

Traffic and Accessibility Impact Assessment

Bathurst Hospital Redevelopment

Prepared for Bathurst Hospital Redevelopment / Health Infrastructure / 14 January 2025

221946 TAAD

Executive Summary

TTW was commissioned by Health Infrastructure to undertake a Transport Accessibility and Impact Assessment (TAIA) of the proposed Bathurst Hospital Redevelopment (BHR) project. This document aims to assess the internal transport operations, and surrounding road network and associated infrastructure to identify the potential impacts and mitigation measures posed by the redevelopment.

The NSW Government announced a total of \$200M toward the redevelopment of the Bathurst Health Service (BHS) in June 2022. BHS provides a range of inpatient, outpatient and community clinical services to Bathurst and surrounding communities and works as part of a network of health services and hospitals within the region.

BHR is proposed as alterations and additions to the existing hospital buildings on the existing site. The Project will provide for a range of new clinical and non-clinical facilities to support capacity issues and existing infrastructure deficiencies on the campus. The project aims to increase the number of beds and the number of staff is also projected to increase up to the planning horizon in 2031. The BHS Clinical Services Plan (2022-2031) priorities will be used as a guiding document throughout the project planning phases.

Project Schematic Design has been developed in consultation with the WNSWLHD and BHS key stakeholders, external groups including Bathurst Council, First Nations groups, NSW Government Architect, Downer (as incumbent PPP Contractor for hard and soft facilities management services), and the Bathurst community.

This TAIA accompanies documentation for a State Significant Development Application (SSDA). A Main Works construction and refurbishment package is proposed for the redevelopment project with the existing Front of House carpark retained (Zone 3, Figure 3.2).

Within the Project Scope of the proposed redevelopment, the location of the new Main Entry on Mitre Street will drive changes to the traffic flows on site and the reconfiguration of parking zones (See Figure 3.2). The redevelopment will increase the availability of public parking on-site for patients and visitors of the Bathurst Hospital Service (See Table 3.1). An additional 71 parking spaces will be delivered between the campus and in the surrounding streets, within the Relevant Parking Zone (RPZ) as shown in Table 1 below.

	Existing Parking Spaces	Project Scope Parking Spaces
On-Site supply (Public / Staff)	266	312
On-Site supply (Fleet / BHS Vehicles)	40	40
On-Site supply (Total)	306	352
On-Street supply (RPZ)	526	551
Total Parking Supply	832	903

Table 1: Total Car Parking Supply

Under the future Masterplan for the campus, future stages of expansion have been tested through the planning phases of the design to ensure the project scope enables potential further investment and growth in site infrastructure. This includes a Community Green offering additional public spaces. The Community Green is unfunded and any future works would be subject to a separate planning approval and consultation process. Parking demand and availability would be considered in conjunction with any planned works.

An evaluation of the expected parking demand of the hospital was conducted by TTW, considering the Hospital's characteristics and travel mode surveys of staff, outpatients and visitors of the Hospital. The demand and supply at peak times are outlined in Table 2 below. These numbers are further detailed in Section 6 of this document.

	Redevelopment Project Scope
Post-redevelopment projected parking demand	702
On-Site supply	352
Demand accounted for on-street	350 spaces
Available On-street Parking	551 spaces
Surplus on-street parking	201 spaces

Table 2: Post-redevelopment Car Parking Demand at Peak Times

The overall transport strategy for the proposed Hospital is as follows:

• Pedestrians

- A new pedestrian crossing across Mitre Street, linking the new Hospital Main Entry with Victoria Park.
- An onsite crossing is proposed across the entry road to the under croft car park to connect with the new Main Entry facing Mitre Street
- Traffic calming measures on Mitre Street.

Cyclists

- Growing demand is expected due to the implementation of a Green Travel Plan; the proposal aims to provide 14 on-site bicycle parking spaces in the under-croft parking.
- The Hospital's existing end-of-trip facilities on Level 1 are intended to be retained.

• Public transport

- The existing bus stops on Howick Street will be retained, and new bus stops are proposed along Mitre Street on both sides, adjacent to the new Hospital Main Entry.
- Bathurst Buslines was consulted 23rd July 2024 and expressed support for the proposed Mitre Street bus stops as well as the retention of the Howick Street bus stops.

• Car parking on site

- The proposed redevelopment will provide an additional 46 parking spaces on-site, complementing the additional 25 parking spaces to be delivered on surrounding streets (Mitre, Durham and Howick Streets). It is expected that congestion on-campus will ease, through refinement of the flows of traffic across the site, improved parking access on-campus, and better utilisation of on-street parking,
- A turnover study completed in 2023-24 concluded that the introduction of on-site time-limited parking improves availability of parking for the public throughout the day and at peak times. In late 2023, updated timed parking restrictions were implemented across the hospital campus to improve parking turnover in key areas, prioritising on-site parking for patients and visitors. This initiative is proposed to be implemented permanently as part of Project Scope.
- There is potential for a longer-term mode share shift in transport to the campus, as noted within the Green Travel Plan.

• Car parking on street

 Adjustment of existing and introduction of new line marking of on-street car parking on Mitre Street, Durham and Howick Streets has been proposed to provide 25 additional car parking spaces close to the campus.

• Site access

 The proposed design includes modification to existing driveways impacted by the works along Mitre Street and Howick Street. The existing Emergency Department/Main Entry car park exit through Mitre Street will be removed to accommodate pedestrian access to the new Main Entry, a pedestrian crossing on Mitre Street and the two-way vehicle entry / exit to the Main Entry drop-off and under-croft car park. No change is proposed to the existing ambulance access and loading arrangements.

• Traffic impact

 Intersections adjacent to the site have been modelled with existing and future vehicle demands. Results of this modelling indicate these intersections will continue to operate at a high level of service post redevelopment and no further upgrades to the intersections adjacent to the Hospital will be required.

Following approval of the Project Scope, a Final Construction Traffic Management Plan will be prepared prior to the commencement of construction and a Final Green Travel Plan will be fully developed prior to commencement of operation. Preliminary versions of these documents have been provided to supplement this Transport and Accessibility Impact Assessment.

The proposed redevelopment is deemed suitable on consideration of the traffic and transport elements of the site and its surrounds, and the transport strategy proposed for its management and no mitigation measures required.

Contents

Exec	utive S	Summary
1.0	Introd	luction
	1.1	Background
	1.2	Response to SEARs
	1.3	Scope 11
	1.4	Authority consultation 12
	1.5	References and Guidelines
	1.6	Planning Context
		1.6.1 Bathurst Regional Local Environmental Plan 2014 13
		1.6.2 Bathurst Regional Council Development Control Plan
		1.6.3 Future Transport Strategy 2056 13
		1.6.4 TfNSW Movement and Place Framework 14
2.0	Existi	ng Conditions
	2.1	The Site 15
	2.2	Site Access
	2.3	Road Network
		2.3.1 State and Regional Roads
		2.3.2 Local Roads 17
	2.4	Car Parking
		2.4.1 On-Campus Parking 18
		2.4.2 On-Street Parking 19
		2.4.3 Relevant Parking Zone
	2.5	Parking Occupancy
		2.5.1 On Campus
		2.5.2 On-Street
	2.6	Emergency Drop Off
	2.7	Service and Loading
	2.8	Public Transport
		2.8.1 Train Services
		2.8.2 Bus Services
	2.9	Active Transport
		2.9.1 Pedestrian and Cycling Facilities
	2.10	Travel Behaviour

		2.10.1Census Data	. 31	
		2.10.2Staff Survey	. 32	
	2.11	I Traffic Conditions		
		2.11.1Data Collection	. 34	
		2.11.2Intersection Modelling	. 34	
		2.11.3Intersection Performance	. 35	
	2.12	Road Safety	. 35	
3.0	Propo	osed Works	. 37	
	3.1	Proposed Car Parking	. 38	
		3.1.1 On-Street	. 40	
4.0	Site A	Access	. 42	
	4.1	Pedestrian Access	. 42	
	4.2	Vehicular Access	. 42	
	4.3	Loading Dock	. 43	
	4.4	Pick up and Drop off	. 43	
	4.5	Other Requirements	. 43	
5.0	Traffi	c Assessment	. 44	
	5.1	Trip Generation	. 44	
	5.2	Intersection Performance	. 44	
	5.3	Cumulative Impacts	. 46	
6.0	Parki	ng Assessment	. 47	
	6.1	Current Parking Demand	. 47	
		6.1.1 Staff	. 47	
		6.1.2 Emergency	. 47	
		6.1.3 Outpatients	. 47	
		6.1.4 Visitors	. 47	
		6.1.5 Fleet	. 47	
		6.1.6 Summary	. 48	
	6.2	Parking Utilisation Strategies	. 48	
		6.2.1 Green Travel Plan Initiatives	. 48	
		6.2.2 Turnover Utilisation	. 49	
	6.3	Post Redevelopment Parking Demand	. 51	
	6.4	Existing Parking Impacts	. 52	
	6.5	Proposed Parking Impacts	. 52	

	6.5.1 Green Travel Plan Impact	52		
6.6	Accessible Parking	53		
6.7	Electric Vehicle Parking	53		
6.8	Motorcycle Parking	53		
6.9	Bicycle Parking	53		
6.10	Vehicular Access and Circulation	54		
Concl	usion	55		
ndix A		57		
ndix B		58		
Appendix C				
Appendix D 60				
Appendix E				
	6.7 6.8 6.9 6.10 Concl ndix A ndix B ndix C ndix D	 6.6 Accessible Parking		

Revision Register

Rev	Date	Prepared By	Reviewed By	Authorised By	Remarks
0	22/07/2024	AA	GC	PY	Draft for comment
1	30/07/2024	AA	GC	PY	Following comment
2	10/09/2024	AA	GC	PY	Following comment
3	17/09/2024	AA	GC	PY	Following comment
4	23/09/2024	AA	GC	PY	Following comment
5	25/10/2024	AA	GC	PY	Following comment
6	28/10/2024	AA	GC	PY	Following comment
7	12/12/2024	AA	GC	PY	Following comment
8	16/12/2024	AA	GC	PY	Final
9	14/01/2025	AA	GC	PY	Final post HI review

1.0 Introduction

1.1 Background

The site is located at 361-365 Howick Street, Bathurst, in the Bathurst Local Government Area. It is occupied by Bathurst Health Service, a Level C referral facility in the Western NSW Local Health District.

This report accompanies documentation for a State Significant Development Application that seeks approval for the construction and operation of a new-build expansion, refurbishment and repurposing works to the existing Bathurst Health Service main hospital building. Proposed works will include:

- A new-build, multi-storey health services building expansion toward Mitre St (including 1 plant level) to include overnight inpatient accommodation and non-admitted care services and a new hospital front-of house and entrance
- A new-build, two-storey expansion to the Emergency department and Operating Theatres (plus 1 plant level)
- A new-build, single-storey expansion to the existing Cancer Service building Daffodil Cottage
- Refurbishment and repurposing to areas of the existing hospital
- Site establishment, demolition of some existing structure, cut and fill and remediation works
- Vehicular circulation and car parking improvements
- Tree removal
- Landscape works
- Alteration and amplification of existing hospital plant and services infrastructure
- For a detailed project description, refer to the Environmental Impact Statement prepared by Ethos Urban.

1.2 Response to SEARs

Under application number SSD-64733959 we have been provided with SEARs. These requirements were issued on 21 November 2023 following consultation with local stakeholders. The key issues relevant to a TAIA include those shown in Table 1.2 and have been addressed in various sections of this report as referenced.

Table 1.1: Response to SEARs

	Key items	Comments and references
10	Traffic, Transport and Accessibility Provide a transport and accessibility impact assessment, which includes:	
•	an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections.	Refer to Section 2.0: Existing Conditions
•	details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick- up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading.	Refer to Section 3.0: Proposed Works
•	analysis of the impacts of the proposed development during construction and operation (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict) and any cumulative impact from surrounding approved developments.	Refer to Section 4 Traffic Assessment and Section 5.5. 1
•	measures to promote sustainable travel choices for employees and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan	Refer to the Preliminary Green Travel Plan
•	Provide a Construction Traffic Management Plan detailing construction vehicle routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	Refer to the Preliminary Construction Traffic Management Plan

CONSULTANT DECLARATION

PROJECT DETAILS		
Project name	Bathurst Hospital Redevelopment project	
Application number	SSD-64733959	
Address of subject land	361-365 Howick Street, Bathurst	
Lot / DP	Lot 100 in DP 1126063	
APPLICANT DETAILS		
Applicant name	Health Administration Corporation	
Applicant address	1 Reserve Road, St Leonards, NSW 2065	
REPORT DETAILS		
Name of report this declaration relates	Traffic and Accessibility Impact Assessment (TAIA), Preliminary Construction Management Plan (PCTMP) and Preliminary Green Travel Plan (PGTP)	
Report reference no.	221946 TAAD	
Report date	Refer to Revision Register in each report.	
Company name (inc. ABN / ACN)	TTW (NSW) PTY LTD ABN: 649 974 112 / ACN 74 649 974 112	
Author name	Grace Carpp	
Author qualifications	BEng (Hons)	
Author address	Level 6, 73 Miller Street, North Sydney	
DECLARATION BY CO	NSULTANT	
Name	Grace Carpp	
Registration no.	-	
Organisation registered with	-	
Declaration	The undersigned declares that the TAIA, PCTMP & PGTP	
	 has been prepared in accordance with the following policy, guidelines, or legislative requirements: Bethurst Designed Council Development Control Plan 2014 	
	 Bathurst Regional Council Development Control Plan 2014 Bathurst Regional Local Environmental Plan 2014 	
	- RMS Guide to Traffic Generating Developments 2002	
	- Clinical Services Framework 2020-2025	
	 The Bathurst Health Service Site Investigation & Master Plan Report (2021) 	
	 Health Infrastructure NSW Hospital Car Park Design Guidelines V1.2 2019 	
	 Health Infrastructure NSW Electrical Vehicle Charge Points in Hospital Carparks 2018 	
	- Future Transport Strategy 2056	
	 TfNSW Movement and Place Framework Australian Standards, including but not limited to: 	
	 Australian Standards, including but not inflied to: Australian Standard AS2890.1: Off-street car parking 	
	 Australian Standard AS2890.2: Off-street commercial vehicle facilities 	
	 Australian Standard AS2890.6: Off-street parking for people with disabilities 	

	 contains all available information relevant to the environmental assessment of the redevelopment, activity or infrastructure to which the TAIA, PCTMP and PGTP relates; does not contain information that is false or misleading; identifies and addresses the relevant Planning Secretary's environmental assessment requirements (SEARs) for the project; identifies and addresses the relevant statutory requirements for the project, including any relevant matters for consideration in environmental planning instruments to which the [consultant report] relates; contains a consolidated summary of the proposed or necessary mitigation measures
Signature	gnace lang.
Date	25/10/2024

1.3 Scope

Bathurst Health Service (BHS), also known as Bathurst Hospital, is within the Western NSW Local Health District and provides several services including ambulatory care, coronary care, emergency medicine, intensive care, general medicine, mental health drug & alcohol, obstetrics & gynaecology, oncology, paediatrics, pathology, radiology, rehabilitation and surgery services.

The project includes redevelopment to increase capacity beds, including an increase in acute inpatient services, ED expansion, improved non-admitted care and ambulatory care, new Rehabilitation, Paediatric, Mental Health and Maternity Units, and expanded diagnostic capacity. Staff numbers are projected to increase 45% by 2031 as a result of the proposed works. The site occupation change is summarised in Table 1.2.

Table 1.2: Current and Proposed Staff Numbers

	Current	Proposed by 2031	Difference	Change by 2031
Staff	620	901	+281	45%

This TAIA has been developed to assess and address the traffic and transport impacts of the proposed redevelopment. This report covers the following areas:

- Site access
- Car parking
- Traffic generation
- Public and active transport
- Service vehicles and loading

Preparation of this report has included the preparation and administering of a BHS staff travel survey, BHS campus turnover studies, external on-street survey and collection of traffic volumes, which are further detailed later in this report.

A preliminary Construction Traffic Management Plan (CTMP) and preliminary Green Travel Plan (GTP) have also been prepared for the redevelopment and should be read in conjunction with this report.

1.4 Authority consultation

This report has been prepared following consultation between the design team and relevant stakeholders, including Bathurst Regional Council. Consultation events and outcomes occurred as follows:

26 July 2023:

- Representatives from TTW, Bathurst Regional Council, TSA, and HI attended.
- Project Status and Master planning updates
- Proposed Onsite Car Parking Upgrades for the BHS Campus
- On-street Car Parking Opportunities

12 December 2023:

- Representatives from TTW, Bathurst Regional Council, TSA, and HI attended.
- Access to the site was discussed, it was requested that access from Commonwealth Street should be limited to largely staff and fleet vehicles
- Discussion was had on overall on street parking including review of angled parking on Howick Street, reverse parking on the Hospital side of Mitre St, and traffic calming. It was requested that review of potential angled parking on Howick Street adjacent to Victoria Park be undertaken.
- The traffic modelling scope was presented.

26 June 2024:

- Representatives from TTW, TSA, HI, LHD, and Bathurst Regional Council attended.
- Council supports the bus stop relocation, emphasising the need for easy front door access.
- Council requested park and ride from a council car park and stressed the importance of good public transport options.
- Council suggested relocating the taxi rank to Mitre Street from Howick Street.
- Council suggested seeking consultation from the Bathurst Regional Access Committee and TfNSW.
- Council noted further review is required for the clearances of the eastern-most parking spaces on Howick Street near the centerline and suggested a pedestrian refuge at the Hope Street/Howick Street intersection.
- Council proposed considering a 40km/h speed limit around the Hospital precinct and timed parking on Howick Street near the Hospital.

22 July 2024:

- Representatives from TTW, TSA, HI, LHD, and TfNSW attended
- The need for the Taxi Zone to be close to the Hospital access was supported by TfNSW
- 40km/hr speed zones require consultation with the local traffic committee
- TfNSW pointed out that on-street parking arrangements should meet Australian Standards, with rear-to-kerb parking
- TfNSW suggested the provision of the new bus stops requires a consideration of disability provisions at the bus stop design and swept path analysis should be conducted
- The bus stop is to be set back to maximise visibility for approaching pedestrians and assess any vegetation on pedestrian crossings
- Review buses can still use the roundabout to circulate and turn around in the opposite direction.
- Review the impact on the traffic flows off Durham St due to the pedestrian crossing on Mitre St
- TfNSW suggested if proposed to retain the Howick St and Mitre St bus stop- accessibility between the bus stop and site should be considered

23 July 2024:

Representatives from TSA and Bathurst Buslines attended the meeting, Bathurst Buslines expressed support for:

- The addition of the proposed Mitre Street bus stops.
- The retention of the Howick Street bus stops.
- A minimum 35-metre bus zone for Mitre Street stops, including 10 metres for lead-in, 15 metres for the maximum bus length, and 10 metres for lead-out.

1.5 References and Guidelines

This report has been prepared in the context of and with knowledge of relevant documents as follows:

- Bathurst Regional Council Development Control Plan 2014
- Bathurst Regional Local Environmental Plan 2014
- RMS Guide to Traffic Generating Developments 2002
- Clinical Services Framework 2020-2025
- The Bathurst Health Service Site Investigation & Master Plan Report (2021)
- Health Infrastructure NSW Hospital Car Park Design Guidelines V1.2 2019
- Health Infrastructure NSW Electrical Vehicle Charge Points in Hospital Carparks 2018
- Future Transport Strategy 2056
- TfNSW Movement and Place Framework
- Australian Standards, including but not limited to:
 - o Australian Standard AS2890.1: Off-street car parking
 - o Australian Standard AS2890.2: Off-street commercial vehicle facilities
 - Australian Standard AS2890.6: Off-street parking for people with disabilities

1.6 Planning Context

1.6.1 Bathurst Regional Local Environmental Plan 2014

The site is subject to the provisions of the Bathurst Regional Local Environmental Plan 2014 (the LEP). Compliance with LEP controls is a legislative requirement, subject to approval from Bathurst Regional Council and the Department of Planning.

1.6.2 Bathurst Regional Council Development Control Plan

The site is subject to the provisions of the Bathurst Regional Development Control Plan 2014 (the DCP). Compliance with DCP controls is generally required, subject to approval from Bathurst Regional Council and the Department of Planning.

Section 14 of the DCP refers to Car and Bicycle Parking and has been considered in the development of this TAIA.

1.6.3 Future Transport Strategy 2056

Future Transport Strategy 2056 indicates that travel behaviours are currently changing and will continue to change into the future, away from private vehicle use. This is because people have greater flexibility in where and what hours they work, car ownership will reduce and an increase in the number of alternative travel options will arise.

The Strategy states that future investment in regional and outer metropolitan NSW will deliver a 'hub-and-spoke' network to improve connections and access to regional centres.

The transport strategy at Bathurst Hospital aligns with the principles of the Future Transport Strategy 2056 as it encourages a shift away from private vehicle usage through the provision of sustainable travel infrastructure and the implementation of a Green Travel Plan to promote alternative travel options.

1.6.4 TfNSW Movement and Place Framework

The TfNSW Movement and Place Framework focuses on providing improved transport networks for the community, including safer and healthier travel options such as walking and cycling.

The Framework aims to produce roads and transport networks which best serve community needs and the people and places within. Transport networks that have been designed in this way attract users, and can encourage travel by walking, cycling, public transport and rideshare for all ages and abilities.

The transport strategy for the proposed Hospital redevelopment focuses on safe and healthy travel options in accordance with the TfNSW Movement and Place Framework.

2.0 Existing Conditions

2.1 The Site

The existing Bathurst Hospital is located at 361 Howick Street, West Bathurst NSW. The site is situated within the local government area of Bathurst Regional Council, in the Central West region of New South Wales.

The site is bounded by Commonwealth Street to the north-west, Howick Street to the south-west, Mitre Street to the south-east and Durham Street to the north-east.

The hospital is surrounded predominantly by general residential land use, as well as areas of public recreation to the east and the local town centre to the south. Bathurst Hospital is located 1.5 km north-east of the town centre, approximately 20-minutes' walk whereas NSW Ambulance is located one block away to the south-east. Bathurst Private Hospital and St Vincent's Private Hospital are located 4.1 km to the south-east.

The site location and surrounding environs are shown in Figure 2.1.



Figure 2.1: Site Location within Local Context

2.2 Site Access

The Hospital site has multiple access points from Howick Street, Mitre Street and Commonwealth Street as shown in Figure 2.2.

From Howick Street, the site has an emergency entrance / exit for ambulance to access the Emergency Department. There is also a vehicle access to the one-way internal road spanning the southern-west end of the site. Vehicles entering from Howick Street can either loop in front of the Heritage Building and exit back to Howick Street or continue through the site to the existing front entry of the Hospital and exit into Mitre Street. Mitre Street also provides entry and exit for the car park to the north of the site and that under the existing Hospital. Commonwealth Street provides access and egress for the loading dock for service vehicles and separate access to the fleet car park.



Figure 2.2: Existing Site Access Points

2.3 Road Network

2.3.1 State and Regional Roads

The Great Western Highway serves as a state highway connecting Sydney to Bathurst. Additionally, Vale Road is another state route providing access to South Bathurst, while the Mitchell Highway connects to Orange, and the Mid Western Highway connects to Blayney.

The state and Local Road network within the vicinity of the Hospital site can be seen in Figure 2.3.





2.3.2 Local Roads

Howick Street

Bathurst Hospital is bordered by Howick Street. It is a two-way road with one lane in each direction and a 50 km/h speed limit. The road contains 45° angle on-street parking on either side of the road.

Mitre Street

Mitre Street runs along the western border of the site in the south-west direction. It contains two travel lanes, one in each direction. The road is signposted with a 50 km/h speed limit. A roundabout is located at the intersection between Howick Street and Mitre Street at the southwest corner of the Hospital site. To the west of the roundabout, 45° angle on-street parking is generally permitted along one side of the road. However, parallel on-street parking is generally permitted to the east of the roundabout and adjacent to the site.

Durham Street

Durham Street is a local road bordering the site to the east and connecting to state road, running in the northsouth direction. It is a two-way road with one travel lane in each direction, with parallel on-street parking. The roadway is considerably wide, with about 15m between kerbs near the site.

Commonwealth Street

Commonwealth Street is a collector road aligned parallel to Mitre Street at the north corner of the site. The road has two travel lanes, one in each direction, with parallel on-street parking.

2.4 Car Parking

2.4.1 On-Campus Parking

The Hospital contains several car parking spaces across the site, with a total number of 306 parking spaces on-site. Figure 2.4 outlines the locations of these car parks and Table 2.1 summarises the capacity and use of each of these carparking locations.



Figure 2.4: Locations of On-Campus Parking

Location	Capacity (spaces)	Uses	Time Restrictions
1 13 (2 accessible)		Public	Three-hour time limit excluding the accessible space
2	11 (1 accessible)	Public	Three-hour time limit excluding the accessible space
3	34 (4 accessible)	Public	Unrestricted
4	2	Staff	Unrestricted
5	73 (3 accessible)	Public	Unrestricted
6	40	Fleet vehicles	Unrestricted
7	6 (1 accessible)	Public	Unrestricted
8 (undercroft)	88	53 spaces for Staff 35 spaces for Public	Three-hour time limit for public parking
9	33	Public	Unrestricted
10 (Loading dock Parking)	6	Staff	Unrestricted
Total	306		

Table 2.1: On-Cam	pus parking capacity

Dedicated, secure staff parking within the under croft car park is separated from public parking through the use of a secure access gate that requires a swipe card. Other reserved parking such as staff and fleet vehicle parking have no physical separation and are dedicated via pavement markings.

Within Car Park 3 there is a dedicated drop off zone that prohibits parking, this is in the form of 6 spaces for short term drop off.

A three-hour time limit restriction is imposed on some of the public car parking as noted in Table 2.1.

2.4.2 On-Street Parking

On-street parking is widely available on Howick Street. To the north of Daly Street Howick Street provides 45degree angle parking available on both sides of the road, and to the south of Daly street provides 45 degree and parallel parking

Mitre Street has available parallel on-street parking along one side of the road adjacent to the site, as well as 45° angle parking to the other side of the site.

Durham Street also has parallel on-street parking on both sides of the street. Refer to Figure 2.8.

2.4.3 Relevant Parking Zone

To understand the quantum of parking supply that is currently associated with the Hospital, a Relevant Parking Zone (RPZ) of 250m radius was established. This zone was based on-site inspection, benchmarking with other hospitals and review of the topography near to the site and agreed with the Western NSW Local Health District early in project planning in March 2023.

Site inspection indicated that existing behaviour was such that parking occurred on streets located closer to the higher areas of the site near the main entry of the Hospital on Howick Street and limited use of parking

was observed to the east of the site where pedestrians would be required to navigate steeper gradients to reach the main Hospital entry. On-street parking was observed to be largely vacant outside of a 250m radius of the main Hospital entry on Howick Street.

As noted above, benchmarking of RPZs associated with both regional hospitals and other hospitals with significantly varying topography was conducted to determine whether a 250m radius was reasonable. This benchmarking is summarised in Table 2.2. It should however be noted that NSW Planning Guidelines for Walking and Cycling consider a 400m radius to be a reasonable walking distance.

Hospital	Topography	Regional	Extent of Relevant Parking Zone
Cowra	Steeply sloping	Yes	200m radius
Ryde	Steeply sloping	No	Ranges from 270m to 320m from the Hospital
Wagga Wagga	Flat	Yes	400m radius
Griffith	Flat	Yes	400m radius

Table 2.2: Relevant Parking Zone Benchmarking

Following the site inspection and benchmarking process, the RPZ shown in Figure 2.5 is considered to be reasonable.



Figure 2.5: Relevant Parking Zone

2.5 Parking Occupancy

2.5.1 On Campus

Through the use of Nearmap aerial imagery, a review of historical parking occupancy has been completed. Imagery from 2019 to the present day has been compared to review parking occupancy trends.

It is noted that aerial imagery data is available between 11:40am and 12:40pm which does not represent the peak shift changeover period that occurs between 1pm and 3pm. This historical analysis has been utilised to inform the accuracy of the detailed parking occupancy survey.

The car parking demand summary calculated in Table 2.3 shows a summary of existing parking demand provided through aerial imagery. It should be noted that loading dock and under croft car parking spaces have not been accounted for as they are not visible on aerial imagery.

This study reflects the average on campus car parking occupancy for the study area in Figure 2.4. The minimum car parking usage recorded is 112 and the maximum is 191. On average, parking spaces for the visible areas are at 75% capacity.

Day	Time	# of Vacant Spaces	Occupancy Rate	
Thursday 8th Dec 2022	11:49am	36	83%	
Tuesday 4th October 2022	11:41am	40	81%	
Tuesday 28th June 2022	12:06pm	39	82%	
Thursday 17th March 2022	11:49am	29	86%	
Tuesday 14th Dec 2021	12:42pm	30	86%	
Saturday 28th Aug 2021	12:02pm	12:02pm 31		
Saturday 29th May 2021	11:55am	68	68%	
Wednesday 10th Feb 2021	9:39am	20	91%	
Monday 5th Oct 2020	1:37pm	67	68%	
Saturday 30th May 2020	1:28pm	99	53%	
Sunday 20th Oct 2019	12:03pm	77	64%	
Friday April 2019 12:23pm		92	56%	
Aver	age	52	75%	

Table 2.3: On-Campus Car Parking Occupancy Source: Nearmap Survey

On campus parking was also surveyed on Tuesday, 14th of February 2023, noting Tuesdays are considered the busiest day of BHS activity during a regular working week. Results from this survey have been divided into two categories, staff parking and public parking (with car parks for both as detailed in Table 2.1). The occupancy study for public use within the site can be found in Figure 2.6, as can the occupancy rates for staff usage in Figure 2.7.



Figure 2.6: On-Site Parking Occupancy Study (Public)

It was found that on campus public usage peaks around 2pm at time of shift changeover, with a total of 196 vehicles parked on-site, representing 97% of the capacity available for public use on site.



Figure 2.7: On-Site Parking Occupancy Study (Staff)

Within the staff parking areas there were 20-22 vacant spaces noted during the same shift changeover, representing a 77% occupancy rate.

2.5.2 On-Street

Data shown in Table 2.4 is related to the parking occupancy within the streets immediately adjacent to the Hospital (shown in Figure 2.8). The results of the on-street parking review indicate that there are an average of 91 vacant spaces within the adjacent streets of the Hospital site, or an occupancy rate of 54%.



Figure 2.8: On Street Parking Reviewed

Table 2.4: On-Street Parking Occupancy	Table 2.4	: On-Street	Parking	Occupancy
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Source: Nearmap Survey

Day	Time	# of Vacant Spaces	% of Occupancy Capacity
Thursday 8th Dec 2022	11:49am	48	76%
Tuesday 4th October 2022	11:41am	31	84%
Tuesday 28th June 2022	12:06pm	37	81%
Thursday 17th March 2022	11:49am	53	73%
Tuesday 14th March 2021	12:42pm	69	65%
Saturday 28th Aug 2021	12:02pm	60	70%
Saturday 29th May 2021	11:55am	138	30%
Wednesday 10th Feb 2021	9:39am	47	76%
Monday 5th Oct 2020	1:37pm	150	24%
Saturday 30th May 2020	1:28pm	149	25%
Sunday 20th Oct 2019	12:03pm	148	25%
Friday April 2019	12:23pm	165	17%
Average		91	54%

An hourly parking occupancy survey was completed on the 14th of February 2023 of the established relevant parking zone, including the following on street parking areas (refer to Figure 2.5):

- Durham Street between Beddie Street and Hope Street
- Commonwealth Street between Russell Street and halfway between Durham St/ Morrisset St
- Howick Street between Macquarie St and Hope Street
- Kelly Crescent
- Daly Street between Russell Street and Howick Street
- Mitre Street between Russell St and the cul de sac near Bathurst Tennis Centre

A survey of the parking zone RPZ, including the streets depicted in Figure 2.5, indicates a total of 526 available parking spaces on the street and 306 on-site. The distribution of these spaces is as follows:

- Mitre Street 126 parking spaces,
- Howick Street 125 spaces
- Durham Street 119 spaces
- Commonwealth Street 97 spaces
- Daly Street 44 spaces
- Kelly Crescent 15 spaces
- On site 306 spaces

The results of the on-street survey are summarised in Figure 2.9 (the full survey results are attached in Appendix C). According to the findings of the on-street parking study, there are a total of 195 vacant spaces, or a 63% occupancy rate within the RPZ, during the time of peak demand.





2.6 Emergency Drop Off

The emergency department is accessed from Howick Street, emergency vehicles access and egress the site from a separated driveway on Howick Street. There is also a formal public drop-off point through the main entry from Howick Street as shown in Figure 2.10.



Figure 2.10: Emergency Drop Off

2.7 Service and Loading

The existing campus service and loading area is accessible via Commonwealth Street as detailed in Figure 2.11. Figure 2.12 shows the service and loading area in more detail. Service vehicles enter and exit the loading area in forward direction.



Figure 2.11: Location of Existing Service and Loading Area



Figure 2.12: Existing Service and Loading Area

2.8 Public Transport

2.8.1 Train Services

Bathurst Station is located approximately 6 minutes' drive from the Hospital. Bathurst Station is serviced by the Blue Mountains Line & Western NSW, trains network.

Bathurst Train Station is part of the NSW TrainLink network and is on the Main Western Line. The Main Western Line connects Bathurst to Lithgow, which, is part of the larger rail network connecting Sydney to the western regions of New South Wales. An extract of the Regional Trains network illustrating the extent of connectivity is provided at Figure 2.13.



Figure 2.13: Regional Trains Network Map

Source: Transport for NSW

2.8.2 Bus Services

There are 11 public bus routes operating in Bathurst as shown in the network map in Figure 2.14. These buses are operated by Bathurst Bus Service. At the Howick Street bus stop, which is close to the Hospital's Main entrance, routes 523 stop every hour throughout the week and Saturdays and every two hours on Sundays and public holidays.



Figure 2.14: Bathurst Bus Service Network Map

Source: Bathurst Bus lines

2.9 Active Transport

2.9.1 Pedestrian and Cycling Facilities

Pedestrian footpaths are allocated to roads adjacent to the Hospital with the exception of Commonwealth Street north of the site and the Eastern side of Mitre Street, adjacent to Victoria Park.

According to the Bathurst Cycle Plan, Bathurst Regional Council Asset Management Plan (Formed Footpaths & Cycleways, 2021) is dedicated to creating a bicycle network that will make it easier for locals to commute to work. Figure 2.15 identifies cycling routes map in the Bathurst within the vicinity of the site.



Figure 2.15: Existing Pedestrian and Cycling Infrastructure within Vicinity of the Site

2.10 Travel Behaviour

2.10.1 Census Data

Journey to Work (JTW) data supplied by the 2016 Australian Census approximates the current mode share split for those who work in Bathurst and can be used to represent the travel modes of the staff working at the Hospital. The JTW data is defined by Statistical Area Level 2 zones, and the Hospital is located within the Bathurst region.

Table 2.5 demonstrates the breakdown of mode shares for each mode of travel. It is clear that private vehicle use is the favoured travel mode (as driver or passenger). In addition, while all other means of transportation show low usage, 8.5% take the train and 4.1% of people walk to work.

Method of Travel (MTW15P) categorisation of travel modes (as listed in the left column of Table 2.5) is used for a clearer and simpler assessment of key travel modes through the allocation of a primary mode when multiple modes have been used in one trip.

Table 2.5: Journey to Work Data for Bathurst

Source: Australian Bureau of Statistics 2016 Census

Travel Mode	Mode Share (%)		
Train	8.5%		
Bus	4.1%		
Тахі	0.3%		
Car, as driver	73.0%		
Car, as passenger	5.4%		
Truck	1.0%		
Motorbike/scooter	0.7%		
Bicycle	1.2%		
Walked only	4.1%		
Other Mode	1.7%		
Total	100.0%		

Table 2.6 shows a summary of the above information into three main travel mode categories. Private vehicle usage is the most popular mode choice, with an 80% share, followed by public transport and lastly active transport.

Mode Summary	Mode Share (%)
Private vehicle (car, truck, taxi, motorbike)	80.4%
Public transport (train, bus)	13.5%
Active transport (walk, bicycle)	6.1%
Total	100.0%

2.10.2 Staff Survey

A travel mode survey was conducted online for BHS staff, open from the 5th of September 2023, to 21st of September 2023. The survey received a total of 245 responses, which included 163 full-time equivalent staff and 65 part-time staff at the time of the survey, representing approximately 44% of the total staff at the Hospital. The response rates were sufficiently high to provide accurate insights into Hospital travel behaviours. This survey provides up-to-date information that is directly applicable to the specific Hospital site and its users.

Survey participants were queried about their commute start and finish times, their mode of travel to work during a typical day, and their parking preferences, including on-site and on-street parking. The survey also included questions about considering alternative modes of travel, challenges related to on-campus parking, and suggestions for improvements. Participants had the option to select multiple answers and provide additional comments if needed Key extracts from the travel surveys can be seen in more detail in Appendix B

The statistics from this survey will reflect the current travel habits of the staff can be applied to the future expected staff numbers with higher accuracy than general local data (such as the JTW data). This survey provides a basis to create assumptions about the travel modes and habits of staff into the future.

The primary mode of travel for staff is Car (as a driver), Table 2.7 shows the breakdown of responses received.

Travel mode	Staff
Bus	0%
Car (as driver)	93%
Car (as passenger)	1%
Bicycle	3%
Walk/ Run	0%
Other	2%

Table 2.7:Survey results – staff travel modes

Note: the total might not add up to 100% due to rounding

The travel survey also indicated the following with respect to staff parking behaviour:

- 67% of respondents opt for on-street parking, while 33% choose on-site parking.
- On-site parking is confined to carpark 5 (60%) and carpark 8 (40%).
- Preferred on-street parking locations are Howick and Mitre Street, constituting around 60% of on-street parking.
- 98% of staff members stated that they are the sole occupant in their cars.

Staff responses highlighted key challenges related to on-campus parking for patients and visitors. The concerns primarily centred around:

- Long Walks and Safety: Staff expressed concerns about the extended walking distances, posing challenges for those with limited mobility.
- Staff Occupying Nearby Spaces: Staff members were noted to occupy spaces closer to the site, hindering convenient access for patients and visitors.
- Access & Uneven Surfaces: The difficulty of access due to the territory and surfaces being uneven or challenging for individuals with mobility issues.
- Narrow Spaces: Limited availability of wider parking spaces, causing inconvenience, especially for those with larger vehicles or mobility aids.

Staff suggestions for improving on-campus parking for patients and visitors encompassed the following key points:

- Increased Capacity: Staff recommended expanding parking facilities, potentially through the construction of a multi-storey car park, to accommodate the growing demand.
- Staff Parking Regulations: Encouraging behavioural changes among staff, such as encouraging them to utilise on-street parking spaces, was seen as a viable solution.
- Enforcement of Restrictions: Staff emphasised the importance of strict enforcement of parking regulations to ensure compliance, maintaining accessible spaces for patients and visitors.
- Shuttle Services: Introducing regular bus shuttle services circulating through the campus was also proposed, aiming to enhance mobility and reduce the need for extensive walking.

The complete survey can be found in Appendix B.

2.11 Traffic Conditions

2.11.1 Data Collection

Traffic data at the immediate 4 intersections within the local network near the site were collected on 8th February, 2024 to reflect the traffic behaviours of a typical weekday as follows:

- Durham Street & Mitre Street
- Durham Street & Commonwealth Street
- Howick Street & Mitre Street
- Howick Street & Commonwealth Street

Traffic counts were undertaken at each of these intersections to indicate the volumes and movements of light vehicles, heavy vehicles, buses, and pedestrians. The traffic counts indicate a network morning peak hour from 8:15am - 9:15am, and an afternoon peak hour of 3:15pm - 4:15pm.

2.11.2 Intersection Modelling

SIDRA intersection modelling has been undertaken to produce the existing performance of each of the studied intersections. Intersections in relation to one another and the site can be seen in Figure 2.16.



Figure 2.16: Intersection Modelled

2.11.3 Intersection Performance

Table 2.8 summarises the operation and performance of the existing intersections in the road network around the site. Detailed SIDRA results are included in Appendix D.

The results in Table 2.8 indicate that the intersections are performing at a favourable Level of Service (LoS) across the morning and afternoon. An acceptable LoS of A or B is achieved across all intersections. Note that the table below models the network AM and PM peak hours, while the peak hour for each intersection varies from the network peak hour.

Table 2.8: Existing Scenario without Redevelopment Vehicle Volumes

Intersection	Time	Degree of Saturation	Average Delay (sec)	95% Queue Length (m)	Level of Service
Durham St & Mitre St	8:15-9:15	0.085	15.9	1.9	В
	15:15-16:15	0.044	13	0.9	А
Durham St & Commonwealth St	8:15-9:15	0.077	23	0.7	В
	15:15-16:15	0.060	23.7	0.5	В
Howick St & Mitre St	8:15-9:15	0.040	9.9	0.7	А
	15:15-16:15	0.041	9.8	0.8	А
Howick St & Commonwealth St	8:15-9:15	0.033	6.9	0.4	А
	15:15-16:15	0.035	6.8	0.2	А

Data for unsignalised intersections is the manoeuvre with worst delay Data for signalised intersections is the intersection total

2.12 Road Safety

Transport for NSW provides a history of recorded crash data for a 5-year period between 2017 and 2021. This data is reviewed to better understand the existing levels of safe road operation at and around the site, and the potential implications of any increases to traffic volumes.

Figure 2.17 presents the crash history locations available from TfNSW.



Figure 2.17: Recorded Crash History (2017 - 2021)

Source: Transport for NSW

The data shows incidents of varying severities along Mitre Street whereas no incidents are shown along Howick Street nor Commonwealth Street. Four incidents have been recorded at Durham Street including one serious crash which injured three people. Also, a minor incident has been noted near the Hospital entrance at Mitre Street with no injuries.
3.0 **Proposed Works**

The proposed works involve the construction of a new-build expansion, refurbishment and repurposing works to the existing hospital building.

The project aims to increase the number of beds and the number of staff is projected to increase 45% by 2031. The redevelopment will include:

- A new-build, multi-storey health services building expansion toward Mitre St (including 1 plant level) to include overnight inpatient accommodation and non-admitted care services and a new hospital front-of house and entrance
- A new-build, two-storey expansion to the Emergency department and Operating Theatres (plus 1 plant level)
- A new-build, single-storey expansion to the existing Cancer Service building Daffodil Cottage
- Refurbishment and repurposing to areas of the existing hospital
- Site establishment, demolition of some existing structure, cut and fill and remediation works
- Vehicular circulation and car parking improvements
- Tree removal
- Landscape works
- Alteration and amplification of existing hospital plant and services infrastructure
- For a detailed project description, refer to the Environmental Impact Statement prepared by Ethos Urban.



Figure 3.1: Proposed Site Plan

3.1 **Proposed Car Parking**

The proposed approach to car parking will increase the capacity in Zones 1, 2, 5, and 8 in the Project Scope. Simultaneously, the current fleet parking area in Zone 6 will be almost doubled to accommodate 79 spaces, with the expansion for public and staff usage.

In late 2023, updated timed parking restrictions were implemented across the BHS campus to improve parking turnover in key areas, prioritising on-site parking for patients and visitors. This initiative will be implemented as part of Project Scope.

Within the Project Scope, a total of 352 spaces will be available on-site, as shown in Figure 3.2.and Table 3.1 below:



Figure 3.2: Proposed Parking

Location	Existing	Project Scope	Restriction Proposed
1	13 (2 accessible)	18 (2 accessible)	2-hours
2	11 (1 accessible)	30 (4 accessible)	30 min
3	34 (4 accessible)	39 (3 accessible)	30 min
4	2	2	Unrestricted
5	73 (3 accessible)	76	2-hours
6	40	79	39-Unrestricted 40-Fleet
7	6 (1 accessible)	6 (1 accessible) Unrestric	
8 (under croft)	88	90 (6 accessible)	2-hours
9	33	0	-
10 (Loading dock Parking)	6	6	Unrestricted
PUDO	0	6	10 minutes
Total	306	352	

Unrestricted shared parking is reduced while time-limited parking is increased to allocate more space for public parking and increase site space turnover. Note that the 39 additional spaces in car park 6 (fleet area) are available for use by both the public and staff (shared).

The information in Table 3.2 details the growth in Hospital staff from the current state to 2031. The table illustrates a noticed rise in the number of typical workforce projections, estimated to be around 45% by 2031.

Summary - Budgeted FTE	2022/23	2030/31
Medical	84	132
Nursing	334	472
Allied Health	84	133
Other Prof & Para Staff	14	23
S&T C. Support Staff	6	11
Oral Health	5	7
Corporate Administration	74	101
Hotel Services	19	23
Maintenance & Trades	0	0
Other Staff	0	0
Total	620	901 (+45.3%)

Table 3.2: Workforce Projections

3.1.1 On-Street

The proposed on-street changes along Howick Street, Durham and Mitre Street will provide an additional 25 spaces close to the campus. These changes include:

- Re-line marking along Mitre Street adjacent to Victoria Park
- Line marking Durham Street to maximise parking
- Re-line marking Howick Street between Mitre and Daly Street
- Re-line marking along Howick Street between Mitre Street and Hope Street adjacent to Victoria Park to enable angled parking

The proposed changes to Mitre Street are within the existing road reserve boundaries and maintain the overall kerb-to-kerb width of 18.2m. The proposal includes the following:

- Re-line marking along the eastern edge to optimise space.
- Providing sufficient two-way aisle width.
- Installing a new pedestrian crossing linking the new Main Entry to Victoria Park.
- Adding new bus stops on both sides of Mitre Street adjacent to the new Main Entry.
- Taxi zone relocation to Mitre Street, using the parallel parks adjacent to the new entrance/exit.

An external survey of Mitre and Howick Streets was conducted early in 2024 which confirmed that there is sufficient road width available for the design of these spaces.

Figure 3.3 and Table 3.3 below shows the extent of the proposed works on-street. These proposed works are further detailed within the Civil Engineering drawings issued as part of the development application.



Figure 3.3: Public Domain Works

The public domain was discussed with Bathurst Regional Council on 22 July 2024 and is considered acceptable from both traffic calming and amenity perspectives. This work will be subject to a future Section 138 approval and will require council review prior to construction.

Location	Existing	Proposed	Change
Howick Street North of Mitre Street	51	50	-1
Howick Street South of Mitre Street	26	53	+27
South Side of Mitre Street	37	35	-2
North Side of Mitre Street	15	11	-4
Durham Street	25	30	+5
Total	154	179	+25

4.0 Site Access

4.1 Pedestrian Access

Two pedestrian accesses external to the site from Mitre Street are proposed connecting to the new Main Entry and the Community Mental Health, and Drug & Alcohol service location on Level 0. Additionally, all existing pedestrian access points from Howick Street and Commonwealth Street will be preserved.

The proposed redevelopment introduces traffic calming measures on Mitre Street to reduce the impact of conflicts between pedestrians and vehicles.

The proposal incorporates a new pedestrian crossing along Mitre Street, linking the new Main Entry with Victoria Park. Additionally, an internal crossing is proposed to connect with the Front of the House, as illustrated in Figure 4.1.



Figure 4.1: Pedestrian Crossing

4.2 Vehicular Access

Entry for public vehicles from Howick St on the south-west boundary of the site, including drop-off to outpatient services via the existing Main Entry point and Emergency Department drop-off, will be upgraded to a one-way entry and exit loop.

The Mitre Street access will enable two-way movement directly into and out of the under-croft car park, new Main Entry drop-off, northern and western car park areas (Zones 5 and 6). Loading dock and service yard

access will be maintained from Commonwealth Street on the site's north-western boundary. One vehicular access point from Mitre Street connecting to the car park at zone 3 will be removed to accommodate pedestrian access to the new Main Entry, a pedestrian crossing on Mitre Street and the two-way vehicle entry / exit to the Main Entry drop-off and under-croft car park. The vehicular access connecting the heritage building parking to the ED drop-off will also be removed in order to prioritise pedestrian access and rationalise vehicle movements through the site.

Turning path analysis has been conducted to show adequate vehicle access and manoeuvrability in the modified sections of the existing site. Key focus areas include the new drop-off zone from Mitre Street, Howick Street access, and vehicular entry from Commonwealth Street. Swept path analysis is provided in Appendix A.

4.3 Loading Dock

Service and delivery vehicles are proposed to access the site from the same access on Commonwealth Street. Many of the services requiring vehicle access such as the oxygen tank will be located along the north-western site boundary (loading dock area). A swept path analysis for the loading dock and service vehicle area is provided in Appendix A.

4.4 Pick up and Drop off

Six public drop-off and pick-up spaces can be accessed from Mitre Street at the new Hospital Main Entry point. This facility is designed to accommodate standard passenger vehicles, ensuring smooth and safe traffic flow.

4.5 Other Requirements

Ambulance access will continue from Howick Street via the existing dedicated access driveway. The ambulance bay and manoeuvring area has been designed to cater for bariatric ambulances approximately 7.37m in length.

Fire appliance access is proposed from Commonwealth Street. No change is proposed to the existing arrangement.

5.0 Traffic Assessment

5.1 Trip Generation

A draft version¹ of the RMS Guide to Traffic Generating Developments provides a trip generation rate specifically for hospitals based on collected survey data throughout urban and regional NSW. For hospitals with lower accessibility, trip generation rates are presented as follows:

- AM Peak = 0.41 (S) + 0.62 (B)
- PM Peak = 0.59 (S) + 0.05 (B)

Where S is the number of staff during the main day shift and B is the number of beds at the hospital. For this assessment, it is assumed that the number of beds in the proposed Hospital will increase by 26%. Applying the above formulas results in trip generation as shown in Table 5.1, with an increase of 133 trips in the morning and 167 trips in the afternoon peak as a result of the redevelopment.

Table 5.1: Trip Generation Estimates

Trip Generation	Existing	Proposed	Increase
AM peak trips	324	457	+133
PM peak trips	372	539	+167

5.2 Intersection Performance

Operational performance is typically evaluated by measuring the throughput of vehicles within a traffic network, using the average delay per vehicle to assess intersection performance. This approach aligns with Transport for NSW best practices and serves as the industry standard for intersection analysis. The average delay per vehicle corresponds to a Level of Service (LoS) index, which reflects the intersection's operational efficiency. A summary of the LoS performance bands is provided in Table 5.2.

Table 5.2: Level of service criteria for intersections

Level of Service	Average Delay (sec/veh)	Traffic Signals, Roundabout	Give Way & Stop Signs
Α	<14	Good operation	Good operation
В	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
С	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode	At capacity, required other control mode

¹ As provided directly to TTW from RMS in August 2018

Table 5.3 summarises the operation and performance of the intersections in the road network directly adjacent to the BHS site for the year 2031 and accounts for the additional volumes generated by the redevelopment. According to the Bathurst Regional Council, the annual population growth rate is forecasted at 1.3%. However, for modelling purposes, a more conservative rate of 2% compound growth rate is applied.

The results indicate very minor changes from the existing scenario as presented in Section 2.11.3, with similarly acceptable LoS (A, B & C) achieved across the intersections and various peak times. Detailed SIDRA results are included in Appendix D.

The intersections continue to demonstrate suitable operation across the local road network. A reduced LoS from B to C at the Durham St & Commonwealth St intersection is however projected for the year 2031. The reduced Level of Service (LoS) is primarily due to the already high traffic volumes at Durham St. However, the LoS remains satisfactory, suggesting no significant impact on the current condition. This indicates that the additional trips will not adversely affect intersection performance.

Table 5.3: Proposed Scenario with Redevelopment Vehicle Volumes

Data for unsignalised intersections is the manoeuvre with worst delay Data for signalised intersections is the intersection total

Intersection	Time	Degree of Saturation	Average Delay (sec)	95% Queue Length (m)	Level of Service
Durham St & Mitre St	8:15-9:15	0.146	20.6	3.6	В
	15:15-16:15	0.062	14.8	1.3	В
Durham St &	8:15-9:15	0.539	40.0	5.4	С
Commonwealth St	15:15-16:15	0.462	31.9	5.2	С
Howick St &	8:15-9:15	0.063	10.1	1.2	Α
Mitre St 15:1	15:15-16:15	0.063	10.1	1.2	Α
Howick St & Commonwealth	8:15-9:15	0.052	6.9	0.7	А
St	15:15-16:15	0.061	7	0.7	A

Additionally, the proposed pedestrian crossing on Mitre Street, connecting to the Front of the House, has been assessed within the local network. For modelling purposes, 50 pedestrians were considered during the AM and PM peak hours as a conservative measure. Mitre Street continues to operate at a satisfactory LoS (A) throughout the local road network. Table 5.4 shows a summary of the modelling results.

Intersection	Time	Degree of Saturation	Average Delay (sec)	95% Queue Length (m)	Level of Service
Mitre St (Pedestrian	8:15-9:15	0.275	3.5	3.7	А
Crossing)	15:15-16:15	0.198	3.5	2.4	А

Table 5.4 Mitre Street Pedestrian Crossing

5.3 Cumulative Impacts

There are no existing or planned developments in the immediate vicinity of the Hospital site. As a result, there are no cumulative traffic impacts to consider at this time from surrounding projects.

The Bathurst Integrated Medical Centre project is currently in the planning stage, situated approximately 1.6 km southeast of the site. The project is at a considerable distance from the site, and as such cumulative impacts on the Bathurst Hospital Redevelopment are not anticipated.

The assessment also takes into account morning and afternoon school traffic, with both peak hours aligning with the previously analysed traffic peak hours (around 8 - 9:30 am and 2:30 - 4:30 pm). Consequently, any substantial school-related traffic has been factored into the overall traffic assessment, and no additional impact on the network is anticipated.

6.0 Parking Assessment

6.1 Current Parking Demand

An evaluation of the expected parking demand of the Hospital was conducted by TTW considering the Hospital's characteristics and travel mode surveys of staff, outpatients and visitors of the Hospital. The analysis relied on the information provided by TSA Riley.

6.1.1 Staff

A significant proportion of staff currently drive to the Hospital, and this will continue to be the case following the redevelopment project. Survey results indicated 20% of the responses are interested in shifting to alternative travel modes.

The number of current staff is 620 FTE, assuming that 70% arrive during the morning shift (434 FTE) and 94% use private vehicles according to responses from the staff survey, an occupancy rate of 1.1 users per vehicle and space turnover as 0.9, the current parking demand for staff is 423 parking spaces.

6.1.2 Emergency

Bureau of Health Information reports that in 2022, there were a total of 26,901 presentations to the emergency department (ED) for the year, or 74 presentations per day. Forecast emergency presentations can be estimated in accordance with the increase in bed numbers, resulting in a 26% increase in the emergency presentations, equating to 93 presentations projected per day.

Assuming that 65% of emergency presentations occur during 8am and 5pm, it is projected that 60 presentations will occur during these hours per day following the redevelopment.

The Bureau also reports that 81.4% of emergency presentations arrived via private vehicle and 18.6% via ambulance. Those arriving via ambulance are expected to be followed by a related party that drives a private vehicle (assume 95% mode share for the related party as for visitors). By adding the private vehicle parking demand and the related party parking demand the overall parking demand for the ED, 48 vehicles are assumed as the existing demand and 60 projected following the proposed expansion. A space turnover of 2.6 times per day has been applied, as per the outpatient space turnover factor. Therefore, the number of emergency presentations occurring during day shift will increase from approximately 5 to 6.

6.1.3 Outpatients

The total number of current outpatients is 354 per day as given by Bathurst Hospital attendance report for Feb-2023 (Clinics & Patient Attendance). Forecast occasions of service for outpatients can be estimated to experience a 26% increase (equal to the expected increase in beds) to provide 446 outpatients per day. With a 92% private vehicle mode share, vehicle occupancy rate of 1 patient per vehicle, and a parking space turnover factor of 2.6 (based on benchmarking of other relevant hospitals), an overall increase in outpatient parking demand of 158 spaces for the proposed Hospital is projected, equivalent to 32 additional vehicles.

6.1.4 Visitors

Approximately 2 visitors per bed are expected each day, assuming 100% of these visiting during the day shift. A 95% private vehicle mode share, vehicle occupancy rate of 1.4 visitors per vehicle, and a space turnover factor of 2.6 (based on other relevant hospitals) results in an overall increase in parking demand from 58 to 74 spaces for visitors of the proposed Hospital.

6.1.5 Fleet

Parking for fleet vehicles is generally a set value equal to the total number of fleet vehicles owned by the Hospital. Western NSW LHD are working toward a Fleet vehicle reduction strategy which will alleviate pressure

for on-site fleet vehicle parking under the future car parking planning. of the BHS site currently accommodates 40 fleet vehicles.

6.1.6 Summary

Based on the existing parking restrictions on the site Figure 6.1 shows the current parking demand for each user group.

Table 6.1: Estimated Current Parking Demand for Hospital Users

Note that the calculation is rounded up to the nearest whole numbe	er
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Parking demand	Staff	Emergency	Outpatients	Visitors	Fleet	Total
# of users during weekday day shift	434	48	354	222	-	1,058
Private vehicle mode share (%)	94%	81%	92%	95%	-	-
Users per vehicle	1.1	1	1	1.4	-	-
Space turnover	0.9	2.6	2.6	2.6	-	-
Parking demand	423	19	126	58	40	666

6.2 Parking Utilisation Strategies

6.2.1 Green Travel Plan Initiatives

As part of the proposal, several transport initiatives are to be implemented in order to reduce dependency on private vehicles and to reduce the forecast parking demands. These initiatives include:

- Improved active transport infrastructure
- Supporting work from home for eligible staff (e.g. admin staff)
- Promotion of carpooling and facilitating the pairing up of suitable staff

Additionally, as per TfNSW 16 regional Cities Services Improvement Program, improved public transport services are planned to come to the Bathurst area. The program is designed to provide integrated, multi-modal end-to-end journeys, and to identify gaps in the current transport network to deliver service improvements. Moreover, more than 500 new additional weekly bus services were introduced as part of bus network improvements implemented in 2021.

The travel survey contained various questions about sustainable travel initiatives, including whether the survey respondent would be interested in taking up an alternative travel mode such as those listed above. These results have been used to calculate mode share targets as contained in the Green Travel Plan. The detailed travel survey results are included in Section Appendix B.

Table 6.2 below indicates target mode shares for staff.

Travel mode	Existing mode share	Target mode share	Mode Change
Private vehicle (single)	94%	87%	-7%
Private vehicle (carpool/drop-off)	0%	2%	+2%
Public transport	0-1%	5%	+3-4%
Active transport	2-4%	6%	+2%

Table 6.2: Staff Mode Share Targets

Due to the unique nature of Hospital visitor travel (often in an emergency or undesirable scenarios), limited changes to visitor mode share are currently proposed. The most significant opportunities for reduced private vehicle usage by visitors are for people visiting inpatients, with no change expected to outpatient or emergency activities.

It should be noted that the calculations related to staff parking demand assume that all on-site parking is fully utilised before vehicles begin to occupy on-street parking. It is considered that the Green Travel Plan initiatives are therefore capable of decreasing staff parking demand by up to 30 spaces.

6.2.2 Turnover Utilisation

An initial length of stay and turnover study was conducted on the 18th of July 2023, encompassing the existing Hospital parking facilities and on-street parking zones within the adjacent streets, to reference as a base scenario.

It was recognised that there is a current issue with turnover on the Hospital site, with parking areas on site experiencing lower turnover rates than would be expected. These results indicated that staff were parking within areas that may be better suited to outpatient or visitor parking and that current timed parking restrictions were not being communicated effectively to users of the carparks on site.

To assess the impact of future parking restrictions on site to increase turnover, new on-site timed parking limits were introduced on site Thursday 16th of November 2023 as follows:

- A 10-minute designated patient pick-up/drop-off zone at the Main Entry (outside Ambulatory Care)
- 2-hour parking time limits for the Heritage Building and Main Entry car park
- A 30-minute parking time limit for the short-stay car park close to ED and Front of House

The intent of these parking restrictions was to reduce staff usage of parking spaces better suited to patients and visitors and to increase turnover of on-site parking.

The primary objective of the second turnover study completed in December 2023 was to analyse the effect of the time-limit parking trials and to review the success of this implementation. Table 6.3 compares the average turnover rate results for on-site parking. It is important to note that the introduction of parking restrictions in areas that were previously not limited, means these areas have become designated public areas where previously they may have been used by staff on site.

Table 6.3: Turnover	⁻ Studies	Comparison	(On-Site)
---------------------	----------------------	------------	-----------

Turnover results	Location	Initial study	Second Study	
On-Site	Staff Parking Areas	0.9	1.33	
On-Site	Public Parking Areas	2.5	2.5	

-> irst turnover 1.1 Second turnover -> 1.1 6 First turnover -> 0.9 Second turnover -> 1.5 irst turnover Second turnover -> 1.3 irst turnover 0.8 econd turnover -> 0.8 irst turnover -> econd turnover -> 5.4 irst turnover -> First turnover -2. 3.65 Second turnover -> 2.6 Second turnover -> 3.7

A detailed breakdown of specific turnover rates within each on-site area, is provided in Figure 6.1 Particular areas where turnover significantly increased are at the carparks out the front of ED (Zone 2) and the heritage building accessed via Howick Street (Zone 1). The full study results are attached in Appendix E.

Figure 6.1: Turnover Results - On-site

From the initial turnover study, Parking Zones 2 and 3 exhibited the highest turnover rates, particularly for public/visitor parking linked to visits to the Emergency Department (ED) and outpatient appointments. Parking zones 5, 6, and 8 are primarily used by staff, as evidenced by their low occupancy rates. Additionally, observations indicate that the lack of time restrictions on the pick-up and drop-off spaces near the Emergency Department has led to their misuse, resulting in lower turnover than expected.

The second turnover study indicates an increased turnover rate (more utilisation of each space) in the staff car parks within the site (Zone 1,2 and 3), while no significant change is observed for public spaces (Zone 5, 6 and 7).

In the streets adjacent to the site, the average turnover rates were observed as shown in Table 6.4

Turnover results	Location	Initial study	Second Study		
	Mitre St	1.39	1.21		
On-Street	Howick St	1.59	1.31		
On-Street	Durham St	0.88	0.9		
	Commonwealth St	1.34	1.23		

Table 6.4: Turnover Studies Comparison (On-street)

The lower turnover rates identified on Mitre St, Durham St, Commonwealth St and Howick St suggest that several staff members are likely using these nearby streets for parking. There was a slight reduction in turnover for on-street parking around the site, suggesting that staff parking for longer durations may be extending onto the surrounding streets.

As a result of this study, implementing on-site timed parking restrictions would impact staff parking behaviour, resulting in better utilisation of the existing carparking spaces on site.

6.3 Post Redevelopment Parking Demand

An evaluation of the expected parking demand of the Hospital post redevelopment was the conducted with the proposed future utilisation of the site and the proposed turnover rates determined as a result of the parking study.

The following changes from the existing parking demand to the proposed demands were made to determine the post-redevelopment parking demand:

- Staff number post redevelopment will increase to 901 FTE by 2031.
- It is assumed that the number of beds in the proposed hospital will increase by approximately 26%.
- Staff length of stay within parking spaces increased as per the turnover study discussed in Section 6.2.2.
- Emergency presentations were assumed to increase in line with the increase in bed numbers, resulting in a 26% increase in the emergency presentations (93 presentations projected per day and 6 presentations during the peak parking hour).
- Outpatient numbers were assumed to increase in line with the increase in bed numbers, resulting in a 26% increase per day.
- Visitor numbers were increased as per the increase in bed numbers.

As a result of these assumptions, the projected parking demand post redevelopment for the Project Scope is noted in Table 6.5.

Table 6.5: Estimated Post Redevelopment Parking Demand for Hospital Users

Parking demand	Staff	Emergency	Outpatients	Visitors	Fleet	Total
# of users during weekday day shift	631	60	446	280	-	1,417
Private vehicle mode share (%)	94%	81%	92%	95%	-	-
Users per vehicle	1.1	1	1	1.4	-	-
Space turnover	1.3	2.6	2.6	2.6	-	-
Parking demand	406	24	158	74	40	702

Note that the calculation is rounded up to the nearest whole number

6.4 Existing Parking Impacts

The existing Hospital relies on on-street parking to accommodate additional demand (360 Spaces), leaving a surplus of 166 spaces within the RPZ out of a total of 526 on street spaces for residents within the RPZ. The parking demand in relation to the on street RPZ supply, assuming that on-street parking is utilised after on-site parking reaches full capacity is presented in Table 6.6.

Table 6.6: Existing Demand Distribution

	Existing
Pre-redevelopment projected parking demand	666
On-Site supply	306
Demand accounted for on-street	360
Available on-street parking	166

6.5 **Proposed Parking Impacts**

Within the Project Scope, the campus will feature a total of 352 parking spaces (46 spaces increase). With the proposed increase to on-street parking as a result of the line-marking works surrounding the site, the total on-street parking capacity within the RPZ will increase to 551 spaces (25 spaces increase).

Table 6.7 below outlines the available on-site parking as a result of the Project Scope: 352 spaces on-site plus the RPZ parking within a 250m radius (551 spaces) to the post-redevelopment parking demand.

	Redevelopment Project Scope
Post-redevelopment projected parking demand	702
On-Site supply	352
Demand accounted for on-street	350 spaces
Available on-street parking	551 spaces
Surplus on-street parking	201 spaces

With the Parking Utilisation Strategies mentioned in Section 6.2 and the proposed parking associated with the redevelopment, parking availability on-site and within the RPZ is considered adequate for both the redevelopment and public use, with 201 surplus spaces remaining available at the completion of the Project Scope.

6.5.1 Green Travel Plan Impact

It is noted that the post redevelopment parking demand noted in Table 6.5 does not take into account future Green Travel Plan reductions in travel mode share. Incorporating the GTP initiatives will further reduce parking demand by 30 spaces, decreasing it from 702 to 672, as shown in Table 6.8. As a result, this will further reduce on-street parking reliance by 30 spaces.

Table 6.8: Post-Redevelopment Parking Demand With GTP

Parking demand	Staff	Emergency	Outpatients	Visitors	Fleet	Total
# of users during weekday day shift	631	60	446	280	-	1,417
Private vehicle mode share (%)	87%	81%	92%	95%	-	-
Users per vehicle	1.1	1	1	1.4	-	-
Space turnover	1.3	2.6	2.6	2.6	-	-
Parking demand	376	24	158	74	40	672

Note that the calculation is rounded up to the nearest whole number

6.6 Accessible Parking

The existing Hospital provides 11 accessible spaces, approximately 3.6% of the total on-site parking provision. The proposed site aims to provide 16 accessible parking spaces out of the total 352 parking spaces resulting in approximately 4.5% accessible spaces. This provision exceeds the Building Code of Australia requirement for hospitals, which requires accessible parking at a rate of 2% of the total parking provision.

6.7 Electric Vehicle Parking

The HINSW Electric Vehicle Charge Points in Hospital Carparks contain the following requirements for electric vehicle parking:

- Include provisions for 2% of the total number of car spaces
- For at-grade car parks, allow for power and communication conduits to be installed in an appropriate nestled area

The proposed design includes 7 electric vehicle charging spaces which meet the 2% requirement outlined above.

6.8 Motorcycle Parking

There are no requirements for motorcycle parking specified in the DCP. Motorcycle parking should be provided in car parks where possible, in locations such as corners or where structural limitations apply, where it would not be possible to provide car parking spaces. These spaces will be additional to the 352 spaces provided on the site under the redevelopment Project Scope.

6.9 Bicycle Parking

The Bathurst Regional Council Development Control Plan (DCP) provides a Bicycle parking rate including:

- 1 space per 15 beds for Employees/ Resident Standards
- 1 space per 30 beds for Visitors

The existing End-of-Trip facilities will be retained with no proposed changes.

According to the DCP, the existing Hospital requires 11 bicycle parking spaces. The proposal aims to provide a total of 14 bicycle parking spaces, which is 3 more than the DCP requirement for the existing Hospital.

6.10 Vehicular Access and Circulation

On-site carparking will be accessed from the existing driveways from Howick Street, Commonwealth Street and new site entry points on Mitre Street for access to the Main Entry and Community Mental Health, and Drug & Alcohol Service. Site entry and exit is to occur in a forward direction at all times.

Turning path analysis has been conducted to validate the adequacy of vehicle access and manoeuvrability within the modified areas of the existing site. This analysis primarily focuses on critical zones like the new ambulance bay, the drop-off zone, and the loading dock, which require accommodation for large trucks and semi-trailers.

The turning path analysis has been executed at a minimum speed of 10 km/hr, except when a vehicle is transitioning from a stationary position, such as exiting the loading dock or individual ambulance bays. In these cases, the speed is lowered and then increased to 10 km/hr once the vehicle is in motion.

The current design vehicles considered for this analysis include the following:

- B85 AS2890.1: Standard 4.91m passenger vehicle
- B99 AS2890.1: Standard 5.2m large passenger vehicle
- Ambulance: Custom 7.37m General Bariatric
- SRV (Small Rigid Vehicle) AS2890.2: Standard 6.4m medium truck
- AV (Articulated Vehicle) AS2890.2: Standard 20m semi-trailer

Sketches illustrating these turning paths are provided in Appendix A of this report.

7.0 Conclusion

This TAIA has been prepared to assess the traffic and transport impacts and design elements of the proposed Bathurst Hospital Redevelopment. The overall transport strategy for the proposed redevelopment is as follows:

- Pedestrians
 - A new pedestrian crossing along Mitre Street, linking the site frontage with Victoria Park.
 - An internal crossing is proposed to connect with the Front of the House.
 - Traffic calming measures on Mitre Street.
- Cyclists
 - Growing demand is expected due to the implementation of a Green Travel Plan; the proposal aims to provide 14 on-site bicycle parking spaces in the under-croft parking.
 - The Hospital's existing end-of-trip facilities are intended to be retained.
- Public transport
 - The existing bus stops on Howick Street will be retained, and new bus stops are proposed on both sides of Mitre Street close to the new Main Entry.
 - Concurrently, Bathurst Buslines was consulted and expressed support for the proposed Mitre Street bus stops as well as the retention of the Howick Street bus stops.
- Car parking on street
 - The proposed on-street changes on Howick Street, Durham and Mitre Streets, including new line marking, will provide an additional 25 parking spaces.
- Car parking on site
 - The proposed redevelopment within the redevelopment Project Scope will provide an additional 46 parking spaces on-site, complementing the additional 25 parking spaces to be delivered on surrounding streets (Mitre, Durham and Howick Streets). It is expected that congestion on-campus will ease, through refinement of the flows of traffic across the site, improved parking access on-campus, and better utilisation of on-street parking,
 - Timed parking restrictions to increase parking turnover is proposed to be implemented permanently as part of Project Scope. This initiative is currently in place across the hospital campus to improve parking turnover in key areas, prioritising on-site parking for patients and visitors.
- Traffic impact
 - The increase in trips associated with the proposed redevelopment can be accommodated within the surrounding intersections of the site.
 - As a result of the proposed increase in on-street car spaces and the increased turnover due to time restrictions on the campus, the proposed redevelopment will not increase parking demand on the surrounding streets of the campus.

The proposed redevelopment is deemed suitable on consideration of the traffic and transport elements of the site and its surrounds, and the transport strategy proposed for its management.

Table 7.1 provides a summary of the mitigation measures identified throughout the report for the design, construction, and operation stages.

Project Stage	Mitigation Measures	Relevant Section of Report
Design	Nearby intersections continue to perform in suitable operation across the local road network, and no mitigation is required.	Section 5.2
Design	An increase in on-site and on-street parking is proposed in Project Scope. Operational measures and timed parking on campus are facilitating changes in staff parking behaviour. This frees up spaces for the public in key areas.	Section 3
Construction	No changes to local public transport routes and services are anticipated during construction. Refer to the Preliminary Construction Management Plan (PCTMP) for further details. Construction staff will be required to park outside of the RPZ and campus, prioritising access to parking for the public.	Refer to the PCTMP
Operation	A swept path analysis has been completed to confirm forward access and exit for mobile cranes as part of the plant replacement strategy.	Appendix A

Table 7.1: Mitigation Measures

Prepared by TAYLOR THOMSON WHITTING (NSW) PTY LTD

Reviewed By TAYLOR THOMSON WHITTING (NSW) PTY LTD Authorised By TAYLOR THOMSON WHITTING (NSW) PTY LTD

AMMAR AHMED Traffic Engineer

GRACE CARPP Associate

PAUL YANNOULATOS Technical Director

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Appendix A

Swept Path Analysis



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P2 MITRE STREET	CCESS TURNNING PATH	AA	GC	05.07.24								
P1 HOWICK STREE	ACCESS TURNNING PATH	AA	GC	05.07.24								
Rev Description		Eng	Draft	Date	Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date

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Project Structural Civil Traffic Façade



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P1 HOWICK STREET ACCESS TURNNING PATH	AA	GC	10.09.24								
Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date

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A1												
P3	COMMONWEALTH STREET TURNNING PATH	AA	GC	05.07.24								
P2	MITRE STREET ACCESS TURNNING PATH	AA	GC	05.07.24								
P1	HOWICK STREET ACCESS TURNNING PATH	AA	GC	05.07.24								
Rev	Description	Eng	Draft	Date	Rev Description	Eng Draft D	Date Rev Description	Eng Draft Date				

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SWEPT PATH ANALYSIS B99 VEHICLE TURNING COMMONWEALTH STREET





P3	TRUCK TURNING CIRCLES	AA	GC	08.01.24								
P2	TRUCK TURNING CIRCLES	AA	GC	06.09.23								
P1	TRUCK TURNING CIRCLES	AA	GC	24.05.23								
Rev	Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date

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P1	MOBILE CRANE TUNRNING PATH	AA	GC	10.05.24								
Rev	Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date

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P6	UNDER CROFT PARKING TURNNING PATH	AA	GC	05.07.24								
P5	UNDER CROFT PARKING TURNNING PATH	AA	GC	05.07.24								
P4	UNDER CROFT PARKING TURNNING PATH	AA	GC	05.07.24								
P3	COMMONWEALTH STREET TURNNING PATH	AA	GC	05.07.24								
P2	MITRE STREET ACCESS TURNNING PATH	AA	GC	05.07.24								
P1	HOWICK STREET ACCESS TURNNING PATH	AA	GC	05.07.24								
Rev	Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date

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Project Structural
Civil
Traffic
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REDEVELOPMENT











P5	UNDER CROFT PARKING TURNNING PATH	AA	GC	05.07.24				
P4	UNDER CROFT PARKING TURNNING PATH	AA	GC	05.07.24				
P3	COMMONWEALTH STREET TURNNING PATH	AA	GC	05.07.24				
P2	MITRE STREET ACCESS TURNNING PATH	AA	GC	05.07.24				
P1	HOWICK STREET ACCESS TURNNING PATH	AA	GC	05.07.24				
Rev	Description	Eng	Draft	Date	Rev Description	Eng Draft Date	Rev Description	Eng Draft Date

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REDEVELOPMENT













P4 UNDER CROFT PARKING TURNNING PA	TH AA	GC	05.07.24								
P3 COMMONWEALTH STREET TURNNING	PATH AA	GC	05.07.24								
P2 MITRE STREET ACCESS TURNNING PAT	H AA	GC	05.07.24								
P1 HOWICK STREET ACCESS TURNNING P	ATH AA	GC	05.07.24								
Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft [Date	Rev Description	Eng	Draft	Date

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Project









P1	MOBILE CRANE TUNRNING PATH	AA	GC	10.05.24								
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P1 MITRE STREET - BUS STOP AA GC 24.07.24	Rev Description	Eng Draft Date	Rev Description	Eng Draft Date	Rev Description	Eng Draft Date
	P1 MITRE STREET - BUS STOP	AA GC 24.07.24				

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P2	MITRE STREET - BUS STOP	AA	GC	24.07.24								
P1	MITRE STREET - BUS STOP	AA	GC	24.07.24								
Rev	Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date	Rev Description	Eng	Draft	Date

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Appendix B

Staff Travel Survey Results



Q1 Are you full time / part time or other?

ANSWER CHOICES	RESPONSES	
Full Time Staff	66.94%	166
Part Time Staff	27.02%	67
Other	6.05%	15
TOTAL		248

Q2 What time do you typically start and finish?

Answered: 236 Skipped: 14

ANSWER CHOICES	RESPONSES	
Finish	100.00%	236
Start	100.00%	236


Q3 How do you usually travel to work? (Select one option)

ANSWER CHOICES	RESPONSES	
Walk / Run	0.42%	1
Bicycle	2.95%	7
Bus	0.00%	0
Private Car (Driver)	97.89%	232
Private Car (Passenger)	1.27%	3
Other	2.11%	5
Total Respondents: 237		

Q4 If you drive to the Hospital, where do you usually park?



ANSWER CHOICES	RESPONSES	
On-Site	34.04%	80
On-Street	65.96%	155
TOTAL		235

Q5 If you park on site, which car park do you typically park in?



ANSWER CHOICES	RESPONSES	
1	0.00%	0
2	0.00%	0
3	0.00%	0
4	0.00%	0
5	60.00%	42
6	0.00%	0
7	0.00%	0
8	40.00%	28
TOTAL		70

Q6 Why do you use that car park?

Answered: 79 Skipped: 171



Q7 If you park on street which street do you typically park in?

ANSWER CHOICES	RESPONSES	
Howick Street	40.49%	66
Mitre Street	37.42%	61
Durham Street	15.95%	26
Commonwealth Street	18.40%	30
Dale Street	10.43%	17
Kelly Crescent	7.36%	12
Other	9.20%	15
Total Respondents: 163		

Bathurst Hospital Staff Travel Survey

Q8 Why do you park on that street?

Answered: 157 Skipped: 93

Q9 If you are a car passenger or driver, how many people (including yourself) are generally in your car?



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES	
	1	2:	L7	213
Total Respondents: 213				

Q10 What are your main considerations when thinking about your travel to and from work?



Bathurst Hospital Staff Travel Survey

ANSWER CHOICES	RESPONSES	
Traffic congestion or road works	12.04%	26
Car is the only option	59.26%	128
Availability of public transport options	6.02%	13
Cost of travel or parking	6.48%	14
Time to travel to work	33.33%	72
Ease of journey	24.54%	53
Safety before and after shift	37.50%	81
Distance from parking to work	41.67%	90
Convenience of mode of travel	sport options 6.02% 13 6.48% 14 33.33% 72 24.54% 53 nift 37.50% 81 work 41.67% 90	
fiftic congestion or road works12.04%is the only option59.26%is the only option6.02%is the only option parking6.48%is to travel or parking33.33%is to travel to work33.33%is of journey24.54%is of journey from parking to work37.50%is ance from parking to work25.46%is of mode of travel10.65%	10.65%	23
Total Respondents: 216		

Q11 If you are travelling to work as a car driver, would you consider using other modes of travel (e.g. carpool, bus, etc.) if such modes were more available and why?



ANSWER CHOICES	RESPONSES	
Yes	18.89%	41
No	81.11%	176
TOTAL		217

Q12 What challenges do you perceive for patients and visitors regarding on campus parking?

Answered: 214 Skipped: 36

Q13 What are some solutions that could be investigated to improve on campus parking for patients and visitors on campus?

Answered: 207 Skipped: 43

Q14 Do you have any suggestions for improving access and parking at Bathurst Health Service for staff, patients and visitors?

Answered: 181 Skipped: 69

Q15 Do you have any other feedback related to current carparking and access to the Hospital?

Answered: 158 Skipped: 92

Q16 One of the options being considered is the development of an operational policy regarding access to services and parking on the Bathurst Health Service campus. This policy would be guided by the principle of safe and equitable access to the campus for all staff, patients and visitors. The policy will consider options such as improving turnover of parking on campus by changing parking time limits in some areas, designating parking in some areas of the campus to support staff safety and access, and improving current available parking spaces on campus. Feedback you provide through this survey will also be considered as part of policy development, and staff will be consulted throughout the process.With this in mind, what do you see as the opportunities and benefits in an operational policy of this nature? What do you feel the challenges could be in implementation?

Answered: 137 Skipped: 113

Appendix C

Parking Occupancy Survey

TRANS TRAFFIC SURVEY

Parking Occupancy Survey

Date:	Tuesday, 14 February 2023
Location:	P - Bathurst Parking Survey
GPS:	
Weather:	Fine
Customer:	TTW

		Section Si		Side Restriction	Capacity	Tuesday, 14 February 2023												
Public Parking Map Ref (1/0)	Street		Side			2:00	8:00	00:6	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
0	Hospital Parking - Acess From Howick St & Exit From Mitre St	Emergency Area Parking		Emergency Drop Off Zone & Patient Pickup Zone	6	1	2	3	3	2	5	1	0	0	0	1	1	1
1				3 Hours Parking	10	9	10	10	10	9	10	9	10	10	10	10	10	10
1				Disable Parking	1	1	1	1	1	0	0	1	1	0	0	1	0	0
1				Unrestricted	28	28	24	25	27	25	24	28	28	18	17	16	23	24
1				Disable Parking	5	5	3	5	4	4	5	4	3	3	3	2	4	4
1				Loading Zone	1	0	0	0	0	0	0	1	0	0	0	0	0	0
1				Community And Mental Health Vechiles - Only	2	0	1	1	1	1	1	1	0	2	2	2	0	0
1		Rural Clinical School Parking		3 Hours Parking	11	3	5	8	10	11	11	11	11	8	8	8	5	5
1				Disable Parking	2	0	1	1	2	2	2	2	2	1	1	1	0	0
1		Cancer Care Parking		Unrestricted	6	1	1	3	3	5	3	1	2	1	1	1	1	1
1	Hospital Parking - Acess From Commonwealth St	GWAHS Fleet Vechiles Only		Unrestricted	40	32	32	30	24	17	19	22	29	32	32	33	36	37
1				Loading Zone	15	0	2	3	3	4	4	5	3	4	1	4	3	2
1	Hospital Parking - Acess From Mitre St			Unrestricted (Open Area)	103	62	98	103	103	103	103	101	103	44	43	20	12	12
1				3 Hour Limit - (Undercover)	35	21	25	27	28	30	30	31	35	29	21	28	15	15
1				Disable Parking	1	0	0	0	0	0	0	0	1	1	0	0	0	0
1				Restricted Parking - (Undercover)	53	24	25	23	22	27	30	34	47	43	41	19	22	22
1				Disable Parking	2	0	0	0	0	0	0	0	0	0	0	1	0	0
0	Commonwealth St	Russell St To Howick St	N	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	15	0	4	7	8	8	9	9	8	7	5	4	3	3
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Howick St To Durham St	Ν	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	21	3	13	16	17	16	17	17	18	14	13	8	9	9
0				No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Durham St To Morrisset St	N	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	23	1	1	1	1	1	1	0	0	2	2	2	2	1
1		Morrisset St To Short St	S	Unrestricted	8	0	2	3	3	3	2	2	2	1	0	0	0	0
1		Short St To Durham St	S	Unrestricted	10	0	2	2	1	1	1	1	1	1	0	0	1	1
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Durham St To Howick St	S	No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	7	1	7	7	7	7	7	7	7	5	5	4	5	5
0				No Stopping	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	8	6	7	8	8	8	8	7	7	6	6	5	4	3
0				No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	5	3	5	5	5	5	5	5	5	3	2	2	2	1
0		Howick St To Russell St	S	No Stopping	16	0	0	0	0	0	0	0	0	0	0	0	0	0

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					45									0				
0	Kelley Cres	Russell St To Howick St	N	No Parking	15	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Howick St To Russell St	S	No Stopping	2	0	0	0	0	0	0	0	0	0	0			0
				Unrestricted	15	2	6	8	8	1	8	9	9	(/	5	4	4
0				No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Mitre St	Russell St To Howick St	Ν	Unrestricted	18	3	9	12	13	12	12	12	11	9	8	7	3	3
0		Howick St To Durham St	Ν	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	5	5	5	5	5	5	5	5	4	3	1			1
0				No Stopping	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	4	2	4	4	4	4	4	4	4	1	2	2	3	2
0				No Stopping	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	6	0	3	6	6	6	6	6	6	5	2	2	1	1
0		Durham St To Clu Da Sec	Ν	No Stopping	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	15	4	5	7	8	8	8	8	8	2	2	2	2	2
1		Clu Da Sect To Durham St	S	Unrestricted	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1			S	Unrestricted 90 D Angle Parking	15	2	9	13	14	14	10	7	8	6	5	4	4	3
1				Unrestricted	5	0	3	4	4	4	4	3	2	2	2	2	2	2
0		Durham St To Howick St	S	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted 45 D Angle Parking	37	13	29	35	37	37	36	35	37	27	18	10	8	10
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Howick St To Russell St		No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	18	1	5	10	12	12	13	14	14	11	7	6	2	3
1	Hope St	Russell St To Howick St	Ν	Unrestricted	24	5	5	6	6	6	5	3	4	4	5	4	2	2
1		Howick St To Durham St	Ν	Unrestricted	28	0	5	9	11	13	11	12	14	11	10	11	1	1
1		Durham St To Loftus St	S	Unrestricted	10	0	0	0	0	0	0	0	0	1	1	1	0	0
1		Loftus St To Howick St	S		10	1	1	2	2	3	3	2	2	1	1	1	0	0
1		Howick St To Russell St	S	Unrestricted	24	3	2	1	2	2	3	3	3	2	2			
1	Dhuram St	Beddie St To Commonwealth St	E	Unrestricted	12	0	0	0	0	0	0	0	0	0	0	0	0	0
1		Commonwealth St To Mitre St	E	Unrestricted	12	5	8	10	10	11	15	18	19	16	13	7	7	8
		Mitre St to Hope St	E	Unrestricted	6	0		0	0	0	0	0	0	0	0			
1			L	Disable 45 D Angle Parking	1	0		0	0	0	0	0	0	0	0			
1				Unrestricted 45 D Angle Parking	21	0	0	2	2	2	1	1	1	2	2	2	21	21
0				No Stopping	21	0	0	2	0	0			0	0	2		21	21
				Unrestricted	8	0		0	0	0	0	0	0	0	0			
				Bus Zone		0		0	-	0	0	0	0	0	0			
0		Lione Of Ta Mitra Of	14/		2	0		0	0	0	0	0	0	0	0			
0		Hope St To Mitre St	W	No Stopping		0	0	0	0	-	0	0	0	0	0			
				Unrestricted	5	1	1	1	0	0	1	1	1	1	1	1	1	1
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted 45 D Angle Parking	8	1	1	3	5	5	6	6	6	5	5	4	8	8
1				Unrestricted	2	0	0	0	0	0	0	0	0	0	0	0	2	2
0				No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Mitre St To Commomwealth St	W	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	25	0	12	16	18	20	23	22	24	21	18	17	7	7
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1		Commonwealth St To Beddie St	W	Unrestricted	12	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Howick St	Macquarie St To Commonwealth St	Е	Unrestricted	14	0	5	6	6	7	7	6	6	6	4	4	3	2
0		Commonwealth St To Mitre St	Е	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0				No Parking	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Disable Parking	1	0	1	0	1	1	0	0	0	0	0	0	0	0
0				No Parking - Daffadil Cottage Authorised Parking	5	1	5	5	4	5	5	5	5	4	3	2	1	1
1				2P 8:30am-8pm - Daffadil Cottage Authorised Parking	5	0	2	3	4	5	4	5	5	4	4	3	1	1
				Loading Zone 8am-3pm Mon-Fri, 2P All Other Times	1	0	0	0	1	0	1	1	1	0	0	0	0	0

1				Disable Parking	3	1	1	1	3	2	3	2	1	0	0	0	0	0
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0				Bus Zone	3	0	0	0	0	0	0	0	0	0	0	0	0	0
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted 45 D Angle Parking	9	3	5	5	9	9	8	9	8	7	6	5	5	
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted Parallel Parking	3	1	2	3	2	3	3	3	3	3	2	3	2	2
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Mitre St to Hope St	E	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	10	8	8	8	8	10	9	10	10	8	8	7	8	
0				Taxi Zone	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	16	2	3	9	13	14	13	13	14	12	10	7	7	7
1		Hope St To Mitre St	W	Unrestricted	23	6	16	16	15	17	17	20	21	18	14	12	10	10
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1		Mitre St To Daly St	W	Unrestricted	19	13	15	19	18	19	19	18	19	18	14	9	8	9
0				No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0
0		Daly St To Commomwealth St	W	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0				Bus Zone	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1				Unrestricted	6	3	5	6	6	6	6	5	5	4	2	2	2	2
0				No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1		Commonwealth St To Beddie St	W	Unrestricted	15	0	2	5	7	7	7	6	5	6	4	4	3	3
1	Daly St	Howick St To Russell St	S	Unrestricted	23	3	4	8	13	14	16	16	15	14	10	9	10	11
1		Russell St To Howick St	N	Unrestricted	21	3	6	9	15	18	18	16	16	14	12	11	11	11
1	Russell St	Commonwealth St To Daly St	E	Unrestricted	11	0	0	0	0	0	0	0	0	0	0	0	0	0
1		Daly St To Mitre St	E	Unrestricted	11	5	4	2	1	1	1	1	2	1	1	1	1	1
1		Mitre St to Hope St	E	Unrestricted	22	0	0	0	0	0	0	0	0	1	1	1	1	1
1		Hope St To Mitre St	W	Unrestricted	20	0	0	0	0	0	0	0	0	2	1	1	1	0
1		Mitre St To To Commonwealth St	W	Unrestricted	24	5	5	5	5	4	5	5	3	4	3	2	1	1
	PUBLIC CAPACITY					1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025
	PUBLIC OCCUPANCIES					301	466	548	582	595	603	606	634	494	421	342	312	299
	PUBLIC VACANCIES					724	559	477	443	430	422	419	391	531	604	683	713	726
	PUBLIC % OCCUPANCIES					29%	45%	53%	57%	58%	59%	59%	62%	48%	41%	33%	30%	29%

not available for public parking



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Appendix D SIDRA Results

₩ Site: 101 [Durham St & Mitre St (Site Folder: Existing - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Bathurst Health Service AM 8:15-9:15 AM Site Category: Existing Conditions Roundabout

Vehicle	Movem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		COf Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEa	st: Durha	m Street													
21	L2	All MCs	106	5.9	106	5.9	0.107	5.8	LOS A	0.3	2.0	0.38	0.52	0.38	52.0
22	T1	All MCs	294	7.9	294	7.9	0.227	5.4	LOS A	0.7	5.0	0.37	0.47	0.37	51.5
23	R2	All MCs	19	0.0	19	0.0	0.227	9.0	LOS A	0.7	5.0	0.37	0.47	0.37	49.7
23u	U	All MCs	3	0.0	3	0.0	0.227	10.8	LOS A	0.7	5.0	0.37	0.47	0.37	53.8
Approact	۱		422	7.0	422	7.0	0.227	5.7	LOS A	0.7	5.0	0.37	0.48	0.37	51.6
NorthEas	st: Mitre S	Street													
24	L2	All MCs	7	0.0	7	0.0	0.019	13.7	LOS A	0.1	0.4	0.89	0.72	0.89	44.1
25	T1	All MCs	42	2.5	42	2.5	0.085	10.8	LOS A	0.3	1.9	0.93	0.74	0.93	25.9
26	R2	All MCs	8	0.0	8	0.0	0.085	14.2	LOS A	0.3	1.9	0.93	0.74	0.93	25.9
26u	U	All MCs	1	0.0	1	0.0	0.085	15.9	LOS B	0.3	1.9	0.93	0.74	0.93	31.4
Approact	ı		59	1.8	59	1.8	0.085	11.7	LOS A	0.3	1.9	0.92	0.73	0.92	31.3
NorthWe	st: Durha	m Street													
27	L2	All MCs	6	0.0	6	0.0	0.008	6.6	LOS A	0.0	0.1	0.50	0.52	0.50	41.4
28	T1	All MCs	676	1.9	676	1.9	0.580	6.7	LOS A	2.3	16.5	0.71	0.57	0.71	50.4
29	R2	All MCs	58	0.0	58	0.0	0.580	10.3	LOS A	2.3	16.5	0.71	0.57	0.71	37.4
29u	U	All MCs	4	0.0	4	0.0	0.580	12.1	LOS A	2.3	16.5	0.71	0.57	0.71	37.4
Approact	ı		744	1.7	744	1.7	0.580	7.0	LOS A	2.3	16.5	0.70	0.57	0.70	50.0
SouthWe	st: Mitre	Street													
30	L2	All MCs	44	4.8	44	4.8	0.067	7.5	LOS A	0.2	1.2	0.62	0.62	0.62	33.8
31	T1	All MCs	21	0.0	21	0.0	0.201	5.6	LOS A	0.6	4.1	0.61	0.62	0.61	36.7
32	R2	All MCs	194	3.8	194	3.8	0.201	9.4	LOS A	0.6	4.1	0.61	0.62	0.61	47.1

32u	U	All MCs	3	0.0	3	0.0	0.201	10.9	LOS A	0.6	4.1	0.61	0.62	0.61	32.8
Approa	ach		262	3.6	262	3.6	0.201	8.8	LOS A	0.6	4.1	0.61	0.62	0.61	45.6
All Veh	nicles		1487	3.5	1487	3.5	0.580	7.1	LOS A	2.3	16.5	0.60	0.56	0.60	49.2

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: 102 [Howick St & Mitre St (Site Folder: Existing - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Bathurst Health Service AM 8:15-9:15 AM Site Category: Existing Conditions Roundabout

Vehicle	Movem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of	Aver. Back		Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	st: Howic	k Street													
21	L2	All MCs	23	0.0	23	0.0	0.025	5.1	LOS A	0.1	0.4	0.43	0.50	0.43	46.0
22	T1	All MCs	44	2.4	44	2.4	0.053	4.4	LOS A	0.1	0.9	0.40	0.51	0.40	44.0
23	R2	All MCs	24	0.0	24	0.0	0.053	8.0	LOS A	0.1	0.9	0.40	0.51	0.40	44.0
23u	U	All MCs	2	0.0	2	0.0	0.053	9.7	LOS A	0.1	0.9	0.40	0.51	0.40	45.9
Approach			94	1.1	94	1.1	0.053	5.6	LOS A	0.1	0.9	0.41	0.51	0.41	44.7
NorthEas	t: Mitre S	Street													
24	L2	All MCs	26	0.0	26	0.0	0.027	4.2	LOS A	0.1	0.5	0.30	0.44	0.30	45.5
25	T1	All MCs	135	3.1	135	3.1	0.133	3.9	LOS A	0.4	2.7	0.28	0.45	0.28	43.8
26	R2	All MCs	63	5.0	63	5.0	0.133	7.6	LOS A	0.4	2.7	0.28	0.45	0.28	37.2
26u	U	All MCs	1	0.0	1	0.0	0.133	9.2	LOS A	0.4	2.7	0.28	0.45	0.28	37.2
Approach			225	3.3	225	3.3	0.133	5.0	LOS A	0.4	2.7	0.28	0.45	0.28	43.2
NorthWes	st: Howic	k Street													
27	L2	All MCs	40	18.4	40	18.4	0.040	5.4	LOS A	0.1	0.8	0.48	0.51	0.48	37.6
28	T1	All MCs	37	2.9	37	2.9	0.040	4.6	LOS A	0.1	0.7	0.44	0.49	0.44	44.7
29	R2	All MCs	12	0.0	12	0.0	0.040	8.2	LOS A	0.1	0.7	0.44	0.49	0.44	42.7
29u	U	All MCs	2	0.0	2	0.0	0.040	9.9	LOS A	0.1	0.7	0.44	0.49	0.44	36.7
Approach			91	9.3	91	9.3	0.040	5.5	LOS A	0.1	0.8	0.46	0.50	0.46	42.8
SouthWe	st: Mitre	Street													
30	L2	All MCs	31	3.4	31	3.4	0.034	5.0	LOS A	0.1	0.6	0.39	0.48	0.39	43.0
31	T1	All MCs	171	1.2	171	1.2	0.137	4.2	LOS A	0.4	2.5	0.36	0.44	0.36	42.8
32	R2	All MCs	20	5.3	20	5.3	0.137	7.9	LOS A	0.4	2.5	0.36	0.44	0.36	45.6

32u	U	All MCs	1	0.0	1	0.0	0.137	9.5	LOS A	0.4	2.5	0.36	0.44	0.36	44.8
Approach			222	1.9	222	1.9	0.137	4.7	LOS A	0.4	2.5	0.36	0.44	0.36	43.3
All Vehicles			632	3.3	632	3.3	0.137	5.0	LOS A	0.4	2.7	0.35	0.47	0.35	43.5

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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V Site: 104v [Howick St & Commonwealth St (Site Folder: Existing - AM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [AM (Network Folder: Existing Site)]

Bathurst Health Service AM 8:15-9:15 AM Site Category: Existing Conditions Give-Way (Two-Way)

Vehicle	Movem	ent Perfor	rmance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		k Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	st: Howic	k Street													
21	L2	All MCs	15	0.0	15	0.0	0.033	5.6	LOS A	0.1	0.4	0.09	0.34	0.09	35.0
22	T1	All MCs	24	8.7	24	8.7	0.033	0.1	LOS A	0.1	0.4	0.09	0.34	0.09	50.6
23	R2	All MCs	17	12.5	17	12.5	0.033	5.7	LOS A	0.1	0.4	0.09	0.34	0.09	47.5
23u	U	All MCs	2	0.0	2	0.0	0.033	6.9	LOS A	0.1	0.4	0.09	0.34	0.09	47.5
Approach	ı		58	7.3	58	7.3	0.033	3.4	NA	0.1	0.4	0.09	0.34	0.09	45.1
NorthEas	t: Comm	onwealth S	treet												
24	L2	All MCs	28	11.1	28	11.1	0.030	5.8	LOS A	0.0	0.3	0.12	0.53	0.12	43.1
25	T1	All MCs	12	0.0	12	0.0	0.030	5.0	LOS A	0.0	0.3	0.12	0.53	0.12	31.2
26	R2	All MCs	2	0.0	2	0.0	0.030	5.9	LOS A	0.0	0.3	0.12	0.53	0.12	33.3
Approach	ı		42	7.5	42	7.5	0.030	5.6	LOS A	0.0	0.3	0.12	0.53	0.12	38.1
NorthWe	st: Howic	k Street													
27	L2	All MCs	1	0.0	1	0.0	0.018	5.6	LOS A	0.0	0.0	0.01	0.04	0.01	56.4
28	T1	All MCs	34	9.4	34	9.4	0.018	0.0	LOS A	0.0	0.0	0.01	0.04	0.01	56.4
29	R2	All MCs	1	0.0	1	0.0	0.018	5.5	LOS A	0.0	0.0	0.01	0.04	0.01	25.4
Approach	ı		36	8.8	36	8.8	0.018	0.3	NA	0.0	0.0	0.01	0.04	0.01	54.0
West: Co	mmonwe	ealth Street													
10b	L3	All MCs	2	0.0	2	0.0	0.040	4.1	LOS A	0.1	0.4	0.19	0.48	0.19	22.1
10a	L1	All MCs	5	0.0	5	0.0	0.040	2.5	LOS A	0.1	0.4	0.19	0.48	0.19	28.2
12a	R1	All MCs	33	6.5	33	6.5	0.040	2.8	LOS A	0.1	0.4	0.19	0.48	0.19	28.2
12b	R3	All MCs	1	0.0	1	0.0	0.040	3.5	LOS A	0.1	0.4	0.19	0.48	0.19	13.7

Approach	41	5.1	41	5.1	0.040	2.9	LOS A	0.1	0.4	0.19	0.48	0.19	26.1
All Vehicles	177	7.1	177	7.1	0.040	3.2	NA	0.1	0.4	0.10	0.36	0.10	41.6

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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V Site: 105v [Durham St & Commonwalth St (Site Folder: Existing - AM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [AM (Network Folder: Existing Site)]

Bathurst Health Service AM 8:15-9:15 AM Site Category: Existing Conditions Give-Way (Two-Way)

Vehicle	Movem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		ck Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of Cycles	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	st: Durha	m Street													
21	L2	All MCs	13	8.3	13	8.3	0.188	10.0	LOS A	0.1	0.7	0.07	0.11	0.07	55.7
22	T1	All MCs	316	7.0	316	7.0	0.188	0.4	LOS A	0.1	0.7	0.07	0.11	0.07	57.0
23	R2	All MCs	6	16.7	6	16.7	0.188	12.4	LOS A	0.1	0.7	0.07	0.11	0.07	47.2
23u	U	All MCs	1	0.0	1	0.0	0.188	15.9	LOS B	0.1	0.7	0.07	0.11	0.07	55.7
Approach	l		336	7.2	336	7.2	0.188	1.1	NA	0.1	0.7	0.07	0.11	0.07	56.8
NorthEas	t: Comm	onwealth St	treet												
24	L2	All MCs	20	0.0	20	0.0	0.282	9.5	LOS A	0.4	2.7	0.81	0.95	0.94	16.8
25	T1	All MCs	8	0.0	8	0.0	0.282	15.7	LOS B	0.4	2.7	0.81	0.95	0.94	16.8
26	R2	All MCs	52	2.0	52	2.0	0.282	21.0	LOS B	0.4	2.7	0.81	0.95	0.94	23.5
Approach	I		80	1.3	80	1.3	0.282	17.6	LOS B	0.4	2.7	0.81	0.95	0.94	21.6
NorthWes	st: Durha	m Street													
27	L2	All MCs	87	1.2	87	1.2	0.425	5.8	LOS A	0.1	0.6	0.03	0.09	0.03	46.6
28	T1	All MCs	725	1.6	725	1.6	0.425	0.0	LOS A	0.1	0.6	0.03	0.09	0.03	54.1
29	R2	All MCs	14	0.0	14	0.0	0.425	6.8	LOS A	0.1	0.6	0.03	0.09	0.03	54.1
Approach	l		826	1.5	826	1.5	0.425	0.8	NA	0.1	0.6	0.03	0.09	0.03	52.5
SouthWe	st: Comr	nonwealth S	Street												
30	L2	All MCs	2	0.0	2	0.0	0.077	5.6	LOS A	0.1	0.7	0.72	0.68	0.72	28.5
31	T1	All MCs	8	12.5	8	12.5	0.077	19.1	LOS B	0.1	0.7	0.72	0.68	0.72	28.0
32	R2	All MCs	6	16.7	6	16.7	0.077	23.0	LOS B	0.1	0.7	0.72	0.68	0.72	24.7
32u	U	All MCs	1	0.0	1	0.0	0.077	6.8	LOS A	0.1	0.7	0.72	0.68	0.72	24.7

Approach	18	11.8	18	11.8	0.077	18.2	LOS B	0.1	0.7	0.72	0.68	0.72	26.9
All Vehicles	1260	3.2	1260	3.2	0.425	2.2	NA	0.4	2.7	0.10	0.16	0.11	48.6

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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V Site: 101 [Durham St & Mitre St (Site Folder: Existing - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Existing Site)]

Bathurst Health Service PM 15:15-16:15 Site Category: Existing Conditions Roundabout

Vehicle I	Novem	ent Perforn	nance												
Mov	Turn	Mov	Demand	Flows	Arrival	Flows	Deg.	Aver.	Level of	Aver. Back	Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	t: Durha	m Street													
21	L2	All MCs	92	2.3	92	2.3	0.094	5.5	LOS A	0.2	1.7	0.31	0.50	0.31	52.4
22	T1	All MCs	557	4.5	557	4.5	0.374	5.2	LOS A	1.3	9.6	0.33	0.44	0.33	51.9
23	R2	All MCs	9	0.0	9	0.0	0.374	8.8	LOS A	1.3	9.6	0.33	0.44	0.33	50.0
23u	U	All MCs	8	12.5	8	12.5	0.374	10.8	LOS A	1.3	9.6	0.33	0.44	0.33	53.5
Approach			666	4.3	666	4.3	0.374	5.4	LOS A	1.3	9.6	0.33	0.45	0.33	52.0
NorthEast	t: Mitre S	Street													
24	L2	All MCs	12	0.0	12	0.0	0.021	10.0	LOS A	0.1	0.4	0.78	0.66	0.78	46.7
25	T1	All MCs	25	0.0	25	0.0	0.044	7.7	LOS A	0.1	0.9	0.78	0.66	0.78	29.1
26	R2	All MCs	11	0.0	11	0.0	0.044	11.3	LOS A	0.1	0.9	0.78	0.66	0.78	29.1
26u	U	All MCs	1	0.0	1	0.0	0.044	13.0	LOS A	0.1	0.9	0.78	0.66	0.78	33.9
Approach			48	0.0	48	0.0	0.044	9.2	LOS A	0.1	0.9	0.78	0.66	0.78	37.7
NorthWes	st: Durha	m Street													
27	L2	All MCs	5	0.0	5	0.0	0.007	6.6	LOS A	0.0	0.1	0.51	0.52	0.51	41.4
28	T1	All MCs	461	3.7	461	3.7	0.402	6.3	LOS A	1.4	9.9	0.61	0.54	0.61	50.8
29	R2	All MCs	34	0.0	34	0.0	0.402	9.9	LOS A	1.4	9.9	0.61	0.54	0.61	38.3
29u	U	All MCs	1	0.0	1	0.0	0.402	11.7	LOS A	1.4	9.9	0.61	0.54	0.61	38.3
Approach			501	3.4	501	3.4	0.402	6.6	LOS A	1.4	9.9	0.61	0.54	0.61	50.4
SouthWes	st: Mitre	Street													
30	L2	All MCs	62	1.7	62	1.7	0.114	10.3	LOS A	0.3	2.0	0.76	0.71	0.76	30.2
31	T1	All MCs	20	0.0	20	0.0	0.254	7.7	LOS A	0.8	5.4	0.78	0.70	0.78	34.8
32	R2	All MCs	199	3.2	199	3.2	0.254	11.5	LOS A	0.8	5.4	0.78	0.70	0.78	45.8

32u	U	All MCs	1	0.0	1	0.0	0.254	13.0	LOS A	0.8	5.4	0.78	0.70	0.78	30.6
Appro	ach		282	2.6	282	2.6	0.254	11.0	LOS A	0.8	5.4	0.77	0.70	0.77	43.8
All Ve	nicles		1498	3.5	1498	3.5	0.402	6.9	LOS A	1.4	9.9	0.52	0.54	0.52	49.4

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: 102 [Howick St & Mitre St (Site Folder: Existing - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Existing Site)]

Bathurst Health Service PM 15:15-16:15 Site Category: Existing Conditions Roundabout

Vehicle N	lovem	ent Perforn	nance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of	Aver. Back		Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEast	: Howic	k Street													
21	L2	All MCs	47	0.0	47	0.0	0.043	4.8	LOS A	0.1	0.7	0.41	0.50	0.41	46.0
22	T1	All MCs	55	0.0	55	0.0	0.060	4.3	LOS A	0.1	1.0	0.39	0.50	0.39	44.1
23	R2	All MCs	24	0.0	24	0.0	0.060	8.0	LOS A	0.1	1.0	0.39	0.50	0.39	44.1
23u	U	All MCs	1	0.0	1	0.0	0.060	9.7	LOS A	0.1	1.0	0.39	0.50	0.39	46.0
Approach			127	0.0	127	0.0	0.060	5.2	LOS A	0.1	1.0	0.40	0.50	0.40	45.1
NorthEast:	Mitre S	Street													
24	L2	All MCs	13	0.0	13	0.0	0.013	4.3	LOS A	0.0	0.2	0.32	0.43	0.32	45.5
25	T1	All MCs	140	0.0	140	0.0	0.122	3.9	LOS A	0.3	2.4	0.29	0.44	0.29	44.0
26	R2	All MCs	41	2.6	41	2.6	0.122	7.6	LOS A	0.3	2.4	0.29	0.44	0.29	37.6
26u	U	All MCs	1	0.0	1	0.0	0.122	9.2	LOS A	0.3	2.4	0.29	0.44	0.29	37.6
Approach			195	0.5	195	0.5	0.122	4.7	LOS A	0.3	2.4	0.29	0.44	0.29	43.5
NorthWest	: Howic	k Street													
27	L2	All MCs	33	9.7	33	9.7	0.032	5.2	LOS A	0.1	0.6	0.46	0.50	0.46	37.7
28	T1	All MCs	31	3.4	31	3.4	0.041	4.6	LOS A	0.1	0.8	0.43	0.51	0.43	44.6
29	R2	All MCs	20	10.5	20	10.5	0.041	8.4	LOS A	0.1	0.8	0.43	0.51	0.43	42.3
29u	U	All MCs	1	0.0	1	0.0	0.041	9.8	LOS A	0.1	0.8	0.43	0.51	0.43	36.3
Approach			84	7.5	84	7.5	0.041	5.8	LOS A	0.1	0.8	0.44	0.51	0.44	42.7
SouthWest	t: Mitre	Street													
30	L2	All MCs	19	5.6	19	5.6	0.021	4.8	LOS A	0.0	0.4	0.37	0.47	0.37	43.1
31	T1	All MCs	152	2.8	152	2.8	0.129	4.1	LOS A	0.3	2.4	0.34	0.44	0.34	42.7
32	R2	All MCs	25	8.3	25	8.3	0.129	7.9	LOS A	0.3	2.4	0.34	0.44	0.34	45.5

32u	U	All MCs	4	0.0)	4 0.0	0.129	9.4	LOS A	0.3	2.4	0.34	0.44	0.34	44.8
Approach			200	3.7	20	3.7	0.129	4.8	LOS A	0.3	2.4	0.34	0.45	0.34	43.5
All Vehicles			606	2.4	60	6 2.4	0.129	5.0	LOS A	0.3	2.4	0.35	0.46	0.35	43.8

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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V Site: 104v [Howick St & Commonwealth St (Site Folder: Existing - PM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Existing Site)]

Bathurst Health Service PM 15:15-16:15 Site Category: Existing Conditions Give-Way (Two-Way)

Vehicle	Movem	ent Perfori	mance												
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	Aver. Bacl [Veh.	k Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			,	km/h
SouthEas	st: Howic	k Street													
21	L2	All MCs	15	0.0	15	0.0	0.035	5.6	LOS A	0.0	0.2	0.04	0.21	0.04	37.0
22	T1	All MCs	43	4.9	43	4.9	0.035	0.0	LOS A	0.0	0.2	0.04	0.21	0.04	54.0
23	R2	All MCs	7	0.0	7	0.0	0.035	5.5	LOS A	0.0	0.2	0.04	0.21	0.04	51.8
23u	U	All MCs	1	0.0	1	0.0	0.035	6.8	LOS A	0.0	0.2	0.04	0.21	0.04	51.8
Approach	1		66	3.2	66	3.2	0.035	2.0	NA	0.0	0.2	0.04	0.21	0.04	49.4
NorthEas	t: Comm	onwealth St	treet												
24	L2	All MCs	12	9.1	12	9.1	0.022	5.8	LOS A	0.0	0.2	0.14	0.52	0.14	43.2
25	T1	All MCs	13	0.0	13	0.0	0.022	5.0	LOS A	0.0	0.2	0.14	0.52	0.14	31.3
26	R2	All MCs	4	0.0	4	0.0	0.022	6.0	LOS A	0.0	0.2	0.14	0.52	0.14	33.4
Approach	1		28	3.7	28	3.7	0.022	5.5	LOS A	0.0	0.2	0.14	0.52	0.14	35.3
NorthWe	st: Howic	k Street													
27	L2	All MCs	1	0.0	1	0.0	0.018	5.6	LOS A	0.0	0.0	0.01	0.04	0.01	56.3
28	T1	All MCs	34	9.4	34	9.4	0.018	0.0	LOS A	0.0	0.0	0.01	0.04	0.01	56.3
29	R2	All MCs	1	0.0	1	0.0	0.018	5.6	LOS A	0.0	0.0	0.01	0.04	0.01	25.4
Approach	1		36	8.8	36	8.8	0.018	0.3	NA	0.0	0.0	0.01	0.04	0.01	53.9
West: Co	mmonwe	ealth Street													
10b	L3	All MCs	1	0.0	1	0.0	0.031	4.2	LOS A	0.0	0.3	0.16	0.49	0.16	22.1
10a	L1	All MCs	11	0.0	11	0.0	0.031	2.5	LOS A	0.0	0.3	0.16	0.49	0.16	28.2
12a	R1	All MCs	18	11.8	18	11.8	0.031	2.8	LOS A	0.0	0.3	0.16	0.49	0.16	28.2
12b	R3	All MCs	5	0.0	5	0.0	0.031	3.5	LOS A	0.0	0.3	0.16	0.49	0.16	13.7

Approach	35	6.1	35	6.1	0.031	2.9	LOS A	0.0	0.3	0.16	0.49	0.16	22.7
All Vehicles	165	5.1	165	5.1	0.035	2.4	NA	0.0	0.3	0.08	0.28	0.08	43.2

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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V Site: 105v [Durham St & Commonwalth St (Site Folder: Existing - PM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Existing Site)]

Bathurst Health Service PM 15:15-16:15 Site Category: Existing Conditions Give-Way (Two-Way)

Vehicle	Novem	ent Perforr	nance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		k Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of Cycles	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	t: Durha	m Street													
21	L2	All MCs	12	9.1	12	9.1	0.334	7.5	LOS A	0.1	0.5	0.04	0.05	0.04	58.3
22	T1	All MCs	612	4.1	612	4.1	0.334	0.1	LOS A	0.1	0.5	0.04	0.05	0.04	58.9
23	R2	All MCs	11	0.0	11	0.0	0.334	8.2	LOS A	0.1	0.5	0.04	0.05	0.04	50.5
23u	U	All MCs	1	0.0	1	0.0	0.334	11.6	LOS A	0.1	0.5	0.04	0.05	0.04	58.3
Approach			635	4.1	635	4.1	0.334	0.4	NA	0.1	0.5	0.04	0.05	0.04	58.7
NorthEas	: Comm	onwealth Str	reet												
24	L2	All MCs	36	8.8	36	8.8	0.270	7.6	LOS A	0.4	2.8	0.73	0.91	0.84	19.0
25	T1	All MCs	9	0.0	9	0.0	0.270	15.1	LOS B	0.4	2.8	0.73	0.91	0.84	19.0
26	R2	All MCs	51	0.0	51	0.0	0.270	19.4	LOS B	0.4	2.8	0.73	0.91	0.84	25.7
Approach			96	3.3	96	3.3	0.270	14.6	LOS B	0.4	2.8	0.73	0.91	0.84	23.1
NorthWes	t: Durha	m Street													
27	L2	All MCs	59	0.0	59	0.0	0.271	5.6	LOS A	0.0	0.1	0.01	0.07	0.01	47.1
28	T1	All MCs	464	3.6	464	3.6	0.271	0.0	LOS A	0.0	0.1	0.01	0.07	0.01	55.0
29	R2	All MCs	1	0.0	1	0.0	0.271	6.2	LOS A	0.0	0.1	0.01	0.07	0.01	55.0
Approach			524	3.2	524	3.2	0.271	0.6	NA	0.0	0.1	0.01	0.07	0.01	53.3
SouthWe	st: Comr	nonwealth S	treet												
30	L2	All MCs	7	0.0	7	0.0	0.060	7.3	LOS A	0.1	0.5	0.62	0.58	0.62	31.3
31	T1	All MCs	4	0.0	4	0.0	0.060	13.7	LOS A	0.1	0.5	0.62	0.58	0.62	31.3
32	R2	All MCs	6	16.7	6	16.7	0.060	23.7	LOS B	0.1	0.5	0.62	0.58	0.62	27.9
32u	U	All MCs	1	0.0	1	0.0	0.060	6.8	LOS A	0.1	0.5	0.62	0.58	0.62	27.9

Approach	19	5.6	19	5.6	0.060	14.1	LOS A	0.1	0.5	0.62	0.58	0.62	30.2
All Vehicles	1274	3.7	1274	3.7	0.334	1.8	NA	0.4	2.8	0.08	0.13	0.09	51.9

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: 101 [Durham St & Mitre St (Site Folder: Post-Dev - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [AM (Network Folder: Proposed Development 2031)]

Bathurst Health Service AM 8:15-9:15 AM Site Category: 2031 + Proposed Design Roundabout

Vehicle I	Novem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	t: Durha	m Street													
21	L2	All MCs	139	4.5	139	4.5	0.143	6.1	LOS A	0.4	2.7	0.45	0.53	0.45	51.7
22	T1	All MCs	353	6.6	353	6.6	0.283	5.7	LOS A	0.9	6.6	0.46	0.49	0.46	51.1
23	R2	All MCs	22	0.0	22	0.0	0.283	9.2	LOS A	0.9	6.6	0.46	0.49	0.46	49.5
23u	U	All MCs	3	0.0	3	0.0	0.283	11.1	LOS A	0.9	6.6	0.46	0.49	0.46	53.5
Approach			517	5.7	517	5.7	0.283	6.0	LOS A	0.9	6.6	0.45	0.50	0.45	51.2
NorthEas	: Mitre S	Street													
24	L2	All MCs	8	0.0	8	0.0	0.032	19.1	LOS B	0.1	0.6	0.99	0.80	0.99	41.0
25	T1	All MCs	48	2.2	48	2.2	0.146	15.7	LOS B	0.5	3.6	1.00	0.82	1.00	21.8
26	R2	All MCs	9	0.0	9	0.0	0.146	19.0	LOS B	0.5	3.6	1.00	0.82	1.00	21.8
26u	U	All MCs	1	0.0	1	0.0	0.146	20.6	LOS B	0.5	3.6	1.00	0.82	1.00	27.9
Approach			67	1.6	67	1.6	0.146	16.6	LOS B	0.5	3.6	1.00	0.82	1.00	27.0
NorthWes	t: Durha	m Street													
27	L2	All MCs	7	0.0	7	0.0	0.010	7.5	LOS A	0.0	0.2	0.56	0.55	0.56	41.0
28	T1	All MCs	806	1.6	806	1.6	0.754	10.4	LOS A	4.6	32.9	0.92	0.75	1.08	49.1
29	R2	All MCs	87	0.0	87	0.0	0.754	14.0	LOS A	4.6	32.9	0.92	0.75	1.08	34.8
29u	U	All MCs	4	0.0	4	0.0	0.754	15.8	LOS B	4.6	32.9	0.92	0.75	1.08	34.8
Approach			905	1.4	905	1.4	0.754	10.7	LOS A	4.6	32.9	0.92	0.75	1.08	48.3
SouthWe	st: Mitre	Street													
30	L2	All MCs	56	3.8	56	3.8	0.091	8.5	LOS A	0.2	1.6	0.67	0.65	0.67	33.3
31	T1	All MCs	24	0.0	24	0.0	0.275	6.4	LOS A	0.8	5.9	0.69	0.65	0.69	36.6
32	R2	All MCs	253	2.9	253	2.9	0.275	10.2	LOS A	0.8	5.9	0.69	0.65	0.69	47.0

32u		U	All MCs	3	0.0	3	0.0	0.275	11.5	LOS A	0.8	5.9	0.69	0.65	0.69	32.6
Арр	roach			336	2.8	336	2.8	0.275	9.7	LOS A	0.8	5.9	0.69	0.65	0.69	45.6
All V	/ehicles			1825	2.9	1825	2.9	0.754	9.4	LOS A	4.6	32.9	0.75	0.66	0.83	48.0

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: 102 [Howick St & Mitre St (Site Folder: Post-Dev - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [AM (Network Folder: Proposed Development 2031)]

Bathurst Health Service AM 8:15-9:15 AM Site Category: 2031 + Proposed Design Roundabout

Vehicle I	Movem	ent Perfor	rmance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of	Aver. Back		Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	t: Howic	k Street													
21	L2	All MCs	26	0.0	26	0.0	0.031	5.9	LOS A	0.1	0.5	0.50	0.54	0.50	46.7
22	T1	All MCs	60	1.8	60	1.8	0.075	5.0	LOS A	0.2	1.3	0.46	0.54	0.46	45.0
23	R2	All MCs	33	0.0	33	0.0	0.075	8.6	LOS A	0.2	1.3	0.46	0.54	0.46	45.0
23u	U	All MCs	2	0.0	2	0.0	0.075	10.0	LOS A	0.2	1.3	0.46	0.54	0.46	46.4
Approach			121	0.9	121	0.9	0.075	6.2	LOS A	0.2	1.3	0.47	0.54	0.47	45.5
NorthEast	t: Mitre S	Street													
24	L2	All MCs	35	0.0	35	0.0	0.037	4.7	LOS A	0.1	0.7	0.37	0.47	0.37	46.6
25	T1	All MCs	161	2.6	161	2.6	0.168	4.2	LOS A	0.5	3.6	0.35	0.47	0.35	44.4
26	R2	All MCs	80	3.9	80	3.9	0.168	8.0	LOS A	0.5	3.6	0.35	0.47	0.35	37.1
26u	U	All MCs	1	0.0	1	0.0	0.168	9.4	LOS A	0.5	3.6	0.35	0.47	0.35	37.1
Approach			277	2.7	277	2.7	0.168	5.4	LOS A	0.5	3.6	0.35	0.47	0.35	43.8
NorthWes	st: Howic	k Street													
27	L2	All MCs	49	14.9	49	14.9	0.053	5.9	LOS A	0.1	1.1	0.53	0.55	0.53	37.8
28	T1	All MCs	48	2.2	48	2.2	0.063	5.1	LOS A	0.2	1.2	0.49	0.54	0.49	45.6
29	R2	All MCs	27	0.0	27	0.0	0.063	8.9	LOS A	0.2	1.2	0.49	0.54	0.49	43.9
29u	U	All MCs	2	0.0	2	0.0	0.063	10.1	LOS A	0.2	1.2	0.49	0.54	0.49	36.7
Approach			127	6.6	127	6.6	0.063	6.3	LOS A	0.2	1.2	0.51	0.54	0.51	43.7
SouthWes	st: Mitre	Street													
30	L2	All MCs	49	2.1	49	2.1	0.058	5.6	LOS A	0.1	1.0	0.45	0.53	0.45	44.2
31	T1	All MCs	202	1.0	202	1.0	0.169	4.6	LOS A	0.5	3.2	0.42	0.47	0.42	43.2
32	R2	All MCs	23	4.5	23	4.5	0.169	8.3	LOS A	0.5	3.2	0.42	0.47	0.42	46.4

32	2u	U	All MCs	1	0.0	1	0.0	0.169	9.7	LOS A	0.5	3.2	0.42	0.47	0.42	45.1
Ap	oproach			276	1.5	276	1.5	0.169	5.1	LOS A	0.5	3.2	0.43	0.48	0.43	43.9
All	l Vehicles			801	2.6	801	2.6	0.169	5.6	LOS A	0.5	3.6	0.42	0.50	0.42	44.1

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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V Site: 104v [Howick St & Commonwealth St (Site Folder: Post-Dev - AM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [AM (Network Folder: Proposed Development 2031)]

Bathurst Health Service AM 8:15-9:15 AM Site Category: 2031 + Proposed Design Give-Way (Two-Way)

Vehicle	Movem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		COF Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of Cycles	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEas	st: Howic	k Street													
21	L2	All MCs	21	0.0	21	0.0	0.052	5.6	LOS A	0.1	0.7	0.11	0.40	0.11	34.0
22	T1	All MCs	27	7.7	27	7.7	0.052	0.1	LOS A	0.1	0.7	0.11	0.40	0.11	49.0
23	R2	All MCs	42	5.0	42	5.0	0.052	5.7	LOS A	0.1	0.7	0.11	0.40	0.11	45.6
23u	U	All MCs	2	0.0	2	0.0	0.052	6.9	LOS A	0.1	0.7	0.11	0.40	0.11	45.6
Approach	I		93	4.5	93	4.5	0.052	4.0	NA	0.1	0.7	0.11	0.40	0.11	43.4
NorthEas	t: Comm	onwealth St	treet												
24	L2	All MCs	42	7.5	42	7.5	0.044	5.8	LOS A	0.1	0.5	0.13	0.53	0.13	43.0
25	T1	All MCs	17	0.0	17	0.0	0.044	5.2	LOS A	0.1	0.5	0.13	0.53	0.13	31.2
26	R2	All MCs	2	0.0	2	0.0	0.044	6.1	LOS A	0.1	0.5	0.13	0.53	0.13	33.3
Approach	1		61	5.2	61	5.2	0.044	5.6	LOS A	0.1	0.5	0.13	0.53	0.13	38.2
NorthWe	st: Howic	k Street													
27	L2	All MCs	1	0.0	1	0.0	0.020	5.6	LOS A	0.0	0.0	0.01	0.03	0.01	56.7
28	T1	All MCs	38	8.3	38	8.3	0.020	0.0	LOS A	0.0	0.0	0.01	0.03	0.01	56.7
29	R2	All MCs	1	0.0	1	0.0	0.020	5.5	LOS A	0.0	0.0	0.01	0.03	0.01	25.4
Approach	ı		40	7.9	40	7.9	0.020	0.3	NA	0.0	0.0	0.01	0.03	0.01	54.6
West: Co	mmonwe	ealth Street													
10b	L3	All MCs	2	0.0	2	0.0	0.053	4.1	LOS A	0.1	0.5	0.23	0.49	0.23	21.9
10a	L1	All MCs	9	0.0	9	0.0	0.053	2.6	LOS A	0.1	0.5	0.23	0.49	0.23	27.2
12a	R1	All MCs	41	5.1	41	5.1	0.053	3.1	LOS A	0.1	0.5	0.23	0.49	0.23	27.2
12b	R3	All MCs	1	0.0	1	0.0	0.053	3.6	LOS A	0.1	0.5	0.23	0.49	0.23	13.5

Approach	54	3.9	54	3.9	0.053	3.1	LOS A	0.1	0.5	0.23	0.49	0.23	25.7
All Vehicles	247	5.1	247	5.1	0.053	3.6	NA	0.1	0.7	0.13	0.39	0.13	40.8

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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V Site: 105v [Durham St & Commonwalth St (Site Folder: Post-Dev - AM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [AM (Network Folder: Proposed Development 2031)]

Bathurst Health Service AM 8:15-9:15 AM Site Category: 2031 + Proposed Design Give-Way (Two-Way)

Vehicle I	Novem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		k Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	t: Durha	m Street													
21	L2	All MCs	18	5.9	18	5.9	0.226	12.0	LOS A	0.2	1.2	0.09	0.13	0.09	53.9
22	T1	All MCs	371	6.0	371	6.0	0.226	0.7	LOS A	0.2	1.2	0.09	0.13	0.09	55.8
23	R2	All MCs	7	14.3	7	14.3	0.226	15.2	LOS B	0.2	1.2	0.09	0.13	0.09	46.9
23u	U	All MCs	1	0.0	1	0.0	0.226	20.2	LOS B	0.2	1.2	0.09	0.13	0.09	53.9
Approach			397	6.1	397	6.1	0.226	1.5	NA	0.2	1.2	0.09	0.13	0.09	55.5
NorthEast	: Comm	onwealth St	treet												
24	L2	All MCs	23	0.0	23	0.0	0.539	17.2	LOS B	0.8	5.4	0.92	1.07	1.31	10.6
25	T1	All MCs	9	0.0	9	0.0	0.539	30.7	LOS C	0.8	5.4	0.92	1.07	1.31	10.6
26	R2	All MCs	59	1.8	59	1.8	0.539	40.0	LOS C	0.8	5.4	0.92	1.07	1.31	16.4
Approach			92	1.1	92	1.1	0.539	33.3	LOS C	0.8	5.4	0.92	1.07	1.31	14.6
NorthWes	t: Durha	m Street													
27	L2	All MCs	100	1.1	100	1.1	0.533	6.8	LOS A	0.6	4.0	0.11	0.18	0.15	45.1
28	T1	All MCs	852	1.4	852	1.4	0.533	0.4	LOS A	0.6	4.0	0.11	0.18	0.15	49.9
29	R2	All MCs	58	0.0	58	0.0	0.533	8.0	LOS A	0.6	4.0	0.11	0.18	0.15	49.9
Approach			1009	1.3	1009	1.3	0.533	1.5	NA	0.6	4.0	0.11	0.18	0.15	49.0
SouthWes	st: Comr	nonwealth S	Street												
30	L2	All MCs	26	0.0	26	0.0	0.379	9.2	LOS A	0.5	3.7	0.82	1.00	1.07	24.9
31	T1	All MCs	9	11.1	9	11.1	0.379	39.7	LOS C	0.5	3.7	0.82	1.00	1.07	24.6
32	R2	All MCs	39	2.7	39	2.7	0.379	34.0	LOS C	0.5	3.7	0.82	1.00	1.07	20.9
32u	U	All MCs	1	0.0	1	0.0	0.379	9.8	LOS A	0.5	3.7	0.82	1.00	1.07	20.9

Approach	76	2.8	76	2.8	0.379	25.8	LOS B	0.5	3.7	0.82	1.00	1.07	22.9
All Vehicles	1574	2.5	1574	2.5	0.539	4.5	NA	0.8	5.4	0.19	0.26	0.25	41.9

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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W Site: 101 [Durham St & Mitre St (Site Folder: Post-Dev - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Bathurst Health Service PM 15:15-16:15 Site Category: 2031 + Proposed Design Roundabout

Vehicle	Movem	ent Perfor	mance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	t: Durha	m Street													
21	L2	All MCs	129	1.6	129	1.6	0.136	5.8	LOS A	0.4	2.5	0.36	0.51	0.36	52.1
22	T1	All MCs	661	3.8	661	3.8	0.453	5.4	LOS A	1.7	12.5	0.41	0.46	0.41	51.4
23	R2	All MCs	11	0.0	11	0.0	0.453	9.0	LOS A	1.7	12.5	0.41	0.46	0.41	49.7
23u	U	All MCs	9	11.1	9	11.1	0.453	11.1	LOS A	1.7	12.5	0.41	0.46	0.41	53.3
Approach	I		811	3.5	811	3.5	0.453	5.6	LOS A	1.7	12.5	0.40	0.46	0.40	51.6
NorthEas	t: Mitre S	Street													
24	L2	All MCs	14	0.0	14	0.0	0.030	12.3	LOS A	0.1	0.6	0.86	0.73	0.86	45.3
25	T1	All MCs	29	0.0	29	0.0	0.062	9.7	LOS A	0.2	1.3	0.88	0.72	0.88	27.1
26	R2	All MCs	12	0.0	12	0.0	0.062	13.2	LOS A	0.2	1.3	0.88	0.72	0.88	27.1
26u	U	All MCs	1	0.0	1	0.0	0.062	14.8	LOS B	0.2	1.3	0.88	0.72	0.88	32.3
Approach	l		56	0.0	56	0.0	0.062	11.2	LOS A	0.2	1.3	0.88	0.72	0.88	35.9
NorthWes	st: Durha	m Street													
27	L2	All MCs	6	0.0	6	0.0	0.009	7.1	LOS A	0.0	0.1	0.56	0.54	0.56	41.1
28	T1	All MCs	552	3.1	552	3.1	0.519	6.9	LOS A	2.0	14.1	0.74	0.60	0.74	50.2
29	R2	All MCs	49	0.0	49	0.0	0.519	10.5	LOS A	2.0	14.1	0.74	0.60	0.74	37.1
29u	U	All MCs	1	0.0	1	0.0	0.519	12.4	LOS A	2.0	14.1	0.74	0.60	0.74	37.1
Approach	l		608	2.8	608	2.8	0.519	7.3	LOS A	2.0	14.1	0.74	0.60	0.74	49.8
SouthWe	st: Mitre	Street													
30	L2	All MCs	88	1.2	88	1.2	0.175	11.8	LOS A	0.5	3.2	0.82	0.75	0.82	29.2
31	T1	All MCs	23	0.0	23	0.0	0.359	9.3	LOS A	1.1	8.2	0.88	0.74	0.88	34.1
32	R2	All MCs	253	2.5	253	2.5	0.359	13.1	LOS A	1.1	8.2	0.88	0.74	0.88	45.2

■ Network: N101 [PM (Network Folder: Proposed Development 2031)]

32	u	U	All MCs	1	0.0	1	0.0	0.359	14.4	LOS A	1.1	8.2	0.88	0.74	0.88	29.5
Ар	proach			365	2.0	365	2.0	0.359	12.6	LOS A	1.1	8.2	0.87	0.74	0.87	42.9
All	Vehicles			1840	2.9	1840	2.9	0.519	7.7	LOS A	2.0	14.1	0.62	0.57	0.62	48.7

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: 102 [Howick St & Mitre St (Site Folder: Post-Dev - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Proposed Development 2031)]

Bathurst Health Service PM 15:15-16:15 Site Category: 2031 + Proposed Design Roundabout

Vehicle	Movem	ent Perfor	rmance												
Mov	Turn	Mov	Demand		Arrival		Deg.	Aver.	Level of		Of Queue	Prop.	Eff.	Aver.	Aver.
ID		Class	[Total	HV]	[Total	HV]	Satn	Delay	Service	[Veh.	Dist]	Que	Stop Rate	No. of	Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			Cycles	km/h
SouthEas	st: Howic	k Street													
21	L2	All MCs	55	0.0	55	0.0	0.054	5.4	LOS A	0.1	0.9	0.48	0.54	0.48	46.9
22	T1	All MCs	72	0.0	72	0.0	0.083	4.9	LOS A	0.2	1.4	0.46	0.53	0.46	45.1
23	R2	All MCs	33	0.0	33	0.0	0.083	8.6	LOS A	0.2	1.4	0.46	0.53	0.46	45.1
23u	U	All MCs	1	0.0	1	0.0	0.083	10.0	LOS A	0.2	1.4	0.46	0.53	0.46	46.5
Approach	ı		160	0.0	160	0.0	0.083	5.9	LOS A	0.2	1.4	0.47	0.54	0.47	45.9
NorthEas	t: Mitre S	Street													
24	L2	All MCs	17	0.0	17	0.0	0.018	4.8	LOS A	0.0	0.3	0.38	0.46	0.38	46.6
25	T1	All MCs	167	0.0	167	0.0	0.159	4.3	LOS A	0.5	3.2	0.35	0.46	0.35	44.6
26	R2	All MCs	60	1.8	60	1.8	0.159	8.1	LOS A	0.5	3.2	0.35	0.46	0.35	37.4
26u	U	All MCs	1	0.0	1	0.0	0.159	9.4	LOS A	0.5	3.2	0.35	0.46	0.35	37.4
Approach	ı		245	0.4	245	0.4	0.159	5.3	LOS A	0.5	3.2	0.36	0.46	0.36	43.9
NorthWes	st: Howic	k Street													
27	L2	All MCs	49	6.4	49	6.4	0.050	5.7	LOS A	0.1	0.9	0.51	0.54	0.51	38.2
28	T1	All MCs	39	2.7	39	2.7	0.063	5.0	LOS A	0.2	1.2	0.49	0.55	0.49	45.4
29	R2	All MCs	37	5.7	37	5.7	0.063	8.9	LOS A	0.2	1.2	0.49	0.55	0.49	43.4
29u	U	All MCs	1	0.0	1	0.0	0.063	10.1	LOS A	0.2	1.2	0.49	0.55	0.49	36.3
Approach	ı		126	5.0	126	5.0	0.063	6.5	LOS A	0.2	1.2	0.49	0.55	0.49	43.3
SouthWe	st: Mitre	Street													
30	L2	All MCs	41	2.6	41	2.6	0.047	5.6	LOS A	0.1	0.8	0.44	0.52	0.44	44.7
31	T1	All MCs	182	2.3	182	2.3	0.161	4.6	LOS A	0.4	3.1	0.41	0.47	0.41	43.1
32	R2	All MCs	28	7.4	28	7.4	0.161	8.3	LOS A	0.4	3.1	0.41	0.47	0.41	46.2

32u	U	All MCs	5	0.0	5	0.0	0.161	10.0	LOS A	0.4	3.1	0.41	0.47	0.41	45.7
Approa	ach		257	2.9	257	2.9	0.161	5.3	LOS A	0.4	3.1	0.41	0.48	0.41	44.1
All Veh	nicles		788	1.9	788	1.9	0.161	5.6	LOS A	0.5	3.2	0.42	0.50	0.42	44.4

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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V Site: 104v [Howick St & Commonwealth St (Site Folder: Post-Dev - PM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Proposed Development 2031)]

Bathurst Health Service PM 15:15-16:15 Site Category: 2031 + Proposed Design Give-Way (Two-Way)

Vehicle	Movem	ent Perforr	nance												
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	Aver. Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			- 3	km/h
SouthEas	st: Howic	k Street													
21	L2	All MCs	21	0.0	21	0.0	0.061	5.7	LOS A	0.1	0.7	0.11	0.32	0.11	35.2
22	T1	All MCs	53	4.0	53	4.0	0.061	0.1	LOS A	0.1	0.7	0.11	0.32	0.11	51.0
23	R2	All MCs	38	0.0	38	0.0	0.061	5.6	LOS A	0.1	0.7	0.11	0.32	0.11	48.1
23u	U	All MCs	1	0.0	1	0.0	0.061	7.0	LOS A	0.1	0.7	0.11	0.32	0.11	48.1
Approach	ı		113	1.9	113	1.9	0.061	3.1	NA	0.1	0.7	0.11	0.32	0.11	46.6
NorthEas	t: Comm	onwealth Str	reet												
24	L2	All MCs	34	3.1	34	3.1	0.046	5.7	LOS A	0.1	0.5	0.16	0.53	0.16	42.8
25	T1	All MCs	18	0.0	18	0.0	0.046	5.3	LOS A	0.1	0.5	0.16	0.53	0.16	31.1
26	R2	All MCs	8	0.0	8	0.0	0.046	6.3	LOS A	0.1	0.5	0.16	0.53	0.16	33.2
Approach	ı		60	1.8	60	1.8	0.046	5.7	LOS A	0.1	0.5	0.16	0.53	0.16	36.7
NorthWe	st: Howic	k Street													
27	L2	All MCs	5	0.0	5	0.0	0.026	5.5	LOS A	0.0	0.0	0.01	0.07	0.01	53.5
28	T1	All MCs	45	7.0	45	7.0	0.026	0.0	LOS A	0.0	0.0	0.01	0.07	0.01	53.5
29	R2	All MCs	1	0.0	1	0.0	0.026	5.6	LOS A	0.0	0.0	0.01	0.07	0.01	24.9
Approach	ı		52	6.1	52	6.1	0.026	0.7	NA	0.0	0.0	0.01	0.07	0.01	52.0
West: Co	mmonwe	ealth Street													
10b	L3	All MCs	1	0.0	1	0.0	0.044	4.2	LOS A	0.1	0.4	0.22	0.49	0.22	21.8
10a	L1	All MCs	16	0.0	16	0.0	0.044	2.7	LOS A	0.1	0.4	0.22	0.49	0.22	27.0
12a	R1	All MCs	24	8.7	24	8.7	0.044	3.2	LOS A	0.1	0.4	0.22	0.49	0.22	27.0
12b	R3	All MCs	5	0.0	5	0.0	0.044	3.6	LOS A	0.1	0.4	0.22	0.49	0.22	13.5

Approach	46	4.5	46	4.5	0.044	3.1	LOS A	0.1	0.4	0.22	0.49	0.22	22.9
All Vehicles	271	3.1	271	3.1	0.061	3.2	NA	0.1	0.7	0.12	0.35	0.12	42.0

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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V Site: 105v [Durham St & Commonwalth St (Site Folder: Post-Dev - PM)] Output produced by SIDRA INTERSECTION Version: 9.1.5.224

■ Network: N101 [PM (Network Folder: Proposed Development 2031)]

Bathurst Health Service PM 15:15-16:15 Site Category: 2031 + Proposed Design Give-Way (Two-Way)

Vehicle	Movem	ent Perforr	mance												
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	Aver. Back [Veh.	c Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
SouthEas	t: Durha	m Street													
21	L2	All MCs	38	2.8	38	2.8	0.402	6.9	LOS A	0.1	0.9	0.04	0.08	0.05	57.2
22	T1	All MCs	715	3.5	715	3.5	0.402	0.2	LOS A	0.1	0.9	0.04	0.08	0.05	58.1
23	R2	All MCs	12	0.0	12	0.0	0.402	9.1	LOS A	0.1	0.9	0.04	0.08	0.05	50.1
23u	U	All MCs	1	0.0	1	0.0	0.402	13.1	LOS A	0.1	0.9	0.04	0.08	0.05	57.2
Approach			765	3.4	765	3.4	0.402	0.6	NA	0.1	0.9	0.04	0.08	0.05	57.9
NorthEas	t: Comm	onwealth Str	reet												
24	L2	All MCs	41	7.7	41	7.7	0.462	11.3	LOS A	0.7	5.2	0.86	1.04	1.20	13.8
25	T1	All MCs	12	0.0	12	0.0	0.462	25.8	LOS B	0.7	5.2	0.86	1.04	1.20	13.8
26	R2	All MCs	58	0.0	58	0.0	0.462	31.9	LOS C	0.7	5.2	0.86	1.04	1.20	20.3
Approach			111	2.9	111	2.9	0.462	23.6	LOS B	0.7	5.2	0.86	1.04	1.20	17.6
NorthWes	st: Durha	m Street													
27	L2	All MCs	67	0.0	67	0.0	0.346	7.6	LOS A	0.2	1.6	0.11	0.19	0.11	45.0
28	T1	All MCs	542	3.1	542	3.1	0.346	0.4	LOS A	0.2	1.6	0.11	0.19	0.11	49.4
29	R2	All MCs	24	0.0	24	0.0	0.346	10.3	LOS A	0.2	1.6	0.11	0.19	0.11	49.4
Approach			634	2.7	634	2.7	0.346	1.6	NA	0.2	1.6	0.11	0.19	0.11	48.6
SouthWe	st: Comr	nonwealth S	street												
30	L2	All MCs	42	0.0	42	0.0	0.302	10.2	LOS A	0.4	2.9	0.79	0.96	0.95	28.4
31	T1	All MCs	5	0.0	5	0.0	0.302	23.0	LOS B	0.4	2.9	0.79	0.96	0.95	28.4
32	R2	All MCs	32	3.3	32	3.3	0.302	31.7	LOS C	0.4	2.9	0.79	0.96	0.95	24.6
32u	U	All MCs	1	0.0	1	0.0	0.302	8.3	LOS A	0.4	2.9	0.79	0.96	0.95	24.6

Approach	80	1.3	80	1.3	0.302	19.5	LOS B	0.4	2.9	0.79	0.96	0.95	27.0
All Vehicles	1589	3.0	1589	3.0	0.462	3.6	NA	0.7	5.2	0.16	0.23	0.20	46.8

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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NETWORK LAYOUT

■■ Network: N101 [Layout (Network Folder: Existing Site)]

New Network Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN I	NETWORK	
Site ID	CCG ID	Site Name
₩ 101	NA	Durham St & Mitre St
₩ 102	NA	Howick St & Mitre St
▽ 103v	NA	Howick St & Daly St
▽ 104v	NA	Howick St & Commonwealth St
▽ 105v	NA	Durham St & Commonwalth St

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com Organisation: TAYLOR THOMSON WHITTING | Licence: NETWORK / 1PC | Created: Tuesday, 27 February 2024 9:41:35 AM Project: P:\2022\2219\2219\46\Reports\TTW\Modelling\Bathurst - no Daly st.sip9

Appendix E

Turnover Study



ABN 18 434 565 435 3 Hepburn Way * Caroline Springs * Victoria * 3023 * Australia Phone: 1300 883 936 * Fax: 1300 882 932

Parking Occupancy Survey

Weather Fine Area Bathurst Hospital

• All Streets Street

	Tuesday, 18 July 2023				Average	0.9	4.6	3.5	8.1	33%
Date	Tuesuay, 10 July 2023				Average	(cars per space)	(hours)		(hours per unique car)	(percent)
Area	Street	Section	Side	Restriction	Supply	Turn-over	· · · /		Max Duration of Stay	
Bathurst Hospital	Hospital Parking - Access From Howick S	Emergency Area Parking		Emergency Dropoff Zone & Patient Pickup Zone	0	0.5	0.5	0.3	1.0	4%
Bathurst Hospital		Emergency Area Parking	On/Off		10	4.0	12.4	3.3	7.0	89%
Bathurst Hospital		Emergency Area Parking		Disabled Unrestricted	28	0.0 4.3	0.0 12.9	0.0 4.5	0.0	0% 92%
Bathurst Hospital Bathurst Hospital		Emergency Area Parking Emergency Area Parking		Disabled	20	<u>4.3</u> 3.0	8.2	4.5 2.2	7.0	<u>92%</u> 59%
Bathurst Hospital		Emergency Area Parking		Loading Zone	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Emergency Area Parking		Community And Mental Health Vechiles Only	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Rural Clinical School Parking	On/Off		11	2.1	12.0	6.7	14.0	86%
Bathurst Hospital		Rural Clinical School Parking		Disabled	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital	Useritel Darking Assess From Osmanau	Cancer Care Parking		Unrestricted	6	0.8	2.7	2.0	8.0	19%
Bathurst Hospital Bathurst Hospital	Hospital Parking - Access From Commonw	Gwahs Fleet Vechiles Only Gwahs Fleet Vechiles Only		Unrestricted Loading Zone	40	<u>1.1</u> 0.7	7.8	6.3 4.6	14.0 13.0	56% 34%
Bathurst Hospital	Hospital Parking - Access From Mitre St	Gwahs Fleet Vechiles Only		Unrestricted (Open Area)	103	1.6	9.4	6.6	14.0	67%
Bathurst Hospital		Gwahs Fleet Vechiles Only		3P (Undercover, Open-Public)	35	1.4	7.7	5.7	14.0	55%
Bathurst Hospital		Gwahs Fleet Vechiles Only		Disabled	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Gwahs Fleet Vechiles Only		Restricted Parking (Undercover)	53	0.9	6.0	5.5	14.0	43%
Bathurst Hospital		Gwahs Fleet Vechiles Only	On/Off	Disabled	2	0.0	0.0	0.0	0.0	0%
On Street Parking	Commonwealth St	Russell St To Howick St	N	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Russell St To Howick St Russell St To Howick St	N	Unrestricted	15	0.6	5.7 0.0	5.7 0.0	14.0 0.0	41% 0%
On Street Parking On Street Parking		Howick St To Durham St	N	No Stopping No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Howick St To Durham St	N	Unrestricted	21	1.0	7.9	7.0	12.0	56%
On Street Parking		Howick St To Durham St	N	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Durham St To Morrisset St	N	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Durham St To Morrisset St	N	Unrestricted	23	0.0	0.0	0.0	0.0	0%
On Street Parking		Morrisset St To Short St	S	Unrestricted	8	0.0	0.0	0.0	0.0	0%
On Street Parking On Street Parking		Short St To Durham St Short St To Durham St	S S	Unrestricted No Stopping	10	0.5	2.5 0.0	<u>1.7</u> 0.0	10.0 0.0	18% 0%
On Street Parking		Durham St To Howick St	<u> </u>	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Durham St To Howick St	S	Unrestricted	7	1.1	10.7	10.1	14.0	77%
On Street Parking		Durham St To Howick St	S	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Durham St To Howick St	S	Unrestricted	8	1.4	9.8	7.7	11.0	70%
On Street Parking		Durham St To Howick St	S	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Durham St To Howick St	S	Unrestricted	5	1.8	9.4	6.9	11.0	67%
On Street Parking On Street Parking	Kelley Cres	Howick St To Russell St Russell St To Howick St	S N	No Stopping No Parking	0	0.0	0.0	0.0	0.0	0% 0%
On Street Parking	Kelley Cres	Howick St To Russell St	S	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Howick St To Russell St	S	Unrestricted	15	0.9	3.3	2.6	9.0	23%
On Street Parking		Howick St To Russell St	S	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking	Mitre St	Russell St To Howick St	N	Unrestricted	18	1.2	8.9	7.4	13.0	64%
On Street Parking		Howick St To Durham St	N	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Howick St To Durham St	N	Unrestricted	5	2.0	7.8	5.3	7.0	56%
On Street Parking On Street Parking		Howick St To Durham St Howick St To Durham St	N	No Stopping Unrestricted	4	0.0	0.0 7.0	0.0 7.0	0.0 7.0	0% 50%
On Street Parking		Howick St To Durham St	N	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Howick St To Durham St	N	Unrestricted	6	1.2	9.2	8.3	10.0	65%
On Street Parking		Durham St To Clu Da Sec	N	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Durham St To Clu Da Sec	N	Unrestricted	15	0.7	2.5	1.9	8.0	18%
On Street Parking		Clu Da Sect To Durham St	S	Unrestricted	3	0.0	0.0	0.0	0.0	0%
On Street Parking On Street Parking		Clu Da Sect To Durham St Clu Da Sect To Durham St	<u> </u>	Unrestricted 90D Angle Parking Unrestricted	15	2.3 0.8	8.1 1.8	4.3 1.3	13.0 3.0	58% 13%
On Street Parking On Street Parking		Durham St To Howick St	<u> </u>	No Stopping		0.8	0.0	0.0	<u>3.0</u> 0.0	0%
On Street Parking		Durham St To Howick St	S	Unrestricted 45D Angle Parking	37	1.4	9.6	7.9	12.0	68%
On Street Parking		Durham St To Howick St	S	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Howick St To Russell St	S	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Howick St To Russell St	S	Unrestricted	18	0.6	4.1	4.1	10.0	29%
On Street Parking	Hope St	Russell St To Howick St	N	Unrestricted	24	0.3	1.2	1.0	9.0	8%
On Street Parking On Street Parking		Howick St To Durham St Durham St To Loftus St	N C	Unrestricted Unrestricted	28	0.9 0.5	2.9 1.4	1.5 1.1	8.0 8.0	20% 10%
On Street Parking		Loftus St To Howick St	<u> </u>	Unrestricted	10	0.5	0.2	0.2	2.0	1%
On Street Parking		Howick St To Russell St	S	Unrestricted	24	0.3	0.2	0.2	10.0	6%
On Street Parking	Dhuram St	Beddie St To Commonwealth St	E	Unrestricted	12	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	Unrestricted	19	0.7	3.7	2.4	10.0	26%
On Street Parking		Mitre St To Hope St	E	Unrestricted	6	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Hope St	E	Disabled 45D Angle Parking	1	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Hope St		Unrestricted 45D Angle Parking	21	0.6	4.1	4.1	14.0	29%
On Street Parking On Street Parking		Mitre St To Hope St Mitre St To Hope St		No Stopping Unrestricted	0	0.0	0.0	0.0	0.0 3.0	0% 4%
On Street Parking On Street Parking		Mitre St To Hope St Mitre St To Hope St		Bus Zone	٥ ١	0.3	0.6	0.6	0.0	4% 0%
On Street Parking		Hope St To Mitre St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
					, ,				1.0	1%
On Street Parking		Hope St To Mitre St	W	Unrestricted	5	0.2	0.2	0.2	1.0	170

On Street Parking		Hope St To Mitre St	W	Unrestricted 45D Angle Parking	8	0.9	2.8	2.3	8.0	20%
On Street Parking		Hope St To Mitte St	Ŵ	Unrestricted	2	0.0	0.0	0.0	0.0	0%
On Street Parking		Hope St To Mitre St	Ŵ	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Commonwealth St	Ŵ	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Commonwealth St	Ŵ	Unrestricted	25	1.1	6.7	5.4	14.0	48%
On Street Parking		Mitre St To Commonwealth St	W	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Beddie St	W	Unrestricted	12	0.3	1.3	1.3	9.0	10%
On Street Parking	Howick St	Macquarie St To Commonwealth St	E	Unrestricted	14	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	No Parking	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	Disabled	1	2.0	7.0	3.5	6.0	50%
On Street Parking		Commonwealth St To Mitre St	E	No Parking, Daffadil Cottage Authorised Parking	5	2.6	6.8	2.5	6.0	49%
On Street Parking		Commonwealth St To Mitre St	E	2P 8:30Am-8Pm Daffadil Cottage Authorised Parking	5	2.4	8.6	4.9	12.0	61%
On Street Parking		Commonwealth St To Mitre St	E	Loading Zone 8Am-3Pm Mon-Fri; 2P All Other Times	1	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	Disabled	3	1.3	3.3	2.8	5.0	24%
On Street Parking		Commonwealth St To Mitre St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	Bus Zone	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	Unrestricted 45D Angle Parking	9	1.0	9.6	9.6	14.0	68%
On Street Parking		Commonwealth St To Mitre St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Mitre St	E	Unrestricted Parallel Parking	3	1.3	11.7	9.8	12.0	83%
On Street Parking		Commonwealth St To Mitre St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Hope St	E	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Hope St	E	Unrestricted	10	1.2	9.0	8.7	12.0	64%
On Street Parking		Mitre St To Hope St	E	Taxi Zone	0	1.0	1.0	0.5	1.0	7%
On Street Parking		Mitre St To Hope St	E	Unrestricted	16	0.9	5.8	5.6	14.0	41%
On Street Parking		Hope St To Mitre St	W	Unrestricted	23	1.1	8.1	7.2	14.0	58%
On Street Parking		Hope St To Mitre St	W	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Mitre St To Daly St	W	Unrestricted	19	1.3	9.9	9.1	14.0	71%
On Street Parking		Mitre St To Daly St	W	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Daly St To Commomwealth St	W	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Daly St To Commomwealth St	W	Bus Zone	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Daly St To Commomwealth St	W	Unrestricted	6	1.2	8.7	8.0	11.0	62%
On Street Parking		Daly St To Commomwealth St	W	No Stopping	0	0.0	0.0	0.0	0.0	0%
On Street Parking		Commonwealth St To Beddie St	W	Unrestricted	15	0.9	6.0	5.9	14.0	43%
On Street Parking	Daly St	Howick St To Russell St	S	Unrestricted	23	1.0	6.5	6.0	14.0	47%
On Street Parking		Russell St To Howick St	N	Unrestricted	21	0.9	6.4	5.9	14.0	46%
On Street Parking	Russell St	Commonwealth St To Daly St	E	Unrestricted	11	0.0	0.0	0.0	0.0	0%
On Street Parking		Daly St To Mitre St	E	Unrestricted	11	0.2	1.0	1.0	10.0	7%
On Street Parking		Mitre St To Hope St	E	Unrestricted	22	0.1	0.4	0.4	5.0	3%
On Street Parking		Hope St To Mitre St	W	Unrestricted	20	0.2	1.0	1.0	9.0	7%
On Street Parking		Mitre St To Commonwealth St	W	Unrestricted	24	0.2	2.6	2.6	14.0	18%



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Parking Occupancy Survey																			
Weather	Fine																		
Area	Bathurst Hospital																		
Street	All Streets																		
Date Area	Tuesday, 18 July 2023 Street	Section	Side	Restriction	Supply	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Bathurst Hospital Bathurst Hospital	Hospital Parking - Access From Howick St & Exit From Mitre St	Emergency Area Parking		Emergency Dropoff Zone & Patient Pickup Zone	0	0	1	0	0	0	0	0	1	0	1 9	0	0	0	0
Bathurst Hospital				Disabled	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bathurst Hospital Bathurst Hospital				Unrestricted Disabled	28 5	0	27	4	4	4	<u>26</u> 4	4	28 3	3	25 3	3	3	26	2
Bathurst Hospital Bathurst Hospital				Loading Zone Community and Mental Health Vechiles Only	1 2	0	0 0	0	0 0	0 0	0	0 0	0 0	0	0	0	0	0	0
Bathurst Hospital Bathurst Hospital		Rural Clinical School Parking		3P Disabled	11 2	4 0	11 0	11 0	<u>11</u> 0	11 0	<u>11</u> 0	11 0	11 0	11 0	11 0	<u> </u>	9	5	4
Bathurst Hospital	Hospital Parking - Access From Commonwealth St	Cancer Care Parking Gwahs Fleet Vechiles Only		Unrestricted Unrestricted	6	0	0	1	3	3	2	1	2	3	1	0	0	0	0
Bathurst Hospital Bathurst Hospital				Loading Zone	15	7	5	8	7	6 74	6	6	6	6	6	3	3	2	0
Bathurst Hospital Bathurst Hospital	Hospital Parking - Access From Mitre St			Unrestricted (Open Area) 3P (Undercover, Open-Public)	35	20	45 24	59 22	29	74 25	80 28	88 17	95 15	13	13	23	68 17	13	<u> </u>
Bathurst Hospital Bathurst Hospital				Disabled Restricted Parking (Undercover)	1 53	0 11	0 17	0 10	0 16	0 16	0 25	0 24	0 31	0 31	0 31	0 35	0 28	<u> </u>	0 17
Bathurst Hospital On Street Parking	Commonwealth St	Russell St To Howick St		Disabled No Stopping	2 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking				Unrestricted	15	4	7	8	8	8	8	7	7	7	6	6	4	3	3
On Street Parking On Street Parking On Street Parking On Street Parking		Howick St To Durham St	Ν	No Stopping No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking				Unrestricted No Stopping	0	0	0	0	0	0	0	0	17 0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking On Street Parking		Durham St To Morrisset St	N	No Stopping Unrestricted	0 23	0 0	0	0	0 0	0 0	0	0	0 0	0	0	0 0	0	0	0
On Street Parking On Street Parking		Morrisset St To Short St Short St To Durham St	S S	Unrestricted Unrestricted	8 10	0	0	0 2	0 3	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 3	0	0
On Street Parking On Street Parking On Street Parking		Durham St To Howick St	S	No Stopping No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking				Unrestricted No Stopping	7	4	7	7	7	7	7	7	4	4	4	5	4	4	4
On Street Parking				Unrestricted	8	6	7	7	8	8	8	8	8	7	5		2		0
On Street Parking On Street Parking On Street Parking				No Stopping Unrestricted	5	4	5	5	5	3	5	4	0 5	5	0 3	2	U 1	0	0
On Street Parking	Kelley Cres	Howick St To Russell St Russell St To Howick St	N	No Stopping No Parking	0 0	0	0	0	0	0	0	0	0 0	0	0	0 0	0	0	0
On Street Parking On Street Parking		Howick St To Russell St	S	No Stopping Unrestricted	0 15	0	0	0 3	0 9	0 6	0 7	0 5	0 6	0 4	0 4	0 2	0	0	0
On Street Parking	Mitre St	Russell St To Howick St	N	No Stopping Unrestricted	0	0	0	0	0	0	0 16	0	0 14	0 14	0	0	0	0	0
On Street Parking On Street Parking On Street Parking		Howick St To Durham St	N	No Stopping Unrestricted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking				No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking				Unrestricted No Stopping	4 0	0	0	0	4 0	4	4 0	4 0	4	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking		Durham St To Clu Da Sec	Ν	Unrestricted No Stopping	6 0	2 0	3 0	3 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	<u> </u>	2 0	0	0
On Street Parking		Clu Da Sect To Durham St	S	Unrestricted Unrestricted	15 3	1 0	<u>1</u> 0	1 0	<u>4</u> 0	4 0	7 0	6 0	5 0	2 0	2	4 0	0	0	0
On Street Parking On Street Parking On Street Parking			S	Unrestricted 90D Angle Parking Unrestricted	15	6	7	7	11	12 0	13 0	11 0	10	7	7	7	10	8	6
On Street Parking		Durham St To Howick St	S	No Stopping Unrestricted 45D Angle Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking		Howick St To Russell St		No Stopping No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking				Unrestricted	18	2	4	6	9	9	11	9	9	5	5	2	2	0	0
On Street Parking On Street Parking	Hope St	Russell St To Howick St Howick St To Durham St	N N	Unrestricted Unrestricted	24 28	0 4	0 5	3 6	3 8	2 9	4 11	3 7	5 8	3 4	3 6	2 5	0 5	<u> </u>	0
On Street Parking On Street Parking		Durham St To Loftus St Loftus St To Howick St	S S	Unrestricted Unrestricted	10 10	0 0	0 0	1	3 1	2 0	2 0	1 0	2 0	1 0	2 0	0 0	0	<u> 0 </u>	0
On Street Parking On Street Parking On Street Parking	Dhuram St	Howick St To Russell St Beddie St To Commonwealth St	S E	Unrestricted Unrestricted	24 12	0	0 0	1 0	3 0	1 0	<u>3</u> 0	2 0	3 0	2 0	2 0	2 0	2 0	0	0
On Street Parking		Commonwealth St To Mitre St Mitre St To Hope St	E	Unrestricted Unrestricted	19 6	2 0	5 0	7 0	7 0	7 0	7 0	7 0	8 0	6 0	6 0	6 0	1 0	0	0
On Street Parking On Street Parking On Street Parking				Disabled 45D Angle Parking Unrestricted 45D Angle Parking	1 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking				No Stopping Unrestricted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking				Bus Zone	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking		Hope St To Mitre St	VV	No Stopping Unrestricted	5	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking				No Stopping Unrestricted 45D Angle Parking	0 8	0	0	0	0 2	0 2	0 4	0 2	0 3	0 2	03	0 4	0	0	0
On Street Parking On Street Parking				Unrestricted	2 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking		Mitre St To Commomwealth St	W	No Stopping No Stopping Unrestricted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking		Commonwealth St To Beddie St	10/	No Stopping Unrestricted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking	Howick St	Macquarie St To Commonwealth St Commonwealth St To Mitre St	E	Unrestricted	12	0	0	0	0	0	0	0	0	0	0	0	0		0
On Street Parking On Street Parking On Street Parking		Commonwealth St To Mitre St	E	No Stopping No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking				Disabled No Parking, Daffadil Cottage Authorised Parking	1 5	1 2	1 2	1 4	1 5	1 3	<u>1</u> 4	0	0 4	<u>1</u> 4	03	0 1	0	0	0
On Street Parking				No Parking, Daffadil Cottage Authorised Parking 2P 8:30am-8pm Daffadil Cottage Authorised Parking Loading Zone 8am-3pm Mon-Fri; 2P All Other Times	5	<u>3</u> 0	4 0	5 0	5 0	3 0	<u>5</u> 0	3 0	5 0	<u>5</u> 0	3 0	1 0	1 0	0	0
On Street Parking On Street Parking				Disabled	3	0	0	0	1	1	2	1 0	3	2	0	0	0	0	0
On Street Parking On Street Parking				No Stopping Bus Zone No Stopping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking				Unrestricted 45D Angle Parking	9	4	8	9	9	9	9	9	9	7	6	2	2	2	<u> </u>
On Street Parking On Street Parking On Street Parking				No Stopping Unrestricted Parallel Parking	3	3	3	3	3	3	3	2	3	3	3	3	3	0	0
On Street Parking On Street Parking On Street Parking		Mitre St To Hope St	E	No Stopping No Stopping	0 0	0	0 0	0	0 0	0 0	0	0 0	0 0	0	0	0	0	0	0
On Street Parking				Unrestricted Taxi Zone	10 0	4 0	5 0	7 0	9 0	8 0	8 0	8 0	10 1	<u>9</u> 1	10 0	6 0	5 0	<u> </u>	0
On Street Parking On Street Parking		Hope St To Mitre St	W	Unrestricted Unrestricted	16	6	6 13	9 17	9	8 17	12 19	9 17	10 19	6 17	6 17	5	4	1	1
On Street Parking		Mitre St To Daly St		No Stopping Unrestricted	0	0	0	0	0	0	0	0	0	0 10	0	0	0	0	
On Street Parking On Street Parking				No Stopping No Stopping	0	<u> </u>	0	0	0	0	0	0	0	0	0	0	0	0	0
On Street Parking On Street Parking On Street Parking		Daly St To Commomwealth St	W	Bus Zone	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0
On Street Parking				Unrestricted No Stopping	6 0	0	3 0	5 0	6 0	6 0	6 0	6 0	6 0	6 0	4 0	3	1 0	0	0
On Street Parking	Daly St	Commonwealth St To Beddie St Howick St To Russell St	W S	Unrestricted Unrestricted	15 23	6 4	6 8	8	10 15	8 14	10 15	8	8 16	6 13	6 15	4 9	4 8	4	2 2
On Street Parking On Street Parking On Street Parking	Russell St	Russell St To Howick St Commonwealth St To Daly St	N F	Unrestricted Unrestricted	21	3	7	12 0	13 0	13 0	15 0	12 0	14 0	13 0	13 0	7	6 0	3	3
On Street Parking		Daly St To Mitre St	E	Unrestricted Unrestricted	11	0	0	1	1	1	<u> </u>		1	1	1		2		0
On Street Parking On Street Parking		Mitre St To Hope St Hope St To Mitre St	W	Unrestricted	22	0	1	2	2	2	3	3	2 3 -	2	2		0	0	0
On Street Parking		Mitre St To Commonwealth St	W	Unrestricted	24	۷ ا	4	5	5	C	5	5	5	5	5	5	4	4	<u> </u>



Weather	Fine
Area	Bathurst Hospital

Street

Tuesday 18 July 2023 Dato

All Streets

Date	Tuesday	/, 18 July	2023											
	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Parking Supply	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
Parking Occupancy	280	383	452	525	499	558	511	557	473	470	413	340	231	141
Occupancy Percent	27%	37%	44%	51%	48%	54%	50%	54%	46%	46%	40%	33%	22%	14%

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ABN 18 434 565 435 3 Hepburn Way * Caroline Springs * Victoria * 3023 * Australia Phone: 1300 883 936 * Fax: 1300 882 932

Parking Occupancy Survey

Date	Tuesday, 18 July 2023	
Street	All Streets	•
Area	Bathurst Hospital	
Weather	Fine	

Hours	<= 1h	1h-2h	2h-3h	3h-4h	4h-5h	5h-6h	6h-7h	7h-8h	8h-9h	9h-10h	10h-11h	11h-12h	12h-13h	>13h
Total Turn Over	1058	1058	1058	1058	1058	1058	1058	1058	1058	1058	1058	1058	1058	1058
Vehicles @ DOS	238	113	109	76	51	53	57	75	73	55	40	51	31	36
Percentage	22%	11%	10%	7%	5%	5%	5%	7%	7%	5%	4%	5%	3%	3%



Area	Street	Section	Side	Restriction	Supply	Includes?
athurst Hospital	Hospital Parking - Access From Howick St & Exit From Mitre St	Emergency Area Parking		Emergency Drop Off Zone & Patient Pickup Zone	6	0
				3 Hour Limit	10	0
				Disabled	1	0
				Unrestricted	28	0
				Disabled	5	0
				Loading Zone	1	0
				Community and Mental Health Vechiles Only	2	0
		Rural Clinical School Parking		3 Hour Parking	11	0
				Disabled	2	0
		Cancer Care Parking		Unrestricted	6	0
	Hospital Parking - Access From Commonwealth St	GWAHS Fleet Vechiles Only		Unrestricted	40	0
				Loading Zone	15	0
	Hospital Parking - Access From Mitre St			Unrestricted (Open Area)	103	0
				3 Hour Limit (Undercover, Open To Public)	35	0
				Disabled	1	0
				Restricted Parking (Undercover)	53	0
				Disabled	2	0
n Street Parking	Commonwealth St	Russell St To Howick St	N	No Stopping	1	0
n Street Parking Co				Unrestricted	15	0
				No Stopping	1	0
		Howick St To Durham St	N	No Stopping	1	0
				Unrestricted	21	0
				No Stopping	2	0
		Durham St To Morrisset St	N	No Stopping	1	0
				Unrestricted	23	0
		Morrisset St To Short St	S	Unrestricted	8	0
		Short St To Durham St	S	Unrestricted	10	0
				No Stopping	1	0
		Durham St To Howick St	S	No Stopping	2	0
				Unrestricted	7	0
				No Stopping	3	0
				Unrestricted	8	0
				No Stopping	2	0
				Unrestricted	5	0
		Howick St To Russell St	S	No Stopping	16	0
	Kelley Cres	Russell St To Howick St	N	No Parking	15	0
		Howick St To Russell St	S	No Stopping	2	0

				Unrestricted	15	0
				No Stopping	2	0
l	1itre St	Russell St To Howick St	N	Unrestricted	18	0
		Howick St To Durham St	N	No Stopping	10	0
		Howick St To Duman St		Unrestricted	5	0
					3	0
				No Stopping Unrestricted	4	0
						0
				No Stopping	3	
		Durkers († Te Fré ef De ed	NI	Unrestricted	6	0
		Durham St To Enf of Road	N	No Stopping	3	0
			-	Unrestricted	15	0
		End of road To Durham St	S	Unrestricted	3	0
			S	Unrestricted 90D Angle Parking	15	0
				Unrestricted	5	0
		Durham St To Howick St	S	No Stopping	1	0
				Unrestricted 45D Angle Parking	37	0
				No Stopping	1	0
		Howick St To Russell St		No Stopping	1	0
				Unrestricted	18	0
н	ope St	Russell St To Howick St	N	Unrestricted	24	0
		Howick St To Durham St	N	Unrestricted	28	0
		Durham St To Loftus St	S	Unrestricted	10	0
		Loftus St To Howick St	S	Unrestricted	10	0
		Howick St To Russell St	S	Unrestricted	24	0
D	huram St	Beddie St To Commonwealth St	E	Unrestricted	12	0
		Commonwealth St To Mitre St	E	Unrestricted	19	0
		Mitre St to Hope St	E	Unrestricted	6	0
				Disabled 45D Angle Parking	1	0
				Unrestricted 45D Angle Parking	21	0
				No Stopping	2	0
				Unrestricted	8	0
				Bus Zone	2	0
		Hope St To Mitre St	W	No Stopping	1	0
				Unrestricted	5	0
				No Stopping	1	0
+				Unrestricted 45D Angle Parking	8	0
				Unrestricted	2	0
					2	0
				No Stopping	۷.	U

	Mitre St To Commomwealth St	W	No Stopping	1	0
			Unrestricted	25	0
			No Stopping	1	0
	Commonwealth St To Beddie St	W	Unrestricted	12	0
Howick St	Macquarie St To Commonwealth St	E	Unrestricted	14	0
	Commonwealth St To Mitre St	E	No Stopping	1	0
			No Parking	1	0
			Disabled	1	0
			No Parking, Daffadil Cottage Authorised Parking	5	0
			2P 8:30am-8pm Daffadil Cottage Authorised Parking	5	0
			Loading Zone 8am-3pm Mon-Fri; 2P All Other Times	1	0
			Disabled	3	0
			No Stopping	1	0
			Bus Zone	3	0
			No Stopping	1	0
			Unrestricted 45D Angle Parking	9	0
			No Stopping	1	0
			Unrestricted Parallel Parking	3	0
			No Stopping	1	0
	Mitre St to Hope St	E	No Stopping	1	0
			Unrestricted	10	0
			Taxi Zone	2	0
			Unrestricted	16	0
	Hope St To Mitre St	W	Unrestricted	23	0
			No Stopping	1	0
	Mitre St To Daly St	W	Unrestricted	19	0
			No Stopping	2	0
	Daly St To Commomwealth St	W	No Stopping	1	0
			Bus Zone	2	0
			Unrestricted	6	0
			No Stopping	1	0
	Commonwealth St To Beddie St	W	Unrestricted	15	0
Daly St	Howick St To Russell St	S	Unrestricted	23	0
	Russell St To Howick St	N	Unrestricted	21	0
Russell St	Commonwealth St To Daly St	E	Unrestricted	11	0
	Daly St To Mitre St	E	Unrestricted	11	0
	Mitre St to Hope St	E	Unrestricted	22	0
	Hope St To Mitre St	W	Unrestricted	20	0
	Mitre St To Commonwealth St	W	Unrestricted	24	0



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Weather	Fine
Area	Bathurst Hospital
Street	All Streets

Date	Tuesday, 12 December 2023				Average	0.5	2.9	2.3	5.3	21%
Date	Tuesuay, 12 December 2023				Average				(hours per unique car)	(percent)
Area	Street	Section	Side	Restriction	Supply	(cars per space) Turn-over	(hours) Total Hours Occupied		Max Duration of Stay	· · · · · · · · · · · · · · · · · · ·
Bathurst Hospital	Hospital Parking - Acess From Howick St &	Emergency Area Parking	01010	Emergency Drop Off Zone & Patient Pickup Zone	6	1.0	1.0	0.7	1.0	7%
Bathurst Hospital		Emergency Area Parking		3P	10	5.4	11.0	2.3	9.0	79%
Bathurst Hospital		Emergency Area Parking		Disabled	1	1.0	1.0	1.0	1.0	7%
Bathurst Hospital		Emergency Area Parking		Unrestricted	28	3.7	9.0	2.3	10.0	64%
Bathurst Hospital		Emergency Area Parking		Disabled	5	1.8	9.4	6.5	11.0	67%
Bathurst Hospital		Emergency Area Parking		Loading Zone Community And Mental Health Vechiles - Only	1	1.0	1.0 8.5	1.0	1.0 10.0	7% 61%
Bathurst Hospital Bathurst Hospital		Emergency Area Parking Rural Clinical School Parking			<u> </u>	<u>1.5</u> 2.6	10.0	<u>6.8</u> 5.3	14.0	71%
Bathurst Hospital		Rural Clinical School Parking		Disabled	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Cancer Care Parking		Unrestricted	6	0.8	4.8	4.8	10.0	35%
Bathurst Hospital	Hospital Parking - Acess From Commonwea	Gwahs Fleet Vechiles Only		Unrestricted	40	1.1	5.7	3.7	14.0	41%
Bathurst Hospital		Gwahs Fleet Vechiles Only		Loading Zone	15	0.0	0.0	0.0	0.0	0%
Bathurst Hospital	Hospital Parking - Acess From Mitre St	Gwahs Fleet Vechiles Only		Unrestricted (Open Area)	103	1.3	10.9	9.3	14.0	78%
Bathurst Hospital		Gwahs Fleet Vechiles Only		3P (Undercover)	35	1.5	7.2	4.6	14.0	52%
Bathurst Hospital		Gwahs Fleet Vechiles Only		Disabled	1	1.0	1.0	1.0	1.0	7%
Bathurst Hospital		Gwahs Fleet Vechiles Only		Unrestricted (Undercover)	53	1.4	8.1	4.6	14.0	58%
Bathurst Hospital	Commonwealth St	Gwahs Fleet Vechiles Only Russell St To Howick St	N	Disabled	2	0.0	0.0	0.0	0.0	<u> </u>
Bathurst Hospital Bathurst Hospital	Commonwealth St	Russell St To Howick St	<u>N</u>	No Stopping Unrestricted	15	0.0	0.0 5.5	0.0 5.2	0.0 12.0	39%
Bathurst Hospital		Russell St To Howick St	N	No Stopping	15	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Durham St	N	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Durham St	N	Unrestricted	21	1.1	9.7	8.8	14.0	69%
Bathurst Hospital		Howick St To Durham St	N	No Stopping	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To Morrisset St	Ν	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To Morrisset St	Ν	Unrestricted	23	0.2	0.7	0.3	8.0	5%
Bathurst Hospital		Morrisset St To Short St	S	Unrestricted	8	0.3	1.4	1.4	7.0	10%
Bathurst Hospital		Short St To Durham St	S	Unrestricted	10	0.1	1.3	1.3	13.0	9%
Bathurst Hospital		Short St To Durham St	S	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To Howick St Durham St To Howick St	S	No Stopping Unrestricted	2	0.0	0.0 10.4	0.0 8.7	0.0	0% 74%
Bathurst Hospital Bathurst Hospital		Durham St To Howick St	<u> </u>	No Stopping	3	<u> </u>	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To Howick St	<u> </u>	Unrestricted	8	1.1	10.4	9.6	13.0	74%
Bathurst Hospital		Durham St To Howick St	S	No Stopping	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To Howick St	S	Unrestricted	5	1.4	9.8	7.7	10.0	70%
Bathurst Hospital		Durham St To Howick St	S	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Russell St	S	No Stopping	16	0.0	0.0	0.0	0.0	0%
Bathurst Hospital	Kelley Cres	Russell St To Howick St	N	No Parking	15	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Russell St	S	No Stopping	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital	Mitre St	Howick St To Russell St	<u>S</u>	Unrestricted	15	0.7	5.7 7.2	<u>4.6</u> 5.4	13.0 14.0	40% 51%
Bathurst Hospital Bathurst Hospital	Mitte St	Russell St To Howick St Russell St To Howick St	N N	Unrestricted No Stopping	18	<u> </u>	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Durham St	N	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Durham St	N	Unrestricted	5	1.2	12.2	10.9	14.0	87%
Bathurst Hospital		Howick St To Durham St	N	No Stopping	3	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Durham St	Ν	Unrestricted	4	1.3	10.5	8.9	11.0	75%
Bathurst Hospital		Howick St To Durham St	Ν	No Stopping	3	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Durham St	Ν	Unrestricted	6	1.2	9.8	9.1	12.0	70%
Bathurst Hospital		Howick St To Durham St	N	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To End Of Road	<u>N</u>	No Stopping	3	0.0	0.0	0.0	0.0	0%
Bathurst Hospital	+	Durham St To End Of Road	<u>N</u>	Unrestricted	15	0.4	1.3	1.0	8.0	9%
Bathurst Hospital Bathurst Hospital		End Of Road To Durham St End Of Road To Durham St	<u> </u>	Unrestricted Unrestricted 90 Degree Angle Parking	<u>3</u> 15	0.0 0.8	0.0 2.1	0.0 1.5	0.0 7.0	<u>0%</u> 15%
Bathurst Hospital		End Of Road To Durham St	<u> </u>	Unrestricted	5	0.6	1.8	1.8	7.0	13%
Bathurst Hospital		End Of Road To Durham St	S	No Stopping	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital	1	Durham St To Howick St	S	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Durham St To Howick St	S	Unrestricted 45 Degree Angle Parking	37	1.2	11.1	9.7	14.0	79%
Bathurst Hospital		Durham St To Howick St	S	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Russell St	S	No Stopping	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Howick St To Russell St	S	Unrestricted	18	0.6	5.3	5.0	13.0	38%
Bathurst Hospital	Hope St	Russell St To Howick St	<u>N</u>	Unrestricted	24	0.2	1.2	0.9	12.0	8%
Bathurst Hospital		Howick St To Durham St	<u>N</u>	Unrestricted	28	0.5	2.1	1.6	11.0	15%
Bathurst Hospital Bathurst Hospital		Durham St To Loftus St Loftus St To Howick St	S	Unrestricted	10	0.3	0.3 0.4	0.3	1.0	2%
	1	LUITUS ST TO HOWICK ST	S	Unrestricted	10	U. I	0.4	0.4	4.0	3%

Dethurst Lleanitel	1			04	0.2	1.2	0.0	12.0	00/
Bathurst Hospital	Dhursen Ct	Howick St To Russell St S Unrestricted		24	0.3	1.3	0.9	13.0	9%
Bathurst Hospital	Dhuram St	Beddie St To Commonwealth St E Unrestricted		12	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Beddie St To Commonwealth St E No Stopping		3	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Mitre St E Unrestricted		19	0.8	3.2	2.0	8.0	23%
Bathurst Hospital		Mitre St To Hope St E Unrestricted		6	0.0	0.0	0.0	0.0	0%
Bathurst Hospital			45 Degree Angle)	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital				21	0.8	1.8	1.4	13.0	13%
Bathurst Hospital		Mitre St To Hope St E No Stoppin		2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Hope St E Unrestricted		8	0.3	0.5	0.5	2.0	4%
Bathurst Hospital		Mitre St To Hope St E Bus Zone		2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Hope St To Mitre St W No Stoppin	v	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Hope St To Mitre St W Unrestricted		5	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Hope St To Mitre St W No Stoppin	0	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital			ed 45 Degree Angle Parking	8	0.8	3.5	1.8	9.0	25%
Bathurst Hospital		Hope St To Mitre St W Unrestricted		2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Hope St To Mitre St W No Stopping		2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Commomwealth St W No Stopping		1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Commomwealth St W Unrestricted		25	1.0	5.5	5.2	11.0	39%
Bathurst Hospital		Mitre St To Commomwealth St W No Stopping		1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Beddie St W Unrestricted	ed	12	0.1	0.3	0.3	4.0	2%
Bathurst Hospital	Howick St	Macquarie St To Commonwealth S E Unrestricted		14	0.7	5.4	5.1	10.0	39%
Bathurst Hospital		Commonwealth St To Mitre St E No Stopping	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Mitre St E No Parking	g	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Mitre St E Disabled		1	1.0	1.0	1.0	1.0	7%
Bathurst Hospital		Commonwealth St To Mitre St E No Parking	g Daffadil Cottage Authorised Parking	5	2.2	9.0	4.2	9.0	64%
Bathurst Hospital		Commonwealth St To Mitre St E 2P 8:30Am	n-8Pm Daffadil Cottage Authorised Parking	5	2.0	12.2	6.9	12.0	87%
Bathurst Hospital		Commonwealth St To Mitre St E Loading Zo	one 8Am-3Pm Mon-Fri & 2P All Other Times	1	1.0	6.0	6.0	6.0	43%
Bathurst Hospital		Commonwealth St To Mitre St E Disabled		3	0.7	4.0	4.0	10.0	29%
Bathurst Hospital		Commonwealth St To Mitre St E No Stopping	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Mitre St E Bus Zone		3	0.7	1.7	1.7	4.0	12%
Bathurst Hospital		Commonwealth St To Mitre St E No Stoppin	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Mitre St E Unrestricted	ed 45 Degree Angle Parking	9	1.2	8.2	7.2	9.0	59%
Bathurst Hospital		Commonwealth St To Mitre St E No Stoppin	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Mitre St E Unrestricted	ed	3	1.0	10.7	10.7	12.0	76%
Bathurst Hospital		Commonwealth St To Mitre St E No Stoppin	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Hope St E No Stoppin	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Hope St E Unrestricted	d	11	1.0	9.4	9.4	13.0	67%
Bathurst Hospital		Mitre St To Hope St E Taxi Zone		2	0.5	0.5	0.5	1.0	4%
Bathurst Hospital		Mitre St To Hope St E Unrestricted	ed	16	0.9	7.1	6.8	13.0	50%
Bathurst Hospital		Hope St To Mitre St W Unrestricted	ed	23	1.1	8.3	7.5	14.0	60%
Bathurst Hospital		Hope St To Mitre St W No Stoppin	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Daly St W No Stoppin	ng	1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Mitre St To Daly St W Unrestricted		21	1.0	9.3	9.2	14.0	67%
Bathurst Hospital		Mitre St To Daly St W No Stopping	ng	2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Daly St To Commomwealth St W No Stoppin		1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Daly St To Commomwealth St W Bus Zone		2	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Daly St To Commomwealth St W Unrestricted		7	1.0	9.7	9.7	13.0	69%
Bathurst Hospital		Daly St To Commomwealth St W No Stopping		1	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Commonwealth St To Beddie St W Unrestricted		15	0.8	5.5	5.0	14.0	40%
Bathurst Hospital	Daly St	Howick St To Russell St S Unrestricted		23	0.5	3.8	3.8	14.0	27%
Bathurst Hospital		Russell St To Howick St N Unrestricted		21	0.9	7.1	6.1	14.0	51%
Bathurst Hospital	Russell St	Commonwealth St To Daly St E Unrestricted		11	0.0	0.0	0.0	0.0	0%
Bathurst Hospital		Daly St To Mitre St E Unrestricted		11	0.2	0.5	0.5	4.0	3%
Bathurst Hospital		Mitre St To Hope St E Unrestricted		22	0.2	0.8	0.5	8.0	6%
Bathurst Hospital		Hope St To Mitre St W Unrestricted		20	0.4	1.3	1.0	8.0	9%
Bathurst Hospital		Mitre St To To Commonwealth St W Unrestricted		24	0.1	1.4	1.4	13.0	10%
	1				0.1	117	117	10.0	1070



Parking Occupancy Survey

ABN 18 434 565 435 3 Hepburn Way * Caroline Springs * Victoria * 3023 * Australia Phone: 1300 883 936 * Fax: 1300 882 932

Weather	Fine			
Area	Bathurst Hospital			
Street	All Streets			
Date Area	Tuesday, 12 December 2023 Street	Section	Side Restriction	Supply 6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00
Bathurst Hospital	Hospital Parking - Acess From Howick St & Exit From Mitre St	Emergency Area Parking	Emergency Drop Off Zone & Patient Pickup Zone	6 0 1 1 0 0 1 0 3 0
Bathurst Hospital		Emergency Area Parking Emergency Area Parking	3P Disabled	10 5 7 8 8 9 7 9 8 7 6 9 9 10 1 0 0 0 0 1 0
Bathurst Hospital Bathurst Hospital		Emergency Area Parking Emergency Area Parking	Unrestricted	1 0 0 0 0 1 0
Bathurst Hospital		Emergency Area Parking	Disabled	5 0 1 2 4 4 5 5 5 4 4 4 4 1
Bathurst Hospital Bathurst Hospital		Emergency Area Parking Emergency Area Parking	Loading Zone Community And Mental Health Vechiles - Only	1 0 0 0 1 0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital		Rural Clinical School Parking	3P	11 3 8 11 11 11 9 5 5 11 6 5 8 8 9
Bathurst Hospital		Rural Clinical School Parking	Disabled	2 0
Bathurst Hospital Bathurst Hospital	Hospital Parking - Acess From Commonwealth St	Cancer Care Parking Gwahs Fleet Vechiles Only	Unrestricted Unrestricted	0 0 1 2 4 3 4 4 3 2 2 0 0 0 40 10 14 14 20 20 15 9 22 17 17 14 18 18 20
Bathurst Hospital		Gwahs Fleet Vechiles Only	Loading Zone	15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital	Hospital Parking - Acess From Mitre St	Gwahs Fleet Vechiles Only Gwahs Fleet Vechiles Only	Unrestricted (Open Area) 3P (Undercover)	103 55 79 103 103 103 103 101 102 98 71 41 41 16 35 6 7 10 28 28 27 27 22 23 18 15 11 11 20
Bathurst Hospital		Gwahs Fleet Vechiles Only	Disabled	1 0 0 0 1 0
Bathurst Hospital		Gwahs Fleet Vechiles Only	Unrestricted (Undercover)	53 6 15 25 28 28 27 30 30 40 </td
Bathurst Hospital Bathurst Hospital	Commonwealth St	Gwahs Fleet Vechiles Only Russell St To Howick St	Disabled N No Stopping	2 0
Bathurst Hospital		Russell St To Howick St	N Unrestricted	15 2 3 5 8 8 8 8 9 9 8 7 3 3 1
Bathurst Hospital Bathurst Hospital		Russell St To Howick St Howick St To Durham St	N No Stopping	1 0
Bathurst Hospital		Howick St To Durham St Howick St To Durham St	N No Stopping N Unrestricted	1 0
Bathurst Hospital		Howick St To Durham St	N No Stopping	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital		Durham St To Morrisset St Durham St To Morrisset St	N No Stopping N Unrestricted	1 0
Bathurst Hospital		Morrisset St To Short St	S Unrestricted	23 0 0 2 2 2 1 1 1 1 0 2 2 1 8 0 0 2 2 2 1 1 1 0 0 0 0 0
Bathurst Hospital		Short St To Durham St	S Unrestricted	10 0 1
Bathurst Hospital Bathurst Hospital		Short St To Durham St Durham St To Howick St	S No Stopping S No Stopping	1 0
Bathurst Hospital		Durham St To Howick St	S Unrestricted	2 3 3 3 3 3 3 7 2 4 7 7 7 6 6 6 6 5 4 4 3
Bathurst Hospital		Durham St To Howick St	S No Stopping	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital		Durham St To Howick St Durham St To Howick St	S Unrestricted S No Stopping	8 3 6 8 8 8 8 8 8 8 8 5 2 2 1 2 0
Bathurst Hospital		Durham St To Howick St	S Unrestricted	2 0
Bathurst Hospital		Durham St To Howick St	S No Stopping	
Bathurst Hospital Bathurst Hospital	Kelley Cres	Howick St To Russell St Russell St To Howick St	S No Stopping N No Parking	16 0
Bathurst Hospital		Howick St To Russell St	S No Stopping	2 0
Bathurst Hospital	Mitre St	Howick St To Russell St Russell St To Howick St	S Unrestricted	15 1 2 6 7 7 6 7 8 8 8 8 2 18 4 8 10 13 13 13 12 11 11 10 9 5 5 5
Bathurst Hospital Bathurst Hospital		Russell St To Howick St	N Unrestricted N No Stopping	18 4 8 10 13 13 12 11 11 10 9 5 5 5 1 0
Bathurst Hospital		Howick St To Durham St	N No Stopping	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital		Howick St To Durham St Howick St To Durham St	N Unrestricted N No Stopping	5 3 5 5 5 5 5 5 5 4 4 4 1 3 0
Bathurst Hospital		Howick St To Durham St	N Unrestricted	3 0
Bathurst Hospital		Howick St To Durham St	N No Stopping	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital		Howick St To Durham St Howick St To Durham St	N Unrestricted N No Stopping	6 2 4 6 6 6 6 6 5 4 1 1 0 1 0
Bathurst Hospital		Durham St To End Of Road	N No Stopping	3 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital		Durham St To End Of Road	N Unrestricted	
Bathurst Hospital Bathurst Hospital		End Of Road To Durham St End Of Road To Durham St	S Unrestricted S Unrestricted 90 Degree Angle Parking	3 0
Bathurst Hospital		End Of Road To Durham St	S Unrestricted	5 0 0 0 0 0 0 0 3 1 1 1 1 1 1
Bathurst Hospital Bathurst Hospital		End Of Road To Durham St Durham St To Howick St	S No Stopping	2 0
Bathurst Hospital		Durham St To Howick St	S No Stopping S Unrestricted 45 Degree Angle Parking	1 0
Bathurst Hospital		Durham St To Howick St	S No Stopping	<u>1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</u>
Bathurst Hospital Bathurst Hospital		Howick St To Russell St Howick St To Russell St	S No Stopping S Unrestricted	1 0
Bathurst Hospital	Hope St	Russell St To Howick St	N Unrestricted	10 0 0 10 10 10 10 1 1 0 0 0 24 0 2 2 2 2 2 2 2 2 3 3 1
Bathurst Hospital		Howick St To Durham St	N Unrestricted	28 2 3 7 8 9 3 3 7 5 3 3 2 2 3 10 0
Bathurst Hospital Bathurst Hospital		Durham St To Loftus St Loftus St To Howick St	S Unrestricted S Unrestricted	10 0 0 0 0 0 0 0 3 0 0 0 10 0
Bathurst Hospital		Howick St To Russell St	S Unrestricted	24 0 2 3 3 3 2 1 3 2 2 3 2 2 2
Bathurst Hospital	Dhuram St	Beddie St To Commonwealth St Beddie St To Commonwealth St	E Unrestricted	12 0
Bathurst Hospital Bathurst Hospital		Commonwealth St To Commonwealth St	E No Stopping E Unrestricted	3 0
Bathurst Hospital		Mitre St To Hope St	E Unrestricted	6 0
Bathurst Hospital Bathurst Hospital		Mitre St To Hope St Mitre St To Hope St	E Disabled (45 Degree Angle) E Unrestricted 45 Degree Angle Parking	1 0
Bathurst Hospital		Mitte St To Hope St Mitre St To Hope St	E No Stopping	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Bathurst Hospital		Mitre St To Hope St	E Unrestricted	8 0 0 0 0 0 0 0 0 2 2 0
Bathurst Hospital Bathurst Hospital		Mitre St To Hope St Hope St To Mitre St	E Bus Zone W No Stopping	2 0
Bathurst Hospital		Hope St To Mitre St	W Unrestricted	1 0
Bathurst Hospital		Hope St To Mitre St	W No Stopping	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital		Hope St To Mitre St Hope St To Mitre St	W Unrestricted 45 Degree Angle Parking W Unrestricted	8 0 0 0 3 2 2 3
Bathurst Hospital		Hope St To Mitre St	W No Stopping	2 0
Bathurst Hospital		Mitre St To Commonwealth St	W No Stopping	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Bathurst Hospital Bathurst Hospital		Mitre St To Commomwealth St Mitre St To Commomwealth St	W Unrestricted W No Stopping	25 0 0 9 16 22 22 22 16 14 9 2 2 4 1 0<
Bathurst Hospital		Commonwealth St To Beddie St	W Unrestricted	1 0
Bathurst Hospital	Howick St	Macquarie St To Commonwealth St	E Unrestricted	14 2 4 9 9 9 9 9 5 5 6 0 0 0 1 0
Bathurst Hospital Bathurst Hospital		Commonwealth St To Mitre St Commonwealth St To Mitre St	E No Stopping E No Parking	1 0
	L L			

					-								-	-	-		
Bathurst Hospital	Commonwealth St To Mitre St	E	Disabled	1	0	0	0	0	1	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Commonwealth St To Mitre St	E	No Parking Daffadil Cottage Authorised Parking	5	0	2	3	5	5	5	5	5	5	4	1	2	2 1
Bathurst Hospital	Commonwealth St To Mitre St	E	2P 8:30Am-8Pm Daffadil Cottage Authorised Parking	5	1	2	5	5	5	5	4	4	5	5	5	5	5 5
Bathurst Hospital	Commonwealth St To Mitre St	E	Loading Zone 8Am-3Pm Mon-Fri & 2P All Other Times	1	0	0	0	0	1	1	1	1	1	1	0	0	0 0
Bathurst Hospital	Commonwealth St To Mitre St	E	Disabled	3	0	0	0	0	1	1	1	2	2	1	1	1	1 1
Bathurst Hospital	Commonwealth St To Mitre St	E	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Commonwealth St To Mitre St	E	Bus Zone	3	0	0	0	0	0	0	0	0	0	0	1	1	1 2
Bathurst Hospital	Commonwealth St To Mitre St	E	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Commonwealth St To Mitre St	E	Unrestricted 45 Degree Angle Parking	9	2	4	8	8	8	8	8	9	8	5	3	1	1 1
Bathurst Hospital	Commonwealth St To Mitre St	E	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Commonwealth St To Mitre St	E	Unrestricted	3	0	3	3	3	3	3	3	3	3	3	3	1	1 0
Bathurst Hospital	Commonwealth St To Mitre St	E	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Mitre St To Hope St	E	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Mitre St To Hope St	E	Unrestricted	11	4	6	8	10	10	10	10	11	10	10	6	4	4 0
Bathurst Hospital	Mitre St To Hope St	E	Taxi Zone	2	0	0	0	0	1	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Mitre St To Hope St	E	Unrestricted	16	5	9	13	14	14	13	13	12	9	5	2	2	2 0
Bathurst Hospital	Hope St To Mitre St	W	Unrestricted	23	5	11	20	20	20	20	19	21	14	13	11	6	6 6
Bathurst Hospital	Hope St To Mitre St	W	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Mitre St To Daly St	W	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Mitre St To Daly St	W	Unrestricted	21	5	11	18	20	20	20	20	21	18	12	12	8	8 3
Bathurst Hospital	Mitre St To Daly St	W	No Stopping	2	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Daly St To Commomwealth St	W	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Daly St To Commomwealth St	W	Bus Zone	2	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Daly St To Commomwealth St	W	Unrestricted	7	1	3	5	7	7	7	7	7	7	4	4	4	4 1
Bathurst Hospital	Daly St To Commomwealth St	W	No Stopping	1	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Commonwealth St To Beddie St	W	Unrestricted	15	2	4	8	9	9	7	7	9	6	6	6	3	3 4
Bathurst Hospital Daly St	Howick St To Russell St	S	Unrestricted	23	2	5	8	11	11	6	6	6	6	6	6	6	6 2
Bathurst Hospital	Russell St To Howick St	N	Unrestricted	21	3	13	15	15	15	12	12	13	11	11	7	9	9 4
Bathurst Hospital Russell St	Commonwealth St To Daly St	E	Unrestricted	11	0	0	0	0	0	0	0	0	0	0	0	0	0 0
Bathurst Hospital	Daly St To Mitre St	E	Unrestricted	11	0	0	0	0	0	0	0	0	0	0	1	1	1 2
Bathurst Hospital	Mitre St To Hope St	E	Unrestricted	22	0	0	2	2	2	1	1	2	1	1	2	1	1 1
Bathurst Hospital	Hope St To Mitre St	W	Unrestricted	20	0	0	3	3	3	3	3	5	3	1	1	0	0 1
Bathurst Hospital	Mitre St To To Commonwealth St	W	Unrestricted	24	0	3	3	3	3	3	3	3	2	2	2	2	2 2



Weather Area	Fine Bathurst He	ospital											
Street	All Streets			•									
Date	Tuesday, ²	12 Decemb	er 2023										
	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
Parking Supply	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138
Parking Occupancy	181	323	471	529	560	531	512	550	522	464	389	297	297
Occupancy Percent	16%	28%	41%	46%	49%	47%	45%	48%	46%	41%	34%	26%	26%

19:00

1138

231

20%





ABN 18 434 565 435 3 Hepburn Way * Caroline Springs * Victoria * 3023 * Australia Phone: 1300 883 936 * Fax: 1300 882 932

Parking Occupancy Survey

Date	Tuesday, 12 December 2023	
Street	All Streets	•
Area	Bathurst Hospital	
Weather	Fine	

Hours	<= 1h	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	> 13h
Total Turn Over	994	994	994	994	994	994	994	994	994	994	994	994	994	994
Vehicles @ DOS	179	83	106	63	55	84	76	54	82	52	68	29	37	26
Percentage	18%	8%	11%	6%	6%	8%	8%	5%	8%	5%	7%	3%	4%	3%



Area	Street	Section	Side	Restriction	Supply	Includes?
Bathurst Hospital	Hospital Parking - Acess From Howick St & Exit From Mitre St	Emergency Area Parking		Emergency Drop Off Zone & Patient Pickup Zone	6	0
Bathurst Hospital				3P	10	0
Bathurst Hospital				Disabled	1	0
Bathurst Hospital				Unrestricted	28	0
Bathurst Hospital				Disabled	5	0
Bathurst Hospital				Loading Zone	1	0
Bathurst Hospital				Community and Mental Health Vechiles - Only	2	0
Bathurst Hospital		Rural Clinical School Parking		3P	11	0
Bathurst Hospital				Disabled	2	0
Bathurst Hospital		Cancer Care Parking		Unrestricted	6	0
Bathurst Hospital	Hospital Parking - Acess From Commonwealth St	GWAHS Fleet Vechiles Only		Unrestricted	40	0
Bathurst Hospital				Loading Zone	15	0
Bathurst Hospital	Hospital Parking - Acess From Mitre St			Unrestricted (Open Area)	103	0
Bathurst Hospital				3P (Undercover)	35	0
Bathurst Hospital				Disabled	1	0
Bathurst Hospital				Unrestricted (Undercover)	53	0
Bathurst Hospital				Disabled	2	0
Bathurst Hospital	Commonwealth St	Russell St To Howick St	N	No Stopping	1	0
Bathurst Hospital				Unrestricted	15	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Howick St To Durham St	N	No Stopping	1	0
Bathurst Hospital				Unrestricted	21	0
Bathurst Hospital				No Stopping	2	0
Bathurst Hospital		Durham St To Morrisset St	N	No Stopping	1	0
Bathurst Hospital				Unrestricted	23	0
Bathurst Hospital		Morrisset St To Short St	S	Unrestricted	8	0
Bathurst Hospital		Short St To Durham St	S	Unrestricted	10	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Durham St To Howick St	S	No Stopping	2	0
Bathurst Hospital				Unrestricted	7	0
Bathurst Hospital				No Stopping	3	0
Bathurst Hospital				Unrestricted	8	0
Bathurst Hospital				No Stopping	2	0
Bathurst Hospital				Unrestricted	5	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Howick St To Russell St	S	No Stopping	16	0
Bathurst Hospital	Kelley Cres	Russell St To Howick St	N	No Parking	15	0
Bathurst Hospital		Howick St To Russell St	S	No Stopping	2	0
Bathurst Hospital			<u> </u>	Unrestricted	15	0
Bathurst Hospital	Mitre St	Russell St To Howick St	N	Unrestricted	18	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Howick St To Durham St	N	No Stopping	1	0
Bathurst Hospital				Unrestricted		0
Bathurst Hospital					3	0
			+	No Stopping Unrestricted	<u> </u>	0
Bathurst Hospital Bathurst Hospital					3	0
· · · · · · · · · · · · · · · · · · ·			+	No Stopping		0
Bathurst Hospital			+	Unrestricted	6	0
Bathurst Hospital		Durban St To Fad of road		No Stopping		0
Bathurst Hospital		Durham St To End of road	N	No Stopping	3	, v
Bathurst Hospital		End of read To Durkeys Cl		Unrestricted	15	0
Bathurst Hospital		End of road To Durham St	S	Unrestricted	3	0

Bathurst Hospital			S	Unrestricted 90 Degree Angle Parking	15	0
Bathurst Hospital				Unrestricted	5	0
Bathurst Hospital			+ +	No Stopping	2	0
Bathurst Hospital		Durham St To Howick St	S	No Stopping	1	0
Bathurst Hospital		Durnamist To Howick St		Unrestricted 45 Degree Angle Parking	37	0
Bathurst Hospital				No Stopping	37	0
Bathurst Hospital		Howick St To Russell St		No Stopping	1	0
			+	Unrestricted	18	0
Bathurst Hospital		Russell St To Howick St	N		24	0
Bathurst Hospital	Hope St			Unrestricted		-
Bathurst Hospital		Howick St To Durham St	N	Unrestricted	28	0
Bathurst Hospital		Durham St To Loftus St	S	Unrestricted	10	0
Bathurst Hospital		Loftus St To Howick St	S	Unrestricted	10	0
Bathurst Hospital		Howick St To Russell St	S	Unrestricted	24	0
Bathurst Hospital	Dhuram St	Beddie St To Commonwealth St	E	Unrestricted	12	0
Bathurst Hospital				No Stopping	3	0
Bathurst Hospital		Commonwealth St To Mitre St	E	Unrestricted	19	0
Bathurst Hospital		Mitre St to Hope St	E	Unrestricted	6	0
Bathurst Hospital				Disabled (45 Degree Angle)	1	0
Bathurst Hospital				Unrestricted 45 Degree Angle Parking	21	0
Bathurst Hospital				No Stopping	2	0
Bathurst Hospital				Unrestricted	8	0
Bathurst Hospital				Bus Zone	2	0
Bathurst Hospital		Hope St To Mitre St	W	No Stopping	1	0
Bathurst Hospital				Unrestricted	5	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital				Unrestricted 45 Degree Angle Parking	8	0
Bathurst Hospital				Unrestricted	2	0
Bathurst Hospital				No Stopping	2	0
Bathurst Hospital		Mitre St To Commomwealth St	W	No Stopping	1	0
Bathurst Hospital			1 1	Unrestricted	25	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Commonwealth St To Beddie St	w	Unrestricted	12	0
Bathurst Hospital	Howick St	Macquarie St To Commonwealth St	E	Unrestricted	14	0
Bathurst Hospital		Commonwealth St To Mitre St	E	No Stopping	1	0
Bathurst Hospital				No Parking	1	0
Bathurst Hospital				Disabled	1	0
Bathurst Hospital				No Parking Daffadil Cottage Authorised Parking		0
Bathurst Hospital			+	2P 8:30am-8pm Daffadil Cottage Authorised Parking	5	0
			+	· · · · · · · · · · · · · · · · · · ·	1	0
Bathurst Hospital			+	Loading Zone 8am-3pm Mon-Fri & 2P All Other Times Disabled	3	0
Bathurst Hospital			+		5	0
Bathurst Hospital			+	No Stopping		0
Bathurst Hospital			+	Bus Zone	3	0
Bathurst Hospital			+	No Stopping		0
Bathurst Hospital			+	Unrestricted 45 Degree Angle Parking	9	0
Bathurst Hospital			+	No Stopping		0
Bathurst Hospital			┥──┤	Unrestricted	3	0
Bathurst Hospital			+	No Stopping		0
Bathurst Hospital		Mitre St to Hope St	E	No Stopping	1	0
Bathurst Hospital			\downarrow	Unrestricted	11	0
Bathurst Hospital				Taxi Zone	2	0
Bathurst Hospital				Unrestricted	16	0
Bathurst Hospital		Hope St To Mitre St	W	Unrestricted	23	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Mitre St To Daly St	W	No Stopping	1	0
Bathurst Hospital		Mitre St To Daly St	W	Unrestricted	21	0

Bathurst Hospital				No Stopping	2	0
Bathurst Hospital		Daly St To Commomwealth St	W	No Stopping	1	0
Bathurst Hospital				Bus Zone	2	0
Bathurst Hospital				Unrestricted	7	0
Bathurst Hospital				No Stopping	1	0
Bathurst Hospital		Commonwealth St To Beddie St	W	Unrestricted	15	0
Bathurst Hospital	Daly St	Howick St To Russell St	S	Unrestricted	23	0
Bathurst Hospital		Russell St To Howick St	N	Unrestricted	21	0
Bathurst Hospital	Russell St	Commonwealth St To Daly St	E	Unrestricted	11	0
Bathurst Hospital		Daly St To Mitre St	E	Unrestricted	11	0
Bathurst Hospital		Mitre St to Hope St	E	Unrestricted	22	0
Bathurst Hospital		Hope St To Mitre St	W	Unrestricted	20	0
Bathurst Hospital		Mitre St To To Commonwealth St	W	Unrestricted	24	0