



42-60 Railway Parade Burwood Place Development Burwood

Traffic Impact Assessment Staged Construction

for

# **BURWOOD TOWER HOLDINGS Pty Ltd**

Our Reference 20250747 Revision 1 23 June 2025



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## **ABBREVIATIONS**

AADT Average Annual Daily Traffic

ADT Average Daily Traffic

AVD Average Vehicle Delay

BCL Burwood Council

BCCL Burwood City Council

avg Average

CP Contributions Plan

DA Development Assessment

DCP Development Control Plan

DPE Department of Planning and Environment

DS Degree of Saturation

EPA Act Environmental Planning Assessment Act 1979

EB Eastbound

FSR Floor Space Ratio

GFA Gross Floor Area

GLFA Gross Leasable Floor Area

GSC Greater Sydney Commission

HAF Housing Acceleration Fund

HOB Height of Building

IDP Infrastructure Development Plan

ILP Indicative Layout Plan

km/h Kilometres per hour



kph Kilometres per hour

LGA Local Government Area

LIC Local Infrastructure Contributions

LOS Level of Service

LSPS Local Strategic Planning Statement

LT Left turn

m Metre

NB Northbound

NB: Note well

pa Per annum

PIC Place-based Infrastructure Compact

PTPM Public Transport Projects Model

RDS Road Delay Solutions Pty Ltd - Consultant

Region Plan Greater Sydney Region Plan

RFI Request for Information

RIC Regional Infrastructure Contributions

RMS Roads and Maritime Service

RT Right turn

SB Southbound

SEPP State Environmental Planning Proposal

The Guide Guide to Traffic Generating Developments - TfNSW

TIA Traffic Impact Assessment

TfNSW Transport for New South Wales







Veh Vehicle

vph Vehicles per hour

vpl Vehicle generations per lot per commuter peak hour

WB Westbound

WSA Western Sydney Airport



## 1 INTRODUCTION

#### 1.1 General

Road Delay Solutions has been engaged by Burwood Tower Holdings Pty Ltd to prepare a commentary on the traffic generation, imposed by the Section 4.55 Application detailing revised land use footprints within the approved Burwood Place Development.

This document is a response to Council's Request for Information (RFI) on the construction staging of 42-60 Railway Parade, Burwood, with respect to the Section 4.55 traffic generations.

The current Burwood Place Development, was approved by Council on 28 November, 2022, with subsequent Section 4.55 modifications, accepted on 12 October 2023 and 5 February 2024.



Figure 1 General Study Area



## 1.2 Road Hierarchy

The study area is generally bounded by Parramatta Road (GWH) to the north, Shaftesbury Road to the east, Nicholson Parade to the south and Wentworth Road to the west.

The Burwood Town Centre is dominated by a grid like network of varying order roads. The following figure presents the current Road Hierarchy as defined in Burwood City Council's (BCC) Development Control Plan (DCP).

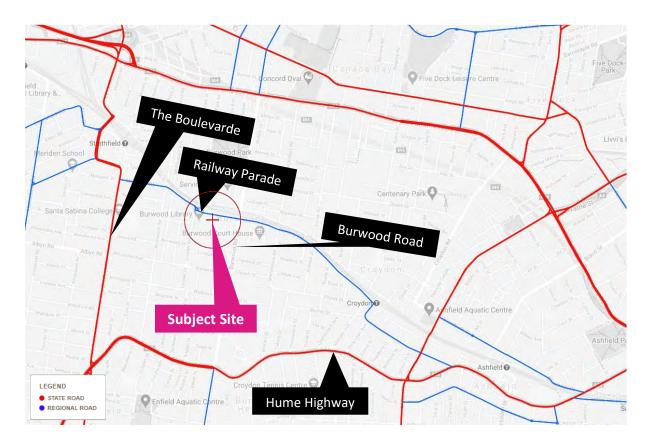


Figure 2 Road Hierarchy

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows;

→ State Roads Freeways and Primary Arterials (RMS/TfNSW Managed),

→ Regional Roads - Secondary or sub arterials (Council Managed, Part funded by the State), and

→ Local Roads Collector and local access roads (Council Managed).



#### 1.3 Burwood Road

Burwood Road is the primary road corridor through the Burwood Town Centre, connecting Parramatta Road in the north to the Hume Highway and Georges River Road in the south. The road generally provides a four (4) lane undivided 40km/h carriageway catering for a single through lane and on-street parking lane in each direction, clear of intersections.

| Burwood Road        |                          |
|---------------------|--------------------------|
| Road Classification | Local Road               |
| Alignment           | North-South              |
| Number of Lanes     | 1 lane in each direction |
| Carriageway Type    | Undivided                |
| Carriageway Width   | 11.8m                    |
| Speed Limit         | 40kph                    |
| School Zone         | No                       |
| Parking Controls    | Time restricted parking  |
| Forms Site Frontage | No                       |

## 1.4 Railway Parade

Railway Parade runs parallel to and south of the railway line, through the town centre. It forms part of a connection between Croydon and Ashfield in the east and Strathfield in the west. Providing a four-lane carriageway, with two traffic lanes in each direction, Railway Parade accommodates bus stops on both sides of the carriageway, including indented bus bays on the northern side in close proximity to Burwood Central.

| Railway Parade      |                           |
|---------------------|---------------------------|
| Road Classification | Regional Road             |
| Alignment           | East-West                 |
| Number of Lanes     | 2 lanes in each direction |
| Carriageway Type    | Divided                   |
| Carriageway Width   | 12.3m                     |
| Speed Limit         | 40 kph                    |
| School Zone         | Yes                       |
| Parking Controls    | 2P Ticket                 |
| Forms Site Frontage | Yes                       |



## 1.5 Wynne Avenue

Wynne Avenue connects Railway Parade with Belmore Street in the south. It provides for one traffic lane and one parking lane in each direction, clear of intersections. There are traffic signals at the intersection of Wynne Avenue with Railway Parade, and a roundabout at Wynne Avenue and Belmore Street.

| Wynne Avenue        |   |
|---------------------|---|
| Road Classification | Local Road  |
| Alignment           | North-South   |
| Number of Lanes     | 2 Northbound, 1 Southbound and 1 Right Turn Lane into Burwood 1 Car Park (Southbound) |
| Carriageway Type    | Undivided   |
| Carriageway Width   | 11.5m   |
| Speed Limit         | 40 kph  |
| School Zone         | No  |
| Parking Controls    | No Stopping   |
| Forms Site Frontage | Yes   |

### 1.6 Belmore Street

Belmore Street is to the south of the site. It provides access to commercial, retail and residential operations within the town centre. It caters for one traffic lane and one parking lane in each direction, clear of intersections.

| Belmore Street      |                          |
|---------------------|--------------------------|
| Road Classification | Local Road               |
| Alignment           | East-West                |
| Number of Lanes     | 1 lane in each direction |
| Carriageway Type    | Undivided                |
| Carriageway Width   | 10m                      |
| Speed Limit         | 50 kph                   |
| School Zone         | No                       |
| Parking Controls    | 2P Ticket                |
| Forms Site Frontage | No                       |



#### 1.7 Clarendon Place

Clarendon Place runs south from Railway Parade, on the eastern side of Burwood Plaza. It provides for two-way traffic and provides access to the rear of properties fronting Burwood Road.

There are marked pedestrian crossings in Clarendon Place at Railway Parade and at the Burwood Plaza pedestrian access.

| Clarendon Place     |             |
|---------------------|-------------|
| Road Classification | Local Road  |
| Alignment           | North-South |
| Number of Lanes     | 1 (tidal)   |
| Carriageway Type    | Undivided   |
| Carriageway Width   | 4.6m        |
| Speed Limit         | 40kph       |
| School Zone         | No          |
| Parking Controls    | No Stopping |
| Forms Site Frontage | Yes         |

#### 1.8 Conder Street

Conder Street is west of the site, running south from Railway Parade on the western side of the town centre.

The intersection of Conder Street with Railway Parade is controlled by a roundabout. Conder Street provides for one traffic lane and one parking lane in each direction, clear of intersections.

| Conder Street       |                          |
|---------------------|--------------------------|
| Road Classification | Local Road               |
| Alignment           | North-South              |
| Number of Lanes     | 1 lane in each direction |
| Carriageway Type    | Undivided                |
| Carriageway Width   | 9.2m                     |
| Speed Limit         | 50 kph                   |
| School Zone         | Yes                      |
| Parking Controls    | 2P Ticket                |
| Forms Site Frontage | No                       |



## 1.9 Hornsey Street

Hornsey Street is a local road providing two-way vehicle access between Conder Street and Wentworth Road. Intermittent and sign posted, one (1) hour timed parking between the hours of 8:00am-6:00pm Monday to Friday and 8:am till 1:00pm Saturdays.

Hornsey Street defines the southern boundary of Burwood Public School with the northern kerb reserved for the school Drop off -Pick up zone (8:00am-9:30am school days) and No Standing at all other times.

Hornsey Street is regulated as 50km/h with a 40km/h school zone, for the duration of the mandatory AM and PM school times, between Conder Street and 10 metres, east of Oxford Street.

| Hornsey Street      |                                       |
|---------------------|---------------------------------------|
| Road Classification | Local Road                            |
| Alignment           | East West                             |
| Number of Lanes     | 1 lane in each direction              |
| Carriageway Type    | Undivided                             |
| Carriageway Width   | 7.9m                                  |
| Speed Limit         | 50kph                                 |
| School Zone         | Yes                                   |
| Parking Controls    | Time restricted parking / No Stopping |
| Forms Site Frontage | No                                    |



## 2 CURRENT APPROVALS

#### 2.1 General

The current approval is for a mixed use-development of 42-60 Railway Parade, Burwood, to be known as 'Burwood Place', and comprising of;

- → 1,041 residential apartments,
- → 20,934m<sup>2</sup> GFA of retail slow rate floor space,
- → 4,500m<sup>2</sup> GFA of supermarket floor space,
- → 20,363m<sup>2</sup> GFA of commercial floor space, and
- → 2,322m<sup>2</sup> GFA of child care centre floor space.

Approved vehicle access is to be provided on;

- Railway Parade priority controlled access west of Wynne Avenue,
- Wynne Avenue traffic signal, controlled, access,
- → Wynne Avenue an exclusive, single lane, exit ramp, immediately north of the Wynne Avenue traffic signals at the access to Burwood Plaza, the Grand, Emerald Square and Council car park, and
- → Belmore Street retention of the current easement for egress.



## 3 S4.55 LAND USE MODIFICATIONS

The S4.55 modifications encapsulated, with respect to the vehicle generation;

- → 27,153m<sup>2</sup> GFA of retail,
- → 15,244m<sup>2</sup> GFA of commercial, and
- → 2,599m² GFA of childcare.

NB The above Retail figure is inclusive of the Supermarket being 3,965m<sup>2</sup> in GFA, a reduction from the 4,500 m<sup>2</sup> GFA approved in the DA. The Supermarket has been individually calculated given its differing vehicle generation rate and for direct comparison with the TTIA supporting the approved DA.



## 4 S4.55 VEHICLE GENERATION

Based upon the *TfNSW'* Guide to traffic Generating Developments, and Technical Direction TDT 2013/04a, hereby referred to as *The Guide*, in accompaniment with the supporting TIA for the approved *Burwood Place* development, presented the following vehicle generations;

- → 9,261 vehicle trips per day,
- → 961 vehicle trips during the AM commuter peak, and
- → 1,128 vehicle trips during the PM commuter peak.

The net reduction of 1,905m<sup>2</sup> in land use, between the supporting TIA and the S4.55 modifications, are shown in *Table 1*.

| COMPONENT                      | APPROED DA<br>Units                                     | S4.55 MODIFICATION<br>Units                                    | S4.55 VARIATION<br>FROM APPROVED DA<br>Units                           | S4.55 VARIATION<br>FROM APPROVED DA<br>% |
|--------------------------------|---|--|--|--|
| Studio                         | 17  | 28   | 11   | 64.7%                                    |
| 1 Bed Apartment                | 266   | 201  | -65  | -24.4%                                   |
| 2 Bed Apartment                | 553   | 582  | 29   | 5.2%                                     |
| 3 Bed Apartment                | 202   | 230  | 28   | 13.9%                                    |
| 4 Bed Apartment                | 3   | 0  | -3   | -100.0%                                  |
| TOTAL                          | 1,041   | 1,041  | 0  |  |
|                                | 1,011   | 1,011  |  |  |
| COMPONENT                      | APPROVED DA<br>GFA<br>m²                                | S4.55 MODIFICATION<br>GFA<br>m <sup>2</sup>                    | S4.55 VARIATION  | S4.55 VARIATION<br>FROM APPROVED DA<br>% |
|                                | APPROVED DA<br>GFA                                      | S4.55 MODIFICATION<br>GFA                                      | S4.55 VARIATION<br>FROM APPROVED DA                                    | FROM APPROVED DA                         |
| COMPONENT                      | APPROVED DA<br>GFA<br>m²                                | S4.55 MODIFICATION<br>GFA<br>m <sup>2</sup>                    | S4.55 VARIATION<br>FROM APPROVED DA<br>m <sup>2</sup>                  | FROM APPROVED DA<br>%                    |
| COMPONENT                      | APPROVED DA<br>GFA<br>m <sup>2</sup><br>20,934          | S4.55 MODIFICATION<br>GFA<br>m <sup>2</sup><br>23,188          | S4.55 VARIATION<br>FROM APPROVED DA<br>m <sup>2</sup><br>2,254         | FROM APPROVED DA<br>%<br>10.8%           |
| COMPONENT  Retail  Supermarket | APPROVED DA<br>GFA<br>m <sup>2</sup><br>20,934<br>4,500 | S4.55 MODIFICATION<br>GFA<br>m <sup>2</sup><br>23,188<br>3,965 | S4.55 VARIATION<br>FROM APPROVED DA<br>m <sup>2</sup><br>2,254<br>-535 | FROM APPROVED DA<br>%<br>10.8%<br>-11.9% |

Table 1 S4.55 Land Use Variation to Approved DA



In accordance with the Guide, the approved DA are compared to the proposed \$4.55 vehicle generation projections, as presented in Table 2.

The \$4.55 modification, in accordance with the Guide, will generate;

- → 9,282 vehicle trips per day,
- → 879 vehicle trips during the AM commuter peak period, and
- → 1,061 vehicle trips during the PM commuter peak period.

| PEAK    | DA VEHICLE<br>GENERATION<br>vph | S4.55 VEHICLE<br>GENERATION<br>vph | S4.55 VARIATION<br>FROM APPROVED DA<br>vph | S4.55 VARIATION<br>FROM APPROVED DA<br>% |
|---------|---------------------------------|------------------------------------|--|--|
| AM Peak | 961                             | 896                                | -65  | -6.8%                                    |
| PM Peak | 1,128                           | 1,067                              | -61  | -5.4%                                    |

Table 2 S4.55 Vehicle Generation Comparison to Approved DA



## 5 BURWOOD PLACE CONSTRUCTION STAGING

The Burwood Place development is divided into two (2) staged components. Stage 1 is to the west, on Railway Parade while Stage 2 is to the east, as shown in Figure 3.

The figure presents the adopted or modelled origin and destination percentages at both the completion of Stage 1 and also, Stage 2, as taken drawn from the original TIA, supporting the approved development.

Until 2028, no traffic generation from Stage 1 of the development has been modelled.

Due to the location of the construction sites, the construction vehicles associated with both Stage 1 and Stage 2 of the project, are recommended to access and or egress both sites outside the commuter peak hours. It is noted that the construction vehicles will be require to travel through school zones. Therefore, construction vehicles(trucks) will not be permitted to travel through the school zones on Railway Parade and Conder Street during school zone hours (8:00am – 9:30am and 2:30pm – 4:00pm). Accordingly, no construction vehicles have been modelled for any scenario, presented in this report.

Following the completion of the western Stage 1 in year 2028, there is anticipated to be no further operation, or vehicle generation, from within the western or Stage 2 precinct of the project. Completion of Stage 2 is anticipated in year 2030.

For the purpose of modelling, the following presents the anticipated timeline for the staged development;

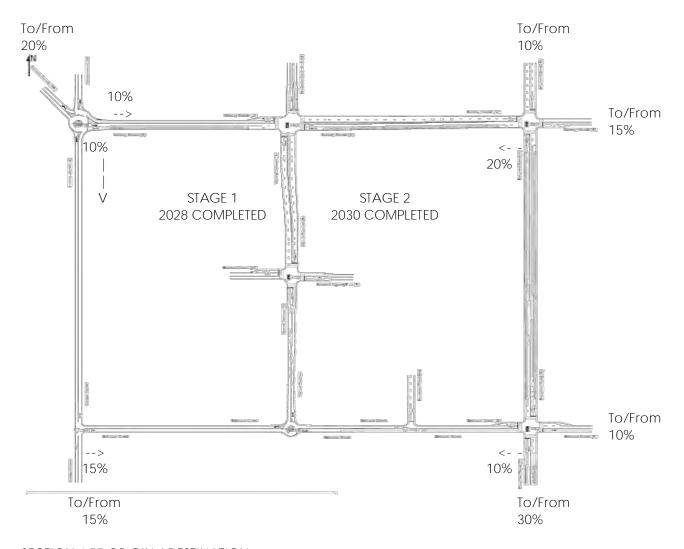
- → 2025 Stage 1 commencement,
- → 2025 16 week temporary closure of Wynne Avenue,
- → 2027 Stage 2 commencement (for the purpose of avoiding problematic overlapping between models, the year 2028 has been chosen for both the completion of Stage 1 and the commencement of Stage 2),
- → 2028 Completion of Stage 2 (the 1 year coincidence between Stages 1 and 2 is considered to be the final touches to fit-out and any utility service rectification, etc... for Stage 1), and
- → 2030 Stage 2 completion / project finalisation.

Both Stages 1 and 2 will have operational retail, commercial and residential components during various stages of development. The vehicle generation, by stage of construction is presented in *Table 3*.



| BURWOOD PLACE STAGED SECTION 4.55 VEHICLE GENERATION TABLE |  |  |                                  |                                 |                                  |                                 |  |  |  |
|--|--|--|----------------------------------|---------------------------------|----------------------------------|---------------------------------|--|--|--|
| STAGE  | AM Peak<br>Hour<br>Generation<br>(vph) | PM Peak<br>Hour<br>Generation<br>(vph) | AM<br>Outbound<br>Trips<br>(vph) | AM<br>Inbound<br>Trips<br>(vph) | PM<br>Outbound<br>Trips<br>(vph) | PM<br>Inbound<br>Trips<br>(vph) |  |  |  |
| STAGE 1  | 446                                    | 593                                    | 203                              | 243                             | 385                              | 228                             |  |  |  |
| STAGE 2  | 433                                    | 468                                    | 210                              | 223                             | 182                              | 265                             |  |  |  |
| TOTALS   | 879                                    | 1,061                                  | 413                              | 466                             | 567                              | 493                             |  |  |  |

Table 3 Vehicle Generation by Staged Construction



#### SECTION 4.55 ORIGIN / DESTINATION

Figure 3 Staged Construction Showing Adopted O/D



## 6 2025 TRAFFIC COUNTS

Traffic counts were collected by MATRIX on Thursday, 8 May 2025, which identified the peak periods as being;

- → 08:00-09:00 for the AM commuter peak period, and
- → !7:30-18:30 for the PM commuter peak period.

The 2025 existing AM and PM models form the baseline upon which the future models have been compared.

The base year 2025 traffic counts can be found in Appendix A.

Interpretation made of the traffic count data collected for the years 2017, 2022 and 2025, have been summed, for the modelled road network, and have revealed negative growth, as indicated below;

- → 2017-2022 -1.34% growth, and
- → 2022-2025 -7.69% growth.

This is in contrast with the volumes collected in year 2017 and again in year 2022, which revealed;

- → 0.36% growth on Wentworth Road, parallel with Conder Street, approaching Railway Parade, and
- → 1.492% growth on Shaftsbury Avenue, parallel with Burwood Road.

In 2025 the Burwood Plaza, retail operations are on-going, and will continue till works commence on Stage 2 of the Burwood Place development in year 2028, when Stage 1 will be completed.

Interpretation of the traffic counts taken in year 2025, indicate that Burwood Plaza currently generates some;

- → 159vph ingress/16vph egress during the AM peak, and
- → 268vph ingress/194vph egress during the PM peak.

Giving due consideration to the aforementioned observations of the collected traffic data over the years, it was considered conservative to allow 0,5% growth on the modelled road network, between each model scenario, to make allowance for the inevitable variations regarding traffic generation from the future Burwood Place development, during each stage of construction.



## 7 2025 TEMPORARY WYNNE AVENUE CLOSURE

The temporary closure of Wynne Avenue is imminent and will be undertaken in year 2025, but with a redistribution of all traffic Ingressing and egressing the northern leg of Wynne Avenue, south of Railway Parade, as demonstrated in Figure 2.

To permit the road network to function in its current state, motorists at the Burwood Road intersection with Railway Parade, travelling westbound on Railway Parade and turning right from Burwood Road, southbound, and destined to make a left turn from Railway Parade into Wynne Avenue, must be directed to:

- > Proceed to the Conder Street roundabout where they must make a left turn into Conder Street.
- > Proceed south along Conder Street to Belmore Street where they perform a left turn.
- → Travel east along Belmore Steet, and then
- > Turn left into Wynne Avenue.

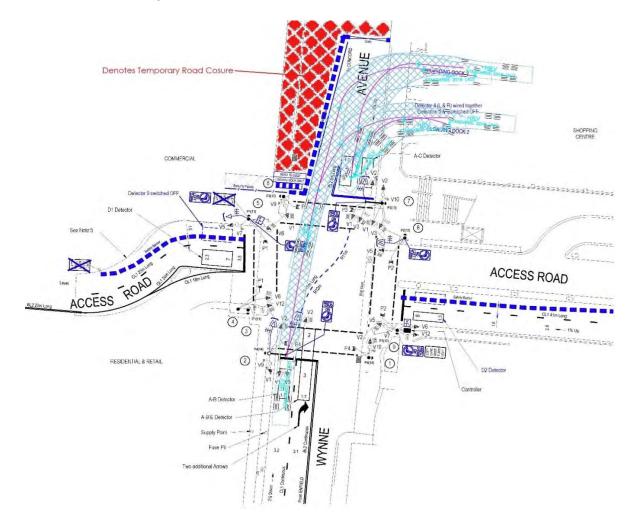


Figure 4 Temporary Closure of Wynne Avenue Source (Extract) B-Line Drafting, 2024



To affect a satisfactory outcome in the network modelling, it is required to adopt modification to the operation of the Burwood Road intersection with Belmore Street, in accordance with the findings, as outlined in *Section 8 Conclusion*, of the initial TIA, submitted and supporting the DA. The modification involves the introduction of;

- → A right turn (RT) signal display for southbound (SB) motorists in Burwood Road,
- → A B Phase RT from Burwood Road, SB into Belmore Street, westbound (WB), and
- → The increase in the traffic signal cycle length from 93 seconds to 120 secs, during both the AM and PM peaks.

With the modification to the traffic signals set in place within the models, the intersection will perform at a satisfactory level of service across both peak periods, as will the surrounding road network, as evidenced by the operational outputs for each of the models.

A comparison has been drawn between the 2025 existing year AM and PM network models and the corresponding year 2025 temporary closure of Wynne Avenue, can be found in the following comparison tables.

For a detailed analysis of the vehicle movements with the temporary closure of Wynne Avenue, see Appendix B.



#### NETWORK OUTPUT COMPARISON

Comparison of Network Summary Statistics

Network A: [N101(1)] 2025 Existing AM - Scenario: 1 | Local Volumes

Network B: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure - Scenario: 1 | Local Volumes

| Performance Measure                  | Units    | Network A  | Network B  | Difference<br>Network B -<br>Network A | 9<br>Difference<br>Diff<br>Network |
|--------------------------------------|----------|------------|------------|--|------------------------------------|
| Output by Version                    |          | 10.0.5.217 | 10.0.5.217 |  |                                    |
| Cycle Time                           | sec      | 85         | 85         | 0                                      | 0.0                                |
| Network Level of Service (LOS)       |          | LOS D      | LOS D      | NA                                     | N                                  |
| Speed Efficiency                     |          | 0.68       | 0.69       | 0.01                                   | 1.                                 |
| Travel Time Index                    |          | 6.43       | 6.50       | 0.08                                   | 1.3                                |
| Congestion Coefficient               |          | 1.47       | 1.46       | -0.02                                  | -1.0                               |
| Travel Speed (Average)               | km/h     | 29.4       | 29.8       | 0.4                                    | 1.                                 |
| Travel Distance (Total)              | veh-km/h | 2450.3     | 2538.4     | 88.0                                   | 3.                                 |
| Travel Time (Total)                  | veh-h/h  | 83.4       | 85.2       | 1.8                                    | 2.                                 |
| Desired Speed                        | km/h     | Program    | Program    | NA                                     | N                                  |
| Demand Flows (Total for all Sites)   | veh/h    | 7200       | 7637       | 437                                    | 6.                                 |
| Arrival Flows (Total for all Sites)  | veh/h    | 7200       | 7637       | 437                                    | 6.                                 |
| Demand Flows (Entry Total)           | veh/h    | 2640       | 2878       | 238                                    | 9.                                 |
| Midblock Inflows (Total)             | veh/h    | 219        | 461        | 242                                    | 110.                               |
| Midblock Outflows (Total)            | veh/h    | -256       | -606       | -351                                   | 0.                                 |
| Percent Heavy Vehicles (Demand)      | %        | 5.4        | 5.0        | -0.4                                   | -6.                                |
| Percent Heavy Vehicles (Arrival)     | %        | 5.4        | 5.0        | -0.4                                   | -6.                                |
| Degree of Saturation                 |          | 0.605      | 0.605      | 0.000                                  | 0.                                 |
| Control Delay (Total)                | veh-h/h  | 25.69      | 25.64      | -0.05                                  | -0.                                |
| Control Delay (Average)              | sec      | 12.8       | 12.1       | -0.8                                   | -5.                                |
| Control Delay (Worst Lane by MC)     | sec      | 42.5       | 40.0       | -2.5                                   | -5.                                |
| Control Delay (Worst Movement by MC) | sec      | 44.1       | 44.5       | 0.4                                    | 0.                                 |
| Geometric Delay (Average)            | sec      | 1.9        | 2.0        | 0.1                                    | 7.                                 |
| Stop-Line Delay (Average)            | sec      | 11.0       | 10.1       | -0.9                                   | -8.                                |
| Ave. Que Storage Ratio (Worst Lane)  |          | 0.61       | 0.64       | 0.03                                   | 4.                                 |
| Effective Stops (Total)              | veh/h    | 3882       | 4133       | 251                                    | 6                                  |
| Effective Stop Rate                  |          | 0.54       | 0.54       | 0.00                                   | 0.                                 |
| Proportion Queued                    |          | 0.51       | 0.51       | -0.00                                  | -0.                                |
| Performance Index                    |          | 292.2      | 290.9      | -1.3                                   | -0                                 |
| Cost (Total)                         | \$/h     | 3220.69    | 3312.78    | 92.09                                  | 2.                                 |
| Fuel Consumption (Total)             | L/h      | 298.7      | 309.7      | 11.1                                   | 3.                                 |



| Fuel Economy            | L/100km | 12.2  | 12.2  | 0.0   | 0.1 |
|-------------------------|---------|-------|-------|-------|-----|
| Carbon Dioxide (Total)  | kg/h    | 710.4 | 736.4 | 26.0  | 3.7 |
| Hydrocarbons (Total)    | kg/h    | 0.062 | 0.064 | 0.002 | 3.8 |
| Carbon Monoxide (Total) | kg/h    | 0.541 | 0.562 | 0.021 | 3.8 |
| NOx (Total)             | kg/h    | 1.506 | 1.509 | 0.003 | 0.2 |

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



| Network A - Hours per Year: 480                     |          |           |           |  |                                      |
|---|----------|-----------|-----------|--|--------------------------------------|
| Network B - Hours per Year: 480 Performance Measure | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
| Demand Flows (Total for all Sites)                  | veh/y    | 3,456,202 | 3,665,886 | 209,684                                | 6.1                                  |
| Delay (Total)                                       | veh-h/y  | 12,332    | 12,307    | -25                                    | -0.2                                 |
| Effective Stops (Total)                             | veh/y    | 1,863,512 | 1,984,075 | 120,563                                | 6.5                                  |
| Travel Distance (Total)                             | veh-km/y | 1,176,167 | 1,218,414 | 42,247                                 | 3.6                                  |
| Travel Time (Total)                                 | veh-h/y  | 40,010    | 40,875    | 865                                    | 2.2                                  |
| Cost (Total)  | \$/y     | 1,545,931 | 1,590,134 | 44,204                                 | 2.9                                  |
| Fuel Consumption (Total)                            | L/y      | 143,354   | 148,670   | 5,316                                  | 3.7                                  |
| Carbon Dioxide (Total)                              | kg/y     | 340,985   | 353,472   | 12,488                                 | 3.7                                  |
| Hydrocarbons (Total)                                | kg/y     | 30        | 31        | 1                                      | 3.8                                  |
| Carbon Monoxide (Total)                             | kg/y     | 260       | 270       | 10                                     | 3.8                                  |
| NOx (Total)   | kg/y     | 723       | 724       | 1                                      | 0.2                                  |

| Network Performance (Pedestrians O  |          |           | 44.       | 2002                                   |  |
|-------------------------------------|----------|-----------|-----------|--|--|
| Performance Measure                 | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Travel Speed (Average)              | km/h     | 3.7       | 3.7       | 0.0                                    | 0.3                                    |
| Travel Distance (Total)             | ped-km/h | 535.8     | 531.1     | -4.7                                   | -0.9                                   |
| Travel Time (Total)                 | ped-h/h  | 145.1     | 143.5     | -1.7                                   | -1.1                                   |
| Demand Flows (Total for all Sites)  | ped/h    | 3342      | 3105      | -237                                   | -7.1                                   |
| Arrival Flows (Total for all Sites) | ped/h    | 3342      | 3105      | -237                                   | -7.1                                   |
| Control Delay (Total)               | ped-h/h  | 30.64     | 29.98     | -0.65                                  | -2.1                                   |
| Control Delay (Average)             | sec      | 33.0      | 34.8      | 1.8                                    | 5.3                                    |
| Control Delay (Worst Movement)      | sec      | 37.6      | 37.6      | 0.0                                    | 0.0                                    |
| Effective Stops (Total)             | ped/h    | 2912      | 2798      | -114                                   | -3.9                                   |
| Effective Stop Rate                 |          | 0.87      | 0.90      | 0.03                                   | 3.4                                    |
| Proportion Queued                   |          | 0.87      | 0.90      | 0.03                                   | 3.4                                    |
| Performance Index                   |          | 161.3     | 159.0     | -2.3                                   | -1.4                                   |
| Cost (Total)                        | \$/h     | 3989.13   | 3947.15   | -41.98                                 | -1.1                                   |

| Network Performance (Pedestrians | Only) - Annual Value | es        |           |                           |                 |
|----------------------------------|----------------------|-----------|-----------|---------------------------|-----------------|
| Network A - Hours per Year: 480  |                      |           |           |                           |                 |
| Network B - Hours per Year: 480  |                      |           |           |                           |                 |
| Performance Measure              | Units                | Network A | Network B | Difference<br>Network B - | %<br>Difference |



|                                    |          |         |         | Network A | Diff /<br>Network A |
|------------------------------------|----------|---------|---------|-----------|---------------------|
| Demand Flows (Total for all Sites) | ped/y    | 1604210 | 1490526 | -113684   | -7.1                |
| Delay (Total)                      | ped-h/y  | 14706   | 14392   | -314      | -2.1                |
| Effective Stops (Total)            | ped/y    | 1397995 | 1343244 | -54751    | -3.9                |
| Travel Distance (Total)            | ped-km/y | 257179  | 254905  | -2274     | -0.9                |
| Travel Time (Total)                | ped-h/y  | 69659   | 68859   | -800      | -1.1                |
| Cost (Total)                       | \$/y     | 1914784 | 1894632 | -20152    | -1.1                |



| Performance Measure                  | Units     | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
|--------------------------------------|-----------|-----------|-----------|--|--|
| Travel Speed (Average)               | km/h      | 14.2      | 14.6      | 0.4                                    | 2.7                                    |
| Travel Distance (Total)              | pers-km/h | 3476.2    | 3577.1    | 100.9                                  | 2.9                                    |
| Travel Time (Total)                  | pers-h/h  | 245.1     | 245,6     | 0.5                                    | 0.2                                    |
| Demand Flows (Total for all Sites)   | pers/h    | 11983     | 12270     | 287                                    | 2.4                                    |
| Arrival Flows (Total for all Sites)  | pers/h    | 11983     | 12270     | 287                                    | 2.4                                    |
| Control Delay (Total)                | pers-h/h  | 61.47     | 60.75     | -0.72                                  | -1.2                                   |
| Control Delay (Average)              | sec       | 25.6      | 23.9      | -1.7                                   | -6.8                                   |
| Control Delay (Worst Movement by MC) | sec       | 44.1      | 44.5      | 0.4                                    | 0.9                                    |
| Effective Stops (Total)              | pers/h    | 7571      | 7759      | 187                                    | 2.5                                    |
| Effective Stop Rate                  |           | 0.88      | 0.85      | -0.03                                  | -3.4                                   |
| Proportion Queued                    |           | 0.61      | 0.61      | -0.00                                  | -0.4                                   |
| Performance Index                    |           | 453.5     | 449.9     | -3.6                                   | -0.8                                   |
| Cost (Total)                         | \$/h      | 7209.82   | 7259.93   | 50.11                                  | 0.7                                    |

| Network A - Hours per Year: 480    |           |           |           |  |  |
|------------------------------------|-----------|-----------|-----------|--|--|
| Network B - Hours per Year: 480    |           |           |           |  |  |
| Performance Measure                | Units     | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Demand Flows (Total for all Sites) | pers/y    | 5751653   | 5889590   | 137937                                 | 2.4                                    |
| Delay (Total)                      | pers-h/y  | 29505     | 29161     | -344                                   | -1.2                                   |
| Effective Stops (Total)            | pers/y    | 3634209   | 3724134   | 89925                                  | 2.5                                    |
| Travel Distance (Total)            | pers-km/y | 1668579   | 1717002   | 48423                                  | 2.9                                    |
| Travel Time (Total)                | pers-h/y  | 117671    | 117909    | 238                                    | 0.2                                    |
| Cost (Total)                       | \$/y      | 3460714   | 3484766   | 24052                                  | 0.7                                    |

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#### NETWORK OUTPUT COMPARISON

Comparison of Network Summary Statistics

Network A: [N101(2)] 2025 Existing PM - Scenario: 1 | Local Volumes

Network B: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure - Scenario: 1 | Local Volumes

| Performance Measure                  | Units    | Network A  | Network B  | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
|--------------------------------------|----------|------------|------------|--|--------------------------------------|
| Output by Version                    |          | 10.0.5.217 | 10.0.5.217 |  |                                      |
| Cycle Time                           | sec      | 90         | 90         | 0                                      | 0.0                                  |
| Network Level of Service (LOS)       |          | LOS D      | LOS D      | NA                                     | NA                                   |
| Speed Efficiency                     |          | 0.60       | 0.65       | 0.05                                   | 9.0                                  |
| Travel Time Index                    |          | 5.51       | 6.10       | 0.59                                   | 10.8                                 |
| Congestion Coefficient               |          | 1.68       | 1.54       | -0.14                                  | -8.2                                 |
| Travel Speed (Average)               | km/h     | 26.3       | 29.0       | 2.7                                    | 10.2                                 |
| Travel Distance (Total)              | veh-km/h | 2873.1     | 2901.8     | 28.7                                   | 1.0                                  |
| Travel Time (Total)                  | veh-h/h  | 109.3      | 100.2      | -9.1                                   | -8.3                                 |
| Desired Speed                        | km/h     | Program    | Program    | NA                                     | NA                                   |
| Demand Flows (Total for all Sites)   | veh/h    | 8823       | 9333       | 510                                    | 5.8                                  |
| Arrival Flows (Total for all Sites)  | veh/h    | 8820       | 9333       | 513                                    | 5.8                                  |
| Demand Flows (Entry Total)           | veh/h    | 3016       | 2970       | -46                                    | -1.5                                 |
| Midblock Inflows (Total)             | veh/h    | 234        | 367        | 134                                    | 57.2                                 |
| Midblock Outflows (Total)            | veh/h    | -383       | -522       | -139                                   | 0.0                                  |
| Percent Heavy Vehicles (Demand)      | %        | 3.2        | 3.0        | -0.2                                   | -5.8                                 |
| Percent Heavy Vehicles (Arrival)     | %        | 3.2        | 3,0        | -0.2                                   | -5.8                                 |
| Degree of Saturation                 |          | 0.728      | 0.588      | -0.139                                 | -19.2                                |
| Control Delay (Total)                | veh-h/h  | 42.58      | 34.20      | -8.38                                  | -19.7                                |
| Control Delay (Average)              | sec      | 17.4       | 13.2       | -4.2                                   | -24.                                 |
| Control Delay (Worst Lane by MC)     | sec      | 54.3       | 44.4       | -9.9                                   | -18.2                                |
| Control Delay (Worst Movement by MC) | sec      | 87.3       | 44.5       | -42.8                                  | -49.0                                |
| Geometric Delay (Average)            | sec      | 2.3        | 2.6        | 0.2                                    | 10.6                                 |
| Stop-Line Delay (Average)            | sec      | 15.1       | 10.6       | -4.4                                   | -29.4                                |
| Ave. Que Storage Ratio (Worst Lane)  |          | 0.82       | 1.15       | 0.34                                   | 41.2                                 |
| Effective Stops (Total)              | veh/h    | 5257       | 5150       | -106                                   | -2.0                                 |
| Effective Stop Rate                  |          | 0.60       | 0.55       | -0.04                                  | -7.4                                 |
| Proportion Queued                    |          | 0.57       | 0.52       | -0.04                                  | -7.5                                 |
| Performance Index                    |          | 396.3      | 340.5      | -55.9                                  | -14. <sup>-</sup>                    |
| Cost (Total)                         | \$/h     | 4075.36    | 3858.10    | -217.26                                | -5.0                                 |
| Fuel Consumption (Total)             | L/h      | 361.3      | 354.9      | -6.4                                   | -1.8                                 |



| Fuel Economy            | L/100km | 12.6  | 12.2  | -0.3   | -2.7  |
|-------------------------|---------|-------|-------|--------|-------|
| Carbon Dioxide (Total)  | kg/h    | 855.8 | 840.3 | -15.5  | -1.8  |
| Hydrocarbons (Total)    | kg/h    | 0.077 | 0.075 | -0.002 | -2.7  |
| Carbon Monoxide (Total) | kg/h    | 0.661 | 0.654 | -0.006 | -1.0  |
| NOx (Total)             | kg/h    | 1.349 | 1.193 | -0.156 | -11.6 |

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |          |           |           |  |                                      |
|--|----------|-----------|-----------|--|--------------------------------------|
| Performance Measure  | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
| Demand Flows (Total for all Sites)                                 | veh/y    | 4,234,914 | 4,479,612 | 244,698                                | 5.8                                  |
| Delay (Total)  | veh-h/y  | 20,437    | 16,417    | -4,020                                 | -19.7                                |
| Effective Stops (Total)  | veh/y    | 2,523,210 | 2,472,099 | -51,111                                | -2.0                                 |
| Travel Distance (Total)  | veh-km/y | 1,379,091 | 1,392,877 | 13,786                                 | 1.0                                  |
| Travel Time (Total)  | veh-h/y  | 52,459    | 48,099    | -4,360                                 | -8.3                                 |
| Cost (Total)   | \$/y     | 1,956,174 | 1,851,889 | -104,285                               | -5.3                                 |
| Fuel Consumption (Total)   | L/y      | 173,406   | 170,334   | -3,073                                 | -1.8                                 |
| Carbon Dioxide (Total)   | kg/y     | 410,771   | 403,335   | -7,435                                 | -1.8                                 |
| Hydrocarbons (Total)   | kg/y     | 37        | 36        | -1                                     | -2.7                                 |
| Carbon Monoxide (Total)  | kg/y     | 317       | 314       | -3                                     | -1.C                                 |
| NOx (Total)  | kg/y     | 648       | 573       | -75                                    | -11.6                                |

| Performance Measure                 | Units    | Network A                               | Network B | Difference               | %                                 |
|-------------------------------------|----------|---|-----------|--------------------------|-----------------------------------|
|                                     | 3/110    | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |           | Network B -<br>Network A | Difference<br>Diff /<br>Network A |
| Travel Speed (Average)              | km/h     | 3.7                                     | 3.7       | 0.0                      | 0.1                               |
| Travel Distance (Total)             | ped-km/h | 1011.0                                  | 1006.5    | -4.5                     | -0.4                              |
| Travel Time (Total)                 | ped-h/h  | 275.4                                   | 273.9     | -1.5                     | -0.6                              |
| Demand Flows (Total for all Sites)  | ped/h    | 5634                                    | 5409      | -224                     | -4.0                              |
| Arrival Flows (Total for all Sites) | ped/h    | 5634                                    | 5409      | -224                     | -4.0                              |
| Control Delay (Total)               | ped-h/h  | 59.40                                   | 58.82     | -0.58                    | -1.0                              |
| Control Delay (Average)             | sec      | 38.0                                    | 39.1      | 1.2                      | 3.1                               |
| Control Delay (Worst Movement)      | sec      | 41.1                                    | 41.1      | 0.0                      | 0.0                               |
| Effective Stops (Total)             | ped/h    | 5199                                    | 5093      | -106                     | -2.0                              |
| Effective Stop Rate                 |          | 0.92                                    | 0.94      | 0.02                     | 2.0                               |
| Proportion Queued                   |          | 0.92                                    | 0.94      | 0.02                     | 2.0                               |
| Performance Index                   |          | 304.3                                   | 302.2     | -2.1                     | -0.7                              |
| Cost (Total)                        | \$/h     | 7587.05                                 | 7548.29   | -38.77                   | -0.5                              |

| Network Performance (Pedestrians C                                 | Only) - Annual Value | S         |           |                           |                 |
|--|----------------------|-----------|-----------|---------------------------|-----------------|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |                      |           |           |                           |                 |
| Performance Measure  | Units                | Network A | Network B | Difference<br>Network B - | %<br>Difference |



|                                    |          |         |         | Network A | Diff /    |
|------------------------------------|----------|---------|---------|-----------|-----------|
|                                    |          |         |         |           | Network A |
| Demand Flows (Total for all Sites) | ped/y    | 2704168 | 2596547 | -107621   | -4.0      |
| Delay (Total)                      | ped-h/y  | 28511   | 28232   | -279      | -1.0      |
| Effective Stops (Total)            | ped/y    | 2495488 | 2444509 | -50979    | -2.0      |
| Travel Distance (Total)            | ped-km/y | 485265  | 483112  | -2152     | -0.4      |
| Travel Time (Total)                | ped-h/y  | 132200  | 131462  | -738      | -0.6      |
|                                    |          |         |         |           |           |
| Cost (Total)                       | \$/y     | 3641786 | 3623177 | -18609    | -0.5      |



| Performance Measure                  | Units     | Network A | Network B | Difference               | %                                 |
|--------------------------------------|-----------|-----------|-----------|--------------------------|-----------------------------------|
|                                      | Jillis    | Network   | Network B | Network B -<br>Network A | Difference<br>Diff /<br>Network A |
| Travel Speed (Average)               | km/h      | 11.0      | 11.4      | 0.4                      | 3.8                               |
| Travel Distance (Total)              | pers-km/h | 4458.7    | 4488.7    | 30.0                     | 0.7                               |
| Travel Time (Total)                  | pers-h/h  | 406.6     | 394.1     | -12.4                    | -3.1                              |
| Demand Flows (Total for all Sites)   | pers/h    | 16221     | 16609     | 388                      | 2.4                               |
| Arrival Flows (Total for all Sites)  | pers/h    | 16217     | 16609     | 391                      | 2.4                               |
| Control Delay (Total)                | pers-h/h  | 110.49    | 99.86     | -10.63                   | -9.6                              |
| Control Delay (Average)              | sec       | 37.6      | 32.1      | -5.5                     | -14.6                             |
| Control Delay (Worst Movement by MC) | sec       | 87.3      | 44.5      | -42.8                    | -49.0                             |
| Effective Stops (Total)              | pers/h    | 11507     | 11273     | -234                     | -2.0                              |
| Effective Stop Rate                  |           | 1.09      | 1.01      | -0.08                    | -7.4                              |
| Proportion Queued                    |           | 0.69      | 0.66      | -0.03                    | -4.4                              |
| Performance Index                    |           | 700.6     | 642.7     | -58.0                    | -8.3                              |
| Cost (Total)                         | \$/h      | 11662.42  | 11406.39  | -256.03                  | -2.2                              |

| Network Performance (Persons Only                                  | - Annual Values |           |           |  |  |
|--|-----------------|-----------|-----------|--|--|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |                 |           |           |  |  |
| Performance Measure  | Units           | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Demand Flows (Total for all Sites)                                 | pers/y          | 7786066   | 7972084   | 186018                                 | 2.4                                    |
| Delay (Total)  | pers-h/y        | 53036     | 47933     | -5103                                  | -9.6                                   |
| Effective Stops (Total)  | pers/y          | 5523341   | 5411028   | -112312                                | -2.0                                   |
| Travel Distance (Total)  | pers-km/y       | 2140174   | 2154564   | 14390                                  | 0.7                                    |
| Travel Time (Total)  | pers-h/y        | 195151    | 189181    | -5971                                  | -3.1                                   |
| Cost (Total)   | \$/y            | 5597960   | 5475066   | -122894                                | -2.2                                   |

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## 8 2028 STAGE 1 COMPLETED

With completion of Stage 1, the primary access to and from the stage is from Railway Parade, to the west of Wynne Avenue. The access is intended primarily for the retail component of Stage 1 with provision for a loading dock. However, given it will be the sole point of entry, till Stage 2 is completed, it must provide residential and commercial access also, until such time as Stage 2 is completed and the full quantum of parking provisions can be provided.

To affect a satisfactory outcome in the network modelling, it is required to adopt modification to the operation of the Burwood Road intersection with Belmore Street, in accordance with the findings, as outlined in *Section 8 Conclusion*, of the initial TIA, submitted and supporting the DA. The modification involves the introduction of:

- → A right turn (RT) signal display for southbound (SB) motorists in Burwood Road,
- → A B Phase RT from Burwood Road, SB into Belmore Street, westbound (WB),
- → The increase of the traffic signal cycle length from 85 seconds to 120 secs, during both the AM and PM peaks, and
- → Due consideration given to the presence and level of on-street parking, southbound, between Railway Parade and Belmore Street.

Figure 5 presents the modelled road network, inclusive of;

- → The current state of on-street parking southbound, along Burwood Road between Railway Parade and Belmore Street, and
- → The sole access to Stage 1, to and from Railway Parade.

With the afore-noted embellishments, recommended at the Burwood Road intersection with Belmore Street, the network will operate at a satisfactory LOS D across both commuter peaks, as demonstrated in the following comparison tables.



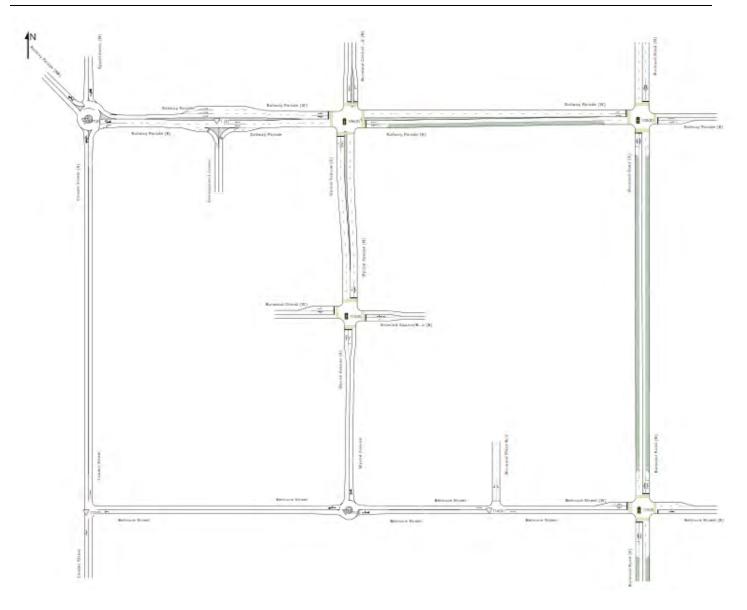


Figure 5 2028 Stage 1 Road Network Source SIDRA Network V10, 2025



#### NETWORK OUTPUT COMPARISON

Comparison of Network Summary Statistics

Network A: [N101(1)] 2025 Existing AM - Scenario: 1 | Local Volumes

□ Network B: [N101(7)] 2028 AM Stage 1 Complete - Scenario: 1 | Local Volumes

| Performance Measure                  | Units    | Network A  | Network B  | Difference<br>Network B -<br>Network A | Difference<br>Diff<br>Network A |
|--------------------------------------|----------|------------|------------|--|---------------------------------|
| Output by Version                    |          | 10.0.5.217 | 10.0.5.217 |  |                                 |
| Outle Time                           |          | 85         | 140        | 55                                     | 64.7                            |
| Cycle Time                           | sec      | 00         | 140        | 55                                     | 04.7                            |
| Network Level of Service (LOS)       |          | LOS D      | LOS D      | NA                                     | N.A                             |
| Speed Efficiency                     |          | 0.68       | 0.59       | -0.09                                  | -12.7                           |
| Travel Time Index                    |          | 6.43       | 5.47       | -0.96                                  | -14.9                           |
| Congestion Coefficient               |          | 1.47       | 1.69       | 0.21                                   | 14.5                            |
| Travel Speed (Average)               | km/h     | 29.4       | 26.5       | -2.9                                   | -9.8                            |
| Travel Distance (Total)              | veh-km/h | 2450.3     | 3091.5     | 641.2                                  | 26.2                            |
| Travel Time (Total)                  | veh-h/h  | 83.4       | 116.6      | 33.2                                   | 39.9                            |
| Desired Speed                        | km/h     | Program    | Program    | NA                                     | NA<br>NA                        |
|                                      |          |            |            |  |                                 |
| Demand Flows (Total for all Sites)   | veh/h    | 7200       | 9610       | 2409                                   | 33.5                            |
| Arrival Flows (Total for all Sites)  | veh/h    | 7200       | 9610       | 2409                                   | 33.5                            |
| Demand Flows (Entry Total)           | veh/h    | 2640       | 3085       | 445                                    | 16.8                            |
| Midblock Inflows (Total)             | veh/h    | 219        | 897        | 678                                    | 309.5                           |
| Midblock Outflows (Total)            | veh/h    | -256       | -843       | -587                                   | 0.0                             |
| Percent Heavy Vehicles (Demand)      | %        | 5.4        | 4.2        | -1.2                                   | -21.4                           |
| Percent Heavy Vehicles (Arrival)     | %        | 5.4        | 4.2        | -1.2                                   | -21.4                           |
| Degree of Saturation                 |          | 0.605      | 0.745      | 0.140                                  | 23.1                            |
| Control Delay (Total)                | veh-h/h  | 25.69      | 44.93      | 19.24                                  | 74.9                            |
| Control Delay (Average)              | sec      | 12.8       | 16.8       | 4.0                                    | 31.0                            |
| Control Delay (Worst Lane by MC)     | sec      | 42.5       | 71.9       | 29.5                                   | 69.4                            |
| Control Delay (Worst Movement by MC) | sec      | 44.1       | 74.6       | 30.5                                   | 69.2                            |
| Geometric Delay (Average)            | sec      | 1.9        | 2.1        | 0.2                                    | 8.6                             |
| Stop-Line Delay (Average)            | sec      | 11.0       | 14.8       | 3.8                                    | 34.9                            |
| Ave. Que Storage Ratio (Worst Lane)  |          | 0.61       | 0.95       | 0.34                                   | 56.2                            |
| Effective Stops (Total)              | veh/h    | 3882       | 5014       | 1132                                   | 29.2                            |
| Effective Stop Rate                  | 20000    | 0.54       | 0.52       | -0.02                                  | -3.2                            |
| Proportion Queued                    |          | 0.51       | 0.45       | -0.06                                  | -12.6                           |
| Performance Index                    |          | 292.2      | 449.1      | 156.9                                  | 53.7                            |
| Cost (Total)                         | \$/h     | 3220.69    | 4389.49    | 1168.80                                | 36.3                            |
| Fuel Consumption (Total)             | L/h      | 298.7      | 382.6      | 84.0                                   | 28.                             |



| Fuel Economy            | L/100km | 12.2  | 12.4  | 0.2   | 1.5  |
|-------------------------|---------|-------|-------|-------|------|
| Carbon Dioxide (Total)  | kg/h    | 710.4 | 908.0 | 197.6 | 27.8 |
| Hydrocarbons (Total)    | kg/h    | 0.062 | 0.081 | 0.019 | 30.4 |
| Carbon Monoxide (Total) | kg/h    | 0.541 | 0.717 | 0.176 | 32.5 |
| NOx (Total)             | kg/h    | 1.506 | 1.627 | 0.121 | 8.0  |

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



| Network A - Hours per Year: 480    |          |           |           |  |  |
|------------------------------------|----------|-----------|-----------|--|--|
| Network B - Hours per Year: 480    |          |           |           |  |  |
| Performance Measure                | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Demand Flows (Total for all Sites) | veh/y    | 3,456,202 | 4,612,598 | 1,156,396                              | 33.5                                   |
| Delay (Total)                      | veh-h/y  | 12,332    | 21,567    | 9,235                                  | 74.9                                   |
| Effective Stops (Total)            | veh/y    | 1,863,512 | 2,406,916 | 543,404                                | 29.2                                   |
| Travel Distance (Total)            | veh-km/y | 1,176,167 | 1,483,943 | 307,776                                | 26.2                                   |
| Travel Time (Total)                | veh-h/y  | 40,010    | 55,963    | 15,953                                 | 39.9                                   |
| Cost (Total)                       | \$/y     | 1,545,931 | 2,106,955 | 561,024                                | 36.3                                   |
| Fuel Consumption (Total)           | L/y      | 143,354   | 183,661   | 40,307                                 | 28.1                                   |
| Carbon Dioxide (Total)             | kg/y     | 340,985   | 435,855   | 94,870                                 | 27.8                                   |
| Hydrocarbons (Total)               | kg/y     | 30        | 39        | 9                                      | 30.4                                   |
| Carbon Monoxide (Total)            | kg/y     | 260       | 344       | 84                                     | 32.5                                   |
| NOx (Total)                        | kg/y     | 723       | 781       | 58                                     | 8.0                                    |

| Performance Measure                 | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
|-------------------------------------|----------|-----------|-----------|--|--|
| Travel Speed (Average)              | km/h     | 3.7       | 3.2       | -0.5                                   | -12.9                                  |
| Travel Distance (Total)             | ped-km/h | 535.8     | 535.8     | 0.0                                    | 0.0                                    |
| Travel Time (Total)                 | ped-h/h  | 145.1     | 166.6     | 21.4                                   | 14.8                                   |
| Demand Flows (Total for all Sites)  | ped/h    | 3342      | 3342      | Ó                                      | 0.0                                    |
| Arrival Flows (Total for all Sites) | ped/h    | 3342      | 3342      | 0                                      | 0.0                                    |
| Control Delay (Total)               | ped-h/h  | 30.64     | 52.07     | 21.43                                  | 70.0                                   |
| Control Delay (Average)             | sec      | 33.0      | 56.1      | 23.1                                   | 70.0                                   |
| Control Delay (Worst Movement)      | sec      | 37.6      | 65.7      | 28.1                                   | 74.7                                   |
| Effective Stops (Total)             | ped/h    | 2912      | 2906      | -7                                     | -0.2                                   |
| Effective Stop Rate                 |          | 0.87      | 0.87      | -0.00                                  | -0.2                                   |
| Proportion Queued                   |          | 0.87      | 0.87      | -0.00                                  | -0.2                                   |
| Performance Index                   |          | 161.3     | 182.7     | 21.4                                   | 13.3                                   |
| Cost (Total)                        | \$/h     | 3989.13   | 4577.63   | 588.50                                 | 14.8                                   |

| Network Performance (Pedestrians C                                 | Only) - Annual Value | es        |           |                           |                 |
|--|----------------------|-----------|-----------|---------------------------|-----------------|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |                      |           |           |                           |                 |
| Performance Measure  | Units                | Network A | Network B | Difference<br>Network B - | %<br>Difference |



|                                    |          |         |         | Network A | Diff /    |
|------------------------------------|----------|---------|---------|-----------|-----------|
|                                    |          |         |         |           | Network A |
| Demand Flows (Total for all Sites) | ped/y    | 1604210 | 1604210 | 0         | 0.0       |
| Delay (Total)                      | ped-h/y  | 14706   | 24994   | 10287     | 70.0      |
| Effective Stops (Total)            | ped/y    | 1397995 | 1394850 | -3145     | -0.2      |
| Travel Distance (Total)            | ped-km/y | 257179  | 257179  | 0         | 0.0       |
| Travel Time (Total)                | ped-h/y  | 69659   | 79947   | 10287     | 14.8      |
|                                    |          |         |         |           |           |
| Cost (Total)                       | \$/y     | 1914784 | 2197264 | 282481    | 14.8      |



| Performance Measure                  | Units     | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
|--------------------------------------|-----------|-----------|-----------|--|--|
| Travel Speed (Average)               | km/h      | 14.2      | 13.9      | -0.3                                   | -2.3                                   |
| Travel Distance (Total)              | pers-km/h | 3476.2    | 4245.6    | 769.4                                  | 22.1                                   |
| Travel Time (Total)                  | pers-h/h  | 245.1     | 306.5     | 61.3                                   | 25.0                                   |
| Demand Flows (Total for all Sites)   | pers/h    | 11983     | 14874     | 2891                                   | 24.1                                   |
| Arrival Flows (Total for all Sites)  | pers/h    | 11983     | 14874     | 2891                                   | 24.1                                   |
| Control Delay (Total)                | pers-h/h  | 61.47     | 105.99    | 44.52                                  | 72.4                                   |
| Control Delay (Average)              | sec       | 25.6      | 33.1      | 7.5                                    | 29.2                                   |
| Control Delay (Worst Movement by MC) | sec       | 44.1      | 74.6      | 30.5                                   | 69.2                                   |
| Effective Stops (Total)              | pers/h    | 7571      | 8923      | 1352                                   | 17.9                                   |
| Effective Stop Rate                  |           | 0.88      | 0.77      | -0.10                                  | -11.7                                  |
| Proportion Queued                    |           | 0.61      | 0.54      | -0.07                                  | -11.4                                  |
| Performance Index                    |           | 453.5     | 631.8     | 178.3                                  | 39.3                                   |
| Cost (Total)                         | \$/h      | 7209.82   | 8967.12   | 1757.30                                | 24.4                                   |

| Network Performance (Persons Only                                  | Network Performance (Persons Only) - Annual Values |           |           |  |  |  |  |
|--|--|-----------|-----------|--|--|--|--|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |  |           |           |  |  |  |  |
| Performance Measure  | Units  | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |  |  |
| Demand Flows (Total for all Sites)                                 | pers/y   | 5751653   | 7139328   | 1387676                                | 24.1                                   |  |  |
| Delay (Total)  | pers-h/y   | 29505     | 50874     | 21369                                  | 72.4                                   |  |  |
| Effective Stops (Total)  | pers/y   | 3634209   | 4283149   | 648940                                 | 17.9                                   |  |  |
| Travel Distance (Total)  | pers-km/y  | 1668579   | 2037911   | 369332                                 | 22.1                                   |  |  |
| Travel Time (Total)  | pers-h/y   | 117671    | 147102    | 29431                                  | 25.0                                   |  |  |
| Cost (Total)   | \$/y   | 3460714   | 4304220   | 843505                                 | 24.4                                   |  |  |

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# **NETWORK OUTPUT COMPARISON**

Comparison of Network Summary Statistics

Network A: [N101(2)] 2025 Existing PM - Scenario: 1 | Local Volumes

Network B: [N101(8)] 2028 PM Stage 1 Complete - Scenario: 1 | Local Volumes

| Performance Measure                  | Units    | Network A  | Network B  | Difference<br>Network B -<br>Network A | 9<br>Difference<br>Diff<br>Network A |
|--------------------------------------|----------|------------|------------|--|--------------------------------------|
| Output by Version                    |          | 10.0.5.217 | 10.0.5.217 |  |                                      |
| Cycle Time                           | sec      | 90         | 90         | 0                                      | 0.0                                  |
| Network Level of Service (LOS)       |          | LOS D      | LOS D      | NA                                     | NA                                   |
| Speed Efficiency                     |          | 0.60       | 0.59       | -0.02                                  | -2.                                  |
| Travel Time Index                    |          | 5.57       | 5.40       | -0.17                                  | -3.                                  |
| Congestion Coefficient               |          | 1.66       | 1.71       | 0.04                                   | 2.                                   |
| Travel Speed (Average)               | km/h     | 26.6       | 26.8       | 0.2                                    | 0.8                                  |
| Travel Distance (Total)              | veh-km/h | 2766.2     | 3285.3     | 519.1                                  | 18.                                  |
| Travel Time (Total)                  | veh-h/h  | 103.9      | 122.4      | 18.5                                   | 17.                                  |
| Desired Speed                        | km/h     | Program    | Program    | NA                                     | N                                    |
| Demand Flows (Total for all Sites)   | veh/h    | 8612       | 10679      | 2067                                   | 24.                                  |
| Arrival Flows (Total for all Sites)  | veh/h    | 8612       | 10679      | 2067                                   | 24.                                  |
| Demand Flows (Entry Total)           | veh/h    | 2806       | 3281       | 475                                    | 16.                                  |
| Midblock Inflows (Total)             | veh/h    | 235        | 1418       | 1183                                   | 503.                                 |
| Midblock Outflows (Total)            | veh/h    | -174       | -1373      | -1200                                  | 0.                                   |
| Percent Heavy Vehicles (Demand)      | %        | 3.3        | 2.8        | -0.5                                   | -14.                                 |
| Percent Heavy Vehicles (Arrival)     | %        | 3.3        | 2.8        | -0.5                                   | -14.                                 |
| Degree of Saturation                 |          | 0.655      | 0.904      | 0.249                                  | 38.                                  |
| Control Delay (Total)                | veh-h/h  | 39.80      | 46.27      | 6.47                                   | 16.                                  |
| Control Delay (Average)              | sec      | 16.6       | 15.6       | -1.0                                   | -6.                                  |
| Control Delay (Worst Lane by MC)     | sec      | 49.4       | 65.6       | 16.3                                   | 33.                                  |
| Control Delay (Worst Movement by MC) | sec      | 78.7       | 74.8       | -3.8                                   | -4,                                  |
| Geometric Delay (Average)            | sec      | 2.4        | 2.4        | 0.1                                    | 3.                                   |
| Stop-Line Delay (Average)            | sec      | 14.3       | 13.2       | -1.1                                   | -7.                                  |
| Ave. Que Storage Ratio (Worst Lane)  |          | 0.84       | 0.65       | -0.19                                  | -22.                                 |
| Effective Stops (Total)              | veh/h    | 5029       | 6082       | 1054                                   | 21.                                  |
| Effective Stop Rate                  |          | 0.58       | 0.57       | -0.01                                  | -2.                                  |
| Proportion Queued                    |          | 0.56       | 0.50       | -0.06                                  | -9.                                  |
| Performance Index                    |          | 372.3      | 403.1      | 30.8                                   | 8.                                   |
| Cost (Total)                         | \$/h     | 3903.42    | 4707.30    | 803.88                                 | 20.                                  |
| Fuel Consumption (Total)             | L/h      | 352.5      | 418.8      | 66.3                                   | 18.                                  |



| Fuel Economy            | L/100km | 12.7  | 12.7  | 0.0   | 0.0  |
|-------------------------|---------|-------|-------|-------|------|
| Carbon Dioxide (Total)  | kg/h    | 835.1 | 991.4 | 156.3 | 18.7 |
| Hydrocarbons (Total)    | kg/h    | 0.075 | 0.089 | 0.014 | 19.1 |
| Carbon Monoxide (Total) | kg/h    | 0.648 | 0.800 | 0.152 | 23.4 |
| NOx (Total)             | kg/h    | 1.341 | 1.480 | 0.139 | 10.4 |

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



| Network A - Hours per Year: 480    |          |           |           |  |                                      |
|------------------------------------|----------|-----------|-----------|--|--------------------------------------|
| Network B - Hours per Year: 480    |          |           |           |  |                                      |
| Performance Measure                | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
| Demand Flows (Total for all Sites) | veh/y    | 4,133,861 | 5,125,996 | 992,135                                | 24.0                                 |
| Delay (Total)                      | veh-h/y  | 19,105    | 22,211    | 3,106                                  | 16.3                                 |
| Effective Stops (Total)            | veh/y    | 2,413,749 | 2,919,479 | 505,730                                | 21.0                                 |
| Travel Distance (Total)            | veh-km/y | 1,327,766 | 1,576,940 | 249,174                                | 18.8                                 |
| Travel Time (Total)                | veh-h/y  | 49,863    | 58,745    | 8,882                                  | 17.8                                 |
| Cost (Total)                       | \$/y     | 1,873,641 | 2,259,506 | 385,865                                | 20.6                                 |
| Fuel Consumption (Total)           | L/y      | 169,177   | 201,002   | 31,825                                 | 18.8                                 |
| Carbon Dioxide (Total)             | kg/y     | 400,830   | 475,854   | 75,024                                 | 18.7                                 |
| Hydrocarbons (Total)               | kg/y     | 36        | 43        | 7                                      | 19.1                                 |
| Carbon Monoxide (Total)            | kg/y     | 311       | 384       | 73                                     | 23.4                                 |
| NOx (Total)                        | kg/y     | 644       | 710       | 67                                     | 10.4                                 |

| Performance Measure                 | Units    | Network A | Network B | Difference               | %                                 |
|-------------------------------------|----------|-----------|-----------|--------------------------|-----------------------------------|
| r en omance measure                 | Villa    | Hetwork   | Network B | Network B -<br>Network A | Difference<br>Diff /<br>Network A |
| Travel Speed (Average)              | km/h     | 3.7       | 3.7       | 0.0                      | 0.0                               |
| Travel Distance (Total)             | ped-km/h | 1011.0    | 1011.0    | 0.0                      | 0.0                               |
| Travel Time (Total)                 | ped-h/h  | 275.4     | 275.4     | -0.0                     | -0.0                              |
| Demand Flows (Total for all Sites)  | ped/h    | 5634      | 5634      | 0                        | 0.0                               |
| Arrival Flows (Total for all Sites) | ped/h    | 5634      | 5634      | 0                        | 0.0                               |
| Control Delay (Total)               | ped-h/h  | 59.40     | 59.39     | -0.00                    | -0.0                              |
| Control Delay (Average)             | sec      | 38.0      | 38.0      | -0.0                     | -0.0                              |
| Control Delay (Worst Movement)      | sec      | 41.1      | 41.1      | 0.0                      | 0.0                               |
| Effective Stops (Total)             | ped/h    | 5198      | 5195      | -4                       | -0.1                              |
| Effective Stop Rate                 |          | 0.92      | 0.92      | -0.00                    | -0.1                              |
| Proportion Queued                   |          | 0.92      | 0.92      | -0.00                    | -0.1                              |
| Performance Index                   |          | 304.3     | 304.3     | -0.0                     | -0.0                              |
| Cost (Total)                        | \$/h     | 7587.04   | 7586.93   | -0.11                    | -0.0                              |

| Network Performance (Pedestrians C                                 | Only) - Annual Value | es        |           |                           |                 |
|--|----------------------|-----------|-----------|---------------------------|-----------------|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |                      |           |           |                           |                 |
| Performance Measure  | Units                | Network A | Network B | Difference<br>Network B - | %<br>Difference |



|                                    |          |         |         | Network A | Diff /    |
|------------------------------------|----------|---------|---------|-----------|-----------|
|                                    |          |         |         |           | Network A |
| Demand Flows (Total for all Sites) | ped/y    | 2704168 | 2704168 | 0         | 0.0       |
| Delay (Total)                      | ped-h/y  | 28511   | 28509   | -2        | -0.0      |
| Effective Stops (Total)            | ped/y    | 2495226 | 2493492 | -1734     | -0.1      |
| Travel Distance (Total)            | ped-km/y | 485265  | 485265  | 0         | 0.0       |
| Travel Time (Total)                | ped-h/y  | 132200  | 132198  | -2        | -0.0      |
|                                    |          |         |         |           |           |
| Cost (Total)                       | \$/y     | 3641778 | 3641724 | -54       | -0.0      |



| Performance Measure                  | Units     | Network A | Network B | Difference               | %                                       |
|--------------------------------------|-----------|-----------|-----------|--------------------------|---|
| Performance measure                  | Othis     | Network   | Network B | Network B -<br>Network A | 70<br>Difference<br>Diff /<br>Network A |
| Travel Speed (Average)               | km/h      | 10.8      | 11.7      | 0.9                      | 8.4                                     |
| Travel Distance (Total)              | pers-km/h | 4330.4    | 4953.3    | 622.9                    | 14.4                                    |
| Travel Time (Total)                  | pers-h/h  | 400.1     | 422.3     | 22.2                     | 5,5                                     |
| Demand Flows (Total for all Sites)   | pers/h    | 15968     | 18449     | 2480                     | 15.5                                    |
| Arrival Flows (Total for all Sites)  | pers/h    | 15968     | 18449     | 2480                     | 15.5                                    |
| Control Delay (Total)                | pers-h/h  | 107.16    | 114.92    | 7.76                     | 7.2                                     |
| Control Delay (Average)              | sec       | 37.3      | 32.3      | -5.0                     | -13.5                                   |
| Control Delay (Worst Movement by MC) | sec       | 78.7      | 74.8      | -3.8                     | -4.9                                    |
| Effective Stops (Total)              | pers/h    | 11233     | 12493     | 1261                     | 11.2                                    |
| Effective Stop Rate                  |           | 1.09      | 0.97      | -0.11                    | -10.3                                   |
| Proportion Queued                    |           | 0.69      | 0.63      | -0.06                    | -8.1                                    |
| Performance Index                    |           | 676.6     | 707.4     | 30.8                     | 4.5                                     |
| Cost (Total)                         | \$/h      | 11490.46  | 12294.23  | 803.77                   | 7.0                                     |

| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |           |           |           |  |  |
|--|-----------|-----------|-----------|--|--|
| Performance Measure  | Units     | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Demand Flows (Total for all Sites)                                 | pers/y    | 7664802   | 8855364   | 1190562                                | 15.5                                   |
| Delay (Total)  | pers-h/y  | 51437     | 55162     | 3725                                   | 7.2                                    |
| Effective Stops (Total)  | pers/y    | 5391724   | 5996866   | 605142                                 | 11.2                                   |
| Travel Distance (Total)  | pers-km/y | 2078584   | 2377593   | 299009                                 | 14.4                                   |
| Travel Time (Total)  | pers-h/y  | 192035    | 202692    | 10657                                  | 5.5                                    |
| Cost (Total)   | \$/y      | 5515420   | 5901230   | 385810                                 | 7.0                                    |

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# 9 2030 STAGE 2 COMPLETED

The predominant change to the road network involves the reduction of Wynne Avenue to one trafficable lane in each direction. While creating a pinch point, the models suggest no degradation of the road network operation. Through motorists on Wynne Avenue retain the same single lane capacity, in both directions, between Railway Parade and Belmore Street.

With access now provided from Railway Parade, Wynne Avenue and egress only onto Belmore Street, the models do not highlight any significant failing on the road network.

The modelling suggests that the road network, with the pinch point in Wynne Avenue and the further recommended modifications to the Burwood Road and Belmore Street intersection, will return a satisfactory LOS D across both the AM and PM commuter peak periods.

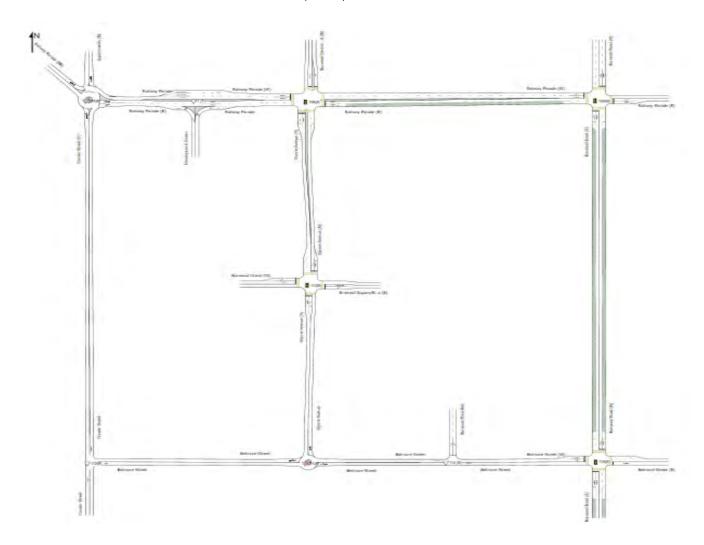


Figure 6 2030 Stage 2 Road Network Source SIDRA Network V10, 2025



# NETWORK OUTPUT COMPARISON

Comparison of Network Summary Statistics

Network A: [N101(1)] 2025 Existing AM - Scenario: 1 | Local Volumes

Network B: [N101(9)] 2030 AM Stage 2 Complete - Scenario: 1 | Local Volumes

| Performance Measure                  | Units    | Network A  | Network B  | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
|--------------------------------------|----------|------------|------------|--|--------------------------------------|
| Output by Version                    |          | 10.0.5.217 | 10.0.5.217 |  |                                      |
| Cycle Time                           | sec      | 85         | 85         | 0                                      | 0.0                                  |
| Network Level of Service (LOS)       |          | LOS D      | LOS D      | NA                                     | NA                                   |
| Speed Efficiency                     |          | 0.68       | 0.53       | -0.14                                  | -21.2                                |
| Travel Time Index                    |          | 6.43       | 4.83       | -1.60                                  | -24.9                                |
| Congestion Coefficient               |          | 1,47       | 1.87       | 0.40                                   | 26.9                                 |
| Travel Speed (Average)               | km/h     | 29.4       | 24.0       | -5.4                                   | -18.5                                |
| Travel Distance (Total)              | veh-km/h | 2450.3     | 3151.1     | 700.8                                  | 28.6                                 |
| Travel Time (Total)                  | veh-h/h  | 83.4       | 131.5      | 48.2                                   | 57.8                                 |
| Desired Speed                        | km/h     | Program    | Program    | NA                                     | NA                                   |
| Demand Flows (Total for all Sites)   | veh/h    | 7200       | 9975       | 2774                                   | 38.5                                 |
| Arrival Flows (Total for all Sites)  | veh/h    | 7200       | 9975       | 2774                                   | 38.                                  |
| Demand Flows (Entry Total)           | veh/h    | 2640       | 3254       | 614                                    | 23.                                  |
| Midblock Inflows (Total)             | veh/h    | 219        | 1286       | 1067                                   | 487.                                 |
| Midblock Outflows (Total)            | veh/h    | -256       | -1412      | -1157                                  | 0.0                                  |
| Percent Heavy Vehicles (Demand)      | %        | 5.4        | 4.1        | -1.3                                   | -24.                                 |
| Percent Heavy Vehicles (Arrival)     | %        | 5.4        | 4.1        | -1.3                                   | -24.                                 |
| Degree of Saturation                 |          | 0.605      | 1.044      | 0.439                                  | 72.                                  |
| Control Delay (Total)                | veh-h/h  | 25.69      | 57.09      | 31.40                                  | 122.2                                |
| Control Delay (Average)              | sec      | 12.8       | 20.6       | 7.8                                    | 60.4                                 |
| Control Delay (Worst Lane by MC)     | sec      | 42.5       | 122.4      | 79.9                                   | 188.                                 |
| Control Delay (Worst Movement by MC) | sec      | 44.1       | 128.6      | 84.5                                   | 191.7                                |
| Geometric Delay (Average)            | sec      | 1.9        | 2.2        | 0.3                                    | 15.9                                 |
| Stop-Line Delay (Average)            | sec      | 11.0       | 18.4       | 7.5                                    | 68.                                  |
| Ave. Que Storage Ratio (Worst Lane)  |          | 0.61       | 1.06       | 0.45                                   | 73.2                                 |
| Effective Stops (Total)              | veh/h    | 3882       | 6429       | 2546                                   | 65.                                  |
| Effective Stop Rate                  |          | 0.54       | 0.64       | 0.11                                   | 19.                                  |
| Proportion Queued                    |          | 0.51       | 0.54       | 0.03                                   | 6.8                                  |
| Performance Index                    |          | 292.2      | 488.8      | 196.7                                  | 67.3                                 |
| Cost (Total)                         | \$/h     | 3220.69    | 4993.85    | 1773.16                                | 55.                                  |
| Fuel Consumption (Total)             | L/h      | 298.7      | 436.0      | 137.4                                  | 46.                                  |



| Fuel Economy            | L/100km | 12.2  | 13.8   | 1.6   | 13.5 |
|-------------------------|---------|-------|--------|-------|------|
| Carbon Dioxide (Total)  | kg/h    | 710.4 | 1034.4 | 324.0 | 45.6 |
| Hydrocarbons (Total)    | kg/h    | 0.062 | 0.096  | 0.034 | 54.2 |
| Carbon Monoxide (Total) | kg/h    | 0.541 | 0.836  | 0.294 | 54.4 |
| NOx (Total)             | kg/h    | 1.506 | 1.939  | 0.433 | 28.8 |

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



| Network A - Hours per Year: 480                     |          |           |           |             |            |
|---|----------|-----------|-----------|-------------|------------|
|   |          |           |           |             |            |
| Network B - Hours per Year: 480 Performance Measure | Units    | Network A | Network B | Difference  | %          |
| remonnance measure                                  | Units    | Network   | Network   | Network B - | Difference |
|   |          |           |           | Network A   | Diff       |
|   |          |           |           |             | Network A  |
| Demand Flows (Total for all Sites)                  | veh/y    | 3,456,202 | 4,787,924 | 1,331,722   | 38.5       |
| Delay (Total)                                       | veh-h/y  | 12,332    | 27,404    | 15,072      | 122.2      |
| Effective Stops (Total)                             | veh/y    | 1,863,512 | 3,085,762 | 1,222,251   | 65.6       |
| Travel Distance (Total)                             | veh-km/y | 1,176,167 | 1,512,552 | 336,385     | 28.6       |
| Travel Time (Total)                                 | veh-h/y  | 40,010    | 63,122    | 23,112      | 57.8       |
| Cost (Total)  | \$/y     | 1,545,931 | 2,397,047 | 851,116     | 55.1       |
| Fuel Consumption (Total)                            | L/y      | 143,354   | 209,295   | 65,942      | 46.0       |
| Carbon Dioxide (Total)                              | kg/y     | 340,985   | 496,527   | 155,542     | 45.6       |
| Hydrocarbons (Total)                                | kg/y     | 30        | 46        | 16          | 54.2       |
| Carbon Monoxide (Total)                             | kg/y     | 260       | 401       | 141         | 54.4       |
| NOx (Total)   | kg/y     | 723       | 931       | 208         | 28.8       |

| Performance Measure                 | Units    | Network A | Network B | Difference               | %<br>Difference<br>Diff /<br>Network A |
|-------------------------------------|----------|-----------|-----------|--------------------------|--|
|                                     | Ginta.   | HSWOIRA   | Metwork D | Network B -<br>Network A |  |
| Travel Speed (Average)              | km/h     | 3.7       | 3.7       | 0.0                      | 0.0                                    |
| Travel Distance (Total)             | ped-km/h | 535.8     | 535.8     | 0.0                      | 0.0                                    |
| Travel Time (Total)                 | ped-h/h  | 145.1     | 145.1     | 0.0                      | 0.0                                    |
| Demand Flows (Total for all Sites)  | ped/h    | 3342      | 3342      | 0                        | 0.0                                    |
| Arrival Flows (Total for all Sites) | ped/h    | 3342      | 3342      | 0                        | 0.0                                    |
| Control Delay (Total)               | ped-h/h  | 30.64     | 30.64     | 0.00                     | 0.0                                    |
| Control Delay (Average)             | sec      | 33.0      | 33.0      | 0.0                      | 0.0                                    |
| Control Delay (Worst Movement)      | sec      | 37.6      | 37.6      | 0.0                      | 0.0                                    |
| Effective Stops (Total)             | ped/h    | 2912      | 2912      | 0                        | 0.0                                    |
| Effective Stop Rate                 |          | 0.87      | 0.87      | 0.00                     | 0.0                                    |
| Proportion Queued                   |          | 0.87      | 0.87      | 0.00                     | 0.0                                    |
| Performance Index                   |          | 161.3     | 161.3     | 0.0                      | 0.0                                    |
| Cost (Total)                        | \$/h     | 3989.13   | 3989.13   | 0.00                     | 0.0                                    |

| Network Performance (Pedestrians 0                                 | Only) - Annual Value | es        |           |                           |                 |
|--|----------------------|-----------|-----------|---------------------------|-----------------|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |                      |           |           |                           |                 |
| Performance Measure  | Units                | Network A | Network B | Difference<br>Network B - | %<br>Difference |



|                                    |          |         |         | Network A | Diff /    |
|------------------------------------|----------|---------|---------|-----------|-----------|
|                                    |          |         |         |           | Network A |
| Demand Flows (Total for all Sites) | ped/y    | 1604210 | 1604210 | 0         | 0.0       |
| Delay (Total)                      | ped-h/y  | 14706   | 14706   | 0         | 0.0       |
| Effective Stops (Total)            | ped/y    | 1397995 | 1397995 | 0         | 0.0       |
| Travel Distance (Total)            | ped-km/y | 257179  | 257179  | 0         | 0.0       |
| Travel Time (Total)                | ped-h/y  | 69659   | 69659   | 0         | 0.0       |
|                                    |          |         |         |           |           |
| Cost (Total)                       | \$/y     | 1914784 | 1914784 | 0         | 0.0       |



| Performance Measure                  | Units Network A | Network A | Network B | Difference<br>Network B - | %<br>Difference     |
|--------------------------------------|-----------------|-----------|-----------|---------------------------|---------------------|
|                                      |                 |           |           | Network A                 | Diff /<br>Network A |
| Travel Speed (Average)               | km/h            | 14.2      | 14.3      | 0.1                       | 0.5                 |
| Travel Distance (Total)              | pers-km/h       | 3476.2    | 4317.2    | 841.0                     | 24.2                |
| Travel Time (Total)                  | pers-h/h        | 245.1     | 302.9     | 57.8                      | 23.6                |
| Demand Flows (Total for all Sites)   | pers/h          | 11983     | 15312     | 3329                      | 27.8                |
| Arrival Flows (Total for all Sites)  | pers/h          | 11983     | 15312     | 3329                      | 27.8                |
| Control Delay (Total)                | pers-h/h        | 61.47     | 99.15     | 37.68                     | 61.3                |
| Control Delay (Average)              | sec             | 25.6      | 29.8      | 4.2                       | 16.4                |
| Control Delay (Worst Movement by MC) | sec             | 44.1      | 128.6     | 84.5                      | 191.7               |
| Effective Stops (Total)              | pers/h          | 7571      | 10627     | 3056                      | 40.4                |
| Effective Stop Rate                  |                 | 0.88      | 0.89      | 0.01                      | 1.3                 |
| Proportion Queued                    |                 | 0.61      | 0.61      | 0.00                      | 0.6                 |
| Performance Index                    |                 | 453.5     | 650.1     | 196.7                     | 43.4                |
| Cost (Total)                         | \$/h            | 7209.82   | 8982.98   | 1773.16                   | 24.6                |

| Network Performance (Persons Only) - Annual Values |                                    |  |  |  |  |  |  |
|--|------------------------------------|--|--|--|--|--|--|
|  |                                    |  |  |  |  |  |  |
| 20.30  | - Ann A. C.                        | - V. D E. D D.   |  |  |  |  |  |
| Units  | Network A                          | Network B  | Difference<br>Network B -<br>Network A   | %<br>Difference<br>Diff /<br>Network A   |  |  |  |
| pers/y   | 5751653                            | 7349720  | 1598067  | 27.8   |  |  |  |
| pers-h/y   | 29505                              | 47591  | 18087  | 61.3   |  |  |  |
| pers/y   | 3634209                            | 5100910  | 1466702  | 40.4   |  |  |  |
| pers-km/y  | 1668579                            | 2072241  | 403662   | 24.2   |  |  |  |
| pers-h/y   | 117671                             | 145406   | 27734  | 23.6   |  |  |  |
| \$/y   | 3460714                            | 4311830  | 851116   | 24.6   |  |  |  |
|  | pers/y pers-h/y pers-km/y pers-h/y | Ders/y 5751653 pers-h/y 29505 pers/y 3634209 pers-km/y 1668579 pers-h/y 117671 | Units Network A Network B  pers/y 5751653 7349720 pers-h/y 29505 47591 pers/y 3634209 5100910 pers-km/y 1668579 2072241 pers-h/y 117671 145406 | Units Network A Network B Difference Network B - Network A  pers/y 5751653 7349720 1598067 pers-h/y 29505 47591 18087 pers/y 3634209 5100910 1466702 pers-km/y 1668579 2072241 403662 pers-h/y 117671 145406 27734 |  |  |  |

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# **NETWORK OUTPUT COMPARISON**

Comparison of Network Summary Statistics

Network A: [N101(2)] 2025 Existing PM - Scenario: 1 | Local Volumes

Network B: [N101(10)] 2030 PM Stage 2 Complete - Scenario: 1 | Local Volumes

| Performance Measure                  | Units    | Network A  | Network B  | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
|--------------------------------------|----------|------------|------------|--|--------------------------------------|
| Output by Version                    |          | 10.0.5.217 | 10.0.5.217 |  |                                      |
| Cycle Time                           | sec      | 90         | 90         | 0                                      | 0.0                                  |
| Network Level of Service (LOS)       |          | LOS D      | LOS D      | NA                                     | N/                                   |
| Speed Efficiency                     |          | 0.60       | 0.61       | 0.01                                   | 0.9                                  |
| Travel Time Index                    |          | 5.57       | 5.63       | 0.06                                   | 1.                                   |
| Congestion Coefficient               |          | 1.66       | 1.65       | -0.01                                  | -0.9                                 |
| Travel Speed (Average)               | km/h     | 26.6       | 27.8       | 1.2                                    | 4.6                                  |
| Travel Distance (Total)              | veh-km/h | 2766.2     | 3248.1     | 481.9                                  | 17.                                  |
| Travel Time (Total)                  | veh-h/h  | 103.9      | 116.7      | 12.8                                   | 12.                                  |
| Desired Speed                        | km/h     | Program    | Program    | NA                                     | N                                    |
| Demand Flows (Total for all Sites)   | veh/h    | 8612       | 10574      | 1962                                   | 22.                                  |
| Arrival Flows (Total for all Sites)  | veh/h    | 8612       | 10574      | 1962                                   | 22.                                  |
| Demand Flows (Entry Total)           | veh/h    | 2806       | 3175       | 370                                    | 13.                                  |
| Midblock Inflows (Total)             | veh/h    | 235        | 1523       | 1288                                   | 548.                                 |
| Midblock Outflows (Total)            | veh/h    | -174       | -1373      | -1200                                  | 0.                                   |
| Percent Heavy Vehicles (Demand)      | %        | 3.3        | 2.9        | -0.4                                   | -13.                                 |
| Percent Heavy Vehicles (Arrival)     | %        | 3.3        | 2.9        | -0.4                                   | -13.                                 |
| Degree of Saturation                 |          | 0.655      | 0.800      | 0.146                                  | 22.                                  |
| Control Delay (Total)                | veh-h/h  | 39.80      | 41.33      | 1.53                                   | 3.                                   |
| Control Delay (Average)              | sec      | 16.6       | 14.1       | -2.6                                   | -15.                                 |
| Control Delay (Worst Lane by MC)     | sec      | 49.4       | 52.2       | 2.9                                    | 5.                                   |
| Control Delay (Worst Movement by MC) | sec      | 78.7       | 60.2       | -18.4                                  | -23.                                 |
| Geometric Delay (Average)            | sec      | 2.4        | 2.5        | 0.1                                    | 4.                                   |
| Stop-Line Delay (Average)            | sec      | 14.3       | 11.6       | -2.7                                   | -18.                                 |
| Ave. Que Storage Ratio (Worst Lane)  |          | 0.84       | 0.66       | -0.18                                  | -21.                                 |
| Effective Stops (Total)              | veh/h    | 5029       | 5821       | 793                                    | 15.                                  |
| Effective Stop Rate                  |          | 0.58       | 0.55       | -0.03                                  | -5.                                  |
| Proportion Queued                    |          | 0.56       | 0.49       | -0.07                                  | -11.                                 |
| Performance Index                    |          | 372.3      | 374.8      | 2.5                                    | 0.                                   |
| Cost (Total)                         | \$/h     | 3903.42    | 4541.95    | 638.53                                 | 16.                                  |
| Fuel Consumption (Total)             | L/h      | 352.5      | 410.9      | 58.4                                   | 16.                                  |



| Fuel Economy            | L/100km | 12.7  | 12.7  | -0.1  | -0.7 |
|-------------------------|---------|-------|-------|-------|------|
| Carbon Dioxide (Total)  | kg/h    | 835.1 | 972.9 | 137.8 | 16.5 |
| Hydrocarbons (Total)    | kg/h    | 0.075 | 0.087 | 0.012 | 15.9 |
| Carbon Monoxide (Total) | kg/h    | 0.648 | 0.786 | 0.137 | 21.2 |
| NOx (Total)             | kg/h    | 1.341 | 1.472 | 0.131 | 9.8  |
|                         |         |       |       |       |      |

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



| Network A - Hours per Year: 480    |          |           |           |  |                                      |
|------------------------------------|----------|-----------|-----------|--|--------------------------------------|
| Network B - Hours per Year: 480    |          |           |           |  |                                      |
| Performance Measure                | Units    | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff<br>Network A |
| Demand Flows (Total for all Sites) | veh/y    | 4,133,861 | 5,075,470 | 941,609                                | 22.8                                 |
| Delay (Total)                      | veh-h/y  | 19,105    | 19,839    | 734                                    | 3.8                                  |
| Effective Stops (Total)            | veh/y    | 2,413,749 | 2,794,176 | 380,426                                | 15.8                                 |
| Travel Distance (Total)            | veh-km/y | 1,327,766 | 1,559,081 | 231,315                                | 17.4                                 |
| Travel Time (Total)                | veh-h/y  | 49,863    | 55,996    | 6,133                                  | 12.3                                 |
| Cost (Total)                       | \$/y     | 1,873,641 | 2,180,136 | 306,494                                | 16.4                                 |
| Fuel Consumption (Total)           | L/y      | 169,177   | 197,227   | 28,049                                 | 16.6                                 |
| Carbon Dioxide (Total)             | kg/y     | 400,830   | 466,981   | 66,151                                 | 16.5                                 |
| Hydrocarbons (Total)               | kg/y     | 36        | 42        | 6                                      | 15.9                                 |
| Carbon Monoxide (Total)            | kg/y     | 311       | 377       | 66                                     | 21.2                                 |
| NOx (Total)                        | kg/y     | 644       | 707       | 63                                     | 9.8                                  |

| Network Performance (Pedestrians O  | nly) - Hourly Values |           |           |  |  |
|-------------------------------------|----------------------|-----------|-----------|--|--|
| Performance Measure                 | Units                | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Travel Speed (Average)              | km/h                 | 3.7       | 3.7       | 0.0                                    | 0.0                                    |
| Travel Distance (Total)             | ped-km/h             | 1011.0    | 1011.0    | 0.0                                    | 0.0                                    |
| Travel Time (Total)                 | ped-h/h              | 275.4     | 275.4     | -0.0                                   | -0.0                                   |
| Demand Flows (Total for all Sites)  | ped/h                | 5634      | 5634      | 0                                      | 0.0                                    |
| Arrival Flows (Total for all Sites) | ped/h                | 5634      | 5634      | 0                                      | 0.0                                    |
| Control Delay (Total)               | ped-h/h              | 59.40     | 59.39     | -0.00                                  | -0.0                                   |
| Control Delay (Average)             | sec                  | 38.0      | 38.0      | -0.0                                   | -0.0                                   |
| Control Delay (Worst Movement)      | sec                  | 41.1      | 41.1      | 0.0                                    | 0.0                                    |
| Effective Stops (Total)             | ped/h                | 5198      | 5195      | -4                                     | -0.1                                   |
| Effective Stop Rate                 |                      | 0.92      | 0.92      | -0.00                                  | -0.1                                   |
| Proportion Queued                   |                      | 0.92      | 0.92      | -0.00                                  | -0.1                                   |
| Performance Index                   |                      | 304.3     | 304.3     | -0.0                                   | -0.0                                   |
| Cost (Total)                        | \$/h                 | 7587.04   | 7586.93   | -0.11                                  | -0.0                                   |

| Network Performance (Pedestrians C                                 | Only) - Annual Value | es .      |           |                           |                 |
|--|----------------------|-----------|-----------|---------------------------|-----------------|
| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |                      |           |           |                           |                 |
| Performance Measure  | Units                | Network A | Network B | Difference<br>Network B - | %<br>Difference |



|                                    |          |         |         | Network A | Diff /    |
|------------------------------------|----------|---------|---------|-----------|-----------|
|                                    |          |         |         |           | Network A |
| Demand Flows (Total for all Sites) | ped/y    | 2704168 | 2704168 | 0         | 0.0       |
| Delay (Total)                      | ped-h/y  | 28511   | 28509   | -2        | -0.0      |
| Effective Stops (Total)            | ped/y    | 2495226 | 2493492 | -1734     | -0.1      |
| Travel Distance (Total)            | ped-km/y | 485265  | 485265  | 0         | 0.0       |
| Travel Time (Total)                | ped-h/y  | 132200  | 132198  | -2        | -0.0      |
|                                    |          |         |         |           |           |
| Cost (Total)                       | \$/y     | 3641778 | 3641724 | -54       | -0.0      |



| Performance Measure                  | Units     | Network A | Network B | Difference               | %                                 |
|--------------------------------------|-----------|-----------|-----------|--------------------------|-----------------------------------|
| renomance measure                    | Othis     | Network   | Network   | Network B -<br>Network A | Difference<br>Diff /<br>Network A |
| Travel Speed (Average)               | km/h      | 10.8      | 11.8      | 1.0                      | 9.2                               |
| Travel Distance (Total)              | pers-km/h | 4330.4    | 4908.7    | 578.3                    | 13.4                              |
| Travel Time (Total)                  | pers-h/h  | 400.1     | 415.4     | 15.3                     | 3.8                               |
| Demand Flows (Total for all Sites)   | pers/h    | 15968     | 18322     | 2354                     | 14.7                              |
| Arrival Flows (Total for all Sites)  | pers/h    | 15968     | 18322     | 2354                     | 14.7                              |
| Control Delay (Total)                | pers-h/h  | 107.16    | 108.99    | 1.83                     | 1.7                               |
| Control Delay (Average)              | sec       | 37.3      | 30.9      | -6.4                     | -17.2                             |
| Control Delay (Worst Movement by MC) | sec       | 78.7      | 60.2      | -18.4                    | -23.4                             |
| Effective Stops (Total)              | pers/h    | 11233     | 12180     | 947                      | 8.4                               |
| Effective Stop Rate                  |           | 1.09      | 0.96      | -0.13                    | -11.7                             |
| Proportion Queued                    |           | 0.69      | 0.63      | -0.06                    | -9.0                              |
| Performance Index                    |           | 676.6     | 679.1     | 2.4                      | 0.4                               |
| Cost (Total)                         | \$/h      | 11490.46  | 12128.88  | 638.42                   | 5.6                               |

| Network A - Hours per Year: 480<br>Network B - Hours per Year: 480 |           |           |           |  |  |
|--|-----------|-----------|-----------|--|--|
| Performance Measure  | Units     | Network A | Network B | Difference<br>Network B -<br>Network A | %<br>Difference<br>Diff /<br>Network A |
| Demand Flows (Total for all Sites)                                 | pers/y    | 7664802   | 8794732   | 1129930                                | 14.7                                   |
| Delay (Total)  | pers-h/y  | 51437     | 52315     | 879                                    | 1.7                                    |
| Effective Stops (Total)  | pers/y    | 5391724   | 5846503   | 454778                                 | 8.4                                    |
| Travel Distance (Total)  | pers-km/y | 2078584   | 2356162   | 277578                                 | 13.4                                   |
| Travel Time (Total)  | pers-h/y  | 192035    | 199393    | 7358                                   | 3.8                                    |
| Cost (Total)   | \$/y      | 5515420   | 5821860   | 306440                                 | 5.6                                    |

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# 10 CONCLUSION

Road Delay Solutions has been engaged by Burwood Tower Holdings Pty Ltd to prepare a commentary on the traffic generation, imposed by the Section 4.55 Application detailing revised land use footprints within the approved Burwood Place Development.

This document is a response to Council's Request for Information (RFI) on the construction staging of 42-60 Railway Parade, Burwood, with respect to the Section 4.55 traffic generations. In response to Council's request the following has been assessed.

The following stages are to be assessed as part of the TIA and form the requirements under the RFI.

- 1. Current traffic volumes from when the road is reopened in the ultimate configuration until Stage 1 of Burwood Place is complete. This is to include delivery vehicles accessing/egressing the Burwood Plaza loading dock.
- 2. Future traffic volumes when stage 2 of the Burwood Place development commences, which will remove the Burwood Plaza loading dock access and Burwood Plaza retail parking access (via Emerald Square development).
- 3. Future traffic volumes when Stage 2 of the Burwood Place development is complete and access to Burwood Place is reintroduced via Emerald Square, along with the new exit from Burwood Place that is to be provided directly onto Wynne Avenue.

As a response to Council, the following has been modelled utilising SIDRA Intersection V10.

Traffic counts were collected by MATRIX on Thursday, 8 May 2025, which identified the peak periods as being;

- → 08:00-09:00 for the AM commuter peak period, and
- → !7:30-18:30 for the PM commuter peak period.

The 2025 existing AM and PM models form the baseline upon which the future models have been compared.



Interpretation made of the traffic count data collected over the duration of this project for the years 2017, 2022 and 2025, indicate that for the modelled road network, negative growth is indicated, as shown below;

→ 2017-2022 -1.34% growth, and

→ 2022-2025 -7.69% growth.

Interpretation of the collected traffic counts taken in year 2025, indicate that Burwood Plaza currently generates some;

→ 159vph ingress/16vph egress during the AM peak, and

→ 268vph ingress/194vph egress during the PM peak.

It was considered conservative to allow 0,5% in vehicular growth on the modelled road network, between each model scenario, to make allowance for any variations regarding the future traffic flows during each stage of construction.

On this basis, network models have been prepared for;

presentation of the existing, counted traffic volumes on the current road network, within the study area, devoid of any construction influence from the Burwood Place development,

The impacts of the temporary closure of Wynne Avenue during Stage 1 of construction, with only the current volume of traffic generated by the Burwood Plaza operations, to the east of Wynne Avenue. The network model required the redistribution of traffic and the reconfiguration of the traffic signal geometries and operations,

The impacts on the road network imposed by the operation and attraction of the retail, commercial and residential components within Stage 1 of Burwood Place, entering and exiting onto Railway Parade from a new access point to the west of Wynne Avenue. Operations are to cease in Burwood Plaza at this time, eliminating the current access conditions on Wynne Avenue and volume of traffic egressing onto Belmore Street.

2030 With the completion of Stage 2, the full operation within Burwood Place will commence. Access will be restored from WynneAvenue and egress onto Belmore Street.

The network models have been run and the findings are presented below.



#### 2025 Temporary Closure of Wynne Avenue - Anticipated duration, 16 weeks

To permit the road network to function at its current capacity and state, motorists at the Burwood Road intersection with Railway Parade, travelling westbound on Railway Parade and turning right from Burwood Road, southbound, destined to make a left turn from Railway Parade into Wynne Avenue, must be directed to:

- > Proceed to the Conder Street roundabout where they must make a left turn into Conder Street.
- > Proceed south along Conder Street to Belmore Street where they perform a left turn.
- → Travel east along Belmore Steet, and then
- > Turn left into Wynne Avenue.

With the modification to the traffic signals adopted within the models, the road network outputs indicated a LOS D for both the AM and PM commuter peak periods.

## 2028 Completion of Stage 1 and Closure of Burwood Plaza

The Stage 1 network models required two (2) further, minor amendments to the Burwood Road intersection with Belmore Street. These modifications involved:

- → Addition of a repeat, variable, D Phase within the phase sequence of the traffic signal operation, and
- → An increase in the cycle length to 140 seconds during both the AM and PM peak periods.

Modelled with the inclusion of the primary access to and from Railway Parade and the addition two minor embellishments, recommended at the Burwood Road intersection with Belmore Street, the road network reported a satisfactory LOS D across both commuter peaks.

## 2030 Completion of Stage 2 - Full operation of Burwood Place

The predominant change to the road network involves the reduction of Wynne Avenue to one trafficable lane in each direction. While creating a pinch point, the models suggest no degradation of the road network operation. Through motorists on Wynne Avenue retain the same single lane capacity, in both directions, between Railway Parade and Belmore Street.

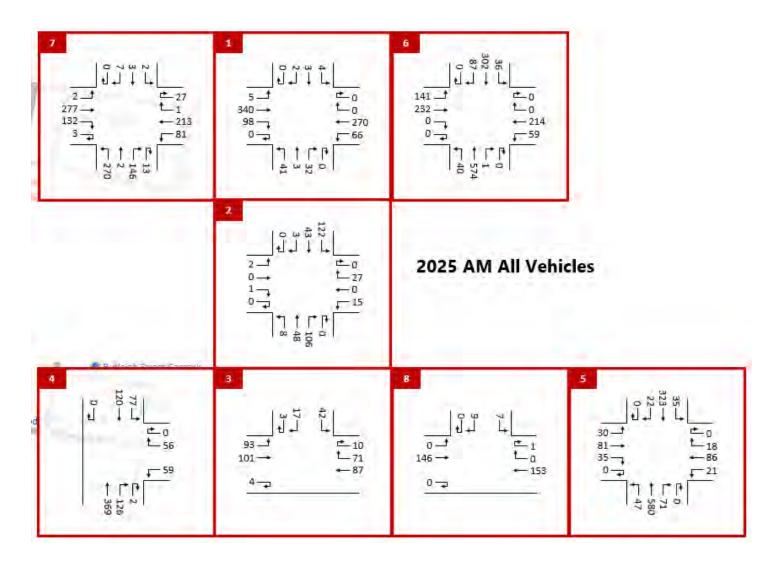
With access now provided from Railway Parade, Wynne Avenue and egress only onto Belmore Street, the models do not highlight any significant failing on the road network.

The modelling suggests that the road network, with the pinch point in Wynne Avenue and the further recommended modifications to the Burwood Road and Belmore Street intersection, will return a satisfactory LOS D across both the AM and PM commuter peak periods.

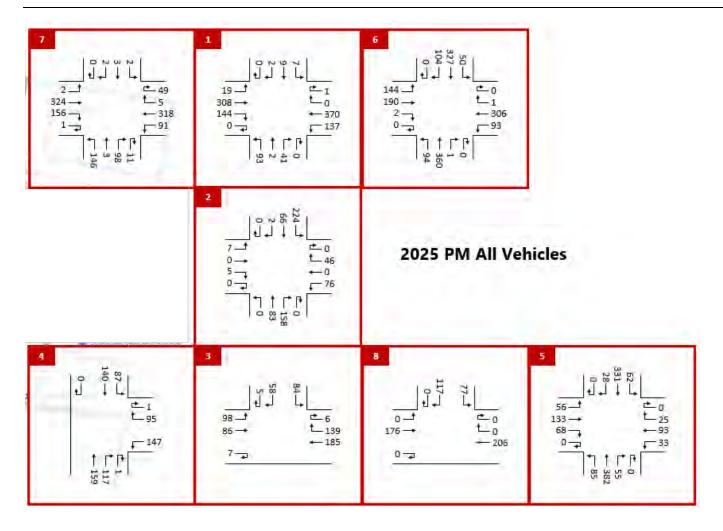




# APPENDIX A - Year 2025 Traffic Counts by MATRIX









# **APPENDIX B – Movement Summaries**

# 2025 AM Peak Existing

#### MOVEMENT SUMMARY

Site: [105(1)] 1e. 2025 AM Base Burwood Rd and Railway

Parade (2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Vehic  | cie M  | ovemen   | t Perfo | orma | nce     |     |         |       |          |         |         |      |       |           |      |
|--------|--------|----------|---------|------|---------|-----|---------|-------|----------|---------|---------|------|-------|-----------|------|
| Mov    | Turn   | Mov      |         | nand | Arr     |     | Deg.    | Aver. | Level of | 95% Bad | Of Queu |      |       | Number    | Ave  |
| ID     |        | Class    |         | lows |         | W5  | Satn    | Delay | Service  |         |         | Qued |       | of Cycles | Spee |
|        |        |          |         |      | Total H |     |         |       |          | [ Veh.  | Dist )  |      | Ratet | o Depart  |      |
|        |        |          | veh/h   | %    | veh/h   | %   | V/c     | SEC   |          | veh     | m.      |      |       |           | km/  |
| South  | : Burv | vood Roa | ad (S)  |      |         |     |         |       |          |         |         |      |       |           |      |
| 1      | L2     | All MCs  | 42      | 12.5 | 421     | 2.5 | 0.550   | 27.0  | LOS B    | 8.1     | 60.0    | 0.66 | 0.59  | 0.66      | 19   |
| 2      | T1     | All MCs  | 604     | 5.1  | 604     | 5.1 | 0.550   | 19.0  | LOS B    | 8.3     | 60.5    | 0.64 | 0.57  | 0.64      | 23.  |
| 3      | R2     | All MCs  | 0       | 100. | 01      | 00. | * 0.550 | 34.5  | LOS C    | 8.3     | 60.5    | 0.63 | 0.55  | 0.63      | 28.  |
| Appro  | oach   |          | 646     | 5.6  | 646     | 5.6 | 0.550   | 19.5  | LOS B    | 8.3     | 60.5    | 0.64 | 0.57  | 0.64      | 19   |
| East:  | Railw  | ay Parad | e (E)   |      |         |     |         |       |          |         |         |      |       |           |      |
| 4      | L2     | All MCs  | 62      | 1.7  | 62      | 1.7 | 0.200   | 41.6  | LOS C    | 2.3     | 16.1    | 0.89 | 0.73  | 0.89      | 16   |
| 5      | T1     | All MCs  | 225     | 2.8  | 225     | 2.8 | 0.533   | 35.6  | LOS C    | 8.4     | 59.9    | 0.92 | 0.77  | 0.92      | 18.  |
| Appro  | ach    |          | 287     | 2.6  | 287     | 2.6 | 0.533   | 36.9  | LOS C    | 8.4     | 59.9    | 0.92 | 0.76  | 0.92      | 16   |
| North  | : Burw | rood Roa | d (N)   |      |         |     |         |       |          |         |         |      |       |           |      |
| 7      | L2     | All MCs  | 38      | 0.0  | 38      | 0.0 | 0.114   | 13.0  | LOSA     | 2.2     | 16.1    | 0.46 | 0.45  | 0.46      | 30   |
| 8      | T1     | All MCs  | 318     | 11.3 | 318 1   | 1.3 | 0.533   | 8.7   | LOSA     | 6.4     | 50.7    | 0.68 | 0.88  | 0.68      | 11,  |
| 9      | R2     | All MCs  | 92      | 28.7 | 922     | 8.7 | * 0.533 | 16.2  | LOS B    | 6.4     | 50.7    | 0.76 | 1.03  | 0.76      | 10.  |
| Appro  | ach    |          | 447     | 13.9 | 4471    | 3.9 | 0.533   | 10.6  | LOSA     | 6.4     | 50.7    | 0.68 | 0.87  | 0.68      | 14.  |
| West:  | Railw  | ay Parad | de (W)  |      |         |     |         |       |          |         |         |      |       |           |      |
| 10     | L2     | All MCs  | 148     | 20.6 | 1482    | 0.6 | 0.275   | 28.8  | LOS C    | 5.0     | 41.1    | 0.85 | 0.76  | 0.85      | 16   |
| 11     | T1     | All MCs  | 244     | 2.6  | 244     | 2.6 | * 0.554 | 32.9  | LOS C    | 9.3     | 66.7    | 0.95 | 0.80  | 0.95      | 22.  |
| Appro  | oach   |          | 393     | 9.4  | 393     | 9.4 | 0.554   | 31,3  | LOS C    | 9.3     | 66.7    | 0.91 | 0.78  | 0.91      | 20.  |
| All Ve | hides  |          | 1774    | 8.0  | 1774    | 8.0 | 0.554   | 22.7  | LOSB     | 9.3     | 66.7    | 0.76 | 0.72  | 0.76      | 18   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [106(1)] 1f. 2025 AM Base Railway Pde and Wynne Ave

(2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0,5,217

New Site

Site Category, Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time) Site Scenario: 1 | Local Volumes Network Scenario: 1 | Local Volumes

| Mov    |        | Mov       | Den      |              |             | nval         | Deg     | Aver  | Level of | 95% Bad | CI Queu |      |      | Number             |       |
|--------|--------|-----------|----------|--------------|-------------|--------------|---------|-------|----------|---------|---------|------|------|--------------------|-------|
| ID     |        | Class     |          | lows<br>HV j | Fi<br>Total | iows<br>HV j | Satn    | Delay | Service  | ( Veh   | Dist    | Qued |      | f Cycles<br>Depart | Speed |
|        |        |           | ven/h    | 9/6          | veh/n       | 96           | Wc:     | sec   |          | veh     | m       |      |      | 0.0044             | Km/h  |
| South  | i: Wyn | ne Avenu  | ie (S)   |              |             |              |         |       |          |         |         |      |      |                    |       |
| 1      | L2     | All MCs   | 43       | 0.0          | 43          | 0.0          | 0.161   | 42.5  | LOSC     | 1.8     | 123     | 0.99 | 0.74 | 0.99               | 6.5   |
| 2      | T1     | All MCs   | 3        | 0.0          | 3           | 0.0          | *0.136  | 11.3  | LOSA     | 0.5     | 3.8     | 0.36 | 0.52 | 0.36               | 31.1  |
| 3      | R2     | All MCs   | 34       | 0.0          | 34          | 0.0          | 0.136   | 15.8  | LOSB     | 0.5     | 3.8     | 0.36 | 0.52 | 0.36               | 14.2  |
| Appr   | oach   |           | 80       | 0.0          | 80          | 0.0          | 0.161   | 30.0  | LOSC     | 1.8     | 12.3    | 0.70 | 0.64 | 0.70               | 10.1  |
| East:  | Railw  | ay Parad  | e (E)    |              |             |              |         |       |          |         |         |      |      |                    |       |
| 4      | L2     | All MCs   | 69       | 4.5          | 69          | 4.5          | 0.076   | 24.9  | LOSB     | 2.2     | 15.9    | 0.81 | 0.57 | 0.81               | 17.8  |
| 5      | T1     | All MCs   | 284      | 11.1         | 284         | 11.1         | 0.281   | 17.0  | LOS B    | 8.3     | 63.5    | 0.76 | 0.42 | 0.76               | 22.8  |
| Appr   | bach   |           | 354      | 9.8          | 354         | 9.8          | 0.281   | 18.6  | LOSB     | 8.3     | 63.5    | 0.77 | 0.45 | 0.77               | 18.4  |
| North  | : Burv | ood Cen   | tral Car | Park         | (N)         |              |         |       |          |         |         |      |      |                    |       |
| 7      | L2     | All MCs   | 5        | 0.0          | 5           | 0.0          | 0.018   | 35.6  | LOS.C    | 0.2     | 1.3     | 0.86 | 0.63 | 0.86               | 22.6  |
| 8      | T1     | All MCs   | 4        | 0.0          | 4           | 0.0          | 0.011   | 29.0  | LOSC     | 0.1     | 1.0     | 0.82 | 0.53 | 0.82               | 24.7  |
| Appr   | oach.  |           | 9        | 0.0          | 9           | 0.0          | 0.018   | 32.7  | LOS C    | 0.2     | 1.3     | 0.84 | 0.59 | 0.84               | 23.5  |
| West   | Railw  | ray Parac | de (W)   |              |             |              |         |       |          |         |         |      |      |                    |       |
| 10     | L2     | All MCs   | 5        | 0.0          | 5           | 0.0          | 0.265   | 16.1  | LOSB     | 5.2     | 39.3    | 0.45 | 0.40 | 0.45               | 35.2  |
| 11     | T1     | All MCs   | 358      | 10.6         | 358         | 10.6         | 0.265   | 6.8   | LOSA     | 5.2     | 39.3    | 0.48 | 0.44 | 0.48               | 24.3  |
| 12     | R2     | All MCs   | 103      | 1.0          | 103         | 1.0          | * 0.265 | 18.7  | LOSB     | 4.0     | 28.8    | 0.59 | 0.61 | 0.59               | 18.8  |
| Appr   | oach   |           | 466      | 8.4          | 466         | 8.4          | 0,265   | 9.5   | LOSA     | 5.2     | 39.3    | 0.50 | 0.47 | 0.50               | 23.2  |
| All Ve | ehides |           | 909      | 8.1          | 909         | 8.1          | 0,281   | 15.1  | LOSB     | 8.3     | 63.5    | 0.63 | 0.48 | 0.63               | 19.5  |
|        |        |           |          |              |             |              |         |       |          |         |         |      |      |                    |       |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [107(1)] 1g. 2025 AM Base Railway Pde and Conder St

(2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Railway Parade and Conder Street Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov   | Tum   | May       | Den     | una  | Ar      | nval | Deg   | Aver  | Level of | 95% Back | Ol Queu | € Prop. | Eff. I  | Number | Ave  |
|-------|-------|-----------|---------|------|---------|------|-------|-------|----------|----------|---------|---------|---------|--------|------|
| D.    |       | Class     | F       | lows | F       | ows  | Sam   | Delay | Service  |          |         | Qued    | Stop of | Cycles | Spee |
|       |       |           | [ Total | HVI  | [ Total | HV ] |       |       |          | ) Veh    | Dist J  |         | Raleto  | Depart |      |
|       | -     | _         | veh/h   | %    | veh/h   | %    | v/c   | Sec   | _        | veh      | m       | _       | _       |        | km/  |
| South | : Con | der Stree | t(S)    |      |         |      |       |       |          |          |         |         |         |        |      |
| 1a    | L1    | All MCs   | 284     | 0.4  | 284     | 0.4  | 0.426 | 4.0   | LOSA     | 3.1      | 21.8    | 0.58    | 0.54    | 0.58   | 38.  |
| 2     | T1    | All MCs   | 2       | 0.0  | 2       | 0.0  | 0.426 | 4.3   | LOSA     | 3,1      | 21.8    | 0.58    | 0.54    | 0.58   | 36.  |
| 3     | R2    | All MCs   | 154     | 2.1  | 154     | 2.1  | 0.426 | 7.5   | LOSA     | 3.1      | 21.8    | 0.58    | 0.54    | 0.58   | 30.  |
| 3u    | U     | All MCs   | 14      | 0.0  | 14      | 0.0  | 0.426 | 8.8   | LOSA     | 3.1      | 21.8    | 0.58    | 0.54    | 0.58   | 30.  |
| Appro | ach   |           | 454     | 0.9  | 454     | 0.9  | 0.426 | 5.3   | LOSA     | 3.1      | 21.8    | 0,58    | 0,54    | 0,58   | 36.  |
| East: | Railw | ay Parad  | e (E)   |      |         |      |       |       |          |          |         |         |         |        |      |
| 4     | L2    | All MCs   | 85      | 3.7  | 85      | 3.7  | 0.088 | 4.6   | LOSA     | 0.4      | 2.7     | 0.29    | 0.51    | 0.29   | 29.  |
| 6a    | R1    | All MCs   | 224     | 9.4  | 224     | 9.4  | 0.199 | 5.6   | LOSA     | 1.0      | 7.9     | 0.28    | 0.56    | 0.28   | 36   |
| 6     | R2    | All MCs   | 1       | 0.0  | 1       | 0.0  | 0.199 | 6.1   | LOSA     | 1.0      | 7.9     | 0.28    | 0.56    | 0.28   | 35   |
| 6u    | U     | All MCs   | 28      | 55.6 | 28      | 55.6 | 0.199 | 8.2   | LOSA     | 1.0      | 7.9     | 0.28    | 0.56    | 0.28   | 27   |
| Appro | ach   |           | 339     | 11.8 | 339     | 11.8 | 0.199 | 5.6   | LOSA     | 1.0      | 7.9     | 0.28    | 0.55    | 0.28   | 35.  |
| North | Appa  | rtments   | (N)     |      |         |      |       |       |          |          |         |         |         |        |      |
| 7     | L2    | All MCs   | 2       | 0.0  | 2       | 0.0  | 0.017 | 6.1   | LOSA     | 0.1      | 0.6     | 0.59    | 0.63    | 0,59   | 34   |
| 8     | T1    | All MCs   | 3       | 0.0  | 3       | 0.0  | 0.017 | 5.4   | LOSA     | 0.1      | 0.6     | 0.59    | 0.63    | 0.59   | 34.  |
| 9b    | R3    | All MCs   | 7       | 0.0  | 7       | 0.0  | 0.017 | 9.2   | LOSA     | 0.1      | 0.6     | 0.59    | 0.63    | 0.59   | 37   |
| 9u    | U     | All MCs   | 0       | 0.0  | 0       | 0.0  | 0.017 | 9.9   | LOSA     | 0.1      | 0.6     | 0.59    | 0,63    | 0.59   | 36   |
| Appro | ach   |           | 13      | 0.0  | 13      | 0.0  | 0.017 | 7.8   | LOSA     | 0.1      | 0.6     | 0.59    | 0.63    | 0.59   | 36   |
| North | West: | Railway   | Parade  | (NE) | i       |      |       |       |          |          |         |         |         |        |      |
| 27b   | L3    | All MCs   | . 2     | 0.0  | 2       | 0.0  | 0.400 | 5.6   | LOSA     | 2.8      | 20.8    | 0.52    | 0,55    | 0.52   | 38.  |
| 27a   | L1    | All MCs   | 292     | 7.9  | 292     | 7.9  | 0.400 | 4.9   | LOSA     | 2.8      | 20.8    | 0.52    | 0.55    | 0.52   | 38   |
| 29a   | R1    | All MGs   | 139     | 3.8  | 139     | 3.8  | 0.400 | 7.6   | LOSA     | 2.8      | 20.8    | 0.52    | 0.55    | 0.52   | 38   |
| 29u   | U     | All MCs   | 3       | 0.0  | 3       | 0.0  | 0.400 | 9.8   | LOSA     | 2.8      | 20.8    | 0.52    | 0.55    | 0.52   | 41   |
| Appro | ach   |           | 436     | 6.5  | 436     | 6.5  | 0.400 | 5.8   | LOSA     | 2.8      | 20.8    | 0.52    | 0.55    | 0.52   | 38   |
|       | hides |           | 1241    |      | 1241    | 5.9  | 0.426 | 5.6   | LOSA     | 3.1      | 21.8    | 0.48    | 0.55    | 0.48   | 36   |

Site Level of Service (LOS) Method: Delay (NSW), Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(1)] 1j. 2025 AM Base Burwood Rd and Belmore St (2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov       | Den         | nand         | Ar          | rival       | Deg.    | Aver. | Level of | 95% Back | Of Queur | e Prop. | Eff  | Number                | Aver  |
|--------|--------|-----------|-------------|--------------|-------------|-------------|---------|-------|----------|----------|----------|---------|------|-----------------------|-------|
| ID     |        | Class     | F<br>(Total | lows<br>HV j | Fi<br>Total | ows<br>HV j | Satn    | Delay | Service  | ( Veh.   | Dist     | Qued    |      | of Cycles<br>o Depart | Spee. |
|        |        |           | veh/h       | 1%           | veh/h       | %           | V/c     | sec   |          | Veh      | m        |         |      |                       | Km/n  |
| South  | : Burv | vood Roa  | ad (S)      |              |             |             |         |       |          |          |          |         |      |                       |       |
| 1      | L2     | All MCs   | 49          | 0.0          | 49          | 0.0         | 0.121   | 14.6  | LOS B    | 2.2      | 15.9     | 0.38    | 0.41 | 0,38                  | 35.2  |
| 2      | T1     | All MCs   | 611         | 5.3          | 611         | 5.3         | 0.605   | 12.7  | LOSA     | 13.3     | 97.1     | 0.56    | 0.54 | 0.56                  | 33.9  |
| 3      | R2     | All MCs   | 75          | 1.4          | 75          | 1.4         | * 0,605 | 19,9  | LOSB     | 13.3     | 97.1     | 0.59    | 0.56 | 0,59                  | 36.1  |
| Appro  | oach   |           | 735         | 4.6          | 735         | 4.6         | 0.605   | 13.6  | LOSA     | 13.3     | 97.1     | 0.55    | 0.53 | 0.55                  | 31.6  |
| East:  | Belmo  | ore Stree | t(E)        |              |             |             |         |       |          |          |          |         |      |                       |       |
| 4      | L2     | All MCs   | 22          | 9.5          | 22          | 9.5         | 0.461   | 42.2  | LOSC     | 5,2      | 36,6     | 0.95    | 0.77 | 0.95                  | 28.1  |
| 5      | T1     | All MCs   | 91          | 0.0          | 91          | 0.0         | 0,461   | 35.4  | LOSC     | 5.2      | 36,6     | 0.95    | 0.77 | 0.95                  | 22.1  |
| 6      | R2     | All MCs   | 19          | 0.0          | 19          | 0.0         | 0.461   | 42.2  | LOS C    | 5.2      | 36.6     | 0.95    | 0.77 | 0.95                  | 22.1  |
| Appro  | oach   |           | 132         | 1.6          | 132         | 1.6         | 0.461   | 37.5  | LOS C    | 5.2      | 36.6     | 0.95    | 0.77 | 0.95                  | 23.6  |
| North  | Burv   | ood Roa   | d (N)       |              |             |             |         |       |          |          |          |         |      |                       |       |
| 7      | L2     | All MCs   | 37          | 2.9          | 37          | 2.9         | 0.063   | 6.9   | LOSA     | 0.6      | 4.2      | 0.20    | 0.34 | 0.20                  | 36,5  |
| 8      | T1     | All MCs   | 340         | 10.8         | 340         | 10.8        | 0.316   | 3.8   | LOSA     | 3.7      | 28.2     | 0.29    | 0.29 | 0.29                  | 37.3  |
| 9      | R2     | All MCs   | 23          | 0.0          | 23          | 0.0         | 0.316   | 12.4  | LOSA     | 3.7      | 28.2     | 0.30    | 0.28 | 0,30                  | 31.0  |
| Appro  | oach   |           | 400         | 9.5          | 400         | 9.5         | 0.316   | 4.5   | LOSA     | 3.7      | 28.2     | 0.28    | 0.29 | 0.28                  | 37.0  |
| West   | Belm   | ore Stree | et (VV)     |              |             |             |         |       |          |          |          |         |      |                       |       |
| 10     | L2     | All MCs   | 32          | 10.0         | 32          | 10.0        | 0.138   | 39.8  | LOSC     | 1.2      | 9.1      | 0.92    | 0.71 | 0.92                  | 7.4   |
| 11     | T1     | All MCs   | 85          | 0.0          | 85          | 0,0         | *0.466  | 35.8  | LOS C    | 4.8      | 34.6     | 0.96    | 0.77 | 0.96                  | 23.4  |
| 12     | R2     | All MCs   | 37          | 8.6          | 37          | 8.6         | 0,466   | 44.1  | LOS D    | 4.8      | 34.6     | 0.96    | 0.77 | 0.96                  | 23.1  |
| Appro  | oach   |           | 154         | 4.1          | 154         | 4.1         | 0.466   | 38.6  | LOSC     | 4.8      | 34.6     | 0.95    | 0.76 | 0.95                  | 21.4  |
| All Ve | hides  |           | 1420        | 5.6          | 1420        | 5.6         | 0.605   | 16.0  | LOSB     | 13.3     | 97.1     | 0.55    | 0.51 | 0.55                  | 30.6  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [111(1)] 1k. 2025 AM Base Belmore St and Wynne Ave (2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    |        | (MACHO)     | no.              |      |                 |      |       |       | Level of | APRIL POLICE | 010    |      | ~6     | Kill mark and |        |
|--------|--------|-------------|------------------|------|-----------------|------|-------|-------|----------|--------------|--------|------|--------|---------------|--------|
|        | TUITT  | Mov         | Den              |      |                 | nval | Deg   | Aver  |          | 95% Back     | CLENER |      |        | Number        | Ave    |
| (D     |        | Class       |                  | lows |                 | lows | Satn  | Delay | Service  | 14110        | 20.1   | Qued |        | i Cycles      | Speed  |
|        |        |             | / Total<br>van/h |      | Total<br>veh/in | HV J | V/c   | che   |          | ) Veh        | Dist.) |      | Rateto | Depart        | Ton do |
| H - 14 | Dalas  | as Observed | -                | 7/6  | venim           | 20   | W     | sec   | _        | veh          | in     | _    |        | _             | km/n   |
|        | 00/00  | ore Street  |                  |      |                 |      |       |       |          |              |        |      |        |               |        |
| 5      | T1     | All MCs     | 92               | 0.0  | 92              |      | 0.127 | 4.0   | LOSA     | 0.7          | 4.8    | 0.12 | 0.55   | 0.12          | 27.6   |
| 6      | R2     | All MCs     | 75               | 0.0  | 75              | 0.0  | 0.127 | 6.6   | LOSA     | 0.7          | 4.8    | 0.12 | 0.55   | 0.12          | 27.6   |
| 6u     | U      | All MCs     | - 11             | 0.0  | 11              | 0.0  | 0.127 | 7.8   | LOSA     | 0.7          | 4.8    | 0.12 | 0.55   | 0.12          | 27.6   |
| Appro  | ach    |             | 177              | 0.0  | 177             | 0.0  | 0.127 | 5.3   | LOSA     | 0.7          | 4.8    | 0.12 | 0.55   | 0.12          | 27.6   |
| North  | : Wynı | ne Avenu    | e                |      |                 |      |       |       |          |              |        |      |        |               |        |
| 7      | L2     | All MCs     | 44               | 9.5  | 44              | 9.5  | 0.065 | 4.5   | LOSA     | 0.3          | 2.2    | 0.28 | 0.57   | 0.28          | 22.6   |
| 9      | R2     | All MCs     | 18               | 0.0  | 18              | 0.0  | 0.065 | 6.3   | LOSA     | 0,3          | 2.2    | 0.28 | 0.57   | 0.28          | 22,6   |
| 9u     | U      | All MCs     | 3                | 0.0  | 3               | 0.0  | 0.065 | 7.5   | LOSA     | 0.3          | 2.2    | 0.28 | 0.57   | 0.28          | 22.6   |
| Appro  | ach    | 32,0,22     | 65               | 6,5  | 65              | 6,5  | 0.065 | 5.2   | LOSA     | 0.3          | 2.2    | 0.28 | 0.57   | 0.28          | 22,6   |
| West   | Belm   | ore Stree   | ť                |      |                 |      |       |       |          |              |        |      |        |               |        |
| 10     | 12     | All MCs     | 98               | 0.0  | 98              | 0.0  | 0.197 | 5.1   | LOSA     | 1.1          | 7.5    | 0.28 | 0.50   | 0.28          | 34.2   |
| 11     | T1     | All MCs     | 106              | 2.0  | 106             | 2.0  | 0.197 | 4.5   | LOSA     | 1.1          | 7.5    | 0.28 | 0.50   | 0.28          | 34.2   |
| 120    | U.     | All MCs     | 4                | 0.0  | 4               | 0.0  | 0,197 | 8.4   | LOSA     | 1.1          | 7.5    | 0.28 | 0.50   | 0.28          | 34.2   |
| Appro  | ach    |             | 208              | 1.0  | 208             | 1.0  | 0.197 | 4.8   | LOSA     | 1.1          | 7.5    | 0.28 | 0.50   | 0.28          | 34.2   |
| All Ve | hides  |             | 451              | 1.4  | 451             | 1.4  | 0.197 | 5.1   | LOSA     | 1.1          | 7.5    | 0.22 | 0.53   | 0.22          | 30.7   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [112(1)] 11. 2025 AM Base Belmore St and Conder St (2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: Existing Design Give-Way (Two-Way) Network Scenario: 1 | Local Volumes

letwork Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov<br>ID |         | Mov<br>Class | Den   | and<br>lows |       | nval<br>ows | Deg<br>Sain | Aver<br>Delay | Level of | 95% Bad | CI Queue | Frop<br>Qued |      | Number             | Ave   |
|-----------|---------|--------------|-------|-------------|-------|-------------|-------------|---------------|----------|---------|----------|--------------|------|--------------------|-------|
|           |         | 01885        | Total | HVI         | Total | HV j        |             |               | Service  | ) Ven   | Dist.)   | Oned         |      | i Cycles<br>Depart | Speed |
| Caut      | h. Can  | der Street   | veh/h | 7/6         | veh/h | 46          | WC.         | sec           | _        | veh     | in       | _            |      |                    | Km/n  |
|           |         |              |       | ~ ~         |       | 0.0         | 0.204       | 4.5           | 1.00.4   | 4.0     | 7.4      | 0.04         | 0.00 | 0.04               | 40.4  |
| 2         | T1      | All MCs      | 384   | 0.0         | 200   | 0.0         | 0.301       | 1.5           | LOSA     | 1.0     | 7.1      | 0.21         | 0.38 | 0.21               | 46.4  |
| 3         | R2      | All MCs      | 133   | 0.0         | 133   | 0.0         | 0.301       | 5.5           | LOSA     | 1.0     | 7.1      | 0.21         | 0.38 | 0.21               | 46.4  |
| Appr      | oach    |              | 517   | 0.0         | 517   | 0.0         | 0.301       | 2.5           | NA       | 1.0     | 7.1      | 0.21         | 0.38 | 0.21               | 46.4  |
| East      | Belme   | ore Street   |       |             |       |             |             |               |          |         |          |              |      |                    |       |
| 4         | L2      | All MCs      | 62    | 0.0         | 62    | 0.0         | 0.135       | 5.0           | LOSA     | 0.5     | 3.5      | 0.37         | 0.57 | 0.37               | 42.4  |
| 6         | R2      | All MCs      | 59    | 0.0         | 59    | 0.0         | 0.135       | 8.5           | LOSA     | 0.5     | 3.5      | 0.37         | 0.57 | 0.37               | 31.6  |
| Appr      | oach    |              | 121   | 0.0         | 121   | 0.0         | 0.135       | 6.7           | LOSA     | 0.5     | 3.5      | 0.37         | 0.57 | 0.37               | 39.8  |
| North     | : Con   | der Street   |       |             |       |             |             |               |          |         |          |              |      |                    |       |
| 7         | L2      | All MCs      | 81    | 2.6         | 81    | 2.6         | 0.118       | 4.6           | LOSA     | 0.0     | 0.0      | 0.00         | 0.21 | 0.00               | 44.0  |
| 8         | T1      | All MCs      | 126   | 5.0         | 126   | 5.0         | 0.118       | 0.0           | LOSA     | 0.0     | 0.0      | 0.00         | 0.21 | 0.00               | 48.2  |
| Аррг      | oach    |              | 207   | 4.1         | 207   | 4.1         | 0.118       | 1.8           | NA       | 0.0     | 0.0      | 0.00         | 0.21 | 0.00               | 47.5  |
| All Ve    | ehicles |              | 845   | 1.0         | 845   | 1.0         | 0.301       | 2.9           | NA       | 1.0     | 7.1      | 0.18         | 0.36 | 0.18               | 45.8  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [113(1)] 1m. 2025 AM Base Wynne Avenue and Burwood

Place (2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Burwood Place

Site Category, Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Time  | Mov       | Den    | and   | 180     | nval | Deg     | Aver  | Level of | 95% Back   | OF CHICAGO | e Prop | Ett.  | Number | Aver  |
|--------|-------|-----------|--------|-------|---------|------|---------|-------|----------|------------|------------|--------|-------|--------|-------|
| ID.    | TUIT  | Class     |        | lows  |         | lows | Satn    | Delay | Service  | 30 /n G36/ | CIGGO      | Oned   |       | Cycles | Spee  |
|        |       | Class     | Total  |       |         |      | Sauri   | Delay | Sel VICE | ( Veh      | Dist       | Ched   |       | Depart | spee. |
|        |       |           | venih  |       | veh/n   | 96   | Wc      | sec   |          | ven        | m          |        | 11000 | Lepart | Km/r  |
| South  | : Wyn | ne Avenu  | e (S)  |       |         |      |         |       |          |            |            |        |       |        |       |
| 1      | L2    | All MCs   | 8      | 0.0   | 8       | 0.0  | 0.045   | 8.9   | LOSA     | 0.8        | 5.4        | 0.34   | 0.32  | 0.34   | 42.6  |
| 2      | T1    | All MCs   | 51     | 0.0   | 51      | 0.0  | 0.045   | 4.5   | LOSA     | 0.8        | 5.4        | 0.34   | 0.32  | 0.34   | 22.9  |
| 3      | R2    | All MCs   | 112    | 0.0   | 112     | 0.0  | 0.133   | 9.3   | LOSA     | 1.7        | 11.9       | 0.39   | 0.65  | 0.39   | 39.0  |
| Appro  | ach   |           | 171    | 0.0   | 171     | 0.0  | 0.133   | 7.9   | LOSA     | 1.7        | 11.9       | 0.37   | 0.53  | 0.37   | 38.0  |
| East:  | Emen  | ald Squar | e/Burw | ood F | Plaza ( | E)   |         |       |          |            |            |        |       |        |       |
| 4      | L2    | All MCs   | 16     | 0.0   | 16      | 0.0  | 0.061   | 39.2  | LOS C    | 0.6        | 4.1        | 0.89   | 0.68  | 0.89   | 24.3  |
| 5      | T1    | All MCs   | 0      | 100,  | 0       | 100. | ⊕ 0.117 | 35.0  | LOS C    | 1.1        | 7.5        | 0.90   | 0.71  | 0.90   | 32.4  |
|        |       |           |        | 0     |         | 0    |         |       |          |            |            |        |       |        |       |
| 6      | R2    | All MCs   | 28     | 0.0   | 28      | 0.0  | 0.117   | 39.8  | LOS C    | 1.1        | 7.5        | 0.90   | 0.71  | 0.90   | 24    |
| Appro  | ach   |           | 44     | 0.2   | 44      | 0.2  | 0.117   | 39.6  | LOS C    | 1.1        | 7.5        | 0.90   | 0.70  | 0.90   | 24.2  |
| North  | : Wyn | ne Avenu  | e (N)  |       |         |      |         |       |          |            |            |        |       |        |       |
| 7      | L2    | All MCs   | 128    | 0.0   | 128     | 0.0  | 0.142   | 5.8   | LOSA     | 0.6        | 4.5        | 0.09   | 0.44  | 0.09   | 43.4  |
| 8      | T1    | All MCs   | 45     | 9.3   | 45      | 9.3  | *0.142  | 1.0   | LOSA     | 0.6        | 4.5        | 0.09   | 0.44  | 0.09   | 29.2  |
| 9      | R2    | All MCs   | 3      | 0.0   | 3       | 0.0  | 0.003   | 5.6   | LOSA     | 0.0        | 0.1        | 0.07   | 0.54  | 0.07   | 42.8  |
| Аррго  | oach  |           | 177    | 2.4   | 177     | 2.4  | 0.142   | 4.6   | LOSA     | 0.6        | 4.5        | 0.09   | 0.44  | 0.09   | 42.3  |
| West   | Burw  | ood Gran  | d (W)  |       |         |      |         |       |          |            |            |        |       |        |       |
| 10     | L2    | All MCs   | 2      | 0.0   | 2       | 0.0  | 0.008   | 38.3  | LOSC     | 0.1        | 0.5        | 0.88   | 0.61  | 0.88   | 24.6  |
| 11     | T1    | All MCs   | 0      | 0.0   | 0       | 0.0  | 0.005   | 33.0  | LOSC     | 0.0        | 0.3        | 0.87   | 0.59  | 0.87   | 33.0  |
| 12     | R2    | All MCs   | . 1    | 0.0   | 1       | 0.0  | 0.005   | 38.1  | LOSC     | 0.0        | 0.3        | 0.87   | 0.59  | 0.87   | 24.8  |
| Appro  | ach   |           | 3      | 0,0   | 3       | 0.0  | 0.008   | 38.1  | LOS C    | 0.1        | 0.5        | 0.87   | 0.60  | 0.87   | 25.   |
| All Ve | hides |           | 395    | 11    | 395     | 1.1  | 0.142   | 10.2  | LOSA     | 1.7        | 11.9       | 0.31   | 0.51  | 0.31   | 36.8  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [114(1)] 1n. 2025 AM Base Belmore St and Burwood

Place Exit (2025 AM EXISTING 8:00-9:00)

Network: [N101(1)] 2025 Existing AM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: (None) Give-Way (Two-Way) Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

|              |        | ovement    |          |        |        |              |             |               |                     |                                |      |      |                   | Vumber       |       |
|--------------|--------|------------|----------|--------|--------|--------------|-------------|---------------|---------------------|--------------------------------|------|------|-------------------|--------------|-------|
| Mo∨          | Tum    | Mov        |          | Demand |        | nval<br>lows | Deg<br>Satn | Aver<br>Delay | Level of<br>Service | 95% Back Of Queue Frop<br>Qued |      |      | Eff. I<br>Stop of | Ave<br>Speed |       |
|              |        |            | Total HV |        |        |              |             | 5.55          |                     | i Ven                          | Dist |      | Rate to Depart    |              | 39203 |
|              |        |            | veh/h    |        | ven/ir | 46           | V/c         | sec           |                     | veh                            | m    |      |                   |              | km/n  |
| East         | Belmo  | ore Street |          |        |        |              |             |               |                     |                                |      |      |                   |              |       |
| 5            | T1     | All MCs    | 1        | 0.0    | 1      | 0.0          | 0.001       | 0.0           | LOSA                | 0.0                            | 0.0  | 0.00 | 0.00              | 0.00         | 60.0  |
| Approach     |        | 1          | 0.0      | .1.    | 0.0    | 0.001        | 0.0         | NA            | 0.0                 | 0.0                            | 0.00 | 0.00 | 0.00              | 60.0         |       |
| North        | : Burv | ood Place  | Exit     |        |        |              |             |               |                     |                                |      |      |                   |              |       |
| 7            | L2     | All MCs    | 7        | 0.0    | 7      | 0.0          | 0.005       | 5.9           | LOSA                | 0.0                            | 0.1  | 0.23 | 0.53              | 0.23         | 44.7  |
| 9            | R2     | All MCs    | 9        | 0.0    | 9      | 0.0          | 0.008       | 6.2           | LOSA                | 0.0                            | 0.2  | 0.21 | 0.59              | 0.21         | 44.6  |
| Appr         | oach   |            | 17       | 0.0    | 17     | 0.0          | 0.008       | 6.1           | LOSA                | 0.0                            | 0.2  | 0.22 | 0.56              | 0.22         | 44.6  |
| West         | Belm   | ore Street |          |        |        |              |             |               |                     |                                |      |      |                   |              |       |
| 11           | T1     | All MCs    | 147      | 0,0    | 147    | 0.0          | 0.076       | 0.0           | LOSA                | 0.0                            | 0.0  | 0.00 | 0.00              | 0.00         | 60.0  |
| Approach     |        | 147        | 0,0      | 147    | 0.0    | 0.076        | 0.0         | NA            | 0,0                 | 0.0                            | 0.00 | 0.00 | 0.00              | 60.0         |       |
| All Vehicles |        |            | 166      | 0.0    | 165    | 0.0          | 0.076       | 0.6           | NA                  | 0.0                            | 0.2  | 0.02 | 0.06              | 0.02         | 54.7  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA gueue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# 2025 PM Peak Existing

#### MOVEMENT SUMMARY

Site: [105(2)] 2e. 2025 PM Base Burwood Rd and Railway

Parade (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov    | Turn Mov<br>Class |           | Demand<br>Flows |      | Arrival<br>Flows |      | Deg.<br>Satn | Aver.<br>Delav | Level of<br>Service | 95% Back | Of Queue | e Prop.<br>Qued |      | Number<br>of Cycles | Aver.<br>Speed |
|--------|-------------------|-----------|-----------------|------|------------------|------|--------------|----------------|---------------------|----------|----------|-----------------|------|---------------------|----------------|
|        |                   | Class     | [ Total         |      |                  |      | Jaui         | Delay          | Sel vice            | [ Veh    | Dist ]   | Qued            |      | o Depart            | Sheer          |
|        |                   |           | veh/h           | %    | veh/h            | %    | v/c          | sec            |                     | veh      | m        |                 |      |                     | km/r           |
| South  | : Burv            | ood Roa   | d (S)           |      |                  |      |              |                |                     |          |          |                 |      |                     |                |
| 1      | L2                | All MCs   | 99              | 1.1  | 99               | 1.1  | 0.640        | 55.0           | LOS D               | 9.4      | 68.2     | 0.97            | 0.83 | 0.98                | 11.8           |
| 2      | T1                | All MCs   | 389             | 7.0  | 389              | 7.0  | 0.640        | 45.6           | LOS D               | 11.0     | 81.3     | 0.98            | 0.83 | 0.98                | 14.7           |
| 3      | R2                | All MCs   | 0               | 100. | 0                | 100. | * 0.640      | 78.7           | LOSF                | 11.0     | 81.3     | 0.98            | 0.83 | 0.98                | 21.6           |
| Appro  | ach               |           | 489             | 5.8  | 489              | 5.8  | 0.640        | 47.5           | LOS D               | 11.0     | 81.3     | 0.97            | 0.83 | 0.98                | 11.2           |
| East:  | Railw             | ay Parade | e (E)           |      |                  |      |              |                |                     |          |          |                 |      |                     |                |
| 4      | L2                | All MCs   | 98              | 0.0  | 98               | 0.0  | 0.243        | 45.8           | LOS D               | 3.8      | 26.7     | 0.85            | 0.74 | 0.85                | 17.7           |
| 5      | T1                | All MCs   | 322             | 2.0  | 322              | 2.0  | * 0.649      | 41.5           | LOS C               | 12.3     | 87.2     | 0.93            | 0.79 | 0.93                | 18.7           |
| Appro  | oach              |           | 420             | 1.5  | 420              | 1.5  | 0.649        | 42.5           | LOSC                | 12.3     | 87.2     | 0.91            | 0.78 | 0.91                | 15.4           |
| North  | : Burw            | ood Roa   | d (N)           |      |                  |      |              |                |                     |          |          |                 |      |                     |                |
| 7      | L2                | All MCs   | 53              | 2.0  | 53               | 2.0  | 0.140        | 16.3           | LOSB                | 2.9      | 21.7     | 0.53            | 0.52 | 0.53                | 27.            |
| 8      | T1                | All MCs   | 344             | 8.6  | 344              | 8.6  | 0.655        | 12.6           | LOSA                | 9.0      | 69.6     | 0.81            | 0.89 | 0.81                | 9.             |
| 9      | R2                | All MCs   | 109             | 21.2 | 109              | 21.2 | * 0.655      | 22.1           | LOSB                | 9.0      | 69.6     | 0.90            | 1.01 | 0.90                | 8.             |
| Appro  | oach              |           | 506             | 10.6 | 506              | 10.6 | 0.655        | 15.0           | LOSB                | 9.0      | 69.6     | 0.80            | 0.88 | 0.80                | 12.            |
| West   | Railw             | ay Parad  | e (W)           |      |                  |      |              |                |                     |          |          |                 |      |                     |                |
| 10     | L2                | All MCs   | 152             | 16.0 | 152              | 16.0 | 0.192        | 20.7           | LOSB                | 4.4      | 35.2     | 0.71            | 0.71 | 0.71                | 19.            |
| 11     | T1                | All MCs   | 200             | 3.7  | 200              | 3.7  | 0.364        | 29.6           | LOS C               | 7.4      | 53.6     | 0.89            | 0.74 | 0.89                | 23.            |
| Appro  | ach               |           | 352             | 9.0  | 352              | 9.0  | 0.364        | 25.8           | LOSB                | 7.4      | 53,6     | 0.81            | 0.72 | 0.81                | 22.0           |
| All Ve | hicles            |           | 1766            | 6.8  | 1766             | 6.8  | 0.655        | 32.7           | LOSC                | 12.3     | 87.2     | 0.88            | 0.81 | 0.88                | 14.9           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [106(2)] 2f. 2025 PM Base Railway Pde and Wynne Ave

(2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time) Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Vehi      | cie M    | ovemen       | t Perfo  | orma                | nce   |                       |            |               |                     |          |                     |                 |         |                            |               |
|-----------|----------|--------------|----------|---------------------|-------|-----------------------|------------|---------------|---------------------|----------|---------------------|-----------------|---------|----------------------------|---------------|
| Mov<br>ID | Tum      | Mov<br>Class | F        | and<br>lows<br>HV I |       | rival<br>lows<br>HV I | Deg<br>Sam | Aver<br>Delay | Level of<br>Service | 95% Back | r Ol Queu<br>Dist J | e Prop.<br>Oued | Stop of | Number<br>Cycles<br>Depart | Aver<br>Speen |
|           |          |              | veh/h    |                     | veh/h | %                     | v/c        | Sec           |                     | veh      | m                   |                 |         |                            | km/l          |
| South     | n: VVyn  | ne Aveni     | ie (S)   |                     |       |                       |            |               |                     |          |                     |                 |         |                            |               |
| 1         | 12       | All MCs      | 98       | 1.1                 | 98    | 1.1                   | * 0.355    | 44.6          | LOS D               | 4.2      | 29.5                | 0.98            | 0.78    | 0.98                       | 6.            |
| 2         | T1       | All MCs      | 2        | 0.0                 | 2     | 0.0                   | 0.173      | 4.2           | LOSA                | 0.3      | 1.9                 | 0.14            | 0.46    | 0.14                       | 34.           |
| 3         | R2       | All MCs      | 43       | 0.0                 | 43    | 0.0                   | 0.173      | 8.0           | LOSA                | 0.3      | 1.9                 | 0.14            | 0.46    | 0.14                       | 20.           |
| Approach  |          | 143          | 0.7      | 143                 | 0.7   | 0.355                 | 33.0       | LOS C         | 4.2                 | 29.5     | 0.71                | 0.68            | 0.71    | 8.                         |               |
| East:     | Railw    | ay Parad     | e (E)    |                     |       |                       |            |               |                     |          |                     |                 |         |                            |               |
| 4         | L2       | All MCs      | 144      | 0.0                 | 144   | 0.0                   | 0.150      | 20.0          | LOSB                | 3.6      | 24.9                | 0.60            | 0.67    | 0.60                       | 19.           |
| 5         | T1       | All MCs      | 364      | 1.7                 | 364   | 1.7                   | 0.361      | 14.2          | LOSA                | 9,3      | 65.7                | 0.62            | 0.45    | 0.62                       | 24.           |
| Appro     | Approach |              |          | 1.2                 | 508   | 1.2                   | 0.361      | 15.8          | LOSB                | 9.3      | 65.7                | 0.62            | 0.51    | 0.62                       | 20.           |
| North     | Bury     | ood Cen      | tral Car | Park                | (N)   |                       |            |               |                     |          |                     |                 |         |                            |               |
| 7         | 12       | All MCs      | 7        | 0.0                 | 7     | 0.0                   | 0.026      | 37.8          | LOSC                | 0.3      | 1.9                 | 0.86            | 0.64    | 0.86                       | 22.           |
| 8         | T1       | All MCs      | 12       | 0.0                 | 12    | 0,0                   | 0.030      | 30.7          | LOSC                | 0.4      | 2.8                 | 0.82            | 0.57    | 0.82                       | 24.           |
| Appro     | oach     |              | 19       | 0.0                 | 19    | 0.0                   | 0.030      | 33.5          | LOS C               | 0.4      | 2.8                 | 0.84            | 0.60    | 0.84                       | 23.           |
| West      | Raily    | ay Parad     | fe (W)   |                     |       |                       |            |               |                     |          |                     |                 |         |                            |               |
| 10        | L2:      | All MCs      | 20       | 0.0                 | 20    | 0.0                   | 0.310      | 16.0          | LOS B               | 6.7      | 50.5                | 0.48            | 0.43    | 0.48                       | 34.           |
| 11        | T1       | All MCs      | 324      | 10.4                | 324   | 10.4                  | 0.310      | 7.3           | LOSA                | 6.7      | 50.5                | 0.48            | 0.43    | 0.48                       | 24.           |
| 12        | R2       | All MCs      | 152      | 0.0                 | 152   | 0.0                   | ± 0.324    | 18.0          | LOSB                | 4.0      | 28.3                | 0.63            | 0.70    | 0.63                       | 16.           |
| Аррго     | oach     |              | 496      | 6.8                 | 496   | 6.8                   | 0.324      | 10.9          | LOSA                | 6.7      | 50.5                | 0.52            | 0.51    | 0.52                       | 22.           |
| All Ve    | ehicles  |              | 1166     | 3.5                 | 1166  | 3.5                   | 0.361      | 16.1          | LOSB                | 9.3      | 65.7                | 0.59            | 0.53    | 0.59                       | 19.           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [107(2)] 2g. 2025 PM Base Railway Pde and Conder St (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Railway Parade and Conder Street Site Category: Existing Design Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

| Mov      | Tum    | Mov       | Den     | and  | Ar      | rival | Deg   | Aver  | Level of | 95% Back | ol Queue | Prop. | Eff.  | Number   | Aver  |
|----------|--------|-----------|---------|------|---------|-------|-------|-------|----------|----------|----------|-------|-------|----------|-------|
| ID       |        | Class     |         | lows | F       | ows   | Sam   | Delay | Service  |          | 7        | Qued  | Stope | f Cycles | Speed |
|          |        |           | [ Total | HVT  | [ Total | HV J  |       |       |          | ) Veh    | Dist J   |       | Raten | o Depart |       |
|          |        |           | veh/h   | %    | veh/h   | %     | v/c   | sec   |          | veh      | m        |       |       |          | km/h  |
| South    | : Con  | der Stree | t(S)    |      |         |       |       |       |          |          |          |       |       | - 60     |       |
| 1a       | L1     | All MCs   | 259     | 0.8  | 259     | 0.8   | 0.402 | 6.2   | LOSA     | 2.9      | 20.2     | 0.67  | 0.62  | 0.67     | 39.9  |
| 2        | T1     | All MCs   | 3       | 0.0  | 3       | 0.0   | 0.402 | 6.6   | LOSA     | 2.9      | 20.2     | 0.67  | 0.62  | 0.67     | 37.4  |
| 3        | R2     | All MCs   | 103     | 3.1  | 103     | 3.1   | 0.402 | 9.9   | LOSA     | 2.9      | 20.2     | 0.67  | 0.62  | 0.67     | 32.7  |
| 3u       | U      | All MCs   | 12      | 0.0  | 12      | 0.0   | 0.402 | 11.3  | LOSA     | 2.9      | 20.2     | 0.67  | 0.62  | 0.67     | 32.7  |
| Approach |        |           | 377     | 1.4  | 377     | 1.4   | 0.402 | 7.4   | LOSA     | 2.9      | 20,2     | 0,67  | 0,62  | 0.67     | 38.5  |
| East:    | Railwa | ay Parade | e (E)   |      |         |       |       |       |          |          |          |       |       |          |       |
| 4        |        | All MCs   | 94      | 0.0  | 94      | 0.0   | 0.106 | 4.9   | LOSA     | 0.5      | 3.2      | 0.32  | 0.53  | 0.32     | 28.5  |
| 6a       | R1     | All MCs   | 354     | 8.9  | 354     | 8.9   | 0.297 | 5.8   | LOSA     | 1.7      | 12.5     | 0.33  | 0.57  | 0.33     | 36.5  |
| 6        | R2     | All MCs   | 5       | 0.0  | 5       | 0.0   | 0.297 | 6.3   | LOSA     | 1.7      | 12.5     | 0.33  | 0.57  | 0.33     | 35.5  |
| 6u       | U      | All MCs   | 35      | 0.0  | 35      | 0.0   | 0.297 | 7.6   | LOSA     | 1.7      | 12.5     | 0.33  | 0.57  | 0.33     | 27.4  |
| Approach |        | -         | 487     | 6.5  | 487     | 6.5   | 0.297 | 5.7   | LOSA     | 1.7      | 12.5     | 0.33  | 0.56  | 0.33     | 35.4  |
| North    | Арра   | rtments ( | N)      |      |         |       |       |       |          |          |          |       |       |          |       |
| 7        | L2     | All MCs   | 2       | 0.0  | 2       | 0.0   | 0.010 | 6.2   | LOSA     | 0.0      | 0.4      | 0.60  | 0.58  | 0.60     | 34.9  |
| 8        | T1     | All MCs   | 3       | 0.0  | 3       | 0.0   | 0.010 | 5.4   | LOSA     | 0.0      | 0.4      | 0.60  | 0.58  | 0.60     | 34.9  |
| 9b       | R3     | All MCs   | 2       | 0.0  | 2       | 0.0   | 0.010 | 9.2   | LOSA     | 0.0      | 0.4      | 0.60  | 0.58  | 0.60     | 37.5  |
| 9u       | U      | All MCs   | 0       | 100. | 0       | 100.  | 0.010 | 13.3  | LOSA     | 0.0      | 0.4      | 0.60  | 0.58  | 0.60     | 36.4  |
|          |        |           |         | 0    |         | 0     |       |       |          |          |          |       |       |          |       |
| Appro    | ach    |           | 7       | 1.4  | 7       | 1.4   | 0.010 | 6.8   | LOSA     | 0.0      | 0.4      | 0.60  | 0.58  | 0.60     | 36.0  |
| North    | West   | Railway   | Parade  | (NE) |         |       |       |       |          |          |          |       |       |          |       |
| 27Ь      | L3     | All MCs   | 2       | 0.0  | 2       | 0.0   | 0.427 | 5.3   | LOSA     | 3.2      | 23.1     | 0.47  | 0.52  | 0.47     | 38.9  |
| 27a      | L1     | All MCs   | 341     | 4.3  | 341     | 4.3   | 0.427 | 4.4   | LOSA     | 3.2      | 23.1     | 0.47  | 0.52  | 0.47     | 38.7  |
| 29a      | R1     | All MCs   | 164     | 0.0  | 164     | 1.00  | 0.427 | 7.2   | LOSA     | 3.2      | 23.1     | 0.47  | 0.52  | 0.47     | 38.7  |
| 29u      | U      | All MCs   | 1       | 0.0  | 1       | 0.0   | 0.427 | 9.4   | LOSA     | 3.2      | 23,1     | 0.47  | 0.52  | 0.47     | 41.6  |
| Appro    | ach    |           | 508     | 2.9  | 508     | 2.9   | 0.427 | 5.3   | LOSA     | 3.2      | 23.1     | 0.47  | 0.52  | 0.47     | 38.7  |
|          |        |           |         |      |         |       |       |       |          |          |          |       |       |          |       |

Site Level of Service (LOS) Method: Delay (NSW), Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(2)] 2j. 2025 PM Base Burwood Rd and Belmore St (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| May    | Turn   | Mov       | Den          | and          | Ar    | rival       | Deg.    | Aver. | Level of | 95% Back | Of Queu | е Ргор. | Eff  | Number                | Aver  |
|--------|--------|-----------|--------------|--------------|-------|-------------|---------|-------|----------|----------|---------|---------|------|-----------------------|-------|
| D      |        | Class     | Fi<br>(Total | lows<br>HV j |       | ows<br>HV j | Satin   | Delay | Service  | (Veh.    | Dist    | Qued    |      | of Cycles<br>o Depart | Speed |
|        |        |           | veh/h        | 1/6          | veh/n | %           | V/c     | sec   |          | veh      | m       |         | -    |                       | km/n  |
| South  | : Burv | vood Roa  | ad (S)       |              |       |             |         |       |          |          |         |         |      |                       |       |
| 1      | L2     | All MCs   | 89           | 1.2          | 89    | 1.2         | 0.110   | 22.6  | LOS B    | 2.3      | 16,5    | 0.49    | 0.58 | 0.49                  | 31.5  |
| 2      | T1     | All MCs   | 402          | 6.8          | 402   | 6.8         | 0.552   | 21.2  | LOSB     | 12.4     | 91.5    | 0.68    | 0.63 | 0.68                  | 30.4  |
| 3      | R2     | All MCs   | 58           | 0.2          | 58    | 0.2         | * 0.552 | 37.3  | LOSC     | 12.4     | 91.5    | 0.70    | 0.63 | 0.70                  | 34.0  |
| Appro  | oach   |           | 550          | 5.2          | 550   | 5.2         | 0.552   | 23.1  | LOSB     | 12.4     | 91.5    | 0.65    | 0.62 | 0.65                  | 27.5  |
| East:  | Belmo  | ore Stree | t(E)         |              |       |             |         |       |          |          |         |         |      |                       |       |
| 4      | L2     | All MCs   | 35           | 0.0          | 35    | 0,0         | 0,378   | 37.2  | LOSC     | 6.0      | 42.1    | 0.89    | 0.74 | 0.89                  | 29.1  |
| 5      | T1     | All MCs   | 98           | 0.0          | 98    | 0.0         | 0,378   | 30.1  | LOSC     | 6.0      | 42.1    | 0.89    | 0.74 | 0.89                  | 23.3  |
| 6      | R2     | All MCs   | 26           | 4.0          | 26    | 4.0         | 0.378   | 38.8  | LOSC     | 6.0      | 42.1    | 0.89    | 0.74 | 0.89                  | 23.3  |
| Appro  | oach   |           | 159          | 0.7          | 159   | 0.7         | 0.378   | 33.1  | LOS C    | 6.0      | 42.1    | 0.89    | 0.74 | 0.89                  | 25.1  |
| North  | Burw   | ood Roa   | d (N)        |              |       |             |         |       |          |          |         |         |      |                       |       |
| 7      | L2     | All MCs   | 65           | 1.6          | 65    | 1.6         | 0.086   | 27.8  | LOS B    | 2.5      | 17.7    | 0.68    | 0.57 | 0.68                  | 31.0  |
| 8      | T1     | All MCs   | 348          | 8.5          | 348   | 8.5         | 0.431   | 25.4  | LOSB     | 11.8     | 88.1    | 0.80    | 0.58 | 0.80                  | 30.9  |
| 9      | R2     | All MOS   | 29           | 0.0          | 29    | 0.0         | 0.431   | 45.7  | LOS D    | 11.8     | 88.1    | 0.81    | 0.58 | 0.81                  | 18.0  |
| Appro  | oach   |           | 443          | 6.9          | 443   | 6.9         | 0.431   | 27.1  | LOSB     | 11.8     | 88.1    | 0.78    | 0.58 | 0.78                  | 27.0  |
| West   | Belm   | ore Stree | et (W)       |              |       |             |         |       |          |          |         |         |      |                       |       |
| 10     | L2     | All MCs   | 59           | 1.8          | 59    | 1.8         | 0.167   | 36.7  | LOSC     | 2.2      | 15,6    | 0.87    | 0.72 | 0.87                  | 7.9   |
| 11     | T1     | All MCs   | 140          | 0.0          | 140   | 0.0         | 0.551   | 32.5  | LOSC     | 8.4      | 59.1    | 0.94    | 0.79 | 0.94                  | 24.1  |
| 12     | R2     | All MCs   | 72           | 0.0          | 72    | 0.0         | * 0.551 | 41.1  | LOS C    | 8.4      | 59.1    | 0.94    | 0.79 | 0.94                  | 23.8  |
| Appro  | oach   |           | 271          | 0.4          | 271   | 0.4         | 0.551   | 35.7  | LOSC     | 8.4      | 59.1    | 0.92    | 0.77 | 0.92                  | 22.0  |
| All Ve | ehides |           | 1422         | 4.3          | 1422  | 4.3         | 0.552   | 27.9  | LOSB     | 12.4     | 91.5    | 0.77    | 0.65 | 0.77                  | 26.0  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [111(2)] 2k. 2025 PM Base Belmore St and Wynne Ave (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| May    | Turn   | Mov       | Dem     | Lucia |       | rival | River | Aver. | Level of | 050 0-4  | aca      | Dine | Eff  | Number    | Aver  |
|--------|--------|-----------|---------|-------|-------|-------|-------|-------|----------|----------|----------|------|------|-----------|-------|
|        | tum    |           |         |       |       |       | Deg.  |       |          | 95% Back | (D) Gueu |      |      |           |       |
| ID     |        | Class     |         | lows  |       | ows   | Satn  | Delay | Service  | #V.600   |          | Qued |      | of Cycles | Speel |
|        |        |           | ( Total |       |       |       |       |       |          | (Veh.    | Dist     |      | Kale | o Depart  |       |
| -      |        |           | veh/h   | '36   | veh/n | 1%    | V/c   | sec   | _        | Veh      | m        |      |      |           | km/n  |
| East:  | Belmo  | ore Stree | t       |       |       |       |       |       |          |          |          |      |      |           |       |
| 5      | T1     | All MCs   | 192     | 0.0   | 192   | 0.0   | 0,298 | 4,5   | LOSA     | 1.9      | 13,4     | 0.30 | 0.54 | 0,30      | 26.4  |
| 6      | R2     | All MCs   | 173     | 1.2   | 173   | 1.2   | 0.298 | 7.0   | LOSA     | 1.9      | 13.4     | 0.30 | 0.54 | 0.30      | 26.4  |
| 6u     | U      | All MCs   | 13      | 0.0   | 13    | 0.0   | 0.298 | 8,3   | LOSA     | 1.9      | 13.4     | 0,30 | 0.54 | 0.30      | 26.4  |
| Appro  | oach   |           | 377     | 0.6   | 377   | 0.6   | 0.298 | 5.8   | LOSA     | 1.9      | 13.4     | 0.30 | 0.54 | 0.30      | 26.4  |
| North  | . Wyni | ne Avenu  | ie      |       |       |       |       |       |          |          |          |      |      |           |       |
| 7      | L2     | All MCs   | 85      | 0.0   | 85    | 0.0   | 0.156 | 4.5   | LOSA     | 0.7      | 5.1      | 0.26 | 0.59 | 0.26      | 22.4  |
| 9      | R2     | All MCs   | 71      | 0.0   | 71    | 0.0   | 0.156 | 6.3   | LOSA     | 0.7      | 5.1      | 0.26 | 0.59 | 0.26      | 22.4  |
| 9u     | U      | All MCs   | 9       | 0.0   | 9     | 0.0   | 0.156 | 7.5   | LOSA     | 0.7      | 5.1      | 0.26 | 0.59 | 0.26      | 22.4  |
| Appro  | oach   |           | 165     | 0.0   | 165   | 0.0   | 0.156 | 5.4   | LOSA     | 0.7      | 5.1      | 0.26 | 0.59 | 0.26      | 22.4  |
| West   | Belm   | ore Stree | et      |       |       |       |       |       |          |          |          |      |      |           |       |
| 10     | L2     | All MCs   | 144     | 0.0   | 144   | 0.0   | 0.273 | 6.1   | LOSA     | 1.6      | 11.0     | 0.46 | 0.56 | 0.46      | 32.5  |
| 11     | T1     | All MCs   | 89      | 0.0   | 89    | 0.0   | 0.273 | 5.5   | LOSA     | 1.6      | 11.0     | 0.46 | 0.56 | 0.46      | 32.5  |
| 12u    | U      | All MOS   | 11      | 0.0   | 11    | 0.0   | 0.273 | 9.4   | LOSA     | 1.6      | 11.0     | 0.46 | 0.56 | 0.46      | 32.6  |
| Appro  | oach   |           | 244     | 0.0   | 244   | 0.0   | 0.273 | 6.0   | LOSA     | 1.6      | 11.0     | 0.46 | 0.56 | 0.46      | 32.5  |
| All Ve | hides  |           | 786     | 0.3   | 786   | 0.3   | 0.298 | 5.8   | LOSA     | 1.9      | 13.4     | 0.34 | 0.56 | 0,34      | 28.2  |

Site Level of Service (LOS) Method: Detay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [112(2)] 2I. 2025 PM Base Belmore St and Conder St (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov    | Turn  | Mov        | Den     |      |       | rival | Deg.  | Aver. | Level of | 95% Back | Or Queu |      |        | Number   | Avei   |
|--------|-------|------------|---------|------|-------|-------|-------|-------|----------|----------|---------|------|--------|----------|--------|
| ID     |       | Class      |         | ows  |       | DWS   | Satn  | Delay | Service  |          |         | Qued | Stop o | f Cycles | Speet. |
|        |       |            | [ Total | HV ) | Total | HV j  |       |       |          | (Veh.    | Dist    |      | Ratet  | Depart . |        |
|        |       | _          | veh/h   | iyo. | veh/n | %     | V/c   | sec   |          | veh      | m       |      |        | -        | km/r   |
| South  | Con   | der Stree  | t       |      |       |       |       |       |          |          |         |      |        |          |        |
| 2      | T1    | All MCs    | 167     | 2.5  | 167   | 2.5   | 0.179 | 0.6   | LOSA     | 8.0      | 5.5     | 0.29 | 0.34   | 0,29     | 46.1   |
| 3      | R2    | All MCs    | 123     | 0.0  | 123   | 0.0   | 0.179 | 5.4   | LOSA     | 0.8      | 5.5     | 0.29 | 0.34   | 0.29     | 46.1   |
| Appro  | ach   |            | 291     | 1.4  | 291   | 1.4   | 0.179 | 2.6   | NA       | 8.0      | 5.5     | 0.29 | 0.34   | 0.29     | 46.1   |
| East:  | Belmo | ore Street | t       |      |       |       |       |       |          |          |         |      |        |          |        |
| 4      | L2    | All MCs    | 155     | 0.7  | 155   | 0.7   | 0.231 | 5,1   | LOSA     | 1.0      | 6.8     | 0.35 | 0.57   | 0.35     | 42.9   |
| 6      | R2    | All MCs    | 100     | 1.1  | 100   | 1.1   | 0.231 | 7.2   | LOSA     | 1.0      | 6.8     | 0.35 | 0.57   | 0.35     | 32.9   |
| Appro  | ach   |            | 255     | 0.8  | 255   | 8.0   | 0,231 | 5.9   | LOSA     | 1.0      | 6.8     | 0.35 | 0.57   | 0.35     | 41.2   |
| North  | Cond  | der Stree  | t.      |      |       |       |       |       |          |          |         |      |        |          |        |
| 7      | L2    | All MCs    | 92      | 0.0  | 92    | 0.0   | 0.133 | 4.6   | LOSA     | 0.0      | 0.0     | 0.00 | 0.21   | 0.00     | 44.1   |
| 8      | T1    | All MCs    | 147     | 1.4  | 147   | 1.4   | 0.133 | 0.0   | LOSA     | 0.0      | 0.0     | 0.00 | 0.21   | 0.00     | 48.2   |
| Appro  | ach   |            | 239     | 0.9  | 239   | 0.9   | 0.133 | 1.8   | NA       | 0.0      | 0.0     | 0.00 | 0.21   | 0.00     | 47.6   |
| All Ve | hides |            | 784     | 1.1  | 784   | 1.1   | 0.231 | 3.4   | NA       | 1.0      | 6.8     | 0.22 | 0.38   | 0.22     | 44.9   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [113(2)] 2m. 2025 PM Base Wynne Avenue and Burwood

Place (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Burwood Place

Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov     | Tum      | Mov      | Dem     |       |         | riva) | Deg.    | Aver. | Lavel of | 95% Back | Of Queu |      |      | Number               | Aver  |
|---------|----------|----------|---------|-------|---------|-------|---------|-------|----------|----------|---------|------|------|----------------------|-------|
| ID (II) |          | Class    | (Total  |       | [ Total |       | Satn    | Delay | Service  | ( Veh.   | Dist    | Qued |      | f Cycles<br>o Depart | Spee. |
| South   | 1 1/1/10 | ne Aveni | veh/h   | '76   | veh/h   | 5%    | V/C     | sec   | _        | veh      | m       |      |      |                      | -km/r |
| 1       | L2       | All MCs  |         | 0.0   | ò       | 0.0   | 0.068   | 10.1  | LOSA     | 1.3      | 9.2     | 0.37 | 0.30 | 0.37                 | 42.3  |
| 2       | T1       | All MCs  |         | 0.0   | 87      |       | 0.068   | 5.5   | LOSA     | 1.3      | 9.2     | 0.37 | 0.30 | 0.37                 | 21.8  |
| 3       | R2       | All MCs  | . 57    | 0.0   | 166     | 0.0   | 0.235   | 11.6  | LOSA     | 3.2      | 22.4    | 0.46 | 0.68 | 0.46                 | 37.4  |
| Appr    |          | All WOS  | 254     | 0.0   | 254     |       | 0.235   | 9.5   | LOSA     | 3.2      | 22.4    | 0.43 | 0.55 | 0.43                 | 36.0  |
| East:   | Emen     | ald Squa | re/Burw | ood F | Plaza ( | E)    |         |       |          |          |         |      |      |                      |       |
| 4       | L2       | All MCs  |         | 0.0   |         | 0.0   | * 0.255 | 40.0  | LOSC     | 3.1      | 21.8    | 0.90 | 0.75 | 0.90                 | 24.   |
| 5       | T1       | All MCs  | 0       | 0.0   | 0       | 0.0   | 0.169   | 33.9  | LOSC     | 1.9      | 13.0    | 0.89 | 0.73 | 0.89                 | 32.4  |
| 6       | R2       | All MCs  | 48      | 0.0   | 48      | 0.0   | 0.169   | 39.5  | LOSC     | 1.9      | 13.0    | 0.89 | 0.73 | 0.89                 | 24.2  |
| Appr    | oach     |          | 129     | 0.0   | 129     | 0.0   | 0.255   | 39.8  | LOSC     | 3.1      | 21.8    | 0.90 | 0.75 | 0.90                 | 24.   |
| North   | : Wyn    | ne Avenu | ie (N)  |       |         |       |         |       |          |          |         |      |      |                      |       |
| 7       | L2       | All MCs  | 236     | 0.0   | 236     | 0.0   | * 0.255 | 8.1   | LOSA     | 3.1      | 21.5    | 0.25 | 0.52 | 0.25                 | 41.4  |
| 8       | T1       | All MCs  | 69      | 0.0   | 69      | 0.0   | 0.255   | 3.1   | LOSA     | 3.1      | 21.5    | 0.25 | 0.52 | 0.25                 | 24.1  |
| 9       | R2       | All MCs  | 2       | 0.0   | 2       | 0.0   | 0.002   | 6.3   | LOSA     | 0.0      | 0.1     | 0.10 | 0.54 | 0.10                 | 42.0  |
| Appr    | oach     |          | 307     | 0.0   | 307     | 0.0   | 0.255   | 7.0   | LOSA     | 3.1      | 21.5    | 0.25 | 0.53 | 0.25                 | 40.2  |
| West    | Burw     | ood Gran | nd (VV) |       |         |       |         |       |          |          |         |      |      |                      |       |
| 10      | L2       | All MCs  | 7       | 0.0   | 7       | 0.0   | 0.023   | 37.8  | LOS C    | 0.3      | 1.9     | 0.85 | 0.65 | 0.85                 | 24.8  |
| 11      | T1       | All MCs  | 0       | 0.0   | 0       | 0.0   | 0.020   | 31.4  | LOSC     | 0.2      | 1.4     | 0.86 | 0.65 | 0.86                 | 32.6  |
| 12      | R2       | All MCs  | 5       | 0.0   | 5       | 0.0   | 0.020   | 39.0  | LOS C    | 0,2      | 1.4     | 0.86 | 0.65 | 0.86                 | 24.4  |
| Appr    | oach     |          | 13      | 0.0   | 13      | 0.0   | 0.023   | 38,3  | LOSC     | 0.3      | 1.9     | 0.86 | 0.65 | 0.86                 | 24.7  |
| All Ve  | ehicles  |          | 702     | 0.0   | 702     | 0.0   | 0.255   | 14.5  | LOSA     | 3.2      | 22.4    | 0.44 | 0.58 | 0.44                 | 33.8  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [114 (2)] 1n. 2025 PM Base Belmore St and Burwood

Place Exit (2025 PM EXISTING 17:30-18:30)

Network: [N101(2)] 2025 Existing PM (2025 EXISTING

PEAKS)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site Site Category: (None)

Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov<br>ID | Turn   | Mov<br>Class | Dem             | and<br>ows |     | nval<br>ows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back      | Of Queur    | e Prop.<br>Oued |      | Vumber<br>Cycles | Aver<br>Speed |
|-----------|--------|--------------|-----------------|------------|-----|-------------|--------------|----------------|---------------------|---------------|-------------|-----------------|------|------------------|---------------|
| ı.        |        | 2000         | (Total<br>Veh/h | HV j       |     |             | V/c          | sec            | JO 1100             | ( Veh.<br>Veh | Dist  <br>m | 5000            |      | Depart           | Km/n          |
| East:     | Belmo  | ore Street   |                 |            |     |             |              |                |                     |               |             |                 |      |                  |               |
| 5         | T1     | All MCs      | 216             | 0.0        | 216 | 0.0         | 0.111        | 0,0            | LOSA                | 0.0           | 0.0         | 0.00            | 0.00 | 0,00             | 59.9          |
| Appn      | oach   |              | 216             | 0.0        | 216 | 0.0         | 0.111        | 0.0            | NA                  | 0.0           | 0.0         | 0.00            | 0.00 | 0.00             | 59.9          |
| North     | Burw   | ood Plac     | e Exit          |            |     |             |              |                |                     |               |             |                 |      |                  |               |
| 7         | L2     | All MCs      | 81              | 0.0        | 81  | 0.0         | 0.058        | 6.1            | LOSA                | 0.2           | 1.6         | 0.27            | 0.56 | 0.27             | 44.4          |
| 9         | R2     | All MCs      | 123             | 0.0        | 123 | 0.0         | 0,133        | 7.3            | LOSA                | 0.5           | 3.3         | 0.39            | 0.69 | 0.39             | 43.1          |
| Аррг      | oach   |              | 204             | 0.0        | 204 | 0.0         | 0.133        | 6.8            | LOSA                | 0,5           | 3.3         | 0.35            | 0.64 | 0.35             | 43.6          |
| West      | : Belm | ore Stree    | t               |            |     |             |              |                |                     |               |             |                 |      |                  |               |
| 11        | T.1    | All MCs      | 184             | 0.0        | 184 | 0.0         | 0.094        | 0.0            | LOSA                | 0.0           | 0.0         | 0.00            | 0.00 | 0.00             | 60.0          |
| Appr      | oach   |              | 184             | 0.0        | 184 | 0.0         | 0.094        | 0.0            | NA                  | 0.0           | 0.0         | 0.00            | 0.00 | 0.00             | 60.0          |
| All Ve    | hides  |              | 604             | 0.0        | 604 | 0.0         | 0.133        | 2.3            | NA                  | 0.5           | 3.3         | 0.12            | 0.22 | 0.12             | 48.4          |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# 2025 AM Peak Temporary Wynne Avenue Closure

### MOVEMENT SUMMARY

Site: [105(10)] 1e. 2025 AM Base Burwood Rd and Railway Parade - Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Vehi   | cle M   | ovemen   | t Perfo | orma | nce       |       |         |       |          |          |            |       |        |           |      |
|--------|---------|----------|---------|------|-----------|-------|---------|-------|----------|----------|------------|-------|--------|-----------|------|
| Mov    | Turn    | Mov      | Den     | nand | Arı       | rival | Deg.    | Aver. | Level of | 95% Bacl | k Of Queue | Prop. | Eff.   | Number    | Ave  |
| ID     |         | Class    | F       | lows | Fli       | ows   | Satn    | Delay | Service  |          |            | Qued  | Stop o | of Cycles | Spee |
|        |         |          | [ Total | HVJ  | [ Total I | HVI   |         |       |          | [ Veh.   | Dist ]     |       | Ratet  | o Depart  |      |
|        |         |          | veh/h   | %    | veh/h     | %     | V/c     | sec   |          | veh      | m          |       |        |           | km.  |
| South  | n: Burv | vood Roa | d (S)   |      |           |       |         |       |          |          |            |       |        |           |      |
| 1      | L2      | All MCs  | 42      | 12.5 | 42        | 12.5  | 0.563   | 28.4  | LOS B    | 8.4      | 61.9       | 0.68  | 0.61   | 0.68      | 19   |
| 2      | T1      | All MCs  | 604     | 5.1  | 604       | 5.1   | 0.563   | 20.1  | LOS B    | 8.5      | 62.4       | 0.66  | 0.59   | 0.66      | 22   |
| 3      | R2      | All MCs  | 0       | 100. | 0.        | 100.  | * 0.563 | 36.4  | LOS C    | 8.5      | 62.4       | 0.65  | 0.57   | 0.65      | 28   |
|        |         |          |         | 0    |           | 0     |         |       |          |          |            |       |        |           |      |
| Appro  | oach    |          | 646     | 5.6  | 646       | 5.6   | 0.563   | 20.6  | LOSB     | 8.5      | 62.4       | 0.66  | 0.59   | 0.66      | 19   |
| East:  | Railw   | ay Parad | e (E)   |      |           |       |         |       |          |          |            |       |        |           |      |
| 4      | L2      | All MCs  | 62      | 1.7  | 62        | 1.7   | 0.183   | 39.1  | LOS C    | 2.3      | 16.0       | 0.87  | 0.73   | 0.87      | 17   |
| 5      | T1      | All MCs  | 225     | 2.8  | 225       | 2.8   | 0.488   | 33.0  | LOS C    | 8.1      | 57.8       | 0.90  | 0.75   | 0.90      | 18   |
| Appro  | oach    |          | 287     | 2.6  | 287       | 2.6   | 0.488   | 34.3  | LOS C    | 8.1      | 57.8       | 0.90  | 0.74   | 0.90      | 17   |
| North  | : Burv  | ood Roa  | d (N)   |      |           |       |         |       |          |          |            |       |        |           |      |
| 7      | L2      | All MCs  | 38      | 0.0  | 38        | 0.0   | 0.121   | 14.1  | LOSA     | 2.3      | 17.4       | 0.48  | 0.47   | 0.48      | 29   |
| 8      | T1      | All MCs  | 318     | 11.3 | 318       | 11.3  | 0.564   | 9.6   | LOSA     | 6.6      | 53.0       | 0.71  | 0.88   | 0.71      | 11   |
| 9      | R2      | All MCs  | 92      | 28.7 | 922       | 28.7  | * 0.564 | 17.4  | LOS B    | 6.6      | 53.0       | 0.79  | 1.03   | 0.79      | 10   |
| Appro  | oach    |          | 447     | 13.9 | 447       | 13.9  | 0.564   | 11.6  | LOSA     | 6.6      | 53.0       | 0.71  | 0.87   | 0.71      | 13   |
| West   | : Railw | ay Parac | de (W)  |      |           |       |         |       |          |          |            |       |        |           |      |
| 10     | L2      | All MCs  | 163     | 18.7 | 163 1     | 18.7  | 0.295   | 28.7  | LOS C    | 5.5      | 44.6       | 0.85  | 0.77   | 0.85      | 16   |
| 11     | T1      | All MCs  | 268     | 2.4  | 268       | 2.4   | * 0.563 | 30.6  | LOS C    | 9.9      | 70.9       | 0.93  | 0.78   | 0.93      | 22   |
| Appro  | oach    |          | 432     | 8.5  | 432       | 8.5   | 0.563   | 29.9  | LOS C    | 9.9      | 70.9       | 0.90  | 0.78   | 0.90      | 20   |
| All Ve | ehicles | i.       | 1813    | 7.8  | 1813      | 7.8   | 0.564   | 22.8  | LOSB     | 9.9      | 70.9       | 0.77  | 0.73   | 0.77      | 18   |
|        |         | -        |         |      |           |       |         |       |          |          |            |       |        |           |      |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [106(9)] 1f. 2025 AM Base Railway Pde and Wynne Ave -

Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| MAN    | Turn    | Mov      | Dow      | hence | Λ,                          | rival | Dog     | Auge  | Loughaf  | 95% Back | OFOUR   | a Dean | E# I    | Jumbor | Ause  |
|--------|---------|----------|----------|-------|-----------------------------|-------|---------|-------|----------|----------|---------|--------|---------|--------|-------|
| Mov    | Turri   |          |          | nand  |                             |       | Deg.    | Aver. | Level of | 90% Back | Ol Queu |        |         | Number | Aver. |
| ID     |         | Class    |          | lows  |                             | ows   | Satn    | Delay | Service  |          | -       | Qued   |         | Cycles | Speed |
|        |         |          | [ Total  |       | ALC: NAME OF TAXABLE PARTY. |       |         |       |          | [ Veh.   | Dist ]  |        | Rate to | Depart |       |
| _      |         | _        | veh/h    | %     | veh/h                       | %     | v/c     | sec   |          | veh      | m       |        |         |        | km/h  |
| East:  | Railwa  | ay Parad | e (E)    |       |                             |       |         |       |          |          |         |        |         |        |       |
| 5      | T1      | All MCs  | 351      | 9.0   | 351                         | 9.0   | 0.163   | 12.5  | LOSA     | 4.9      | 36.7    | 0.72   | 0.39    | 0.72   | 23.3  |
| Appr   | oach    |          | 351      | 9.0   | 351                         | 9.0   | 0.163   | 12.5  | LOSA     | 4.9      | 36.7    | 0.72   | 0.39    | 0.72   | 22.2  |
| North  | : Burw  | ood Cen  | tral Car | Park  | (N)                         |       |         |       |          |          |         |        |         |        |       |
| 7      | L2      | All MCs  | 19       | 0.0   | 19                          | 0.0   | 0.032   | 35.6  | LOS C    | 0.3      | 2.3     | 0.86   | 0.65    | 0.86   | 22.6  |
| Appr   | oach    |          | 19       | 0.0   | 19                          | 0.0   | 0.032   | 35.6  | LOS C    | 0.3      | 2.3     | 0.86   | 0.65    | 0.86   | 22.6  |
| West   | : Railw | ay Parac | le (W)   |       |                             |       |         |       |          |          |         |        |         |        |       |
| 10     | L2      | All MCs  | 5        | 0.0   | 5                           | 0.0   | * 0.163 | 15.6  | LOS B    | 3.0      | 22.6    | 0.43   | 0.37    | 0.43   | 35.2  |
| 11     | T1      | All MCs  | 358      | 10.6  | 358                         | 10.6  | 0.163   | 6.3   | LOSA     | 3.0      | 22.6    | 0.42   | 0.36    | 0.42   | 26.4  |
| Appr   | oach    | - 1      | 363      | 10.4  | 363                         | 10.4  | 0.163   | 6.4   | LOSA     | 3.0      | 22.6    | 0.42   | 0.36    | 0.42   | 26.8  |
| All Ve | ehicles |          | 733      | 9.5   | 733                         | 9.5   | 0.163   | 10.1  | LOSA     | 4.9      | 36.7    | 0.58   | 0.38    | 0.58   | 24.0  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [107(10)] 1g. 2025 AM Base Railway Pde and Conder St

- Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Railway Parade and Conder Street Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov   | Turn   | Mov        | Den     | and  | Ar      | rival | Deg.  | Aver. | Level of | 95% Back | Of Queue | e Prop. | Eff. 1  | Number | Aver  |
|-------|--------|------------|---------|------|---------|-------|-------|-------|----------|----------|----------|---------|---------|--------|-------|
| ID    |        | Class      | F       | lows | F       | ows   | Satn  | Delay | Service  |          |          | Qued    | Stop of | Cycles | Speed |
|       |        |            | [ Total | HV]  | [ Total | HV]   |       |       |          | [ Veh.   | Dist ]   |         | Rate to | Depart |       |
|       |        |            | veh/h   | %    | veh/h   | %     | v/c   | sec   |          | veh      | m        |         |         |        | km/r  |
| South | : Con  | der Street | t (S)   |      |         |       |       |       |          |          |          |         |         |        |       |
| 1a    | L1     | All MCs    | 326     | 0.3  | 326     | 0.3   | 0.444 | 3.7   | LOSA     | 3.4      | 24.0     | 0.56    | 0.52    | 0.56   | 38.5  |
| 2     | T1     | All MCs    | 2       | 0.0  | 2       | 0.0   | 0.444 | 4.0   | LOSA     | 3.4      | 24.0     | 0.56    | 0.52    | 0.56   | 36.5  |
| 3     | R2     | All MCs    | 154     | 2.1  | 154     | 2.1   | 0.444 | 7.2   | LOSA     | 3.4      | 24.0     | 0.56    | 0.52    | 0.56   | 30.5  |
| 3u    | U      | All MCs    | 14      | 0.0  | 14      | 0.0   | 0.444 | 8.5   | LOSA     | 3.4      | 24.0     | 0.56    | 0.52    | 0.56   | 30.5  |
| Appro | ach    |            | 496     | 0.8  | 496     | 8.0   | 0.444 | 4.9   | LOSA     | 3.4      | 24.0     | 0.56    | 0.52    | 0.56   | 36.8  |
| East: | Railwa | ay Parade  | e (E)   |      |         |       |       |       |          |          |          |         |         |        |       |
| 4     | L2     | All MCs    | 152     | 2.1  | 152     | 2.1   | 0.142 | 4.9   | LOSA     | 0.7      | 4.8      | 0.37    | 0.55    | 0.37   | 28.5  |
| 6a    | R1     | All MCs    | 181     | 11.6 | 181     | 11.6  | 0.185 | 6.1   | LOSA     | 0.9      | 7.4      | 0.37    | 0.60    | 0.37   | 36.3  |
| 6     | R2     | All MCs    | 1       | 0.0  | 1       | 0.0   | 0.185 | 6.6   | LOSA     | 0.9      | 7.4      | 0.37    | 0.60    | 0.37   | 35.4  |
| 6u    | U      | All MCs    | 28      | 55.6 | 28      | 55.6  | 0.185 | 8.9   | LOSA     | 0.9      | 7.4      | 0.37    | 0.60    | 0.37   | 27.2  |
| Appro | ach    |            | 362     | 11.0 | 362     | 11.0  | 0.185 | 5.8   | LOSA     | 0.9      | 7.4      | 0.37    | 0.58    | 0.37   | 33.9  |
| North | : Appa | rtments (  | N)      |      |         |       |       |       |          |          |          |         |         |        |       |
| 7     | L2     | All MCs    | 2       | 0.0  | 2       | 0.0   | 0.019 | 6.9   | LOSA     | 0.1      | 0.7      | 0.66    | 0.66    | 0.66   | 33.9  |
| 8     | T1     | All MCs    | 3       | 0.0  | 3       | 0.0   | 0.019 | 6.2   | LOSA     | 0.1      | 0.7      | 0.66    | 0.66    | 0.66   | 33.9  |
| 9b    | R3     | All MCs    | 7       | 0.0  | 7       | 0.0   | 0.019 | 10.0  | LOSA     | 0.1      | 0.7      | 0.66    | 0.66    | 0.66   | 37.0  |
| 9u    | U      | All MCs    | 0       | 0.0  | 0       | 0.0   | 0.019 | 10.7  | LOSA     | 0.1      | 0.7      | 0.66    | 0.66    | 0.66   | 36.2  |
| Appro | ach    |            | 13      | 0.0  | 13      | 0.0   | 0.019 | 8.6   | LOSA     | 0.1      | 0.7      | 0.66    | 0.66    | 0.66   | 36.0  |
| North | West:  | Railway I  | arade   | (NE) |         |       |       |       |          |          |          |         |         |        |       |
| 27b   | L3     | All MCs    | 2       | 0.0  | 2       | 0.0   | 0.484 | 5.7   | LOSA     | 3.7      | 27.4     | 0.56    | 0.57    | 0.56   | 38.5  |
| 27a   | L1     | All MCs    | 292     | 7.9  | 292     | 7.9   | 0.484 | 5.0   | LOSA     | 3.7      | 27.4     | 0.56    | 0.57    | 0.56   | 37.8  |
| 29a   | R1     | All MCs    | 241     | 2.2  | 241     | 2.2   | 0.484 | 7.7   | LOSA     | 3.7      | 27.4     | 0.56    | 0.57    | 0.56   | 37.8  |
| 29u   | U      | All MCs    | 3       | 0.0  | 3       | 0.0   | 0.484 | 9.9   | LOSA     | 3.7      | 27.4     | 0.56    | 0.57    | 0.56   | 41.0  |
| Appro | ach    |            | 538     | 5.3  | 538     | 5.3   | 0.484 | 6.2   | LOSA     | 3.7      | 27.4     | 0.56    | 0.57    | 0.56   | 37.8  |
|       |        |            |         |      |         |       |       |       |          |          |          |         |         |        |       |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(12)] 1j. 2025 AM Base Burwood Rd and Belmore St -

Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi      | cle M   | ovemen       | t Perf | rma          | nce     |              |              |                |                     |          |         |                 |      |                  |                |
|-----------|---------|--------------|--------|--------------|---------|--------------|--------------|----------------|---------------------|----------|---------|-----------------|------|------------------|----------------|
| Mov<br>ID | Turn    | Mov<br>Class |        | nand<br>lows |         | rival<br>ows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back | Of Queu | e Prop.<br>Qued |      | Number<br>Cycles | Aver.<br>Speed |
|           |         |              |        |              | i Total |              |              |                |                     | [ Veh.   | Dist ]  |                 |      | Depart           |                |
|           |         |              | veh/h  |              | veh/h   | %            | v/c          | sec            |                     | veh      | m       |                 |      |                  | km/h           |
| South     | n: Burw | ood Roa      | d (S)  |              |         |              |              |                |                     |          |         |                 |      |                  |                |
| 1         | L2      | All MCs      | 49     | 0.0          | 49      | 0.0          | 0.121        | 14.6           | LOS B               | 2.2      | 15.9    | 0.38            | 0.41 | 0.38             | 35.2           |
| 2         | T1      | All MCs      | 611    | 5.3          | 611     | 5.3          | 0.605        | 12.7           | LOSA                | 13.3     | 97.1    | 0.56            | 0.54 | 0.56             | 33.9           |
| 3         | R2      | All MCs      | 75     | 1.4          | 75      | 1.4          | * 0.605      | 19.9           | LOS B               | 13.3     | 97.1    | 0.59            | 0.56 | 0.59             | 36.1           |
| Appro     | oach    |              | 735    | 4.6          | 735     | 4.6          | 0.605        | 13.6           | LOSA                | 13.3     | 97.1    | 0.55            | 0.53 | 0.55             | 31.6           |
| East:     | Belmo   | ore Street   | (E)    |              |         |              |              |                |                     |          |         |                 |      |                  |                |
| 4         | L2      | All MCs      | 22     | 9.5          | 22      | 9.5          | 0.443        | 41.5           | LOS C               | 5.1      | 36.2    | 0.95            | 0.76 | 0.95             | 28.2           |
| 5         | T1      | All MCs      | 91     | 0.0          | 91      | 0.0          | 0.443        | 34.7           | LOS C               | 5.1      | 36.2    | 0.95            | 0.76 | 0.95             | 22.3           |
| 6         | R2      | All MCs      | 19     | 0.0          | 19      | 0.0          | 0.443        | 41.8           | LOS C               | 5.1      | 36.2    | 0.95            | 0.76 | 0.95             | 22.3           |
| Appro     | oach    |              | 132    | 1.6          | 132     | 1.6          | 0.443        | 36.9           | LOS C               | 5.1      | 36.2    | 0.95            | 0.76 | 0.95             | 23.7           |
| North     | : Burw  | ood Road     | (N) b  |              |         |              |              |                |                     |          |         |                 |      |                  |                |
| 7         | L2      | All MCs      | 37     | 2.9          | 37      | 2.9          | 0.063        | 6.9            | LOSA                | 0.6      | 4.2     | 0.20            | 0.34 | 0.20             | 36.5           |
| 8         | T1      | All MCs      | 340    | 10.8         | 340     | 10.8         | 0.316        | 3.8            | LOSA                | 3.7      | 28.3    | 0.29            | 0.29 | 0.29             | 37.3           |
| 9         | R2      | All MCs      | 23     | 0.0          | 23      | 0.0          | 0.316        | 12.4           | LOSA                | 3.7      | 28.3    | 0.30            | 0.28 | 0.30             | 31.0           |
| Appro     | oach    |              | 400    | 9.5          | 400     | 9.5          | 0.316        | 4.6            | LOSA                | 3.7      | 28.3    | 0.28            | 0.29 | 0.28             | 37.0           |
| West:     | : Belm  | ore Stree    | t (W)  |              |         |              |              |                |                     |          |         |                 |      |                  |                |
| 10        | L2      | All MCs      | 38     | 8.3          | 38      | 8.3          | 0.163        | 40.0           | LOS C               | 1.4      | 10.8    | 0.92            | 0.72 | 0.92             | 7.4            |
| 11        | T1      | All MCs      | 93     | 0.0          | 93      | 0.0          | * 0.526      | 36.2           | LOS C               | 5.4      | 38.9    | 0.97            | 0.78 | 0.97             | 23.3           |
| 12        | R2      | All MCs      | 43     | 7.3          | 43      | 7.3          | 0.526        | 44.5           | LOS D               | 5.4      | 38.9    | 0.97            | 0.78 | 0.97             | 22.9           |
| Appro     | oach    |              | 174    | 3.6          | 174     | 3.6          | 0.526        | 39.1           | LOS C               | 5.4      | 38.9    | 0.96            | 0.77 | 0.96             | 21.2           |
| All Ve    | hicles  |              | 1440   | 5.6          | 1440    | 5.6          | 0.605        | 16.3           | LOS B               | 13.3     | 97.1    | 0.56            | 0.51 | 0.56             | 30.4           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Critical Movement (Signal Timing)



Site: [111(10)] 1k. 2025 AM Base Belmore St and Wynne Ave

- Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi   | cle M  | ovemen    | t Perfo | rma  | nce   |       |       |       |          |          |         |         |         |        |       |
|--------|--------|-----------|---------|------|-------|-------|-------|-------|----------|----------|---------|---------|---------|--------|-------|
| Mov    | Turn   | Mov       | Dem     | and  | Ar    | rival | Deg.  | Aver. | Level of | 95% Back | Of Queu | e Prop. | Eff. I  | Number | Aver  |
| ID     |        | Class     |         | ows  |       | ows   | Satn  | Delay | Service  |          |         | Qued    |         | Cycles | Speed |
|        |        |           | [ Total |      |       |       |       |       |          | [ Veh.   | Dist ]  |         | Rate to | Depart |       |
| -      |        |           | veh/h   | %    | veh/h | %     | V/c   | sec   | _        | veh      | m       |         |         |        | km/r  |
| East:  | Belmo  | ore Stree | t       |      |       |       |       |       |          |          |         |         |         |        |       |
| 5      | T1     | All MCs   | 158     | 0.0  | 158   | 0.0   | 0.236 | 4.1   | LOSA     | 1.4      | 10.0    | 0.17    | 0.55    | 0.17   | 27.2  |
| 6      | R2     | All MCs   | 161     | 0.0  | 161   | 0.0   | 0.236 | 6.6   | LOSA     | 1.4      | 10.0    | 0.17    | 0.55    | 0.17   | 27.2  |
| 6u     | U      | All MCs   | 11      | 0.0  | 11    | 0.0   | 0.236 | 7.9   | LOSA     | 1.4      | 10.0    | 0.17    | 0.55    | 0.17   | 27.2  |
| Appro  | ach    |           | 329     | 0.0  | 329   | 0.0   | 0.236 | 5.5   | LOSA     | 1.4      | 10.0    | 0.17    | 0.55    | 0.17   | 27.2  |
| North  | : Wynı | ne Avenu  | ie      |      |       |       |       |       |          |          |         |         |         |        |       |
| 7      | L2     | All MCs   | 25      | 16.7 | 25    | 16.7  | 0.060 | 4.6   | LOSA     | 0.3      | 1.9     | 0.26    | 0.59    | 0.26   | 22.1  |
| 9      | R2     | All MCs   | 31      | 0.0  | 31    | 0.0   | 0.060 | 6.3   | LOSA     | 0.3      | 1.9     | 0.26    | 0.59    | 0.26   | 22.1  |
| 9u     | U      | All MCs   | 3       | 0.0  | 3     | 0.0   | 0.060 | 7.5   | LOSA     | 0.3      | 1.9     | 0.26    | 0.59    | 0.26   | 22.1  |
| Appro  | ach    |           | 59      | 7.1  | 59    | 7.1   | 0.060 | 5.6   | LOSA     | 0.3      | 1.9     | 0.26    | 0.59    | 0.26   | 22.1  |
| West:  | Belm   | ore Stree | et      |      |       |       |       |       |          |          |         |         |         |        |       |
| 10     | L2     | All MCs   | 200     | 0.0  | 200   | 0.0   | 0.329 | 6.0   | LOSA     | 2.0      | 13.9    | 0.45    | 0.55    | 0.45   | 32.7  |
| 11     | T1     | All MCs   | 106     | 2.0  | 106   | 2.0   | 0.329 | 5.4   | LOSA     | 2.0      | 13.9    | 0.45    | 0.55    | 0.45   | 32.7  |
| 12u    | U      | All MCs   | 4       | 0.0  | 4     | 0.0   | 0.329 | 9.3   | LOSA     | 2.0      | 13.9    | 0.45    | 0.55    | 0.45   | 32.7  |
| Appro  | ach    |           | 311     | 0.7  | 311   | 0.7   | 0.329 | 5.8   | LOSA     | 2.0      | 13.9    | 0.45    | 0.55    | 0.45   | 32.7  |
| All Ve | hicles |           | 699     | 0.9  | 699   | 0.9   | 0.329 | 5.6   | LOSA     | 2.0      | 13.9    | 0.30    | 0.55    | 0.30   | 29.8  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [112(10)] 11. 2025 AM Base Belmore St and Conder St -

Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov   | Turn    | Mov       | Dem     | and | Ar    | rival | Deg.  | Aver. | Level of | 95% Back | Of Queue | e Prop. | Eff. | Number   | Aver. |
|-------|---------|-----------|---------|-----|-------|-------|-------|-------|----------|----------|----------|---------|------|----------|-------|
| ID    |         | Class     |         | ows |       | ows   | Satn  | Delay | Service  |          |          | Qued    |      | f Cycles | Speed |
|       |         |           | [ Total |     |       |       |       |       |          | í Veh.   | Dist ]   |         |      | o Depart |       |
|       |         |           | veh/h   |     | veh/h | %     | v/c   | sec   |          | veh      | m        |         |      |          | km/h  |
| Sout  | h: Con  | der Stree | et      |     |       |       |       |       |          |          |          |         |      |          |       |
| 2     | T1      | All MCs   | 384     | 0.0 | 384   | 0.0   | 0.277 | 1.6   | LOSA     | 0.7      | 5.2      | 0.20    | 0.38 | 0.20     | 46.8  |
| 3     | R2      | All MCs   | 82      | 0.0 | 82    | 0.0   | 0.277 | 6.2   | LOSA     | 0.7      | 5.2      | 0.20    | 0.38 | 0.20     | 46.8  |
| Appr  | oach    |           | 466     | 0.0 | 466   | 0.0   | 0.277 | 2.4   | NA       | 0.7      | 5.2      | 0.20    | 0.38 | 0.20     | 46.8  |
| East  | Belmo   | ore Stree | t       |     |       |       |       |       |          |          |          |         |      |          |       |
| 4     | L2      | All MCs   | 62      | 0.0 | 62    | 0.0   | 0.172 | 5.0   | LOSA     | 0.6      | 4.4      | 0.41    | 0.59 | 0.41     | 42.0  |
| 6     | R2      | All MCs   | 80      | 0.0 | 80    | 0.0   | 0.172 | 8.9   | LOSA     | 0.6      | 4.4      | 0.41    | 0.59 | 0.41     | 30.7  |
| Appr  | oach    |           | 142     | 0.0 | 142   | 0.0   | 0.172 | 7.2   | LOSA     | 0.6      | 4.4      | 0.41    | 0.59 | 0.41     | 38.6  |
| North | n: Cond | der Stree | t       |     |       |       |       |       |          |          |          |         |      |          |       |
| 7     | L2      | All MCs   | 249     | 0.8 | 249   | 8.0   | 0.214 | 4.6   | LOSA     | 0.0      | 0.0      | 0.00    | 0.36 | 0.00     | 40.7  |
| 8     | T1      | All MCs   | 126     | 5.0 | 126   | 5.0   | 0.214 | 0.0   | LOSA     | 0.0      | 0.0      | 0.00    | 0.36 | 0.00     | 47.0  |
| Appr  | oach    |           | 376     | 2.2 | 376   | 2.2   | 0.214 | 3.1   | NA       | 0.0      | 0.0      | 0.00    | 0.36 | 0.00     | 44.6  |
| All V | ehicles |           | 984     | 0.9 | 984   | 0.9   | 0.277 | 3.4   | NA       | 0.7      | 5.2      | 0.16    | 0.40 | 0,16     | 44.9  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tah)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [113(1)] 1m. 2025 AM Base Wynne Avenue and Burwood

Place (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Burwood Place

Site Category: Base Year

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Marie     | Trues  | Mary                                    | Daw    | ond   | A         | ei rol       | Doc          | Aver. | Level of | OEO/ Dool | OFOLIN      | o Dron | Eff. 1  | di mahare        | Arras          |
|-----------|--------|---|--------|-------|-----------|--------------|--------------|-------|----------|-----------|-------------|--------|---------|------------------|----------------|
| Mov<br>ID | Turn   | Mov<br>Class                            | Dem    | ows   |           | rival<br>ows | Deg.<br>Satn | Delay |          | 95% Back  | Of Queur    | Qued   |         | Number<br>Cycles | Aver.<br>Speed |
| עו        |        | Class                                   | Total  |       |           |              | ગવામ         | Delay | Service  | [ Veh.    | Dist ]      | Queu   |         | Depart           | oheen          |
|           |        |   | veh/h  |       | veh/h     | %            | v/c          | sec   |          | veh       | m<br>Dist j |        | naie io | Depair           | km/h           |
| South     | : Wm   | ne Avenu                                |        | 7.0   | V 5(1)/11 | 2.0          | V/-C         | 200   |          | V 0.11    |             |        |         |                  | Kullan         |
| 1         | L2     | All MCs                                 |        | 0.0   | 8         | 0.0          | 0.045        | 8.9   | LOSA     | 0.8       | 5.4         | 0.34   | 0.32    | 0.34             | 42.6           |
| 2         | T1     | All MCs                                 | 51     | 0.0   | 51        | 0.0          | 0.045        | 4.5   | LOSA     | 0.8       | 5.4         | 0.34   | 0.32    | 0.34             | 32.8           |
| 3         | R2     | All MCs                                 | 112    | 0.0   | 112       | 0.0          | 0.134        | 9.6   | LOSA     | 1.7       | 12.2        | 0.40   | 0.65    | 0.40             | 38.7           |
| Appro     | ach    | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 171    | 0.0   | 171       | 0.0          | 0.134        | 8.1   | LOSA     | 1.7       | 12.2        | 0.38   | 0.53    | 0.38             | 38.3           |
| East:     | Emera  | ald Squar                               | e/Burw | ood F | Plaza (   | E)           |              |       |          |           |             |        |         |                  |                |
| 4         |        | All MCs                                 |        | 0.0   | 24,2      | 0.0          | 0.061        | 39.2  | LOS C    | 0.6       | 4.1         | 0.89   | 0.68    | 0.89             | 24.3           |
| 5         | T1     | All MCs                                 |        | 100.  |           | 100.         | * 0.117      | 35.0  | LOS C    | 1.1       | 7.5         | 0.90   | 0.71    | 0.90             | 32.4           |
|           |        |   |        | 0     |           | 0            |              |       |          |           |             |        |         |                  |                |
| 6         | R2     | All MCs                                 | 28     | 0.0   | 28        | 0.0          | 0.117        | 39.8  | LOS C    | 1.1       | 7.5         | 0.90   | 0.71    | 0.90             | 25.2           |
| Appro     | ach    |   | 44     | 0.2   | 44        | 0.2          | 0.117        | 39.6  | LOS C    | 1.1       | 7.5         | 0.90   | 0.70    | 0.90             | 24.9           |
| North     | : Wynr | ne Avenu                                | e (N)  |       |           |              |              |       |          |           |             |        |         |                  |                |
| 7         | L2     | All MCs                                 | 128    | 0.0   | 128       | 0.0          | 0.142        | 10.2  | LOSA     | 2.6       | 18.5        | 0.39   | 0.57    | 0.39             | 39.9           |
| 8         | T1     | All MCs                                 | 45     | 9.3   | 45        | 9.3          | * 0.142      | 4.8   | LOSA     | 2.6       | 18.5        | 0.39   | 0.57    | 0.39             | 21.1           |
| 9         | R2     | All MCs                                 | 3      | 0.0   | 3         | 0.0          | 0.003        | 9.6   | LOSA     | 0.0       | 0.3         | 0.35   | 0.57    | 0.35             | 39.4           |
| Appro     | ach    |   | 177    | 2.4   | 177       | 2.4          | 0.142        | 8.8   | LOSA     | 2.6       | 18.5        | 0.39   | 0.57    | 0.39             | 38.2           |
| West:     | Burw   | ood Gran                                | nd (W) |       |           |              |              |       |          |           |             |        |         |                  |                |
| 10        | L2     | All MCs                                 | 2      | 0.0   | 2         | 0.0          | 0.008        | 38.3  | LOS C    | 0.1       | 0.5         | 0.88   | 0.61    | 0.88             | 25.7           |
| 11        | T1     | All MCs                                 | 0      | 0.0   | 0         | 0.0          | 0.005        | 33.0  | LOSC     | 0.0       | 0.3         | 0.87   | 0.59    | 0.87             | 33.0           |
| 12        | R2     | All MCs                                 | 1      | 0.0   | 1         | 0.0          | 0.005        | 38.1  | LOS C    | 0.0       | 0.3         | 0.87   | 0.59    | 0.87             | 24.8           |
| Appro     | ach    |   | 3      | 0.0   | 3         | 0.0          | 0.008        | 38.1  | LOS C    | 0.1       | 0.5         | 0.87   | 0.60    | 0.87             | 25.8           |
| All Ve    | hicles |   | 395    | 1.1   | 395       | 1.1          | 0.142        | 12.2  | LOSA     | 2.6       | 18.5        | 0.45   | 0.57    | 0.45             | 35.5           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



V Site: [114(5)] 1n. 2025 AM Base Belmore St and Burwood Place Exit - Preferred Route (2025 AM EXISTING 8:00-9:00)

Network: [N101(3)] 2025 AM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehic     | cle M  | ovemer       | rt Perfo         | rma          | ince             |               |              |                |                     |              |            |                 |         |                  |               |
|-----------|--------|--------------|------------------|--------------|------------------|---------------|--------------|----------------|---------------------|--------------|------------|-----------------|---------|------------------|---------------|
| Mov<br>ID | Turn   | Mov<br>Class |                  | nand<br>lows |                  | rival<br>lows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back     | Of Queu    | e Prop.<br>Qued |         | Number<br>Cycles | Aver<br>Speed |
|           |        |              | [ Total<br>veh/h |              | [ Total<br>veh/h | HV ]<br>%     | v/c          | sec            |                     | [Veh.<br>veh | Dist]<br>m |                 | Rate to | Depart           | km/h          |
| East:     | Belmo  | ore Stree    | t                |              |                  |               |              |                |                     |              |            |                 |         |                  |               |
| 5         | T1     | All MCs      | 1                | 0.0          | 1                | 0.0           | 0.001        | 0.0            | LOSA                | 0.0          | 0.0        | 0.00            | 0.00    | 0.00             | 60.0          |
| Appro     | ach    |              | 1                | 0.0          | 1                | 0.0           | 0.001        | 0.0            | NA                  | 0.0          | 0.0        | 0.00            | 0.00    | 0.00             | 60.0          |
| North     | : Burw | ood Plac     | ce Exit          |              |                  |               |              |                |                     |              |            |                 |         |                  |               |
| 7         | L2     | All MCs      | 7                | 0.0          | 7                | 0.0           | 0.005        | 5.9            | LOSA                | 0.0          | 0.1        | 0.23            | 0.53    | 0.23             | 44.7          |
| 9         | R2     | All MCs      | 9                | 0.0          | 9                | 0.0           | 0.008        | 6.2            | LOSA                | 0.0          | 0.2        | 0.21            | 0.59    | 0.21             | 44.6          |
| Appro     | ach    |              | 17               | 0.0          | 17               | 0.0           | 0.008        | 6.1            | LOSA                | 0.0          | 0.2        | 0.22            | 0.56    | 0.22             | 44.6          |
| West:     | Belm   | ore Stree    | et               |              |                  |               |              |                |                     |              |            |                 |         |                  |               |
| 11        | T1     | All MCs      | 147              | 0.0          | 147              | 0.0           | 0.076        | 0.0            | LOSA                | 0.0          | 0.0        | 0.00            | 0.00    | 0.00             | 60.0          |
| Appro     | ach    |              | 147              | 0.0          | 147              | 0.0           | 0.076        | 0.0            | NA                  | 0.0          | 0.0        | 0.00            | 0.00    | 0.00             | 60.0          |
| All Ve    | hicles |              | 165              | 0.0          | 165              | 0.0           | 0.076        | 0.6            | NA                  | 0.0          | 0.2        | 0.02            | 0.06    | 0.02             | 54.7          |
|           |        |              |                  |              |                  |               |              |                |                     |              |            |                 |         |                  |               |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# 2025 PM Peak Temporary Wynne Avenue Closure

### MOVEMENT SUMMARY

Site: [105(9)] 2e. 2025 PM Base Burwood Rd and Railway Parade - Preferred Route (2025 PM EXISTING 17:30-18:30) Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

|        | Mov   | Den  | nand        | Ar                 | rival                    | Deg.                        | Aver.                       | Level of                                      | 95% Back                                | Of Queu   | e Prop                      | Eff   | Number   | Av∈r   |
|--------|---|--|-------------|--------------------|--------------------------|-----------------------------|-----------------------------|---|---|---|-----------------------------|---|--|--|
|        | Class   |  | lows        |                    | ows                      | Satn                        | Delay                       | Service                                       |   |   | Qued                        |   | of Cycles  | Speed  |
|        |   |  |             |                    |                          |                             |                             |   | í Veh.                                  | Dist I  |                             |   |  | 1000   |
|        |   | veh/h  |             |                    | %                        | v/c                         | sec                         |   | veh                                     | m   |                             |   |  | km/l   |
| Burv   | ood Roa   | d (S)  |             |                    |                          |                             |                             |   |   |   |                             |   |  |  |
| L2     | All MCs   | 99   | 1.1         | 99                 | 1.1                      | 0.256                       | 15.7                        | LOS B   | 4.6                                     | 33.7  | 0.47                        | 0.50  | 0.47   | 22.  |
| T1     | All MCs   | 389  | 7.0         | 389                | 7.0                      | 0.256                       | 9.0                         | LOSA  | 4.7                                     | 35.1  | 0.47                        | 0.43  | 0.47   | 26.4   |
| R2     | All MCs   | 0  | 100.        | 0                  | 100.                     | 0.256                       | 18.5                        | LOSB  | 4.7                                     | 35.1  | 0.46                        | 0.39  | 0.46   | 31.  |
| ach    |   | 489  | 5.8         | 489                | 5.8                      | 0.256                       | 10.4                        | LOSA  | 4.7                                     | 35.1  | 0.47                        | 0.45  | 0.47   | 25.  |
| Railwa | ay Parade   | e (E)  |             |                    |                          |                             |                             |   |   |   |                             |   |  |  |
| L2     | All MCs   | 98   | 0.0         | 98                 | 0.0                      | 0.220                       | 42.0                        | LOS C   | 3.7                                     | 25.9  | 0.82                        | 0.73  | 0.82   | 18.  |
| T1     | All MCs   | 322  | 2.0         | 322                | 2.0                      | * 0.586                     | 37.3                        | LOS C   | 11.6                                    | 82.9  | 0.89                        | 0.76  | 0.89   | 19.  |
| ach    |   | 420  | 1.5         | 420                | 1.5                      | 0.586                       | 38.4                        | LOS C   | 11.6                                    | 82.9  | 0.87                        | 0.75  | 0.87   | 16.  |
| Burw   | ood Road  | d (N)  |             |                    |                          |                             |                             |   |   |   |                             |   |  |  |
| L2     | All MCs   | 53   | 2.0         | 53                 | 2.0                      | 0.126                       | 17.7                        | LOS B   | 2.6                                     | 19.3  | 0.56                        | 0.55  | 0.56   | 26.  |
| T1     | All MCs   | 344  | 8.6         | 344                | 8.6                      | 0.588                       | 15.0                        | LOSB  | 12.4                                    | 96.0  | 0.73                        | 0.68  | 0.73   | 10.  |
| R2     | All MCs   | 109  | 21.2        | 1093               | 21.2                     | * 0.588                     | 26.4                        | LOS B   | 12.4                                    | 96.0  | 0.77                        | 0.71  | 0.77   | 9.   |
| ach    |   | 506  | 10.6        | 506                | 10.6                     | 0.588                       | 17.8                        | LOS B   | 12.4                                    | 96.0  | 0.72                        | 0.67  | 0.72   | 13.  |
| Railw  | ay Parad  | e (W)  |             |                    |                          |                             |                             |   |   |   |                             |   |  |  |
| L2     | All MCs   | 152  | 16.0        | 152                | 16.0                     | 0.346                       | 36.2                        | LOS C   | 5.9                                     | 47.1  | 0.92                        | 0.79  | 0.92   | 14.  |
| T1     | All MCs   | 200  | 3.7         | 200                | 3.7                      | 0.333                       | 27.9                        | LOS B   | 7.3                                     | 52.5  | 0.87                        | 0.72  | 0.87   | 23.  |
| ach    |   | 352  | 9.0         | 352                | 9.0                      | 0.346                       | 31.5                        | LOS C   | 7.3                                     | 52.5  | 0.89                        | 0.75  | 0.89   | 20.  |
| icles  |   | 1766   | 6.8         | 1766               | 6.8                      | 0.588                       | 23.4                        | LOSB  | 12.4                                    | 96.0  | 0.72                        | 0.64  | 0.72   | 18.  |
| 1 T    | L2<br>T1<br>R2<br>ach<br>L2<br>T1<br>ach<br>Burw<br>L2<br>T1<br>R2<br>ach<br>Railw<br>L2<br>T1<br>R2<br>ach | Burwood Roa L2 All MCs T1 All MCs R2 All MCs ach Railway Parade L2 All MCs T1 All MCs ach Burwood Roac L2 All MCs T1 All MCs R2 All MCs R2 All MCs Ach Railway Parad L2 All MCs Ach Railway Parad L2 All MCs Ach Railway Parad L2 All MCs T1 All MCs | Total veh/h | Total HV   veh/h % | Total HV   Total   veh/h | Total HV   Total HV   Veh/h | Total HV   Total HV   Veh/h | Total HV   Total HV   Veh/h % Veh/h % V/c sec | Total HV   Total HV   Veh/h % V/C   Sec | Total HV   Total HV   Veh/h % Veh/h % V/c sec   Veh | Total HV   Total HV   Veh/h | Total HV   Total HV   Weh/h   Weh/h | Total HV   Total HV   Total HV   Weh/h   Weh | Total HV   Total HV   Total HV   Sec   Veh   M   Neh   Neh |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [106(10)] 2f. 2025 PM Base Railway Pde and Wynne Ave -

Preferred Route (2025 PM EXISTING 17:30-18:30)

Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehic     | cle M  | ovemen       | t Perfo          | orma         | nce             |               |              |                |                     |          |            |                 |         |                  |                |
|-----------|--------|--------------|------------------|--------------|-----------------|---------------|--------------|----------------|---------------------|----------|------------|-----------------|---------|------------------|----------------|
| Mov<br>ID | Turn   | Mov<br>Class |                  | nand<br>lows |                 | rival<br>lows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back | Of Queu    | e Prop.<br>Qued |         | Number<br>Cycles | Aver.<br>Speed |
|           |        |              | [ Total<br>veh/h |              | [Total<br>veh/h | HV ]<br>%     | v/c          | sec            |                     | [Veh.veh | Dist]<br>m |                 | Rate to | Depart           | km/h           |
| East:     | Railw  | ay Parad     | e (E)            |              |                 |               |              |                |                     |          |            |                 |         |                  |                |
| 5         | T1     | All MCs      | 508              | 1.2          | 508             | 1.2           | * 0.270      | 14.2           | LOSA                | 7.3      | 51.5       | 0.70            | 0.40    | 0.70             | 23.6           |
| Appro     | ach    |              | 508              | 1.2          | 508             | 1.2           | 0.270        | 14.2           | LOSA                | 7.3      | 51.5       | 0.70            | 0.40    | 0.70             | 20.9           |
| North     | Burw   | ood Cen      | tral Car         | Park         | (N)             |               |              |                |                     |          |            |                 |         |                  |                |
| 7         | L2     | All MCs      | 19               | 0.0          | 19              | 0.0           | 0.035        | 38.8           | LOS C               | 0.4      | 2.5        | 0.88            | 0.66    | 0.88             | 21.8           |
| Appro     | ach    |              | 19               | 0.0          | 19              | 0.0           | 0.035        | 38.8           | LOS C               | 0.4      | 2.5        | 0.88            | 0.66    | 0.88             | 21.8           |
| West:     | Railw  | ay Parad     | de (W)           |              |                 |               |              |                |                     |          |            |                 |         |                  |                |
| 10        | L2     | All MCs      | 20               | 0.0          | 20              | 0.0           | 0.151        | 14.2           | LOSA                | 2.9      | 21.6       | 0.42            | 0.38    | 0.42             | 35.0           |
| 11        | T1     | All MCs      | 324              | 10.4         | 324             | 10.4          | 0.151        | 5.8            | LOSA                | 2.9      | 21.6       | 0.40            | 0.35    | 0.40             | 26.6           |
| Appro     | ach    |              | 344              | 9.8          | 344             | 9.8           | 0.151        | 6.3            | LOSA                | 2.9      | 21.6       | 0.40            | 0.35    | 0.40             | 28.1           |
| All Ve    | hicles |              | 872              | 4.6          | 872             | 4.6           | 0.270        | 11.6           | LOSA                | 7.3      | 51.5       | 0.59            | 0.38    | 0.59             | 23.2           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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😽 Site: [107(9)] 2g. 2025 PM Base Railway Pde and Conder St -

Preferred Route (2025 PM EXISTING 17:30-18:30)

Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Railway Parade and Conder Street Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov    | Tum    | Mov       | Dem     | and  | Ar      | rival | Deg.  | Aver. | Level of | 95% Back | Of Queue | e Prop. | Eff. 1  | Vumber | Aver  |
|--------|--------|-----------|---------|------|---------|-------|-------|-------|----------|----------|----------|---------|---------|--------|-------|
| ID     |        | Class     | FI      | ows  | F       | ows   | Satn  | Delay | Service  |          |          | Qued    | Stop of | Cycles | Speed |
|        |        |           | [ Total | HV]  | [ Total | HV ]  |       |       |          | [ Veh.   | Dist ]   |         | Rate to | Depart |       |
|        |        | -         | veh/h   | %    | veh/h   | %     | v/c   | sec   | -        | veh      | m        | _       |         |        | km/r  |
| South  | : Cond | der Stree | t (S)   |      |         |       |       |       |          |          |          |         |         |        |       |
| 1a     | L1     | All MCs   | 211     | 1.0  | 211     | 1.0   | 0.327 | 5.3   | LOSA     | 2.3      | 16.1     | 0.58    | 0.58    | 0.58   | 40.3  |
| 2      | T1     | All MCs   | 3       | 0.0  | 3       | 0.0   | 0.327 | 5.7   | LOSA     | 2.3      | 16.1     | 0.58    | 0.58    | 0.58   | 37.6  |
| 3      | R2     | All MCs   | 103     | 3.1  | 103     | 3.1   | 0.327 | 9.0   | LOSA     | 2.3      | 16.1     | 0.58    | 0.58    | 0.58   | 33.4  |
| 3u     | U      | All MCs   | 12      | 0.0  | 12      | 0.0   | 0.327 | 10.4  | LOSA     | 2.3      | 16.1     | 0.58    | 0.58    | 0.58   | 33.4  |
| Appro  | ach    |           | 328     | 1.6  | 328     | 1.6   | 0.327 | 6.7   | LOSA     | 2.3      | 16.1     | 0.58    | 0.58    | 0.58   | 38.8  |
| East:  | Railwa | ay Parade | e (E)   |      |         |       |       |       |          |          |          |         |         |        |       |
| 4      | L2     | All MCs   | 238     | 0.0  | 238     | 0.0   | 0.229 | 5.3   | LOSA     | 1.2      | 8.3      | 0.43    | 0.59    | 0.43   | 27.8  |
| 6a     | R1     | All MCs   | 257     | 12.3 | 257     | 12.3  | 0.262 | 6.6   | LOSA     | 1.4      | 10.9     | 0.43    | 0.63    | 0.43   | 35.9  |
| 6      | R2     | All MCs   | 5       | 0.0  |         | 0.0   | 0.262 | 7.0   | LOSA     | 1.4      | 10.9     | 0.43    | 0.63    | 0.43   | 35.2  |
| 6u     | U      | All MCs   | 35      | 0.0  | 35      | 0.0   | 0.262 | 8.3   | LOSA     | 1.4      | 10.9     | 0.43    | 0.63    | 0.43   | 26.7  |
| Appro  | ach    |           | 535     | 5.9  | 535     | 5.9   | 0.262 | 6.1   | LOSA     | 1.4      | 10.9     | 0.43    | 0.61    | 0.43   | 33.4  |
| North  | : Appa | rtments ( | N)      |      |         |       |       |       |          |          |          |         |         |        |       |
| 7      | L2     | All MCs   | 2       | 0.0  | 2       | 0.0   | 0.012 | 7.5   | LOSA     | 0.1      | 0.5      | 0.69    | 0.62    | 0.69   | 34.1  |
| 8      | T1     | All MCs   | 3       | 0.0  | 3       | 0.0   | 0.012 | 6.7   | LOSA     | 0.1      | 0.5      | 0.69    | 0.62    | 0.69   | 34.1  |
| 9b     | R3     | All MCs   | 2       | 0.0  | 2       | 0.0   | 0.012 | 10.5  | LOSA     | 0.1      | 0.5      | 0.69    | 0.62    | 0.69   | 37.2  |
| 9u     | U      | All MCs   | 0       | 100. | 0       | 100.  | 0.012 | 15.3  | LOS B    | 0.1      | 0.5      | 0.69    | 0.62    | 0.69   | 36.0  |
|        |        |           |         | 0    |         | 0     |       |       |          |          |          |         |         |        |       |
| Appro  | ach    |           | 7       | 1.4  | 7       | 1.4   | 0.012 | 8.1   | LOSA     | 0.1      | 0.5      | 0.69    | 0.62    | 0.69   | 35.2  |
| North' | West:  | Railway I | arade   | (NE) |         |       |       |       |          |          |          |         |         |        |       |
| 27b    | L3     | All MCs   | 2       | 0.0  | 2       | 0.0   | 0.541 | 5.5   | LOSA     | 4.7      | 33.4     | 0.53    | 0.54    | 0.53   | 38.6  |
| 27a    | L1     | All MCs   | 341     | 4.3  | 341     | 4.3   | 0.541 | 4.6   | LOSA     | 4.7      | 33.4     | 0.53    | 0.54    | 0.53   | 37.9  |
| 29a    | R1     | All MCs   | 316     | 0.0  | 316     | 0.0   | 0.541 | 7.3   | LOSA     | 4.7      | 33.4     | 0.53    | 0.54    | 0.53   | 37.9  |
| 29u    | U      | All MCs   | 1       | 0.0  |         | 0.0   | 0.541 | 9.6   | LOSA     | 4.7      | 33.4     | 0.53    | 0.54    | 0.53   | 41.1  |
| Appro  | ach    |           | 660     | 2.2  | 660     | 2.2   | 0.541 | 5.9   | LOSA     | 4.7      | 33.4     | 0.53    | 0.54    | 0.53   | 37.9  |
| ****   | hicles |           | 1531    | 2.4  | 1531    | 3.4   | 0.541 | 6.2   | LOSA     | 4.7      | 33.4     | 0.51    | 0.57    | 0.51   | 36.5  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(11)] 2j. 2025 PM Base Burwood Rd and Belmore St -

Preferred Route (2025 PM EXISTING 17:30-18:30)

Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi      | cle M  | ovemen       | t Perfo | rma         | nce   |              |              |                |                     |          |         |                 |      |                     |               |
|-----------|--------|--------------|---------|-------------|-------|--------------|--------------|----------------|---------------------|----------|---------|-----------------|------|---------------------|---------------|
| Mov<br>ID | Turn   | Mov<br>Class | Dem     | and<br>lows |       | rival<br>ows | Deg.<br>Satn | Aver.<br>Delav | Level of<br>Service | 95% Back | Of Queu | e Prop.<br>Qued |      | Number<br>of Cycles | Aver<br>Speed |
|           |        | Class        | [ Total |             |       |              | 3411         | Dolay          | 50,,,60             | [ Veh.   | Dist ]  | GULU            |      | o Depart            | орос          |
|           |        |              | veh/h   | %           | veh/h | %            | v/c          | sec            |                     | veh      | m       |                 |      |                     | km/r          |
| South     | : Burv | ood Roa      | id (S)  |             |       |              |              |                |                     |          |         |                 |      |                     |               |
| 1         | L2     | All MCs      | 89      | 1.2         | 89    | 1.2          | 0.108        | 22.9           | LOS B               | 2.3      | 16.2    | 0.52            | 0.61 | 0.52                | 30.8          |
| 2         | T1     | All MCs      | 402     | 6.8         | 402   | 6.8          | 0.541        | 20.4           | LOS B               | 12.2     | 89.6    | 0.66            | 0.61 | 0.66                | 30.9          |
| 3         | R2     | All MCs      | 58      | 0.2         | 58    | 0.2          | * 0.541      | 29.6           | LOS C               | 12.2     | 89.6    | 0.67            | 0.62 | 0.67                | 34.4          |
| Appro     | oach   |              | 550     | 5.2         | 550   | 5.2          | 0.541        | 21.8           | LOS B               | 12.2     | 89.6    | 0.64            | 0.61 | 0.64                | 28.0          |
| East:     | Belmo  | ore Street   | (E)     |             |       |              |              |                |                     |          |         |                 |      |                     |               |
| 4         | L2     | All MCs      | 35      | 0.0         | 35    | 0.0          | 0.352        | 35.4           | LOS C               | 5.8      | 40.9    | 0.87            | 0.73 | 0.87                | 29.5          |
| 5         | T1     | All MCs      | 98      | 0.0         | 98    | 0.0          | 0.352        | 28.4           | LOS B               | 5.8      | 40.9    | 0.87            | 0.73 | 0.87                | 23.8          |
| 6         | R2     | All MCs      | 26      | 4.0         | 26    | 4.0          | 0.352        | 37.7           | LOS C               | 5.8      | 40.9    | 0.87            | 0.73 | 0.87                | 23.8          |
| Appro     | oach   |              | 159     | 0.7         | 159   | 0.7          | 0.352        | 31.5           | LOS C               | 5.8      | 40.9    | 0.87            | 0.73 | 0.87                | 25.6          |
| North     | : Burw | ood Roa      | d (N)   |             |       |              |              |                |                     |          |         |                 |      |                     |               |
| 7         | L2     | All MCs      | 65      | 1.6         | 65    | 1.6          | 0.086        | 15.0           | LOS B               | 1.2      | 8.5     | 0.35            | 0.51 | 0.35                | 33.8          |
| 8         | T1     | All MCs      | 348     | 8.5         | 348   | 8.5          | 0.430        | 11.6           | LOSA                | 6.7      | 49.7    | 0.45            | 0.42 | 0.45                | 35.1          |
| 9         | R2     | All MCs      | 29      | 0.0         | 29    | 0.0          | 0.430        | 21.5           | LOS B               | 6.7      | 49.7    | 0.45            | 0.42 | 0.45                | 25.4          |
| Appro     | oach   |              | 443     | 6.9         | 443   | 6.9          | 0.430        | 12.7           | LOSA                | 6.7      | 49.7    | 0.43            | 0.43 | 0.43                | 32.6          |
| West      | : Belm | ore Stree    | t (VV)  |             |       |              |              |                |                     |          |         |                 |      |                     |               |
| 10        | L2     | All MCs      | 76      | 1.4         | 76    | 1.4          | 0.191        | 34.9           | LOS C               | 2.8      | 19.6    | 0.86            | 0.73 | 0.86                | 8.2           |
| 11        | T1     | All MCs      | 163     | 0.0         | 163   | 0.0          | 0.541        | 30.7           | LOS C               | 9.1      | 63.9    | 0.92            | 0.78 | 0.92                | 24.7          |
| 12        | R2     | All MCs      | 72      | 0.0         | 72    | 0.0          | * 0.541      | 39.1           | LOS C               | 9.1      | 63.9    | 0.92            | 0.78 | 0.92                | 24.4          |
| Appro     | oach   |              | 311     | 0.3         | 311   | 0.3          | 0.541        | 33.7           | LOS C               | 9.1      | 63.9    | 0.90            | 0.77 | 0.90                | 22.3          |
| All Ve    | hicles |              | 1462    | 4.2         | 1462  | 4.2          | 0.541        | 22.6           | LOS B               | 12.2     | 89.6    | 0.66            | 0.60 | 0.66                | 27.7          |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



Site: [111(9)] 2k. 2025 PM Base Belmore St and Wynne Ave -

Preferred Route (2025 PM EXISTING 17:30-18:30)

Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi      | cle M  | ovemen       | t Perfo          | rma | nce              |              |              |                |                     |               |             |                 |        |                     |               |
|-----------|--------|--------------|------------------|-----|------------------|--------------|--------------|----------------|---------------------|---------------|-------------|-----------------|--------|---------------------|---------------|
| Mov<br>ID | Turn   | Mov<br>Class |                  | ows | F                | rival<br>ows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back      |             | e Prop.<br>Qued | Stop c | Number<br>of Cycles | Aver<br>Speed |
| Ш         |        |              | [ Total<br>veh/h |     | [ Total<br>veh/h | HV ]<br>%    | v/c          | sec            |                     | [ Veh.<br>veh | Dist ]<br>m |                 | Ratet  | o Depart            | km/r          |
| East:     | Belmo  | ore Street   | t                |     |                  |              |              |                |                     |               |             |                 |        |                     |               |
| 5         | T1     | All MCs      | 332              | 0.0 | 332              | 0.0          | 0.465        | 4.7            | LOSA                | 3.7           | 25.8        | 0.37            | 0.53   | 0.37                | 26.0          |
| 6         | R2     | All MCs      | 255              | 0.8 | 255              | 8.0          | 0.465        | 7.2            | LOSA                | 3.7           | 25.8        | 0.37            | 0.53   | 0.37                | 26.0          |
| 6u        | U      | All MCs      | 13               | 0.0 | 13               | 0.0          | 0.465        | 8.4            | LOSA                | 3.7           | 25.8        | 0.37            | 0.53   | 0.37                | 26.0          |
| Appro     | ach    |              | 599              | 0.4 | 599              | 0.4          | 0.465        | 5.8            | LOSA                | 3.7           | 25.8        | 0.37            | 0.53   | 0.37                | 26.0          |
| North     | : Wynı | ne Avenu     | e                |     |                  |              |              |                |                     |               |             |                 |        |                     |               |
| 7         | L2     | All MCs      | 117              | 0.0 | 117              | 0.0          | 0.191        | 4.5            | LOSA                | 1.0           | 6.8         | 0.26            | 0.59   | 0.26                | 22.5          |
| 9         | R2     | All MCs      | 78               | 0.0 | 78               | 0.0          | 0.191        | 6.3            | LOSA                | 1.0           | 6.8         | 0.26            | 0.59   | 0.26                | 22.5          |
| 9u        | U      | All MCs      | 9                | 0.0 | 9                | 0.0          | 0.191        | 7.5            | LOSA                | 1.0           | 6.8         | 0.26            | 0.59   | 0.26                | 22.5          |
| Appro     | ach    |              | 204              | 0.0 | 204              | 0.0          | 0.191        | 5.3            | LOSA                | 1.0           | 6.8         | 0.26            | 0.59   | 0.26                | 22.5          |
| West      | Belm   | ore Stree    | t                |     |                  |              |              |                |                     |               |             |                 |        |                     |               |
| 10        | L2     | All MCs      | 398              | 0.0 | 398              | 0.0          | 0.588        | 8.4            | LOSA                | 5.1           | 35.6        | 0.72            | 0.67   | 0.77                | 28.7          |
| 11        | T1     | All MCs      | 89               | 0.0 | 89               | 0.0          | 0.588        | 7.8            | LOSA                | 5.1           | 35.6        | 0.72            | 0.67   | 0.77                | 28.7          |
| 12u       | U      | All MCs      | 11               | 0.0 | 11               | 0.0          | 0.588        | 11.7           | LOSA                | 5.1           | 35.6        | 0.72            | 0.67   | 0.77                | 28.7          |
| Appro     | ach    |              | 498              | 0.0 | 498              | 0.0          | 0.588        | 8.4            | LOSA                | 5.1           | 35.6        | 0.72            | 0.67   | 0.77                | 28.7          |
| All Ve    | hicles |              | 1301             | 0.2 | 1301             | 0.2          | 0.588        | 6.7            | LOSA                | 5.1           | 35.6        | 0.49            | 0.59   | 0.51                | 27.0          |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



V Site: [112(9)] 2l. 2025 PM Base Belmore St and Conder St -

Preferred Route (2025 PM EXISTING 17:30-18:30)

Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi      | cle M   | ovemer       | t Perfo | rma | ince             |              |              |                |                     |               |             |                 |         |                    |                |
|-----------|---------|--------------|---------|-----|------------------|--------------|--------------|----------------|---------------------|---------------|-------------|-----------------|---------|--------------------|----------------|
| Mov<br>ID | Turn    | Mov<br>Class |         | ows | F                | rival<br>ows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back      | Of Queu     | e Prop.<br>Qued | Stop o  | Number<br>f Cycles | Aver.<br>Speed |
|           |         |              | veh/h   |     | [ Total<br>veh/h | ⊓v ]<br>%    | v/c          | sec            |                     | į ven.<br>veh | Dist ]<br>m |                 | Rate it | Depart             | km/h           |
| South     | n: Con  | der Stree    | et      |     |                  |              |              |                |                     |               |             |                 |         |                    |                |
| 2         | T1      | All MCs      | 167     | 2.5 | 167              | 2.5          | 0.213        | 1.7            | LOSA                | 1.0           | 7.3         | 0.46            | 0.53    | 0.46               | 45,1           |
| 3         | R2      | All MCs      | 123     | 0.0 | 123              | 0.0          | 0.213        | 7.0            | LOSA                | 1.0           | 7.3         | 0.46            | 0.53    | 0.46               | 45.1           |
| Appr      | oach    |              | 291     | 1.4 | 291              | 1.4          | 0.213        | 4.0            | NA                  | 1.0           | 7.3         | 0.46            | 0.53    | 0.46               | 45.1           |
| East:     | Belmo   | ore Stree    | t       |     |                  |              |              |                |                     |               |             |                 |         |                    |                |
| 4         | L2      | All MCs      | 172     | 0.6 | 172              | 0.6          | 0.347        | 5.2            | LOSA                | 1.5           | 10.9        | 0.44            | 0.60    | 0.44               | 42.2           |
| 6         | R2      | All MCs      | 157     | 0.7 | 157              | 0.7          | 0.347        | 8.8            | LOSA                | 1.5           | 10.9        | 0.44            | 0.60    | 0.44               | 31.2           |
| Appr      | oach    |              | 328     | 0.6 | 328              | 0.6          | 0.347        | 6.9            | LOSA                | 1.5           | 10.9        | 0.44            | 0.60    | 0.44               | 39.7           |
| North     | : Cond  | der Stree    | t.      |     |                  |              |              |                |                     |               |             |                 |         |                    |                |
| 7         | L2      | All MCs      | 387     | 0.0 | 387              | 0.0          | 0.302        | 4.6            | LOSA                | 0.0           | 0.0         | 0.00            | 0.39    | 0.00               | 40.0           |
| 8         | T1      | All MCs      | 147     | 1.4 | 147              | 1.4          | 0.302        | 0.0            | LOSA                | 0.0           | 0.0         | 0.00            | 0.39    | 0.00               | 46.7           |
| Appr      | oach    |              | 535     | 0.4 | 535              | 0.4          | 0.302        | 3.3            | NA                  | 0.0           | 0.0         | 0.00            | 0.39    | 0.00               | 43.7           |
| All Ve    | ehicles |              | 1154    | 0.7 | 1154             | 0.7          | 0.347        | 4.5            | NA                  | 1.5           | 10.9        | 0.24            | 0.48    | 0.24               | 42.8           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [113(4)] 2m. 2025 PM Base Wynne Avenue and Burwood

Place - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Burwood Place

Site Category: Base Year

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi      | cle M  | ovemen       | t Perfo  | rma         | nce     |               |              |                |                     |          |         |                 |      |                  |                |
|-----------|--------|--------------|----------|-------------|---------|---------------|--------------|----------------|---------------------|----------|---------|-----------------|------|------------------|----------------|
| Mov<br>ID | Turn   | Mov<br>Class | Dem<br>F | and<br>lows |         | rival<br>lows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back | Of Queu | e Prop.<br>Qued |      | Number<br>Cycles | Äver.<br>Speed |
|           |        |              | [ Total  |             |         |               |              |                |                     | í Veh.   | Dist ]  |                 |      | Depart           | 74 8 2 2 2 2   |
|           |        |              | veh/h    |             | veh/h   | %             | v/c          | sec            |                     | veh      | m       |                 |      |                  | km/h           |
| South     | ı: Wyn | ne Avenu     | ue (S)   |             |         |               |              |                |                     |          |         |                 |      |                  |                |
| 1         | L2     | All MCs      | 9        | 0.0         | 9       | 0.0           | 0.010        | 13.3           | LOSA                | 0.2      | 1.3     | 0.35            | 0.50 | 0.35             | 40.2           |
| 2         | T1     | All MCs      | 3        | 0.0         | 3       | 0.0           | 0.010        | 8.8            | LOSA                | 0.2      | 1.3     | 0.35            | 0.50 | 0.35             | 27.5           |
| 3         | R2     | All MCs      | 447      | 0.0         | 447     | 0.0           | * 0.476      | 16.0           | LOS B               | 9.7      | 67.8    | 0.53            | 0.72 | 0.53             | 37.2           |
| Appro     | oach   |              | 460      | 0.0         | 460     | 0.0           | 0.476        | 15.9           | LOS B               | 9.7      | 67.8    | 0.53            | 0.72 | 0.53             | 34.5           |
| East:     | Emer   | ald Squar    | e/Burw   | ood I       | Plaza ( | E)            |              |                |                     |          |         |                 |      |                  |                |
| 4         | L2     | All MCs      | 136      | 0.0         | 136     | 0.0           | * 0.494      | 43.6           | LOS D               | 5.7      | 39.7    | 0.96            | 0.79 | 0.96             | 23.0           |
| 5         | T1     | All MCs      | 0        | 0.0         | 0       | 0.0           | 0.001        | 32.6           | LOS C               | 0.0      | 0.1     | 0.86            | 0.51 | 0.86             | 33.3           |
| 6         | R2     | All MCs      | 0        | 0.0         | 0       | 0.0           | 0.001        | 40.7           | LOS C               | 0.0      | 0.1     | 0.86            | 0.51 | 0.86             | 26.2           |
| Appro     | oach   |              | 136      | 0.0         | 136     | 0.0           | 0.494        | 43.6           | LOS D               | 5.7      | 39.7    | 0.96            | 0.79 | 0.96             | 23.0           |
| North     | : Wyn  | ne Avenu     | e (N)    |             |         |               |              |                |                     |          |         |                 |      |                  |                |
| 7         | L2     | All MCs      | 0        | 0.0         | 0       | 0.0           | 0.004        | 9.9            | LOSA                | 0.1      | 0.5     | 0.32            | 0.23 | 0.32             | 43.3           |
| 8         | T1     | All MCs      | 5        | 0.0         | 5       | 0.0           | 0.004        | 4.6            | LOSA                | 0.1      | 0.5     | 0.32            | 0.23 | 0.32             | 28.8           |
| 9         | R2     | All MCs      | 0        | 0.0         | 0       | 0.0           | 0.000        | 9.9            | LOSA                | 0.0      | 0.0     | 0.34            | 0.53 | 0.34             | 39.2           |
| Appro     | oach   |              | 5        | 0.0         | 5       | 0.0           | 0.004        | 4.8            | LOSA                | 0.1      | 0.5     | 0.32            | 0.23 | 0.32             | 30.8           |
| West      | Burw   | ood Grar     | nd (VV)  |             |         |               |              |                |                     |          |         |                 |      |                  |                |
| 10        | L2     | All MCs      | 0        | 0.0         | 0       | 0.0           | 0.000        | 38.7           | LOS C               | 0.0      | 0.0     | 0.86            | 0.52 | 0.86             | 25.6           |
| 11        | T1     | All MCs      | 0        | 0.0         | 0       | 0.0           | 0.066        | 34.0           | LOS C               | 0.5      | 3.6     | 0.92            | 0.68 | 0.92             | 31.1           |
| 12        | R2     | All MCs      | 13       | 0.0         | 13      | 0.0           | 0.066        | 44.5           | LOS D               | 0.5      | 3.6     | 0.92            | 0.68 | 0.92             | 22.7           |
| Appro     | oach   |              | 13       | 0.0         | 13      | 0.0           | 0.066        | 44.4           | LOS D               | 0.5      | 3.6     | 0.92            | 0.68 | 0.92             | 22.8           |
| All Ve    | hicles |              | 614      | 0.0         | 614     | 0.0           | 0.494        | 22.5           | LOS B               | 9.7      | 67.8    | 0.63            | 0.73 | 0.63             | 30.9           |
|           |        |              |          |             |         |               |              |                |                     |          |         |                 |      |                  |                |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



V Site: [114 (3)] 1n. 2025 PM Base Belmore St and Burwood Place Exit - Preferred Route (2025 PM EXISTING 17:30-18:30) Network: [N101(4)] 2025 PM Stage 1 Wynne Ave Closure

(2025 TEMPORARY CLOSURE WYNNE AVE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov<br>ID | Turn   | Mov<br>Class | Dem<br>F | and<br>ows |       | rival<br>lows | Deg.<br>Satn | Aver.<br>Delay | Level of<br>Service | 95% Back | Of Queu | e Prop.<br>Qued |      | Number<br>Cycles | Aver.<br>Speed |
|-----------|--------|--------------|----------|------------|-------|---------------|--------------|----------------|---------------------|----------|---------|-----------------|------|------------------|----------------|
|           |        |              | [ Total  |            |       |               |              | 0.0900         |                     | (Veh.    | Dist ]  |                 |      | Depart           |                |
|           |        |              | veh/h    | %          | veh/h | %             | v/c          | sec            |                     | veh      | m       | -               |      |                  | km/h           |
| East:     | Belmo  | re Street    |          |            |       |               |              |                |                     |          |         |                 |      |                  |                |
| 5         | T1     | All MCs      | 216      | 0.0        | 216   | 0.0           | 0.111        | 0.0            | LOSA                | 0.0      | 0.0     | 0.00            | 0.00 | 0.00             | 59.9           |
| Appro     | oach   |              | 216      | 0.0        | 216   | 0.0           | 0.111        | 0.0            | NA                  | 0.0      | 0.0     | 0.00            | 0.00 | 0.00             | 59.9           |
| North     | : Burw | ood Plac     | e Exit   |            |       |               |              |                |                     |          |         |                 |      |                  |                |
| 7         | L2     | All MCs      | 81       | 0.0        | 81    | 0.0           | 0.060        | 6.2            | LOSA                | 0.2      | 1.7     | 0.30            | 0.57 | 0.30             | 44.2           |
| 9         | R2     | All MCs      | 123      | 0.0        | 123   | 0.0           | 0.137        | 7.5            | LOSA                | 0.5      | 3.4     | 0.41            | 0.71 | 0.41             | 42.8           |
| Appro     | oach   |              | 204      | 0.0        | 204   | 0.0           | 0.137        | 7.0            | LOSA                | 0.5      | 3.4     | 0.37            | 0.65 | 0.37             | 43.4           |
| West      | Belm   | ore Stree    | t        |            |       |               |              |                |                     |          |         |                 |      |                  |                |
| 11        | T1     | All MCs      | 213      | 0.0        | 213   | 0.0           | 0.109        | 0.0            | LOSA                | 0.0      | 0.0     | 0.00            | 0.00 | 0.00             | 60.0           |
| Appro     | oach   |              | 213      | 0.0        | 213   | 0.0           | 0.109        | 0.0            | NA                  | 0.0      | 0.0     | 0.00            | 0.00 | 0.00             | 60.0           |
| All Ve    | hicles |              | 633      | 0.0        | 633   | 0.0           | 0.137        | 2.3            | NA                  | 0.5      | 3.4     | 0.12            | 0.21 | 0.12             | 48.5           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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## 2028 AM Peak Stage 1 Completed

### MOVEMENT SUMMARY

Site: [105(5)] 1e. 2028 AM Base Burwood Rd and Railway Parade - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi   | cle M   | ovement   | Perto   | rma  | nce     |       |         |       |          |          |          |         |        |           |      |
|--------|---------|-----------|---------|------|---------|-------|---------|-------|----------|----------|----------|---------|--------|-----------|------|
| Mov    | Turn    | Mov       | Dem     | and  | Αr      | rival | Deg.    | Aver. | Level of | 95% Back | Of Queue | e Prop. |        | Number    | Ave  |
| ID     |         | Class     | F       | ows  | FI      | ows   | Satn    | Delay | Service  |          |          | Qued    | Stop c | of Cycles | Spee |
|        |         |           | [ Total | HV]  | [ Total | HV]   |         |       |          | [ Veh.   | Dist]    |         | Ratet  | o Depart  |      |
|        |         |           | veh/h   | %    | veh/h   | %     | v/c     | sec   | 5        | veh      | m        |         | 200    | 10000     | km   |
| South  | n: Burv | ood Roa   | d (S)   |      |         |       |         |       |          |          |          |         |        |           |      |
| 1      | L2      | All MCs   | 94      | 5.6  | 94      | 5.6   | 0.590   | 24.8  | LOS B    | 9.5      | 69.3     | 0.43    | 0.45   | 0.43      | 21.  |
| 2      | T1      | All MCs   | 614     | 5.0  | 614     | 5.0   | 0.590   | 18.7  | LOS B    | 10.0     | 72.9     | 0.43    | 0.41   | 0.43      | 24.  |
| 3      | R2      | All MCs   | 0       | 100. | 0       | 100.  | * 0.590 | 32.2  | LOS C    | 10.0     | 72.9     | 0.44    | 0.38   | 0.44      | 29   |
|        |         |           |         | 0    |         | 0     |         |       |          |          |          |         |        |           |      |
| Appro  | oach    |           | 707     | 5.1  | 707     | 5.1   | 0.590   | 19.5  | LOS B    | 10.0     | 72.9     | 0.43    | 0.42   | 0.43      | 19   |
| East:  | Railw   | ay Parade | e (E)   |      |         |       |         |       |          |          |          |         |        |           |      |
| 4      | L2      | All MCs   | 62      | 1.7  | 62      | 1.7   | 0.219   | 74.6  | LOS F    | 5.2      | 36.8     | 0.85    | 0.72   | 0.85      | 14.  |
| 5      | T1      | All MCs   | 273     | 2.3  | 273     | 2.3   | 0.586   | 70.6  | LOS F    | 14.4     | 102.8    | 0.92    | 0.77   | 0.92      | 14.  |
| Appro  | oach    |           | 335     | 2.2  | 335     | 2.2   | 0.586   | 71.3  | LOS F    | 14.4     | 102.8    | 0.90    | 0.76   | 0.90      | 10   |
| North  | : Burw  | ood Road  | d (N)   |      |         |       |         |       |          |          |          |         |        |           |      |
| 7      | L2      | All MCs   | 38      | 0.0  | 38      | 0.0   | 0.121   | 15.8  | LOS B    | 3.6      | 27.1     | 0.42    | 0.43   | 0.42      | 28.  |
| 8      | T1      | All MCs   | 318     | 11.3 | 318     | 11.3  | 0.565   | 12.1  | LOSA     | 10.0     | 79.2     | 0.62    | 0.85   | 0.62      | 10.  |
| 9      | R2      | All MCs   | 118     | 22.3 | 118     | 22.3  | * 0.565 | 19.7  | LOS B    | 10.0     | 79.2     | 0.71    | 1.05   | 0.71      | 9.   |
| Appro  | oach    |           | 474     | 13.1 | 474     | 13.1  | 0.565   | 14.3  | LOSA     | 10.0     | 79.2     | 0.63    | 0.87   | 0.63      | 12   |
| West   | Railw   | ay Parad  | e (W)   |      |         |       |         |       |          |          |          |         |        |           |      |
| 10     | L2      | All MCs   | 178     | 17.2 | 178     | 17.2  | 0.298   | 41.6  | LOS C    | 9.4      | 75.5     | 0.83    | 0.77   | 0.83      | 12   |
| 11     | T1      | All MCs   | 293     | 2.2  | 293     | 2.2   | * 0.590 | 50.7  | LOS D    | 17.8     | 127.2    | 0.95    | 0.81   | 0.95      | 17.  |
| Appro  | oach    |           | 471     | 7.8  | 471     | 7.8   | 0.590   | 47.3  | LOS D    | 17.8     | 127.2    | 0.90    | 0.80   | 0.90      | 16   |
| All Ve | hicles  |           | 1986    | 7.2  | 1986    | 7.2   | 0.590   | 33.6  | LOSC     | 17.8     | 127.2    | 0.67    | 0.67   | 0.67      | 15   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [106(5)] 1f. 2028 AM Base Railway Pde and Wynne Ave -Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov       | Dem      |      |         | rival | Deg.    | Aver. | Lavel of | 95% Back | OfQueue |      |      | Number               | Aver |
|--------|--------|-----------|----------|------|---------|-------|---------|-------|----------|----------|---------|------|------|----------------------|------|
| ID     |        | Class     | Total    |      | [ Total |       | Satn    | Delay | Service  | ( Veh.   | Dist    | Qued |      | f Cycles<br>o Depart | Spee |
|        |        |           |          | 1/6  | veh/h   | %     | V/C     | Sec   | _        | Veh      | m       |      | _    | _                    | km/r |
| South  | i: Wyn | ne Avenu  | ie (S)   |      |         |       |         |       |          |          |         |      |      |                      |      |
| 1      | L2     | All MCs   | 45       | 0.0  | 45      | 0.0   | 0.268   | 68.2  | LOSE     | 2.9      | 20,6    | 0.96 | 0.74 | 0,96                 | 4.   |
| 2      | T1     | All MCs   | 3        | 0.0  | 3.      | 0.0   | * 0.238 | 59.2  | LOSE     | 2.5      | 17.2    | 0.96 | 0.73 | 0.96                 | 17.  |
| 3      | R2     | All MCs   | 35       | 0.0  | 35      | 0.0   | 0.238   | 68,4  | LOSE     | 2.5      | 17.2    | 0.96 | 0.73 | 0.96                 | 4.   |
| Appro  | oach   |           | 83       | 0.0  | 83      | 0.0   | 0.268   | 67.9  | LOSE     | 2.9      | 20.6    | 0.96 | 0.74 | 0.96                 | 5.   |
| East:  | Railw  | ay Parade | e (E)    |      |         |       |         |       |          |          |         |      |      |                      |      |
| 4      | L2     | All MCs   | 20       | 15.8 | 20      | 15,8  | 0.163   | 14.7  | LOS B    | 3.9      | 29.1    | 0.30 | 0,29 | 0.30                 | 29.  |
| 5      | T1     | All MCs   | 409      | 7.7  | 409     | 7.7   | 0.163   | 4.2   | LOSA     | 3.9      | 29.1    | 0.27 | 0.25 | 0.27                 | 30.  |
| Appro  | oach   |           | 429      | 8.1  | 429     | 8.1   | 0.163   | 4.7   | LOSA     | 3.9      | 29.1    | 0.27 | 0.25 | 0.27                 | 30.  |
| North  | Burw   | ood Cent  | tral Car | Park | (N)     |       |         |       |          |          |         |      |      |                      |      |
| 7      | L2     | All MCs   | 19       | 0.0  | 19      | 0.0   | 0.102   | 65.3  | LOSE     | 1.2      | 8.3     | 0.94 | 0.70 | 0.94                 | 16.  |
| 8      | T1     | All MCs   | 0        | 0.0  | 0       | 0.0   | 0.000   | 54.5  | LOS D    | 0.0      | 0.0     | 0.87 | 0.46 | 0.87                 | 18.  |
| Appro  | oach   |           | 19       | 0.0  | 19      | 0.0   | 0.102   | 65,3  | LOSE     | 1.2      | 8.3     | 0.93 | 0.70 | 0.93                 | 16.  |
| West   | Railw  | ay Parad  | e (W)    |      |         |       |         |       |          |          |         |      |      |                      |      |
| 10     | L2     | All MCs   | 5        | 0.0  | 5       | 0.0   | 0.261   | 15.7  | LOSB     | 6.8      | 50.8    | 0.31 | 0.28 | 0.31                 | 36.  |
| 11     | T1     | All MCs   | 447      | 8.5  | 447     | 8.5   | 0.261   | 5.3   | LOSA     | 6.8      | 50.8    | 0.34 | 0.33 | 0.34                 | 26.  |
| 12     | R2     | All MCs   | 107      | 1.0  | 107     | 1.0   | * 0.261 | 15,7  | LOSB     | 5.6      | 41.1    | 0.43 | 0.50 | 0.43                 | 21.  |
| Appro  | oach   |           | 560      | 7.0  | 560     | 7.0   | 0.261   | 7.4   | LOSA     | 6,8      | 50.8    | 0,36 | 0.37 | 0.36                 | 25.  |
| All Ve | hides  |           | 1092     | 6.7  | 1092    | 6.7   | 0.268   | 12.0  | LOSA     | 6.8      | 50.8    | 0.38 | 0.35 | 0.38                 | 21.  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [107(5)] 1g. 2028 AM Base Railway Pde and Conder St -Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network; [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Railway Parade and Conder Street Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Vehi      | cle M  | ovemen       | t Perfo | rma  | nce             |             |              |                |                     |              |             |               |      |                     |             |
|-----------|--------|--------------|---------|------|-----------------|-------------|--------------|----------------|---------------------|--------------|-------------|---------------|------|---------------------|-------------|
| Mov<br>ID | Turn   | Mov<br>Class |         | lows | F               | nval<br>ows | Deg.<br>Saln | Aver.<br>Delay | Lavel of<br>Service | 95% Back     |             | Prop.<br>Qued |      | Number<br>of Cycles | Ave<br>Spee |
|           |        |              | (Total  |      | [Total<br>ven/n | HV j        | V/c          | sec            |                     | (Veh.<br>veh | Dist  <br>m |               | Rate | o Depart            | km/         |
| South     | : Con  | der Stree    |         | - 50 |                 |             | V/-          | 300            |                     | Vall         |             | _             |      |                     | MARIE       |
| 1a        | L1     | All MCs      | 296     | 0.4  | 296             | 0.4         | 0.508        | 5.3            | LOSA                | 3.9          | 27.6        | 0.72          | 0.65 | 0.75                | 37.         |
| 2         | T1     | All MCs      | 2       | 0.0  | 2               | 0.0         | 0.508        | 5.6            | LOSA                | 3.9          | 27.6        | 0.72          | 0.65 | 0.75                | 35.         |
| 3         | R2     | All MCs      | 160     | 2.0  | 160             | 2.0         | 0.508        | 8,9            | LOSA                | 3.9          | 27.6        | 0.72          | 0.65 | 0.75                | 28          |
| 3u        | U      | All MCs      | 15      | 0.0  | 15              | 0.0         | 0.508        | 10.1           | LOSA                | 3.9          | 27.6        | 0.72          | 0.65 | 0.75                | 28          |
| Appro     | oach   |              | 473     | 0.9  | 473             | 0.9         | 0.508        | 6.7            | LOSA                | 3.9          | 27.6        | 0.72          | 0.65 | 0.75                | 35          |
| East:     | Railw  | ay Parad     | e (E)   |      |                 |             |              |                |                     |              |             |               |      |                     |             |
| 4         | L2     | All MCs      | 165     | 1.9  | 165             | 1.9         | 0.164        | 4.8            | LOSA                | 0.9          | 6.6         | 0.44          | 0.53 | 0.44                | 24          |
| 6a        | R1     | All MCs      | 275     | 7.7  | 275             | 7.7         | 0.294        | 5,9            | LOSA                | 1.9          | 14.7        | 0.47          | 0.57 | 0.47                | 35          |
| 5         | R2     | All MCs      | 1       | 0.0  | 1               | 0.0         | 0.294        | 6.4            | LOSA                | 1.9          | 14.7        | 0.47          | 0.57 | 0.47                | 34          |
| 6u        | U      | All MCs      | 93      | 17.0 | 93              | 17.0        | 0.294        | 8.0            | LOSA                | 1.9          | 14.7        | 0.47          | 0.57 | 0.47                | 23          |
| Appro     | ach    |              | 534     | 7.5  | 534             | 7.5         | 0.294        | 6.0            | LOSA                | 1.9          | 14.7        | 0.46          | 0.56 | 0.46                | 32          |
| North     | : Appa | artments     | (N)     |      |                 |             |              |                |                     |              |             |               |      |                     |             |
| 7         | L2     | All MCs      | 2       | 0.0  | 2               | 0.0         | 0.020        | 7.2            | LOSA                | 0.1          | 0.7         | 0.67          | 0.67 | 0.67                | 33          |
| 8         | T1     | All MCs      | 3       | 0.0  | 3               | 0.0         | 0.020        | 6.4            | LOSA                | 0.1          | 0.7         | 0.67          | 0.67 | 0.67                | 33          |
| 9b        | R3     | All MCs      | 7       | 0,0  | 7               | 0.0         | 0.020        | 10.3           | LOSA                | 0.1          | 0.7         | 0.67          | 0.67 | 0.67                | 36          |
| 9u        | U      | All MCs      | 0       | 0.0  | 0               | 0.0         | 0.020        | 10.9           | LOSA                | 0.1          | 0.7         | 0.67          | 0.67 | 0.67                | 36          |
| Appro     | ach    |              | 13      | 0.0  | 13              | 0.0         | 0.020        | 8.8            | LOSA                | 0.1          | 0.7         | 0.67          | 0.67 | 0.67                | 35          |
| North     | West:  | Railway      | Parade  | (NE) |                 |             |              |                |                     |              |             |               |      |                     |             |
| 27b       | L3     | All MCs      | 2       | 0.0  | 2               | 0.0         | 0.488        | 6.3            | LOSA                | 3,6          | 26.5        | 0.63          | 0.60 | 0.63                | 38          |
| 27a       | L1     | All MCs      | 302     | 7.7  | 302             | 7.7         | 0.488        | 5.6            | LOSA                | 3.6          | 26.5        | 0.63          | 0.60 | 0,63                | 37          |
| 29a       | R1     | All MCs      | 187     | 2.8  | 187             | 2.8         | 0.488        | 8.3            | LOSA                | 3.6          | 26.5        | 0.63          | 0.60 | 0.63                | 37          |
| 29u       | U      | All MCs      | 3       | 0.0  | 3               | 0.0         | 0.488        | 10.5           | LOSA                | 3.6          | 26.5        | 0.63          | 0.60 | 0.63                | 40          |
| Appro     | ach    |              | 495     | 5.7  | 495             | 5.7         | 0.488        | 6.6            | LOSA                | 3.6          | 26.5        | 0.63          | 0.60 | 0.63                | 37          |
| All Ve    | hides  |              | 1514    | 4.8  | 1514            | 4.8         | 0.508        | 6.4            | LOSA                | 3.9          | 27.6        | 0.60          | 0.60 | 0.61                | 35          |

Site Level of Service (LOS) Method: Delay (NSW), Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(5)] 1j. 2028 AM Base Burwood Rd and Belmore St -Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov        | Den   | nand         | Αr         | rival       | Deg.    | Aver. | Lavel of | 95% Back | Of Queue | e Prop. | Eff  | Number             | Aver  |
|--------|--------|------------|-------|--------------|------------|-------------|---------|-------|----------|----------|----------|---------|------|--------------------|-------|
| ID     |        | Class      |       | lows<br>HV j | F<br>Total | ows<br>HV j | Sain    | Delay | Service  | ( Veh.   | Dist     | Qued    |      | f Cycles<br>Depart | Speed |
|        |        |            | veh/h | 196          | veh/h      | %           | V/c     | sec   |          | veh      | m        |         | -    |                    | km/n  |
| South  | : Burv | ood Roa    | d(S)  |              |            |             |         |       |          |          |          |         |      |                    |       |
| 1      | L2     | All MCs    | 7.7   | 0.0          | 77         | 0.0         | 0.153   | 39.7  | LOSC     | 4.9      | 35.2     | 0,52    | 0.55 | 0,52               | 28.8  |
| 2      | T1     | All MCs    | 611   | 5.3          | 611        | 5.3         | 0.740   | 42.6  | LOS D    | 31.2     | 227.7    | 0.78    | 0.73 | 0.78               | 26.3  |
| 3      | R2     | All MCs    | 78    | 1.4          | 78         | 1.4         | * 0.740 | 49.6  | LOS D    | 31.2     | 227.7    | 0.82    | 0.75 | 0.82               | 31.1  |
| Appro  | ach    |            | 765   | 4.4          | 765        | 4.4         | 0.740   | 43.0  | LOS D    | 31.2     | 227.7    | 0.76    | 0.71 | 0.76               | 21.7  |
| East:  | Belmo  | ore Street | (E)   |              |            |             |         |       |          |          |          |         |      |                    |       |
| 4      | L2     | All MCs    | 23    | 9.1          | 23         | 9.1         | 0.447   | 63.0  | LOSE     | 8.5      | 60.4     | 0.95    | 0.78 | 0.95               | 24.2  |
| 5      | T1     | All MCs    | 94    | 0.0          | 94         | 0.0         | 0.447   | 55.8  | LOS D    | 8.5      | 60.4     | 0.95    | 0.78 | 0.95               | 17.7  |
| 6      | R2     | All MCs    | 20    | 0.0          | 20         | 0.0         | 0.447   | 64.5  | LOSE     | 8.5      | 60.4     | 0.95    | 0.78 | 0.95               | 17.7  |
| Appro  | oach   |            | 137   | 1.5          | 137        | 1,5         | 0.447   | 58.3  | LOSE     | 8.5      | 60.4     | 0.95    | 0.78 | 0.95               | 19.2  |
| North  | Burw   | ood Roa    | d (N) |              |            |             |         |       |          |          |          |         |      |                    |       |
| 7      | L2     | All MCs    | 38    | 2.8          | 38         | 2.8         | 0.075   | 7.8   | LOSA     | 1.2      | 9.0      | 0.20    | 0.31 | 0.20               | 36.2  |
| 8      | T1     | All MCs    | 352   | 10.5         | 352        | 10.5        | 0.375   | 4.6   | LOSA     | 4.4      | 33.1     | 0.37    | 0.68 | 0.37               | 31.2  |
| 9      | R2     | All MCs    | 27    | 0.0          | 27         | 0.0         | * 0.375 | 9.8   | LOSA     | 4.4      | 33.1     | 0.40    | 0.75 | 0.40               | 17.3  |
| Appro  | ach    |            | 417   | 9.1          | 417        | 9.1         | 0.375   | 5,3   | LOSA     | 4.4      | 33.1     | 0.35    | 0.65 | 0.35               | 31.2  |
| West   | Belm   | ore Stree  | t (W) |              |            |             |         |       |          |          |          |         |      |                    |       |
| 10     | L2     | All MCs    | 29    | 0.0          | 29         | 0.0         | 0.158   | 41.2  | LOS C    | 3.4      | 23.9     | 0.86    | 0.70 | 0.86               | 6.0   |
| 11     | T1     | All MCs    | 109   | 0.0          | 109        | 0,0         | 0.745   | 62.1  | LOSE     | 11.3     | 80.4     | 0.96    | 0.84 | 1.03               | 18.3  |
| 12     | R2     | All MCs    | 84    | 3.8          | 84         | 3.8         | * 0.745 | 74.5  | LOSF     | 11.3     | 80.4     | 1.00    | 0.89 | 1.10               | 17.4  |
| Appro  | ach    |            | 223   | 1.4          | 223        | 1.4         | 0.745   | 64.0  | LOSE     | 11.3     | 80.4     | 0.96    | 0.84 | 1.03               | 17.1  |
| All Ve | hides  |            | 1542  | 5.0          | 1542       | 5.0         | 0.745   | 37.2  | Los C    | 31.2     | 227.7    | 0.69    | 0.72 | 0.70               | 22.6  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx.



Site: [111(5)] 1k, 2028 AM Base Belmore St and Wynne Ave -Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| The same |        | A Street  | B. C.          |             |       |             |       | A     |          | SEM BULL | aia    |      |        | All miles             |       |
|----------|--------|-----------|----------------|-------------|-------|-------------|-------|-------|----------|----------|--------|------|--------|-----------------------|-------|
| Mov      | tum    | Mov       | Dem            |             |       | rival       | Deg.  | Aver. | Lavel of | 95% Back | OfQueu |      |        | Number                | Aver  |
| ID       |        | Class     | Fi<br>(Total i | ows<br>av i |       | OWS<br>HV i | Satn  | Delay | Service  | (Veh.    | Dist   | Qued |        | of Cycles<br>o Depart | Speed |
|          |        |           | veh/h          |             | veh/n | %           | V/c   | sec   |          | veh      | m      |      | naic i | o mekan               | Km/r  |
| East.    | Belmo  | ore Stree | t              |             |       |             |       |       |          |          |        |      |        |                       |       |
| 5        | T1     | All MCs   | 95             | 0.0         | 95    | 0.0         | 0.136 | 4.1   | LOSA     | 8.0      | 5.4    | 0.16 | 0.55   | 0.16                  | 27.4  |
| 6        | R2     | All MCs   | 78             | 0.0         | 78    | 0.0         | 0.136 | 6.6   | LOSA     | 0.8      | 5.4    | 0.16 | 0.55   | 0.16                  | 27.4  |
| 6u       | U      | All MCs   | 11             | 0.0         | 11    | 0.0         | 0.136 | 7.9   | LOSA     | 0.8      | 5.4    | 0.16 | 0.55   | 0.16                  | 27.4  |
| Appro    | oach   |           | 183            | 0.0         | 183   | 0.0         | 0.136 | 5.4   | LOSA     | 8.0      | 5.4    | 0.16 | 0.55   | 0.16                  | 27.4  |
| North    | . Wynr | ne Avenu  | ie.            |             |       |             |       |       |          |          |        |      |        |                       |       |
| 7        | L2     | All MCs   | 46             | 9.1         | 46    | 9,1         | 0.087 | 5.1   | LOSA     | 0.4      | 2.8    | 0.34 | 0.61   | 0.34                  | 21.2  |
| 9        | R2     | All MCs   | 31             | 0.0         | 31    | 0.0         | 0.087 | 6.8   | LOSA     | 0.4      | 2.8    | 0.34 | 0.61   | 0.34                  | 21.2  |
| 9u       | U      | All MCs   | 3              | 0.0         | 3     | 0.0         | 0.087 | 8.1   | LOSA     | 0.4      | 2.8    | 0.34 | 0.61   | 0.34                  | 21.2  |
| Appro    | oach   |           | 80             | 5.3         | 80    | 5.3         | 0.087 | 5.9   | LOSA     | 0.4      | 2.8    | 0.34 | 0.61   | 0.34                  | 21.2  |
| West     | Belm   | ore Stree | et             |             |       |             |       |       |          |          |        |      |        |                       |       |
| 10       | L2     | All MCs   | 199            | 0.0         | 199   | 0.0         | 0.352 | 5.2   | LOSA     | 2.3      | 15.9   | 0.33 | 0.50   | 0.33                  | 33.8  |
| 11       | T1     | All MCs   | 187            | 1.1         | 187   | 1.1         | 0.352 | 4.6   | LOSA     | 2.3      | 15.9   | 0.33 | 0.50   | 0.33                  | 33.8  |
| 12u      | U      | All MCs   | 4              | 0.0         | 4     | 0.0         | 0.352 | 8.5   | LOSA     | 2.3      | 15.9   | 0.33 | 0.50   | 0.33                  | 33.8  |
| Appro    | oach   |           | 391            | 0.5         | 391   | 0.5         | 0.352 | 4.9   | LOSA     | 2.3      | 15.9   | 0.33 | 0.50   | 0.33                  | 33.8  |
| All Ve   | hides  |           | 654            | 1.0         | 654   | 1.0         | 0.352 | 5.2   | LOSA     | 2.3      | 15.9   | 0.28 | 0.52   | 0,28                  | 31.2  |

Site Level of Service (LOS) Method: Detay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [112(5)] 11, 2028 AM Base Belmore St and Conder St -Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design

Give-Way (Two-Way) Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Maria  | T     | Alberta   | Den   | Bereit. | . 4.    | rival | River | Acces | Lavel of | 0000 0-4 | nen.     | Die  |         | all south an | Acres |
|--------|-------|-----------|-------|---------|---------|-------|-------|-------|----------|----------|----------|------|---------|--------------|-------|
| Mov    | tum   | Mov       |       |         |         |       | Deg.  | Aver. |          | 95% Back | (C) Cueu |      |         | Number       | Aver  |
| ID     |       | Class     |       | ows     |         | DWS   | Satn  | Delay | Service  |          |          | Qued |         | Cycles       | Spee. |
|        |       |           | Total |         | [ Total |       |       | - 100 |          | (Ven.    | Dist     |      | Rate to | Depart       |       |
| -      | _     | _         | veh/h | %       | Veh/h   | 1//   | V/C   | sec   | _        | veh      | m        | _    | _       |              | Km/r  |
| South  | : Con | der Stree | t     |         |         |       |       |       |          |          |          |      |         |              |       |
| 2      | T1    | All MCs   | 400   | 0.0     | 400     | 0.0   | 0.362 | 2.0   | LOSA     | 1,6      | 10.9     | 0.33 | 0.47    | 0,33         | 45.7  |
| 3      | R2    | All MCs   | 183   | 0.0     | 183     | 0.0   | 0.362 | 6.2   | LOSA     | 1.6      | 10.9     | 0.33 | 0.47    | 0.33         | 45.7  |
| Appro  | oach  |           | 583   | 0.0     | 583     | 0.0   | 0.362 | 3.3   | NA       | 1.6      | 10.9     | 0.33 | 0.47    | 0.33         | 45.7  |
| East:  | Belmo | ore Stree | t     |         |         |       |       |       |          |          |          |      |         |              |       |
| 4      | L2    | All MCs   | 64    | 0.0     | 64      | 0,0   | 0.158 | 5.0   | LOSA     | 0.6      | 4.0      | 0.41 | 0.58    | 0.41         | 41.8  |
| 6      | R2    | All MCs   | 61    | 0.0     | 61      | 0,0   | 0.158 | 9,9   | LOSA     | 0.6      | 4.0      | 0.41 | 0.58    | 0.41         | 30.4  |
| Appro  | oach  |           | 125   | 0.0     | 125     | 0.0   | 0.158 | 7.4   | LOSA     | 0,6      | 4.0      | 0.41 | 0.58    | 0.41         | 39.1  |
| North  | Cond  | der Stree | t     |         |         |       |       |       |          |          |          |      |         |              |       |
| 7      | L2    | All MCs   | 213   | 1.0     | 213     | 1.0   | 0.193 | 4.6   | LOSA     | 0.0      | 0.0      | 0.00 | 0.34    | 0.00         | 41.1  |
| 8      | T1    | All MCs   | 126   | 5.0     | 126     | 5.0   | 0.193 | 0.0   | LOSA     | 0.0      | 0.0      | 0.00 | 0.34    | 0.00         | 47.2  |
| Appro  | oach  |           | 339   | 2.5     | 339     | 2.5   | 0.193 | 2.9   | NA       | 0.0      | 0.0      | 0.00 | 0.34    | 0.00         | 45.1  |
| All Ve | hides |           | 1047  | 0.8     | 1047    | 0.8   | 0.362 | 3.7   | NA       | 1.6      | 10.9     | 0.23 | 0.44    | 0.23         | 44.7  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula; SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [113(5)] 1m. 2028 AM Base Wynne Avenue and Burwood

Place - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network; [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Burwood Place

Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| May    | Turn   | Mov       | Den          |              | Αr      | rival       | Deg.    | Aver. | Level of | 95% Back | Of Queu | е Ргор. | Eff  | Number                | Aver |
|--------|--------|-----------|--------------|--------------|---------|-------------|---------|-------|----------|----------|---------|---------|------|-----------------------|------|
| D      |        | Class     | Fi<br>(Total | lows<br>HV j |         | ows<br>HV j | Satn    | Delay | Service  | ( Veh.   | Dist    | Qued    |      | of Cycles<br>o Depart | Spee |
| -      | -      | _         | veh/h        | %            | veh/h   | %           | V/c     | sec   | _        | veh      | m       | _       |      | -                     | km/r |
| South  | i: Wyn | ne Avenu  | ie (S)       |              |         |             |         |       |          |          |         |         |      |                       |      |
| 1      | L2     | All MCs   | 11           | 0.0          | 11      | 0.0         | 0.010   | 7.8   | LOSA     | 0,2      | 1.4     | 0.22    | 0.50 | 0.22                  | 41.  |
| 2      | T1     | All MCs   | 2            | 95.2         | 2       | 95.2        | 0.010   | 3.5   | LOSA     | 0.2      | 1.4     | 0.22    | 0.50 | 0.22                  | 19.  |
| 3      | R2     | All MCs   | 280          | 0.0          | 280     | 0.0         | * 0.255 | 8.7   | LOSA     | 5.1      | 35.4    | 0.29    | 0.63 | 0.29                  | 40.0 |
| Appro  | ach    |           | 293          | 0.7          | 293     | 0.7         | 0.255   | 8.6   | LOSA     | 5.1      | 35.4    | 0.29    | 0.63 | 0.29                  | 39.  |
| East:  | Emen   | ald Squar | e/Burw       | ood F        | Plaza ( | E)          |         |       |          |          |         |         |      |                       |      |
| 4      | L2     | All MCs   | 31           | 0.0          | 31      | 0.0         | *0.198  | 70.5  | LOSF     | 2.0      | 14.0    | 0.96    | 0.72 | 0.96                  | 17.  |
| 5      | T1     | All MCs   | 0            | 0.0          | 0       | 0.0         | 0.001   | 60.8  | LOSE     | 0.0      | 0.1     | 0.92    | 0.52 | 0.92                  | 26.  |
| 6      | R2     | All MCs   | 0            | 0.0          | 0       | 0.0         | 0.001   | 65,7  | LOSE     | 0,0      | 0.1     | 0.92    | 0.52 | 0.92                  | 18.  |
| Appro  | ach    |           | 31           | 0.0          | 31      | 0.0         | 0.198   | 70,5  | LOSE     | 2.0      | 14.0    | 0.96    | 0.72 | 0.96                  | 17.  |
| North  | : Wyn  | ne Avenu  | e (N)        |              |         |             |         |       |          |          |         |         |      |                       |      |
| 7      | L2     | All MCs   | 0            | 0.0          | 0       | 0.0         | 0.006   | 6.7   | LOSA     | 0.0      | 0.6     | 0.13    | 0.10 | 0.13                  | 43.  |
| 8      | T1     | All MCs   | 5            | 98.0         | 5       | 98.0        | 0.006   | 1.8   | LOSA     | 0.0      | 0.6     | 0.13    | 0.10 | 0.13                  | 30   |
| 9      | R2     | All MCs   | 0            | 0.0          | 0       | 0.0         | 0.000   | 5.1   | LOSA     | 0.0      | 0.0     | 0.04    | 0.53 | 0.04                  | 43.  |
| Appro  | ach    |           | 6            | 94.3         | 6       | 94.3        | 0.006   | 1.9   | LOSA     | 0.0      | 0.6     | 0.13    | 0.11 | 0.13                  | 32.  |
| West   | Burw   | ood Gran  | id (VV)      |              |         |             |         |       |          |          |         |         |      |                       |      |
| 10     | L2     | All MCs   | 0            | 0.0          | 0       | 0.0         | 0.001   | 66.7  | LOSE     | 0.0      | 0.0     | 0.93    | 0.52 | 0.93                  | 17.  |
| 11     | T1     | All MCs   | 0            | 0.0          |         | 0,0         | 0.023   | 60.8  | LOSE     | 0.2      | 1.5     | 0.94    | 0.63 | 0.94                  | 25.  |
| 12     | R2     | All MCs   | 3            | 0.0          | 3       | 0.0         | 0.023   | 68.9  | LOSE     | 0.2      | 1.5     | 0.94    | 0.63 | 0.94                  | 17.  |
| Appro  | ach    |           | 3            | 0.0          | 3       | 0.0         | 0.023   | 68.6  | LOSE     | 0.2      | 1.5     | 0.94    | 0.63 | 0.94                  | 17.  |
| All Ve | hides  |           | 332          | 2.2          | 332     | 2.2         | 0.255   | 14.8  | LOSB     | 5.1      | 35.4    | 0.35    | 0.63 | 0.35                  | 35.  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [114(3)] 1n. 2028 AM Base Belmore St and Burwood Place Exit - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site Site Category: (None) Give-Way (Two-Way)

| Mov    | Turn  |            | Den    |     |         | rival | Deg.  | Aver. | Lavel of | 95% Back | Of Queu |      |      | Vumber           | Aver  |
|--------|-------|------------|--------|-----|---------|-------|-------|-------|----------|----------|---------|------|------|------------------|-------|
| ID     |       | Class      | Total  |     | [ Total |       | Sam   | Delay | Service  | ( Veh.   | Dist    | Qued |      | Cycles<br>Depart | Speel |
| -      | -     | _          | veh/h  | "Yo | veh/h   | %     | V/C   | sec   | _        | veh      | m       |      | _    |                  | km/n  |
| East:  | Belmo | re Street  |        |     |         |       |       |       |          |          |         |      |      |                  |       |
| 5      | T1    | All MCs    | 188    | 0.0 | 188     | 0.0   | 0.097 | 0,0   | LOSA     | 0.0      | 0.0     | 0.00 | 0.00 | 0,00             | 60.0  |
| Appro  | ach   |            | 188    | 0.0 | 188     | 0.0   | 0.097 | 0.0   | NA       | 0.0      | 0.0     | 0.00 | 0.00 | 0.00             | 60.0  |
| North  | Burw  | ood Place  | e Exit |     |         |       |       |       |          |          |         |      |      |                  |       |
| 7      | L2    | All MCs    | .7     | 0.0 | 7       | 0.0   | 0.006 | 6.2   | LOSA     | 0.0      | 0.1     | 0.30 | 0.54 | 0.30             | 44.2  |
| 9      | R2    | All MCs    | 9      | 0.0 | 9       | 0,0   | 0.010 | 7.2   | LOSA     | 0.0      | 0.2     | 0.38 | 0.63 | 0.38             | 43.3  |
| Appro  | ach   |            | 17     | 0.0 | 17      | 0.0   | 0.010 | 6.8   | LOSA     | 0.0      | 0.2     | 0.34 | 0.59 | 0.34             | 43.7  |
| West   | Belm  | ore Street | t      |     |         |       |       |       |          |          |         |      |      |                  |       |
| 11     | T.1   | All MCs    | 231    | 0.0 | 231     | 0.0   | 0.118 | 0.0   | LOSA     | 0.0      | 0.0     | 0.00 | 0.00 | 0.00             | 59.9  |
| Appro  | oach  |            | 231    | 0.0 | 231     | 0.0   | 0.118 | 0.0   | NA       | 0.0      | 0.0     | 0.00 | 0.00 | 0.00             | 59.9  |
| All Ve | hides |            | 436    | 0.0 | 436     | 0.0   | 0.118 | 0.3   | NA       | 0.0      | 0.2     | 0.01 | 0.02 | 0.01             | 57.4  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [1 (2)] 2028 AM Railway Pde Access (2025 AM EXISTING 8:00-9:00)

Network: [N101(7)] 2028 AM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Left-In Left-Out Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

|        |         |          |        |     |       |       |       | A     |          | SAM A TI | a a a u |      | F-20 1  |        |       |
|--------|---------|----------|--------|-----|-------|-------|-------|-------|----------|----------|---------|------|---------|--------|-------|
| Mov    | Tum     |          | Den    |     |       | riva) | Deg.  | Aver. | Lavel of | 95% Back | OrQueur |      |         | Vumber | Aver  |
| ID     |         | Class    |        | ows |       | ows   | Satn  | Delay | Service  |          |         | Qued |         | Cycles | Speed |
|        |         |          | Total  |     |       | HV )  |       |       |          | (Veh.    | Dist    |      | Rate to | Depart |       |
|        | -       | _        | veh/h  | %   | Veh/h | 1%    | V/C   | SEC   | _        | veh      | m       | _    |         |        | km/n  |
| South  | n: Deve | elopment | Access |     |       |       |       |       |          |          |         |      |         |        |       |
| 1      | L2      | All MCs  | 214    | 2.0 | 214   | 2.0   | 0.123 | 5,8   | LOSA     | 0.5      | 3.4     | 0.00 | 0.53    | 0,00   | 51.0  |
| Appro  | oach    |          | 214    | 2.0 | 214   | 2.0   | 0.123 | 5.8   | NA       | 0.5      | 3.4     | 0.00 | 0.53    | 0.00   | 51.0  |
| East.  | Railwa  | ay Parad | ė      |     |       |       |       |       |          |          |         |      |         |        |       |
| 2      | L2      | All MCs  | 256    | 1.6 | 256   | 1.6   | 0.147 | 5.3   | LOSA     | 0.6      | 3.9     | 0.00 | 0.53    | 0.00   | 50.2  |
| 3      | T1      | All MCs  | 421    | 0.0 | 421   | 0.0   | 0.108 | 0.0   | LOSA     | 0.0      | 0.0     | 0.00 | 0.00    | 0.00   | 60.0  |
| Appro  | oach    |          | 677    | 0.6 | 677   | 0.6   | 0.147 | 2.0   | NA       | 0,6      | 3.9     | 0.00 | 0.20    | 0.00   | 51.8  |
| West   | Railw   | ay Parac | le     |     |       |       |       |       |          |          |         |      |         |        |       |
| 4      | T1      | All MCs  | 116    | 9.1 | 116   | 9.1   | 0.027 | 0.0   | LOSA     | 0.0      | 0.0     | 0.00 | 0.00    | 0.00   | 60.0  |
| Appro  | oach    |          | 116    | 9.1 | 116   | 9.1   | 0.027 | 0.0   | NA       | 0.0      | 0.0     | 0.00 | 0.00    | 0.00   | 60.0  |
| All Ve | hides   |          | 1006   | 1.9 | 1006  | 1.9   | 0.147 | 2.6   | NA       | 0.6      | 3.9     | 0.00 | 0.25    | 0.00   | 51.8  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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## 2028 PM Peak Stage 1 Completed

### MOVEMENT SUMMARY

Site: [105(6)] 2e. 2028 PM Base Burwood Rd and Railway Parade - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov    | Turn    | Mov       | Den     | nand      | Ar      | rival     | Deg.    | Aver. | Level of | 95% Back | Of Queue | e Prop. | Eff. | Number    | Aver  |
|--------|---------|-----------|---------|-----------|---------|-----------|---------|-------|----------|----------|----------|---------|------|-----------|-------|
| ID     |         | Class     | F       | lows      | F       | ows       | Satn    | Delay | Service  |          |          | Qued    | Stop | of Cycles | Speed |
|        |         |           | [ Total | HV]       | [ Total | HV ]      |         |       |          | [ Veh.   | Dist ]   |         | Rate | to Depart |       |
|        | 1.0     |           | veh/h   | %         | veh/h   | %         | v/c     | sec   |          | veh      | m        |         |      |           | km/r  |
| South  | n: Burv | ood Roa   | d (S)   |           |         |           |         |       |          |          |          |         |      |           |       |
| 1      | L2      | All MCs   | 89      | 1.2       | 89      | 1.2       | 0.642   | 26.7  | LOS B    | 9.1      | 65.5     | 0.62    | 0.58 | 0.62      | 19.9  |
| 2      | T1      | All MCs   | 624     | 4.4       | 624     | 4.4       | 0.642   | 19.5  | LOS B    | 9.5      | 69.5     | 0.62    | 0.56 | 0.62      | 23.2  |
| 3      | R2      | All MCs   | - 1     | 100.<br>0 | 1       | 100.<br>0 | * 0.642 | 37.2  | LOS C    | 9.5      | 69.5     | 0.62    | 0.54 | 0.62      | 28.9  |
| Appro  | oach    |           | 715     | 4.1       | 715     | 4.1       | 0.642   | 20.4  | LOS B    | 9.5      | 69.5     | 0.62    | 0.56 | 0.62      | 19.1  |
| East:  | Railwa  | ay Parade | e (E)   |           |         |           |         |       |          |          |          |         |      |           |       |
| 4      | L2      | All MCs   | 63      | 0.0       | 63      | 0.0       | 0.239   | 49.1  | LOS D    | 3.1      | 21.6     | 0.90    | 0.73 | 0.90      | 16.6  |
| 5      | T1      | All MCs   | 273     | 2.3       | 273     | 2.3       | * 0.638 | 43.5  | LOS D    | 10.4     | 74.1     | 0.95    | 0.80 | 0.95      | 17.5  |
| Appro  | oach    |           | 336     | 1.9       | 336     | 1.9       | 0.638   | 44.6  | LOS D    | 10.4     | 74.1     | 0.94    | 0.79 | 0.94      | 15.0  |
| North  | : Burw  | ood Roa   | d (N)   |           |         |           |         |       |          |          |          |         |      |           |       |
| 7      | L2      | All MCs   | 40      | 2.6       | 40      | 2.6       | 0.128   | 13.4  | LOSA     | 2.6      | 19.2     | 0.45    | 0.45 | 0.45      | 30.1  |
| 8      | T1      | All MCs   | 323     | 9.1       | 323     | 9.1       | 0.598   | 9.2   | LOSA     | 6.9      | 53.9     | 0.70    | 0.85 | 0.70      | 11.2  |
| 9      | R2      | All MCs   | 115     | 20.2      | 115     | 20.2      | * 0.598 | 17.9  | LOS B    | 6.9      | 53.9     | 0.81    | 1.03 | 0.81      | 9.9   |
| Appro  | oach    |           | 478     | 11.2      | 478     | 11.2      | 0.598   | 11.7  | LOSA     | 6.9      | 53.9     | 0.71    | 0.86 | 0.71      | 13.7  |
| West   | : Railw | ay Parad  | le (W)  |           |         |           |         |       |          |          |          |         |      |           |       |
| 10     | L2      | All MCs   | 173     | 14.0      | 173     | 14.0      | 0.300   | 30.1  | LOS C    | 6.2      | 48.3     | 0.85    | 0.77 | 0.85      | 15.8  |
| 11     | T1      | All MCs   | 232     | 3.2       | 232     | 3.2       | 0.527   | 32.6  | LOS C    | 9.0      | 64.7     | 0.92    | 0.77 | 0.92      | 22.3  |
| Appro  | oach    |           | 404     | 7.8       | 404     | 7.8       | 0.527   | 31.5  | LOS C    | 9.0      | 64.7     | 0.89    | 0.77 | 0.89      | 20.0  |
| All Ve | hicles  |           | 1933    | 6.3       | 1933    | 6.3       | 0.642   | 24.8  | LOSB     | 10.4     | 74.1     | 0.76    | 0.72 | 0.76      | 17.6  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Site: [106(6)] 2f, 2028 PM Base Railway Pde and Wynne Ave -Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov      | Den      | nand | Ar    |      | Deg.    | Aver. | Level of | 95% Back | Of Queu | е Ргор. | Eff    | Number   | Aver  |
|--------|--------|----------|----------|------|-------|------|---------|-------|----------|----------|---------|---------|--------|----------|-------|
| ID     |        | Class    |          | lows |       | ows  | Satn    | Delay | Service  |          |         | Qued    | Stop o | f Cycles | Speed |
|        |        |          | [ Total  |      |       |      |         |       |          | (Veh.    | Dist    |         | Rateto | Depart   |       |
| -      | -      | _        | veh/h    | %    | veh/n | %    | V/C     | sec   | _        | Veh      | m       | _       | _      |          | km/n  |
| South  | i: Wyn | ne Avenu | ue (S)   |      |       |      |         |       |          |          |         |         |        |          |       |
| 1      | L2     | All MCs  | 0        | 0.0  | 0     | 0.0  | 0.000   | 43.0  | LOS D    | 0.0      | 0.0     | 0.99    | 0.52   | 0,99     | 6.4   |
| 2      | T1     | All MCs  | 0        | 0.0  | 0     | 0.0  | 0.001   | 29.1  | LOSC     | 0.0      | 0.0     | 0.78    | 0.47   | 0.78     | 24.9  |
| 3      | R2     | All MCs  | 0        | 0.0  | 0     | 0.0  | 0.001   | 35,9  | LOSC     | 0.0      | 0.0     | 0.78    | 0.47   | 0.78     | 8.2   |
| Appro  | oach   |          | 0        | 0.0  | 0     | 0.0  | 0.001   | 36.0  | LOSC     | 0.0      | 0.0     | 0.85    | 0.49   | 0.85     | 15.7  |
| East:  | Railw  | ay Parad | e (E)    |      |       |      |         |       |          |          |         |         |        |          |       |
| 4      | L2     | All MCs  | 144      | 0.0  | 144   | 0,0  | 0.146   | 19,3  | LOS B    | 4.6      | 31.9    | 0.77    | 0.58   | 0,77     | 17.9  |
| 5      | T1     | All MCs  | 6        | 100. | 6     | 100. | 0.008   | 3.2   | LOSA     | 0.1      | 0.7     | 0.22    | 0.15   | 0,22     | 33.3  |
|        |        |          |          | 0    |       | 0    |         |       |          |          |         |         |        |          |       |
| Appro  | oach   |          | 151      | 4.2  | 151   | 4.2  | 0.146   | 18.6  | LOSB     | 4.6      | 31.9    | 0.75    | 0.56   | 0.75     | 18.3  |
| North  | Burv   | ood Cen  | tral Car | Park | (N)   |      |         |       |          |          |         |         |        |          |       |
| 7      | L2     | All MCs  | 19       | 0.0  | 19    | 0.0  | * 0.070 | 39.2  | LOS C    | 0.7      | 5.1     | 0.88    | 0.68   | 88.0     | 21.7  |
| 8      | T1     | All MCs  | 0        | 0.0  | 0     | 0.0  | 0.000   | 30.9  | LOS C    | 0.0      | 0.0     | 0.82    | 0.43   | 0.82     | 24.1  |
| Appro  | oach   |          | 19       | 0.0  | 19    | 0.0  | 0.070   | 39.1  | LOS C    | 0.7      | 5.1     | 0.88    | 0.68   | 0.88     | 21.7  |
| West   | Railw  | ay Para  | de (W)   |      |       |      |         |       |          |          |         |         |        |          |       |
| 10     | L2     | All MCs  | 20       | 0.0  | 20    | 0.0  | 0.020   | 12.3  | LOSA     | 0.4      | 2.6     | 0.45    | 0.58   | 0.45     | 32.4  |
| 11     | T1     | All MCs  | 324      | 10.4 | 324   | 10.4 | 0.279   | 6.2   | LOSA     | 5.6      | 43.0    | 0.43    | 0.37   | 0.43     | 26.9  |
| 12     | R2     | All MCs  | 0        | 100. | 0     | 100. | * 0.279 | 18.5  | LOSB     | 5.6      | 43.0    | 0.43    | 0.37   | 0.43     | 26.9  |
|        |        |          |          | 0    |       | 0    |         |       |          |          |         |         |        |          |       |
| Appro  | ach    |          | 344      | 9.8  | 344   | 9,8  | 0.279   | 6.6   | LOSA     | 5,6      | 43.0    | 0.43    | 0.39   | 0.43     | 27.9  |
| All Ve | hides  |          | 514      | 7.8  | 514   | 7.8  | 0.279   | 11.3  | LOSA     | 5.6      | 43.0    | 0.54    | 0.45   | 0.54     | 23.7  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [107(6)] 2g. 2028 PM Base Railway Pde and Conder St -Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network; [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Railway Parade and Conder Street Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov   | Turn  | Mov        | Den    | nand | Ar    | riva) | Deg.  | Aver. | Lavel of | 95% Back | Of Queue | Prop. | Eff    | Number   | Aver  |
|-------|-------|------------|--------|------|-------|-------|-------|-------|----------|----------|----------|-------|--------|----------|-------|
| D     |       | Class      | F      | lows | FI    | ows   | Satn  | Delay | Service  |          |          | Qued  | Stop o | f Cycles | Spee. |
|       |       |            | (Total | HVj  | Total | HV)   |       |       |          | ( V∈h.   | Dist     |       | Ratet  | o Depart |       |
|       |       | _          | veh/h  | 196  | veh/n | %     | V/C   | sec   |          | veh      | m        |       | -      | 1000     | km/r  |
| South | Con   | der Stree  | t(S)   |      |       |       |       |       |          |          |          |       |        |          |       |
| 1a    | L1    | All MCs    | 211    | 1.0  | 211   | 1.0   | 0.334 | 5.3   | LOSA     | 2.2      | 15,4     | 0,59  | 0.60   | 0,59     | 40.3  |
| 2     | T1    | All MCs    | 3      | 0.0  | 3     | 0.0   | 0.334 | 5.6   | LOSA     | 2.2      | 15.4     | 0.59  | 0.60   | 0.59     | 37.   |
| 3     | R2    | All MCs    | 103    | 3.1  | 103   | 3.1   | 0.334 | 9.0   | LOSA     | 2.2      | 15.4     | 0.59  | 0,60   | 0,59     | 33.   |
| 3u    | U     | All MCs    | 12     | 0.0  | 12    | 0.0   | 0.334 | 10.4  | LOSA     | 2.2      | 15.4     | 0.59  | 0.60   | 0.59     | 33.   |
| Appro | ach   |            | 328    | 1.6  | 328   | 1.6   | 0.334 | 6.6   | LOSA     | 2.2      | 15.4     | 0.59  | 0.60   | 0.59     | 38.   |
| East: | Railw | ay Parad   | e (E)  |      |       |       |       |       |          |          |          |       |        |          |       |
| 4     | L2    | All MCs    | 94     | 0.0  | 94    | 0.0   | 0.112 | 5.7   | LOSA     | 0.6      | 4.2      | 0.52  | 0.59   | 0.52     | 23.   |
| 6a    | R1    | All MCs    | 257    | 123  | 257   | 12.3  | 0.262 | 6.6   | LOSA     | 1.7      | 12.7     | 0.55  | 0.60   | 0.55     | 35.   |
| 6     | R2    | All MCs    | 5      | 0.0  | 5     | 0.0   | 0.262 | 7.0   | LOSA     | 1.7      | 12.7     | 0.55  | 0.60   | 0.55     | 34.   |
| 6u    | U     | All MCs    | 35     | 0.0  | 35    | 0.0   | 0.262 | 8.3   | LOSA     | 1.7      | 12.7     | 0.55  | 0.60   | 0.55     | 23.   |
| Appro | ach   |            | 391    | 8.1  | 391   | 8.1   | 0.262 | 6.5   | LOSA     | 1.7      | 12.7     | 0.54  | 0.60   | 0.54     | 33.   |
| North | Appa  | irtments ( | N)     |      |       |       |       |       |          |          |          |       |        |          |       |
| 7     | L2    | All MCs    | 2      | 0.0  | 2     | 0.0   | 0.012 | 7.4   | LOSA     | 0.1      | 0.5      | 0.69  | 0.63   | 0.69     | 34.   |
| 8     | T1    | All MCs    | 3      | 0.0  | 3     | 0.0   | 0.012 | 6.7   | LOSA     | 0.1      | 0.5      | 0.69  | 0.63   | 0.69     | 34.   |
| 9b    | R3    | All MCs    | 2      | 0.0  | 2     | 0.0   | 0.012 | 10.5  | LOSA     | 0.1      | 0.5      | 0.69  | 0.63   | 0.69     | 37.   |
| 9u    | U     | All MCs    | .0     | 100. | 0     | 100.  | 0.012 | 15,3  | LOSB     | 0.1      | 0.5      | 0.69  | 0.63   | 0.69     | 36.   |
|       |       |            |        | 0    |       | 0     |       |       |          |          |          |       |        |          |       |
| Appro | ach   |            | 7      | 1.4  | 7     | 1.4   | 0.012 | 8.1   | LOSA     | 0.1      | 0.5      | 0.69  | 0.63   | 0.69     | 35.   |
| North | West: | Railway    | Parade | (NE) |       |       |       |       |          |          |          |       |        |          |       |
| 27b   | L3    | All MCs    | 2      | 0.0  | 2     | 0.0   | 0.542 | 5.4   | LOSA     | 4.6      | 32.9     | 0.53  | 0.54   | 0.53     | 38,   |
| 27a   | L1    | All MCs    | 341    | 4.3  | 341   | 4.3   | 0.542 | 4.6   | LOSA     | 4.6      | 32.9     | 0.53  | 0.54   | 0.53     | 37.   |
| 29a   | R1    | All MCs    | 316    | 0.0  | 316   | 0.0   | 0.542 | 7.3   | LOSA     | 4.6      | 32.9     | 0.53  | 0.54   | 0.53     | 37.   |
| 29u   | U     | All MCs    | 1      | 0.0  | 1     | 0.0   | 0.542 | 9.6   | LOSA     | 4.6      | 32.9     | 0.53  | 0.54   | 0.53     | 41.   |
| Appro | ach   |            | 660    | 2.2  | 660   | 2.2   | 0.542 | 5.9   | LOSA     | 4.6      | 32.9     | 0.53  | 0.54   | 0.53     | 37.   |
|       |       |            |        |      |       |       |       |       |          |          |          |       |        |          |       |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(6)] 2j. 2028 PM Base Burwood Rd and Belmore St -Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov        | Den          | nand         | Аr    | rival       | Deg.    | Aver. | Level of | 95% Back | Of Queue | Prop. | Eff  | Number                | Aver  |
|--------|--------|------------|--------------|--------------|-------|-------------|---------|-------|----------|----------|----------|-------|------|-----------------------|-------|
| ID     |        | Class      | Fi<br>(Total | lows<br>HV j |       | ows<br>HV j | Sain    | Delay | Service  | ( Veh.   | Dist     | Oued  |      | of Cycles<br>o Depart | Spee. |
| -      | -      | _          | veh/h        | 1/6          | veh/h | %           | V/c     | sec   | _        | veh      | m        |       |      |                       | km/r  |
| South  | : Burv | ood Roa    | d (S)        |              |       |             |         |       |          |          |          |       |      |                       |       |
| 1      | L2     | All MCs    | 89           | 1.2          | 89    | 1.2         | 0.181   | 47,7  | LOS D    | 3.5      | 25,1     | 0.74  | 0.69 | 0.74                  | 26.   |
| 2      | T1     | All MCs    | 507          | 5.4          | 507   | 5.4         | * 0.904 | 63.4  | LOSE     | 28.5     | 207.5    | 0.99  | 1.09 | 1.26                  | 20    |
| 3      | R2     | All MCs    | 58           | 0.0          | 58    | 0.0         | 0.904   | 74.8  | LOSF     | 28.5     | 207.5    | 1.00  | 1,12 | 1.29                  | 26.   |
| Appro  | ach    |            | 655          | 4.3          | 655   | 4.3         | 0.904   | 62.3  | LOSE     | 28.5     | 207.5    | 0.95  | 1.04 | 1.19                  | 17.   |
| East:  | Belmo  | ore Street | (E)          |              |       |             |         |       |          |          |          |       |      |                       |       |
| 4      | L2     | All MCs    | 35           | 0.0          | 35    | 0.0         | 0.734   | 46.3  | LOS D    | 11.6     | 81.7     | 1.00  | 0.90 | 1.09                  | 27.   |
| 5      | T1     | All MCs    | 203          | 0.0          | 203   | 0.0         | 0.734   | 38.7  | LOS C    | 11.6     | 81.7     | 1.00  | 0.90 | 1.09                  | 21.   |
| 6      | R2     | All MCs    | 26           | 4.0          | 26    | 4.0         | 0.734   | 47.1  | LOS D    | 11.6     | 81.7     | 1.00  | 0.90 | 1.09                  | 21.   |
| Appro  | ach    |            | 264          | 0.4          | 264   | 0.4         | 0.734   | 40.5  | LOS C    | 11.6     | 81.7     | 1.00  | 0.90 | 1.09                  | 22.   |
| North  | Burw   | ood Roa    | d'(N)        |              |       |             |         |       |          |          |          |       |      |                       |       |
| 7      | L2     | All MCs    | 65           | 1.6          | 65    | 1.6         | 0.138   | 14.0  | LOSA     | 2.1      | 15.3     | 0.32  | 0.40 | 0.32                  | 35.   |
| 8      | T1     | All MCs    | 348          | 8.5          | 348   | 8.5         | 0.691   | 16.6  | LOSB     | 6.9      | 51.1     | 0.82  | 0.85 | 0.83                  | 25.   |
| 9      | R2     | All MCs    | 87           | 0.0          | 87    | 0.0         | * 0.691 | 25.2  | LOSB     | 6.9      | 51.1     | 1.00  | 1.01 | 1.02                  | 9.    |
| Appro  | oach   |            | 501          | 6.1          | 501   | 6.1         | 0.691   | 17.8  | LOSB     | 6.9      | 51.1     | 0.79  | 0.82 | 0.80                  | 23.   |
| West   | Belm   | ore Stree  | t (W)        |              |       |             |         |       |          |          |          |       |      |                       |       |
| 10     | L2     | All MCs    | 59           | 1.8          | 59    | 1.8         | 0.177   | 22.1  | LOSB     | 3.1      | 21.6     | 0.80  | 0.69 | 0.80                  | 9.    |
| 11     | T1     | All MCs    | 140          | 0.0          | 140   |             | 0.886   | 47.3  | LOS D    | 9.2      | 64.7     | 0.95  | 1.02 | 1.29                  | 20.   |
| 12     | R2     | All MCs    | 72           | 0.0          | 72    | 0.0         | * 0.886 | 64.5  | LOSE     | 9.2      | 64.7     | 1.00  | 1.12 | 1.43                  | 19.   |
| Appro  | ach    |            | 271          | 0.4          | 271   | 0.4         | 0.886   | 46.3  | LOS D    | 9.2      | 64.7     | 0.93  | 0.97 | 1,22                  | 19.   |
| All Ve | hides  |            | 1691         | 3.6          | 1691  | 3.6         | 0.904   | 43.1  | LOS D    | 28.5     | 207.5    | 0.91  | 0.94 | 1.06                  | 20.   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [111(6)] 2k. 2028 PM Base Belmore St and Wynne Ave -Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design

Roundabout

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov       | Den   | and  | Αr      | rival | Deg.  | Aver. | Level of | 95% Back | Of Queue | Prop. | Eff     | Vumber | Aver  |
|--------|--------|-----------|-------|------|---------|-------|-------|-------|----------|----------|----------|-------|---------|--------|-------|
| D      |        | Class     | F     | ows  | FI      | ows   | Satn  | Delay | Service  |          |          | Qued  | Stop of | Cycles | Speed |
|        |        |           | Total | HV j | [ Total | HV j  |       |       |          | (Veh.    | Dist     |       | Rate to | Depart |       |
|        |        |           | veh/h | %    | veh/h   | %     | V/C   | sec   |          | Veh      | m        |       | -       |        | km/n  |
| East.  | Belmo  | re Street |       |      |         |       |       |       |          |          |          |       |         |        |       |
| 5      | T1     | All MCs   | 332   | 0.0  | 332     | 0.0   | 0.567 | 4.8   | LOSA     | 5,2      | 36.7     | 0.43  | 0.54    | 0,43   | 25.3  |
| 6      | R2     | All MCs   | 398   | 0.5  | 398     | 0.5   | 0.567 | 7.3   | LOSA     | 5.2      | 36.7     | 0.43  | 0.54    | 0.43   | 25.3  |
| 6u     | U      | All MCs   | 13    | 0.0  | 13      | 0.0   | 0.567 | 8,6   | LOSA     | 5.2      | 36.7     | 0.43  | 0.54    | 0,43   | 25.3  |
| Appro  | oach   |           | 742   | 0.3  | 742     | 0.3   | 0.567 | 6.2   | LOSA     | 5.2      | 36.7     | 0.43  | 0.54    | 0.43   | 25.3  |
| North  | . Wynr | ne Avenu  | e     |      |         |       |       |       |          |          |          |       |         |        |       |
| 7      | L2     | All MCs   | 117   | 0.0  | 117     | 0,0   | 0.191 | 4,5   | LOSA     | 1.0      | 6.8      | 0.26  | 0.59    | 0.26   | 22.5  |
| 9      | R2     | All MCs   | 78    | 0.0  | 78      | 0.0   | 0.191 | 6.3   | LOSA     | 1.0      | 6.8      | 0.26  | 0.59    | 0.26   | 22.5  |
| 9u     | U      | All MCs   | 9     | 0.0  | 9       | 0.0   | 0.191 | 7.5   | LOSA     | 1.0      | 6.8      | 0.26  | 0.59    | 0.26   | 22.5  |
| Appro  | oach   |           | 204   | 0.0  | 204     | 0.0   | 0.191 | 5,3   | LOSA     | 1.0      | 6.8      | 0.26  | 0.59    | 0.26   | 22.5  |
| West   | Belm   | ore Stree | t     |      |         |       |       |       |          |          |          |       |         |        |       |
| 10     | L2     | All MCs   | 255   | 0.0  | 255     | 0.0   | 0.505 | 9.7   | LOSA     | 3.7      | 26.2     | 0.75  | 0.74    | 0.83   | 27.0  |
| 11     | T1     | All MCs   | 89    | 0.0  | 89      | 0.0   | 0.505 | 9.1   | LOSA     | 3.7      | 26.2     | 0.75  | 0.74    | 0.83   | 27.0  |
| 12u    | U      | All MCs   | 11    | 0.0  | 11      | 0.0   | 0.505 | 13.0  | LOSA     | 3.7      | 26.2     | 0.75  | 0.74    | 0.83   | 27.0  |
| Appro  | oach   |           | 355   | 0.0  | 355     | 0.0   | 0.505 | 9.6   | LOSA     | 3.7      | 26.2     | 0.75  | 0.74    | 0.83   | 27.0  |
| All Ve | hides  |           | 1301  | 0.2  | 1301    | 0,2   | 0.567 | 7.0   | LOSA     | 5.2      | 36.7     | 0.49  | 0.60    | 0,51   | 25,7  |

Site Level of Service (LOS) Method: Detay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Site: [112(6)] 2l. 2028 PM Base Belmore St and Conder St -Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version; 10.0.5,217

New Site

Site Category: Existing Design

Give-Way (Two-Way) Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov<br>ID | Turn   | Mov<br>Class | Dem            | and<br>lows |      | rival<br>ows | Deg.<br>Satn | Aver.<br>Delav | Level of<br>Service | 95% Back      | OfQueu      | e Prop.<br>Oued |      | Number<br>f Cycles | Aver<br>Spee. |
|-----------|--------|--------------|----------------|-------------|------|--------------|--------------|----------------|---------------------|---------------|-------------|-----------------|------|--------------------|---------------|
|           |        | 2,000        | Total<br>veh/h | HV j        |      |              | V/c          | sec            | 30/1/130            | ( Veh.<br>veh | Dist  <br>m | 9000            |      | Depart             | km/r          |
| South     | : Con  | der Street   |                |             |      |              |              |                |                     |               |             |                 |      |                    |               |
| 2         | T1     | All MCs      | 167            | 2.5         | 167  | 2.5          | 0.194        | 1.1            | LOSA                | 0.9           | 6.3         | 0.39            | 0.44 | 0,39               | 45.           |
| 3         | R2     | All MCs      | 123            | 0.0         | 123  | 0.0          | 0.194        | 6.2            | LOSA                | 0.9           | 6.3         | 0.39            | 0.44 | 0.39               | 45.           |
| Appro     | oach   |              | 291            | 1.4         | 291  | 1.4          | 0.194        | 3.2            | NA                  | 0.9           | 6.3         | 0.39            | 0.44 | 0.39               | 45.           |
| East:     | Belmo  | re Street    |                |             |      |              |              |                |                     |               |             |                 |      |                    |               |
| 4         | L2     | All MCs      | 172            | 0.6         | 172  | 0.6          | 0.328        | 5.2            | LOSA                | 1.5           | 10.2        | 0.42            | 0.59 | 0.42               | 42.5          |
| 6         | R2     | All MCs      | 157            | 0.7         | 157  | 0.7          | 0.328        | 8.1            | LOSA                | 1,5           | 10.2        | 0.42            | 0.59 | 0.42               | 31.8          |
| Appro     | bach   |              | 328            | 0.6         | 328  | 0.6          | 0.328        | 6.6            | LOSA                | 1.5           | 10.2        | 0.42            | 0.59 | 0.42               | 40.0          |
| North     | : Cond | ler Street   |                |             |      |              |              |                |                     |               |             |                 |      |                    |               |
| 7         | L2     | All MCs      | 243            | 0.0         | 243  | 0.0          | 0.220        | 4.6            | LOSA                | 0.0           | 0.0         | 0.00            | 0.33 | 0.00               | 41.3          |
| 8         | T1     | All MCs      | 147            | 1.4         | 147  | 1.4          | 0.220        | 0.0            | LOSA                | 0.0           | 0.0         | 0.00            | 0.33 | 0.00               | 47.           |
| Appro     | oach   |              | 391            | 0.5         | 391  | 0.5          | 0.220        | 2.9            | NA                  | 0.0           | 0.0         | 0.00            | 0.33 | 0.00               | 45.           |
| All Ve    | hides  |              | 1009           | 0.8         | 1009 | 0.8          | 0.328        | 4.2            | NA                  | 1.5           | 10.2        | 0.25            | 0.45 | 0.25               | 43.6          |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula; SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: D:\Documents\Burwood Place 2024\Stage 1\Sidra\2025 Stages 1 and 2 Burwood Place Models.sipx



Site: [113(6)] 2m. 2028 PM Base Wynne Avenue and Burwood

Place - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network; [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE

1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Burwood Place

Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov       | Den           | and          | Ą٢      | riva)       | Deg.    | Aver. | Level of | 95% Back | Of Queue | е Ргор. | Eff  | Number                | Aver |
|--------|--------|-----------|---------------|--------------|---------|-------------|---------|-------|----------|----------|----------|---------|------|-----------------------|------|
| D      |        | Class     | Fi<br>(Total  | lows<br>HV İ |         | ows<br>HV i | Sain    | Delay | Service: | ( Veh.   | Dist I   | Qued    |      | of Cycles<br>o Depart | Spee |
|        |        |           | LI CONTRACTOR |              | veh/h   | %           | V/c     | sec   |          | veh      | m        |         |      |                       | km/r |
| South  | i: Wyn | ne Avenu  | ie (S)        |              |         |             |         |       |          |          |          |         |      |                       |      |
| 1      | L2     | All MCs   | 9             | 0.0          | 9       | 0.0         | 0.010   | 13.3  | LOSA     | 0,2      | 1.3      | 0.35    | 0.50 | 0,35                  | 40.  |
| 2      | T1     | All MCs   | 3             | 0.0          | 3.      | 0.0         | 0.010   | 8.8   | LOSA     | 0.2      | 1.3      | 0.35    | 0.50 | 0.35                  | 17.  |
| 3      | R2     | All MCs   | 447           | 0.0          | 447     | 0.0         | * 0.476 | 15,9  | LOSB     | 9.7      | 67.7     | 0.53    | 0.72 | 0.53                  | 37.  |
| Appro  | oach   |           | 460           | 0.0          | 460     | 0.0         | 0.476   | 15.8  | LOSB     | 9.7      | 67.7     | 0.53    | 0.72 | 0.53                  | 34.  |
| East:  | Emen   | ald Squar | e/Burw        | ood F        | Plaza ( | E)          |         |       |          |          |          |         |      |                       |      |
| 4      | L2     | All MCs   | 136           | 0.0          | 136     | 0.0         | *0.494  | 43.6  | LOS D    | 5.7      | 39.7     | 0.96    | 0.79 | 0.96                  | 23.  |
| 5      | T1     | All MCs   | 0             | 0.0          | 0       | 0.0         | 0,001   | 32.6  | LOSC     | 0.0      | 0.1      | 0.86    | 0.51 | 0.86                  | 33.  |
| 6      | R2     | All MCs   | 0             | 0.0          | 0       | 0.0         | 0.001   | 40.7  | LOSC     | 0.0      | 0.1      | 0.86    | 0.51 | 0.86                  | 25.  |
| Appro  | oach   |           | 136           | 0.0          | 136     | 0.0         | 0.494   | 43.6  | LOS D    | 5.7      | 39.7     | 0.96    | 0.79 | 0.96                  | 23.  |
| North  | : Wyn  | ne Avenu  | e (N)         |              |         |             |         |       |          |          |          |         |      |                       |      |
| 7      | L2     | All MCs   | 0             | 0.0          | 0       | 0.0         | 0.004   | 5.3   | LOSA     | 0.0      | 0.1      | 0.04    | 0.04 | 0.04                  | 47.  |
| 3      | T1     | All MCs   | 5             | 0.0          | 5       | 0.0         | 0.004   | 0.6   | LOSA     | 0.0      | 0.1      | 0.04    | 0.04 | 0.04                  | 45.  |
| 9      | R2     | All MCs   | 0             | 0.0          | 0       | 0.0         | 0.000   | 5.2   | LOSA     | 0.0      | 0.0      | 0.04    | 0.53 | 0.04                  | 42.  |
| Appro  | oach   |           | 5             | 0.0          | 5       | 0.0         | 0.004   | 0.8   | LOSA     | 0.0      | 0.1      | 0.04    | 0.05 | 0.04                  | 45.  |
| Nest   | Burw   | ood Gran  | id (VV)       |              |         |             |         |       |          |          |          |         |      |                       |      |
| 10     | L2     | All MCs   | 0             | 0.0          | 0       | 0,0         | 0.000   | 38.7  | LOS C    | 0.0      | 0.0      | 0.86    | 0.52 | 0.86                  | 24.  |
| 11     | T1     | All MCs   | 0             | 0.0          | 0       | 0,0         | 0.066   | 34.0  | LOSC     | 0.5      | 3.6      | 0.92    | 0.68 | 0.92                  | 31.  |
| 12     | R2     | All MCs   | 13            | 0.0          | 13      | 0.0         | 0.066   | 44.5  | LOS D    | 0,5      | 3.6      | 0.92    | 0.68 | 0.92                  | 22.  |
| Appro  | oach   |           | 13            | 0.0          | 13      | 0.0         | 0.066   | 44.4  | LOS D    | 0.5      | 3,6      | 0.92    | 0.68 | 0.92                  | 22.  |
| All Ve | hides  |           | 614           | 0.0          | 614     | 0.0         | 0.494   | 22.5  | LOSB     | 9.7      | 67.7     | 0.63    | 0.73 | 0.63                  | 31.  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



Site: [114 (4)] 1n. 2028 PM Base Belmore St and Burwood Place Exit - Copy - Copy (2025 PM EXISTING 17:30-18:30)
Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site Site Category: (None) Give-Way (Two-Way)

| Mov<br>ID | Turn   | Mov<br>Class | Dem    | nand<br>lows |       | rival<br>ows | Deg.<br>Satn | Aver.<br>Delav | Level of<br>Service | 95% Back | OfQueu | e Prop.<br>Oued |      | Number<br>Cycles | Aver<br>Spee J |
|-----------|--------|--------------|--------|--------------|-------|--------------|--------------|----------------|---------------------|----------|--------|-----------------|------|------------------|----------------|
|           |        | 1            | (Total |              |       |              |              | ~m)            | 50,0100             | (Veh.    | Dist   | 2000            |      | Depart           |                |
|           |        |              | veh/h  | %            | veh/h | %            | V/C          | sec            |                     | Veh      | m      |                 | -    |                  | km/n           |
| East:     | Belmo  | re Street    |        |              |       |              |              |                |                     |          |        |                 |      |                  |                |
| 5         | T1     | All MCs      | 332    | 0.0          | 332   | 0.0          | 0.170        | 0,0            | LOSA                | 0.0      | 0.0    | 0.00            | 0.00 | 0,00             | 59.9           |
| Appro     | oach   |              | 332    | 0.0          | 332   | 0.0          | 0.170        | 0.0            | NA                  | 0.0      | 0.0    | 0.00            | 0.00 | 0.00             | 59.9           |
| North     | Burw   | ood Place    | Exit   |              |       |              |              |                |                     |          |        |                 |      |                  |                |
| 7         | L2     | All MCs      | 81     | 0.0          | 81    | 0.0          | 0.060        | 6.2            | LOSA                | 0.2      | 1.7    | 0.30            | 0.57 | 0.30             | 44.2           |
| 9         | R2     | All MCs      | 123    | 0.0          | 123   | 0.0          | 0.150        | 8.0            | LOSA                | 0.5      | 3.8    | 0.46            | 0.74 | 0.46             | 41.9           |
| Appro     | oach   |              | 204    | 0.0          | 204   | 0.0          | 0.150        | 7.3            | LOSA                | 0,5      | 3.8    | 0.40            | 0.67 | 0.40             | 42.8           |
| West      | : Belm | ore Street   |        |              |       |              |              |                |                     |          |        |                 |      |                  |                |
| 11        | T1     | All MCs      | 213    | 0.0          | 213   | 0.0          | 0.109        | 0.0            | LOSA                | 0.0      | 0.0    | 0.00            | 0.00 | 0.00             | 60.0           |
| Appro     | oach   |              | 213    | 0.0          | 213   | 0.0          | 0.109        | 0.0            | NA                  | 0.0      | 0.0    | 0.00            | 0.00 | 0.00             | 60.0           |
| All Ve    | hides  |              | 748    | 0.0          | 748   | 0.0          | 0.170        | 2.0            | NA                  | 0.5      | 3.8    | 0.11            | 0.18 | 0.11             | 49.0           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any initial Queued Demand and Upstream Capacity Constraint effects.



Site: [1 (3)] 2028 PM Railway Pde Access - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(8)] 2028 PM Stage 1 Complete (2028 STAGE 1 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Left-In Left-Out Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov<br>ID | Turn   | Mov<br>Class | Den:   | and<br>ows |                | nvai<br>ows | Deg.<br>Satn | Aver.<br>Delav | Lavel of<br>Service | 95% Back      | Of Queue    | Prop.<br>Oued |      | Vumber<br>Cycles | Aver<br>Speed |
|-----------|--------|--------------|--------|------------|----------------|-------------|--------------|----------------|---------------------|---------------|-------------|---------------|------|------------------|---------------|
|           |        | 2,000        |        | HV j       | Total<br>Veh/n |             | V/c          | sec            | 2011120             | ( Veh.<br>Veh | Dist  <br>m | GCCC.         |      | Depart           | km/n          |
| South     | : Deve | elopment     | Access |            |                |             |              |                |                     |               |             |               |      |                  |               |
| 1         | L2     | All MCs      | 218    | 1.9        | 218            | 1.9         | 0.126        | 5,8            | LOSA                | 0.5           | 3.5         | 0.00          | 0.53 | 0,00             | 51.0          |
| Appro     | oach   |              | 218    | 1.9        | 218            | 1.9         | 0.126        | 5.8            | NA                  | 0.5           | 3.5         | 0.00          | 0.53 | 0.00             | 51.0          |
| East.     | Railwa | ay Parade    |        |            |                |             |              |                |                     |               |             |               |      |                  |               |
| 2         | L2     | All MCs      | 260    | 1.6        | 260            | 1.6         | 0.205        | 5.2            | LOSA                | 0.0           | 0.0         | 0.00          | 0.37 | 0.00             | 52.0          |
| 3         | T1     | All MCs      | 524    | 0,0        | 524            | 0.0         | 0.205        | 0.0            | LOSA                | 0.0           | 0.0         | 0.00          | 0.09 | 0.00             | 52.2          |
| Appro     | oach   |              | 784    | 0.5        | 784            | 0,5         | 0.205        | 1.7            | NA                  | 0,0           | 0.0         | 0.00          | 0.18 | 0.00             | 52.1          |
| West      | Railw  | ay Parad     | e      |            |                |             |              |                |                     |               |             |               |      |                  |               |
| 4         | T.1    | All MCs      | 480    | 2.2        | 480            | 2.2         | 0.107        | 0.0            | LOSA                | 0.0           | 0.0         | 0.00          | 0.00 | 0.00             | 60.0          |
| Appro     | oach   |              | 480    | 2.2        | 480            | 2.2         | 0.107        | 0.0            | NA                  | 0.0           | 0.0         | 0.00          | 0.00 | 0.00             | 60.0          |
| All Ve    | hides  |              | 1482   | 1.3        | 1482           | 1.3         | 0.205        | 1.8            | NA                  | 0.5           | 3.5         | 0.00          | 0.17 | 0.00             | 52.5          |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# 2030 AM Peak Stage 2 Completed

## MOVEMENT SUMMARY

Site: [107(7)] 1g. 2030 AM Base Railway Pde and Conder St - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Railway Parade and Conder Street Site Category: Existing Design Roundabout

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Turn   | Mov       | Dem     | and  | Ar  | rival | Deg.  | Aver. | Level of | 95% Back | Of Queu   | e Pron | Fff_h   | Jumber | Ave  |
|--------|--------|-----------|---------|------|-----|-------|-------|-------|----------|----------|-----------|--------|---------|--------|------|
| ID     | TGITT  | Class     |         | lows |     | ows   | Satn  | Delay | Service  | 55 % DBG | . Or Gucu | Qued   |         | Cycles | Spee |
|        |        | 01000     | [ Total |      |     |       | 550   | Delay | 0011100  | [ Veh.   | Dist 1    | ajaca  | Rate to |        | Орос |
|        |        |           | veh/h   |      |     | %     | V/c   | sec   |          | veh      | m         |        |         | ээрэ   | km/  |
| South  | : Con  | der Stree |         |      |     |       |       |       |          |          |           |        |         |        |      |
| 1a     | L1     | All MCs   | 296     | 0.4  | 296 | 0.4   | 0.508 | 5.3   | LOSA     | 3.9      | 27.6      | 0.72   | 0.65    | 0.75   | 36.  |
| 2      | T1     | All MCs   | 2       | 0.0  | 2   | 0.0   | 0.508 | 5.6   | LOSA     | 3.9      | 27.6      | 0.72   | 0.65    | 0.75   | 35.  |
| 3      | R2     | All MCs   | 160     | 2.0  | 160 | 2.0   | 0.508 | 8.9   | LOSA     | 3.9      | 27.6      | 0.72   | 0.65    | 0.75   | 23.  |
| 3u     | U      | All MCs   | 15      | 0.0  | 15  | 0.0   | 0.508 | 10.1  | LOSA     | 3.9      | 27.6      | 0.72   | 0.65    | 0.75   | 23.  |
| Appro  | ach    |           | 473     | 0.9  | 473 | 0.9   | 0.508 | 6.7   | LOSA     | 3.9      | 27.6      | 0.72   | 0.65    | 0.75   | 33.  |
| East:  | Railw  | ay Parad  | e (E)   |      |     |       |       |       |          |          |           |        |         |        |      |
| 4      | L2     | All MCs   | 165     | 1.9  | 165 | 1.9   | 0.164 | 4.8   | LOSA     | 0.9      | 6.6       | 0.44   | 0.53    | 0.44   | 28.  |
| 6a     | R1     | All MCs   | 275     | 7.7  | 275 | 7.7   | 0.294 | 5.9   | LOSA     | 1.9      | 14.7      | 0.47   | 0.57    | 0.47   | 35.  |
| 6      | R2     | All MCs   | 1       | 0.0  | 1   | 0.0   | 0.294 | 6.4   | LOSA     | 1.9      | 14.7      | 0.47   | 0.57    | 0.47   | 35.  |
| 6u     | U      | All MCs   | 93      | 17.0 | 93  | 17.0  | 0.294 | 8.0   | LOSA     | 1.9      | 14.7      | 0.47   | 0.57    | 0.47   | 26.  |
| Appro  | ach    |           | 534     | 7.5  | 534 | 7.5   | 0.294 | 6.0   | LOSA     | 1.9      | 14.7      | 0.46   | 0.56    | 0.46   | 33.  |
| North  | : Appa | rtments ( | (N)     |      |     |       |       |       |          |          |           |        |         |        |      |
| 7      | L2     | All MCs   | 2       | 0.0  | 2   | 0.0   | 0.020 | 7.2   | LOSA     | 0.1      | 0.7       | 0.67   | 0.67    | 0.67   | 33.  |
| 8      | T1     | All MCs   | 3       | 0.0  | 3   | 0.0   | 0.020 | 6.4   | LOSA     | 0.1      | 0.7       | 0.67   | 0.67    | 0.67   | 33.  |
| 9b     | R3     | All MCs   | 7       | 0.0  | 7   | 0.0   | 0.020 | 10.3  | LOSA     | 0.1      | 0.7       | 0.67   | 0.67    | 0.67   | 36.  |
| 9u     | U      | All MCs   | 0       | 0.0  | 0   | 0.0   | 0.020 | 10.9  | LOSA     | 0.1      | 0.7       | 0.67   | 0.67    | 0.67   | 36.  |
| Appro  | ach    |           | 13      | 0.0  | 13  | 0.0   | 0.020 | 8.8   | LOSA     | 0.1      | 0.7       | 0.67   | 0.67    | 0.67   | 35.  |
| North' | West:  | Railway   | Parade  | (NE) | )   |       |       |       |          |          |           |        |         |        |      |
| 27b    | L3     | All MCs   | 2       | 0.0  | 2   | 0.0   | 0.488 | 6.3   | LOSA     | 3.6      | 26.5      | 0.63   | 0.60    | 0.63   | 38.  |
| 27a    | L1     | All MCs   | 302     | 7.7  | 302 | 7.7   | 0.488 | 5.6   | LOSA     | 3.6      | 26.5      | 0.63   | 0.60    | 0.63   | 37.  |
| 29a    | R1     | All MCs   |         | 2.8  | 187 |       | 0.488 | 8.3   | LOSA     | 3.6      | 26.5      | 0.63   | 0.60    | 0.63   | 37.  |
| 29u    | U      | All MCs   | 3       | 0.0  | 3   | 0.0   | 0.488 | 10.5  | LOSA     | 3.6      | 26.5      | 0.63   | 0.60    | 0.63   | 40.  |
| Appro  | ach    |           | 495     | 5.7  | 495 | 5.7   | 0.488 | 6.6   | LOSA     | 3.6      | 26.5      | 0.63   | 0.60    | 0.63   | 37.  |
|        |        |           |         |      |     |       |       |       |          |          |           |        |         |        |      |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(7)] 1j. 2030 AM Base Burwood Rd and Belmore St -

Copy - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

|        | Turn   |            |       | nand            |               | rival       | Deg.    | Aver. | Lavel of | 95% Back | Of Queue |      |      | Number                | Aver |
|--------|--------|------------|-------|-----------------|---------------|-------------|---------|-------|----------|----------|----------|------|------|-----------------------|------|
| D      |        | Class      |       | lows<br>HV j    | Fi<br>[Total] | ows<br>HV j | Satn    | Delay | Service  | ( Veh.   | Dist     | Qued |      | of Cycles<br>o Depart | Spee |
|        |        |            | veh/h | iý <sub>o</sub> | veh/h         | %           | V/C     | sec   |          | veh      | m        |      |      | -                     | km/r |
| South  | : Burv | vood Roa   | d (S) |                 |               |             |         |       |          |          |          |      |      |                       |      |
| 1      | L2     | All MCs    | 79    | 0.0             | 79            | 0.0         | 0.209   | 44.9  | LOS D    | 4.0      | 28.4     | 0.71 | 0.65 | 0.71                  | 27.  |
| 2      | T1     | All MCs    | 645   | 5.1             | 645           | 5.1         | * 1.044 | 113.6 | LOSF     | 48.7     | 355.0    | 0.97 | 1.58 | 1.80                  | 13.  |
| 3      | R2     | All MCs    | 62    | 1.7             | 62            | 1.7         | 1.044   | 128,6 | LOSF     | 48.7     | 355.0    | 1.00 | 1.68 | 1.93                  | 18.  |
| Appro  | ach    |            | 786   | 4.3             | 786           | 4.3         | 1.044   | 107.9 | LOSF     | 48.7     | 355.0    | 0.95 | 1.49 | 1.70                  | 12.  |
| East:  | Belmo  | ore Street | (E)   |                 |               |             |         |       |          |          |          |      |      |                       |      |
| 4      | L2     | All MCs    | 39    | 5.4             | 39            | 5,4         | 0.633   | 43.8  | LOS D    | 7.0      | 49.4     | 0.99 | 0.83 | 1.03                  | 27   |
| 5      | T1     | All MCs    | 104   | 0.0             | 104           | 0.0         | 0.633   | 36.9  | LOSC     | 7.0      | 49.4     | 0.99 | 0.83 | 1.03                  | 21.  |
| 6      | R2     | All MCs    | 26    | 0.0             | 26            | 0.0         | 0.633   | 47.9  | LOS D    | 7.0      | 49.4     | 0.99 | 0.83 | 1.03                  | 21.  |
| Appro  | ach    |            | 169   | 1.2             | 169           | 1.2         | 0.633   | 40.2  | LOSC     | 7.0      | 49.4     | 0.99 | 0.83 | 1.03                  | 23.  |
| North  | Burw   | ood Roa    | d'(N) |                 |               |             |         |       |          |          |          |      |      |                       |      |
| 7      | L2     | All MCs    | 69    | 1.5             | 69            | 1.5         | 0.101   | 7.5   | LOSA     | 1.2      | 8.7      | 0.26 | 0.41 | 0.26                  | 35.  |
| 8      | T1     | All MCs    | 359   | 10.3            | 359           | 10.3        | 0.507   | 5.8   | LOSA     | 4.5      | 34.0     | 0.61 | 0.94 | 0.61                  | 27   |
| 9      | R2     | All MCs    | 32    | 0.0             | 32            | 0.0         | * 0.507 | 14.9  | LOSB     | 4.5      | 34.0     | 0.67 | 1.03 | 0.67                  | 12.  |
| Appro  | ach    |            | 460   | 8.2             | 460           | 8.2         | 0.507   | 6.7   | LOSA     | 4.5      | 34.0     | 0.56 | 0.87 | 0.56                  | 27.  |
| West   | Belm   | ore Stree  | t (W) |                 |               |             |         |       |          |          |          |      |      |                       |      |
| 10     | L2     | All MCs    | 37    | 0.0             | 37            | 0.0         | 0.163   | 39.9  | LOS C    | 1.6      | 10.9     | 0.92 | 0.71 | 0.92                  | 7.   |
| 11     | T1     | All MCs    | 174   | 0.0             | 174           | 0,0         | * 0.816 | 42.5  | LOSC     | 9.8      | 69.6     | 1.00 | 1.01 | 1.24                  | 21.  |
| 12     | R2     | All MCs    | 47    | 6.7             | 47            | 6.7         | 0.816   | 52.9  | LOS D    | 9.8      | 69.6     | 1.00 | 1.01 | 1.25                  | 21.  |
| Appro  | ach    |            | 258   | 1.2             | 258           | 1.2         | 0.816   | 44.0  | LOS D    | 9.8      | 69.6     | 0.99 | 0.97 | 1.20                  | 20.  |
| All Ve | hides  |            | 1674  | 4.6             | 1674          | 4.6         | 1.044   | 63.4  | LOSE     | 48.7     | 355.0    | 0.85 | 1.17 | 1.24                  | 17.  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



Site: [111(7)] 1k, 2030 AM Base Belmore St and Wynne Ave -Copy - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: Existing Design Roundabout

Network Scenario: 1 | Local Volumes Site Scena

Site Scenario: 1 | Local Volumes

|        |        | ovemen     |         |      |       |      |       |       |          |          |         |      |        |        |       |
|--------|--------|------------|---------|------|-------|------|-------|-------|----------|----------|---------|------|--------|--------|-------|
| Mav    | Tum    | Mov        | Dem     |      |       | nval | Deg   | Aver  | Level of | 95% Back | Of Queu |      |        | Number | Aver  |
| D.     |        | Class      |         | lows |       | ows  | Sam   | Delay | Service  |          |         | Qued |        | Cycles | Speed |
|        |        |            | [ Total |      |       |      |       |       |          | ) Veh    | Dist J  |      | Ratero | Depart |       |
| -      | -      | _          | veh/h   | %    | veh/h | %    | V/C   | Sec   | _        | veh      | iii     | _    |        |        | km/   |
| East:  | Belma  | ore Street | t       |      |       |      |       |       |          |          |         |      |        |        |       |
| 5      | T1     | All MCs    | 204     | 0.0  | 204   | 0.0  | 0.311 | 4.4   | LOSA     | 2.0      | 14.2    | 0.28 | 0.54   | 0.28   | 26.5  |
| 6      | R2     | All MCs    | 186     | 0.0  | 186   | 0.0  | 0.311 | 6.9   | LOSA     | 2.0      | 14.2    | 0.28 | 0.54   | 0.28   | 26.5  |
| 6u     | U      | All MCs    | 11      | 0.0  | 11    | 0.0  | 0.311 | 8.2   | LOSA     | 2.0      | 14.2    | 0.28 | 0.54   | 0,28   | 26.5  |
| Appro  | bach   |            | 401     | 0.0  | 401   | 0.0  | 0.311 | 5.7   | LOSA     | 2.0      | 14.2    | 0.28 | 0.54   | 0.28   | 26.5  |
| North  | : Wyn  | ne Avenu   | ie      |      |       |      |       |       |          |          |         |      |        |        |       |
| 7      | L2     | All MCs    | 120     | 3.5  | 120   | 3.5  | 0.185 | 4.5   | LOSA     | 1.0      | 7.1     | 0.31 | 0.57   | 0.31   | 22.3  |
| 9      | R2     | All MCs    | 73      | 0.0  | 73    | 0.0  | 0.185 | 6.3   | LOSA     | 1.0      | 7.1     | 0.31 | 0.57   | 0.31   | 22.   |
| 9u     | U      | All MCs    | 3       | 0.0  | 3     | 0.0  | 0.185 | 7.5   | LOSA     | 1.0      | 7.1     | 0.31 | 0.57   | 0.31   | 22.   |
| Appro  | oach   |            | 196     | 2.2  | 196   | 2.2  | 0,185 | 5.2   | LOSA     | 1.0      | 7.1     | 0.31 | 0.57   | 0.31   | 22.   |
| West   | Belm   | ore Stree  | et      |      |       |      |       |       |          |          |         |      |        |        |       |
| 10     | L2     | All MCs    | 152     | 0.0  | 152   | 0,0  | 0.286 | 6.2   | LOSA     | 1.7      | 11.7    | 0.47 | 0.56   | 0.47   | 32.6  |
| 11     | T1     | All MCs    | 98      | 2.2  | 98    | 2.2  | 0.286 | 5.6   | LOSA     | 1.7      | 11.7    | 0.47 | 0.56   | 0.47   | 32.6  |
| 12u    | U      | All MCs    | 4       | 0.0  | 4     | 0.0  | 0.286 | 9.5   | LOSA     | 1.7      | 11.7    | 0.47 | 0.56   | 0.47   | 32.6  |
| Appro  | oach   |            | 254     | 0.8  | 254   | 8.0  | 0.286 | 6.0   | LOSA     | 1.7      | 11.7    | 0.47 | 0.56   | 0.47   | 32.6  |
| All Ve | ehides | D.         | 851     | 0.7  | 851   | 0.7  | 0.311 | 5.7   | LOSA     | 2.0      | 14.2    | 0.35 | 0.55   | 0.35   | 28.   |

Site Level of Service (LOS) Method: Delay (NSW), Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [112(7)] 1I. 2030 AM Base Belmore St and Conder St -Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: Existing Design Give-Way (Two-Way) Network Scenario: 1 | Local Volumes

etwork Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mav    | Turn   | Mov        | Flam  | and  | Ac      | rival | Deg   | AVEC  | Level of | 95% Bao  | Of Care   | a Pron | Eff. I  | vumber | Aver  |
|--------|--------|------------|-------|------|---------|-------|-------|-------|----------|----------|-----------|--------|---------|--------|-------|
| ID     | 19(1)  | Class      |       | lows |         | OWS   | Satn  | Delay | Service  | 2070 000 | Of Guen   | Qued   |         | Cycles | Speed |
| 114    |        | C1055      |       |      | [ Total |       | pani  | Detay | 26/1/26  | [ Veh    | Dist]     | Chien  |         | Depart | oheer |
|        |        |            | veh/h |      | veh/h   | %     | v/c:  | sec   |          | veh      | WI CHANGE |        | 1100210 | Copon  | kmvi  |
| Sout   | n: Con | der Stree  | t     |      |         |       |       |       |          |          |           |        |         |        |       |
| 2      | T1.    | All MCs    | 173   | 0.0  | 173     | 0.0   | 0.213 | 2.0   | LOSA     | 1.0      | 7.2       | 0.36   | 0.49    | 0.36   | 44.9  |
| 3      | R2     | All MCs    | 162   | 0.0  | 162     | 0.0   | 0.213 | 5.7   | LOSA     | 1.0      | 7.2       | 0.36   | 0.49    | 0.36   | 44.9  |
| Appn   | oach   |            | 335   | 0.0  | 335     | 0.0   | 0.213 | 3.8   | NA       | 1.0      | 7.2       | 0.36   | 0.49    | 0.36   | 44.9  |
| East   | Belmo  | ore Street |       |      |         |       |       |       |          |          |           |        |         |        |       |
| 4      | L2     | All MCs    | 184   | 0.0  | 184     | 0.0   | 0.269 | 5.2   | LOSA     | 1.2      | 8.1       | 0.38   | 0.58    | 0.38   | 42.8  |
| 6      | R2     | All MCs    | 105   | 0.0  | 105     | 0.0   | 0.269 | 7.8   | LOSA     | 1.2      | 8.1       | 0.38   | 0.58    | 0.38   | 32.6  |
| Appr   | oach   |            | 289   | 0.0  | 289     | 0.0   | 0.269 | 6.1   | LOSA     | 1,2      | 8.1       | 0.38   | 0.58    | 0.38   | 41.2  |
| North  | Con    | der Street |       |      |         |       |       |       |          |          |           |        |         |        |       |
| 7      | 1.2    | All MCs    | 120   | 1.8  | 120     | 1.8   | 0.159 | 4.6   | LOSA     | 0.0      | 0.0       | 0.00   | 0.23    | 0.00   | 43.5  |
| 8      | T1     | All MCs    | 160   | 3.9  | 160     | 3.9   | 0.159 | 0.0   | LOSA     | 0.0      | 0.0       | 0.00   | 0.23    | 0.00   | 48.0  |
| Appr   | oach   |            | 280   | 3.0  | 280     | 3.0   | 0.159 | 2.0   | NA       | 0.0      | 0.0       | 0.00   | 0.23    | 0.00   | 47.2  |
| All Ve | hides  | 6          | 904   | 0.9  | 904     | 0.9   | 0.269 | 4.0   | NA       | 1.2      | 8.1       | 0.25   | 0.44    | 0.25   | 44.3  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Amval Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [113(7)] 1m. 2030 AM Base Wynne Avenue and Burwood Place - Copy - Copy - Copy (2025 AM EXISTING 8:00-9:00) Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Burwood Place

Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 85.0 seconds (Network User-Given Cycle Time) Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Tum    | Mov      |         | brian  |        | пуаі        | Deg     | Aver  | Level ur | 95% Bad | Of Queue |      |      | Number           | Aver  |
|--------|--------|----------|---------|--------|--------|-------------|---------|-------|----------|---------|----------|------|------|------------------|-------|
| ID.    |        | Class    |         | HV [ [ | Total  | ows<br>HV ] | Sam     | Delay | Service  | ) Veh   | Dist J   | Qued |      | Oycles<br>Depart | Speco |
| =      | -      | _        | veh/h   | %      | veh/h  | %           | v/c     | seq   | _        | veh     | m        | _    | _    |                  | km/h  |
| South  | ı: Wyn | ne Aveni | ue (S)  |        |        |             |         |       |          |         |          |      |      |                  |       |
| 1      | L2     | All MCs  | 11      | 0.0    | -11    | 0.0         | 0.011   | 9.5   | LOSA     | 0.2     | 1.4      | 0.35 | 0.53 | 0.35             | 39.7  |
| 2      | T1     | All MCs  | 2       | 95.2   | 2      | 95.2        | 0.011   | 5.1   | LOSA     | 0.2     | 1.4      | 0.35 | 0.53 | 0.35             | 17.0  |
| 3      | R2     | All MCs  | 280     | 0.0    | 280    | 0.0         | * 0,295 | 10.8  | LOSA     | 4.8     | 33.9     | 0.45 | 0.68 | 0.45             | 38.4  |
| Appro  | oach   |          | 293     | 0.7    | 293    | 0.7         | 0.295   | 10.8  | LOSA     | 4.8     | 33.9     | 0.44 | 0.68 | 0.44             | 37.9  |
| East:  | Emen   | ald Squa | re/Burw | ood F  | laza ( | E)          |         |       |          |         |          |      |      |                  |       |
| 4      | L2     | All MCs  | 31      | 0.0    | 31     | 0.0         | ₹ 0.118 | 39.7  | LOS C    | 1.1     | 7.9      | 0.90 | 0.71 | 0.90             | 24.2  |
| 5      | T1     | All MCs  | 0       | 0.0    | 0      | 0.0         | 0.001   | 32.2  | LOSC     | 0.0     | 0.1      | 0.86 | 0.51 | 0.86             | 34.0  |
| 6      | R2     | All MCs  | 0       | 0.0    | 0      | 0.0         | 0.001   | 36.8  | LOSC     | 0.0     | 0.1      | 0.86 | 0.51 | 0.86             | 25.9  |
| Appr   | oach   |          | 31      | 0.0    | 31     | 0.0         | 0.118   | 39.7  | LOS C    | 1.1     | 7.9      | 0.90 | 0.71 | 0.90             | 24.2  |
| North  | : Wyni | ne Avent | ie (N)  |        |        |             |         |       |          |         |          |      |      |                  |       |
| 7      | L2     | All MCs  | 0       | 0.0    | 0      | 0,0         | 0.007   | 7.1   | LOSA     | 0.0     | 0.4      | 0.16 | 0.12 | 0.16             | 43.6  |
| 8      | T1     | All MCs  | 5       | 98.0   | 5      | 98.0        | 0.007   | 2.1   | LOSA     | 0.0     | 0.4      | 0.16 | 0.12 | 0.16             | 29.7  |
| 9      | R2     | All MCs  | 0       | 0.0    | 0      | 0.0         | 0.000   | 5.6   | LOSA     | 0.0     | 0.0      | 0.07 | 0.53 | 0.07             | 42.6  |
| Appr   | oach   |          | 6       | 94.3   | 6      | 94.3        | 0.007   | 2.3   | LOSA     | 0.0     | 0.4      | 0.16 | 0.13 | 0.16             | 31.7  |
| West   | Burw   | ood Gran | nd (W)  |        |        |             |         |       |          |         |          |      |      |                  |       |
| 10     | L2     | All MCs  | 0       | 0.0    | 0      | 0.0         | 0.001   | 37.7  | LOS C    | 0.0     | 0.1      | 0.86 | 0.50 | 0.86             | 26.0  |
| 11     | T1     | All MCs  | 0       | 0.0    | 0      | 0.0         | 0.001   | 31.1  | LOSC     | 0.0     | 0.1      | 0.86 | 0.50 | 0.86             | 34.0  |
| 12     | R2     | All MCs  | 3       | 0.0    | 3      | 0.0         | 0.013   | 38.7  | LOSC     | 0.1     | 0.8      | 0.88 | 0.63 | 0.88             | 24.4  |
| Appr   | oach   |          | 3       | 0.0    | 3      | 0.0         | 0.013   | 38.4  | LOS C    | 0.1     | 8,0      | 0.88 | 0.62 | 0,88             | 24,9  |
| All Ve | ehides |          | 332     | 2.2    | 332    | 2.2         | 0.295   | 13.6  | LOSA     | 4.8     | 33.9     | 0.49 | 0.67 | 0.49             | 35.9  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D),

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



V Site: [114(4)] 1n. 2030 AM Base Belmore St and Burwood Place Exit - Copy - Copy - Copy (2025 AM EXISTING 8:00-9:00) Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE 2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: (None) Give-Way (Two-Way) Network Scenario: 1 | Local Volumes

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov<br>ID | Tum     | Mov<br>Class |        | iana<br>lows |        | nval<br>ows | Deg<br>Satn | Aver<br>Delay | Level of<br>Service | 95% Back | Of Queu | e Frop<br>Oued |      | Number<br>Cycles | Ave<br>Speed |
|-----------|---------|--------------|--------|--------------|--------|-------------|-------------|---------------|---------------------|----------|---------|----------------|------|------------------|--------------|
|           |         |              | Total  | HV           | Total  | HV          |             |               |                     | ( Veh    | Dist    |                |      | Depart           |              |
|           |         |              | veh/h  | 14/4         | veh/it | 96          | Wc.         | sec           | <u> </u>            | ∨eh      | m       |                | -    |                  | km/h         |
| East      | Belme   | ore Street   |        |              |        |             |             |               |                     |          |         |                |      |                  |              |
| 5         | T1      | All MCs      | 220    | 0.0          | 220    | 0.0         | 0.113       | 0.0           | LOSA                | 0.0      | 0.0     | 0.00           | 0.00 | 0.00             | 59.9         |
| Appr      | oach    |              | 220    | 0.0          | 220    | 0.0         | 0.113       | 0.0           | NA                  | 0.0      | 0.0     | 0.00           | 0.00 | 0.00             | 59.9         |
| North     | : Burw  | ood Plac     | e Exit |              |        |             |             |               |                     |          |         |                |      |                  |              |
| 7         | 12      | All MCs      | 65     | 0.0          | 65     | 0.0         | 0.053       | 6.6           | LOSA                | 0.2      | 1.4     | 0.36           | 0.60 | 0.36             | 43.8         |
| 9         | R2      | All MCs      | 83     | 0.0          | 83     | 0.0         | 0.102       | 8.0           | LOSA                | 0.3      | 2.4     | 0.45           | 0.73 | 0.45             | 42,0         |
| Appr      | oach    |              | 148    | 0.0          | 148    | 0.0         | 0.102       | 7.3           | LOSA                | 0.3      | 2.4     | 0.41           | 0.67 | 0.41             | 42.8         |
| West      | Belm    | ore Stree    | t      |              |        |             |             |               |                     |          |         |                |      |                  |              |
| 11        | T1      | All MCs      | 304    | 0,0          | 304    | 0.0         | 0.156       | 0.0           | LOSA                | 0,0      | 0.0     | 0.00           | 0.00 | 0.00             | 59.9         |
| Appr      | oach    |              | 304    | 0,0          | 304    | 0.0         | 0.156       | 0.0           | NA                  | 0.0      | 0.0     | 0.00           | 0.00 | 0.00             | 59.9         |
| Ali V     | ehicles |              | 673    | 0.0          | 673    | 0.0         | 0.156       | 1.6           | NA                  | 0.3      | 2.4     | 0.09           | 0.15 | 0.09             | 50.1         |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data fah)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity. Constraint effects.



Site: [1 (5)] 2030 AM Railway Pde Access - Copy - Copy (2025 AM EXISTING 8:00-9:00)

Network: [N101(9)] 2030 AM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Left-In Left-Out Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehic     | de M   | ovement      | Perfo           | rma        | nce              |               |            |               |                     |              |             |                 |        |                  |               |
|-----------|--------|--------------|-----------------|------------|------------------|---------------|------------|---------------|---------------------|--------------|-------------|-----------------|--------|------------------|---------------|
| Mov<br>ID | Tum    | Mov<br>Class | Derr<br>Fl      | and<br>ows |                  | rival<br>lows | Deg<br>Sam | Aver<br>Delay | Lever at<br>Service |              | ol Queu     | e Prop.<br>Oued |        | Number<br>Cycles | Aver<br>Speed |
|           |        |              | (Total<br>veh/h |            | [ Total<br>veh/h |               | v/c        | seq           |                     | l Veh<br>veh | Dist J<br>m |                 | Raleto | Depart           | km/h          |
| South     | : Dev  | elopment     | Access          |            |                  |               |            |               |                     |              |             |                 |        |                  |               |
| 1         | L2     | All MCs      | 214             | 2.0        | 214              | 2.0           | 0.123      | 5.8           | LOSA                | 0.5          | 3.4         | 0.00            | 0.53   | 0.00             | 51.0          |
| Appro     | ach    |              | 214             | 2.0        | 214              | 2.0           | 0.123      | 5.8           | NA                  | 0.5          | 3.4         | 0.00            | 0,53   | 0.00             | 51.0          |
| East:     | Railw  | ay Parade    | 2               |            |                  |               |            |               |                     |              |             |                 |        |                  |               |
| 2         | L2     | All MCs      | 256             | 1.6        | 256              | 1.6           | 0.147      | 5.3           | LOSA                | 0.5          | 3.6         | 0.00            | 0,53   | 0.00             | 50.2          |
| 3         | T1     | All MCs      | 421             | 0.0        | 421              | 0.0           | 0.108      | 0.0           | LOSA                | 0.0          | 0.0         | 0.00            | 0.00   | 0.00             | 60.0          |
| Appro     | ach    |              | 677             | 0.6        | 677              | 0.6           | 0.147      | 2.0           | NA                  | 0.5          | 3.6         | 0.00            | 0,20   | 0.00             | 51.8          |
| West:     | Railw  | ay Parad     | e               |            |                  |               |            |               |                     |              |             |                 |        |                  |               |
| 4         | T1     | All MCs      | 116             | 9.1        | 116              | 9.1           | 0.027      | 0.0           | LOSA                | 0.0          | 0.0         | 0.00            | 0,00   | 0.00             | 60.0          |
| Appro     | ach    |              | 116             | 9.1        | 116              | 9.1           | 0.027      | 0.0           | NA                  | 0.0          | 0.0         | 0.00            | 0.00   | 0.00             | 60.0          |
| All Ve    | hicles |              | 1006            | 1.9        | 1006             | 1.9           | 0.147      | 2.6           | NA                  | 0.5          | 3.6         | 0.00            | 0.25   | 0.00             | 51.8          |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



## 2030 PM Peak Stage 2 Completed

## MOVEMENT SUMMARY

Site: [105(8)] 2e. 2030 PM Base Burwood Rd and Railway
Parade - Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30)
Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE 2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Mov    | Tum    | Mov       | Den     | nand      | Ar    | rival | Deg.    | Aver. | Level of | 95% Back | Of Queu | e Prop. | Eff. | Number | Aver  |
|--------|--------|-----------|---------|-----------|-------|-------|---------|-------|----------|----------|---------|---------|------|--------|-------|
| ID     |        | Class     |         | lows      |       | ows   | Satn    | Delay | Service  |          |         | Qued    |      | Cycles | Speed |
|        |        |           | [ Total | HVI       | Total | HV]   |         |       |          | [ Veh.   | Dist ]  |         |      | Depart |       |
|        |        |           | veh/h   | %         | veh/h | %     | v/c     | sec   |          | veh      | m       |         |      |        | km/l  |
| South  | : Burv | vood Roa  | d (S)   |           |       |       |         |       |          |          |         |         |      |        |       |
| 1      | L2     | All MCs   | 89      | 1.2       | 89    | 1.2   | 0.631   | 24.6  | LOS B    | 8.6      | 61.9    | 0.59    | 0.56 | 0.59   | 20.   |
| 2      | T1     | All MCs   | 624     | 4.4       | 624   | 4.4   | 0.631   | 17.5  | LOS B    | 8.9      | 65.0    | 0.59    | 0.53 | 0.59   | 23.   |
| 3      | R2     | All MCs   | 1       | 100.<br>0 | 1     | 100.  | * 0.631 | 33.0  | LOS C    | 8.9      | 65.0    | 0.58    | 0.51 | 0.58   | 29.   |
| Appro  | oach   |           | 715     | 4.1       | 715   | 4.1   | 0.631   | 18.4  | LOS B    | 8.9      | 65.0    | 0.59    | 0.53 | 0.59   | 20.   |
| East:  | Railw  | ay Parade | e (E)   |           |       |       |         |       |          |          |         |         |      |        |       |
| 4      | L2     | All MCs   | 63      | 0.0       | 63    | 0.0   | 0.235   | 48.6  | LOS D    | 3.1      | 21.5    | 0.89    | 0.73 | 0.89   | 16.   |
| 5      | T1     | All MCs   | 273     | 2.3       | 273   | 2.3   | * 0.628 | 43.0  | LOS D    | 10.3     | 73.6    | 0.95    | 0.79 | 0.95   | 17.   |
| Appro  | oach   |           | 336     | 1.9       | 336   | 1.9   | 0.628   | 44.0  | LOS D    | 10.3     | 73.6    | 0.94    | 0.78 | 0.94   | 15.   |
| North  | : Burv | ood Roa   | d (N)   |           |       |       |         |       |          |          |         |         |      |        |       |
| 7      | L2     | All MCs   | 40      | 2.6       | 40    | 2.6   | 0.127   | 13.5  | LOSA     | 2.6      | 19.1    | 0.46    | 0.45 | 0.46   | 30.   |
| 8      | T1     | All MCs   | 323     | 9.1       | 323   | 9.1   | 0.594   | 9.3   | LOSA     | 7.0      | 54.6    | 0.70    | 0.86 | 0.70   | 11.   |
| 9      | R2     | All MCs   | 115     | 20.2      | 115   | 20.2  | * 0.594 | 17.5  | LOS B    | 7.0      | 54.6    | 0.80    | 1.03 | 0.80   | 10.   |
| Appro  | oach   |           | 478     | 11.2      | 478   | 11.2  | 0.594   | 11.6  | LOSA     | 7.0      | 54.6    | 0.70    | 0.86 | 0.70   | 13.   |
| West   | Railw  | ay Parad  | e (W)   |           |       |       |         |       |          |          |         |         |      |        |       |
| 10     | L2     | All MCs   | 173     | 14.0      | 173   | 14.0  | 0.299   | 30.1  | LOSC     | 6.2      | 48.3    | 0.85    | 0.77 | 0.85   | 15.   |
| 11     | T1     | All MCs   | 232     | 3.2       | 232   | 3.2   | 0.520   | 32.6  | LOS C    | 9.0      | 64.7    | 0.92    | 0.77 | 0.92   | 22.   |
| Appro  | oach   |           | 404     | 7.8       | 404   | 7.8   | 0.520   | 31.5  | LOS C    | 9.0      | 64.7    | 0.89    | 0.77 | 0.89   | 20.   |
| All Ve | hicles |           | 1933    | 6.3       | 1933  | 6.3   | 0.631   | 23.9  | LOSB     | 10.3     | 73.6    | 0.74    | 0.71 | 0.74   | 17.   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



Site: [106(8)] 2f. 2030 PM Base Railway Pde and Wynne Ave -

Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category, Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time) Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

|        |        | ovemen    | t Pent   | orma |       |      |               |       |          |         |          |      |        |          |       |
|--------|--------|-----------|----------|------|-------|------|---------------|-------|----------|---------|----------|------|--------|----------|-------|
| Mov    |        | Mov       |          | nand |       | nval | Cag           | Aver  | Level of | 95% Bad | CI Queli |      |        | Number   | Ave   |
| ID     |        | Class     |          | lows |       | ows  | Satn          | Delay | Service  |         | 300      | Oted |        | f Cycles | Spee: |
|        |        |           |          |      | Total |      |               |       |          | ) Veh   | Dist.)   |      | Raleto | Depart   |       |
| -      | _      | _         | vehilh   | %    | veh/n | 96   | WC.           | sec   |          | veh     | m        |      |        |          | Km/   |
| South  | n: Wyn | ne Avenu  | e (S)    |      |       |      |               |       |          |         |          |      |        |          |       |
| 1      | L2     | All MCs   | . 0      | 0.0  | 0     | 0.0  | 0.000         | 43.0  | LOS D    | 0.0     | 0.0      | 0.99 | 0.52   | 0.99     | 6.    |
| 2      | T1     | All MCs   | 0        | 0.0  | 0     | 0.0  | 0.001         | 29.1  | LOSIC    | 0.0     | 0.0      | 0.78 | 0.47   | 0.78     | 24.   |
| 3      | R2     | All MCs   | - 0      | 0.0  | 0     | 0.0  | 0.001         | 35.9  | LOSIC    | 0.0     | 0.0      | 0.78 | 0.47   | 0.78     | 8.2   |
| Appro  | oach   |           | 0        | 0.0  | 0     | 0.0  | 0.001         | 36.0  | LOS C    | 0.0     | 0.0      | 0.85 | 0.49   | 0.85     | 15.   |
| East:  | Railwa | ay Parade | e (E)    |      |       |      |               |       |          |         |          |      |        |          |       |
| 4      | L2     | All MCs   | 144      | 0.0  | 144   | 0.0  | 0.146         | 19.3  | LOSB     | 4.6     | 31.9     | 0.77 | 0.58   | 0.77     | 17.   |
| 5      | T1     | All MCs   | 6        | 100. | 6     | 100. | 0.008         | 3.2   | LOSA     | 0.1     | 0.7      | 0.22 | 0.15   | 0.22     | 33.   |
|        |        |           |          | 0    |       | 0    |               |       |          |         |          |      |        |          |       |
| Appro  | oach   |           | 151      | 4.2  | 151   | 4.2  | 0.146         | 18.6  | LOSB     | 4.6     | 31.9     | 0.75 | 0.56   | 0.75     | 18.   |
| North  | : Burw | ood Cen   | tral Car | Park | (N)   |      |               |       |          |         |          |      |        |          |       |
| 7      | L2     | All MCs   | 19       | 0.0  | 19    | 0.0  | <b>*0.070</b> | 39.2  | LOSC     | 0.7     | 5.1      | 0.88 | 0.68   | 0.88     | 21.   |
| 8      | T1     | All MCs   | 0        | 0.0  | 0     | 0.0  | 0.000         | 30.9  | LOS C    | 0.0     | 0.0      | 0.82 | 0.43   | 0.82     | 24.   |
| Appro  | oach   |           | 19       | 0.0  | 19    | 0.0  | 0.070         | 39.1  | LOS C    | 0.7     | 5.1      | 0.88 | 0.68   | 0.88     | 21.   |
| West   | Railw  | ray Parad | e (W)    |      |       |      |               |       |          |         |          |      |        |          |       |
| 10     | L2     | All MCs   | 20       | 0.0  | 20    | 0.0  | 0.151         | 14.2  | LOSA     | 2.9     | 21.7     | 0.42 | 0.38   | 0.42     | 35.   |
| 11     | T1     | All MCs   | 324      | 10.4 | 324   | 10.4 | 0.151         | 5.9   | LOSA     | 2.9     | 21.7     | 0.40 | 0.35   | 0.40     | 26.   |
| 12     | R2     | All MCs   | 0        | 100. | 0     | 100. | ≠0.151        | 17.1  | LOSB     | 2.8     | 21.0     | 0.38 | 0.32   | 0.38     | 27.   |
|        |        |           |          | 0    |       | 0    |               |       |          |         |          | -    |        |          |       |
| Appro  | oach   |           | 344      | 9.8  | 344   | 9.8  | 0.151         | 6.3   | LOSA     | 2.9     | 21.7     | 0.40 | 0.35   | 0.40     | 28.   |
| Ali Ve | hicles |           | 514      | 7.8  | 514   | 7.8  | 0.151         | 11.2  | LOSA     | 4.6     | 31.9     | 0.52 | 0.43   | 0.52     | 23.   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



Site: [107(8)] 2g. 2030 PM Base Railway Pde and Conder St -Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Railway Parade and Conder Street Site Category: Existing Design Roundabout

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov   | Tum   | Mov          | Derr    |      |       | rival | Deg   | Aver  | Level of | 95% Back | Of Queue | e Prop. |        | Number | Aver  |
|-------|-------|--------------|---------|------|-------|-------|-------|-------|----------|----------|----------|---------|--------|--------|-------|
| ID.   |       | Class        |         | ows  |       | lows  | Sam   | Delay | Service  |          | -        | Qued    |        | Cycles | Speed |
|       |       |              | [ Total |      |       |       |       |       |          | ) Ven    | Dist J   |         | Raleto | Depart |       |
|       |       | 4 1/2/2 C.E. | veh/h   | %    | veh/h | %     | V/C   | seq   | _        | veh      | m.       | _       | _      | _      | km/   |
| South | : Con | der Stree    | t(S)    |      |       |       |       |       | V 30.5   |          |          |         |        |        |       |
| 1a    | L1    | All MCs      | 211     |      | 211   | 1.0   | 0.334 | 5.3   | LOSA     | 2.2      | 15.4     | 0.59    | 0.60   | 0.59   | 40.3  |
| 2     | T1    | All MCs      |         | 0.0  |       | 0.0   | 0.334 | 5.6   | LOSA     | 2.2      | 15.4     | 0.59    | 0.60   | 0.59   | 37.6  |
| 3     | R2    | All MCs      |         | 3.1  | 103   | 3,1   | 0.334 | 9.0   | LOSA     | 2.2      | 15.4     | 0.59    | 0,60   | 0.59   | 33.4  |
| 3u    | U     | All MCs      | 12      | 0.0  | 12    | 0.0   | 0.334 | 10.4  | LOSA     | 2.2      | 15.4     | 0.59    | 0,60   | 0.59   | 33.4  |
| Appro | ach   |              | 328     | 1.6  | 328   | 1.6   | 0.334 | 6.6   | LOSA     | 2,2      | 15.4     | 0,59    | 0,60   | 0,59   | 38.8  |
| East  | Railw | ay Parad     | e (E)   |      |       |       |       |       |          |          |          |         |        |        |       |
| 4     | L2    | All MCs      | 94      | 0.0  | 94    | 0.0   | 0.112 | 5.7   | LOSA     | 0.6      | 4.2      | 0.52    | 0.59   | 0.52   | 27.2  |
| 6a    | R1    | All MCs      | 257     | 12,3 | 257   | 12.3  | 0.262 | 6.6   | LOSA     | 1.7      | 12.7     | 0.55    | 0.60   | 0.55   | 35.6  |
| 6     | R2    | All MCs      | 5       | 0.0  | 5     | 0.0   | 0.262 | 7.0   | LOSA     | 1.7      | 12.7     | 0.55    | 0.60   | 0.55   | 35.0  |
| 6u    | U     | All MCs      | 35      | 0.0  | 35    | 0.0   | 0.262 | 8.3   | LOSA     | 1.7      | 12.7     | 0.55    | 0.60   | 0.55   | 26.2  |
| Appro | ach   |              | 391     | 8.1  | 391   | 8.1   | 0.262 | 6.5   | LOSA     | 1.7      | 12.7     | 0.54    | 0.60   | 0.54   | 34.   |
| North | Appa  | rtments i    | (N)     |      |       |       |       |       |          |          |          |         |        |        |       |
| 7     | L2    | All MCs      | 2       | 0.0  | 2     | 0.0   | 0.012 | 7.4   | LOSA     | 0.1      | 0.5      | 0.69    | 0.63   | 0.69   | 34.   |
| 8     | T1    | All MCs      | 3       | 0.0  | 3     | 0.0   | 0.012 | 6.7   | LOSA     | 0.1      | 0.5      | 0.69    | 0.63   | 0.69   | 34.   |
| 9b    | R3    | All MCs      | 2       | 0.0  | 2     | 0.0   | 0.012 | 10.5  | LOSA     | 0.1      | 0.5      | 0.69    | 0.63   | 0.69   | 37.2  |
| 9u    | U     | All MCs      | 0       | 100. | 0     | 100.  | 0.012 | 15.3  | LOSB     | 0.1      | 0.5      | 0.69    | 0.63   | 0.69   | 36.0  |
|       |       |              |         | 0    |       | 0     |       |       |          |          |          |         |        |        |       |
| Appro | ach   |              | 7       | 1.4  | 7     | 1.4   | 0.012 | 8.1   | LOSA     | 0.1      | 0.5      | 0.69    | 0.63   | 0.69   | 35.3  |
| North | West  | Railway      | Parade  | (NE) |       |       |       |       |          |          |          |         |        |        |       |
| 27ь   | L3    | All MCs      | 2       | 0.0  | 2     | 0.0   | 0.542 | 5.4   | LOSA     | 4.6      | 32.9     | 0.53    | 0.54   | 0.53   | 38.6  |
| 27a   | L1    | All MCs      | 341     | 4.3  | 341   | 4.3   | 0.542 | 4.6   | LOSA     | 4.6      | 32.9     | 0.53    | 0.54   | 0.53   | 37.9  |
| 29a   | R1    | All MCs      | 316     | 0.0  | 316   |       | 0,542 | 7.3   | LOSA     | 4.6      | 32.9     | 0.53    | 0.54   | 0.53   | 37.9  |
| 29u   | U     | All MCs      | - 1     | 0.0  | 1     | 0.0   | 0.542 | 9.6   | LOSA     | 4.6      | 32.9     | 0.53    | 0.54   | 0.53   | 41.   |
| Appro | ach   |              | 660     | 2.2  | 660   | 2.2   | 0.542 | 5.9   | LOSA     | 4.6      | 32.9     | 0.53    | 0.54   | 0.53   | 37.5  |
|       |       |              |         |      |       |       |       |       |          |          |          |         |        |        |       |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [110(8)] 2j. 2030 PM Base Burwood Rd and Belmore St -

Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

|        |         | ovemen    |       |      |         |       |         |       |          |          |          |      |        |        |      |
|--------|---------|-----------|-------|------|---------|-------|---------|-------|----------|----------|----------|------|--------|--------|------|
| Mov    | Tum     | Mov       | Dan   |      |         | rival | Deg     | Aver  | Level ul | 95% Back | Of Queue |      |        | Number | Ave  |
| ID.    |         | Class     |       | lows |         | ows   | Sam     | Delay | Service  |          | 200      | Qued |        | Cycles | Spee |
|        |         |           |       |      | [ Total |       |         |       |          | ) Veh    | Dist J   |      | Raleto | Depart |      |
|        | _       | CONTRACT. | veh/h | %    | veh/h   | %     | v/c     | Sec   | _        | veh      | m        | _    |        | _      | km/  |
| South  | 1: Bury | ood Roa   | d(S)  |      |         |       |         |       |          |          |          |      |        |        |      |
| 1      | L2      | All MCs   | 89    | 1.2  | 89      | 1.2   | 0.160   | 46.7  | LOS D    | 3.0      | 21.1     | 0.75 | 0.70   | 0.75   | 25   |
| 2      | T1      | All MCs   | 402   | 6.8  | 402     | 6.8   | 0.800   | 50.9  | LOS D    | 19.8     | 145.3    | 0.96 | 0.92   | 1.06   | 23   |
| 3      | R2      | All MCs   | 58    | 0.0  | 58      | 0.0   | *0,800  | 60.2  | LOSE     | 19.8     | 145.3    | 0.96 | 0.93   | 1.07   | 29.  |
| Appro  | oach    |           | 549   | 5.2  | 549     | 5.2   | 0.800   | 51.2  | LOS D    | 19.8     | 145.3    | 0.92 | 0.89   | 1,01   | 19   |
| East:  | Belmo   | re Street | (E)   |      |         |       |         |       |          |          |          |      |        |        |      |
| 4      | L2      | All MCs   | 35    | 0.0  | 35      | 0.0   | 0.676   | 43.4  | LOS D    | 11.1     | 78.1     | 0.98 | 0.84   | 1.01   | 28   |
| 5      | T1      | All MCs   | 203   | 0.0  | 203     | 0.0   | 0.676   | 35.9  | LOSC     | 11.1     | 78.1     | 0.98 | 0.84   | 1.01   | 22   |
| 6      | R2      | All MCs   | 26    | 4.0  | 26      | 4.0   | 0.676   | 44.3  | LOS D    | 11.1     | 78.1     | 0.98 | 0.84   | 1.01   | 22   |
| Appro  | oach    |           | 264   | 0.4  | 264     | 0.4   | 0.676   | 37.7  | LOS C    | 11.1     | 78.1     | 0.98 | 0.84   | 1.01   | 23   |
| North  | Burw    | ood Roa   | d (N) |      |         |       |         |       |          |          |          |      |        |        |      |
| 7      | L2      | All MCs   | 65    | 1.6  | 65      | 1.6   | 0.128   | 12.6  | LOSA     | 1.9      | 14.1     | 0.33 | 0.42   | 0.33   | 35   |
| 8      | T1      | All MCs   | 348   | 8.5  | 348     | 8.5   | 0.640   | 15.4  | LOSB     | 7.7      | 57.2     | 0.84 | 0.87   | 0.84   | 25   |
| 9      | R2      | All MCs   | 87    | 0.0  | 87      | 0.0   | * 0.640 | 16.9  | LOSB     | 7.7      | 57.2     | 0.98 | 1.00   | 0.98   | 9    |
| Appro  | oach    |           | 501   | 6.1  | 501     | 6.1   | 0,640   | 15.3  | LOSB     | 7.7      | 57.2     | 08.0 | 0.84   | 0.80   | 23   |
| West   | Belm    | ore Stree | t (W) |      |         |       |         |       |          |          |          |      |        |        |      |
| 10     | L2      | All MCs   | 59    | 1.8  | 59      | 1.8   | 0.157   | 21.0  | LOSB     | 2.8      | 20.0     | 0.77 | 0.68   | 0.77   | 10   |
| 11     | T1      | All MCs   | 140   | 0.0  | 140     | 0.0   | 0.784   | 41.2  | LOSC     | 8.6      | 60.4     | 0.95 | 0.91   | 1.12   | 22   |
| 12     | R2      | All MCs   | 72    | 0.0  | 72      | 0.0   | * 0.784 | 56.5  | LOSE     | 8.6      | 60.4     | 1.00 | 0.97   | 1.21   | 21   |
| Appro  | oach    |           | 271   | 0.4  | 271     | 0.4   | 0.784   | 40.9  | LOS C    | 8.6      | 60.4     | 0.93 | 0.88   | 1.07   | 20   |
| All Ve | ehides  |           | 1585  | 3,9  | 1585    | 3.9   | 0.800   | 35.8  | LOSC     | 19.8     | 145.3    | 0.89 | 0.86   | 0.95   | 21   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data

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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D),

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



Site: [111(8)] 2k. 2030 PM Base Belmore St and Wynne Ave-Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

2 COMPLETE

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: Existing Design Roundabout

Network Scenario: 1 | Local Volumes

Site Scenario: 1 | Local Volumes

| Moy    | Tum   | Mov       | Dem     | and  | Ar    | rival | Deg   | Aver  | Level of | 95% Back | Of Queu | e Prop | Eff     | Number | Aver  |
|--------|-------|-----------|---------|------|-------|-------|-------|-------|----------|----------|---------|--------|---------|--------|-------|
| ID     |       | Class     |         | ows  |       |       | Satn  | Dalay | Service  |          |         | Qued   | Stop of | Cycles | Speed |
|        |       |           | [ Total | HV ] | Total | HV [  |       |       |          | [ Veht.  | Dist]   |        | Rate to | Depart |       |
| =      |       | _         | veh/n   | %    | veh/h | %     | V/c   | SEC   |          | veh      | m       |        | -31     |        | km/h  |
| East   | Belmo | re Street |         |      |       |       |       |       |          |          |         |        |         |        |       |
| 5      | T1    | All MCs   | 332     | 0.0  | 332   | 0.0   | 0.567 | 4.8   | LOSA     | 5.2      | 36.7    | 0.43   | 0.54    | 0.43   | 25.3  |
| 6      | R2    | All MCs   | 398     | 0.5  | 398   | 0.5   | 0.567 | 7.3   | LOSA     | 5.2      | 36.7    | 0.43   | 0.54    | 0.43   | 25.3  |
| 6u     | U     | All MCs   | 13      | 0.0  | 13    | 0.0   | 0.567 | 8,6   | LOSA     | 5.2      | 36.7    | 0,43   | 0.54    | 0.43   | 25,3  |
| Appro  | ach   |           | 742     | 0.3  | 742   | 0.3   | 0.567 | 6.2   | LOSA     | 5.2      | 36.7    | 0.43   | 0.54    | 0.43   | 25.3  |
| North  | Wyn   | ne Avenu  | е       |      |       |       |       |       |          |          |         |        |         |        |       |
| 7      | L2    | All MCs   | 117     | 0.0  | 117   | 0,0   | 0.191 | 4.5   | LOSA     | 1.0      | 6,8     | 0.26   | 0.59    | 0.26   | 22.5  |
| 9      | R2    | All MCs   | 78      | 0.0  | 78    | 0.0   | 0.191 | 6.3   | LOSA     | 1.0      | 6.8     | 0.26   | 0.59    | 0.26   | 22.5  |
| 9u     | U     | All MCs   | 9       | 0.0  | 9     | 0.0   | 0.191 | 7.5   | LOSA     | 1.0      | 6.8     | 0.26   | 0.59    | 0.26   | 22.5  |
| Appro  | ach   |           | 204     | 0.0  | 204   | 0.0   | 0.191 | 5.3   | LOSA     | 1.0      | 6.8     | 0.26   | 0.59    | 0.26   | 22.5  |
| West:  | Belm  | ore Stree | t       |      |       |       |       |       |          |          |         |        |         |        |       |
| 10     | L2    | All MCs   | 255     | 0.0  | 255   | 0.0   | 0.505 | 9.7   | LOSA     | 3.7      | 26.2    | 0.75   | 0.74    | 0.83   | 27.0  |
| 11     | T1    | All MCs   | 89      | 0.0  | 89    | 0.0   | 0.505 | 9.1   | LOSA     | 3.7      | 26.2    | 0.75   | 0.74    | 0.83   | 27.0  |
| 12u    | U     | All MCs   | 11      | 0.0  | 11    | 0.0   | 0.505 | 13.0  | LOSA     | 3.7      | 26.2    | 0.75   | 0.74    | 0.83   | 27.0  |
| Appro  | ach   |           | 355     | 0.0  | 355   | 0.0   | 0.505 | 9.6   | LOSA     | 3.7      | 26,2    | 0.75   | 0.74    | 0.83   | 27.0  |
| All Ve | hides |           | 1301    | 0.2  | 1301  | 0.2   | 0.567 | 7.0   | LOSA     | 5.2      | 36.7    | 0.49   | 0.60    | 0.51   | 25.7  |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [112(8)] 2I. 2030 PM Base Belmore St and Conder St − Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

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

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Vehi      | cle M  | ovemen       | t Perfo        | rma         | nce              |               |             |               |                     |             |             |               |      |                     |      |
|-----------|--------|--------------|----------------|-------------|------------------|---------------|-------------|---------------|---------------------|-------------|-------------|---------------|------|---------------------|------|
| Mov<br>ID | Turn   | Mov<br>Class | Dem            | end<br>lows |                  | rival<br>lows | Deg.<br>Sam | Aver<br>Delay | Level of<br>Service | 95% Bad     | c Of Quaus  | Prop.<br>Qued | Eff. | Number<br>of Cycles | Aver |
| B         |        |              | Total<br>veh/h | 2000        | / Total<br>veh/h | HV J<br>‰     | V/c-        | sec           |                     | (Veh<br>veh | Dist  <br>m | ***           | Rate | to Depart           | km/r |
| South     | : Con  | der Stree    | t              |             |                  |               |             |               |                     |             |             |               |      |                     |      |
| 2         | T1     | All MCs      | 167            | 2.5         | 167              | 2.5           | 0.194       | 1.1           | LOSA                | 0.9         | 6.3         | 0.39          | 0.44 | 0.39                | 45.7 |
| 3         | R2     | All MCs      | 123            | 0.0         | 123              | 0.0           | 0.194       | 6.2           | LOSA                | 0.9         | 6.3         | 0.39          | 0.44 | 0.39                | 45.7 |
| Appro     | oach   |              | 291            | 1.4         | 291              | 1.4           | 0.194       | 3.2           | NA                  | 0.9         | 6.3         | 0.39          | 0.44 | 0.39                | 45.7 |
| East:     | Belmo  | ore Street   |                |             |                  |               |             |               |                     |             |             |               |      |                     |      |
| 4         | L2     | All MCs      | 172            | 0.6         | 172              | 0.6           | 0.328       | 5.2           | LOSA                | 1.5         | 10.2        | 0.42          | 0.59 | 0.42                | 42.5 |
| 6         | R2     | All MCs      | 157            | 0.7         | 157              | 0.7           | 0.328       | 8.1           | LOSA                | 1.5         | 10.2        | 0.42          | 0.59 | 0.42                | 31,8 |
| Appro     | oach   |              | 328            | 0.6         | 328              | 0.6           | 0.328       | 6.6           | LOSA                | 1,5         | 10.2        | 0.42          | 0.59 | 0.42                | 40.0 |
| North     | : Cond | der Street   |                |             |                  |               |             |               |                     |             |             |               |      |                     |      |
| 7         | 12     | All MCs      | 243            | 0.0         | 243              | 0.0           | 0.220       | 4.6           | LOSA                | 0.0         | 0.0         | 0.00          | 0.33 | 0.00                | 41.2 |
| 8         | T1     | All MCs      | 147            | 1.4         | 147              | 1.4           | 0.220       | 0.0           | LOSA                | 0.0         | 0.0         | 0.00          | 0.33 | 0.00                | 47.2 |
| Appro     | oach   |              | 391            | 0.5         | 391              | 0.5           | 0.220       | 2.9           | NA                  | 0.0         | 0,0         | 0.00          | 0.33 | 0.00                | 45.1 |
| All Ve    | hicles |              | 1009           | 0.8         | 1009             | 0.8           | 0.328       | 4.2           | NA                  | 1.5         | 10.2        | 0.25          | 0.45 | 0.25                | 43.6 |

Site Level of Service (LOS) Method: Delay (NSW), Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [113(8)] 2m. 2030 PM Base Wynne Avenue and Burwood Place - Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

2 COMPLETE

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Burwood Place

Site Category: Base Year

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 90.0 seconds (Network User-Given Cycle Time)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| Mov    | Tum    | May       | Den     | and    | Ar      | пуаг | Deg     | Aver  | Level of | 95% Bad | Ol Queu | e Prop. | E#.    | Number   | Aver  |
|--------|--------|-----------|---------|--------|---------|------|---------|-------|----------|---------|---------|---------|--------|----------|-------|
| D.     |        | Class     | E .     | lows   | F       | ows  | Salm    | Delay | Service  |         |         | Qued    | Stoplo | f Cycles | Speed |
|        |        |           | [ Total | HV J I | Total   | HV ] |         |       |          | ) Veh   | Dist J  |         | Raleto | Depart   |       |
|        | -      | _         | veh/h   | %      | veh/h   | %    | v/c     | Sec   | _        | veh     | m       | _       | -      | -        | km/l  |
| South  | ı: Wyn | ne Aveni  | ie (S)  |        |         |      |         |       |          |         |         |         |        |          |       |
| 1      | L2     | All MCs   | 9       | 0.0    | 9       | 0.0  | 0.010   | 13.3  | LOSA     | 0.2     | 1.3     | 0.35    | 0.50   | 0.35     | 40.   |
| 2      | T1     | All MCs   | 3       | 0.0    | 3       | 0.0  | 0.010   | 8.8   | LOSA     | 0.2     | 1.3     | 0.35    | 0.50   | 0.35     | 17.   |
| 3      | R2     | All MCs   | 447     | 0.0    | 447     | 0.0  | * 0.476 | 15.9  | LOS B    | 9.7     | 67.7    | 0.53    | 0.72   | 0,53     | 37.   |
| Appro  | oach   |           | 460     | 0.0    | 460     | 0.0  | 0.476   | 15.8  | LOS B    | 9.7     | 67.7    | 0.53    | 0.72   | 0.53     | 34.   |
| East:  | Emen   | ald Squar | re/Burw | ood F  | Plaza ( | E)   |         |       |          |         |         |         |        |          |       |
| 4      | L2     | All MCs   | 136     | 0.0    | 136     | 0.0  | ≈ 0.494 | 43:6  | LOS D    | 5.7     | 39.7    | 0.96    | 0.79   | 0.96     | 23.   |
| 5      | T1     | All MCs   | 0       | 0.0    | 0       | 0.0  | 0.001   | 32.6  | LOSC     | 0.0     | 0.1     | 0.86    | 0.51   | 0.86     | 33.   |
| 6      | R2     | All MCs   | 0       | 0.0    | 0       | 0.0  | 0.001   | 40.7  | LOSC     | 0.0     | 0.1     | 0.86    | 0.51   | 0.86     | 25.   |
| Appro  | oach   |           | 136     | 0.0    | 136     | 0.0  | 0.494   | 43.6  | LOS D    | 5.7     | 39.7    | 0.96    | 0.79   | 0.96     | 23.   |
| North  | : Wyn  | ne Avenu  | e (N)   |        |         |      |         |       |          |         |         |         |        |          |       |
| 7      | L2     | All MCs   | 0       | 0.0    | 0       | 0.0  | 0.004   | 5.3   | LOSA     | 0.0     | 0.1     | 0.04    | 0.04   | 0.04     | 47.   |
| 8      | T1     | All MCs   | 5       | 0.0    | 5       | 0.0  | 0.004   | 0.6   | LOSA     | 0.0     | 0.1     | 0.04    | 0.04   | 0.04     | 45.   |
| 9      | R2     | All MCs   | 0       | 0.0    | 0       | 0.0  | 0.000   | 5.2   | LOSA     | 0.0     | 0.0     | 0.04    | 0.53   | 0.04     | 42.   |
| Appro  | oach   |           | 5       | 0,0    | 5       | 0.0  | 0.004   | 0.8   | LOSA     | 0.0     | 0.1     | 0.04    | 0.05   | 0.04     | 45.   |
| West   | Burw   | ood Gran  | nd (W)  |        |         |      |         |       |          |         |         |         |        |          |       |
| 10     | L2     | All MCs   | 0       | 0.0    | 0       | 0.0  | 0.000   | 38.7  | LOS C    | 0.0     | 0.0     | 0.86    | 0.52   | 0.86     | 24.   |
| 11     | T1     | All MCs   | 0       | 0.0    | 0       | 0.0  | 0.066   | 34.0  | LOSC     | 0.5     | 3.6     | 0.92    | 0.68   | 0.92     | 31.   |
| 12     | R2     | All MCs   | 13      | 0.0    | 13      | 0.0  | 0.066   | 44.5  | LOS D    | 0.5     | 3.6     | 0.92    | 0.68   | 0.92     | 22.   |
| Appro  | oach   |           | 13      | 0.0    | 13      | 0.0  | 0.066   | 44.4  | LOS D    | 0.5     | 3.6     | 0.92    | 0.68   | 0,92     | 22.   |
| All Ve | hides  |           | 614     | 0.0    | 614     | 0.0  | 0.494   | 22.5  | LOSB     | 9.7     | 67.7    | 0.63    | 0.73   | 0.63     | 31.   |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

\* Critical Movement (Signal Timing)



∇ Site: [114 (5)] 1n. 2030 PM Base Belmore St and Burwood Place Exit - Copy - Copy - Copy (2025 PM EXISTING 17:30-18:30) Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE 2 COMPLETE)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes | Site Scenario: 1 | Local Volumes

| Moy<br>ID | Turn   | Mov        | Dem   | and<br>lows |       | tival<br>lows | Deg.<br>Satn | Aver<br>Delay | Level of<br>Service | 95% Back | Of Queue | Prop<br>Qued |      | Number<br>Cycles | Aver.<br>Speed |
|-----------|--------|------------|-------|-------------|-------|---------------|--------------|---------------|---------------------|----------|----------|--------------|------|------------------|----------------|
|           |        |            |       |             | Total |               |              |               |                     | T Veh.   | Dist]    |              |      | Depart           |                |
|           |        |            | veh/h |             | veh/h | %             | v/c          | SEC           |                     | veh      | m        |              |      |                  | km/h           |
| East:     | Belmo  | ore Street |       |             |       |               |              |               |                     |          |          |              |      |                  |                |
| 5         | T1     | All MCs    | 332   | 0.0         | 332   | 0.0           | 0.170        | 0.0           | LOSA                | 0.0      | 0.0      | 0.00         | 0.00 | 0.00             | 59.9           |
| Appro     | oach   |            | 332   | 0.0         | 332   | 0.0           | 0.170        | 0.0           | NA                  | 0.0      | 0.0      | 0.00         | 0.00 | 0.00             | 59.9           |
| North     | : Burw | ood Place  | Exit  |             |       |               |              |               |                     |          |          |              |      |                  |                |
| 7         | L2     | All MCs    | 81    | 0.0         | 81    | 0.0           | 0.060        | 6.2           | LOSA                | 0.2      | 1.7      | 0.30         | 0.57 | 0.30             | 44.2           |
| 9         | R2     | All MCs    | 123   | 0.0         | 123   | 0.0           | 0.150        | 8.0           | LOSA                | 0.5      | 3.8      | 0.46         | 0.74 | 0.46             | 41.9           |
| Appn      | oach   |            | 204   | 0.0         | 204   | 0.0           | 0.150        | 7.3           | LOSA                | 0.5      | 3.8      | 0.40         | 0.67 | 0.40             | 42.8           |
| West      | Belm   | ore Street |       |             |       |               |              |               |                     |          |          |              |      |                  |                |
| 11        | T1     | All MCs    | 213   | 0.0         | 213   | 0.0           | 0.109        | 0.0           | LOSA                | 0.0      | 0.0      | 0.00         | 0.00 | 0.00             | 60.0           |
| Appn      | oach   |            | 213   | 0.0         | 213   | 0.0           | 0.109        | 0.0           | NA                  | 0.0      | 0.0      | 0.00         | 0.00 | 0.00             | 60.0           |
| All Ve    | ehides |            | 748   | 0.0         | 748   | 0.0           | 0.170        | 2.0           | NA                  | 0.5      | 3,8      | 0.11         | 0.18 | 0.11             | 49.0           |

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Site: [1 (7)] 2030 PM Railway Pde Access - Copy - Copy (2025 PM EXISTING 17:30-18:30)

Network: [N101(10)] 2030 PM Stage 2 Complete (2030 STAGE

Output produced by SIDRA INTERSECTION Version: 10.0.5,217

Left-In Left-Out Site Category: (None) Give-Way (Two-Way)

Network Scenario: 1 | Local Volumes Site Scenario: 1 | Local Volumes

| MoV<br>ID | Tum    | Mov<br>Class | Den<br>Fi | and<br>ows |        | nval<br>ows | Deg.<br>Sam | Aver.<br>Delay | Level of<br>Service | 95% Bad | Of Queue | Prop<br>Qued |      | Vumber<br>Cycles | Aver<br>Speed |
|-----------|--------|--------------|-----------|------------|--------|-------------|-------------|----------------|---------------------|---------|----------|--------------|------|------------------|---------------|
| -         |        |              |           |            | (Total |             | ~,001       | 20.41          |                     | ) Ven   | Clet i   | 2000         |      | Depart           | .,            |
|           |        |              | veh/n     | %          | veh/h  | %           | WC.         | sec.           |                     | veh     | m        |              |      |                  | km/h          |
| South     | Deve   | elopment     | Access    | 3          |        |             |             |                |                     |         |          |              |      |                  |               |
| 1         | L2     | All MCs      | 218       | 1.9        | 218    | 1.9         | 0.126       | 5.8            | LOSA                | 0.5     | 3.5      | 0.00         | 0.53 | 0.00             | 51.0          |
| Appro     | oach   |              | 218       | 1.9        | 218    | 1.9         | 0.126       | 5.8            | NA                  | 0.5     | 3.5      | 0.00         | 0.53 | 0.00             | 51.0          |
| East:     | Railw  | ay Parade    | 9         |            |        |             |             |                |                     |         |          |              |      |                  |               |
| 2         | L2     | All MCs      | 260       | 1.6        | 260    | 1.6         | 0,150       | 5.3            | LOSA                | 0.6     | 4.2      | 0.00         | 0.53 | 0.00             | 50.2          |
| 3         | TI     | All MCs      | 524       | 0.0        | 524    | 0.0         | 0.134       | 0.0            | LOSA                | 0.0     | 0.0      | 0.00         | 0.00 | 0.00             | 59.9          |
| Appro     | oach   |              | 784       | 0.5        | 784    | 0.5         | 0.150       | 1.8            | NA                  | 0.6     | 4.2      | 0.00         | 0.17 | 0.00             | 52.1          |
| West      | Railw  | ay Parad     | e         |            |        |             |             |                |                     |         |          |              |      |                  |               |
| 4         | T1     | All MCs      | 480       | 2.2        | 480    | 2.2         | 0.107       | 0.0            | LOSA                | 0.0     | 0.0      | 0.00         | 0.00 | 0.00             | 60.0          |
| Appro     | oach   |              | 480       | 2.2        | 480    | 2.2         | 0.107       | 0.0            | NA                  | 0.0     | 0.0      | 0.00         | 0.00 | 0.00             | 60,0          |
| All Ve    | hicles |              | 1482      | 1.3        | 1482   | 1.3         | 0.150       | 1.8            | NA                  | 0.6     | 4.2      | 0.00         | 0.17 | 0.00             | 52.6          |

Site Level of Service (LOS) Method: Delay (NSW), Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



## APPENDIX C - Performance Indicators

## Level of Service (LoS)

Intersection performance is best measured by the indicators of Level of Service (LOS), Average Vehicle Delay (AVD) and the Degree of Saturation (DS) during peak hours.

This is defined as the assessment of a qualitative effect of factors influencing vehicle movement through the intersection. Factors such as speed, traffic volume, geometric layout, delay and capacity are qualified and applied to the specific intersection control mode, as shown in *Table 1*.

The measure of average delay assessed for traffic signal operation is over all movements. For roundabouts and priority-controlled intersections, the critical criterion for assessment is the movement with the highest delay per vehicle.

Similarly, Network and Route performance is best assessed by the Average Vehicle Delay (AVD) and LOS.

The Network performance is an index based on the operation of traffic within a given road network of linked intersections controlled by like and/or differing control methods. As with intersections, the LOA is rated between 'A' being good to 'F' being completely unsatisfactory and highly congested requiring mitigation treatment. The Route LOS may be the result of a single intersection within the network or a group of intersections. It is the engineer's or planner's responsibility to analyse and determine the critical factors impacting the network operation.

The Route performance again is an indexed value based on the AVD along a defined path. The LOS between 'A' and 'F' is derived from the AVD and reported after consideration of each lanes operation under the specific control method at each intersection in the network.

# Average Vehicle Delay (AVD)

The AVD is a measure of the operational performance of a road network or an intersection. AVD is determined globally over a road network or within a cordon during an assignment model run. The AVD exhibited on comparable network models, for analogous peak periods, forms the basis of comparing the operational performance of the road network.

AVD is used in the determination of intersection LOS. Generally, the total delay incurred by vehicles through an intersection is averaged to give an indicative delay on any specific approach. Longer delays do occur but only the average over the peak hour period is reported.



# Degree of Saturation (DS)

The DS of an intersection is generally taken as the highest ratio of traffic volume on an approach compared with its theoretical capacity, and is a measure of the utilisation of available green time.

The DS reported is generally of a critical movement through the intersection rather than the DS of the intersection unless equal saturation occurs on all approaches.

For intersections controlled by traffic signals, generally both queue length and delay increase rapidly as DS approaches 1.0. An intersection operates satisfactorily when its DS is kept below 0.875. When the DS exceeds 0.9, extensive queues can be expected.

| Intersection Control     | Performance Measure [Unit]                            |
|--------------------------|---|
|                          | Delay of critical movement(s) [seconds/vehicle]       |
| Sign or Priority Control | Average Vehicle Delay [seconds/vehicle]               |
|                          | Queue length of critical movement(s) [metres]         |
|                          | Delay of critical movement(s) [seconds/vehicle]       |
|                          | Degree of Saturation [ ratio of vehicles to capacity] |
| Traffic Signal Control   | Average Vehicle Delay [seconds/vehicle]               |
|                          | Cycle Length [seconds]                                |
|                          | Queue length of critical movement(s) [metres]         |
|                          | Delay of critical movement(s) [seconds/vehicle]       |
| Doundahaut Control       | Degree of Saturation[ ratio of vehicles to capacity]  |
| Roundabout Control       | Average Vehicle Delay [seconds/vehicle]               |
|                          | Queue length of critical movement(s) [metres]         |

Table D 4 Performance Indicators by Control Method



|     |  | Average delay per ve                  | hicle (d) in seconds                     |                        |
|-----|--|---------------------------------------|--|------------------------|
|     | Unsignalised intersections               | Roundabouts                           | Signalised intersections                 | All intersection types |
| LoS | HCM 2000 and 2016;<br>SIDRA intersection | SIDRA intersection Recommended values | HCM 2000 and 2016;<br>SIDRA intersection | RTA (2002)             |
| А   | d ≤ 10                                   | d ≤ 10                                | d ≤10                                    | d ≤ 14                 |
| В   | 10 < d ≤ 15                              | $10 < d \le 20$                       | $10 < d \le 20$                          | 15 < d ≤ 28            |
| С   | 15 < d ≤ 25                              | 20 < d ≤ 35                           | 20 < d ≤ 35                              | $29 < d \le 42$        |
| D   | 25 < d ≤ 35                              | 35 < d ≤ 50                           | 35 < d ≤ 55                              | 43 < d ≤ 56            |
| Е   | 35 < d ≤ 50                              | 50 < d ≤ 70                           | 55 < d ≤ 80                              | 57 < d ≤ 70            |
| F   | 50 < d                                   | 70 < d                                | 80 < d                                   | 70 < d                 |

Table D 5 LOS Criteria for Intersections using Average Delay per vehicle (d) Source AUSTROADS Guide to Traffic Management – Part 3, 2020