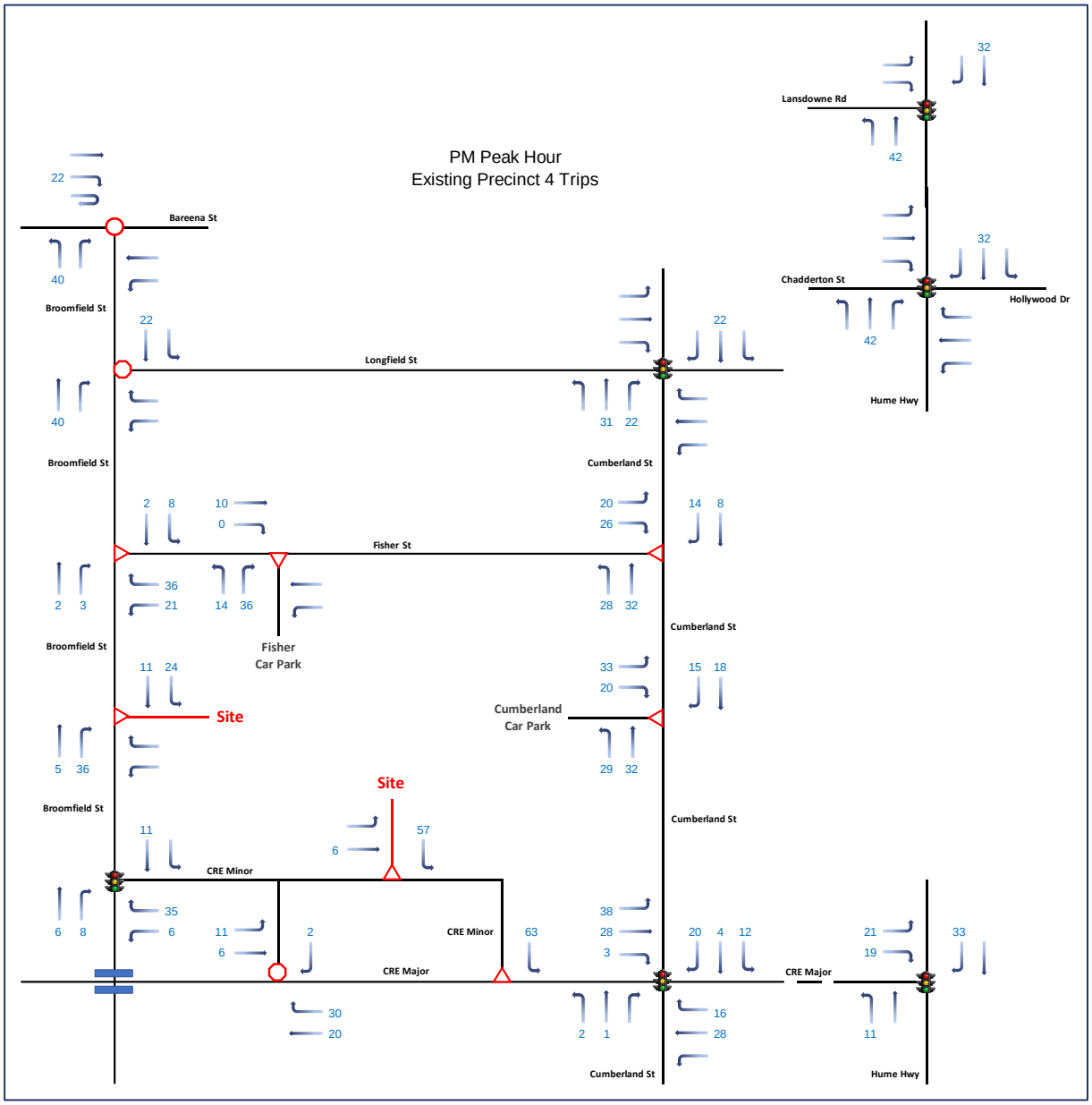


Figure 7: 2023 PM Peak Hour Precinct 4 Existing Trips



4 Public & Active Transport

4.1 Overview

The successful management of the future trip generation of the Site and broader uplift across Precinct 4 will rely in large part on access to what is already excellent public and active transport services and infrastructure, and specifically the immediate access to the metropolitan rail network at Cabramatta Station; to the local and sub-regional bus interchange at Cabramatta Station; and to the local pedestrian and cycle network, including the existing cycleway along Broomfield Street.

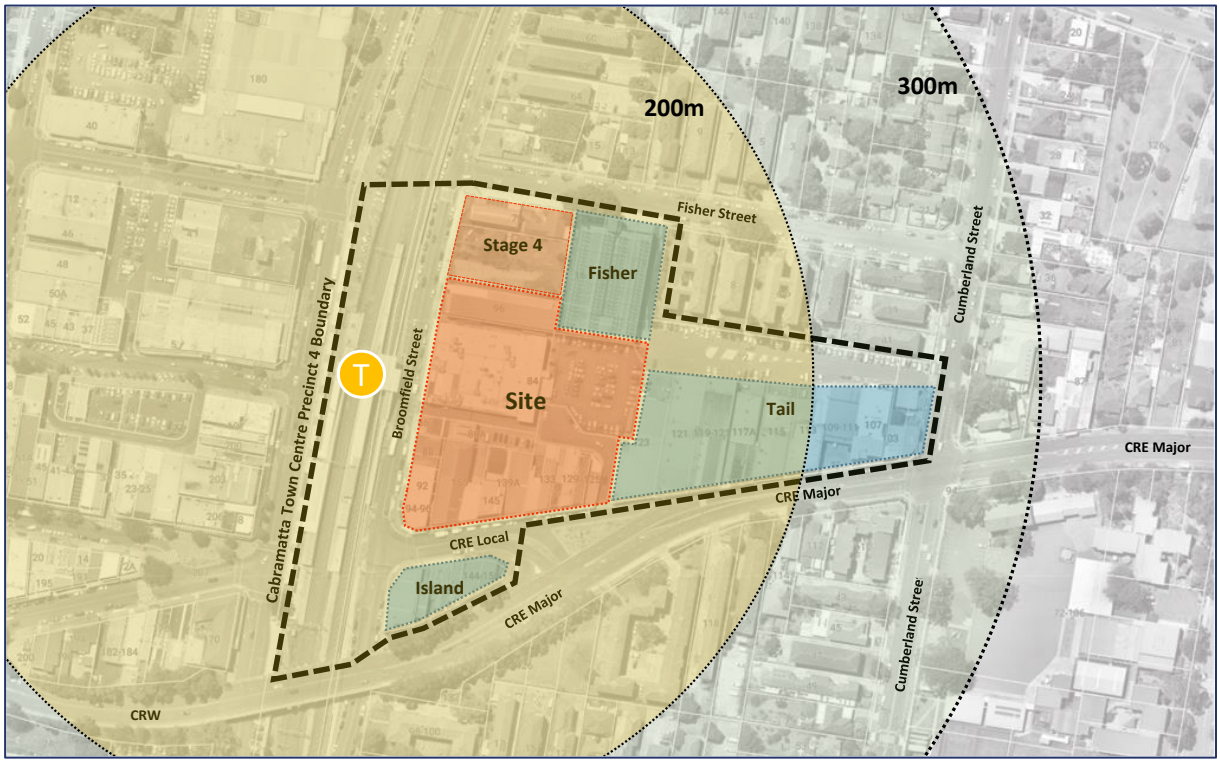
The public and active transport opportunities available to the Site and across Precinct 4 sites are examined in sections below.

4.2 Rail

4.2.1 Proximity to Cabramatta Station

The Site (and all of Precinct 4) is located within 400m (and indeed within 300m) of Cabramatta Station, or a walk time of no more than 5 minutes; this is a distance which the Walking Guidelines identify as specifically influencing the use of public transport rather than private vehicles. These *ped-sheds* are shown in Figure 8.

Figure 8: Cabramatta Station Ped-Shed



Source: Nearmap

Clearly, all sites within Precinct 4 have excellent and immediate access to Cabramatta Station, and to bus services at Cabramatta Station (see also Section 4.3) and more broadly the Town Centre west of the railway line (see also Section 4.4).

4.2.2 Existing Rail Services

Cabramatta Station is located on the T2 Main South Line, but is also serviced by the T3 Bankstown Line and T5 Cumberland Line, making Cabramatta one of the best serviced centres in south-western Sydney, and indeed in Metropolitan Sydney, providing access to every other station in the metropolitan rail network either directly or via a maximum of 1 interchange.

The frequency of services varies across the three lines, but in the peak periods:

- **Trains are scheduled every 10 – 15 minutes on the T2 line**, providing direct access to key centres such as Campbelltown, Granville, Strathfield, Burwood and then Sydney City (Redfern, Central, Town Hall, Wynyard and City Circle).
- **Trains are scheduled every 20 – 30 minutes on the T3 line**, providing direct access to key centres such as Liverpool, Bankstown, Tempe and Sydney City.
- **Trains are scheduled every 30 minutes on the T5 line**, providing direct access to key centres such as Campbelltown, Liverpool, Merrylands, Parramatta, Westmead and Blacktown.

4.2.3 Future Rail Network

Rail Future acknowledges that there are capacity constraints within the metropolitan rail network; key pinch points include the CBD, Western, Northern, North Shore, Bankstown, East Hills and Airport lines, which are forecast to reach *crowding levels* during the morning peak period that are deemed *high* or above by 2031 without intervention.

Cabramatta Station however (based on the available capacity of the three lines) has a *very low* crowding level, generally allowing the majority of passengers to be seated for trips between Cabramatta and other sub-regional centres such as Liverpool and Parramatta.

In response to the identified constraints elsewhere in the rail network, a range of network improvements and enhancements are proposed in Rail Future, the key components of which include:

- Operational efficiencies, including timetable revisions, platform access and incident response management;
- Network efficiencies, including the completion of the South West Rail Links, station upgrades, automatic train operations, dedicated fleet types and additional track infrastructure;
- Implementation of a new rapid transport system, including more efficient services on existing lines and the completion and integration of the North-West Rail Line with the existing Epping to Chatswood;

- A second Sydney Harbour crossing and new CBD rail line, providing direct access from the North-West Rail Line into the Sydney CBD and as importantly freeing up significant capacity within the broader rail network; and
- Extension of new single deck services to Bankstown and Hurstville and broader capacity improvements within the southern rail network.

Many of these works are already underway or in planning.

With specific reference to Cabramatta, the conversion of the Bankstown Line (from Bankstown) to a rapid transit line would provide an alternative to the existing City direct services; while requiring an interchange at Bankstown, the frequency of these new rapid metro services and the extension of direct services through to Chatswood provides significant opportunities for high standard access to commercial centres north of the City.

In addition, connections between Liverpool and Parramatta (through Cabramatta and Fairfield) will be improved not only during peak periods but across the day, with a fleet of new trains providing greater reliability and efficiency to these key (for residents of Cabramatta) employment and service centres.

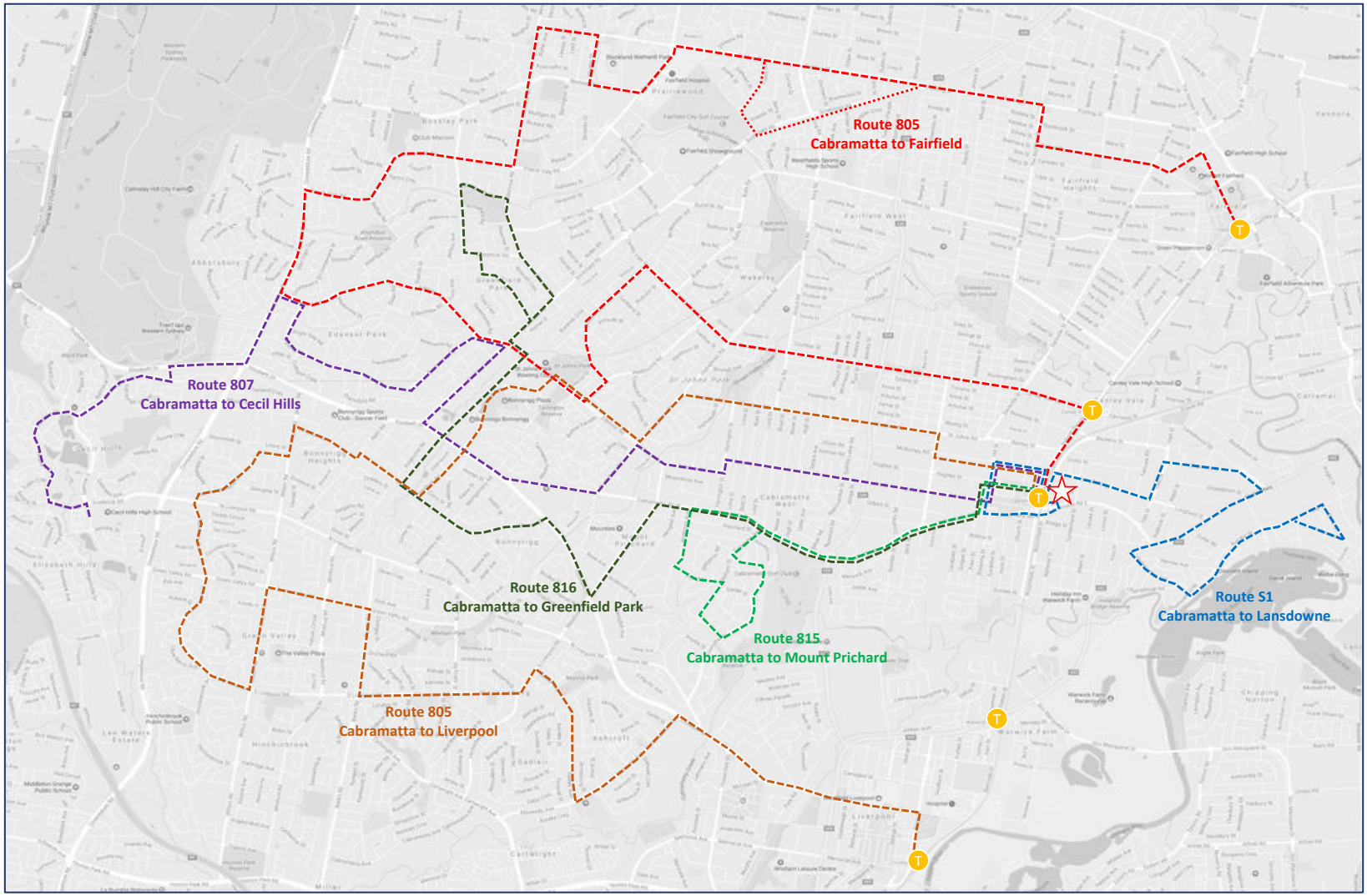
In summary, the Site and Precinct 4 are ideally located to take advantage of what are already excellent rail services, services which will only be further enhanced in the future and provide efficient and direct access between Cabramatta Station and the entire metropolitan rail network.

4.3 Bus Services

4.3.1 Existing Bus Services

Bus services within Bus Region 3 (in which the Site lies) are operated by Transit Systems and Transdev. Existing bus routes are shown in Figure 9, while Table 7 provides a summary of frequencies for the different routes.

Figure 9: Local Bus Routes



Source: TfNSW

Table 7: Local Bus Services

Bus Route	Route	Stop Location	Peak Period Frequency
805	Cabramatta to Liverpool	Railway Parade	15 - 30 min
807	Cabramatta to Cecil Hills	Railway Parade	30 min
815	Cabramatta to Mount Prichard	Railway Parade	60
816	Cabramatta to Greenfield Park	Railway Parade	30
S1	Cabramatta to Lansvale	Broomfield Street	60
N50	Liverpool to City Town Hall	Railway Parade	Night Service

Source: TfNSW

4.3.2 Future Bus Services

With reference to Section 4.2, the proximity and efficiency of Cabramatta Station for future residents and workers means that bus services are likely to play a secondary role (to rail). Notwithstanding, the importance of such routes for access to local and sub-regional work places, services and recreational areas should not be understated given the significant proportion of trips that are contained within the Fairfield LGA, including commuter trips.

As such, improvements detailed in Bus Future which will further increase public bus opportunities include:

- A new suburban route from Bankstown to Prairiewood via Fairfield and – perhaps most important – via Wetherill Park and the Greystanes Employment Area, both of which are expected to remain significant employment centres for future residents. Public transport services to the Greystanes Employment Area are particularly poor at present, requiring numerous interchanges, whereas further to this new route a single change (at Fairfield) would be required.
- More generally, the expansion and upgrade of suburban services radiating from the key sub-regional centres (such as Liverpool and Parramatta), again reducing the requirement for multiple transport mode interchanges to access all parts of the metropolitan area.

In summary, the Site is ideally located to take advantage of what are already excellent local and sub-regional bus services, which offer a viable public transport option for key suburban trips within the Fairfield LGA and sub-region.

4.4 Active Transport

4.4.1 Existing Pedestrian Infrastructure

Within the Study Area, all sub-regional and local roads generally provide footpaths on at least one side of the road, and signalised pedestrian crossings are provided in Precinct 4 at the intersections of CRE Minor & Broomfield Street, CRE Major & Cumberland Street, Cumberland Street & Longfield Street, and Broomfield Street adjacent to Cabramatta Station.

The Cabramatta Station concourse (including accessible access provisions between road level and the concourse) also provides an essential link between Precinct 4 and the Town Centre west of the railway line.

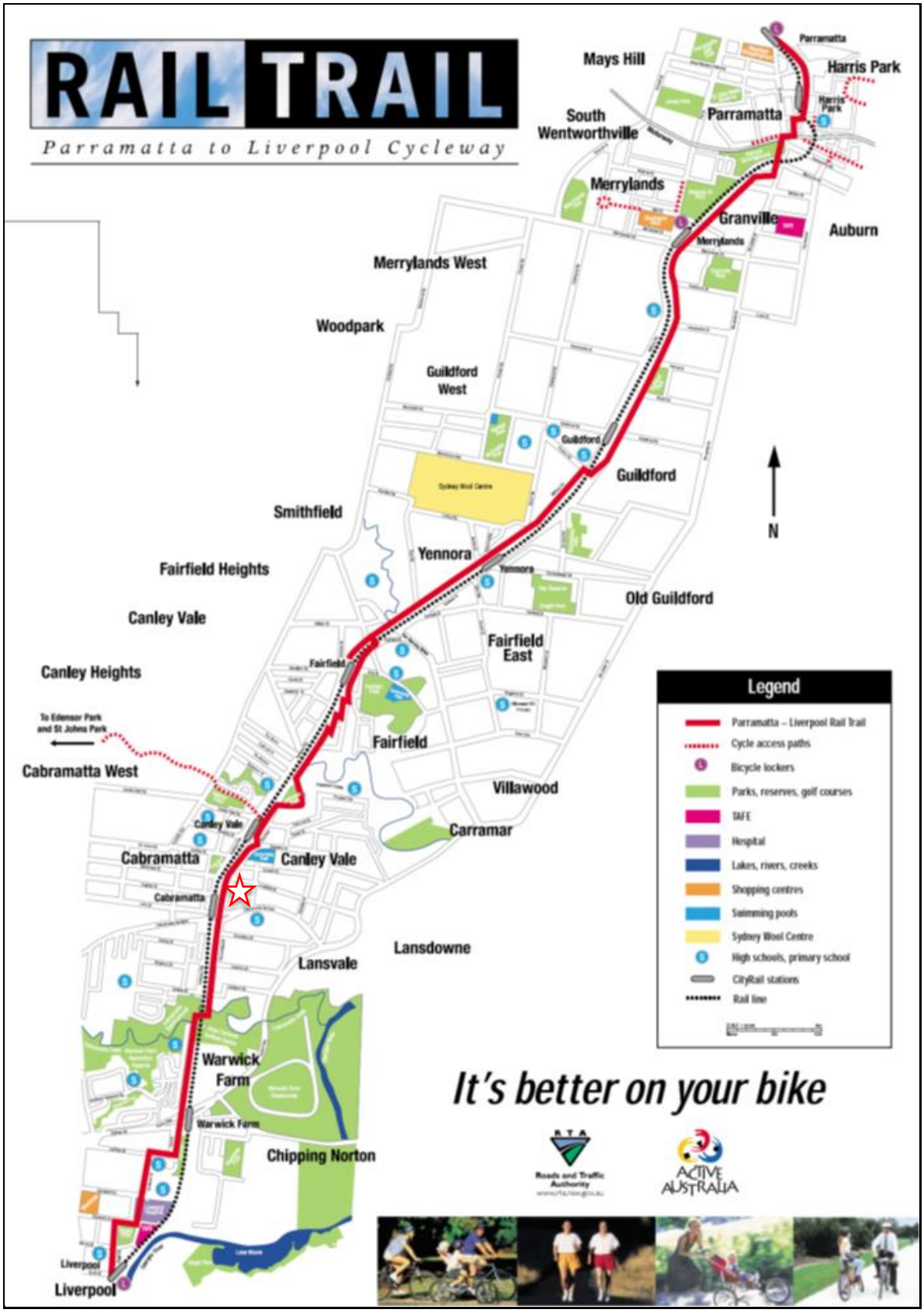
4.4.2 Existing Cycling Infrastructure

The Parramatta to Liverpool Cycleway (the **Rail Trail**) runs parallel to the T5 railway line from Parramatta through to Liverpool, and including Broomfield Street (from Bareena Avenue through Liverpool Street) directly adjacent to the Site. The Rail Trail provides an off-road cycleway, and offers trips times of some 30 to 35 minutes to/from Parramatta, and less than 20 minutes to/from Liverpool.

Immediately north of Cabramatta, the Rail Trail connects to the Regional Cycleway running along Orphan School Creek west to the Western Sydney Parklands; and north of Fairfield, the Rail Trail connects to the Regional Cycleway running along Prospect Creek west to Wetherill Park and then north to Blacktown.

The route of the Rail Trail is shown in Figure 10, and additional sub-regional cycle infrastructure is shown in Figure 11.

Figure 10: Parramatta to Liverpool Cycleway



Source: TfNSW

Figure 11: Sub-Regional Cycle Infrastructure

Source: Council

4.4.3 Future Walking & Cycling Infrastructure

As part of PP 2017, a pedestrian bridge between the Site (at Mezzanine level) and the Cabramatta Station concourse was identified as a key piece of new pedestrian infrastructure to further revitalise Precinct 4, and moreover to assist in creating a single Town Centre east and west of the railway line. However, TfNSW has now questioned the design and viability of the pedestrian bridge, and as such it is not included in the current DA Proposal; notwithstanding, the DA Proposal plans have been prepared such that this pedestrian bridge could be provided at a future date.

While the future of the concourse connection – which has long been championed by Council, and is entirely in accordance with TfNSW and State Government accessibility strategies – therefore remains to be determined, the DA Proposal will still provide significant benefits to the active transport environment, including:

- New 'internal' pedestrian connections through the Site (at ground level) and specifically between CRE Minor, Broomfield Street and the Cumberland Street Car Park, and also (further to the development of Stage 4) Fisher Street;
- Local footpath and pavement widening;
- Widening and upgrading of the existing signalised pedestrian crossing in Broomfield Street directly linking the main pedestrian entrance to the Site and Cabramatta Station; and
- On-site bicycle parking facilities.

In summary, the Site is ideally located to take advantage of what is already an excellent level of active transport accessibility, while additional augmentation of the active transport network as part of the DA Proposal will further enhance access to key local and indeed sub-regional origins/destinations not only for Site residents and visitors, but for those living and working across the Town Centre both east and west of the railway line.

5 The Road Network

5.1 Key Roads

5.1.1 Cabramatta Road East (Major)

CRE Major is a classified road that provides east-west sub-arterial connectivity between Hume Highway and Cumberland Highway (and then further west via Cabramatta Road West to M7 Motorway).

Within the Study Area, CRE Major generally provides 2 traffic lanes in each direction with clearway restrictions during peak periods, and additional approach lane infrastructure at key intersections (see also Section 5.2). CRE Major has a posted speed limit of 60km/h, with school zone speed restrictions (40km/h) in operation east and west of Cumberland Street in the vicinity of Cabramatta Public School.

5.1.2 Cabramatta Road East (Minor)

CRE Minor is a short section of local road that runs east-west parallel to CRE Major east of Broomfield Street. It provides 1 traffic lane in each direction for a short section immediately east of Broomfield Street, and then a single eastbound lane adjacent to the existing Site access point (departure only) and a merge with CRE Major. CRE Minor has a speed limit of 40km/h within the High Pedestrian Activity Area (**HPAA**) in the immediate vicinity of Cabramatta Station.

5.1.3 Hume Highway

Hume Highway is a classified road that provides sub-regional (and regional) access between Parramatta Road at Ashfield and M7 Motorway, M5 Motorway and Campbelltown Road interchanges to the south. Immediately east of the Study Area, Hume Highway generally provides 2 - 3 traffic lanes in each direction with clearway restrictions, and significant additional lane infrastructure at key intersections (see also Section 5.2). Hume Highway has a posted speed limit of 70km/h.

5.1.4 Cumberland Street

Cumberland Street is a local collector road which runs north-south through the Study Area from Curtin Street to Liverpool Street. Cumberland Street provides 1 traffic lane in each direction and kerbside lanes which are generally utilised for on-street parking, and has a posted speed limit of 50km/h, with additional school zone speed restrictions (40km/h) in the vicinity of Cabramatta Public School.

5.1.5 Longfield Street

Longfield Street is a local collector road which runs east-west between Hume Highway and Broomfield Street. Longfield Street provides 1 traffic lane in each direction and kerbside lanes which are generally utilised for on-street parking and bus zones, and has a posted speed limit of 50km/h.

5.1.6 Broomfield Street

Broomfield Street is a local collector road which runs parallel to and east of the railway line from Bareena Street to Sussex Street. Broomfield Street provides 1 traffic lane in each direction and kerbside lanes which are generally utilised for on-street parking and bus zones, particularly in the vicinity of Cabramatta Station. Broomfield Street has a posted speed limit of 50km/h, and then a speed limit of 40km/h in the HPAA area adjacent to Cabramatta Station.

5.1.7 Bareena Street

Bareena Street is a local collector road which generally runs east-west from Vale Street to Broomfield Street and then Railway Parade, providing an important crossing of the railway line. East of Broomfield Street, Bareena Street provides 1 traffic lane in each direction and kerbside lanes which are generally utilised for on-street parking and bus zones, and has a posted speed limit of 50km/h.

5.1.8 Fisher Street

Fisher Street is a local road running east-west between Cumberland Street and Broomfield Street. Fisher Street provides 1 traffic lane in each direction and kerbside lanes which are generally utilised for on-street parking, and has a posted speed limit of 50km/h.

5.2 Key Intersections

5.2.1 Sub-Regional Intersections

Sub-regional intersections which would potentially be impacted by the DA Proposal and uplift across Precinct 4 are located along Hume Highway and CRE Major. As agreed with TfNSW and Council, the following sub-regional intersections have been identified for detailed analysis:

- Hume Highway & Lansdowne Road (Signalised);
- Hume Highway & Hollywood Drive & Chadderton Street (Signalised); and
- Hume Highway & CRE Major (Signalised).

5.2.2 Local Intersections

Local intersections within the Study Area generally provide the access between Precinct 4 (and surrounding residential areas), and the key sub-regional intersections outlined above. As agreed with TfNSW and Council, the following local intersections have been identified for detailed analysis:

- Existing (and future) Site access intersections;
- CRE Major & CRE Minor (Priority);
- CRE Major & Cumberland Steet (Signalised);
- CRE Minor & Broomfield Street (Signalised);
- Broomfield Street & Fisher Street (Priority);
- Broomfield Street & Longfield Street (Priority);

- Broomfield Street & Bareena Street (Roundabout);
- Cumberland Street & Longfield Street (Signalised); and
- Cumberland Street & Fisher Street (Priority).

5.3 Existing Traffic Volumes

5.3.1 Traffic Count Data

As discussed, arc traffic + transport commissioned peak period traffic surveys at all of the key intersections detailed in sections above; the surveys were conducted in March 2023 by TIS Surveys, and are attached in Appendix A.

5.3.2 2023 Peak Period Traffic Flows

With reference to the traffic surveys in Appendix A, 2023 peak period traffic volumes are provided in the figures below, with the selected peak hours for assessment based on the peak hours identified along Hume Highway and CRE Major, being 8:00am and 9:00am, and 5:00pm and 6:00pm.

Figure 12: 2023 AM Peak Hour Traffic Volumes

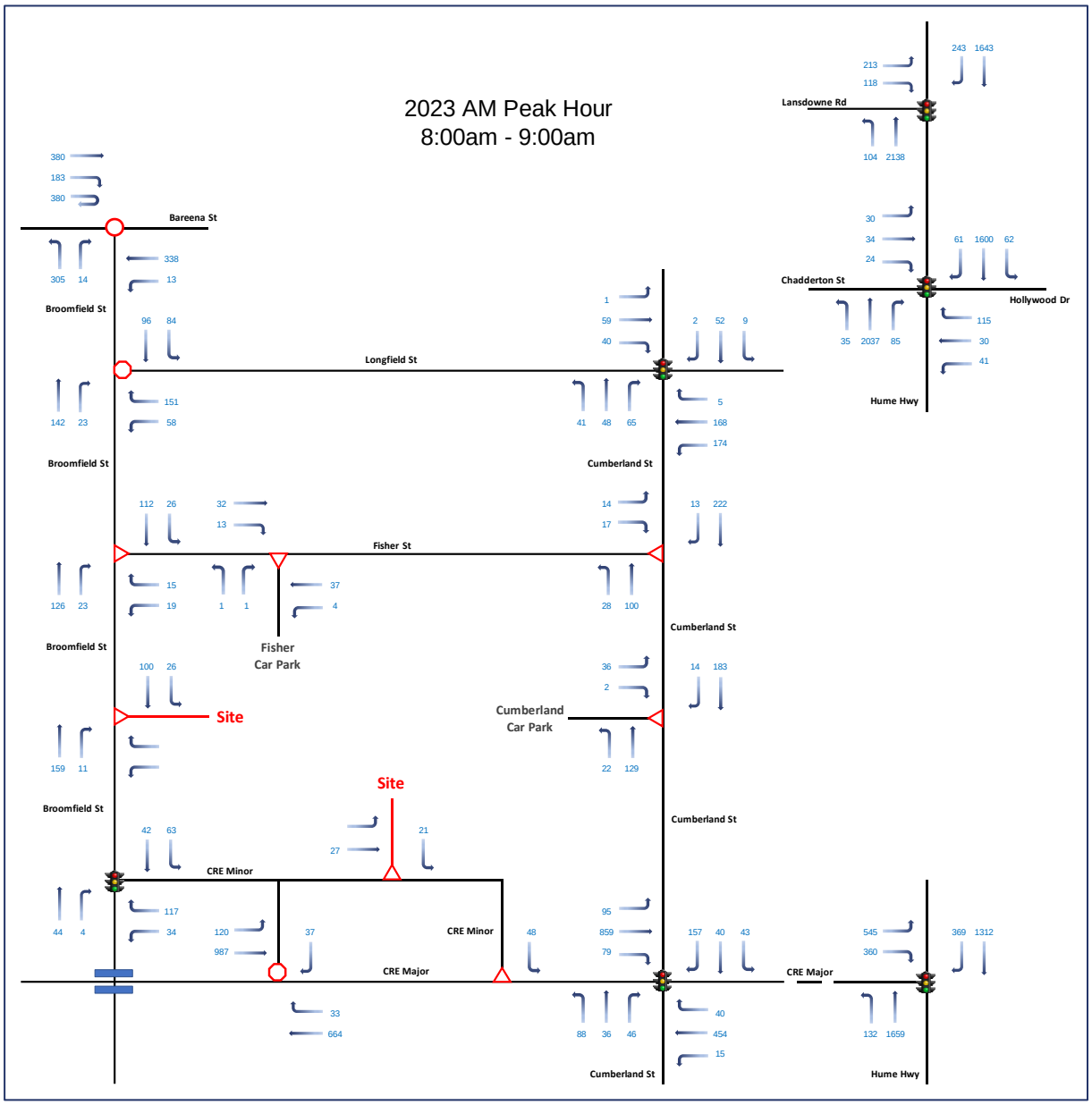
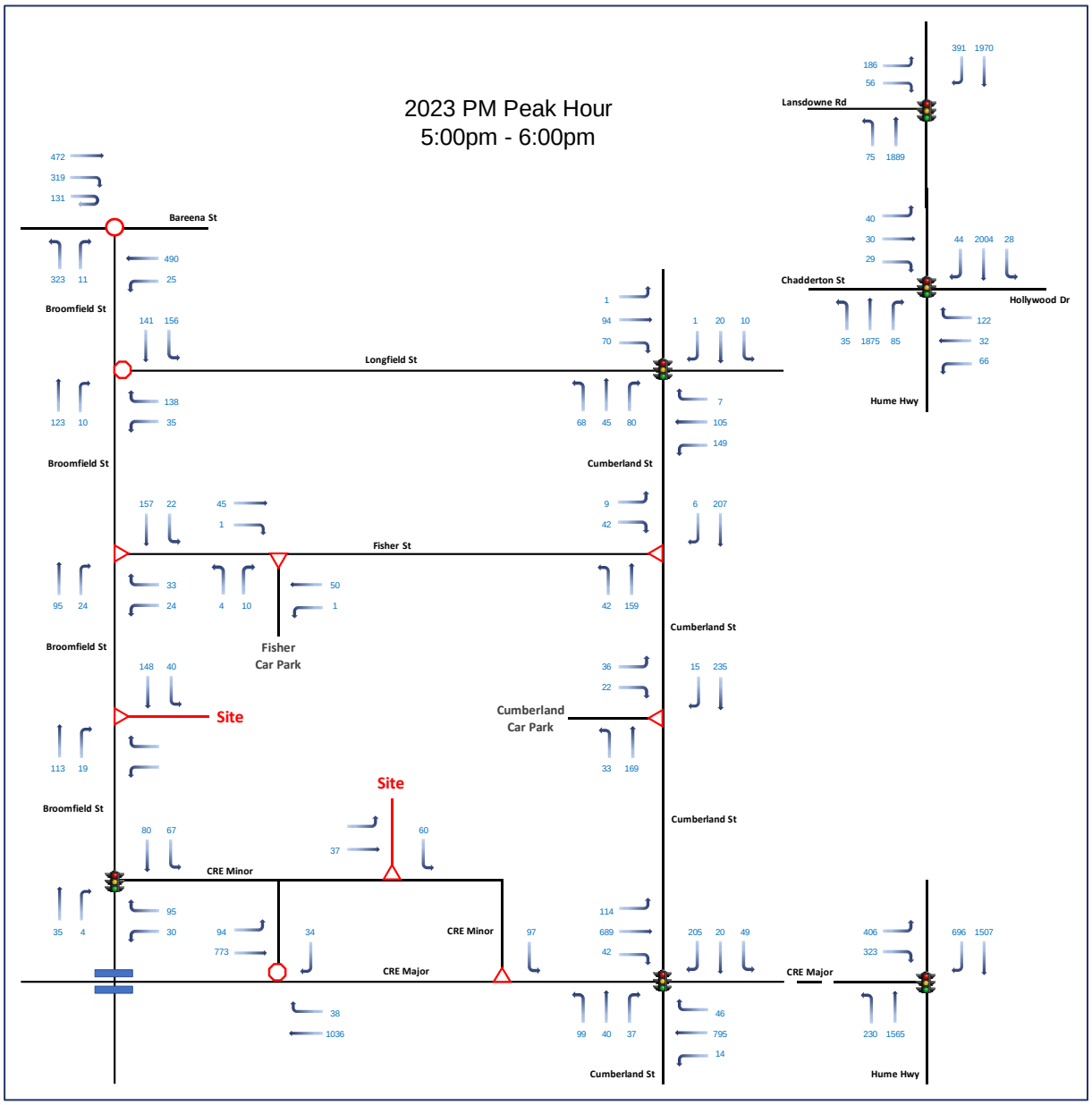


Figure 13: 2023 PM Peak Hour Traffic Volumes



5.4 Intersection Operations

5.4.1 SIDRA

In collaboration with PDC Consultants, the operation of all the key intersections identified in Section 5.2 have been assessed using SIDRA.

SIDRA has been used for the assessment of stand-alone intersections, while the Hume Highway intersections with Lansdowne Avenue and with Hollywood Drive & Chadderton Street have been assessed using SIDRA Network given their proximity and coordination.

Given potential interaction between the two intersections, consideration of network-level statistics forms the most suitable method by which to assess the potential performance impacts of the full development of Cabramatta East and Precinct 4, including:

- Lane-based platoon modelling using signal offsets;
- Network cycle time and site phasing time calculations; and
- The impact of any potential queue blocking between intersections.

5.4.2 Key SIDRA Inputs

The SIDRA and SIDRA Network modelling has been undertaken in full compliance with the RMS Modelling Guidelines; notwithstanding, and with specific reference to issues raised in the TfNSW RFIs, arc traffic + transport notes the following:

- Approach lane lengths at the Hume Highway intersections reflect the actual lane lengths available between coordinated intersections.
- The traffic surveys include pedestrian volumes at signalised intersections, which have been used in the analysis rather than the default volumes in SIDRA; it is noted that the pedestrian volumes at the Hume Highway intersections are very minor, and as such actual pedestrian volumes do not to trigger pedestrian phases every cycle.
- The SIDRA default Peak Flow Period (30 minutes) has been applied to all intersections in accordance with Section 14.2.1 of the RMS Modelling Guidelines, even though the traffic surveys indicate that there are no significant inter-peak periods during the peak hours, particularly along Hume Highway.
- The SIDRA default Peak Flow Factor (95%) has been applied to all intersections in accordance with Section 14.2.3 of the RMS Modelling Guidelines.
- In accordance with Section 5.11.3 of the SIDRA Guidelines, a late start has not been applied to movements opposing a pedestrian phase, but rather the modelling utilises the Opposing Peds (Signals) parameter in the Gap Acceptance dialogue.
- Signal phasing is based on signal plans provided to arc traffic + transport by TfNSW and our on-site observations.
- Cycle and phase times at the signalised intersections are based on observed cycle and phase times.

5.4.3 Key SIDRA Outputs

Both SIDRA and SIDRA Network provide a number of outputs by which to measure the performance of an intersection, including:

- **Degree of Saturation:** Degree of Saturation is defined as the ratio of demand (arrival) flow to capacity. Degrees of Saturation above 1.0 represent over-saturated conditions (demand flows exceed capacity) and degrees of saturation below 1.0 represent under-saturated conditions (demand flows are below capacity).
- **Queue Length:** Queue Length represents the 95th percentile queue length on each approach to an intersections, and is particularly relevant in situations where the potential exists for queues to extend to an adjacent intersection.
- **Average Vehicle Delay:** Average Vehicle Delay represents the difference between interrupted and uninterrupted travel times through an intersection, and is measured in seconds per vehicle in this assessment. Delays include queued vehicles accelerating and decelerating from/to the intersection stop, as well as general delays to all vehicles travelling through the intersection.

  With reference to the Level of Service criteria below, the average vehicle delay for roundabouts represents an average of delays to all vehicles on all approaches, while for priority intersections the average vehicle delay for the worst movement is used.
- **Level of Service:** Level of Service is a basic performance parameter assigned to an intersection based on average delay; we note that we have assessed the intersections using the TfNSW parameters which use only delay in the calculation of Level of Service.

  For signalised and roundabout intersections, Level of Service is based on the average delay to all vehicles, while at priority controlled intersections Level of Service is based on the worst minor approach movement delay.

Table 8 provides a summary of the SIDRA recommended Level of Service criteria for the assessment of intersections, noting that TfNSW generally considers a Level of Service D as being acceptable during peak period at sub-regional intersections.

Table 8: SIDRA Level of Service Criteria

Level of Service	Average Delay (seconds per vehicle)	Traffic Signals & Roundabouts	Stop & Give Way
A	less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode	At capacity, requires other control mode
F	More than 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

Source: SIDRA Systems

5.5 Existing Intersection Operations

Table 9 provides a summary of Base 2023 (i.e. existing) intersection operations further to the SIDRA analysis; SIDRA Movement reports are provided in Appendix B, and electronic copies of all SIDRA files have been submitted as attachments to this Transport Assessment.

Table 9: Base 2023 (Existing) Intersection Operations

Base 2023 Intersection Operations	Level of Service		Average Delay (s)		Worst Delay (s)		Degree of Saturation		95%ile Queue Length (m)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Broomfield & Bareena	A	A	8.1	7.1			0.520	0.628	30.6	43.6
Broomfield & Longfield	A	A	4.3	3.5	9.2	9.1	0.238	0.204	6.7	5.5
Broomfield & Fisher	A	A	1.3	1.6	5.6	5.7	0.085	0.098	1.1	1.3
Broomfield & Site	A	A	0.6	1.0	5.3	5.5	0.096	0.105	0.6	1.0
CRE Minor & Site	A	A	0.1	0.1	0.1	0.1	0.015	0.040	0.4	1.1
CRE Major & CRE Minor	C	D	1.5	1.5	36	43.2	0.312	0.338	6.4	6.9
Cumberland & Fisher	A	A	0.9	1.2	6.0	6.2	0.130	0.116	0.7	1.3
CRE Minor & Broomfield	B	A	20.5	14.3			0.189	0.178	23.1	27.4
CRE Major & Cumberland	B	C	27.9	31.6			0.568	0.555	154.4	165.2
Cumberland & Longfield	A	B	11.0	17.8			0.298	0.219	14.2	25.5
Hume & Lansdowne	A	A	12.5	13.7			0.924	0.912	126.9	162.3
Hume & Hollywood & Chadderton	B	B	16.5	20.4			0.648	0.625	203.6	208.9
Hume & CRE Major	B	C	28.3	31.4			0.651	0.778	225.9	260.8

With reference to Table 9, the majority of intersections within the Study Area operate at an appropriate Level of Service, with very minor average or worst delays, and with significant spare capacity. Notwithstanding, arc traffic + transport notes the following:

- The Hume Highway right turn movement to Lansdowne Road is near capacity in both peak periods; however, this capacity constraint relates to only a minor percentage of total trips at the intersection, and moreover is not significant enough to disproportionally impact the broader (good) operation of the intersection.
- The southbound queue in Hume Highway on the approach to the Hume Highway & Hollywood Drive & Chadderton Street intersection can at time extend back through the intersection of Hume Highway & Lansdowne Road.

  However, the coordination of the signals allows this queue to clear during each cycle, and retain queuing capacity for the small number of trips turning right from Lansdowne Road to Hume Highway.

- The intersection of CRE Major & CRE Minor operates at a Level of Service D in the PM peak; however, the average delay (to the right turn movement from CRE Minor to CRE Major) is only marginally higher than the Level of Service C criteria, and affects only a small number of trips.

  In addition, our observations indicate that the delay to this movement is lower than reported as a function of the gaps in the westbound flow in CRE Major resulting from the Cumberland Street phase at the adjacent CRE Major & Cumberland Street intersection.

Overall therefore, the local road network currently operates with only moderate average delays along the key Hume Highway and CRE Major corridors, and with very minor average and worst delays at all other local intersections.

5.6 Future Base Traffic Volumes

5.6.1 Sydney Strategic Traffic Forecast Model

arc traffic + transport has examined the potential for background traffic growth over a 10 year period with reference to STFM data, which was provided to arc traffic + transport by TfNSW in March 2023; traffic volumes for 2021, 2026, 2031 and 2036 have been provided, noting that 2021 STFM traffic volumes are based on pre-Covid conditions.

The STFM data is based in a large part on TfNSW's Travel Zone Projections 2022 (**TZP22**) which were developed to support a **strategic** view of growth in NSW; with reference to the TZP22 Guide, the projections *seek to represent the most likely urban and regional future based on current data, trends and an understanding of policy/structural changes that may impact the future*.

The primary considerations in developing TPZ22 were population and employment increases; in this regard, it is noted that while Cabramatta is not forecast to provide for a significant number of additional jobs in the future, TPZ22 does identify the potential for residential growth in the area. Reference to the detailed TPZ22 population growth tables indicates that the population of *Cabramatta Station East* (previously identified as Travel Zone 3418) is anticipated to increase from 3,027 people in 2022 to 3,340 people by 2036, and then to over 4,200 people by 2066.

As confirmed with TfNSW, the STFM does not specifically include consideration of the Site or adjacent Precinct 4 sites.

5.6.2 Traffic Growth Forecasting Methodology

Further to our discussions with TfNSW, it was agreed that the best means of forecasting future background growth in the key roads in the Study Area is to examine STFM traffic volume changes between 2021 and 2036, and then determine average annual growth rates which can be applied to the Base 2023 traffic volumes in key roads.

This analysis has been undertaken, with the results summarised in the tables below.

Table 10: STFM AM Peak Period Annual Growth Rates

STFM Traffic Volumes	2021		2026		2031		2036		2021 - 2036	
Hume Highway	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**
North of Lansdowne	5,162	3,625	5,126	3,645	5,276	3,875	5,261	4,062	**0.19%**	**1.21%**
South of Lansdowne	4,466	3,400	4,513	3,418	4,674	3,631	4,513	3,817	**0.11%**	**1.23%**
North of CRE Major	4,522	3,400	4,411	3,412	4,559	3,623	4,577	3,813	**0.12%**	**1.21%**
South of CRE Major	3,537	3,091	3,600	3,114	3,723	3,259	3,674	3,394	**0.39%**	**0.98%**
CRE Major	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**
West of Hume	1,598	922	1,451	938	1,474	1,001	1,529	1,045	**-0.43%**	**1.33%**
East of Cumberland	1,677	1,155	1,596	1,149	1,640	1,228	1,632	1,279	**-0.27%**	**1.07%**
Other Roads	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**
Lansdowne East of Hume	943	472	860	474	860	502	1,008	505	**0.69%**	**0.70%**
Bareena East of Broomfield	611	363	605	370	591	381	599	397	**-0.20%**	**0.94%**

Source: TfNSW

Table 11: STFM PM Peak Period Annual Growth Rates

STFM Traffic Volumes	2021		2026		2031		2036		Annual Change 2021 - 2036	
Hume Highway	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**
North of Lansdowne	4,129	5,143	4,165	5,080	4,421	5,214	4,557	5,235	1.04%	0.18%
South of Lansdowne	3,732	4,418	3,776	4,372	4,034	4,484	4,166	4,521	1.16%	0.23%
North of CRE Major	3,600	4,507	3,686	4,425	3,921	4,552	4,010	4,587	1.14%	0.18%
South of CRE Major	2,900	3,156	3,001	3,177	3,159	3,253	3,294	3,297	1.36%	0.45%
CRE Major	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**
West of Hume	1,256	1,907	1,278	1,841	1,345	1,881	1,311	1,884	0.44%	-0.12%
East of Cumberland	1,082	2,064	1,103	2,010	1,186	2,050	1,196	2,069	1.05%	0.02%
Other Roads	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**
Lansdowne East of Hume	667	995	664	983	674	1,017	687	1,010	0.30%	0.15%
Bareena East of Broomfield	543	646	548	657	556	679	559	701	0.29%	0.85%

Source: TfNSW

5.6.3 Additional Local Growth

Based on our discussions with Council, there is little potential for additional background traffic growth in local roads within the Study Area other than that which would arise from redevelopment of the Site and across Precinct 4.

5.6.4 Base 2033 Traffic Volumes

With reference to the Base 2023 traffic volumes detailed in Section 5.3 and the average annual growth rates detailed in Section 5.6.1, **Base 2033** traffic volumes have been determined for all key intersections, and are shown in the figures below.

Figure 14: Base 2033 AM Peak Hour Traffic Volumes

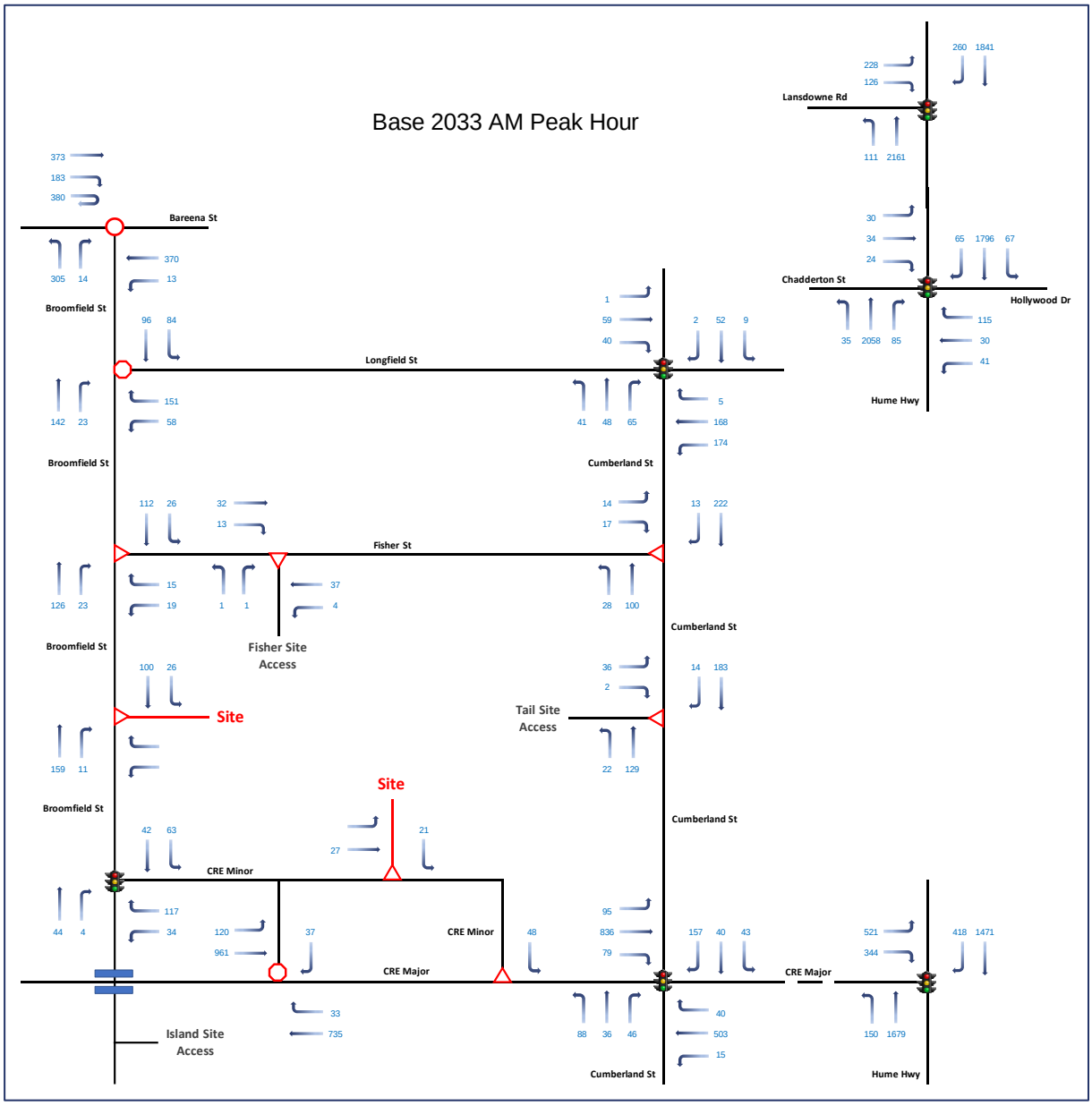
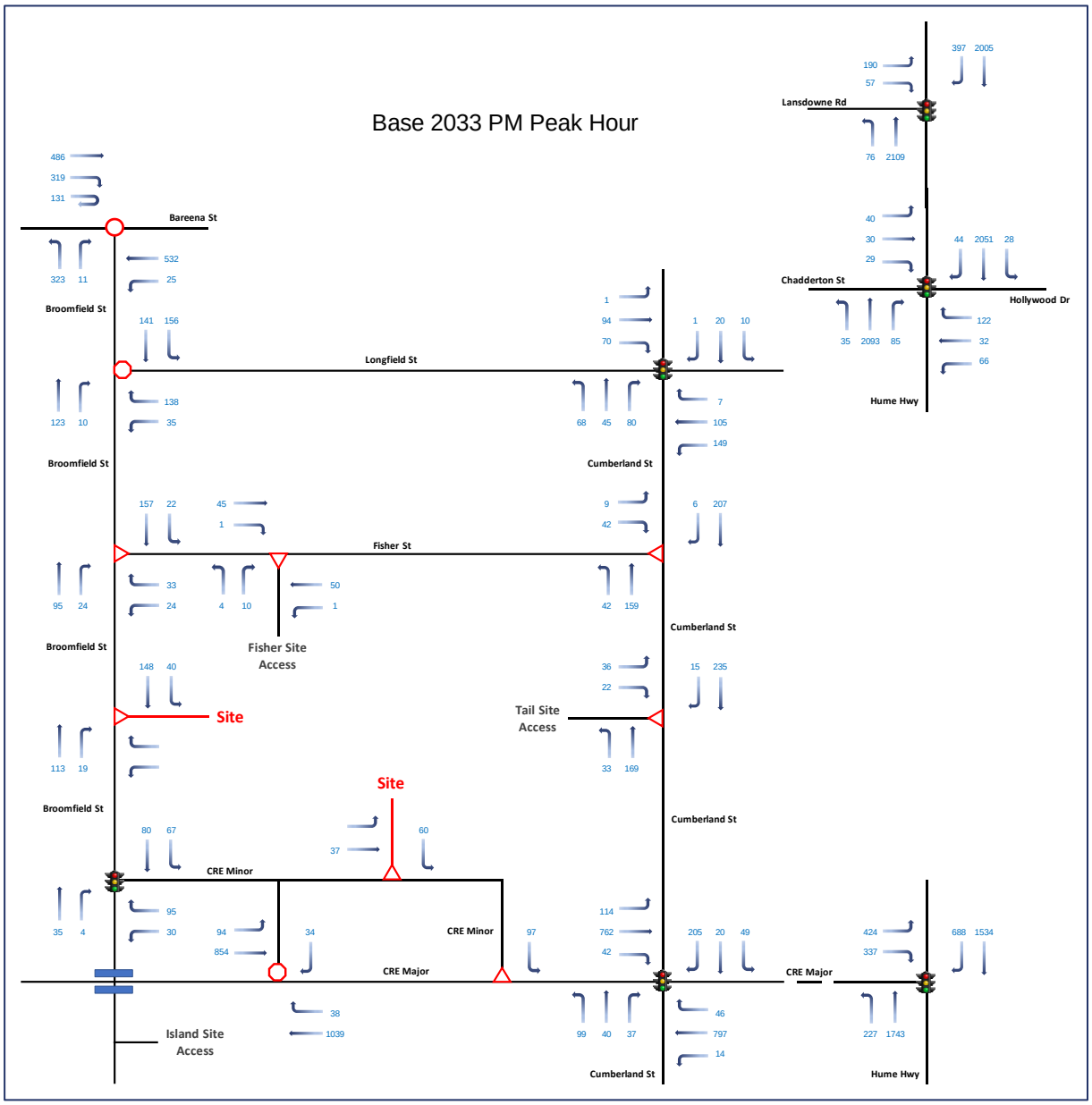


Figure 15: Base 2033 PM Peak Hour Traffic Volumes



5.6.5 Base 2033 Intersection Operations

SIDRA and SIDRA Network have been used to examine the operation of the key intersections under Base 2033 conditions. The results of the analysis are summarised in Table 12; detailed SIDRA Movement reports are provided in Appendix B, and electronic copies of all SIDRA files are provided as attachments to this Transport Assessment.

Table 12: Base 2033 Intersection Operations

Base 2033 Intersection Operations	Level of Service		Average Delay (s)		Worst Delay (s)		Degree of Saturation		95%ile Queue Length (m)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Broomfield & Bareena	A	A	8.5	8.4			0.540	0.678	33.3	52.7
Broomfield & Longfield	A	A	4.3	3.5	9.2	9.1	0.238	0.204	6.7	5.5
Broomfield & Fisher	A	A	1.3	1.6	5.6	5.7	0.085	0.098	1.1	1.3
Broomfield & Site	A	A	0.6	1.0	5.3	5.5	0.096	0.105	0.6	1.0
CRE Minor & Site	A	A	0.1	0.1	0.1	0.1	0.015	0.040	0.4	1.1
CRE Major & CRE Minor	C	D	1.5	1.6	38.5	50.8	0.325	0.388	6.8	7.9
Cumberland & Fisher	A	A	0.9	1.2	6.0	6.2	0.130	0.116	0.7	1.3
CRE Minor & Broomfield	B	A	20.5	14.3			0.189	0.178	23.1	27.4
CRE Major & Cumberland	B	C	27.9	31.6			0.568	0.555	154.4	165.2
Cumberland & Longfield	A	B	11.0	17.8			0.298	0.219	14.2	25.5
Hume & Lansdowne	A	A	12.9	13.0			0.937	0.877	158.8	173.2
Hume & Hollywood & Chatterton	B	B	17.4	20.3			0.648	0.655	214.7	243.2
Hume & CRE Major	C	C	30.1	32.9			0.692	0.817	244.3	299.5

With reference to Table 12**,** all of the key intersections continue to operate at an appropriate Level of Service in both peak periods, with no changes in Level of Service arising from the additional background traffic growth, and only minor increases in Degree of Saturation and queue lengths at the intersections with existing capacity constraints under Base 2023 conditions as discussed in Section 5.5.

6 The DA Proposal

6.1 Overview

The DA Proposal includes the development of Stage 1 and Stage 2 of Cabramatta East to provide for a mixed-use development including residential, retail and commercial land uses. The DA Proposal includes:

- 358 residential dwellings;
- Retail and commercial floorspace at the Ground, Mezzanine and First floor levels;
- New access driveways to Broomfield Street and CRE Minor;
- New pedestrian and active transport paths to and through the Site; and
- Significant internal access, parking and servicing infrastructure.

As discussed, while the DA Proposal includes the development of Stage 1 and Stage 2 of Cabramatta East only, Stage 3 would use the same access driveways to (CRE Minor and Broomfield Street) as used for Stage 1 and Stage 2, and as such has been included in the detailed analysis of future traffic conditions.

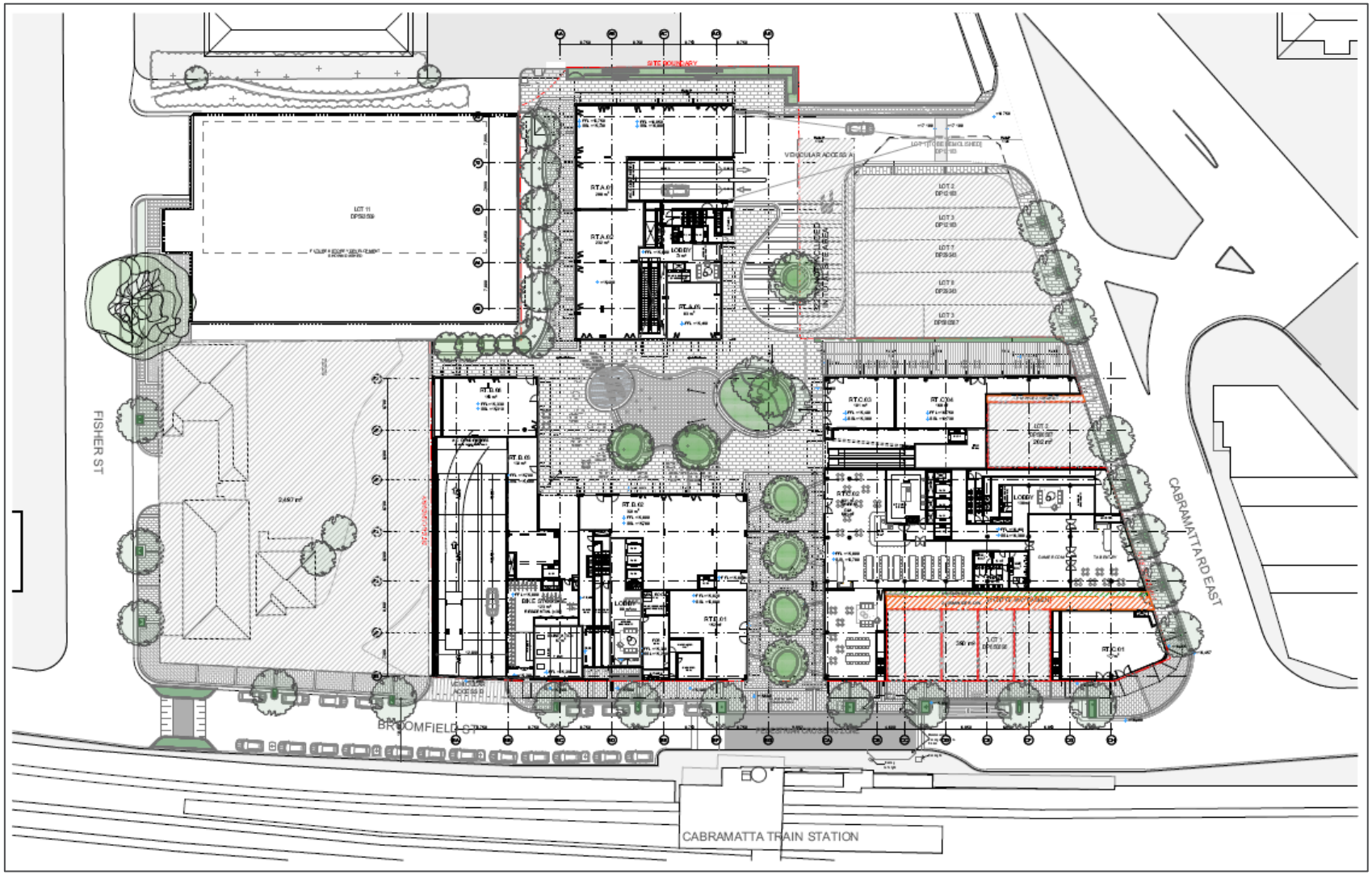
Conversely, Stage 4 would be provided with access to Fisher Street, potentially at or in the vicinity of the Fisher Street Car Park should both Stage 4 and the Fisher Street Car Park be developed together; as such, Stage 4 has been considered when assessing the broader uplift across Precinct 4 as opposed to the assessment of the Site.

Nonetheless, a summary of the land uses and yields of all of the Cabramatta East development stages is provided in Table 13, and the Ground and Basement level plans are reproduced below for reference.

Table 13: Cabramatta East Development Stages

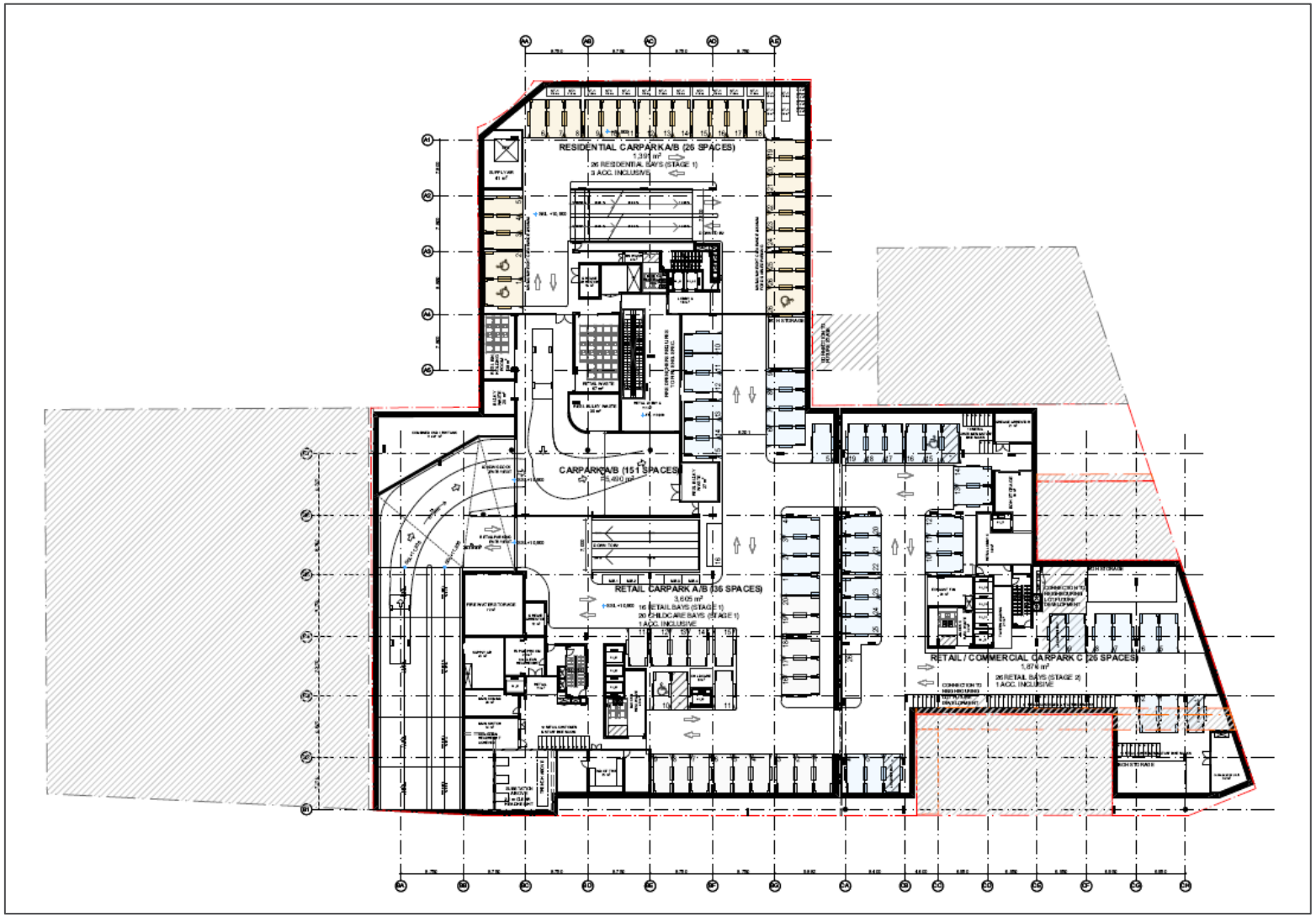
Cabramatta East Stages	Dwellings			Retail	Child Care	Medical	Gym	Tavern	Church	Office
	1 Bed	2 Bed	3 Bed	GLA m^2	Places	GFA m^2	GFA m^2	GLA m2	Seats	GFA m^2
Stage 1	80	128	22	1,197	80					
Stage 2	42	61	25	554		548	507	690		
DA Proposal Total	**122**	**189**	**47**	**1,751**	**80**	**548**	**507**	**690**		
Stage 3	25	24	15	409						
Stage 4	22	42	7	1,006					50	1,438
Cabramatta East Total	**169**	**255**	**69**	**2,160**	**80**	**548**	**507**	**690**	**50**	**1,438**

Figure 16: Cabramatta East Ground Level



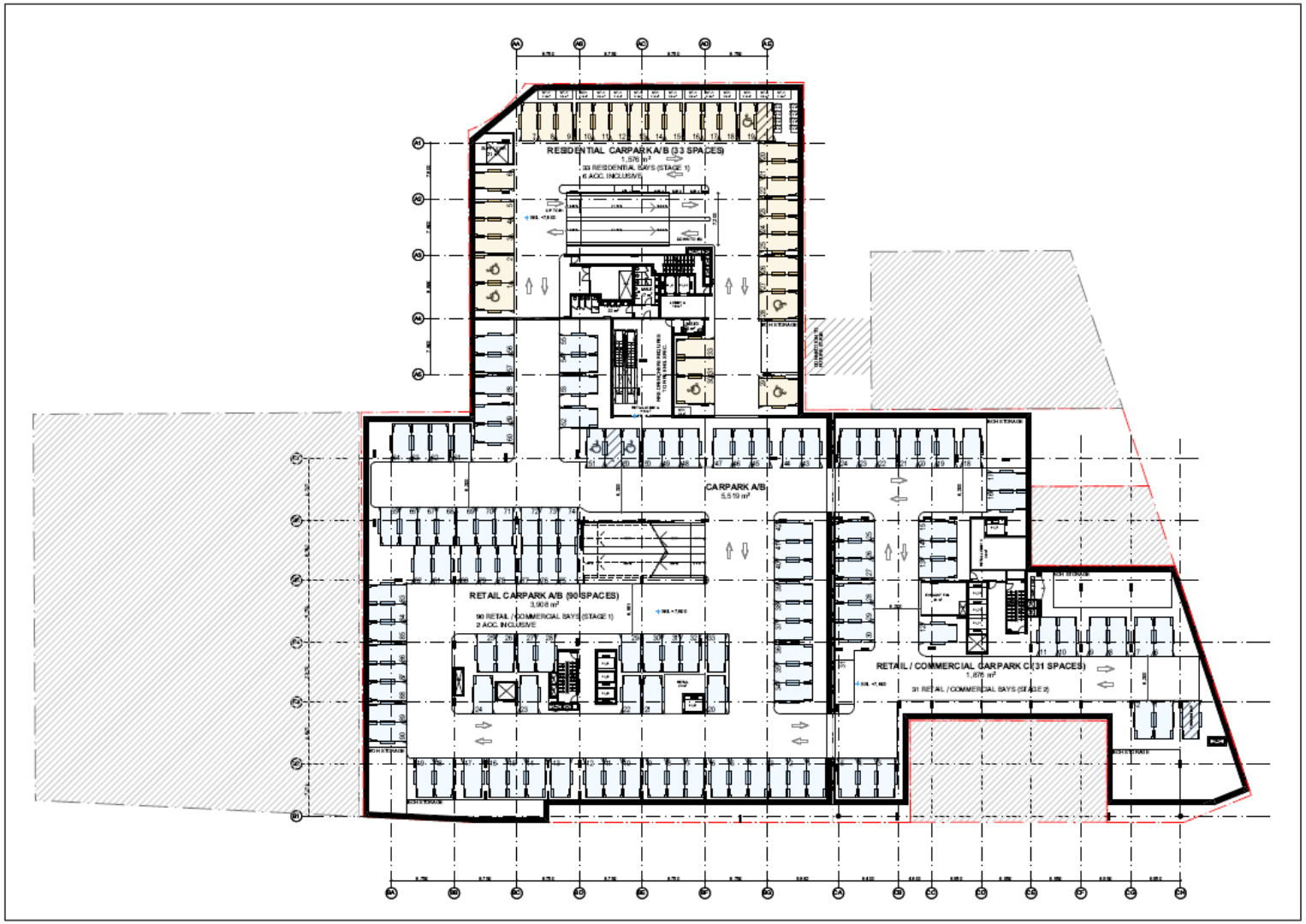
Source: Plus Architecture

Figure 17: Cabramatta East Basement Level 1



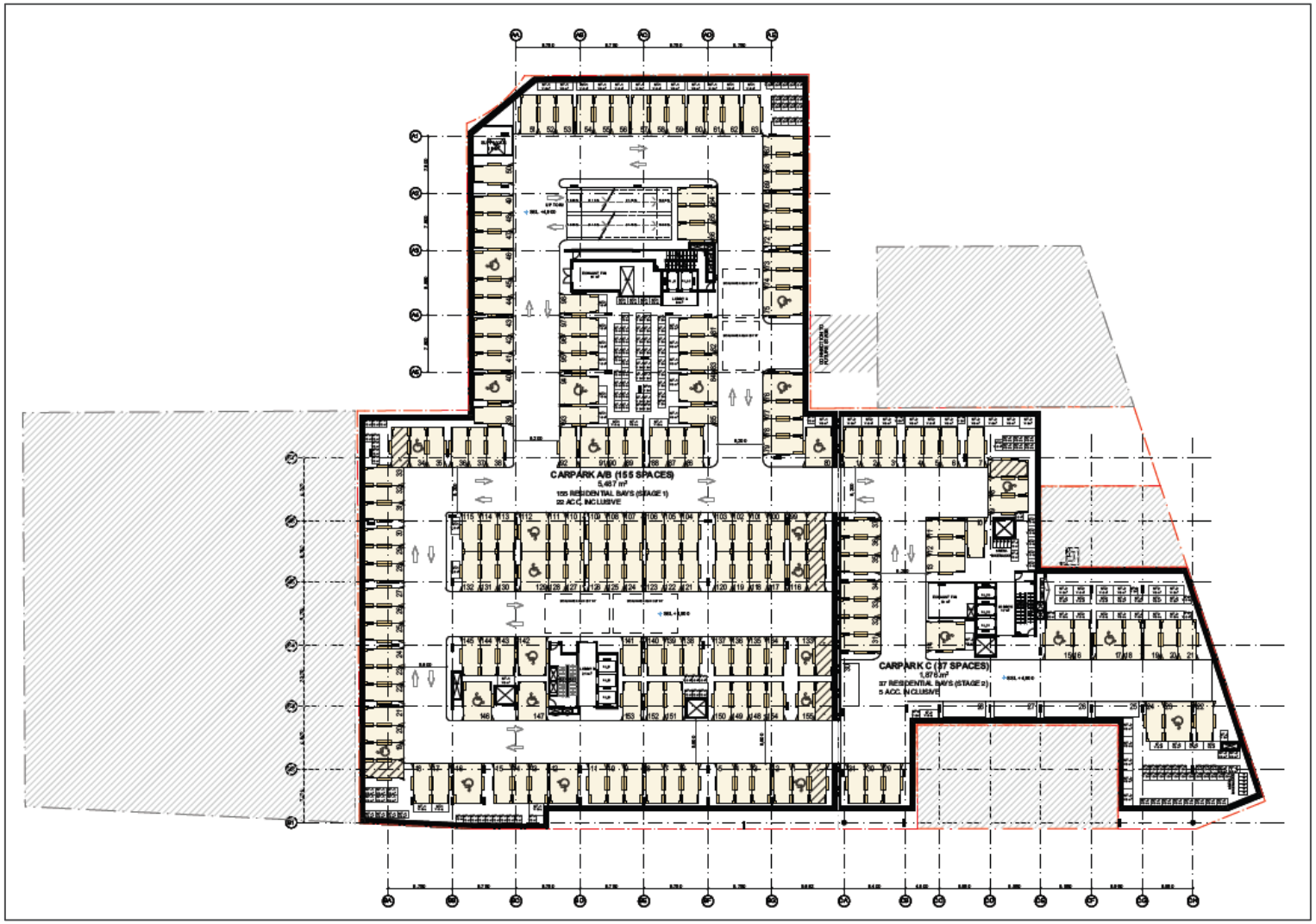
Source: Plus Architecture

Figure 18: Cabramatta East Basement Level 2



Source: Plus Architecture

Figure 19: Cabramatta East Basement Level 3



Source: Plus Architecture

6.2 Site Vehicle Access

6.2.1 Cabramatta Road East Minor

Access to residential parking only will be provided via CRE Minor, in the same location as the existing public lane. This access intersection will operate under left in/left out priority control.

Noting the past discussions with, and comments provided by TfNSW, it is again critical to note that **Site access is not being provided directly to CRE Major, but rather only to CRE Minor, which itself generates very minimal one-way (eastbound) traffic volumes, and then provides for a merge into CRE Major**. As acknowledged by TfNSW, the use of CRE Minor for Site access is to be determined by Council, and in our discussions with Council the use of CRE Minor for the low trip generating residential component of the DA Proposal has been supported (see also Section 7.1.1).

More details in regard to the design of the new CRE Minor driveway are provided in Section 9.1.

It is noted that, until the Stage 3 development commences, access will be retained to the small number of properties facing CRE Minor, who are currently provided with rear lane access, i.e. via the existing public lane. This access lane will provide a width of 7.0m, and as such compliant width for vehicles entering and departing rear garages.

6.2.2 Broomfield Street

Access to retail, commercial and visitor parking, and to on-site servicing areas, will be provided via Broomfield Street along the northern boundary of the Site. This new access intersection will operate under priority control and provide for all movements to and from the Site.

More details in regard to the design of the Broomfield Street driveway are provided in Section 9.1.

6.2.3 Fisher Street

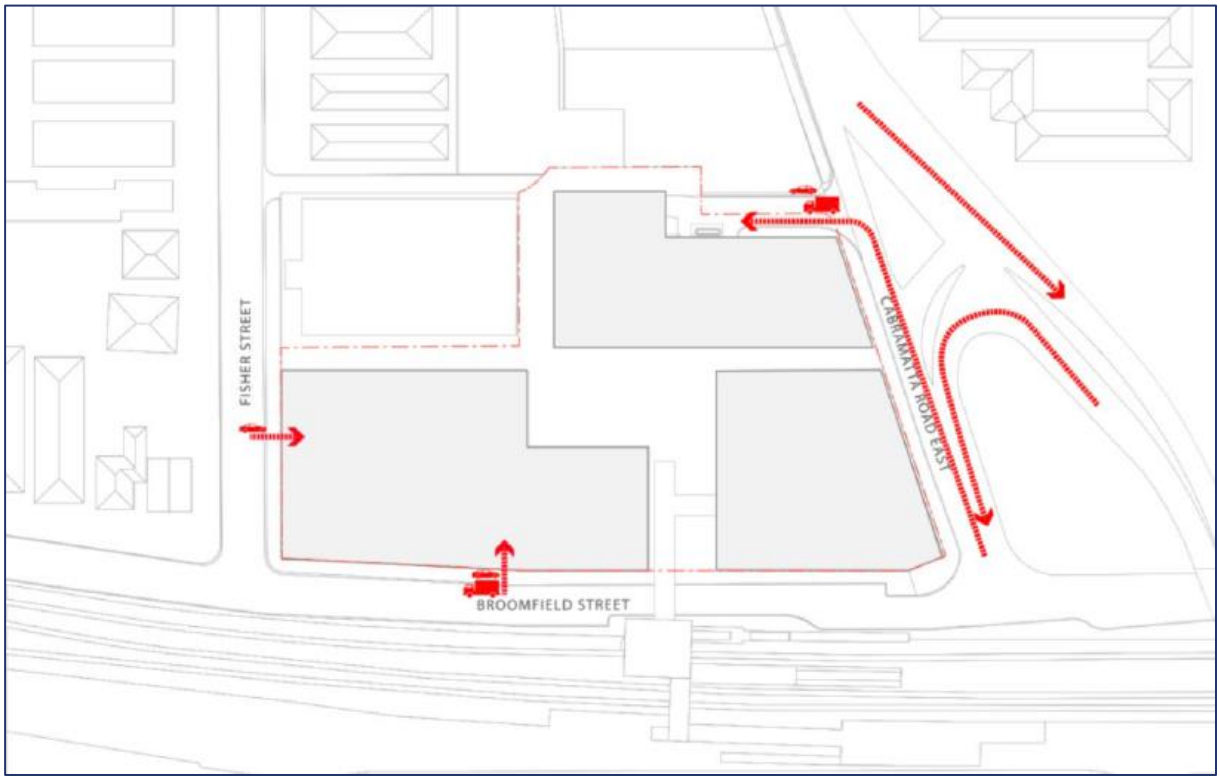
As discussed, access for Stage 4 of Cabramatta East would be provided via Fisher Street; a final determination in regard to the access point location will be made at a future time, noting the potential to combine a Stage 4 driveway with a Fisher Street Car Park driveway if both sites were to be developed at the same time.

Importantly though, no access to Stage 4 parking will be provided via either CRE Minor or Broomfield Street.

6.2.4 DCP Compliance

Further to sections above, the vehicle access strategy proposed for all stages of Cabramatta East is entirely compliant with the CTC DCP, Figure 17 (*Vehicular Access*) of which is reproduced below.

Figure 20: CTC DCP Cabramatta East Vehicular Access



Source: CTC DCP

6.3 Active Transport Access

6.3.1 Ground Level Access

Pedestrian access will be provided via both CRE Minor and Broomfield Street; the primary pedestrian entry in Broomfield Street lies directly opposite the stairs and lifts providing access to the Cabramatta Station concourse and rail platforms.

Access is also available through the Site at Ground level connecting the CRE Minor and Broomfield Street pedestrian access points, and the Cumberland Street Car Park. Further to the development of Stage 4, internal (to Precinct 4) access would also be available between the Site and Fisher Street.

Pedestrian paths in both CRE Minor and Broomfield Street will be widened adjacent to the Site, significantly improving pedestrian safety and amenity. A kerb build and widening of the existing signalised pedestrian crossing in Broomfield Street will also reduce the crossing distance of Broomfield Street and allow more direct trips between the Cabramatta Station access points (stairs and lifts) and the primary pedestrian entry to the Site.

6.3.2 Mezzanine Level Access

Access to the Mezzanine level will be provided via stairs, escalators and lifts from Ground level.

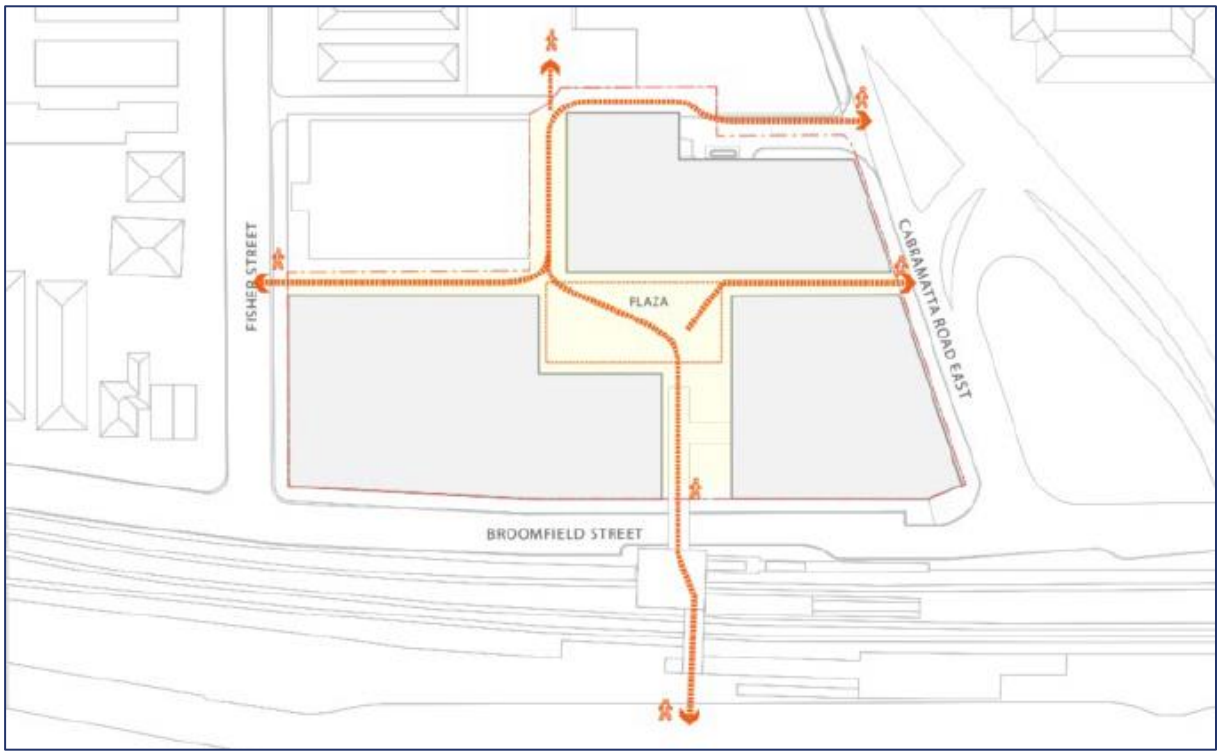
As discussed in Section 4.4.3, previous Site proposals included a pedestrian bridge connecting the Site's Mezzanine level and the Cabramatta Station concourse. While this would significantly increase the accessibility of the Site, and indeed realise a long-standing priority of Council, TfNSW has (at this time) concluded that the pedestrian bridge connection cannot be supported.

While the pedestrian bridge is therefore not included in the DA Proposal, the DA Proposal plans have been developed such as to provide for this connection at some time in the future if approved by TfNSW. Any such proposal would necessarily require detailed assessment as part of a separate DA.

6.3.3 CTC DCP Compliance

Notwithstanding the absence of the pedestrian bridge, the active transport strategy proposed for all stages of Cabramatta East is entirely compliant with the CTC DCP, Figure 3B (*Pedestrian connections through the precinct*) of which is reproduced below.

Figure 21: CTC DCP Cabramatta East Pedestrian Connections



Source: CTC DCP

6.4 Precinct 4 Sites

6.4.1 Land Uses and Yields

As discussed, the development of sites along Fisher Street, including the Stage 4 site and the Fisher Street Car Park, is no longer tied to the DA Proposal.

While the development of these sites – and other sites across Precinct 4 - have necessarily been considered in the assessment of future traffic conditions, any development of these sites would be the subject of future assessments/DAs entirely separate from the DA Proposal.

The potential residential, retail and commercial yields of the remaining Precinct 4 sites have been determined with reference to the Housing Strategy (including height limits and FSR) and other Council resources, and importantly have been agreed with Council for this assessment. These land uses and yields are summarised in Table 14.

Table 14: Additional Precinct 4 Sites Land Uses & Yields

Stage 4 + Precinct 4	Dwellings			Retail	Slow Retail	Commercial	Church
	1 Bed	2 Bed	3 Bed	GLA m^2	GLA m^2	GFA m^2	Seats
Stage 4	22	42	7	1,007		1,438	50
Fisher Site	24	74	24	235		1,000	
Tail Site	23	70	23	1,329	2500	5,446	
Island Site	5	13	5	673		957	
Total	**74**	**199**	**59**	**3,244**	**2,500**	**8,841**	**50**

6.4.2 Precinct 4 Site Access

As agreed with Council, the traffic analysis provided in Section 7 has considered Stage 4 and the Fisher Street Car Park as being provided with access generally in the vicinity of the existing Fisher Street Car Park driveway. For the Tail Site, it is anticipated that access would be provided via the existing Cumberland Street Car Park driveway, while for the Island Site, it is anticipated that any uplift would require access to basement parking via Broomfield Street south of CRE Minor.

7 Traffic Analysis

7.1 Trip Rates

Section below provide details of the trip rates for the different components of the DA Proposal (and the additional Precinct 4 sites) used in the traffic analysis.

7.1.1 High Density Residential Trip Generation

Summary trip generation rates for high density residential development are provided in the RMS Guide and include a trip rate per unit, and a trip rate per parking space; these rates are summarised below:

- **Trip rates per unit:**
  - 0.19 trips per unit in the AM peak hour
  - 0.15 trips per unit in the PM peak hour
- **Trip rates per parking space:**
  - 0.15 trips per unit in the AM peak hour
  - 0.12 trips per unit in the PM peak hour

With reference to Section 8, the potential for lower trip generation is enhanced by the provision of a restrictive parking policy, specifically using the **maximum** parking rates provided for in the CTC DCP (for residential parking within Precinct 4) and the RMS Guide (cited in SEPP 65/ADG) for high density residential development within 800m of a railway station.

With specific recognition of the proposed parking reductions (and the influence reduced parking has on trip generation) and as previously agreed with TfNSW and Council, arc traffic + transport has adopted the trip rates per parking space for the analysis of residential trip generation.

7.1.2 Retail Trip Generation

As discussed in Section 3.1, the RMS Guide trip rates for retail development (shopping centres) are not applicable to the Site for a number of reasons, including the proximity to public transport, proximity to the broader Town Centre west of the railway line, and the 'local' nature of retail in the area.

It is anticipated that most of the retail space within Cabramatta East will be given over to local shops, restaurants and cafes, which would generate a high proportion of walk (and public transport) trips rather than private vehicle trips.

Based on all available information - and in line with the retail trip rates used in past Town Centre assessments and the surveys of existing Site trip generation - the assessment has adopted the following retail trip rates:

- 1.0 trips per 100m^2 GLA in the AM peak hour; and
- 3.0 trips per 100m^2 GLA in the PM peak hour.

These are the same trip rates previously agreed with TfNSW and Council and adopted in TA 2017 and subsequent addendums.

7.1.3 Slow Trade Retail

For the assessment of slow trade retail (to be provided/retained in the Tail Site), arc traffic + transport has adopted the same trip rates as determined for the existing on-site slow trade floorspace (as detailed in Section 3.1), being:

- 0.25 trips per 100m^2 GLA in the AM peak hour; and
- 0.75 trips per 100m^2 GLA in the PM peak hour.

These are the same trip rates previously agreed with TfNSW and Council and adopted in TA 2017 and subsequent addendums.

7.1.4 Commercial Trip Generation

While the commercial trips rates reported in the RMS Guide for sites within close proximity to public transport and sub-regional centres are in most instances much lower than the summary commercial trip rates provided in the RMS Guide, the assessment has nonetheless adopted average commercial trip rates given that the exact type of commercial usage is not known at this time; these rates are:

- 1.6 trips per 100m^2 GFA in the AM peak hour; and
- 1.2 trips per 100m^2 GFA in the PM peak hour.

These are the same trip rates agreed with TfNSW and Council and adopted in TA 2017 and subsequent addendums

7.1.5 Child Care Centre

Child care centre trip rates are provided in the RTA Guide, but reference surveys that are over 30 years old. As such, arc traffic + transport has adopted trip rates provided in the RMS Child Care Report which are based on 2015 surveys of centres of a similar size to that proposed: these rates are:

- 0.64 trips per child care place in the AM peak hour; and
- 0.46 trips per child car place in the PM peak hour.

7.1.6 Medical Centre

Medical centre trip rates are provided in the RTA Guide, but reference surveys that are over 30 years old. As such, arc traffic + transport has adopted trip rates provided in the RMS Medical Centre Report which are based on 2015 surveys of centres of a similar size and location to that proposed.

In reviewing the RMS Medical Centre report, we have examined both the average size of consulting room (GFA m^2) and in turn the trip rate per consulting room. In this regard, it is anticipated that the medical centre (548m^2 GFA) could provide up to 10 consulting rooms, with the following peak period trip generation:

- 2.2 trips per consulting room in the AM peak hour; and
- 2.3 trips per consulting room in the PM peak hour.

7.1.7 Gymnasium

Gymnasium trip rates are provided in the RTA Guide, but reference surveys that are 30 years old. As such, arc traffic + transport has adopted trip rates provided in the RMS Gymnasiums Report which are based on 2015 surveys of gymnasiums of a similar size and location to that proposed; these rates are:

- 2.3 trips per 100m^2 GFA in the AM peak hour; and
- 2.3 trips per 100m^2 GFA in the PM peak hour.

7.1.8 Tavern

For the assessment of the tavern, arc traffic + transport has adopted the same trip rates as determined for the existing on-site hotel (as detailed in Section 3.1), being:

- 0.1 trips per 100m^2 GLA in the AM peak hour; and
- 1.5 trips per 100m^2 GLA in the AM peak hour.

7.1.9 Church

For the assessment of the church, arc traffic + transport has adopted the same trip rates as determined for the existing Seventh Day Adventist Church, (as detailed in Section 3.1), being:

- 0.1 trips per seat in the AM peak hour; and
- 0.1 trips per seat in the AM peak hour.

7.1.10 Total Site Trip Generation

With reference to sections above, Table 15 provide a summary of the total forecast trip generation of the Site (Cabramatta East Stages 1, 2 and 3), noting that these totals do not include the removal of the existing trip generation of the Site.

Table 15: Site Trip Generation Summary

Site	Yield	AM Peak Hour		PM Peak Hour	
		Trip Rate	Trips	Trip Rate	Trips
Residential	296 spaces	0.15/space	44	0.12/space	36
Residential Visitor[1]	72 spaces	0.15/space	11	0.12/space	9
Retail	2,171m^2 GLA	1/100m^2 GLA	22	3/100m^2 GLA	65
Child Care	80 places	0.64/place	51	0.46/place	37
Medical Centre	10 consulting rooms	2.2/consulting room	22	2.3/consulting room	23
Gym	507m^2 GFA	2.3/100m^2 GFA	12	2.3/100m^2 GFA	12
Hotel	690m^2 GLA	0.5/100m^2 GFA	3	1.5/100m^2 GFA	10
Total			**165**		**191**

With reference to Note 1 in Table **15**, the CTC DCP requires that residential visitor parking be provided at a rate of 1 space per 5 dwellings; as such, the total residential visitor parking spaces required for Cabramatta East Stages 1, 2 and 3 have also been included to determine the total trip generation of the Site.

7.2 Trip Distribution

7.2.1 Origin & Destination

There is no information to suggest any significant changes in the origin/destination of trips further to the DA Proposal from that assigned to existing trips as detailed in Table 5.

7.2.2 Arrival & Departure

Similarly, there is no information to suggest any significant changes in the arrival/departure profile of trips further to the DA Proposal from that assigned to existing trips as detailed in Table 6.

7.3 Trip Assignment

With reference to sections above, the total trips that will be generated by the Site (again, Cabramatta East Stages 1, 2 and 3) are summarised in the figures below.

Figure 22: AM Peak Hour Site Trips

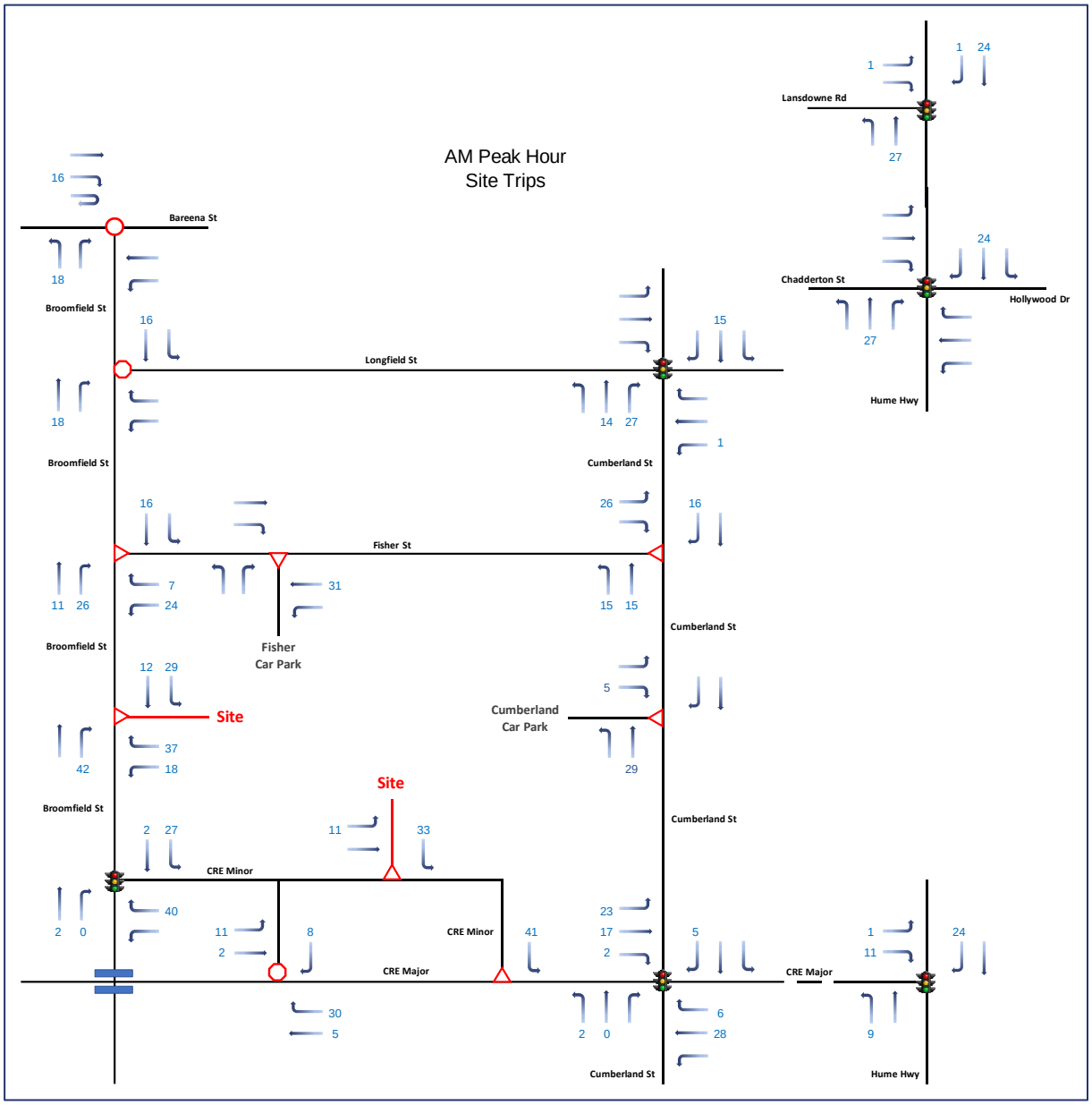
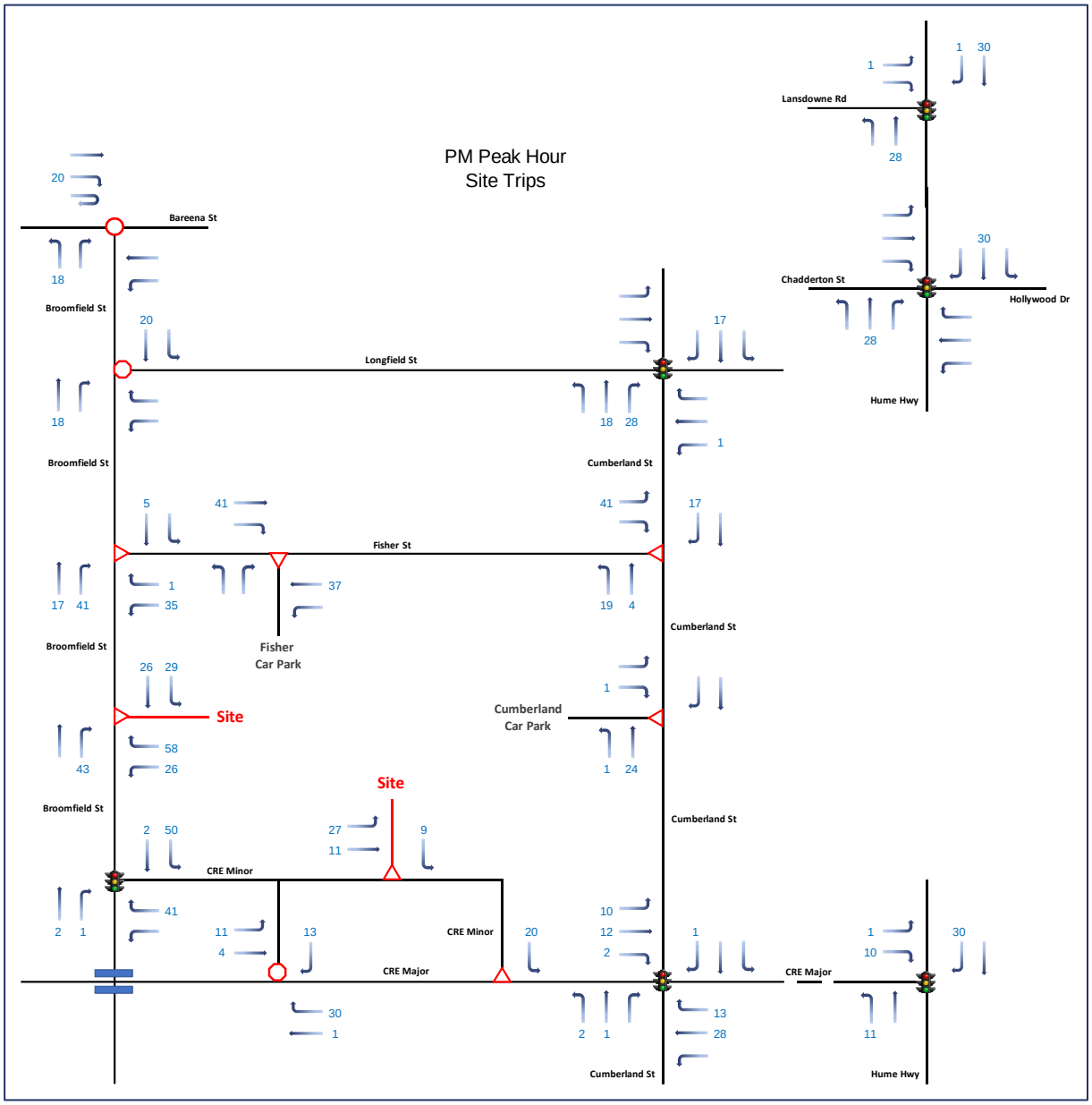


Figure 23: PM Peak Hour Site Trips



7.4 Future Intersection Operations

7.4.1 Base 2033 + Site Traffic Volumes

The future operation of all key intersections further to the development of the Site alone has been assessed for the scenario **Base 2033 + Site**. These volumes include:

- Base 2033 traffic volumes as detailed in Section 5.6;
- Total Site trips (Cabramatta East Stages 1, 2 and 3) as detailed in Section 7.3; and
- The removal of the existing Site trips as detailed in Section 3.3.

The resulting Base 2033 + Site traffic volumes are shown in the figures below.

Figure 24: AM Peak Hour Base 2033 + Site Traffic Volumes

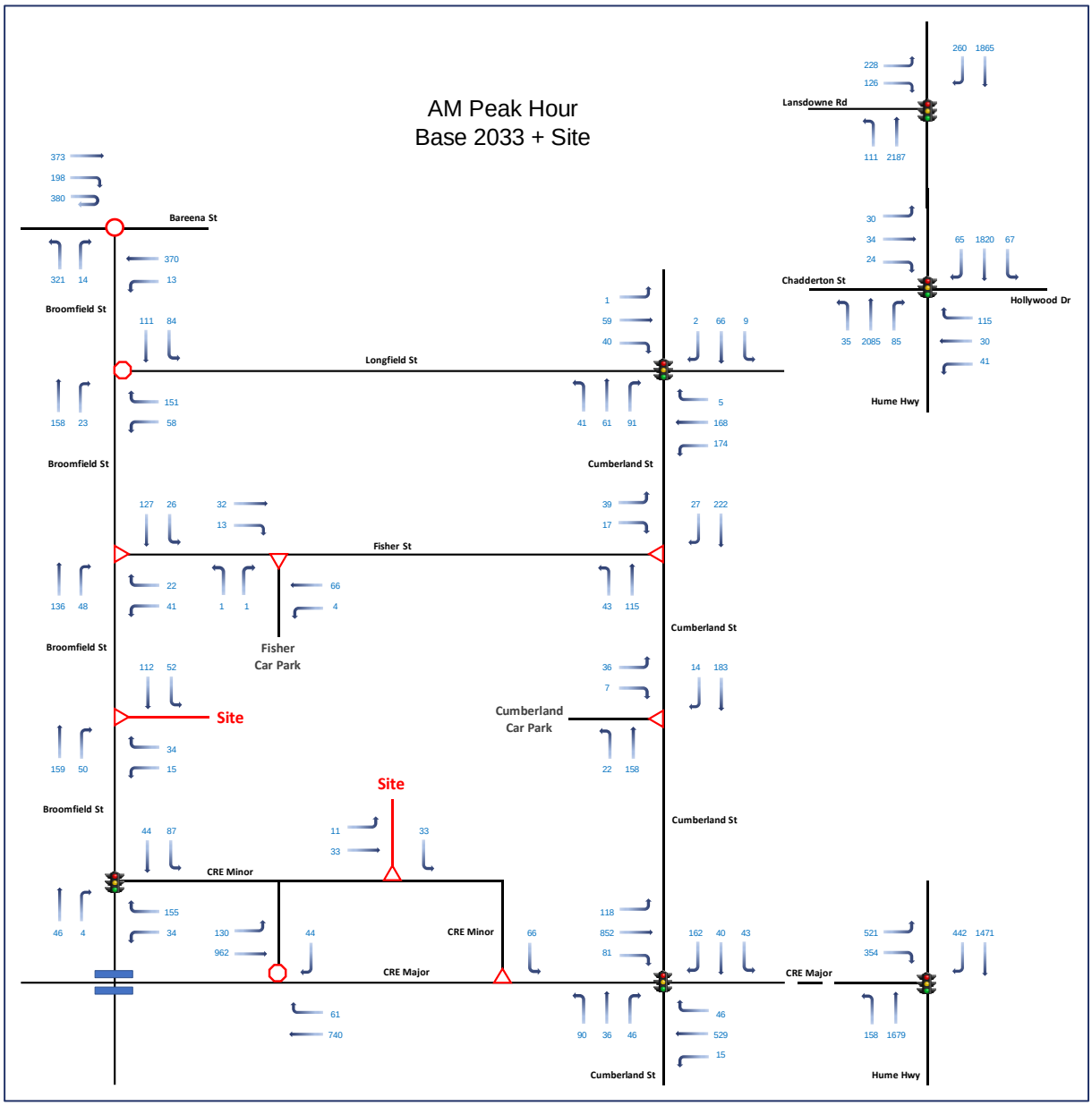
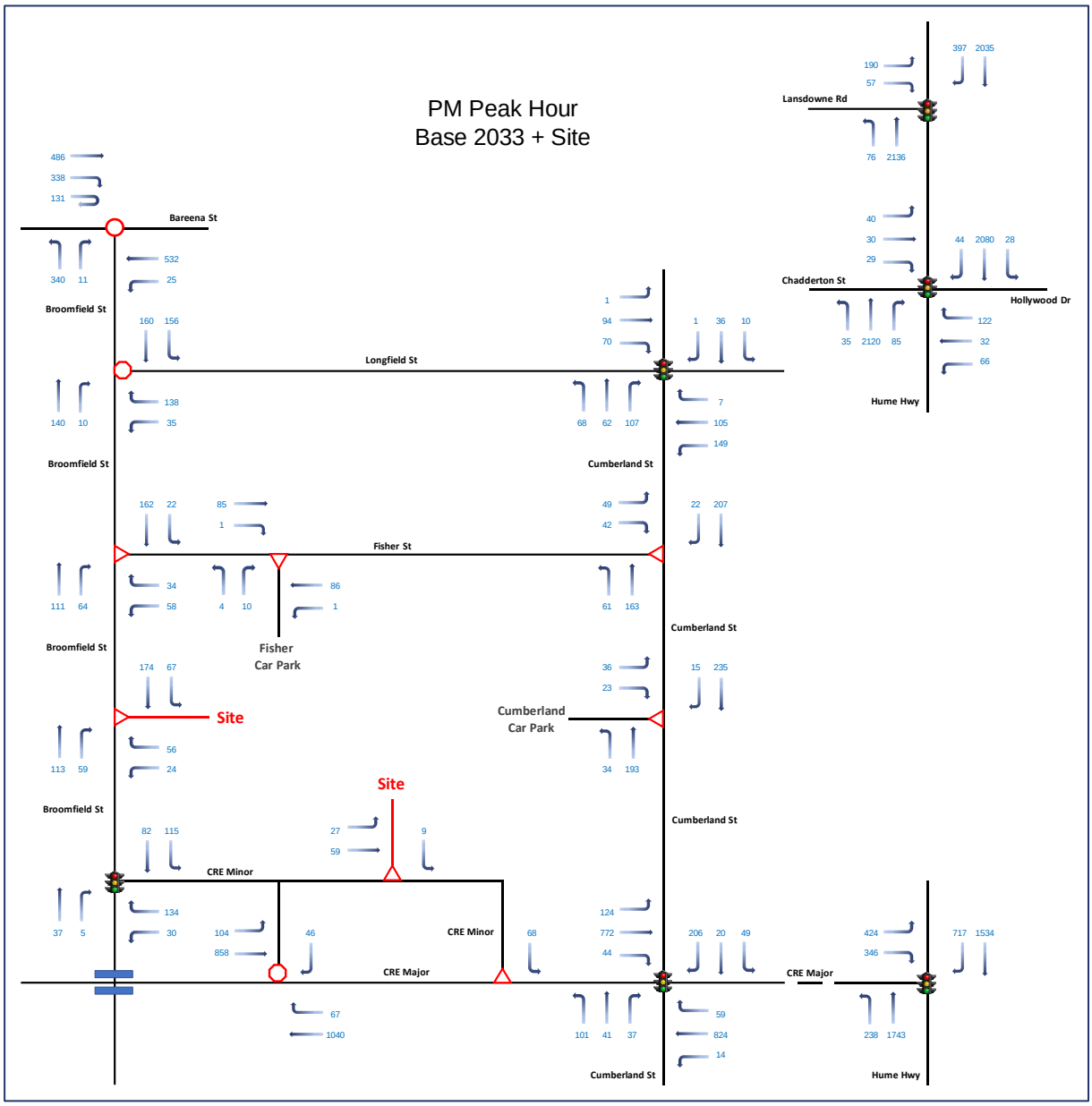


Figure 25: PM Peak Hour Base 2033 + Site Traffic Volumes



7.4.2 Intersection Operations

Even a cursory review of the additional trip generated by the Site indicates that it would have no significant impact on the operation of the local road network, simply because the trips generated by the Site are not significantly higher than the existing trip generation of the Site. In this regard:

- The total trip generation of the Site (i.e. future trips compared with existing trips) will increase by less than 100vph in the peak periods;

- Retail and commercial Site trips will be provided with superior access options given the two-way Broomfield Street driveway, which in turn means a much lower number of trips are forced to use CRE Minor and CRE Major, but rather can circulate through roads to the north of the Site.
- The Site would generate no more than 30vph, or an average of 1 additional vehicle trip every 2 minutes, to Hume Highway north of CRE Major in both the AM and PM peak periods.
- The Site would generate no more than 12vph, or an average of 1 additional vehicle trip every 5 minutes, to Hume Highway south of CRE Major in both the AM and PM peak periods.
- The Site would generate no more than 30vph, or an average of 1 additional vehicle trip every 2 minutes, to CRE Major west of Hume Highway in both the AM and PM peak periods.

Overall therefore, it is clear that the development of the Site, including Cabramatta East Stages 1, 2 and 3 would have little if any impact on the operation of the local road network.

Notwithstanding the above, the operation of all key intersections under Base 2033 + Site conditions have been assessed using SIDRA and SIDRA Network; the results of the analysis are provided in Table 16. SIDRA Movement reports are provided in Appendix B, and electronic copies of all SIDRA files are provided as attachments to this Transport Assessment.

Table 16: Base 2033 + Site Intersection Operations

Base 2033 + Site Intersection Operations	Level of Service		Average Delay (s)		Worst Delay (s)		Degree of Saturation		95%ile Queue Length (m)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Broomfield & Bareena	A	A	8.8	8.7			0.572	0.69	37.4	55.2
Broomfield & Longfield	A	A	4.1	3.5	9.5	9.1	0.245	0.204	6.9	5.5
Broomfield & Fisher	A	A	1.8	2.2	5.9	6.1	0.108	0.107	2.3	3.0
Broomfield & Site	A	A	1.9	2.4	6.0	6.2	0.122	0.133	2.5	2.9
CRE Minor & Site	A	A	0.5	1.0	3.5	3.5	0.024	0.047	0.6	0.2
CRE Major & CRE Minor	D	E	2.0	2.3	44.7	66.9	0.419	0.581	9.0	12.6
Cumberland & Fisher	A	A	1.4	1.8	6.2	6.5	0.140	0.129	1.5	2.3
CRE Minor & Broomfield	B	B	21.3	21.3			0.247	0.28	29.9	38.7
CRE Major & Cumberland	B	C	28.1	32.6			0.589	0.575	163.1	172.8
Cumberland & Longfield	A	B	11.6	19.0			0.333	0.264	15.8	30.2
Hume & Lansdowne	A	A	12.8	13.6			0.937	0.910	163.2	194.6
Hume & Hollywood & Chatterton	B	B	17.4	20.4			0.649	0.663	219.2	248.3
Hume & CRE Major	C	C	30.3	35.3			0.703	0.849	246.1	324

With reference to Table 16, all of the key intersections continue to operate at an appropriate Level of Service in both peak periods, with essentially no changes in Level of Service arising from the additional Site trip generation, and only minor increases in Degree of Saturation and queue lengths at the same intersections with existing capacity constraints under Base 2023 and Base 2033 conditions as discussed in Section 5.5.

The only change in Level of Service is at the intersection of CRE Major & CRE Minor, and specifically an increase in the average delay to the right turn movement from CRE Minor to CRE Major, which moves from Level of Service C to Level of Service D, and from Level of Service D to Level of Service E, in the AM and PM peak periods respectively.

As discussed previously, our observations at the intersection indicate that delays to this movement are generally lower than reported given the gaps in the westbound traffic flow in CRE Major following the Cumberland Street phase at the intersection of CRE Major & Cumberland Street. In addition, this delay relates to only a small number of vehicles, and – given the improved access options available to/from the Site – some drivers could be expected to instead use Fisher Street and Cumberland Street to turn west via the CRE Major & Cumberland Street intersection, which as shown in Table 16 has significant spare capacity for what would be a small number of additional trips.

In summary, the additional trips generated by the Site further to the DA Proposal (and consideration of Stage 3) would have no significant impact on the operation of the local road network.

7.5 Stage 4 and Precinct 4 Traffic Volumes

7.5.1 Stage 4 and Precinct 4 Yields and Land Uses

For the assessment of Stage 4, the same mix of land uses identified in PP 2021 has been adopted. At this time, the specific mix of retail and commercial land uses across the other Precinct 4 sites is unknown, other than general classifications of residential, retail and commercial floorspace; a breakdown of the anticipated land uses across the Precinct 4 sites is provided in Table 17, noting that these land uses and yields are in line with the Housing Strategy forecasts, and have been agreed with Council for the traffic analysis.

Table 17: Stage 4 and Precinct 4 Yields & Land Uses

Stage 4 + Precinct 4	Dwellings			Retail	Slow Retail	Commercial	Church
	1 Bed	2 Bed	3 Bed	GLA m^2	GLA m^2	GFA m^2	Seats
Stage 4	22	42	7	1,007		1,438	50
Fisher Site	24	74	24	235		1,000	
Tail Site	23	70	23	1,329	2,500	5,446	
Island Site	5	13	5	673		957	
Total	**74**	**199**	**59**	**3,244**	**2,500**	**8,841**	**50**

7.5.2 Stage 4 and Precinct 4 Trip Generation

The future trip generation of Stage 4 and the Precinct 4 sites has been determined with reference to the trip rates identified in Section 7.1; a summary of the resulting trip generation of each of these sites is provided in Table 18.

Table 18: Stage 4 and Precinct 4 Trip Generation

Stage 4	Yield	AM Peak Hour		PM Peak Hour	
		Trip Rate	Trips	Trip Rate	Trips
Residential	46 spaces	0.15/space	7	0.12/space	6
Retail	1007m^2 GLA	1/100m^2 GLA	10	3/100m^2 GLA	30
Commercial	1,438m^2 GFA	1.6/100m^2 GFA	23	1.2/100m^2 GFA	17
Church	50 seats	0.1/seat	5	0.1/seat	5
Total			**45**		**58**
Fisher Site	**Yield**	**AM Peak Hour**		**PM Peak Hour**	
		Trip Rate	**Trips**	**Trip Rate**	**Trips**
Residential	90 spaces	0.15/space	14	0.12/space	11
Retail	235m^2 GLA	1/100m^2 GFA	2	3/100m^2 GLA	7
Commercial	1,000m^2 GFA	1.6/100m^2 GFA	32	1.2/100m^2 GFA	24
Total			**16**		**18**
Tail Site	**Yield**	**AM Peak Hour**		**PM Peak Hour**	
		Trip Rate	**Trips**	**Trip Rate**	**Trips**
Residential	133 spaces	0.15/space	20	0.12/space	16
Retail	1,329m^2 GLA	1/100m^2 GLA	13	3/100m^2 GLA	40
Slow Retail	2,500m^2 GLA	0.25/100m^2 GLA	6	0.75/100m^2 GLA	19
Commercial	5,445m^2 GFA	1.6/100m^2 GFA	87	1.2/100m^2 GFA	65
Total			**127**		**140**
Island Site	**Yield**	**AM Peak Hour**		**PM Peak Hour**	
		Trip Rate	**Trips**	**Trip Rate**	**Trips**
Residential	9 spaces	0.15/space	1	0.12/space	1
Retail	673m^2 GLA	1/100m^2 GLA	7	3/100m^2 GLA	20
Commercial	957m^2 GFA	1.6/100m^2 GFA	15	1.2/100m^2 GFA	11
Total			**23**		**33**

7.5.3 Stage 4 and Precinct 4 Trip Distribution

The trips generated by Stage 4 and the Precinct 4 sites have been assigned to the local road network using the same origin/destination and arrival/departure profiles adopted for the Site per Section 7.2.

7.5.4 Precinct 4 Trips

With reference to sections above, the total trip generation of Stage 4 and the Precinct 4 (not including the Site) has been assigned to the local road network; the resulting trips are shown in the figures below, noting that these totals do not include the removal of existing Stage 4 and Precinct 4 trips.

Figure 26: AM Peak Hour Stage 4 and Precinct 4 Trips

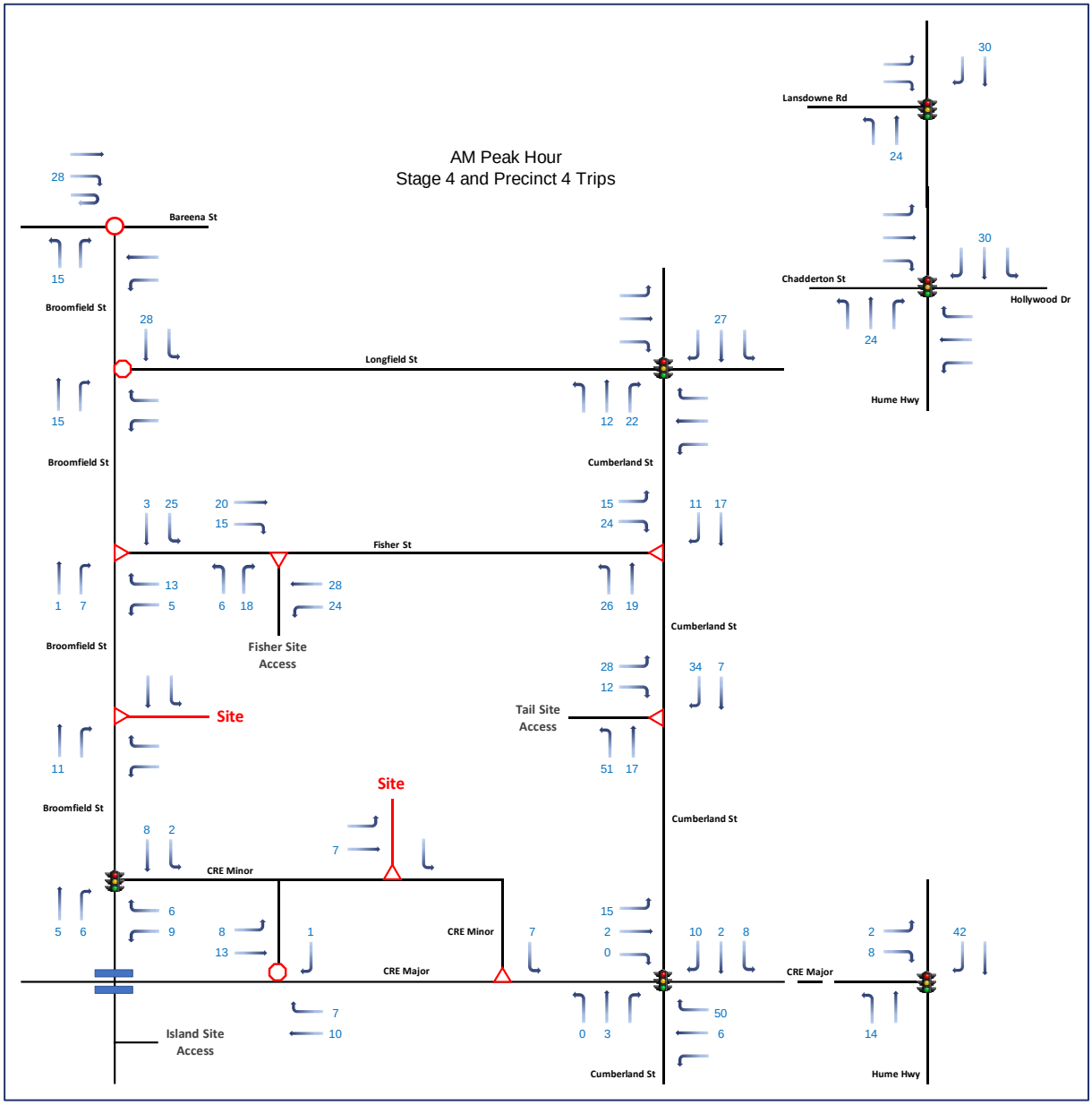
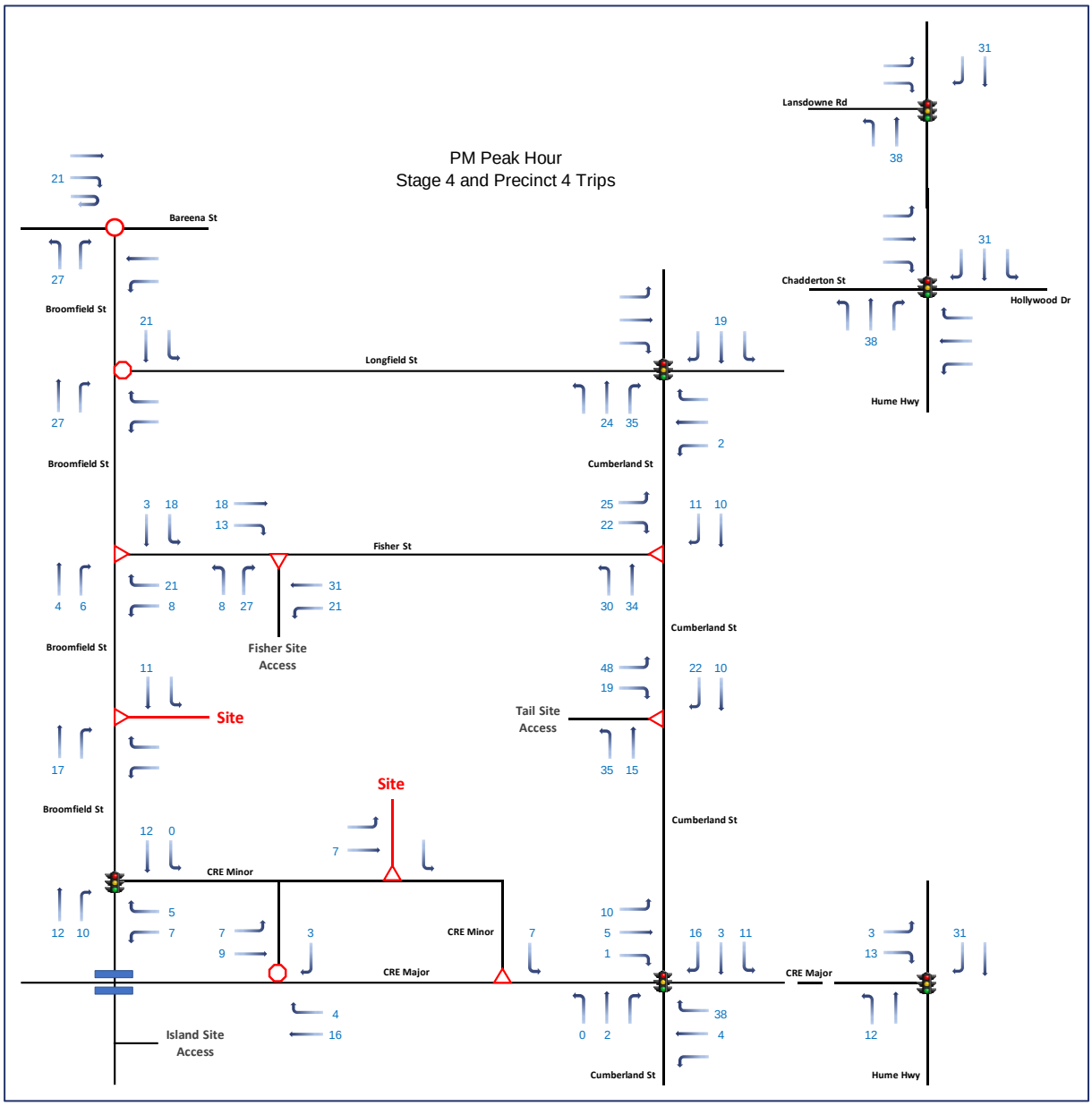


Figure 27: PM Peak Hour Stage 4 and Precinct 4 Trips



7.6 Base 2033 + Site + Stage 4 + Precinct 4 Intersection Operations

7.6.1 Base 2033 + Site + Stage 4 + Precinct 4 Traffic Volumes

The future operation of all key intersections further to the development of the Site, Stage 4 and the additional Precinct 4 sites has been assessed for the scenario **Base 2033 + Site + Stage 4 + Precinct 4**. These volumes include:

- Base 2033 traffic volumes as detailed in Section 5.6;
- Total Site trips (Cabramatta East Stages 1, 2 and 3) as detailed in Section 7.3;
- Total Stage 4 trips as detailed in Section 7.5;

- Total Precinct 4 trips as detailed in Section 7.5;
- The removal of the existing Site trips as detailed in Section 3.3; and
- The removal of the existing Stage 4 and Precinct 4 trips as detailed in Section 3.3.

The resulting Base 2033 + Site + Stage 4 + Precinct 4 traffic volumes are shown in the figures below.

Figure 28: AM Peak Hour Base 2033 + Site + Stage 4 + Precinct 4

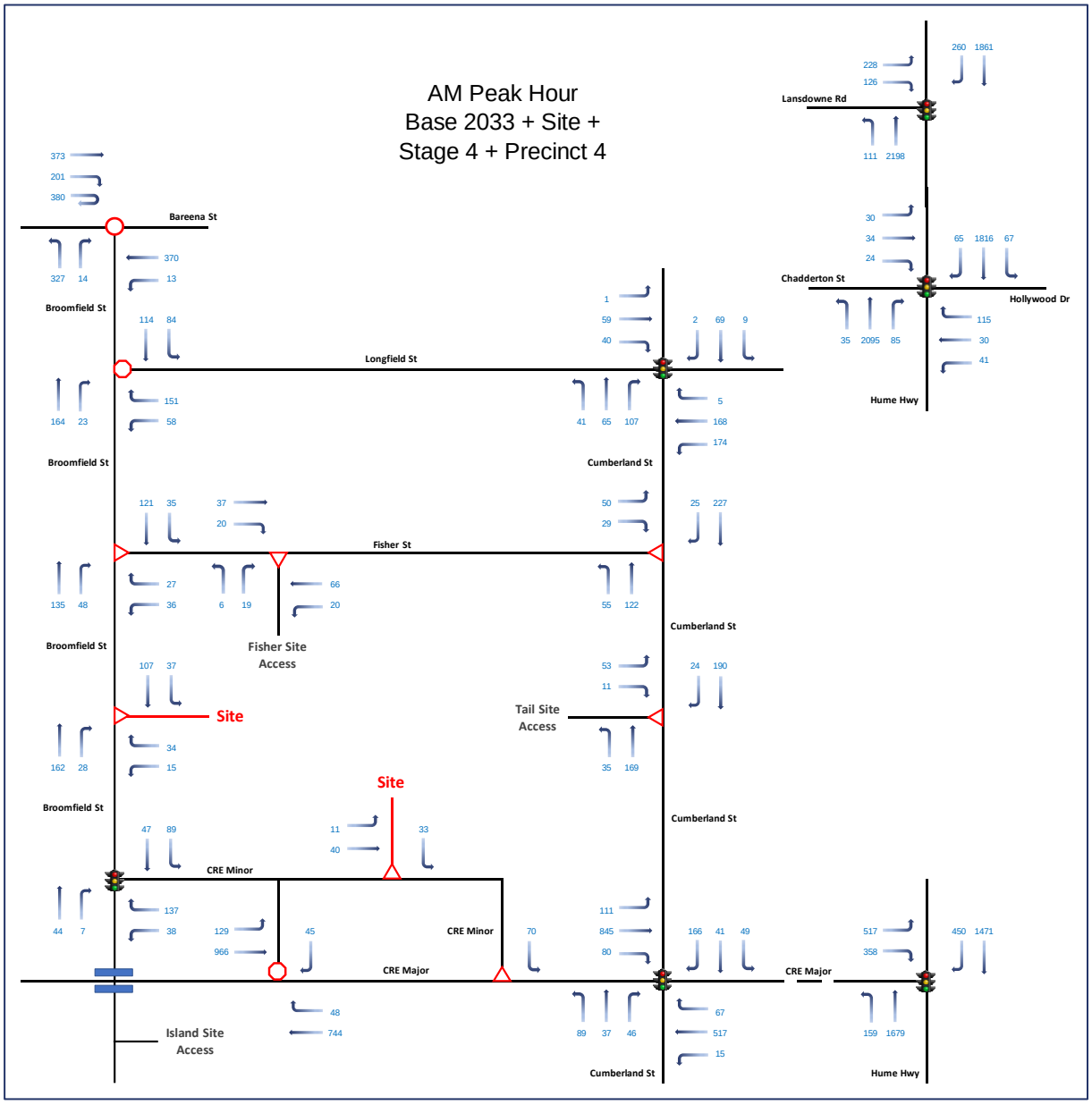
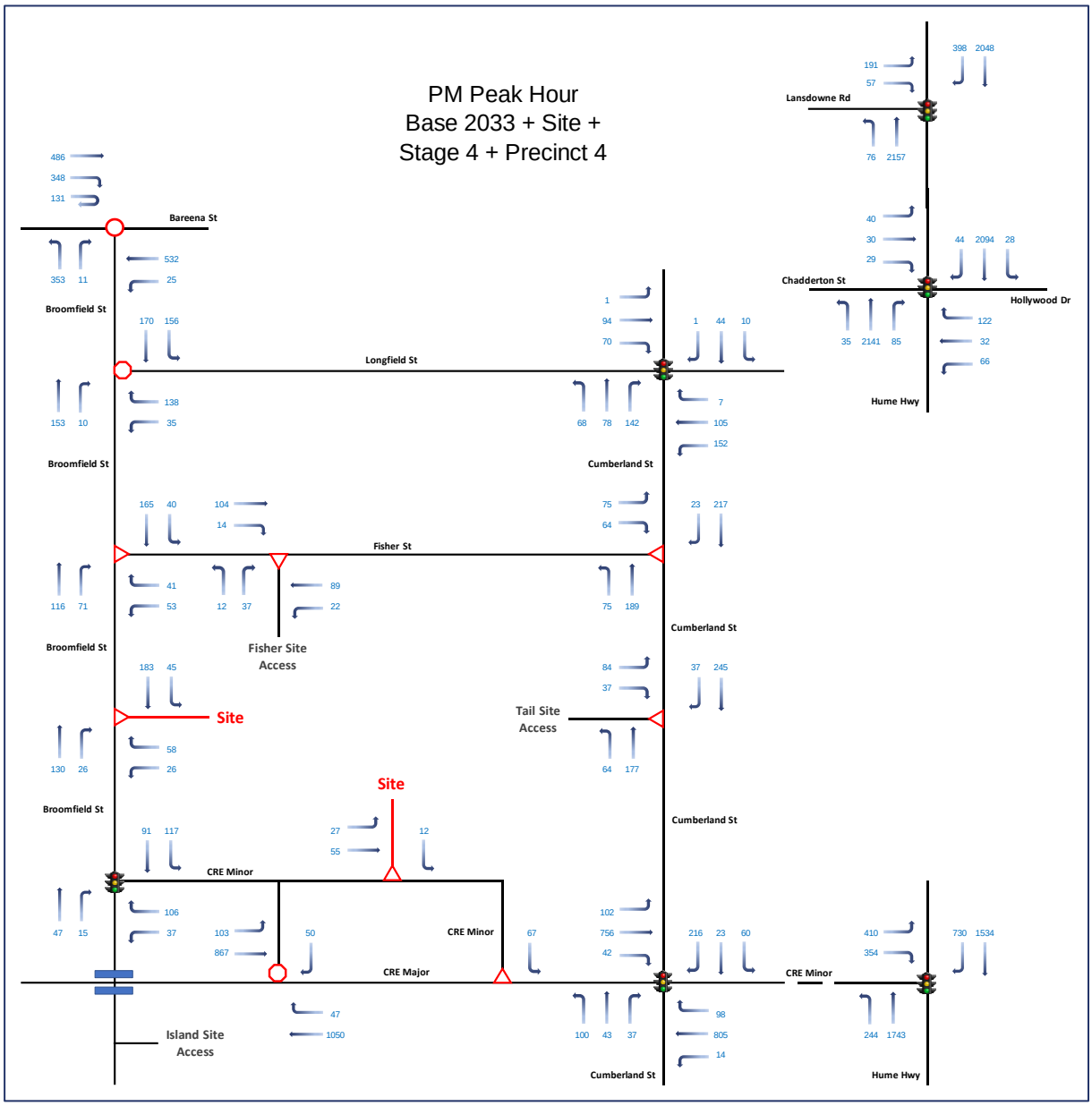


Figure 29: PM Peak Hour Base 2033 + Site + Stage 4 + Precinct 4



7.6.2 Base 2033 + Site + Stage 4 + Precinct 4 Intersection Operations

Again, even a cursory review of the additional trips generated the remaining Stage 4 and Precinct 4 sites again indicates that the development of all of Cabramatta East and all the Precinct 4 sites would have no significant impact on the operation of the local road network.

Notwithstanding, the operation of all key intersections under Base 2033 + Site + Stage 4 + Precinct 4 conditions have been assessed using SIDRA and SIDRA Network; Table 19 provides a summary of this analysis. SIDRA Movement reports are provided in Appendix B, and electronic copies of all SIDRA files are provided as attachments to this Transport Assessment.

Table 19: Base 2033 + Site + Stage 4 + Precinct 4 Intersection Operations

Base 2033 + Site + Stage 4 + Precinct 4 Intersection Operations	Level of Service		Average Delay (s)		Worst Delay (s)		Degree of Saturation		95%ile Queue Length (m)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Broomfield & Bareena	A	A	8.9	8.7			0.583	0.689	38.7	54.9
Broomfield & Longfield	A	A	4.1	3.5	9.5	9.2	0.247	0.206	6.9	5.5
Broomfield & Fisher	A	A	1.9	2.3	5.9	6.2	0.107	0.114	2.3	3.3
Broomfield & Site	A	A	1.6	1.8	5.8	6.1	0.108	0.125	1.4	1.5
CRE Minor & Site	A	A	0.5	1.0	3.5	3.5	0.028	0.045	0.6	0.2
CRE Major & CRE Minor	D	E	2.0	2.2	44.8	63.6	0.427	0.583	9.2	12.8
Cumberland & Fisher	A	A	1.7	2.1	6.4	6.9	0.141	0.146	1.8	3.7
CRE Minor & Broomfield	B	B	21.1	19.6			0.237	0.263	29.1	37.2
CRE Major & Cumberland	C	C	28.8	36.1			0.590	0.601	162.6	178.3
Cumberland & Longfield	A	B	11.7	19.8			0.357	0.322	15.8	37.2
Hume & Lansdowne	A	A	12.8	13.0			0.937	0.877	162.4	184.4
Hume & Hollywood & Chatterton	B	B	17.5	19.9			0.651	0.678	220.9	247.5
Hume & CRE Major	C	C	30.4	35.3			0.703	0.850	250.0	324.4

With reference to Table 19**,** all of the key intersections continue to operate at an appropriate Level of Service in both peak periods, with essentially no changes in Level of Service arising from the additional Precinct 4 trip generation, and only minor increases in Degree of Saturation and queue lengths at the same intersections with existing capacity constraints under Base 2023 and Base 2033 conditions as discussed in Section 5.5.

In summary, the additional trips generated by the full development of Cabramatta East and uplift across Precinct 4 would have no significant impact on the operation of the local road network.

8 Parking

8.1 DA Proposal Car Parking Requirements

8.1.1 Residential Parking Rates

The CTC DCP provides significantly reduced parking rates for high density residential development within Precinct 4 (and indeed across the Town Centre) which appropriately reflects the availability of public transport and proximity to services within the Town Centre. These parking rates also reflect the intention of SEPP 65 and the Apartment Design Guide of providing more sustainable parking levels, and are also consistent with the [minimal] parking rates specifically requested by TfNSW.

The CTC DCP provides the following parking rates, which generally align with parking rates for sub-regional centres detailed in Section 5 of the RTA Guide:

- One-bedroom dwellings: 0.5 spaces per dwelling
- Two-bedroom dwellings: 0.75 spaces per dwelling
- Three-bedroom dwellings: 1 space per dwelling
- Residential visitor parking: 0.2 spaces per dwelling

8.1.2 Retail Parking Rates

The CTC DCP requires the provision of 1 space per 25m^2 GLA for retail floorspace.

8.1.3 Medical Centre Parking Rates

The CTC DCP requires the provision of 4 spaces per 100m^2 GFA for medical centres.

8.1.4 Childcare Parking Rates

The CTC DCP requires the provision of 1 parking space for every 4 child care places.

8.1.5 Tavern Parking Rates

The CTC DCP requires the provision of space per 5m^2 GLA of customer area (bar, lounge, dining etc) plus 1 space per 40m^2 GLA of office area.

8.1.6 Total Car Parking Requirements

With reference to sections above, Table 20 provides a summary of the total car parking requirement for the DA Proposal (Cabramatta East Stages 1 and 2) with reference to the CTC DCP.

Table 20: DA Proposal Parking Requirements

DA Proposal Parking Requirement	Parking Requirements	
	Parking Rate	Parking Required
Residential	0.5/one-bedroom 0.75/two-bedroom 1/three-bedroom	250
Residential Visitors[1]	0.2/Dwelling	86
Retail	1/25m2 GLA	75
Child Care	1/4 places	20
Medical Centre	4/100m2 GFA	22
Gym	1/40m2 GLA	10
Tavern	1/5m2 GLA customer + 1/40m2 GLA office	138
Sub-Total		264
Total		**600**

With reference to Note 1 in Table 20, the calculation of residential visitor spaces for Stage 3 have been included in the total residential visitor space requirement as all Stage 1, Stage 2 and Stage 3 residential visitors will be accommodated in the Bloomfield Street Car Park. Conversely, the total number of residential spaces noted in Table 20 does not include future residential spaces for Stage 3, as these would be provided as an extension to the CRE Minor Car Park further to the development of Stage 3 (see also Section 8.6).

8.2 Parking Requirement Review

8.2.1 Overview

With reference to Table 20, the CTC DCP requires a significant number of parking spaces for some of the DA Proposal components, and particularly parking for residential visitors and tavern patrons. While it is acknowledged that these parking requirements were included in the Draft Site-specific DCP prepared on behalf of Moon Investments (and subsequently adopted by Council in the CTC DCP) it is the opinion of arc traffic + transport that the parking required for these components is simply not justified or sustainable.

Moreover, the provision of such high levels of parking has the potential to induce more private vehicle trips. As discussed previously, both TfNSW and Council have clearly indicated a desire to reduce parking provision to as great an extent as possible so as to in turn reduce vehicle trips to sustainable (for the road network) levels.

Importantly in this regard, the CTC DCP does provide the following note in regard to general parking requirements:

> *Car parking can be reduced where there are other uses sharing the same parking area that are not in operation at the same time (such as a child care centre or office premises) and/or where existing street parking or public car parking is available within 400m of the site as demonstrated by a parking survey*.

With reference to these provisions, sections below provide an assessment of the actual parking requirements for the Site further to consideration of the following:

- The potential for shared parking;
- The proximity of the Site to excellent public and active transport;
- Consideration of parking credits;
- Consideration of travel modes for tavern patrons, noting that the current requirements appear to reference surveys reported in the RTA Guide that were undertaken in 1979; and
- The significant amount of parking that is available in nearby public car parks during the peak demand periods for residential visitors and tavern patrons.

8.2.2 Shared Parking

It is certainly the case that there are significant opportunities for shared parking, whereby the parking demand for one component of the Site will peak, for example, during standard business hours, whereas parking demand for a different component will peak outside of standard business hours. This allows parking spaces to be shared, and in turn reduces the need to provide the total parking required for each of the different Site components.

In this regard, arc traffic + transport has referenced parking accumulation surveys for each of the Site's parking generating components; key references include:

- RMS surveys of daily parking patterns for retail, restaurants, medical centres and gyms;
- arc traffic + transport sourced surveys of taverns/pubs, including Gymea Tavern, PJ Gallaghers (Ryde), Royal Exchange Hotel (Marrickville) and Castle Hill Tavern;
- Sydney and international surveys of residential parking accumulation in Transit Oriented Development centres.

Further information in regard to these references is provided in Appendix C.

To determine the peak amount of parking required at any one time, the percentage of peak parking used for each land use/user group at each time of the day has been calculated, and then the total demand at each time of the day can be determined.

Table 21 summarises the percentage of peak demand for each land use/user group at each time of the day, and the resulting total demand at each time of day is summarised in Table 22; it is noted that these tables reflect the demand if parking was to be provided in full accordance with the CTC DCP (per Table 20).

Table 21: Shared Parking Peak Demand Periods

% Peak Demand	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	CTC DCP Requirement
Residential Visitor	22%	26%	28%	32%	30%	33%	26%	23%	20%	30%	46%	60%	100%	87%	60%	86
Retail	40%	50%	50%	30%	20%	70%	100%	50%	20%	40%	50%	60%	70%	30%	25%	75
Medical	0%	15%	87%	93%	100%	88%	59%	46%	64%	57%	50%	44%	21%	0%	0%	22
Gym	83%	64%	72%	48%	61%	60%	62%	59%	80%	100%	87%	79%	97%	70%	65%	12
Child Care	90%	80%	40%	10%	0%	20%	10%	50%	70%	90%	100%	50%	0%	0%	0%	20
Tavern	10%	20%	30%	40%	51%	66%	86%	86%	82%	82%	83%	87%	100%	95%	87%	138

Table 22: Site Peak Shared Parking Demand (CTC DCP Parking Rates)

Shared Parking Analysis	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
Residential Visitor	19	22	24	28	26	28	22	20	17	26	40	52	86	75	52
Retail	30	38	38	23	15	53	75	38	15	30	38	45	53	23	19
Medical	0	3	19	20	22	19	13	10	14	13	11	10	5	0	0
Gym	10	8	9	6	7	7	7	7	10	12	10	10	12	8	8
Child Care	18	16	8	2	0	4	2	10	14	18	20	10	0	0	0
Tavern	14	28	41	55	70	91	118	119	113	113	115	120	138	132	120
Total Demand	**91**	**114**	**139**	**133**	**140**	**203**	**238**	**203**	**183**	**211**	**234**	**246**	**293**	**237**	**198**

With reference to Table 22, the peak parking demand for the Site occurs at 7:00pm when both the residential visitor and tavern patron demands are at or near their peak; as discussed previously however, these parking rates in our opinion significantly overstate actual parking demand, as discussed further below.

8.2.3 Residential Visitor Parking Rates

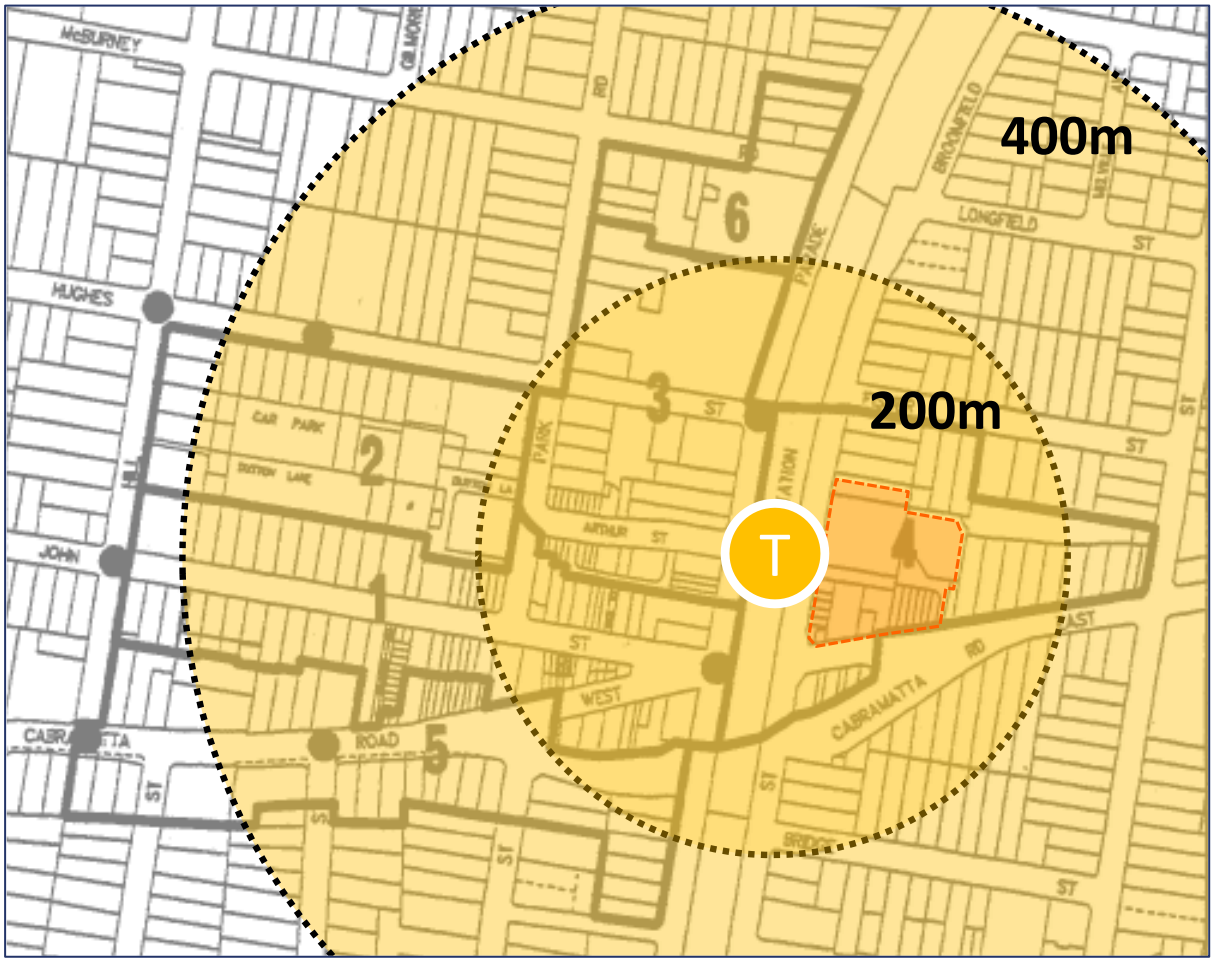
The residential visitor parking rate appears to reference the visitor parking rates identified in Section 5.4.3 of the RTA Guide for high density residential in sub-regional centres, being 1 space per 5 dwellings. Importantly, Section 5.4.3 of the RTA Guide also states the following, noting that for regional centres, the RTA Guide recommends the provision of 1 visitor parking space er 7 dwellings:

> *The recommended minimum number of off-street visitor parking spaces is one space for every 5 to 7 dwellings. Councils may wish to reduce this requirement for buildings located in close proximity to public transport, or where short term unit leasing is expected.*

As detailed in many sections of this Transport Assessment, the Site is provided with excellent public and active transport access, which will be available to residential visitors as it will be for residents, tenants and other visitors to the Site. As such, it is anticipated that residential visitors will also use public and active transport to a higher degree than in other locations, i.e. away from transport interchanges. This means that the parking required for residential visitors will be lower than the standard requirement of 1 space per 5 dwellings.

It is also instructive to note that the CTC DCP does not require residential visitor parking for any of the other Precincts within the Town Centre. Map 2 of the CTC DCP shows each of the Town Centre Precincts, all of which are provided with the same general controls as the Site other than in regard to residential visitor parking; Map 2 of the CTC DCP is reproduced below, with the proximity of each Precinct to Cabramatta Station also noted.

Figure 30: Cabramatta Town Centre Precincts



Source: CTC DCP

As shown in Figure 30, the Site is located in what is arguably the best location within the broader Town Centre for all those travelling to/from the Site to use public transport, yet the current CTC DCP provisions require that it is only the Site that requires residential visitor parking.

There is no question that there will be some residential visitor demand, but that demand will almost certainly be much lower than suggested by the CTC DCP parking rate. Based on our recent work in other similar town centres, including Rouse Hill, Chatswood, Telopea, Macquarie Park and Parramatta, a more realistic and sustainable parking rate – or moreover actual demand – would in our opinion be no more than 50 parking spaces, a total which has been adopted for the assessment of shared parking in Section 8.2.7 below.

8.2.4 Tavern Parking Rates

With regard to the tavern, the parking requirement detailed in the CTC DCP does not reflect current travel modes for tavern patrons, noting that it appears to reflect RTA Guide parking rates for places of entertainment and the like, the surveys for which were undertaken more than 40 years ago.

When considering the peak parking demand for the tavern, a number of factors require consideration; these include:

- **Local Population:** The tavern is well located within both the Town Centre and broader residential/urban area, and as such it is anticipated that a high percentage of patrons will be locals who will use active transport to/from the Site. It is of course also noted that many of these patrons will likely be patrons of the existing Stardust Hotel.
- **Existing Tavern/Pub Parking:** Further to the above, there are dozens of similar venues across Sydney, many of which provide little on-site (or indeed on-street) parking for patrons; indeed, these include other taverns/pubs in the LGA, including:
  - Cabramatta Hotel (no parking);
  - Cooks Hills Hotel (minimal parking);
  - Canley Hotel (minimal parking);
  - Fairfield Hotel (minimal parking); and
  - Crescent Hotel, Fairfield (no parking).
- **Public Transport:** As discussed in regard to residential visitors, public transport access to/from the Site is excellent, being located immediately adjacent to Cabramatta Station and bus interchange.
- **Responsible Driving:** Since the introduction of Drink Driving regulations and enforcement, and indeed ongoing strategies targeting drink driving, the percentage of tavern/pub patrons using private vehicles has steadily reduced.
- **Carpooling:** Carpooling is also being increasingly used, with the designated driver in some instances provided with (for example) free drinks, but often the responsibility of driving rotates through groups of friends or families.
- **Car Ride Services and Taxis:** Car ride services such as Uber have revolutionised the standard night out, providing a viable alternative to private car travel and a direct trip between origin and destination. Taxis of course provide the same function.

As a result of these factors, travel mode surveys of taverns and pubs across broader metropolitan Sydney consistently show car driver percentages of between 20% and 30%, while those in centres (such as Cabramatta) report even lower car driver rates.

arc traffic + transport has also undertaken detailed reviews of tavern/pub occupancy rates sourcing assessments from Sydney and Melbourne. As reported above, these surveys consistently showed low car driver percentages, but also the fact that the majority of taverns/pubs operate at less than their capacity the majority of the time.

Further to the above, a simple first principles assessment can be undertaken based on the proposed capacity of the tavern, being 250 patrons. Even if at capacity, all the available data indicates that parking demand would rarely exceed 75 vehicles, or 30% car driver, a total which has been adopted for the assessment of shared parking in Section 8.2.7 below.

8.2.5 Parking Credits

With reference to Chapter 12 of the Fairfield DCP, Council provides for consideration of parking credits under some circumstances, stating:

> *A parking credit is available when you are developing a site already occupied by a building. Provided your development retains the structure of the existing building you will be exempted from the parking requirements for the existing floor space.*
>
> *For example, if you wish to develop an existing 300m² shop building into a 600m² shop building, the parking requirement would only be for the additional 300m², even if the existing building has no parking whatsoever.*
>
> *Alternatively, if you are changing the use of the existing building and the new use requires more parking than the old use, your "credit" is for the original use, even though the floor space may not be increasing.*

With reference to the above, there is a caveat in the use of parking credits in that they are only applicable where *the structure of the existing building* is retained; this is not an unusual caveat in regard to the application of parking credits. Notwithstanding, it is a fact that – if the CTC DCP parking rates for taverns were applied – the Stardust Hotel (with an estimated GLA at least double that of the proposed tavern) would in turn generate a parking requirement for over 250 parking spaces.

Based on the availability of approximately 63 parking spaces in the Stardust Hotel car park, the suggestion would therefore be that a demand for over 190 parking spaces was being generated off-site. As such, while parking credits might not technically be applicable, if the CTC DCP rates were applied the tavern would effectively be able to rely on those 190 off-site parking spaces to accommodate its parking demand.

The example above does not of course reflect current conditions; while there is at times some use of local on-street and off-street (i.e. public car parks) by patrons of the Stardust Hotel, the majority of the time the on-site car park provides enough capacity to meet peak patron demand. While this again goes to the discussion above in regard to the actual (significantly lower) parking demand of taverns, it would in our opinion nonetheless be entirely reasonable to reference the spare off-site parking capacity that would be available further to the Stardust Hotel being replaced by the tavern if the CTC DCP parking rates did actually reflect parking demand.

8.2.6 Parking Surveys

arc traffic + transport commissioned TIS Surveys to undertake parking surveys in May 2023 to quantify the capacity of and demand for local parking. The surveys were completed during extended afternoon periods on a weekday (Thursday 4 May 2023) and Saturday (6 May 2023) during which times both residential visitor and tavern patron parking demands peak.

The parking surveys included the Fisher Street Car Park, Cumberland Street Car Park and Stardust Hotel Car Park. It is noted that additional parking capacity is available on-street in all adjacent roads, but for the purpose of this analysis it was considered more important to ensure that any additional parking demand would not specifically rely on local streets, which are more likely to be used for residential on-street parking.

The parking surveys are provided in full in Appendix D, and summarised in the tables below.

Table 23: Existing Car Park Capacities

Car Park	Parking Restrictions	Spaces	% Total Capacity
Fisher Street - Carpark (Ground)	Paid Parking	5	1.66%
Fisher Street - Carpark (Level 1)	Paid Parking	26	8.61%
Fisher Street - Carpark (Level 2)	Paid Parking	32	10.60%
Fisher Street - Carpark (Level 3)	Paid Parking	31	10.26%
Fisher Street - Carpark (Level 4)	Paid Parking	33	10.93%
Fisher Street - Carpark (Level 5)	Paid Parking	39	12.91%
Fisher Street - Carpark	Disable Parking	4	1.32%
Cumberland Street - Public Carpark	Disable Parking	2	0.66%
Cumberland Street - Public Carpark	2P 8am - 6pm Mon - Sat	50	16.56%
Cumberland Street - Public Carpark	No Restriction	3	0.99%
Cumberland Street - Public Carpark	No Restriction	14	4.64%
Stardust Hotel Private Carpark	No Restriction	18	5.96%
Stardust Hotel Private Carpark	No Restriction	17	5.63%
Stardust Hotel Private Carpark	No Restriction	10	3.31%
Stardust Hotel Private Carpark	No Restriction	18	5.96%
		302	**100.00%**

Source: TIS Survey

Table 24: Existing Parking Demand: Thursday 4 May 2023

Car Park	Parking Restriction	Capacity	3:00 PM - 3:30 PM	3:30 PM - 4:00 PM	4:00 PM - 4:30 PM	4:30 PM - 5:00 PM	5:00 PM - 5:30 PM	5:30 PM - 6:00 PM	6:00 PM - 6:30 PM	6:30 PM - 7:00 PM	7:00 PM - 7:30 PM	7:30 PM - 8:00 PM
Fisher Street - Carpark (Ground)	Paid Parking	**5**	5	5	4	5	5	3	0	0	0	1
Fisher Street - Carpark (Level 1)	Paid Parking	**26**	24	25	24	24	26	23	19	10	4	3
Fisher Street - Carpark (Level 2)	Paid Parking	**32**	28	28	27	27	26	26	22	12	11	11
Fisher Street - Carpark (Level 3)	Paid Parking	**31**	20	20	19	18	18	18	17	13	8	8
Fisher Street - Carpark (Level 4)	Paid Parking	**33**	14	13	13	11	10	7	5	5	4	3
Fisher Street - Carpark (Level 5)	Paid Parking	**39**	7	6	6	6	5	3	3	2	2	2
Fisher Street - Carpark	Disable Parking	**4**	3	3	3	3	2	2	1	1	1	0
Cumberland Street - Public Carpark	Disable Parking	**2**	1	0	0	1	0	0	1	2	2	2
Cumberland Street - Public Carpark	2P 8am - 6pm Mon - Sat	**50**	31	29	29	30	29	19	18	27	31	33
Cumberland Street - Public Carpark	No Restriction	**3**	2	2	3	2	2	1	1	3	3	3
Cumberland Street - Public Carpark	No Restriction	**14**	10	12	11	10	10	8	7	12	14	14
Stardust Hotel Private Carpark	No Restriction	**18**	15	16	17	15	16	14	12	15	16	16
Stardust Hotel Private Carpark	No Restriction	**17**	16	16	17	17	17	14	8	10	10	9
Stardust Hotel Private Carpark	No Restriction	**10**	9	9	10	11	10	10	8	7	7	6
Stardust Hotel Private Carpark	No Restriction	**18**	18	17	16	17	17	17	14	15	13	12
Totals		**302**	**203**	**201**	**199**	**197**	**193**	**165**	**136**	**134**	**126**	**123**
Number of Vacant Spaces			**99**	**101**	**103**	**105**	**109**	**137**	**166**	**168**	**176**	**179**
% of Capacity Used			**67.2%**	**66.6%**	**65.9%**	**65.2%**	**63.9%**	**54.6%**	**45.0%**	**44.4%**	**41.7%**	**40.7%**

Source: TIS Surveys

Table 25: Existing Parking Demand: Saturday 6 May 2023

Car Park	Parking Restriction	Capacity	3:00 PM - 3:30 PM	3:30 PM - 4:00 PM	4:00 PM - 4:30 PM	4:30 PM - 5:00 PM	5:00 PM - 5:30 PM	5:30 PM - 6:00 PM	6:00 PM - 6:30 PM	6:30 PM - 7:00 PM	7:00 PM - 7:30 PM	7:30 PM - 8:00 PM
Fisher Street - Carpark (Ground)	Paid Parking	**5**	3	2	4	2	4	2	4	4	4	4
Fisher Street - Carpark (Level 1)	Paid Parking	**26**	25	24	23	25	24	19	15	11	9	8
Fisher Street - Carpark (Level 2)	Paid Parking	**32**	32	31	30	31	20	8	0	1	1	1
Fisher Street - Carpark (Level 3)	Paid Parking	**31**	25	28	27	20	14	8	2	0	0	0
Fisher Street - Carpark (Level 4)	Paid Parking	**33**	3	3	2	2	1	1	0	0	0	0
Fisher Street - Carpark (Level 5)	Paid Parking	**39**	0	1	1	1	1	1	1	1	0	0
Fisher Street - Carpark	Disable Parking	**4**	4	4	4	3	3	2	1	2	2	1
Cumberland Street - Public Carpark	Disable Parking	**2**	2	2	2	1	2	1	1	1	2	2
Cumberland Street - Public Carpark	2P 8am - 6pm Mon - Sat	**50**	50	50	49	48	49	47	46	43	41	37
Cumberland Street - Public Carpark	No Restriction	**3**	3	3	3	3	3	3	3	3	3	3
Cumberland Street - Public Carpark	No Restriction	**14**	14	14	14	14	12	13	12	13	13	12
Stardust Hotel Private Carpark	No Restriction	**18**	18	17	18	17	16	16	14	15	15	16
Stardust Hotel Private Carpark	No Restriction	**17**	17	17	17	16	16	14	12	13	14	15
Stardust Hotel Private Carpark	No Restriction	**10**	10	10	10	10	8	8	7	8	8	9
Stardust Hotel Private Carpark	No Restriction	**18**	14	12	15	16	17	15	14	16	16	16
Totals		**302**	**220**	**218**	**219**	**209**	**190**	**158**	**132**	**131**	**128**	**124**
Number of Vacant Spaces			**82**	**84**	**83**	**93**	**112**	**144**	**170**	**171**	**174**	**178**
% of Capacity Used			**72.8%**	**72.2%**	**72.5%**	**69.2%**	**62.9%**	**52.3%**	**43.7%**	**43.4%**	**42.4%**	**41.1%**

Source: TIS Surveys

With reference to the tables above, the parking surveys show that there is significant spare capacity in the off-street car parks in the immediate vicinity of the Site through all afternoon and evening peak periods where the parking demand generated by residential visitors and tavern patrons will peak, with a minimum of 99 spaces available through Thursday afternoon and evening, and a minimum of 82 spaces available through Saturday afternoon and evening.

With reference again to Section 8.2.5, the maximum demand during 5:00pm and 8:00pm was 193 spaces and 190 spaces on the Thursday and Saturday respectively. This compares with the peak parking demand period for the existing Stardust Hotel, the parking demand for which (in accordance with the CTC DCP tavern parking rate) would be approximately 250 spaces. Clearly again, the tavern parking rate adopted in the CTC DCP is not representative of actual tavern parking demand.

8.2.7 Revised Site Peak Shared Parking Demand

Further to sections above, arc traffic + transport has recalculated the parking demand and shared parking capacity of the Site referencing the estimated peak parking demands for residential visitors and tavern patrons, being 50 parking spaces and 75 parking spaces respectively.

The results of this analysis are summarised in Table 23.

Table 26: Revised Site Peak Shared Parking Demand

Shared Parking Analysis	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Residential Visitor	11	13	14	16	15	17	13	12	10	15	23	30	50	44
Retail	0	0	50	50	56	64	68	61	64	75	60	53	41	30
Medical	0	3	19	20	22	19	13	10	14	13	11	10	5	0
Gym	10	8	9	6	7	7	7	7	10	12	10	10	12	8
Child Care	18	16	8	2	0	4	2	10	14	18	20	10	0	0
Tavern	2	2	2	2	5	26	36	32	22	24	38	49	64	75
Total Demand	**41**	**42**	**102**	**96**	**105**	**137**	**139**	**131**	**134**	**156**	**163**	**160**	**171**	**157**

8.3 Car Parking Provision

8.3.1 Proposed Car Parking

The DA Proposal will provide the following car parking:

- 251 residential parking spaces (residents only) in the CRE Minor Car Park; and
- 183 mixed use parking spaces (including residential visitor parking) in the Broomfield Street Car Park.

8.3.2 Adequacy of Residential Car Parking Provision

With reference to Table 20, the DA Proposal will provide residential parking in full compliance with the CTC DCP.

8.3.3 Adequacy of Residential Visitor and Mixed Use Parking Provision

With reference to Table 20, the DA Proposal will not provide strict compliance with the mixed-use and residential visitor car parking requirements. However, with reference to the parking considerations detailed in Section 8.2:

- Even if the CTC DCP parking rates were considered without revision, the peak parking demand further to consideration of shared parking – as specifically provided for in the CTC DCP – indicates that the Site would generate a peak demand for up to 293 parking spaces, resulting in an off-site parking demand for up to 110 car parking spaces.
- However, even if this was representative of actual demand, reference to Table 24 and Table 25 shows that the adjacent public off-street car parks (Fisher Street Car Park and Cumberland Street Car Park) have minimum spare capacity of 129 and 134 spaces during the period 5:00pm to 8:00pm when mixed use parking demand peaks.
- Based on the revised residential visitor and tavern patron parking rates, the peak parking demand further to consideration of shared parking indicates that the Site would generate a peak demand for up to 171 parking spaces, or 12 spaces fewer than will be provided.

Based on all available information, it is the opinion of arc traffic + transport that the provision of 183 residential visitor and mixed use parking spaces provides an appropriate and sustainable balance between the maximum requirements of the CTC DCP and what are anticipated to be the actual peak parking requirements for the different Site components and user groups.

There may be times where there is some demand for off-site parking, and indeed some visitors will choose to park off-site regardless of the availability of on-site parking, but as shown in the parking surveys (Section 8.2.6) there is significant spare capacity in the immediate vicinity of the Site in the Fisher Street Car Park and the Cumberland Street Car Park.

This in our opinion should provide Council with confidence that there is little if any potential for additional parking demand to extend outside of the immediate vicinity of the Site and Precinct 4.

In summary, arc traffic + transport can fully support the proposed number of residential, residential visitor and mixed use parking spaces across the Site.

8.4 Additional Parking Considerations

8.4.1 Accessible Parking: Residential

Accessible parking for the residential component is provided at a rate commensurate with the number of accessible dwellings, which comprise 10% of all dwellings. As such, a total of 36 accessible parking spaces are provided for the residential component of the Site.

8.4.2 Accessible Parking: Mixed Use

With reference to Section 12.3 of the Fairfield DCP, accessible parking is to be provided in accordance with the Building Code of Australia (**BCA**). In this regard, the BCA requires:

- 1 accessible space per 100 standard spaces for retail floorspace; and
- 1 accessible space per 50 standard spaces for commercial floorspace.

Application of these parking rates to the DA Proposal indicates a requirement for 2 accessible spaces for the retail floorspace, and 1 accessible space for the commercial floorspace.

Notwithstanding, a total of 4 accessible parking spaces will be provided in the Broomfield Street Car Park.

8.4.3 Motorcycle Parking

Neither the CTC DCP nor Fairfield DCP provide any requirement for motorcycle parking. Notwithstanding, the DA Proposal provides for a total of 4 motorcycle spaces in the CRE Minor Car Park, and 4 motorcycle spaces in the Broomfield Street Car Park.

8.4.4 Bicycle Parking

The Fairfield DCP references bicycle parking rates provided in AS 2890.3:1993; however, the updated AS 2890.3 (2015) does not include bicycle parking rates. As such, arc traffic + transport has referenced the staff and visitor bicycle parking rates provided in Austroads Bicycle; these rates, and the bicycle parking provided for in the DA Proposal, are summarised in Table 27.

Table 27: Bicycle Parking Provision

DA Proposal Component	Bicycle Parking Requirements		
	Parking Rate	Parking Required	Parking Provided
Residential	0.02 per dwelling for visitors	7	30
Retail	0.4 per 100m^2 GLA	7	41
Medical Centre	0.1 per visitors + 0.1 per staff	3	
Child Care Centre	0.3 per staff	4	
Total		**21**	**71**

Source: Austroads Bicycles

With reference to Table 27, the DA Proposal provides on-site bicycle parking significantly in excess of that required with reference to Austroads Bicycles, which reflects the significant opportunities for active transport to provide a viable form of transport for residents, tenants and visitors.

8.5 Parking Design

8.5.1 Car Parking

All parking areas have been designed to provide full compliance with the relevant Australian Standards for each specific User group. In this regard, the following design provisions are noted:

- For residential parking areas, minimum space dimensions of 5.4m by 2.4m and minimum parking aisle widths of 5.8m, which provides full compliance with AS 2890.1 for User Class 1A.
- For mixed use parking areas, minimum space dimensions of 5.4m by 2.6m and minimum parking aisle widths of 6.2m, which provides full compliance with AS 2890.1 for User Class 3.
- For mixed use accessible parking spaces, a space with dimensions of 5.4m by 2.4m with an adjacent shared space of 5.4m by 2.4m, which provides full compliance with AS 2890.1 and AS 2890.6 for User Class 4.
- Headroom through all parking areas is provided in compliance with Section 5.3 of AS 2890.1.

With regard to accessible parking spaces for the residential component of the Site, these spaces have been designed with reference to the NCC and Disability Standards with dimensions of 5.4m by 3.8m. This fully compliant design envelope has been adopted for the residential accessible spaces as it will allow accessible dwellings to be on-sold with an accessible parking space, which might otherwise be difficult if designed in accordance with AS 2890.6.

In addition, 20 parking spaces will be sign-posted for the child care centre, a total which provides full compliance with the CTC DCP requirement. These spaces would be available to general Site visitors outside of the child care centre operating periods, i.e. during the evening and on weekends.

8.5.2 Bicycle Parking

All bicycle parking spaces will be provided as Security Level C bicycle racks, though residential bicycle spaces will be provided in the secure residential car park. All bicycle spaces provide a design envelopment of 1.8m by 0.5m, and as such provide full compliance with AS 2890.3.

8.6 Cabramatta Stage 3 Parking

As discussed, access to residential parking for Stage 3 will also be provided via the CRE Minor driveway. Further parking areas for Stage 3 would then link to the car park access aisles through the CRE Minor Car Park, and be provided at the same rates as required for the DA Proposal dwellings. It is again noted that the residential visitor spaces for Stage 3 have been provided in the Broomfield Street Car Park as part of the DA Proposal.

With regard to any future retail component of Stage 3, this area is estimated to have a GLA of approximately 409m^2, and in turn would have a parking requirement for 17 parking spaces. These additional parking spaces would be provided as an extension of the Broomfield Street Car Park as part of the future Stage 3 development.

9 Access & Servicing

9.1 Access Driveways

9.1.1 Overview

An assessment of the design of each of the proposed access driveways has been undertaken referencing the relevant Australian Standards to ensure that appropriate, safe and compliant access is provided at each driveway. Key considerations when determining the design of the driveways are detailed in sections below.

9.1.2 User Classification

Section 3 of AS 2890.1 provides guidelines in regard to the provision of driveways for new developments, which are largely based on the number of parking spaces being serviced by each driveway, and the classification of the users of those parking spaces.

Table 1.1 of AS 2890.1 provides a summary of the different user classifications, and is reproduced below.

Table 28: AS2890.1 User Classification

User class	Required door opening	Required aisle width	Examples of uses (Note 1)
1	Front door, first stop	Minimum for single manoeuvre entry and exit	Employee and commuter parking (generally, all-day parking)
1A	Front door, first stop	Three-point turn entry and exit into 90° parking spaces only, otherwise as for User Class 1	Residential, domestic and employee parking
2	Full opening, all doors	Minimum for single manoeuvre entry and exit	Long-term city and town centre parking, sports facilities, entertainment centres, hotels, motels, airport visitors (generally medium-term parking)
3	Full opening, all doors	Minimum for single manoeuvre entry and exit	Short-term city and town centre parking, parking stations, hospital and medical centres
3A	Full opening, all doors	Additional allowance above minimum single manoeuvre width to facilitate entry and exit	Short term, high turnover parking at shopping centres

Source: AS 2890.1

With reference to Table 28:

- The CRE Minor driveway would be used exclusively by Class 1A users (residents); and
- The Broomfield Street driveway would be used by Class 1, Class 3 and Class 3A users (retail, commercial and general visitors).

9.1.3 Driveway Category

Table 3.1 of AS 2890.1 indicates the category of driveway(s) required for different user types based on the number of parking spaces served by each driveway and the location of the driveway, and is reproduced below.

Table 29: AS 2890.1 Driveway Category

Class of parking facility (see Table 1.1)	Frontage road type	Access facility category				
		Number of parking spaces (Note 1)				
		<25	25 to 100	101 to 300	301 to 600	>600
1,1A	Arterial	1	2	3	4	5
	Local	1	1	2	3	4
2	Arterial	2	2	3	4	5
	Local	1	2	3	4	4
3,3A	Arterial	2	3	4	4	5
	Local	1	2	3	4	4

Source: AS 2890.1

With reference to Table 29, further to the full development of the Site (Stage 1, Stage 2 and Stage 3), the CRE Minor driveway will provide access to a total of 301 parking spaces. Importantly, while this suggests a requirement for a Category 3 driveway, the AS 2890.1 standards are based on a retail car park with high turnover, i.e. a car park that would warrant additional lane width (and indeed lanes) given the higher trip generation of retail floorspace.

Consideration of a lower (or indeed higher) category driveway is specifically provided for in Clause 3.2.1 of AS 2890.1, which states:

> *Except as specified in Clause 3.2.2, where traffic flow data on an access driveway is either known or can be determined by separate means more accurately than by use of the categories in Table 3.1* [Table 29 above] *such data may be used to determine driveway widths by accepted design procedures*.

Clause 3.2.2 of AS 2890.1 relates to the minimum requirements for low volume driveways, stating:

> *In other cases subject to consideration of traffic volumes on a case-by-case basis, lesser widths, down to a minimum of 3.0 m at a domestic property, may be provided. As a guide, 30 or more movements in a peak hour (in and out combined) would usually require provision for two vehicles to pass on the driveway, i.e. a minimum width of 5.5 m. On long driveways, passing opportunities should be provided at least every 30 m*.

Both of these clauses provide full support for the provision of a Category 2 driveway, noting again that the trip generation of the CRE Minor driveway would only be marginally higher than the minimum standard driveway width of 3.0m with 5.5m passing opportunities.

Further to the full development of the Site (Stage 1, Stage 2 and Stage 3), the Broomfield Street driveway would provide access to a total of 202 Class 2 and Class 3 parking spaces, being 183 spaces under the DA Proposal and 19 additional future spaces for the retail component of Stage 3. As such, the Broomfield Street driveway will be designed as a Category 3 driveway.

9.1.4 Driveway Design Guidelines

Table 3.2 of AS 2890.1 indicates the basic design profile for each driveway category, and is reproduced below.

Table 30: AS 2890.1 Driveway Category Design

Category	Entry width	Exit width	Separation of driveways
1	3.0 to 5.5	(Combined) (see Note)	N/A
2	6.0 to 9.0	(Combined) (see Note)	N/A
3	6.0	4.0 to 6.0	1 to 3
4	6.0 to 8.0	6.0 to 8.0	1 to 3
5	To be provided as an intersection, not an access driveway, see Clause 3.1.1.		

Source: AS 2890.1

With reference to Table 30:

- The CRE Minor driveway will provide a width of 7.5m for two-way movements; and
- The Broomfield Street driveway will provide a width of 11m for two-way movements, including an entry width of 6.0m and exiting width of 5.0m

As such, the design of both the CRE Minor driveway and Broomfield Street driveway provide full compliance with AS 2890.1.

The driveway entry points to both CRE Minor and Broomfield Street have also been designed to provide compliance with Section 3.4.2 of AS 2890.1 in regard to both *entering sight distance* (between vehicles departing the Site and passing vehicles) and *sight distance to pedestrians* between departing vehicles and pedestrians within the adjacent footpath.

9.2 Servicing

9.2.1 Maximum Size Service Vehicle

Based on our discussions with Council, the waste collection vehicle currently used across the LGA is a 12.5m Heavy Rigid Vehicle (**HRV**). While there is the potential for Council to use smaller waste collection vehicles in the future – for example an 8.8m Medium Rigid Vehicle (**MRV**) as used by many metropolitan Councils – it was determined at an early stage in the design process that providing for a HRV would be difficult given Site constraints, including manoeuvring and headroom.

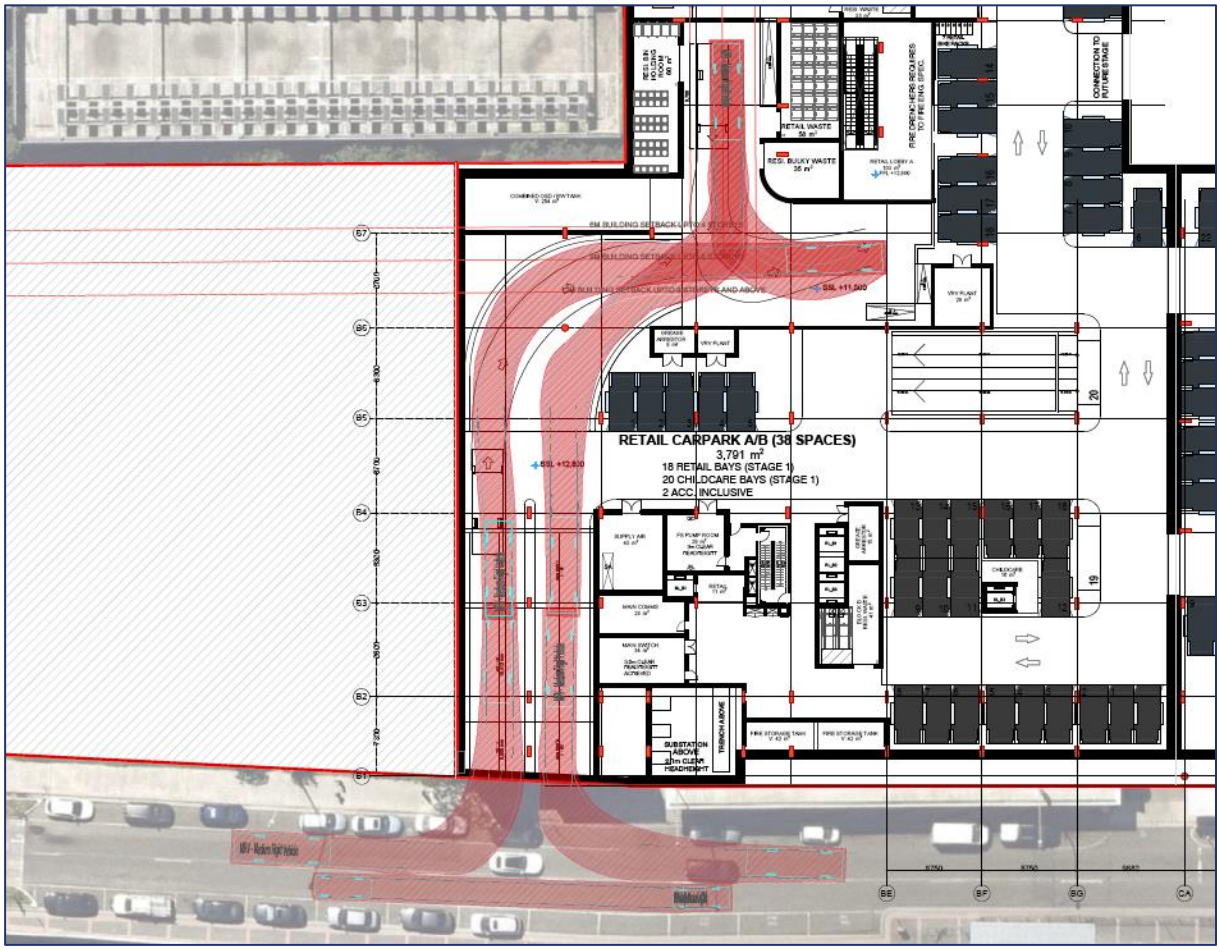
As such, the DA Proposal provides for waste collection to be undertaken by a private waste contractor using MRVs; further details in regard to the waste collection proposal are provided in the Waste Management Plan that accompanies the DA. All general servicing (deliveries etc) will also be restricted to a MRV, which is generally standard practice for infill sites within urban centres.

9.2.2 Service Vehicle Access

All servicing will be undertaken from a central service area accessed via the Broomfield Street driveway. Service vehicles will enter from Broomfield Street and proceed directly into the service area which is entirely separated from general car parking areas. Within the service area, service vehicles up to and including a MRV will be able to undertake a 3-point turn to access the service bays, and as such enter and depart the service area (and Broomfield Street Car Park) in a forward direction.

Swept path analysis of these movements has been undertaken by PDC Consultants on behalf of arc traffic + transport; these swept paths are shown in Figure 31, noting that the parking spaces (or moreover parked cars) in Broomfield Street adjacent to the driveway (as shown in the aerial image) will be removed as part of the DA Proposal so as to provide appropriate swept paths and sight distance.

Figure 31: Service Vehicle Swept Paths



Source: PDC Consultants

It is anticipated that, other than weekly residential waste collection, other servicing requirements will be relatively minimal based on the land uses proposed. Notwithstanding, it is anticipated that a Loading Dock Management Plan or the like will be prepared with the future waste contractor and tenants to ensure that servicing occurs during pre-determined periods.

10 Conclusions

Further to our assessment of the access, traffic and parking characteristics of the DA Proposal, arc traffic + transport provides the following Conclusions:

- The DA Proposal is entirely in line with key Council strategies and policies for the revitalisation of Precinct 4 and the broader Town Centre.
- The Site is located directly adjacent to Cabramatta Station, which will provide significant encouragement for the use of public transport for future residents, tenants and visitors.
- The DA Proposal provides significant new pedestrian infrastructure to and through the Site and Precinct 4, while the Cabramatta Station concourse provides excellent access between the eastern and western sides of the Town Centre.
- The Site is provided with excellent access to local and sub-regional bicycle and shared paths, and bicycle parking spaces are provided on-site in excess of those required to further improve the opportunities for cycling by residents, tenants and visitors.
- The trip generation of the Site further to the DA Proposal - and further to the full development of Cabramatta East – is very moderate, and would have no impact on the operation of any local intersections, nor sub-regional intersections along Hume Highway and CRE Major.
- The trip generation of Precinct 4 further to the development of Cabramatta East and all adjacent sites is very moderate, and would have no impact on the operation of any local intersections, nor sub-regional intersections along Hume Highway and CRE Major.
- The parking to be provided for the DA Proposal provides full compliance with the residential parking requirements of the CTC DCP, while mixed use parking is provided at an appropriate and sustainable level further to appropriate consideration of parking factors such as shared parking and modern tavern parking rates.
- Access driveways and parking areas have been designed to provide full compliance with the relevant Australian Standards, the Disability Guidelines and NCC 2022.
- All service vehicle access will be provided via the Broomfield Street driveway, and has been designed to provide full compliance with AS 2890.2 for use by a MRV.

In summary, arc traffic + transport can fully support the DA Proposal, and indeed the broader development of Cabramatta East and Precinct 4, further to access, traffic and parking considerations.

Appendix A: Traffic Surveys

Source: TIS Surveys

Hume Highway & Lansdowne Road

Location	Lansdowne Road	Duration	7:00 - 9:00
	Hume Highway		16:00 - 18:00
	-		
	Hume Highway	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH *Lansdowne Road*											EAST *Hume Highway*														
	L			T			R					L			T			R			U				TOTAL		
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	TOTAL
7:00 - 8:00	242	8	250				53	4	57	307	1				1296	82	1378	146	5	151	3	0	3	1532	0	3886	255	4141
7:15 - 8:15	236	4	240				65	4	69	309	0				1444	95	1539	188	7	195	2	0	2	1736	0	4098	241	4339
7:30 - 8:30	237	2	239				80	2	82	321	1				1508	96	1604	206	8	214	2	0	2	1820	0	4189	237	4426
7:45 - 8:45	217	4	221				106	1	107	328	1				1549	95	1644	256	8	264	2	0	2	1910	0	4198	251	4449
8:00 - 9:00	206	7	213				116	2	118	331	1				1541	102	1643	236	7	243	2	0	2	1888	0	4168	293	4461
16:00 - 17:00	177	7	184				46	1	47	231	1				1951	98	2049	350	11	361	3	0	3	2413	0	4288	187	4475
16:15 - 17:15	174	5	179				45	0	45	224	1				1963	96	2059	362	9	371	1	0	1	2431	0	4369	171	4540
16:30 - 17:30	176	4	180				48	0	48	228	1				1903	93	1996	360	10	370	0	0	0	2366	0	4360	157	4517
16:45 - 17:45	178	3	181				53	0	53	234	1				1886	89	1975	397	7	404	1	0	1	2380	0	4488	144	4632
17:00 - 18:00	184	2	186				55	1	56	242	1				1854	76	1930	387	4	391	1	0	1	2322	0	4402	126	4528
Period End																												

All Vehicles Time Per Hour	SOUTH -											WEST *Hume Highway*														
	L			T			R					L			T			R			U				TOTAL		
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	TOTAL
7:00 - 8:00												38	3	41	2108	153	2261				0	0	0	2302	4	3886	255	4141
7:15 - 8:15												51	4	55	2112	127	2239				0	0	0	2294	3	4098	241	4339
7:30 - 8:30												74	4	78	2082	125	2207				0	0	0	2285	2	4189	237	4426
7:45 - 8:45												94	4	98	1974	139	2113				0	0	0	2211	2	4198	251	4449
8:00 - 9:00												100	4	104	1967	171	2138				0	0	0	2242	0	4168	293	4461
Period End																												
16:00 - 17:00												81	1	82	1680	69	1749				0	0	0	1831	5	4288	187	4475
16:15 - 17:15												82	1	83	1742	60	1802				0	0	0	1885	4	4369	171	4540
16:30 - 17:30												70	0	70	1803	50	1853				0	0	0	1923	5	4360	157	4517
16:45 - 17:45												80	1	81	1893	44	1937				0	0	0	2018	5	4488	144	4632
17:00 - 18:00												74	1	75	1847	42	1889				0	0	0	1964	4	4402	126	4528
Period End																												

Hume Highway & Hollywood Drive & Chadderton Street

Location	Chadderton Street	Duration	7:00 - 9:00
	Hume Highway		16:00 - 18:00
	Hollywood Drive		
	Hume Highway	Day/Date	Wednesday, 15 March 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Chadderton Street											EAST Hume Highway												
	L			T			R					L			T			R					TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	TOTAL
7:00 - 8:00	15	8	23	34	2	36	26	4	30	89	0	26	4	30	1321	105	1426	41	5	46	1502	2	3632	290	3922
7:15 - 8:15	13	4	17	36	2	38	23	2	25	80	0	32	7	39	1416	102	1518	50	6	56	1613	2	3758	273	4031
7:30 - 8:30	17	5	22	37	2	39	21	2	23	84	0	40	7	47	1507	100	1607	49	6	55	1709	2	3930	254	4184
7:45 - 8:45	21	5	26	36	1	37	24	3	27	90	0	47	7	54	1540	93	1633	53	7	60	1747	1	3954	258	4212
8:00 - 9:00	25	5	30	33	1	34	21	3	24	88	1	56	6	62	1513	87	1600	54	7	61	1723	0	3854	256	4110
16:00 - 17:00	38	2	40	24	5	29	25	2	27	96	1	36	3	39	1996	103	2099	54	5	59	2197	2	4125	210	4335
16:15 - 17:15	38	1	39	31	4	35	20	1	21	95	0	31	1	32	1970	109	2079	49	5	54	2165	2	4218	210	4428
16:30 - 17:30	42	1	43	32	3	35	23	3	26	104	0	29	1	30	1935	105	2040	53	4	57	2127	2	4233	199	4432
16:45 - 17:45	42	1	43	26	3	29	22	3	25	97	0	29	0	29	1991	93	2084	42	3	45	2158	3	4318	172	4490
17:00 - 18:00	39	1	40	28	2	30	26	3	29	99	0	27	1	28	1918	86	2004	42	2	44	2076	1	4232	158	4390
Period End																									

All Vehicles Time Per Hour	SOUTH Hollywood Drive											WEST Hume Highway												
	L			T			R					L			T			R					TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	TOTAL
7:00 - 8:00	24	11	35	20	2	22	68	21	89	146	2	13	1	14	2007	121	2128	37	6	43	2185	6	3632	290	3922
7:15 - 8:15	32	9	41	19	2	21	73	16	89	151	1	12	1	13	2008	116	2124	44	6	50	2187	5	3758	273	4031
7:30 - 8:30	32	9	41	17	1	18	76	15	91	150	1	11	0	11	2076	101	2177	47	6	53	2241	5	3930	254	4184
7:45 - 8:45	37	4	41	24	2	26	83	20	103	170	1	15	0	15	2026	111	2137	48	5	53	2205	1	3954	258	4212
8:00 - 9:00	35	6	41	28	2	30	96	19	115	186	0	16	1	17	1922	115	2037	55	4	59	2113	3	3854	256	4110
Period End																									
16:00 - 17:00	66	5	71	30	4	34	138	10	148	253	1	30	2	32	1634	62	1696	54	7	61	1789	1	4125	210	4335
16:15 - 17:15	64	4	68	31	4	35	138	8	146	249	0	34	3	37	1752	64	1816	60	6	66	1919	0	4218	210	4428
16:30 - 17:30	67	3	70	28	3	31	140	6	146	247	1	35	2	37	1771	60	1831	78	8	86	1954	0	4233	199	4432
16:45 - 17:45	60	4	64	28	2	30	130	3	133	227	1	34	1	35	1838	54	1892	76	5	81	2008	0	4318	172	4490
17:00 - 18:00	62	4	66	29	3	32	120	2	122	220	1	34	1	35	1828	47	1875	79	6	85	1995	0	4232	158	4390
Period End																									

Location	Cabramatta Road East	Duration	7:00 - 9:00
	Hume Highway		16:00 - 18:00
	-		
	Hume Highway	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Cabramatta Road East											EAST Hume Highway										
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00	606	34	640				342	17	359	999	1				1047	67	1114	236	24	260	1374	0	3946	248	4194
7:15 - 8:15	598	30	628				368	22	390	1018	1				1125	74	1199	253	24	277	1476	0	4066	245	4311
7:30 - 8:30	591	30	621				385	17	402	1023	1				1209	79	1288	301	23	324	1612	0	4152	239	4391
7:45 - 8:45	549	32	581				368	21	389	970	1				1272	85	1357	308	25	333	1690	0	4147	280	4427
8:00 - 9:00	514	31	545				343	17	360	905	1				1237	75	1312	344	25	369	1681	0	4086	291	4377
16:00 - 17:00	443	15	458				357	9	366	824	2				1523	87	1610	602	20	622	2232	0	4430	197	4627
16:15 - 17:15	426	11	437				380	7	387	824	2				1529	86	1615	613	24	637	2252	0	4510	183	4693
16:30 - 17:30	415	15	430				355	9	364	794	1				1491	81	1572	606	26	632	2204	0	4578	174	4752
16:45 - 17:45	411	17	428				343	8	351	779	0				1451	72	1523	669	26	695	2218	0	4584	163	4747
17:00 - 18:00	390	16	406				316	7	323	729	0				1441	66	1507	676	20	696	2203	0	4533	145	4678
Period End																									

All Vehicles Time Per Hour	SOUTH -											WEST Hume Highway										
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00												90	9	99	1625	97	1722				1821	2	3946	248	4194
7:15 - 8:15												109	8	117	1613	87	1700				1817	3	4066	245	4311
7:30 - 8:30												113	5	118	1553	85	1638				1756	3	4152	239	4391
7:45 - 8:45												122	7	129	1528	110	1638				1767	2	4147	280	4427
8:00 - 9:00												126	6	132	1522	137	1659				1791	2	4086	291	4377
Period End																									
16:00 - 17:00												188	5	193	1317	61	1378				1571	2	4430	197	4627
16:15 - 17:15												210	5	215	1352	50	1402				1617	4	4510	183	4693
16:30 - 17:30												210	5	215	1501	38	1539				1754	3	4578	174	4752
16:45 - 17:45												204	5	209	1506	35	1541				1750	3	4584	163	4747
17:00 - 18:00												226	4	230	1484	32	1516				1746	2	4533	145	4678
Period End																									

Location	Cabramatta Road East		Duration	7:00 - 9:00	
	Cumberland Street			16:00 - 18:00	
	Cabramatta Road East				
	Cumberland Street		Day/Date	Tuesday, 28 February 2023	
Suburb	CABRAMATTA		Weather	-	

All Vehicles Time Per Hour	NORTH Cabramatta Road East											EAST Cumberland Street												
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00	30	1	31	8	0	8	73	1	74	113	29	7	2	9	303	30	333	15	2	17	359	16	1453	90	1543
7:15 - 8:15	37	0	37	9	0	9	89	3	92	138	29	10	3	13	321	27	348	15	3	18	379	15	1553	86	1639
7:30 - 8:30	33	0	33	14	0	14	100	2	102	149	30	9	1	10	359	24	383	22	2	24	417	16	1663	78	1741
7:45 - 8:45	36	0	36	26	0	26	128	2	130	192	31	11	1	12	398	26	424	27	1	28	464	45	1773	84	1857
8:00 - 9:00	43	0	43	40	0	40	154	3	157	240	31	14	1	15	430	24	454	38	2	40	509	74	1874	78	1952
16:00 - 17:00	51	1	52	22	2	24	180	2	182	258	38	8	1	9	698	18	716	40	1	41	766	12	2010	54	2064
16:15 - 17:15	55	1	56	22	1	23	181	5	186	265	35	8	1	9	711	22	733	45	0	45	787	17	2039	56	2095
16:30 - 17:30	52	1	53	21	0	21	186	5	191	265	27	9	1	10	712	24	736	42	0	42	788	14	2048	57	2105
16:45 - 17:45	54	0	54	18	0	18	197	4	201	273	15	13	2	15	731	23	754	42	0	42	811	11	2067	55	2122
17:00 - 18:00	49	0	49	20	0	20	202	3	205	274	21	13	1	14	775	20	795	46	0	46	855	14	2105	45	2150
Period End																									

All Vehicles Time Per Hour	SOUTH Cabramatta Road East											WEST Cumberland Street												
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00	40	2	42	20	0	20	34	2	36	98	2	62	1	63	842	48	890	19	1	20	973	16	1453	90	1543
7:15 - 8:15	43	2	45	29	0	29	39	1	40	114	4	73	1	74	859	46	905	29	0	29	1008	18	1553	86	1639
7:30 - 8:30	52	3	55	31	0	31	39	2	41	127	5	77	0	77	889	44	933	38	0	38	1048	24	1663	78	1741
7:45 - 8:45	66	1	67	38	0	38	46	2	48	153	8	84	0	84	859	50	909	54	1	55	1048	36	1773	84	1857
8:00 - 9:00	86	2	88	36	0	36	44	2	46	170	15	95	0	95	817	42	859	77	2	79	1033	67	1874	78	1952
Period End																									
16:00 - 17:00	94	2	96	50	2	52	41	0	41	189	2	163	6	169	611	18	629	52	1	53	851	20	2010	54	2064
16:15 - 17:15	99	2	101	55	1	56	43	2	45	202	2	159	4	163	615	16	631	46	1	47	841	29	2039	56	2095
16:30 - 17:30	109	2	111	49	1	50	41	4	45	206	3	130	1	131	648	17	665	49	1	50	846	29	2048	57	2105
16:45 - 17:45	110	2	112	41	1	42	40	4	44	198	1	123	0	123	652	19	671	46	0	46	840	25	2067	55	2122
17:00 - 18:00	99	0	99	40	0	40	33	4	37	176	3	114	0	114	672	17	689	42	0	42	845	25	2105	45	2150
Period End																									

Location	Cabramatta Road East	Duration	7:00 - 9:00
	Cabramatta Road East		16:00 - 18:00
	-		
	Cabramatta Road East	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Cabramatta Road East										EAST Cabramatta Road East										TOTAL	TOTAL
	L			T			R				L			T			R					
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	0	0	0				16	1	17	17				402	32	434	15	0	15	449	1422	78	1500
7:15 - 8:15	0	0	0				25	1	26	26				425	30	455	21	1	22	477	1511	76	1587
7:30 - 8:30	0	0	0				28	2	30	30				474	28	502	23	2	25	527	1614	72	1686
7:45 - 8:45	0	0	0				34	3	37	37				549	25	574	30	3	33	607	1698	79	1777
8:00 - 9:00	0	0	0				35	2	37	37				637	27	664	30	3	33	697	1767	74	1841
Period End																							
16:00 - 17:00	0	0	0				43	0	43	43				940	26	966	38	0	38	1004	1818	47	1865
16:15 - 17:15	0	0	0				47	0	47	47				944	35	979	42	0	42	1021	1835	52	1887
16:30 - 17:30	0	0	0				47	0	47	47				966	32	998	35	0	35	1033	1868	48	1916
16:45 - 17:45	0	0	0				42	0	42	42				1000	31	1031	38	1	39	1070	1887	48	1935
17:00 - 18:00	0	0	0				34	0	34	34				1014	22	1036	36	2	38	1074	1896	39	1935
Period End																							

All Vehicles Time Per Hour	SOUTH -										WEST Cabramatta Road East										TOTAL	TOTAL
	L			T			R				L			T			R					
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00											108	3	111	881	42	923				1034	1422	78	1500
7:15 - 8:15											124	2	126	916	42	958				1084	1511	76	1587
7:30 - 8:30											126	2	128	963	38	1001				1129	1614	72	1686
7:45 - 8:45											124	3	127	961	45	1006				1133	1698	79	1777
8:00 - 9:00											118	2	120	947	40	987				1107	1767	74	1841
Period End																							
16:00 - 17:00											86	2	88	711	19	730				818	1818	47	1865
16:15 - 17:15											94	1	95	708	16	724				819	1835	52	1887
16:30 - 17:30											94	0	94	726	16	742				836	1868	48	1916
16:45 - 17:45											96	0	96	711	16	727				823	1887	48	1935
17:00 - 18:00											94	0	94	718	15	733				827	1896	39	1935
Period End																							

Broomfield Street & Bareena Street

Location	Bareena Street	Duration	7:00 - 9:00
	Bareena Street		16:00 - 18:00
	-		-
	Broomfield Street	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	Dry

All Vehicles
Time Per Hour

NORTH — *Bareena Street*

	L			T			R			U					TOTAL		TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY		
7:00 - 8:00	385	13	398				162	7	169	57	1	58	625	0	1092	32	1124	
7:15 - 8:15	409	9	418				154	5	159	111	1	112	689	0	1240	29	1269	
7:30 - 8:30	403	7	410				171	5	176	203	0	203	789	0	1374	25	1399	
7:45 - 8:45	384	7	391				181	3	184	301	0	301	876	0	1523	22	1545	
8:00 - 9:00	373	7	380				182	1	183	380	0	380	943	0	1596	17	1613	
Period End																		
16:00 - 17:00	492	4	496				357	2	359	131	0	131	986	0	1775	16	1791	
16:15 - 17:15	497	1	498				359	3	362	139	0	139	999	0	1778	17	1795	
16:30 - 17:30	467	1	468				347	3	350	146	0	146	964	0	1752	15	1767	
16:45 - 17:45	466	2	468				354	2	356	128	0	128	952	0	1768	14	1782	
17:00 - 18:00	468	4	472				317	2	319	131	0	131	922	0	1759	13	1772	
Period End																		

EAST — *Bareena Street*

	L			T			R			U					TOTAL		TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY		
7:00 - 8:00				11	0	11	302	4	306	0	0	0	317	0	1092	32	1124	
7:15 - 8:15				11	0	11	336	6	342	0	0	0	353	0	1240	29	1269	
7:30 - 8:30				9	0	9	327	7	334	0	0	0	343	0	1374	25	1399	
7:45 - 8:45				13	0	13	346	6	352	0	0	0	365	0	1523	22	1545	
8:00 - 9:00				13	0	13	334	4	338	0	0	0	351	0	1596	17	1613	
Period End																		
16:00 - 17:00				20	1	21	472	7	479	0	0	0	500	0	1775	16	1791	
16:15 - 17:15				21	1	22	467	8	475	0	0	0	497	0	1778	17	1795	
16:30 - 17:30				26	1	27	448	7	455	0	0	0	482	0	1752	15	1767	
16:45 - 17:45				26	0	26	469	7	476	0	0	0	502	0	1768	14	1782	
17:00 - 18:00				25	0	25	485	5	490	0	0	0	515	0	1759	13	1772	
Period End																		

All Vehicles
Time Per Hour

SOUTH — *-*

	L			T			R			U					TOTAL		TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY		
7:00 - 8:00															1092	32	1124	
7:15 - 8:15															1240	29	1269	
7:30 - 8:30															1374	25	1399	
7:45 - 8:45															1523	22	1545	
8:00 - 9:00															1596	17	1613	
Period End																		
16:00 - 17:00															1775	16	1791	
16:15 - 17:15															1778	17	1795	
16:30 - 17:30															1752	15	1767	
16:45 - 17:45															1768	14	1782	
17:00 - 18:00															1759	13	1772	
Period End																		

WEST — *Broomfield Street*

	L			T			R			U					TOTAL		TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY		
7:00 - 8:00	166	6	172	9	1	10				0	0	0	182	3	1092	32	1124	
7:15 - 8:15	207	8	215	12	0	12				0	0	0	227	1	1240	29	1269	
7:30 - 8:30	249	6	255	12	0	12				0	0	0	267	4	1374	25	1399	
7:45 - 8:45	283	6	289	15	0	15				0	0	0	304	4	1523	22	1545	
8:00 - 9:00	300	5	305	14	0	14				0	0	0	319	8	1596	17	1613	
Period End																		
16:00 - 17:00	285	2	287	16	0	16				2	0	2	305	1	1775	16	1791	
16:15 - 17:15	279	4	283	14	0	14				2	0	2	299	1	1778	17	1795	
16:30 - 17:30	306	3	309	10	0	10				2	0	2	321	2	1752	15	1767	
16:45 - 17:45	317	3	320	6	0	6				2	0	2	328	1	1768	14	1782	
17:00 - 18:00	321	2	323	11	0	11				1	0	1	335	1	1759	13	1772	
Period End																		

Broomfield Street & Longfield Street

Location	Broomfield Street	Duration	7:00 - 9:00
	Longfield Street		16:00 - 18:00
	Broomfield Street		
	-	Day/Date	Wednesday, 15 March 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Broomfield Street										EAST Longfield Street										TOTAL		
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
7:00 - 8:00	76	2	78	73	2	75				153	30	0	30				70	2	72	102	345	6	351
7:15 - 8:15	87	4	91	82	2	84				175	34	0	34				88	1	89	123	413	8	421
7:30 - 8:30	83	4	87	83	2	85				172	41	0	41				114	0	114	155	464	7	471
7:45 - 8:45	88	3	91	76	2	78				169	41	0	41				122	1	123	164	481	10	491
8:00 - 9:00	82	2	84	95	1	96				180	58	0	58				147	4	151	209	541	13	554
Period End																							
16:00 - 17:00	131	2	133	145	2	147				280	34	1	35				126	1	127	162	537	7	544
16:15 - 17:15	135	2	137	150	1	151				288	35	0	35				137	1	138	173	572	5	577
16:30 - 17:30	139	1	140	154	3	157				297	32	0	32				142	1	143	175	597	5	602
16:45 - 17:45	146	1	147	148	3	151				298	31	0	31				141	1	142	173	594	5	599
17:00 - 18:00	155	1	156	139	2	141				297	35	0	35				137	1	138	173	599	4	603
Period End																							

All Vehicles Time Per Hour	SOUTH Broomfield Street										WEST -										TOTAL		
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
7:00 - 8:00				80	0	80	16	0	16	96											345	6	351
7:15 - 8:15				104	1	105	18	0	18	123											413	8	421
7:30 - 8:30				120	1	121	23	0	23	144											464	7	471
7:45 - 8:45				135	4	139	19	0	19	158											481	10	491
8:00 - 9:00				137	5	142	22	1	23	165											541	13	554
Period End																							
16:00 - 17:00				91	1	92	10	0	10	102											537	7	544
16:15 - 17:15				107	1	108	8	0	8	116											572	5	577
16:30 - 17:30				120	0	120	10	0	10	130											597	5	602
16:45 - 17:45				118	0	118	10	0	10	128											594	5	599
17:00 - 18:00				123	0	123	10	0	10	133											599	4	603
Period End																							

Broomfield Street & Fisher Street

Location	Broomfield Street	Duration	7:00 - 9:00
	Fisher Street		16:00 - 18:00
	Broomfield Street		
	-	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH *Broomfield Street*										EAST *Fisher Street*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	23	1	24	70	3	73				97	11	1	12				21	1	22	34	256	10	266
7:15 - 8:15	19	1	20	75	3	78				98	12	1	13				15	1	16	29	271	12	283
7:30 - 8:30	23	1	24	90	3	93				117	11	1	12				14	1	15	27	293	12	305
7:45 - 8:45	26	1	27	94	2	96				123	13	1	14				12	0	12	26	308	11	319
8:00 - 9:00	25	1	26	109	3	112				138	18	1	19				15	0	15	34	309	12	321
Period End																							
16:00 - 17:00	36	0	36	147	0	147				183	39	5	44				40	0	40	84	357	7	364
16:15 - 17:15	32	0	32	160	0	160				192	42	3	45				42	0	42	87	385	5	390
16:30 - 17:30	33	0	33	166	0	166				199	41	0	41				41	0	41	82	392	1	393
16:45 - 17:45	30	0	30	167	0	167				197	30	0	30				38	0	38	68	381	0	381
17:00 - 18:00	22	0	22	157	0	157				179	24	0	24				33	0	33	57	355	0	355
Period End																							

All Vehicles Time Per Hour	SOUTH *Broomfield Street*										WEST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00				91	4	95	40	0	40	135											256	10	266
7:15 - 8:15				107	6	113	43	0	43	156											271	12	283
7:30 - 8:30				119	6	125	36	0	36	161											293	12	305
7:45 - 8:45				131	7	138	32	0	32	170											308	11	319
8:00 - 9:00				119	7	126	23	0	23	149											309	12	321
Period End																							
16:00 - 17:00				74	1	75	21	1	22	97											357	7	364
16:15 - 17:15				87	1	88	22	1	23	111											385	5	390
16:30 - 17:30				87	0	87	24	1	25	112											392	1	393
16:45 - 17:45				95	0	95	21	0	21	116											381	0	381
17:00 - 18:00				95	0	95	24	0	24	119											355	0	355
Period End																							

Broomfield Street & Site

Location	Broomfield Street	Duration	7:00 - 9:00
	Car Park Entry		16:00 - 18:00
	Broomfield Street		
	-	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Broomfield Street											EAST Car Park Entry											
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00	13	0	13	63	3	66				79													200	7	207
7:15 - 8:15	21	0	21	67	3	70				91													227	6	233
7:30 - 8:30	17	0	17	77	4	81				98													246	8	254
7:45 - 8:45	15	0	15	86	3	89				104													262	10	272
8:00 - 9:00	26	0	26	98	2	100				126													289	7	296
Period End																									
16:00 - 17:00	33	0	33	140	5	145				178													284	7	291
16:15 - 17:15	37	0	37	154	3	157				194													315	4	319
16:30 - 17:30	43	0	43	157	0	157				200													324	1	325
16:45 - 17:45	43	0	43	152	0	152				195													327	0	327
17:00 - 18:00	40	0	40	148	0	148				188													319	1	320
Period End																									

All Vehicles Time Per Hour	SOUTH Broomfield Street											WEST -											
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00				119	4	123	5	0	5	128	134												200	7	207
7:15 - 8:15				135	3	138	4	0	4	142	162												227	6	233
7:30 - 8:30				148	3	151	4	1	5	156	173												246	8	254
7:45 - 8:45				155	4	159	6	3	9	168	198												262	10	272
8:00 - 9:00				157	2	159	8	3	11	170	217												289	7	296
Period End																									
16:00 - 17:00				96	2	98	15	0	15	113	299												284	7	291
16:15 - 17:15				110	1	111	14	0	14	125	282												315	4	319
16:30 - 17:30				109	1	110	15	0	15	125	295												324	1	325
16:45 - 17:45				115	0	115	17	0	17	132	275												327	0	327
17:00 - 18:00				113	0	113	18	1	19	132	256												319	1	320
Period End																									

Broomfield Street & CRE Minor

Location	Broomfield Street	Duration	7:00 - 9:00
	Cabramatta Road East		16:00 - 18:00
	Broomfield Street		
	-	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Broomfield Street											EAST Cabramatta Road East											
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00	43	3	46	20	0	20				66	4	25	0	25				99	3	102	127	9	224	7	231
7:15 - 8:15	49	3	52	23	0	23				75	2	27	0	27				112	3	115	142	7	251	6	257
7:30 - 8:30	53	4	57	28	0	28				85	3	20	1	21				125	4	129	150	8	267	9	276
7:45 - 8:45	51	2	53	36	0	36				89	3	21	1	22				134	5	139	161	10	288	9	297
8:00 - 9:00	60	3	63	42	0	42				105	3	33	1	34				112	5	117	151	11	294	10	304
Period End																									
16:00 - 17:00	81	5	86	61	0	61				147	5	38	0	38				71	3	74	112	42	291	8	299
16:15 - 17:15	83	4	87	59	0	59				146	0	36	0	36				83	1	84	120	50	297	5	302
16:30 - 17:30	77	0	77	68	0	68				145	1	33	0	33				84	1	85	118	57	298	1	299
16:45 - 17:45	78	0	78	77	0	77				155	1	35	0	35				92	0	92	127	76	321	0	321
17:00 - 18:00	67	0	67	80	0	80				147	1	30	0	30				94	1	95	125	82	310	1	311
Period End																									

All Vehicles Time Per Hour	SOUTH Broomfield Street											WEST -												
	L			T			R			TOTAL	PEDS	L			T			R			TOTAL	PEDS	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ			LIGHT	HEAVY	
7:00 - 8:00				30	1	31	7	0	7	38	1												224	7	231
7:15 - 8:15				34	0	34	6	0	6	40	2												251	6	257
7:30 - 8:30				35	0	35	6	0	6	41	2												267	9	276
7:45 - 8:45				41	1	42	5	0	5	47	3												288	9	297
8:00 - 9:00				43	1	44	4	0	4	48	2												294	10	304
Period End																									
16:00 - 17:00				29	0	29	11	0	11	40	9												291	8	299
16:15 - 17:15				26	0	26	10	0	10	36	6												297	5	302
16:30 - 17:30				28	0	28	8	0	8	36	7												298	1	299
16:45 - 17:45				35	0	35	4	0	4	39	5												321	0	321
17:00 - 18:00				35	0	35	4	0	4	39	3												310	1	311
Period End																									

Location	Car Park Exit	Duration	7:00 - 9:00
	Cabramatta Road East		16:00 - 18:00
	-		
	Cabramatta Road East	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Car Park Exit										EAST Cabramatta Road East										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	15	0	15							15										0	45	3	48
7:15 - 8:15	19	0	19							19										0	48	3	51
7:30 - 8:30	18	0	18							18										0	48	2	50
7:45 - 8:45	14	1	15							15										0	35	3	38
8:00 - 9:00	19	2	21							21										0	45	3	48
Period End																							
16:00 - 17:00	42	0	42							42										0	105	4	109
16:15 - 17:15	42	0	42							42										0	108	3	111
16:30 - 17:30	46	0	46							46										0	101	1	102
16:45 - 17:45	57	0	57							57										0	113	1	114
17:00 - 18:00	60	0	60							60										0	110	0	110
Period End																							

All Vehicles Time Per Hour	SOUTH -										WEST Cabramatta Road East										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00														30	3	33				33	45	3	48
7:15 - 8:15														29	3	32				32	48	3	51
7:30 - 8:30														30	2	32				32	48	2	50
7:45 - 8:45														21	2	23				23	35	3	38
8:00 - 9:00														26	1	27				27	45	3	48
Period End																							
16:00 - 17:00														63	4	67				67	105	4	109
16:15 - 17:15														66	3	69				69	108	3	111
16:30 - 17:30														55	1	56				56	101	1	102
16:45 - 17:45														56	1	57				57	113	1	114
17:00 - 18:00														50	0	50				50	110	0	110
Period End																							

Cumberland Street & Longfield Street

Location	Cumberland Street	Duration	7:00 - 9:00
	Longfield Street		16:00 - 18:00
	Cumberland Street		
	Longfield Street	Day/Date	Wednesday, 15 March 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH Cumberland Street											EAST Longfield Street												
	L			T			R					L			T			R					TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	TOTAL
7:00 - 8:00	3	1	4	25	0	25	1	0	1	30	15	53	1	54	82	1	83	13	0	13	150	1	345	6	351
7:15 - 8:15	5	1	6	25	0	25	1	0	1	32	19	67	1	68	95	1	96	11	0	11	175	5	390	7	397
7:30 - 8:30	4	1	5	30	1	31	2	0	2	38	20	92	1	93	123	0	123	11	0	11	227	6	474	7	481
7:45 - 8:45	5	0	5	42	1	43	1	0	1	49	18	132	1	133	133	2	135	8	1	9	277	12	552	8	560
8:00 - 9:00	9	0	9	51	1	52	2	0	2	63	16	171	3	174	165	3	168	4	1	5	347	18	650	13	663
16:00 - 17:00	7	0	7	39	0	39	1	0	1	47	9	133	3	136	116	2	118	5	0	5	259	9	598	11	609
16:15 - 17:15	5	0	5	28	1	29	1	0	1	35	13	143	2	145	120	2	122	4	0	4	271	12	615	9	624
16:30 - 17:30	5	0	5	28	1	29	1	0	1	35	9	144	2	146	119	2	121	3	0	3	270	11	640	6	646
16:45 - 17:45	10	0	10	23	1	24	0	0	0	34	12	145	0	145	108	2	110	6	0	6	261	10	643	4	647
17:00 - 18:00	10	0	10	19	1	20	0	0	0	30	12	149	0	149	104	1	105	7	0	7	261	8	646	3	649
Period End																									

All Vehicles Time Per Hour	SOUTH Cumberland Street											WEST Longfield Street												
	L			T			R					L			T			R					TOTAL	
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	PEDS	LIGHT	HEAVY	TOTAL
7:00 - 8:00	21	1	22	21	0	21	31	0	31	74	10	0	0	0	70	0	70	25	2	27	97	3	345	6	351
7:15 - 8:15	23	0	23	24	0	24	40	0	40	87	11	0	0	0	71	2	73	28	2	30	103	4	390	7	397
7:30 - 8:30	28	0	28	36	0	36	48	0	48	112	16	0	0	0	71	2	73	29	2	31	104	6	474	7	481
7:45 - 8:45	27	0	27	47	0	47	55	0	55	129	20	0	0	0	63	2	65	39	1	40	105	8	552	8	560
8:00 - 9:00	39	2	41	48	0	48	65	0	65	154	19	0	0	0	56	3	59	40	0	40	99	9	650	13	663
Period End																									
16:00 - 17:00	48	1	49	48	0	48	63	1	64	161	19	3	0	3	80	2	82	55	2	57	142	0	598	11	609
16:15 - 17:15	57	0	57	46	0	46	72	1	73	176	21	3	0	3	82	1	83	54	2	56	142	6	615	9	624
16:30 - 17:30	64	0	64	54	0	54	73	0	73	191	21	2	0	2	84	0	84	63	1	64	150	7	640	6	646
16:45 - 17:45	67	0	67	54	0	54	76	0	76	197	14	1	0	1	87	1	88	66	0	66	155	8	643	4	647
17:00 - 18:00	68	0	68	45	0	45	80	0	80	193	18	1	0	1	93	1	94	70	0	70	165	10	646	3	649
Period End																									

Cumberland Street & Fisher Street

Location	Cumberland Street	Duration	7:00 - 9:00
	-		16:00 - 18:00
	Cumberland Street		
	Fisher Street	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH *Cumberland Street*										EAST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00				90	2	92	13	0	13	105											212	7	219
7:15 - 8:15				107	2	109	15	0	15	124											249	7	256
7:30 - 8:30				125	1	126	17	0	17	143											286	4	290
7:45 - 8:45				163	1	164	13	0	13	177											330	5	335
8:00 - 9:00				220	2	222	13	0	13	235											388	6	394
Period End																							
16:00 - 17:00				194	4	198	6	0	6	204											492	14	506
16:15 - 17:15				203	5	208	6	0	6	214											507	12	519
16:30 - 17:30				198	4	202	8	0	8	210											497	6	503
16:45 - 17:45				206	4	210	8	0	8	218											495	5	500
17:00 - 18:00				204	3	207	6	0	6	213											462	3	465
Period End																							

All Vehicles Time Per Hour	SOUTH *Cumberland Street*										WEST *Fisher Street*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	26	2	28	50	2	52				80	8	0	8				25	1	26	34	212	7	219
7:15 - 8:15	24	2	26	68	2	70				96	9	0	9				26	1	27	36	249	7	256
7:30 - 8:30	19	2	21	89	0	89				110	10	0	10				26	1	27	37	286	4	290
7:45 - 8:45	19	3	22	100	0	100				122	13	0	13				22	1	23	36	330	5	335
8:00 - 9:00	25	3	28	100	0	100				128	14	0	14				16	1	17	31	388	6	394
Period End																							
16:00 - 17:00	67	7	74	172	3	175				249	13	0	13				40	0	40	53	492	14	506
16:15 - 17:15	72	5	77	172	2	174				251	15	0	15				39	0	39	54	507	12	519
16:30 - 17:30	64	0	64	168	2	170				234	14	0	14				45	0	45	59	497	6	503
16:45 - 17:45	54	0	54	171	1	172				226	12	0	12				44	0	44	56	495	5	500
17:00 - 18:00	42	0	42	159	0	159				201	9	0	9				42	0	42	51	462	3	465
Period End																							

Cumberland Street & Cumberland Street Car Park

Location	Cumberland Street	Duration	7:00 - 9:00
	-		16:00 - 18:00
	Cumberland Street		
	Cumberland Street Car Park Entrance	Day/Date	Tuesday, 28 February 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH *Cumberland Street*										EAST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00				111	2	113	2	1	3	116											207	8	215
7:15 - 8:15				129	2	131	4	0	4	135											241	6	247
7:30 - 8:30				138	1	139	6	0	6	145											265	4	269
7:45 - 8:45				158	1	159	9	0	9	168											307	4	311
8:00 - 9:00				182	1	183	14	0	14	197											349	4	353
Period End																							
16:00 - 17:00				197	5	202	23	0	23	225											544	13	557
16:15 - 17:15				217	5	222	25	0	25	247											582	10	592
16:30 - 17:30				214	5	219	24	0	24	243											541	7	548
16:45 - 17:45				223	3	226	22	0	22	248											520	4	524
17:00 - 18:00				233	2	235	15	0	15	250											508	2	510
Period End																							

All Vehicles Time Per Hour	SOUTH *Cumberland Street*										WEST *Cumberland Street Car Park Entrance*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	19	0	19	75	4	79				98	0	1	1				0	0	0	1	207	8	215
7:15 - 8:15	14	0	14	93	4	97				111	0	0	0				1	0	1	1	241	6	247
7:30 - 8:30	13	0	13	106	3	109				122	0	0	0				2	0	2	2	265	4	269
7:45 - 8:45	14	0	14	124	3	127				141	0	0	0				2	0	2	2	307	4	311
8:00 - 9:00	22	0	22	126	3	129				151	3	0	3				2	0	2	5	349	4	353
Period End																							
16:00 - 17:00	44	0	44	206	8	214				258	39	0	39				35	0	35	74	544	13	557
16:15 - 17:15	46	0	46	213	5	218				264	47	0	47				34	0	34	81	582	10	592
16:30 - 17:30	37	0	37	190	2	192				229	44	0	44				32	0	32	76	541	7	548
16:45 - 17:45	33	0	33	180	1	181				214	41	0	41				21	0	21	62	520	4	524
17:00 - 18:00	33	0	33	169	0	169				202	36	0	36				22	0	22	58	508	2	510
Period End																							

Fisher Street & Fisher Street Car Park

Location	-	Duration	7:00 - 9:00
	Fisher Street		16:00 - 18:00
	Fisher Street Car Park		
	Fisher Street	Day/Date	Wednesday, 15 March 2023
Suburb	CABRAMATTA	Weather	-

All Vehicles Time Per Hour	NORTH -										EAST *Fisher Street*											
	L			T			R			TOTAL	L			T			R			TOTAL	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	
7:00 - 8:00											8	0	8	22	0	22				30	70	0	70
7:15 - 8:15											7	0	7	27	0	27				34	87	0	87
7:30 - 8:30											3	0	3	33	0	33				36	89	1	90
7:45 - 8:45											3	0	3	40	0	40				43	87	1	88
8:00 - 9:00											4	0	4	43	0	43				47	91	1	92
Period End																							
16:00 - 17:00											1	0	1	42	0	42				43	102	0	102
16:15 - 17:15											1	0	1	56	0	56				57	132	0	132
16:30 - 17:30											1	0	1	54	0	54				55	131	0	131
16:45 - 17:45											0	0	0	51	0	51				51	126	0	126
17:00 - 18:00											0	0	0	50	0	50				50	125	0	125
Period End																							

All Vehicles Time Per Hour	SOUTH *Fisher Street Car Park*										WEST *Fisher Street*											
	L			T			R			TOTAL	L			T			R			TOTAL	TOTAL		TOTAL
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ		LIGHT	HEAVY	
7:00 - 8:00	0	0	0				0	0	0	0				31	0	31	9	0	9	40	70	0	70
7:15 - 8:15	0	0	0				0	0	0	0				40	0	40	13	0	13	53	87	0	87
7:30 - 8:30	0	0	0				0	0	0	0				36	1	37	17	0	17	54	89	1	90
7:45 - 8:45	0	0	0				0	0	0	0				29	1	30	15	0	15	45	87	1	88
8:00 - 9:00	0	0	0				0	0	0	0				31	1	32	13	0	13	45	91	1	92
Period End																							
16:00 - 17:00	6	0	6				7	0	7	13				45	0	45	1	0	1	46	102	0	102
16:15 - 17:15	7	0	7				9	0	9	16				59	0	59	0	0	0	59	132	0	132
16:30 - 17:30	7	0	7				10	0	10	17				59	0	59	0	0	0	59	131	0	131
16:45 - 17:45	5	0	5				9	0	9	14				61	0	61	0	0	0	61	126	0	126
17:00 - 18:00	4	0	4				10	0	10	14				61	0	61	0	0	0	61	125	0	125
Period End																							

Appendix B: SIDRA Movement Reports

Electronic SIDRA files has also been provided as attachments to this Transport Assessment.

Base 2023 AM Peak Hour Broomfield Street & Bareena Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	305	1.0	321	1.0	0.520	12.3	LOS A	4.3	30.6	0.88	1.02	1.08	42.3
3	R2	14	1.0	15	1.0	0.520	15.7	LOS B	4.3	30.6	0.88	1.02	1.08	42.9
3u	U	1	1.0	1	1.0	0.520	17.3	LOS B	4.3	30.6	0.88	1.02	1.08	43.4
Approach		320	1.0	337	1.0	0.520	12.4	LOS A	4.3	30.6	0.88	1.02	1.08	42.3
East: Bareena Avenue														
4	L2	13	1.0	14	1.0	0.472	9.0	LOS A	3.4	24.5	0.76	0.85	0.85	44.1
5	T1	338	3.0	356	3.0	0.472	9.1	LOS A	3.4	24.5	0.76	0.85	0.85	44.8
6u	U	1	1.0	1	1.0	0.472	14.1	LOS A	3.4	24.5	0.76	0.85	0.85	45.2
Approach		352	2.9	371	2.9	0.472	9.1	LOS A	3.4	24.5	0.76	0.85	0.85	44.8
West: Bareena Avenue														
11	T1	380	3.0	400	3.0	0.240	3.5	LOS A	1.8	12.8	0.12	0.38	0.12	47.7
12	R2	183	1.0	193	1.0	0.349	7.0	LOS A	2.9	20.8	0.13	0.61	0.13	45.1
12u	U	380	1.0	400	1.0	0.349	8.6	LOS A	2.9	20.8	0.13	0.61	0.13	45.6
Approach		943	1.8	993	1.8	0.349	6.2	LOS A	2.9	20.8	0.13	0.52	0.13	46.3
All Vehicles		1615	1.9	1700	1.9	0.520	8.1	LOS A	4.3	30.6	0.42	0.69	0.47	45.2

Base 2023 PM Peak Hour Broomfield Street & Bareena Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	323	1.0	340	1.0	0.525	10.6	LOS A	4.5	31.4	0.88	0.98	1.04	43.1
3	R2	11	1.0	12	1.0	0.525	14.1	LOS A	4.5	31.4	0.88	0.98	1.04	43.7
3u	U	1	1.0	1	1.0	0.525	15.7	LOS B	4.5	31.4	0.88	0.98	1.04	44.3
Approach		335	1.0	353	1.0	0.525	10.8	LOS A	4.5	31.4	0.88	0.98	1.04	43.2
East: Bareena Avenue														
4	L2	25	1.0	26	1.0	0.628	10.0	LOS A	6.1	43.6	0.80	0.92	1.01	43.6
5	T1	490	3.0	516	3.0	0.628	10.0	LOS A	6.1	43.6	0.80	0.92	1.01	44.3
6u	U	1	1.0	1	1.0	0.628	15.0	LOS B	6.1	43.6	0.80	0.92	1.01	44.7
Approach		516	2.9	543	2.9	0.628	10.0	LOS A	6.1	43.6	0.80	0.92	1.01	44.2
West: Bareena Avenue														
11	T1	472	3.0	497	3.0	0.293	3.5	LOS A	2.3	16.6	0.11	0.38	0.11	47.8
12	R2	319	1.0	336	1.0	0.278	7.0	LOS A	2.2	15.2	0.11	0.61	0.11	45.5
12u	U	131	1.0	138	1.0	0.278	8.5	LOS A	2.2	15.2	0.11	0.61	0.11	46.0
Approach		922	2.0	971	2.0	0.293	5.4	LOS A	2.3	16.6	0.11	0.49	0.11	46.7
All Vehicles		1773	2.1	1866	2.1	0.628	7.8	LOS A	6.1	43.6	0.46	0.71	0.55	45.3

Base 2023 AM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	142	2.0	149	2.0	0.093	0.1	LOS A	0.2	1.1	0.07	0.08	0.07	49.4
3	R2	23	2.0	24	2.0	0.093	4.9	LOS A	0.2	1.1	0.07	0.08	0.07	48.4
Approach		165	2.0	174	2.0	0.093	0.7	NA	0.2	1.1	0.07	0.08	0.07	49.2
East: Longfield Street														
4	L2	58	2.0	61	2.0	0.238	8.0	LOS A	0.9	6.7	0.32	0.92	0.32	44.5
6	R2	151	2.0	159	2.0	0.238	9.2	LOS A	0.9	6.7	0.32	0.92	0.32	44.4
Approach		209	2.0	220	2.0	0.238	8.9	LOS A	0.9	6.7	0.32	0.92	0.32	44.4
North: Broomfield Street														
7	L2	84	2.0	88	2.0	0.056	4.6	LOS A	0.2	1.6	0.08	0.47	0.08	47.0
8	T1	96	2.0	101	2.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		180	2.0	189	2.0	0.056	2.1	LOS A	0.2	1.6	0.04	0.22	0.04	48.5
All Vehicles		554	2.0	583	2.0	0.238	4.3	NA	0.9	6.7	0.15	0.44	0.15	47.1

Base 2023 PM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	123	2.0	129	2.0	0.074	0.1	LOS A	0.1	0.5	0.05	0.04	0.05	49.6
3	R2	10	2.0	11	2.0	0.074	5.1	LOS A	0.1	0.5	0.05	0.04	0.05	48.6
Approach		133	2.0	140	2.0	0.074	0.4	NA	0.1	0.5	0.05	0.04	0.05	49.5
East: Longfield Street														
4	L2	35	2.0	37	2.0	0.204	8.3	LOS A	0.8	5.5	0.37	0.92	0.37	44.6
6	R2	138	2.0	145	2.0	0.204	9.1	LOS A	0.8	5.5	0.37	0.92	0.37	44.4
Approach		173	2.0	182	2.0	0.204	9.0	LOS A	0.8	5.5	0.37	0.92	0.37	44.4
North: Broomfield Street														
7	L2	22	2.0	23	2.0	0.014	4.5	LOS A	0.1	0.4	0.05	0.48	0.05	47.1
8	T1	157	2.0	165	2.0	0.086	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		179	2.0	188	2.0	0.086	0.6	LOS A	0.1	0.4	0.01	0.06	0.01	49.6
All Vehicles		485	2.0	511	2.0	0.204	3.5	NA	0.8	5.5	0.15	0.36	0.15	47.6

Base 2023 AM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ Site: [Broomfield & Fisher AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	126	2.0	133	2.0	0.085	0.1	LOS A	0.2	1.1	0.09	0.09	0.09	49.3
3	R2	23	1.0	24	1.0	0.085	5.0	LOS A	0.2	1.1	0.09	0.09	0.09	48.3
Approach		149	1.8	157	1.8	0.085	0.9	NA	0.2	1.1	0.09	0.09	0.09	49.1
East: Fisher Street														
4	L2	19	1.0	20	1.0	0.030	4.9	LOS A	0.1	0.7	0.23	0.53	0.23	46.1
6	R2	15	1.0	16	1.0	0.030	5.6	LOS A	0.1	0.7	0.23	0.53	0.23	45.7
Approach		34	1.0	36	1.0	0.030	5.2	LOS A	0.1	0.7	0.23	0.53	0.23	45.9
North: Broomfield Street														
7	L2	26	1.0	27	1.0	0.076	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	48.9
8	T1	112	2.0	118	2.0	0.076	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	49.4
Approach		138	1.8	145	1.8	0.076	0.9	NA	0.0	0.0	0.00	0.10	0.00	49.3
All Vehicles		321	1.7	338	1.7	0.085	1.3	NA	0.2	1.1	0.07	0.14	0.07	48.8

Base 2023 PM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ Site: [Broomfield & Fisher PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	95	5.0	100	5.0	0.070	0.2	LOS A	0.2	1.2	0.13	0.11	0.13	49.0
3	R2	24	1.0	25	1.0	0.070	5.2	LOS A	0.2	1.2	0.13	0.11	0.13	48.0
Approach		119	4.2	125	4.2	0.070	1.2	NA	0.2	1.2	0.13	0.11	0.13	48.8
East: Fisher Street														
4	L2	24	1.0	25	1.0	0.054	5.1	LOS A	0.2	1.3	0.29	0.56	0.29	46.0
6	R2	33	1.0	35	1.0	0.054	5.7	LOS A	0.2	1.3	0.29	0.56	0.29	45.5
Approach		57	1.0	60	1.0	0.054	5.5	LOS A	0.2	1.3	0.29	0.56	0.29	45.7
North: Broomfield Street														
7	L2	22	1.0	23	1.0	0.098	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	49.1
8	T1	157	1.0	165	1.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	49.6
Approach		179	1.0	188	1.0	0.098	0.6	NA	0.0	0.0	0.00	0.07	0.00	49.5
All Vehicles		355	2.1	374	2.1	0.098	1.6	NA	0.2	1.3	0.09	0.16	0.09	48.6

Base 2023 AM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

▽ Site: [Broomfield & Site AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	159	5.0	167	5.0	0.096	0.0	LOS A	0.1	0.6	0.04	0.04	0.04	49.7
3	R2	11	0.0	12	0.0	0.096	5.3	LOS A	0.1	0.6	0.04	0.04	0.04	48.6
Approach		170	4.7	179	4.7	0.096	0.4	NA	0.1	0.6	0.04	0.04	0.04	49.6
North: Broomfield Street														
7	L2	26	0.0	27	0.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.11	0.00	48.8
8	T1	100	5.0	105	5.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	49.3
Approach		126	4.0	133	4.0	0.070	1.0	NA	0.0	0.0	0.00	0.11	0.00	49.2
All Vehicles		296	4.4	312	4.4	0.096	0.6	NA	0.1	0.6	0.02	0.07	0.02	49.4

Base 2023 PM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

▽ Site: [Broomfield & Site PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	113	5.0	119	5.0	0.076	0.1	LOS A	0.1	1.0	0.10	0.09	0.10	49.2
3	R2	19	0.0	20	0.0	0.076	5.5	LOS A	0.1	1.0	0.10	0.09	0.10	48.1
Approach		132	4.3	139	4.3	0.076	0.9	NA	0.1	1.0	0.10	0.09	0.10	49.1
North: Broomfield Street														
7	L2	40	0.0	42	0.0	0.105	4.6	LOS A	0.0	0.0	0.00	0.12	0.00	48.8
8	T1	148	5.0	156	5.0	0.105	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	49.3
Approach		188	3.9	198	3.9	0.105	1.0	NA	0.0	0.0	0.00	0.12	0.00	49.2
All Vehicles		320	4.1	337	4.1	0.105	1.0	NA	0.1	1.0	0.04	0.10	0.04	49.1

Base 2023 AM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ Site: [CRE Minor & Site AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	21	0.0	22	0.0	0.014	0.1	LOS A	0.1	0.4	0.09	0.02	0.09	26.5
Approach		21	0.0	22	0.0	0.014	0.1	LOS A	0.1	0.4	0.09	0.02	0.09	26.5
West: CRE Minor														
11	T1	27	0.0	28	0.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		27	0.0	28	0.0	0.015	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		48	0.0	51	0.0	0.015	0.0	NA	0.1	0.4	0.04	0.01	0.04	32.7

Base 2023 PM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ Site: [CRE Minor & Site PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	60	0.0	63	0.0	0.040	0.1	LOS A	0.2	1.1	0.11	0.03	0.11	26.5
Approach		60	0.0	63	0.0	0.040	0.1	LOS A	0.2	1.1	0.11	0.03	0.11	26.5
West: CRE Minor														
11	T1	37	0.0	39	0.0	0.020	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		37	0.0	39	0.0	0.020	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		97	0.0	102	0.0	0.040	0.1	NA	0.2	1.1	0.07	0.02	0.07	30.4

Base 2023 AM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ Site: [CRE Major & CRE Minor AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East Major														
5	T1	664	5.0	699	5.0	0.186	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6a	R1	33	1.0	35	1.0	0.090	11.9	LOS A	0.3	2.2	0.75	0.86	0.75	45.6
Approach		697	4.8	734	4.8	0.186	0.6	NA	0.3	2.2	0.04	0.04	0.04	59.0
NorthWest: Cabramatta Road East Minor														
27a	L1	48	1.0	51	1.0	0.062	5.8	LOS A	0.2	1.5	0.46	0.63	0.46	49.1
29b	R3	37	1.0	39	1.0	0.305	36.0	LOS C	0.9	6.4	0.93	1.00	1.05	34.7
Approach		85	1.0	89	1.0	0.305	18.9	LOS B	0.9	6.4	0.66	0.79	0.71	41.6
West: Cabramatta Road East Major														
10b	L3	120	1.0	126	1.0	0.312	6.3	LOS A	0.0	0.0	0.00	0.15	0.00	55.2
11	T1	987	4.0	1039	4.0	0.312	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.7
Approach		1107	3.7	1165	3.7	0.312	0.8	NA	0.0	0.0	0.00	0.07	0.00	58.3
All Vehicles		1889	4.0	1988	4.0	0.312	1.5	NA	0.9	6.4	0.04	0.09	0.05	57.5

Base 2023 PM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ Site: [CRE Major & CRE Minor PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East														
5	T1	1036	3.0	1091	3.0	0.287	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
6a	R1	38	1.0	40	1.0	0.082	10.8	LOS A	0.3	2.1	0.68	0.84	0.68	47.0
Approach		1074	2.9	1131	2.9	0.287	0.5	NA	0.3	2.1	0.02	0.03	0.02	59.3
NorthWest: Cabramatta Road East														
27a	L1	110	1.0	116	1.0	0.125	5.3	LOS A	0.5	3.3	0.42	0.61	0.42	49.4
29b	R3	34	1.0	36	1.0	0.338	43.2	LOS D	1.0	6.9	0.94	1.01	1.08	32.5
Approach		144	1.0	152	1.0	0.338	14.2	LOS A	1.0	6.9	0.54	0.70	0.57	44.0
West: Cabramatta Road East														
10b	L3	94	1.0	99	1.0	0.245	6.3	LOS A	0.0	0.0	0.00	0.15	0.00	55.2
11	T1	773	4.0	814	4.0	0.245	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.7
Approach		867	3.7	913	3.7	0.245	0.7	NA	0.0	0.0	0.00	0.07	0.00	58.3
All Vehicles		2085	3.1	2195	3.1	0.338	1.5	NA	1.0	6.9	0.05	0.09	0.05	57.5

Base 2023 AM Peak Hour Cumberland Street & Fisher Street

MOVEMENT SUMMARY

Site: [Cumberland & Fisher AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	28	1.0	29	1.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.12	0.00	48.8
2	T1	100	1.0	105	1.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	49.3
Approach		128	1.0	135	1.0	0.070	1.0	NA	0.0	0.0	0.00	0.12	0.00	49.2
North: Cumberland Street														
8	T1	222	1.0	234	1.0	0.130	0.0	LOS A	0.1	0.7	0.03	0.03	0.03	49.7
9	R2	13	1.0	14	1.0	0.130	5.0	LOS A	0.1	0.7	0.03	0.03	0.03	48.7
Approach		235	1.0	247	1.0	0.130	0.3	NA	0.1	0.7	0.03	0.03	0.03	49.7
West: Fisher Street														
10	L2	14	1.0	15	1.0	0.029	4.9	LOS A	0.1	0.7	0.23	0.55	0.23	46.1
12	R2	17	1.0	18	1.0	0.029	6.0	LOS A	0.1	0.7	0.23	0.55	0.23	45.6
Approach		31	1.0	33	1.0	0.029	5.5	LOS A	0.1	0.7	0.23	0.55	0.23	45.8
All Vehicles		394	1.0	415	1.0	0.130	0.9	NA	0.1	0.7	0.04	0.10	0.04	49.2

Base 2023 PM Peak Hour Cumberland Street & Fisher Street

MOVEMENT SUMMARY

Site: [Cumberland & Fisher PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	42	1.0	44	1.0	0.110	4.6	LOS A	0.0	0.0	0.00	0.11	0.00	48.8
2	T1	159	1.0	167	1.0	0.110	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	49.3
Approach		201	1.0	212	1.0	0.110	1.0	NA	0.0	0.0	0.00	0.11	0.00	49.2
North: Cumberland Street														
8	T1	207	0.0	218	0.0	0.116	0.0	LOS A	0.0	0.3	0.02	0.02	0.02	49.8
9	R2	6	0.0	6	0.0	0.116	5.3	LOS A	0.0	0.3	0.02	0.02	0.02	48.9
Approach		213	0.0	224	0.0	0.116	0.2	NA	0.0	0.3	0.02	0.02	0.02	49.8
West: Fisher Street														
10	L2	9	0.0	9	0.0	0.057	5.1	LOS A	0.2	1.3	0.35	0.61	0.35	45.8
12	R2	42	0.0	44	0.0	0.057	6.2	LOS A	0.2	1.3	0.35	0.61	0.35	45.3
Approach		51	0.0	54	0.0	0.057	6.0	LOS A	0.2	1.3	0.35	0.61	0.35	45.4
All Vehicles		465	0.4	489	0.4	0.116	1.2	NA	0.2	1.3	0.05	0.12	0.05	49.0

Base 2023 AM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	44	1.0	46	1.0	0.052	12.6	LOS A	1.0	6.9	0.58	0.44	0.58	42.7
3	R2	4	2.0	4	2.0	*0.008	19.1	LOS B	0.1	0.7	0.67	0.62	0.67	39.1
Approach		48	1.1	51	1.1	0.052	13.1	LOS A	1.0	6.9	0.58	0.45	0.58	42.3
East: Cabramatta Road East Minor														
4	L2	34	2.0	36	2.0	0.036	13.8	LOS A	0.6	4.6	0.49	0.64	0.49	41.7
6	R2	117	5.0	123	5.0	*0.189	22.0	LOS B	3.2	23.1	0.69	0.73	0.69	37.8
Approach		151	4.3	159	4.3	0.189	20.1	LOS B	3.2	23.1	0.65	0.71	0.65	38.6
North: Broomfield Street														
7	L2	63	2.0	66	2.0	0.189	26.3	LOS B	3.2	22.4	0.77	0.69	0.77	37.2
8	T1	42	1.0	44	1.0	*0.189	21.7	LOS B	3.2	22.4	0.77	0.69	0.77	37.5
Approach		105	1.6	111	1.6	0.189	24.4	LOS B	3.2	22.4	0.77	0.69	0.77	37.3
All Vehicles		304	2.9	320	2.9	0.189	20.5	LOS B	3.2	23.1	0.68	0.66	0.68	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour Broomfield Street & CR Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	87	2.0	92	2.0	0.068	4.0	LOS A	1.1	7.8	0.33	0.27	0.33	47.4
3	R2	25	2.0	26	2.0	*0.034	9.8	LOS A	0.4	2.5	0.44	0.63	0.44	43.5
Approach		112	2.0	118	2.0	0.068	5.3	LOS A	1.1	7.8	0.36	0.35	0.36	46.5
East: Cabramatta Road East Minor														
4	L2	35	2.0	37	2.0	0.067	26.1	LOS B	1.0	7.3	0.74	0.69	0.74	36.6
6	R2	45	5.0	47	5.0	*0.176	37.7	LOS C	1.7	12.2	0.91	0.73	0.91	32.5
Approach		80	3.7	84	3.7	0.176	32.6	LOS C	1.7	12.2	0.84	0.71	0.84	34.2
North: Broomfield Street														
7	L2	82	2.0	86	2.0	0.178	14.1	LOS A	3.5	25.2	0.53	0.56	0.53	42.7
8	T1	93	2.0	98	2.0	*0.178	9.5	LOS A	3.5	25.2	0.53	0.56	0.53	43.1
Approach		175	2.0	184	2.0	0.178	11.7	LOS A	3.5	25.2	0.53	0.56	0.53	42.9
All Vehicles		367	2.4	386	2.4	0.178	14.3	LOS A	3.5	25.2	0.54	0.53	0.54	41.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	88	1.0	93	1.0	0.184	33.7	LOS C	4.7	33.1	0.75	0.70	0.75	29.5
2	T1	36	1.0	38	1.0	0.184	34.2	LOS C	4.7	33.1	0.79	0.70	0.79	28.5
3	R2	46	1.0	48	1.0	0.184	42.5	LOS D	3.1	21.6	0.83	0.71	0.83	27.6
Approach		170	1.0	179	1.0	0.184	36.2	LOS C	4.7	33.1	0.78	0.70	0.78	28.7
East: Cumberland Road East														
4	L2	15	1.0	16	1.0	0.266	22.5	LOS B	8.3	60.5	0.62	0.54	0.62	33.2
5	T1	454	5.0	478	5.0	0.266	18.9	LOS B	8.3	60.7	0.62	0.54	0.62	33.1
6	R2	40	1.0	42	1.0	0.274	61.3	LOS E	2.4	17.0	0.97	0.73	0.97	24.0
Approach		509	4.6	536	4.6	0.274	22.3	LOS B	8.3	60.7	0.65	0.55	0.65	32.2
North: Cumberland Street														
7	L2	43	1.0	45	1.0	0.114	34.4	LOS C	2.7	19.1	0.74	0.66	0.74	29.4
8	T1	40	1.0	42	1.0	*0.570	37.7	LOS C	9.8	69.3	0.84	0.74	0.84	27.8
9	R2	157	1.0	165	1.0	0.570	47.3	LOS D	9.8	69.3	0.93	0.81	0.93	26.6
Approach		240	1.0	253	1.0	0.570	43.4	LOS D	9.8	69.3	0.88	0.77	0.88	27.3
West: Cabramatta Road East														
10	L2	95	1.0	100	1.0	0.579	26.5	LOS B	22.0	159.5	0.76	0.70	0.76	31.9
11	T1	859	5.0	904	5.0	*0.579	22.5	LOS B	22.0	159.5	0.75	0.67	0.75	32.0
12	R2	79	1.0	83	1.0	*0.541	63.1	LOS E	4.9	34.6	1.00	0.77	1.00	23.7
Approach		1033	4.3	1087	4.3	0.579	25.9	LOS B	22.0	159.5	0.77	0.68	0.77	31.2
All Vehicles		1952	3.7	2055	3.7	0.579	28.0	LOS B	22.0	159.5	0.75	0.66	0.75	30.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	99	1.0	104	1.0	0.319	49.5	LOS D	6.5	46.2	0.85	0.75	0.85	26.1
2	T1	40	1.0	42	1.0	0.319	55.4	LOS D	6.5	46.2	0.91	0.75	0.91	24.5
3	R2	37	1.0	39	1.0	0.319	63.6	LOS E	4.2	29.7	0.94	0.75	0.94	23.9
Approach		176	1.0	185	1.0	0.319	53.8	LOS D	6.5	46.2	0.89	0.75	0.89	25.2
East: Cumberland Road East														
4	L2	14	1.0	15	1.0	0.377	16.8	LOS B	14.5	105.7	0.52	0.47	0.52	35.0
5	T1	795	5.0	837	5.0	*0.377	13.1	LOS A	14.5	105.7	0.52	0.46	0.52	35.0
6	R2	46	1.0	48	1.0	*0.368	73.0	LOS F	3.3	23.2	0.99	0.75	0.99	22.3
Approach		855	4.7	900	4.7	0.377	16.4	LOS B	14.5	105.7	0.54	0.48	0.54	33.9
North: Cumberland Street														
7	L2	49	1.0	52	1.0	0.098	42.4	LOS C	2.6	18.0	0.77	0.70	0.77	27.4
8	T1	20	1.0	21	1.0	*0.383	62.0	LOS E	4.7	33.1	0.96	0.76	0.96	23.5
9	R2	49	1.0	52	1.0	0.383	65.3	LOS E	4.7	33.1	0.96	0.76	0.96	23.6
Approach		118	1.0	124	1.0	0.383	55.3	LOS D	4.7	33.1	0.88	0.74	0.88	25.0
West: Cabramatta Road East														
10	L2	114	1.0	120	1.0	0.374	16.7	LOS B	14.3	103.3	0.52	0.53	0.52	34.7
11	T1	689	5.0	725	5.0	0.374	13.1	LOS A	14.3	103.3	0.51	0.48	0.51	34.9
12	R2	42	1.0	44	1.0	0.336	72.8	LOS F	3.0	21.1	0.99	0.74	0.99	22.3
Approach		845	4.3	889	4.3	0.374	16.5	LOS B	14.3	103.3	0.54	0.50	0.54	33.9
All Vehicles		1994	4.0	2099	4.0	0.383	22.1	LOS B	14.5	105.7	0.59	0.53	0.59	32.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 30 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	41	2.0	43	2.0	0.101	15.2	LOS B	0.5	3.8	0.81	0.70	0.81	41.2
2	T1	48	2.0	51	2.0	*0.298	11.1	LOS A	1.6	11.1	0.86	0.72	0.86	42.1
3	R2	65	2.0	68	2.0	0.298	15.7	LOS B	1.6	11.1	0.86	0.72	0.86	41.7
Approach		154	2.0	162	2.0	0.298	14.1	LOS A	1.6	11.1	0.85	0.71	0.85	41.7
East: Longfield Street														
4	L2	174	2.0	183	2.0	*0.273	12.3	LOS A	2.0	14.2	0.74	0.74	0.74	42.5
5	T1	168	2.0	177	2.0	0.262	7.5	LOS A	2.0	14.0	0.74	0.60	0.74	45.3
6	R2	5	2.0	5	2.0	0.262	12.1	LOS A	2.0	14.0	0.74	0.60	0.74	44.8
Approach		347	2.0	365	2.0	0.273	10.0	LOS A	2.0	14.2	0.74	0.67	0.74	43.8
North: Cumberland Street														
7	L2	9	2.0	9	2.0	0.026	14.7	LOS B	0.1	0.9	0.79	0.63	0.79	41.6
8	T1	52	2.0	55	2.0	0.126	10.4	LOS A	0.7	4.9	0.82	0.62	0.82	43.6
9	R2	2	2.0	2	2.0	0.126	15.0	LOS B	0.7	4.9	0.82	0.62	0.82	43.3
Approach		63	2.0	66	2.0	0.126	11.2	LOS A	0.7	4.9	0.82	0.62	0.82	43.3
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.034	11.4	LOS A	0.2	1.6	0.66	0.48	0.66	45.2
11	T1	59	2.0	62	2.0	0.157	7.6	LOS A	0.9	6.3	0.71	0.59	0.71	44.5
12	R2	40	2.0	42	2.0	0.157	12.6	LOS A	0.9	6.3	0.74	0.64	0.74	43.4
Approach		100	2.0	105	2.0	0.157	9.7	LOS A	0.9	6.3	0.72	0.61	0.72	44.0
All Vehicles		664	2.0	699	2.0	0.298	11.0	LOS A	2.0	14.2	0.77	0.67	0.77	43.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 PM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	68	2.0	72	2.0	0.101	21.5	LOS B	1.8	12.6	0.67	0.70	0.67	38.4
2	T1	45	2.0	47	2.0	*0.219	17.8	LOS B	3.5	24.7	0.71	0.68	0.71	39.0
3	R2	80	2.0	84	2.0	0.219	22.4	LOS B	3.5	24.7	0.71	0.68	0.71	38.6
Approach		193	2.0	203	2.0	0.219	21.0	LOS B	3.5	24.7	0.69	0.69	0.69	38.6
East: Longfield Street														
4	L2	149	2.0	157	2.0	0.185	18.3	LOS B	3.6	25.5	0.62	0.71	0.62	39.7
5	T1	105	2.0	111	2.0	0.138	13.2	LOS A	2.6	18.7	0.61	0.50	0.61	42.2
6	R2	7	2.0	7	2.0	0.138	17.8	LOS B	2.6	18.7	0.61	0.50	0.61	41.8
Approach		261	2.0	275	2.0	0.185	16.2	LOS B	3.6	25.5	0.61	0.62	0.61	40.8
North: Cumberland Street														
7	L2	10	2.0	11	2.0	0.015	20.8	LOS B	0.2	1.8	0.64	0.64	0.64	38.7
8	T1	20	2.0	21	2.0	0.031	16.2	LOS B	0.5	3.8	0.64	0.48	0.64	40.9
9	R2	1	2.0	1	2.0	0.031	20.7	LOS B	0.5	3.8	0.64	0.48	0.64	40.5
Approach		31	2.0	33	2.0	0.031	17.8	LOS B	0.5	3.8	0.64	0.53	0.64	40.1
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.047	17.2	LOS B	0.9	6.3	0.57	0.44	0.57	42.3
11	T1	94	2.0	99	2.0	0.219	14.2	LOS A	3.2	23.0	0.62	0.56	0.62	41.2
12	R2	70	2.0	74	2.0	*0.219	19.8	LOS B	3.2	23.0	0.66	0.64	0.66	39.9
Approach		165	2.0	174	2.0	0.219	16.6	LOS B	3.2	23.0	0.64	0.60	0.64	40.6
All Vehicles		650	2.0	684	2.0	0.219	17.8	LOS B	3.6	25.5	0.64	0.63	0.64	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne AM Base 2023 (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	109	2.0	109	2.0	0.596	9.2	LOS A	6.9	50.2	0.15	0.22	0.15	50.4
2	T1	2251	5.0	2251	5.0	*0.596	3.6	LOS A	16.5	120.1	0.20	0.21	0.20	63.4
Approach		2360	4.9	2360	4.9	0.596	3.8	LOS A	16.5	120.1	0.20	0.21	0.20	63.0
North: Hum Hwy														
8	T1	1729	6.0	1729	6.0	0.558	3.6	LOS A	17.3	121.3	0.34	0.32	0.34	61.6
9	R2	256	2.0	256	2.0	*0.924	81.9	LOS F	10.6	75.2	1.00	0.93	1.35	20.5
Approach		1985	5.5	1985	5.5	0.924	13.7	LOS A	17.3	126.9	0.43	0.40	0.47	46.3
West: Lansdowne Rd														
10	L2	224	2.0	224	2.0	0.622	55.1	LOS D	13.0	92.3	0.96	0.82	0.96	25.3
12	R2	124	2.0	124	2.0	*0.877	79.9	LOS F	8.9	63.1	1.00	0.98	1.39	7.2
Approach		348	2.0	348	2.0	0.877	63.9	LOS E	13.0	92.3	0.97	0.88	1.11	19.1
All Vehicles		4694	4.9	4694	4.9	0.924	12.5	LOS A	17.3	126.9	0.35	0.34	0.38	49.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 PM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne PM Base 2023 (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	79	2.0	79	2.0	0.524	9.2	LOS A	5.4	39.4	0.13	0.18	0.13	50.9
2	T1	1988	5.0	1988	5.0	0.524	3.5	LOS A	14.2	103.7	0.17	0.17	0.17	63.6
Approach		2067	4.9	2067	4.9	0.524	3.7	LOS A	14.2	103.7	0.17	0.17	0.17	63.3
North: Hum Hwy														
8	T1	2074	6.0	2074	6.0	*0.664	3.1	LOS A	23.1	162.0	0.34	0.33	0.34	62.6
9	R2	412	2.0	412	2.0	0.912	87.2	LOS F	16.6	118.5	1.00	0.95	1.34	19.6
Approach		2485	5.3	2485	5.3	0.912	17.1	LOS B	23.1	162.3	0.45	0.43	0.51	42.9
West: Lansdowne Rd														
10	L2	196	2.0	196	2.0	0.487	57.0	LOS E	11.9	84.8	0.93	0.81	0.93	24.9
12	R2	59	2.0	59	2.0	*0.658	81.7	LOS F	4.3	30.8	1.00	0.80	1.11	7.1
Approach		255	2.0	255	2.0	0.658	62.7	LOS E	11.9	84.8	0.94	0.81	0.97	20.9
All Vehicles		4807	5.0	4807	5.0	0.912	13.7	LOS A	23.1	162.3	0.36	0.34	0.39	48.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton AM Base 2023 (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	18	5.0	18	5.0	*0.621	21.3	LOS B	27.8	203.2	0.65	0.60	0.65	46.6
2	T1	2144	5.0	2144	5.0	0.621	14.5	LOS B	27.9	203.6	0.64	0.58	0.64	45.1
3	R2	89	5.0	89	5.0	*0.361	15.3	LOS B	1.8	13.0	0.58	0.73	0.58	46.8
Approach		2252	5.0	2252	5.0	0.621	14.6	LOS B	27.9	203.6	0.63	0.59	0.63	45.2
East: Hollywood Drive														
4	L2	43	5.0	43	5.0	0.256	55.7	LOS D	4.2	30.4	0.91	0.74	0.91	30.3
5	T1	32	5.0	32	5.0	0.256	51.1	LOS D	4.2	30.4	0.91	0.74	0.91	28.9
6	R2	121	5.0	121	5.0	*0.648	66.0	LOS E	7.7	56.1	1.00	0.83	1.05	18.1
Approach		196	5.0	196	5.0	0.648	61.3	LOS E	7.7	56.1	0.97	0.79	0.99	23.0
North: Hume Highway														
7	L2	65	5.0	65	5.0	0.503	17.9	LOS B	15.9	117.2	0.46	0.46	0.46	42.8
8	T1	1684	6.0	1684	6.0	0.503	11.5	LOS A	16.3	119.8	0.48	0.45	0.48	53.1
9	R2	64	5.0	64	5.0	0.310	20.5	LOS B	2.0	14.7	0.76	0.77	0.76	37.9
Approach		1814	5.9	1814	5.9	0.503	12.0	LOS A	16.3	119.8	0.49	0.46	0.49	51.9
West: Chadderton Street														
10	L2	32	5.0	32	5.0	0.236	56.4	LOS D	3.8	27.5	0.91	0.73	0.91	20.5
11	T1	36	5.0	36	5.0	0.236	51.8	LOS D	3.8	27.5	0.91	0.73	0.91	28.8
12	R2	25	5.0	25	5.0	0.140	60.8	LOS E	1.5	10.7	0.93	0.72	0.93	28.8
Approach		93	5.0	93	5.0	0.236	55.8	LOS D	3.8	27.5	0.92	0.73	0.92	26.6
All Vehicles		4354	5.4	4354	5.4	0.648	16.5	LOS B	27.9	203.6	0.59	0.55	0.60	44.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 PM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton PM Base 2023 (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	0.597	23.6	LOS B	28.5	207.9	0.65	0.61	0.65	45.2
2	T1	1974	5.0	1974	5.0	0.597	16.8	LOS B	28.6	208.9	0.64	0.59	0.64	42.6
3	R2	89	5.0	89	5.0	*0.410	22.4	LOS B	3.3	23.8	0.79	0.79	0.79	42.9
Approach		2100	5.0	2100	5.0	0.597	17.2	LOS B	28.6	208.9	0.65	0.60	0.65	42.7
East: Hollywood Drive														
4	L2	69	5.0	69	5.0	0.301	58.0	LOS E	6.2	45.0	0.90	0.76	0.90	29.6
5	T1	34	5.0	34	5.0	0.301	53.4	LOS D	6.2	45.0	0.90	0.76	0.90	28.3
6	R2	128	5.0	128	5.0	*0.617	68.3	LOS E	8.6	63.1	0.99	0.81	1.00	17.7
Approach		232	5.0	232	5.0	0.617	63.1	LOS E	8.6	63.1	0.95	0.79	0.95	23.3
North: Hume Highway														
7	L2	29	5.0	29	5.0	*0.625	23.4	LOS B	27.3	200.5	0.60	0.56	0.60	39.5
8	T1	2109	6.0	2109	6.0	0.625	17.0	LOS B	27.4	201.3	0.60	0.56	0.60	47.7
9	R2	46	5.0	46	5.0	0.206	19.4	LOS B	1.2	9.1	0.67	0.73	0.67	38.6
Approach		2185	6.0	2185	6.0	0.625	17.2	LOS B	27.4	201.3	0.60	0.56	0.60	47.4
West: Chadderton Street														
10	L2	42	5.0	42	5.0	0.222	57.1	LOS E	4.3	31.6	0.89	0.73	0.89	20.2
11	T1	32	5.0	32	5.0	0.222	52.5	LOS D	4.3	31.6	0.89	0.73	0.89	28.6
12	R2	31	5.0	31	5.0	0.160	64.4	LOS E	1.9	14.0	0.92	0.73	0.92	28.0
Approach		104	5.0	104	5.0	0.222	57.9	LOS E	4.3	31.6	0.90	0.73	0.90	25.6
All Vehicles		4621	5.5	4621	5.5	0.625	20.4	LOS B	28.6	208.9	0.65	0.59	0.65	42.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 AM Peak Hour Hume Highway & Cabramatta Road East (Major)

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East AM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	132	5.0	139	5.0	*0.647	32.0	LOS C	30.1	220.8	0.78	0.74	0.78	42.8
2	T1	1659	6.0	1746	6.0	0.647	25.6	LOS B	30.7	225.9	0.78	0.72	0.78	46.8
Approach		1791	5.9	1885	5.9	0.647	26.1	LOS B	30.7	225.9	0.78	0.72	0.78	46.5
North: Hume Highway														
8	T1	1312	3.0	1381	3.0	0.491	8.0	LOS A	19.0	136.5	0.45	0.41	0.45	60.7
9	R2	369	6.0	388	6.0	*0.636	65.6	LOS E	12.5	92.2	0.98	0.82	0.98	29.7
Approach		1681	3.7	1769	3.7	0.636	20.7	LOS B	19.0	136.5	0.57	0.50	0.57	49.4
West: Cabramatta Road East														
10	L2	354	5.0	373	5.0	0.529	40.3	LOS C	19.3	141.0	0.82	0.82	0.82	36.2
12	R2	360	5.0	379	5.0	*0.651	63.2	LOS E	12.0	87.9	0.97	0.82	0.97	29.6
Approach		714	5.0	752	5.0	0.651	51.9	LOS D	19.3	141.0	0.90	0.82	0.90	32.5
All Vehicles		4186	4.9	4406	4.9	0.651	28.3	LOS B	30.7	225.9	0.71	0.65	0.71	44.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2023 PM Peak Hour Hume Highway & Cabramatta Road East (Major)

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East PM Base 2023 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	230	5.0	242	5.0	*0.758	41.8	LOS C	34.7	251.5	0.91	0.84	0.91	38.0
2	T1	1565	3.5	1647	3.5	0.758	34.9	LOS C	36.2	260.8	0.91	0.82	0.91	41.8
Approach		1795	3.7	1889	3.7	0.758	35.8	LOS C	36.2	260.8	0.91	0.83	0.91	41.2
North: Hume Highway														
8	T1	1507	6.0	1586	6.0	0.538	5.8	LOS A	19.6	144.2	0.40	0.37	0.40	63.0
9	R2	696	4.0	733	4.0	*0.778	55.2	LOS D	22.7	164.5	0.94	0.87	0.99	32.4
Approach		2203	5.4	2319	5.4	0.778	21.4	LOS B	22.7	164.5	0.57	0.53	0.59	48.5
West: Cabramatta Road East														
10	L2	406	5.0	427	5.0	0.506	32.8	LOS C	20.0	145.7	0.75	0.81	0.75	39.1
12	R2	323	5.0	340	5.0	*0.763	73.3	LOS F	11.9	86.6	1.00	0.87	1.12	27.4
Approach		729	5.0	767	5.0	0.763	50.7	LOS D	20.0	145.7	0.86	0.83	0.91	32.8
All Vehicles		4727	4.7	4976	4.7	0.778	31.4	LOS C	36.2	260.8	0.74	0.69	0.76	42.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 AM Peak Hour Bareena Street & Broomfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	305	1.0	321	1.0	0.540	13.3	LOS A	4.7	33.3	0.91	1.06	1.15	41.8
3	R2	14	1.0	15	1.0	0.540	16.8	LOS B	4.7	33.3	0.91	1.06	1.15	42.3
3u	U	1	1.0	1	1.0	0.540	18.4	LOS B	4.7	33.3	0.91	1.06	1.15	42.8
Approach		320	1.0	337	1.0	0.540	13.5	LOS A	4.7	33.3	0.91	1.06	1.15	41.8
East: Bareena Avenue														
4	L2	13	1.0	14	1.0	0.516	9.7	LOS A	4.1	29.1	0.79	0.89	0.92	43.7
5	T1	370	3.0	389	3.0	0.516	9.8	LOS A	4.1	29.1	0.79	0.89	0.92	44.4
6u	U	1	1.0	1	1.0	0.516	14.7	LOS B	4.1	29.1	0.79	0.89	0.92	44.9
Approach		384	2.9	404	2.9	0.516	9.8	LOS A	4.1	29.1	0.79	0.89	0.92	44.4
West: Bareena Avenue														
11	T1	373	3.0	393	3.0	0.236	3.5	LOS A	1.8	12.6	0.12	0.38	0.12	47.7
12	R2	183	1.0	193	1.0	0.349	7.0	LOS A	3.0	21.0	0.14	0.61	0.14	45.1
12u	U	380	1.0	400	1.0	0.349	8.6	LOS A	3.0	21.0	0.14	0.61	0.14	45.6
Approach		936	1.8	985	1.8	0.349	6.2	LOS A	3.0	21.0	0.13	0.52	0.13	46.3
All Vehicles		1640	1.9	1726	1.9	0.540	8.5	LOS A	4.7	33.3	0.43	0.71	0.51	44.9

Base 2033 PM Peak Hour Bareena Street & Broomfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	323	1.0	340	1.0	0.556	12.0	LOS A	5.0	35.4	0.92	1.04	1.13	42.5
3	R2	11	1.0	12	1.0	0.556	15.4	LOS B	5.0	35.4	0.92	1.04	1.13	43.1
3u	U	1	1.0	1	1.0	0.556	17.0	LOS B	5.0	35.4	0.92	1.04	1.13	43.5
Approach		335	1.0	353	1.0	0.556	12.1	LOS A	5.0	35.4	0.92	1.04	1.13	42.5
East: Bareena Avenue														
4	L2	25	1.0	26	1.0	0.678	11.0	LOS A	7.3	52.7	0.84	0.97	1.11	43.0
5	T1	532	3.0	560	3.0	0.678	11.1	LOS A	7.3	52.7	0.84	0.97	1.11	43.7
6u	U	1	1.0	1	1.0	0.678	16.1	LOS B	7.3	52.7	0.84	0.97	1.11	44.1
Approach		558	2.9	587	2.9	0.678	11.1	LOS A	7.3	52.7	0.84	0.97	1.11	43.7
West: Bareena Avenue														
11	T1	486	3.0	512	3.0	0.302	3.5	LOS A	2.4	17.4	0.11	0.38	0.11	47.8
12	R2	319	1.0	336	1.0	0.278	7.0	LOS A	2.2	15.4	0.11	0.61	0.11	45.5
12u	U	131	1.0	138	1.0	0.278	8.5	LOS A	2.2	15.4	0.11	0.61	0.11	46.0
Approach		936	2.0	985	2.0	0.302	5.4	LOS A	2.4	17.4	0.11	0.49	0.11	46.7
All Vehicles		1829	2.1	1925	2.1	0.678	8.4	LOS A	7.3	52.7	0.48	0.74	0.60	45.0

Base 2033 AM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	142	2.0	149	2.0	0.093	0.1	LOS A	0.2	1.1	0.07	0.08	0.07	49.4
3	R2	23	2.0	24	2.0	0.093	4.9	LOS A	0.2	1.1	0.07	0.08	0.07	48.4
Approach		165	2.0	174	2.0	0.093	0.7	NA	0.2	1.1	0.07	0.08	0.07	49.2
East: Longfield Street														
4	L2	58	2.0	61	2.0	0.238	8.0	LOS A	0.9	6.7	0.32	0.92	0.32	44.5
6	R2	151	2.0	159	2.0	0.238	9.2	LOS A	0.9	6.7	0.32	0.92	0.32	44.4
Approach		209	2.0	220	2.0	0.238	8.9	LOS A	0.9	6.7	0.32	0.92	0.32	44.4
North: Broomfield Street														
7	L2	84	2.0	88	2.0	0.056	4.6	LOS A	0.2	1.6	0.08	0.47	0.08	47.0
8	T1	96	2.0	101	2.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		180	2.0	189	2.0	0.056	2.1	LOS A	0.2	1.6	0.04	0.22	0.04	48.5
All Vehicles		554	2.0	583	2.0	0.238	4.3	NA	0.9	6.7	0.15	0.44	0.15	47.1

Base 2033 PM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	123	2.0	129	2.0	0.074	0.1	LOS A	0.1	0.5	0.05	0.04	0.05	49.6
3	R2	10	2.0	11	2.0	0.074	5.1	LOS A	0.1	0.5	0.05	0.04	0.05	48.6
Approach		133	2.0	140	2.0	0.074	0.4	NA	0.1	0.5	0.05	0.04	0.05	49.5
East: Longfield Street														
4	L2	35	2.0	37	2.0	0.204	8.3	LOS A	0.8	5.5	0.37	0.92	0.37	44.6
6	R2	138	2.0	145	2.0	0.204	9.1	LOS A	0.8	5.5	0.37	0.92	0.37	44.4
Approach		173	2.0	182	2.0	0.204	9.0	LOS A	0.8	5.5	0.37	0.92	0.37	44.4
North: Broomfield Street														
7	L2	22	2.0	23	2.0	0.014	4.5	LOS A	0.1	0.4	0.05	0.48	0.05	47.1
8	T1	157	2.0	165	2.0	0.086	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		179	2.0	188	2.0	0.086	0.6	LOS A	0.1	0.4	0.01	0.06	0.01	49.6
All Vehicles		485	2.0	511	2.0	0.204	3.5	NA	0.8	5.5	0.15	0.36	0.15	47.6

Base 2033 AM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

Site: [Broomfield & Fisher AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	126	2.0	133	2.0	0.085	0.1	LOS A	0.2	1.1	0.09	0.09	0.09	49.3
3	R2	23	1.0	24	1.0	0.085	5.0	LOS A	0.2	1.1	0.09	0.09	0.09	48.3
Approach		149	1.8	157	1.8	0.085	0.9	NA	0.2	1.1	0.09	0.09	0.09	49.1
East: Fisher Street														
4	L2	19	1.0	20	1.0	0.030	4.9	LOS A	0.1	0.7	0.23	0.53	0.23	46.1
6	R2	15	1.0	16	1.0	0.030	5.6	LOS A	0.1	0.7	0.23	0.53	0.23	45.7
Approach		34	1.0	36	1.0	0.030	5.2	LOS A	0.1	0.7	0.23	0.53	0.23	45.9
North: Broomfield Street														
7	L2	26	1.0	27	1.0	0.076	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	48.9
8	T1	112	2.0	118	2.0	0.076	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	49.4
Approach		138	1.8	145	1.8	0.076	0.9	NA	0.0	0.0	0.00	0.10	0.00	49.3
All Vehicles		321	1.7	338	1.7	0.085	1.3	NA	0.2	1.1	0.07	0.14	0.07	48.8

Base 2033 PM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

Site: [Broomfield & Fisher PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	95	5.0	100	5.0	0.070	0.2	LOS A	0.2	1.2	0.13	0.11	0.13	49.0
3	R2	24	1.0	25	1.0	0.070	5.2	LOS A	0.2	1.2	0.13	0.11	0.13	48.0
Approach		119	4.2	125	4.2	0.070	1.2	NA	0.2	1.2	0.13	0.11	0.13	48.8
East: Fisher Street														
4	L2	24	1.0	25	1.0	0.054	5.1	LOS A	0.2	1.3	0.29	0.56	0.29	46.0
6	R2	33	1.0	35	1.0	0.054	5.7	LOS A	0.2	1.3	0.29	0.56	0.29	45.5
Approach		57	1.0	60	1.0	0.054	5.5	LOS A	0.2	1.3	0.29	0.56	0.29	45.7
North: Broomfield Street														
7	L2	22	1.0	23	1.0	0.098	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	49.1
8	T1	157	1.0	165	1.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	49.6
Approach		179	1.0	188	1.0	0.098	0.6	NA	0.0	0.0	0.00	0.07	0.00	49.5
All Vehicles		355	2.1	374	2.1	0.098	1.6	NA	0.2	1.3	0.09	0.16	0.09	48.6

Base 2033 AM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

Site: [Broomfield & Site AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	159	5.0	167	5.0	0.096	0.0	LOS A	0.1	0.6	0.04	0.04	0.04	49.7
3	R2	11	0.0	12	0.0	0.096	5.3	LOS A	0.1	0.6	0.04	0.04	0.04	48.6
Approach		170	4.7	179	4.7	0.096	0.4	NA	0.1	0.6	0.04	0.04	0.04	49.6
North: Broomfield Street														
7	L2	26	0.0	27	0.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.11	0.00	48.8
8	T1	100	5.0	105	5.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	49.3
Approach		126	4.0	133	4.0	0.070	1.0	NA	0.0	0.0	0.00	0.11	0.00	49.2
All Vehicles		296	4.4	312	4.4	0.096	0.6	NA	0.1	0.6	0.02	0.07	0.02	49.4

Base 2033 PM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

Site: [Broomfield & Site PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	113	5.0	119	5.0	0.076	0.1	LOS A	0.1	1.0	0.10	0.09	0.10	49.2
3	R2	19	0.0	20	0.0	0.076	5.5	LOS A	0.1	1.0	0.10	0.09	0.10	48.1
Approach		132	4.3	139	4.3	0.076	0.9	NA	0.1	1.0	0.10	0.09	0.10	49.1
North: Broomfield Street														
7	L2	40	0.0	42	0.0	0.105	4.6	LOS A	0.0	0.0	0.00	0.12	0.00	48.8
8	T1	148	5.0	156	5.0	0.105	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	49.3
Approach		188	3.9	198	3.9	0.105	1.0	NA	0.0	0.0	0.00	0.12	0.00	49.2
All Vehicles		320	4.1	337	4.1	0.105	1.0	NA	0.1	1.0	0.04	0.10	0.04	49.1

Base 2033 AM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ Site: [CRE Minor & Site AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	21	0.0	22	0.0	0.014	0.1	LOS A	0.1	0.4	0.09	0.02	0.09	26.5
Approach		21	0.0	22	0.0	0.014	0.1	LOS A	0.1	0.4	0.09	0.02	0.09	26.5
West: CRE Minor														
11	T1	27	0.0	28	0.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		27	0.0	28	0.0	0.015	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		48	0.0	51	0.0	0.015	0.0	NA	0.1	0.4	0.04	0.01	0.04	32.7

Base 2033 PM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ Site: [CRE Minor & Site PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	60	0.0	63	0.0	0.040	0.1	LOS A	0.2	1.1	0.11	0.03	0.11	26.5
Approach		60	0.0	63	0.0	0.040	0.1	LOS A	0.2	1.1	0.11	0.03	0.11	26.5
West: CRE Minor														
11	T1	37	0.0	39	0.0	0.020	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach		37	0.0	39	0.0	0.020	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles		97	0.0	102	0.0	0.040	0.1	NA	0.2	1.1	0.07	0.02	0.07	30.4

Base 2033 AM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ **Site: [CRE Major & CRE Minor AM Base 2033 (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East Major														
5	T1	735	5.0	774	5.0	0.206	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6a	R1	33	1.0	35	1.0	0.086	11.4	LOS A	0.3	2.1	0.74	0.85	0.74	45.9
Approach		768	4.8	808	4.8	0.206	0.5	NA	0.3	2.1	0.03	0.04	0.03	59.1
NorthWest: Cabramatta Road East Minor														
27a	L1	48	1.0	51	1.0	0.061	5.7	LOS A	0.2	1.5	0.45	0.62	0.45	49.1
29b	R3	37	1.0	39	1.0	0.325	38.5	LOS C	1.0	6.8	0.93	1.01	1.06	33.9
Approach		85	1.0	89	1.0	0.325	20.0	LOS B	1.0	6.8	0.66	0.79	0.72	41.1
West: Cabramatta Road East Major														
10b	L3	120	1.0	126	1.0	0.305	6.3	LOS A	0.0	0.0	0.00	0.15	0.00	55.1
11	T1	961	4.0	1012	4.0	0.305	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.7
Approach		1081	3.7	1138	3.7	0.305	0.8	NA	0.0	0.0	0.00	0.07	0.00	58.2
All Vehicles		1934	4.0	2036	4.0	0.325	1.5	NA	1.0	6.8	0.04	0.09	0.04	57.5

Base 2033 PM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ **Site: [CRE Major & CRE Minor PM Base 2033 (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East														
5	T1	1039	3.0	1094	3.0	0.288	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
6a	R1	38	1.0	40	1.0	0.094	12.0	LOS A	0.3	2.3	0.72	0.86	0.72	46.2
Approach		1077	2.9	1134	2.9	0.288	0.5	NA	0.3	2.3	0.03	0.03	0.03	59.2
NorthWest: Cabramatta Road East														
27a	L1	110	1.0	116	1.0	0.132	5.6	LOS A	0.5	3.4	0.45	0.63	0.45	49.2
29b	R3	34	1.0	36	1.0	0.388	50.8	LOS D	1.1	7.9	0.95	1.02	1.11	30.5
Approach		144	1.0	152	1.0	0.388	16.2	LOS B	1.1	7.9	0.57	0.72	0.60	42.9
West: Cabramatta Road East														
10b	L3	94	1.0	99	1.0	0.267	6.3	LOS A	0.0	0.0	0.00	0.13	0.00	55.5
11	T1	854	4.0	899	4.0	0.267	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.8
Approach		948	3.7	998	3.7	0.267	0.7	NA	0.0	0.0	0.00	0.07	0.00	58.4
All Vehicles		2169	3.1	2283	3.1	0.388	1.6	NA	1.1	7.9	0.05	0.09	0.05	57.4

Base 2033 AM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ Site: [Cumberland & Fisher AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	28	1.0	29	1.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.12	0.00	48.8
2	T1	100	1.0	105	1.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	49.3
Approach		128	1.0	135	1.0	0.070	1.0	NA	0.0	0.0	0.00	0.12	0.00	49.2
North: Cumberland Street														
8	T1	222	1.0	234	1.0	0.130	0.0	LOS A	0.1	0.7	0.03	0.03	0.03	49.7
9	R2	13	1.0	14	1.0	0.130	5.0	LOS A	0.1	0.7	0.03	0.03	0.03	48.7
Approach		235	1.0	247	1.0	0.130	0.3	NA	0.1	0.7	0.03	0.03	0.03	49.7
West: Fisher Street														
10	L2	14	1.0	15	1.0	0.029	4.9	LOS A	0.1	0.7	0.23	0.55	0.23	46.1
12	R2	17	1.0	18	1.0	0.029	6.0	LOS A	0.1	0.7	0.23	0.55	0.23	45.6
Approach		31	1.0	33	1.0	0.029	5.5	LOS A	0.1	0.7	0.23	0.55	0.23	45.8
All Vehicles		394	1.0	415	1.0	0.130	0.9	NA	0.1	0.7	0.04	0.10	0.04	49.2

Base 2033 PM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ Site: [Cumberland & Fisher PM Base 203 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	42	1.0	44	1.0	0.110	4.6	LOS A	0.0	0.0	0.00	0.11	0.00	48.8
2	T1	159	1.0	167	1.0	0.110	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	49.3
Approach		201	1.0	212	1.0	0.110	1.0	NA	0.0	0.0	0.00	0.11	0.00	49.2
North: Cumberland Street														
8	T1	207	0.0	218	0.0	0.116	0.0	LOS A	0.0	0.3	0.02	0.02	0.02	49.8
9	R2	6	0.0	6	0.0	0.116	5.3	LOS A	0.0	0.3	0.02	0.02	0.02	48.9
Approach		213	0.0	224	0.0	0.116	0.2	NA	0.0	0.3	0.02	0.02	0.02	49.8
West: Fisher Street														
10	L2	9	0.0	9	0.0	0.057	5.1	LOS A	0.2	1.3	0.35	0.61	0.35	45.8
12	R2	42	0.0	44	0.0	0.057	6.2	LOS A	0.2	1.3	0.35	0.61	0.35	45.3
Approach		51	0.0	54	0.0	0.057	6.0	LOS A	0.2	1.3	0.35	0.61	0.35	45.4
All Vehicles		465	0.4	489	0.4	0.116	1.2	NA	0.2	1.3	0.05	0.12	0.05	49.0

Base 2033 AM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	44	1.0	46	1.0	0.052	12.6	LOS A	1.0	6.9	0.58	0.44	0.58	42.7
3	R2	4	2.0	4	2.0	*0.008	19.1	LOS B	0.1	0.7	0.67	0.62	0.67	39.1
Approach		48	1.1	51	1.1	0.052	13.1	LOS A	1.0	6.9	0.58	0.45	0.58	42.3
East: Cabramatta Road East Minor														
4	L2	34	2.0	36	2.0	0.036	13.8	LOS A	0.6	4.6	0.49	0.64	0.49	41.7
6	R2	117	5.0	123	5.0	*0.189	22.0	LOS B	3.2	23.1	0.69	0.73	0.69	37.8
Approach		151	4.3	159	4.3	0.189	20.1	LOS B	3.2	23.1	0.65	0.71	0.65	38.6
North: Broomfield Street														
7	L2	63	2.0	66	2.0	0.189	26.3	LOS B	3.2	22.4	0.77	0.69	0.77	37.2
8	T1	42	1.0	44	1.0	*0.189	21.7	LOS B	3.2	22.4	0.77	0.69	0.77	37.5
Approach		105	1.6	111	1.6	0.189	24.4	LOS B	3.2	22.4	0.77	0.69	0.77	37.3
All Vehicles		304	2.9	320	2.9	0.189	20.5	LOS B	3.2	23.1	0.68	0.66	0.68	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	35	2.0	37	2.0	0.034	8.2	LOS A	0.6	4.5	0.47	0.35	0.47	44.9
3	R2	4	2.0	4	2.0	*0.007	15.0	LOS B	0.1	0.6	0.58	0.61	0.58	40.9
Approach		39	2.0	41	2.0	0.034	8.9	LOS A	0.6	4.5	0.48	0.38	0.48	44.5
East: Cabramatta Road East Minor														
4	L2	30	2.0	32	2.0	0.039	18.3	LOS B	0.7	5.0	0.60	0.66	0.60	39.7
6	R2	95	5.0	100	5.0	*0.205	28.0	LOS B	3.0	21.7	0.79	0.75	0.79	35.6
Approach		125	4.3	132	4.3	0.205	25.7	LOS B	3.0	21.7	0.75	0.72	0.75	36.5
North: Broomfield Street														
7	L2	67	2.0	71	2.0	0.199	20.7	LOS B	3.8	27.4	0.67	0.63	0.67	39.7
8	T1	80	2.0	84	2.0	*0.199	16.1	LOS B	3.8	27.4	0.67	0.63	0.67	40.0
Approach		147	2.0	155	2.0	0.199	18.2	LOS B	3.8	27.4	0.67	0.63	0.67	39.9
All Vehicles		311	2.9	327	2.9	0.205	20.0	LOS B	3.8	27.4	0.68	0.64	0.68	38.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	88	1.0	93	1.0	0.184	33.7	LOS C	4.7	33.1	0.75	0.70	0.75	29.5
2	T1	36	1.0	38	1.0	0.184	34.2	LOS C	4.7	33.1	0.79	0.70	0.79	28.5
3	R2	46	1.0	48	1.0	0.184	42.5	LOS D	3.1	21.6	0.83	0.71	0.83	27.6
Approach		170	1.0	179	1.0	0.184	36.2	LOS C	4.7	33.1	0.78	0.70	0.78	28.7
East: Cumberland Road East														
4	L2	15	1.0	16	1.0	0.294	22.8	LOS B	9.3	68.0	0.63	0.55	0.63	33.1
5	T1	503	5.0	529	5.0	0.294	19.2	LOS B	9.3	68.2	0.63	0.55	0.63	33.0
6	R2	40	1.0	42	1.0	0.274	61.3	LOS E	2.4	17.0	0.97	0.73	0.97	24.0
Approach		558	4.6	587	4.6	0.294	22.3	LOS B	9.3	68.2	0.66	0.56	0.66	32.2
North: Cumberland Street														
7	L2	43	1.0	45	1.0	0.114	34.4	LOS C	2.7	19.1	0.74	0.66	0.74	29.4
8	T1	40	1.0	42	1.0	*0.568	37.7	LOS C	9.8	69.4	0.84	0.74	0.84	27.8
9	R2	157	1.0	165	1.0	0.568	47.3	LOS D	9.8	69.4	0.93	0.81	0.93	26.6
Approach		240	1.0	253	1.0	0.568	43.4	LOS D	9.8	69.4	0.88	0.77	0.88	27.3
West: Cabramatta Road East														
10	L2	95	1.0	100	1.0	0.566	26.2	LOS B	21.3	154.4	0.76	0.70	0.76	31.9
11	T1	836	5.0	880	5.0	*0.566	22.3	LOS B	21.3	154.4	0.74	0.67	0.74	32.1
12	R2	79	1.0	83	1.0	*0.541	63.1	LOS E	4.9	34.6	1.00	0.77	1.00	23.7
Approach		1010	4.3	1063	4.3	0.566	25.8	LOS B	21.3	154.4	0.76	0.68	0.76	31.2
All Vehicles		1978	3.7	2082	3.7	0.568	27.9	LOS B	21.3	154.4	0.75	0.66	0.75	30.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	99	1.0	104	1.0	0.141	29.1	LOS C	4.5	31.8	0.64	0.68	0.64	30.5
2	T1	40	1.0	42	1.0	0.141	32.6	LOS C	4.5	31.8	0.71	0.65	0.71	29.1
3	R2	37	1.0	39	1.0	0.141	37.2	LOS C	3.5	24.6	0.73	0.64	0.73	29.0
Approach		176	1.0	185	1.0	0.141	31.6	LOS C	4.5	31.8	0.68	0.66	0.68	29.8
East: Cumberland Road East														
4	L2	14	1.0	15	1.0	0.502	30.6	LOS C	20.8	151.5	0.74	0.66	0.74	30.9
5	T1	797	5.0	839	5.0	0.502	26.8	LOS B	20.8	151.5	0.73	0.65	0.73	30.9
6	R2	46	1.0	48	1.0	*0.525	77.8	LOS F	3.4	24.3	1.00	0.75	1.01	21.6
Approach		857	4.7	902	4.7	0.525	29.6	LOS C	20.8	151.5	0.75	0.66	0.75	30.2
North: Cumberland Street														
7	L2	49	1.0	52	1.0	0.102	32.4	LOS C	3.1	22.0	0.67	0.64	0.67	29.9
8	T1	20	1.0	21	1.0	0.102	29.1	LOS C	3.1	22.0	0.67	0.64	0.67	29.8
9	R2	205	1.0	216	1.0	*0.555	46.2	LOS D	12.2	86.3	0.88	0.80	0.88	26.7
Approach		274	1.0	288	1.0	0.555	42.5	LOS C	12.2	86.3	0.82	0.76	0.82	27.5
West: Cabramatta Road East														
10	L2	114	1.0	120	1.0	0.541	31.2	LOS C	22.8	165.2	0.76	0.71	0.76	30.5
11	T1	762	5.0	802	5.0	*0.541	27.4	LOS B	22.8	165.2	0.75	0.68	0.75	30.7
12	R2	42	1.0	44	1.0	0.480	77.6	LOS F	3.1	22.1	1.00	0.74	1.00	21.7
Approach		918	4.3	966	4.3	0.541	30.2	LOS C	22.8	165.2	0.76	0.69	0.76	30.1
All Vehicles		2225	3.8	2342	3.8	0.555	31.6	LOS C	22.8	165.2	0.76	0.68	0.76	29.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 AM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield AM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 30 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	41	2.0	43	2.0	0.101	15.2	LOS B	0.5	3.8	0.81	0.70	0.81	41.2
2	T1	48	2.0	51	2.0	* 0.298	11.1	LOS A	1.6	11.1	0.86	0.72	0.86	42.1
3	R2	65	2.0	68	2.0	0.298	15.7	LOS B	1.6	11.1	0.86	0.72	0.86	41.7
Approach		154	2.0	162	2.0	0.298	14.1	LOS A	1.6	11.1	0.85	0.71	0.85	41.7
East: Longfield Street														
4	L2	174	2.0	183	2.0	* 0.273	12.3	LOS A	2.0	14.2	0.74	0.74	0.74	42.5
5	T1	168	2.0	177	2.0	0.262	7.5	LOS A	2.0	14.0	0.74	0.60	0.74	45.3
6	R2	5	2.0	5	2.0	0.262	12.1	LOS A	2.0	14.0	0.74	0.60	0.74	44.8
Approach		347	2.0	365	2.0	0.273	10.0	LOS A	2.0	14.2	0.74	0.67	0.74	43.8
North: Cumberland Street														
7	L2	9	2.0	9	2.0	0.026	14.7	LOS B	0.1	0.9	0.79	0.63	0.79	41.6
8	T1	52	2.0	55	2.0	0.126	10.4	LOS A	0.7	4.9	0.82	0.62	0.82	43.6
9	R2	2	2.0	2	2.0	0.126	15.0	LOS B	0.7	4.9	0.82	0.62	0.82	43.3
Approach		63	2.0	66	2.0	0.126	11.2	LOS A	0.7	4.9	0.82	0.62	0.82	43.3
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.034	11.4	LOS A	0.2	1.6	0.66	0.48	0.66	45.2
11	T1	59	2.0	62	2.0	0.157	7.6	LOS A	0.9	6.3	0.71	0.59	0.71	44.5
12	R2	40	2.0	42	2.0	0.157	12.6	LOS A	0.9	6.3	0.74	0.64	0.74	43.4
Approach		100	2.0	105	2.0	0.157	9.7	LOS A	0.9	6.3	0.72	0.61	0.72	44.0
All Vehicles		664	2.0	699	2.0	0.298	11.0	LOS A	2.0	14.2	0.77	0.67	0.77	43.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield PM Base 2033 (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	68	2.0	72	2.0	0.101	21.5	LOS B	1.8	12.6	0.67	0.70	0.67	38.4
2	T1	45	2.0	47	2.0	* 0.219	17.8	LOS B	3.5	24.7	0.71	0.68	0.71	39.0
3	R2	80	2.0	84	2.0	0.219	22.4	LOS B	3.5	24.7	0.71	0.68	0.71	38.6
Approach		193	2.0	203	2.0	0.219	21.0	LOS B	3.5	24.7	0.69	0.69	0.69	38.6
East: Longfield Street														
4	L2	149	2.0	157	2.0	0.185	18.3	LOS B	3.6	25.5	0.62	0.71	0.62	39.7
5	T1	105	2.0	111	2.0	0.138	13.2	LOS A	2.6	18.7	0.61	0.50	0.61	42.2
6	R2	7	2.0	7	2.0	0.138	17.8	LOS B	2.6	18.7	0.61	0.50	0.61	41.8
Approach		261	2.0	275	2.0	0.185	16.2	LOS B	3.6	25.5	0.61	0.62	0.61	40.8
North: Cumberland Street														
7	L2	10	2.0	11	2.0	0.015	20.8	LOS B	0.2	1.8	0.64	0.64	0.64	38.7
8	T1	20	2.0	21	2.0	0.031	16.2	LOS B	0.5	3.8	0.64	0.48	0.64	40.9
9	R2	1	2.0	1	2.0	0.031	20.7	LOS B	0.5	3.8	0.64	0.48	0.64	40.5
Approach		31	2.0	33	2.0	0.031	17.8	LOS B	0.5	3.8	0.64	0.53	0.64	40.1
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.047	17.2	LOS B	0.9	6.3	0.57	0.44	0.57	42.3
11	T1	94	2.0	99	2.0	0.219	14.2	LOS A	3.2	23.0	0.62	0.56	0.62	41.2
12	R2	70	2.0	74	2.0	* 0.219	19.8	LOS B	3.2	23.0	0.66	0.64	0.66	39.9
Approach		165	2.0	174	2.0	0.219	16.6	LOS B	3.2	23.0	0.64	0.60	0.64	40.6
All Vehicles		650	2.0	684	2.0	0.219	17.8	LOS B	3.6	25.5	0.64	0.63	0.64	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 AM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne AM Base 2033 (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Hume Highway & Lansdowne Road
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	117	2.0	117	2.0	0.611	9.3	LOS A	7.3	53.3	0.16	0.23	0.16	50.1
2	T1	2275	5.0	2275	5.0	*0.611	3.7	LOS A	16.9	123.6	0.21	0.21	0.21	63.2
Approach		2392	4.9	2392	4.9	0.611	4.0	LOS A	16.9	123.6	0.20	0.21	0.20	62.7
North: Hum Hwy														
8	T1	1938	6.0	1938	6.0	0.625	4.1	LOS A	21.7	151.7	0.38	0.36	0.38	60.7
9	R2	274	2.0	274	2.0	*0.906	79.4	LOS F	11.1	78.8	1.00	0.91	1.30	20.9
Approach		2212	5.5	2212	5.5	0.906	13.4	LOS A	21.7	158.8	0.46	0.43	0.50	46.6
West: Lansdowne Rd														
10	L2	240	2.0	240	2.0	0.697	55.2	LOS D	14.0	99.8	0.96	0.84	0.98	25.3
12	R2	133	2.0	133	2.0	*0.937	88.5	LOS F	10.1	71.9	1.00	1.06	1.55	6.6
Approach		373	2.0	373	2.0	0.937	67.1	LOS E	14.0	99.8	0.97	0.92	1.18	18.5
All Vehicles		4976	4.9	4976	4.9	0.937	12.9	LOS A	21.7	158.8	0.38	0.36	0.41	48.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne PM Base 2033 (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Hume Highway & Lansdowne Road
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	80	2.0	80	2.0	0.589	9.5	LOS A	6.9	50.6	0.15	0.19	0.15	50.6
2	T1	2220	5.0	2220	5.0	0.589	3.7	LOS A	16.6	121.4	0.18	0.19	0.18	63.4
Approach		2300	4.9	2300	4.9	0.589	3.9	LOS A	16.6	121.4	0.18	0.19	0.18	63.1
North: Hum Hwy														
8	T1	2111	6.0	2111	6.0	*0.686	3.3	LOS A	24.7	172.9	0.36	0.34	0.36	62.3
9	R2	418	2.0	418	2.0	0.877	81.9	LOS F	16.2	115.4	1.00	0.93	1.26	20.5
Approach		2528	5.3	2528	5.3	0.877	16.3	LOS B	24.7	173.2	0.47	0.44	0.51	43.7
West: Lansdowne Rd														
10	L2	200	2.0	200	2.0	0.482	56.2	LOS D	12.1	86.0	0.92	0.81	0.92	25.1
12	R2	60	2.0	60	2.0	*0.680	82.1	LOS F	4.4	31.5	1.00	0.81	1.14	7.1
Approach		260	2.0	260	2.0	0.680	62.2	LOS E	12.1	86.0	0.94	0.81	0.97	21.0
All Vehicles		5088	5.0	5088	5.0	0.877	13.0	LOS A	24.7	173.2	0.36	0.34	0.39	48.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 AM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton AM Base 2033 (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Hume Highway & Hollywood Drive & Chadderton Street
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	*0.641	22.1	LOS B	29.3	213.7	0.67	0.63	0.67	46.0
2	T1	2166	5.0	2166	5.0	0.641	15.4	LOS B	29.4	214.7	0.66	0.61	0.66	44.1
3	R2	89	5.0	89	5.0	*0.376	17.0	LOS B	2.2	16.4	0.65	0.75	0.65	45.8
Approach		2293	5.0	2293	5.0	0.641	15.5	LOS B	29.4	214.7	0.66	0.61	0.66	44.3
East: Hollywood Drive														
4	L2	43	5.0	43	5.0	0.256	55.7	LOS D	4.2	30.4	0.91	0.74	0.91	30.3
5	T1	32	5.0	32	5.0	0.256	51.1	LOS D	4.2	30.4	0.91	0.74	0.91	28.9
6	R2	121	5.0	121	5.0	*0.648	66.0	LOS E	7.7	56.1	1.00	0.83	1.05	18.1
Approach		196	5.0	196	5.0	0.648	61.3	LOS E	7.7	56.1	0.97	0.79	0.99	23.0
North: Hume Highway														
7	L2	65	5.0	65	5.0	0.567	19.0	LOS B	19.4	142.9	0.51	0.49	0.51	42.1
8	T1	1891	6.0	1891	6.0	0.567	13.0	LOS A	19.6	144.3	0.52	0.49	0.52	51.5
9	R2	64	5.0	64	5.0	0.295	21.4	LOS B	2.1	15.4	0.78	0.77	0.78	37.4
Approach		2020	5.9	2020	5.9	0.567	13.5	LOS A	19.6	144.3	0.53	0.49	0.53	50.5
West: Chadderton Street														
10	L2	32	5.0	32	5.0	0.236	56.4	LOS D	3.8	27.5	0.91	0.73	0.91	20.5
11	T1	36	5.0	36	5.0	0.236	51.8	LOS D	3.8	27.5	0.91	0.73	0.91	28.8
12	R2	25	5.0	25	5.0	0.140	60.8	LOS E	1.5	10.7	0.93	0.72	0.93	28.8
Approach		93	5.0	93	5.0	0.236	55.8	LOS D	3.8	27.5	0.92	0.73	0.92	26.6
All Vehicles		4601	5.4	4601	5.4	0.648	17.4	LOS B	29.4	214.7	0.62	0.57	0.62	44.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton PM Base 2033 (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Hume Highway & Hollywood Drive & Chadderton Street
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	*0.655	24.1	LOS B	33.2	242.1	0.69	0.64	0.69	44.9
2	T1	2203	5.0	2203	5.0	0.655	17.3	LOS B	33.3	243.2	0.67	0.62	0.67	42.2
3	R2	89	5.0	89	5.0	*0.414	23.0	LOS B	3.4	25.2	0.81	0.80	0.81	42.6
Approach		2329	5.0	2329	5.0	0.655	17.6	LOS B	33.3	243.2	0.68	0.63	0.68	42.3
East: Hollywood Drive														
4	L2	69	5.0	69	5.0	0.312	59.0	LOS E	6.2	45.5	0.91	0.76	0.91	29.4
5	T1	34	5.0	34	5.0	0.312	54.4	LOS D	6.2	45.5	0.91	0.76	0.91	28.0
6	R2	128	5.0	128	5.0	*0.646	69.9	LOS E	8.8	64.0	1.00	0.82	1.03	17.4
Approach		232	5.0	232	5.0	0.646	64.4	LOS E	8.8	64.0	0.96	0.80	0.98	23.0
North: Hume Highway														
7	L2	29	5.0	29	5.0	0.632	23.0	LOS B	27.7	203.9	0.60	0.56	0.60	39.7
8	T1	2159	6.0	2159	6.0	0.632	16.6	LOS B	27.8	204.6	0.60	0.55	0.60	48.1
9	R2	46	5.0	46	5.0	0.219	21.6	LOS B	1.4	10.6	0.71	0.75	0.71	37.3
Approach		2235	6.0	2235	6.0	0.632	16.8	LOS B	27.8	204.6	0.60	0.56	0.60	47.7
West: Chadderton Street														
10	L2	42	5.0	42	5.0	0.231	58.2	LOS E	4.4	32.0	0.89	0.73	0.89	20.0
11	T1	32	5.0	32	5.0	0.231	53.5	LOS D	4.4	32.0	0.89	0.73	0.89	28.3
12	R2	31	5.0	31	5.0	0.168	66.4	LOS E	1.9	14.2	0.93	0.73	0.93	27.6
Approach		104	5.0	104	5.0	0.231	59.2	LOS E	4.4	32.0	0.91	0.73	0.91	25.4
All Vehicles		4900	5.4	4900	5.4	0.655	20.3	LOS B	33.3	243.2	0.66	0.61	0.66	42.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 AM Peak Hour Hume Highway & CRE Major

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East AM Base 2033 (Site Folder: General)]

Hume Highway & Cabrammta Road East
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	150	5.0	158	5.0	*0.689	34.7	LOS C	32.4	238.1	0.82	0.78	0.82	41.4
2	T1	1679	6.0	1767	6.0	0.689	28.3	LOS B	33.2	244.3	0.82	0.76	0.82	45.2
Approach		1829	5.9	1925	5.9	0.689	28.8	LOS C	33.2	244.3	0.82	0.76	0.82	44.9
North: Hume Highway														
8	T1	1471	3.0	1548	3.0	0.561	9.6	LOS A	24.1	173.3	0.51	0.47	0.51	59.2
9	R2	418	6.0	440	6.0	*0.692	66.0	LOS E	14.4	106.0	0.99	0.84	1.01	29.6
Approach		1889	3.7	1988	3.7	0.692	22.1	LOS B	24.1	173.3	0.62	0.55	0.62	48.5
West: Cabramatta Road East														
10	L2	521	5.0	548	5.0	0.678	42.8	LOS D	27.7	202.4	0.88	0.85	0.88	35.3
12	R2	344	5.0	362	5.0	*0.678	61.6	LOS E	12.9	94.2	0.96	0.83	0.98	30.0
Approach		865	5.0	911	5.0	0.678	50.3	LOS D	27.7	202.4	0.91	0.84	0.92	33.0
All Vehicles		4583	4.8	4824	4.8	0.692	30.1	LOS C	33.2	244.3	0.76	0.69	0.76	43.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 PM Peak Hour Hume Highway & CRE Major

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East PM Base 2033 (Site Folder: General)]

Hume Highway & Cabrammta Road East
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	227	5.0	239	5.0	*0.817	43.7	LOS D	40.3	291.7	0.94	0.88	0.96	37.3
2	T1	1743	3.5	1835	3.5	0.817	36.5	LOS C	41.5	299.5	0.94	0.87	0.95	41.0
Approach		1970	3.7	2074	3.7	0.817	37.3	LOS C	41.5	299.5	0.94	0.87	0.95	40.6
North: Hume Highway														
8	T1	1534	6.0	1615	6.0	0.553	6.3	LOS A	20.9	153.7	0.42	0.39	0.42	62.5
9	R2	688	4.0	724	4.0	*0.811	59.3	LOS E	23.5	170.3	0.95	0.89	1.05	31.3
Approach		2222	5.4	2339	5.4	0.811	22.7	LOS B	23.5	170.3	0.59	0.55	0.62	47.7
West: Cabramatta Road East														
10	L2	424	5.0	446	5.0	0.536	34.0	LOS C	21.4	156.5	0.77	0.81	0.77	38.6
12	R2	337	5.0	355	5.0	*0.784	73.2	LOS F	12.4	90.7	1.00	0.88	1.15	27.4
Approach		761	5.0	801	5.0	0.784	51.4	LOS D	21.4	156.5	0.87	0.84	0.93	32.7
All Vehicles		4953	4.6	5214	4.6	0.817	32.9	LOS C	41.5	299.5	0.77	0.72	0.80	41.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site AM Peak Hour Bareena Street & Broomfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	321	2.0	338	2.0	0.572	14.2	LOS A	5.3	37.4	0.92	1.09	1.21	41.4
3	R2	14	2.0	15	2.0	0.572	17.7	LOS B	5.3	37.4	0.92	1.09	1.21	41.9
3u	U	1	2.0	1	2.0	0.572	19.3	LOS B	5.3	37.4	0.92	1.09	1.21	42.4
Approach		336	2.0	354	2.0	0.572	14.4	LOS A	5.3	37.4	0.92	1.09	1.21	41.4
East: Bareena Avenue														
4	L2	13	2.0	14	2.0	0.523	10.1	LOS A	4.2	30.1	0.80	0.91	0.95	43.5
5	T1	370	3.0	389	3.0	0.523	10.1	LOS A	4.2	30.1	0.80	0.91	0.95	44.2
6u	U	1	1.0	1	1.0	0.523	15.1	LOS B	4.2	30.1	0.80	0.91	0.95	44.7
Approach		384	3.0	404	3.0	0.523	10.1	LOS A	4.2	30.1	0.80	0.91	0.95	44.2
West: Bareena Avenue														
11	T1	373	3.0	393	3.0	0.236	3.5	LOS A	1.8	12.7	0.12	0.38	0.12	47.7
12	R2	198	2.0	208	2.0	0.359	7.0	LOS A	3.1	22.0	0.14	0.61	0.14	45.1
12u	U	380	1.0	400	1.0	0.359	8.6	LOS A	3.1	22.0	0.14	0.61	0.14	45.6
Approach		951	2.0	1001	2.0	0.359	6.3	LOS A	3.1	22.0	0.13	0.52	0.13	46.3
All Vehicles		1671	2.2	1759	2.2	0.572	8.8	LOS A	5.3	37.4	0.44	0.73	0.54	44.8

Base 2033 + Site PM Peak Hour Bareena Street & Broomfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	340	1.0	358	1.0	0.587	12.6	LOS A	5.5	39.1	0.94	1.07	1.19	42.1
3	R2	11	1.0	12	1.0	0.587	16.1	LOS B	5.5	39.1	0.94	1.07	1.19	42.7
3u	U	1	1.0	1	1.0	0.587	17.7	LOS B	5.5	39.1	0.94	1.07	1.19	43.2
Approach		352	1.0	371	1.0	0.587	12.8	LOS A	5.5	39.1	0.94	1.07	1.19	42.2
East: Bareena Avenue														
4	L2	25	1.0	26	1.0	0.690	11.7	LOS A	7.7	55.2	0.86	1.01	1.16	42.7
5	T1	532	3.0	560	3.0	0.690	11.7	LOS A	7.7	55.2	0.86	1.01	1.16	43.4
6u	U	1	1.0	1	1.0	0.690	16.7	LOS B	7.7	55.2	0.86	1.01	1.16	43.8
Approach		558	2.9	587	2.9	0.690	11.7	LOS A	7.7	55.2	0.86	1.01	1.16	43.4
West: Bareena Avenue														
11	T1	486	3.0	512	3.0	0.302	3.5	LOS A	2.4	17.5	0.11	0.38	0.11	47.8
12	R2	338	1.0	356	1.0	0.290	7.0	LOS A	2.3	16.3	0.11	0.60	0.11	45.5
12u	U	131	1.0	138	1.0	0.290	8.5	LOS A	2.3	16.3	0.11	0.60	0.11	46.0
Approach		955	2.0	1005	2.0	0.302	5.4	LOS A	2.4	17.5	0.11	0.49	0.11	46.7
All Vehicles		1865	2.1	1963	2.1	0.690	8.7	LOS A	7.7	55.2	0.49	0.75	0.63	44.8

Base 2033 + Site AM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	158	2.0	166	2.0	0.102	0.1	LOS A	0.2	1.2	0.07	0.07	0.07	49.4
3	R2	23	2.0	24	2.0	0.102	5.0	LOS A	0.2	1.2	0.07	0.07	0.07	48.4
Approach		181	2.0	191	2.0	0.102	0.7	NA	0.2	1.2	0.07	0.07	0.07	49.3
East: Longfield Street														
4	L2	58	2.0	61	2.0	0.245	8.1	LOS A	1.0	6.9	0.34	0.92	0.34	44.5
6	R2	151	2.0	159	2.0	0.245	9.5	LOS A	1.0	6.9	0.34	0.92	0.34	44.3
Approach		209	2.0	220	2.0	0.245	9.1	LOS A	1.0	6.9	0.34	0.92	0.34	44.3
North: Broomfield Street														
7	L2	84	2.0	88	2.0	0.056	4.6	LOS A	0.2	1.6	0.08	0.47	0.08	47.0
8	T1	111	2.0	117	2.0	0.061	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		195	2.0	205	2.0	0.061	2.0	LOS A	0.2	1.6	0.04	0.20	0.04	48.6
All Vehicles		585	2.0	616	2.0	0.245	4.1	NA	1.0	6.9	0.16	0.42	0.16	47.2

Base 2033 + Site PM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	123	2.0	129	2.0	0.074	0.1	LOS A	0.1	0.5	0.05	0.04	0.05	49.6
3	R2	10	2.0	11	2.0	0.074	5.1	LOS A	0.1	0.5	0.05	0.04	0.05	48.6
Approach		133	2.0	140	2.0	0.074	0.4	NA	0.1	0.5	0.05	0.04	0.05	49.5
East: Longfield Street														
4	L2	35	2.0	37	2.0	0.204	8.3	LOS A	0.8	5.5	0.37	0.92	0.37	44.6
6	R2	138	2.0	145	2.0	0.204	9.1	LOS A	0.8	5.5	0.37	0.92	0.37	44.4
Approach		173	2.0	182	2.0	0.204	9.0	LOS A	0.8	5.5	0.37	0.92	0.37	44.4
North: Broomfield Street														
7	L2	22	2.0	23	2.0	0.014	4.5	LOS A	0.1	0.4	0.05	0.48	0.05	47.1
8	T1	157	2.0	165	2.0	0.086	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		179	2.0	188	2.0	0.086	0.6	LOS A	0.1	0.4	0.01	0.06	0.01	49.6
All Vehicles		485	2.0	511	2.0	0.204	3.5	NA	0.8	5.5	0.15	0.36	0.15	47.6

Base 2033 + Site AM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ **Site: [Broomfield & Fisher AM Base 2033 + Site (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	136	2.0	143	2.0	0.108	0.2	LOS A	0.3	2.3	0.16	0.15	0.16	48.8
3	R2	48	1.0	51	1.0	0.108	5.1	LOS A	0.3	2.3	0.16	0.15	0.16	47.8
Approach		184	1.7	194	1.7	0.108	1.5	NA	0.3	2.3	0.16	0.15	0.16	48.5
East: Fisher Street														
4	L2	41	1.0	43	1.0	0.054	5.0	LOS A	0.2	1.4	0.24	0.54	0.24	46.1
6	R2	22	1.0	23	1.0	0.054	5.9	LOS A	0.2	1.4	0.24	0.54	0.24	45.6
Approach		63	1.0	66	1.0	0.054	5.3	LOS A	0.2	1.4	0.24	0.54	0.24	45.9
North: Broomfield Street														
7	L2	26	1.0	27	1.0	0.084	4.6	LOS A	0.0	0.0	0.00	0.09	0.00	48.9
8	T1	127	2.0	134	2.0	0.084	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	49.4
Approach		153	1.8	161	1.8	0.084	0.8	NA	0.0	0.0	0.00	0.09	0.00	49.4
All Vehicles		400	1.7	421	1.7	0.108	1.8	NA	0.3	2.3	0.11	0.19	0.11	48.4

Base 2033 + Site PM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ **Site: [Broomfield & Fisher PM Base 2033 + Site (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	111	2.0	117	2.0	0.107	0.4	LOS A	0.4	3.0	0.23	0.21	0.23	48.3
3	R2	64	1.0	67	1.0	0.107	5.2	LOS A	0.4	3.0	0.23	0.21	0.23	47.4
Approach		175	1.6	184	1.6	0.107	2.1	NA	0.4	3.0	0.23	0.21	0.23	47.9
East: Fisher Street														
4	L2	58	1.0	61	1.0	0.082	5.1	LOS A	0.3	2.2	0.29	0.56	0.29	46.0
6	R2	34	1.0	36	1.0	0.082	6.1	LOS A	0.3	2.2	0.29	0.56	0.29	45.5
Approach		92	1.0	97	1.0	0.082	5.5	LOS A	0.3	2.2	0.29	0.56	0.29	45.8
North: Broomfield Street														
7	L2	22	1.0	23	1.0	0.101	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	49.1
8	T1	162	2.0	171	2.0	0.101	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	49.6
Approach		184	1.9	194	1.9	0.101	0.6	NA	0.0	0.0	0.00	0.07	0.00	49.5
All Vehicles		451	1.6	475	1.6	0.107	2.2	NA	0.4	3.0	0.15	0.22	0.15	48.1

Base 2033 + Site AM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

Site: [Broomfield & Site AM Base 2033 + Site (Site Folder: General)]

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	159	2.0	167	2.0	0.122	0.2	LOS A	0.4	2.5	0.15	0.13	0.15	48.8
3	R2	50	1.0	53	1.0	0.122	5.2	LOS A	0.4	2.5	0.15	0.13	0.15	48.1
Approach		209	1.8	220	1.8	0.122	1.4	NA	0.4	2.5	0.15	0.13	0.15	48.7
East: Site Retail & Commercial														
4	L2	15	1.0	16	1.0	0.011	4.9	LOS A	0.0	0.3	0.21	0.50	0.21	46.1
6	R2	34	1.0	36	1.0	0.039	6.0	LOS A	0.1	0.9	0.37	0.61	0.37	45.3
Approach		49	1.0	52	1.0	0.039	5.7	LOS A	0.1	0.9	0.32	0.58	0.32	45.6
North: Broomfield Street														
7	L2	52	1.0	55	1.0	0.091	4.6	LOS A	0.0	0.0	0.00	0.17	0.00	48.5
8	T1	112	2.0	118	2.0	0.091	0.0	LOS A	0.0	0.0	0.00	0.17	0.00	49.0
Approach		164	1.7	173	1.7	0.091	1.5	NA	0.0	0.0	0.00	0.17	0.00	48.8
All Vehicles		422	1.6	444	1.6	0.122	1.9	NA	0.4	2.5	0.11	0.20	0.11	48.3

Base 2033 + Site PM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

Site: [Broomfield & Site PM Base 2033 + Site (Site Folder: General)]

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	113	2.0	119	2.0	0.107	0.5	LOS A	0.4	2.9	0.26	0.20	0.26	48.3
3	R2	59	1.0	62	1.0	0.107	5.5	LOS A	0.4	2.9	0.26	0.20	0.26	47.6
Approach		172	1.7	181	1.7	0.107	2.2	NA	0.4	2.9	0.26	0.20	0.26	48.0
East: Site Retail & Commercial														
4	L2	24	1.0	25	1.0	0.018	5.1	LOS A	0.1	0.5	0.27	0.51	0.27	46.0
6	R2	56	1.0	59	1.0	0.066	6.2	LOS A	0.2	1.5	0.39	0.64	0.39	45.2
Approach		80	1.0	84	1.0	0.066	5.9	LOS A	0.2	1.5	0.35	0.60	0.35	45.4
North: Broomfield Street														
7	L2	67	1.0	71	1.0	0.133	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	48.6
8	T1	174	2.0	183	2.0	0.133	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	49.1
Approach		241	1.7	254	1.7	0.133	1.3	NA	0.0	0.0	0.00	0.15	0.00	49.0
All Vehicles		493	1.6	519	1.6	0.133	2.4	NA	0.4	2.9	0.15	0.24	0.15	48.0

Base 2033 + Site AM Peak Hour CRE Minor& Site

MOVEMENT SUMMARY

▽ **Site: [CRE Minor & Site AM Base 2033 + Site (Site Folder: General)]**

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	33	0.0	35	0.0	0.022	0.1	LOS A	0.1	0.6	0.10	0.02	0.10	26.5
Approach		33	0.0	35	0.0	0.022	0.1	LOS A	0.1	0.6	0.10	0.02	0.10	26.5
West: CRE Minor														
10	L2	11	0.0	12	0.0	0.024	3.5	LOS A	0.0	0.0	0.00	0.12	0.00	39.8
11	T1	33	1.0	35	1.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	39.6
Approach		44	0.8	46	0.8	0.024	0.9	NA	0.0	0.0	0.00	0.12	0.00	39.7
All Vehicles		77	0.4	81	0.4	0.024	0.5	NA	0.1	0.6	0.04	0.08	0.04	32.7

Base 2033 + Site PM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ **Site: [CRE Minor & Site PM Base 2033 + Site (Site Folder: General)]**

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	9	0.0	9	0.0	0.006	0.2	LOS A	0.0	0.2	0.14	0.04	0.14	26.5
Approach		9	0.0	9	0.0	0.006	0.2	LOS A	0.0	0.2	0.14	0.04	0.14	26.5
West: CRE Minor														
10	L2	27	0.0	28	0.0	0.047	3.5	LOS A	0.0	0.0	0.00	0.15	0.00	39.7
11	T1	59	1.0	62	1.0	0.047	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	39.5
Approach		86	0.7	91	0.7	0.047	1.1	NA	0.0	0.0	0.00	0.15	0.00	39.6
All Vehicles		95	0.6	100	0.6	0.047	1.0	NA	0.0	0.2	0.01	0.14	0.01	37.8

Base 2033 + Site AM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ Site: [CRE Major & CRE Minor AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East Major														
5	T1	740	5.0	779	5.0	0.208	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6a	R1	61	1.0	64	1.0	0.161	11.8	LOS A	0.6	4.0	0.75	0.86	0.75	45.7
Approach		801	4.7	843	4.7	0.208	1.0	NA	0.6	4.0	0.06	0.07	0.06	58.5
NorthWest: Cabramatta Road East Minor														
27a	L1	66	1.0	69	1.0	0.083	5.7	LOS A	0.3	2.1	0.45	0.63	0.45	49.1
29b	R3	44	1.0	46	1.0	0.419	44.7	LOS D	1.3	9.0	0.95	1.03	1.14	32.1
Approach		110	1.0	116	1.0	0.419	21.3	LOS B	1.3	9.0	0.65	0.79	0.73	40.5
West: Cabramatta Road East Major														
10b	L3	130	1.0	137	1.0	0.310	6.3	LOS A	0.0	0.0	0.00	0.16	0.00	54.9
11	T1	962	5.0	1013	5.0	0.310	0.1	LOS A	0.0	0.0	0.00	0.07	0.00	58.6
Approach		1092	4.5	1149	4.5	0.310	0.8	NA	0.0	0.0	0.00	0.08	0.00	58.1
All Vehicles		2003	4.4	2108	4.4	0.419	2.0	NA	1.3	9.0	0.06	0.11	0.06	56.9

Base 2033 + Site PM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ Site: [CRE Major & CRE Minor PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East														
5	T1	1040	5.0	1095	5.0	0.292	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
6a	R1	67	1.0	71	1.0	0.171	12.6	LOS A	0.6	4.3	0.75	0.87	0.75	45.9
Approach		1107	4.8	1165	4.8	0.292	0.8	NA	0.6	4.3	0.05	0.05	0.05	58.7
NorthWest: Cabramatta Road East														
27a	L1	68	1.0	72	1.0	0.081	5.5	LOS A	0.3	2.0	0.43	0.61	0.43	49.3
29b	R3	46	1.0	48	1.0	0.581	66.9	LOS E	1.8	12.6	0.97	1.07	1.28	26.8
Approach		114	1.0	120	1.0	0.581	30.3	LOS C	1.8	12.6	0.65	0.79	0.77	36.8
West: Cabramatta Road East														
10b	L3	104	1.0	109	1.0	0.273	6.3	LOS A	0.0	0.0	0.00	0.15	0.00	55.2
11	T1	858	5.0	903	5.0	0.273	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.7
Approach		962	4.6	1013	4.6	0.273	0.8	NA	0.0	0.0	0.00	0.07	0.00	58.3
All Vehicles		2183	4.5	2298	4.5	0.581	2.3	NA	1.8	12.6	0.06	0.10	0.06	56.8

Base 2033 + Site AM Peak Hour Cumberland Street & Fisher Street

MOVEMENT SUMMARY

Site: [Cumberland & Fisher AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	43	1.0	45	1.0	0.087	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	48.6
2	T1	115	1.0	121	1.0	0.087	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	49.1
Approach		158	1.0	166	1.0	0.087	1.3	NA	0.0	0.0	0.00	0.15	0.00	49.0
North: Cumberland Street														
8	T1	222	1.0	234	1.0	0.140	0.1	LOS A	0.2	1.5	0.07	0.06	0.07	49.5
9	R2	27	1.0	28	1.0	0.140	5.2	LOS A	0.2	1.5	0.07	0.06	0.07	48.5
Approach		249	1.0	262	1.0	0.140	0.6	NA	0.2	1.5	0.07	0.06	0.07	49.3
West: Fisher Street														
10	L2	39	1.0	41	1.0	0.048	4.9	LOS A	0.2	1.3	0.22	0.54	0.22	46.1
12	R2	17	1.0	18	1.0	0.048	6.2	LOS A	0.2	1.3	0.22	0.54	0.22	45.7
Approach		56	1.0	59	1.0	0.048	5.3	LOS A	0.2	1.3	0.22	0.54	0.22	46.0
All Vehicles		463	1.0	487	1.0	0.140	1.4	NA	0.2	1.5	0.07	0.15	0.07	48.8

Base 2033 + Site PM Peak Hour Cumberland Street & Fisher Street

MOVEMENT SUMMARY

Site: [Cumberland & Fisher PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	61	1.0	64	1.0	0.123	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	48.6
2	T1	163	1.0	172	1.0	0.123	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	49.1
Approach		224	1.0	236	1.0	0.123	1.3	NA	0.0	0.0	0.00	0.15	0.00	49.0
North: Cumberland Street														
8	T1	207	1.0	218	1.0	0.129	0.1	LOS A	0.2	1.3	0.08	0.06	0.08	49.5
9	R2	22	1.0	23	1.0	0.129	5.4	LOS A	0.2	1.3	0.08	0.06	0.08	48.5
Approach		229	1.0	241	1.0	0.129	0.6	NA	0.2	1.3	0.08	0.06	0.08	49.4
West: Fisher Street														
10	L2	49	1.0	52	1.0	0.089	5.1	LOS A	0.3	2.3	0.30	0.58	0.30	45.9
12	R2	42	1.0	44	1.0	0.089	6.5	LOS A	0.3	2.3	0.30	0.58	0.30	45.5
Approach		91	1.0	96	1.0	0.089	5.8	LOS A	0.3	2.3	0.30	0.58	0.30	45.7
All Vehicles		544	1.0	573	1.0	0.129	1.8	NA	0.3	2.3	0.09	0.18	0.09	48.6

Base 2033 + Site AM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	46	2.0	48	2.0	0.056	13.2	LOS A	1.1	7.5	0.59	0.45	0.59	42.3
3	R2	4	2.0	4	2.0	*0.009	20.4	LOS B	0.1	0.7	0.69	0.62	0.69	38.6
Approach		50	2.0	53	2.0	0.056	13.8	LOS A	1.1	7.5	0.60	0.47	0.60	42.0
East: Cabramatta Road East Minor														
4	L2	34	2.0	36	2.0	0.036	13.3	LOS A	0.6	4.5	0.48	0.64	0.48	41.9
6	R2	155	2.0	163	2.0	*0.243	21.6	LOS B	4.2	29.9	0.70	0.74	0.70	37.9
Approach		189	2.0	199	2.0	0.243	20.1	LOS B	4.2	29.9	0.66	0.72	0.66	38.6
North: Broomfield Street														
7	L2	87	2.0	92	2.0	0.247	27.5	LOS B	4.1	29.1	0.79	0.72	0.79	36.6
8	T1	44	2.0	46	2.0	*0.247	22.9	LOS B	4.1	29.1	0.79	0.72	0.79	36.9
Approach		131	2.0	138	2.0	0.247	25.9	LOS B	4.1	29.1	0.79	0.72	0.79	36.7
All Vehicles		370	2.0	389	2.0	0.247	21.3	LOS B	4.2	29.9	0.70	0.69	0.70	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site PM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	37	2.0	39	2.0	0.037	8.7	LOS A	0.7	4.9	0.48	0.36	0.48	44.7
3	R2	5	2.0	5	2.0	*0.009	16.2	LOS B	0.1	0.8	0.61	0.62	0.61	40.4
Approach		42	2.0	44	2.0	0.037	9.6	LOS A	0.7	4.9	0.49	0.39	0.49	44.1
East: Cabramatta Road East Minor														
4	L2	30	2.0	32	2.0	0.038	17.7	LOS B	0.7	4.8	0.58	0.66	0.58	39.9
6	R2	134	2.0	141	2.0	*0.280	27.7	LOS B	4.2	30.1	0.80	0.76	0.80	35.7
Approach		164	2.0	173	2.0	0.280	25.9	LOS B	4.2	30.1	0.76	0.74	0.76	36.4
North: Broomfield Street														
7	L2	115	2.0	121	2.0	0.277	21.9	LOS B	5.4	38.7	0.71	0.68	0.71	38.9
8	T1	82	2.0	86	2.0	*0.277	17.4	LOS B	5.4	38.7	0.71	0.68	0.71	39.2
Approach		197	2.0	207	2.0	0.277	20.0	LOS B	5.4	38.7	0.71	0.68	0.71	39.1
All Vehicles		403	2.0	424	2.0	0.280	21.3	LOS B	5.4	38.7	0.71	0.68	0.71	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site AM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	90	1.0	95	1.0	0.185	33.0	LOS C	4.7	33.1	0.74	0.70	0.74	29.6
2	T1	36	1.0	38	1.0	0.185	34.0	LOS C	4.7	33.1	0.78	0.70	0.78	28.6
3	R2	46	1.0	48	1.0	0.185	42.5	LOS D	3.1	21.8	0.83	0.71	0.83	27.7
Approach		172	1.0	181	1.0	0.185	35.8	LOS C	4.7	33.1	0.77	0.70	0.77	28.8
East: Cumberland Road East														
4	L2	15	1.0	16	1.0	0.309	22.9	LOS B	9.9	72.0	0.64	0.56	0.64	33.1
5	T1	529	5.0	557	5.0	0.309	19.4	LOS B	9.9	72.2	0.64	0.56	0.64	33.0
6	R2	46	1.0	48	1.0	0.315	61.6	LOS E	2.8	19.7	0.98	0.74	0.98	24.0
Approach		590	4.6	621	4.6	0.315	22.7	LOS B	9.9	72.2	0.67	0.57	0.67	32.0
North: Cumberland Street														
7	L2	43	1.0	45	1.0	0.117	35.1	LOS C	2.8	19.7	0.75	0.67	0.75	29.2
8	T1	40	1.0	42	1.0	*0.585	37.8	LOS C	10.1	71.1	0.84	0.74	0.84	27.8
9	R2	162	1.0	171	1.0	0.585	47.5	LOS D	10.1	71.1	0.94	0.81	0.94	26.5
Approach		245	1.0	258	1.0	0.585	43.8	LOS D	10.1	71.1	0.89	0.77	0.89	27.2
West: Cabramatta Road East														
10	L2	118	1.0	124	1.0	0.589	26.6	LOS B	22.5	163.1	0.77	0.71	0.77	31.8
11	T1	852	5.0	897	5.0	*0.589	22.6	LOS B	22.5	163.1	0.75	0.68	0.75	32.0
12	R2	81	1.0	85	1.0	*0.555	63.1	LOS E	5.0	35.6	1.00	0.77	1.00	23.7
Approach		1051	4.2	1106	4.2	0.589	26.2	LOS B	22.5	163.1	0.77	0.69	0.77	31.1
All Vehicles		2058	3.7	2166	3.7	0.589	28.1	LOS B	22.5	163.1	0.76	0.67	0.76	30.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site PM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	101	1.0	106	1.0	0.145	29.1	LOS C	4.6	32.7	0.64	0.68	0.64	30.5
2	T1	41	1.0	43	1.0	0.145	33.1	LOS C	4.6	32.7	0.72	0.65	0.72	28.9
3	R2	37	1.0	39	1.0	0.145	37.9	LOS C	3.5	25.0	0.73	0.65	0.73	28.8
Approach		179	1.0	188	1.0	0.145	31.9	LOS C	4.6	32.7	0.68	0.67	0.68	29.8
East: Cumberland Road East														
4	L2	14	1.0	15	1.0	0.532	31.8	LOS C	22.3	162.7	0.77	0.68	0.77	30.6
5	T1	824	5.0	867	5.0	0.532	27.8	LOS B	22.3	162.7	0.75	0.67	0.75	30.7
6	R2	59	1.0	62	1.0	*0.524	75.3	LOS F	4.3	30.5	1.00	0.76	1.00	22.0
Approach		897	4.7	944	4.7	0.532	31.0	LOS C	22.3	162.7	0.77	0.67	0.77	29.9
North: Cumberland Street														
7	L2	49	1.0	52	1.0	0.104	33.1	LOS C	3.1	22.2	0.68	0.64	0.68	29.7
8	T1	20	1.0	21	1.0	0.104	29.8	LOS C	3.1	22.2	0.68	0.64	0.68	29.6
9	R2	206	1.0	217	1.0	*0.575	47.2	LOS D	12.4	87.8	0.89	0.81	0.89	26.5
Approach		275	1.0	289	1.0	0.575	43.4	LOS D	12.4	87.8	0.83	0.77	0.83	27.3
West: Cabramatta Road East														
10	L2	124	1.0	131	1.0	0.562	32.2	LOS C	23.9	172.8	0.78	0.72	0.78	30.3
11	T1	772	5.0	813	5.0	*0.562	28.4	LOS B	23.9	172.8	0.77	0.69	0.77	30.4
12	R2	44	1.0	46	1.0	0.391	74.4	LOS F	3.2	22.5	1.00	0.74	1.00	22.1
Approach		940	4.3	989	4.3	0.562	31.0	LOS C	23.9	172.8	0.78	0.70	0.78	29.9
All Vehicles		2291	3.8	2412	3.8	0.575	32.6	LOS C	23.9	172.8	0.77	0.69	0.77	29.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site AM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 30 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	41	2.0	43	2.0	0.079	13.4	LOS A	0.5	3.4	0.74	0.69	0.74	42.1
2	T1	61	2.0	64	2.0	* 0.322	9.4	LOS A	1.9	13.9	0.81	0.72	0.81	42.9
3	R2	91	2.0	96	2.0	0.322	14.0	LOS A	1.9	13.9	0.81	0.72	0.81	42.5
Approach		193	2.0	203	2.0	0.322	12.4	LOS A	1.9	13.9	0.80	0.71	0.80	42.5
East: Longfield Street														
4	L2	174	2.0	183	2.0	* 0.333	14.2	LOS A	2.2	15.8	0.82	0.76	0.82	41.6
5	T1	168	2.0	177	2.0	0.321	9.3	LOS A	2.2	15.6	0.81	0.66	0.81	44.3
6	R2	5	2.0	5	2.0	0.321	13.9	LOS A	2.2	15.6	0.81	0.66	0.81	43.9
Approach		347	2.0	365	2.0	0.333	11.8	LOS A	2.2	15.8	0.82	0.71	0.82	42.9
North: Cumberland Street														
7	L2	9	2.0	9	2.0	0.024	13.0	LOS A	0.1	1.0	0.73	0.60	0.73	42.8
8	T1	66	2.0	69	2.0	0.119	8.6	LOS A	0.8	5.4	0.75	0.58	0.75	44.6
9	R2	2	2.0	2	2.0	0.119	13.2	LOS A	0.8	5.4	0.76	0.58	0.76	44.2
Approach		77	2.0	81	2.0	0.119	9.3	LOS A	0.8	5.4	0.75	0.58	0.75	44.3
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.041	13.0	LOS A	0.3	1.8	0.73	0.53	0.73	44.4
11	T1	59	2.0	62	2.0	0.191	9.4	LOS A	1.0	7.1	0.78	0.62	0.78	43.5
12	R2	40	2.0	42	2.0	0.191	14.4	LOS A	1.0	7.1	0.81	0.68	0.81	42.5
Approach		100	2.0	105	2.0	0.191	11.4	LOS A	1.0	7.1	0.79	0.64	0.79	43.1
All Vehicles		717	2.0	755	2.0	0.333	11.6	LOS A	2.2	15.8	0.80	0.69	0.80	43.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site PM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	68	2.0	72	2.0	0.085	17.6	LOS B	1.5	11.0	0.59	0.68	0.59	40.1
2	T1	62	2.0	65	2.0	* 0.262	14.1	LOS A	4.2	30.2	0.64	0.66	0.64	40.6
3	R2	107	2.0	113	2.0	0.262	18.7	LOS B	4.2	30.2	0.64	0.66	0.64	40.2
Approach		237	2.0	249	2.0	0.262	17.2	LOS B	4.2	30.2	0.63	0.67	0.63	40.3
East: Longfield Street														
4	L2	149	2.0	157	2.0	0.221	22.5	LOS B	4.1	29.3	0.71	0.73	0.71	38.0
5	T1	105	2.0	111	2.0	0.164	17.2	LOS B	3.0	21.4	0.69	0.57	0.69	40.3
6	R2	7	2.0	7	2.0	0.164	21.8	LOS B	3.0	21.4	0.69	0.57	0.69	40.0
Approach		261	2.0	275	2.0	0.221	20.4	LOS B	4.1	29.3	0.70	0.66	0.70	39.0
North: Cumberland Street														
7	L2	10	2.0	11	2.0	0.012	17.1	LOS B	0.2	1.6	0.56	0.62	0.56	40.3
8	T1	36	2.0	38	2.0	0.044	12.5	LOS A	0.8	5.9	0.57	0.44	0.57	42.6
9	R2	1	2.0	1	2.0	0.044	17.1	LOS B	0.8	5.9	0.57	0.44	0.57	42.2
Approach		47	2.0	49	2.0	0.044	13.6	LOS A	0.8	5.9	0.57	0.48	0.57	42.1
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.057	21.1	LOS B	1.0	7.3	0.65	0.50	0.65	40.5
11	T1	94	2.0	99	2.0	0.264	18.4	LOS B	3.7	26.2	0.71	0.61	0.71	39.3
12	R2	70	2.0	74	2.0	* 0.264	24.3	LOS B	3.7	26.2	0.74	0.69	0.74	38.0
Approach		165	2.0	174	2.0	0.264	20.9	LOS B	3.7	26.2	0.72	0.64	0.72	38.8
All Vehicles		710	2.0	747	2.0	0.264	19.0	LOS B	4.2	30.2	0.67	0.65	0.67	39.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site AM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne AM Base 2033 + Site (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Hume Highway & Lansdowne Road
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	117	2.0	117	2.0	0.618	9.3	LOS A	7.4	54.2	0.16	0.23	0.16	50.1
2	T1	2302	5.0	2302	5.0	*0.618	3.7	LOS A	17.2	125.5	0.21	0.21	0.21	63.2
Approach		2419	4.9	2419	4.9	0.618	4.0	LOS A	17.2	125.5	0.20	0.21	0.20	62.7
North: Hum Hwy														
8	T1	1963	6.0	1963	6.0	0.633	4.1	LOS A	22.3	155.9	0.39	0.37	0.39	60.6
9	R2	274	2.0	274	2.0	*0.906	79.4	LOS F	11.1	78.8	1.00	0.91	1.30	20.9
Approach		2237	5.5	2237	5.5	0.906	13.3	LOS A	22.3	163.2	0.46	0.43	0.50	46.7
West: Lansdowne Rd														
10	L2	240	2.0	240	2.0	0.697	55.2	LOS D	14.0	99.8	0.96	0.84	0.98	25.3
12	R2	133	2.0	133	2.0	*0.937	88.5	LOS F	10.1	71.9	1.00	1.06	1.55	6.6
Approach		373	2.0	373	2.0	0.937	67.1	LOS E	14.0	99.8	0.97	0.92	1.18	18.5
All Vehicles		5028	4.9	5028	4.9	0.937	12.8	LOS A	22.3	163.2	0.38	0.36	0.41	49.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site PM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne PM Base 2033 + Site (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Hume Highway & Lansdowne Road
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	80	2.0	80	2.0	0.596	9.5	LOS A	7.1	51.5	0.15	0.19	0.15	50.6
2	T1	2248	5.0	2248	5.0	0.596	3.6	LOS A	16.9	123.3	0.18	0.19	0.18	63.4
Approach		2328	4.9	2328	4.9	0.596	3.8	LOS A	16.9	123.3	0.18	0.19	0.18	63.1
North: Hum Hwy														
8	T1	2142	6.0	2142	6.0	*0.718	3.5	LOS A	26.1	182.7	0.39	0.37	0.39	61.8
9	R2	434	2.0	434	2.0	0.910	86.4	LOS F	17.5	124.6	1.00	0.95	1.33	19.7
Approach		2576	5.3	2576	5.3	0.910	17.5	LOS B	26.1	194.6	0.49	0.47	0.55	42.5
West: Lansdowne Rd														
10	L2	200	2.0	200	2.0	0.482	56.2	LOS D	12.1	86.0	0.92	0.81	0.92	25.1
12	R2	60	2.0	60	2.0	*0.724	83.3	LOS F	4.5	31.9	1.00	0.84	1.19	7.0
Approach		260	2.0	260	2.0	0.724	62.4	LOS E	12.1	86.0	0.94	0.82	0.98	21.0
All Vehicles		5164	5.0	5164	5.0	0.910	13.6	LOS A	26.1	194.6	0.37	0.36	0.40	48.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site AM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton AM Base 2033 + Site (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Hume Highway & Hollywood Drive & Chadderton Street
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	*0.649	22.3	LOS B	29.9	218.2	0.68	0.63	0.68	46.0
2	T1	2195	5.0	2195	5.0	0.649	15.5	LOS B	30.0	219.2	0.66	0.61	0.66	44.0
3	R2	89	5.0	89	5.0	*0.379	17.4	LOS B	2.3	17.1	0.67	0.76	0.67	45.5
Approach		2321	5.0	2321	5.0	0.649	15.7	LOS B	30.0	219.2	0.66	0.62	0.66	44.2
East: Hollywood Drive														
4	L2	43	5.0	43	5.0	0.256	55.7	LOS D	4.2	30.4	0.91	0.74	0.91	30.3
5	T1	32	5.0	32	5.0	0.256	51.1	LOS D	4.2	30.4	0.91	0.74	0.91	28.9
6	R2	121	5.0	121	5.0	*0.648	66.0	LOS E	7.7	56.1	1.00	0.83	1.05	18.1
Approach		196	5.0	196	5.0	0.648	61.3	LOS E	7.7	56.1	0.97	0.79	0.99	23.0
North: Hume Highway														
7	L2	65	5.0	65	5.0	0.574	19.0	LOS B	19.8	145.5	0.51	0.50	0.51	42.1
8	T1	1916	6.0	1916	6.0	0.574	13.1	LOS A	20.0	146.8	0.52	0.49	0.52	51.4
9	R2	64	5.0	64	5.0	0.297	21.9	LOS B	2.2	15.8	0.79	0.78	0.79	37.2
Approach		2045	5.9	2045	5.9	0.574	13.5	LOS A	20.0	146.8	0.53	0.50	0.53	50.5
West: Chadderton Street														
10	L2	32	5.0	32	5.0	0.236	56.4	LOS D	3.8	27.5	0.91	0.73	0.91	20.5
11	T1	36	5.0	36	5.0	0.236	51.8	LOS D	3.8	27.5	0.91	0.73	0.91	28.8
12	R2	25	5.0	25	5.0	0.140	60.8	LOS E	1.5	10.7	0.93	0.72	0.93	28.8
Approach		93	5.0	93	5.0	0.236	55.8	LOS D	3.8	27.5	0.92	0.73	0.92	26.6
All Vehicles		4655	5.4	4655	5.4	0.649	17.4	LOS B	30.0	219.2	0.62	0.57	0.62	44.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site PM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton PM Base 2033 + Site (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Hume Highway & Hollywood Drive & Chadderton Street
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	*0.663	24.3	LOS B	33.9	247.2	0.69	0.65	0.69	44.8
2	T1	2232	5.0	2232	5.0	0.663	17.4	LOS B	34.0	248.3	0.68	0.63	0.68	42.1
3	R2	89	5.0	89	5.0	*0.417	23.3	LOS B	3.5	25.7	0.82	0.80	0.82	42.5
Approach		2358	5.0	2358	5.0	0.663	17.8	LOS B	34.0	248.3	0.68	0.63	0.68	42.2
East: Hollywood Drive														
4	L2	69	5.0	69	5.0	0.312	59.0	LOS E	6.2	45.5	0.91	0.76	0.91	29.4
5	T1	34	5.0	34	5.0	0.312	54.4	LOS D	6.2	45.5	0.91	0.76	0.91	28.0
6	R2	128	5.0	128	5.0	*0.646	69.9	LOS E	8.8	64.0	1.00	0.82	1.03	17.4
Approach		232	5.0	232	5.0	0.646	64.4	LOS E	8.8	64.0	0.96	0.80	0.98	23.0
North: Hume Highway														
7	L2	29	5.0	29	5.0	0.658	22.9	LOS B	27.8	204.4	0.60	0.56	0.60	39.8
8	T1	2189	6.0	2189	6.0	0.658	16.6	LOS B	28.3	208.2	0.60	0.56	0.60	48.1
9	R2	46	5.0	46	5.0	0.220	22.1	LOS B	1.5	10.8	0.72	0.75	0.72	37.1
Approach		2265	6.0	2265	6.0	0.658	16.8	LOS B	28.3	208.2	0.60	0.56	0.60	47.7
West: Chadderton Street														
10	L2	42	5.0	42	5.0	0.231	58.2	LOS E	4.4	32.0	0.89	0.73	0.89	20.0
11	T1	32	5.0	32	5.0	0.231	53.5	LOS D	4.4	32.0	0.89	0.73	0.89	28.3
12	R2	31	5.0	31	5.0	0.168	66.4	LOS E	1.9	14.2	0.93	0.73	0.93	27.6
Approach		104	5.0	104	5.0	0.231	59.2	LOS E	4.4	32.0	0.91	0.73	0.91	25.4
All Vehicles		4959	5.4	4959	5.4	0.663	20.4	LOS B	34.0	248.3	0.67	0.61	0.67	42.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site AM Peak Hour Hume Highway & CRE Major

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East AM Base 2033 + Site (Site Folder: General)]

Hume Highway & Cabrammta Road East
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	158	5.0	166	5.0	*0.693	34.8	LOS C	32.6	239.5	0.83	0.78	0.83	41.3
2	T1	1679	6.0	1767	6.0	0.693	28.4	LOS B	33.4	246.1	0.83	0.76	0.83	45.2
Approach		1837	5.9	1934	5.9	0.693	28.9	LOS C	33.4	246.1	0.83	0.76	0.83	44.8
North: Hume Highway														
8	T1	1471	3.0	1548	3.0	0.556	9.1	LOS A	23.5	168.9	0.50	0.46	0.50	59.7
9	R2	442	6.0	465	6.0	*0.703	65.5	LOS E	15.2	112.1	0.99	0.85	1.02	29.7
Approach		1913	3.7	2014	3.7	0.703	22.1	LOS B	23.5	168.9	0.61	0.55	0.62	48.4
West: Cabramatta Road East														
10	L2	521	5.0	548	5.0	0.697	42.8	LOS D	28.9	210.6	0.89	0.86	0.89	35.3
12	R2	354	5.0	373	5.0	*0.697	63.1	LOS E	13.0	94.9	0.97	0.84	1.00	29.6
Approach		875	5.0	921	5.0	0.697	51.0	LOS D	28.9	210.6	0.92	0.85	0.94	32.8
All Vehicles		4625	4.8	4868	4.8	0.703	30.3	LOS C	33.4	246.1	0.76	0.69	0.76	43.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site PM Peak Hour Hume Highway & CRE Major

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East PM Base 2033 + Site (Site Folder: General)]

Hume Highway & Cabrammta Road East
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	238	5.0	251	5.0	*0.849	48.9	LOS D	43.4	314.6	0.97	0.92	1.02	35.4
2	T1	1743	3.5	1835	3.5	0.849	41.6	LOS C	44.9	324.0	0.97	0.92	1.01	38.8
Approach		1981	3.7	2085	3.7	0.849	42.4	LOS C	44.9	324.0	0.97	0.92	1.02	38.4
North: Hume Highway														
8	T1	1534	6.0	1615	6.0	0.553	6.3	LOS A	20.9	153.7	0.42	0.39	0.42	62.5
9	R2	717	4.0	755	4.0	*0.831	59.5	LOS E	24.8	179.2	0.95	0.90	1.06	31.2
Approach		2251	5.4	2369	5.4	0.831	23.3	LOS B	24.8	179.2	0.59	0.55	0.63	47.4
West: Cabramatta Road East														
10	L2	424	5.0	446	5.0	0.520	32.5	LOS C	20.8	152.2	0.75	0.81	0.75	39.2
12	R2	346	5.0	364	5.0	*0.828	75.9	LOS F	13.1	95.5	1.00	0.91	1.21	26.9
Approach		770	5.0	811	5.0	0.828	52.0	LOS D	20.8	152.2	0.86	0.85	0.96	32.5
All Vehicles		5002	4.6	5265	4.6	0.849	35.3	LOS C	44.9	324.0	0.78	0.74	0.83	40.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour Bareena Street & Broomfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena AM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	327	2.0	344	2.0	0.583	14.5	LOS B	5.4	38.7	0.93	1.10	1.24	41.2
3	R2	14	2.0	15	2.0	0.583	18.0	LOS B	5.4	38.7	0.93	1.10	1.24	41.8
3u	U	1	2.0	1	2.0	0.583	19.6	LOS B	5.4	38.7	0.93	1.10	1.24	42.2
Approach		342	2.0	360	2.0	0.583	14.7	LOS B	5.4	38.7	0.93	1.10	1.24	41.3
East: Bareena Avenue														
4	L2	13	2.0	14	2.0	0.524	10.2	LOS A	4.2	30.3	0.80	0.92	0.96	43.5
5	T1	370	3.0	389	3.0	0.524	10.2	LOS A	4.2	30.3	0.80	0.92	0.96	44.2
6u	U	1	1.0	1	1.0	0.524	15.2	LOS B	4.2	30.3	0.80	0.92	0.96	44.6
Approach		384	3.0	404	3.0	0.524	10.2	LOS A	4.2	30.3	0.80	0.92	0.96	44.2
West: Bareena Avenue														
11	T1	373	3.0	393	3.0	0.236	3.5	LOS A	1.8	12.7	0.12	0.38	0.12	47.7
12	R2	201	2.0	212	2.0	0.361	7.0	LOS A	3.1	22.2	0.14	0.61	0.14	45.1
12u	U	380	1.0	400	1.0	0.361	8.6	LOS A	3.1	22.2	0.14	0.61	0.14	45.6
Approach		954	2.0	1004	2.0	0.361	6.3	LOS A	3.1	22.2	0.13	0.52	0.13	46.3
All Vehicles		1680	2.2	1768	2.2	0.583	8.9	LOS A	5.4	38.7	0.45	0.73	0.54	44.7

Base 2033 + Site + Precinct 4 PM Peak Hour Bareena Street & Broomfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Bareena PM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
1	L2	342	1.0	360	1.0	0.590	12.7	LOS A	5.6	39.5	0.94	1.07	1.19	42.1
3	R2	11	1.0	12	1.0	0.590	16.2	LOS B	5.6	39.5	0.94	1.07	1.19	42.7
3u	U	1	1.0	1	1.0	0.590	17.8	LOS B	5.6	39.5	0.94	1.07	1.19	43.2
Approach		354	1.0	373	1.0	0.590	12.8	LOS A	5.6	39.5	0.94	1.07	1.19	42.1
East: Bareena Avenue														
4	L2	25	1.0	26	1.0	0.689	11.6	LOS A	7.7	54.9	0.86	1.00	1.16	42.8
5	T1	532	3.0	560	3.0	0.689	11.7	LOS A	7.7	54.9	0.86	1.00	1.16	43.4
6u	U	1	1.0	1	1.0	0.689	16.7	LOS B	7.7	54.9	0.86	1.00	1.16	43.8
Approach		558	2.9	587	2.9	0.689	11.7	LOS A	7.7	54.9	0.86	1.00	1.16	43.4
West: Bareena Avenue														
11	T1	486	3.0	512	3.0	0.302	3.5	LOS A	2.4	17.5	0.11	0.38	0.11	47.8
12	R2	336	1.0	354	1.0	0.289	7.0	LOS A	2.3	16.3	0.11	0.60	0.11	45.5
12u	U	131	1.0	138	1.0	0.289	8.5	LOS A	2.3	16.3	0.11	0.60	0.11	46.0
Approach		953	2.0	1003	2.0	0.302	5.4	LOS A	2.4	17.5	0.11	0.49	0.11	46.7
All Vehicles		1865	2.1	1963	2.1	0.689	8.7	LOS A	7.7	54.9	0.49	0.75	0.63	44.8

Base 2033 + Site + Precinct 4 AM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield AM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	164	2.0	173	2.0	0.105	0.1	LOS A	0.2	1.2	0.07	0.07	0.07	49.4
3	R2	23	2.0	24	2.0	0.105	5.0	LOS A	0.2	1.2	0.07	0.07	0.07	48.4
Approach		187	2.0	197	2.0	0.105	0.7	NA	0.2	1.2	0.07	0.07	0.07	49.3
East: Longfield Street														
4	L2	58	2.0	61	2.0	0.247	8.1	LOS A	1.0	6.9	0.35	0.93	0.35	44.4
6	R2	151	2.0	159	2.0	0.247	9.5	LOS A	1.0	6.9	0.35	0.93	0.35	44.3
Approach		209	2.0	220	2.0	0.247	9.1	LOS A	1.0	6.9	0.35	0.93	0.35	44.3
North: Broomfield Street														
7	L2	84	2.0	88	2.0	0.056	4.6	LOS A	0.2	1.6	0.08	0.47	0.08	47.0
8	T1	114	2.0	120	2.0	0.062	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		198	2.0	208	2.0	0.062	2.0	LOS A	0.2	1.6	0.04	0.20	0.04	48.7
All Vehicles		594	2.0	625	2.0	0.247	4.1	NA	1.0	6.9	0.16	0.41	0.16	47.2

Base 2033 + Site + Precinct 4 PM Peak Hour Broomfield Street & Longfield Street

MOVEMENT SUMMARY

Site: [Broomfield & Longfield PM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	132	2.0	139	2.0	0.079	0.1	LOS A	0.1	0.5	0.05	0.04	0.05	49.6
3	R2	10	2.0	11	2.0	0.079	5.1	LOS A	0.1	0.5	0.05	0.04	0.05	48.6
Approach		142	2.0	149	2.0	0.079	0.4	NA	0.1	0.5	0.05	0.04	0.05	49.6
East: Longfield Street														
4	L2	35	2.0	37	2.0	0.206	8.3	LOS A	0.8	5.5	0.38	0.92	0.38	44.5
6	R2	138	2.0	145	2.0	0.206	9.2	LOS A	0.8	5.5	0.38	0.92	0.38	44.4
Approach		173	2.0	182	2.0	0.206	9.0	LOS A	0.8	5.5	0.38	0.92	0.38	44.4
North: Broomfield Street														
7	L2	22	2.0	23	2.0	0.014	4.5	LOS A	0.1	0.4	0.05	0.48	0.05	47.1
8	T1	158	2.0	166	2.0	0.086	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		180	2.0	189	2.0	0.086	0.6	LOS A	0.1	0.4	0.01	0.06	0.01	49.6
All Vehicles		495	2.0	521	2.0	0.206	3.5	NA	0.8	5.5	0.15	0.35	0.15	47.6

Base 2033 + Site + Precinct 4 AM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ Site: [Broomfield & Fisher AM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	135	2.0	142	2.0	0.107	0.2	LOS A	0.3	2.3	0.16	0.15	0.16	48.8
3	R2	48	1.0	51	1.0	0.107	5.1	LOS A	0.3	2.3	0.16	0.15	0.16	47.8
Approach		183	1.7	193	1.7	0.107	1.5	NA	0.3	2.3	0.16	0.15	0.16	48.5
East: Fisher Street														
4	L2	36	1.0	38	1.0	0.056	5.0	LOS A	0.2	1.4	0.24	0.55	0.24	46.1
6	R2	27	1.0	28	1.0	0.056	5.9	LOS A	0.2	1.4	0.24	0.55	0.24	45.6
Approach		63	1.0	66	1.0	0.056	5.4	LOS A	0.2	1.4	0.24	0.55	0.24	45.9
North: Broomfield Street														
7	L2	35	1.0	37	1.0	0.086	4.6	LOS A	0.0	0.0	0.00	0.12	0.00	48.8
8	T1	121	2.0	127	2.0	0.086	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	49.3
Approach		156	1.8	164	1.8	0.086	1.0	NA	0.0	0.0	0.00	0.12	0.00	49.2
All Vehicles		402	1.6	423	1.6	0.107	1.9	NA	0.3	2.3	0.11	0.20	0.11	48.3

Base 2033 + Site + Precinct 4 PM Peak Hour Broomfield Street & Fisher Street

MOVEMENT SUMMARY

▽ Site: [Broomfield & Fisher PM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	115	2.0	121	2.0	0.114	0.4	LOS A	0.5	3.3	0.25	0.22	0.25	48.2
3	R2	70	1.0	74	1.0	0.114	5.3	LOS A	0.5	3.3	0.25	0.22	0.25	47.3
Approach		185	1.6	195	1.6	0.114	2.3	NA	0.5	3.3	0.25	0.22	0.25	47.8
East: Fisher Street														
4	L2	51	1.0	54	1.0	0.086	5.1	LOS A	0.3	2.2	0.30	0.57	0.30	45.9
6	R2	41	1.0	43	1.0	0.086	6.2	LOS A	0.3	2.2	0.30	0.57	0.30	45.5
Approach		92	1.0	97	1.0	0.086	5.6	LOS A	0.3	2.2	0.30	0.57	0.30	45.7
North: Broomfield Street														
7	L2	40	1.0	42	1.0	0.113	4.6	LOS A	0.0	0.0	0.00	0.11	0.00	48.9
8	T1	165	2.0	174	2.0	0.113	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	49.4
Approach		205	1.8	216	1.8	0.113	0.9	NA	0.0	0.0	0.00	0.11	0.00	49.3
All Vehicles		482	1.6	507	1.6	0.114	2.3	NA	0.5	3.3	0.15	0.24	0.15	48.0

Base 2033 + Site + Precinct 4 AM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

▽ **Site: [Broomfield & Site AM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	162	2.0	171	2.0	0.108	0.1	LOS A	0.2	1.4	0.09	0.08	0.09	49.3
3	R2	28	1.0	29	1.0	0.108	5.1	LOS A	0.2	1.4	0.09	0.08	0.09	48.6
Approach		190	1.9	200	1.9	0.108	0.8	NA	0.2	1.4	0.09	0.08	0.09	49.2
East: Site Retail & Commercial														
4	L2	15	1.0	16	1.0	0.011	4.9	LOS A	0.0	0.3	0.20	0.49	0.20	46.1
6	R2	34	1.0	36	1.0	0.038	5.8	LOS A	0.1	0.9	0.35	0.60	0.35	45.4
Approach		49	1.0	52	1.0	0.038	5.5	LOS A	0.1	0.9	0.30	0.57	0.30	45.6
North: Broomfield Street														
7	L2	37	1.0	39	1.0	0.080	4.6	LOS A	0.0	0.0	0.00	0.14	0.00	48.7
8	T1	107	2.0	113	2.0	0.080	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	49.2
Approach		144	1.7	152	1.7	0.080	1.2	NA	0.0	0.0	0.00	0.14	0.00	49.1
All Vehicles		383	1.7	403	1.7	0.108	1.6	NA	0.2	1.4	0.08	0.17	0.08	48.6

Base 2033 + Site + Precinct 4 PM Peak Hour Broomfield Street & Site

MOVEMENT SUMMARY

▽ **Site: [Broomfield & Site PM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	130	2.0	137	2.0	0.088	0.2	LOS A	0.2	1.3	0.12	0.08	0.12	49.2
3	R2	23	1.0	24	1.0	0.088	5.4	LOS A	0.2	1.3	0.12	0.08	0.12	48.5
Approach		153	1.8	161	1.8	0.088	1.0	NA	0.2	1.3	0.12	0.08	0.12	49.1
East: Site Retail & Commercial														
4	L2	24	1.0	25	1.0	0.018	5.1	LOS A	0.1	0.5	0.28	0.51	0.28	46.0
6	R2	56	1.0	59	1.0	0.065	6.1	LOS A	0.2	1.5	0.38	0.63	0.38	45.3
Approach		80	1.0	84	1.0	0.065	5.8	LOS A	0.2	1.5	0.35	0.60	0.35	45.5
North: Broomfield Street														
7	L2	43	1.0	45	1.0	0.125	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	48.9
8	T1	183	2.0	193	2.0	0.125	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	49.4
Approach		226	1.8	238	1.8	0.125	0.9	NA	0.0	0.0	0.00	0.10	0.00	49.3
All Vehicles		459	1.7	483	1.7	0.125	1.8	NA	0.2	1.5	0.10	0.18	0.10	48.5

Base 2033 + Site + Precinct 4 AM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ **Site: [CRE Minor & Site AM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	33	0.0	35	0.0	0.022	0.1	LOS A	0.1	0.6	0.11	0.03	0.11	26.5
Approach		33	0.0	35	0.0	0.022	0.1	LOS A	0.1	0.6	0.11	0.03	0.11	26.5
West: CRE Minor														
10	L2	11	0.0	12	0.0	0.028	3.5	LOS A	0.0	0.0	0.00	0.10	0.00	39.8
11	T1	40	1.0	42	1.0	0.028	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	39.7
Approach		51	0.8	54	0.8	0.028	0.8	NA	0.0	0.0	0.00	0.10	0.00	39.7
All Vehicles		84	0.5	88	0.5	0.028	0.5	NA	0.1	0.6	0.04	0.07	0.04	33.2

Base 2033 + Site + Precinct 4 PM Peak Hour CRE Minor & Site

MOVEMENT SUMMARY

▽ **Site: [CRE Minor & Site PM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Proposed Design 1
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Site														
7	L2	12	0.0	13	0.0	0.008	0.1	LOS A	0.0	0.2	0.13	0.04	0.13	26.5
Approach		12	0.0	13	0.0	0.008	0.1	LOS A	0.0	0.2	0.13	0.04	0.13	26.5
West: CRE Minor														
10	L2	27	0.0	28	0.0	0.045	3.5	LOS A	0.0	0.0	0.00	0.16	0.00	39.6
11	T1	54	1.0	57	1.0	0.045	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	39.5
Approach		81	0.7	85	0.7	0.045	1.2	NA	0.0	0.0	0.00	0.16	0.00	39.5
All Vehicles		93	0.6	98	0.6	0.045	1.0	NA	0.0	0.2	0.02	0.14	0.02	37.2

Base 2033 + Site + Precinct 4 AM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ **Site: [CRE Major & CRE Minor AM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East Major														
5	T1	744	5.0	783	5.0	0.209	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6a	R1	48	1.0	51	1.0	0.127	11.8	LOS A	0.4	3.1	0.75	0.86	0.75	45.7
Approach		792	4.8	834	4.8	0.209	0.8	NA	0.4	3.1	0.05	0.05	0.05	58.8
NorthWest: Cabramatta Road East Minor														
27a	L1	70	1.0	74	1.0	0.088	5.8	LOS A	0.3	2.2	0.45	0.63	0.45	49.1
29b	R3	45	1.0	47	1.0	0.427	44.8	LOS D	1.3	9.2	0.95	1.03	1.15	32.1
Approach		115	1.0	121	1.0	0.427	21.0	LOS B	1.3	9.2	0.65	0.79	0.73	40.6
West: Cabramatta Road East Major														
10b	L3	132	1.0	139	1.0	0.312	6.3	LOS A	0.0	0.0	0.00	0.16	0.00	54.8
11	T1	966	5.0	1017	5.0	0.312	0.1	LOS A	0.0	0.0	0.00	0.07	0.00	58.6
Approach		1098	4.5	1156	4.5	0.312	0.8	NA	0.0	0.0	0.00	0.08	0.00	58.1
All Vehicles		2005	4.4	2111	4.4	0.427	2.0	NA	1.3	9.2	0.06	0.11	0.06	56.9

Base 2033 + Site + Precinct 4 AM Peak Hour CRE Major & CRE Minor

MOVEMENT SUMMARY

▽ **Site: [CRE Major & CRE Minor PM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Cabramatta Road East														
5	T1	1033	5.0	1087	5.0	0.289	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
6a	R1	45	1.0	47	1.0	0.114	12.3	LOS A	0.4	2.8	0.73	0.87	0.73	46.0
Approach		1078	4.8	1135	4.8	0.289	0.6	NA	0.4	2.8	0.03	0.04	0.03	59.1
NorthWest: Cabramatta Road East														
27a	L1	65	1.0	68	1.0	0.078	5.5	LOS A	0.3	2.0	0.43	0.61	0.43	49.3
29b	R3	49	1.0	52	1.0	0.583	63.6	LOS E	1.8	12.8	0.97	1.07	1.29	27.5
Approach		114	1.0	120	1.0	0.583	30.5	LOS C	1.8	12.8	0.66	0.81	0.80	36.7
West: Cabramatta Road East														
10b	L3	99	1.0	104	1.0	0.272	6.3	LOS A	0.0	0.0	0.00	0.14	0.00	55.4
11	T1	861	5.0	906	5.0	0.272	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.7
Approach		960	4.6	1011	4.6	0.272	0.7	NA	0.0	0.0	0.00	0.07	0.00	58.4
All Vehicles		2152	4.5	2265	4.5	0.583	2.2	NA	1.8	12.8	0.05	0.09	0.06	56.9

Base 2033 + Site + Precinct 4 AM Peak Hour Cumberland Street & Fisher Street

MOVEMENT SUMMARY

▽ **Site: [Cumberland & Fisher AM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	55	1.0	58	1.0	0.098	4.6	LOS A	0.0	0.0	0.00	0.17	0.00	48.5
2	T1	122	1.0	128	1.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.17	0.00	49.0
Approach		177	1.0	186	1.0	0.098	1.4	NA	0.0	0.0	0.00	0.17	0.00	48.9
North: Cumberland Street														
8	T1	227	1.0	239	1.0	0.141	0.1	LOS A	0.2	1.4	0.07	0.06	0.07	49.5
9	R2	25	1.0	26	1.0	0.141	5.2	LOS A	0.2	1.4	0.07	0.06	0.07	48.5
Approach		252	1.0	265	1.0	0.141	0.6	NA	0.2	1.4	0.07	0.06	0.07	49.4
West: Fisher Street														
10	L2	50	1.0	53	1.0	0.071	5.0	LOS A	0.3	1.8	0.24	0.55	0.24	46.0
12	R2	29	1.0	31	1.0	0.071	6.4	LOS A	0.3	1.8	0.24	0.55	0.24	45.6
Approach		79	1.0	83	1.0	0.071	5.5	LOS A	0.3	1.8	0.24	0.55	0.24	45.9
All Vehicles		508	1.0	535	1.0	0.141	1.7	NA	0.3	1.8	0.07	0.17	0.07	48.6

Base 2033 + Site + Precinct 4 PM Peak Hour Cumberland Street & Fisher Street

MOVEMENT SUMMARY

▽ **Site: [Cumberland & Fisher PM Base 2033 + Site + Precinct 4 (Site Folder: General)]**

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	75	1.0	79	1.0	0.146	4.6	LOS A	0.0	0.0	0.00	0.15	0.00	48.6
2	T1	189	1.0	199	1.0	0.146	0.0	LOS A	0.0	0.0	0.00	0.15	0.00	49.1
Approach		264	1.0	278	1.0	0.146	1.3	NA	0.0	0.0	0.00	0.15	0.00	48.9
North: Cumberland Street														
8	T1	217	1.0	228	1.0	0.135	0.1	LOS A	0.2	1.4	0.09	0.05	0.09	49.5
9	R2	22	1.0	23	1.0	0.135	5.6	LOS A	0.2	1.4	0.09	0.05	0.09	48.5
Approach		239	1.0	252	1.0	0.135	0.7	NA	0.2	1.4	0.09	0.05	0.09	49.4
West: Fisher Street														
10	L2	74	1.0	78	1.0	0.140	5.3	LOS A	0.5	3.7	0.34	0.61	0.34	45.8
12	R2	64	1.0	67	1.0	0.140	6.9	LOS A	0.5	3.7	0.34	0.61	0.34	45.4
Approach		138	1.0	145	1.0	0.140	6.0	LOS A	0.5	3.7	0.34	0.61	0.34	45.6
All Vehicles		641	1.0	675	1.0	0.146	2.1	NA	0.5	3.7	0.11	0.21	0.11	48.3

Base 2033 + Site + Precinct 4 AM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	44	2.0	46	2.0	0.051	12.0	LOS A	1.0	6.8	0.56	0.43	0.56	42.9
3	R2	7	2.0	7	2.0	*0.014	19.2	LOS B	0.2	1.2	0.67	0.64	0.67	39.1
Approach		51	2.0	54	2.0	0.051	13.0	LOS A	1.0	6.8	0.58	0.46	0.58	42.4
East: Cabramatta Road East Minor														
4	L2	38	2.0	40	2.0	0.042	14.4	LOS A	0.7	5.3	0.51	0.65	0.51	41.4
6	R2	137	2.0	144	2.0	*0.231	22.9	LOS B	3.8	27.3	0.72	0.74	0.72	37.5
Approach		175	2.0	184	2.0	0.231	21.0	LOS B	3.8	27.3	0.67	0.72	0.67	38.3
North: Broomfield Street														
7	L2	89	2.0	94	2.0	0.237	25.9	LOS B	4.1	29.1	0.77	0.71	0.77	37.2
8	T1	47	2.0	49	2.0	*0.237	21.3	LOS B	4.1	29.1	0.77	0.71	0.77	37.5
Approach		136	2.0	143	2.0	0.237	24.3	LOS B	4.1	29.1	0.77	0.71	0.77	37.3
All Vehicles		362	2.0	381	2.0	0.237	21.1	LOS B	4.1	29.1	0.69	0.68	0.69	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 PM Peak Hour Broomfield Street & CRE Minor

MOVEMENT SUMMARY

Site: VV 2944 [Broomfield & CRE Minor PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Broomfield Street														
2	T1	47	2.0	49	2.0	0.043	6.9	LOS A	0.8	5.5	0.43	0.33	0.43	45.7
3	R2	15	2.0	16	2.0	*0.026	14.2	LOS A	0.3	2.1	0.56	0.64	0.56	41.3
Approach		62	2.0	65	2.0	0.043	8.7	LOS A	0.8	5.5	0.46	0.41	0.46	44.5
East: Cabramatta Road East Minor														
4	L2	37	2.0	39	2.0	0.053	20.3	LOS B	0.9	6.6	0.64	0.67	0.64	38.8
6	R2	104	2.0	109	2.0	*0.263	30.8	LOS C	3.5	24.7	0.84	0.76	0.84	34.6
Approach		141	2.0	148	2.0	0.263	28.0	LOS B	3.5	24.7	0.79	0.73	0.79	35.7
North: Broomfield Street														
7	L2	115	2.0	121	2.0	0.257	19.2	LOS B	5.2	37.2	0.66	0.65	0.66	40.2
8	T1	91	2.0	96	2.0	*0.257	14.6	LOS B	5.2	37.2	0.66	0.65	0.66	40.5
Approach		206	2.0	217	2.0	0.257	17.2	LOS B	5.2	37.2	0.66	0.65	0.66	40.3
All Vehicles		409	2.0	431	2.0	0.263	19.6	LOS B	5.2	37.2	0.67	0.64	0.67	39.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	89	1.0	94	1.0	0.181	32.3	LOS C	4.6	32.6	0.73	0.69	0.73	29.8
2	T1	37	1.0	39	1.0	0.181	33.2	LOS C	4.6	32.6	0.77	0.70	0.77	28.8
3	R2	46	1.0	48	1.0	0.181	41.7	LOS C	3.1	21.6	0.82	0.70	0.82	27.8
Approach		172	1.0	181	1.0	0.181	35.0	LOS C	4.6	32.6	0.77	0.70	0.77	29.0
East: Cumberland Road East														
4	L2	15	1.0	16	1.0	0.307	23.5	LOS B	9.8	71.3	0.65	0.57	0.65	32.9
5	T1	517	5.0	544	5.0	0.307	19.9	LOS B	9.8	71.5	0.65	0.56	0.65	32.8
6	R2	67	1.0	71	1.0	0.459	62.5	LOS E	4.1	29.1	0.99	0.76	0.99	23.8
Approach		599	4.5	631	4.5	0.459	24.8	LOS B	9.8	71.5	0.69	0.58	0.69	31.5
North: Cumberland Street														
7	L2	49	1.0	52	1.0	0.118	33.7	LOS C	2.9	20.4	0.74	0.67	0.74	29.5
8	T1	41	1.0	43	1.0	*0.590	37.5	LOS C	10.4	73.5	0.84	0.75	0.84	27.8
9	R2	166	1.0	175	1.0	0.590	46.8	LOS D	10.4	73.5	0.93	0.81	0.93	26.7
Approach		256	1.0	269	1.0	0.590	42.8	LOS D	10.4	73.5	0.88	0.77	0.88	27.4
West: Cabramatta Road East														
10	L2	111	1.0	117	1.0	0.590	27.3	LOS B	22.4	162.6	0.78	0.72	0.78	31.6
11	T1	845	5.0	889	5.0	*0.590	23.2	LOS B	22.4	162.6	0.76	0.68	0.76	31.8
12	R2	80	1.0	84	1.0	*0.548	63.1	LOS E	5.0	35.1	1.00	0.77	1.00	23.7
Approach		1036	4.3	1091	4.3	0.590	26.7	LOS B	22.4	162.6	0.78	0.69	0.78	31.0
All Vehicles		2063	3.6	2172	3.6	0.590	28.8	LOS C	22.4	162.6	0.76	0.67	0.76	30.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour CRE Major & Cumberland Street

MOVEMENT SUMMARY

Site: VV 2499 [CRE Major & Cumberland PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	100	1.0	105	1.0	0.143	27.9	LOS B	4.6	32.5	0.63	0.67	0.63	30.8
2	T1	43	1.0	45	1.0	0.143	32.2	LOS C	4.6	32.5	0.71	0.65	0.71	29.1
3	R2	37	1.0	39	1.0	0.143	37.9	LOS C	3.5	24.6	0.73	0.65	0.73	28.8
Approach		180	1.0	189	1.0	0.143	31.0	LOS C	4.6	32.5	0.67	0.66	0.67	30.0
East: Cumberland Road East														
4	L2	14	1.0	15	1.0	0.592	36.6	LOS C	24.5	178.3	0.83	0.74	0.83	29.4
5	T1	804	5.0	846	5.0	*0.592	32.3	LOS C	24.5	178.3	0.81	0.71	0.81	29.5
6	R2	98	1.0	103	1.0	*0.559	70.2	LOS E	6.9	49.0	1.00	0.79	1.00	22.7
Approach		916	4.5	964	4.5	0.592	36.4	LOS C	24.5	178.3	0.83	0.72	0.83	28.6
North: Cumberland Street														
7	L2	60	1.0	63	1.0	0.120	32.0	LOS C	3.7	26.1	0.67	0.65	0.67	29.9
8	T1	23	1.0	24	1.0	*0.601	29.1	LOS C	13.0	91.9	0.68	0.65	0.68	29.7
9	R2	216	1.0	227	1.0	0.601	46.1	LOS D	13.0	91.9	0.88	0.81	0.88	26.8
Approach		299	1.0	315	1.0	0.601	41.9	LOS C	13.0	91.9	0.82	0.76	0.82	27.6
West: Cabramatta Road East														
10	L2	102	1.0	107	1.0	0.591	36.6	LOS C	24.3	176.2	0.83	0.75	0.83	29.2
11	T1	755	5.0	795	5.0	0.591	32.7	LOS C	24.3	176.2	0.82	0.73	0.82	29.4
12	R2	42	1.0	44	1.0	0.240	67.5	LOS E	2.9	20.1	0.96	0.74	0.96	23.1
Approach		899	4.4	946	4.4	0.591	34.8	LOS C	24.3	176.2	0.82	0.73	0.82	29.0
All Vehicles		2294	3.7	2415	3.7	0.601	36.1	LOS C	24.5	178.3	0.81	0.73	0.81	28.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield AM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 30 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	41	2.0	43	2.0	0.079	13.4	LOS A	0.5	3.4	0.74	0.69	0.74	42.1
2	T1	61	2.0	64	2.0	* 0.357	9.5	LOS A	2.2	15.5	0.82	0.73	0.82	42.7
3	R2	107	2.0	113	2.0	0.357	14.1	LOS A	2.2	15.5	0.82	0.73	0.82	42.3
Approach		209	2.0	220	2.0	0.357	12.6	LOS A	2.2	15.5	0.81	0.72	0.81	42.4
East: Longfield Street														
4	L2	174	2.0	183	2.0	* 0.333	14.2	LOS A	2.2	15.8	0.82	0.76	0.82	41.6
5	T1	168	2.0	177	2.0	0.321	9.3	LOS A	2.2	15.6	0.81	0.66	0.81	44.3
6	R2	5	2.0	5	2.0	0.321	13.9	LOS A	2.2	15.6	0.81	0.66	0.81	43.9
Approach		347	2.0	365	2.0	0.333	11.8	LOS A	2.2	15.8	0.82	0.71	0.82	42.9
North: Cumberland Street														
7	L2	9	2.0	9	2.0	0.025	13.1	LOS A	0.1	1.1	0.73	0.60	0.73	42.9
8	T1	69	2.0	73	2.0	0.124	8.6	LOS A	0.8	5.6	0.76	0.58	0.76	44.6
9	R2	2	2.0	2	2.0	0.124	13.2	LOS A	0.8	5.6	0.76	0.58	0.76	44.2
Approach		80	2.0	84	2.0	0.124	9.2	LOS A	0.8	5.6	0.75	0.58	0.75	44.4
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.041	13.0	LOS A	0.3	1.8	0.73	0.53	0.73	44.4
11	T1	59	2.0	62	2.0	0.191	9.4	LOS A	1.0	7.1	0.78	0.62	0.78	43.5
12	R2	40	2.0	42	2.0	0.191	14.4	LOS A	1.0	7.1	0.81	0.68	0.81	42.5
Approach		100	2.0	105	2.0	0.191	11.4	LOS A	1.0	7.1	0.79	0.64	0.79	43.1
All Vehicles		736	2.0	775	2.0	0.357	11.7	LOS A	2.2	15.8	0.80	0.69	0.80	42.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 PM Peak Hour Cumberland Street & Longfield Street

MOVEMENT SUMMARY

Site: VV 2943 [Cumberland & Longfield PM Base 2033 + Site (Site Folder: General)]

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Cumberland Street														
1	L2	68	2.0	72	2.0	0.076	15.3	LOS B	1.4	10.0	0.53	0.67	0.53	41.1
2	T1	78	2.0	82	2.0	* 0.322	12.1	LOS A	5.2	37.2	0.61	0.66	0.61	41.5
3	R2	142	2.0	149	2.0	0.322	16.7	LOS B	5.2	37.2	0.61	0.66	0.61	41.1
Approach		288	2.0	303	2.0	0.322	15.1	LOS B	5.2	37.2	0.59	0.66	0.59	41.2
East: Longfield Street														
4	L2	151	2.0	159	2.0	0.257	25.6	LOS B	4.5	32.3	0.77	0.75	0.77	36.8
5	T1	105	2.0	111	2.0	0.190	20.3	LOS B	3.3	23.3	0.75	0.61	0.75	39.0
6	R2	7	2.0	7	2.0	0.190	24.9	LOS B	3.3	23.3	0.75	0.61	0.75	38.7
Approach		263	2.0	277	2.0	0.257	23.5	LOS B	4.5	32.3	0.76	0.69	0.76	37.7
North: Cumberland Street														
7	L2	10	2.0	11	2.0	0.011	15.0	LOS B	0.2	1.4	0.51	0.62	0.51	41.3
8	T1	44	2.0	46	2.0	0.049	10.3	LOS A	0.9	6.5	0.52	0.41	0.52	43.8
9	R2	1	2.0	1	2.0	0.049	14.9	LOS B	0.9	6.5	0.52	0.41	0.52	43.4
Approach		55	2.0	58	2.0	0.049	11.3	LOS A	0.9	6.5	0.52	0.44	0.52	43.3
West: Longfield Street														
10	L2	1	2.0	1	2.0	0.067	24.0	LOS B	1.1	8.1	0.71	0.54	0.71	39.2
11	T1	94	2.0	99	2.0	0.309	22.0	LOS B	4.0	28.6	0.77	0.64	0.77	37.9
12	R2	70	2.0	74	2.0	* 0.309	28.4	LOS B	4.0	28.6	0.81	0.72	0.81	36.4
Approach		165	2.0	174	2.0	0.309	24.7	LOS B	4.0	28.6	0.79	0.68	0.79	37.3
All Vehicles		771	2.0	812	2.0	0.322	19.8	LOS B	5.2	37.2	0.69	0.66	0.69	39.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne AM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Hume Highway & Lansdowne Road
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	117	2.0	117	2.0	0.621	9.3	LOS A	7.5	54.7	0.16	0.23	0.16	50.1
2	T1	2314	5.0	2314	5.0	*0.621	3.7	LOS A	17.3	126.4	0.21	0.21	0.21	63.2
Approach		2431	4.9	2431	4.9	0.621	4.0	LOS A	17.3	126.4	0.21	0.22	0.21	62.7
North: Hum Hwy														
8	T1	1959	6.0	1959	6.0	0.631	4.1	LOS A	22.2	155.2	0.39	0.36	0.39	60.6
9	R2	274	2.0	274	2.0	*0.906	79.4	LOS F	11.1	78.8	1.00	0.91	1.30	20.9
Approach		2233	5.5	2233	5.5	0.906	13.3	LOS A	22.2	162.4	0.46	0.43	0.50	46.7
West: Lansdowne Rd														
10	L2	240	2.0	240	2.0	0.697	55.2	LOS D	14.0	99.8	0.96	0.84	0.98	25.3
12	R2	133	2.0	133	2.0	*0.937	88.5	LOS F	10.1	71.9	1.00	1.06	1.55	6.6
Approach		373	2.0	373	2.0	0.937	67.1	LOS E	14.0	99.8	0.97	0.92	1.18	18.5
All Vehicles		5036	4.9	5036	4.9	0.937	12.8	LOS A	22.2	162.4	0.38	0.36	0.41	49.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 PM Peak Hour Hume Highway & Lansdowne Road

MOVEMENT SUMMARY

Site: [Hume & Lansdowne PM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Hume Highway & Lansdowne Road
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Hwy														
1	L2	80	2.0	80	2.0	0.601	9.8	LOS A	7.9	57.6	0.16	0.20	0.16	50.1
2	T1	2269	5.0	2269	5.0	0.601	3.8	LOS A	17.6	128.5	0.19	0.20	0.19	63.1
Approach		2349	4.9	2349	4.9	0.601	4.0	LOS A	17.6	128.5	0.19	0.20	0.19	62.8
North: Hum Hwy														
8	T1	2155	6.0	2155	6.0	*0.705	3.4	LOS A	26.3	183.8	0.38	0.36	0.38	62.0
9	R2	418	2.0	418	2.0	0.877	81.9	LOS F	16.2	115.4	1.00	0.93	1.26	20.5
Approach		2573	5.4	2573	5.4	0.877	16.2	LOS B	26.3	184.4	0.48	0.45	0.52	43.8
West: Lansdowne Rd														
10	L2	200	2.0	200	2.0	0.482	56.2	LOS D	12.1	86.0	0.92	0.81	0.92	25.1
12	R2	60	2.0	60	2.0	*0.685	82.2	LOS F	4.4	31.6	1.00	0.82	1.14	7.1
Approach		260	2.0	260	2.0	0.685	62.2	LOS E	12.1	86.0	0.94	0.81	0.97	21.0
All Vehicles		5182	5.0	5182	5.0	0.877	13.0	LOS A	26.3	184.4	0.37	0.35	0.39	49.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton AM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Network: N101 [AM Base 2023 (Network Folder: General)]

Hume Highway & Hollywood Drive & Chadderton Street
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	*0.651	22.3	LOS B	30.1	219.9	0.68	0.64	0.68	45.9
2	T1	2205	5.0	2205	5.0	0.651	15.5	LOS B	30.3	220.9	0.67	0.61	0.67	44.0
3	R2	89	5.0	89	5.0	*0.378	17.4	LOS B	2.3	17.0	0.67	0.76	0.67	45.5
Approach		2332	5.0	2332	5.0	0.651	15.7	LOS B	30.3	220.9	0.67	0.62	0.67	44.1
East: Hollywood Drive														
4	L2	43	5.0	43	5.0	0.256	55.7	LOS D	4.2	30.4	0.91	0.74	0.91	30.3
5	T1	32	5.0	32	5.0	0.256	51.1	LOS D	4.2	30.4	0.91	0.74	0.91	28.9
6	R2	121	5.0	121	5.0	*0.648	66.0	LOS E	7.7	56.1	1.00	0.83	1.05	18.1
Approach		196	5.0	196	5.0	0.648	61.3	LOS E	7.7	56.1	0.97	0.79	0.99	23.0
North: Hume Highway														
7	L2	65	5.0	65	5.0	0.573	19.0	LOS B	19.7	145.0	0.51	0.50	0.51	42.1
8	T1	1912	6.0	1912	6.0	0.573	13.0	LOS A	19.9	146.3	0.52	0.49	0.52	51.4
9	R2	64	5.0	64	5.0	0.297	22.0	LOS B	2.2	15.9	0.79	0.78	0.79	37.1
Approach		2041	5.9	2041	5.9	0.573	13.5	LOS A	19.9	146.3	0.53	0.50	0.53	50.5
West: Chadderton Street														
10	L2	32	5.0	32	5.0	0.236	56.4	LOS D	3.8	27.5	0.91	0.73	0.91	20.5
11	T1	36	5.0	36	5.0	0.236	51.8	LOS D	3.8	27.5	0.91	0.73	0.91	28.8
12	R2	25	5.0	25	5.0	0.140	60.8	LOS E	1.5	10.7	0.93	0.72	0.93	28.8
Approach		93	5.0	93	5.0	0.236	55.8	LOS D	3.8	27.5	0.92	0.73	0.92	26.6
All Vehicles		4661	5.4	4661	5.4	0.651	17.5	LOS B	30.3	220.9	0.62	0.57	0.63	44.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 PM Peak Hour Hume Highway & Hollywood Drive & Chadderton Street

MOVEMENT SUMMARY

Site: TCS1239 [Hume & Hollywood & Chadderton PM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Network: N101 [PM Base 2023 (Network Folder: General)]

Hume Highway & Hollywood Drive & Chadderton Street
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 142 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	37	5.0	37	5.0	*0.662	23.7	LOS B	33.8	246.5	0.69	0.64	0.69	45.1
2	T1	2254	5.0	2254	5.0	0.662	16.9	LOS B	33.9	247.5	0.67	0.62	0.67	42.6
3	R2	89	5.0	89	5.0	*0.417	23.2	LOS B	3.6	26.2	0.82	0.80	0.82	42.5
Approach		2380	5.0	2380	5.0	0.662	17.2	LOS B	33.9	247.5	0.68	0.63	0.68	42.6
East: Hollywood Drive														
4	L2	69	5.0	69	5.0	0.325	60.1	LOS E	6.3	46.0	0.92	0.76	0.92	29.2
5	T1	34	5.0	34	5.0	0.325	55.5	LOS D	6.3	46.0	0.92	0.76	0.92	27.8
6	R2	128	5.0	128	5.0	*0.678	71.6	LOS F	8.9	65.1	1.00	0.84	1.06	17.2
Approach		232	5.0	232	5.0	0.678	65.8	LOS E	8.9	65.1	0.96	0.80	1.00	22.8
North: Hume Highway														
7	L2	29	5.0	29	5.0	0.637	22.4	LOS B	27.9	205.1	0.59	0.55	0.59	40.1
8	T1	2203	6.0	2203	6.0	0.637	16.1	LOS B	28.0	205.8	0.59	0.55	0.59	48.6
9	R2	46	5.0	46	5.0	0.221	21.9	LOS B	1.5	10.9	0.72	0.75	0.72	37.2
Approach		2279	6.0	2279	6.0	0.637	16.3	LOS B	28.0	205.8	0.59	0.55	0.59	48.2
West: Chadderton Street														
10	L2	42	5.0	42	5.0	0.241	59.2	LOS E	4.4	32.3	0.90	0.74	0.90	19.8
11	T1	32	5.0	32	5.0	0.241	54.6	LOS D	4.4	32.3	0.90	0.74	0.90	28.1
12	R2	31	5.0	31	5.0	0.177	67.5	LOS E	2.0	14.3	0.94	0.73	0.94	27.3
Approach		104	5.0	104	5.0	0.241	60.2	LOS E	4.4	32.3	0.91	0.73	0.91	25.1
All Vehicles		4995	5.4	4995	5.4	0.678	19.9	LOS B	33.9	247.5	0.66	0.60	0.66	42.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 AM Peak Hour Hume Highway & Cabramatta Road East (Major)

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East AM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Hume Highway & Cabrammta Road East
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	159	5.0	167	5.0	*0.703	35.7	LOS C	33.1	243.2	0.84	0.79	0.84	40.9
2	T1	1679	6.0	1767	6.0	0.703	29.2	LOS C	34.0	250.0	0.84	0.77	0.84	44.7
Approach		1838	5.9	1935	5.9	0.703	29.8	LOS C	34.0	250.0	0.84	0.77	0.84	44.4
North: Hume Highway														
8	T1	1471	3.0	1548	3.0	0.556	9.1	LOS A	23.5	168.9	0.50	0.46	0.50	59.7
9	R2	450	6.0	474	6.0	*0.690	64.2	LOS E	15.3	112.7	0.99	0.84	1.00	30.0
Approach		1921	3.7	2022	3.7	0.690	22.0	LOS B	23.5	168.9	0.61	0.55	0.61	48.5
West: Cabramatta Road East														
10	L2	517	5.0	544	5.0	0.689	41.7	LOS C	28.7	209.7	0.88	0.85	0.88	35.7
12	R2	358	5.0	377	5.0	*0.689	62.9	LOS E	12.8	93.6	0.97	0.83	1.00	29.7
Approach		875	5.0	921	5.0	0.689	50.4	LOS D	28.7	209.7	0.92	0.85	0.93	33.0
All Vehicles		4634	4.8	4878	4.8	0.703	30.4	LOS C	34.0	250.0	0.76	0.69	0.76	43.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Base 2033 + Site + Precinct 4 PM Peak Hour Hume Highway & Cabramatta Road East (Major)

MOVEMENT SUMMARY

Site: 1146 [Hume & Cabramatta Road East PM Base 2033 + Site + Precinct 4 (Site Folder: General)]

Hume Highway & Cabrammta Road East
AM Existing 2023
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Hume Highway														
1	L2	239	5.0	252	5.0	*0.850	48.9	LOS D	43.5	315.0	0.97	0.92	1.02	35.4
2	T1	1743	3.5	1835	3.5	0.850	41.6	LOS C	45.0	324.4	0.97	0.92	1.02	38.8
Approach		1982	3.7	2086	3.7	0.850	42.5	LOS D	45.0	324.4	0.97	0.92	1.02	38.4
North: Hume Highway														
8	T1	1534	6.0	1615	6.0	0.548	5.9	LOS A	20.2	148.7	0.41	0.38	0.41	62.9
9	R2	730	4.0	768	4.0	*0.836	59.3	LOS E	25.2	182.6	0.94	0.90	1.06	31.3
Approach		2264	5.4	2383	5.4	0.836	23.1	LOS B	25.2	182.6	0.58	0.55	0.62	47.4
West: Cabramatta Road East														
10	L2	410	5.0	432	5.0	0.503	32.2	LOS C	19.9	145.5	0.74	0.80	0.74	39.3
12	R2	340	5.0	358	5.0	*0.850	78.5	LOS F	13.1	95.8	1.00	0.93	1.26	26.4
Approach		750	5.0	789	5.0	0.850	53.2	LOS D	19.9	145.5	0.86	0.86	0.97	32.2
All Vehicles		4996	4.6	5259	4.6	0.850	35.3	LOS C	45.0	324.4	0.78	0.74	0.83	40.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Appendix C: Shared Parking References

- Residential Visitor Parking
  - Willoughby Local Centres Parking Strategy 2020, Cardno.
  - Hayward Park Station Zone of San Mateo's Rail Corridor Plan 2010, Nelson/Nygaard.
- Retail Parking
  - Trip Generation Surveys: Small Suburban Shopping Centres Data Report 2018, Bitzios Consulting for Roads & Maritime Services.
  - Trip Generation Surveys: Small Suburban Shopping Centres Data Report 2018, Bitzios Consulting for Roads & Maritime Services.
- Child Care Centre Parking
  - RMS Child Care Centre Report.
- Medical Centre Parking
  - RMS Medical Centre Report.
- Gymnasium Parking
  - RMS Gymnasium Report.
- Tavern Parking
  - Supplementary Parking Assessment Report for Proposed Redevelopment of Castle Hill Tavern and Bottle Shop 2018, Transport & Urban Planning.
  - Traffic and Parking Impact Assessment: Mixed-Use Development Mean Fiddler Hotel 2017, McLaren Traffic Engineering.
  - Traffic and Parking Assessment: Bella Vista Hotel 2012, John Coady Consulting.
  - Hunters Hill Hotel Traffic & Parking Assessment 2007, Stapleton Transportation Planning.
  - Transport Assessment Report: La Perouse Headland Master Plan 2020, Ason Group.

Appendix D: Parking Surveys

Source: TIS Surveys

Parking Surveys Locations

Parking Capacity

ZONE	Street Name	Parking Restrictions	No. of Spaces			
A	Fisher Street - Carpark (Ground)	Paid Parking	5	Bays	1.66%	of Total Capacity
A	Fisher Street - Carpark (Level 1)	Paid Parking	26	Bays	8.61%	of Total Capacity
A	Fisher Street - Carpark (Level 2)	Paid Parking	32	Bays	10.60%	of Total Capacity
A	Fisher Street - Carpark (Level 3)	Paid Parking	31	Bays	10.26%	of Total Capacity
A	Fisher Street - Carpark (Level 4)	Paid Parking	33	Bays	10.93%	of Total Capacity
A	Fisher Street - Carpark (Level 5)	Paid Parking	39	Bays	12.91%	of Total Capacity
A	Fisher Street - Carpark	Disable Parking	4	Bays	1.32%	of Total Capacity
B	Cumberland Street - Public Carpark	Disable Parking	2	Bays	0.66%	of Total Capacity
B	Cumberland Street - Public Carpark	2P 8AM - 6PM MON -SAT	50	Bays	16.56%	of Total Capacity
B	Cumberland Street - Public Carpark	No Restriction	3	Bays	0.99%	of Total Capacity
B	Cumberland Street - Public Carpark	No Restriction	14	Bays	4.64%	of Total Capacity
C	Stardust Hotel Private Carpark	No Restriction	18	Bays	5.96%	of Total Capacity
C	Stardust Hotel Private Carpark	No Restriction	17	Bays	5.63%	of Total Capacity
C	Stardust Hotel Private Carpark	No Restriction	10	Bays	3.31%	of Total Capacity
C	Stardust Hotel Private Carpark	No Restriction	18	Bays	5.96%	of Total Capacity
Total Capacity			302	Bays	100.00%	of Total Capacity

Thursday 4 May Parking Demand

Zone	Street Name	Parking Restriction	Capacity	3:00 PM - 3:30 PM	3:30 PM - 4:00 PM	4:00 PM - 4:30 PM	4:30 PM - 5:00 PM	5:00 PM - 5:30 PM	5:30 PM - 6:00 PM	6:00 PM - 6:30 PM	6:30 PM - 7:00 PM	7:00 PM - 7:30 PM	7:30 PM - 8:00 PM
A	Fisher Street - Carpark (Ground)	Paid Parking	5	5	5	4	5	5	3	0	0	0	1
A	Fisher Street - Carpark (Level 1)	Paid Parking	26	24	25	24	24	26	23	19	10	4	3
A	Fisher Street - Carpark (Level 2)	Paid Parking	32	28	28	27	27	26	26	22	12	11	11
A	Fisher Street - Carpark (Level 3)	Paid Parking	31	20	20	19	18	18	18	17	13	8	8
A	Fisher Street - Carpark (Level 4)	Paid Parking	33	14	13	13	11	10	7	5	5	4	3
A	Fisher Street - Carpark (Level 5)	Paid Parking	39	7	6	6	6	5	3	3	2	2	2
A	Fisher Street - Carpark	Disable Parking	4	3	3	3	3	2	2	1	1	1	0
B	Cumberland Street - Public Carpark	Disable Parking	2	1	0	0	1	0	0	1	2	2	2
B	Cumberland Street - Public Carpark	2P 8AM - 6PM MON -SAT	50	31	29	29	30	29	19	18	27	31	33
B	Cumberland Street - Public Carpark	No Restriction	3	2	2	3	2	2	1	1	3	3	3
B	Cumberland Street - Public Carpark	No Restriction	14	10	12	11	10	10	8	7	12	14	14
C	Stardust Hotel Private Carpark	No Restriction	18	15	16	17	15	16	14	12	15	16	16
C	Stardust Hotel Private Carpark	No Restriction	17	16	16	17	17	17	14	8	10	10	9
C	Stardust Hotel Private Carpark	No Restriction	10	9	9	10	11	10	10	8	7	7	6
C	Stardust Hotel Private Carpark	No Restriction	18	18	17	16	17	17	17	14	15	13	12
	Total Vehicles Parked		302	203	201	199	197	193	165	136	134	126	123
	Number of Vacant Spaces			99	101	103	105	109	137	166	168	176	179
	% of Capacity Used			67.2%	66.6%	65.9%	65.2%	63.9%	54.6%	45.0%	44.4%	41.7%	40.7%

Saturday 6 May Parking Demand

Zone	Street Name	Parking Restriction	Capacity	12:00 PM - 12:30 PM	12:30 PM - 1:00 PM	1:00 PM - 1:30 PM	1:30 PM - 2:00 PM	2:00 PM - 2:30 PM	2:30 PM - 3:00 PM	3:00 PM - 3:30 PM	3:30 PM - 4:00 PM	4:00 PM - 4:30 PM	4:30 PM - 5:00 PM	5:00 PM - 5:30 PM	5:30 PM - 6:00 PM	6:00 PM - 6:30 PM	6:30 PM - 7:00 PM	7:00 PM - 7:30 PM	7:30 PM - 8:00 PM
A	Fisher Street - Carpark (Ground)	Paid Parking	5	3	2	4	2	4	2	4	4	4	4	2	1	0	0	0	0
A	Fisher Street - Carpark (Level 1)	Paid Parking	26	25	24	23	25	24	19	15	11	9	8	8	7	6	8	10	9
A	Fisher Street - Carpark (Level 2)	Paid Parking	32	32	31	30	31	20	8	0	1	1	1	1	1	1	1	0	0
A	Fisher Street - Carpark (Level 3)	Paid Parking	31	25	28	27	20	14	8	2	0	0	0	0	0	0	0	0	0
A	Fisher Street - Carpark (Level 4)	Paid Parking	33	3	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0
A	Fisher Street - Carpark (Level 5)	Paid Parking	39	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
A	Fisher Street - Carpark	Disable Parking	4	4	4	4	3	3	2	1	2	2	1	1	1	1	1	0	0
B	Cumberland Street - Public Carpark	Disable Parking	2	2	2	2	1	2	1	1	1	2	2	1	1	0	0	0	0
B	Cumberland Street - Public Carpark	2P 8AM - 6PM MON -SAT	50	50	50	49	48	49	47	46	43	41	37	31	28	26	31	32	30
B	Cumberland Street - Public Carpark	No Restriction	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2
B	Cumberland Street - Public Carpark	No Restriction	14	14	14	14	14	12	13	12	13	13	12	10	8	8	8	9	7
C	Stardust Hotel Private Carpark	No Restriction	18	18	17	18	17	16	16	14	15	15	16	16	18	18	18	18	18
C	Stardust Hotel Private Carpark	No Restriction	17	17	17	17	16	16	14	12	13	14	15	16	16	17	17	17	17
C	Stardust Hotel Private Carpark	No Restriction	10	10	10	10	10	8	8	7	8	8	9	9	10	10	10	10	10
C	Stardust Hotel Private Carpark	No Restriction	18	14	12	15	16	17	15	14	16	16	16	17	17	18	18	18	18
	Total Vehicles Parked		302	220	218	219	209	190	158	132	131	128	124	115	111	108	115	116	111
	Number of Vacant Spaces			82	84	83	93	112	144	170	171	174	178	187	191	194	187	186	191
	% of Capacity Used			72.8%	72.2%	72.5%	69.2%	62.9%	52.3%	43.7%	43.4%	42.4%	41.1%	38.1%	36.8%	35.8%	38.1%	38.4%	36.8%