ACT Government
Infrastructure Canberra

Our Ref: iCBRFOI2025/34

Schedule 2.2(a)(ii) [redacted]

[redacted]

FREEDOM OF INFORMATION REQUEST

I refer to your application under section 30 of the *Freedom of Information Act 2016* (the Act), received by Infrastructure Canberra (iCBR) on 23 June 2025.

In your information access request, you sought access to:

> *"Regarding the Notification of works no 53-Enabling Works, information release of any document* relating to the:*
>
> - *public consultation on the works, including any documents relating to the residents of Grand Central Towers (15 Bowes Street).*
> - *traffic analysis for Bowes Street during the construction works and impact on traffic flows following completion of the works with particular regards to traffic immediately adjacent to Grand Central Towers (between Bowes Place and Callam Street).*
> - *night works associated with this notice and assessments on the impacts of local residents.*
> - *analysis of pedestrian flows or modelling of pedestrian traffic during construction work and following completion of the works, including any specific analysis on the impact of people with disabilities, people with other mobility or general consideration of the safety of other vulnerable pedestrians immediately adjacent to Grand Central Towers (between Bowes Place and Callam Street).*
> - *impacts of the works and following their completion on the accessibility of Grand Central Towers to emergency services.*
> - *accessibility of Grand Central Towers during and following completions of the works to essential service providers such as garbage collection or telecommunications.*
> - *impact on traffic flow from the removal of short stay parking on Bowes Street immediately adjacent to Grand Central Towers.*
>
> *Please note:*
>
> - *"any document" * = "Final and penultimate copies where the decision maker for the document has made alterations between the penultimate and final versions"*
> - *Search start: Commencement of planning of the notification of works no 53-Enabling Works – Search End: 23 June 2025*

- *I further request that for any electronic document (including email) released that the full properties information** for that document be made available.*
    - *Full properties information** refers to the type of document (i.e word, excel, PDF), where the document is stored (Trim, objective, etc), the date of creation of the document, the author of the document, the last date the document was accessed and the last date the document was amended.*

Search inclusions:

- *Ministerial briefs or other similar briefing notes.*
- *documents held on electronic backup tapes,*
- *diary entries of officials (including but not limited to detail of the time and or place of meetings relating to the above matter),*
- *agendas and minutes of meetings*
- *emails (including emails retained on electronic backup),*
- *copies of any memo, post-it note message or accompanying "with compliments" note, email or voicemail message*
- *and other correspondence.*

Search exclusions

- *automated out-of-office responses, discussions surrounding meeting date/time changes etc. (Provided the documents does not relate to material discussion on the works covered by the request)"*

Authority

I am an Information Officer appointed by the Director General under section 18 of the Act to deal with access applications made under Part 5 of the Act.

Decision on access

Searches were completed for relevant information and 26 documents were identified within the scope of your request.

I have included the following as attachments to this Release Pack:

- Attachment A: Schedule of relevant documents; and
- Attachment B: Information for release.

The schedule of relevant documents provides a brief description of each item that falls within the scope of your request and the decision of release for each of item.

My decision in relation to the documents relevant to your request summarised as follows:

- Partial access granted to 24 documents, and
- Full access to the remaining two documents.

My decision is detailed further in the following Statement of Reasons.

Statement of Reasons

In making my decision on disclosing government information, I must identify all relevant factors in Schedule 2 of the Act and determine, on balance, where the public interest lies.

In reaching my access decision, I have taken the following into account:

Factors favouring disclosure in the public interest (Schedule 2.1)

- Schedule 2.1(a)(i) – promote open discussion of public affairs and enhance the governments accountability;
- Schedule 2.1(a)(ii) - contribute to positive and informed debate on important issues or matters of public interest;
- Schedule 2.1(a)(iii)- inform the community of the government's operations, including the policies, guidelines and codes of conduct followed by the government in its dealings with members of the community; and
- Schedule 2.1(a)(viii) - reveal the reason for a government decision and any background or contextual information that informed the decision;

I am satisfied that these are relevant considerations favouring disclosure in this case, and in the interests of enhancing open discussion, I afford them significant weight.

I note you also provided Schedule 2.1(a)(iv) - ensure effective oversight of expenditure of public funds, as a factor favouring disclosure. The identified documents do not contain any information related to expenditure of public funds and as such I do not consider this factor to apply.

Factors favouring non-disclosure in the public interest (Schedule 2.2)

- Schedule 2.2(a)(ii) – prejudice the protection of an individual's right to privacy or any other right under the *Human Rights Act 2004*;

Under Territory Privacy Principle six (TTP 6) if a public sector agency holds personal information about an individual that was collected for a particular purpose the agency must not use or disclose the information for another purpose. In this case the primary purpose is the recruitment process, and the secondary purpose is your information access request.

I place significant weight on an individual's right to privacy through a recruitment process and I do not consider the release of an individual's identity to add value to the information released to you. Therefore, I have decided to withhold the names of the other applicants as disclosure of an applicant's identity could reasonably be expected to result in a breach of privacy legislation.

I have also decided to withhold the mobile phone numbers iCBR staff members in accordance with ACT Ombudsman's Guidelines, as this number is not commonly released externally. Consequently, I consider it on balance not in the Public Interest to release these contact numbers.

Charges

I have decided to waive any charges in relation to this Freedom of Information application.

Online Publishing – Disclosure Log

Under section 28 of the Act, iCBR maintains an official online record of access applications called a Disclosure Log. Your original access application, my decision and documents released to you in response to your access application will be published on the iCBR Disclosure Log within three to ten working days after the date of the decision.

Your personal details will not be published.

You may view the iCBR Disclosure Log at: Disclosure log - Infrastructure Canberra (act.gov.au).

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Ombudsman Review

My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek ombudsman review of this outcome under section 73 of the Act within 20 working days from the day that my decision is published on the iCBR Disclosure Log, or a longer period allowed by the Ombudsman.

If you wish to request a review of my decision you may write to the Ombudsman at:

The ACT Ombudsman
GPO Box 442
CANBERRA ACT 2601
Via email: actfoi@ombudsman.gov.au

ACT Civil and Administrative Tribunal (ACAT) Review

Under section 84 of the Act, if a decision is made under Section 82(2) on an Ombudsman review, you may apply to ACAT for review of the Ombudsman decision.

Further information may be obtained from the ACAT at:

ACT Civil and Administrative Tribunal
Level 4, 1 Moore Street
GPO Box 370
CANBERRA CITY ACT 2601
Telephone: (02) 6207 1740
http://www.acat.act.gov.au

Should you have any queries in relation to your request, please contact me via email iCBR.FOI@act.gov.au.

Please ensure you quote your reference number: **iCBRFOI2025/34**

Yours sincerely,

Schedule 2.2(a)(ii)

Hayley Bell
Information Officer
Infrastructure Canberra
28/08/2025

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Infrastructure Canberra

FREEDOM OF INFORMATION REQUEST SCHEDULE

Please be aware that under the *Freedom of Information Act 2016*, some of the information provided to you will be released to the public through the ACT Government's Open Access Scheme. The Open Access release status column of the table below indicates what documents are intended for release online through open access.

Personal information or business affairs information will not be made available under this policy. If you think the content of your request would contain such information, please inform the contact officer immediately.

Information about what is published on open access is available online at: https://www.act.gov.au/iCBR/home

NAME	WHAT ARE THE PARAMETERS OF THE REQUEST
ICBRFOI2025/34	*Regarding the Notification of works no 53-Enabling Works, information release of any document relating to the:* • *public consultation on the works, including any documents relating to the residents of Grand Central Towers (15 Bowes Street).* • *traffic analysis for Bowes Street during the construction works and impact on traffic flows following completion of the works with particular regards to traffic immediately adjacent to Grand Central Towers (between Bowes Place and Callam Street).* • *night works associated with this notice and assessments on the impacts of local residents.* • *analysis of pedestrian flows or modelling of pedestrian traffic during construction work and following completion of the works, including any specific analysis on the impact of people with disabilities, people with other mobility or general consideration of the safety of other vulnerable pedestrians immediately adjacent to Grand Central Towers (between Bowes Place and Callam Street).* • *impacts of the works and following their completion on the accessibility of Grand Central Towers to emergency services.* • *accessibility of Grand Central Towers during and following completions of the works to essential service providers such as garbage collection or telecommunications.*

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	• *impact on traffic flow from the removal of short stay parking on Bowes Street immediately adjacent to Grand Central Towers.*

Section Ref No	Pages	Description	Date	Status	Reason for non-release or deferral	Open Access release status
1.	1-8	Lendlease CIG Presentation	11/10/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
2.	9-12	Meeting Minutes – Woden CIT Project – TOWG Meeting	02/09/24	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
3.	13-23	Email chain - FW: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)	26/9/24	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
4.	24	Email - CIT Woden Campus CIG 11 October > presentation and minutes	11/10/24	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
5.	25-33	Attachment to email – Lendlease CIG Presentation No.18_11102024	11/10/2024	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes

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Section Ref No	Pages	Description	Date	Status	Reason for non-release or deferral	Open Access release status
6.	34-47	Email chain - RE: [EXT]:RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure	04/12/2024	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
7.	48-103	Attachment to previous email - 22151TLET04F01.pdf	03/12/2024	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
8.	104-107	Email chain - Traffic conditions around GCT	10/12/2024	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
9.	108-117	Email chain - Update on Callam Street works | traffic changes on Bowes and Matilda Streets	12/02/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
10.	118 - 122	Email chain - [EXT]:Woden Bus Layover - Bowes/Launceston Intersection WAE	20/02/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
11.	123-203	Attachment to previous email - 22151TLET04F02.pdf	20/02/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
12.	204-208	Email chain - Woden Transport Interchange works update	12/03/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes

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Section Ref No	Pages	Description	Date	Status	Reason for non-release or deferral	Open Access release status
13.	209-214	Email chain - For your feedback> Comms Plan and Talking Points for the Transport Interchange staging works | road closures	12/03/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
14.	215-221	Attachment to previous email - CIT Woden Campus Project - P2 Staging - specific Communications Plan - cleared by TN#2.docx	12/03/2025	Full realease	N/A	Yes
15.	222-225	Attachment to previous email - CIT Woden Campus Project - Transport Interchange staging works - Talking Points - cleared by TN#2.docx	12/03/2025	Full release	N/A	Yes
16.	226-227	Email chain - Bowes Street enabling works | Woden temporary bus interchange changes	08/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
17.	228-234	Attachment to previous email - 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1	25/03/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
18.	235-236	Email - Minutes from CIT Woden Campus Project Construction Information Group meeting on 2 May 2025	09/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
19.	237-247	Attachment to previous email - Lendlease CIG Presentation No.19_02052025.pdf	09/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes

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Section Ref No	Pages	Description	Date	Status	Reason for non-release or deferral	Open Access release status
20.	248-250	Email chain – Noise Complaints	20/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
21.	251-257	Email chain - Lendlease CIG Presentation No.19_02052025.pdf	21/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
22.	258-263	Email chain - Woden Public Transport Interchange - Traffic signalling	21/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
23.	264-275	Email chain - DOT POINTS: Proposed changes to Bowes St, Phillip	28/05/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
24.	276-278	Email chain - [EXT]:RE: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1	13/06/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
25.	279-280	Email chain - More night works	13/06/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes
26.	281-284	Email chain - CIT Woden P2 - Transport Interchange Community Engagement	07/07/2025	Partial release	Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy	Yes

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Section Ref No	Pages	Description	Date	Status	Reason for non-release or deferral	Open Access release status
Total						
26						


CIT Woden
Development
Construction Information
Group
lendlease

We acknowledge the Traditional Custodians of the land, the Ngunnawal People, and pay our respects to them and their Elders past and present.

As a business that works across many locations, we have a responsibility to listen, learn and walk alongside First Nations peoples to ensure our activities support their ongoing connection to their lands, waters, cultures, languages and traditions.

We value their custodianship of 65,000 years.

Section 3

Project Update

Key Upcoming Works

- Bus Interchange Civil
- Façade Installation
- Structural Steel
- Roofing
- Fit out
- Landscaping

lendlease

Package 2

- Civil Pavements
- Concrete Pavements
- Watermain
- Revised Staging of Works

lendlease

Package 3

- Concrete Structure Construction
- Façade Installation
- Structural Steel
- Roofing
- Fit out
- Landscaping

lendlease

Channels of Communication & Feedback

- General Enquires and Feedback

  citwoden@lendlease.com
- Urgent Enquires and Feedback

  Schedule 2.2(a)(ii)

Section 5

Questions

ACT Government
Major Projects Canberra

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Meeting Minutes

Woden CIT Project – TOWG Meeting	
Date	02 September 2024
Time	09:30am – 10:30am
Location	480NBA 00.022 (Capacity 12) or via Microsoft Teams

Attendees

Name		Organization	Role	Attended (Y/N)
Regular Membership				
Earl Alcon	EA	MPC	LRS2B Construction / Chair	Y
Matthew Mynott	MM	MPC	LRS2B Construction	Y
Graham Hampton	GH	MPC	LR Senior Site Surveillance	N
Martin Roberts	MR	MPC	CIT P2 & P3 Construction Manager	Y
Morsalin Sakib	MSa	MPC	CIT Design & Engineering Manager	Y
Thomas Moulds	TM	LLC	CIT Construction Manager	Y
Morgan Sidwell	MSi	LLC	CIT Site Manager	N
Gavin Barnes	GB	LLC	CIT P2 Senior Project Engineer	Y
Amanpreet Dhillon	AD	ACTION	Buses	N
Scot Neddrie	SN	ACTION	Buses	Y
Sarah Taylor-Dayus	ST-D	TCCS	EBM Planning & Delivery	Y
Ian McGlinn	IM	TCCS	EBM Bus Operations	Y
Peter Michalopoulos	PMi	TCCS	A/g Field Operations Manager Buses	N
Matt Mitchell	MMi	TCCS	Transport Officer Buses	N
Glenn Fairbairn	GF	TCCS	Transport Officer Buses	Y
Heidi Stephenson	HS	TCCS	Senior Direction Bus Operations	N
Michael Scott	MSc	TCCS	A/Assistant Director Buses	N
Richard Cockburn	RC	TCCS	Union Delegate	Y
Schedule 2.2(a)(ii)				
Paul Mascord	PMa	TCCS	Senior Director, Fleet Services	N
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	[redacted]	[redacted]
Optional Attendees				
Sarah Illy	SI	MPC	Communications and Events	Y

Hamish Chartres	HC	MPC	CIT Deputy Project Director	N
Kathy Piefke	KP	TCCS	Senior Director Bus Operations	N

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Major Projects Canberra

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Item No.	AGENDA - Discussion Items	Lead	Action
1	**Introductions & Apologies**	Chair	For Noting
2	**Safety / Operational Issues** 1. Nil discussed this meeting.	All	For Discussion
3	**2-Week Lookahead** 1. No LLC lookahead or program discussed this meeting.	LLC	For Discussion
4	**Traffic & TGS/TTMPs** Package 2: 1. TGSs presented: 1.1. North Callam St Closure Concept Plan & sub-plans/maps: 1.1.1. LLC Concept plan presented indicates some proposed changes to bus movements via Bowes, pedestrian movement changes, Traffic control requirements, closure of Hellenic Club on Matilda Street and traffic sequencing. 1.1.2. Nth Callam closure required to complete watermain crossing (critical scope), stormwater near Matilda Street and completion of all remaining civil scope Launceston to Matilda along Callam St. 1.1.3. Design scope on the pavements still being finalised and watermain approvals still ongoing but should have very soon. LLC are looking at restaging and sequencing the works to improve program. 1.1.4. LLC have currently programmed their works to take approx. 60 business to complete. A proposed indicative start of 03/10 would see completion of Nth Callam St Closure in mid-Jan 2025 (~17/01). Note that CIT project Christmas shutdown period is 20/12/24 to 05/01/25. 1.1.5. Traffic Controllers (TC) are positioned at Bowes/Matilda St intersection there to manage bus movements/avoid swept path clashes, assist alleviating congestion, and manage pedestrian movements near the crossing. TCCS raised a query on TC shift timings. LLC stated TCs can be provided between 5am-12am during bus operations. LLC assessing numbers & timings and will advise TCCS and Hellenic Club. 1.1.6. LLC are reviewing the current Matilda Street pedestrian crossing from the Temp Bus interchange Platform 1 to Hellenic Club and moving it west towards the car park area. LLC will provide update plans. The current ped position clashes with LLC drainage works required. 1.1.7. Traffic data requested last week on number of bus movements and phasing at Launceston/Bowes Street intersection to assess these plans. 1.1.8. Hellenic Club Loading Dock TC – during previous closure of this area a TC was always on site. TCCS want to see detailed plans for this section in next revision of the plans and how truck movements will be managed. 1.1.9. Buses previously using Bowes St – Hellenic Club access concerns	LLC	For Discussion

	with a single entrance only on Bowes. LLC considering mitigation measures to minimise congestion with traffic flow concerns previously experience at this location. LLC advised to consult with Hellenic Club and identified what they do here particularly during peak periods. 1.1.10. Enabling works / amendments to the northern end of the Temp Bus Interchange required to facilitate the bus movements. Scope drawings and additional TGS plan will be provided by LLC. 1.1.11. Nth end Temp Bus Interchange works being programmed prior to Nth Callam St Closure. Approx. 1 weeks work to complete these enabling/reconfiguration changes. Planned to remove/demo existing on night shifts then over several day shifts (approx. 4-5 days) to complete the new concrete infill works. LLC targeting works to be completed in advance/prior to the proposed indicative 03/10 Nth Callam St Closure start date. 1.1.12. Nth Callam St Closure TGS is approx. 2 weeks away from LLC lodging to Roads ACT for authorisation. 1.2. South Callam St Closure – *not presented by LLC but queries raised by the working group.* 1.2.1. No LLC plans presented this week. No date given, but concept plans are expected a few weeks away. 1.2.2. IM queried LLC on status of the Bus U-turn trial TGS plans. Next trial currently on hold until these TGS plans are provided. LLC still working through these plans. Road Safety Auditor coming Thursday this week to provide a report on the Temp Bus Interchange that can be provided. 1.2.3. IM queried LLC on status of the alternative option for Bowes Street 2-way option plans. 1.2.4. TWU currently no longer in favour of the next Bus U-turn trial with concerns the initial trial was deemed not successful from TWU. LLC have taken comments onboard and will come back to the group. 2. Upcoming TGSs: 2.1. Temporary Bus Interchange Reconfiguration works – LLC working with TTE to provide draft plans when submitting the North Callam St Closure TGS. 2.2. South Callam St Closure – Needing further modelling and assessment. LLC to provide soon including any Bus U-turn plans required for another trial to be discussed.		
5	**Other Directorates, Agencies, and projects** 1. Other projects: 1.1. Nil discussed this meeting. 2. Other Directorates: 2.1. TCCS: refer to Section 4 comments above. 2.2. ACTION Buses: refer to Section 4 comments above. 2.3. TWU: refer to Section 4 comments above. 2.4. Others: Nil comments	MPC	For Noting
6	**Other Business:** 1. Nil discussed this meeting.	All	For Discussion
	Next Meeting – **Friday 20 September 2024**		

McPhan, Simon

From: Alcon, Earl
Sent: Thursday, 26 September 2024 8:47 PM
To: Sakib, Morsalin; Roberts, Martin
Subject: FW: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)
Attachments: SALT-22151-SK-002-1.pdf; SALT-22151-SK-003-1.pdf; SALT-22151-SK-001-1.pdf; 24267 _TC_woden_diversion_map_v1.pdf; TTE22-WCP3-P3a-CPT 7.pdf; TTE22-WCP3-P3a-CPT 8.pdf; RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Gents,

Fyi from TCCS re North Callam closure TGS.

Earl Alcon – Construction Manager and Advisor – Light Rail
Phone: Schedule 2.2(a)(ii) Email: earl.alcon@act.gov.au
Light Rail | Major Projects Canberra | **ACT Government**
GPO Box 158 Canberra ACT 2601

I wish to acknowledge the Ngunnawal people as traditional custodians of the land and recognise any other people or families with connection to the lands of the ACT and region. I wish to acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

From: Bell, Jeff <Jeff.Bell@act.gov.au>
Sent: Thursday, September 26, 2024 11:51 AM
To: Alcon, Earl <Earl.Alcon@act.gov.au>
Subject: FW: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

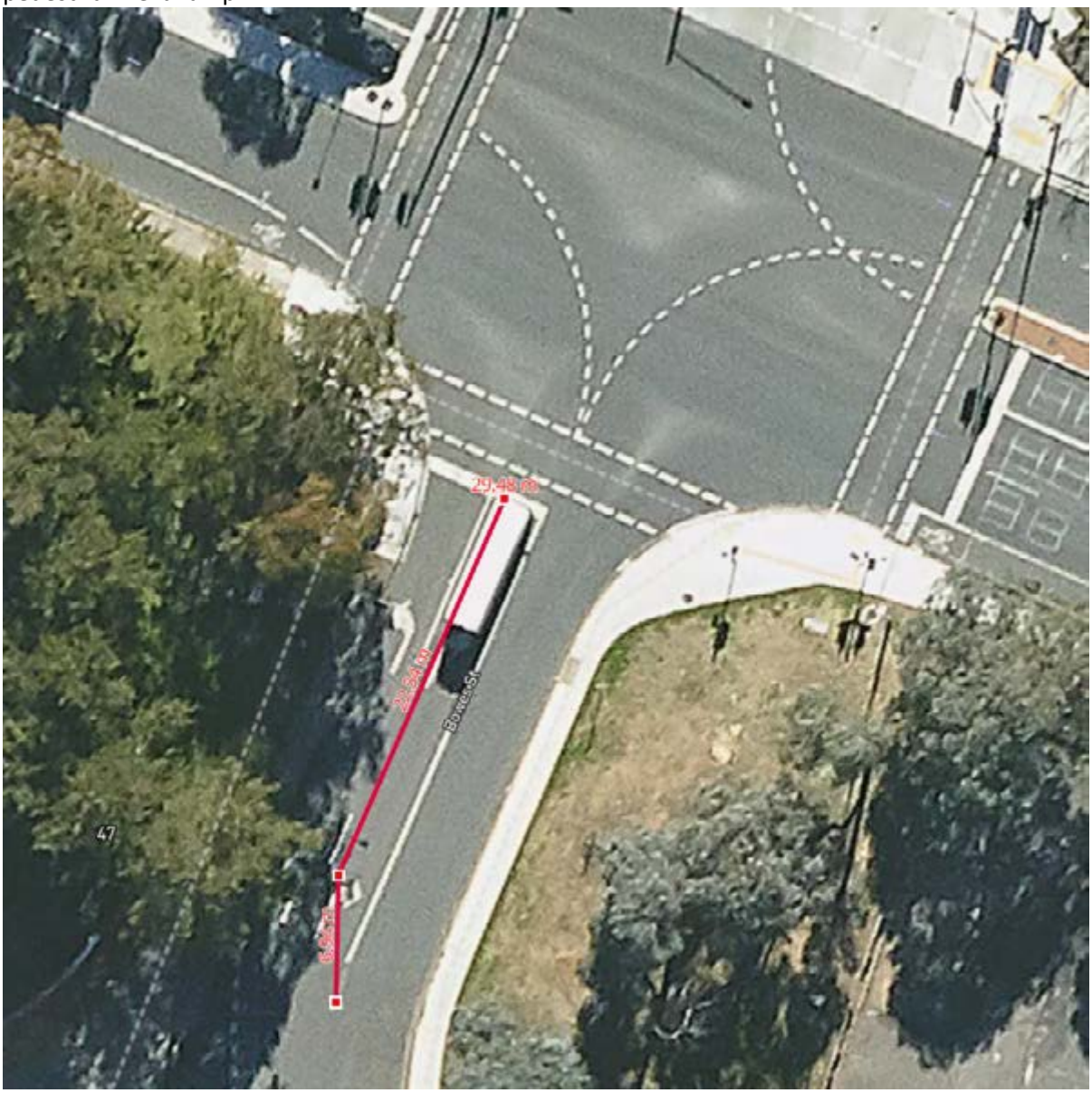
Hi Earl,
As we discussed, there are a few issues associated with the closure of the northern end of Callam Street. I will be providing this information directly to TTE, but I wanted to make sure that you are aware of the issues and potential resolutions.

Based on the information that we have received, Roads ACT provides the following comments/conditions with respect to the Launceston/Bowes intersection:

- The original design for the bus layover did not anticipate frequent left turn movements from Launceston Street into the layover. The kerb return radius and lane widths do not allow this movement to be undertaken without buses either encroaching on the adjacent traffic lane or the layover egress lane.
- The layover egress opposite Bowes Street, was designed for infrequent and/or emergency use only. The geometry of this intersection is not suitable for simultaneous ingress/egress movements.
- The left turn movement from Launceston Street into Bowes Street does not have adequate clearances for frequent bus turning movements, particularly if there are vehicles turning right from Bowes Street into Launceston Street.
- The consultant has not provided any traffic modelling to indicate the impact of the additional bus movements on the Bowes Street/Launceston Street or the Bowes Street/Matilda Street intersections e.g. approach and lane capacities, queue lengths, signal phasing, cycle times, etc.

In order to facilitate the required volume and frequency of bus movements in this area, the following actions will be required:

- Left turn from Launceston Street into the layover:
  - Cease the left turn movement; **or**
  - Increase the kerb radius to allow buses to make the turn without encroaching into the adjacent travel lane or the layover egress lane; **or**
  - Relocate the stop line for the layover egress back form the intersection to allow improved access for the left turn into the layover. This will alleviate the likelihood of left turning buses encroaching on the adjacent traffic lane or affecting the egress of buses from the layover.
- Left turn from Launceston Street into Bowes Street:
  - Use barriers to offset the road centreline. This will provide more room for buses to negotiate the intersection without crossing the road centreline and will allow for greater clearance to the pedestrian kerb ramp.



- Relocation of the pedestrian priority crossing on the northern approach of the Bowes St/Matilda St intersection. This crossing must be clear of where the traffic controllers will be operating.
- Traffic modelling of the Launceston Street/Bowes Street and the Bowes Street/Matilda Street intersections to determine the impacts of the proposed changes. The modelling must consider pedestrian movements, signal phasing, cycle times and queue lengths. This must form part of the Traffic Management Plan (TMP) for the project.

Please ensure that all future engineering drawings (e.g. swept path analysis, TCD changes, infrastructure relocations, etc) associated with this TTM are prepared and presented using an appropriate cadastral base that provides the following information:

- property boundaries,
- kerb lines,
- TCD,
- street lights,
- traffic signals,
- street trees,
- above ground municipal services infrastructure e.g. sub-stations, power poles, bike racks, etc.

Regards

Jeff Bell MIEAust CPEng | Director – Network Operations and Traffic Management
Phone: 02 6207 5604 | Mobile: Schedule 2.2(a)(ii) | Email: jeff.bell@act.gov.au
Roads ACT | Transport Canberra and City Services Directorate |ACT Government
480 Northbourne Ave Dickson ACT 2602 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

From: Scott, Michael <Michael.Scott@act.gov.au>
Sent: Thursday, September 19, 2024 4:19 PM
To: Poon, Kit <Kit.Poon@act.gov.au>; Bell, Jeff <Jeff.Bell@act.gov.au>; Bunnik, Chris <Chris.Bunnik@act.gov.au>
Cc: Paciorek, Greg <Greg.Paciorek@act.gov.au>; Powter, Luke <Luke.Powter@act.gov.au>; McGlinn, Ian <Ian.McGlinn@act.gov.au>
Subject: FW: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Kit / Jeff / Chris

I have consulted with my work colleagues and Transport Workers Union.

- Buses turn left into the Layover all the time from Launceston street into the bus layover. No issues. Buses come in from dead running to have their meals. They then head to Woden Interchange to start their Route runs.
- The Right turn into the Layover from Launceston also occurs.
- There has also been other closures due to the construction of the Woden Interchange – CIT where buses have turned Left from Launceston into Bowes and also from Bowes into the Layover in both directions.
- As discussed at yesterday's meeting the pressure pad works from the Layover to change the lights to cross over Launceston. I have previously tested in my work Ute.

As discussed the area of most concern where TC safety delegates have raised is the turn from Bowes Street left into Matilda street the request is for traffic controllers this has been put in place on several occasions in the past.

Happy to discuss.

Kind Regards

Michael Scott
A/Manager|Network Planning
Transport Canberra Planning and Delivery
| ✉ E-mail: michael.scott@act.gov.au

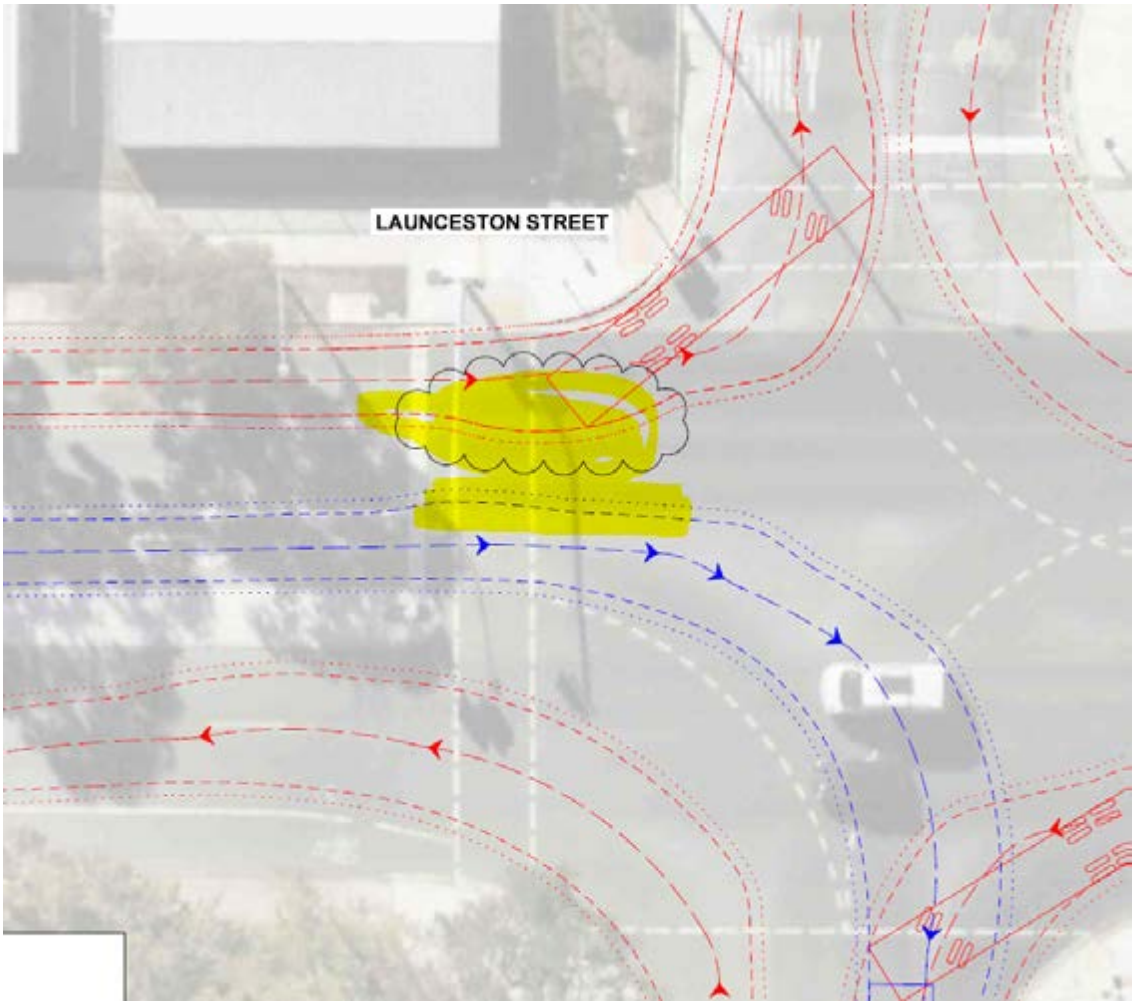
From: Poon, Kit <Kit.Poon@act.gov.au>
Sent: Wednesday, September 18, 2024 9:43 AM
To: Scott, Michael <Michael.Scott@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>; Bunnik, Chris <Chris.Bunnik@act.gov.au>
Subject: FW: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Michael,

As discussed, please find attached TTE's swept paths for the proposed changes at Launceston Street.

During the development of this signalised intersection, there was agreement at the time that buses would not need to turn left from Launceston St into the layover. This is why the through only pavement arrow was provided in the left lane (as you would not normally require this line marking). Below is a screenshot which illustrates that the swept path cannot be conducted without encroachment into the adjacent lane:



We can see that on site however, that a sign permitting buses to make this left turn has been installed. As far as I am aware, this does not line up with the GRID or TCDs at the time of commissioning.

Regards,

Kit Poon | Assistant Director, SCATS and Signals
P 02 6207 9605 | **M** Schedule 2.2(a)(ii)
Roads ACT | **Transport Canberra and City Services Directorate** | **ACT Government**
255 Canberra Avenue, Fyshwick 2609 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

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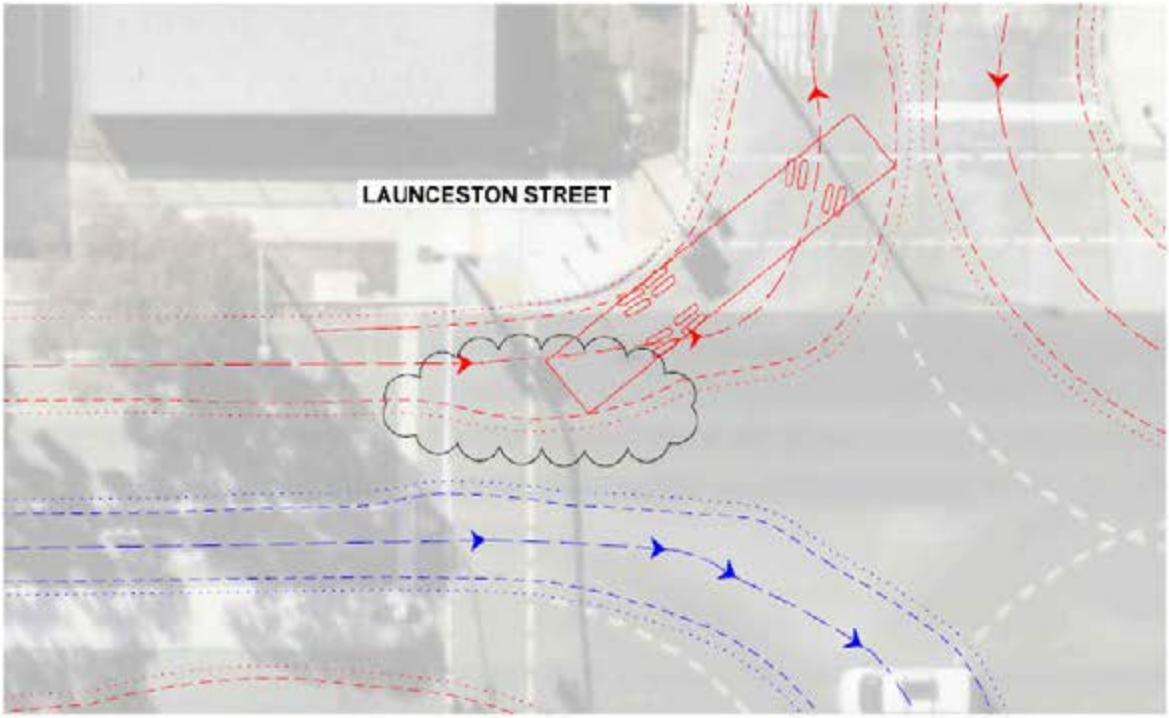
From: Schedule 2.2(a)(ii)
Sent: Friday, September 13, 2024 1:04 PM
To: Poon, Kit <Kit.Poon@act.gov.au>; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii)
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

Afternoon Kit,

See attached the completed swept paths for the following vehicles and commentary around the findings:

- 14.5m tag steer bus
- 17.75m articulated bus

Everything works ok with one exception, the 14.5m bus turning left into the layover area. The rear of the bus encroaches by approximately 500mm into the outside through lane – see below:



Further, this is with the bus travelling normally. If the bus driver is aware of this situation, they can instead hug the kerb line more, which *just* avoids any physical overhang – see below. I've included another swept path diagram with this option (Drawing Sk003).

Are you now able to assist with the review of the signal phasing and capability / network impacts if we proceed with the attached.

Additionally, we are reviewing the possibility of closure the southern end of Callam too. Perhaps you can add this into the review if we are ok with the results from closing North Callam or happy to have a separate conversation about this if you would prefer, concept is attached as an indication. ***TTE22-WCP3-P3a-CPT 8***

Kind Regards,

Schedule 2.2(a)(ii)

From: Poon, Kit <Kit.Poon@act.gov.au>
Sent: Tuesday, 3 September 2024 5:22 PM
To: Schedule 2.2(a)(ii) TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii)
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Schedule 2.2(a)(ii)

In this scenario, I would suggest that only the intersection of Launceston/Bowes requires modelling. All pedestrian and vehicle demands at Launceston/Callam should be moved across to an option model (based on the base model) of Launceston/Bowes.

From a signals perspective, the swept path I would be most concerned is the left turn into the layover whilst the emergency exit approach is occupied. There will be other non-signalised swept paths that will require checking.

The intersection is currently operating in isolated mode (also known as vehicle actuated mode). This means that phases are only called and extended when there are vehicles detected at the stop line detectors, or if pedestrian movements are operating requiring extension of the phase.
In the absence of vehicle demands on Launceston St, and if a vehicle then arrives at the stop line of the side road, the controller will immediately start transitioning to the side road phase.

Kind regards,

Kit Poon | Assistant Director, SCATS and Signals
P 02 6207 9605 | M [redacted]
Roads ACT | Transport Canberra and City Services Directorate | ACT Government
255 Canberra Avenue, Fyshwick 2609 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

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From: [redacted]
Sent: Tuesday, September 3, 2024 3:35 PM
To: Poon, Kit <Kit.Poon@act.gov.au>; [redacted]; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: [redacted] Bunnik, Chris <Chris.Bunnik@act.gov.au>; [redacted]
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Afternoon Kit,

Thank you for the below, we wanted to get your opinion of the capability of the intersection, these questions were what we were hoping you would have the answers to.

We will run swept path checks on this in detail design of the TGS, having had buses in this intersection before, we are not expecting to have an issue in this regard. As we are not able to carry out the modelling, we will have to discuss this with the WCIT Project team, assuming its not something you guys look at either.

With regards to the following, can you please explain what you mean by this to ensure we are understanding it correctly:
The intersection is operating in isolated mode. There is no extension of the arterial except due to vehicle demands.

Thanks in advance,

Kind Regards,

[redacted]

Schedule 2.2(a)(ii)

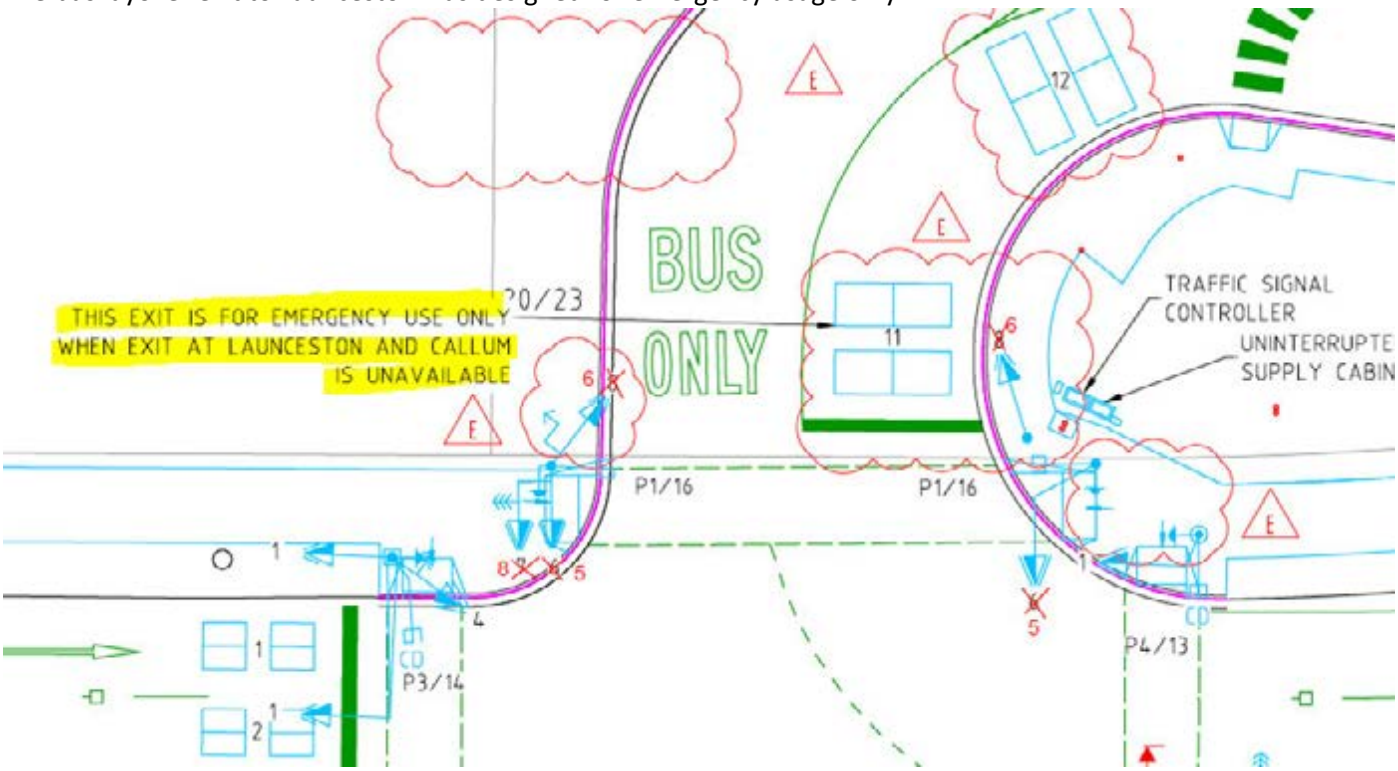
From: Poon, Kit <Kit.Poon@act.gov.au>
Sent: Tuesday, 3 September 2024 2:33 PM
To: Schedule 2.2(a)(ii) TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Schedule 2.2(a)

This intersection was originally designed on the proviso that buses would never need to turn left from Launceston into the layover whilst the emergency exit out of the layover was utilised.

The bus layover exit to Launceston was designed for emergency usage only:



Have you considered whether buses are able to perform all of the movements that are proposed in the TTM?

The intersection is operating in isolated mode. There is no extension of the arterial except due to vehicle demands. Have you noted any issues with the “efficiency/speed” of the current signal operation that we should be made aware of?

Regarding the capacity of the Launceston/Bowes intersection – the designer/proponent needs to provide modelling to show that this arrangement is workable. What are the expected delays and congestion that can be expected with this temporary layout?

Kind regards,

Kit Poon | Assistant Director, SCATS and Signals

P 02 6207 9605 | M Schedule 2.2(a)(ii)
Roads ACT | Transport Canberra and City Services Directorate | ACT Government
255 Canberra Avenue, Fyshwick 2609 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

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From: Bunnik, Chris <Chris.Bunnik@act.gov.au>
Sent: Tuesday, September 3, 2024 7:00 AM
To: [redacted] TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) [redacted] Poon, Kit <Kit.Poon@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi [redacted]

I have Kit Poon looking at it at the moment – he will respond soon.

Thanks
Chris

From: Schedule 2.2(a)(ii) [redacted]
Sent: Friday, August 30, 2024 3:40 PM
To: TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii) [redacted]
Subject: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

Hi Chris,

Please find attached concept plan for your review and information.
I believe this plan was spoken about in today's TTLG meeting.

We have received advice from Mark Norton that the bus movements using the Launceston/Callam St intersection number in the hundreds per day, breaking down to 3-4 movements /minute during peak time and at least 1 movement /minute outside of peak. Under the proposal, this network pressure would be moved to Bowes St.

Can you please review the Launceston/Bowes St intersection for its viability under the attached proposed layout? Specifically, are there any ways the signals can be phased to improve the efficiency of the intersection and allow for all the bus movements shown?

To further increase the efficiency/speed of the signals are there any pedestrian functions that can be closed and relocated to adjacent intersections?

Warm regards,

Schedule 2.2(a)(ii)

From: Illy, Sarah on behalf of CIT Campus Woden
Cc: CIT Campus Woden
Bcc: Schedule 2.2(a)(ii) "Lowder, Keeley (Health)"; Bowes Street Concierge; ; Chartres, Hamish; Navarro, Tania; Roberts, Martin; Clark, Darcy
Subject: CIT Woden Campus CIG 11 October > presentation and minutes
Date: Friday, 11 October 2024 4:00:00 PM
Attachments: Lendlease CIG Presentation No.18_11102024.pdf

Dear CIG members,

Please find below the minutes from today's Construction Information Group (CIG) meeting.

Attached is the presentation given by Lendlease.

Attendees:

Schedule 2.2(a)(ii)

- MPC: Hamish Chartres, Martin Roberts, Sarah Illy

Key updates provided:

- Staging plans to enable works on new Public Transport Interchange are in the process of being revised
- CIT Woden Campus landscaping works will commence towards the end of October requiring the relocation of the site sheds and west plaza fence line.
- Construction notifications will be circulated a minimum of 7 days before the start of works.

Queries raised / information requested:

- Phil requested details of the CIT Woden Campus landscaping (design, finish) and asked for more information on the site fence relocation works.

The next CIG meeting will be held at 11am on Friday 15 November. A cancellation will be sent through for the currently scheduled meeting on Friday 18 October.

If you have any questions or concerns, please contact citcampuswoden@act.gov.au.

Kind regards,

Sarah

Sarah Illy | Director, Communications & Engagement

M: Schedule 2.2(a)(ii) E: sarah.illy@act.gov.au

CIT Woden Campus | Major Projects Canberra | ACT Government

GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/majorprojectscanberra

Making flexible work - If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.


CIT Woden
Development
Construction Information
Group
lendlease

We acknowledge the Traditional Custodians of the land, the Ngunnawal People, and pay our respects to them and their Elders past and present.

As a business that works across many locations, we have a responsibility to listen, learn and walk alongside First Nations peoples to ensure our activities support their ongoing connection to their lands, waters, cultures, languages and traditions.

We value their custodianship of 65,000 years.

Section 3

Project Update

Key Upcoming Works

- Bus Interchange Civil
- Watermain
- Fit out works
- Landscape

lendlease

Package 2

- Civil Works
- Watermain
- Structural Steel Installation
- Revised Staging of Works

Package 3

- Roofing Works
- Landscaping
- Fit out works

lendlease

Package 3

- Relocation of Site Sheds & fence line 26/10
- Removal of Man & Material Hoist 18/10
- Removal of Tower crane 16/11

lendlease

Channels of Communication & Feedback

- General Enquires and Feedback

  citwoden@lendlease.com
- Urgent Enquires and Feedback

  Schedule 2.2(a)(ii)

Section 5

Questions

Lin, Mandy

From: Sakib, Morsalin
Sent: Wednesday, 4 December 2024 11:10 AM
To: Roberts, Martin; Schedule 2.2(a)(ii)
Subject: RE: [EXT]:RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)
Attachments: 22151TLET04F01.pdf; FW: [EXT]:RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

Hi Schedule 2.2

Thanks for getting the modelling done. Just wondering if the attached comments were addressed by TTE and updated TGS issued to Road ACT also?

No need to respond to below, will come over a bit later to discuss:

In the RoadACT comments, a comment was raised to consider modifying a lane on Bowes at the intersection as per below (Figure 1):

Post closure weekday PM lane config in the modelling report (page 40):

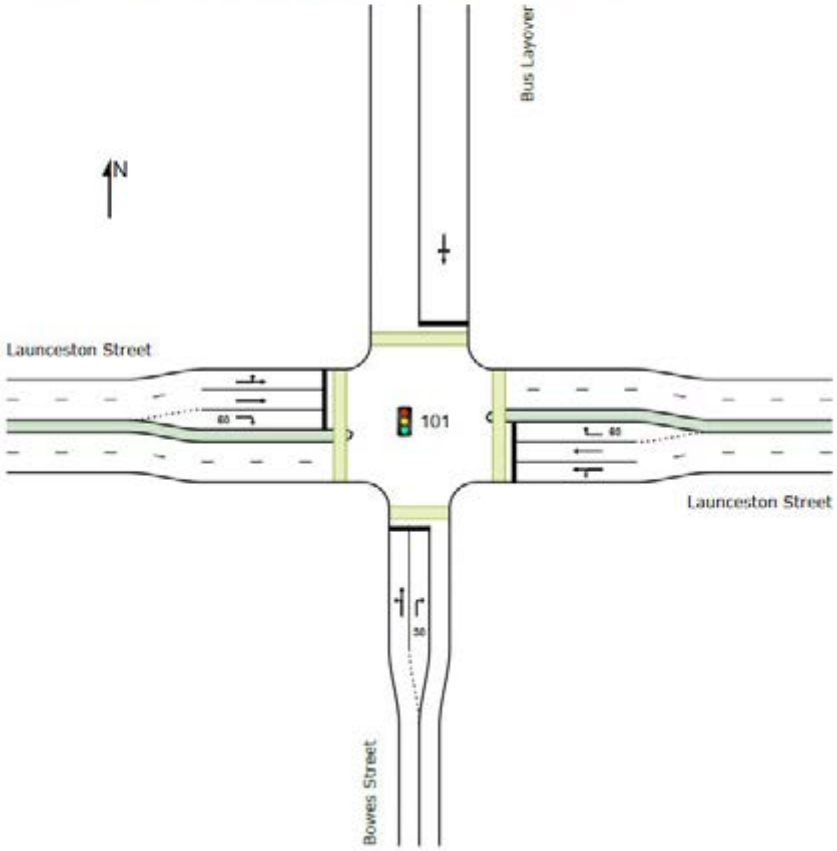
Post Closure Weekday PM Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



Kind Regards,

Morsalin Sakib | Design & Engineering Manager
Ph: Schedule 2.2(a)(ii) Email: morsalin.sakib@act.gov.au
CIT Woden Campus Project | Major Projects Canberra | ACT Government

---

From: Roberts, Martin <Martin.Roberts@act.gov.au>
Sent: Tuesday, 3 December 2024 4:32 PM
To: Schedule 2.2(a)(ii)
Cc: Sakib, Morsalin <Morsalin.Sakib@act.gov.au>
Subject: RE: [EXT]:RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hey Schedule 2.2

It might be worth getting Salt to confirm if there is alignment between SCATS data (rec 26/11/24) and the surveyed data. Along with covering the addition of South Callam buses on the intersection as discussed.

Regards

Martin Roberts | Construction Manager
Ngunnawal Country
Ph: Schedule 2.2(a)(ii) Email: martin.roberts@act.gov.au
CIT Campus - Woden Project | Infrastructure Canberra | ACT Government

Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.

From: Schedule 2.2(a)(ii) [redacted]
Sent: Tuesday, 3 December 2024 2:16 PM
To: Sakib, Morsalin <Morsalin.Sakib@act.gov.au>; Schedule 2.2(a)(ii) [redacted] Alcon, Earl <Earl.Alcon@act.gov.au>; Schedule 2.2(a)(ii) [redacted] Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii) [redacted]; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>; Poon, Kit <Kit.Poon@act.gov.au>; Evans, Colin <Colin.Evans@act.gov.au>
Cc: Roberts, Martin <Martin.Roberts@act.gov.au>
Subject: RE: [EXT]:RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

All,

Please see attached report and below response to close out the below.

We have undertaken our intersection modelling assessment and found that, generally, the closure of the northern end of Callam Street will have no significant impact on the operation of Launceston / Bowes Street and Bowes Street / Matilda Street.
These intersections are found to suitably accommodate the bus movements currently occurring at Launceston / Callam Street, operating within acceptable limits.

Some of the key findings are summarised below:

Weekday AM peak hour (8-9am)

- *A total of 69 buses exited Callam Street and a total of 71 buses entered Callam Street*
- *Adding these movements instead to Bowes Street and Matilda Street has no detrimental impact to the operation of the intersections*
    - *Launceston / Bowes Street has an increased Level of Service (LOS) from B to C with Degree of Saturation (DOS) remaining acceptable (increased from 0.389 to 0.563)*
    - *The queue on the southern leg of Bowes Street increases from 28m to 44m*
    - *Bowes / Matilda has an increased DOS from 0.159 to 0.240 (well within acceptable limits)*
- *Currently, no buses are exiting the layover on the northern leg of Launceston / Bowes Street, so the accommodating signal phase does not run in the AM peak hour. Buses are exiting the layover at Callam Street, so these would be transferred over to the Bowes Street exit of the layover and the signal phasing would need to run to accommodate this which has been included in the model (ie. signal phasing is not exactly the same under existing and post closure conditions)*

Weekday PM peak hour (4:30-5:30pm)

- *A total of 59 buses exited Callam Street and a total of 59 buses entered Callam Street*
- *Adding these movements instead to Bowes Street and Matilda Street again has no detrimental impact to the operation of the intersections*
    - *Launceston / Bowes Street has an increased Level of Service (LOS) from B to C with Degree of Saturation (DOS) remaining acceptable (increased from 0.480 to 0.576)*
    - *The queue on the southern leg of Bowes Street increases marginally from 33m to 34m*
    - *Bowes / Matilda has an increased DOS from 0.122 to 0.235 (well within acceptable limits)*
- *As per the AM peak, currently, no buses are exiting the layover on the northern leg of Launceston / Bowes Street, so the accommodating signal phase does not run in the PM peak hour. Buses are exiting the layover at Callam Street, so these would be transferred over to the Bowes Street exit of the layover and the signal phasing would need to run to accommodate this which has been included in the model (ie. signal phasing is not exactly the same under existing and post closure conditions)*

Weekend peak hour (9am-10am)

- *All traffic volumes are lower than the weekday AM and PM peak hours*
- *A total of 27 buses exited Callam Street and a total of 26 buses entered Callam Street*
- *Adding these movements instead to Bowes Street and Matilda Street again has no detrimental impact to the operation of the intersections*
    - *Launceston / Bowes Street LOS remains at a level B and Degree of Saturation (DOS) remains acceptable (increased from 0.159 to 0.190)*
    - *The queue on the southern leg of Bowes Street increases marginally from 8 to 10m*
    - *Bowes / Matilda has an increased DOS from 0.048 to 0.068 (well within acceptable limits)*
- *As per the weekday peak, currently, no buses are exiting the layover on the northern leg of Launceston / Bowes Street, so the accommodating signal phase does not run in the weekend peak hour. Buses are exiting the layover at Callam Street, so these would be transferred over to the Bowes Street exit of the layover and the signal phasing would need to run to accommodate this which has been included in the model (ie. signal phasing is not exactly the same under existing and post closure* conditions)

Schedule 2.2(a)(ii)

[redacted]

From: Bell, Jeff <Jeff.Bell@act.gov.au>
Sent: Thursday, 26 September 2024 11:50 AM
To: Schedule 2.2(a)(ii) [redacted]
Cc: Schedule 2.2(a)(ii) [redacted] Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii) [redacted]; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>; Poon, Kit <Kit.Poon@act.gov.au>; Evans, Colin <Colin.Evans@act.gov.au>; Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>; Alcon, Earl <Earl.Alcon@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

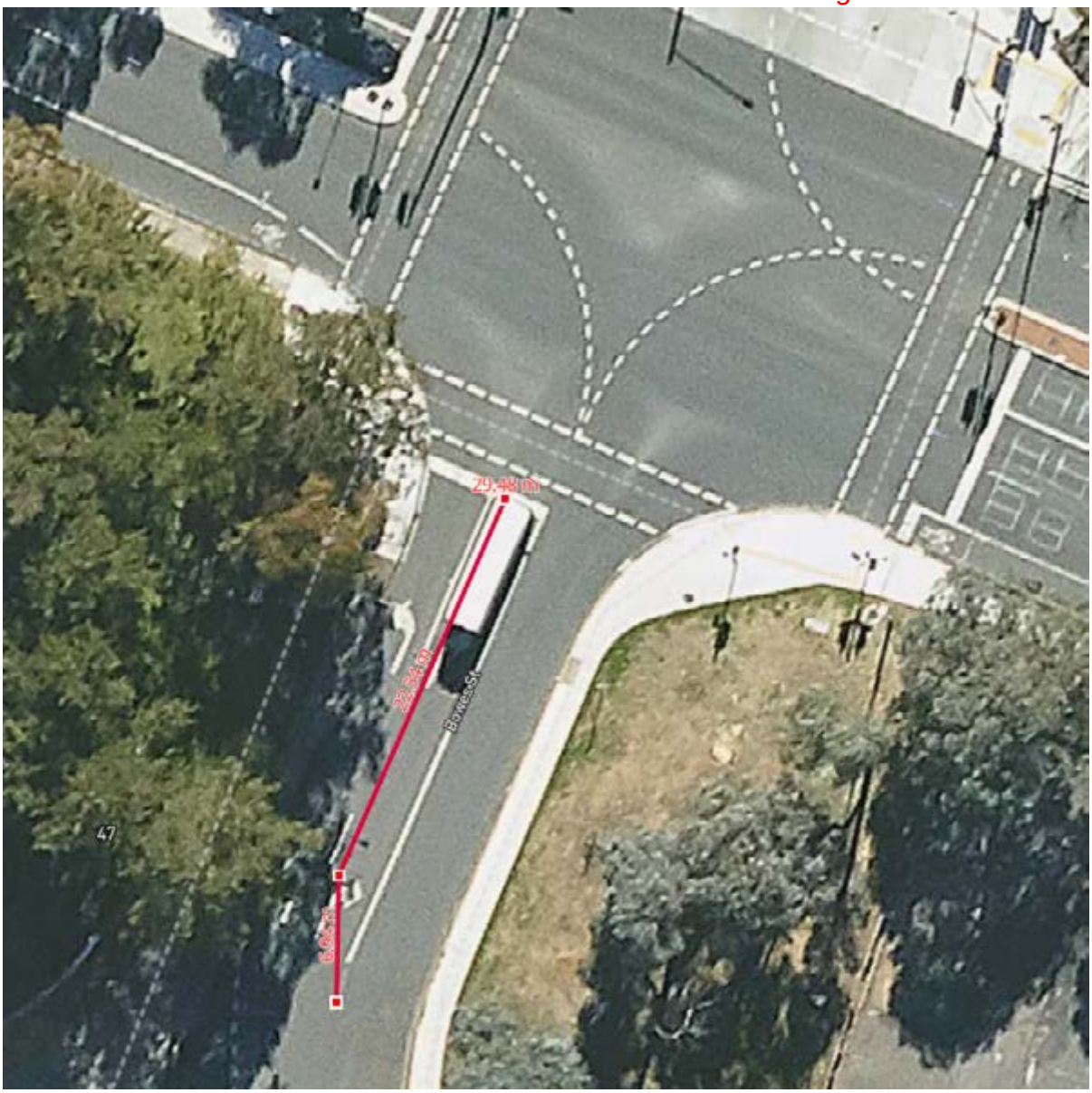
Hi Schedule 2.2(a)(ii) [redacted]
As you can appreciate, this an extremely sensitive part of the road network and we need to ensure that it can operate effectively and safely whilst the northern end of Callam Street is closed.

Based on the information that we have received, Roads ACT provides the following comments/conditions with respect to the Launceston/Bowes intersection:

- The original design for the bus layover did not anticipate frequent left turn movements from Launceston Street into the layover. The kerb return radius and lane widths do not allow this movement to be undertaken without buses either encroaching on the adjacent traffic lane or the layover egress lane.
- The layover egress opposite Bowes Street, was designed for infrequent and/or emergency use only. The geometry of this intersection is not suitable for simultaneous ingress/egress movements.
- The left turn movement from Launceston Street into Bowes Street does not have adequate clearances for frequent bus turning movements, particularly if there are vehicles turning right from Bowes Street into Launceston Street.
- The consultant has not provided any traffic modelling to indicate the impact of the additional bus movements on the Bowes Street/Launceston Street or the Bowes Street/Matilda Street intersections e.g. approach and lane capacities, queue lengths, signal phasing, cycle times, etc.

In order to facilitate the required volume and frequency of bus movements in this area, the following actions will be required:

- Left turn from Launceston Street into the layover:
    - Cease the left turn movement; **or**
    - Increase the kerb radius to allow buses to make the turn without encroaching into the adjacent travel lane or the layover egress lane; **or**
    - Relocate the stop line for the layover egress back form the intersection to allow improved access for the left turn into the layover. This will alleviate the likelihood of left turning buses encroaching on the adjacent traffic lane or affecting the egress of buses from the layover.
- Left turn from Launceston Street into Bowes Street:
    - Use barriers to offset the road centreline. This will provide more room for buses to negotiate the intersection without crossing the road centreline and will allow for greater clearance to the pedestrian kerb ramp.



- Relocation of the pedestrian priority crossing on the northern approach of the Bowes St/Matilda St intersection. This crossing must be clear of where the traffic controllers will be operating.
- Traffic modelling of the Launceston Street/Bowes Street and the Bowes Street/Matilda Street intersections to determine the impacts of the proposed changes. The modelling must consider pedestrian movements, signal phasing, cycle times and queue lengths. This must form part of the Traffic Management Plan (TMP) for the project.

Please ensure that all future engineering drawings (e.g. swept path analysis, TCD changes, infrastructure relocations, etc) associated with this TTM are prepared and presented using an appropriate cadastral base that provides the following information:

- property boundaries,
- kerb lines,
- TCD,
- street lights,
- traffic signals,
- street trees,
- above ground municipal services infrastructure e.g. sub-stations, power poles, bike racks, etc.

Regards

Jeff Bell MIEAust CPEng | Director – Network Operations and Traffic Management
Phone: 02 6207 5604 | Mobile: [redacted] | Email: jeff.bell@act.gov.au
Roads ACT | Transport Canberra and City Services Directorate | ACT Government
480 Northbourne Ave Dickson ACT 2602 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

From: [redacted]
Sent: Wednesday, September 25, 2024 12:58 PM
To: Bell, Jeff <Jeff.Bell@act.gov.au>
Cc: [redacted]; Bunnik, Chris <Chris.Bunnik@act.gov.au>; [redacted]; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>; Poon, Kit <Kit.Poon@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Afternoon Jeff,

Following up on this one. We appear to have stalled and are now unsure of what else is required to proceed with the TGS and associated approval.

Appreciate your guidance, as soon as possible.

Kind Regards,

[redacted]

From: [redacted]
Sent: Tuesday, 17 September 2024 1:12 PM
To: Poon, Kit <Kit.Poon@act.gov.au>; Bell, Jeff <Jeff.Bell@act.gov.au>
Cc: [redacted]; Bunnik, Chris <Chris.Bunnik@act.gov.au>; [redacted]; Matt Sibrava <matt@territorytraffic.com.au>; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

Ok, Thanks Kit,

We were under the impression you were the correct point of contact for the enquiry in our initial email, apologies for wasting any of your time.

@Bell, Jeff, if you can shed any light on what it required that would be greatly appreciated, let me know if you are missing any of the details offered in the below conversation.

Kind Regards,

Schedule 2.2(a)(ii)

From: Poon, Kit <Kit.Poon@act.gov.au>
Sent: Tuesday, 17 September 2024 9:33 AM
To: Schedule 2.2(a)(ii)
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii) Bell, Jeff <Jeff.Bell@act.gov.au>; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Schedule 2.2(a)(ii)

I have forwarded your email through to Jeff Bell - Director, Network Operations whose team is best placed to respond.

It is not our place to determine impacts to capacity due to temporary road closures – per my previous email dated 3 September, the designer/proponent should provide traffic modelling which demonstrates that the closure can be accommodated with the existing demands on the road network. This modelling should also include any proposed changes to traffic signal phasing.

If you require traffic signal drawings or detector counts/pedestrian demands to inform the modelling, please contact our TMC who will be happy to assist.

Kind regards,

Kit Poon | Assistant Director, SCATS and Signals
P 02 6207 9605 | **M** Schedule 2.2(a)(ii)
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From: Schedule 2.2(a)(ii)
Sent: Friday, September 13, 2024 1:04 PM
To: Poon, Kit <Kit.Poon@act.gov.au>; TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii)
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

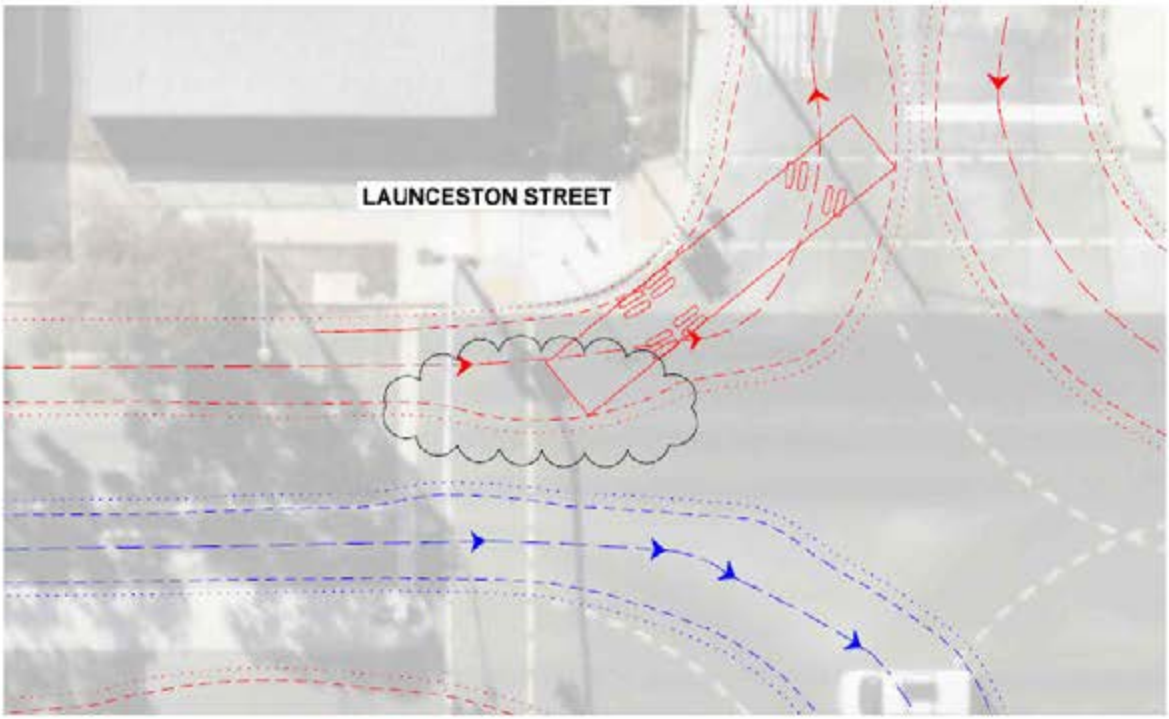
OFFICIAL

Afternoon Kit,

See attached the completed swept paths for the following vehicles and commentary around the findings:

- 14.5m tag steer bus
- 17.75m articulated bus

Everything works ok with one exception, the 14.5m bus turning left into the layover area. The rear of the bus encroaches by approximately 500mm into the outside through lane – see below:



Further, this is with the bus travelling normally. If the bus driver is aware of this situation, they can instead hug the kerb line more, which *just* avoids any physical overhang – see below. I've included another swept path diagram with this option (Drawing Sk003).

Are you now able to assist with the review of the signal phasing and capability / network impacts if we proceed with the attached.

Additionally, we are reviewing the possibility of closure the southern end of Callam too. Perhaps you can add this into the review if we are ok with the results from closing North Callam or happy to have a separate conversation about this if you would prefer, concept is attached as an indication. ***TTE22-WCP3-P3a-CPT 8***

Kind Regards,

Schedule 2.2(a)(ii)

From: Poon, Kit <Kit.Poon@act.gov.au>
Sent: Tuesday, 3 September 2024 5:22 PM
To: Schedule 2.2(a)(ii) TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii)
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Schedule 2.2(a)(ii)

In this scenario, I would suggest that only the intersection of Launceston/Bowes requires modelling. All pedestrian and vehicle demands at Launceston/Callam should be moved across to an option model (based on the base model) of Launceston/Bowes.

From a signals perspective, the swept path I would be most concerned is the left turn into the layover whilst the emergency exit approach is occupied. There will be other non-signalised swept paths that will require checking.

The intersection is currently operating in isolated mode (also known as vehicle actuated mode). This means that phases are only called and extended when there are vehicles detected at the stop line detectors, or if pedestrian movements are operating requiring extension of the phase.
In the absence of vehicle demands on Launceston St, and if a vehicle then arrives at the stop line of the side road, the controller will immediately start transitioning to the side road phase.

Kind regards,

Kit Poon | Assistant Director, SCATS and Signals
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From: Schedule 2.2(a)(ii)
Sent: Tuesday, September 3, 2024 3:35 PM
To: Poon, Kit <Kit.Poon@act.gov.au>; Schedule 2.2(a)(ii) TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii)
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

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Afternoon Kit,

Thank you for the below, we wanted to get your opinion of the capability of the intersection, these questions were what we were hoping you would have the answers to.

We will run swept path checks on this in detail design of the TGS, having had buses in this intersection before, we are not expecting to have an issue in this regard. As we are not able to carry out the modelling, we will have to discuss this with the WCIT Project team, assuming its not something you guys look at either.

With regards to the following, can you please explain what you mean by this to ensure we are understanding it correctly:
The intersection is operating in isolated mode. There is no extension of the arterial except due to vehicle demands.

Thanks in advance,

Kind Regards,

Schedule 2.2(a)(ii)

Schedule 2.2(a)(ii)

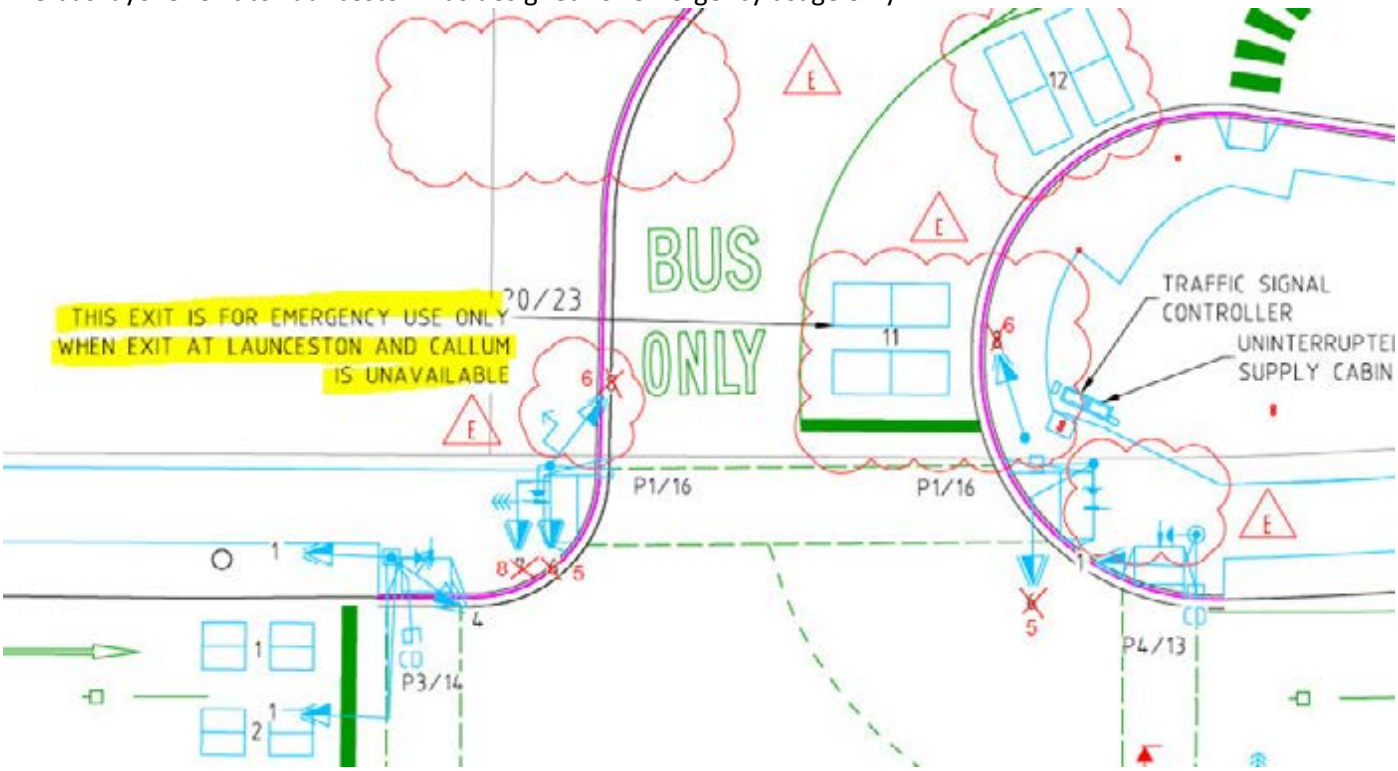
From: Poon, Kit <Kit.Poon@act.gov.au>
Sent: Tuesday, 3 September 2024 2:33 PM
To: Schedule 2.2(a)(ii) TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) ; Bunnik, Chris <Chris.Bunnik@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi Schedule 2.2(a)

This intersection was originally designed on the proviso that buses would never need to turn left from Launceston into the layover whilst the emergency exit out of the layover was utilised.

The bus layover exit to Launceston was designed for emergency usage only:



Have you considered whether buses are able to perform all of the movements that are proposed in the TTM?

The intersection is operating in isolated mode. There is no extension of the arterial except due to vehicle demands. Have you noted any issues with the “efficiency/speed” of the current signal operation that we should be made aware of?

Regarding the capacity of the Launceston/Bowes intersection – the designer/proponent needs to provide modelling to show that this arrangement is workable. What are the expected delays and congestion that can be expected with this temporary layout?

Kind regards,

Kit Poon | Assistant Director, SCATS and Signals

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From: Bunnik, Chris <Chris.Bunnik@act.gov.au>
Sent: Tuesday, September 3, 2024 7:00 AM
To: Schedule 2.2(a)(ii) TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Schedule 2.2(a)(ii) Poon, Kit <Kit.Poon@act.gov.au>
Subject: RE: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

OFFICIAL

Hi [redacted]

I have Kit Poon looking at it at the moment – he will respond soon.

Thanks
Chris

From: Schedule 2.2(a)(ii)
Sent: Friday, August 30, 2024 3:40 PM
To: TCCS_RA TrafficManagementCentre <TCCS.TMC@act.gov.au>
Cc: Bunnik, Chris <Chris.Bunnik@act.gov.au>; Schedule 2.2(a)(ii)
Subject: Woden CIT Phase3 - Civil - Phase 3a - North Callam Closure (TTE24-WCP3-Ph3a-CPT 7)

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Hi Chris,

Please find attached concept plan for your review and information.
I believe this plan was spoken about in today's TTLG meeting.

We have received advice from Mark Norton that the bus movements using the Launceston/Callam St intersection number in the hundreds per day, breaking down to 3-4 movements /minute during peak time and at least 1 movement /minute outside of peak. Under the proposal, this network pressure would be moved to Bowes St.

Can you please review the Launceston/Bowes St intersection for its viability under the attached proposed layout? Specifically, are there any ways the signals can be phased to improve the efficiency of the intersection and allow for all the bus movements shown?

To further increase the efficiency/speed of the signals are there any pedestrian functions that can be closed and relocated to adjacent intersections?

Warm regards,

Schedule 2.2(a)(ii)

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Sustainable Transport Surveys Pty Ltd
ABN: 18 439 813 274
www.salt3.com.au

3 December 2024

Schedule 2.2(a)(ii) [redacted]
Lendlease
Level 3, 224 Bunda Street
Canberra ACT 2600

Dear [redacted]

Re: CALLAM STREET CLOSURE TRAFFIC MODELLING
Project No: 22151

We refer to your request to undertake a traffic modelling assessment of the intersections of Launceston Street / Bowes Street and Bowes Street / Matilda Street to ensure they can operate effectively and safely post closure of the northern end of Callam Street.

Once the northern end of Callam Street is closed, buses will be directed via Matilda Street and Bowes Street to travel between the bus interchange and Launceston Street, rather than their current route via Matilda Street and Callam Street. The purpose of this report is to assess the operation of Launceston Street / Bowes Street and Bowes Street / Matilda Street with the additional bus traffic.

In the course of preparing this report, the following has been undertaken:

- Traffic volume data has been collected and analysed;
- Pedestrian volume data has been collected and analysed;
- Traffic signal phasing information has been sourced;
- SIDRA modelling has been undertaken; and
- The operation of the key intersections has been assessed.

The following sets out SALT's findings.

1 TRAFFIC VOLUMES

1.1 EXISTING VOLUMES

In order to ascertain the existing traffic volumes at the subject intersections, turning movement counts were commissioned. These took place on Thursday 21st November 2024 between 7:00am-9:00am and 3:00pm-6:00pm, and on Saturday 23rd November 2024 between 7:00am-10:00am. This represents a typical weekday and weekend day during the school term and not impacted by any public holidays. The time periods aim to capture the peak commuter hours as well as bus service hours.

The counts were undertaken at Launceston Street / Bowes Street, Launceston Street / Callam Street and Bowes Street / Matilda Street intersection. Whilst Launceston Street / Callam Street is not being modelled, it was surveyed to capture the quantity and distribution of bus movements under existing conditions.

A pedestrian count was also undertaken at the zebra crossing on the northern leg of Bowes Street / Matilda Street.

The survey locations are depicted in Figure 1.

Figure 1 Traffic and pedestrian count locations

By analysis of the traffic volume data, the peak hours of activity were found to occur between 8:00am–9:00am and between 4:30–5:30pm on the Thursday, and between 9:00am–10:00am on the Saturday. The Saturday volumes were found to be far lower than the weekday peak hour volumes.

The peak hour turning movements are presented in the Figure 2 to Figure 4, with pedestrian volumes provided in Figure 5. Detailed data is provided in APPENDIX 1.

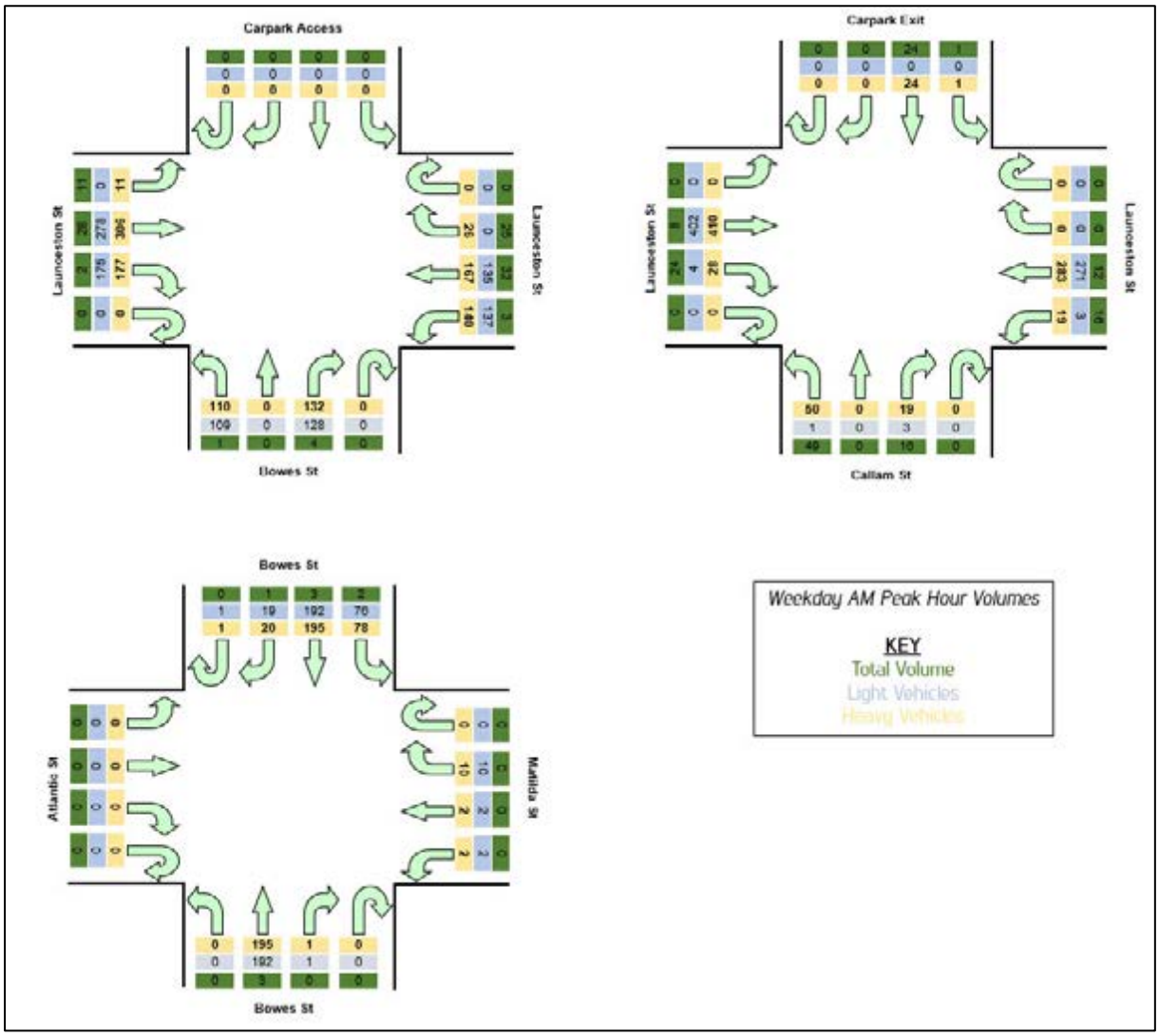


Figure 2 Weekday AM peak hour traffic volumes

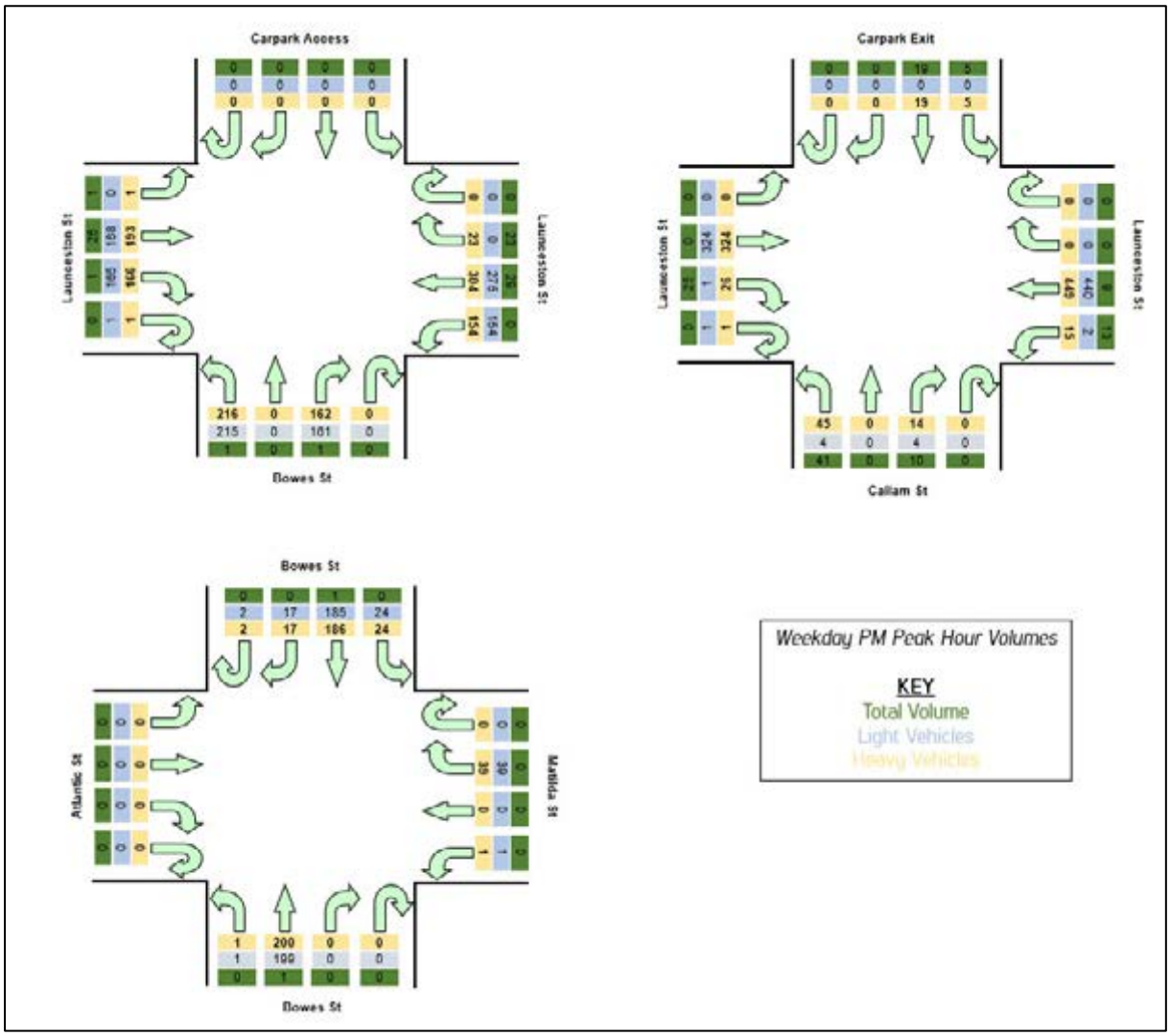


Figure 3 Weekday PM peak hour traffic volumes

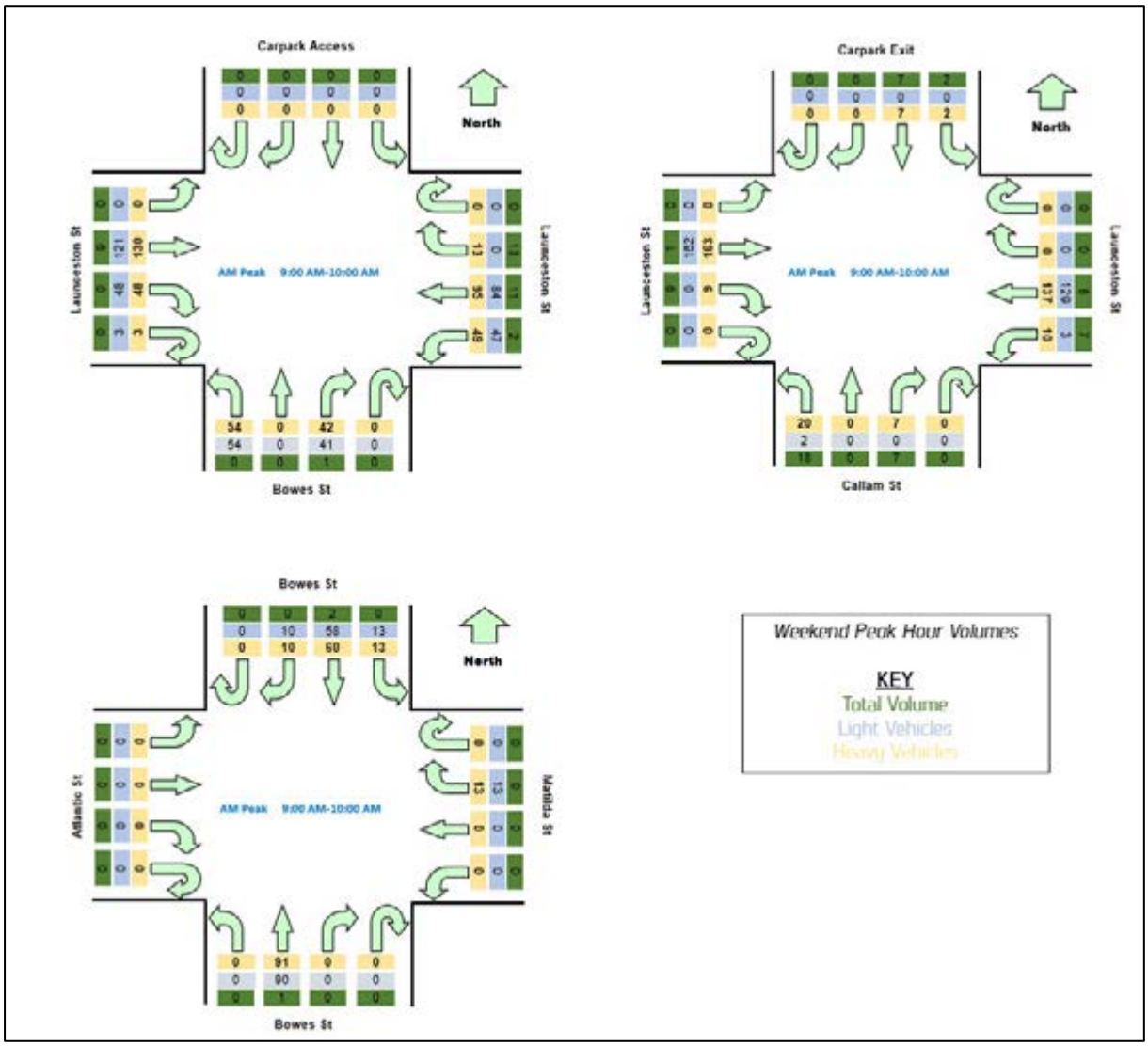


Figure 4 Weekend peak hour traffic volumes

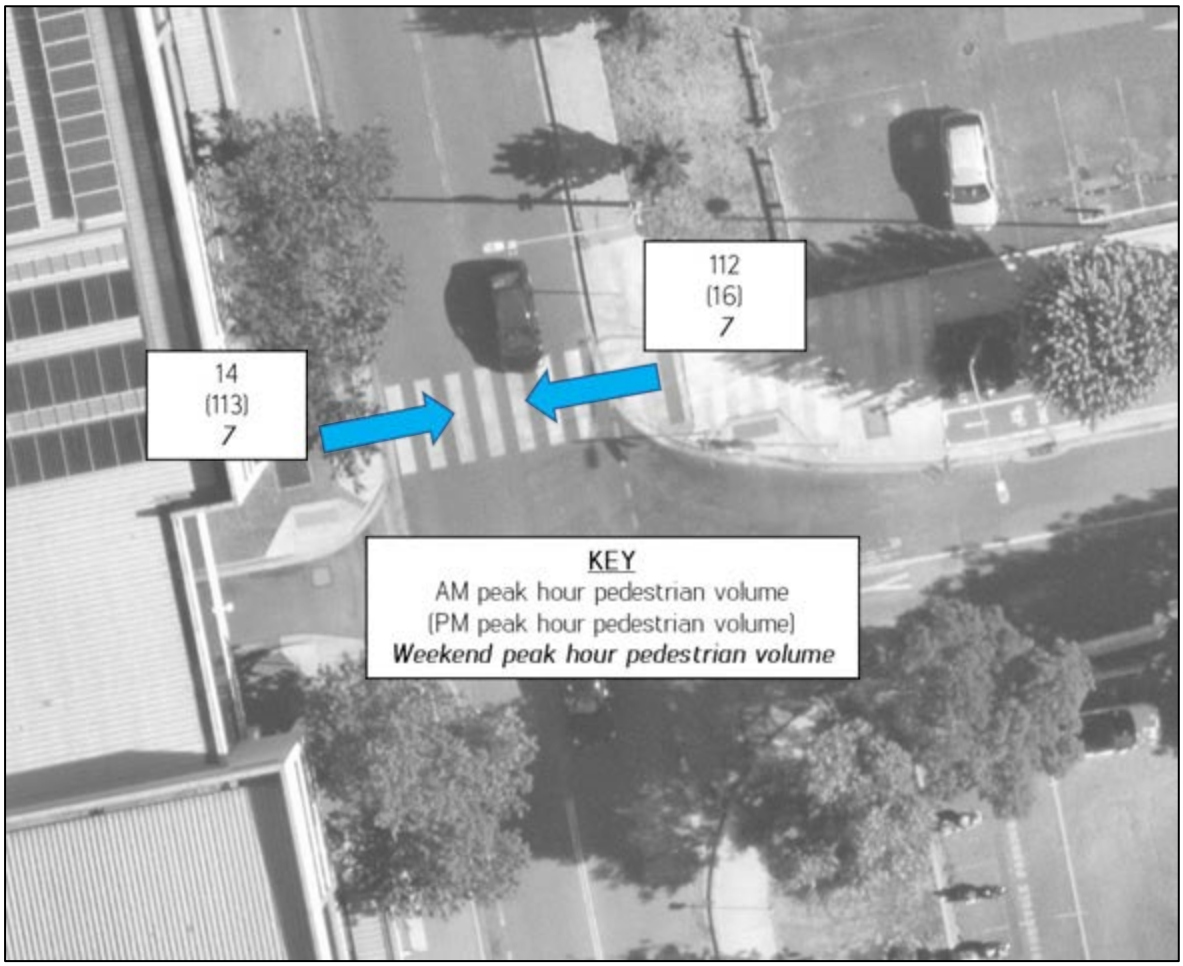


Figure 5 Peak hour pedestrian volumes

1.2 POST-CLOSURE VOLUMES

Post-closure of the northern end of Callam Street, existing bus movement into and out of Callam Street at Launceston Street will be transferred over to the intersection of Launceston Street / Bowes Street to access the bus interchange via Matilda Street.

It is assumed that bus movements will be distributed in the same fashion as per existing conditions. For example, under existing conditions in the AM peak hour, a total of 69 buses exit Callam Street including 50 left-turns and 19 right-turns. Post-closure, 69 buses are added as right turns from Matilda Street to Bowes Street, 50 vehicles are added to left turns from Bowes Street to Launceston Street and 19 vehicles are added as right-turns from Bowes Street to Launceston Street. This is done for all movements into and out of Callam Street at Launceston Street.

Vehicles travelling south from the bus layover at Callam Street to the bus interchange are assumed to exit the bus layover at Bowes Street post-closure as they cannot turn right from the Callam Street layover exit onto Launceston Street.

2 SIDRA ANALYSIS

2.1 ASSUMPTIONS AND SETTINGS

The operation of the intersections of Launceston Street / Bowes Street and Bowes Street / Matilda Street have been assessed using SIDRA Intersection v9.1. SIDRA is an advanced micro-analytical traffic evaluation tool that provides estimates of capacity and performance statistics (delay, queue lengths etc) on a lane-by-lane basis.

The operation of the intersection has been assessed for the critical weekday AM and PM peak hours and the weekend peak hour under existing conditions, and post closure of Callam Street, with bus movements transferred over from Callam Street to Bowes Street.

Key performance criteria include:

Degree of Saturation (DOS): This represents the ratio of traffic volume to capacity. Generally speaking, a DOS of below 0.9 indicates acceptable performance. A DOS of over 1.0 indicates that capacity has been exceeded.

Level of Service (LOS): An index of the operational performance of traffic based on service measures such as delay, degree of saturation, density and speed during a given flow period. A guide to LOS ratings is provided in Table 1.

Average Delay: The average delay time that can be expected for a given movement.

95th Percentile Queue: The maximum queue length that can be expected in 95% of all observed queue lengths during the hour.

Table 1 Control delay for vehicle LoS calculations (RTA NSW Method)

Level of Service	Control delay per vehicle in seconds (d) (including geometric delay)	Traffic Signals, Roundabout	Give Way and Stop Signs Good operation
	All intersection types		
A	d < 14	Good operation	Good operation
B	d < 15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	d < 29 to 42	Satisfactory	Satisfactory, but accident study required
D	d < 43 to 56	Operating near capacity	Near capacity & accident study required
E	d ≤ 57 to 70	At capacity, at signals, incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	d > 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

The following assumptions have been applied:

- Extra bunching of 20% has been applied to the western leg of Launceston Street to account for platooning of traffic due to the signalised pedestrian crossing just over 100m to the west of Bowes Street;
- Extra bunching of 50% has been applied to the eastern leg of Launceston Street to account for platooning of traffic due to the traffic signals at Easty Street (assuming the Callam Street intersection is closed and signals aren't operating); and
- Extra bunching of 20% has been applied to the northern leg of Bowes Street (at the Matilda Street intersection) to account for platooning of traffic due to the traffic signals at Launceston Street.

2.2 SIGNAL INFORMATION

Information relating to the existing signal phasing and timing at Launceston Street / Bowes Street has been provided to SALT by ACT Government.

The signal phasing diagram is provided in Figure 6.

Signal timing data was provided for 19 November 2024 which was a typical weekday during the school term. By review of this data, it was found that during the weekday and weekend peak hours, generally only phases A, D and F are running, as depicted in Figure 7. This is due to the lack of vehicles exiting the northern leg (bus layover). The average phase times for each peak hour have been extracted from this data and input to the SIDRA model for the existing condition.

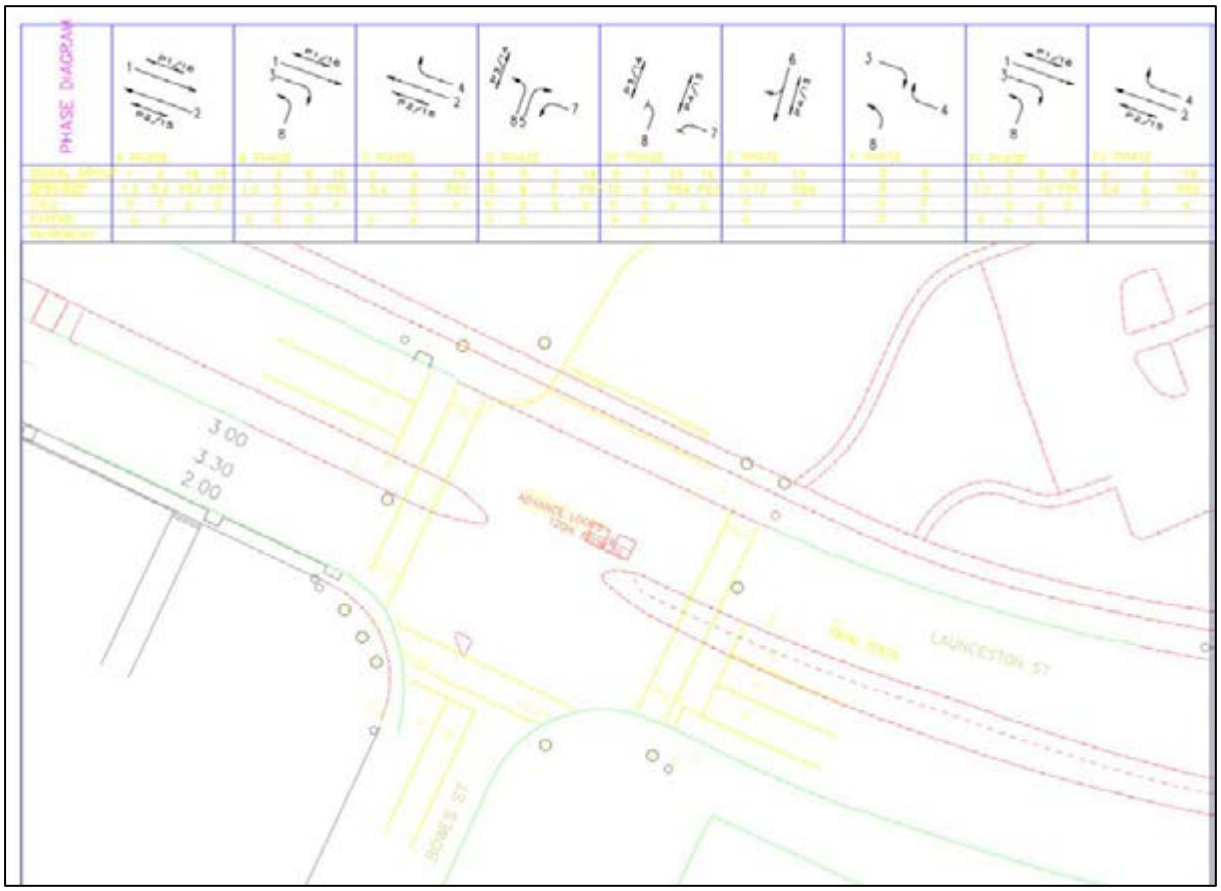


Figure 6 Launceston Street / Bowes Street signal phasing diagram

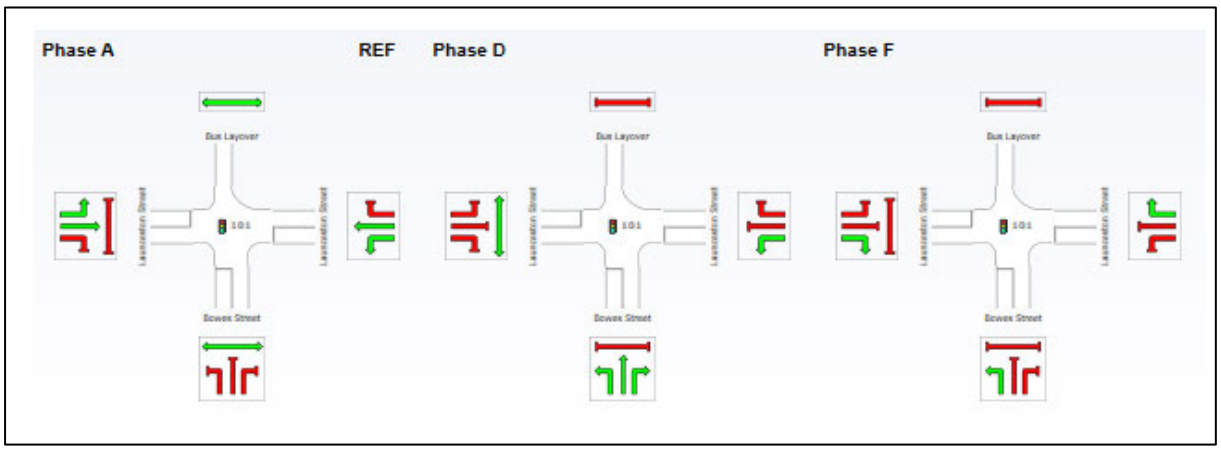


Figure 7 Existing scenario signal phasing

Post closure of the northern end of Callam Street, the buses currently exiting the bus layover at Callam Street and travelling through to the bus interchange are assumed to be transferred over to the Bowes Street intersection. In this case, Phase E would also run to allow buses to exit the northern leg (bus layover) at Bowes Street, as depicted in Figure 8.

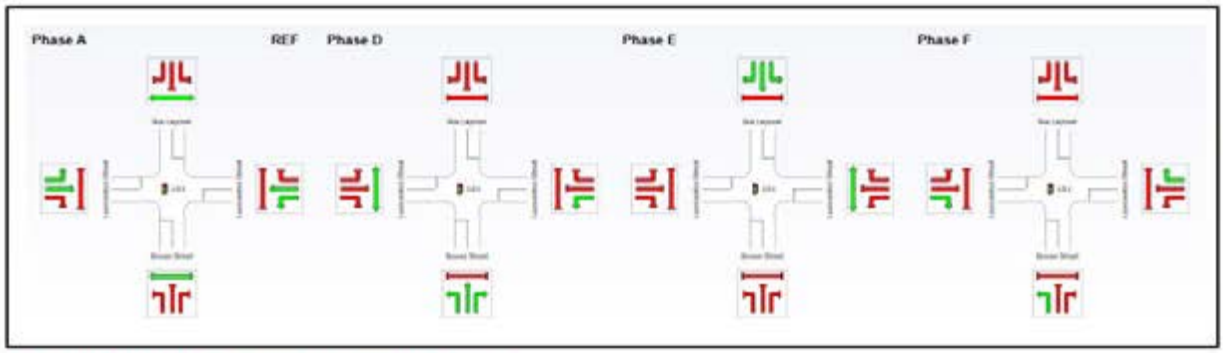


Figure 8 Post-closure scenario signal phasing

2.3 SIDRA RESULTS

The results of the SIDRA analysis are summarised in the below tables for the key peak hours.

2.3.1 WEEKDAY AM PEAK HOUR

Table 2 Launceston Street / Bowes Street – Weekday AM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.112	A	12.6	12.4	0.256	A	13.9	23.4
	T	0.112	C	23.3	12.4	0.256	C	29.6	23.4
	R	0.320	B	28.9	27.7	0.468	C	36.7	44.3
Launceston Street (east)	L	0.318	B	17.5	34.6	0.374	B	23.6	48.1
	T	0.318	B	26.8	34.6	0.374	C	31.8	48.1
	R	0.094	B	26.4	9.1	0.111	C	32.9	11.3
Bus Layover (north)	L	-	-	-	-	0.182	C	41.9	12.8
	T	-	-	-	-	0.182	C	36.4	12.8
	R	-	-	-	-	0.182	C	42.0	12.8
Launceston Street (west)	L	0.389	C	30.5	36.7	0.431	C	36.5	44.4
	T	0.389	B	23.8	36.5	0.431	C	29.7	44.2
	R	0.376	B	27.6	36.0	0.563	C	35.8	60.0

Table 3 Bowes Street / Matilda Street – Weekday AM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.102	A	5.5	0.1	0.102	A	5.5	0.1
	T	0.102	A	0.0	0.1	0.102	A	0.0	0.1
	R	0.102	A	6.1	0.1	0.102	A	6.8	0.1
Matilda Street (east)	L	0.019	A	6.2	0.5	0.240	A	6.5	10.7
	T	0.019	A	6.2	0.5	0.240	A	7.3	10.7
	R	0.019	A	7.9	0.5	0.240	B	14.8	10.7
Bowes Street (north)	L	0.159	A	5.6	1.4	0.223	A	6.1	1.6
	T	0.159	A	0.0	1.4	0.223	A	0.0	1.6
	R	0.159	A	8.1	1.4	0.223	A	8.1	1.6

From the above weekday AM peak hour SIDRA results. the following can be concluded:

- Both intersections continue to operate satisfactorily post-closure of the northern end of Callam Street.
- Slight increases to delays and queues are expected. however all movements remain well within acceptable limits.
- The queue on the southern leg of Bowes Street (at Launceston Street) is found to increase from 27.7m to 44.3m (i.e. increase from ~4 vehicles to 6 vehicles).
- It is noted that the signal phasing and timing is not exactly the same under the existing and post-closure scenarios. As discussed in Section 2.2. an additional phase is added post-closure to allow buses to exit the layover. This would be having some impact on delays and queues.

2.3.2 WEEKDAY PM PEAK HOUR

Table 4 Launceston Street / Bowes Street – Weekday PM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.243	B	15.0	28.7	0.147	A	13.0	11.9
	T	0.243	B	23.2	28.7	0.147	B	27.5	11.9
	R	0.380	C	28.7	33.3	0.377	C	35.8	34.2
Launceston Street (east)	L	0.401	A	14.1	46.1	0.576	B	24.8	69.8
	T	0.401	B	23.5	46.1	0.576	C	34.7	69.8
	R	0.113	C	30.6	8.8	0.098	C	32.8	9.9
Bus Layover (north)	L	-	-	-	-	0.146	C	41.7	10.2
	T	-	-	-	-	0.146	C	36.1	10.2
	R	-	-	-	-	0.146	C	41.7	10.2
Launceston Street (west)	L	0.188	B	25.3	19.3	0.267	C	35.2	26.5
	T	0.188	B	18.6	19.3	0.267	B	28.5	26.5
	R	0.480	C	31.9	36.6	0.562	C	35.7	59.8

Table 5 Bowes Street / Matilda Street – Weekday PM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.105	A	5.5	0.1	0.105	A	5.5	0.1
	T	0.105	A	0.0	0.1	0.105	A	0.0	0.1
	R	0.105	A	5.8	0.1	0.105	A	6.2	0.1
Matilda Street (east)	L	0.058	A	6.2	1.4	0.235	A	6.3	9.0
	T	0.058	A	6.1	1.4	0.235	A	6.8	9.0
	R	0.058	A	7.8	1.4	0.235	A	12.1	9.0
Bowes Street (north)	L	0.122	A	5.6	1.1	0.176	A	6.4	1.3
	T	0.122	A	0.0	1.1	0.176	A	0.0	1.3
	R	0.122	A	7.9	1.1	0.176	A	8.1	1.3

From the above weekday PM peak hour SIDRA results. the following can be concluded:

- Both intersections continue to operate satisfactorily post-closure of the northern end of Callam Street.
- Slight increases to delays and queues are expected. however all movements remain well within acceptable limits.
- The queue on the southern leg of Bowes Street (at Launceston Street) is found to increase marginally from 33.3m to 34.2m.
- It is noted that the signal phasing and timing is not exactly the same under the existing and post-closure scenarios. As discussed in Section 2.2. an additional phase is added post-closure to allow buses to exit the layover. This would be having some impact on delays and queues.

2.3.3 WEEKEND PEAK HOUR

Table 6 Launceston Street / Bowes Street – Weekend peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.058	A	12.7	6.2	0.075	A	12.9	5.9
	T	0.058	B	23.5	6.2	0.075	B	27.2	5.9
	R	0.101	B	27.4	8.2	0.120	C	33.8	10.1
Launceston Street (east)	L	0.159	B	16.2	15.0	0.190	B	22.2	20.9
	T	0.159	B	25.5	15.0	0.190	C	30.5	20.9
	R	0.047	B	26.0	4.4	0.055	C	32.3	5.5
Bus Layover (north)	L	-	-	-	-	0.059	C	40.8	4.0
	T	-	-	-	-	0.059	C	35.3	4.0
	R	-	-	-	-	0.059	C	40.9	4.0
Launceston Street (west)	L	0.156	C	28.9	13.6	0.173	C	34.4	16.5
	T	0.156	B	22.2	13.6	0.173	B	27.7	16.5
	R	0.103	B	25.7	9.0	0.158	C	32.6	15.0

Table 7 Bowes Street / Matilda Street – Weekend peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.048	A	5.5	0.1	0.048	A	5.5	0.1
	T	0.048	A	0.0	0.1	0.048	A	0.0	0.1
	R	0.048	A	5.6	0.1	0.048	A	5.7	0.1
Matilda Street (east)	L	0.016	A	5.7	0.4	0.066	A	5.7	2.5
	T	0.016	A	4.9	0.4	0.066	A	5.0	2.5
	R	0.016	A	6.2	0.4	0.066	B	8.0	2.5
Bowes Street (north)	L	0.046	A	5.6	0.5	0.068	A	6.3	0.6
	T	0.046	A	0.0	0.5	0.068	A	0.0	0.6
	R	0.046	A	6.5	0.5	0.068	A	6.5	0.6

From the above weekend peak hour SIDRA results, the following can be concluded:

- Both intersections continue to operate satisfactorily post-closure of the northern end of Callam Street.
- Slight increases to delays and queues are expected, however all movements remain well within acceptable limits.
- The queue on the southern leg of Bowes Street (at Launceston Street) is found to increase marginally from 8.2m to 10.1m.
- It is noted that the signal phasing and timing is not exactly the same under the existing and post-closure scenarios. As discussed in Section 2.2, an additional phase is added post-closure to allow buses to exit the layover. This would be having some impact on delays and queues.

3 CONCLUSIONS

Based on the preceding assessment, it can be concluded that the intersections of Launceston Street / Bowes Street and Bowes Street / Matilda can adequately accommodate bus traffic after the closure of the northern end of Callam Street.

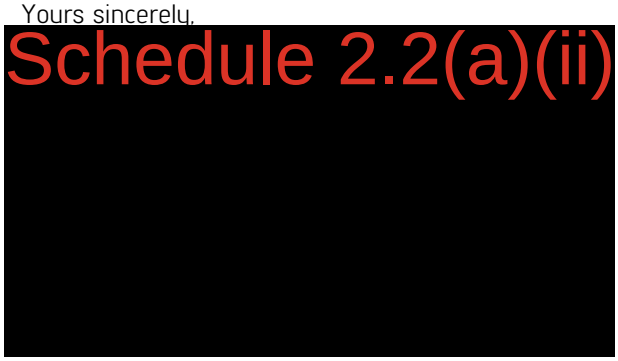
All movements are found to continue to operate satisfactorily with the additional / transferred bus traffic. Some increase to delay and queue is found, as is to be expected, however all outputs remain within acceptable limits.

The analysis was undertaken keeping the signal phase times as per existing conditions, with an additional phase added post-closure to allow buses to exit the layover to the north. The operation of the intersection can be monitored, and signal phase times can be adjusted to reduce delays or queues if needed in the future.

Therefore, it can be concluded that no alterations are required to Launceston Street / Bowes Street or Bowes Street / Matilda Street in response to the closure of the northern end of Callam Street, in terms of intersection operation.

Please do not hesitate to contact the undersigned should you have any queries in relation to this assessment.

Yours sincerely,



APPENDIX 1 TRAFFIC AND PEDESTRIAN VOLUME DATA

TRANS TRAFFIC SURVEY
TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Launceston St and Carpark Exit, Phillip

GPS -35.341394, 149.087475

Date:	Thu 21/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Exit
East:	Launceston St
South:	Callam St
West:	Launceston St

Survey Period	AM:	7:00 AM-9:00 AM
	PM:	3:00 PM-6:00 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	4:45 PM-5:45 PM

All Vehicles

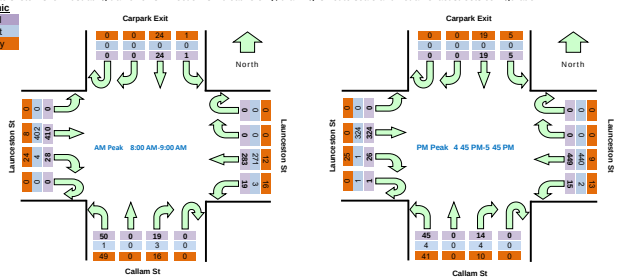
Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	6	0	0	0	28	4	0	5	0	20	0	4	51	0	534	
7:15	7:30	0	0	6	0	0	0	28	3	0	4	0	8	0	5	43	0	576	
7:30	7:45	0	0	5	0	0	0	55	5	0	6	0	13	0	5	58	0	677	
7:45	8:00	0	0	4	1	0	0	64	6	0	2	0	10	0	6	79	0	764	
8:00	8:15	0	0	6	1	0	0	50	6	0	5	0	9	0	9	74	0	834	Peak
8:15	8:30	0	0	7	0	0	0	52	3	0	7	0	17	0	7	105	0		
8:30	8:45	0	0	5	0	0	0	76	7	0	3	0	11	0	7	125	0		
8:45	9:00	0	0	6	0	0	0	105	3	0	4	0	13	0	5	106	0		
15:00	15:15	0	0	4	2	0	0	74	10	0	1	0	15	0	6	64	0	706	
15:15	15:30	0	0	5	3	0	0	88	4	0	6	0	10	0	6	62	0	691	
15:30	15:45	0	0	6	2	1	0	86	4	0	6	0	15	1	7	54	0	681	
15:45	16:00	0	0	5	2	0	0	81	2	0	6	0	9	0	10	49	0	703	
16:00	16:15	0	0	5	1	0	0	65	6	0	4	0	11	0	3	66	0	748	
16:15	16:30	0	0	4	2	0	0	76	4	0	3	0	13	0	8	64	0	819	
16:30	16:45	0	0	5	0	0	0	92	7	0	3	0	15	0	5	77	0	893	
16:45	17:00	0	0	6	1	0	0	97	3	0	7	0	11	1	8	75	0	898	Peak
17:00	17:15	0	0	5	1	0	0	130	3	0	4	0	11	0	5	73	0	892	
17:15	17:30	0	0	4	2	0	0	112	5	0	2	0	12	0	8	103	0		
17:30	17:45	0	0	4	1	0	0	110	4	0	1	0	11	0	5	73	0		
17:45	18:00	0	0	5	4	0	0	94	2	0	5	0	13	0	7	73	0		

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	24	1	0	0	283	19	0	19	0	50	0	28	410	0	834
16:45	17:45	0	0	19	5	0	0	449	15	0	14	0	45	1	26	324	0	898

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	25	0	0	1	0	1	0	0	49	0
7:15	7:30	0	0	1	0	0	0	28	1	0	0	0	1	0	0	37	0
7:30	7:45	0	0	0	0	0	0	55	1	0	1	0	1	0	0	57	0
7:45	8:00	0	0	0	0	0	0	63	0	0	0	0	0	0	0	78	0
8:00	8:15	0	0	0	0	0	0	47	1	0	0	0	0	0	3	72	0
8:15	8:30	0	0	0	0	0	0	49	1	0	2	0	0	0	1	101	0
8:30	8:45	0	0	0	0	0	0	71	1	0	1	0	1	0	0	125	0
8:45	9:00	0	0	0	0	0	0	104	0	0	0	0	0	0	0	104	0
15:00	15:15	0	0	0	0	0	0	71	3	0	0	0	5	0	0	59	0
15:15	15:30	0	0	0	0	0	0	87	0	0	0	0	1	0	0	61	0
15:30	15:45	0	0	0	0	1	0	83	0	0	3	0	1	1	1	52	0
15:45	16:00	0	0	0	0	0	0	77	0	0	0	0	1	0	2	49	0
16:00	16:15	0	0	0	0	0	0	62	1	0	0	0	0	0	0	64	0
16:15	16:30	0	0	0	0	0	0	71	1	0	0	0	1	0	0	64	0
16:30	16:45	0	0	0	0	0	0	90	2	0	0	0	3	0	0	76	0
16:45	17:00	0	0	0	0	0	0	95	0	0	2	0	3	1	1	75	0
17:00	17:15	0	0	0	0	0	0	128	0	0	2	0	1	0	0	73	0
17:15	17:30	0	0	0	0	0	0	108	1	0	0	0	0	0	0	103	0
17:30	17:45	0	0	0	0	0	0	109	1	0	0	0	0	0	0	73	0
17:45	18:00	0	0	0	1	0	0	91	0	0	0	0	1	0	0	73	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	0	271	3	0	3	0	1	0	4	402	0	684
16:45	17:45	0	0	0	0	0	0	440	2	0	4	0	4	1	1	324	0	776

Heavy Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	6	0	0	0	3	4	0	4	0	19	0	4	2	0
7:15	7:30	0	0	5	0	0	0	0	2	0	4	0	7	0	5	6	0
7:30	7:45	0	0	5	0	0	0	0	4	0	5	0	12	0	5	1	0
7:45	8:00	0	0	4	1	0	0	1	6	0	2	0	10	0	6	1	0
8:00	8:15	0	0	6	1	0	0	3	5	0	5	0	9	0	6	2	0
8:15	8:30	0	0	7	0	0	0	3	2	0	5	0	17	0	6	4	0
8:30	8:45	0	0	5	0	0	0	5	6	0	2	0	10	0	7	0	0
8:45	9:00	0	0	6	0	0	0	1	3	0	4	0	13	0	5	2	0
15:00	15:15	0	0	4	2	0	0	3	7	0	1	0	10	0	6	5	0
15:15	15:30	0	0	5	3	0	0	1	4	0	6	0	9	0	6	1	0
15:30	15:45	0	0	6	2	0	0	3	4	0	3	0	14	0	6	2	0
15:45	16:00	0	0	5	2	0	0	4	2	0	6	0	8	0	8	0	0
16:00	16:15	0	0	5	1	0	0	3	5	0	4	0	11	0	3	2	0
16:15	16:30	0	0	4	2	0	0	5	3	0	3	0	12	0	8	0	0
16:30	16:45	0	0	5	0	0	0	2	5	0	3	0	12	0	5	1	0
16:45	17:00	0	0	6	1	0	0	2	3	0	5	0	8	0	7	0	0
17:00	17:15	0	0	5	1	0	0	2	3	0	2	0	10	0	5	0	0
17:15	17:30	0	0	4	2	0	0	4	4	0	2	0	12	0	8	0	0
17:30	17:45	0	0	4	1	0	0	1	3	0	1	0	11	0	5	0	0
17:45	18:00	0	0	5	3	0	0	3	2	0	5	0	12	0	7	0	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	24	1	0	0	12	16	0	16	0	49	0	24	8	0	150
16:45	17:45	0	0	19	5	0	0	9	13	0	10	0	41	0	25	0	0	122

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Launceston St and Carpark Access, Phillip

GPS -35.341220, 149.085911

Date:	Thu 21/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Access
East:	Launceston St
South:	Bowes St
West:	Launceston St

Survey Period	AM:	7:00 AM-9:00 AM
	PM:	3:00 PM-6:00 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	4:30 PM-5:30 PM

All Vehicles

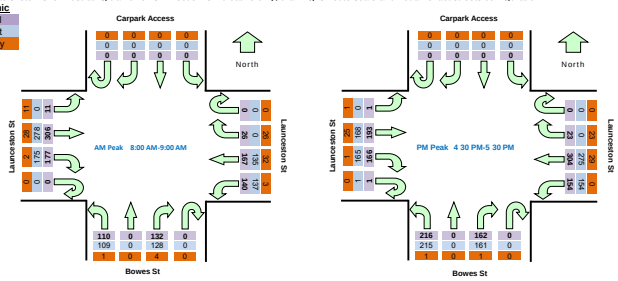
Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	0	0	0	6	24	18	0	22	0	12	0	12	33	2	620	
7:15	7:30	0	0	0	0	0	2	17	17	0	14	0	20	0	8	34	0	692	
7:30	7:45	0	0	0	0	0	4	33	31	0	17	0	18	1	27	46	1	831	
7:45	8:00	0	1	0	0	0	4	30	40	0	26	0	17	0	24	59	0	955	
8:00	8:15	0	0	0	0	0	2	27	30	0	30	0	21	0	37	53	1	1069	Peak
8:15	8:30	0	0	0	0	0	11	30	28	0	33	0	27	0	43	79	0		
8:30	8:45	0	0	0	0	0	6	44	37	0	38	0	33	0	45	94	5		
8:45	9:00	0	0	0	0	0	7	66	45	0	31	0	29	0	52	80	5		
15:00	15:15	0	0	0	0	0	4	58	27	0	36	0	25	0	25	34	0	839	
15:15	15:30	0	0	0	0	0	4	59	35	0	28	0	20	0	20	40	0	838	
15:30	15:45	0	0	0	0	0	8	69	25	0	32	0	28	1	26	30	1	865	
15:45	16:00	0	0	0	0	0	6	54	30	0	24	0	28	0	27	35	0	923	
16:00	16:15	0	0	0	0	0	8	49	19	0	37	0	33	0	28	32	2	1004	
16:15	16:30	0	0	0	0	0	10	52	27	0	33	0	42	0	28	39	2	1136	
16:30	16:45	0	0	0	0	0	6	65	36	0	40	0	49	0	40	42	0	1220	Peak
16:45	17:00	0	0	0	0	0	5	70	34	0	35	0	48	1	43	49	0	1206	
17:00	17:15	0	0	0	0	0	4	92	45	0	39	0	77	0	44	39	0	1164	
17:15	17:30	0	0	0	0	0	8	77	39	0	48	0	42	0	39	63	1		
17:30	17:45	0	0	0	0	0	5	85	31	0	32	0	29	0	36	46	0		
17:45	18:00	0	0	0	0	1	9	56	41	0	36	0	31	0	26	43	0		

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	26	167	140	0	132	0	110	0	177	306	11	1069
16:30	17:30	0	0	0	0	0	23	304	154	0	162	0	216	1	166	193	1	1220

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	13	13	0	20	0	11	0	11	29	0
7:15	7:30	0	0	0	0	0	1	11	17	0	10	0	19	0	8	27	0
7:30	7:45	0	0	0	0	0	0	25	31	0	16	0	17	1	24	41	0
7:45	8:00	0	0	0	0	0	0	24	39	0	25	0	17	0	24	53	0
8:00	8:15	0	0	0	0	0	0	18	29	0	28	0	20	0	36	47	0
8:15	8:30	0	0	0	0	0	0	21	28	0	31	0	27	0	43	71	0
8:30	8:45	0	0	0	0	0	0	35	37	0	38	0	33	0	45	87	0
8:45	9:00	0	0	0	0	0	0	61	43	0	31	0	29	0	51	73	0
15:00	15:15	0	0	0	0	0	0	50	26	0	33	0	25	0	25	26	0
15:15	15:30	0	0	0	0	0	0	53	35	0	28	0	20	0	20	33	0
15:30	15:45	0	0	0	0	0	0	61	24	0	32	0	27	1	26	22	0
15:45	16:00	0	0	0	0	0	0	48	30	0	24	0	28	0	27	27	0
16:00	16:15	0	0	0	0	0	0	43	19	0	37	0	33	0	28	27	0
16:15	16:30	0	0	0	0	0	0	46	26	0	32	0	40	0	25	32	0
16:30	16:45	0	0	0	0	0	0	57	36	0	39	0	49	0	39	37	0
16:45	17:00	0	0	0	0	0	0	65	34	0	35	0	47	1	43	42	0
17:00	17:15	0	0	0	0	0	0	84	45	0	39	0	77	0	44	34	0
17:15	17:30	0	0	0	0	0	0	69	39	0	48	0	42	0	39	55	0
17:30	17:45	0	0	0	0	0	0	78	31	0	32	0	29	0	36	41	0
17:45	18:00	0	0	0	0	1	1	49	41	0	36	0	30	0	26	36	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	0	135	137	0	128	0	109	0	175	278	0	962
16:30	17:30	0	0	0	0	0	0	275	154	0	161	0	215	1	165	168	0	1139

Heavy Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	6	11	5	0	2	0	1	0	1	4	2
7:15	7:30	0	0	0	0	0	1	6	0	0	4	0	1	0	0	7	0
7:30	7:45	0	0	0	0	0	4	8	0	0	1	0	1	0	3	5	1
7:45	8:00	0	1	0	0	0	4	6	1	0	1	0	0	0	0	6	0
8:00	8:15	0	0	0	0	0	2	9	1	0	2	0	1	0	1	6	1
8:15	8:30	0	0	0	0	0	11	9	0	0	2	0	0	0	0	8	0
8:30	8:45	0	0	0	0	0	6	9	0	0	0	0	0	0	0	7	5
8:45	9:00	0	0	0	0	0	7	5	2	0	0	0	0	0	1	7	5
15:00	15:15	0	0	0	0	0	4	8	1	0	3	0	0	0	0	8	0
15:15	15:30	0	0	0	0	0	4	6	0	0	0	0	0	0	0	7	0
15:30	15:45	0	0	0	0	0	8	8	1	0	0	0	1	0	0	8	1
15:45	16:00	0	0	0	0	0	6	6	0	0	0	0	0	0	0	8	0
16:00	16:15	0	0	0	0	0	8	6	0	0	0	0	0	0	0	5	2
16:15	16:30	0	0	0	0	0	10	6	1	0	1	0	2	0	3	7	2
16:30	16:45	0	0	0	0	0	6	8	0	0	1	0	0	0	1	5	0
16:45	17:00	0	0	0	0	0	5	5	0	0	0	0	1	0	0	7	0
17:00	17:15	0	0	0	0	0	4	8	0	0	0	0	0	0	0	5	0
17:15	17:30	0	0	0	0	0	8	8	0	0	0	0	0	0	0	8	1
17:30	17:45	0	0	0	0	0	5	7	0	0	0	0	0	0	0	5	0
17:45	18:00	0	0	0	0	0	8	7	0	0	0	0	1	0	0	7	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	26	32	3	0	4	0	1	0	2	28	11	107
16:30	17:30	0	0	0	0	0	23	29	0	0	1	0	1	0	1	25	1	81

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY trafficsurvey.com.au

Intersection of Matilda St and Bowes St, Phillip

GPS -35.342732, 149.085956

Date:	Thu 21/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Bowes St
East:	Matilda St
South:	Bowes St
West:	Atlantic St

Survey Period	AM:	7:00 AM-9:00 AM
	PM:	3:00 PM-6 00 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	4:15 PM-5:15 PM

All Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	2	24	5	0	1	0	0	0	0	34	1	0	0	0	0	305	
7:15	7:30	0	1	26	3	0	2	0	0	0	0	31	0	0	0	0	0	354	
7:30	7:45	0	6	30	6	0	1	0	0	0	0	38	0	0	0	0	0	421	
7:45	8:00	1	5	42	9	0	2	0	1	0	0	31	3	0	0	0	0	460	
8:00	8:15	0	5	43	21	0	4	0	0	0	1	42	0	0	0	0	0	504	Peak
8:15	8:30	1	7	51	19	0	3	0	1	0	0	48	0	0	0	0	0		
8:30	8:45	0	6	41	17	0	2	0	1	0	0	53	0	0	0	0	0		
8:45	9:00	0	2	60	21	0	1	2	0	0	0	52	0	0	0	0	0		
15 00	15:15	0	2	42	4	0	12	0	0	0	0	38	0	0	0	0	0	400	
15:15	15:30	0	1	41	5	0	20	0	0	0	1	36	0	0	0	0	0	402	
15:30	15:45	1	3	45	2	0	13	0	0	0	0	44	0	0	0	0	0	411	
15:45	16:00	0	8	37	6	0	7	0	0	0	0	32	0	0	0	0	0	431	
16 00	16:15	0	7	36	3	0	10	0	1	1	0	42	0	0	0	0	0	454	
16:15	16:30	0	5	42	6	0	12	0	0	0	0	48	0	0	0	0	0	470	Peak
16:30	16:45	2	5	49	7	0	11	0	1	0	0	52	1	0	0	0	0	458	
16:45	17:00	0	4	45	6	0	9	0	0	0	0	49	0	0	0	0	0	427	
17 00	17:15	0	3	50	5	0	7	0	0	0	0	51	0	0	0	0	0	418	
17:15	17:30	0	3	44	4	0	5	0	0	0	0	45	0	0	0	0	0		
17:30	17:45	0	2	43	2	0	3	0	0	0	0	47	0	0	0	0	0		
17:45	18:00	0	6	50	2	0	4	1	0	0	0	41	0	0	0	0	0		

Pedestrians Crossing

Time		North Approach Bowes St		Hourly Total
Period Start	Period End	Westbound	Eastbound	
7:00	7:15	6	2	56
7:15	7:30	3	6	74
7:30	7:45	13	2	103
7:45	8:00	18	6	123
8:00	8:15	21	5	126
8:15	8:30	35	3	100
8:30	8:45	31	4	62
8:45	9:00	25	2	27
15:00	15:15	3	5	50
15:15	15:30	5	5	56
15:30	15:45	6	9	71
15:45	16:00	9	8	93
16:00	16:15	4	10	114
16:15	16:30	4	21	129
16:30	16:45	3	34	122
16:45	17:00	5	33	101
17:00	17:15	4	25	80
17:15	17:30	3	15	
17:30	17:45	5	11	
17:45	18:00	4	13	

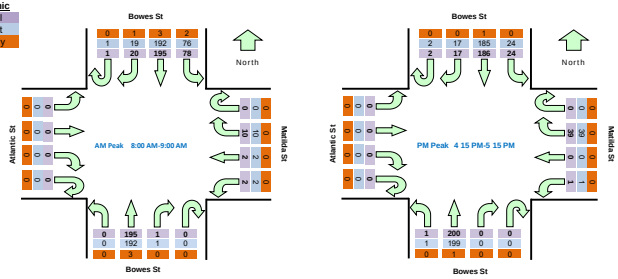
Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	1	20	195	78	0	10	2	2	0	1	195	0	0	0	0	0	504
16:15	17:15	2	17	186	24	0	39	0	1	0	0	200	1	0	0	0	0	470

Peak Time		North Approach Bowes St		Peak hour
Period Start	Period End	Westbound	Eastbound	total
8:00	9:00	112	14	126
16:15	17:15	16	113	129

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	2	18	5	0	1	0	0	0	0	31	0	0	0	0	0
7:15	7:30	0	1	24	3	0	2	0	0	0	0	26	0	0	0	0	0
7:30	7:45	0	5	28	6	0	1	0	0	0	0	36	0	0	0	0	0
7:45	8:00	1	5	40	9	0	2	0	1	0	0	31	3	0	0	0	0
8:00	8:15	0	4	42	21	0	4	0	0	0	1	41	0	0	0	0	0
8:15	8:30	1	7	51	19	0	3	0	1	0	0	46	0	0	0	0	0
8:30	8:45	0	6	41	15	0	2	0	1	0	0	53	0	0	0	0	0
8:45	9:00	0	2	58	21	0	1	2	0	0	0	52	0	0	0	0	0
15 00	15:15	0	2	42	4	0	12	0	0	0	0	38	0	0	0	0	0
15:15	15:30	0	1	41	5	0	20	0	0	0	1	36	0	0	0	0	0
15:30	15:45	1	3	44	2	0	13	0	0	0	0	43	0	0	0	0	0
15:45	16:00	0	8	37	6	0	7	0	0	0	0	32	0	0	0	0	0
16 00	16:15	0	7	36	3	0	10	0	1	1	0	42	0	0	0	0	0
16:15	16:30	0	5	42	6	0	12	0	0	0	0	48	0	0	0	0	0
16:30	16:45	2	5	48	7	0	11	0	1	0	0	51	1	0	0	0	0
16:45	17:00	0	4	45	6	0	9	0	0	0	0	49	0	0	0	0	0
17 00	17:15	0	3	50	5	0	7	0	0	0	0	51	0	0	0	0	0
17:15	17:30	0	3	44	4	0	5	0	0	0	0	45	0	0	0	0	0
17:30	17:45	0	2	43	2	0	3	0	0	0	0	47	0	0	0	0	0
17:45	18:00	0	6	50	2	0	3	1	0	0	0	41	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	1	19	192	76	0	10	2	2	0	1	192	0	0	0	0	0	495
16:15	17:15	2	17	185	24	0	39	0	1	0	0	199	1	0	0	0	0	468

Heavy Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	6	0	0	0	0	0	0	0	3	1	0	0	0	0
7:15	7:30	0	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0
7:30	7:45	0	1	2	0	0	0	0	0	0	0	2	0	0	0	0	0
7:45	8:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:30	8:45	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
15 00	15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 00	16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	1	3	2	0	0	0	0	0	0	3	0	0	0	0	0	9
16:15	17:15	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Launceston St and Carpark Exit, Phillip

GPS -35.341394, 149.087475

Date:	Sat 23/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Exit
East:	Launceston St
South:	Callam St
West:	Launceston St

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	12:00 AM-12:00 AM
Traffic Peak	AM:	9:00 AM-10:00 AM
	PM:	#REF!

All Vehicles

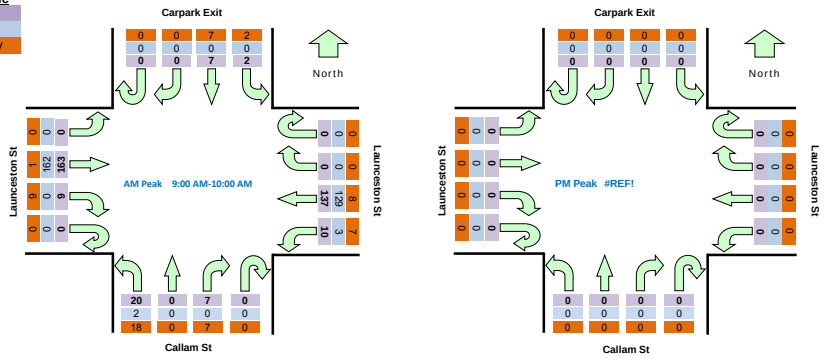
Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	3	0	0	0	17	2	0	2	0	3	0	2	19	0	205	
7:15	7:30	0	0	1	0	0	0	14	2	0	0	0	5	0	2	11	0	213	
7:30	7:45	0	0	4	0	0	0	18	2	0	4	0	5	0	0	28	0	261	
7:45	8:00	0	0	2	0	0	0	25	0	0	0	0	3	0	4	27	0	261	
8:00	8:15	0	0	1	0	0	0	18	2	0	3	0	5	0	2	25	0	279	
8:15	8:30	0	0	1	1	0	0	19	3	0	0	0	7	0	2	50	0	310	
8:30	8:45	0	0	4	0	0	0	17	1	0	4	0	3	0	0	32	0	314	
8:45	9:00	0	0	2	0	0	0	28	3	0	2	0	2	0	5	37	0	347	
9:00	9:15	0	0	1	0	0	0	34	4	0	1	0	7	0	2	38	0	355	Peak
9:15	9:30	0	0	2	0	0	0	35	3	0	1	0	3	0	2	41	0		
9:30	9:45	0	0	3	1	0	0	33	2	0	4	0	7	0	1	43	0		
9:45	10:00	0	0	1	1	0	0	35	1	0	1	0	3	0	4	41	0		

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	7	2	0	0	137	10	0	7	0	20	0	9	163	0	355

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	19	0
7:15	7:30	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11	0
7:30	7:45	0	0	0	0	0	0	17	0	0	0	0	0	0	0	24	0
7:45	8:00	0	0	0	0	0	0	23	0	0	0	0	0	0	1	25	0
8:00	8:15	0	0	0	0	0	0	17	0	0	0	0	0	0	1	24	0
8:15	8:30	0	0	0	0	0	0	19	0	0	0	0	1	0	0	47	0
8:30	8:45	0	0	0	0	0	0	16	0	0	0	0	0	0	0	31	0
8:45	9:00	0	0	0	0	0	0	27	0	0	1	0	0	0	0	35	0
9:00	9:15	0	0	0	0	0	0	32	0	0	0	0	0	0	0	37	0
9:15	9:30	0	0	0	0	0	0	32	1	0	0	0	0	0	0	41	0
9:30	9:45	0	0	0	0	0	0	32	1	0	0	0	2	0	0	43	0
9:45	10:00	0	0	0	0	0	0	33	1	0	0	0	0	0	0	41	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	0	129	3	0	0	0	2	0	0	162	0	296

Heavy Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	3	0	0	0	2	2	0	2	0	3	0	2	0	0
7:15	7:30	0	0	1	0	0	0	3	2	0	0	0	5	0	2	0	0
7:30	7:45	0	0	4	0	0	0	1	2	0	4	0	5	0	0	4	0
7:45	8:00	0	0	2	0	0	0	2	0	0	0	0	3	0	3	2	0
8:00	8:15	0	0	1	0	0	0	1	2	0	3	0	5	0	1	1	0
8:15	8:30	0	0	1	1	0	0	0	3	0	0	0	6	0	2	3	0
8:30	8:45	0	0	4	0	0	0	1	1	0	4	0	3	0	0	1	0
8:45	9:00	0	0	2	0	0	0	1	3	0	1	0	2	0	5	2	0
9:00	9:15	0	0	1	0	0	0	2	4	0	1	0	7	0	2	1	0
9:15	9:30	0	0	2	0	0	0	3	2	0	1	0	3	0	2	0	0
9:30	9:45	0	0	3	1	0	0	1	1	0	4	0	5	0	1	0	0
9:45	10:00	0	0	1	1	0	0	2	0	0	1	0	3	0	4	0	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	7	2	0	0	8	7	0	7	0	18	0	9	1	0	59

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Launceston St and Carpark Access, Phillip

GPS -35.341220, 149.085911

Date:	Sat 23/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Access
East:	Launceston St
South:	Bowes St
West:	Launceston St

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	12:00 AM-12:00 AM
Traffic Peak	AM:	9:00 AM-10:00 AM
	PM:	#REF!

All Vehicles

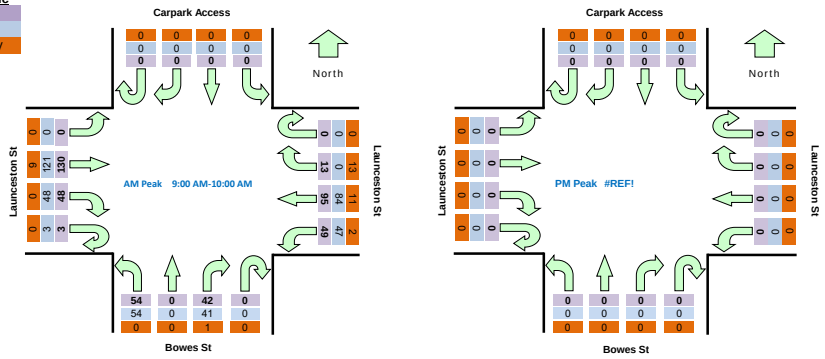
Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	0	0	0	2	11	7	0	5	0	4	0	4	16	1	223	
7:15	7:30	0	0	0	0	0	2	8	9	0	4	0	2	1	1	9	0	233	
7:30	7:45	0	0	0	0	0	2	15	6	0	18	0	6	0	5	10	0	290	
7:45	8:00	0	0	0	0	0	2	17	9	0	8	0	10	0	5	23	1	296	
8:00	8:15	0	0	0	0	0	2	15	6	0	8	0	4	0	5	19	1	304	
8:15	8:30	0	0	0	0	0	3	13	10	0	11	0	9	0	5	41	1	342	
8:30	8:45	0	0	0	0	0	1	14	5	0	8	0	12	0	4	24	0	351	
8:45	9:00	0	0	0	0	0	0	19	11	0	8	0	6	0	4	34	1	394	
9:00	9:15	0	0	0	0	0	4	24	13	0	9	0	8	0	9	31	0	434	Peak
9:15	9:30	0	0	0	0	0	3	22	13	0	10	0	9	0	12	33	0		
9:30	9:45	0	0	0	0	0	2	28	10	0	12	0	19	1	7	32	0		
9:45	10:00	0	0	0	0	0	4	21	13	0	11	0	18	2	20	34	0		

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	13	95	49	0	42	0	54	3	48	130	0	434

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	8	7	0	5	0	4	0	4	14	0
7:15	7:30	0	0	0	0	0	0	3	8	0	4	0	2	1	1	7	0
7:30	7:45	0	0	0	0	0	0	12	5	0	16	0	6	0	4	8	0
7:45	8:00	0	0	0	0	0	0	15	8	0	7	0	10	0	5	19	0
8:00	8:15	0	0	0	0	0	0	11	6	0	7	0	4	0	5	18	0
8:15	8:30	0	0	0	0	0	0	10	10	0	9	0	9	0	5	38	0
8:30	8:45	0	0	0	0	0	0	12	4	0	7	0	12	0	4	24	0
8:45	9:00	0	0	0	0	0	0	17	10	0	7	0	6	0	4	28	0
9:00	9:15	0	0	0	0	0	0	19	13	0	8	0	8	0	9	29	0
9:15	9:30	0	0	0	0	0	0	20	12	0	10	0	9	0	12	31	0
9:30	9:45	0	0	0	0	0	0	25	9	0	12	0	19	1	7	31	0
9:45	10:00	0	0	0	0	0	0	20	13	0	11	0	18	2	20	30	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	0	84	47	0	41	0	54	3	48	121	0	398

Heavy Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	2	3	0	0	0	0	0	0	0	2	1
7:15	7:30	0	0	0	0	0	2	5	1	0	0	0	0	0	0	2	0
7:30	7:45	0	0	0	0	0	2	3	1	0	2	0	0	0	1	2	0
7:45	8:00	0	0	0	0	0	2	2	1	0	1	0	0	0	0	4	1
8:00	8:15	0	0	0	0	0	2	4	0	0	1	0	0	0	0	1	1
8:15	8:30	0	0	0	0	0	3	3	0	0	2	0	0	0	0	3	1
8:30	8:45	0	0	0	0	0	1	2	1	0	1	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	2	1	0	1	0	0	0	0	6	1
9:00	9:15	0	0	0	0	0	4	5	0	0	1	0	0	0	0	2	0
9:15	9:30	0	0	0	0	0	3	2	1	0	0	0	0	0	0	2	0
9:30	9:45	0	0	0	0	0	2	3	1	0	0	0	0	0	0	1	0
9:45	10:00	0	0	0	0	0	4	1	0	0	0	0	0	0	0	4	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	13	11	2	0	1	0	0	0	0	9	0	36

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Matilda St and Bowes St, Phillip

GPS -35.342732, 149.085956

Date:	Sat 23/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Bowes St
East:	Matilda St
South:	Bowes St
West:	Atlantic St

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	12:00 AM-12:00 AM
Traffic Peak	AM:	9:00 AM-10:00 AM
	PM:	#REF!

All Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	1	1	6	3	0	0	0	0	0	0	10	0	0	0	0	0	113	
7:15	7:30	0	2	9	5	0	0	0	0	0	0	6	0	0	0	0	0	121	
7:30	7:45	0	1	10	0	0	4	0	0	0	0	20	0	0	0	0	0	134	
7:45	8:00	0	0	13	1	0	2	0	0	0	0	19	0	0	0	0	0	131	
8:00	8:15	0	0	7	1	0	3	0	0	0	0	17	0	0	0	0	1	141	
8:15	8:30	0	0	13	2	0	0	0	0	0	0	20	0	0	0	0	0	139	
8:30	8:45	0	0	11	1	0	2	0	0	0	0	18	0	0	0	0	0	151	
8:45	9:00	1	0	23	1	0	0	0	0	0	0	19	0	0	0	1	0	173	
9:00	9:15	0	2	9	1	0	1	0	0	0	0	14	0	0	0	0	0	187	Peak
9:15	9:30	0	2	15	7	0	3	0	0	0	0	20	0	0	0	0	0		
9:30	9:45	0	2	15	5	0	3	0	0	0	0	29	0	0	0	0	0		
9:45	10:00	0	4	21	0	0	6	0	0	0	0	28	0	0	0	0	0		

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
9:00	10:00	0	10	60	13	0	13	0	0	0	0	91	0	0	0	0	0	187

Pedestrians Crossing

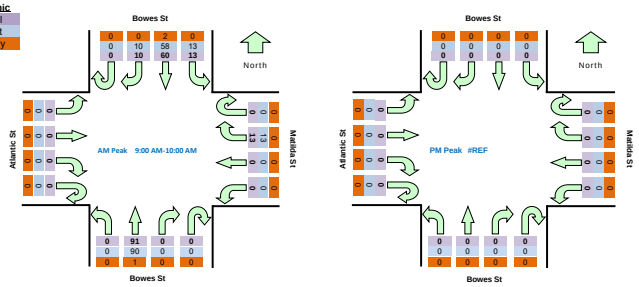
Time		North Approach Bowes St		Hourly Total
Period Start	Period End	Westbound	Eastbound	
7:00	7:15	1	0	10
7:15	7:30	2	6	10
7:30	7:45	0	0	3
7:45	8:00	1	0	4
8:00	8:15	0	1	5
8:15	8:30	0	1	8
8:30	8:45	1	0	7
8:45	9:00	2	0	13
9:00	9:15	2	2	14
9:15	9:30	0	0	
9:30	9:45	4	3	
9:45	10:00	1	2	

Peak Time		North Approach Bowes St		Peak hour total
Period Start	Period End	Westbound	Eastbound	
9:00	10:00	7	7	14

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	1	1	6	3	0	0	0	0	0	0	9	0	0	0	0	0
7:15	7:30	0	2	8	5	0	0	0	0	0	0	6	0	0	0	0	0
7:30	7:45	0	1	8	0	0	4	0	0	0	0	17	0	0	0	0	0
7:45	8:00	0	0	12	1	0	2	0	0	0	0	19	0	0	0	0	0
8:00	8:15	0	0	7	1	0	3	0	0	0	0	16	0	0	0	0	1
8:15	8:30	0	0	13	2	0	0	0	0	0	0	18	0	0	0	0	0
8:30	8:45	0	0	10	1	0	2	0	0	0	0	18	0	0	0	0	0
8:45	9:00	1	0	22	1	0	0	0	0	0	0	18	0	0	0	1	0
9:00	9:15	0	2	9	1	0	1	0	0	0	0	13	0	0	0	0	0
9:15	9:30	0	2	14	7	0	3	0	0	0	0	20	0	0	0	0	0
9:30	9:45	0	2	14	5	0	3	0	0	0	0	29	0	0	0	0	0
9:45	10:00	0	4	21	0	0	6	0	0	0	0	28	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
9:00	10:00	0	10	58	13	0	13	0	0	0	0	90	0	0	0	0	0	184

Heavy Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15	7:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	7:45	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0
7:45	8:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:30	8:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:15	9:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
9:00	10:00	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3

APPENDIX 2 SIDRA RESULTS

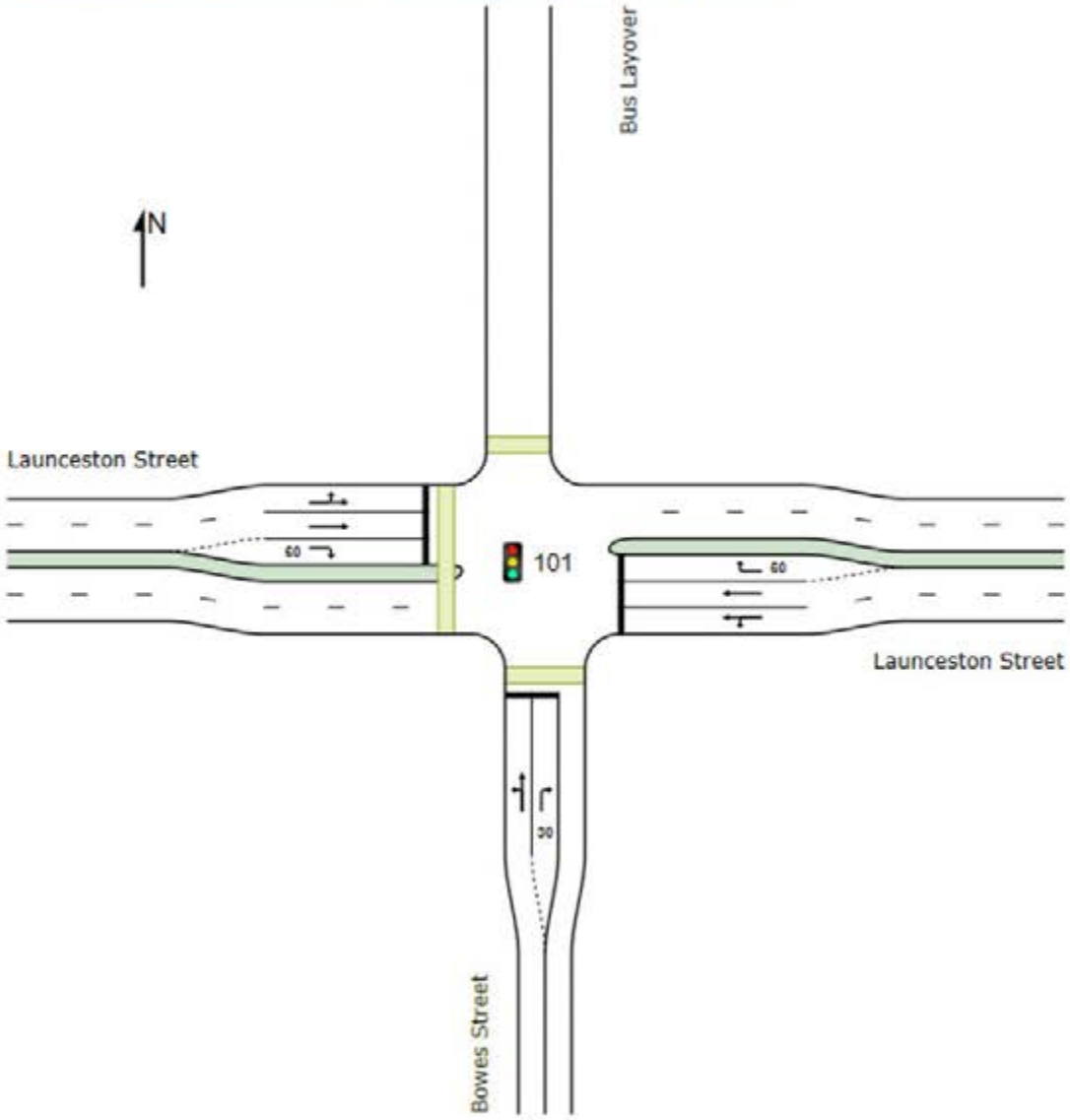
Existing Weekday AM Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Existing AM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 67 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	116	0.9	116	0.9	0.112	12.6	LOS A	1.8	12.4	0.49	0.69	0.49	47.9
2	T1	All MCs	1	0.0	1	0.0	0.112	23.3	LOS B	1.8	12.4	0.49	0.69	0.49	49.7
3	R2	All MCs	139	3.0	139	3.0	* 0.320	28.9	LOS C	3.9	27.7	0.87	0.77	0.87	32.5
Approach			256	2.1	256	2.1	0.320	21.5	LOS B	3.9	27.7	0.69	0.73	0.69	40.0
East: Launceston Street															
4	L2	All MCs	147	2.1	147	2.1	0.318	17.5	LOS B	4.7	34.6	0.78	0.74	0.78	35.8
5	T1	All MCs	176	19.2	176	19.2	0.318	26.8	LOS B	4.7	34.6	0.84	0.71	0.84	36.9
6	R2	All MCs	27	100.0	27	100.0	0.094	26.4	LOS B	0.7	9.1	0.78	0.70	0.78	31.0
Approach			351	18.3	351	18.3	0.318	22.9	LOS B	4.7	34.6	0.81	0.72	0.81	35.9
West: Launceston Street															
10	L2	All MCs	12	100.0	12	100.0	0.389	30.5	LOS C	4.6	36.7	0.88	0.72	0.88	39.1
11	T1	All MCs	322	9.2	322	9.2	* 0.389	23.8	LOS B	4.8	36.5	0.88	0.72	0.88	36.3
12	R2	All MCs	186	1.1	186	1.1	* 0.376	27.6	LOS B	5.1	36.0	0.86	0.78	0.86	40.1
Approach			520	8.3	520	8.3	0.389	25.3	LOS B	5.1	36.7	0.87	0.74	0.87	38.1
All Vehicles			1126	10.0	1126	10.0	0.389	23.7	LOS B	5.1	36.7	0.81	0.73	0.81	37.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.
* Critical Movement (Signal Timing)

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 67 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, F
Output Phase Sequence: A, D, F
Reference Phase: Phase A

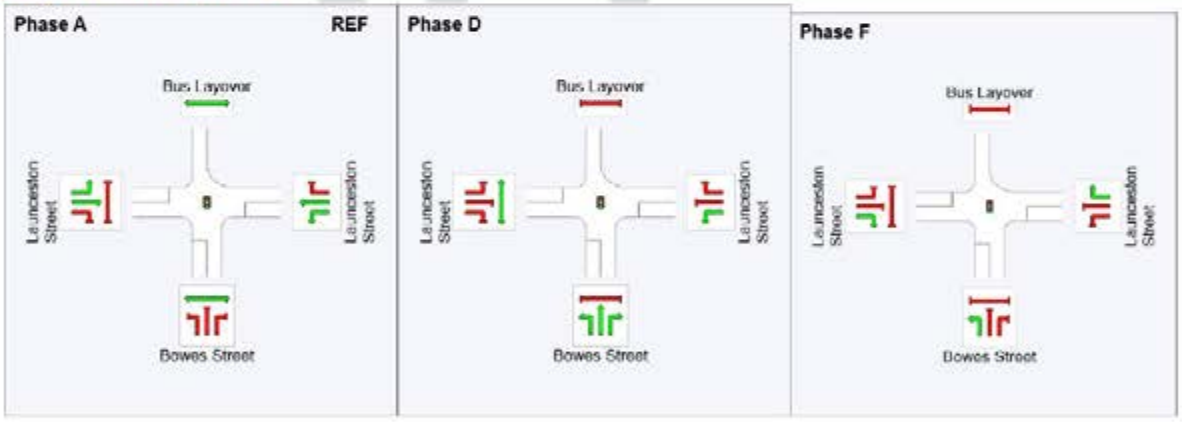
Phase Timing Summary

Phase	A	D	F
Phase Change Time (sec)	0	22	44
Green Time (sec)	16	16	18
Phase Time (sec)	22	21	24
Phase Split	33%	31%	36%
Phase Frequency (%)	100.0	77.8 2	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence



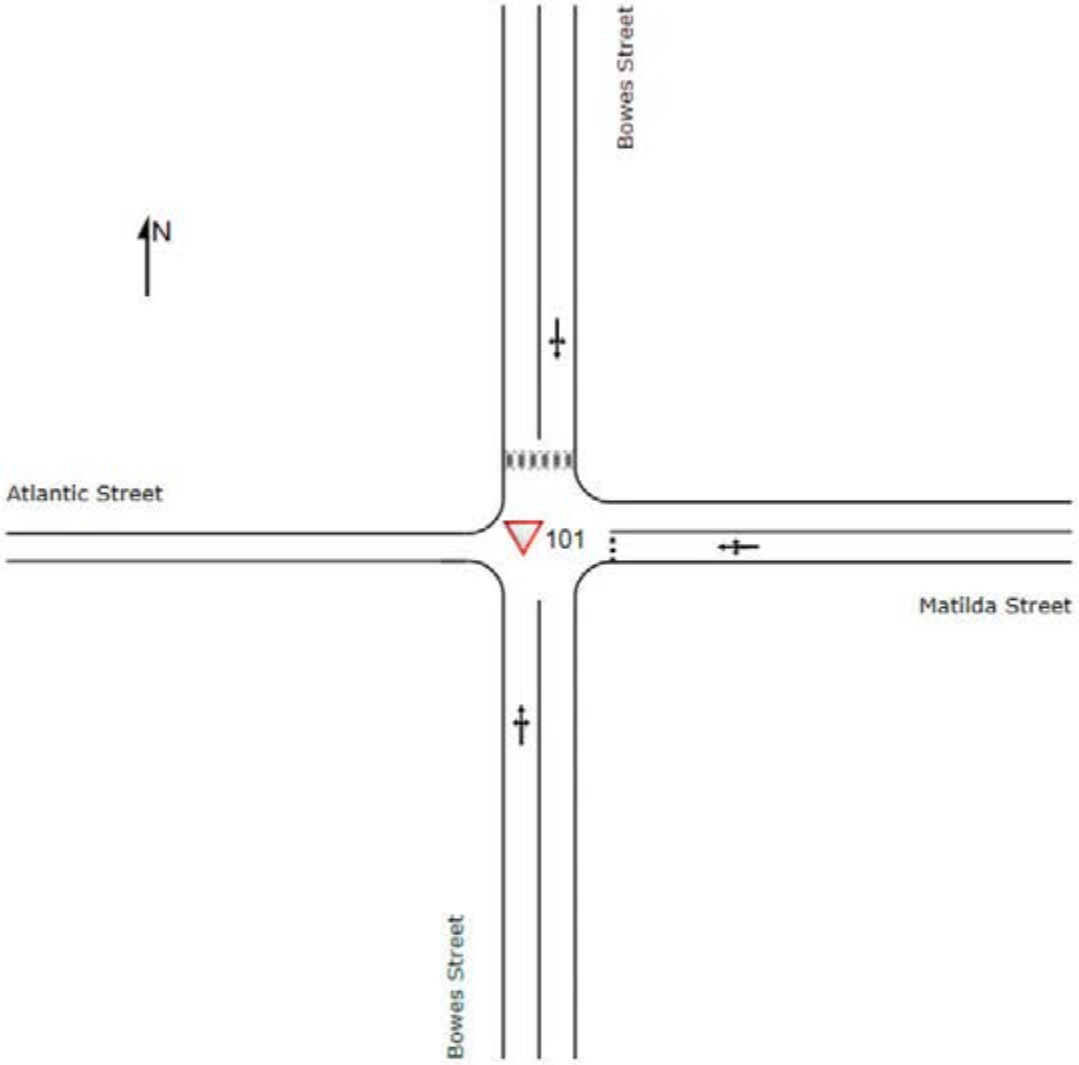
REF: Reference Phase
VAR: Variable Phase

SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Existing AM Peak)]

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

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



MOVEMENT SUMMARY

Site: 101 [Bowes / Matilda (Site Folder: Existing AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.102	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	205	1.5	205	1.5	0.102	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.102	6.1	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			207	1.5	207	1.5	0.102	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	2	0.0	2	0.0	0.019	6.2	LOS A	0.1	0.5	0.42	0.61	0.42	51.5
5	T1	All MCs	2	0.0	2	0.0	0.019	6.2	LOS A	0.1	0.5	0.42	0.61	0.42	51.9
6	R2	All MCs	11	0.0	11	0.0	0.019	7.9	LOS A	0.1	0.5	0.42	0.61	0.42	51.3
Approach			15	0.0	15	0.0	0.019	7.4	LOS A	0.1	0.5	0.42	0.61	0.42	51.4
North: Bowes Street															
7	L2	All MCs	82	2.6	82	2.6	0.159	5.6	LOS A	0.2	1.4	0.06	0.22	0.06	55.5
8	T1	All MCs	205	1.5	205	1.5	0.159	0.0	LOS A	0.2	1.4	0.06	0.22	0.06	58.0
9	R2	All MCs	21	5.0	21	5.0	0.159	8.1	LOS A	0.2	1.4	0.06	0.22	0.06	55.1
Approach			308	2.0	308	2.0	0.159	2.0	NA	0.2	1.4	0.06	0.22	0.06	57.1
All Vehicles			531	1.8	531	1.8	0.159	1.4	NA	0.2	1.4	0.05	0.15	0.05	58.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

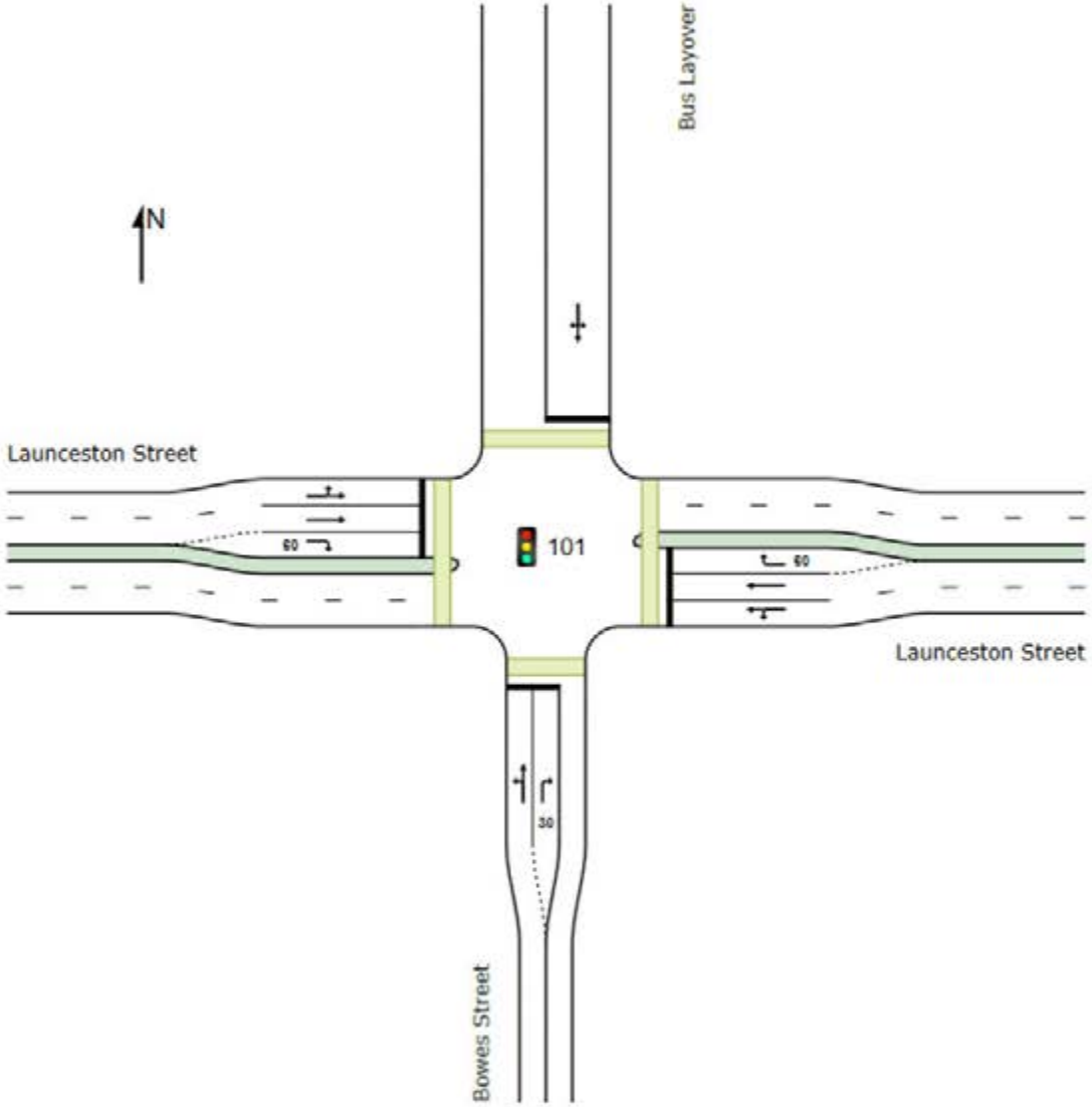
Post Closure Weekday AM Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure AM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 79 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	168	31.9	168	31.9	0.256	13.9	LOS A	2.6	23.4	0.66	0.74	0.66	46.3
2	T1	All MCs	1	0.0	1	0.0	* 0.256	29.6	LOS C	2.6	23.4	0.66	0.74	0.66	49.0
3	R2	All MCs	159	15.2	159	15.2	0.468	36.7	LOS C	5.6	44.3	0.93	0.80	0.93	29.1
Approach			328	23.7	328	23.7	0.468	25.0	LOS B	5.6	44.3	0.79	0.76	0.79	38.1
East: Launceston Street															
4	L2	All MCs	167	13.8	167	13.8	0.374	23.6	LOS B	6.1	48.1	0.81	0.77	0.81	33.0
5	T1	All MCs	176	19.2	176	19.2	0.374	31.8	LOS C	6.1	48.1	0.88	0.73	0.88	33.8
6	R2	All MCs	27	100.0	27	100.0	0.111	32.9	LOS C	0.9	11.3	0.82	0.71	0.82	28.9
Approach			371	22.7	371	22.7	0.374	28.2	LOS B	6.1	48.1	0.84	0.75	0.84	33.0
North: Bus Layover															
7	L2	All MCs	1	0.0	1	0.0	0.182	41.9	LOS C	1.0	12.8	0.94	0.69	0.94	21.0
8	T1	All MCs	25	100.0	25	100.0	0.182	36.4	LOS C	1.0	12.8	0.94	0.69	0.94	37.5
9	R2	All MCs	1	0.0	1	0.0	* 0.182	42.0	LOS C	1.0	12.8	0.94	0.69	0.94	36.7
Approach			27	92.3	27	92.3	0.182	36.8	LOS C	1.0	12.8	0.94	0.69	0.94	36.8
West: Launceston Street															
10	L2	All MCs	12	100.0	12	100.0	0.431	36.5	LOS C	5.6	44.4	0.91	0.75	0.91	36.9
11	T1	All MCs	322	9.2	322	9.2	* 0.431	29.7	LOS C	5.9	44.2	0.91	0.74	0.91	33.2
12	R2	All MCs	216	14.6	216	14.6	* 0.563	35.8	LOS C	7.6	60.0	0.94	0.81	0.94	36.6
Approach			549	13.2	549	13.2	0.563	32.2	LOS C	7.6	60.0	0.92	0.77	0.92	35.0
All Vehicles			1276	20.4	1276	20.4	0.563	29.3	LOS C	7.6	60.0	0.87	0.76	0.87	35.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.
* Critical Movement (Signal Timing)

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 79 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

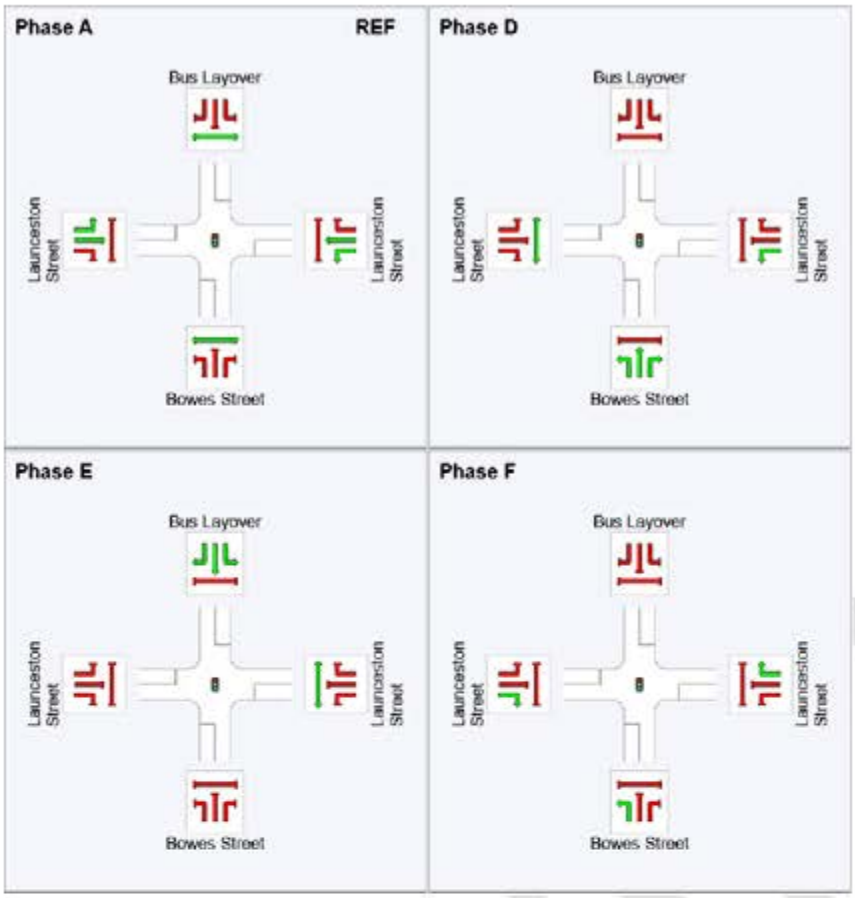
Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	23	44	58
Green Time (sec)	17	16	9	18
Phase Time (sec)	22	21	12	24
Phase Split	28%	27%	15%	30%
Phase Frequency (%)	91.7 2	77.8 2	44.4 2	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

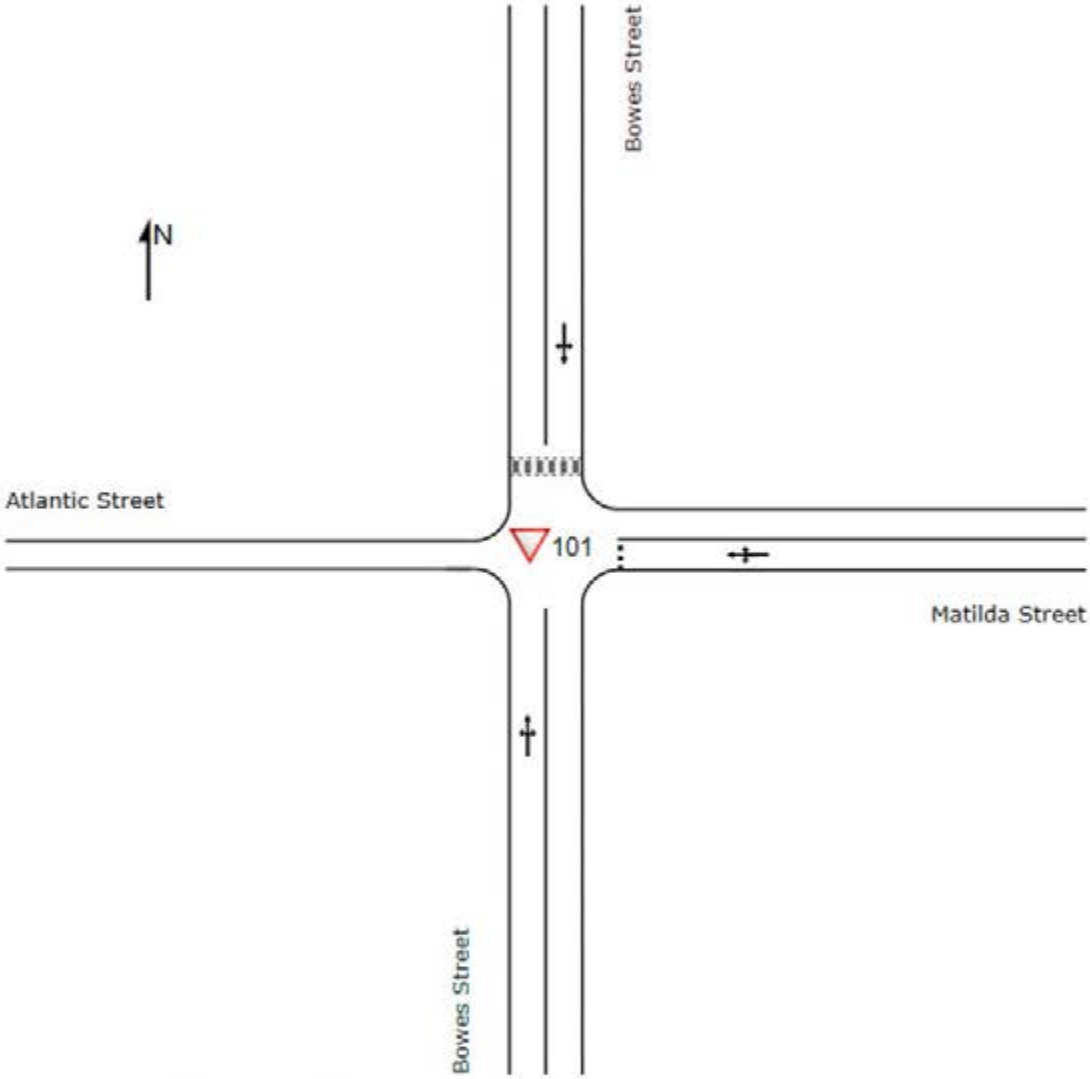
Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Post Closure AM Peak)]

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

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



MOVEMENT SUMMARY

▽Site: 101 [Bowes / Matilda (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.102	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	205	1.5	205	1.5	0.102	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.102	6.8	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			207	1.5	207	1.5	0.102	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	2	0.0	2	0.0	0.240	6.5	LOS A	0.9	10.7	0.60	0.85	0.64	47.5
5	T1	All MCs	2	0.0	2	0.0	0.240	7.3	LOS A	0.9	10.7	0.60	0.85	0.64	47.9
6	R2	All MCs	83	87.3	83	87.3	0.240	14.8	LOS B	0.9	10.7	0.60	0.85	0.64	44.5
Approach			87	83.1	87	83.1	0.240	14.4	LOS A	0.9	10.7	0.60	0.85	0.64	44.7
North: Bowes Street															
7	L2	All MCs	157	49.0	157	49.0	0.223	6.1	LOS A	0.2	1.6	0.05	0.29	0.05	53.5
8	T1	All MCs	205	1.5	205	1.5	0.223	0.0	LOS A	0.2	1.6	0.05	0.29	0.05	58.1
9	R2	All MCs	21	5.0	21	5.0	0.223	8.1	LOS A	0.2	1.6	0.05	0.29	0.05	55.2
Approach			383	21.2	383	21.2	0.223	2.9	NA	0.2	1.6	0.05	0.29	0.05	56.0
All Vehicles			678	23.1	678	23.1	0.240	3.5	NA	0.9	10.7	0.11	0.27	0.11	55.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

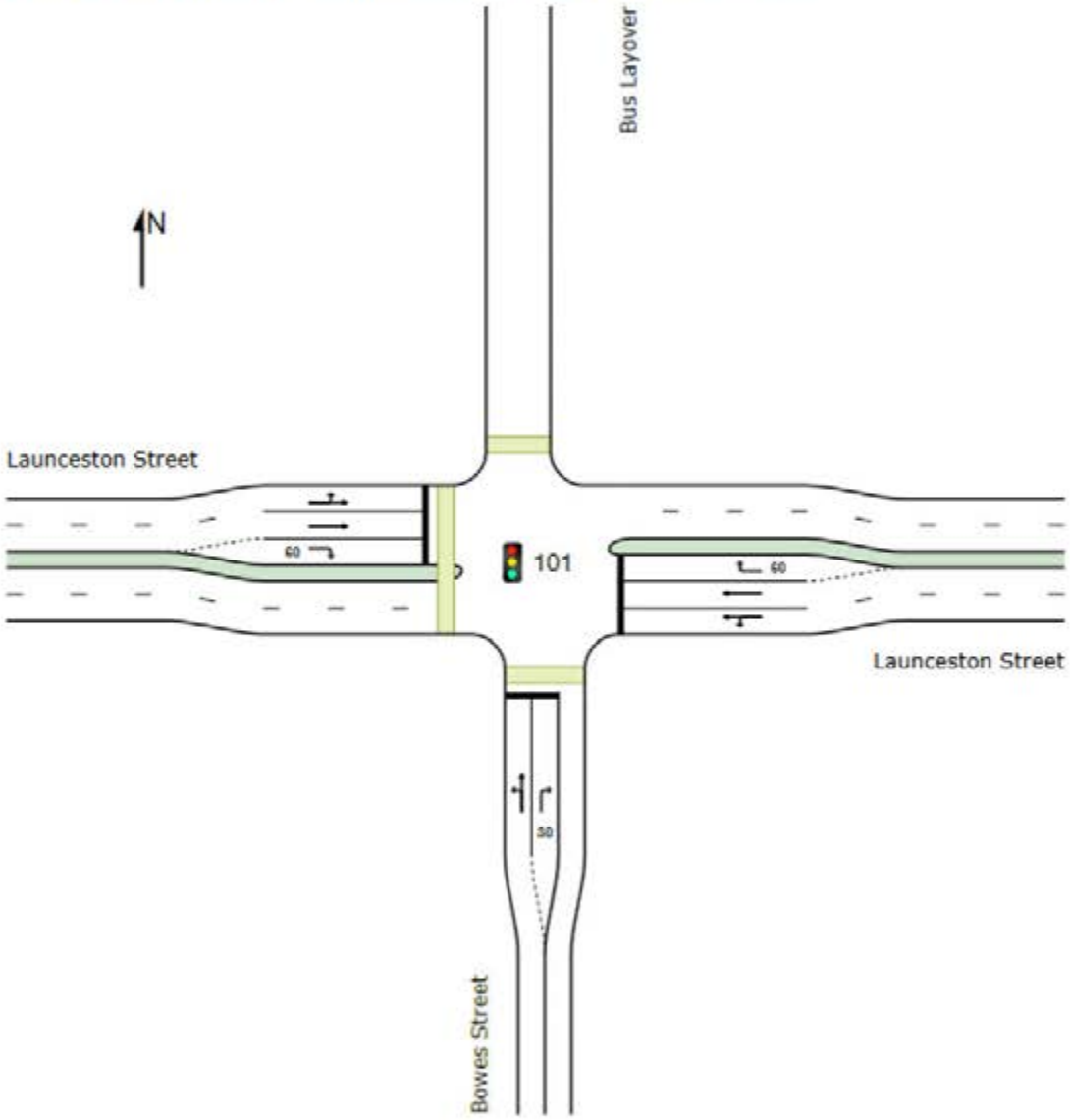
Existing Weekday PM Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Existing PM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 66 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	227	0.5	227	0.5	0.243	15.0	LOS B	4.1	28.7	0.59	0.73	0.59	46.5
2	T1	All MCs	1	0.0	1	0.0	0.243	23.2	LOS B	4.1	28.7	0.59	0.73	0.59	48.1
3	R2	All MCs	171	0.6	171	0.6	* 0.380	28.7	LOS C	4.7	33.3	0.88	0.78	0.88	32.6
Approach			399	0.5	399	0.5	0.380	20.9	LOS B	4.7	33.3	0.71	0.75	0.71	41.0
East: Launceston Street															
4	L2	All MCs	162	1.9	162	1.9	0.401	14.1	LOS A	6.3	46.1	0.79	0.74	0.79	36.7
5	T1	All MCs	320	9.5	320	9.5	* 0.401	23.5	LOS B	6.3	46.1	0.82	0.71	0.82	38.7
6	R2	All MCs	24	100.0	24	100.0	0.113	30.6	LOS C	0.7	8.8	0.85	0.71	0.85	29.3
Approach			506	11.4	506	11.4	0.401	20.9	LOS B	6.3	46.1	0.81	0.72	0.81	37.5
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.188	25.3	LOS B	2.5	19.3	0.78	0.62	0.78	41.6
11	T1	All MCs	203	13.0	203	13.0	0.188	18.6	LOS B	2.5	19.3	0.78	0.62	0.78	39.8
12	R2	All MCs	175	0.6	175	0.6	* 0.480	31.9	LOS C	5.2	36.6	0.93	0.80	0.93	38.3
Approach			379	7.5	379	7.5	0.480	24.8	LOS B	5.2	36.6	0.85	0.70	0.85	38.9
All Vehicles			1284	6.9	1284	6.9	0.480	22.0	LOS B	6.3	46.1	0.79	0.72	0.79	39.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.
* Critical Movement (Signal Timing)

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 66 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, F
Output Phase Sequence: A, D, F
Reference Phase: Phase A

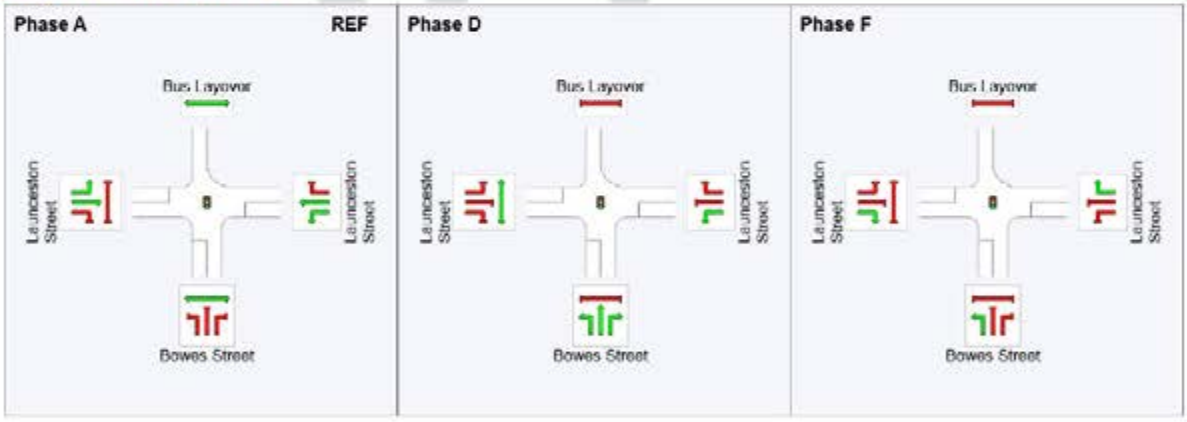
Phase Timing Summary

Phase	A	D	F
Phase Change Time (sec)	0	26	48
Green Time (sec)	20	16	13
Phase Time (sec)	26	21	19
Phase Split	39%	32%	29%
Phase Frequency (%)	100.0	77.8 2	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

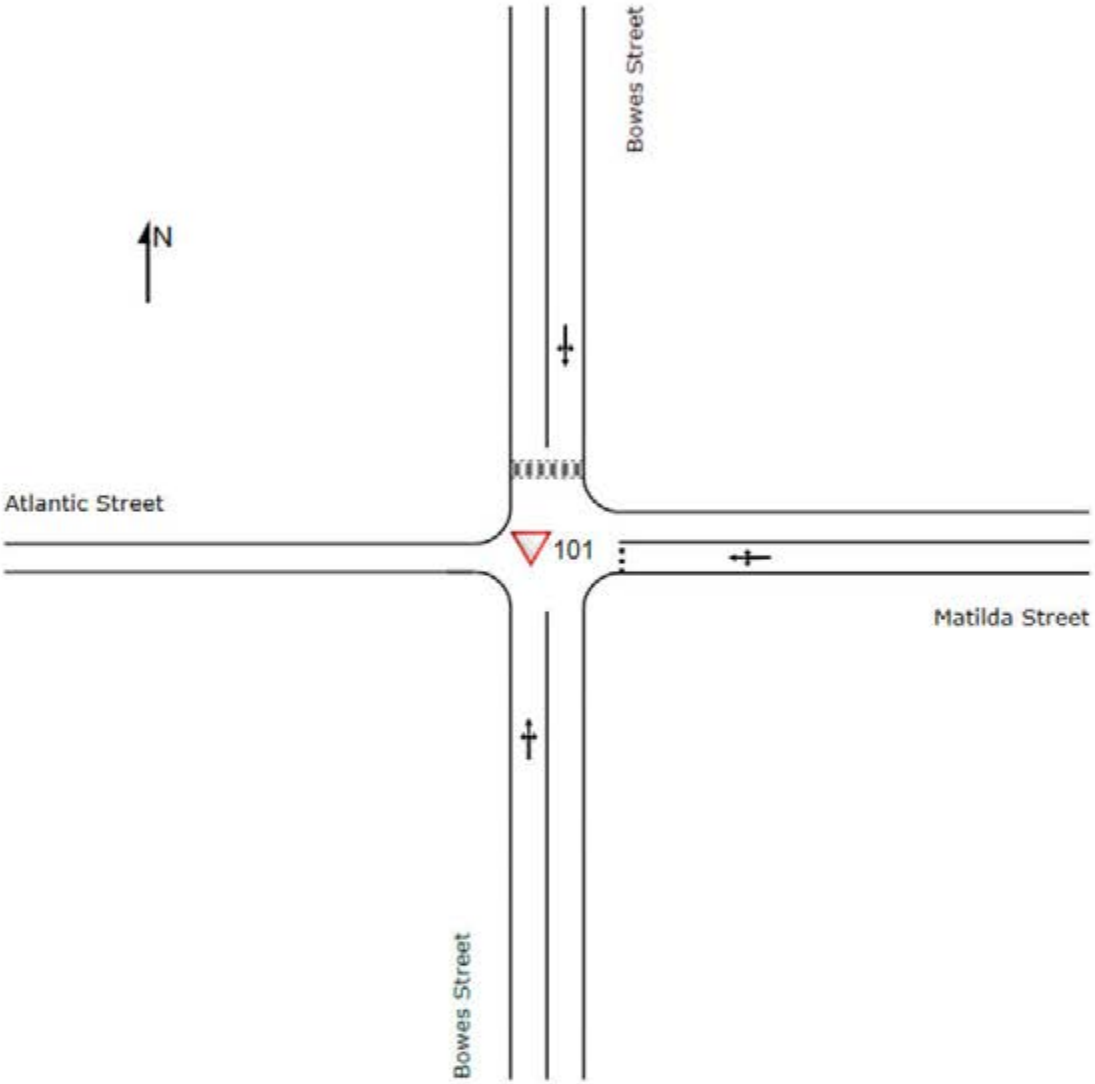
Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

SITE LAYOUT

▽ Site: 101 [Bowes / Matilda (Site Folder: Existing PM Peak)]

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

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



MOVEMENT SUMMARY

▽Site: 101 [Bowes / Matilda (Site Folder: Existing PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.105	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	211	1.5	211	1.5	0.105	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.105	5.8	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			213	1.5	213	1.5	0.105	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.058	6.2	LOS A	0.2	1.4	0.43	0.67	0.43	51.3
5	T1	All MCs	1	0.0	1	0.0	0.058	6.1	LOS A	0.2	1.4	0.43	0.67	0.43	51.7
6	R2	All MCs	41	0.0	41	0.0	0.058	7.8	LOS A	0.2	1.4	0.43	0.67	0.43	51.1
Approach			43	0.0	43	0.0	0.058	7.7	LOS A	0.2	1.4	0.43	0.67	0.43	51.1
North: Bowes Street															
7	L2	All MCs	25	4.2	25	4.2	0.122	5.6	LOS A	0.2	1.1	0.06	0.14	0.06	56.2
8	T1	All MCs	196	0.5	196	0.5	0.122	0.0	LOS A	0.2	1.1	0.06	0.14	0.06	58.8
9	R2	All MCs	18	5.9	18	5.9	0.122	7.9	LOS A	0.2	1.1	0.06	0.14	0.06	55.8
Approach			239	1.3	239	1.3	0.122	1.2	NA	0.2	1.1	0.06	0.14	0.06	58.3
All Vehicles			495	1.3	495	1.3	0.122	1.3	NA	0.2	1.4	0.07	0.13	0.07	58.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

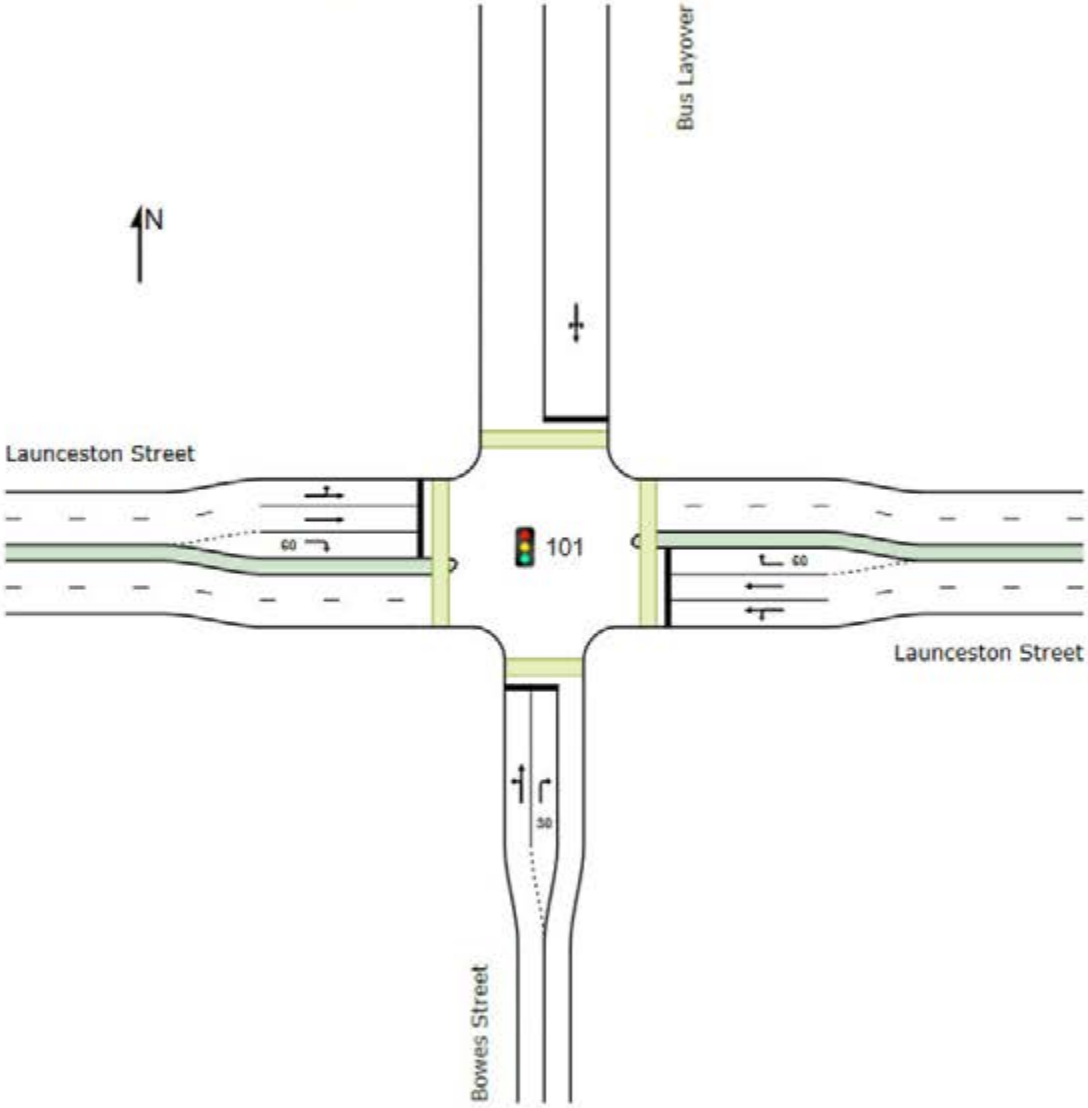
Post Closure Weekday PM Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 79 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	116	0.9	116	0.9	0.147	13.0	LOS A	1.7	11.9	0.63	0.71	0.63	47.7
2	T1	All MCs	1	0.0	1	0.0	0.147	27.5	LOS B	1.7	11.9	0.63	0.71	0.63	49.4
3	R2	All MCs	139	3.0	139	3.0	* 0.377	35.8	LOS C	4.8	34.2	0.91	0.78	0.91	29.5
Approach			256	2.1	256	2.1	0.377	25.4	LOS B	4.8	34.2	0.78	0.75	0.78	37.9
East: Launceston Street															
4	L2	All MCs	178	8.9	178	8.9	0.576	24.8	LOS B	9.3	69.8	0.92	0.81	0.92	31.0
5	T1	All MCs	320	9.5	320	9.5	* 0.576	34.7	LOS C	9.3	69.8	0.94	0.79	0.94	32.7
6	R2	All MCs	24	100.0	24	100.0	0.098	32.8	LOS C	0.8	9.9	0.82	0.70	0.82	28.9
Approach			522	13.5	522	13.5	0.576	31.2	LOS C	9.3	69.8	0.93	0.79	0.93	31.9
North: Bus Layover															
7	L2	All MCs	1	0.0	1	0.0	0.146	41.7	LOS C	0.8	10.2	0.93	0.68	0.93	21.0
8	T1	All MCs	20	100.0	20	100.0	0.146	36.1	LOS C	0.8	10.2	0.93	0.68	0.93	37.5
9	R2	All MCs	1	0.0	1	0.0	* 0.146	41.7	LOS C	0.8	10.2	0.93	0.68	0.93	36.7
Approach			22	90.5	22	90.5	0.146	36.7	LOS C	0.8	10.2	0.93	0.68	0.93	36.7
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.267	35.2	LOS C	3.4	26.5	0.87	0.69	0.87	37.5
11	T1	All MCs	203	14.5	203	14.5	0.267	28.5	LOS B	3.4	26.5	0.87	0.69	0.87	33.9
12	R2	All MCs	217	13.6	217	13.6	* 0.562	35.7	LOS C	7.6	59.8	0.94	0.81	0.94	36.6
Approach			421	14.3	421	14.3	0.562	32.2	LOS C	7.6	59.8	0.91	0.75	0.91	35.6
All Vehicles			1221	12.8	1221	12.8	0.576	30.5	LOS C	9.3	69.8	0.89	0.77	0.89	34.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.
* Critical Movement (Signal Timing)

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 79 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

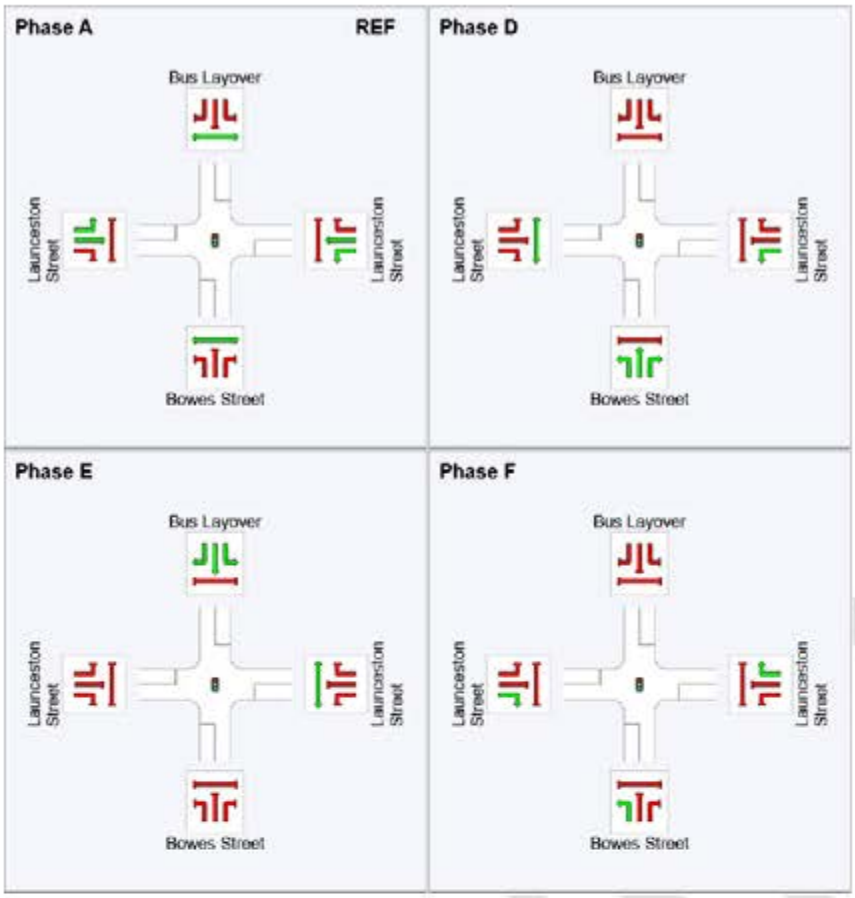
Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	23	44	58
Green Time (sec)	17	16	9	18
Phase Time (sec)	22	21	12	24
Phase Split	28%	27%	15%	30%
Phase Frequency (%)	91.7 2	77.8 2	44.4 2	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

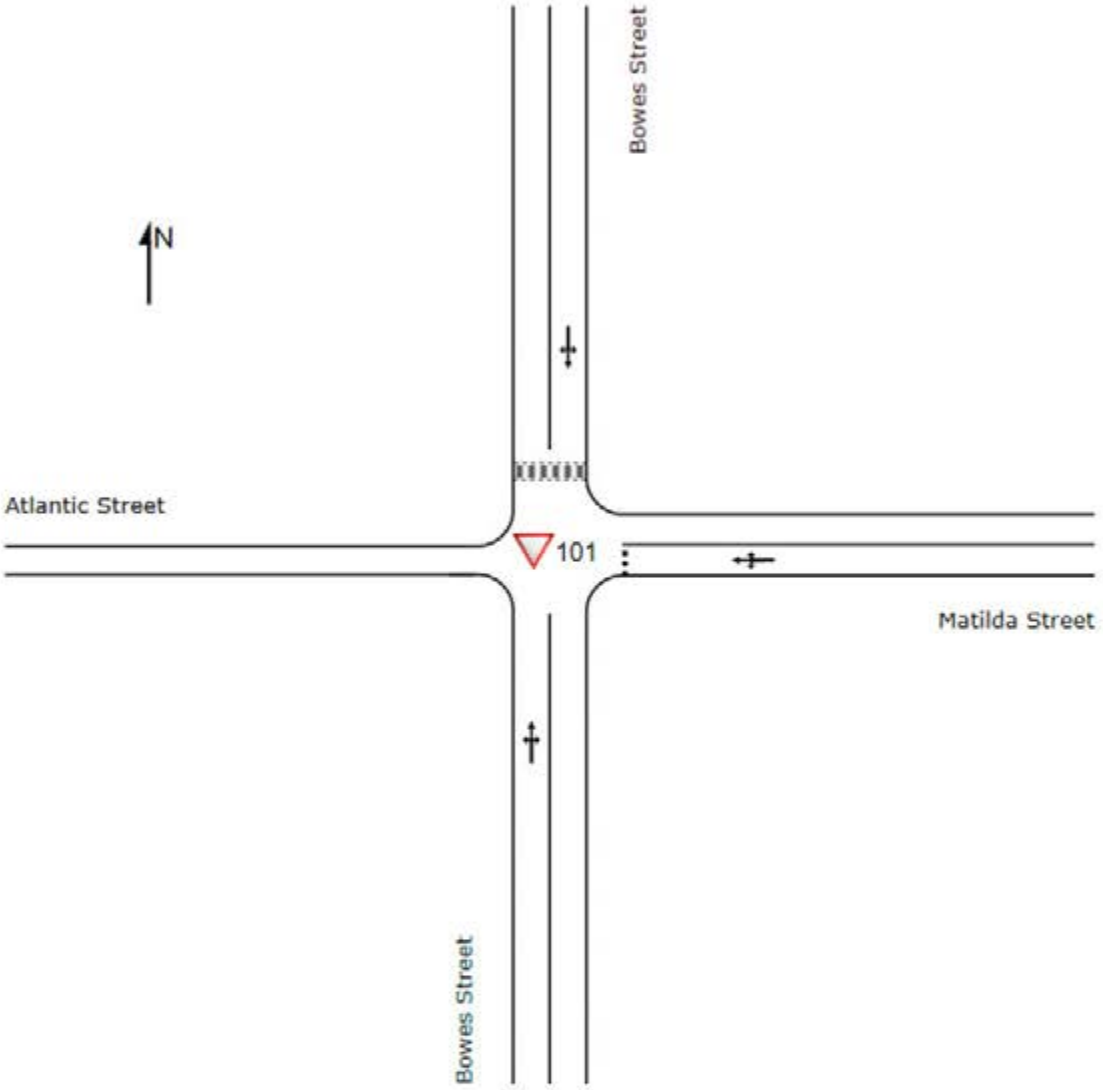
Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Post Closure PM Peak)]

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

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



MOVEMENT SUMMARY

▽Site: 101 [Bowes / Matilda (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.105	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	211	1.5	211	1.5	0.105	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.105	6.2	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			213	1.5	213	1.5	0.105	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.235	6.3	LOS A	0.9	9.0	0.55	0.80	0.57	48.8
5	T1	All MCs	1	0.0	1	0.0	0.235	6.8	LOS A	0.9	9.0	0.55	0.80	0.57	49.2
6	R2	All MCs	103	60.2	103	60.2	0.235	12.1	LOS A	0.9	9.0	0.55	0.80	0.57	46.5
Approach			105	59.0	105	59.0	0.235	12.0	LOS A	0.9	9.0	0.55	0.80	0.57	46.6
North: Bowes Street															
7	L2	All MCs	88	71.4	88	71.4	0.176	6.4	LOS A	0.2	1.3	0.05	0.22	0.05	53.2
8	T1	All MCs	196	0.5	196	0.5	0.176	0.0	LOS A	0.2	1.3	0.05	0.22	0.05	58.8
9	R2	All MCs	18	5.9	18	5.9	0.176	8.1	LOS A	0.2	1.3	0.05	0.22	0.05	55.8
Approach			302	21.6	302	21.6	0.176	2.3	NA	0.2	1.3	0.05	0.22	0.05	56.9
All Vehicles			620	21.1	620	21.1	0.235	3.2	NA	0.9	9.0	0.12	0.25	0.12	55.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

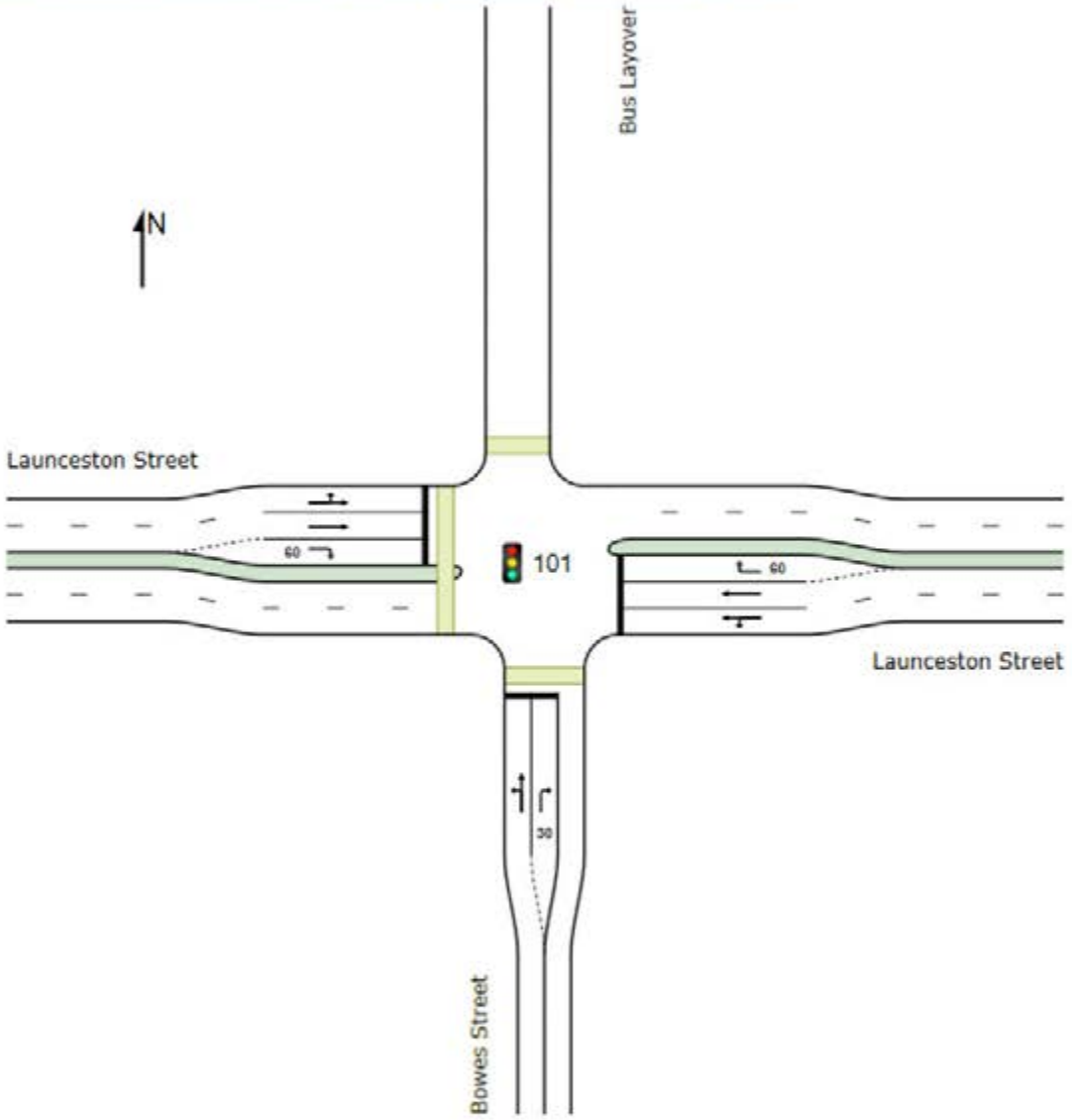
Existing Weekend Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Existing SAT Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 67 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	57	1.9	57	1.9	0.058	12.7	LOS A	0.9	6.2	0.48	0.67	0.48	47.8
2	T1	All MCs	1	0.0	1	0.0	0.058	23.5	LOS B	0.9	6.2	0.48	0.67	0.48	49.6
3	R2	All MCs	44	2.4	44	2.4	* 0.101	27.4	LOS B	1.1	8.2	0.81	0.72	0.81	33.2
Approach			102	2.1	102	2.1	0.101	19.2	LOS B	1.1	8.2	0.63	0.69	0.63	42.0
East: Launceston Street															
4	L2	All MCs	52	4.1	52	4.1	0.159	16.2	LOS B	2.0	15.0	0.77	0.69	0.77	35.5
5	T1	All MCs	100	11.6	100	11.6	* 0.159	25.5	LOS B	2.0	15.0	0.81	0.65	0.81	37.4
6	R2	All MCs	14	100.0	14	100.0	0.047	26.0	LOS B	0.3	4.4	0.77	0.68	0.77	31.2
Approach			165	16.6	165	16.6	0.159	22.6	LOS B	2.0	15.0	0.79	0.67	0.79	36.2
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.156	28.9	LOS C	1.8	13.6	0.83	0.64	0.83	40.0
11	T1	All MCs	137	6.9	137	6.9	0.156	22.2	LOS B	1.8	13.6	0.83	0.64	0.83	37.4
12	R2	All MCs	51	2.1	51	2.1	* 0.103	25.7	LOS B	1.3	9.0	0.78	0.72	0.78	41.0
Approach			188	6.1	188	6.1	0.156	23.2	LOS B	1.8	13.6	0.81	0.66	0.81	38.7
All Vehicles			456	9.0	456	9.0	0.159	22.1	LOS B	2.0	15.0	0.77	0.67	0.77	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.
* Critical Movement (Signal Timing)

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 67 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, F
Output Phase Sequence: A, D, F
Reference Phase: Phase A

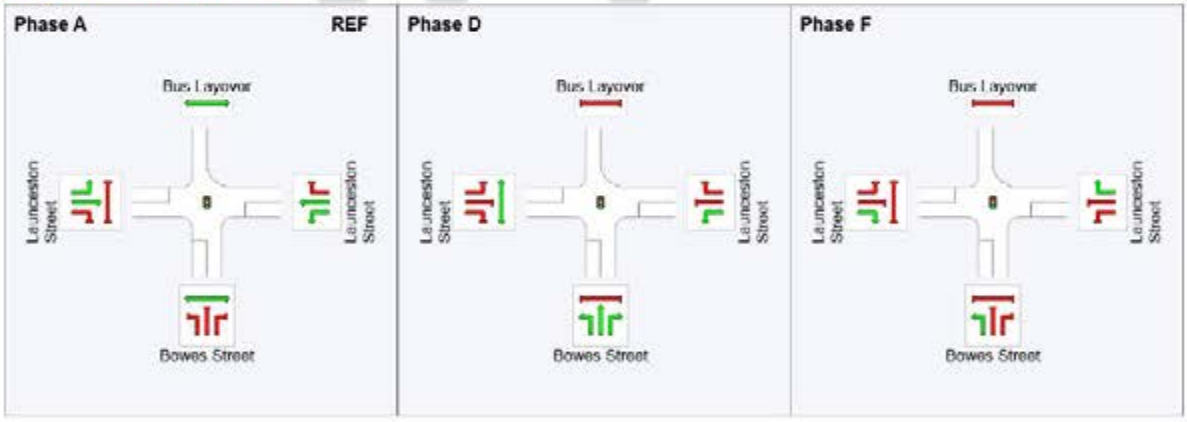
Phase Timing Summary

Phase	A	D	F
Phase Change Time (sec)	0	22	44
Green Time (sec)	16	16	18
Phase Time (sec)	22	21	24
Phase Split	33%	31%	36%
Phase Frequency (%)	100.0	77.8 2	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence



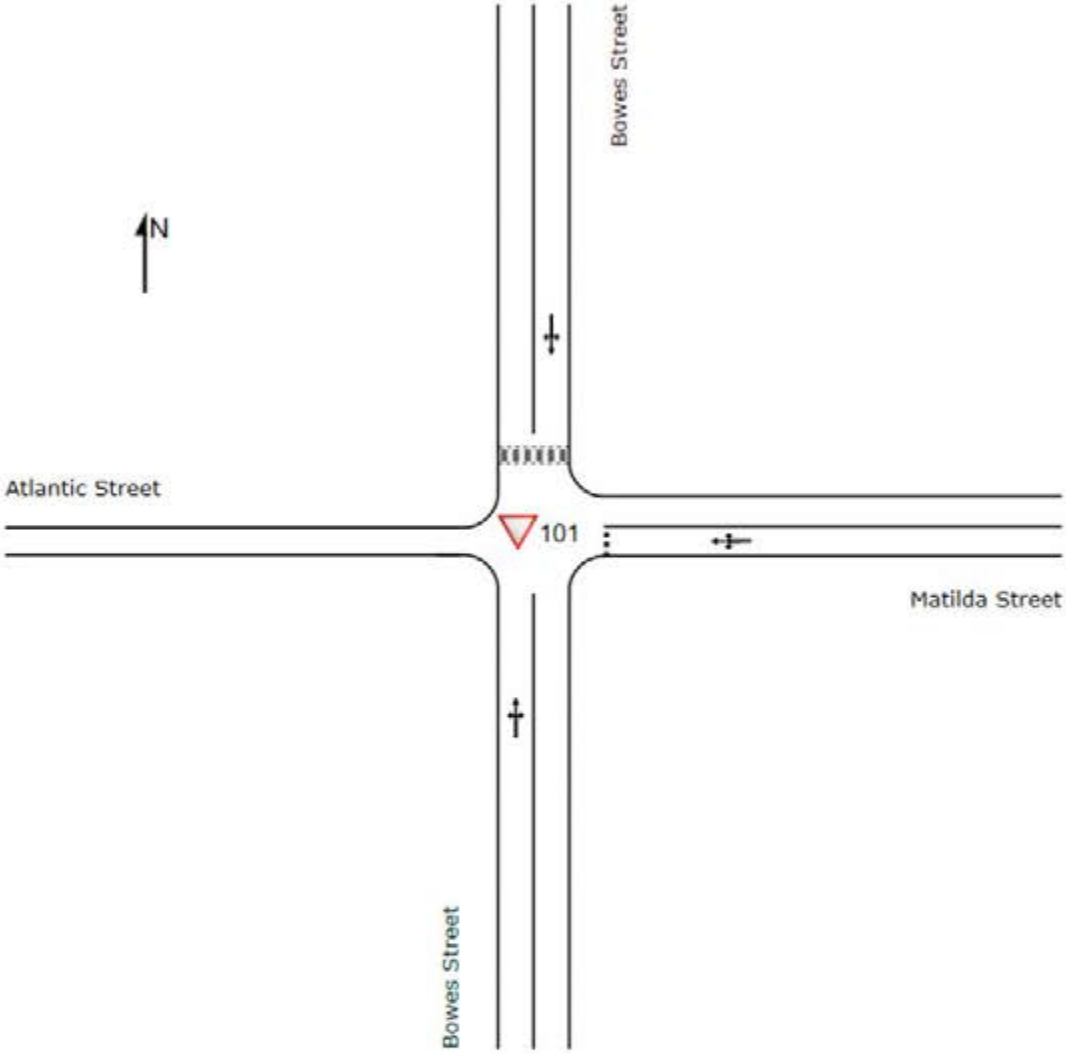
REF: Reference Phase
VAR: Variable Phase

SITE LAYOUT

▽ **Site: 101 [Bowes / Matilda (Site Folder: Existing SAT Peak)]**

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

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



MOVEMENT SUMMARY

▽Site: 101 [Bowes / Matilda (Site Folder: Existing SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg Satn v/c	Aver Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop Que	Eff. Stop Rate	Aver. No. of Cycles	Aver Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.048	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	96	1.1	96	1.1	0.048	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.048	5.6	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			98	1.1	98	1.1	0.048	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.8
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.016	5.7	LOS A	0.1	0.4	0.24	0.56	0.24	52.3
5	T1	All MCs	1	0.0	1	0.0	0.016	4.9	LOS A	0.1	0.4	0.24	0.56	0.24	52.7
6	R2	All MCs	14	0.0	14	0.0	0.016	6.2	LOS A	0.1	0.4	0.24	0.56	0.24	52.1
Approach			16	0.0	16	0.0	0.016	6.1	LOS A	0.1	0.4	0.24	0.56	0.24	52.2
North: Bowes Street															
7	L2	All MCs	14	7.7	14	7.7	0.046	5.6	LOS A	0.1	0.5	0.06	0.18	0.06	55.6
8	T1	All MCs	63	1.7	63	1.7	0.046	0.0	LOS A	0.1	0.5	0.06	0.18	0.06	58.4
9	R2	All MCs	11	10.0	11	10.0	0.046	6.5	LOS A	0.1	0.5	0.06	0.18	0.06	55.2
Approach			87	3.6	87	3.6	0.046	1.7	NA	0.1	0.5	0.06	0.18	0.06	57.5
All Vehicles			201	2.1	201	2.1	0.048	1.3	NA	0.1	0.5	0.05	0.13	0.05	58.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

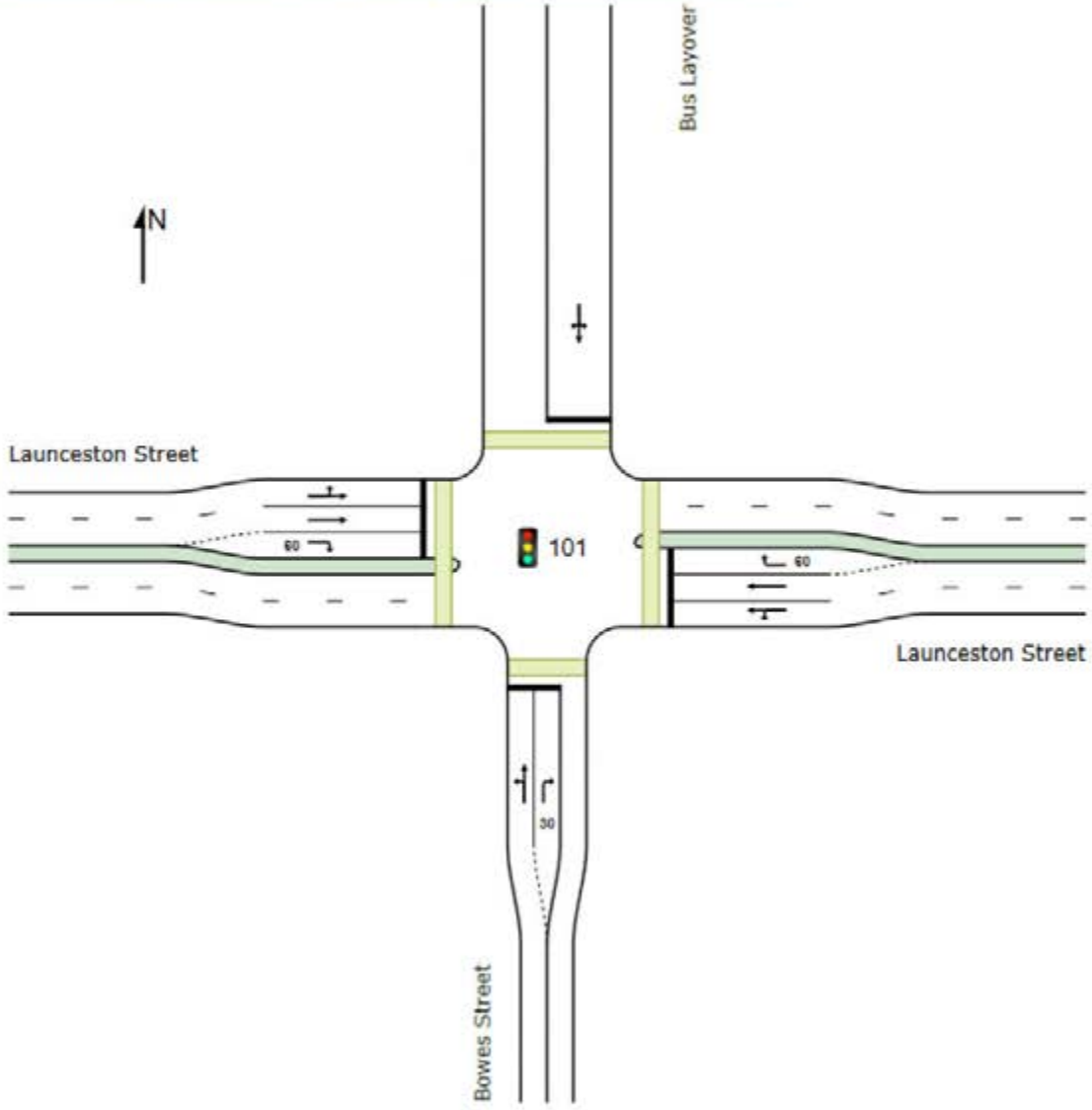
Post Closure Weekend Peak Hour

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure SAT Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 79 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	57	1.9	57	1.9	0.075	12.9	LOS A	0.8	5.9	0.61	0.69	0.61	47.6
2	T1	All MCs	1	0.0	1	0.0	* 0.075	27.2	LOS B	0.8	5.9	0.61	0.69	0.61	49.4
3	R2	All MCs	44	2.4	44	2.4	0.120	33.8	LOS C	1.4	10.1	0.85	0.72	0.85	30.3
Approach			102	2.1	102	2.1	0.120	22.1	LOS B	1.4	10.1	0.72	0.70	0.72	40.3
East: Launceston Street															
4	L2	All MCs	62	20.3	62	20.3	0.190	22.2	LOS B	2.6	20.9	0.79	0.71	0.79	32.9
5	T1	All MCs	100	11.6	100	11.6	* 0.190	30.5	LOS C	2.6	20.9	0.84	0.68	0.84	34.4
6	R2	All MCs	14	100.0	14	100.0	0.055	32.3	LOS C	0.4	5.5	0.81	0.68	0.81	29.1
Approach			176	21.6	176	21.6	0.190	27.7	LOS B	2.6	20.9	0.82	0.69	0.82	33.4
North: Bus Layover															
7	L2	All MCs	1	0.0	1	0.0	0.059	40.8	LOS C	0.3	4.0	0.92	0.64	0.92	21.0
8	T1	All MCs	7	100.0	7	100.0	0.059	35.3	LOS C	0.3	4.0	0.92	0.64	0.92	37.6
9	R2	All MCs	1	0.0	1	0.0	* 0.059	40.9	LOS C	0.3	4.0	0.92	0.64	0.92	36.8
Approach			9	77.8	9	77.8	0.059	36.5	LOS C	0.3	4.0	0.92	0.64	0.92	35.5
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.173	34.4	LOS C	2.2	16.5	0.85	0.66	0.85	37.8
11	T1	All MCs	137	6.9	137	6.9	0.173	27.7	LOS B	2.2	16.5	0.85	0.66	0.85	34.3
12	R2	All MCs	60	15.8	60	15.8	* 0.158	32.6	LOS C	1.9	15.0	0.84	0.74	0.84	37.8
Approach			198	10.1	198	10.1	0.173	29.2	LOS C	2.2	16.5	0.85	0.68	0.85	35.7
All Vehicles			485	13.9	485	13.9	0.190	27.3	LOS B	2.6	20.9	0.81	0.69	0.81	35.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 79 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

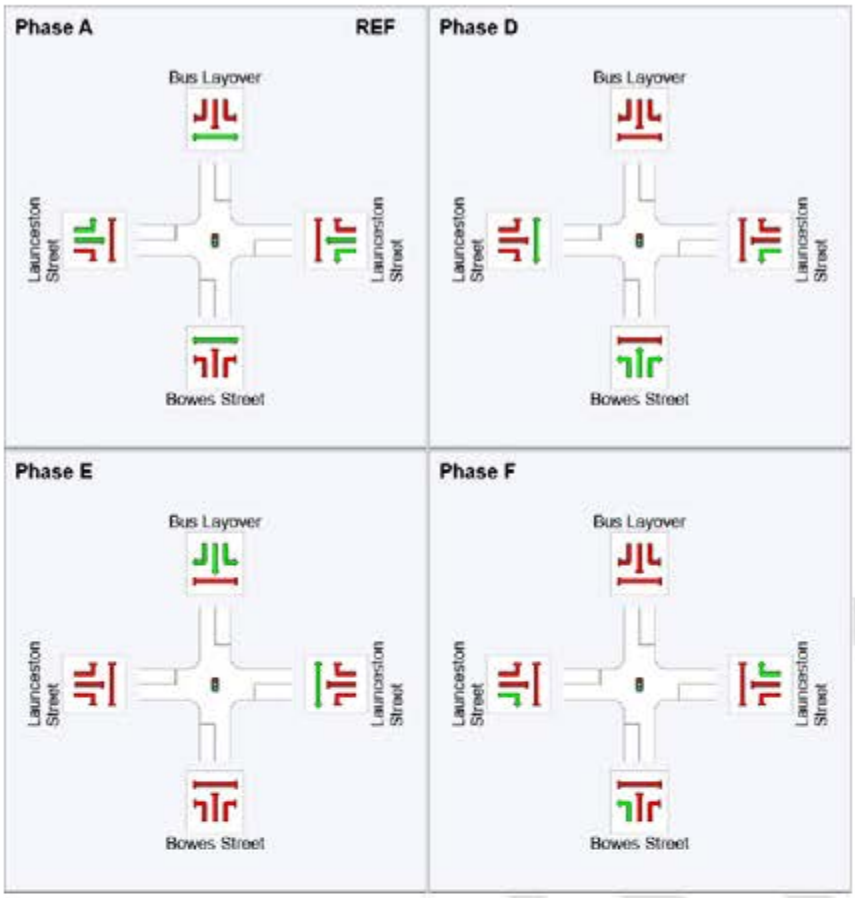
Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	23	44	58
Green Time (sec)	17	16	9	18
Phase Time (sec)	22	21	12	24
Phase Split	28%	27%	15%	30%
Phase Frequency (%)	91.7 2	77.8 2	44.4 2	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

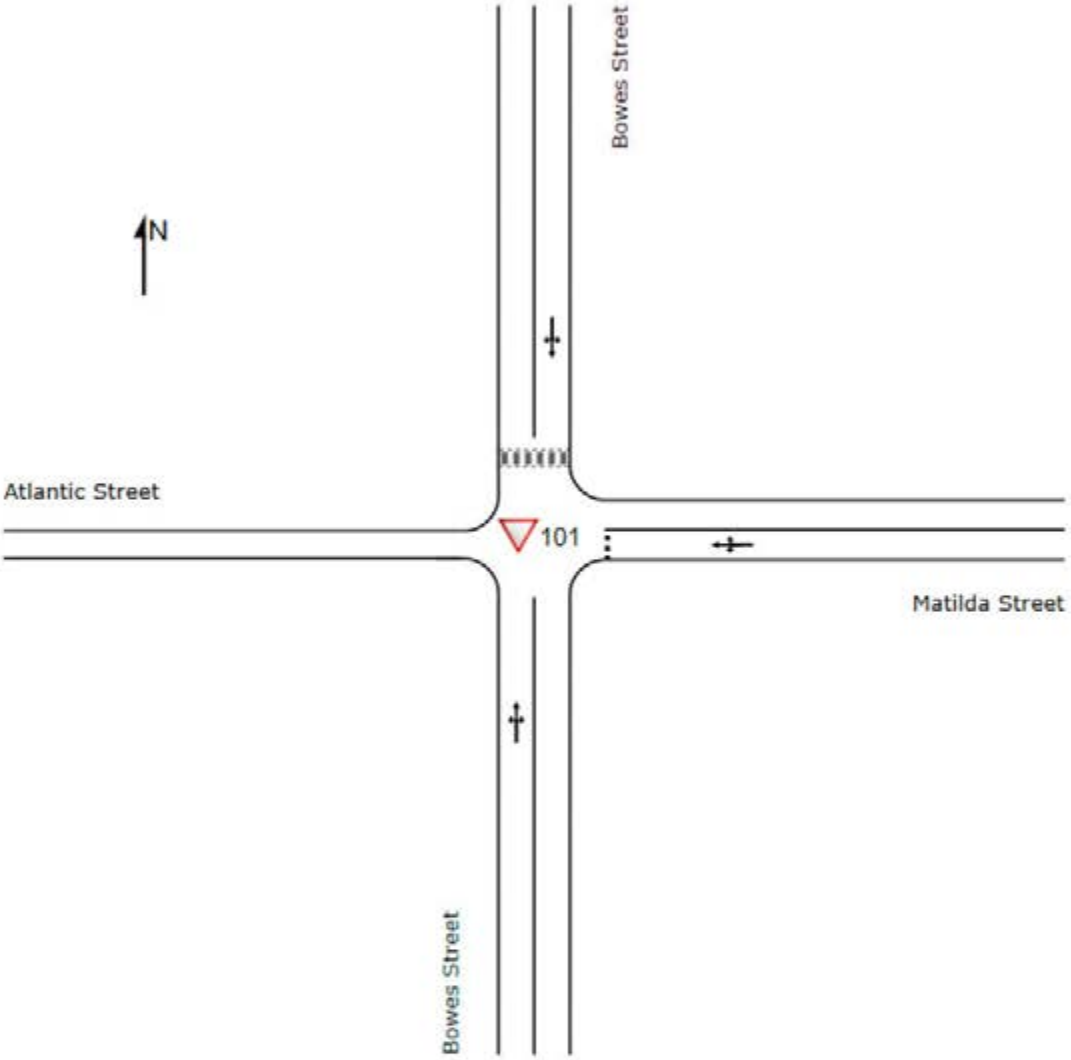
Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Post Closure SAT Peak)]

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

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



MOVEMENT SUMMARY

▽Site: 101 [Bowes / Matilda (Site Folder: Post Closure SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.048	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	96	1.1	96	1.1	0.048	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.8
3	R2	All MCs	1	0.0	1	0.0	0.048	5.7	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			98	1.1	98	1.1	0.048	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.8
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.066	5.7	LOS A	0.2	2.5	0.32	0.60	0.32	51.7
5	T1	All MCs	1	0.0	1	0.0	0.066	5.0	LOS A	0.2	2.5	0.32	0.60	0.32	52.1
6	R2	All MCs	42	67.5	42	67.5	0.066	8.0	LOS A	0.2	2.5	0.32	0.60	0.32	48.9
Approach			44	64.3	44	64.3	0.066	7.9	LOS A	0.2	2.5	0.32	0.60	0.32	49.0
North: Bowes Street															
7	L2	All MCs	41	66.7	41	66.7	0.068	6.3	LOS A	0.1	0.6	0.04	0.27	0.04	53.0
8	T1	All MCs	63	1.7	63	1.7	0.068	0.0	LOS A	0.1	0.6	0.04	0.27	0.04	58.4
9	R2	All MCs	11	10.0	11	10.0	0.068	6.5	LOS A	0.1	0.6	0.04	0.27	0.04	55.2
Approach			115	25.7	115	25.7	0.068	2.9	NA	0.1	0.6	0.04	0.27	0.04	56.1
All Vehicles			257	23.0	257	23.0	0.068	2.7	NA	0.2	2.5	0.08	0.23	0.08	56.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

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

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

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

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

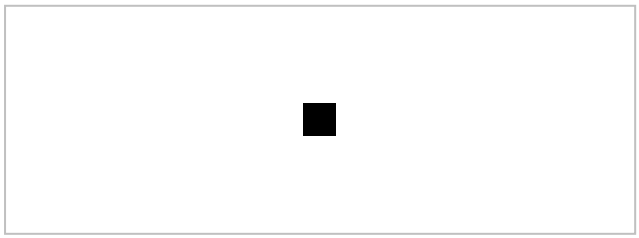
From: Roberts, Martin
To: [redacted]
Cc: McKeown, David; Chartres, Hamish; Sakib, Morsalin; CIT Campus Woden
Subject: RE: Traffic conditions around GCT
Date: Tuesday, 10 December 2024 10:50:00 AM
Attachments: image001.png

Thanks [redacted]

We will prepare a response / status / update against these.

Regards

Martin Roberts | Construction Manager
Ngunnawal Country
Ph: [redacted] Email: martin.roberts@act.gov.au
CIT Campus - Woden Project | Infrastructure Canberra | ACT Government



From: [redacted]
Sent: Tuesday, 10 December 2024 8:48 AM
To: Roberts, Martin <Martin.Roberts@act.gov.au>
Cc: McKeown, David <David.McKeown@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Sakib, Morsalin <Morsalin.Sakib@act.gov.au>; CIT Campus Woden <citcampuswoden@act.gov.au>
Subject: Re: Traffic conditions around GCT

Hi Martin

Yes we have a few things we would like to discuss:

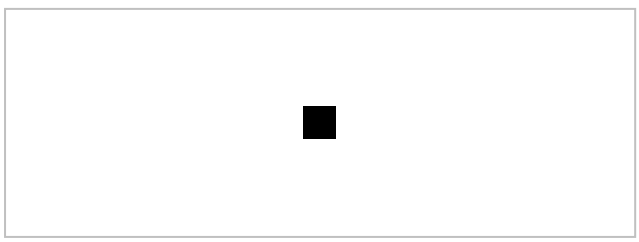
- The 3 lanes out the front on Bowes Street, especially the middle lane and a potential public safety issue.
- The flow and turnaround of buses
- Cut in park in areas and what happens after the 3-6 months
- Access to the side road and our tunnel. Which entity is responsible for the title boundary. Is it our property or govt road?

- CIT access to internet and NBN. We have no NBN to building and keep getting told we won't be getting it
- Graffiti to back of our building and neighboring businesses. is there a clean up plan
- Future security of CIT once all the fences come down and there are people in the youth residences

If these could be discussed, that would be great.

Regards
Schedule 2.2(a)(ii)

On Fri, Dec 6, 2024 at 10:58 AM Roberts, Martin <Martin.Roberts@act.gov.au> wrote:

> OFFICIAL
>
> Good morning Schedule 2.2
>
> We have set-up a meeting on 17/12. Hopefully that works ok for you. If not, please advise.
>
> You mention below that GCT have some concerns and questions, to aid resolving things when we catch up if you wanted to forward these now we can get Lendlease to explore solutions / response in advance (instead of waiting to receive these in the meeting).
>
> Regards
>
> Martin Roberts | Construction Manager
> Ngunnawal Country
> Ph Schedule 2.2(a)(ii) Email: martin.roberts@act.gov.au
> CIT Campus - Woden Project | Infrastructure Canberra | ACT Government
>
> 
>
> *Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.*
>
> **From:** Schedule 2.2(a)(ii)
> **Sent:** Thursday, 5 December 2024 11:51 AM
> **To:** CIT Campus Woden <citcampuswoden@act.gov.au>
> **Cc:** McKeown, David <David.McKeown@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>
> **Subject:** Re: Traffic conditions around GCT

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Thanks Sarah. Appreciate your help.

On Wed, 4 Dec 2024, 5:25 pm CIT Campus Woden, <citcampuswoden@act.gov.au> wrote:

OFFICIAL

Hi Schedule 2.2

Thanks for your email and nice to e-meet you. Yes, I met with Schedule 2.2(a)(ii) a couple of weeks ago, along with the CIT Woden Campus Project Manager and a Lendlease representative, to have an early discussion around the required temporary closure of Callam Street to buses to enable works on the new Public Transport Interchange. Lendlease presented a draft Traffic Guidance Scheme which showed the proposed temporary re-routing of buses along Bowes and Matilda Street to facilitate these staging works.

I am actually on leave from tomorrow until the end of January so I am looping in my colleagues David and Martin who will be able to organise a follow-up meeting with them, yourself and Lendlease to further discuss the changes and address your concerns.

Wishing you happy holidays and all the best for 2025.

Kind regards,
Sarah

Sarah Illy | Director, Communications & Engagement
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
CIT Woden Campus Project | Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

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From: Schedule 2.2(a)(ii)

Sent: Wednesday, 4 December 2024 2:17 PM
To: Illy, Sarah <Sarah.Illy@act.gov.au>
Subject: Traffic conditions around GCT

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> **Caution:** This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Sarah

My name is Schedule 2.2(a)(ii) and I am the current chair of the executive committee for Grand Central Towers in Bowes St Woden.

I believe you had a meeting with Schedule 2.2(a)(ii) our building, about changed road and traffic conditions coming from the bus inerchange.

I was hoping to have a meeting with yourself and a Lendlease representative to discuss these changes and the current access points in and out of the area.

Needless to say, we have some concerns and questions that we would like to raise.

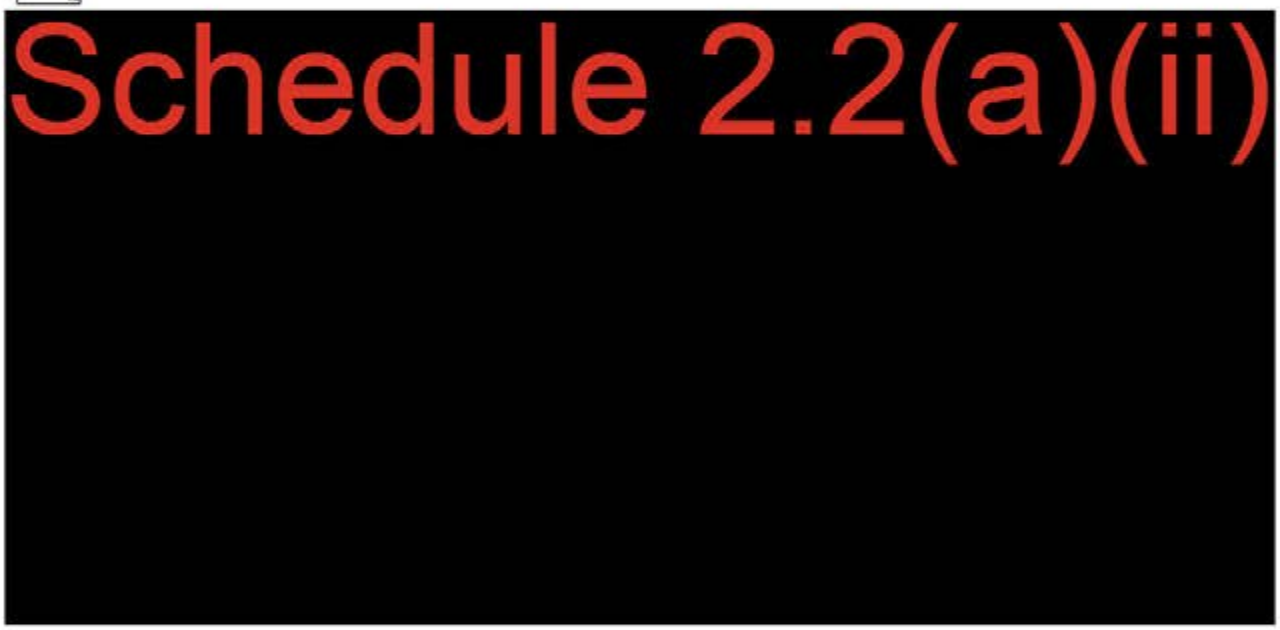
Would we be able to arrange a meeting sometime between Tuesday 17 Dec and Thursday 19 Dec, preferably in the morning?

Regards
Schedule 2.2(a)(ii)

Lin, Mandy

From: Schedule 2.2(a)(ii)
Sent: Wednesday, 12 February 2025 7:52 AM
To: Grand Central Towers
Cc: CIT Campus Woden; Roberts, Martin; Schedule 2.2(a)(ii)
Subject: Re: Update on Callam Street works | traffic changes on Bowes and Matilda Streets

Hi Sarah,
I right for the 24th as well,
Kind Regards,



On Tue, Feb 11, 2025 at 9:19 AM Grand Central Towers <gctbm@civium.com.au> wrote:
HI Sarah,

I am ok with that date for an AM meet up.

Thanks,

On Tue, Feb 11, 2025 at 9:01 AM CIT Campus Woden <citcampuswoden@act.gov.au> wrote:

OFFICIAL

Hi Schedule 2.2(a)(ii)

I hope you are both keeping well. We would like to provide you with the latest update on the Woden Public Transport Interchange works and to follow up on discussions from the previous meeting around the timing/extent of the Grand Central Towers remedial works.

Could you possibly advise your availability w/c 24 February to meet with the Project Team and Lendlease?

Many thanks & kind regards,

Sarah

Sarah Illy | Director, Communications, Culture and Industry

M: Schedule 2.2(a)(ii) E: sarah.illy@act.gov.au

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From: Schedule 2.2(a)(ii)
Sent: Wednesday, 13 November 2024 12:29 PM
To: CIT Campus Woden <citcampuswoden@act.gov.au>
Cc: Schedule 2.2(a)(ii) Sakib, Morsalin <Morsalin.Sakib@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Schedule 2.2(a)(ii)
Subject: Re: Update on Callam Street works | traffic changes on Bowes and Matilda Streets

Hi Sarah,

Happy to on Tuesday,

Cheers,

On Wed, Nov 13, 2024 at 12:11 PM CIT Campus Woden <citcampuswoden@act.gov.au> wrote:

OFFICIAL

Hi Schedule 2.2(a)(ii)

I hope your week is going well. Lendlease have been progressing preparations for works on the new Public Transport Interchange which will involve temporary traffic and pedestrian changes along Bowes and Matilda Streets.

We would like to talk you through the latest proposed Traffic Guidance Scheme – would you be available to meet with Lendlease and the CIT Woden Campus project team on Tuesday or Wednesday next week?

Let me know what day/time works best for you and I will send a meeting invitation through.

Many thanks & kind regards,
Sarah

Sarah Illy | Director, Communications & Engagement

M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au

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From: Schedule 2.2(a)(ii) [redacted]
Sent: Tuesday, 27 August 2024 1:41 PM
To: CIT Campus Woden <citcampuswoden@act.gov.au>
Cc: Schedule 2.2(a)(ii) [redacted] Mynott, Matthew <Matthew.Mynott@act.gov.au>
Subject: Re: FW: Minutes from MPC / Grand Central Towers meeting on 15 August 2024

Thanks Sarah :)

On Tue, Aug 27, 2024 at 1:29 PM CIT Campus Woden <citcampuswoden@act.gov.au> wrote:

OFFICIAL

Hi Schedule 2.2(a)(ii) [redacted],

Hope your week is going well. Lendlease have confirmed that they have installed 'No Standing' signs along Bowes Street East which ACT Parking Operations can enforce as or when required.

Hopefully, this now resolves the parking issues you were experiencing on both sides of the Grand Central Towers thoroughfare but please let me know if you have any further concerns.

Thank you again for your patience and understanding as the new CIT Woden Campus and public transport interchange nears completion.

Kind regards,

Sarah

BUILT FOR CBR

Sarah Illy | Director, Communications & Engagement

M: Schedule 2.2(a)(ii) E: sarah.illy@act.gov.au

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From: Illy, Sarah **On Behalf Of** CIT Campus Woden
Sent: Thursday, August 15, 2024 1:43 PM
To: Schedule 2.2(a)(ii)
Cc: Mynott, Matthew <Matthew.Mynott@act.gov.au>; Alcon, Earl <Earl.Alcon@act.gov.au>
Subject: Minutes from MPC / Grand Central Towers meeting on 15 August 2024

Hi Schedule 2.2(a)(ii)

Good to chat with you both this morning about the Bowes Street parking restrictions and proposed traffic changes around the Woden Transport Interchange.

Below is a summary of the conversation and next steps – please let me know if I have missed anything from our discussion or if there is anything else you would like to add or request.

Attendees:

Matthew Mynott – MPC Construction Manager and Advisor

Sarah Illy – MPC Director, Communications and Engagement

Schedule 2.2(a)(ii)

Meeting discussion:

- MPC inspected the traffic signs and barriers at the exit of Grand Central Towers against what was agreed in the approved Traffic Guidance Scheme and confirmed its compliance.
- MPC advised of potential traffic changes on Callam, Matilda and Bowes streets to enable construction works on the new public transport interchange.
- MPC presented draft options for closing one or both ends of Callam Street to speed up staging works.

Questions asked to MPC:

- With the "No Stopping" signs now in place, will they be regularly checked and enforced by parking inspectors?
- Vehicles are parking alongside the fence at the entry to Grand Central Towers tunnel and causing issues with access – can a "no parking" sign be affixed to the construction fence to deter people from parking there?
- What will be the main entrance to the CIT building and where would be the likely drop-off points?
- Will the previous Bowes Street loop be re-opened once construction finishes?

Concerns raised:

- No concerns with the North Callam and South Callam closure options presented.
- However, if the option of diverting buses along Bowes Street was being re-considered, then there would be impact on residents, particularly those moving in/moving out.

Next steps:

- MPC to keep Civium / Grand Central Towers updated regarding the proposed traffic changes to enable works on Callam Street and set up meetings as and when new information is available.
- MPC to advise the future traffic movement, including possible student drop-off points, around Grand Central Towers once construction works are complete
- MPC to check with LL re. the original Traffic Guidance Scheme for the Grand Central Towers entrance (photos as below) and advise whether a "no parking" sign should have been installed on the construction fence, and if not, if it can be added.

Regarding the second point, there is information on the CIT Woden Campus website that provides details on the new Bowes/Bradley connection. Below are a couple of screen grabs from the web page but let me know if you require any further information at this stage.

Kind regards,

Sarah

Sarah Illy | Director, Communications & Engagement

M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au

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--

Kind Regards,

[redacted]

Schedule 2.2(a)(ii)

--

Kind Regards,

Schedule 2.2(a)(ii)

--
Kind Regards,

Schedule 2.2(a)(ii)

From: Schedule 2.2(a)(ii)
Sent: Thursday, 20 February 2025 3:29 PM
To: Bell, Jeff; Poon, Kit
Cc: Schedule 2.2(a)(ii); Shahid, Asim; Roberts, Martin; Sakib, Morsalin
Subject: RE: [EXT]:Woden Bus Layover - Bowes/Launceston Intersection WAE
Attachments: 22151TLET04F02.pdf

OFFICIAL

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Hi Jeff and Kit

Following our meeting earlier this week, we have had SALT3 complete an updated SIDRA analysis report, refer attached for your consideration.

Can you please confirm whether you would be available on Monday afternoon between 1:00pm – 2:30pm? We would like to collaboratively review this prior to finalising TCD's.

Thanks.

Regards

Schedule 2.2(a)(ii)

From: Bell, Jeff <Jeff.Bell@act.gov.au>
Sent: Tuesday, 18 February 2025 5:38 PM
To: Schedule 2.2(a)(ii)
Cc: Poon, Kit <Kit.Poon@act.gov.au>; Abeysekera, Ruwan <Ruwan.Abeysekera@act.gov.au>
Subject: [EXT]:Woden Bus Layover - Bowes/Launceston Intersection WAE

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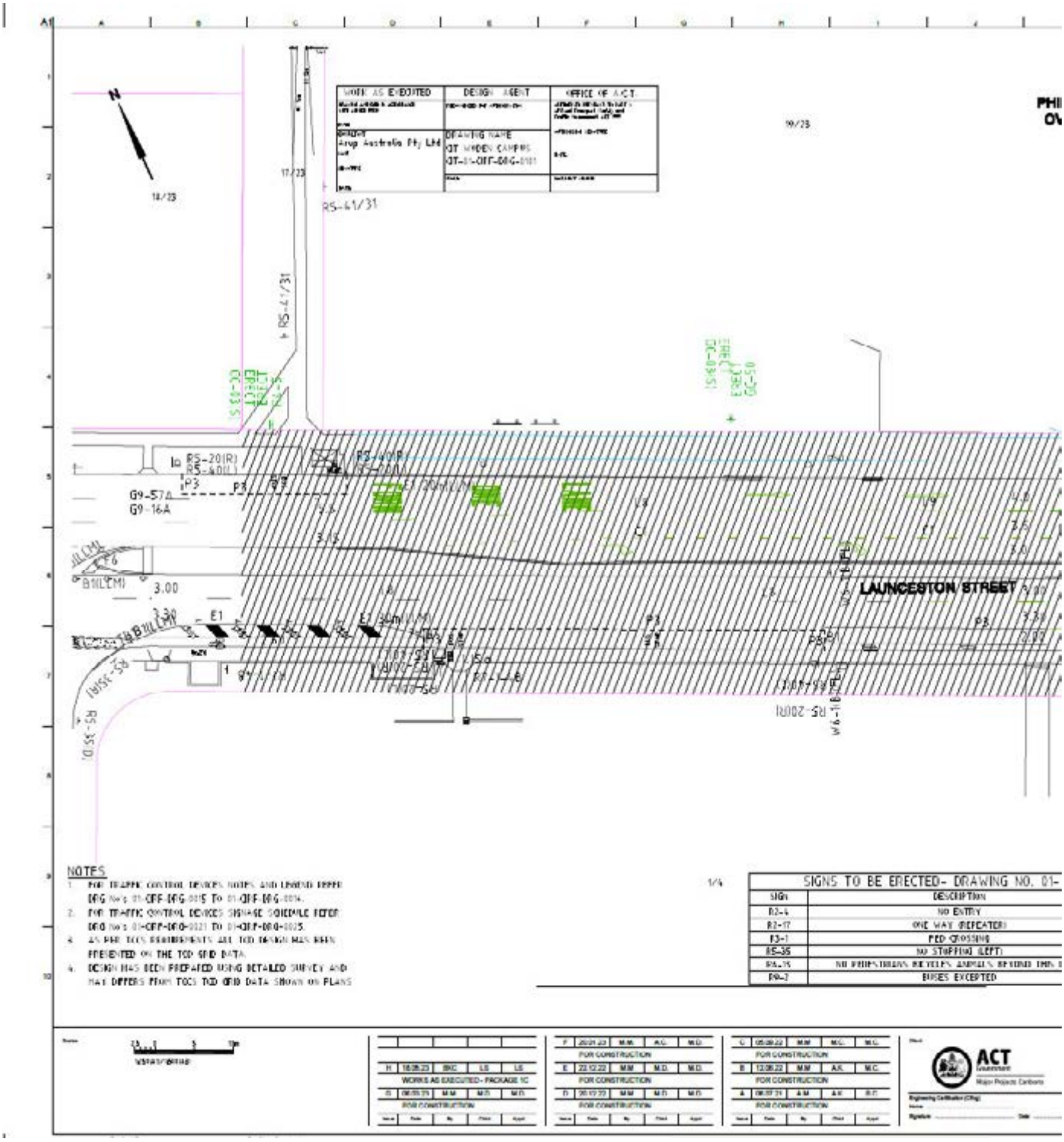
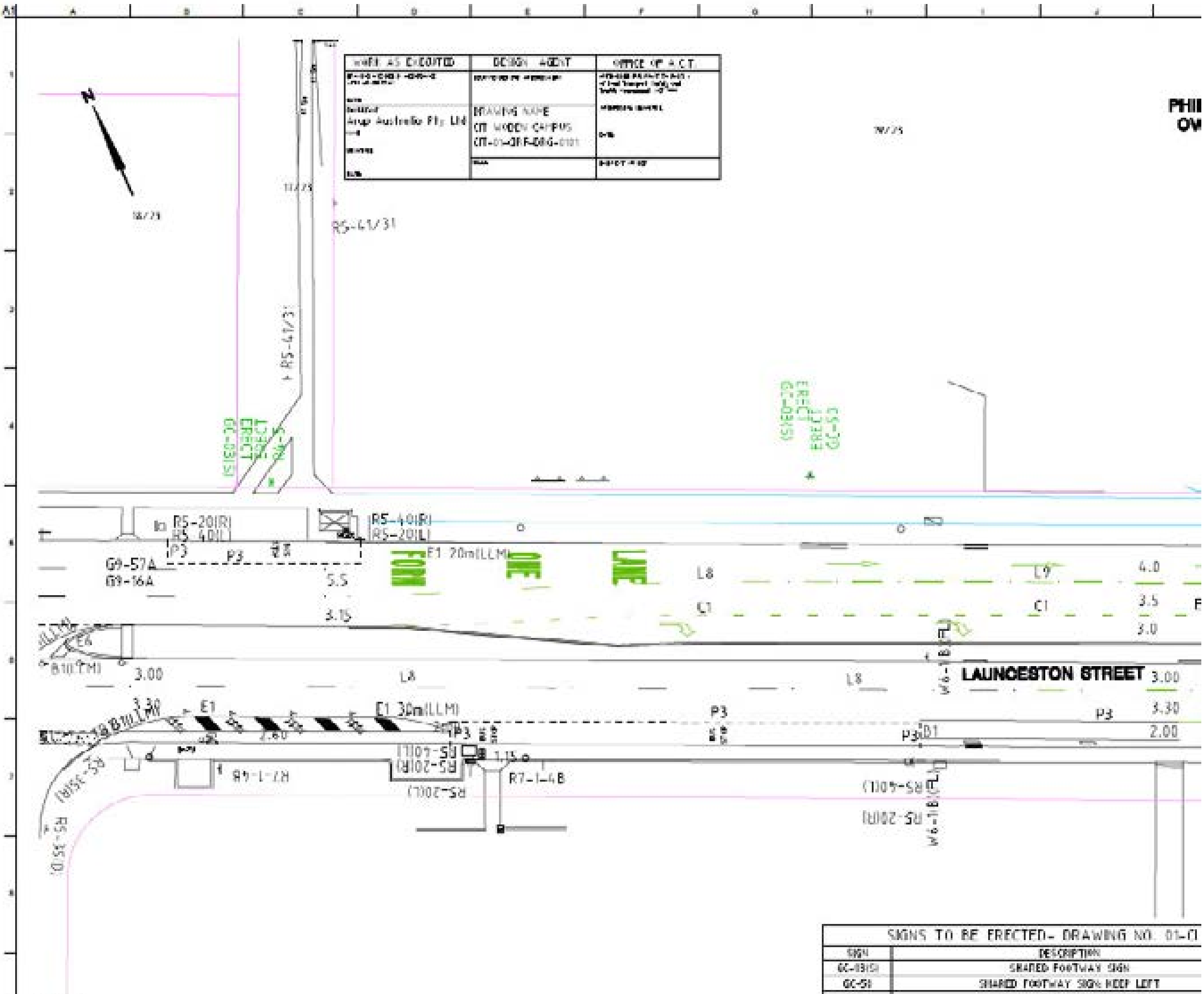
OFFICIAL

Hi Schedule 2.2(a)(ii)
As we discussed, TCCS does not have the WAE CAD drawings for the bus layover. The design was prepared by ARUP for both Stages 1C and 1D of the CIT project. The project officer form Development Coordination (Design Review and Asset Acceptance) has advised that ARUP have attempted to submit the WAE several times, but none of the attempts were in accordance with TCCS requirements.

The attached PDF is from ARUP and shows the signal and TCD information for the entire intersection. The CAD version of this drawing would provide the appropriate base for the current intersection modifications for the Callam St closure.

The following images indicate that the TCD WAE information was prepared by Indesco and the intersection information is split across two discrete stages i.e. the bus layover and northern approach to the intersection is in Stage 1C and the rest of the intersection is in Stage 1D.





NOTES

1. FOR TRAFFIC CONTROL DEVICES NOTES AND LEGEND REFER DRG No's 01-CRF-DRG-0015 TO 01-CRF-DRG-0016.
2. FOR TRAFFIC CONTROL DEVICES SIGNAGE SCHEDULE REFER DRG No's 01-CRF-DRG-0021 TO 01-CRF-DRG-0025.
3. AS PER TCCS REQUIREMENTS ALL TCD DESIGN HAS BEEN PRESENTED ON THE TCD GRID DATA.
4. DESIGN HAS BEEN PREPARED USING DETAILED SURVEY AND MAY DIFFERS FROM TCCS TCD GRID DATA SHOWN ON PLANS.

SIGNS TO BE ERECTED- DRAWING NO. 01-C1	
SIGN	DESCRIPTION
GC-03(S)	SHARED FOOTWAY SIGN
GC-51	SHARED FOOTWAY SIGN KEEP LEFT
GC-01	COMMUNITY ROUTE MARKER
GE-1(DS)	STREET NAME AND PEDESTRIAN DIRECTION SERIES- DOUBLE
G6-1(SS)	STREET NAME AND PEDESTRIAN DIRECTION SERIES
R2-3	KEEP LEFT
R2-6	NO LEFT TURN
R2-6	NO RIGHT TURN
R4-5	END SHARED ZONE
R5-40	NO PARKING (LEFT/RIGHT)
R7-1-4	BICYCLE (SYMBOLIC) LANE

H	20.00.23	DHC	LD	LD	WORKS AS EXECUTED - PACKAGE 1D
G	05.00.23	M.M.	M.D.	M.D.	FOR CONSTRUCTION
F	20.01.23	M.M.	A.C.	M.D.	FOR CONSTRUCTION
E	22.12.22	M.M.	M.D.	M.D.	FOR CONSTRUCTION
D	20.12.22	M.M.	M.D.	M.D.	FOR CONSTRUCTION
C	06.00.22	M.M.	M.C.	M.C.	FOR CONSTRUCTION
B	12.00.22	M.M.	A.K.	M.C.	FOR CONSTRUCTION
A	05.07.21	A.M.	A.K.	B.C.	FOR CONSTRUCTION

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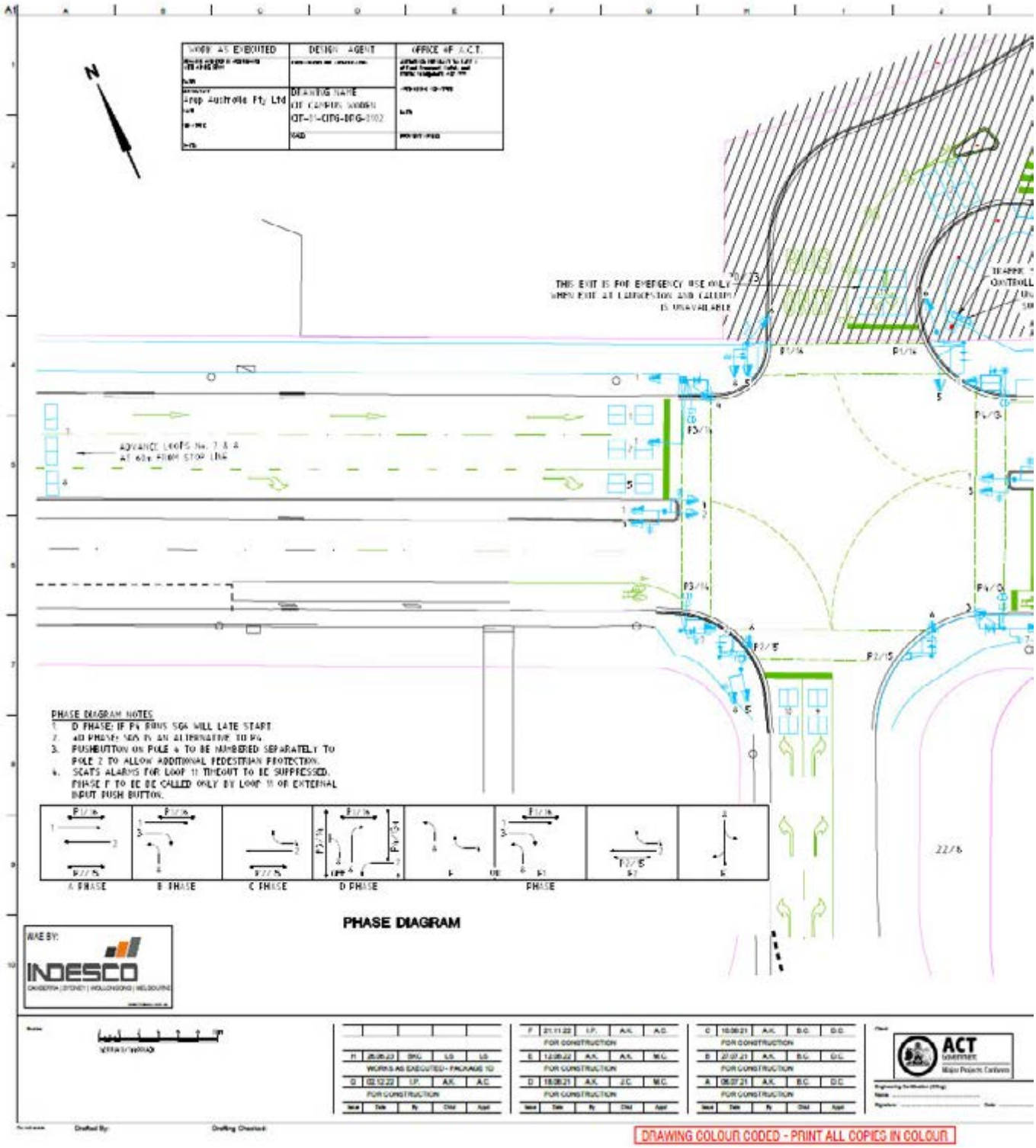

Regards

Jeff Bell MIEAust CPEng | **Director – Network Operations and Traffic Management**
Phone: 02 6207 5604 | Mobile: Schedule 2.2(a)(ii) | Email: jeff.bell@act.gov.au
Roads ACT | Transport Canberra and City Services Directorate |ACT Government
480 Northbourne Ave Dickson ACT 2602 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

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T: +61 8 8484 2331

Sustainable Transport Surveys Pty Ltd
ABN: 18 439 813 274
www.salt3.com.au

20 February 2025

Schedule 2.2(a)(ii)
Lendlease
Level 3, 224 Bunda Street
Canberra ACT 2600

Dear Schedule 2.2(a)(ii)

Re: **CALLAM STREET CLOSURE TRAFFIC MODELLING**
Project No: **22151**

We refer to your request to undertake a traffic modelling assessment of the intersections of Launceston Street / Bowes Street and Bowes Street / Matilda Street to ensure they can operate effectively and safely post closure of the northern end of Callam Street.

Once the northern end of Callam Street is closed, buses will be directed via Matilda Street and Bowes Street to travel between the bus interchange and Launceston Street, rather than their current route via Matilda Street and Callam Street. The purpose of this report is to assess the operation of Launceston Street / Bowes Street and Bowes Street / Matilda Street with the additional bus traffic.

In the course of preparing this report, the following has been undertaken:

- Traffic volume data has been collected and analysed;
- Pedestrian volume data has been collected and analysed;
- Traffic signal phasing information has been sourced;
- SIDRA modelling has been undertaken; and
- The operation of the key intersections has been assessed.

The following sets out SALT's findings.

1 TRAFFIC VOLUMES

1.1 EXISTING VOLUMES

In order to ascertain the existing traffic volumes at the subject intersections, turning movement counts were commissioned. These took place on Thursday 21st November 2024 between 7:00am-9:00am and 3:00pm-6:00pm, and on Saturday 23rd November 2024 between 7:00am-10:00am. This represents a typical weekday and weekend day during the school term and not impacted by any public holidays. The time periods aim to capture the peak commuter hours as well as bus service hours.

The counts were undertaken at Launceston Street / Bowes Street, Launceston Street / Callam Street and Bowes Street / Matilda Street intersection. Whilst Launceston Street / Callam Street is not being modelled, it was surveyed to capture the quantity and distribution of bus movements under existing conditions.

A pedestrian count was also undertaken at the zebra crossing on the northern leg of Bowes Street / Matilda Street.

The survey locations are depicted in Figure 1.

Figure 1 Traffic and pedestrian count locations

By analysis of the traffic volume data, the peak hours of activity were found to occur between 8:00am-9:00am and between 4:30-5:30pm on the Thursday, and between 9:00am-10:00am on the Saturday. The Saturday volumes were found to be far lower than the weekday peak hour volumes.

The peak hour turning movements are presented in the Figure 2 to Figure 4, with pedestrian volumes provided in Figure 5. Detailed data is provided in Appendix 1.

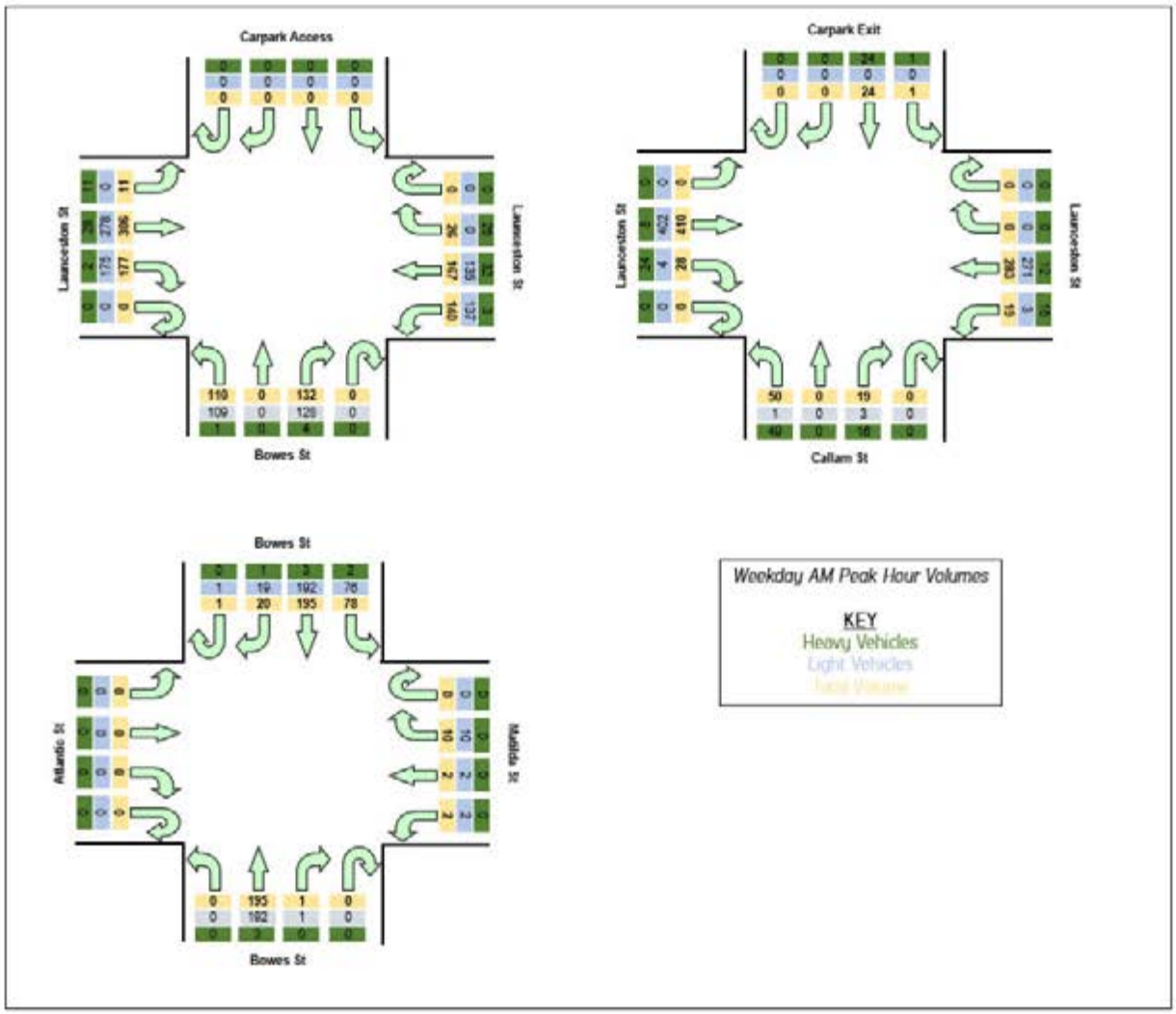


Figure 2 Weekday AM peak hour traffic volumes

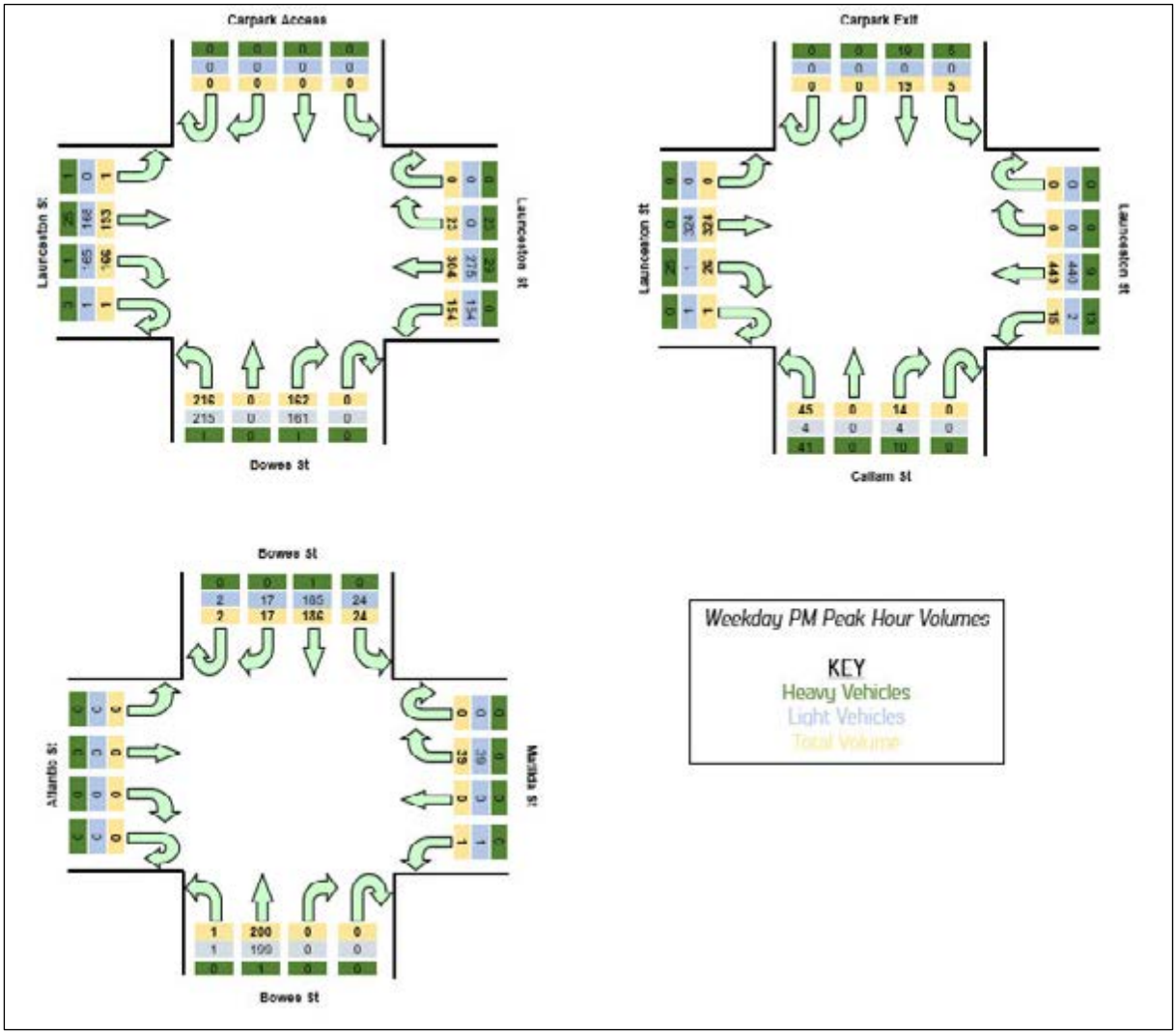


Figure 3 Weekday PM peak hour traffic volumes

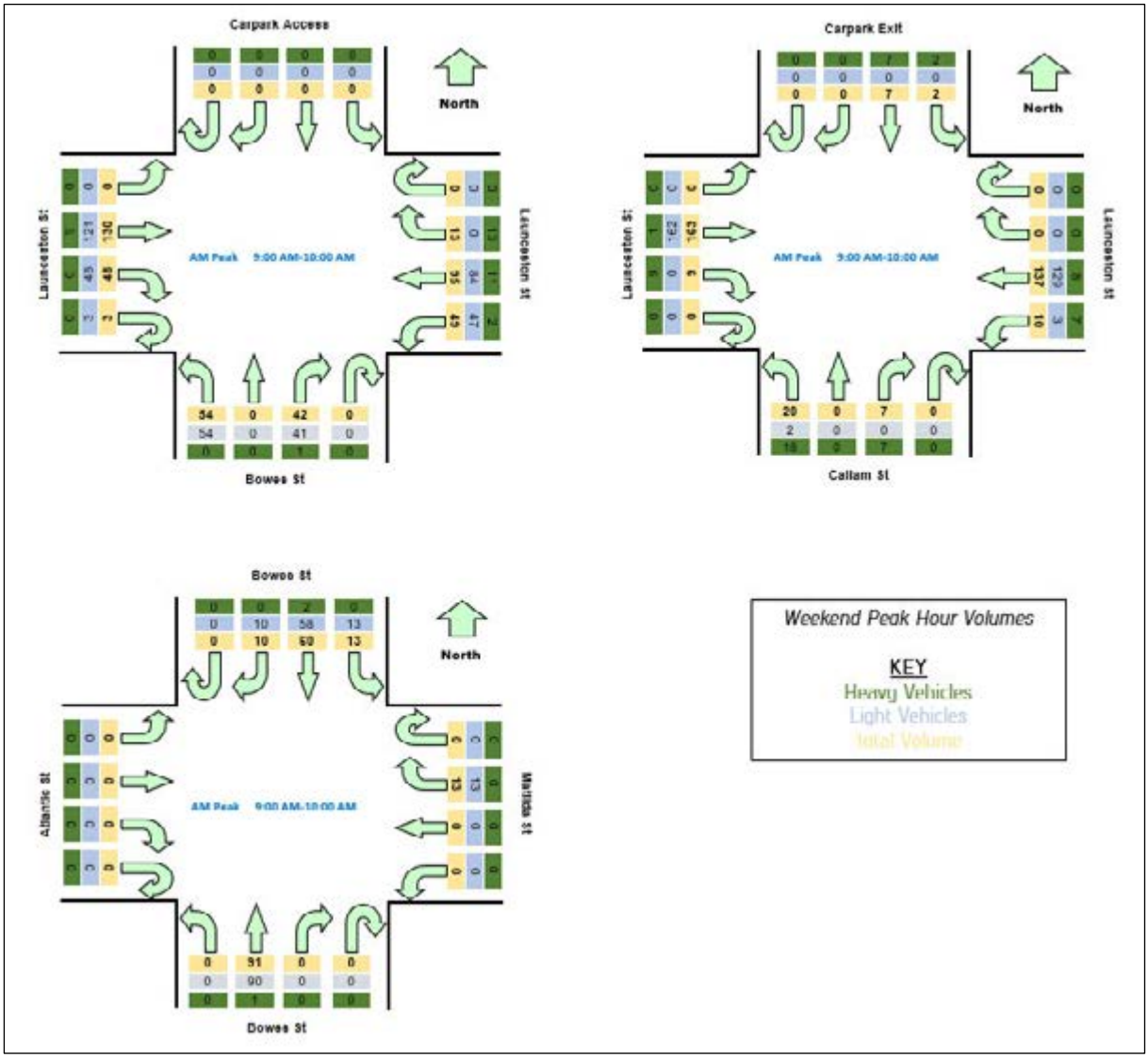


Figure 4 Weekend peak hour traffic volumes

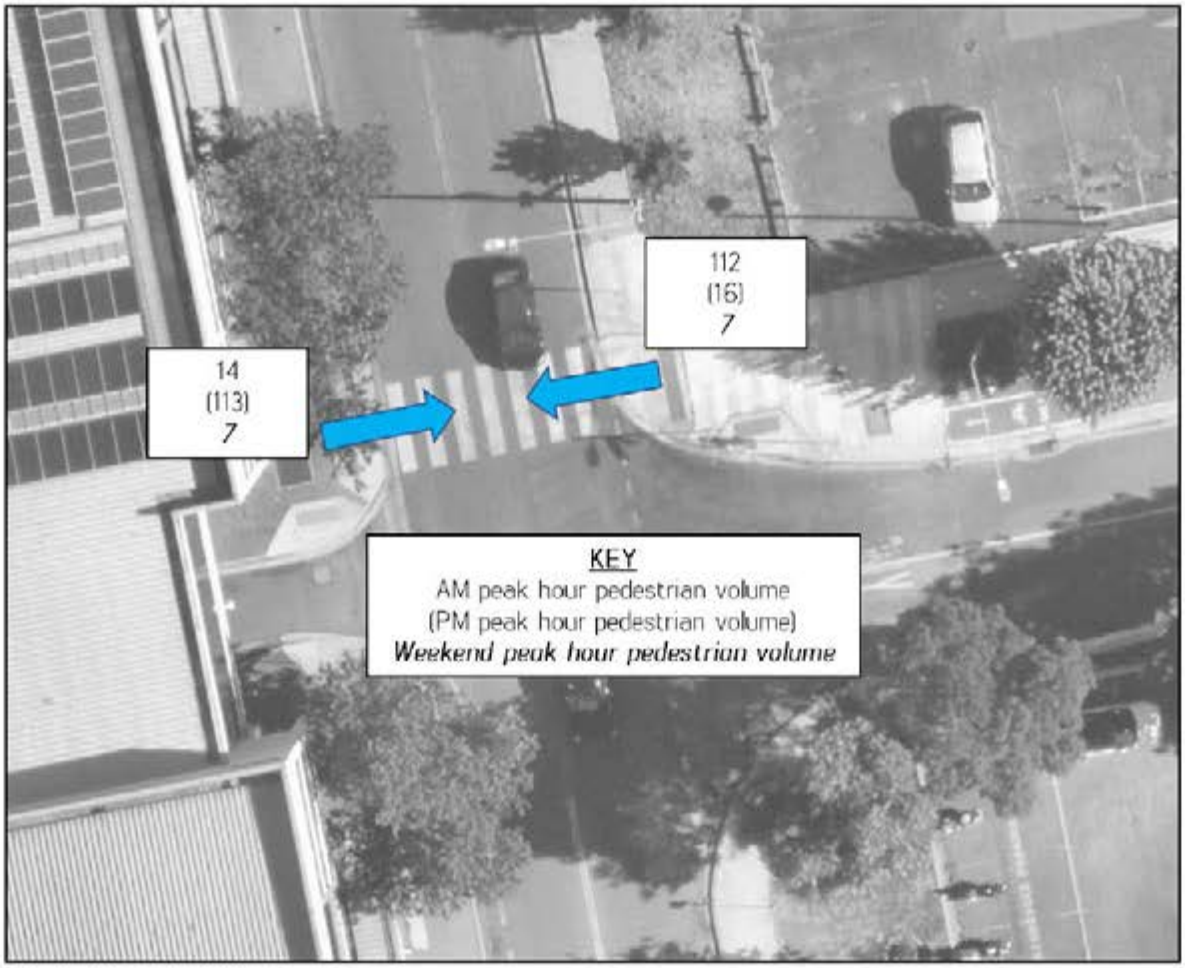


Figure 5 Peak hour pedestrian volumes

1.2 POST-CLOSURE VOLUMES

Post-closure of the northern end of Callam Street, existing bus movement into and out of Callam Street at Launceston Street will be transferred over to the intersection of Launceston Street / Bowes Street to access the bus interchange via Matilda Street.

It is assumed that bus movements will be distributed in the same fashion as per existing conditions. For example, under existing conditions in the AM peak hour, a total of 69 buses exit Callam Street including 50 left-turns and 19 right-turns. Post-closure, 69 buses are added as right turns from Matilda Street to Bowes Street, 50 vehicles are added to left turns from Bowes Street to Launceston Street and 19 vehicles are added as right-turns from Bowes Street to Launceston Street. This is done for all movements into and out of Callam Street at Launceston Street.

Vehicles travelling south from the bus layover at Callam Street to the bus interchange are assumed to exit the bus layover at Bowes Street post-closure as they cannot turn right from the Callam Street layover exit onto Launceston Street.

2 SIDRA ANALYSIS

2.1 ASSUMPTIONS AND SETTINGS

The operation of the intersections of Launceston Street / Bowes Street and Bowes Street / Matilda Street have been assessed using SIDRA Intersection v9.1. SIDRA is an advanced micro-analytical traffic evaluation tool that provides estimates of capacity and performance statistics (delay, queue lengths etc) on a lane-by-lane basis.

The operation of the intersection has been assessed for the critical weekday AM and PM peak hours and the weekend peak hour under existing conditions, and post closure of Callam Street, with bus movements transferred over from Callam Street to Bowes Street.

Key performance criteria include:

Degree of Saturation (DOS): This represents the ratio of traffic volume to capacity. Generally speaking, a DOS of below 0.9 indicates acceptable performance. A DOS of over 1.0 indicates that capacity has been exceeded.

Level of Service (LOS): An index of the operational performance of traffic based on service measures such as delay, degree of saturation, density and speed during a given flow period. A guide to LOS ratings is provided in Table 1.

Average Delay: The average delay time that can be expected for a given movement.

95th Percentile Queue: The maximum queue length that can be expected in 95% of all observed queue lengths during the hour.

Table 1 Control delay for vehicle LoS calculations (RTA NSW Method)

Level of Service	Control delay per vehicle in seconds (d) (including geometric delay)	Traffic Signals, Roundabout	Give Way and Stop Signs Good operation
	All intersection types		
A	d < 14	Good operation	Good operation
B	d < 15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	d < 29 to 42	Satisfactory	Satisfactory, but accident study required
D	d < 43 to 56	Operating near capacity	Near capacity & accident study required
E	d ≤ 57 to 70	At capacity, at signals, incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	d > 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

The following assumptions have been applied:

- Extra bunching of 20% has been applied to the western leg of Launceston Street to account for platooning of traffic due to the signalised pedestrian crossing just over 100m to the west of Bowes Street;
- Extra bunching of 20% has been applied to the eastern leg of Launceston Street to account for platooning of traffic due to the traffic signals at Callam Street; and
- Extra bunching of 20% has been applied to the northern leg of Bowes Street (at the Matilda Street intersection) to account for platooning of traffic due to the traffic signals at Launceston Street.

2.2 SIGNAL INFORMATION

Information relating to the existing signal phasing and timing at Launceston Street / Bowes Street has been provided to SALT by ACT Government. The signal phasing diagram is provided in Figure 6.

By review of the phase timing data, it was found that during the weekday and weekend peak hours, generally only phases A, D, E and F are running, as depicted in Figure 7. The average phase times for each peak hour have been extracted from this data and input to the SIDRA model for the existing condition, noting that late starts have been applied signal groups 5 and 8 for pedestrian protection.

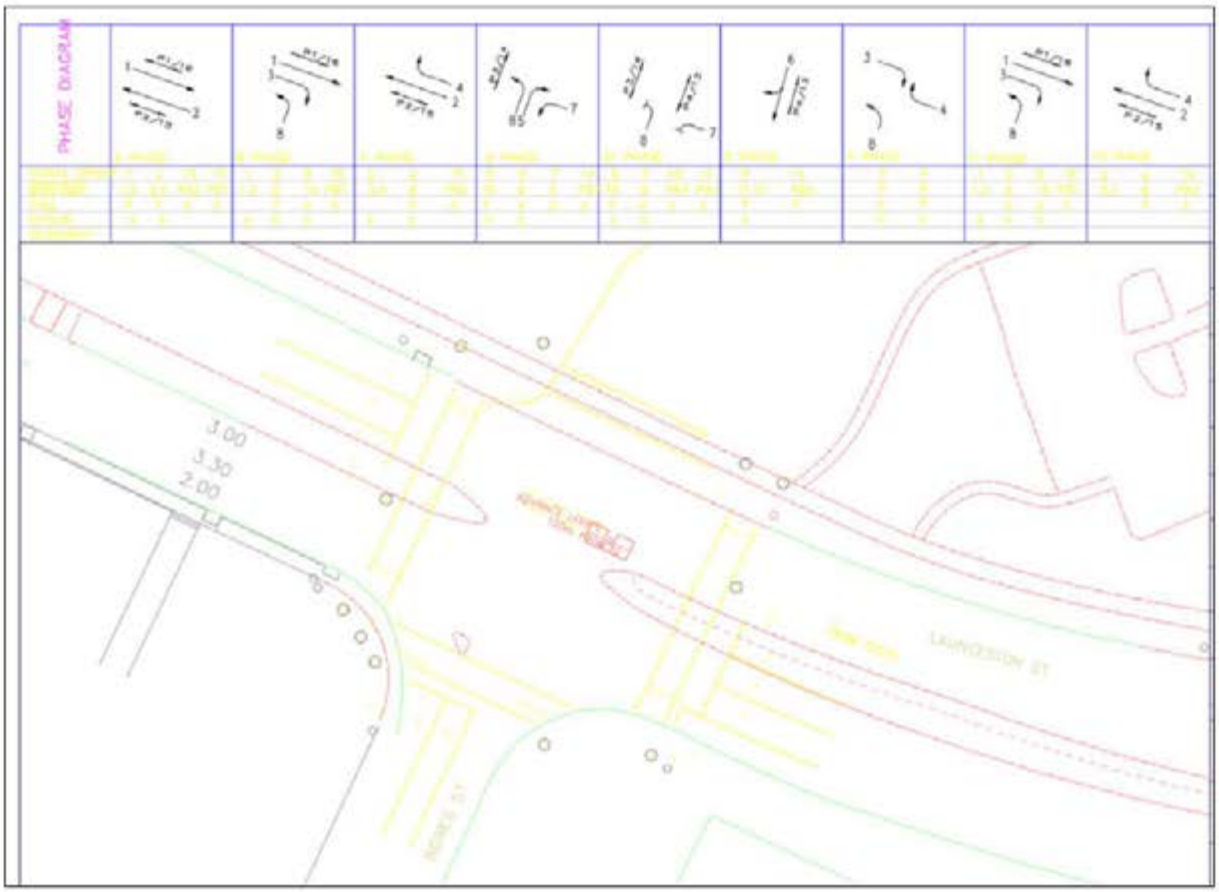


Figure 6 Launceston Street / Bowes Street signal phasing diagram

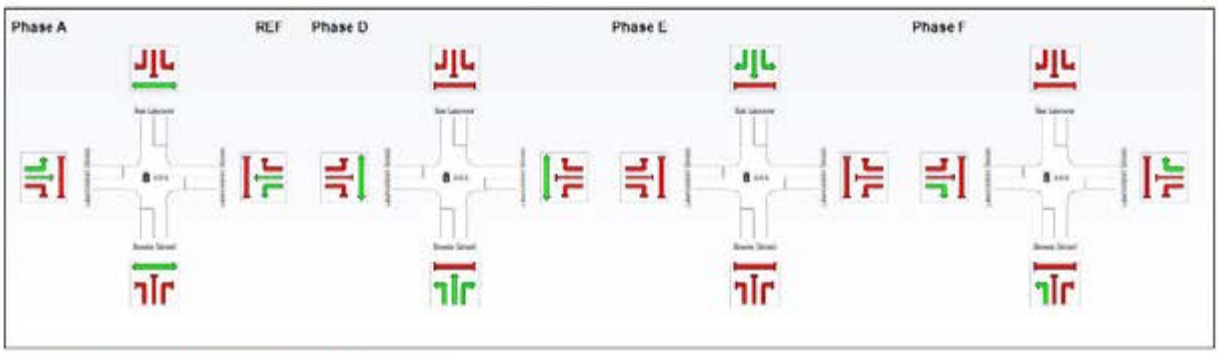


Figure 7 Existing scenario signal phasing

It is noted that as a result of the Callam Street closure, slight linemarking modifications will need to be made to the Launceston Street/Bowes Street intersection to accommodate the additional bus movements. As a result, the southern leg will only include a single shared, through and right-turn lane for northbound traffic, and this has been modelled in SIDRA.

2.3 SIDRA RESULTS

The results of the SIDRA analysis are summarised in the below tables for the key peak hours. Full output of the results is provided at Appendix 2.

2.3.1 WEEKDAY AM PEAK HOUR

Launceston Street/Bowes Street

Table 2 Launceston Street / Bowes Street – Weekday AM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.16	B	15	14	0.82	B	25	107
	T	0.16	B	28	14	0.82	D	48	107
	R	0.34	C	36	14	0.82	D	53	107
Launceston Street (east)	L	0.39	C	36	43	0.42	C	36	48
	T	0.39	C	30	43	0.42	C	30	51
	R	0.14	C	39	13	0.14	C	39	13
Bus Layover (north)	L	0.03	D	47	2	0.25	D	49	15
	T	0.03	D	40	2	0.25	C	42	15
	R	0.03	D	47	2	0.25	C	49	15
Launceston Street (west)	L	0.40	C	37	46	0.40	C	37	46
	T	0.40	C	30	46	0.40	C	30	46
	R	0.57	C	41	52	0.72	D	44	71

The SIDRA results show that northern, eastern and western legs of the intersection will continue to operate well post-closure of Callam Street, with vehicles experiencing manageable queues and delays. The southern leg (Bowes Street), however, will experience longer queues and delays, with a queue length increasing from 14m (~2 vehicles) to 107m (~13 vehicles). This is mainly due to the fact that Bowes Street will only provide a single shared through, left and right-turn traffic lane for northbound traffic at the intersection post-closure of Callam Street.

Whilst the DOS still shows that the southern leg of the intersection still has capacity, if considered necessary by the responsible authority, there are two (2) options available to improve the queues and delays experienced along Bowes Street as a result of the Callam Street closure:

Option 1:

- Maintain the same current cycle time of 85 seconds for the intersection but change the phasing times as follows:

Phase Timing Summary				
Phase	A	D	E	F
Phase Change Time (sec)	0	17	44	56
Green Time (sec)	11	21	6	23
Phase Time (sec)	17	27	12	29
Phase Split	20%	32%	14%	34%
Phase Frequency (%)	100.0	100.0	100.0	100.0

This would result in the post-closure conditions shown in Table 3.

Table 3 Launceston Street / Bowes Street – Weekday AM peak hour SIDRA results

Leg	Turn	Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.75	B	17	96
	T	0.75	D	45	96
	R	0.75	D	51	96
Launceston Street (east)	L	0.77	D	49	59
	T	0.77	D	43	63
	R	0.09	C	31	11
Bus Layover (north)	L	0.33	D	52	16
	T	0.33	D	45	16
	R	0.33	D	52	16
Launceston Street (west)	L	0.72	D	49	56
	T	0.72	C	42	56
	R	0.47	C	34	59

Option 2:

- Change the cycle time to an optimal cycle time of 60 seconds with the following phasing times:

Phase Timing Summary				
Phase	A	D	E	F
Phase Change Time (sec)	0	14	33	45
Green Time (sec)	8	13	6	9
Phase Time (sec)	14	19	12	15
Phase Split	23%	32%	20%	25%
Phase Frequency (%)	100.0	100.0	100.0	100.0

This would result in the post-closure conditions shown in Table 4.

Table 4 Launceston Street / Bowes Street – Weekday AM peak hour SIDRA results

Leg	Turn	Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.81	B	20	74
	T	0.81	C	34	74
	R	0.81	C	40	74
Launceston Street (east)	L	0.75	C	37	42
	T	0.75	C	31	45
	R	0.17	C	32	10
Bus Layover (north)	L	0.23	C	37	11
	T	0.23	C	30	11
	R	0.23	C	37	11
Launceston Street (west)	L	0.70	C	37	40
	T	0.70	C	30	40
	R	0.85	C	40	57

Bowes Street/Matilda Street

Table 5 Bowes Street / Matilda Street – Weekday AM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.10	A	6	0.1	0.10	A	6	0.1
	T	0.10	A	-	0.1	0.10	A	-	0.1
	R	0.10	A	6	0.1	0.10	A	7	0.1
Matilda Street (east)	L	0.02	A	6	1	0.24	A	7	11
	T	0.02	A	6	1	0.24	A	7	11
	R	0.02	A	8	1	0.24	B	15	11
Bowes Street (north)	L	0.16	A	6	1	0.22	A	6	2
	T	0.16	A	-	1	0.22	A	-	2
	R	0.16	A	8	1	0.22	A	8	2

Table 5 shows that the intersection will operate in a satisfactory manner post-closure of Callam Street, with vehicles experiencing manageable queues and delays.

2.3.2 WEEKDAY PM PEAK HOUR

Launceston Street/Bowes Street

Table 6 Launceston Street / Bowes Street – Weekday PM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.32	B	15	27	1.11	F	133	285
	T	0.32	C	30	27	1.11	F	150	285
	R	0.45	C	36	41	1.11	F	156	285
Launceston Street (east)	L	0.57	C	35	61	0.60	C	35	64
	T	0.57	C	29	63	0.60	C	30	67
	R	0.13	C	37	11	0.13	C	37	11
Bus Layover (north)	L	0.03	D	43	2	0.22	D	44	13
	T	0.03	C	36	2	0.22	C	38	13
	R	0.03	C	43	2	0.22	D	44	13
Launceston Street (west)	L	0.25	C	34	25	0.25	C	34	25
	T	0.25	B	27	25	0.25	B	27	25
	R	0.57	C	39	45	0.72	C	42	62

The SIDRA results show that northern, eastern and western legs of the intersection will continue to operate well post-closure of Callam Street, with vehicles experiencing manageable queues and delays. The southern leg (Bowes Street), however, will experience significant queues and delays, with this leg exceeding its capacity.

There are two (2) options available to improve the queues and delays experienced along Bowes Street as a result of the Callam Street closure.

Option 1:

- Maintain the same current cycle time of 78 seconds for the intersection but change the phasing times as follows:

Phase Timing Summary				
Phase	A	D	E	F
Phase Change Time (sec)	0	18	46	58
Green Time (sec)	12	22	6	14
Phase Time (sec)	18	28	12	20
Phase Split	23%	36%	15%	26%
Phase Frequency (%)	100.0	100.0	100.0	100.0

This would result in the post-closure conditions shown in Table 7.

Table 7 Launceston Street / Bowes Street – Weekday PM peak hour SIDRA results

Leg	Turn	Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.84	B	24	128
	T	0.84	D	46	128
	R	0.84	D	51	128
Launceston Street (east)	L	0.90	D	52	84
	T	0.90	D	47	88
	R	0.12	C	36	44
Bus Layover (north)	L	0.30	D	48	14
	T	0.30	C	41	14
	R	0.30	D	48	14
Launceston Street (west)	L	0.37	C	40	28
	T	0.37	C	33	28
	R	0.67	C	40	60

Option 2:

- Change the cycle time to an optimal cycle time of 80 seconds with the following phasing times:

Phase Timing Summary				
Phase	A	D	E	F
Phase Change Time (sec)	0	19	49	61
Green Time (sec)	13	24	6	13
Phase Time (sec)	19	30	12	19
Phase Split	24%	38%	15%	24%
Phase Frequency (%)	100.0	100.0	100.0	100.0

This would result in the post-closure conditions shown in Table 8.

Table 8 Launceston Street / Bowes Street – Weekday PM peak hour SIDRA results

Leg	Turn	Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.80	B	21	121
	T	0.80	C	41	121
	R	0.80	D	47	121
Launceston Street (east)	L	0.85	D	49	81
	T	0.85	D	43	84
	R	0.14	C	39	11
Bus Layover (north)	L	0.30	D	49	14
	T	0.30	C	42	14
	R	0.30	D	49	14
Launceston Street (west)	L	0.35	C	40	29
	T	0.35	C	33	29
	R	0.74	D	44	65

The results in Tables 7 and 8 show that the most manageable queues and delays that can be achieve along Bowes Street is by adopting the Option 2 phasing and cycle times. A queue of 121m (~16 vehicles) along Bowes Street would result and this also results in an improvement in the DOS for the eastern leg when compared with Option 1.

It is evident from the above that during the typical PM peak hour, it is inevitable that drivers will experience long queues and delays on Bowes Street at its intersection with Launceston Street. If considered appropriate, considerations can be given to providing detour options for drivers to access the surrounding road network via Worgan Street, Furzer Street and/or Melrose Drive. This could assist in reducing the queues and delays at the Launceston Street/Bowes Street intersection.

Bowes Street/Matilda Street

Table 9 Bowes Street / Matilda Street – Weekday PM peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.11	A	6	0.1	0.11	A	6	0.1
	T	0.11	A	-	0.1	0.11	A	-	0.1
	R	0.11	A	6	0.1	0.11	A	6	0.1
Matilda Street (east)	L	0.06	A	6	1	0.24	A	6	9.0
	T	0.06	A	6	1	0.24	A	7	9.0
	R	0.06	A	8	1	0.24	A	12	9.0
Bowes Street (north)	L	0.12	A	6	1	0.18	A	6	1
	T	0.12	A	-	1	0.18	A	-	1
	R	0.12	A	8	1	0.18	A	8	1

Table 9 shows that the intersection will operate in a satisfactory manner post-closure of Callam Street, with vehicles experiencing manageable queues and delays.

2.3.3 WEEKEND PEAK HOUR

Launceston Street/Bowes Street

Table 10 Launceston Street / Bowes Street – Weekend peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.11	B	17	7	0.40	B	16	24
	T	0.11	B	28	7	0.40	B	25	24
	R	0.15	C	35	10	0.40	C	31	24
Launceston Street (east)	L	0.13	B	17	15	0.14	B	17	16
	T	0.13	B	23	15	0.14	C	22	16
	R	0.10	B	39	6	0.10	C	39	6
Bus Layover (north)	L	0.02	C	39	1	0.08	C	40	5
	T	0.02	C	32	1	0.08	C	33	5
	R	0.02	C	39	1	0.08	C	40	5
Launceston Street (west)	L	0.12	B	26	14	0.12	B	26	14
	T	0.12	B	21	14	0.12	B	21	14
	R	0.22	C	39	12	0.30	C	40	17

Table 10 shows that the intersection will operate in a satisfactory manner post-closure of Callam Street, with vehicles experiencing manageable queues and delays, including vehicles on Bowes Street.

Bowes Street/Matilda Street

Table 11 Bowes Street / Matilda Street – Weekend peak hour SIDRA results

Leg	Turn	Existing Conditions				Post-Closure Conditions			
		DOS	LOS	Delay (s)	95th % Queue (m)	DOS	LOS	Delay (s)	95th % Queue (m)
Bowes Street (south)	L	0.05	A	6	0.1	0.05	A	6	0.1
	T	0.05	A	-	0.1	0.05	A	-	0.1
	R	0.05	A	6	0.1	0.05	A	6	0.1
Matilda Street (east)	L	0.02	A	6	0.4	0.07	A	6	3
	T	0.02	A	5	0.4	0.07	A	5	3
	R	0.02	A	6	0.4	0.07	B	8	3
Bowes Street (north)	L	0.05	A	6	1	0.07	A	6	1
	T	0.05	A	-	1	0.07	A	-	1
	R	0.05	A	7	1	0.07	A	7	1

Table 11 shows that the intersection will operate in a satisfactory manner post-closure of Callam Street, with vehicles experiencing manageable queues and delays.

3 CONCLUSIONS

Based on the preceding assessment, it can be concluded that:

- The intersection of Bowes Street / Matilda Street can adequately accommodate bus traffic after the closure of the northern end of Callam Street, with the intersection continuing to operate with acceptable queues and delays during all relevant peak periods.
- During the AM peak hour period, the intersection of Bowes Street / Launceston Street will experience slightly longer queues and delays, particularly along Bowes Street, with a queue length increasing from 14m (~2 vehicles) to 107m (~13 vehicles). This is mainly due to the fact that Bowes Street will only provide a single shared through, left and right-turn traffic lane for northbound traffic at the intersection post-closure of Callam Street.

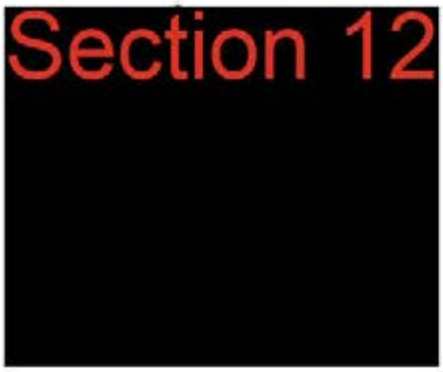
  The intersection will continue to operate well but there are two (2) options available to improve the operation of the intersection if considered necessary by the responsible authority. This includes changing phasing times and/or changing the cycle time.
- During the PM peak hour period, the intersection of Bowes Street / Launceston Street will experience significantly longer queues and delays along Bowes Street, with a queue length of 285m (~37 vehicles) resulting as long as this leg having a DOS in excess of 1.0m. This is mainly due to the fact that Bowes Street will only provide a single shared through, left and right-turn traffic lane for northbound traffic at the intersection post-closure of Callam Street.

  There are two (2) options available to improve the operation of the intersection which includes changing phasing times and/or changing the cycle time to optimal. Under the best case scenario, a queue of 121m (~16 vehicles) along Bowes Street can be achieved. However, it is inevitable that drivers will experience long queues and delays along Bowes Street.

  If considered appropriate, considerations can be given to providing detour options for drivers to access the surrounding road network via Worgan Street, Furzer Street and/or Melrose Drive. This could assist in reducing the queues and delays at the Launceston Street/Bowes Street intersection.
- During the weekend peak hour period, the intersection of Bowes Street / Launceston Street will operate in a satisfactory manner post-closure of Callam Street, with vehicles experiencing manageable queues and delays, including vehicles on Bowes Street.

Please do not hesitate to contact the undersigned should you have any queries in relation to this assessment.

Yours sincerely,



APPENDIX 1 TRAFFIC AND PEDESTRIAN VOLUME DATA

TRANS TRAFFIC SURVEY
TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Launceston St and Carpark Exit, Phillip

GPS -35.341394, 149.087475

Date:	Thu 21/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Exit
East:	Launceston St
South:	Callam St
West:	Launceston St

Survey Period	AM:	7:00 AM-9:00 AM
	PM:	3:00 PM-6:00 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	4:45 PM-5:45 PM

All Vehicles

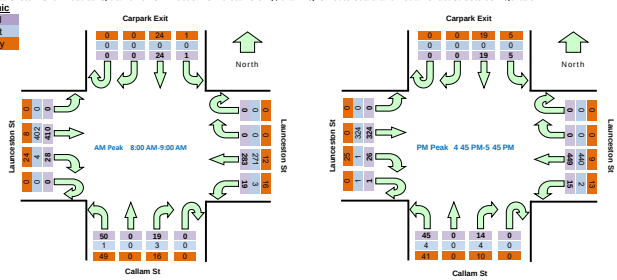
Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	6	0	0	0	28	4	0	5	0	20	0	4	51	0	534	
7:15	7:30	0	0	6	0	0	0	28	3	0	4	0	8	0	5	43	0	576	
7:30	7:45	0	0	5	0	0	0	55	5	0	6	0	13	0	5	58	0	677	
7:45	8:00	0	0	4	1	0	0	64	6	0	2	0	10	0	6	79	0	764	
8:00	8:15	0	0	6	1	0	0	50	6	0	5	0	9	0	9	74	0	834	Peak
8:15	8:30	0	0	7	0	0	0	52	3	0	7	0	17	0	7	105	0		
8:30	8:45	0	0	5	0	0	0	76	7	0	3	0	11	0	7	125	0		
8:45	9:00	0	0	6	0	0	0	105	3	0	4	0	13	0	5	106	0		
15:00	15:15	0	0	4	2	0	0	74	10	0	1	0	15	0	6	64	0	706	
15:15	15:30	0	0	5	3	0	0	88	4	0	6	0	10	0	6	62	0	691	
15:30	15:45	0	0	6	2	1	0	86	4	0	6	0	15	1	7	54	0	681	
15:45	16:00	0	0	5	2	0	0	81	2	0	6	0	9	0	10	49	0	703	
16:00	16:15	0	0	5	1	0	0	65	6	0	4	0	11	0	3	66	0	748	
16:15	16:30	0	0	4	2	0	0	76	4	0	3	0	13	0	8	64	0	819	
16:30	16:45	0	0	5	0	0	0	92	7	0	3	0	15	0	5	77	0	893	
16:45	17:00	0	0	6	1	0	0	97	3	0	7	0	11	1	8	75	0	898	Peak
17:00	17:15	0	0	5	1	0	0	130	3	0	4	0	11	0	5	73	0	892	
17:15	17:30	0	0	4	2	0	0	112	5	0	2	0	12	0	8	103	0		
17:30	17:45	0	0	4	1	0	0	110	4	0	1	0	11	0	5	73	0		
17:45	18:00	0	0	5	4	0	0	94	2	0	5	0	13	0	7	73	0		

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	24	1	0	0	283	19	0	19	0	50	0	28	410	0	834
16:45	17:45	0	0	19	5	0	0	449	15	0	14	0	45	1	26	324	0	898

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	25	0	0	1	0	1	0	0	49	0
7:15	7:30	0	0	1	0	0	0	28	1	0	0	0	1	0	0	37	0
7:30	7:45	0	0	0	0	0	0	55	1	0	1	0	1	0	0	57	0
7:45	8:00	0	0	0	0	0	0	63	0	0	0	0	0	0	0	78	0
8:00	8:15	0	0	0	0	0	0	47	1	0	0	0	0	0	3	72	0
8:15	8:30	0	0	0	0	0	0	49	1	0	2	0	0	0	1	101	0
8:30	8:45	0	0	0	0	0	0	71	1	0	1	0	1	0	0	125	0
8:45	9:00	0	0	0	0	0	0	104	0	0	0	0	0	0	0	104	0
15:00	15:15	0	0	0	0	0	0	71	3	0	0	0	5	0	0	59	0
15:15	15:30	0	0	0	0	0	0	87	0	0	0	0	1	0	0	61	0
15:30	15:45	0	0	0	0	1	0	83	0	0	3	0	1	1	1	52	0
15:45	16:00	0	0	0	0	0	0	77	0	0	0	0	1	0	2	49	0
16:00	16:15	0	0	0	0	0	0	62	1	0	0	0	0	0	0	64	0
16:15	16:30	0	0	0	0	0	0	71	1	0	0	0	1	0	0	64	0
16:30	16:45	0	0	0	0	0	0	90	2	0	0	0	3	0	0	76	0
16:45	17:00	0	0	0	0	0	0	95	0	0	2	0	3	1	1	75	0
17:00	17:15	0	0	0	0	0	0	128	0	0	2	0	1	0	0	73	0
17:15	17:30	0	0	0	0	0	0	108	1	0	0	0	0	0	0	103	0
17:30	17:45	0	0	0	0	0	0	109	1	0	0	0	0	0	0	73	0
17:45	18:00	0	0	0	1	0	0	91	0	0	0	0	1	0	0	73	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	0	271	3	0	3	0	1	0	4	402	0	684
16:45	17:45	0	0	0	0	0	0	440	2	0	4	0	4	1	1	324	0	776

Heavy Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	6	0	0	0	3	4	0	4	0	19	0	4	2	0
7:15	7:30	0	0	5	0	0	0	0	2	0	4	0	7	0	5	6	0
7:30	7:45	0	0	5	0	0	0	0	4	0	5	0	12	0	5	1	0
7:45	8:00	0	0	4	1	0	0	1	6	0	2	0	10	0	6	1	0
8:00	8:15	0	0	6	1	0	0	3	5	0	5	0	9	0	6	2	0
8:15	8:30	0	0	7	0	0	0	3	2	0	5	0	17	0	6	4	0
8:30	8:45	0	0	5	0	0	0	5	6	0	2	0	10	0	7	0	0
8:45	9:00	0	0	6	0	0	0	1	3	0	4	0	13	0	5	2	0
15:00	15:15	0	0	4	2	0	0	3	7	0	1	0	10	0	6	5	0
15:15	15:30	0	0	5	3	0	0	1	4	0	6	0	9	0	6	1	0
15:30	15:45	0	0	6	2	0	0	3	4	0	3	0	14	0	6	2	0
15:45	16:00	0	0	5	2	0	0	4	2	0	6	0	8	0	8	0	0
16:00	16:15	0	0	5	1	0	0	3	5	0	4	0	11	0	3	2	0
16:15	16:30	0	0	4	2	0	0	5	3	0	3	0	12	0	8	0	0
16:30	16:45	0	0	5	0	0	0	2	5	0	3	0	12	0	5	1	0
16:45	17:00	0	0	6	1	0	0	2	3	0	5	0	8	0	7	0	0
17:00	17:15	0	0	5	1	0	0	2	3	0	2	0	10	0	5	0	0
17:15	17:30	0	0	4	2	0	0	4	4	0	2	0	12	0	8	0	0
17:30	17:45	0	0	4	1	0	0	1	3	0	1	0	11	0	5	0	0
17:45	18:00	0	0	5	3	0	0	3	2	0	5	0	12	0	7	0	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	24	1	0	0	12	16	0	16	0	49	0	24	8	0	150
16:45	17:45	0	0	19	5	0	0	9	13	0	10	0	41	0	25	0	0	122

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Launceston St and Carpark Access, Phillip

GPS -35.341220, 149.085911

Date:	Thu 21/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Access
East:	Launceston St
South:	Bowes St
West:	Launceston St

Survey Period	AM:	7:00 AM-9:00 AM
	PM:	3:00 PM-6:00 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	4:30 PM-5:30 PM

All Vehicles

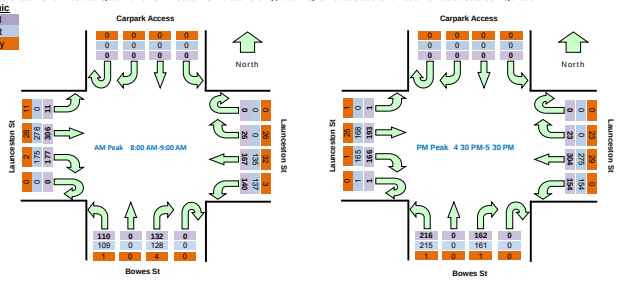
Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	0	0	0	6	24	18	0	22	0	12	0	12	33	2	620	
7:15	7:30	0	0	0	0	0	2	17	17	0	14	0	20	0	8	34	0	692	
7:30	7:45	0	0	0	0	0	4	33	31	0	17	0	18	1	27	46	1	831	
7:45	8:00	0	1	0	0	0	4	30	40	0	26	0	17	0	24	59	0	955	
8:00	8:15	0	0	0	0	0	2	27	30	0	30	0	21	0	37	53	1	1069	Peak
8:15	8:30	0	0	0	0	0	11	30	28	0	33	0	27	0	43	79	0		
8:30	8:45	0	0	0	0	0	6	44	37	0	38	0	33	0	45	94	5		
8:45	9:00	0	0	0	0	0	7	66	45	0	31	0	29	0	52	80	5		
15:00	15:15	0	0	0	0	0	4	58	27	0	36	0	25	0	25	34	0	839	
15:15	15:30	0	0	0	0	0	4	59	35	0	28	0	20	0	20	40	0	838	
15:30	15:45	0	0	0	0	0	8	69	25	0	32	0	28	1	26	30	1	865	
15:45	16:00	0	0	0	0	0	6	54	30	0	24	0	28	0	27	35	0	923	
16:00	16:15	0	0	0	0	0	8	49	19	0	37	0	33	0	28	32	2	1004	
16:15	16:30	0	0	0	0	0	10	52	27	0	33	0	42	0	28	39	2	1136	
16:30	16:45	0	0	0	0	0	6	65	36	0	40	0	49	0	40	42	0	1220	Peak
16:45	17:00	0	0	0	0	0	5	70	34	0	35	0	48	1	43	49	0	1206	
17:00	17:15	0	0	0	0	0	4	92	45	0	39	0	77	0	44	39	0	1164	
17:15	17:30	0	0	0	0	0	8	77	39	0	48	0	42	0	39	63	1		
17:30	17:45	0	0	0	0	0	5	85	31	0	32	0	29	0	36	46	0		
17:45	18:00	0	0	0	0	1	9	56	41	0	36	0	31	0	26	43	0		

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	26	167	140	0	132	0	110	0	177	306	11	1069
16:30	17:30	0	0	0	0	0	23	304	154	0	162	0	216	1	166	193	1	1220

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	13	13	0	20	0	11	0	11	29	0
7:15	7:30	0	0	0	0	0	1	11	17	0	10	0	19	0	8	27	0
7:30	7:45	0	0	0	0	0	0	25	31	0	16	0	17	1	24	41	0
7:45	8:00	0	0	0	0	0	0	24	39	0	25	0	17	0	24	53	0
8:00	8:15	0	0	0	0	0	0	18	29	0	28	0	20	0	36	47	0
8:15	8:30	0	0	0	0	0	0	21	28	0	31	0	27	0	43	71	0
8:30	8:45	0	0	0	0	0	0	35	37	0	38	0	33	0	45	87	0
8:45	9:00	0	0	0	0	0	0	61	43	0	31	0	29	0	51	73	0
15:00	15:15	0	0	0	0	0	0	50	26	0	33	0	25	0	25	26	0
15:15	15:30	0	0	0	0	0	0	53	35	0	28	0	20	0	20	33	0
15:30	15:45	0	0	0	0	0	0	61	24	0	32	0	27	1	26	22	0
15:45	16:00	0	0	0	0	0	0	48	30	0	24	0	28	0	27	27	0
16:00	16:15	0	0	0	0	0	0	43	19	0	37	0	33	0	28	27	0
16:15	16:30	0	0	0	0	0	0	46	26	0	32	0	40	0	25	32	0
16:30	16:45	0	0	0	0	0	0	57	36	0	39	0	49	0	39	37	0
16:45	17:00	0	0	0	0	0	0	65	34	0	35	0	47	1	43	42	0
17:00	17:15	0	0	0	0	0	0	84	45	0	39	0	77	0	44	34	0
17:15	17:30	0	0	0	0	0	0	69	39	0	48	0	42	0	39	55	0
17:30	17:45	0	0	0	0	0	0	78	31	0	32	0	29	0	36	41	0
17:45	18:00	0	0	0	0	1	1	49	41	0	36	0	30	0	26	36	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	0	135	137	0	128	0	109	0	175	278	0	962
16:30	17:30	0	0	0	0	0	0	275	154	0	161	0	215	1	165	168	0	1139

Heavy Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	6	11	5	0	2	0	1	0	1	4	2
7:15	7:30	0	0	0	0	0	1	6	0	0	4	0	1	0	0	7	0
7:30	7:45	0	0	0	0	0	4	8	0	0	1	0	1	0	3	5	1
7:45	8:00	0	1	0	0	0	4	6	1	0	1	0	0	0	0	6	0
8:00	8:15	0	0	0	0	0	2	9	1	0	2	0	1	0	1	6	1
8:15	8:30	0	0	0	0	0	11	9	0	0	2	0	0	0	0	8	0
8:30	8:45	0	0	0	0	0	6	9	0	0	0	0	0	0	0	7	5
8:45	9:00	0	0	0	0	0	7	5	2	0	0	0	0	0	1	7	5
15:00	15:15	0	0	0	0	0	4	8	1	0	3	0	0	0	0	8	0
15:15	15:30	0	0	0	0	0	4	6	0	0	0	0	0	0	0	7	0
15:30	15:45	0	0	0	0	0	8	8	1	0	0	0	1	0	0	8	1
15:45	16:00	0	0	0	0	0	6	6	0	0	0	0	0	0	0	8	0
16:00	16:15	0	0	0	0	0	8	6	0	0	0	0	0	0	0	5	2
16:15	16:30	0	0	0	0	0	10	6	1	0	1	0	2	0	3	7	2
16:30	16:45	0	0	0	0	0	6	8	0	0	1	0	0	0	1	5	0
16:45	17:00	0	0	0	0	0	5	5	0	0	0	0	1	0	0	7	0
17:00	17:15	0	0	0	0	0	4	8	0	0	0	0	0	0	0	5	0
17:15	17:30	0	0	0	0	0	8	8	0	0	0	0	0	0	0	8	1
17:30	17:45	0	0	0	0	0	5	7	0	0	0	0	0	0	0	5	0
17:45	18:00	0	0	0	0	0	8	7	0	0	0	0	1	0	0	7	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
8:00	9:00	0	0	0	0	0	26	32	3	0	4	0	1	0	2	28	11	107
16:30	17:30	0	0	0	0	0	23	29	0	0	1	0	1	0	1	25	1	81

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY trafficsurvey.com.au

Intersection of Matilda St and Bowes St, Phillip

GPS -35.342732, 149.085956

Date:	Thu 21/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Bowes St
East:	Matilda St
South:	Bowes St
West:	Atlantic St

Survey Period	AM:	7:00 AM-9:00 AM
	PM:	3:00 PM-6 00 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	4:15 PM-5:15 PM

All Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	2	24	5	0	1	0	0	0	0	34	1	0	0	0	0	305	
7:15	7:30	0	1	26	3	0	2	0	0	0	0	31	0	0	0	0	0	354	
7:30	7:45	0	6	30	6	0	1	0	0	0	0	38	0	0	0	0	0	421	
7:45	8:00	1	5	42	9	0	2	0	1	0	0	31	3	0	0	0	0	460	
8:00	8:15	0	5	43	21	0	4	0	0	0	1	42	0	0	0	0	0	504	Peak
8:15	8:30	1	7	51	19	0	3	0	1	0	0	48	0	0	0	0	0		
8:30	8:45	0	6	41	17	0	2	0	1	0	0	53	0	0	0	0	0		
8:45	9:00	0	2	60	21	0	1	2	0	0	0	52	0	0	0	0	0		
15 00	15:15	0	2	42	4	0	12	0	0	0	0	38	0	0	0	0	0	400	
15:15	15:30	0	1	41	5	0	20	0	0	0	1	36	0	0	0	0	0	402	
15:30	15:45	1	3	45	2	0	13	0	0	0	0	44	0	0	0	0	0	411	
15:45	16:00	0	8	37	6	0	7	0	0	0	0	32	0	0	0	0	0	431	
16 00	16:15	0	7	36	3	0	10	0	1	1	0	42	0	0	0	0	0	454	
16:15	16:30	0	5	42	6	0	12	0	0	0	0	48	0	0	0	0	0	470	Peak
16:30	16:45	2	5	49	7	0	11	0	1	0	0	52	1	0	0	0	0	458	
16:45	17:00	0	4	45	6	0	9	0	0	0	0	49	0	0	0	0	0	427	
17 00	17:15	0	3	50	5	0	7	0	0	0	0	51	0	0	0	0	0	418	
17:15	17:30	0	3	44	4	0	5	0	0	0	0	45	0	0	0	0	0		
17:30	17:45	0	2	43	2	0	3	0	0	0	0	47	0	0	0	0	0		
17:45	18:00	0	6	50	2	0	4	1	0	0	0	41	0	0	0	0	0		

Pedestrians Crossing

Time		North Approach Bowes St		Hourly Total
Period Start	Period End	Westbound	Eastbound	
7:00	7:15	6	2	56
7:15	7:30	3	6	74
7:30	7:45	13	2	103
7:45	8:00	18	6	123
8:00	8:15	21	5	126
8:15	8:30	35	3	100
8:30	8:45	31	4	62
8:45	9:00	25	2	27
15:00	15:15	3	5	50
15:15	15:30	5	5	56
15:30	15:45	6	9	71
15:45	16:00	9	8	93
16:00	16:15	4	10	114
16:15	16:30	4	21	129
16:30	16:45	3	34	122
16:45	17:00	5	33	101
17:00	17:15	4	25	80
17:15	17:30	3	15	
17:30	17:45	5	11	
17:45	18:00	4	13	

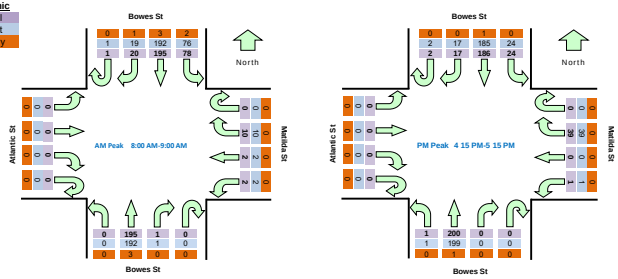
Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:00	9:00	1	20	195	78	0	10	2	2	0	1	195	0	0	0	0	0	504
16:15	17:15	2	17	186	24	0	39	0	1	0	0	200	1	0	0	0	0	470

Peak Time		North Approach Bowes St		Peak hour total
Period Start	Period End	Westbound	Eastbound	
8:00	9:00	112	14	126
16:15	17:15	16	113	129

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	2	18	5	0	1	0	0	0	0	31	0	0	0	0	0
7:15	7:30	0	1	24	3	0	2	0	0	0	0	26	0	0	0	0	0
7:30	7:45	0	5	28	6	0	1	0	0	0	0	36	0	0	0	0	0
7:45	8:00	1	5	40	9	0	2	0	1	0	0	31	3	0	0	0	0
8:00	8:15	0	4	42	21	0	4	0	0	0	1	41	0	0	0	0	0
8:15	8:30	1	7	51	19	0	3	0	1	0	0	46	0	0	0	0	0
8:30	8:45	0	6	41	15	0	2	0	1	0	0	53	0	0	0	0	0
8:45	9:00	0	2	58	21	0	1	2	0	0	0	52	0	0	0	0	0
15 00	15:15	0	2	42	4	0	12	0	0	0	0	38	0	0	0	0	0
15:15	15:30	0	1	41	5	0	20	0	0	0	1	36	0	0	0	0	0
15:30	15:45	1	3	44	2	0	13	0	0	0	0	43	0	0	0	0	0
15:45	16:00	0	8	37	6	0	7	0	0	0	0	32	0	0	0	0	0
16 00	16:15	0	7	36	3	0	10	0	1	1	0	42	0	0	0	0	0
16:15	16:30	0	5	42	6	0	12	0	0	0	0	48	0	0	0	0	0
16:30	16:45	2	5	48	7	0	11	0	1	0	0	51	1	0	0	0	0
16:45	17:00	0	4	45	6	0	9	0	0	0	0	49	0	0	0	0	0
17 00	17:15	0	3	50	5	0	7	0	0	0	0	51	0	0	0	0	0
17:15	17:30	0	3	44	4	0	5	0	0	0	0	45	0	0	0	0	0
17:30	17:45	0	2	43	2	0	3	0	0	0	0	47	0	0	0	0	0
17:45	18:00	0	6	50	2	0	3	1	0	0	0	41	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:00	9:00	1	19	192	76	0	10	2	2	0	1	192	0	0	0	0	0	495
16:15	17:15	2	17	185	24	0	39	0	1	0	0	199	1	0	0	0	0	468

Heavy Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	6	0	0	0	0	0	0	0	3	1	0	0	0	0
7:15	7:30	0	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0
7:30	7:45	0	1	2	0	0	0	0	0	0	0	2	0	0	0	0	0
7:45	8:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:30	8:45	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
15 00	15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 00	16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
8:00	9:00	0	1	3	2	0	0	0	0	0	0	3	0	0	0	0	0	9
16:15	17:15	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Launceston St and Carpark Exit, Phillip

GPS -35.341394, 149.087475

Date:	Sat 23/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Exit
East:	Launceston St
South:	Callam St
West:	Launceston St

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	12:00 AM-12:00 AM
Traffic Peak	AM:	9:00 AM-10:00 AM
	PM:	#REF!

All Vehicles

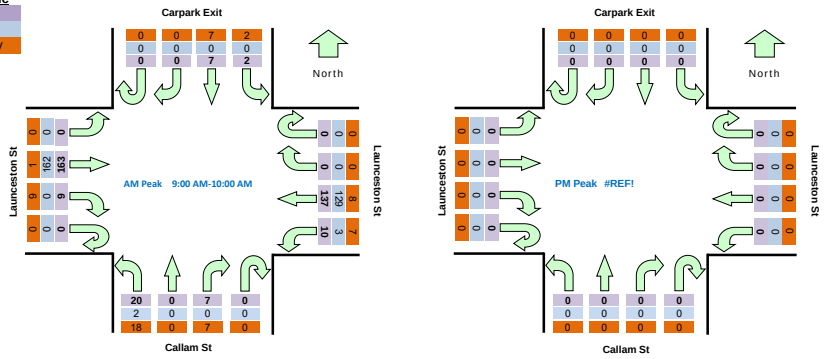
Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	3	0	0	0	17	2	0	2	0	3	0	2	19	0	205	
7:15	7:30	0	0	1	0	0	0	14	2	0	0	0	5	0	2	11	0	213	
7:30	7:45	0	0	4	0	0	0	18	2	0	4	0	5	0	0	28	0	261	
7:45	8:00	0	0	2	0	0	0	25	0	0	0	0	3	0	4	27	0	261	
8:00	8:15	0	0	1	0	0	0	18	2	0	3	0	5	0	2	25	0	279	
8:15	8:30	0	0	1	1	0	0	19	3	0	0	0	7	0	2	50	0	310	
8:30	8:45	0	0	4	0	0	0	17	1	0	4	0	3	0	0	32	0	314	
8:45	9:00	0	0	2	0	0	0	28	3	0	2	0	2	0	5	37	0	347	
9:00	9:15	0	0	1	0	0	0	34	4	0	1	0	7	0	2	38	0	355	Peak
9:15	9:30	0	0	2	0	0	0	35	3	0	1	0	3	0	2	41	0		
9:30	9:45	0	0	3	1	0	0	33	2	0	4	0	7	0	1	43	0		
9:45	10:00	0	0	1	1	0	0	35	1	0	1	0	3	0	4	41	0		

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	7	2	0	0	137	10	0	7	0	20	0	9	163	0	355

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	19	0
7:15	7:30	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11	0
7:30	7:45	0	0	0	0	0	0	17	0	0	0	0	0	0	0	24	0
7:45	8:00	0	0	0	0	0	0	23	0	0	0	0	0	0	1	25	0
8:00	8:15	0	0	0	0	0	0	17	0	0	0	0	0	0	1	24	0
8:15	8:30	0	0	0	0	0	0	19	0	0	0	0	1	0	0	47	0
8:30	8:45	0	0	0	0	0	0	16	0	0	0	0	0	0	0	31	0
8:45	9:00	0	0	0	0	0	0	27	0	0	1	0	0	0	0	35	0
9:00	9:15	0	0	0	0	0	0	32	0	0	0	0	0	0	0	37	0
9:15	9:30	0	0	0	0	0	0	32	1	0	0	0	0	0	0	41	0
9:30	9:45	0	0	0	0	0	0	32	1	0	0	0	2	0	0	43	0
9:45	10:00	0	0	0	0	0	0	33	1	0	0	0	0	0	0	41	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	0	129	3	0	0	0	2	0	0	162	0	296

Heavy Vehicles

Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	3	0	0	0	2	2	0	2	0	3	0	2	0	0
7:15	7:30	0	0	1	0	0	0	3	2	0	0	0	5	0	2	0	0
7:30	7:45	0	0	4	0	0	0	1	2	0	4	0	5	0	0	4	0
7:45	8:00	0	0	2	0	0	0	2	0	0	0	0	3	0	3	2	0
8:00	8:15	0	0	1	0	0	0	1	2	0	3	0	5	0	1	1	0
8:15	8:30	0	0	1	1	0	0	0	3	0	0	0	6	0	2	3	0
8:30	8:45	0	0	4	0	0	0	1	1	0	4	0	3	0	0	1	0
8:45	9:00	0	0	2	0	0	0	1	3	0	1	0	2	0	5	2	0
9:00	9:15	0	0	1	0	0	0	2	4	0	1	0	7	0	2	1	0
9:15	9:30	0	0	2	0	0	0	3	2	0	1	0	3	0	2	0	0
9:30	9:45	0	0	3	1	0	0	1	1	0	4	0	5	0	1	0	0
9:45	10:00	0	0	1	1	0	0	2	0	0	1	0	3	0	4	0	0

Peak Time		North Approach Carpark Exit				East Approach Launceston St				South Approach Callam St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	7	2	0	0	8	7	0	7	0	18	0	9	1	0	59

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Launceston St and Carpark Access, Phillip

GPS -35.341220, 149.085911

Date:	Sat 23/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Carpark Access
East:	Launceston St
South:	Bowes St
West:	Launceston St

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	12:00 AM-12:00 AM
Traffic Peak	AM:	9:00 AM-10:00 AM
	PM:	#REF!

All Vehicles

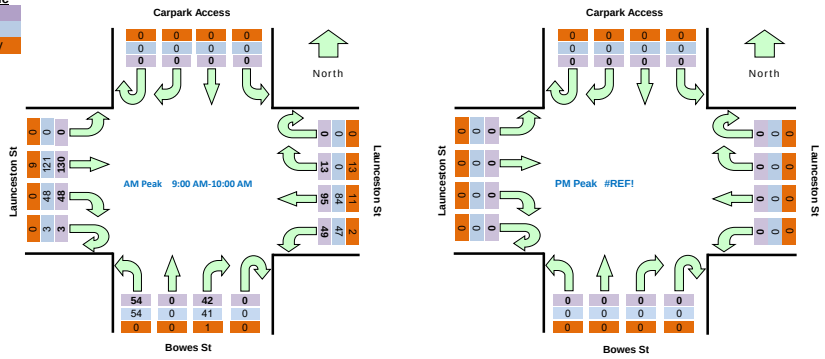
Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	0	0	0	0	0	2	11	7	0	5	0	4	0	4	16	1	223	
7:15	7:30	0	0	0	0	0	2	8	9	0	4	0	2	1	1	9	0	233	
7:30	7:45	0	0	0	0	0	2	15	6	0	18	0	6	0	5	10	0	290	
7:45	8:00	0	0	0	0	0	2	17	9	0	8	0	10	0	5	23	1	296	
8:00	8:15	0	0	0	0	0	2	15	6	0	8	0	4	0	5	19	1	304	
8:15	8:30	0	0	0	0	0	3	13	10	0	11	0	9	0	5	41	1	342	
8:30	8:45	0	0	0	0	0	1	14	5	0	8	0	12	0	4	24	0	351	
8:45	9:00	0	0	0	0	0	0	19	11	0	8	0	6	0	4	34	1	394	
9:00	9:15	0	0	0	0	0	4	24	13	0	9	0	8	0	9	31	0	434	Peak
9:15	9:30	0	0	0	0	0	3	22	13	0	10	0	9	0	12	33	0		
9:30	9:45	0	0	0	0	0	2	28	10	0	12	0	19	1	7	32	0		
9:45	10:00	0	0	0	0	0	4	21	13	0	11	0	18	2	20	34	0		

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	13	95	49	0	42	0	54	3	48	130	0	434

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



Light Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	8	7	0	5	0	4	0	4	14	0
7:15	7:30	0	0	0	0	0	0	3	8	0	4	0	2	1	1	7	0
7:30	7:45	0	0	0	0	0	0	12	5	0	16	0	6	0	4	8	0
7:45	8:00	0	0	0	0	0	0	15	8	0	7	0	10	0	5	19	0
8:00	8:15	0	0	0	0	0	0	11	6	0	7	0	4	0	5	18	0
8:15	8:30	0	0	0	0	0	0	10	10	0	9	0	9	0	5	38	0
8:30	8:45	0	0	0	0	0	0	12	4	0	7	0	12	0	4	24	0
8:45	9:00	0	0	0	0	0	0	17	10	0	7	0	6	0	4	28	0
9:00	9:15	0	0	0	0	0	0	19	13	0	8	0	8	0	9	29	0
9:15	9:30	0	0	0	0	0	0	20	12	0	10	0	9	0	12	31	0
9:30	9:45	0	0	0	0	0	0	25	9	0	12	0	19	1	7	31	0
9:45	10:00	0	0	0	0	0	0	20	13	0	11	0	18	2	20	30	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	0	84	47	0	41	0	54	3	48	121	0	398

Heavy Vehicles

Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	2	3	0	0	0	0	0	0	0	2	1
7:15	7:30	0	0	0	0	0	2	5	1	0	0	0	0	0	0	2	0
7:30	7:45	0	0	0	0	0	2	3	1	0	2	0	0	0	1	2	0
7:45	8:00	0	0	0	0	0	2	2	1	0	1	0	0	0	0	4	1
8:00	8:15	0	0	0	0	0	2	4	0	0	1	0	0	0	0	1	1
8:15	8:30	0	0	0	0	0	3	3	0	0	2	0	0	0	0	3	1
8:30	8:45	0	0	0	0	0	1	2	1	0	1	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	2	1	0	1	0	0	0	0	6	1
9:00	9:15	0	0	0	0	0	4	5	0	0	1	0	0	0	0	2	0
9:15	9:30	0	0	0	0	0	3	2	1	0	0	0	0	0	0	2	0
9:30	9:45	0	0	0	0	0	2	3	1	0	0	0	0	0	0	1	0
9:45	10:00	0	0	0	0	0	4	1	0	0	0	0	0	0	0	4	0

Peak Time		North Approach Carpark Access				East Approach Launceston St				South Approach Bowes St				West Approach Launceston St				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
9:00	10:00	0	0	0	0	0	13	11	2	0	1	0	0	0	0	9	0	36

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Matilda St and Bowes St, Phillip

GPS	-35.342732, 149.085956
Date:	Sat 23/11/24
Weather:	Overcast
Suburban:	Phillip
Customer:	N/A

North:	Bowes St
East:	Matilda St
South:	Bowes St
West:	Atlantic St

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	12:00 AM-12:00 AM
Traffic Peak	AM:	9:00 AM-10:00 AM
	PM:	#REF!

All Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
7:00	7:15	1	1	6	3	0	0	0	0	0	0	10	0	0	0	0	0	113	
7:15	7:30	0	2	9	5	0	0	0	0	0	0	6	0	0	0	0	0	121	
7:30	7:45	0	1	10	0	0	4	0	0	0	0	20	0	0	0	0	0	134	
7:45	8:00	0	0	13	1	0	2	0	0	0	0	19	0	0	0	0	0	131	
8:00	8:15	0	0	7	1	0	3	0	0	0	0	17	0	0	0	0	1	141	
8:15	8:30	0	0	13	2	0	0	0	0	0	0	20	0	0	0	0	0	139	
8:30	8:45	0	0	11	1	0	2	0	0	0	0	18	0	0	0	0	0	151	
8:45	9:00	1	0	23	1	0	0	0	0	0	0	19	0	0	0	1	0	173	
9:00	9:15	0	2	9	1	0	1	0	0	0	0	14	0	0	0	0	0	187	Peak
9:15	9:30	0	2	15	7	0	3	0	0	0	0	20	0	0	0	0	0		
9:30	9:45	0	2	15	5	0	3	0	0	0	0	29	0	0	0	0	0		
9:45	10:00	0	4	21	0	0	6	0	0	0	0	28	0	0	0	0	0		

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
9:00	10:00	0	10	60	13	0	13	0	0	0	0	91	0	0	0	0	0	187

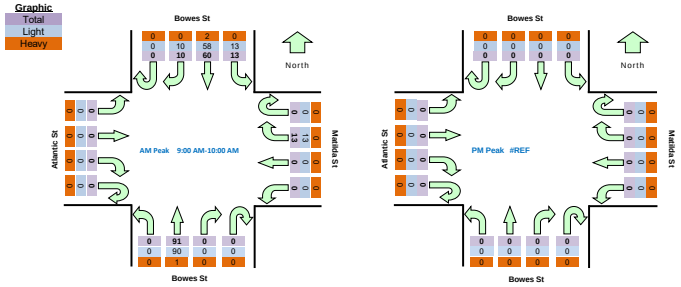
Pedestrians Crossing

Time		North Approach Bowes St		Hourly Total
Period Start	Period End	Westbound	Eastbound	
7:00	7:15	1	0	10
7:15	7:30	2	6	10
7:30	7:45	0	0	3
7:45	8:00	1	0	4
8:00	8:15	0	1	5
8:15	8:30	0	1	8
8:30	8:45	1	0	7
8:45	9:00	2	0	13
9:00	9:15	2	2	14
9:15	9:30	0	0	
9:30	9:45	4	3	
9:45	10:00	1	2	

Peak Time		North Approach Bowes St		Peak hour total
Period Start	Period End	Westbound	Eastbound	
9:00	10:00	7	7	14

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic



Light Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	1	1	6	3	0	0	0	0	0	0	9	0	0	0	0	0
7:15	7:30	0	2	8	5	0	0	0	0	0	0	6	0	0	0	0	0
7:30	7:45	0	1	8	0	0	4	0	0	0	0	17	0	0	0	0	0
7:45	8:00	0	0	12	1	0	2	0	0	0	0	19	0	0	0	0	0
8:00	8:15	0	0	7	1	0	3	0	0	0	0	16	0	0	0	0	1
8:15	8:30	0	0	13	2	0	0	0	0	0	0	18	0	0	0	0	0
8:30	8:45	0	0	10	1	0	2	0	0	0	0	18	0	0	0	0	0
8:45	9:00	1	0	22	1	0	0	0	0	0	0	18	0	0	0	1	0
9:00	9:15	0	2	9	1	0	1	0	0	0	0	13	0	0	0	0	0
9:15	9:30	0	2	14	7	0	3	0	0	0	0	20	0	0	0	0	0
9:30	9:45	0	2	14	5	0	3	0	0	0	0	29	0	0	0	0	0
9:45	10:00	0	4	21	0	0	6	0	0	0	0	28	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
9:00	10:00	0	10	58	13	0	13	0	0	0	0	90	0	0	0	0	0	184

Heavy Vehicles

Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15	7:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	7:45	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0
7:45	8:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:30	8:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:15	9:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach Bowes St				East Approach Matilda St				South Approach Bowes St				West Approach Atlantic St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
9:00	10:00	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3

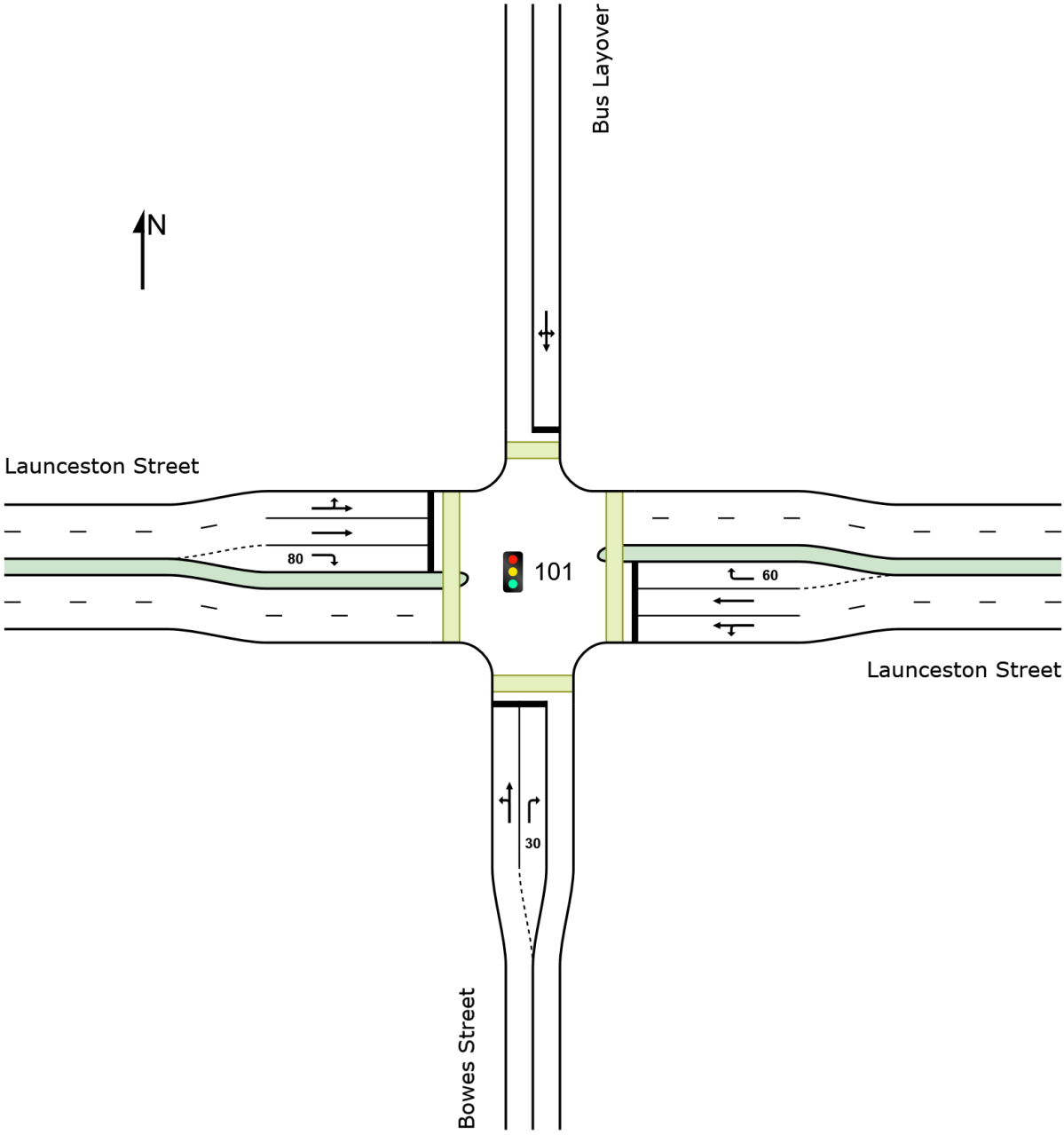
APPENDIX 2 SIDRA RESULTS

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Existing AM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 85 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	116	0.9	116	0.9	0.157	14.5	LOS B	1.9	13.6	0.66	0.72	0.66	46.7
2	T1	All MCs	1	0.0	1	0.0	0.157	28.2	LOS B	1.9	13.6	0.66	0.72	0.66	48.4
3	R2	All MCs	139	3.0	139	3.0	*0.342	36.1	LOS C	5.0	35.6	0.88	0.78	0.88	29.4
Approach			256	2.1	256	2.1	0.342	26.3	LOS B	5.0	35.6	0.78	0.75	0.78	37.4
East: Launceston Street															
4	L2	All MCs	147	2.1	147	2.1	0.387	35.6	LOS C	5.9	42.7	0.89	0.78	0.89	29.6
5	T1	All MCs	176	19.2	176	19.2	0.387	30.1	LOS C	5.9	42.7	0.89	0.73	0.89	32.8
6	R2	All MCs	27	100.0	27	100.0	0.143	39.2	LOS C	1.0	13.1	0.88	0.72	0.88	26.3
Approach			351	18.3	351	18.3	0.387	33.1	LOS C	5.9	45.9	0.89	0.75	0.89	30.8
North: Bus Layover															
7	L2	All MCs	1	100.0	1	100.0	0.030	46.6	LOS D	0.1	1.6	0.93	0.63	0.93	18.9
8	T1	All MCs	1	100.0	1	100.0	*0.030	39.9	LOS C	0.1	1.6	0.93	0.63	0.93	34.8
9	R2	All MCs	1	100.0	1	100.0	0.030	46.6	LOS D	0.1	1.6	0.93	0.63	0.93	32.4
Approach			3	100.0	3	100.0	0.030	44.4	LOS D	0.1	1.6	0.93	0.63	0.93	28.4
West: Launceston Street															
10	L2	All MCs	12	100.0	12	100.0	0.395	36.9	LOS C	5.8	46.2	0.89	0.73	0.89	36.6
11	T1	All MCs	322	9.2	322	9.2	*0.395	30.1	LOS C	6.1	46.0	0.89	0.73	0.89	32.9
12	R2	All MCs	186	1.1	186	1.1	*0.573	41.3	LOS C	7.3	51.8	0.97	0.81	0.97	34.9
Approach			520	8.3	520	8.3	0.573	34.3	LOS C	7.3	51.8	0.92	0.76	0.92	33.9
All Vehicles			1129	10.3	1129	10.3	0.573	32.1	LOS C	7.3	51.8	0.88	0.75	0.88	33.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec

South: Bowes Street												
P2	Full	13	14	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
East: Launceston Street												
P4	Full	11	12	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
North: Bus Layover												
P1	Full	16	17	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
West: Launceston Street												
P3	Full	13	14	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
All Pedestrians		53	56	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 85 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	26	51	64
Green Time (sec)	20	19	8	15
Phase Time (sec)	26	24	14	21
Phase Split	31%	28%	16%	25%
Phase Frequency (%)	100.0	88.9[2]	100.0	100.0

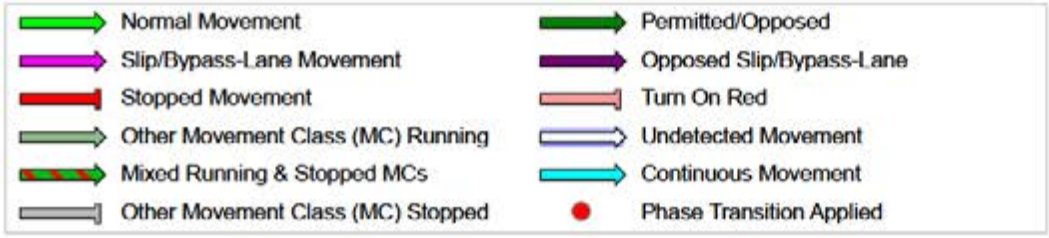
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence

REF: Reference Phase

VAR: Variable Phase

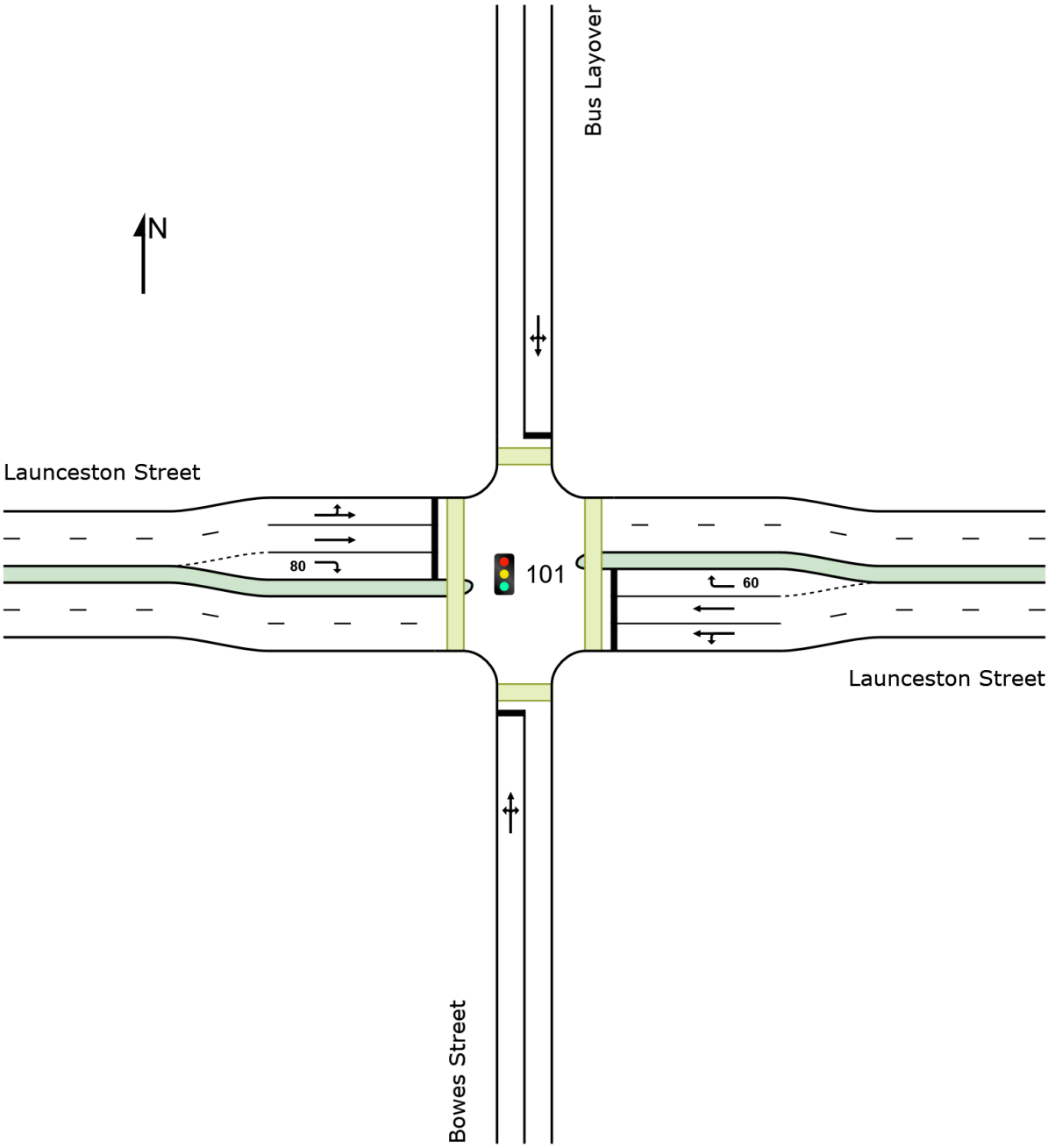


SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure AM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 85 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	168	31.3	168	31.3	*0.817	24.8	LOS B	12.8	106.7	1.00	0.96	1.19	35.3
2	T1	All MCs	1	0.0	1	0.0	*0.817	47.7	LOS D	12.8	106.7	1.00	0.96	1.19	36.8
3	R2	All MCs	159	13.2	159	13.2	0.817	53.4	LOS D	12.8	106.7	1.00	0.96	1.19	28.3
Approach			328	22.4	328	22.4	0.817	38.7	LOS C	12.8	106.7	1.00	0.96	1.19	32.4
East: Launceston Street															
4	L2	All MCs	167	11.9	167	11.9	0.423	36.0	LOS C	6.2	47.5	0.90	0.79	0.90	29.1
5	T1	All MCs	176	19.2	176	19.2	*0.423	30.4	LOS C	6.2	50.8	0.90	0.74	0.90	32.7
6	R2	All MCs	27	100.0	27	100.0	0.143	39.2	LOS C	1.0	13.1	0.88	0.72	0.88	26.3
Approach			371	21.9	371	21.9	0.423	33.6	LOS C	6.2	50.8	0.89	0.76	0.89	30.5
North: Bus Layover															
7	L2	All MCs	1	100.0	1	100.0	0.248	48.5	LOS D	1.1	14.9	0.96	0.71	0.96	19.3
8	T1	All MCs	25	100.0	25	100.0	*0.248	41.8	LOS C	1.1	14.9	0.96	0.71	0.96	35.5
9	R2	All MCs	1	100.0	1	100.0	0.248	48.5	LOS D	1.1	14.9	0.96	0.71	0.96	33.0
Approach			27	100.0	27	100.0	0.248	42.3	LOS C	1.1	14.9	0.96	0.71	0.96	34.7
West: Launceston Street															
10	L2	All MCs	12	100.0	12	100.0	0.395	36.9	LOS C	5.8	46.2	0.89	0.73	0.89	36.6
11	T1	All MCs	322	9.2	322	9.2	0.395	30.1	LOS C	6.1	46.0	0.89	0.73	0.89	32.8
12	R2	All MCs	216	12.7	216	12.7	0.718	44.3	LOS D	9.1	70.5	1.00	0.87	1.10	33.7
Approach			549	12.5	549	12.5	0.718	35.8	LOS C	9.1	70.5	0.93	0.78	0.97	33.3
All Vehicles			1276	19.6	1276	19.6	0.817	36.1	LOS C	12.8	106.7	0.94	0.82	1.01	32.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE	Prop. Que	Eff. Stop	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		[Ped ped	Dist] m		Rate	sec	m	m/sec
South: Bowes Street											
P2 Full	13	14	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
East: Launceston Street											
P4 Full	11	12	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
North: Bus Layover											
P1 Full	16	17	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
West: Launceston Street											
P3 Full	13	14	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
All Pedestrians	53	56	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 85 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

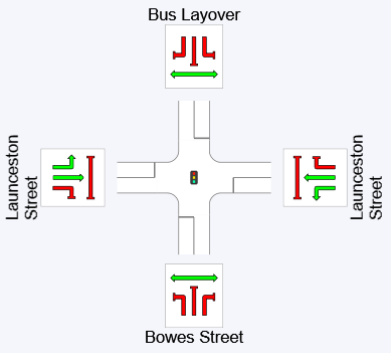
Phase	A	D	E	F
Phase Change Time (sec)	0	26	51	64
Green Time (sec)	20	19	8	15
Phase Time (sec)	26	24	14	21
Phase Split	31%	28%	16%	25%
Phase Frequency (%)	100.0	88.9[2]	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

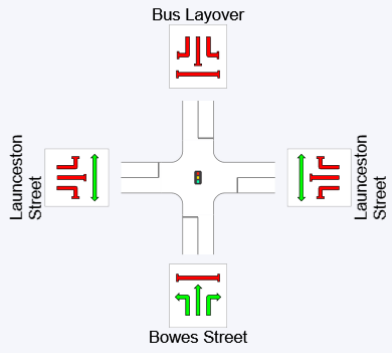
2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence

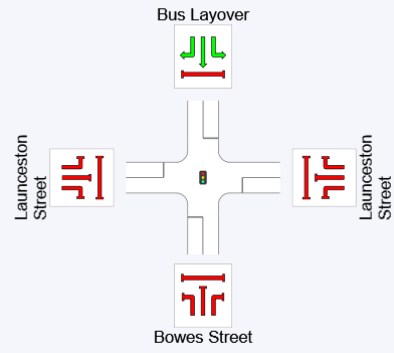
Phase A **REF**



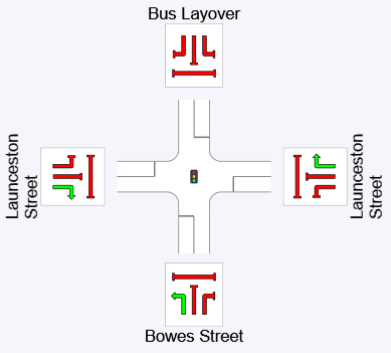
Phase D



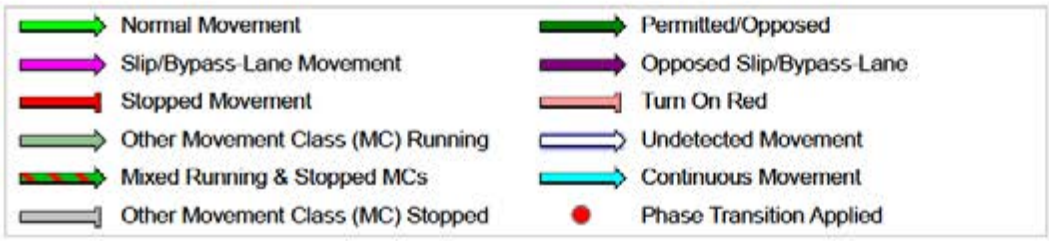
Phase E



Phase F



REF: Reference Phase
VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes - New Phasing (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 85 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	168	31.3	168	31.3	*0.746	17.0	LOS B	11.6	96.4	0.97	0.91	1.06	37.2
2	T1	All MCs	1	0.0	1	0.0	*0.746	44.8	LOS D	11.6	96.4	0.97	0.91	1.06	38.9
3	R2	All MCs	159	13.2	159	13.2	0.746	50.5	LOS D	11.6	96.4	0.97	0.91	1.06	30.4
Approach			328	22.4	328	22.4	0.746	33.3	LOS C	11.6	96.4	0.97	0.91	1.06	34.4
East: Launceston Street															
4	L2	All MCs	167	11.9	167	11.9	0.770	49.1	LOS D	7.6	58.6	1.00	0.91	1.20	24.8
5	T1	All MCs	176	19.2	176	19.2	*0.770	43.4	LOS D	7.7	62.6	1.00	0.92	1.20	27.4
6	R2	All MCs	27	100.0	27	100.0	0.093	31.4	LOS C	0.9	11.3	0.78	0.71	0.78	28.9
Approach			371	21.9	371	21.9	0.770	45.1	LOS D	7.7	62.6	0.98	0.90	1.17	26.3
North: Bus Layover															
7	L2	All MCs	1	100.0	1	100.0	0.330	51.7	LOS D	1.2	15.6	0.99	0.72	0.99	18.8
8	T1	All MCs	25	100.0	25	100.0	*0.330	45.0	LOS D	1.2	15.6	0.99	0.72	0.99	34.4
9	R2	All MCs	1	100.0	1	100.0	0.330	51.7	LOS D	1.2	15.6	0.99	0.72	0.99	32.1
Approach			27	100.0	27	100.0	0.330	45.5	LOS D	1.2	15.6	0.99	0.72	0.99	33.7
West: Launceston Street															
10	L2	All MCs	12	100.0	12	100.0	0.717	48.6	LOS D	7.0	55.9	1.00	0.88	1.14	32.7
11	T1	All MCs	322	9.2	322	9.2	0.717	41.8	LOS C	7.4	55.6	1.00	0.88	1.13	27.9
12	R2	All MCs	216	12.7	216	12.7	0.468	34.1	LOS C	7.6	59.2	0.88	0.80	0.88	37.2
Approach			549	12.5	549	12.5	0.717	38.9	LOS C	7.6	59.2	0.95	0.85	1.03	32.2
All Vehicles			1276	19.6	1276	19.6	0.770	39.4	LOS C	11.6	96.4	0.97	0.88	1.08	31.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE	Prop. Que	Eff. Stop	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		[Ped ped	Dist] m	Rate		sec	m	m/sec
South: Bowes Street											
P2 Full	13	14	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
East: Launceston Street											
P4 Full	11	12	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
North: Bus Layover											
P1 Full	16	17	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
West: Launceston Street											
P3 Full	13	14	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05
All Pedestrians	53	56	36.7	LOS D	0.0	0.0	0.93	0.93	190.6	200.0	1.05

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes - New Phasing (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 85 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

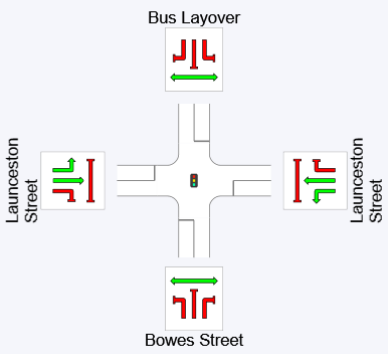
Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	17	44	56
Green Time (sec)	11	21	6	23
Phase Time (sec)	17	27	12	29
Phase Split	20%	32%	14%	34%
Phase Frequency (%)	100.0	100.0	100.0	100.0

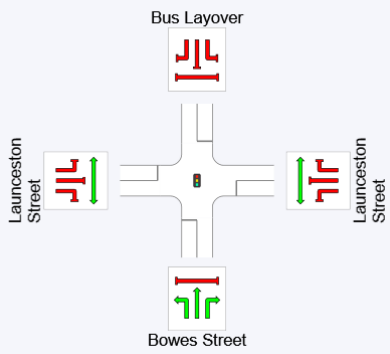
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence

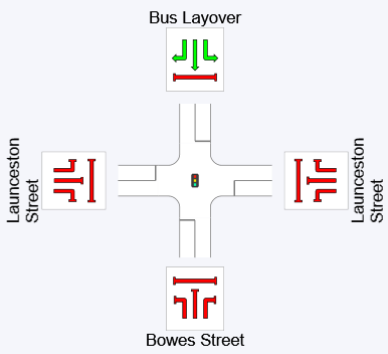
Phase A **REF**



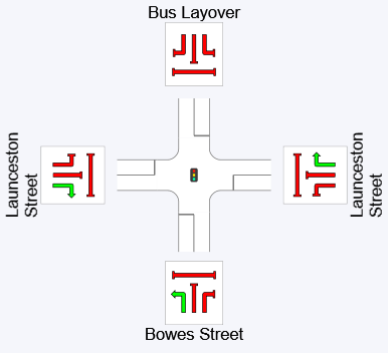
Phase D



Phase E

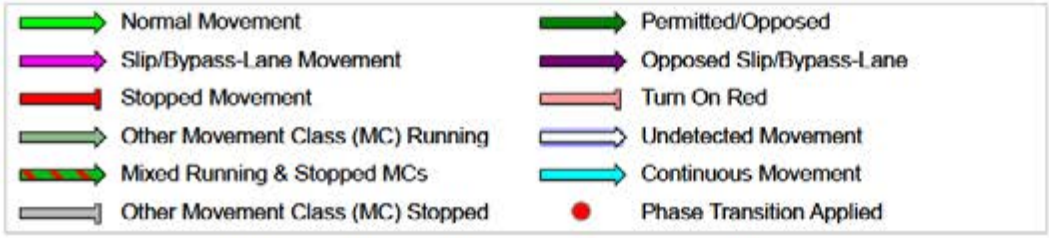


Phase F



REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes - Optimal Cycle (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	168	31.3	168	31.3	*0.808	20.4	LOS B	8.9	74.3	0.99	0.98	1.25	38.5
2	T1	All MCs	1	0.0	1	0.0	*0.808	34.3	LOS C	8.9	74.3	0.99	0.98	1.25	40.4
3	R2	All MCs	159	13.2	159	13.2	0.808	40.0	LOS C	8.9	74.3	0.99	0.98	1.25	31.9
Approach			328	22.4	328	22.4	0.808	29.9	LOS C	8.9	74.3	0.99	0.98	1.25	35.8
East: Launceston Street															
4	L2	All MCs	167	11.9	167	11.9	0.747	36.7	LOS C	5.4	42.1	1.00	0.91	1.24	28.8
5	T1	All MCs	176	19.2	176	19.2	*0.747	31.1	LOS C	5.5	44.9	1.00	0.92	1.24	32.4
6	R2	All MCs	27	100.0	27	100.0	0.168	31.8	LOS C	0.8	9.9	0.90	0.72	0.90	28.8
Approach			371	21.9	371	21.9	0.747	33.7	LOS C	5.5	44.9	0.99	0.90	1.21	30.4
North: Bus Layover															
7	L2	All MCs	1	100.0	1	100.0	0.233	36.5	LOS C	0.8	10.7	0.95	0.70	0.95	21.6
8	T1	All MCs	25	100.0	25	100.0	*0.233	29.8	LOS C	0.8	10.7	0.95	0.70	0.95	40.2
9	R2	All MCs	1	100.0	1	100.0	0.233	36.5	LOS C	0.8	10.7	0.95	0.70	0.95	37.0
Approach			27	100.0	27	100.0	0.233	30.3	LOS C	0.8	10.7	0.95	0.70	0.95	39.2
West: Launceston Street															
10	L2	All MCs	12	100.0	12	100.0	0.696	36.7	LOS C	5.1	40.2	1.00	0.87	1.16	36.6
11	T1	All MCs	322	9.2	322	9.2	0.696	29.9	LOS C	5.3	40.0	1.00	0.87	1.16	32.9
12	R2	All MCs	216	12.7	216	12.7	0.845	39.9	LOS C	7.4	57.4	1.00	1.01	1.42	35.1
Approach			549	12.5	549	12.5	0.845	34.0	LOS C	7.4	57.4	1.00	0.93	1.26	34.1
All Vehicles			1276	19.6	1276	19.6	0.845	32.8	LOS C	8.9	74.3	1.00	0.93	1.24	33.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov	Input	Dem.	Aver.	Level of	AVERAGE BACK OF	Prop.	Eff.	Travel	Travel	Aver.

ID	Crossing	Vol	Flow	Delay	Service	QUEUE [Ped	Dist]	Que	Stop Rate	Time	Dist	Speed
		ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Bowes Street												
P2	Full	13	14	24.3	LOS C	0.0	0.0	0.90	0.90	178.2	200.0	1.12
East: Launceston Street												
P4	Full	11	12	24.3	LOS C	0.0	0.0	0.90	0.90	178.2	200.0	1.12
North: Bus Layover												
P1	Full	16	17	24.3	LOS C	0.0	0.0	0.90	0.90	178.2	200.0	1.12
West: Launceston Street												
P3	Full	13	14	24.3	LOS C	0.0	0.0	0.90	0.90	178.2	200.0	1.12
All Pedestrians		53	56	24.3	LOS C	0.0	0.0	0.90	0.90	178.2	200.0	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes - Optimal Cycle (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

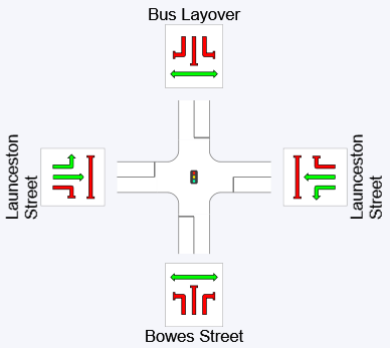
Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	14	33	45
Green Time (sec)	8	13	6	9
Phase Time (sec)	14	19	12	15
Phase Split	23%	32%	20%	25%
Phase Frequency (%)	100.0	100.0	100.0	100.0

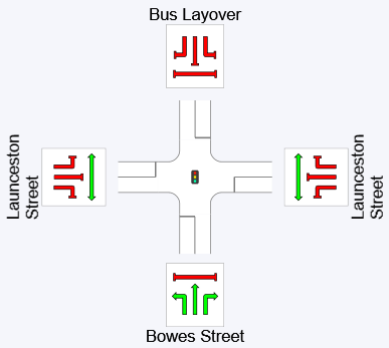
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence

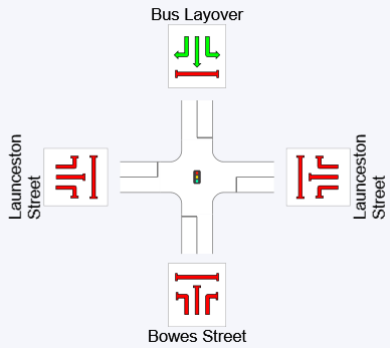
Phase A **REF**



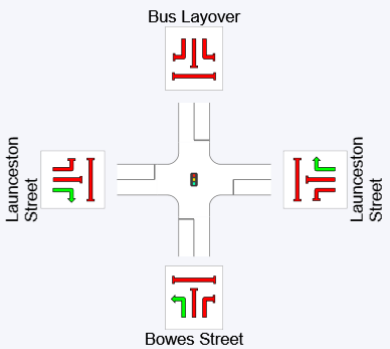
Phase D



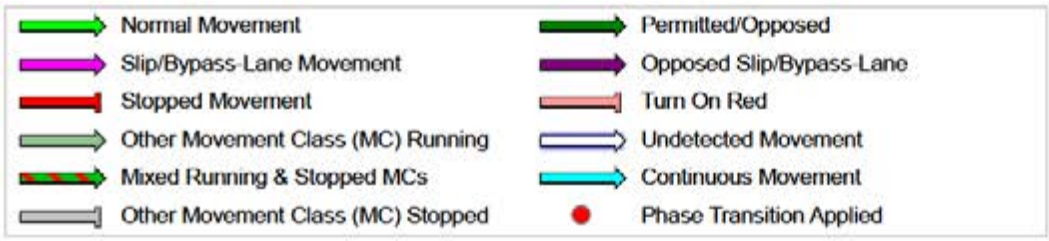
Phase E



Phase F



REF: Reference Phase
VAR: Variable Phase

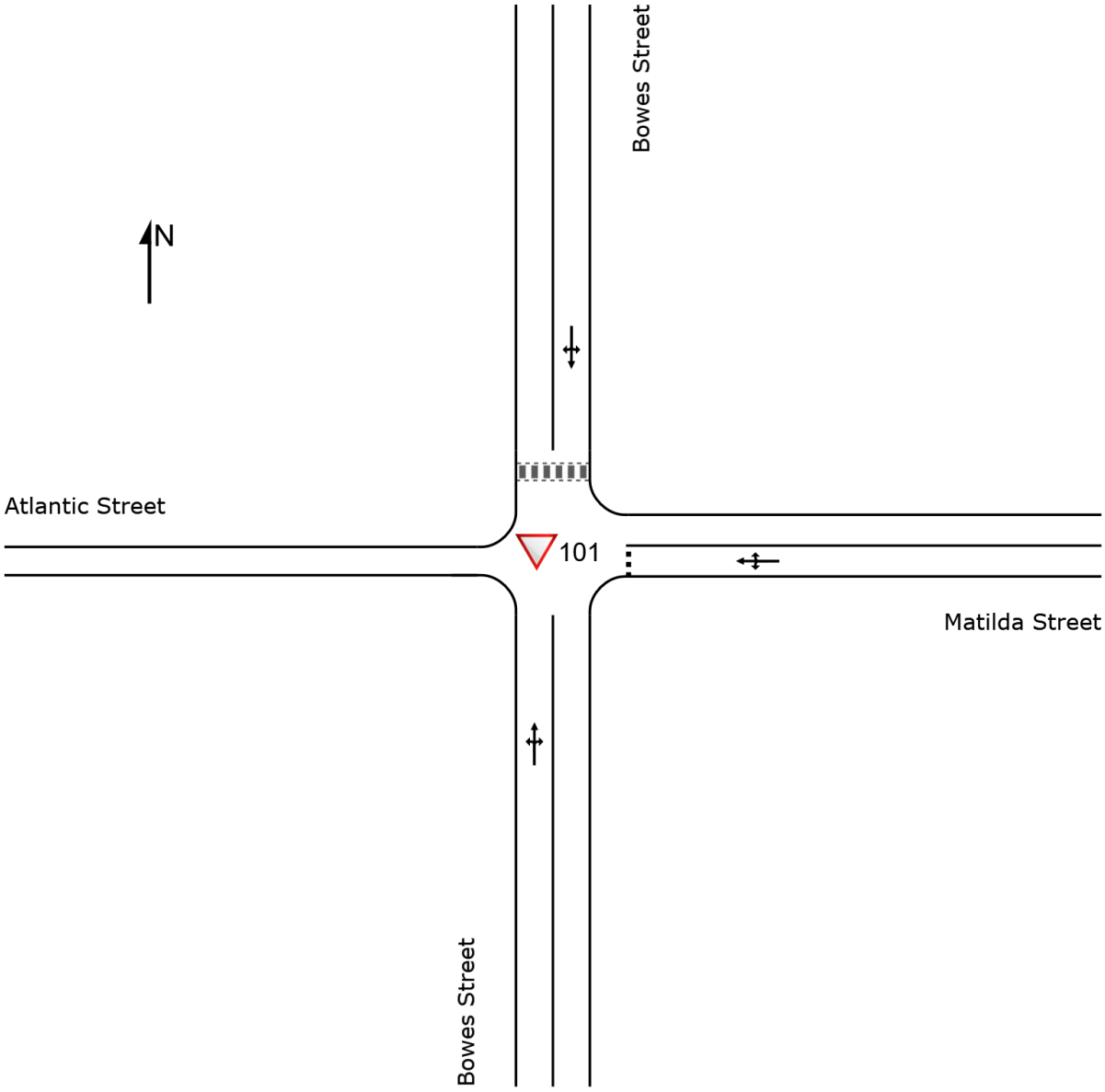


SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Existing AM Peak)]

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

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



MOVEMENT SUMMARY

▽ Site: 101 [Bowes / Matilda (Site Folder: Existing AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.102	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	205	1.5	205	1.5	0.102	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.102	6.1	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			207	1.5	207	1.5	0.102	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	2	0.0	2	0.0	0.019	6.2	LOS A	0.1	0.5	0.42	0.61	0.42	51.5
5	T1	All MCs	2	0.0	2	0.0	0.019	6.2	LOS A	0.1	0.5	0.42	0.61	0.42	51.9
6	R2	All MCs	11	0.0	11	0.0	0.019	7.9	LOS A	0.1	0.5	0.42	0.61	0.42	51.3
Approach			15	0.0	15	0.0	0.019	7.4	LOS A	0.1	0.5	0.42	0.61	0.42	51.4
North: Bowes Street															
7	L2	All MCs	82	2.6	82	2.6	0.159	5.6	LOS A	0.2	1.4	0.06	0.22	0.06	55.5
8	T1	All MCs	205	1.5	205	1.5	0.159	0.0	LOS A	0.2	1.4	0.06	0.22	0.06	58.0
9	R2	All MCs	21	5.0	21	5.0	0.159	8.1	LOS A	0.2	1.4	0.06	0.22	0.06	55.1
Approach			308	2.0	308	2.0	0.159	2.0	NA	0.2	1.4	0.06	0.22	0.06	57.1
All Vehicles			531	1.8	531	1.8	0.159	1.4	NA	0.2	1.4	0.05	0.15	0.05	58.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▽ Site: 101 [Bowes / Matilda (Site Folder: Post Closure AM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h]	Demand Flows [HV %]	Arrival Flows [Total veh/h]	Arrival Flows [HV %]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh]	95% Back Of Queue [Dist m]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.102	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	205	1.5	205	1.5	0.102	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.102	6.8	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			207	1.5	207	1.5	0.102	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	2	0.0	2	0.0	0.240	6.5	LOS A	0.9	10.7	0.60	0.85	0.64	47.5
5	T1	All MCs	2	0.0	2	0.0	0.240	7.3	LOS A	0.9	10.7	0.60	0.85	0.64	47.9
6	R2	All MCs	83	87.3	83	87.3	0.240	14.8	LOS B	0.9	10.7	0.60	0.85	0.64	44.5
Approach			87	83.1	87	83.1	0.240	14.4	LOS A	0.9	10.7	0.60	0.85	0.64	44.7
North: Bowes Street															
7	L2	All MCs	157	49.0	157	49.0	0.223	6.1	LOS A	0.2	1.6	0.05	0.29	0.05	53.5
8	T1	All MCs	205	1.5	205	1.5	0.223	0.0	LOS A	0.2	1.6	0.05	0.29	0.05	58.1
9	R2	All MCs	21	5.0	21	5.0	0.223	8.1	LOS A	0.2	1.6	0.05	0.29	0.05	55.2
Approach			383	21.2	383	21.2	0.223	2.9	NA	0.2	1.6	0.05	0.29	0.05	56.0
All Vehicles			678	23.1	678	23.1	0.240	3.5	NA	0.9	10.7	0.11	0.27	0.11	55.3

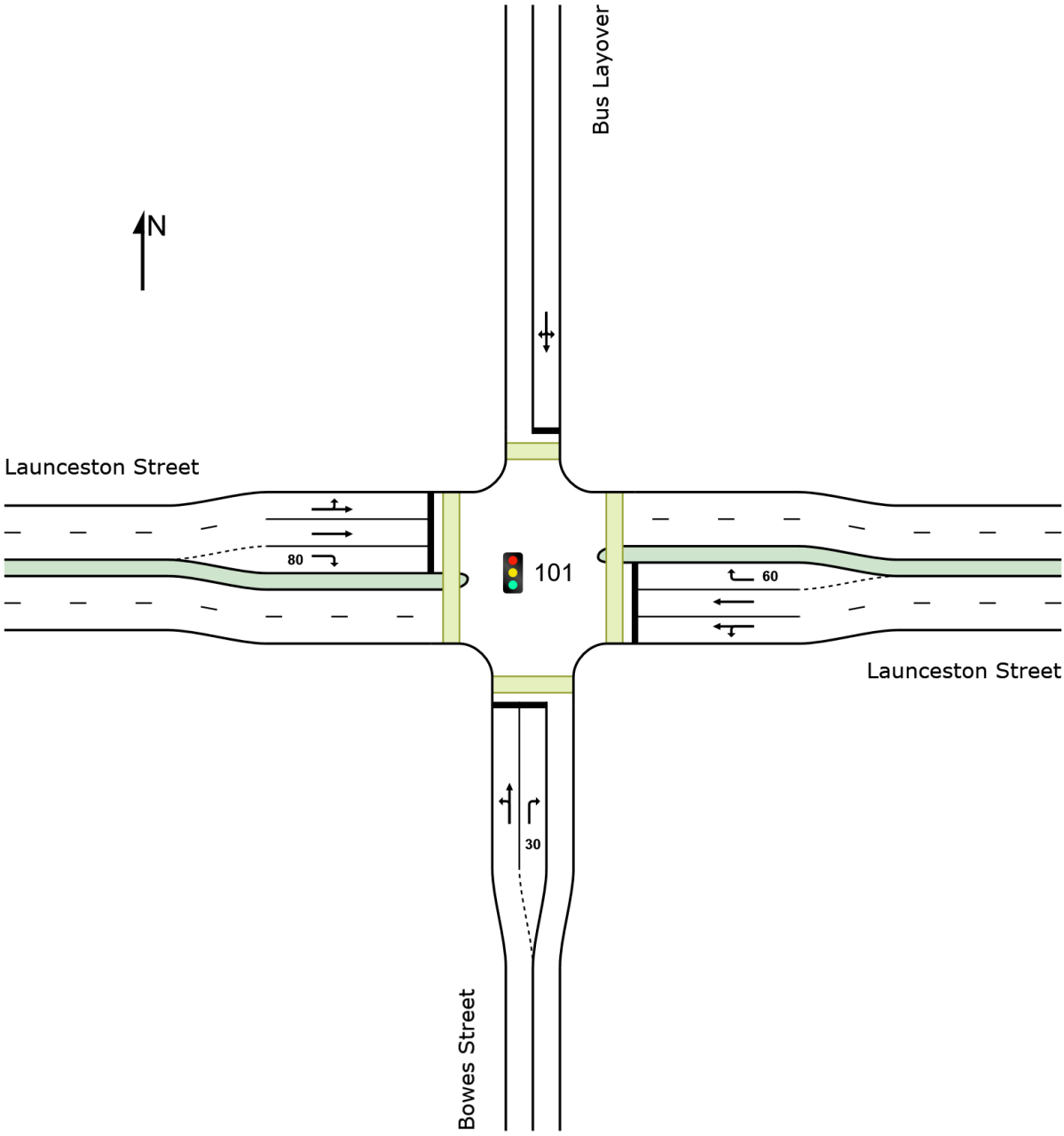
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Existing PM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 78 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h]	Demand Flows [HV %]	Arrival Flows [Total veh/h]	Arrival Flows [HV %]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh]	95% Back Of Queue [Dist m]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	227	0.5	227	0.5	0.324	15.3	LOS B	3.8	26.8	0.74	0.76	0.74	46.3
2	T1	All MCs	1	0.0	1	0.0	*0.324	29.6	LOS C	3.8	26.8	0.74	0.76	0.74	47.9
3	R2	All MCs	171	0.6	171	0.6	0.450	35.7	LOS C	5.9	41.2	0.92	0.79	0.92	29.6
Approach			399	0.5	399	0.5	0.450	24.0	LOS B	5.9	41.2	0.82	0.78	0.82	39.4
East: Launceston Street															
4	L2	All MCs	162	1.9	162	1.9	0.569	35.0	LOS C	8.4	60.7	0.94	0.81	0.94	30.4
5	T1	All MCs	320	9.5	320	9.5	*0.569	29.4	LOS C	8.4	63.4	0.94	0.79	0.94	32.9
6	R2	All MCs	24	100.0	24	100.0	0.134	37.3	LOS C	0.8	10.8	0.88	0.72	0.88	26.9
Approach			506	11.4	506	11.4	0.569	31.6	LOS C	8.4	63.4	0.93	0.79	0.93	31.7
North: Bus Layover															
7	L2	All MCs	1	100.0	1	100.0	0.028	42.6	LOS D	0.1	1.5	0.92	0.62	0.92	19.6
8	T1	All MCs	1	100.0	1	100.0	*0.028	36.0	LOS C	0.1	1.5	0.92	0.62	0.92	36.1
9	R2	All MCs	1	100.0	1	100.0	0.028	42.6	LOS D	0.1	1.5	0.92	0.62	0.92	33.5
Approach			3	100.0	3	100.0	0.028	40.4	LOS C	0.1	1.5	0.92	0.62	0.92	29.5
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.247	33.6	LOS C	3.2	25.3	0.86	0.68	0.86	38.0
11	T1	All MCs	203	13.0	203	13.0	0.247	26.9	LOS B	3.3	25.3	0.86	0.68	0.86	34.6
12	R2	All MCs	176	0.6	176	0.6	*0.570	39.2	LOS C	6.4	45.2	0.97	0.80	0.97	35.6
Approach			380	7.5	380	7.5	0.570	32.6	LOS C	6.4	45.2	0.91	0.74	0.91	35.2
All Vehicles			1288	7.1	1288	7.1	0.570	29.6	LOS C	8.4	63.4	0.89	0.77	0.89	35.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE	Prop. Que	Eff. Stop	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		[Ped ped	Dist] m		Rate	sec	m	m/sec
South: Bowes Street											
P2 Full	15	16	33.3	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
East: Launceston Street											
P4 Full	4	4	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
North: Bus Layover											
P1 Full	4	4	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
West: Launceston Street											
P3 Full	11	12	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
All Pedestrians	34	36	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 78 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

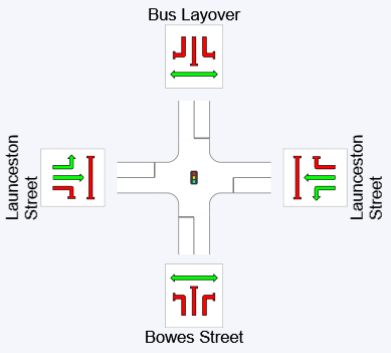
Phase	A	D	E	F
Phase Change Time (sec)	0	24	46	59
Green Time (sec)	18	16	8	13
Phase Time (sec)	24	21	14	19
Phase Split	31%	27%	18%	24%
Phase Frequency (%)	100.0	77.8[2]	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

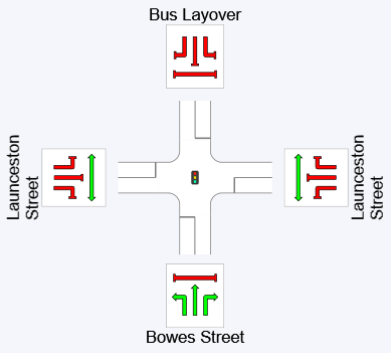
2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence

Phase A **REF**



Phase D



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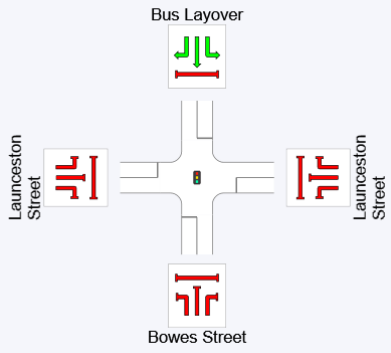
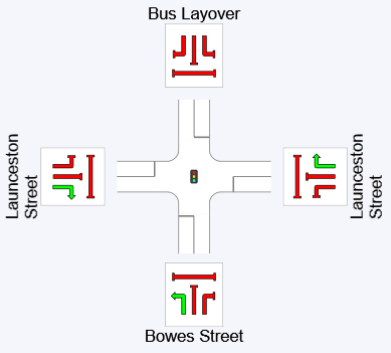
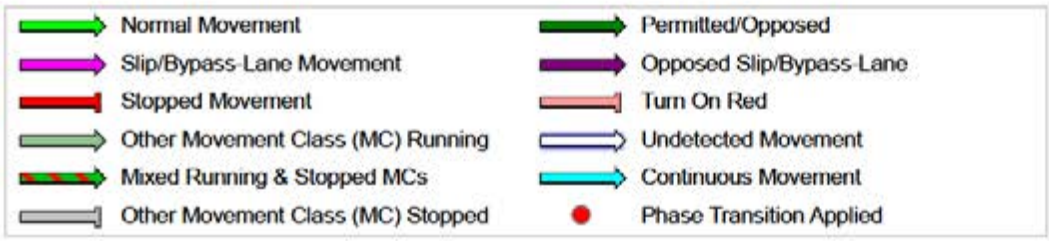


Phase F



REF: Reference Phase
VAR: Variable Phase

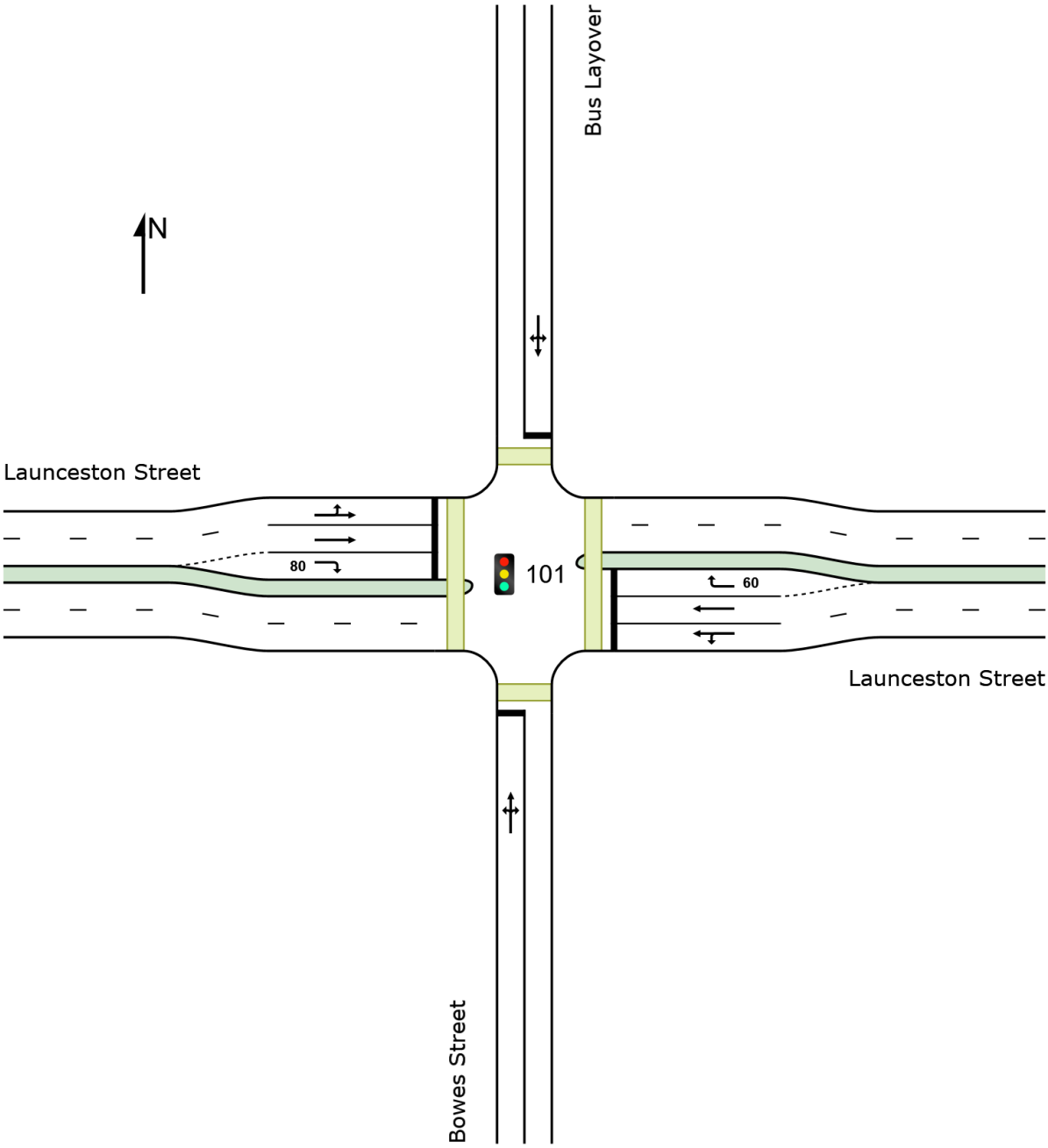


SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 78 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	275	16.1	275	16.1	*1.107	132.8	LOS F	36.9	285.3	1.00	1.53	2.52	16.7
2	T1	All MCs	1	0.0	1	0.0	*1.107	149.9	LOS F	36.9	285.3	1.00	1.53	2.52	16.9
3	R2	All MCs	185	6.3	185	6.3	1.107	155.5	LOS F	36.9	285.3	1.00	1.53	2.52	11.4
Approach			461	12.1	461	12.1	1.107	142.0	LOS F	36.9	285.3	1.00	1.53	2.52	14.7
East: Launceston Street															
4	L2	All MCs	178	7.7	178	7.7	0.597	35.3	LOS C	8.6	64.3	0.94	0.81	0.94	30.0
5	T1	All MCs	320	9.5	320	9.5	*0.597	29.7	LOS C	8.8	66.9	0.94	0.79	0.94	32.7
6	R2	All MCs	24	100.0	24	100.0	0.134	37.3	LOS C	0.8	10.8	0.88	0.72	0.88	26.9
Approach			522	13.1	522	13.1	0.597	31.9	LOS C	8.8	66.9	0.94	0.80	0.94	31.4
North: Bus Layover															
7	L2	All MCs	5	100.0	5	100.0	0.222	44.3	LOS D	1.0	13.0	0.95	0.70	0.95	19.8
8	T1	All MCs	20	100.0	20	100.0	*0.222	37.6	LOS C	1.0	13.0	0.95	0.70	0.95	36.6
9	R2	All MCs	1	100.0	1	100.0	0.222	44.3	LOS D	1.0	13.0	0.95	0.70	0.95	33.9
Approach			26	100.0	26	100.0	0.222	39.2	LOS C	1.0	13.0	0.95	0.70	0.95	32.8
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.247	33.6	LOS C	3.2	25.3	0.86	0.68	0.86	38.0
11	T1	All MCs	203	13.0	203	13.0	0.247	26.9	LOS B	3.3	25.3	0.86	0.68	0.86	34.5
12	R2	All MCs	203	13.5	203	13.5	0.719	42.1	LOS C	8.0	62.2	1.00	0.87	1.12	34.4
Approach			407	13.4	407	13.4	0.719	34.5	LOS C	8.0	62.2	0.93	0.77	0.99	34.4
All Vehicles			1417	14.5	1417	14.5	1.107	68.6	LOS E	36.9	285.3	0.96	1.03	1.47	22.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE	Prop. Que	Eff. Stop	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		[Ped ped	Dist] m		Rate	sec	m	m/sec
South: Bowes Street											
P2 Full	15	16	33.3	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
East: Launceston Street											
P4 Full	4	4	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
North: Bus Layover											
P1 Full	4	4	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
West: Launceston Street											
P3 Full	11	12	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
All Pedestrians	34	36	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 78 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

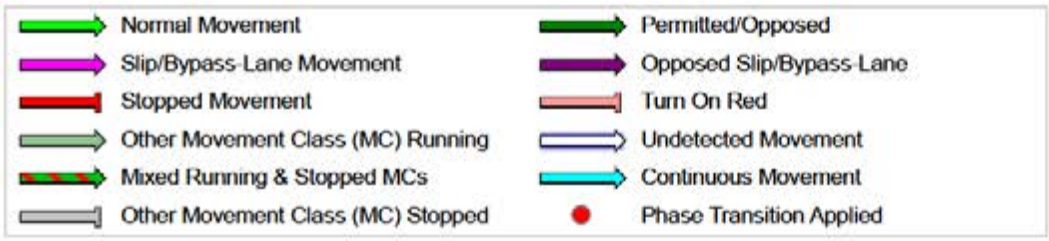
Phase	A	D	E	F
Phase Change Time (sec)	0	24	46	59
Green Time (sec)	18	16	8	13
Phase Time (sec)	24	21	14	19
Phase Split	31%	27%	18%	24%
Phase Frequency (%)	100.0	77.8[2]	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence

REF: Reference Phase
VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes - New Phasing (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 78 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h]	Demand Flows [HV %]	Arrival Flows [Total veh/h]	Arrival Flows [HV %]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh]	95% Back Of Queue [Dist m]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	275	16.1	275	16.1	*0.841	23.7	LOS B	16.6	128.2	0.99	0.98	1.19	36.9
2	T1	All MCs	1	0.0	1	0.0	*0.841	45.7	LOS D	16.6	128.2	0.99	0.98	1.19	38.2
3	R2	All MCs	185	6.3	185	6.3	0.841	51.4	LOS D	16.6	128.2	0.99	0.98	1.19	29.8
Approach			461	12.1	461	12.1	0.841	34.9	LOS C	16.6	128.2	0.99	0.98	1.19	34.5
East: Launceston Street															
4	L2	All MCs	178	7.7	178	7.7	0.895	52.4	LOS D	11.2	84.2	1.00	1.09	1.45	24.3
5	T1	All MCs	320	9.5	320	9.5	*0.895	46.7	LOS D	11.6	87.5	1.00	1.09	1.45	26.1
6	R2	All MCs	24	100.0	24	100.0	0.124	36.2	LOS C	0.8	10.6	0.87	0.71	0.87	27.2
Approach			522	13.1	522	13.1	0.895	48.2	LOS D	11.6	87.5	0.99	1.07	1.42	25.5
North: Bus Layover															
7	L2	All MCs	5	100.0	5	100.0	0.296	47.4	LOS D	1.1	13.7	0.98	0.71	0.98	19.3
8	T1	All MCs	20	100.0	20	100.0	*0.296	40.7	LOS C	1.1	13.7	0.98	0.71	0.98	35.5
9	R2	All MCs	1	100.0	1	100.0	0.296	47.4	LOS D	1.1	13.7	0.98	0.71	0.98	33.0
Approach			26	100.0	26	100.0	0.296	42.3	LOS C	1.1	13.7	0.98	0.71	0.98	31.9
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.370	39.9	LOS C	3.6	28.4	0.94	0.74	0.94	35.6
11	T1	All MCs	203	13.0	203	13.0	0.370	33.2	LOS C	3.6	28.4	0.94	0.74	0.94	31.4
12	R2	All MCs	203	13.5	203	13.5	0.668	40.1	LOS C	7.7	60.0	0.98	0.85	1.05	35.0
Approach			407	13.4	407	13.4	0.668	36.7	LOS C	7.7	60.0	0.96	0.79	0.99	33.6
All Vehicles			1417	14.5	1417	14.5	0.895	40.4	LOS C	16.6	128.2	0.98	0.96	1.22	30.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE	Prop. Que	Eff. Stop	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		[Ped ped	Dist] m		Rate	sec	m	m/sec
South: Bowes Street											
P2 Full	15	16	33.3	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
East: Launceston Street											
P4 Full	4	4	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
North: Bus Layover											
P1 Full	4	4	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
West: Launceston Street											
P3 Full	11	12	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07
All Pedestrians	34	36	33.2	LOS D	0.0	0.0	0.92	0.92	187.1	200.0	1.07

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes - New Phasing (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 78 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

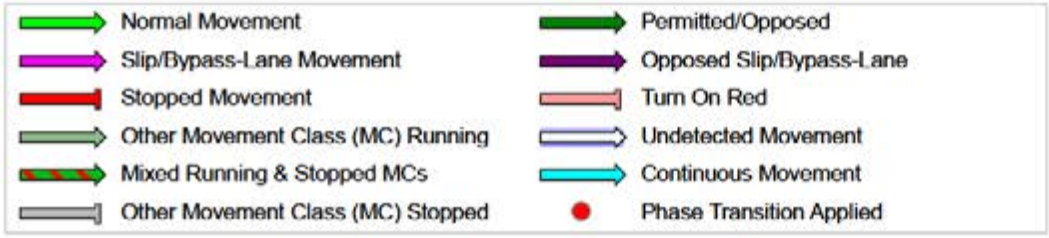
Phase	A	D	E	F
Phase Change Time (sec)	0	18	46	58
Green Time (sec)	12	22	6	14
Phase Time (sec)	18	28	12	20
Phase Split	23%	36%	15%	26%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence

REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes - Optimal Cycle (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	275	16.1	275	16.1	*0.799	21.1	LOS B	15.7	121.3	0.97	0.95	1.09	38.2
2	T1	All MCs	1	0.0	1	0.0	*0.799	41.4	LOS C	15.7	121.3	0.97	0.95	1.09	39.6
3	R2	All MCs	185	6.3	185	6.3	0.799	47.0	LOS D	15.7	121.3	0.97	0.95	1.09	31.2
Approach			461	12.1	461	12.1	0.799	31.5	LOS C	15.7	121.3	0.97	0.95	1.09	35.9
East: Launceston Street															
4	L2	All MCs	178	7.7	178	7.7	0.847	48.5	LOS D	10.8	80.9	1.00	1.01	1.31	25.4
5	T1	All MCs	320	9.5	320	9.5	*0.847	42.8	LOS D	11.1	84.1	1.00	1.01	1.31	27.4
6	R2	All MCs	24	100.0	24	100.0	0.137	38.5	LOS C	0.9	11.1	0.89	0.72	0.89	26.5
Approach			522	13.1	522	13.1	0.847	44.5	LOS D	11.1	84.1	0.99	1.00	1.29	26.7
North: Bus Layover															
7	L2	All MCs	5	100.0	5	100.0	0.303	48.6	LOS D	1.1	14.1	0.98	0.71	0.98	19.1
8	T1	All MCs	20	100.0	20	100.0	*0.303	41.9	LOS C	1.1	14.1	0.98	0.71	0.98	35.1
9	R2	All MCs	1	100.0	1	100.0	0.303	48.6	LOS D	1.1	14.1	0.98	0.71	0.98	32.6
Approach			26	100.0	26	100.0	0.303	43.5	LOS D	1.1	14.1	0.98	0.71	0.98	31.5
West: Launceston Street															
10	L2	All MCs	1	100.0	1	100.0	0.351	40.0	LOS C	3.7	28.7	0.93	0.73	0.93	35.6
11	T1	All MCs	203	13.0	203	13.0	0.351	33.3	LOS C	3.7	28.7	0.93	0.73	0.93	31.4
12	R2	All MCs	203	13.5	203	13.5	0.738	43.8	LOS D	8.3	64.5	1.00	0.88	1.15	33.9
Approach			407	13.4	407	13.4	0.738	38.5	LOS C	8.3	64.5	0.97	0.81	1.04	32.9
All Vehicles			1417	14.5	1417	14.5	0.847	38.6	LOS C	15.7	121.3	0.98	0.92	1.15	31.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov	Input	Dem.	Aver.	Level of	AVERAGE BACK OF	Prop.	Eff.	Travel	Travel	Aver.

ID	Crossing	Vol	Flow	Delay	Service	QUEUE [Ped	Dist]	Que	Stop Rate	Time	Dist	Speed
		ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Bowes Street												
P2	Full	15	16	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
East: Launceston Street												
P4	Full	4	4	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
North: Bus Layover												
P1	Full	4	4	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Launceston Street												
P3	Full	11	12	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
All Pedestrians		34	36	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes - Optimal Cycle (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

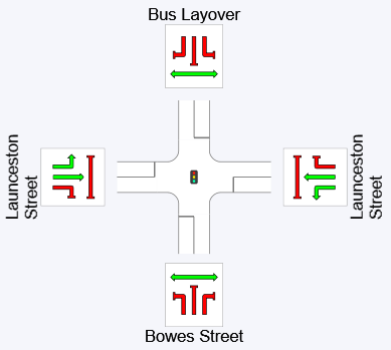
Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	19	49	61
Green Time (sec)	13	24	6	13
Phase Time (sec)	19	30	12	19
Phase Split	24%	38%	15%	24%
Phase Frequency (%)	100.0	100.0	100.0	100.0

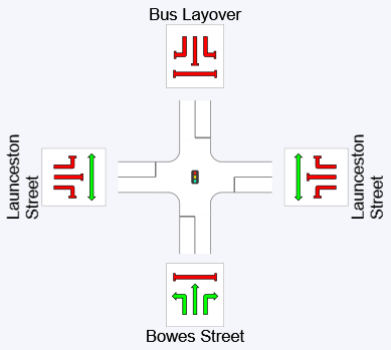
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence

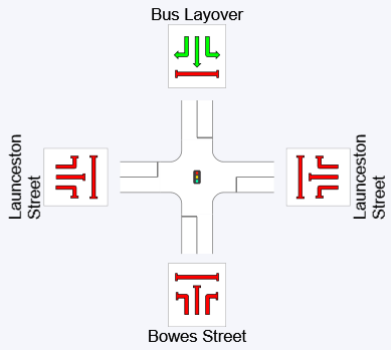
Phase A **REF**



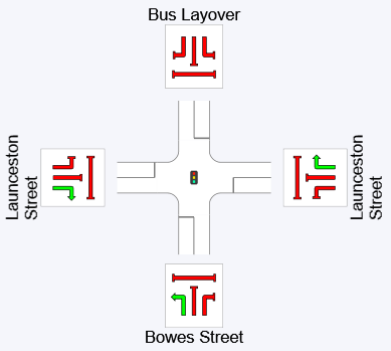
Phase D



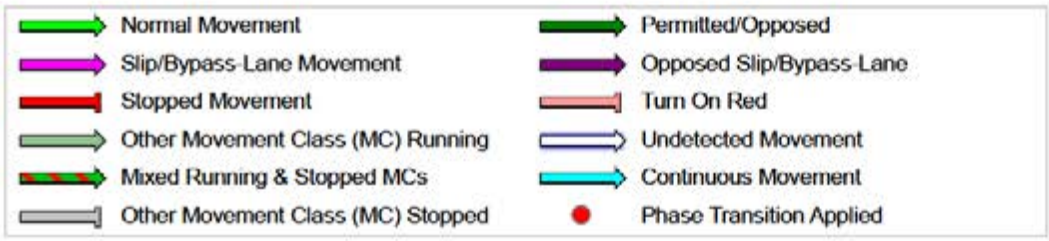
Phase E



Phase F



REF: Reference Phase
VAR: Variable Phase

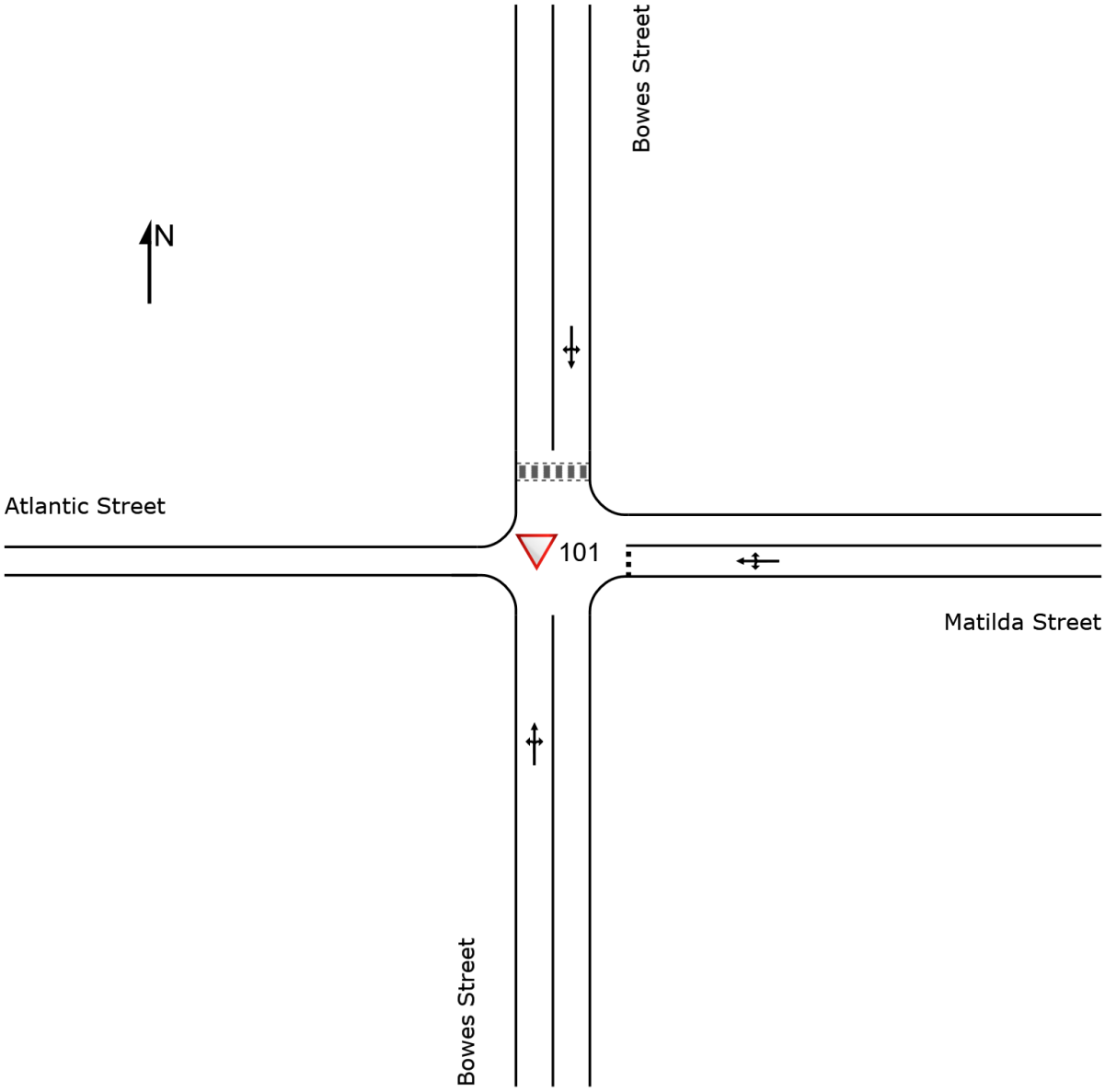


SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Existing PM Peak)]

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

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



MOVEMENT SUMMARY

▽ Site: 101 [Bowes / Matilda (Site Folder: Existing PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.105	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	211	1.5	211	1.5	0.105	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.105	5.8	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			213	1.5	213	1.5	0.105	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.058	6.2	LOS A	0.2	1.4	0.43	0.67	0.43	51.3
5	T1	All MCs	1	0.0	1	0.0	0.058	6.1	LOS A	0.2	1.4	0.43	0.67	0.43	51.7
6	R2	All MCs	41	0.0	41	0.0	0.058	7.8	LOS A	0.2	1.4	0.43	0.67	0.43	51.1
Approach			43	0.0	43	0.0	0.058	7.7	LOS A	0.2	1.4	0.43	0.67	0.43	51.1
North: Bowes Street															
7	L2	All MCs	25	4.2	25	4.2	0.122	5.6	LOS A	0.2	1.1	0.06	0.14	0.06	56.2
8	T1	All MCs	196	0.5	196	0.5	0.122	0.0	LOS A	0.2	1.1	0.06	0.14	0.06	58.8
9	R2	All MCs	18	5.9	18	5.9	0.122	7.9	LOS A	0.2	1.1	0.06	0.14	0.06	55.8
Approach			239	1.3	239	1.3	0.122	1.2	NA	0.2	1.1	0.06	0.14	0.06	58.3
All Vehicles			495	1.3	495	1.3	0.122	1.3	NA	0.2	1.4	0.07	0.13	0.07	58.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▽ Site: 101 [Bowes / Matilda (Site Folder: Post Closure PM Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h]	Demand Flows [HV %]	Arrival Flows [Total veh/h]	Arrival Flows [HV %]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh]	95% Back Of Queue [Dist m]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.105	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	211	1.5	211	1.5	0.105	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.105	6.2	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			213	1.5	213	1.5	0.105	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.9
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.235	6.3	LOS A	0.9	9.0	0.55	0.80	0.57	48.8
5	T1	All MCs	1	0.0	1	0.0	0.235	6.8	LOS A	0.9	9.0	0.55	0.80	0.57	49.2
6	R2	All MCs	103	60.2	103	60.2	0.235	12.1	LOS A	0.9	9.0	0.55	0.80	0.57	46.5
Approach			105	59.0	105	59.0	0.235	12.0	LOS A	0.9	9.0	0.55	0.80	0.57	46.6
North: Bowes Street															
7	L2	All MCs	88	71.4	88	71.4	0.176	6.4	LOS A	0.2	1.3	0.05	0.22	0.05	53.2
8	T1	All MCs	196	0.5	196	0.5	0.176	0.0	LOS A	0.2	1.3	0.05	0.22	0.05	58.8
9	R2	All MCs	18	5.9	18	5.9	0.176	8.1	LOS A	0.2	1.3	0.05	0.22	0.05	55.8
Approach			302	21.6	302	21.6	0.176	2.3	NA	0.2	1.3	0.05	0.22	0.05	56.9
All Vehicles			620	21.1	620	21.1	0.235	3.2	NA	0.9	9.0	0.12	0.25	0.12	55.7

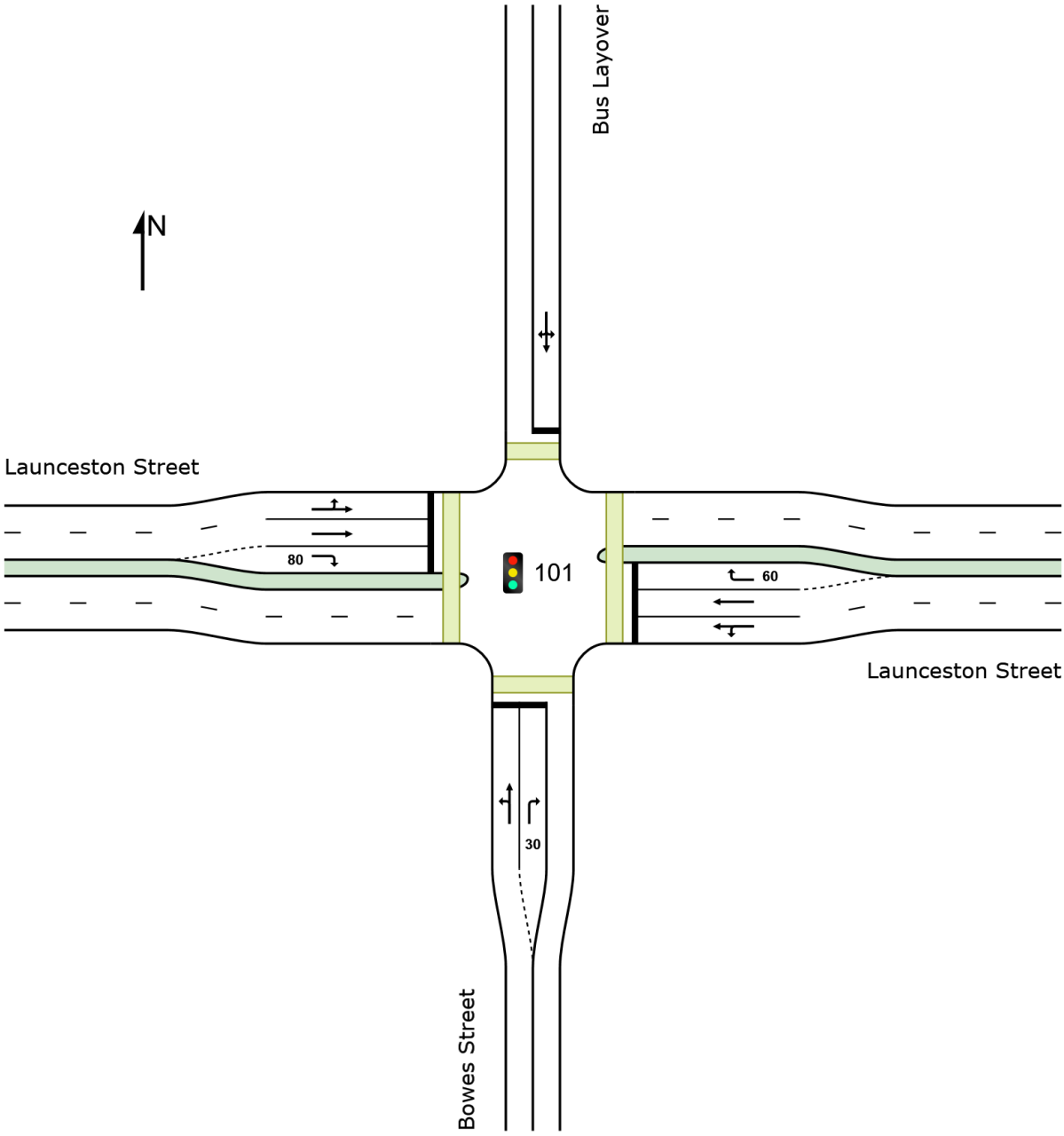
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Existing SAT Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 74 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	57	0.0	57	0.0	0.107	16.5	LOS B	1.0	7.0	0.76	0.71	0.76	45.5
2	T1	All MCs	1	0.0	1	0.0	*0.107	27.9	LOS B	1.0	7.0	0.76	0.71	0.76	47.1
3	R2	All MCs	44	2.4	44	2.4	0.149	35.2	LOS C	1.4	10.1	0.89	0.73	0.89	29.8
Approach			102	1.0	102	1.0	0.149	24.7	LOS B	1.4	10.1	0.82	0.72	0.82	39.0
East: Launceston Street															
4	L2	All MCs	52	4.1	52	4.1	0.131	17.4	LOS B	2.0	14.8	0.71	0.67	0.71	36.3
5	T1	All MCs	100	11.6	100	11.6	*0.131	22.8	LOS B	2.0	14.8	0.75	0.62	0.75	38.3
6	R2	All MCs	14	100.0	14	100.0	0.104	39.3	LOS C	0.5	6.1	0.92	0.69	0.92	26.2
Approach			165	16.6	165	16.6	0.131	22.5	LOS B	2.0	14.8	0.75	0.64	0.75	36.3
North: Bus Layover															
7	L2	All MCs	1	100.0	1	100.0	0.023	39.1	LOS C	0.1	1.4	0.90	0.62	0.90	20.2
8	T1	All MCs	1	100.0	1	100.0	*0.023	32.4	LOS C	0.1	1.4	0.90	0.62	0.90	37.4
9	R2	All MCs	1	100.0	1	100.0	0.023	39.1	LOS C	0.1	1.4	0.90	0.62	0.90	34.7
Approach			3	100.0	3	100.0	0.023	36.9	LOS C	0.1	1.4	0.90	0.62	0.90	30.5
West: Launceston Street															
10	L2	All MCs	1	0.0	1	0.0	0.124	26.1	LOS B	1.8	13.6	0.76	0.59	0.76	43.4
11	T1	All MCs	137	6.9	137	6.9	0.124	20.6	LOS B	1.8	13.6	0.76	0.59	0.76	38.4
12	R2	All MCs	51	0.0	51	0.0	*0.224	38.7	LOS C	1.7	12.1	0.94	0.74	0.94	35.8
Approach			188	5.0	188	5.0	0.224	25.5	LOS B	1.8	13.6	0.81	0.63	0.81	37.4
All Vehicles			459	8.9	459	8.9	0.224	24.3	LOS B	2.0	14.8	0.79	0.65	0.79	37.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped	Dist]	Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Bowes Street											
P2 Full	2	2	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
East: Launceston Street											
P4 Full	1	1	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
North: Bus Layover											
P1 Full	1	1	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
West: Launceston Street											
P3 Full	1	1	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
All Pedestrians	5	5	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Existing SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 74 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

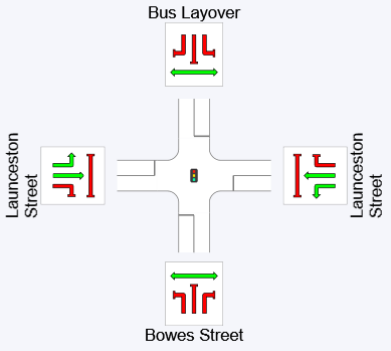
Phase	A	D	E	F
Phase Change Time (sec)	0	28	46	59
Green Time (sec)	22	12	9	9
Phase Time (sec)	28	16	15	15
Phase Split	38%	22%	20%	20%
Phase Frequency (%)	100.0	59.3[2]	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

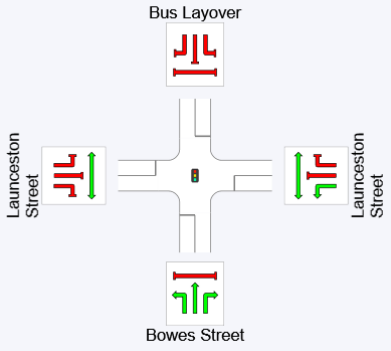
2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence

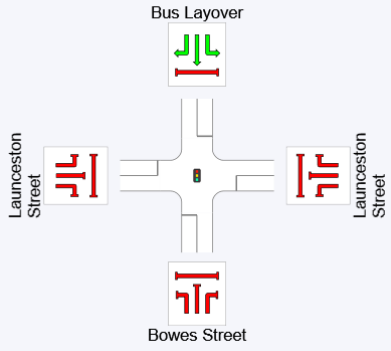
Phase A **REF**



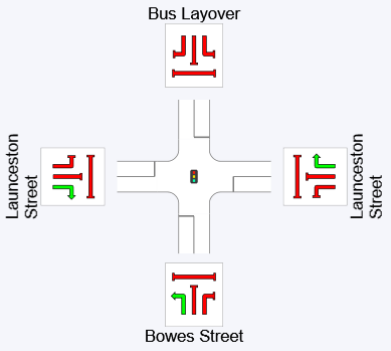
Phase D



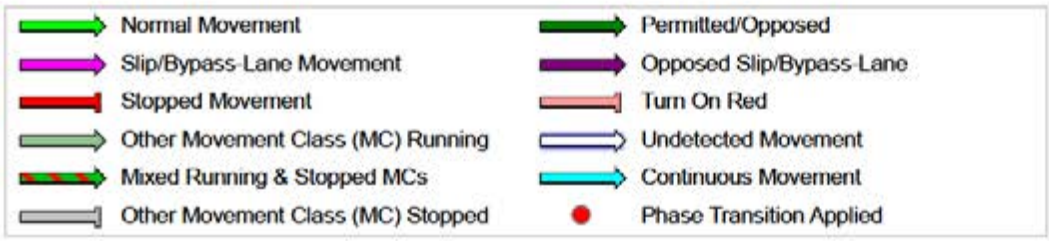
Phase E



Phase F



REF: Reference Phase
VAR: Variable Phase

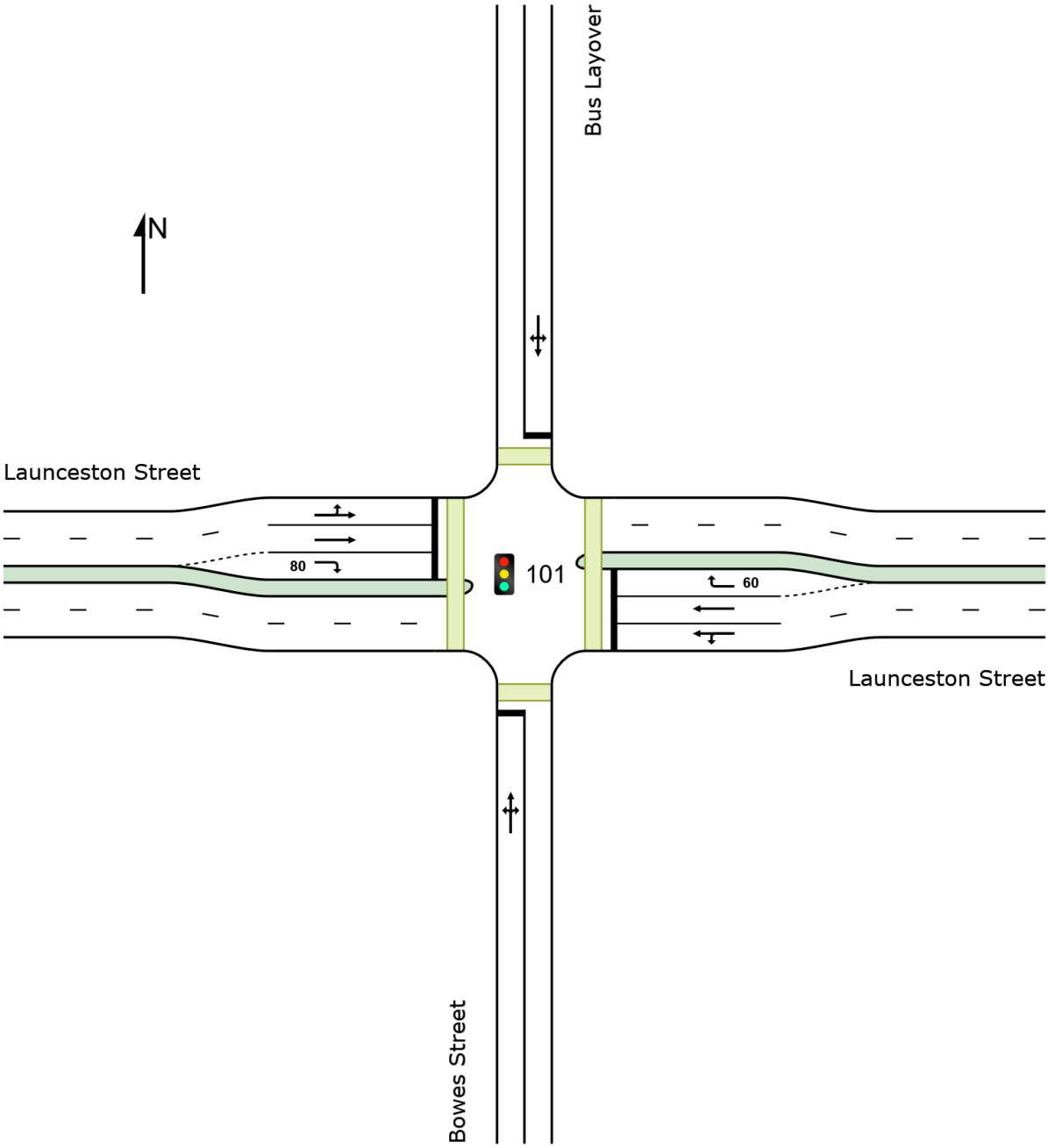


SITE LAYOUT

Site: 101 [Launceston / Bowes (Site Folder: Post Closure SAT Peak)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



MOVEMENT SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 74 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	78	24.3	78	24.3	*0.400	15.8	LOS B	2.8	23.5	0.90	0.78	0.90	42.2
2	T1	All MCs	1	0.0	1	0.0	*0.400	25.3	LOS B	2.8	23.5	0.90	0.78	0.90	44.3
3	R2	All MCs	52	16.3	52	16.3	0.400	31.1	LOS C	2.8	23.5	0.90	0.78	0.90	36.0
Approach			131	21.0	131	21.0	0.400	21.9	LOS B	2.8	23.5	0.90	0.78	0.90	40.3
East: Launceston Street															
4	L2	All MCs	62	15.3	62	15.3	0.139	17.4	LOS B	2.1	16.3	0.69	0.68	0.69	36.5
5	T1	All MCs	100	11.6	100	11.6	*0.139	22.4	LOS B	2.1	16.3	0.75	0.62	0.75	38.4
6	R2	All MCs	14	100.0	14	100.0	0.104	39.3	LOS C	0.5	6.1	0.92	0.69	0.92	26.2
Approach			176	19.8	176	19.8	0.139	22.0	LOS B	2.1	16.3	0.74	0.64	0.74	36.4
North: Bus Layover															
7	L2	All MCs	2	100.0	2	100.0	0.075	39.8	LOS C	0.4	4.7	0.91	0.65	0.91	20.6
8	T1	All MCs	7	100.0	7	100.0	*0.075	33.1	LOS C	0.4	4.7	0.91	0.65	0.91	38.1
9	R2	All MCs	1	100.0	1	100.0	0.075	39.8	LOS C	0.4	4.7	0.91	0.65	0.91	35.3
Approach			11	100.0	11	100.0	0.075	35.1	LOS C	0.4	4.7	0.91	0.65	0.91	34.0
West: Launceston Street															
10	L2	All MCs	1	0.0	1	0.0	0.124	26.1	LOS B	1.8	13.6	0.76	0.59	0.76	43.3
11	T1	All MCs	137	6.9	137	6.9	0.124	20.6	LOS B	1.8	13.6	0.76	0.59	0.76	38.4
12	R2	All MCs	60	15.8	60	15.8	0.296	39.5	LOS C	2.1	16.6	0.95	0.75	0.95	35.2
Approach			198	9.6	198	9.6	0.296	26.3	LOS B	2.1	16.6	0.82	0.64	0.82	37.0
All Vehicles			515	17.8	515	17.8	0.400	23.9	LOS B	2.8	23.5	0.82	0.68	0.82	37.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped	Dist]	Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed

	ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Bowes Street											
P2 Full	2	2	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
East: Launceston Street											
P4 Full	1	1	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
North: Bus Layover											
P1 Full	1	1	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
West: Launceston Street											
P3 Full	1	1	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08
All Pedestrians	5	5	31.2	LOS D	0.0	0.0	0.92	0.92	185.1	200.0	1.08

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 101 [Launceston / Bowes (Site Folder: Post Closure SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 74 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: SCATS custom
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F
Reference Phase: Phase A

Phase Timing Summary

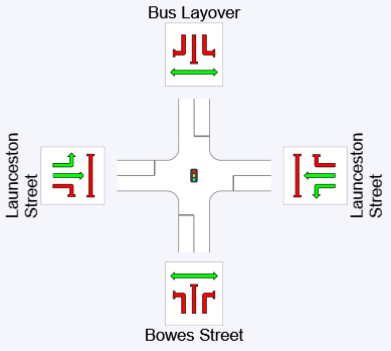
Phase	A	D	E	F
Phase Change Time (sec)	0	28	46	59
Green Time (sec)	22	12	9	9
Phase Time (sec)	28	16	15	15
Phase Split	38%	22%	20%	20%
Phase Frequency (%)	100.0	59.3[2]	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

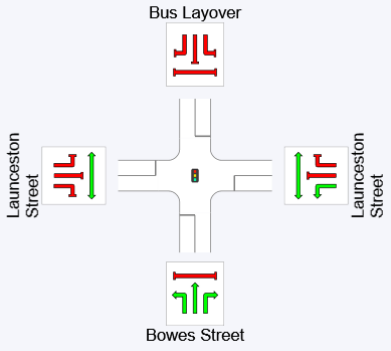
2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Output Phase Sequence

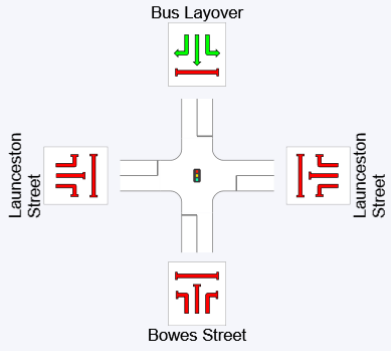
Phase A **REF**



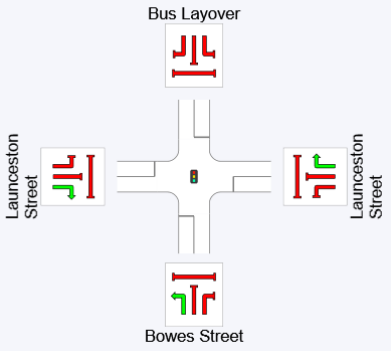
Phase D



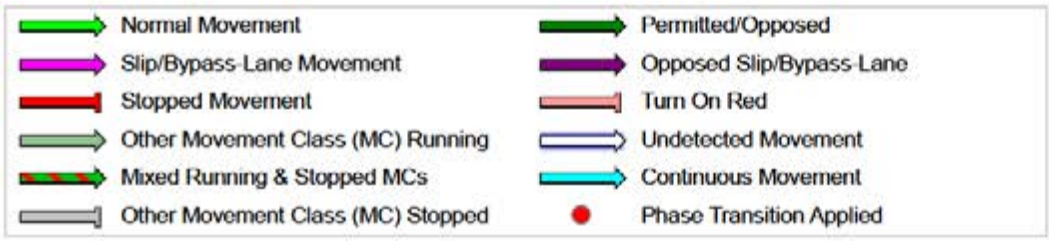
Phase E



Phase F



REF: Reference Phase
VAR: Variable Phase

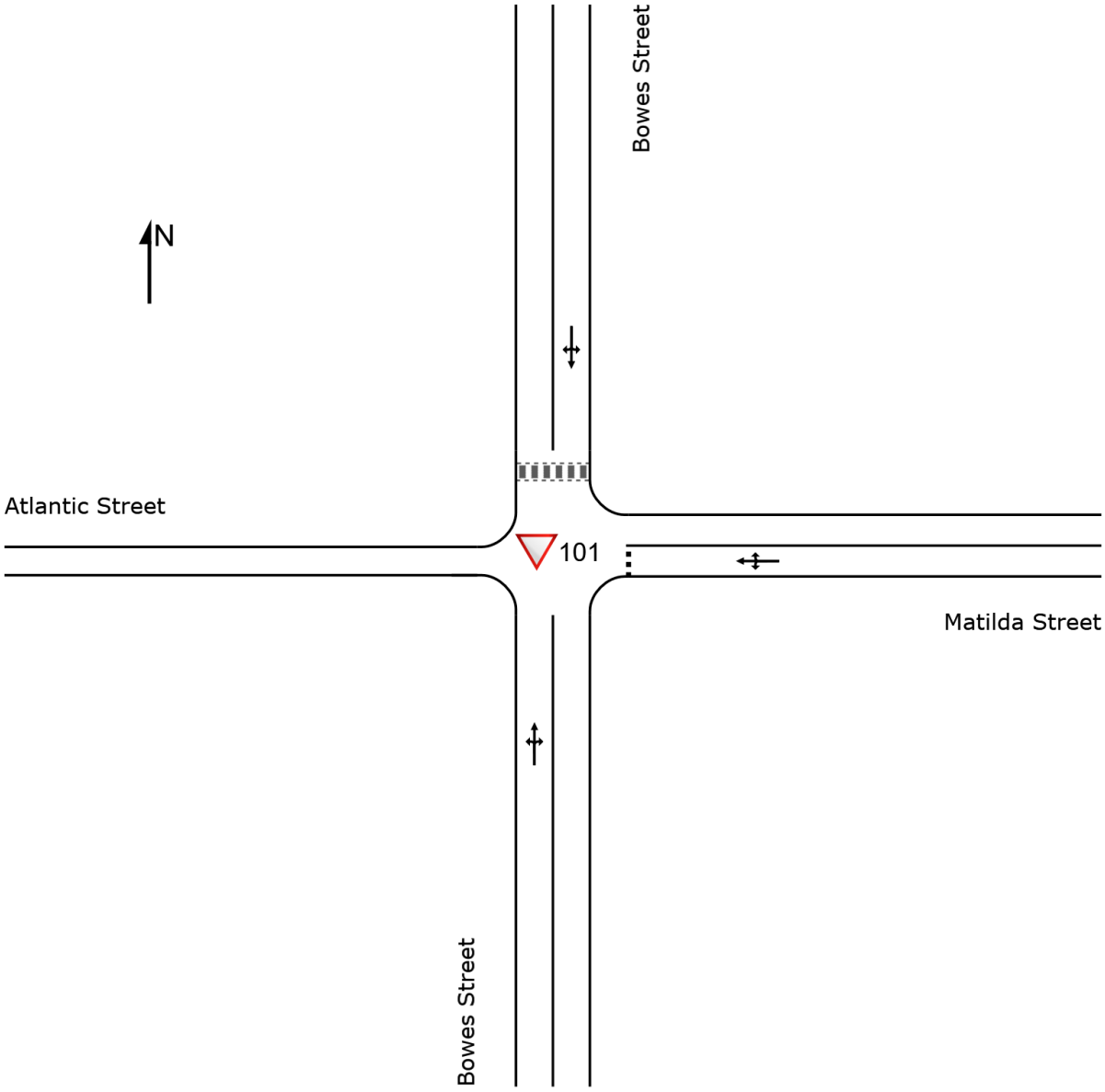


SITE LAYOUT

Site: 101 [Bowes / Matilda (Site Folder: Existing SAT Peak)]

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

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



MOVEMENT SUMMARY

▽ Site: 101 [Bowes / Matilda (Site Folder: Existing SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.048	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	96	1.1	96	1.1	0.048	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.9
3	R2	All MCs	1	0.0	1	0.0	0.048	5.6	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			98	1.1	98	1.1	0.048	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.8
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.016	5.7	LOS A	0.1	0.4	0.24	0.56	0.24	52.3
5	T1	All MCs	1	0.0	1	0.0	0.016	4.9	LOS A	0.1	0.4	0.24	0.56	0.24	52.7
6	R2	All MCs	14	0.0	14	0.0	0.016	6.2	LOS A	0.1	0.4	0.24	0.56	0.24	52.1
Approach			16	0.0	16	0.0	0.016	6.1	LOS A	0.1	0.4	0.24	0.56	0.24	52.2
North: Bowes Street															
7	L2	All MCs	14	7.7	14	7.7	0.046	5.6	LOS A	0.1	0.5	0.06	0.18	0.06	55.6
8	T1	All MCs	63	1.7	63	1.7	0.046	0.0	LOS A	0.1	0.5	0.06	0.18	0.06	58.4
9	R2	All MCs	11	10.0	11	10.0	0.046	6.5	LOS A	0.1	0.5	0.06	0.18	0.06	55.2
Approach			87	3.6	87	3.6	0.046	1.7	NA	0.1	0.5	0.06	0.18	0.06	57.5
All Vehicles			201	2.1	201	2.1	0.048	1.3	NA	0.1	0.5	0.05	0.13	0.05	58.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▽ Site: 101 [Bowes / Matilda (Site Folder: Post Closure SAT Peak)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

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

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h]	Demand Flows [HV %]	Arrival Flows [Total veh/h]	Arrival Flows [HV %]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh]	95% Back Of Queue [Dist m]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Bowes Street															
1	L2	All MCs	1	0.0	1	0.0	0.048	5.5	LOS A	0.0	0.1	0.01	0.01	0.01	57.4
2	T1	All MCs	96	1.1	96	1.1	0.048	0.0	LOS A	0.0	0.1	0.01	0.01	0.01	59.8
3	R2	All MCs	1	0.0	1	0.0	0.048	5.7	LOS A	0.0	0.1	0.01	0.01	0.01	57.2
Approach			98	1.1	98	1.1	0.048	0.1	NA	0.0	0.1	0.01	0.01	0.01	59.8
East: Matilda Street															
4	L2	All MCs	1	0.0	1	0.0	0.066	5.7	LOS A	0.2	2.5	0.32	0.60	0.32	51.7
5	T1	All MCs	1	0.0	1	0.0	0.066	5.0	LOS A	0.2	2.5	0.32	0.60	0.32	52.1
6	R2	All MCs	42	67.5	42	67.5	0.066	8.0	LOS A	0.2	2.5	0.32	0.60	0.32	48.9
Approach			44	64.3	44	64.3	0.066	7.9	LOS A	0.2	2.5	0.32	0.60	0.32	49.0
North: Bowes Street															
7	L2	All MCs	41	66.7	41	66.7	0.068	6.3	LOS A	0.1	0.6	0.04	0.27	0.04	53.0
8	T1	All MCs	63	1.7	63	1.7	0.068	0.0	LOS A	0.1	0.6	0.04	0.27	0.04	58.4
9	R2	All MCs	11	10.0	11	10.0	0.068	6.5	LOS A	0.1	0.6	0.04	0.27	0.04	55.2
Approach			115	25.7	115	25.7	0.068	2.9	NA	0.1	0.6	0.04	0.27	0.04	56.1
All Vehicles			257	23.0	257	23.0	0.068	2.7	NA	0.2	2.5	0.08	0.23	0.08	56.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

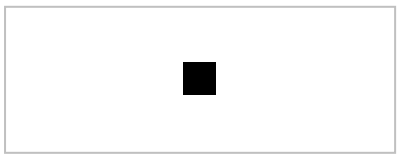
From: Roberts, Martin
To: Schedule 2.2(a)(ii); Illy, Sarah; Grand Central Towers; Schedule 2.2(a)(ii); Schedule 2.2(a)(ii); Chartres, Hamish
Cc: Sakib, Morsalin; CIT Campus Woden
Subject: RE: Woden Transport Interchange works update
Date: Wednesday, 12 March 2025 1:43:00 PM
Attachments: image003.png
image004.png
image005.png

Hi Schedule 2.2(a)(ii)

We are keen to set up a follow-up meeting, is it possible to get some calendar options from you and Schedule 2 and we work to coordinate and get set-up.

Regards

Martin Roberts | Construction Director
Ph: Schedule 2.2(a)(ii) **| Email:** martin.roberts@act.gov.au
CIT Woden Campus | | Delivery – Health, Education, Justice
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra ACT 2601



From: Schedule 2.2(a)(ii)
Sent: Monday, 3 March 2025 4:20 PM
To: Illy, Sarah <Sarah.Illy@act.gov.au>; Grand Central Towers <gctbm@civium.com.au>; Schedule 2.2(a)(ii)
Chartres, Hamish <Hamish.Chartres@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>
Cc: Sakib, Morsalin <Morsalin.Sakib@act.gov.au>; CIT Campus Woden <citcampuswoden@act.gov.au>
Subject: RE: Woden Transport Interchange works update

OFFICIAL

Sarah

Thank you for your email and for the meeting last week.

The meeting provided an opportunity to better understand the proposed road and traffic

changes, given that public traffic had been diverted onto the private road of GCT.

Some of the important points from our perspective that were mentioned but need to be highlighted are:

1. That the road through the under croft is a private access way for the exclusive use of GCT.
2. Public traffic has been diverted by the Authority onto the GCT private access road without any agreement that deals with the terms of use.
3. Given the diversion that has been established, the Executive Committee for GCT are extremely concerned by the high risk to public safety and personal property and want a formal agreement in place to deal with that.
4. Any agreement needs to acknowledge the damage that has occurred as a result of public traffic that has been diverted onto the GCT private road. The agreement also needs to include repairs for all existing and future damage as a result of the diversion arranged by the Authority.
5. The EC agree that the meeting was very informative and in principal support the Authority with its efforts that are considered to benefit the wider community.
6. As discussed and agreed at the meeting, the disruption to GCT along its frontage to Bowes St will be for a maximum period of 6 months, from the commencement of works.
7. During the 6-month work period, the street frontage to GCT would be altered for temporary traffic flows to accommodate broader roadworks, however after the 6 month period all existing conditions would be fully reinstated by the Authority.
8. During the temporary works period, a widened crossover section would be provided by the Authority on the Northeast corner of Bowes St. This would make it easier for workers and occupants of GCT to use trollies to transition from the street to the footpath.
9. Additionally, on completion of the temporary works, signage would be erected at Bowes St Northeast intersection signalling that Bowes St along the GCT frontage is a local vehicle accessway for GCT residence.

Sarah, it is important that we arrange a further meeting with Hamish, you, Schedule 2.2 and I, to further address the comments above and so we can move forward, as a matter of urgency. To make it easier, a Teams would be fine. Also, as I mentioned to Hamish on Friday, the building sustained further damage due to a semi-trailer hitting the Alucobond awning on the Northeast corner.

I look forward to your reply.

Schedule 2.2(a)(ii)

message by mistake, please reply to this message and follow with its deletion, so that we can ensure such a mistake does not occur in the future.

From: Illy, Sarah <Sarah.Illy@act.gov.au>
Sent: Thursday, 27 February 2025 4:49 PM
To: Grand Central Towers <gctbm@civium.com.au>; Schedule 2.2(a)(ii) [redacted] Chartres, Hamish <Hamish.Chartres@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>
Cc: Sakib, Morsalin <Morsalin.Sakib@act.gov.au>; CIT Campus Woden <citcampuswoden@act.gov.au>
Subject: RE: Woden Transport Interchange works update

OFFICIAL

Hi Schedule 2.2(a)(ii) [redacted]

Thank you again for your time on Monday to discuss the proposed Callam Street staging works and associated Bowes Street detour. Below is a summary of the key points raised and follow-up actions.

Please let me know if anything is missing from these minutes in terms of issues discussed and next steps.

Meeting attendees:
Grand Central Towers: Schedule 2.2(a)(ii) [redacted]
iCBR: Hamish Chartres, Martin Roberts, Sarah Illy
Lendlease: Schedule 2.2(a)(ii) [redacted]

Questions raised by Grand Central Towers:

- Why can't the existing pull-in lane in front of Grand Central Towers be maintained?
  - iCBR/Lendlease confirmed in the meeting that as Bowes Street was being transformed into a two-way street (to facilitate the Callam Street staging works/Interchange detour), vehicles turning into incoming bus traffic to access a pull-in lane would be an illegal manoeuvre, which wouldn't be approved by Roads ACT when reviewing the traffic guidance scheme proposal.
- Where can the pull-in lane for Grand Central Tower removalists be re-located to in the interim?
  - iCBR discussed creating a pull-in lane near the Grand Central Towers tunnel exit and noted that they would liaise with TCCS to ensure the area was policed to avoid a repeat of tradespeople parking along this stretch.
- Will the current Grand Central Towers pull-in lane be put back as is once the Transport Interchange works are completed? And for how long will the detour be in place?
  - iCBR confirmed that the pull-in lane would be reinstated and the Bowes Street section outside Grand Central Towers would return to a one-way street once the new Transport Interchange became operational.

Follow-ups for iCBR/Grand Central Towers

- iCBR/Lendlease to confirm the staging and timing of the Callam Street closures and traffic diversions.
- iCBR to update the traffic movement maps (once RoadsACT have approved the proposed Traffic Guidance Scheme) and share digital versions with Grand Central

Towers.
- iCBR to provide key messages to Grand Central Towers for relaying to their residents and removals/rubbish collection people as needed.
- iCBR/Lendlease to review the wayfinding signage around the Temporary Interchange to discourage people from walking down the side of Grand Central Towers and using the tunnel to access Bowes Street.
- Grand Central Towers to advise any preferences for a date/time for iCBR to run another information session in the Grand Central Towers foyer advising their residents on the upcoming changes.

Many thanks & kind regards,

Sarah

Sarah Illy | Director, Communications, Culture and Industry
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Making flexible work - If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.

-----Original Appointment-----
From: Illy, Sarah
Sent: Wednesday, 12 February 2025 10:53 AM
To: Illy, Sarah; Grand Central Towers; Schedule 2.2(a)(ii) ; Roberts, Martin
Cc: Chartres, Hamish; Cataldo, Alexander; Sakib, Morsalin
Subject: Woden Transport Interchange works update
When: Monday, 24 February 2025 10:15 AM-10:45 AM (UTC+10:00) Canberra, Melbourne, Sydney.
Where: Meet outside Grand Central Towers main entrance

Hi Schedule 2.2(a)(ii) hope this time works OK for you both to catch up on the latest traffic guidance scheme for the Woden Transport Interchange staging works.

Kind regards,
Sarah

Sarah Illy | Director, Communications, Culture and Industry
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.

From: Illy, Sarah
To: Schedule 2.2(a)(ii)
Cc: Schedule 2.2(a)(ii); Navarro, Tania
Subject: For your feedback> Comms Plan and Talking Points for the Transport Interchange staging works | road closures
Date: Friday, 14 March 2025 10:29:00 AM
Attachments: CIT Woden Campus Project - P2 Staging - specific Communications Plan - cleared by TN#2.docx
CIT Woden Campus Project - Transport Interchange staging works - Talking Points - cleared by TN#2.docx
image001.png

Hi Schedule 2.2 and happy Friday!

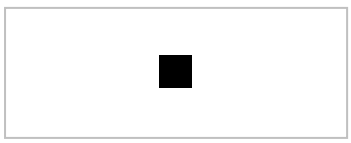
Please find attached the draft Talking Points and Comms Plan to inform the community and users of the Woden Temporary Interchange about the upcoming staging works and associated road closures and bus re-routes.

As per your kind offer, it would be great to have your feedback on the language proposed for communicating the changes to the public. Feel free to suggest any comments/edits in tracked changes to both these documents and happy to jump on a call if you have any queries.

I am also developing separate Comms Plans to cover the likely interface between the Transport Interchange at the time of opening of the new CIT Woden as well as working directly with Transport Canberra on the comms for when the new Interchange becomes operational.

Many thanks and have a great weekend,
Sarah

Sarah Illy
Director, Communications & Engagement | Health, Education, Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra



Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*

From: Schedule 2.2(a)(ii)
Sent: Friday, 14 March 2025 8:00 AM
To: Illy, Sarah <Sarah.Illy@act.gov.au>
Cc: Schedule 2.2(a)(ii)
Subject: Re: Notes from PTCBR / iCBR meeting on 26 February 2025 - CIT Campus Woden project

Hi Sarah,

That all sounds great, thank you!

I'll keep an eye out for those documents to come through.

Cheers,
Schedule 2.2

On Thu, Mar 13, 2025 at 8:25 AM Illy, Sarah <Sarah.Illy@act.gov.au> wrote:

> OFFICIAL
>
> Hi Schedule 2.2(a) hope your week is going well. Apologies for the delay in getting back to you. I'll send through shortly the latest Comms plan and draft key messages for the Transport Interchange staging works and associated road closures and bus re-routes.
>
> As you'll see in the key staging milestones, enabling works on Bowes Street (lane widening, kerb modification), which are due to start end March/early April, are required before any traffic changes and bus diversions can be implemented.
>
> Happy to jump on a call to discuss the proposed communications and engagement schedule and content once you've had a chance to review the comms plan. and talking points.
>
> Many thanks & kind regards,
> Sarah
>
> Get Outlook for Android
>
> ---
>
> **From:** Schedule 2.2(a)(ii)
> **Sent:** Wednesday, March 12, 2025 4:43:29 pm
> **To:** Illy, Sarah <Sarah.Illy@act.gov.au>
> **Cc:** chair@ptcbr.org <chair@ptcbr.org>; Cahif, Ashley <Ashley.Cahif@act.gov.au>;

Navarro, Tania <Tania.Navarro@act.gov.au>; Drysdale, Jodie <Jodie.Drysdale@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Bell, HayleyC <HayleyC.Bell@act.gov.au>; CIT Campus Woden <citcampuswoden@act.gov.au>
Subject: Re: Notes from PTCBR / iCBR meeting on 26 February 2025 - CIT Campus Woden project

Dear Sarah,

Likewise, great to meet you the other week. Thank you for the notes – they cover all the key items [redacted] and I took from the meeting. Big thanks to you and your colleagues for making the time to discuss the projects with us, we really appreciate it.

We didn't get a sense of the timeline for some of the items in the follow-ups list. I know that won't be possible to provide for all items, but we would be grateful for more clarity on when changes will be happening to the temporary Woden Interchange and for how long those changes will be in place.

As discussed, PTCBR is very keen to contribute to development of public-facing messaging about those changes. We hope that the changes can be announced well in advance of them happening.

Look forward to talking more – please don't hesitate to get in touch by phone or email.

Kind regards,
[redacted]

On Thu, 6 Mar 2025, 9:29 pm Illy, Sarah, <Sarah.Illy@act.gov.au> wrote:

> OFFICIAL
>
> Dear [redacted]
>
> Lovely to e-meet you both last week. Below is a summary of the points discussed in our meeting regarding the Woden Public Transport Interchange.
>
> Please let me know if anything is missing from these notes in terms of issues raised and next steps.
>
> **Meeting attendees**:

PTCBR: Schedule 2.2(a)(ii)
iCBR: Ashley Cahif, Jodie Drysdale, Tania Navarro, Martin Roberts, Sarah Illy

Questions raised by PTCBR:

- How will pedestrian, private vehicle and bus traffic be safely and effectively managed with the new Interchange?
- With the Callam Street permanently closed between Bradley and Matilda streets, how will this be signalled? In particular, how will the intersection of Callam and Matilda, and Callam and Bradley streets function in terms of traffic lights and pedestrian crossings?
    - Of particular interest is the southern intersection where Callam Street meets Bradley Street. Concerns raised over there not being a pedestrian crossing marked at this location on the plans and the need to provide ways for people to safely access the Interchange.
- Will the small car park abutting Yarralumla Creek, near Callam offices, be re-opened and how will this be accessed, particularly in light of the planned Woden Community Centre development and any other land release initiatives?
- What will happen with the Hellenic Club car park and how will this be accessed once the new Interchange is operational?
- The Temporary Interchange is sandwiched between a blank facade and construction hoarding with blind corners and old posts from previous interchange. What could iCBR do to make it a safer and more inviting area for people using the Temporary Interchange in the interim?

Follow-ups for iCBR/PTCBR:

- iCBR to work with TCCS on anticipating pedestrian movement from bus timetables.
- iCBR to provide more detailed and up-to-date plans of the new Public Transport Interchange showing all signalised street crossings and considered risk points of managing pedestrian movements.
- iCBR to confirm parking availability and access around the new Interchange including whether the Temporary Interchange will revert to a car park given the Hellenic Club development proposal.
- iCBR to clarify the scope of the Bradley-Bowes Street extension, including removing any relics from the previous Woden interchange.
- iCBR to confirm any land release intentions along Callam Street.
- iCBR to work with Lendlease on how to improve the site hoarding and the plans for opening up fenced-off areas as construction near completion.
- iCBR to share draft Woden Public Transport Interchange Comms Plans including indicative staging maps with PTCBR.
- PTCBR to provide feedback and advice on the plans, indicative stage maps and key messages contained in the Interchange Comms Plans before they go out to the public.

Many thanks & kind regards,

Sarah

Sarah Illy | Director, Communications, Culture and Industry

M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*

-----Original Appointment-----
From: Navarro, Tania <Tania.Navarro@act.gov.au>
Sent: Monday, 3 February 2025 1:47 PM
To: Navarro, Tania; chair@ptcbr.org; Drysdale, Jodie; Cahif, Ashley
Cc: Chartres, Hamish; Illy, Sarah; Schedule 2.2(a)(ii); Bell, HayleyC; Roberts, Martin
Subject: Briefing CIT Campus Woden project - PTCBR/iCBR
When: Wednesday, 26 February 2025 4:00 PM-4:45 PM (UTC+10:00) Canberra, Melbourne, Sydney.
Where: Microsoft Teams Meeting

Meeting to provide an update to PTCBR on the CIT Campus Woden project, including new Woden Public Transport Interchange.

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 443 141 609 02
Passcode: C6sR6f3Y

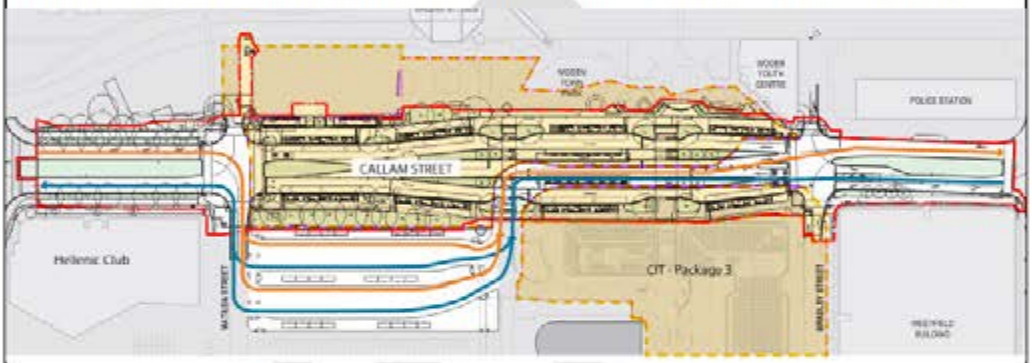
For organizers: Meeting options

Org help | Privacy and security

> not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.
> ----------

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

Background	As part of the CIT Woden Campus project, a new public transport interchange is being delivered. A temporary Woden bus interchange was established to provide a continued public transport service during the construction period. The current staging has buses passing through both ends of Callam Street to access the temporary interchange, as indicated in the map below. This staging fragments the construction zone and restricts access to multiple watermain crossings at both ends of the Woden Public Transport Interchange footprint. *(blue denotes northbound movements, orange denotes southbound movements).*  A full closure of Callam Street to all non-construction traffic and a phased re-routing of buses along adjacent streets (Bowes / Matilda) is required to enable site works to be completed. It is anticipated that the staging works at the Launceston/Callam Street section will take approximately 6-8 weeks to complete after which time Callam Street North would be re-opened to buses. The closure of Callam Street North would be closely followed by the shutting off of Callam Street South (at Bradley Street) to buses and this section would remain closed to all traffic until the completion of the new Public Transport Interchange. Enabling works (lane widening, kerb modification) are expected to start end March 2025 with full staging works anticipated to commence in April 2025, following final approval from RoadsACT, Bus Operations and Transport Workers Union. Coordinating the safe installation of new services within a highly serviced area is complex and has impacted program delivery. The revised completion date for the new Woden Public Transport Interchange is anticipated for Q4 2025. Transport Canberra will advise when the new Interchange will become operational and a timetabling change will be announced.

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

ACT Government

Stakeholder engagement:

Detailed consultation has been conducted with Bus Operations, Transport Workers Union, RoadsACT and Emergency Services Agency on the proposed Temporary Traffic Management Plans for the Callam Street closures to ensure operational safety and efficiency.

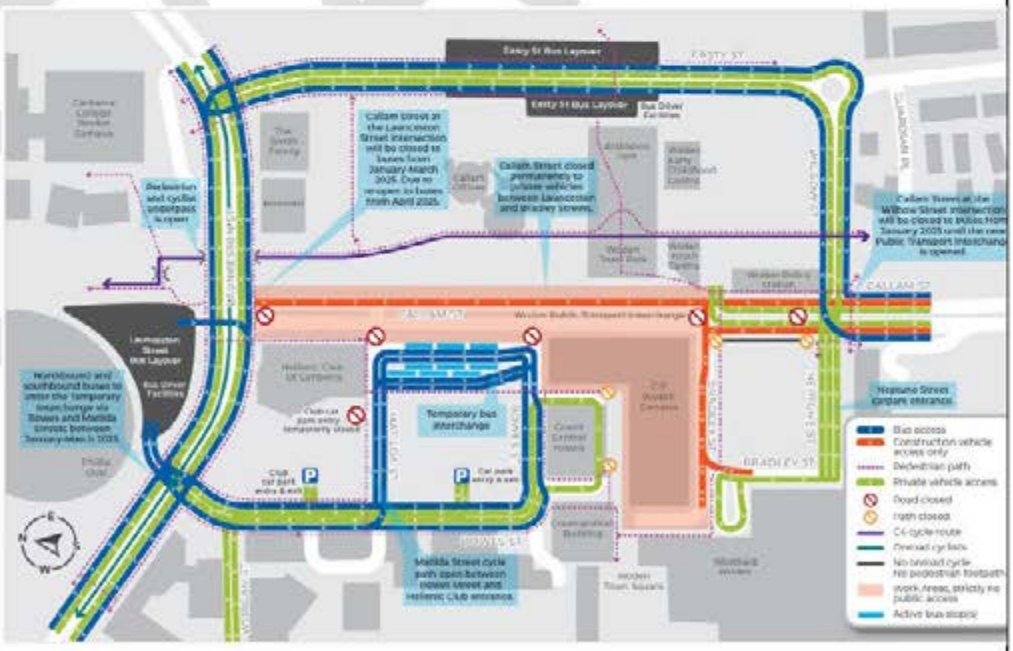
A door-knocking of local businesses in the immediate vicinity of the Temporary Interchange was conducted late 2024 to give a heads-up of the upcoming changes. Several on-site meetings have also been held with the Hellenic Club and Grand Central Towers to review the proposed Traffic Guidance Scheme and incorporate requests where possible.

The following Precinct maps have been created to help communicate the changes in vehicle and pedestrian movement around the Temporary Interchange. It is anticipated that these maps will be used in stakeholder information packs and at community information sessions.

See Communications & Engagement Schedule for further detail on proposed stakeholder and community information sharing activities.

1. **Closure of Callam Street North and South**

Note: indicative map below – awaiting approved staging program/TGS to finalise



With the closure of the northern end of Callam Street, southbound buses would enter the temporary interchange through Matilda Street and exit through

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

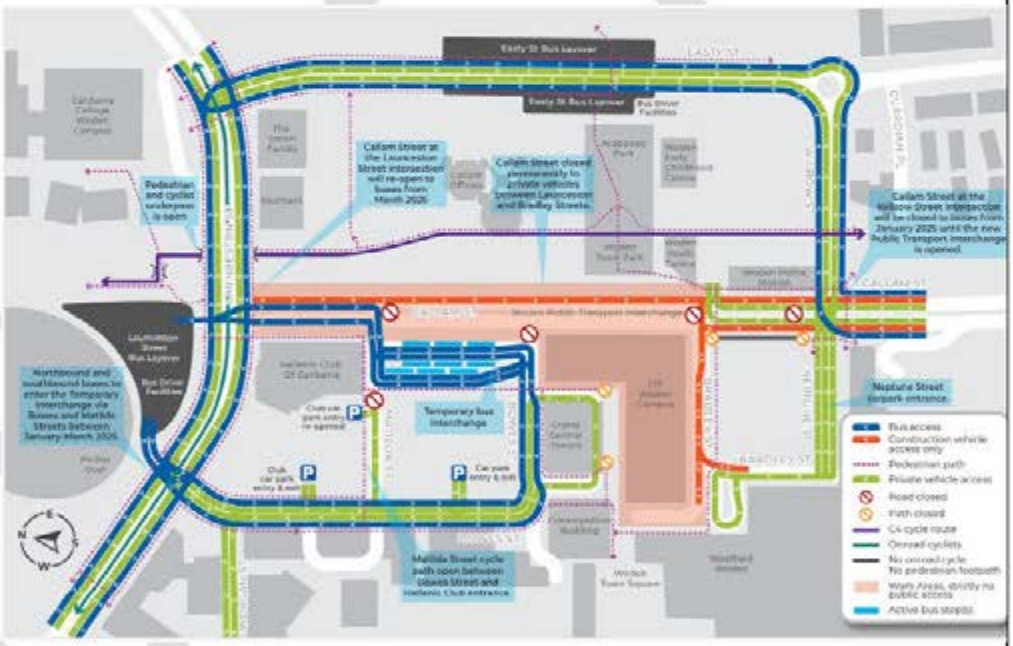
Bowes Street outside Grand Central Towers. Northbound buses would do the opposite – entering through Bowes Street and exiting through Matilda Street.

Traffic management officers will be positioned at the intersection of Matilda and Bowes street to prioritise the movement of buses, alleviating congestion and any backing up of buses at the interchange.

Access to the Hellenic Club car park from Matilda Street would be closed for the duration of the works. Early stakeholder engagement with the Hellenic Club on the upcoming traffic changes has revealed significant concerns with impact to their business and ongoing inconvenience through the prolonged works program.

2. Re-opening of Callam Street North

Note: indicative map below – awaiting approved staging program/TGS to finalise



The re-opening of Callam Street North in early March would take buses off Matilda Street and allow for southbound buses to enter the temporary interchange from the Launceston Street access route and exit through Bowes Street outside Grand Central Towers. Northbound buses would do the opposite – entering through Bowes Street and exiting through Callam Street North at Launceston Street.

Early stakeholder engagement with Grand Central Towers on the upcoming traffic changes has revealed significant concerns with impact on their deliveries and removalists.

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

Communication goals?	To ensure affected stakeholders and customers are aware of proposed temporary bus routes around the Woden precinct and the associated impacts.
Key issues/ sensitivities	Safety of people moving between the interchange and Woden Town Centre. Negative stakeholder sentiment and complaints related to the traffic changes.
Stakeholders/ audience	**Transport** - Bus drivers - Customers using the Woden Temporary Bus Interchange **Nearby businesses, residences and places of work** - Grand Central Towers – strata and residents - The Hellenic Club - Westfield Woden - 2-6 Bowes Street ((Health Directorate) - Abode Hotel - 1 Bowes Street - IP Australia Building - Charles Perkins House - Centrelink - Lili Skin - Laundromat - Convenience store - Barber (name TBC) - Canberra College - Users of Matilda Street car park **Special interest groups** - PT CBR - Living Streets - Pedal Power - Taxi, rideshare and delivery companies **Other ACT Government** Access Canberra – parking and Matilda Street car park
Does it cross over other Directorates?	TCCS, Access Canberra
Spokesperson/s	Ash Cahif, Deputy Director General, iCBR

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

Key messages

- The current staging of buses around the temporary transport interchange has them passing through a large section of the new Woden Public Transport Interchange footprint.
- This staging is fragmenting the construction site as preparation works for the new Interchange cannot be conducted along sections of Callam Street that are still open to the public.
- To enable construction works on the new Woden Public Transport Interchange to progress, a revised staging of the temporary interchange is required.
- To facilitate works access to the northern end of the site, Callam Street will be fully closed off to all non-construction traffic at Launceston Street from end March 2025 for 6-8 weeks.
- The closure of Callam Street south will follow shortly afterwards and will remain closed until works on the new Public Transport Interchange are complete.
- Buses heading north and south through the temporary interchange will be redirected along Bowes and Matilda Streets (see maps).
- Access to the Hellenic Club car park from Matilda Street will be closed off but access to the Hellenic Club loading dock will be retained for delivery drivers.
- No changes to bus platforms are expected.

Pedestrian movements

- To allow for the safe movement of pedestrians, new crossings will be placed to the north of the interchange, near the Matilda and Callam Street intersection and in-front of Grand Central Towers.
- Pedestrians moving between Callam Street and the Temporary Bus Interchange are encourage to take the revised routes shown on the updated precinct maps.
- To ensure safety pedestrians using the Matilda Street carpark should take extra care whilst crossing Bowes Street due to increased usage by buses.

P2 Staging Works Milestones

Milestone	Date
Draft Traffic Guidance Scheme (TGS) for staging works submitted	August 2024
Final TGS lodged and approved	March 2025
Community and stakeholder communication activities	Mid-March – early April 2025
Enabling works (Bowes Street widening and kerb modification)	End March – early April 2025
Commencement of bus trials	Early April 2025
Closure of both ends of Callam Street to buses	Mid-April 2025
Completion of Callam Street North staging works	Mid-June 2025
Completion of Callam Street South staging works	Q4 2025

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

Communications and engagement schedule

When	What	How	Who (lead/ support)
Ongoing – March 2025	Detailed consultation with Bus Operations, Transport Workers Union, RoadsACT and ESA	Fortnightly meetings with partner directorates and advisory bodies	iCBR / TCCS
Ongoing – March 2025	Stakeholder and Special Interest Group (SIG) consultation	Regular meetings with impacted stakeholders and advisory bodies	iCBR
Ongoing – March 2025	Preparation of communication collateral detailing the traffic changes	CIT Woden Campus precinct maps showing bus re-routes and pedestrian movement	iCBR
Mid-March 2025	Construction Information Group (CIG) update	Online meeting and minutes	Lendlease / iCBR
March 2025	Information letter sent to subscribers of CIT Woden Campus Project updates	eDM to subscriber list sent through Campaign Monitor	iCBR
End March 2025	Bus Driver notification of diversion via Matilda Street	Update sent through standard TCCS channels	TCCS / iCBR
End March 2025	Targeted information sessions for impacted stakeholders	In-person meetings at stakeholder premises	iCBR / Lendlease
End March 2025	Community information sessions	Pop-ups at Temporary Interchange and Woden Hub	iCBR
Early April 2025	Wayfinding signage	Additional signage around the Temporary Interchange	Lendlease / iCBR
From April 2025	Social content	Social posts on ACT Government channels	iCBR / TCCS / CMTEDD
From April 2025	Web page information	Updates to Built for CBR, CIT Woden Campus & TCCS websites	iCBR / TCCS / CMTEDD

Communications Plan

Project: CIT Woden Campus – P2 staging works
Directorate/Business Unit: iCBR (CIT Woden Project) / TCCS
Launch/release date: March 2025

When	What	How	Who (lead/ support)
From April 2025	Proactive media responses	Various channels	iCBR / TCCS
From April 2025	Construction Works Notifications	Digital and hard copy delivered to CIG members Digital copy uploaded to CIT Woden Campus website	Lendlease/ iCBR
April 2025	Construction Activity Update	Printed and digital newsletter to approx. 2,500 local businesses and residents within the site precinct	
Mid-April 2025	Construction Information Group (CIG) update	Online meeting and minutes	Lendlease / iCBR
May 2025	CIT Woden Campus Project Update (final edition)	Printed and digital newsletter to approx. 12,500 local businesses and residents in surrounding suburbs	iCBR
June 2025	Information letter sent to subscribers of CIT Woden Campus Project updates	eDM to subscriber list sent through Campaign Monitor	iCBR
June 2025	Bus Driver notification of diversion via Bowes Street	Update sent through standard TCCS channels	TCCS / iCBR
June 2025	Community information sessions (to include interface with CIT Woden Campus opening)	Pop-ups at Temporary Interchange and Woden Hub	iCBR

ACT Government

TALKING POINTS

CIT WODEN CAMPUS PROJECT
Woden Public Transport Interchange
Staging Works | Callam Street closures

Date: *12 March 2025*

- A modern light-rail enabled public transport interchange is being built in Woden which will support significantly improved bus services while enhancing public transport connectivity to the area.
- The Woden Public Transport Interchange will have more bus stops, passenger-friendly shelters, active transport storage facilities and enhanced lighting and signage for a better and safer journey experience.
- A temporary Woden bus interchange was established to provide a continued public transport service during the construction period of the CIT Woden Campus.
- The current movement of buses around the temporary bus interchange has them passing through a large section of the new Woden Public Transport Interchange footprint.
- This is preventing construction access to multiple watermain crossings on Callam Street and bus diversions are required to enable all site works to be completed.
- To facilitate works access to the northern end of the site, Callam Street will be fully closed off to all non-construction traffic at Launceston Street from mid-April for 6-8 weeks.
- The closure of the southern end of Callam Street, at Bradley Street, will follow shortly afterwards and will remain closed until works on the new Woden Public Transport Interchange are complete.
- Buses heading north and south through the temporary interchange will be redirected along Bowes and Matilda Streets (see Map A).
- Once works at the northern end of Callam Street are complete, buses will re-access the temporary interchange via Launceston Street and continue onto Bowes Street (see Map B).
- Works notifications will be sent out to local businesses and residents end March / early April to inform those living and working in Woden of the bus and traffic changes.
- Public information pop-ups will be run throughout April to provide the community with the opportunity to find out more about the Woden Public Transport Interchange works.
- Additional wayfinding signage will be put in place around the Temporary Interchange to alert road users of the changes.
- Any timetabling changes will be advised by Transport Canberra. No changes to bus platforms are expected.
- Pedestrians moving between Callam Street and the Temporary Bus Interchange are encouraged to refer to the Woden Precinct Map for recommended access routes. The latest precinct map detailing the traffic changes can be found at Traffic Impacts - CIT Woden Campus.

Commented [SI1]: Exact date to be confirmed by Lendlease

ACT Government

TALKING POINTS

CIT WODEN CAMPUS PROJECT
Woden Public Transport Interchange
Staging Works | Callam Street closures

Date: *12 March 2025*

- To ensure the safe movement of pedestrians, new crossings will be placed to the north of the temporary interchange, near the Matilda and Callam Street intersection and in-front of Grand Central Towers.
- Pedestrians using the Matilda Street carpark should take extra care whilst crossing Bowes Street due to increased usage by buses.
- Entry to the Hellenic Club car park from Matilda Street will be temporarily closed off but access to the Hellenic Club loading dock will be retained for delivery drivers.
- For more information on the Woden Public Transport Interchange and to subscribe for updates, visit Home - CIT Woden Campus

Commented [SI2]: Awaiting final TGS to confirm exact locations

ACT Government

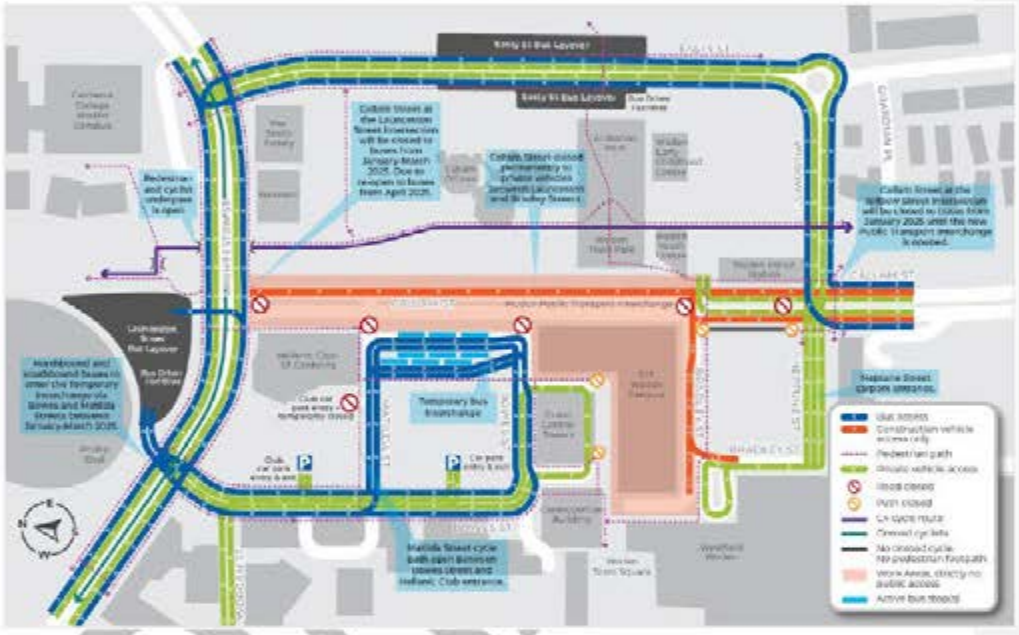
TALKING POINTS

CIT WODEN CAMPUS PROJECT
Woden Public Transport Interchange
Staging Works | Callam Street closures

***Date:** 12 March 2025*

Map A:

Traffic map showing closure of Callam Street North and South to all non-construction traffic



ACT Government

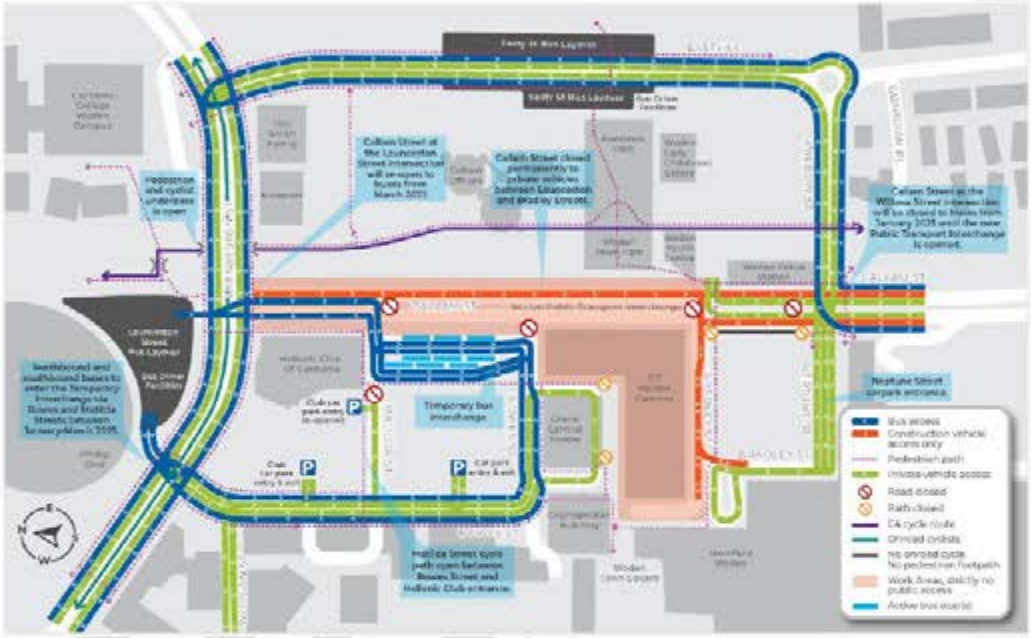
TALKING POINTS

CIT WODEN CAMPUS PROJECT
Woden Public Transport Interchange
Staging Works | Callam Street closures

***Date:** 12 March 2025*

Map B:

Traffic map showing re-opening of Callam Street North to buses



Lin, Mandy

From: Illy, Sarah on behalf of CIT Campus Woden
Sent: Thursday, 8 May 2025 2:18 PM
To: [redacted]; Grand Central Towers; Schedule 2.2(a)(ii)
Cc: Roberts, Martin; CIT Campus Woden
Subject: Bowes Street enabling works | Woden temporary bus interchange changes
Attachments: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1..pdf

OFFICIAL

Hi Schedule 2.2(a)(ii),

Hope that your week is going well. I understand from Lendlease that the enabling works for the Bowes Street modification outside Grand Central Towers are underway so just touching base to see if you had any concerns or issues at this stage.

Happy to set up a meeting with you next week noting that the bus trial for the Bowes/Matilda Street diversion is scheduled for w/c 19 May.

As previously mentioned, there were some sound suggestions around ensuring pedestrian safety made at the GCT residents information session we ran in March, and we are looking into how to incorporate these into the approved temporary traffic management plan for the road changes.

Many thanks and kind regards,

Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*

From: Schedule 2.2(a)(ii)
Sent: Tuesday, 25 March 2025 8:35 PM
To: Schedule 2.2(a)(ii)
[redacted]; Mick.Scott@act.gov.au; Schedule 2.2(a)(ii)
McArthur, Steve <Steve.McArthur@act.gov.au>
Cc: Illy, Sarah <Sarah.Illy@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Schedule 2.2(a)(ii)
[redacted]

Schedule 2.2(a)(ii)

Subject: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1.

Good evening All,

Please find the attached works notification for Enabling Works for Callam Street Shutdown Revision 1.Further details will be followed up soon.

Feel free to reach out to "Schedule 2.2(a)(ii)" or myself if you have got any queries.

Kind Regards

Schedule 2.2(a)(ii)

25 March 2025

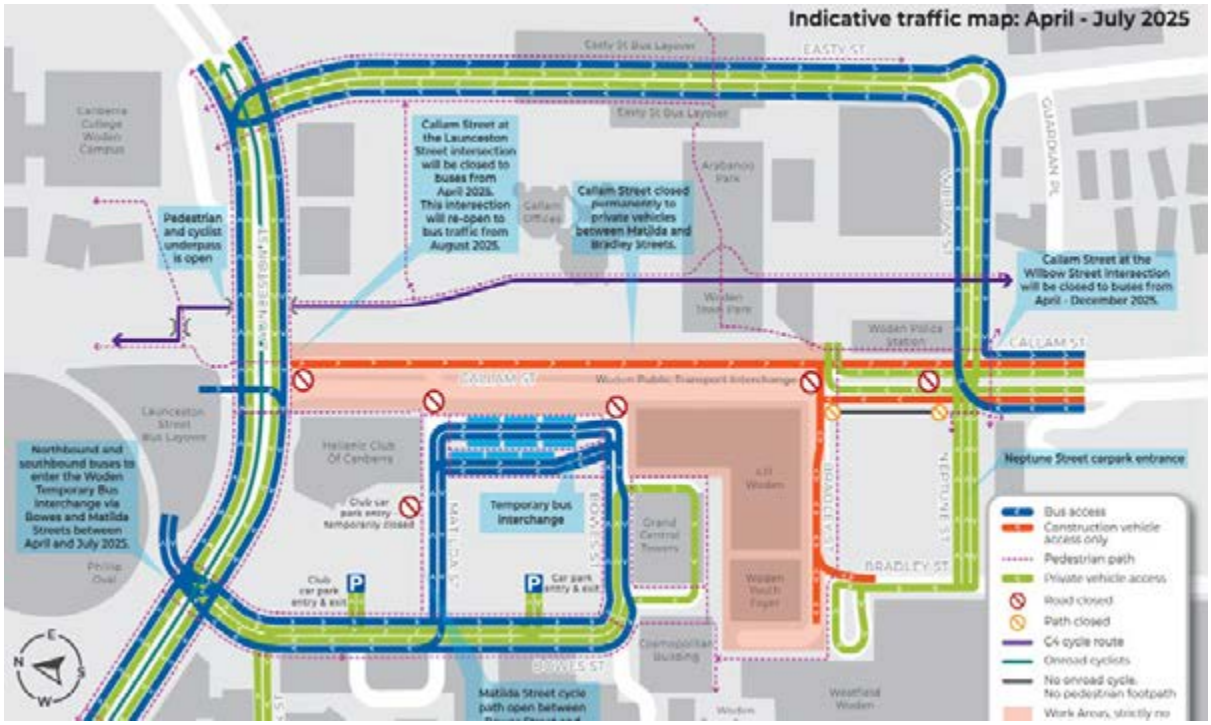
Dear Neighbour/Tenant

Works Notification

Project: CIT WODEN PROJECT	**Notification No: 53**
Work Duration: 01st April 2025 – 29th April 2025	**Date Issued: 25th March 2025**
Work Area/ Location: Bowes Street , Matilda Street and Launceston Street	
Description of Works: Enabling Works on Bowes and Matilda Street for Callam Street Shutdown	

Lendlease has been engaged by the ACT Government to deliver a new CIT campus, youth foyer and public transport interchange in Woden. This notification includes information about the upcoming enabling works associated with shut down of Callam Street including general construction information on working times and what to expect.

The shutdown of Callam street is required to facilitate the essentials infrastructure and utilities improvements on Callam Street for new Woden Transport Interchange. The below figure shows the extent of the road closure of the Callam Street. Buses from the temporary transport interchange will be diverted through Bowes Street and Matilda Street.



To achieve the successful diversion of current traffic from Callam Street onto Bowes Street and Matilda Street, we are required to perform the enabling works. The Works will include the following.

- Realignment of kerbs to suit the swept paths for buses
- Installation, modification and relocation of pram ramps
- Relocation of existing streetlights
- Relocation of pick off and drop off zone for Grand Central Towers
- Update the line marking and signs on Bowes Street to suit the new traffic
- Relocation of Buses yield line at Launceston Street/ bus depot and change in signals phasing.

Attachments to Works Notification:

- Updated TTMP is attached.

The works will be carefully staged to minimise the disruption to pedestrians, cyclists and general traffic. Temporary traffic management measures will be in place to ensure safety and access are maintained wherever possible.

Please note that some activities within the temporary interchange area will need to be undertaken at night, to reduce the impact on daily operations and traffic flow.

Once the enabling works are completed, a trial run will be conducted for Action Buses to ensure the functionality and safety before the closure of North Callam.

Further detailed information will be provided as in upcoming days regarding the timing and detailed staging of these upcoming works.

Working hours and what to expect

7:00am till 5:00pm Monday to Saturday.

Out of Hours work

Limited to within Temporary transport interchange. To be confirmed and coordinated with the Temporary transport interchange.

Construction impacts

Every effort will be made to minimise disruption to the local community during these works, however we anticipate:

- Changes in the pedestrians and cyclists access route.
- Changes in the commercial driveways of some stakeholders, staged access will be always maintained.
- Changes in the pram ramps at few locations.
- Changes in the pedestrian access way at few locations.

We will endeavour to minimise noise impacts where possible by:

- Turning off equipment and vehicles when not in use.

If you have any questions or would like to know more about the works, please contact Schedule 2.2(a)(ii) [redacted]

More project and roadwork information is available at www.act.gov.au/citcampuswoden

Yours sincerely,

Schedule 2.2(a)(ii) [redacted]

Legend

- Work Area
- Site Fence
- Long-term Site Fence (Colourbond)
- Bollards @ 4m Centres
- Bollards @ 4m Centres With Pedestrian Tape
- Fixed Delineator Bollards
- Pedestrian / Cyclist Access
- Traffic Barrier With Approved End Treatment

N

Existing sign to be covered or removed.

Crowd Control fence to be installed on shared access path.

Barriers to be implemented if required.

Existing sign to be covered or removed.

Existing sign to be covered or removed.

Existing R4-1(20) speed sign to be covered and replaced with R4-212(40) speed sign.

Pedestrian access to be maintained.

Loading dock access to be coordinated with ACTION buses.

For Continuation See TTE22-WCP3-Ph4-1-2

Notes

1. ALL TEMPORARY TRAFFIC MANAGEMENT DEVICES ARE TO BE IN ACCORDANCE WITH A.S. 1742.3 2019
2. ALL SIGN FACINGS SHALL BE OF CLASS 1 MATERIAL AS SPECIFIED AS/NZS 1906 1
3. EMPLOYEES ARE TO WEAR HIGH VISIBILITY CLOTHING
4. ALL SIGNS & DEVICES SHALL BE ERECTED WITHIN LINE OF SIGHT OF THE ROAD USERS. THEY SHALL NOT BE OBSCURED BY VEGETATION OR PARKED VEHICLES & SHALL BE POSITIONED WHERE THEY DO NOT BECOME A HAZARD TO PEDESTRIANS OR VEHICLES
5. ALL CONFLICTING SIGNAGE INCLUDING PARKING SIGNS WITHIN THE WORK SITE SHALL BE COVERED OR REMOVED WHILE WORK IS IN PROGRESS
6. ALL WORKERS (T1 5) & ALL SPEED RESTRICTIONS SHALL BE COVERED OUT OF WORKING HOURS
7. THE CONTRACTOR RESPONSIBLE FOR THE WORK SITE TEMPORARY TRAFFIC MANAGEMENT SHALL COMPLY WITH THE REQUIREMENTS OF THE AGTTM 2019 PART 1 Section 5.2.6
8. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES

REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	Revised to match updated TCD	28/02/25
A	Updated to match proposed design	30/01/25

Designed By:
SF NSW Card No: Schedule 2.2(a)(ii)
Date of Issue:
Checked By:

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

Client: lendlease

Project Location:
Woden CIT Package 2/3 - Phase 4
Phillip
Drawing Title:
WCIT P3 - Phase 4, Site Establishment
Full Callam St Closure

Temporary Traffic Guidance Scheme
Designed to comply with A.S. 1742.3 & AGTTM

Project Number	Stage	Sheet No.
TTE22-WCP3-Ph4	1	1
Scale: N.T.S	Compilation Date: 11/12/2024	Rev: B

For Continuation See TTE22-WCP3-Ph4-1-1

Existing "BUS STOP" line marking to be blacked out.

Existing R4-1(50) speed sign to be covered and replaced with R4-212(40) speed sign.

"No Parking - Pick Up and Set Down Only" sings to be erected. These signs may be relocated from GCT front access.

Traffic controller to facilitate site access/egress as required.

Maintain Access to Pedestrian Crossing including push button. Ensure minimum 2m clearance from building awning.
Ensure adequate height clearance for pedestrians and cyclists.

Site delivery vehicle staging area.

For Continuation See TTE22-WCP3-Ph4-1-3

BOWES ST

BRADLEY ST

BRADLEY ST

BRADLEY ST

CALLAM ST

30m

18m

15m

Legend

- Work Area
- Site Fence
- Long-term Site Fence (Colourbond)
- Bollards @ 4m Centres
- Bollards @ 4m Centres With Pedestrian Tape
- Fixed Delineator Bollards
- Pedestrian / Cyclist Access
- Traffic Barrier With Approved End Treatment

N

Notes

1. ALL TEMPORARY TRAFFIC MANAGEMENT DEVICES ARE TO BE IN ACCORDANCE WITH A.S. 1742.3 2019
2. ALL SIGN FACINGS SHALL BE OF CLASS 1 MATERIAL AS SPECIFIED AS/NZS 1906-1
3. EMPLOYEES ARE TO WEAR HIGH VISIBILITY CLOTHING
4. ALL SIGNS & DEVICES SHALL BE ERECTED WITHIN LINE OF SIGHT OF THE ROAD USERS. THEY SHALL NOT BE OBSCURED BY VEGETATION OR PARKED VEHICLES & SHALL BE POSITIONED WHERE THEY DO NOT BECOME A HAZARD TO PEDESTRIANS OR VEHICLES
5. ALL CONFLICTING SIGNAGE INCLUDING PARKING SIGNS WITHIN THE WORK SITE SHALL BE COVERED OR REMOVED WHILE WORK IS IN PROGRESS
6. ALL WORKERS (T1-5) & ALL SPEED RESTRICTIONS SHALL BE COVERED OUT OF WORKING HOURS
7. THE CONTRACTOR RESPONSIBLE FOR THE WORK SITE TEMPORARY TRAFFIC MANAGEMENT SHALL COMPLY WITH THE REQUIREMENTS OF THE AGTTM 2019 - PART 1 Section 5.2.6
8. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES

Provision for Traffic Controllers

Traffic Controller as and when required. Associated indicated signs to be covered or removed when controller is not actively controlling traffic.

Qualified Traffic Controller

REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	Revised to match updated TCD	28/02/25
A	Updated to match proposed design	30/01/25

Designed By: Schedule 2.2(a)(ii)
SF NSW Card No:
Date of Issue:
Checked By:

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

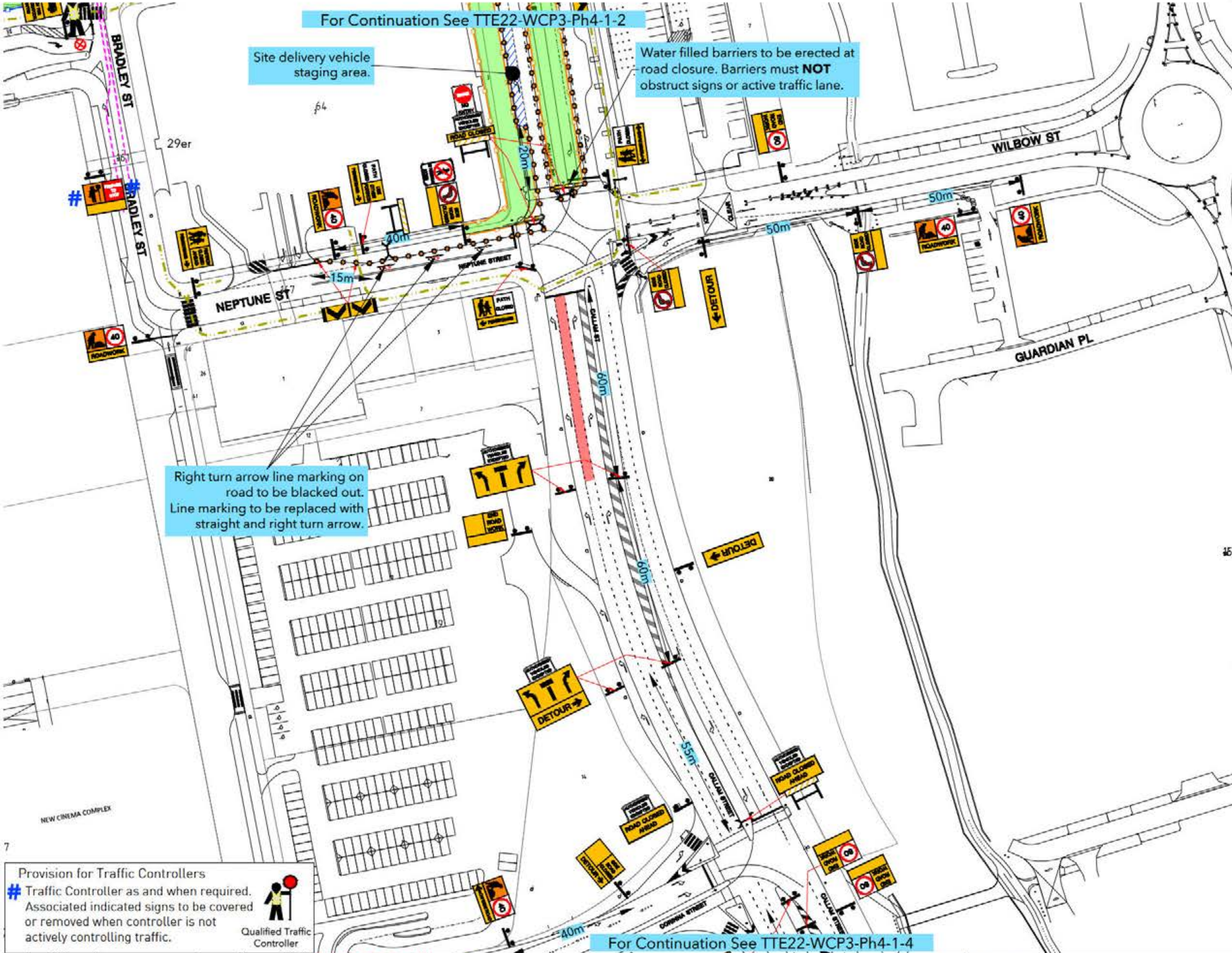
Client: lendlease

Project Location:
Woden CIT Package 2/3 - Phase 4
Phillip
Drawing Title:
WCIT P3 - Phase 4, Site Establishment
Full Callam St Closure

Temporary Traffic Guidance Scheme
Designed to comply with A.S. 1742.3 & AGTTM

Project Number	Stage	Sheet No.
TTE22-WCP3-Ph4	1	2

Scale:	Compilation Date:	Rev:
N.T.S	11/12/2024	B



Legend

N

- Work Area
- Site Fence
- Long-term Site Fence (Colourbond)
- Bollards @ 4m Centres
- Bollards @ 4m Centres With Pedestrian Tape
- Fixed Delineator Bollards
- Pedestrian / Cyclist Access
- Traffic Barrier With Approved End Treatment

Notes

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Provision for Traffic Controllers

Traffic Controller as and when required. Associated indicated signs to be covered or removed when controller is not actively controlling traffic.

Qualified Traffic Controller

REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	Revised to match updated TCD	28/02/25
A	Updated to match proposed design	30/01/25

Designed By: [redacted]
SF NSW Card No:
Date of Issue:
Checked By:

Schedule 2.2(a)(ii)

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

Client: lendlease

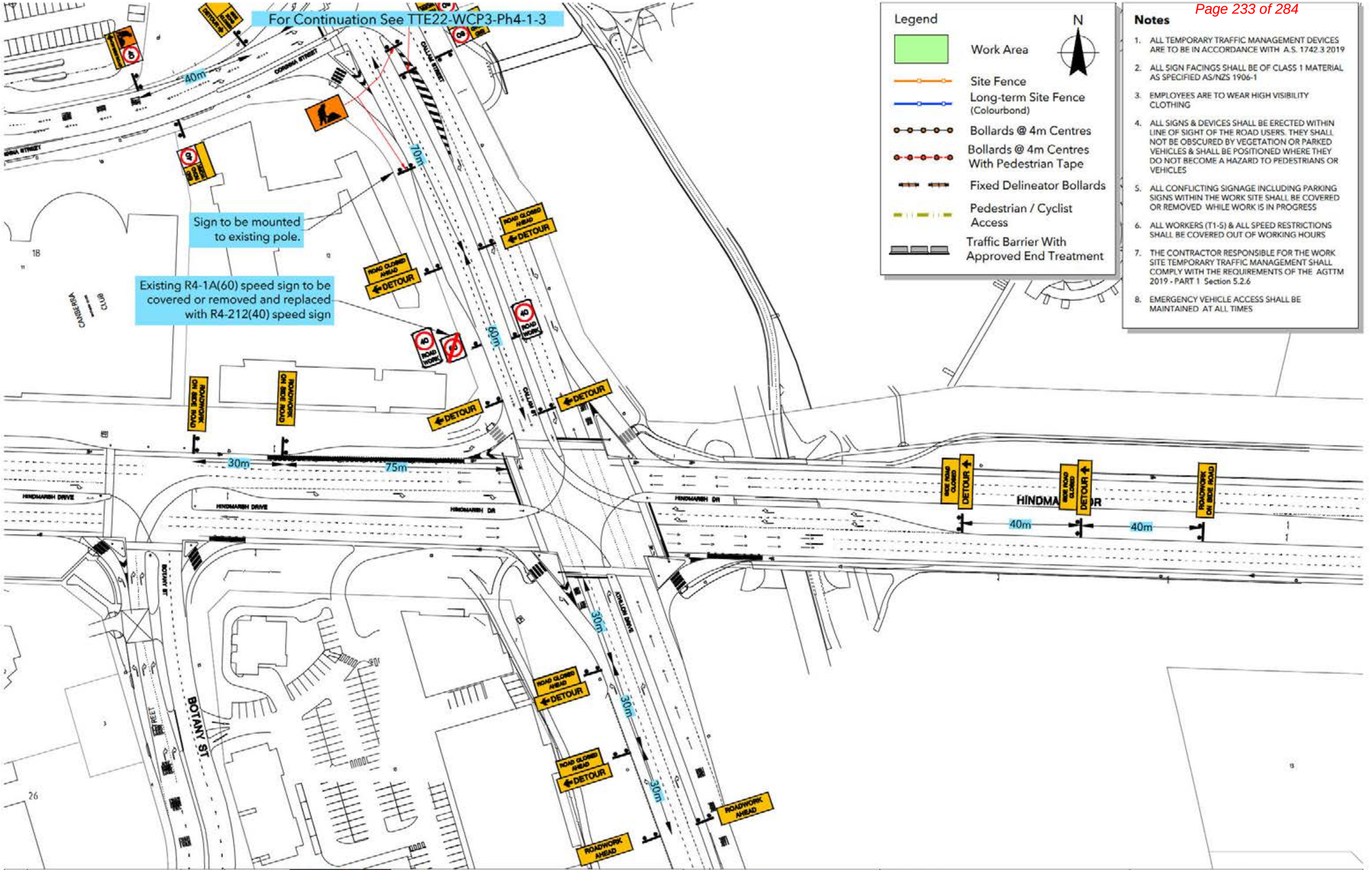
Project Location: **Woden CIT Package 2/3 - Phase 4 Phillip**

Drawing Title: **WCIT P3 - Phase 4, Site Establishment Full Callam St Closure**

Temporary Traffic Guidance Scheme
Designed to comply with A.S. 1742.3 & AGTTM

Project Number	Stage	Sheet No.
TTE22-WCP3-Ph4	1	3

Scale:	Compilation Date:	Rev:
N.T.S	11/12/2024	B



Notes

1. ALL TEMPORARY TRAFFIC MANAGEMENT DEVICES ARE TO BE IN ACCORDANCE WITH A.S. 1742.3 2019
2. ALL SIGN FACINGS SHALL BE OF CLASS 1 MATERIAL AS SPECIFIED AS/NZS 1906-1
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REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	Revised to match updated TCD	28/02/25
A	Updated to match proposed design	30/01/25

Designed By: Schedule 2.2(a)(ii)
SF NSW Card No:
Date of Issue:
Checked By:

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

Client: lendlease

Project Location:
Woden CIT Package 2/3 - Phase 4
Phillip
Drawing Title:
WCIT P3 - Phase 4, Site Establishment
Full Callam St Closure

Temporary Traffic Guidance Scheme
Designed to comply with A.S. 1742.3 & AGTTM

Project Number	Stage	Sheet No.
TTE22-WCP3-Ph4	1	4

Scale:	Compilation Date:	Rev:
N.T.S	11/12/2024	B

Legend

- Work Area
- Tuggeranong Pkwy Traffic Route
- Hindmarsh Dr Traffic Route
- Yarra Glen Traffic Route

Siding Notes:

- Siding must have visibility in both directions of travel and have 1.5D sight distance.
- Siding must have adequate braking distance.
- Siding must have stabilized surface.

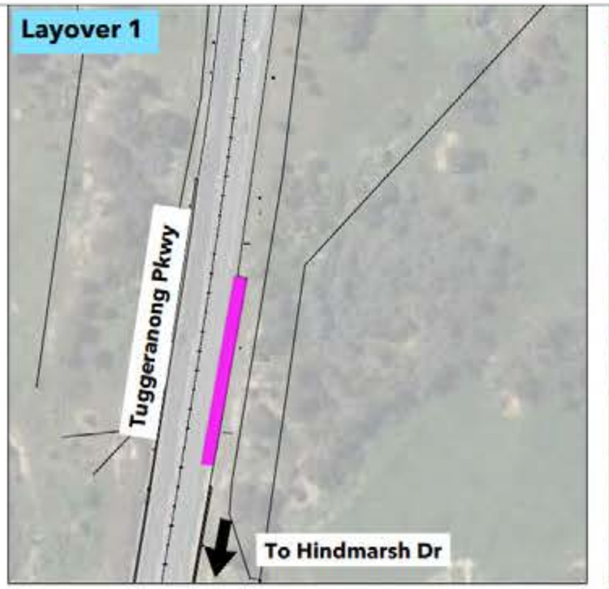
Layover 1
See Inset for detail.

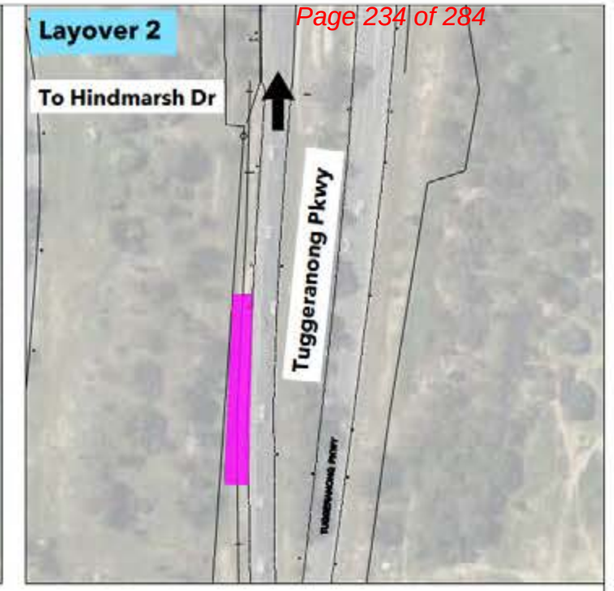
Layover 2
See Inset for detail.

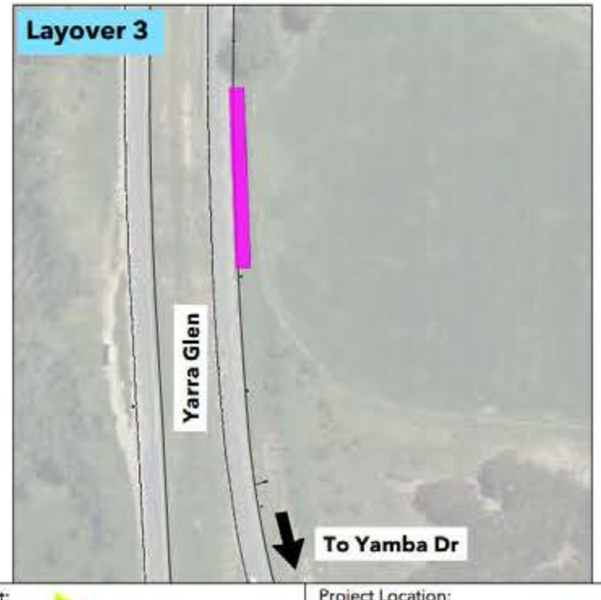
Layover 3
See Inset for detail.

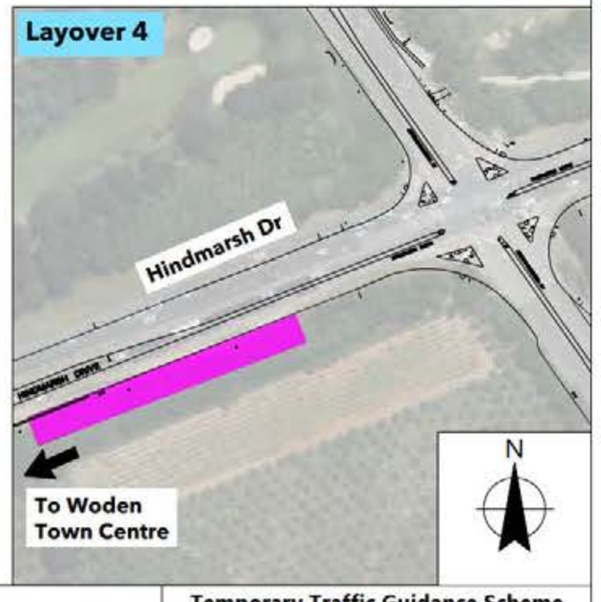
Layover 4
See Inset for detail.

Tuggeranong Pkwy
Yarra Glen
Yamba Dr
Melrose Dr
Callam St
Hindmarsh Dr
Athllon Dr
Jerrabomberra Ave









N

REV	DESCRIPTION	DATE
D	-	-
C	-	-
B	-	-
A	-	-

Designed By: Schedule 2.2(a)(ii)
Checked By:
SW NSW Card No:
Date Of Issue:

Territory Traffic Engineering
15/160 Lysaght Street Mitchell ACT 2911
PO Box 545 Mitchell ACT 2911
T: 02 6241 3230 F: 02 6241 0230

Client: lendlease

Project Location:
Callam St
Woden
Drawing Title:
Woden CIT P3
Vehicle Movement Plan

Temporary Traffic Guidance Scheme
Designed to comply with A.S. 1742.3 & AGTTM

Project Number	Stage	Sheet No.
TTE22-WCP3-VMP	1	1

Scale:	Compilation Date:	Rev:
N.T.S	17/10/2022	-

Lin, Mandy

From: Illy, Sarah on behalf of CIT Campus Woden
Sent: Friday, 9 May 2025 10:28 AM
To: Shahid, Asim; Schedule 2.2(a)(ii) [redacted] Mick.Scott@act.gov.au; Schedule 2.2(a)(ii) [redacted]
Cc: Roberts, Martin; Schedule 2.2(a)(ii) [redacted]; CIT Campus Woden
Subject: Minutes from CIT Woden Campus Project Construction Information Group meeting on 2 May 2025
Attachments: Lendlease CIG Presentation No.19_02052025.pdf

Dear CIG members,

Please find below the minutes from last week's CIT Woden Campus Project Construction Information Group meeting. Attached is the presentation given by Lendlease.

Attendees:

- Construction Information Group members: Schedule 2.2(a)(ii) [redacted]
- Lendlease representative: Schedule 2.2(a)(ii) [redacted]
- Infrastructure Canberra representatives: Martin Roberts, Sarah Illy

Key updates:

- Lendlease advised that construction on the CIT Woden Campus is almost complete, with final landscaping works underway and that finishing touches being made to the building.
- Lendlease provided an update on the enabling works for the Callam Street closure | temporary Woden bus interchange diversion and shared the latest schedule of staging works.

Queries raised / information requested:

- [redacted] queried the ACT Government notification for the deletion of the road running through the CIT Woden Campus.
  - *Martin Roberts explained this was a standard part of the crown lease change of land process.*
- Schedule 2.2(a)(ii) [redacted] asked for more details on the completion of the watermain works outside the Neptune Street carpark.
  - *Martin Roberts provided this information in the meeting.*
- Schedule 2.2(a)(ii) [redacted] queried the landscaping plans for the area outside the taxi rank.
  - *Martin Roberts responded that it sits outside Lendlease's scope for the CIT Woden Campus Project, but that Infrastructure Canberra would come back with a plan to ensure the whole area looks finished.*
- Schedule 2.2(a)(ii) [redacted] requested a Scentre Group Directors visit to the CIT Woden Campus on 21 May 2025.
  - *Lendlease to facilitate.*

The next Construction Information Group meeting will be held at 11am on Friday 23 May 2025. If you have any questions or concerns, please contact citcampuswoden@act.gov.au.

Kind regards,
Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*


CIT Woden
Development
Construction Information
Group
lendlease

We acknowledge the Traditional Custodians of the land, the Ngunnawal People, and pay our respects to them and their Elders past and present.

As a business that works across many locations, we have a responsibility to listen, learn and walk alongside First Nations peoples to ensure our activities support their ongoing connection to their lands, waters, cultures, languages and traditions.

We value their custodianship of 65,000 years.

Section 3

Project Update

Key Upcoming Works

- Bus Interchange Civil
- Callam St Closure
- Fit out works
- Landscape

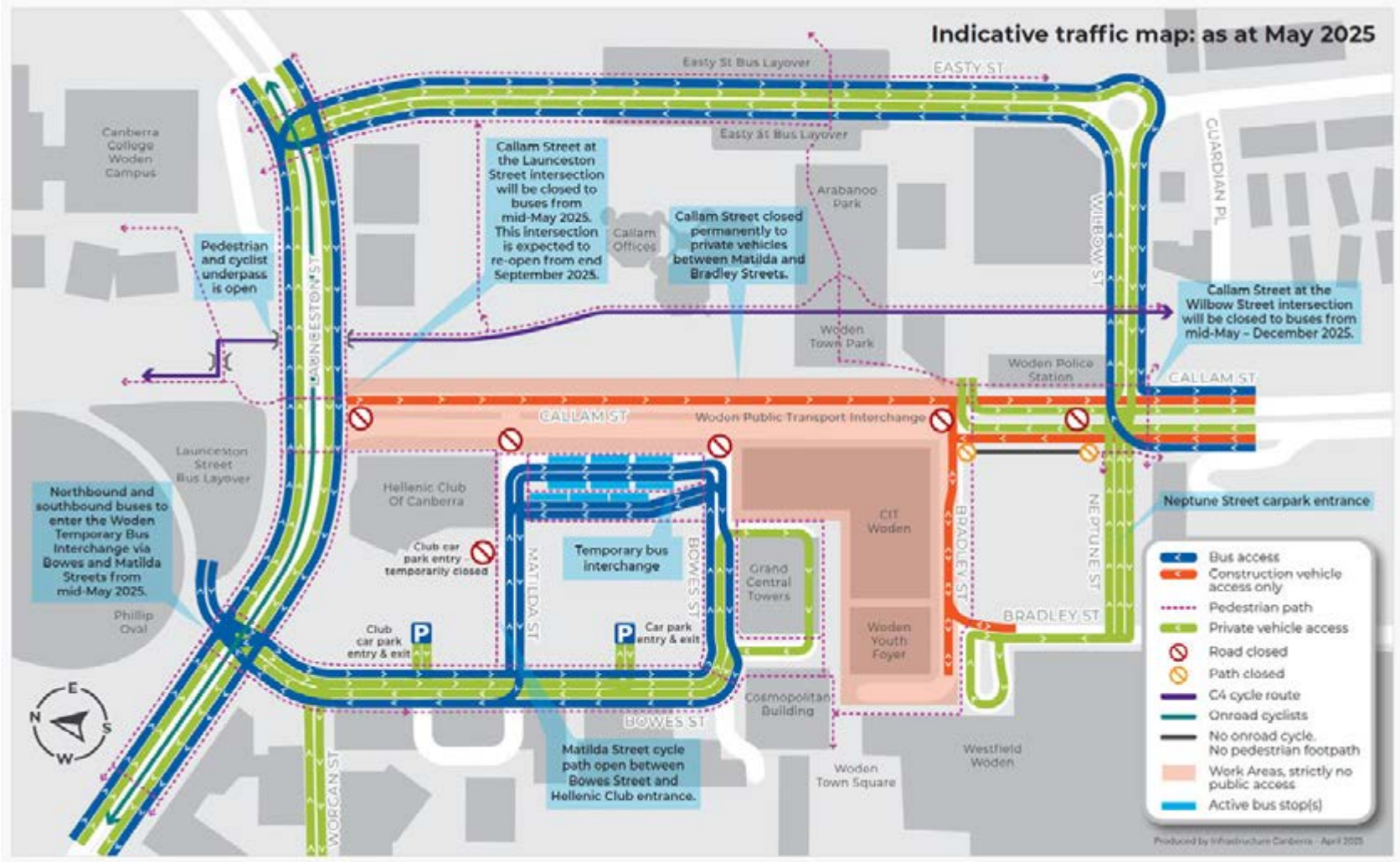
lendlease

Package 2

- Civil Works
- Watermain
- Callam St Closure

Package 2

- Callam St Closure
- **Callam Street Staging Update**
- Enabling works complete: 19 May 2025
- Bus and traffic trials: 20 May 2025
- Soft Close Callam Street: from 21 May 2025



lendlease

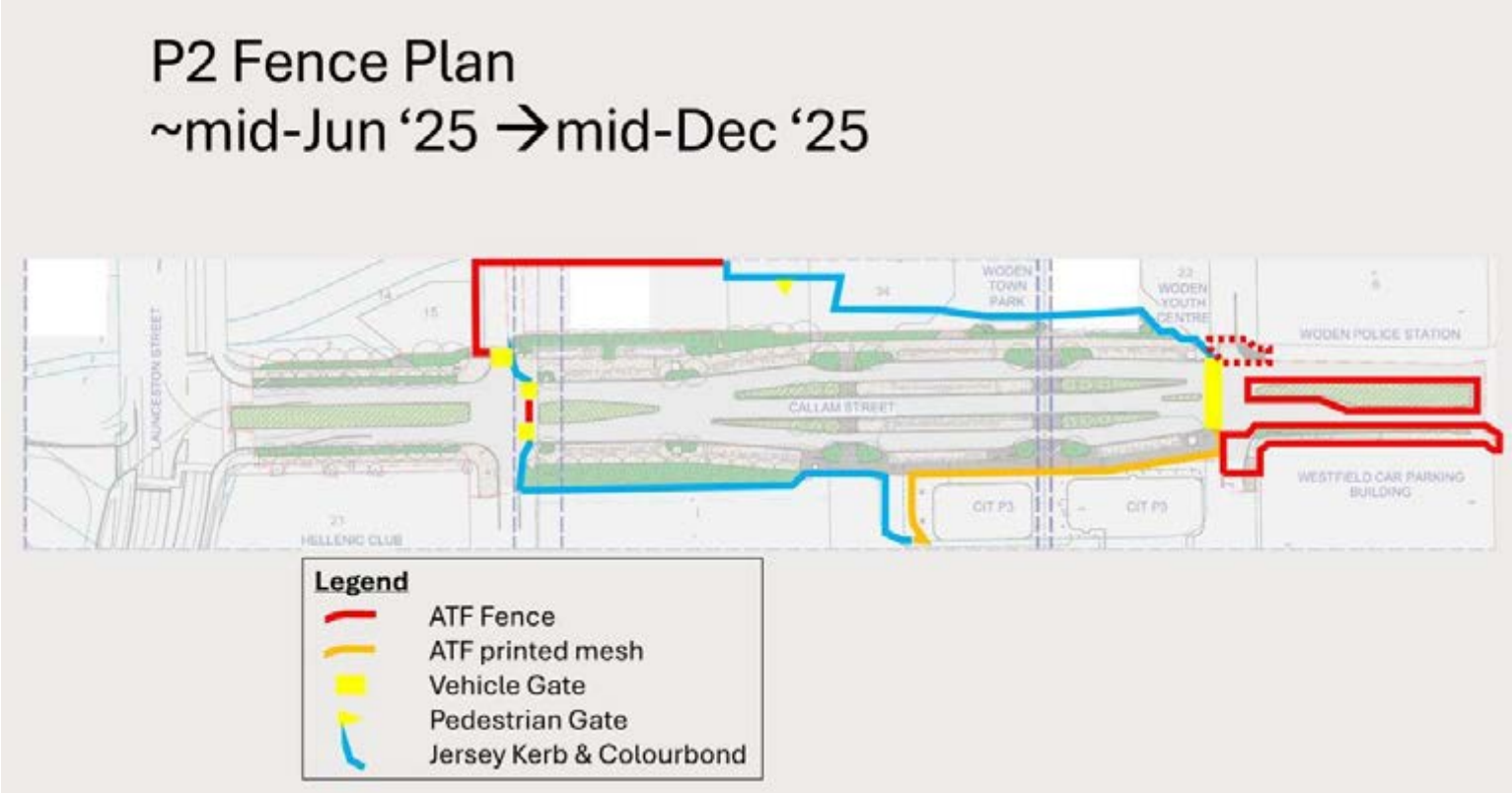
Package 3

- Fitout works
- Landscaping

lendlease

Package 2

- Fence adjustments



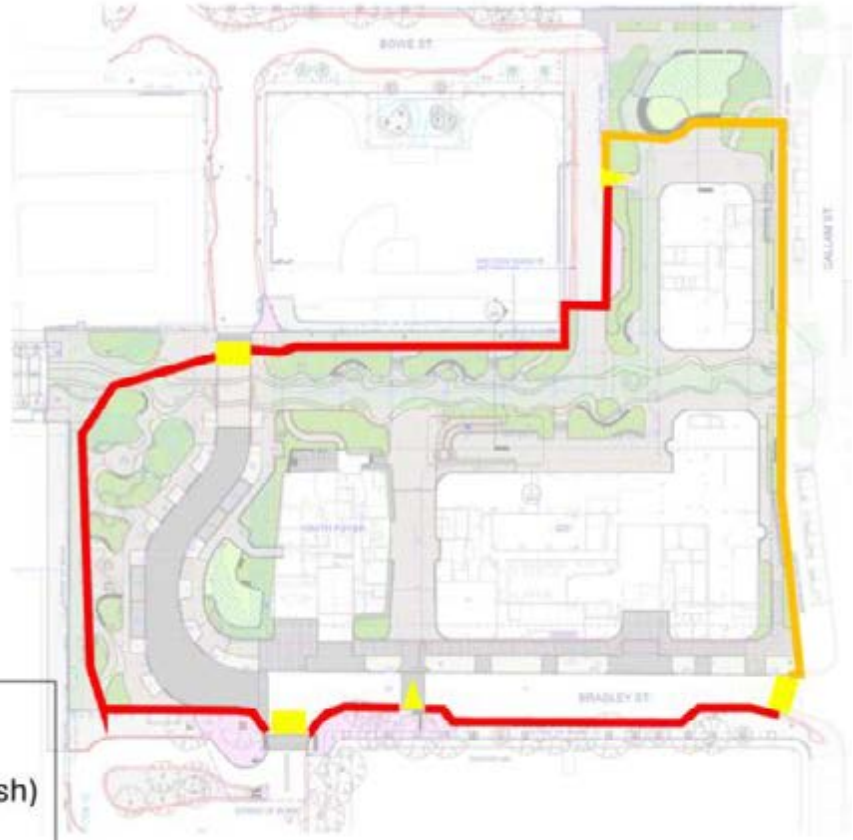
lendlease

Package 3

- Fence adjustments

P3 Fence Plan

PC→early July '25



lendlease

Channels of Communication & Feedback

- General Enquires and Feedback

  citwoden@lendlease.com
- Urgent Enquires and Feedback

  Schedule 2.2(a)(ii)

lendlease

Section 5

Questions

Lin, Mandy

From: Illy, Sarah
Sent: Tuesday, 20 May 2025 4:30 PM
To: Schedule 2.2(a)(ii)
Cc: CIT Campus Woden
Subject: RE: Noise complaints

Hi Schedule 2

I just wanted to provide you with the latest information on the Bowes / Matilda Streets enabling works for the Callam Street closure and bus re-routing.

During the bus trial yesterday of the Bowes / Matilda Streets diversion, some further remedial works were identified which Lendlease are planning on completing by mid-end next week.

This will likely involve concrete cutting, breaking out and reinstatement of kerb and concrete works which will be carried out during the day to minimise noise disturbance.

Lendlease anticipate that there will possibly be some nightworks for line-marking activities, but don't anticipate this to include any noisy works.

I also met up with Schedule 2.2(a)(this morning to talk about the policing of the relocated pull-in bay given the number of vehicles that are parking there despite the no stopping / no parking signs.

Please let me know if you have any further concerns or queries at this stage.

Kind regards,

Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(II) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

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From: Illy, Sarah
Sent: Thursday, 15 May 2025 4:56 PM
To: Schedule 2.2(a)(ii)
Cc: Roberts, Martin <Martin.Roberts@act.gov.au>; CIT Campus Woden <citcampuswoden@act.gov.au>
Subject: RE: Noise complaints

Good evening Schedule 2.2

I am very sorry to hear about the noise disturbance at Grand Central Towers last night relating to the CIT Woden Campus Project construction works.

The enabling works for the Bowes Street temporary traffic diversion are almost complete and the scheduling of works has been staged to minimise disruption to the most impacted stakeholders, namely Grand Central Towers residents and Transport Canberra bus operations.

Lendlease have informed us that there are some residual nightworks forecast for tonight, 15 May, which may possibly run into the 16 May. Unless unforeseen issues arise, these works are anticipated to less invasive so any noise disruption should be greatly reduced.

The Works Notification for the Bowes and Matilda Street modifications issued at the end of March did not anticipate any requirements for night works. Despite Lendlease making all efforts to ensure noisy construction works (impact saw cutting, jack hammering etc.) are only carried out during the day, certain works activities to remove elements at the temporary Woden bus interchange have not been possible to carry out whilst the buses are operating. Unfortunately, last night the concrete island could not be removed easily despite their sub-contractor's best efforts, and they had to use a saw cut which would have caused the additional noise disturbance.

We apologise that the change in works schedule was not communicated to Grand Central Towers residents in advance of the unforeseen night works and for the resulting noise disruption.

With regards to the consistent beeping noise from the CIT building, this has been investigated by the Project Team and Lendlease and should have been fixed.

Kind regards,

Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) E: sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

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From: Schedule 2.2(a)(ii)
Sent: Tuesday, 13 May 2025 11:07 PM
To: Illy, Sarah <Sarah.Illy@act.gov.au>
Cc: Roberts, Martin <Martin.Roberts@act.gov.au>
Subject: Noise complaints

Good evening Sarah

I write to you tonight with multiple complaints from residents of Grand Central Towers about the current night works at the temporary bus interchange and the intermittent emergency alarms from the CIT building.

For weeks and months now we have had to put up with angle grinders and concrete cutters starting from 6am until well into the night with total disregard for residents' wellbeing.

Tonight, without any notice of nightworks, the noise from the Matilda street end of the bus interchange continues into the night. In addition to that, there is a consistent beeping noise from the CIT building. This is not the first time this has occurred with the emergency alarms. This has happened over a number of nights in the past month or so.

The residents of GCT have endured a lot over the past 2 years, from the construction of the temporary bus interchange, to the construction of the CIT and now the reconfiguration of the interchange. If this continued in your street, I'm sure you would be up in arms, but because we are in a town centre, we have to put up with the 6am starts and 8pm finishes (in a lot of cases this starts well before 6am and ends after 8pm).

I understand that some of this construction and reconfiguration has to be done outside of business hours, but some consideration has to be shown to residents otherwise we will be taking this matter to a higher authority.

Regards

Schedule 2.2(a)(ii)

[redacted]

Lin, Mandy

From: Roberts, Martin
Sent: Wednesday, 21 May 2025 8:54 AM
To: Illy, Sarah; Drysdale, Jodie
Cc: Englert, Michelle; Valencia, Juan; Chartres, Hamish
Subject: RE: FYI | Media Release - Woden Town Centre Traffic Arrangements

Hi Jodie,

A few edits from me in BLUE.

Regards

Martin Roberts | Construction Director
Ph: Schedule 2.2(a)(ii) **| Email: martin.roberts@act.gov.au**
CIT Woden Campus | | Delivery – Health, Education, Justice
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra ACT 2601

ACT Government
Infrastructure Canberra

From: Illy, Sarah <Sarah.Illy@act.gov.au>
Sent: Tuesday, 20 May 2025 5:23 PM
To: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Valencia, Juan <Juan.Valencia@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>
Subject: RE: FYI | Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Hi Jodie,

I caught up with Michelle earlier and below are the latest dot points re. the enabling works, bus trial and forecast closure of Callam Street:

Bowes/Matilda St Enabling Works

- An initial bus trial of the Bowes/Matilda Street diversion was undertaken at 10am on 19/5 and identified some items to be addressed.
- Further enabling works are required to Bowes St to accommodate the buses involve concrete cutting, breaking out and reinstatement of kerb and concrete works.
- Lendlease anticipate that there will possibly be some nightworks for line-marking activities, but don't anticipate this to cause undue noise disturbance to Grand Central Towers residents.
- Lendlease expect to have changes partially complete to enable a further bus trial at 10am on 23/5.
- Final enabling works will then be completed mid-end of w/c 26/5.

- The Communications & Engagement team carried out a stakeholder doorknocking on 20/5 and engaged with 26 businesses along Bowes/Launceston Street, providing an update of the upcoming road and traffic changes. There were no concerns raised.
- Further doorknocking of stakeholders along Easty/Wilbow Street is planned for w/c 26/5.

Traffic signals at Launceston/Bowes St

- Lendlease need to revise the traffic modelling and signal plans and submit drawings for approval (expected by end of week – tbc by LL).
- Drawings need to be approved by RoadsACT to allow the network design team to finalise the signal design. We are working with the RoadsACT signals team to fast signals personality changes and upgrades (a standard timeline for this activity is 4-6 weeks).
- The revised closure date of Callam Street will be confirmed once the traffic modelling and signal plans have been submitted and an estimated approval date advised.

Kind regards,
Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

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From: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>
Sent: Tuesday, 20 May 2025 11:39 AM
To: Illy, Sarah <Sarah.Illy@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Valencia, Juan <Juan.Valencia@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>
Subject: FW: FYI | Media Release - Woden Town Centre Traffic Arrangements
Importance: High

OFFICIAL

Hi Sarah,

I haven't reviewed the trail of this, but can you please work with Michelle on providing a response.

Please let me know if you have any queries or require additional information.

Regards,

Jodie Drysdale | Project Director - CIT Woden Campus Project

Schedule 2.2(a)(ii) | jodie.drysdale@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

From: Haraldson, Anthony <Anthony.Haraldson@act.gov.au>
Sent: Tuesday, 20 May 2025 11:29 AM
To: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>
Cc: iCBR, TransportProjectGov <iCBR.TransportProjectGov@act.gov.au>
Subject: FW: FYI | Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Hi Jodie

Hope you are well – would you be able to provide some dot points for Fridays advisor meeting?

Dhjan Yimaba (Thank you)

Anthony Haraldson
A/g Project Director | Light Rail
P Schedule 2.2(a)(ii) | **E** anthony.haraldson@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra ACT 2601

From: Haraldson, Anthony <Anthony.Haraldson@act.gov.au>
Sent: Monday, 19 May 2025 3:01 PM
To: Doctor, David <David.Doctor@act.gov.au>
Subject: Fw: FYI | Media Release - Woden Town Centre Traffic Arrangements

Hi David - do you have info on this one? Thank you!

Get Outlook for iOS

From: Jackson, Laura <Laura.Jackson@act.gov.au> on behalf of iCBR Deputy Director General <iCBR.DDG@act.gov.au>
Sent: Monday, May 19, 2025 2:45:13 PM
To: Haraldson, Anthony <Anthony.Haraldson@act.gov.au>
Subject: FYI | Media Release - Woden Town Centre Traffic Arrangements

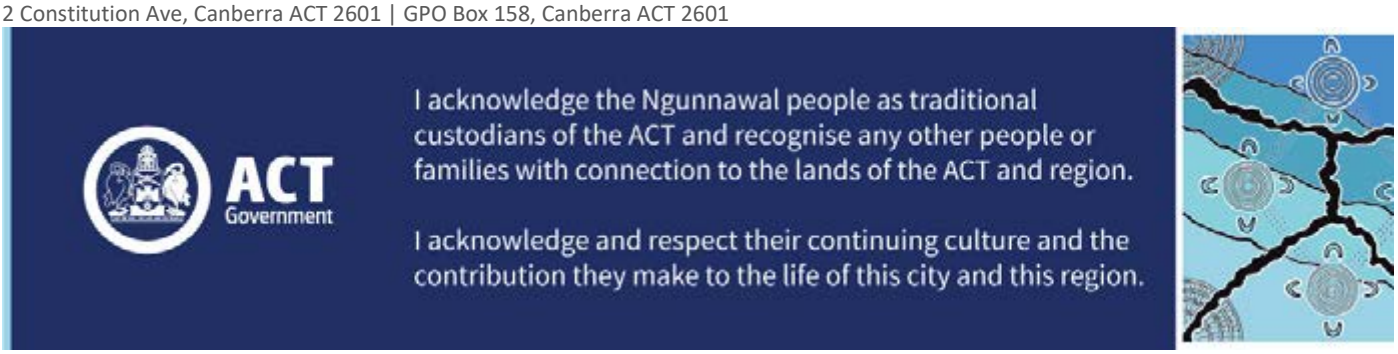
OFFICIAL

Hi Anthony,

FYI below. This might be brought on Friday in the Steel advisor catch up.

Thank you,

Laura Jackson
Executive Assistant to Ashley Cahif | Deputy Director-General
icbr.dg@act.gov.au | icbr.ddg@act.gov.au
Phone: 02 6205 3015 | Email: Laura.Jackson@act.gov.au
Infrastructure Canberra | ACT Government
2 Constitution Ave, Canberra ACT 2601 | GPO Box 158, Canberra ACT 2601



From: Navarro, Tania <Tania.Navarro@act.gov.au>
Sent: Monday, 19 May 2025 2:09 PM
To: iCBR Deputy Director General <iCBR.DDG@act.gov.au>; iCBR Director General <iCBR.DG@act.gov.au>
Subject: FW: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

FYI for Gillian and Ash. Re Briefing Steel's office on delay of Callam Street closure this Wednesday.

From: Illy, Sarah <Sarah.Illy@act.gov.au>
Sent: Monday, 19 May 2025 1:50 PM
To: iCBR, Ministerial <iCBRMinisterial@act.gov.au>; iCBR, DLO <iCBRDLO@act.gov.au>
Cc: Gaskin, Lee <Lee.Gaskin@act.gov.au>; Navarro, Tania <Tania.Navarro@act.gov.au>
Subject: FW: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Hi all,

I am still waiting on further details from the Project Team/Lendlease following this morning's bus trial of the Bowes / Matilda Street conversion but at this stage the planned Callam Street closure and bus re-route will not go ahead this Wednesday.

Lee has briefed Minister Pettersson's office about the postponed closure who have asked if Minister Steel has been updated.

Many thanks,
Sarah

From: Gaskin, Lee <Lee.Gaskin@act.gov.au>
Sent: Monday, 19 May 2025 1:16 PM
To: Illy, Sarah <Sarah.Illy@act.gov.au>; Navarro, Tania <Tania.Navarro@act.gov.au>
Subject: FW: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Sarah/Tania – per Anton's message below, do you know if Min Steel has been briefed on the Callam Street not closing on Wednesday?

From: Dickinson, Jasmine <Jasmine.Dickinson@act.gov.au>
Sent: Monday, 19 May 2025 12:50 PM
To: Gaskin, Lee <Lee.Gaskin@act.gov.au>
Subject: Fw: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

See below - can you ask if Min Steel has been briefed on this?

Thanks
Jasmine

Get Outlook for iOS

From: Gallacher, Anton <Anton.Gallacher@act.gov.au>
Sent: Monday, May 19, 2025 12:45:51 PM
To: Dickinson, Jasmine <Jasmine.Dickinson@act.gov.au>; Dynon, Kaarin <Kaarin.Dynon@act.gov.au>; Bradley, Bill <Bill.Bradley@act.gov.au>
Subject: RE: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Thanks Jasmine – grace is away today from our office, but I was wondering if Minister Steel has been briefed on the from Transport Min and local member perspective? If you're comfortable I can reach out to icbr to check.

From: Dickinson, Jasmine <Jasmine.Dickinson@act.gov.au>
Sent: Monday, 19 May 2025 11:53 AM
To: Gallacher, Anton <Anton.Gallacher@act.gov.au>; Dynon, Kaarin <Kaarin.Dynon@act.gov.au>; Bradley, Bill <Bill.Bradley@act.gov.au>
Subject: RE: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Hi all,

I've just been told that Callam Street won't be closing this Wednesday.

IC will hold off on the media release until we have more information from the project team.

An updated MR will come your way from me soon.

Thanks
Jasmine

From: Dickinson, Jasmine <Jasmine.Dickinson@act.gov.au>
Sent: Friday, 16 May 2025 1:04 PM
To: Gallacher, Anton <Anton.Gallacher@act.gov.au>; Dynon, Kaarin <Kaarin.Dynon@act.gov.au>; Bradley, Bill <Bill.Bradley@act.gov.au>
Subject: Fw: For Approval - Media Release - Woden Town Centre Traffic Arrangements

Hi everyone,

Infrastructure Canberra has shared the attached media release with our office for review and feedback on upcoming Woden Town Centre road closures. I believe it mostly focuses on topics in both Steel and Cheyne spaces so I would love if you could take a look and let me know if you have any edits?

Edits needed by COB Monday.

Many thanks,
Jasmine

Get Outlook for iOS

From: Gaskin, Lee <Lee.Gaskin@act.gov.au>
Sent: Friday, May 16, 2025 12:35 pm
To: Dickinson, Jasmine <Jasmine.Dickinson@act.gov.au>
Cc: Navarro, Tania <Tania.Navarro@act.gov.au>; Illy, Sarah <Sarah.Illy@act.gov.au>; iCBR, Media <iCBRMedia@act.gov.au>; iCBR, DLO <iCBRDLO@act.gov.au>
Subject: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Hi Jasmine,

Please find attached a media release - Changes to Callam Street for Woden Public Transport Interchange construction.

We propose this media release is sent out on Tuesday, 20 May, with the road due to be closed from Wednesday, 21 May.

Please review and suggest any changes to the media release.

Regards,
Lee

Lee Gaskin | Assistant Director, Media and Content
Mob: Schedule 2.2(a)(ii) **Email:** lee.gaskin@act.gov.au
Infrastructure Canberra | **ACT Government**


ACT
Government
Infrastructure Canberra

Lin, Mandy

From: Drysdale, Jodie
Sent: Wednesday, 21 May 2025 5:11 PM
To: Haraldson, Anthony; Keep, Dan
Cc: Englert, Michelle; Roberts, Martin; Chartres, Hamish; Illy, Sarah
Subject: RE: Woden Public Transport Interchange - Traffic signalling

OFFICIAL

Thanks Anthony/Dan. Much appreciated!

Regards,

Jodie Drysdale | Project Director - CIT Woden Campus Project
Schedule 2.2(a)(ii) | jodie.drysdale@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.

From: Haraldson, Anthony <Anthony.Haraldson@act.gov.au>
Sent: Wednesday, 21 May 2025 5:03 PM
To: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>; Keep, Dan <Dan.Keep@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Illy, Sarah <Sarah.Illy@act.gov.au>
Subject: RE: Woden Public Transport Interchange - Traffic signalling

OFFICIAL

Thank you, Jodie. Dan will reach out to Michelle tomorrow morning to discuss.

Dhjan Yimaba (Thank you)

Anthony Haraldson
A/g Project Director | Light Rail
P Schedule 2.2(a)(ii) | **E** anthony.haraldson@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra ACT 2601

From: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>
Sent: Wednesday, 21 May 2025 4:38 PM
To: Haraldson, Anthony <Anthony.Haraldson@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Illy, Sarah <Sarah.Illy@act.gov.au>
Subject: Woden Public Transport Interchange - Traffic signalling

OFFICIAL

Hi Anthony,

Great to chat to you this afternoon and thank you for offering assistance to progress approval of the traffic signal changes.

As discussed, it would be appreciated if you could have Dan from your team reach out to Michelle (cc'd above) to discuss the process, including what else LL need to provide, as well as contacting the appropriate people at TCCS and Roads ACT to expedite review, design and approval.

LL have advised that they will have all enabling works completed to enable closure of Callam Street mid-next week (excluding traffic signalling).

Here are the details, as we currently understand them, for the steps required to implement the full TTMP and enable Callam St closure.

Action	Action by	Date	Notes
LLC to submit the updated TCD to TCCS Network Operations and Traffic to seek approval	LLC	completed 12:59pm 21/5/25	
TCCS Network Operations and Traffic Signals Infrastructure teams to complete their review and authorise the TCDs	TCCS Network Operations and Traffic Signals Infrastructure	Advised to be done within 48 hours. Forecast - 23/5/25	Opportunity to expedite
TCCS Network Operations and Traffic Signals Infrastructure teams to return authorised TCDs to LLC. LLC to issue formally to TCCS/RoadsACT Traffic Signal team to commence signal design process (due to the requirement to create new signal personalities). In parallel, TCCS Network Operations and Traffic Signals teams to forward the approved TCDs to the TCCS/RoadsACT Traffic Signal team responsible for the signal design process to commence review and design process.	LLC	Forecast - 23/5/25	
TCCS/RoadsACT Traffic Signal team to complete design and implementation of signal changes and personality creation	TCCS/RoadsACT Traffic Signal Team	Advised to be typically a 4-6 week process.	Opportunity to expedite

		Verbal advice this afternoon from the Traffic Signal Team is that currently their priority is Raising London Circuit and LR Stage 2A. They also advised that once they commence the design of the personalities, the actual work to complete the design and testing and provide the physical equipment to LLC is approx 1week.	
Once design of signal changes are complete, LLC are to give TCCS 48 notice prior to full implementation to TTMP to coordinate timing of intersection changes to be made live	LLC	TBC - 48 hours following above activity	Opportunity to expedite

Please let me know if you have any queries or require additional information.

Regards,

Jodie Drysdale | Project Director - CIT Woden Campus Project
Schedule 2.2(a)(ii) | jodie.drysdale@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.

From: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>
Sent: Tuesday, 20 May 2025 10:13 AM
To: Cahif, Ashley <Ashley.Cahif@act.gov.au>; Bell, HayleyC <HayleyC.Bell@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Illy, Sarah <Sarah.Illy@act.gov.au>; Valencia, Juan <Juan.Valencia@act.gov.au>
Subject: RE: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

Thanks Ash. We are working up some details and will get to you as a priority.

Please let me know if you have any queries or require additional information.

Regards,

Jodie Drysdale | Project Director - CIT Woden Campus Project
Schedule 2.2(a)(ii) | jodie.drysdale@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.

From: Cahif, Ashley <Ashley.Cahif@act.gov.au>
Sent: Tuesday, 20 May 2025 8:47 AM
To: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>; Bell, HayleyC <HayleyC.Bell@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Illy, Sarah <Sarah.Illy@act.gov.au>; Valencia, Juan <Juan.Valencia@act.gov.au>
Subject: RE: For Approval - Media Release - Woden Town Centre Traffic Arrangements

OFFICIAL

I have spoken to Ben McHugh and he is happy to get Roads ACT to prioritise this work – please let me know the details of what needs to happen and what we need Roads to do and I will get it to Ben to discuss with his team.

Kind regards

Ash

From: Drysdale, Jodie <Jodie.Drysdale@act.gov.au>
Sent: Monday, 19 May 2025 6:28 PM
To: Cahif, Ashley <Ashley.Cahif@act.gov.au>; Bell, HayleyC <HayleyC.Bell@act.gov.au>
Cc: Englert, Michelle <Michelle.Englert@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>; Illy, Sarah <Sarah.Illy@act.gov.au>; Valencia, Juan <Juan.Valencia@act.gov.au>
Subject: RE: For Approval - Media Release - Woden Town Centre Traffic Arrangements
Importance: High

OFFICIAL

Hi Ash/Hayley,

Please see details of status below. We were advised late on Friday of the requirement for traffic signal re-design (although LL may have been made aware of this earlier). This is quite a lengthy process (typically 6 weeks or more), and we are currently exploring ways to expedite.

Bowes St Enabling Works

- Bus trial undertaken today with some items to be addressed.
- Further enabling works are required to Bowes St to accommodate the buses (requires further concrete cutting in front of GCT).
- LL expect to have changes partially complete to enable a further bus trial by the end of this week.
- Final enabling works will then be completed mid-next week.

Traffic signals at Launceston/Bowes St

- LLC need to revise the traffic modelling and signal plans and submit drawings for approval (expected by end of week – tbc by LL).
- Drawings need to be submitted as a TCD through a development approval process to TCCS to allow the network design team to finalise the signal design. This typically takes 6 weeks (4 week or quicker review period is being explored).
- This will now further delay the closure of Callam St.

More detail is provided below. I will provide further updates as information becomes available.

The Bowes St bus rerouting trial was held this morning with LLC, TCCS Bus Operations and representatives from the Transport Workers Union. Bus movements were tested and pedestrian safety was reviewed. It was determined that some changes need to be made to several corners along the route, including kerb realignment, revised line marking and removal of non-statutory signage to improve pedestrian line of sight for drivers. LLC are currently drafting up the proposed changes and will be issuing these for review. The biggest impact is likely to be additional kerb cutting immediately in front of Grand Central Towers, as this was the tightest area for bus movements and pedestrian safety. Lendlease are targeting to have the changes partially completed this week to enable another bus trial at the end of the week to test the widths and pathways. Following successful completion of the second trial, they will complete the kerb works. At this stage, all physical works along Bowes and Matilda Steets are expected to be complete early next week (subject to successful completion of works).

In addition to the bus trial, works are required to be completed at the Launceston and Bowes St intersection to amend some traffic signals and linemarking. This is required to support the closure of Callam St. There has been some discussion with TCCS Network Operations since Friday as the works proposed at this intersection have not been approved, despite the TGS being submitted and approved. A meeting was held today with TCCS network operations and traffic signals teams to discuss next steps and what is required in order to complete the proposed revised signalling at this intersection. It was determined that LLC need to revise the traffic modelling and signal plans to incorporate the feedback provided, and then submit these drawings for approval. LLC are targeting to have this complete this week (subject to confirmation). Once approved, TCCS Network Operations have advised that these drawings will need to be submitted as a TCD through a development approval process to TCCS to allow the network design team to finalise the signal design. Once this is complete, TCCS have verbally advised that once site it ready, the works to amend the traffic signals can be implemented within 48 hours. The challenge here is that TCCS Network Operations and Traffic Signals teams have advised that it is typically a 6 week timeframe from the moment that an approved design has been received for their team to design a revised traffic signal design as they need to design new traffic signal personalities. TCCS mentioned they could consider an expedited review, with an anticipated period of 4 weeks. My interpretation of discussions today is that it may be possible that

this could be shortened even further if this intersection is given top priority by all parties, however it would likely need some discussion at a senior level to help prioritise.

At this point in time, LLC are planning on having all works complete to enable the Callam St closure by mid-next week at the earliest. This will be contingent on a successful bus trial, completed physical works, TCCS approval and TCCS implementation of the traffic signal adjustments to Launceston/Bowes Intersection.

Please let me know if you have any queries or require additional information.

Regards,

Jodie Drysdale | Project Director - CIT Woden Campus Project
Schedule 2.2(a)(ii) | jodie.drysdale@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.

From: Illy, Sarah
To: Roberts, Martin; Englert, Michelle
Cc: Navarro, Tania; Chartres, Hamish; Drysdale, Jodie
Subject: FW: DOT POINTS: Proposed changes to Bowes St, Phillip
Date: Wednesday, 28 May 2025 1:29:33 PM
Attachments: image001.png

OFFICIAL

Hi Marty, Michelle,

Minister Steel's office have sent a response to the GCT resident (2.2(a)(ii)) based on the dot points we provided but he has come back with further queries and asking for more detail.

I'll start populating the OBJ document but just wanted to give you all the heads-up that this complaint is still ongoing...

Cheers,
Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*

From: iCBR, Ministerial <iCBRMinisterial@act.gov.au>
Sent: Wednesday, 28 May 2025 1:21 PM
To: Illy, Sarah <Sarah.Illy@act.gov.au>
Cc: iCBR, HEJ EGM Office <iCBR-HEJ-EGMOffice@act.gov.au>; iCBR, Ministerial <iCBRMinisterial@act.gov.au>
Subject: FW: DOT POINTS: Proposed changes to Bowes St, Phillip

OFFICIAL

Hi Sarah,

Please see below further correspondence received by Steel MO from 2.2(a)(ii) on Bowes Street.

Steel Office has now asked for dot points on the below follow up email and to confirm if any of the relevant documents are publicly accessible and if so, to include them. Would it be possible to get started on responding to the below questions?

I will let you know when the objective doc is free.

Does this work?

Greta

From: 2.2(a)(ii)
Sent: Monday, May 26, 2025 11:00 PM
To: STEEL <STEEL@act.gov.au>
Cc: PATERSON <PATERSON@act.gov.au>
Subject: Re: Proposed changes to Bowes St, Phillip

> **Caution:** This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Thanks James for your email and please pass on to Chris my thanks for his advocacy.

I have a couple of clarifying questions if I may as the information have provided doesn't align with previous discussion with Major Projects/iCBT, hopefully these clarifications are not complicated.

1.you state that comprehensive traffic analysis was done, however I asked this question of officials at the 'information session' and was told there was no such analysis for the area in front of GCT. Can you confirm that traffic analysis was specifically done for the area in-front of GCT (between Bowes Pl and Callum st)?

2. You speak of a trial and monitoring of traffic and state this is comprehensive of all traffic and pedestrians. I asked officials at the information session this very question and was told it did not look at anything other the impact on buses. Has the KPIs of this trial changes, or was the official misinformed when speaking to the community. Can you outline the KPIs or other measures for this trial and how they are being

measured.?

3.can you outline what measures are being considered from suggestions made by residents and what process residents will be informed of any changes made to the scope of works.

4. You mention that it was fencing which caused the pedestrian movements (and to be clear I'm not concerned about pedestrians using the tunnel) do you know what work work was done on analysis of pedestrian desire lines, as the current measure don't address the way pedestrians cross that road.

5. In relation to the drop of areas. What analysis did ACT government do in relations to this and why was the selection of the new drop area made. Noting the objections of the GCT Jody corporate. It seems somewhat concerning this area was selected noting previous issues with parking in that area blocking resident egress from GCT, of particular concern is the inability of the ACT Garnage contractor to collect garbage as a result. This was previously discussed earlier in the project and parking was subsequently banned there, not for nothing I previously wrote to Chris and Marissa on this issue and it seems strange to once again replicate this issue....and I'm not talking abstract, it also happened the other day. Not so much of a question but if you visited the site you would see how impractical it is, and as a result people are just going to block traffics (again already happening).

6. Can you clarify what meetings occurred with GCT management. I'm a member of the GCT body corporate executive and we were not consulted on the project. We sought a meeting with Major Project AFTER residents receive a post card notifying us of the works, and we have still not received a response back or the undertakings we sought regarding the works. If there has been more meetings I'm keen to understand who was spoken to as this may be an issue I need to address with our body corporate manager.

7. While not related to the original correspondence but has arisen since. I would very much like to k ow who authorised and believed it was a good idea or conduct roadworks until 1:00am in front of a residential building. While this may have been strictly within the rules (I have no view on this) just because you can do a thing does not mean you should, particular when no notice of it is given.

It would also be nice to get copies of the documents you have referenced.

Thanks, if it is easier feel free to call me.

2.2(a)(ii)

Sent from my iPad

On 25 May 2025, at 9:12 am, STEEL <STEEL@act.gov.au> wrote:

Hi Marc

Thanks for you further email and your continued engagement on this matter. We're grateful for the very positive engagement you have had with the ongoing development at CIT Woden and the new public transport interchange and recognise your continued view that this ongoing outcome is not satisfactory for you or your neighbours. I apologise for any indication that Chris was not pursuing this matter more directly. I can assure you that Chris has been seeking advice from officials and from Minister Pettersson, as responsible Minister for the project on this matter. Having discussed the matter with officials from Infrastructure Canberra and Transport Canberra extensively, I can provide you the following update based on that advice and Chris' advocacy on your behalf.

We certainly acknowledge the significant disruption these changes have caused for residents of Grand Central Towers and others who regularly use the surrounding precinct. As you are aware, construction of the new Woden Public Transport Interchange is in its final stages. In order to complete critical works, including those involving multiple watermain crossings, it is necessary to fully close off sections of Callam Street to all non-construction traffic. This has necessitated the temporary redirection of buses through Matilda and Bowes Streets.

We understand the resulting impact on local traffic and pedestrian movement. Comprehensive traffic modelling was conducted in late 2024, incorporating live traffic counts across various time periods, including peak and off-peak hours on both weekdays and weekends. These data informed the Temporary Traffic Management Plan, which details required road modifications and recommends signalisation changes to manage congestion and ensure safe traffic flow. While this modelling accounted for the projected volume of bus movements, we acknowledge that further explanation of the assumptions and findings may have been beneficial to the community.

We recognise that Bowes Street, particularly the section adjacent to Grand Central Towers, has experienced increased traffic during the construction of the CIT Woden Campus. Although measures were implemented to reduce construction vehicle movements in the area, unintentional usage by trucks and private vehicles has occasionally occurred. Once construction concludes, it is expected that traffic levels will return to those associated with

residents, service vehicles, and emergency access.

The approved Traffic Guidance Scheme includes provisions for safe pedestrian movements, including designated crossings and associated control measures. During the resident information session held on 26 March 2025, a number of constructive suggestions were made by Grand Central Towers residents, which are currently under review by Infrastructure Canberra and Transport Canberra. Subject to compliance and feasibility, modifications may be made to the Temporary Traffic Management Plan to enhance pedestrian safety and accessibility—particularly for individuals with mobility impairments.

We are aware that recent adjustments to fencing inadvertently encouraged some pedestrians to traverse the private tunnel beneath Grand Central Towers. This was not the intention of the official wayfinding signage, which directs foot traffic along the western edge of Bowes Street. With the completion of landscaping works around the CIT site, the designated pedestrian path around Grand Central Towers has now been reinstated, thereby removing the need for any access through private property.

The soft closure of Callam Street has been designed to allow for real-time observation and evaluation of both traffic and pedestrian impacts. Monitoring during this period will inform any necessary adjustments to the Temporary Traffic Management Plan prior to the implementation of the hard closure. This trial includes considerations for all users, residents, buses, emergency services, and pedestrians. The northern end of Callam Street (Launceston to Matilda Street) is anticipated to re-open to buses in September 2025. The southern end of Callam Street, at the intersection with Bradley Street, will remain closed to all non-construction traffic until works on the new Public Transport Interchange are complete towards the end of 2025.

On average, approximately 900 buses currently enter and exit the temporary Woden Interchange daily. This includes:

1. 1,511 services on weekdays,
2. 739 services on Saturdays,
3. and 444 services on Sundays.

These volumes reflect a high level of public transport usage, and every effort is being made to manage the associated impacts on the surrounding road network.

To accommodate temporary two-way bus movements along Bowes Street, the drop-off and service bay in front of Grand Central Towers has been relocated to the building's western side. This ensures that emergency vehicles, removalist trucks, delivery services and other essential vehicles can continue to access the site. Once construction of the new Woden Public Transport

Interchange is complete, the section of Bowes Street in front of Grand Central Towers will revert to a single lane and its original intended use by local residents and visitors, emergency and waste collection vehicles, deliveries and removalists will be restored. The Grand Central Towers set-down / drop-off bay will be relocated back to its current location and any road markings and signage will be reinstated.

While consultation has occurred over the past 12 months with Bus Operations, the Transport Workers Union, Roads ACT, Emergency Services, the Public Transport Association of Canberra, and representatives from GCT management and nearby businesses, we accept that additional direct engagement with residents would have been appropriate. Your advocacy has highlighted this shortcoming, and we are committed to improving the way we engage with stakeholders moving forward. Regular updates on construction progress with the CIT Woden and Public Transport Interchange are also provided at the Lendlease monthly meetings set up at the start of the CIT Woden Campus Project with members of the Construction Information Group, which includes Grand Central Towers.

Pop-up information sessions held in Westfield Woden and the temporary interchange during April provided opportunities to speak directly with over 140 members of the public, and further engagement is being pursued via online updates, on-site signage, and direct outreach to local businesses. In addition to the stakeholder and community pop-ups, the upcoming changes to bus, vehicles and pedestrian movement around the temporary Interchange are being communicated through door-knocking of local businesses around the precinct, construction look-aheads, social posts and updates published to the CIT Woden Campus project website.

We sincerely appreciate your constructive feedback and your commitment to supporting the broader vision of an improved transport hub for Woden. Coordinating the safe installation of new services within a highly serviced area is complex. We thank you for your ongoing patience and understanding with the construction of the new CIT Campus and Public Transport Interchange in Woden.

Should you wish to discuss this matter further or meet on site with representatives from our office or the Directorate, please don’t hesitate to get back in touch.

Once again, I apologise for the confusion and delay in response to you, please be assured that the office and Chris continue to seek advice on the best way to deliver the new Woden Public Transport Interchange with as minimal impact on nearby residents as possible.

Kind regards

James

James Eveille
Senior Advisor | Office of Chris Steel MLA
Labor Member for Murrumbidgee
Treasurer | Minister for Planning and Sustainable Development | Minister for Heritage | Minister for Transport
ACT Legislative Assembly
GPO Box 1020, CANBERRA ACT 2601, Australia
www.chrissteel.com.au
<image001.png>
<image002.jpg>

From: 2.2(a)(ii) [redacted]
Sent: Thursday, 22 May 2025 9:53 PM
To: STEEL <STEEL@act.gov.au>; PATERSON <PATERSON@act.gov.au>
Subject: Re: Proposed changes to Bowes St, Phillip

Thank you Emily and Kashish for your reply,

This is extremely disappointing and wholly inadequate.

I very clearly wrote to Marissa and Chris as my local members and members of my ALP sub-branch to intercede in relation to a matter in their electorate. I could have written to the Minister directly, I did not. I had hoped that my local members would actually be interested and care about the impacts of these works on their constituents.

It would appear from your answers that Chris and Marissa have no interest in constituent matters in relation to Murrambidgee. It should not take me reminding their offices that 2 months for a Ministerial reply is inadequate. The damage has now been done, the accessibility has been lost, the traffic chaos has been created.

We have had to deal with road works at 1:00am in the morning. No notice of works and when raised by residents they were told there is an exemption to noise limits for roadworks. No apologies, no consideration

of doing things differently, or general recognition my building is the home of hundreds of people. We have been lied to about the scope of the works, their length and the nature of this "trial" This indifference and deception is indeed the theme of major projects throughout-complete indifference to the impacts of the work.

It is clear that at no point has the ACT Government considered that my building is not just a structure in Woden Town centre but a home to hundreds.. It is all the more disappointing because I actually support the vision and the works but the behaviour and actions on display are well below what should be expected of the ACT Government in dealing with local residents and gives fuel to those who would oppose these reforms.

I had at least thought these things would be important to Chris and Marrissa. I now understand differently.

I will continue to wait for the response from the Minister, which will no doubt come well after the horse has bolted. I will be lodging an FOI. I may then get answers to share with my neighbours.

Marc

On Thu, May 22, 2025 at 9:40 AM STEEL <STEEL@act.gov.au> wrote:

> Good morning 2.2(a)(ii) [redacted]
>
> Thank you for your email to Minister Steel, apologies for not getting back to you sooner. As your matter relates to Major Projects, we had sought advice from Minister Petterssons office. They have decided to take lead on the response themselves, I referred this correspondecne to Minister Pettersson for their consideration on the 23rd of April. You may have received a correspondence on the 5th of May confirming this with you.
>
> You may make contact with Minister Pettersson's Office at PETTERSSON@act.gov.au. Please email us if you have any further concerns.
>
> Kind regards,
> **Emily Byass**
> Office Manager
> **Office of Chris Steel MLA**
> Labor Member for Murrumbidgee

Treasurer
Minister for Transport
Minister for Planning and Sustainable Development
Minister for Heritage
ACT Legislative Assembly
GPO Box 1020, CANBERRA ACT 2601
www.chrissteel.com.au
<image001.png>

<image002.jpg>

From: 2.2(a)(ii) [redacted]
Sent: Wednesday, 21 May 2025 5:58 PM
To: PATERSON <PATERSON@act.gov.au>; STEEL <STEEL@act.gov.au>
Subject: Re: Proposed changes to Bowes St, Phillip

Good evening team Steel and Paterson,

I note that come next Tuesday it will have been two months since my original correspondence and I have not had an update, received any of the assurances sought or even a reply.

Work has now commenced and already some of the issues raised in my original correspondence have come true. Pedestrian safety has been compromised, the traffic conditions have worsened, accessibility for people with disabilities has diminished and my building has become inaccessible to emergency services.

Given the elapsed time, I will be lodging an FOI by the end of the week in the hope that I can get some understanding of the decision making process for these works.

As a strong supporter of the government's vision for the town centre I hope you can appreciate that I am disappointed to have not had the assistance of my local labor members for Murrambidgee to resolve what could have been minor implementation issues.

I hope to hear from you both soon

Thanks
2.2(a)(ii)

On Thu, Mar 27, 2025 at 2:14 AM 2.2(a)(ii) wrote:

> Dear Chris and Marissa,
>
> I write to you as my local members to raise with you concerns regarding planned changes to Bowes Street, between Bowes Place and Callam Street as part of works to upgrade Callum street. My concerns have arisen having spoken to the project manager and a representative from major projects at a pop up information session in my building.
>
> As you know, I fully support the governments upgrades to Woden interchange and Callum street as well as the construction of the CIT. I would also hope that you know that I am a person that understands in undertaking such works there is disruption and inconvenience-I have been happy to live with the 6am start of construction of CIT for many months.
>
> However in this matter my concern is less about disruption and inconvenience, than what I consider a complete failure on behalf of TCCS and Major Projects to adequately scope the project and work with local residents to minimise disruption and frankly, safety and accessibility concerns.
>
> I understand Callum street will soon be fully closed to buses as part of its upgrades. As a result it is proposed that buses be diverted down Bowes street which will be widened from a single lane one way street to a duel lane road for buses. In undertaking this work, the layovers in front of Grand Central Towers (GCT) will be removed.
>
> During the information session I asked a number of questions about how the works had been scoped and considered. The questions and

the answers are paraphrased below

1. What traffic analysis was done on Bowes street between Bowes Place and Callum Street?
None. Traffic analysis only considered traffic around at the intersections of Bowes Street and Matilda Street.

2. Do you understand that traffic in front of Grand Central towers (GCT) consists of more than just local building traffic and is now the only exit out of Bowes street past the Matilda Street intersection?
No, they had assumed it was only local traffic and had not considered that since the closure of Callum street this was now the only way to reroute back out to exit Bowes Street.

3. Have you done any analysis of pedestrian flows from the temporary interchange to Westfield Woden or considered pedestrians safety?
No-This includes analysis on the impact of pedestrians with mobility issues and in wheel chairs.

4. You understand that you are directing traffic and pedestrian onto private property-have you considered that you have created liability issues for GCT?
They were unaware of this issue.

5. You have mentioned a trial period to test these changes. Will this trial consider impacts on private traffic or pedestrian flows?
No. It will only consider impact on bus flows.

6. How many buses will travel down this section on Bowes Street?
Unknown

8. In removing the layovers have you considered the impact on emergency vehicles seeking to access the building?
No

9. In removing the layovers have you considered the impact of removalist trucks, delivery vehicles and other short stay drop offs to the building?
No

I could go on, but was very apparent to me that the only

consideration in this entire matter was impact on buses. It does not seem to have occurred that GCT is not simply one building but is 440 homes filled with hundreds of people.

This is equivalent to more than 1/3 of Chifley in terms of number of dwellings-not including the additional impact on pedestrians accessing work and Westfield Woden from the temporary interchange. I cannot imagine a project which impacts that many dwellings would have proceeded in another suburb with such a glib approach.

There has been no consultation or discussion on this, only a post card and one information session created after the Executive asked for it, indeed the building was only engaged after we reached out to raise our concerns. As I understand it the written undertakings sought have yet to be provided to the executive committee.

I ask that as my local members you seek assurances from TCCS and Major Projects that the issues I and many of my neighbours have raised are to be addressed. I would also be happy to discuss mine and my neighbours concerns with you on site.

Thanks for your consideration of this matter.

2.2(a)(ii)

Sent from my iPad

Lin, Mandy

From: [redacted]
Sent: Friday, 13 June 2025 10:55 AM
To: Roberts, Martin; Schedule 2.2(a)(ii)
Cc: Illy, Sarah; Chartres, Hamish
Subject: RE: [EXT]:RE: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1.

Hey Martin

Was to repair a section of kerb about 4m long was a bit of emergency repair works had become a safety concern. We pushed to get it done quick to avoid someone getting hurt.

Thanks

Schedule 2.2(a)(ii)

From: Roberts, Martin <Martin.Roberts@act.gov.au>
Sent: Friday, 13 June 2025 10:51 AM
To: Schedule 2.2(a)(ii) [redacted]
Cc: Illy, Sarah <Sarah.Illy@act.gov.au>; Chartres, Hamish <Hamish.Chartres@act.gov.au>
Subject: [EXT]:RE: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1.

OFFICIAL

Good morning gents,

Can you please advise what noisy night works were being undertaken last night, hard to tell from the WN issued 6/6.

We have had questions from GCT complaining about noisy works last night so need to provide response.

Regards

Martin Roberts | Construction Director
Ph: Schedule 2.2(a)(ii) | **Email:** martin.roberts@act.gov.au
CIT Woden Campus | | Delivery – Health, Education, Justice
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra ACT 2601

ACT Government
Infrastructure Canberra

Please note that whilst some of my email correspondence may be sent outside of standard working hours, that does not immediately translate to the recipient/s being required to respond outside of standard working hours.

From: Schedule 2.2(a)(ii)
Sent: Friday, 6 June 2025 3:00 PM
To: Schedule 2.2(a)(ii)
Mick.Scott@act.gov.au; Schedule 2.2(a)(ii)
McArthur, Steve <Steve.McArthur@act.gov.au>;
Cc: Illy, Sarah <Sarah.Illy@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>; Schedule 2.2(a)(ii)
Subject: RE: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1.

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good afternoon All,

Please find the attached works notification for Enabling Works for Callam Street Shutdown Revision 2 for the remaining enabling works on Bowes/Launceston Intersection & Matilda Street.

Feel free to reach out to Schedule 2.2(a)(ii) " or myself if you have got any queries.

Kind Regards

Schedule 2.2(a)(ii)

From:
Sent: Tuesday, 25 March 2025 8:35 PM
To: Schedule 2.2(a)(ii)
Mick.Scott@act.gov.au; Schedule 2.2(a)(ii)
McArthur, Steve <Steve.McArthur@act.gov.au>
Cc: Illy, Sarah <Sarah.Illy@act.gov.au>; Roberts, Martin <Martin.Roberts@act.gov.au>;

Schedule 2.2(a)(ii) [redacted]

Subject: 25032025 WN 53_Enabling Works For Callam Street Shutdown Revision 1.

Good evening All,

Please find the attached works notification for Enabling Works for Callam Street Shutdown Revision 1.Further details will be followed up soon.

Feel free to reach out to 'Schedule 2.2(a)(ii) [redacted] or myself if you have got any queries.

Kind Regards

Schedule 2.2(a)(ii) [redacted]

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Lin, Mandy

From: Illy, Sarah
Sent: Friday, 13 June 2025 12:20 PM
To: Schedule 2.2(a)(ii)
Cc: Chartres, Hamish; Roberts, Martin; CIT Campus Woden
Subject: RE: More night works
Attachments: Construction Notification - enabling works for Callam Street closure and bus diversion.pdf

Hi Schedule 2

I'm so sorry to hear that you and other Grand Central Towers residents were disturbed again by night works in the bus interchange last night. There was a Works Notification that was distributed in advance to the Construction Information Group stakeholder list, which includes Angelina Anderson, to notify nearby residents of upcoming works. I have attached a copy of this notice in case it didn't get forwarded to you by Civium.

These night works were supposed to only have been carried out on the Tuesday night. We have followed up with Lendlease and they have informed us that they had to carry out an emergency repair to a section of kerb about 4m long in the interchange that had become a safety concern and that they pushed to get it done quickly to avoid someone getting hurt.

Nevertheless, Grand Central Towers should have been informed, and I can only apologise again for the further noise disturbance.

Lendlease will be sending out another Works Notification today relating to the Callam Street closure and I have asked that your email be included in the distribution list to ensure that you receive these notifications prior to any works commencing.

Kind regards,

Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
GPO Box 158 Canberra City ACT 2601 | www.act.gov.au/infrastructurecanberra

Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*

From: Schedule 2.2(a)(ii)
Sent: Friday, 13 June 2025 9:51 AM
To: Illy, Sarah <Sarah.Illy@act.gov.au>
Cc: Chartres, Hamish <Hamish.Chartres@act.gov.au>
Subject: More night works

Good morning Sarah

It has only been a week since our last meeting, however there were very loud night works in the bus interchange again overnight. Concrete cutting until well into the early hours of this morning.

We were assured that was the end of it, but it continues and no advanced warning.

Regards

Schedule 2.2(a)(ii)

Lin, Mandy

From: Illy, Sarah
Sent: Monday, 7 July 2025 1:50 PM
To: iCBR FOI
Cc: Roberts, Martin
Subject: FW: CIT Woden P2 - Transport Interchange Community Engagement

Hi Kirstie,

On our 'to-do' list is producing a formal report for the community consultation we ran for the Woden Public Transport Interchange which includes the pop-ups in Westfield Woden and in the temporary Woden bus interchanges as well as the stakeholder doorknocks of around 50 local businesses.

Below are the notes that Jack kindly took and has shared with me in case you wanted to include these in the FOI response, given it shows a broad engagement activity, noting that a 'what we heard' report is underway.

Many thanks,
Sarah

Sarah Illy
Director, Communications & Engagement | Education & Justice
M: Schedule 2.2(a)(ii) **E:** sarah.illy@act.gov.au
Infrastructure Canberra | ACT Government
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Making flexible work *- If you receive an email from me outside of normal business hours, please know that I am sending my email during my work hours. Please don't feel pressure to read or reply until during your work hours.*

From: Kinsmore, Jack
Sent: Monday, 7 July 2025 1:32 PM
To: Illy, Sarah
Cc: Hughes, Hayden
Subject: CIT Woden P2 - Transport Interchange Community Engagement

Hi Sarah, as discussed, please see the below details on number of people we engaged with at the popups and the list of businesses engaged with on the direct 'doorknocking'. I've also included the notes I took at these engagements – apologies for not having refined them and started an official report yet. Was going to use the attached report as the template for this one.

Westfield Woden popups

8/4/25, 12-2pm, 39 people

- Several complaints from elderly about the new distance needing to travel.
- Most questions around the general info about buses and changes.
- QON – will there be a park and ride at the new interchange?
- Excited that it's going to be done so soon
- "Please don't close lanes on Neptune St"

- On Bradley Street there is confusion about left and right changes at the interchange and then the looping road at the end of the street (not really to do with the project).
- "(the disruption) is terrible. It's been going on for years, everybody gets messed around"

10/4/25, 12-2pm, 41 people

- "Not impressed with any of it. I hate Canberra. It was like a country town when I moved here 50 years ago and now it's just built up everywhere"
- Several complaints about the traffic out the front of Westfield and how severely it backs up and bottlenecks (not this project, suggested they talk to TCCS)
- 5 students asked about these changes affecting their travel to and from school (Canberra College)
- Several comments about how important it will be to have this mass transport system/spine right next to education infrastructure.
- Lots of positive comments about Light Rail. People wanting it done sooner.

11/4/25, 4-6pm, 31 people

- More complaints about the street out the front of Westfield, one person mentioning how annoying it is that there's no carpark in front of the chemist (not this project)
- 2 school students asking about travel impact.

Woden temporary bus interchange popups

14/4/25, 4-5:15pm, 17 people

- People included 4 Transport Canberra staff, 1 Lendlease person [long-term traffic monitor] who provided ample feedback, and 2 students

15/4/25, 8-9:15am, 15 people

- 2 people were after bus information, we helped where we could and then conversations turned to the new interchange and upcoming changes.
- A couple of comments around 'all good don't need help / I'll trust the drivers'
- 1 comment about how nice the CIT building is and that 'Woden is finally getting a nice building'

15/4/25, 4-5pm, 15 people

- Included 4 students and 1 bus driver.
- More comments about the distance between the new interchange and how this is challenging for elderly and people in wheelchairs, etc., said there should be a bridge or moving walkway or something like that.
- 1 current year 12 student at Canberra college very enthusiastic about the new interchange (including Light Rail) and is going to the CIT next year and is looking forward to the new interchange and the new CIT building.

Direct engagement (doorknocking) with local businesses

20/5/25 – 26 businesses engaged

- Spoke directly to 25, left a flyer out the front of 1 unattended office.
- Floors 7, 8, and 9 of the building on the Corner of Bowes St. and Bowes Pl. were secure access, so we could not access.
- Businesses:
    - Phillip Tobacconist & Supermarket.
    - Child and Adolescent Mental Health Services (ACT Health) – advised they would also scan the flyers and send out to clients.
    - Ch-ch-ch-changes café.
    - TaxFig Accounting.
    - Rheumatology ACT.
    - Salvation Army (Workforce Australia).
    - StarCare.

- Dieticians Australia.
- Northcott – unattended, left flyer.
- Priority 1 Lending.
- Bedford Legal.
- Keystone Wealth.
- Woden Community Services.
- The Alby, questions about traffic and parking impacts.
- Three Mills.
- Midnight Mocs.
- Songlines Café.
- Abode – had several questions about the re-route and traffic impacts just in front of the hotel entrance.
- Services Australia.
- ACT Health.
- Clean Energy (Commonwealth office).
- Café Gizmos.
- ACT Cricket.
- Black Label Barbers.
- All In One Supermart – had several questions about the road widening happening out the front of the store, and traffic impacts.
- Unicorner – had questions about traffic and carpark access, and asked when the CIT will open.

6/6/25, 26 businesses/organisations engaged

- Left flyer out front of 1 business that was locked for a private session.
- Spoke directly to 15. Some places had several businesses attached to them, so they took a number of flyers and advised they'd pass the information on to those attached.
- Businesses:
  - Microsurgery & Canberra Eye Laser – lots of questions about timeframes and street closures.
  - Redgum periodontics and implants.
  - Southside physio – questions about changes to traffic lights but don't think this will impact clients too much.
  - Artisan aesthetic clonics – questions around about parking changes/impacts.
  - Capital endodontics Canberra.
  - World of wellbeing (and Canberra osteopathic centre) – concerns about car parking and traffic. They want to lobby to local members.
  - 24Care Australia – concerns about traffic.
  - Arena counselling – locked in session, left flyer.
  - Hindmarsh offices – concerns that traffic is already heavy now. Will pass on flyer and information ahead of group meeting.
  - Woden early childhood centre – questions about traffic impact. Advised they'll pass information to head office.
  - Koomari centre – no major concerns, said "it'll be December before we know it!"
  - Smith family – left some flyers for 2 other business in the building.
  - Canberra college – took some more flyers to put around the school, will let students know that buses remain the same, will just go a slightly different way.
  - Kids centre – advised they'll photocopy and send to parents.
  - Stellar (6 businesses) – very appreciative of letting them know.
  - Woden police station – heaps of questions, they need to know police vehicles can still get through, they should have been told ages ago, they took my details and will get in touch if any questions. Sarah confirmed that had previously been fully engaged/briefed on the changes. No further action required.
  - Woden Youth Centre – pressed doorbell and waited, no answer, no way to leave flyer. Sarah contacted Woden Community Services (WCS) separately.

Jack Kinsmore | A/g Assistant Director, Communications and Engagement
M Schedule 2.2(a)(ii) E jack.kinsmore@act.gov.au

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