From: Abeysekera, Ruwan
Sent: Friday, 26 October 2018 10:18 AM
To: Chowdhury, Abu Sayem
Subject: COMM: TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Attachments: plans.obr; supporting docs.obr

Hi Sayem,

Please see below DDR comments.

Dear App Sec,

DEVELOPMENT APPLICATION NO: 201834203

Project Description: PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and additions to the existing commercial building, landscaping, and associated works.

BLOCK: 23	**SECTION: 346**	**SUBURB: KAMBAH**

This DA has been assessed in regards to the following:

Traffic		**Driveways**	**X**
On Street / Public Parking Facility		**LMPP/Street Trees**	**X**
Public Transport		**Street Lighting**	
Waste Management		**Pedestrian Footpath**	**X**
Stormwater	**X**	**Service / Access Easement**	
Demolition	**X**	**Estate Development Plan (EDP)**	
Further Information		**Amendments/Additions/Alterations**	**X**
Lease Variation		**Capital Works**	

X = Areas Assessed.

And TCCS' position is:

That It Is Supported	
That It Is Supported Subject to Compliance With The Following Conditions	**X**
That Further Information Is Required	
That It Is Not Supported	

<u>Conditions</u>

PEDESTRIAN NETWORK

1. **The proposed new and existing foot paths must be upgraded and constructed as per the TCCS standard.**

VERGE / VERGE TREE

2. **The tree numbers 1 and 3 on Tree Management Plan, Drg No. 3349-G2 A, Dated 18/05/2018 that were assessed as high quality trees that must be retained, protected and incorporated into the redevelopment of the Kambah shopping centre.**
3. **The majority of the trees on the site were assessed as medium quality. So the applicant must need to justify why the high number of medium quality trees proposed for removal cannot be retained and included into a revised design of the proposal.**
4. **A Landscape Management and Protection Plan must need to be provided at the design acceptance stage demonstrating how the trees to be retained on the site will be protected during construction of the proposed development.**
5. **All new trees planting must be carried out by a landscape contractor with horticultural expertise. A 12 month consolidation period is required prior to formal handover to TCCS.**
6. **Any trees proposed to be removed must be sign posted a minimum of 14 days prior to them being removed in accordance with Urban Treescapes public notification process**

STORMWATER

7. **Any structures in proximity to the stormwater drainage lines must comply with TCCS Guidelines for Construction in the Vicinity of a Stormwater Easement.**
8. **The centreline of underground pipe must be a minimum of 900mm (horizontally) to any footings.**
9. **The line of influence of the footing must be beneath or outside the pipe as designed by a structural engineer's specification.**
10. **A detail design stormwater plan must be submitted at the design Acceptance stage.**
11. **A 2.5m wide and height clearance of unobstructed access zone must be provided to the stormwater drainage pipe.**

CAR PARK

12. **A new car Park modification must be design and constructed in accordance with AS 2890.5 On-street Car Parking. A detail design of the car park must be submitted at the Design Acceptance.**

Standard Conditions

Following general conditions will apply as appropriate for Works on and Use of Territory Land in addition to the above:

In accordance with the Public Unleased Land Act 2013 no work is to be undertaken on road verges and other unleased Territory Land without the approval of the Territory. Such approval must be obtained from the Senior Manager, Place Coordination and Planning, TCCS by the ways of:

1. A Letter of Design Review prior to the commencement of any work; and
2. A certificate of Operational Acceptance on completion of all works to be handed over to TCCS.

Design Review and Operational Acceptance

A Letter of Design Review is required for all off-site works from the Senior Manager, Place Coordination and Planning, TCCS, prior to the construction.

In order to obtain the Letter of Design Review, fully detailed drawings (civil, landscape) prepared by suitably qualified persons for all off-site works including roads, driveways, footpaths, street lighting, storm water, landscaping (and any other issues that may be found by audit of the plans) and a design report in accordance with Ref No 06:"Requirements for Design Review Submissions", must be certified by a Chartered Engineer/Landscape Architect and submitted to the Senior Manager, Place Coordination and Planning, TCCS.

A Certificate of Operational Acceptance on completion of the works is required from the Senior Manager, Place Coordination and Planning, TCCS, prior to the issue of a Certificate of Occupancy.

Similarly a Chartered Engineer/Landscape Architect should certify compliance with TCCS Ref No 08: "Requirements for Works as Executed Quality Records Requirements" when the request for Operational Acceptance is made to the Senior Manager, Place Coordination and Planning, TCCS on completion of all off-site works

A Waste Management Plan in accordance with the Development Control Code for Best Practice Waste Management in the ACT must also be included if not approved at the Development Application stage.

Temporary Traffic Management (TTM)

A TTM plan approval from the Manager, Traffic Management & Safety, Roads ACT, TCCS. All times during construction the site and surrounds shall be managed in accordance with a Temporary Traffic Management Plan, prepared by a suitably qualified person and approved by the Manager, Traffic Management & Safety. This plan is to address, as a minimum, measures to be employed during construction to manage all traffic, including construction traffic, in and around the site, provision of safe pedestrian movement around the site, the provision of parking for construction workers, and associated traffic control devices.

Landscape Management & Protection Plan (LMPP)

LMPP approval from the Senior Manager, Place Coordination and Planning, TCCS. During construction, all existing vegetation (trees, shrubs and grass) located on the verge and unleased Territory land immediately adjacent to the development shall be managed, protected and maintained in accordance with the Landscape Management Protection Plan (LMPP) approved by the Senior Manager, Place Coordination and Planning, TCCS. This plan is to be implemented before the commencement of works, including demolition on the site and is to be in accordance with TCCS Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works-REF-04.

Use of Verges or other Unleased Territory land

In accordance with the Public Unleased Land Act 2013, road verges and other unleased Territory land must not be used for carrying out of works, including storage of materials or waste, without prior approval of the Territory. Such approval can be obtained from Licensing and Compliance, City Services, Parks and Territory Services, TCCS.

Repair of Damage to Public Assets

The applicant/lessee is held responsible for all damages to ACT Government assets (including footpaths) caused by the development and they must properly repair any damages to those assets. Before work commences, they should notify TCCS of any existing damage to public facilities.

Notice of Commencement of Construction

Notice of Commencement for the Works in Unleased Territory Land shall be submitted to the Senior Manager, Place Coordination and Planning, TCCS one week prior to the commencement of works. The Notice shall also include the confirmation of any protective measures installed in accordance with the approved LMPP and the programmed implementation of TTM.

Additional Comments/Advice (as advice to EPSDD only, and not to be included in the Notice of Decision)

1. **N/A.**

Ruwan Abeysekera| Project Engineer - Development and Design Review
Phone 02 62077386 | Email: ruwan.abeysekera@act.gov.au
Infrastructure Planning | Transport Canberra and City Services Directorate | ACT Government
Level 1, 490 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | www.act.gov.au

Connected services for the people of Canberra

From: Cloos, Karl
Sent: Wednesday, 17 October 2018 1:52 PM
To: Chandramohan, Chandra <Chandra.Chandramohan@act.gov.au>

Cc: Finnigan, Rebecca <Rebecca.Finnigan@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Chandra

For your teams response.

Regards
Karl

From: TCCS_PC DA
Sent: Wednesday, 17 October 2018 12:17 PM
To: Trevithick, Angela <Angela.Trevithick@act.gov.au>; Cloos, Karl <Karl.Cloos@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Karl / Angela
May we request your team to review this commercial development and send comments back to me before the due date?
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

ACT Government
Transport Canberra and City Services

Connected services for the people of Canberra

From: EPD, Customer Services
Sent: Tuesday, 9 October 2018 10:05 AM
To: TCCS_CW DRCDA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203
BLOCK: 23 SECTION: 346 DIVISION: KAMBAH

Description: PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and additions to the existing commercial building, landscaping, and associated works.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the abovementioned development application and provide any written advice no later than **15 working days** after the date of this notice **(30/10/2018)**.

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the prescribed time it will be taken that you have supported the application.

Please forward any written advice via email to Customer Services – EPDcustomerservices@act.gov.au

Please use the following format in the subject line of the email when providing advice:
COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Regards,
Matthew Forman
Customer Services

Phone 02 6207 1923
Access Canberra | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 158 Canberra ACT 2601

Access Canberra is an ACT Government service that brings together customer and regulatory services, including the former Environment and Planning Directorates Customer Services Team. Access Canberra has been set up to make it easier for business, community organisations and individuals to work with ACT Government and deliver a more seamless experience.

www.planning.act.gov.au |EPDcustomerservices@act.gov.au

Land titles and revenue services are moving to Dame Pattie Menzies House, 16 Challis Street, Dickson and will be co-located with the Access Canberra Environment, Planning and Land Shopfront. These services will be available at this new location from 1 December 2016. For more information visit ***www.act.gov.au/accessCBR***

Intentionally Blank

From:	Dillon, Amelia
To:	Chowdhury, Abu Sayem
Cc:	Wyatt, Tim; Trevithick, Angela; Karanfilovski, George
Subject:	RE: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Date:	Monday, 29 October 2018 12:02:20 PM
Attachments:	image004.png image005.jpg

Hi Sayem,

Transport Planning and Policy comments are below.

Thanks
Amelia

23/346 Kambah – Kambah Group Centre, extension of the supermarket and group centre

- Cyclist and pedestrians are accommodated within the car park redesign with a designated entrance from Marconi Crescent to the proposed centre entrance. Despite this, the proposal does not formalise pedestrian connections between the existing buildings on blocks 4 and 37, and the proposed development. Unresolved this will result in a poor outcome for pedestrians entering from the south.
- The following discrepancies are present in the documentation, this should be clarified with the applicant.
    - Parking
        - The statement against criteria mentions that offsite works would include rearranging the car parking in the centre to provide a total of 245 parking spaces within the group centre carpark
        - The traffic report mentions that redevelopment of the existing carpark will provide a total of 252 parking spaces from the existing 255 spaces
    - Bicycle parking
        - The statement against criteria mentions that provision is made for 16 bikes within the town square and 6 bikes will be accommodated within a bicycle locker
        - The site analysis shows that 15 bicycle parking spaces are to be accommodated within the town square
    - The swept path drawings and the landscape drawings do not correlate with each other with regards to the parking spaces outlined on each of the places.
- The proposed off-site parking being incorporated into this development will need to ensure that these users will be able to access the centre in a safe and accessible manner, including the adequate provision of footpaths and adequate lighting.
- The proposed expansion of 1,740m2 and 1,590m2 of commercial space was approximately reflected in our future retail space assumptions which shows an 11,500 square metres 2031 from around 8,800 square metres in 2016. The Canberra Strategic Transport Model (CSTM) shows that while Drakeford Drive will have significant traffic in 2031, there will be capacity along Marconi Street and Boddington Crescent to accommodate additional traffic.
- The assumption of 3% traffic volume growth factor per annum along Drakeford Drive is acceptable for this analysis, considering that Tuggeranong population is anticipated to only increase slightly.
- Overall, while the performance of the Drakeford Drive/Marconi Street/Boddington Crescent remains at Level of Service C (LOS C), the right turning traffic from both approaches of Drakeford Drive remains at LOS F. The level of service at the Boddington Crescent will also deteriorate to the next level. Noting that the Consultant used the same cycle times for the future scenario, the assessment should include recommendations for suitable cycle phasings for each approach to have at least LOS C or D.
- On public transport, while the report noted a minimal impact, the assessment should be reviewed in light of the proposed new bus network including consideration for the expresso bus stops (Routes 180, 181) and the ongoing review of park and ride facilities. The 18 park and ride spaces within the centre could be repurposed as additional parking

required for this development. This would require further consultation with TCCS Transport Planning and Policy.

- At the minimum, the proposed development should ensure that there are suitable connections and facilities for pedestrians and cyclists to parking and bus stops.

Comments for EPSDD to consider

- Transport Canberra and City Services are currently enhancing the Kambah Group Centre, with the aim to creating a public space that promotes health, happiness and wellbeing. Considerations of the proposed development should be cognisant of the character of the Kambah Group Centre (discussed in the Kambah group centre master plan) and the current placemaking investments being undertaken by TCCS.

From: TCCS_PC DA
Sent: Wednesday, 17 October 2018 12:17 PM
To: Trevithick, Angela <Angela.Trevithick@act.gov.au>; Cloos, Karl <Karl.Cloos@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Karl / Angela
May we request your team to review this commercial development and send comments back to me before the due date?
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

Connected services for the people of Canberra

From: EPD, Customer Services
Sent: Tuesday, 9 October 2018 10:05 AM
To: TCCS_CW DRCDA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203
BLOCK: 23 SECTION: 346 DIVISION: KAMBAH

Description: PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and

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COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Regards,
Matthew Forman
Customer Services

Phone 02 6207 1923
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Intentionally Blank

From: Chowdhury, Abu Sayem
Sent: Wednesday, 7 November 2018 3:19 PM
To: EPD, Customer Services
Cc: TCCS_PC DACOORD; Bell, Jeff
Subject: COMM-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Dear App Sec,

DEVELOPMENT APPLICATION NO: 201834203

Project Description:
PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and additions to the existing commercial building, landscaping, and associated works.

BLOCK: 23	**SECTION: 346**	**SUBURB: Kambah**

This DA has been assessed in regards to the following:

Traffic	**X**	**Driveways**	**X**
On Street / Public Parking Facility	**X**	**LMPP/Street Trees**	**X**
Public Transport		**Street Lighting**	**X**
Waste Management	**X**	**Pedestrian Footpath**	**X**
Stormwater	**X**	**Service / Access Easement**	**X**
Demolition		**Estate Development Plan (EDP)**	
Further Information		**Additions/Alterations**	
Lease Variation	**X**	**Capital Works**	

X = Areas Assessed.

And TCCS' position is:

That It Is Supported	
That It Is Supported Subject to Compliance With The Following Conditions	
That Further Information Is Required	**X**
That It Is Not Supported	**X**

Comments

Service Vehicle Access to Block 4 and 37

1. **The proposed development will restrict service vehicle access to the rear of block 4 and 37. As per submitted vehicle turning template (Drawing C503) it appears that vehicle up to 8.8m will be able to safely access to / egress from the service area. Please refer to the Drawing C505 turning template for 10.5m truck which is too tight to manoeuvre and it doesn't have any clearance available from the wall while reversing out of the service area. The truck will encroach loading dock as well.**
2. **As per pre DA advice the proponent must consider service vehicle access requirements (size of the largest vehicle currently utilizing the service area) of the businesses in block 4 and block 37 and provide turning template for the largest service vehicle. The proponent needs to submit a written advice from the shop owners in block 4 and 37 as to identify the maximum size of the service vehicle currently being used by the businesses.**

Trees

3. **The tree numbers 1 and 3 on Tree Management Plan, Drg No. 3349-G2 A, Dated 18/05/2018 that were assessed as high quality trees that must be retained, protected and incorporated into the redevelopment of the Kambah shopping centre.**
4. **The majority of the trees on the site were assessed as medium quality. So the applicant must need to justify why the high number of medium quality trees (proposed for removal) cannot be retained and included into a revised design of the proposal.**

Traffic / Transport

5. **Cyclist and pedestrians are accommodated within the car park redesign with a designated entrance from Marconi Crescent to the proposed centre entrance. Despite this, the proposal does not formalise pedestrian connections between the existing buildings on blocks 4 and 37, and the proposed development. Unresolved this will result in a poor outcome for pedestrians entering from the south.**
6. **The following discrepancies are present in the documentation, this should be clarified :**
    1. **Parking**
        1. **The statement against criteria mentions that offsite works would include rearranging the car parking in the centre to provide a total of 245 parking spaces within the group centre carpark**
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        1. **The statement against criteria mentions that provision is made for 16 bikes within the town square and 6 bikes will be accommodated within a bicycle locker**
        2. **The site analysis shows that 15 bicycle parking spaces are to be accommodated within the town square**
    3. **The swept path drawings and the landscape drawings do not correlate with each other with regards to the parking spaces outlined on each of the places.**
7. **The proposed off-site parking being incorporated into this development will need to ensure that these users will be able to access the centre in a safe and accessible manner, including the adequate provision of footpaths and adequate lighting. A plan must show the details of the overflow parking areas and possible routes for pedestrians.**
8. **While the performance of the Drakeford Drive/Marconi Street/Boddington Crescent remains at Level of Service C (LOS C), the right turning traffic from both approaches of Drakeford Drive remains at LOS F. The level of service at the Boddington Crescent will also deteriorate to the next level. Noting that the Consultant used the same cycle times for the future scenario, the assessment should include recommendations for suitable cycle phasings for each approach to have at least LOS C or D.**
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10. **The proponent must ensure that there are suitable connections and facilities for pedestrians and cyclists to shops, parking and bus stops.**

Comments for EPSDD to consider

Transport Canberra and City Services are currently enhancing the Kambah Group Centre, with the aim to creating a public space that promotes health, happiness and wellbeing. Considerations of the proposed development should be cognisant of the character of the Kambah Group Centre (discussed in the Kambah group centre master plan) and the current placemaking investments being undertaken by TCCS.

Regards

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**

490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 9 October 2018 10:05 AM
To: TCCS_CW DRCDA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203
BLOCK: 23 SECTION: 346 DIVISION: KAMBAH

Description: PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and additions to the existing commercial building, landscaping, and associated works.

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Please use the following format in the subject line of the email when providing advice:
COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Regards,
Matthew Forman
Customer Services

Phone 02 6207 1923
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Intentionally Blank

From:	Chowdhury, Abu Sayem
To:	EPSD DAEnquiries
Cc:	Aster-Stater, Alek
Subject:	RE: DA 201834203 Block 23 S 346 Kambah -request by applicant to block 4 owners to provide information to EPD [SEC=UNCLASSIFIED]
Date:	Friday, 1 February 2019 11:28:15 AM

UNCLASSIFIED

Hi Trent

Please note that following advice is provided to EPSDD only. EPSDD should handle all enquiries about this DA.

The issue is not only about restriction of any particular size; it's about current and future needs of the business. If the businesses currently utilising a B Double / 19m Semi / 12.5m SU Truck for loading / services and they want to continue that amenity to support their business we should take that into account of our assessment. That is why TCCS has requested the applicant (DA 201834203) to get a letter of consent from the owners of block 4 what is the maximum size of the vehicle access requirements for their services / loading area. Without looking at truck turning template on existing layout / confirmation from the businesses TCCS can't confirm what is the maximum size of the vehicle currently accessing to the services area.

Please talk to me if you need any clarification.

Regards

Sayem

Abu Sayem Chowdhury | A/g Operations Manager | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPSD DAEnquiries
Sent: Friday, 1 February 2019 11:02 AM
To: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Subject: RE: DA 201834203 Block 23 S 346 Kambah -request by applicant to block 4 owners to provide information to EPD [SEC=UNCLASSIFIED]

Hi Sayem,

Can you confirm. Sorry to be a pest.

Trent Varlow

From: [redacted]
Sent: Friday, 1 February 2019 10:58 AM
To: EPSD DAEnquiries <DAEnquiries@act.gov.au>
Cc: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Subject: Re: DA 201834203 Block 23 S 346 Kambah -request by applicant to block 4 owners to provide information to EPD [SEC=UNCLASSIFIED]

Thank you DA Enquiries

I take you to mean that the access we presently enjoy into and out of the area between blocks 4 and 37 Section 346 Kambah is unrestricted as it concerns size of vehicle, and therefore unlimited - at present.

Please confirm that I have understood TCCS correctly.

[redacted]

Secretary, Owners Corporation, Block 4 Section 346 Kambah

[redacted]

Sent from my iPad

On 1 Feb 2019, at 10:00 am, EPSD DAEnquiries <DAEnquiries@act.gov.au> wrote:

Hi [redacted],

I have spoken to Transport Canberra and City Services and they have identified that the area does not have a maximum size of vehicle restriction.

Please let me know if you have any further questions.

Kind regards,

DA Enquiries

-----Original Message-----
From: [redacted]
Sent: Thursday, 10 January 2019 10:18 PM
To: EPD, Customer Services <EPDCustomerServices@act.gov.au>
Subject: DA 201834203 Block 23 S 346 Kambah -request by applicant to block 4 owners to provide information to EPD

To the officer responsible, ACTPLA/EPD

[redacted] of Tzanetos Family Group, applicant for DA 201834203, has advised the owners of Block 4 section 346 Kambah that you have requested him to request us to provide, in writing, details of the sizes of trucks that need to have access to the rear of our premises Block 4 section 346 for business operations.

Can you please advise me as to the maximum size of vehicle that can access this area currently?

Thank you

[redacted]
Secretary, Owners Corporation, Block 4 Section 346 Kambah
[redacted]

Sent from my iPad

This email, and any attachments, may be confidential and also privileged. If you are 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.

From: Chowdhury, Abu Sayem
To: Varlow, Trent
Subject: FW: DA 201834203 - service and delivery vehicle access to block 4 section 346 Kambah - ref Block 23 section 346 Kambah
Date: Tuesday, 5 February 2019 4:40:00 PM

UNCLASSIFIED

FYI

From: [redacted]
Sent: Tuesday, 5 February 2019 3:32 PM
To: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Subject: Fwd: DA 201834203 - service and delivery vehicle access to block 4 section 346 Kambah - ref Block 23 section 346 Kambah

Mr Chowdhury - for the information of TCCS.
[redacted]

Sent from my iPad

Begin forwarded message:

From: [redacted]
Date: 17 January 2019 at 2:40:38 pm AEDT
To: [redacted]
Cc: epdcustomerservices@act.gov.au
Subject: DA 201834203 - service and delivery vehicle access to block 4 section 346 Kambah - ref Block 23 section 346 Kambah

Dear [redacted]

I refer to your email of 9 January 2018 seeking to know the types and sizes of service and delivery vehicles that require access our rear service zone at Block 4 section 346 Kambah, and the frequency with which they do so. You advised that the ACT Planning Authority had asked for this information to be provided to them in writing from us via yourself in connection with your DA as it concerns Block 23 Section 346 Kambah.

This response is provided by the Secretary of the Owners Corporation, Units Plan 356 Kambah, for and on behalf of all the owners and traders at Block 4 Section 346 Kambah, in the Kambah Village Centre.

As follows:
1) For deliveries - the largest vehicles that deliver to our premises include an 18 metre Volvo semi-trailer, twice a week, and a 12 metre 12 pallet 10 tonne truck, also twice a week

2) Waste removal services - ACT Government guidelines require access for 12

metre front loading and rear loading waste and waste recycling trucks. Waste removal services are provided to different businesses in our block by different providers, with differing frequency, but at a minimum of once a week and more frequently as required.

Hence we require assured access for these vehicles, as a minimum, into the future.

General
We require all ACT Government standards, guidelines, regulations and laws pertaining to the movement and safety of vehicles, and parking, in and around the shopping centre, and the use of roads, and road and access design for these purposes, to be observed at all times, and to be capable of being complied post-development as they are now, and applied in connection with all and every aspect of assessment of your DA application. The owners will not agree to any reduction or diminution of standards here, nor any waiver of standing engineering standards and requirements. We reply on the relevant organs within the ACT Government to assess and determine the DA accordingly. And we will hold them to account for their decisions.

I refer the government authority assessors and decision makers to our submission lodged in response to this DA on 2 November 2018, in particular the paragraphs under 'Access'. I have copied it into this communication, at the end, for ease of reference.

Yours sincerely
[redacted]
Secretary, Owners Corporation, Units Plan 356 Kambah
For and on behalf of the owners and traders of Block 4 Section 346 Kambah

Paragraphs from submission lodged with EPD by the owners on 2 November 2018:
'Access
Turn templates are provided (files 55-58) in the application to show how 19, 8.8, 10.5 and 12.5 m trucks would navigate the access past the Woolworths loading dock, the slip road and the road between blocks 4 and 37. The road between block 4 and 37 is the rear access to the business premises located there. We are concerned that the manoeuvres shown may not be practical to execute. If so, the proposal will impact adversely on the business operators and property owners in these blocks. We seek therefore that your assessors fully investigate these traffic arrangements for their safety, viability and practicality. Any temporary or permanent restriction to the access at the rear of our building must be addressed and removed. In particular, the verge management plan (61) shows access to the area between blocks 4 and 37 fenced off during a construction 'stage'.

A corollary issue to access by waste collection vehicles is waste storage pending collection.

The waster hoppers and bins of Block 4 traders are stored in and around the rear of Block 37, thanks to the largesse of the leaseholder. This arrangement cannot be taken to be permanent, and in any redevelopment provisions should

be made for the storage of waste pending collection, taking account of the current volume and the volume that would be produced by the increased GFA arising from the development. We would expect provisions such as will preclude any possibility of health hazards and/or an eye-sore.’

Sent from my iPad

Intentionally Blank

From: Bell, Jeff
Sent: Tuesday, 19 February 2019 4:52 PM
To: Chowdhury, Abu Sayem; Aster-Stater, Alek
Subject: FW: kambah - Kambah Village Centre - owners (block 4 section 346) response to [redacted] forwarded for your information

Follow Up Flag: Follow up
Flag Status: Completed

FYI

Regards

Jeff Bell MIEAust CPEng
Phone: 02 6207 5604 | Email: jeff.bell@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate |ACT Government
490 Northbourne Ave, Dickson| GPO Box 158 Canberra ACT 2601 | www.act.gov.au

Connected services for the people of Canberra

From: [redacted]
Sent: Tuesday, 23 October 2018 11:12 AM
To: Bell, Jeff <Jeff.Bell@act.gov.au>
Subject: Re: kambah - Kambah Village Centre - owners (block 4 section 346) response to [redacted] forwarded for your information

Thank you Jeff.

I didn't know where TCCS fitted in in the formal process.

It is a great relief to know that TCCS hasn't signed it off!

[redacted]

Sent from my iPad

On 23 Oct 2018, at 10:50 am, Bell, Jeff <Jeff.Bell@act.gov.au> wrote:

> Hi [redacted]
> My team has received the DA for review, but we haven't had a chance to get to it yet. As you know, TCCS is aware of the vehicular access, circulation and parking issues associated with this development and our comments/conditions will certainly focus on these areas.
>
> **Regards**
>
> **Jeff Bell MIEAust CPEng | Senior Development Coordination Manager, Place Coordination**
> Phone: 02 6207 5604 | Email: jeff.bell@act.gov.au
> **Place Coordination and Planning | Transport Canberra and City Services Directorate |ACT Government**
> 490 Northbourne Ave, Dickson| GPO Box 158 Canberra ACT 2601 | www.act.gov.au
>
> *Connected services for the people of Canberra*

From: [redacted]
Sent: Tuesday, 23 October 2018 10:31 AM
To: Bell, Jeff <Jeff.Bell@act.gov.au>
Subject: Fwd: kambah - Kambah Village Centre - owners (block 4 section 346) response to [redacted] forwarded for your information

Dear Jeff

I am writing in connection with the DA that has been lodged by the Tzanetos family for a major development at the Kambah Village Centre.

Last year [redacted] asked us, as the owners of the property adjacent to his Woolworths supermarket, to provide comment on his then proposed traffic arrangements, and we did, plus some. Please see our response below.

We have now been invited to respond to the DA that he has lodged by 2 November.

We cannot see that there has been any change to his plans in response to our concerns, so we may be bound to repeat them, this time by way of formal response to the DA process.

I would like to know if TCCS has reviewed this DA and if so, if you have formed a view as to the adequacy, or otherwise, of the traffic arrangements and parking capacity. [redacted] proposes to increase his lettable space from 1300 sq m to about 5000 sq m. There are to be 191 carparks, plus 6 disabled spaces, plus the 18 spaces that are behind block 4. I do not know if these numbers include the extra few spaces that ACT govt intends to construct as part of stage 2 of its landscaping and improvements plan at some time in the future.

Thank you

[redacted]

Sent from my iPad

Begin forwarded message:

> **From:** [redacted]
> **Date:** 12 September 2017 at 12:08:22 pm AEST
> **To:** jeff.bell@act.gov.au
> **Subject: Fwd: kambah - Kambah Village Centre - owners (block 4 section 346) response to [redacted] - forwarded for your information**
>
> Dear Jeff
>
> Please see below the response of the owners, Units Plan 356 Kambah (block 4 section 346) to [redacted] request to us for comment on his proposals for traffic arrangements in connection with his proposed developments at KVC.

I assume you are the relevant authority and if so, I forward our reply for your information. If you are not the relevant authority, please advise me who is.

I would be happy to discuss our response with you if required.

Thank you

[redacted]
For the Owners, Units Plan 356 Kambah
[redacted]

Sent from my iPad

Begin forwarded message:

From: [redacted]
Date: 5 September 2017 at 4:05:48 pm AEST
To: [redacted]
Cc: [redacted]
Subject: Re: kambah

Dear [redacted]

We refer to your email of 16 August, to which you attached a letter from your town planner about loading docks, turning circles and vehicular access to the road that runs between the back of Blocks 4 and 37 at the Kambah Village Centre, in the context of your proposal to extend Woolworths to the south of the present premises.

We welcome expansion of the supermarket, but only in a way that

1) results in no reduction to the standard and extent of vehicular access we currently have to the rear of our property, and around it, nor its safety

2) does not reduce the present number of car parks at any time

3) does not compromise pedestrian safety, and access to, from and between the buildings of the KVC.

Hence we do not agree with the proposals put forward to us for loading docks, rear access, and turning circles.

We note that the footprint of your proposed development vastly exceeds that proposed in the master plan; that the Woolworths

loading dock is proposed for the wrong side of the building vis a vis the master plan; that a large number of parking spaces will be removed if it proceeds; and that the present and future use of our ground floor units, which have very wide purpose clauses, unlike some other properties in the KVC, could be compromised if vehicular access to the rear of the building is reduced from what it presently is. The upper level units are used as professional rooms and offices, and the likelihood of noise arising from the close proximity of a loading dock for 19 metre Woolworths trucks cannot be discounted.

Your proposal will result in a significant reduction of parking space in the centre. This will affect customers, and thereby the business of existing established businesses, adversely. At a recent meeting with you a business operator informed us that parking at the KVC is already under pressure.

We note that there are other respects in which the development proposal is inconsistent with the KVC master plan and some of its community goals.

We would expect that car park augmentation and the installation of the eastern access road should precede any significant expansion of retail space in the KVC, so as to ensure continued access by pedestrians and vehicles alike, to the existing businesses of the KVC.

In summary, traffic arrangements your propose for the rear of Kambah Village are unacceptable to us and impracticable for reason that they will impact to a serious degree on the business operators and property owners, pedestrian shoppers, parking amenity and therefore the viability of the businesses established in the centre.

Yours sincerely

The Owners, Units Plan 356, Block 4 section 346 Kambah

[redacted]

On 31 Aug 2017, at 2:15 pm, [redacted] wrote:

Dear Kambah Property Owners,

I appreciate how busy small business owners are these days, but further to my last email could I ask all to provide comments back no later than 19th September as its the final issue TCCS (TAMS) is waiting on to complete there assessment and for us to prepare our formal DA documents. Rest assured there will be further opportunity to comment on the proposal during the formal public consultation phase later in the year when we lodge the development application.

Thanks in advance.

[redacted]

On 16 August 2017 at 18:33, [redacted] wr

> Dear Owners of blocks 4 and 37 of section 346 Kambah,
>
> Attached is a letter outlining our proposed recommendation for truck movements at the kambah village shops expansion project.
>
> We seek your consideration, comment and written support on this preferred option for supermarket dock and public carpark access. Email is fine. Even if you have no comment

to make please reply with a simple " no comment" as I'd like to know that you have all received this correspondence.

Should you have any questions regarding the proposed access solution or require anything further on this matter, please call me on [redacted] or [redacted]

Yours Sincerely,

--

[redacted]

PO Box 6042
Mawson ACT 2607
Unit 5, 15 Darling St
Mitchell ACT 2911
—
EXEMPLA.COM.AU

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From: Hope Watson
To: Chowdhury, Abu Sayem
Cc: Aster-Stater, Alek; [redacted]
Subject: FW: Meeting re TCCS FIR on DA 201834203
Date: Thursday, 21 February 2019 12:03:04 PM
Attachments: Further info request - TCCS comments.docx
Sketch01.pdf
Sketch02.pdf
Sketch03.pdf

Hi Sayem,

I spoke with Alek the other day and he said you would be looking at this, can we get a meeting next week to discuss?

Cheers, Hope.

CTP Logo

Hope Watson
Town Planner
[redacted]

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From: Hope Watson
Sent: Tuesday, 19 February 2019 11:21 AM
To: Alek Aster-Stater (alek.aster-stater@act.gov.au) <alek.aster-stater@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>; [redacted]
Subject: FW: Meeting re TCCS FIR on DA 201834203

Hi Alek,

Further to yesterday's email, please find attached a preliminary tabulated response to the further information request for discussion with TCCS.

In particular, we are considering alternative options for the supermarket loading zone, which is more to respond to representations received from lessees on Block 4 and 27, which we would like to discuss with TCCS. The potential options are attached.

We would appreciate if you could identify a time we can meet to discuss these options and the other matters raised in the FIR for next week.

Look forward to hearing from you.

Regards,

Hope.

CTP Logo

Hope Watson
Town Planner
Mobile [redacted]

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the sender and permanently delete the message.

From: Hope Watson
Sent: Monday, 18 February 2019 2:59 PM
To: Alek Aster-Stater (alek.aster-stater@act.gov.au) <alek.aster-stater@act.gov.au>
Subject: Meeting re TCCS FIR on DA 201834203

Hi Alek,

As discussed on Friday, we'd like to request a meeting with TCCS, regarding the further information request received on this DA, as we are working on some alternative solutions to address some of the matters raised, such as location of service vehicle access and carparking. We are just finalizing some preliminary comments and plans to provide for your review prior to the meeting, but in the meantime, could you tentatively book in a time to meet next week, and I will send through documents as soon as I can.

It would also be helpful for us to have Chris Gell or the assessing officer, which I think is Sheikh Lana, in attendance, as well as someone from Direct Sales with the background on the direct sale (Chris Sparke, probably) in attendance so that everyone has all the relevant information.

Regards,

Hope.

CTP Logo

Hope Watson
Town Planner

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From:	Abeysekera, Ruwan
To:	Chowdhury, Abu Sayem
Subject:	FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Date:	Thursday, 21 February 2019 4:07:01 PM
Attachments:	image002.png image003.jpg

FYI

From: Diehm, Mark
Sent: Wednesday, 24 October 2018 1:31 PM
To: Abeysekera, Ruwan <Ruwan.Abeysekera@act.gov.au>
Cc: Sweet, Carma <Carma.Sweet@act.gov.au>
Subject: RE: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Ruwan,

Thank you for referring this Development Application for comment, City Services Urban Treescapes Unit have assessed the trees on the site and provide the following comments.

The majority of the trees on the site were assessed as medium quality with the exception of tree numbers 1 and 3 on Tree Management Plan, Drg No. 3349-G2 A, Dated 18/05/2018 that were assessed as high quality trees that should be retained, protected and incorporated into the redevelopment of the Kambah shopping centre. Tree number 1 is a remnant Eucalyptus blakelyi which is a schedule 3 tree having ecological importance to the local environment with high habitat value and tree number 3 was an exceptional example of the species Eucalyptus sideroxylon.

The applicant of the redevelopment to the Shopping centre will need to justify why the high number of medium quality trees proposed for removal cannot be retained and included into a revised design of the proposal.

A Landscape Management and Protection Plan will need to be provided demonstrating how the trees to be retained on the site will be protected during construction of the proposed development and new trees will be required to be planted in accordance with DS23 with an extended consolidation period.

Please let me know if you require any further information or discussion.

Regards
Mark

Mark Diehm | A/g Design and Development Officer **| Urban Treescapes**
Phone: 62058679 | Fax: 62075956 | e-mail: mark.diehm@act.gov.au
City Presentation | Transport Canberra and City Services Directorate - TCCS | ACT Government
Level 2, WATSO house, 490 Northbourne Ave | GPO Box 158 Canberra ACT 2601 | www.gov.au

From: Akram, Irfan

Sent: Thursday, 18 October 2018 2:44 PM
To: Diehm, Mark <Mark.Diehm@act.gov.au>; Abeysekera, Ruwan <Ruwan.Abeysekera@act.gov.au>
Cc: Sweet, Carma <Carma.Sweet@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Ruwan,

I am not working in the Design & Development review role. Mark Diehm (copied above) who is backfilling for Carma Sweet, will be able to respond to your request.

He will get in touch with as soon as practical.
You may ring him at (02) 6205 8679 for any information that you may need.

Regards,
Irfan

From: Abeysekera, Ruwan
Sent: Thursday, 18 October 2018 2:36 PM
To: Akram, Irfan <Irfan.Akram@act.gov.au>
Cc: Sweet, Carma <Carma.Sweet@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Irfan,

Could you please have a look this DA and let me know if you are happy with the proposal. Some of the trees are proposing to remove.

Kind regards,

Ruwan Abeysekera| Project Engineer - Development and Design Review
Phone 02 62077386 | Email: ruwan.abeysekera@act.gov.au
Infrastructure Planning | Transport Canberra and City Services Directorate | ACT Government
Level 1, 490 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | www.act.gov.au

Connected services for the people of Canberra

From: TCCS_PC DA
Sent: Wednesday, 17 October 2018 12:17 PM
To: Trevithick, Angela <Angela.Trevithick@act.gov.au>; Cloos, Karl <Karl.Cloos@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Karl / Angela
May we request your team to review this commercial development and send comments back to me before the due date?
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

Connected services for the people of Canberra

From: EPD, Customer Services
Sent: Tuesday, 9 October 2018 10:05 AM
To: TCCS_CW DRCDA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203
BLOCK: 23 SECTION: 346 DIVISION: KAMBAH

Description: PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and additions to the existing commercial building, landscaping, and associated works.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the abovementioned development application and provide any written advice no later than **15 working days** after the date of this notice **(30/10/2018)**.

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the prescribed time it will be taken that you have supported the application.

Please forward any written advice via email to Customer Services – EPDcustomerservices@act.gov.au

Please use the following format in the subject line of the email when providing advice:
COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Regards,
Matthew Forman
Customer Services

Phone 02 6207 1923
Access Canberra | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 158 Canberra ACT 2601
Access Canberra is an ACT Government service that brings together customer and regulatory services, including the former Environment and Planning Directorates Customer Services Team. Access Canberra has been set up to make it easier for business, community organisations and individuals to work with ACT Government and deliver a more seamless experience.
www.planning.act.gov.au | EPDcustomerservices@act.gov.au

Land titles and revenue services are moving to Dame Pattie Menzies House, 16 Challis Street, Dickson and will be co-located with the Access Canberra Environment, Planning and Land Shopfront. These services will be available at this new location from 1 December 2016. For more information visit ***www.act.gov.au/accessCBR***

Provided below are preliminary response to the matters raised in the further information request which we wish to discuss with TCCS.

Table 1 – Entity Comments/ Further information Request

No.	Matter	Response	Who	Document to be updated
	TCCS			
1	Service Vehicle Access to Block 4 and 37 The proposed development will restrict service vehicle access to the rear of block 4 and 37. As per submitted vehicle turning template (Drawing C503) it appears that vehicle up to 8.8m will be able to safely access to / egress from the service area. Please refer to the Drawing C505 turning template for 10.5m truck which is too tight to manoeuvre and it doesn't have any clearance available from the wall while reversing out of the service area. The truck will encroach loading dock as well.	Supermarket waste enclosures will be appropriately screened. Changes are proposed to ensure appropriate access and turning circles are provided into the service areas of block 4 and 37. Please refer to attached turning circle templates. Larger delivery vehicles up to 18m long to be serviced by dedicated loading zone. Proposed to move the waste enclosure for the specialty shops to the western side of the building and provide a loading zone next to the taxi rank to void conflicts with Block 37/4 loading zone.	[redacted] working with Sellicks on this.	
2	As per pre DA advice the proponent must consider service vehicle access requirements (size of the largest vehicle currently utilizing the service area) of the businesses in block 4 and block 37 and provide turning template for the largest service vehicle. The proponent needs to submit a written advice from the shop owners in block 4 and 37 as to identify the maximum size of the service vehicle currently being used by the businesses.	The owners of these block were contacted numerous times since mid 2017 and only responded finally in writing after DA was lodged and they identified the maximum vehicle required was waste collection vehicles and 12m and 18m delivery vehicles a couple times a week. Their responses are attached.		

No.	Matter	Response	Who	Document to be updated
3	**Trees** The tree numbers 1 and 3 on Tree Management Plan, Drg No. 3349-G2 A, Dated 18/05/2018 that were assessed as high quality trees that must be retained, protected and incorporated into the redevelopment of the Kambah shopping centre.	Tree 1 (Eucalyptus blakelyi and 3 (Eucalyptus sideroxylon) on the Tree Management Plan prepared by DSB 3349-G2A dated 18/05/2018 are both identified as medium quality trees. Not high quality. Further a previous assessment of these trees by Canopy Tree Experts assessed these trees as being of poor quality, given branch failure points and defects. A further statement form DSBdated 15 July 2016 indicated tree 1 was "in decline" and would not be able to be retained as part of future development. Further to this, a direct sale for the areas surrounding the existing development on Block 5 Section 346 , which includes Block 17 Section 346, and park Block 53 Section 346 and part of Primmer Court, in order to facilitate expansion of the Woolworths has been supported by the ACT Government. Negotiations required during the Direct Sale process have already included support for the removal of these trees to enable the expansion of the shopping centre.		Refer to the letter from Bruce Fitzgerald Exec Director Urban Renewal dated 17 Nov 2017, re direct sale.
4	The majority of the trees on the site were assessed as medium quality. So the applicant must need to justify why the high number of medium quality trees (proposed for removal) cannot be retained and included into a revised design of the proposal.	Please refer to the response to no. 3 above, support was received from the ACT Government for direct sale of a number of parcels of land to facilitate redevelopment of the Woolworths. This process included negotiations with TCCS with regard to vehicular access, in particular for deliveries to the extended Woolworths, which was to be provided through Primmer Court to the north, and around the western side. It also included the consideration of trees which would be required to be removed to facilitate an extension of the centre. The design proposed has already been supported by the ACT Government through the Direct Sale process, and given this, a change to the area for the direct sale would need to be reviewed by the Minister. A number of new tree plantings are proposed as shown in the Landscape Plan (3349-F02A) to replace trees removed.		Refer to Landscape Plan

No.	Matter	Response	Who	Document to be updated
5	Traffic / Transport Cyclist and pedestrians are accommodated within the car park redesign with a designated entrance from Marconi Crescent to the proposed centre entrance. Despite this, the proposal does not formalise pedestrian connections between the existing buildings on blocks 4 and 37, and the proposed development. Unresolved this will result in a poor outcome for pedestrians entering from the south.	Consultation with Block 4 and 37 owners identified a preference for supermarket patrons not using the southern parking as it diminished this amenity for their customers. This area is primarily a service zone which provides for deliveries and waste collection for these blocks. Additionally, the Kambah Precinct Code does not identify the southern side of block 5 or 4 as a primary or secondary active frontage or a main pedestrian area. The active frontage is considered to be along the southern and eastern side of Block 37 and the eastern and northern side of Block 4. Notwithstanding this further consideration of pedestrian connections from carparks provided to the southern side of the development as part of alternative design/loading area/undercroft carpark. To be discussed with TCCS.	[redacted]Bellicks/ ARchitect	

Figure 3 Main pedestrian areas and active frontages

No.	Matter	Response	Who	Document to be updated
6	The following discrepancies are present in the documentation, this should be clarified : Parking The statement against criteria mentions that offsite works would include rearranging the car parking in the centre to provide a total of 245 parking spaces within the group centre carpark The traffic report mentions that redevelopment of the existing carpark will provide a total of 252 parking spaces from the existing 255 spaces Bicycle parking - The statement against criteria mentions that provision is made for 16 bikes within the town square and 6 bikes will be accommodated within a bicycle locker - The site analysis shows that 15 bicycle parking spaces are to be accommodated within the town square - The swept path drawings and the landscape drawings do not correlate with each other with regards to the parking spaces outlined on each of the places.	Revise drawings to address discrepancies in parking numbers. Etc. Confirm parking numbers once modifications to design are finalise and update Traffic and Parking Statement.	CTP Traffix Group	
7	The proposed off-site parking being incorporated into this development will need to ensure that these users will be able to access the centre in a safe and accessible manner, including the adequate provision of footpaths and adequate lighting. A plan must show the details of the overflow parking areas and possible routes for pedestrians.	Consider "overflow" parking locations and identify safe routes of travel for pedestrians on a plan. Refer to TCCS upgrade works plans.	CTP/Traffix.	Traffic and Parking Assessment
8	While the performance of the Drakeford Drive/Marconi Street/Boddington Crescent remains at Level of Service C (LOS C), the right turning traffic from both approaches of Drakeford Drive remains at LOS F. The level of service at the Boddington Crescent will also deteriorate to the next level. Noting that the Consultant used the same cycle times for the future scenario, the assessment should include recommendations for suitable cycle phasings for each approach to have at least LOS C or D.	Traffic engineer to review and recommend cycle phasings, but note that it would be up to TCCS Roads to implement any changes to phasing.	Traffix	Traffic and Parking Assessment.

No.	Matter	Response	Who	Document to be updated
9	On public transport, while the report noted a minimal impact, the assessment should be reviewed in light of the proposed new bus network including consideration for the expresso bus stops (Routes 180, 181) and the ongoing review of park and ride facilities. The 18 park and ride spaces within the centre could be repurposed as additional parking required for this development. This would require further consultation with TCCS Transport Planning and Policy.	Traffic report to be updated to reflect this.	Traffix	Traffic and Parking Assessment
10	The proponent must ensure that there are suitable connections and facilities for pedestrians and cyclists to shops, parking and bus stops.	Look at connections - show this on plans	Traffix	Traffic and Parking Assessment

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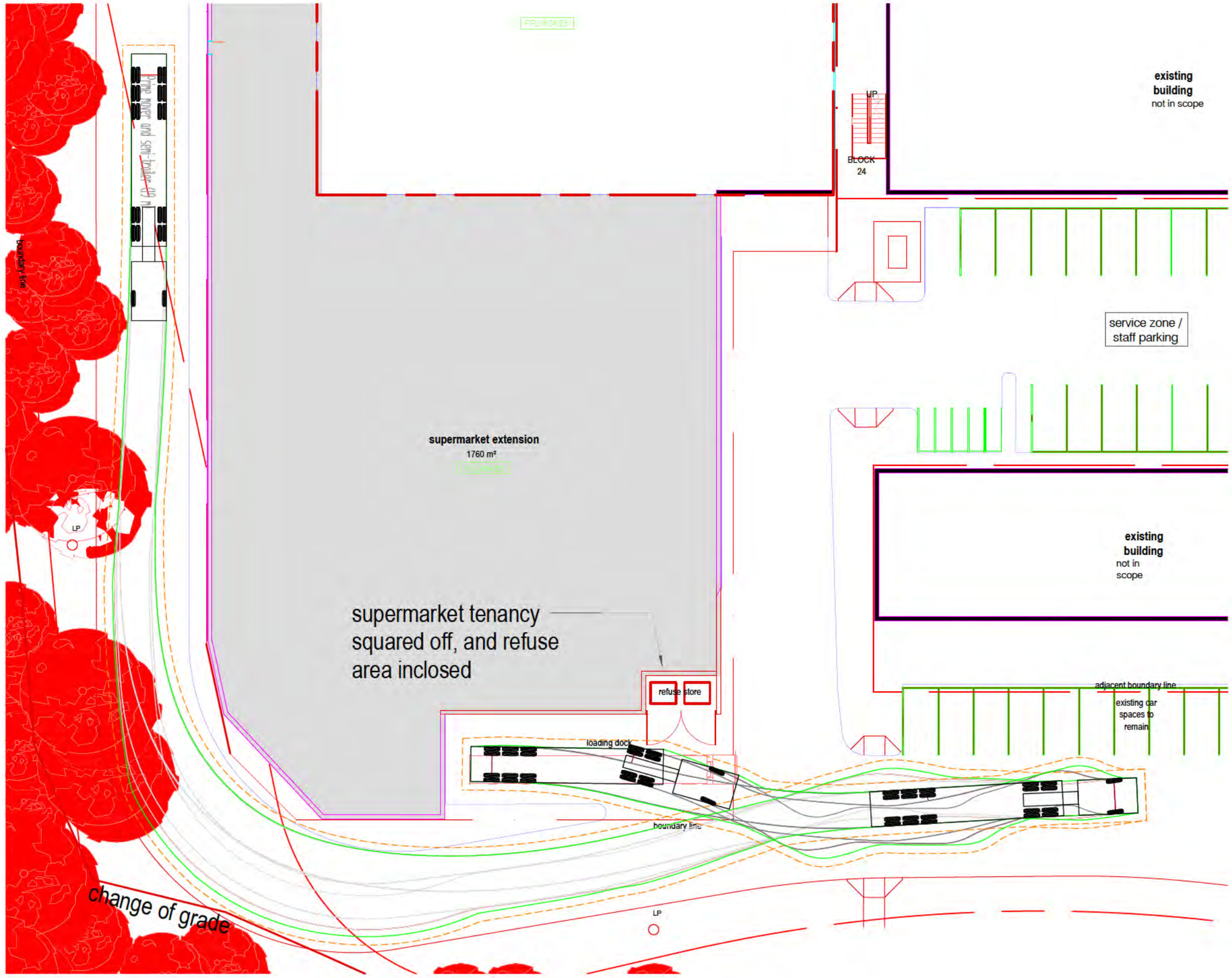
existing
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24
service zone /
staff parking
supermarket extension
1760 m²
supermarket tenancy
squared off, and refuse
area inclosed
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loading dock
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adjacent boundary line
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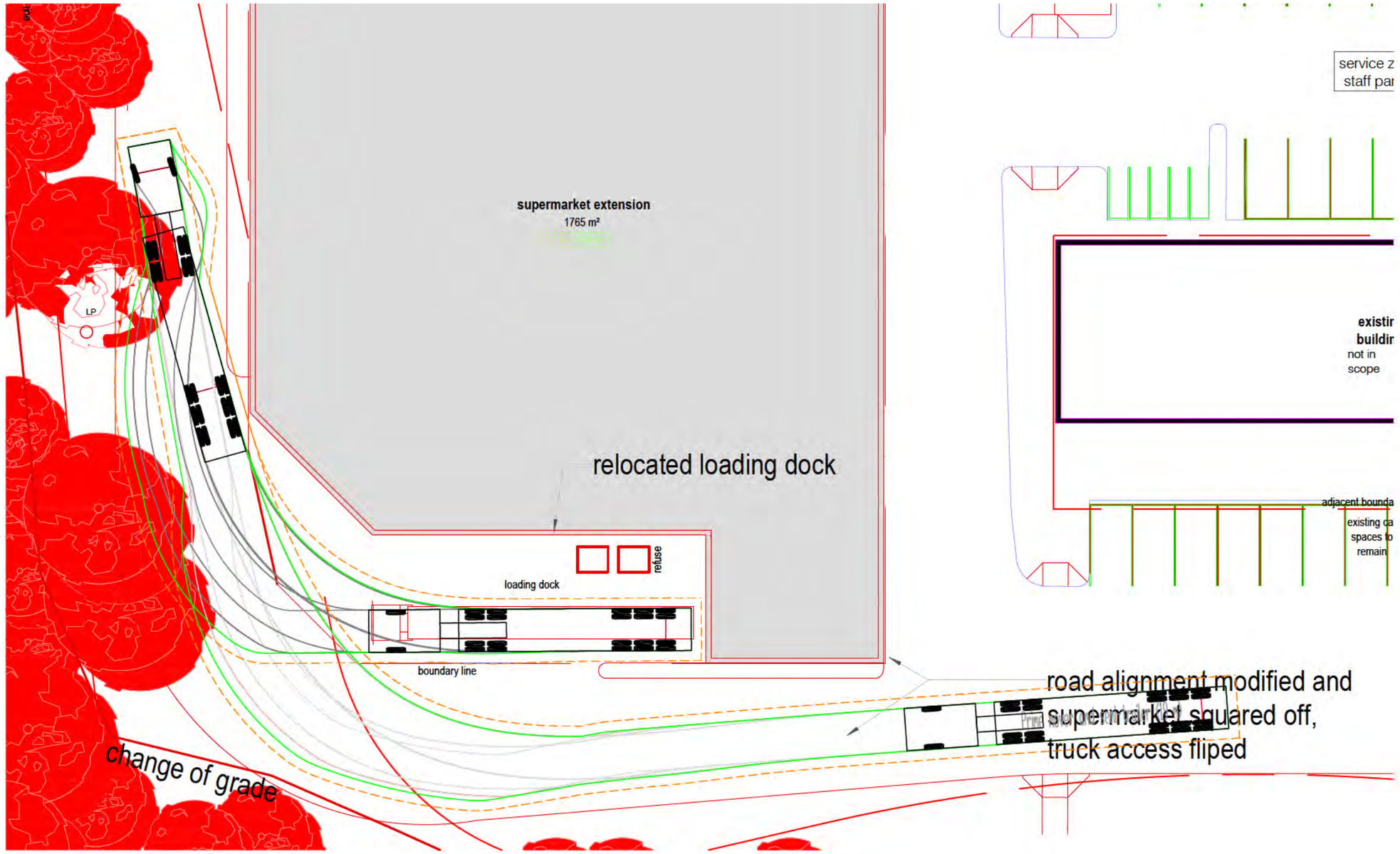
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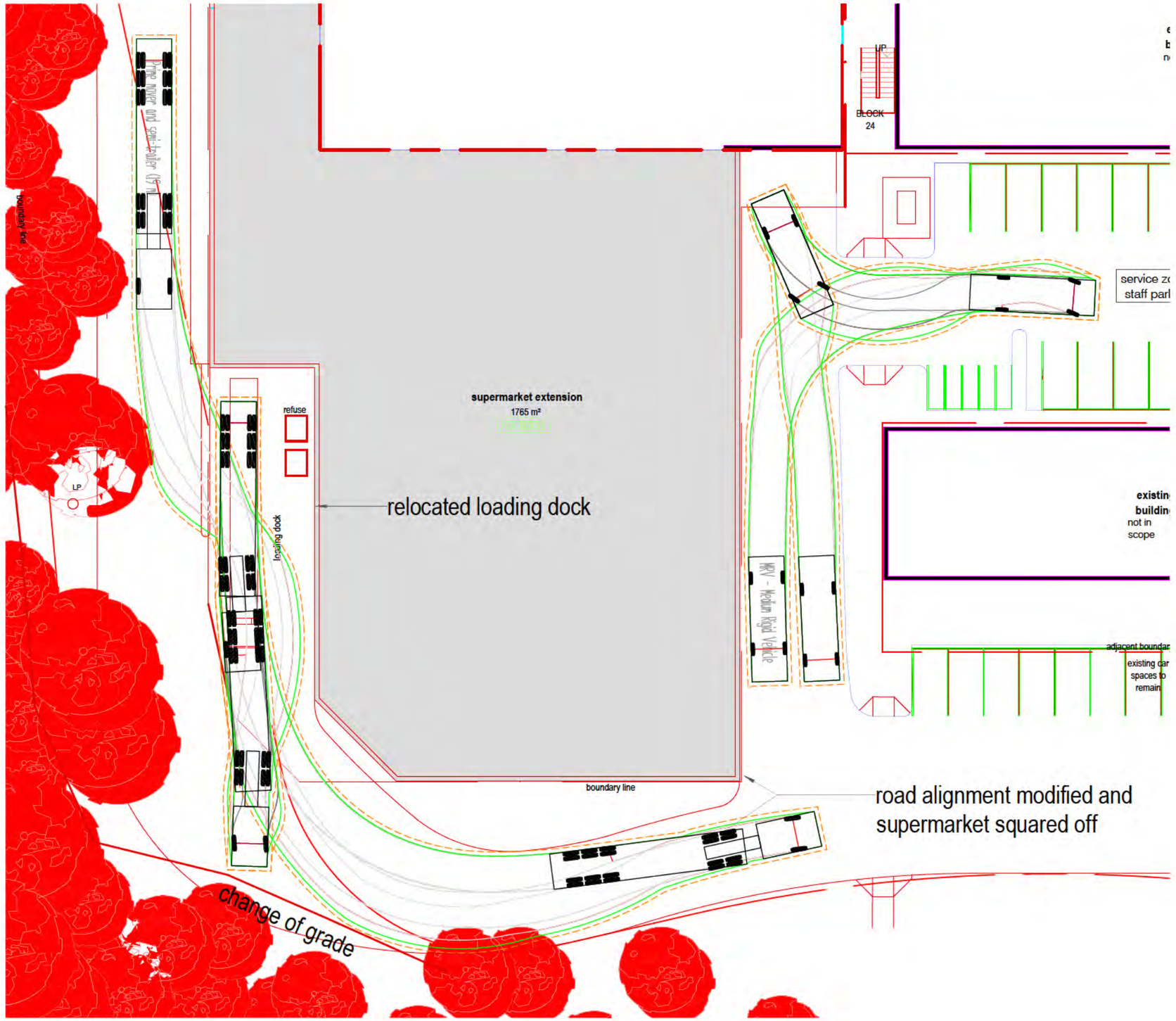
UP
BLOCK 24
service zo
staff parl
existin
buildin
not in
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adjacent boundar
existing car spaces to remain
supermarket extension
1765 m²
refuse
relocated loading dock
loading dock
MRV - Medium Rigid Vehicle
boundary line
road alignment modified and supermarket squared off
change of grade
LP
boundary line

Intentionally Blank

From: Chowdhury, Abu Sayem
To: Joseph, Gabriel; Chandramohan, Chandra; Diehm, Mark; Dillon, Amelia; Karanfilovski, George; Raath, Terrance; Sweet, Carma
Subject: Kambah Woolworths Expansion Project DA 201834203
Date: Wednesday, 27 February 2019 12:13:26 PM
Attachments: C 150752 DA-C505 Turning Demonstration Plan 5 (C).pdf
12.5m turning demo.pdf
Further info request - TCCS comments.docx
Kambah Woolworths Expansion Project.msg
image001.jpg
image002.jpg
image003.jpg

UNCLASSIFIED

Dear All

Please find updated response on TCCS comments which we will clarify with the consultant at the meeting this afternoon.

Regards

Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: Hope Watson [redacted]
Sent: Wednesday, 27 February 2019 11:13 AM
To: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Cc: Joseph, Gabriel <Gabriel.Joseph@act.gov.au>; [redacted]
Subject: RE: Meeting re TCCS FIR on DA 201834203

Hi Sayem,
Previous turning demonstrations indicated that the 10.5m collection vehicle was able to manoeuvre into the rear area of Block 37 only if modifications were made to the parking area as shown in the attached drawing (DA C505). Further comments are provide in the response attached. Changes are proposed to the location of the waste enclosure on Block 5 to remove the conflict between this area and the turning circles (refer to response document).
Sellicks has also provided a sketch (attached) showing the turning demonstration for a 12.5m HRV entering and exiting the rear area of Block 37 in a forward direction, highlighting the areas of the pedestrian paths that are impacted by this movement. Note that they have used the 600mm clearance requirements of the old code, not the 1m required at pinch points in the new code, as our understanding is that the old code still applies for projects that were lodged for DA prior to February this year. Further comments and responses to the matters raised are provided in the attached document which I previously sent through. This response will be formalized following our discussions today and then resubmitted via e-development to the Planning Authority, unless TCCS would prefer a different approach.
As well as discussing the service vehicle access to the rear of Block 37, we wish to discuss with TCCS potential alternative options for the Woolworths loading area.
Regards,
Hope.

CTP Logo
Hope Watson
Town Planner
Mobile [redacted]

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From: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Sent: Tuesday, 26 February 2019 4:49 PM
To: Hope Watson [redacted]
Cc: Joseph, Gabriel <Gabriel.Joseph@act.gov.au>; [redacted]
Subject: RE: Meeting re TCCS FIR on DA 201834203

UNCLASSIFIED

Hi Hope
Thank you for the Woolworths loading dock concept plan.
What about truck turning template for block 4 and 37 loading zone? That's the critical comments we need to discuss tomorrow.
Please send a letter of response to TCCS comments and relevant plans before the meeting.
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
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490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: Hope Watson [redacted]
Sent: Monday, 25 February 2019 10:53 AM
To: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Cc: Joseph, Gabriel <Gabriel.Joseph@act.gov.au>
Subject: RE: Meeting re TCCS FIR on DA 201834203

Hi Sayem,
Thanks for co-ordinating this meeting.
Further to this, the preferred option/s are provided attached, this supersedes the previous options I sent through, these are considered to also better represent what was presented in the Kambah masterplan.
If you could please distribute this to other attendees prior to the meeting.
Thanks.
Hope.

Hope Watson
Town Planner
Mobile [redacted]

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From: Hope Watson
Sent: Thursday, 21 February 2019 12:03 PM
To: Sayem Chowdhury (abusayem.chowdhury@act.gov.au) <abusayem.chowdhury@act.gov.au>
Cc: Alek Aster-Stater (alek.aster-stater@act.gov.au) <alek.aster-stater@act.gov.au>; [redacted]
Subject: FW: Meeting re TCCS FIR on DA 201834203

Hi Sayem,
I spoke with Alek the other day and he said you would be looking at this, can we get a meeting next week to discuss?
Cheers, Hope.

Hope Watson

Town Planner
Mobile [redacted]

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From: Hope Watson
Sent: Tuesday, 19 February 2019 11:21 AM
To: Alek Aster-Stater (alek.aster-stater@act.gov.au) <alek.aster-stater@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>; [redacted]
Subject: FW: Meeting re TCCS FIR on DA 201834203

Hi Alek,
Further to yesterday's email, please find attached a preliminary tabulated response to the further information request for discussion with TCCS.
In particular, we are considering alternative options for the supermarket loading zone, which is more to respond to representations received from lessees on Block 4 and 27, which we would like to discuss with TCCS. The potential options are attached.
We would appreciate if you could identify a time we can meet to discuss these options and the other matters raised in the FIR for next week.
Look forward to hearing from you.
Regards,
Hope.

Hope Watson
Town Planner
Mobile [redacted]

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From: Hope Watson
Sent: Monday, 18 February 2019 2:59 PM
To: Alek Aster-Stater (alek.aster-stater@act.gov.au) <alek.aster-stater@act.gov.au>
Subject: Meeting re TCCS FIR on DA 201834203

Hi Alek,
As discussed on Friday, we'd like to request a meeting with TCCS, regarding the further information request received on this DA, as we are working on some alternative solutions to address some of the matters raised, such as location of service vehicle access and carparking. We are just finalizing some preliminary comments and plans to provide for your review prior to the meeting, but in the meantime, could you tentatively book in a time to meet next week, and I will send through documents as soon as I can.
It would also be helpful for us to have Chris Gell or the assessing officer, which I think is Sheikh Lana, in attendance, as well as someone from Direct Sales with the background on the direct sale (Chris Sparke, probably) in attendance so that everyone has all the relevant information.
Regards,
Hope.

Hope Watson
Town Planner
5/32 Lonsdale Street, Braddon 2612
[redacted]
canberratownplanning.com.au

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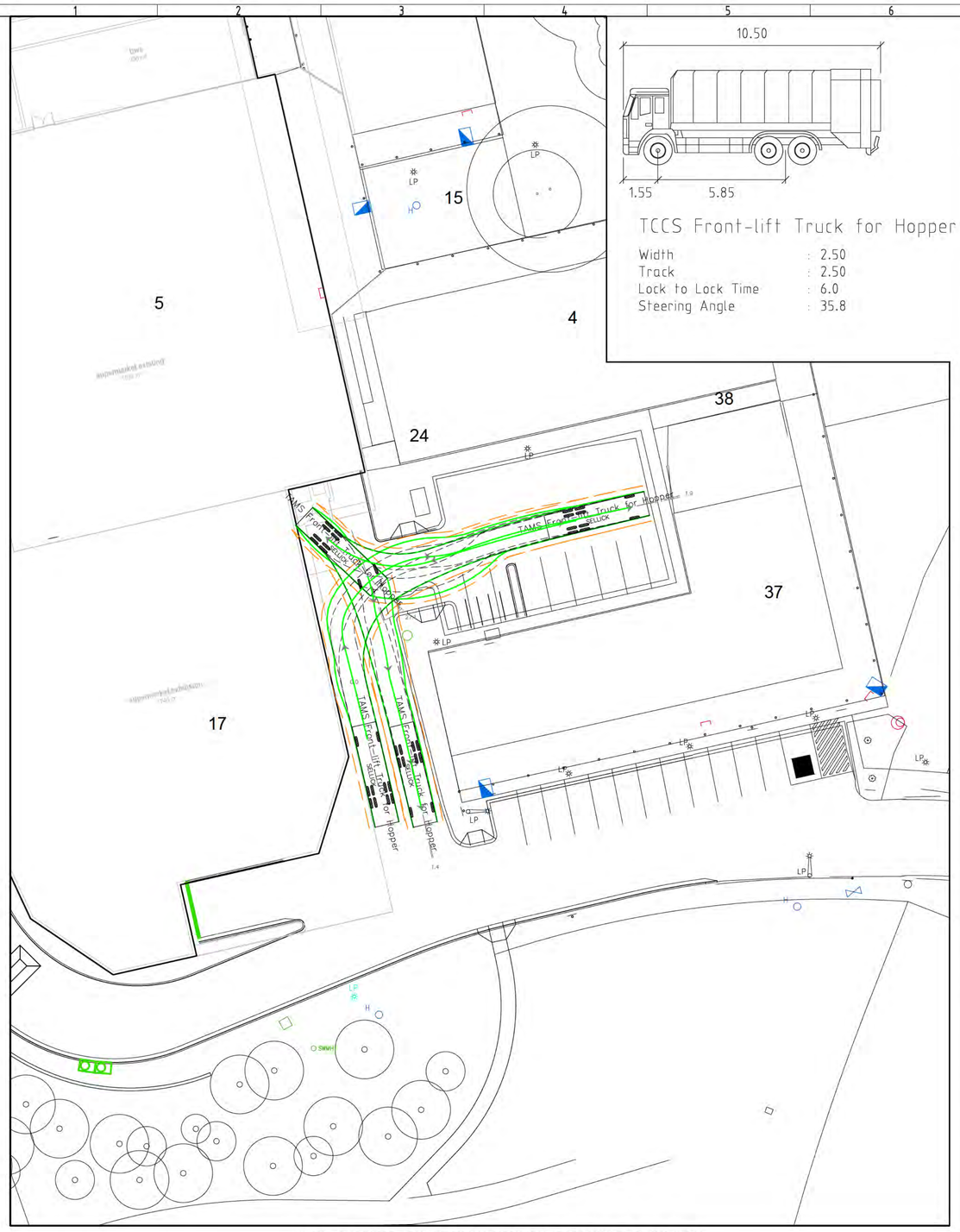
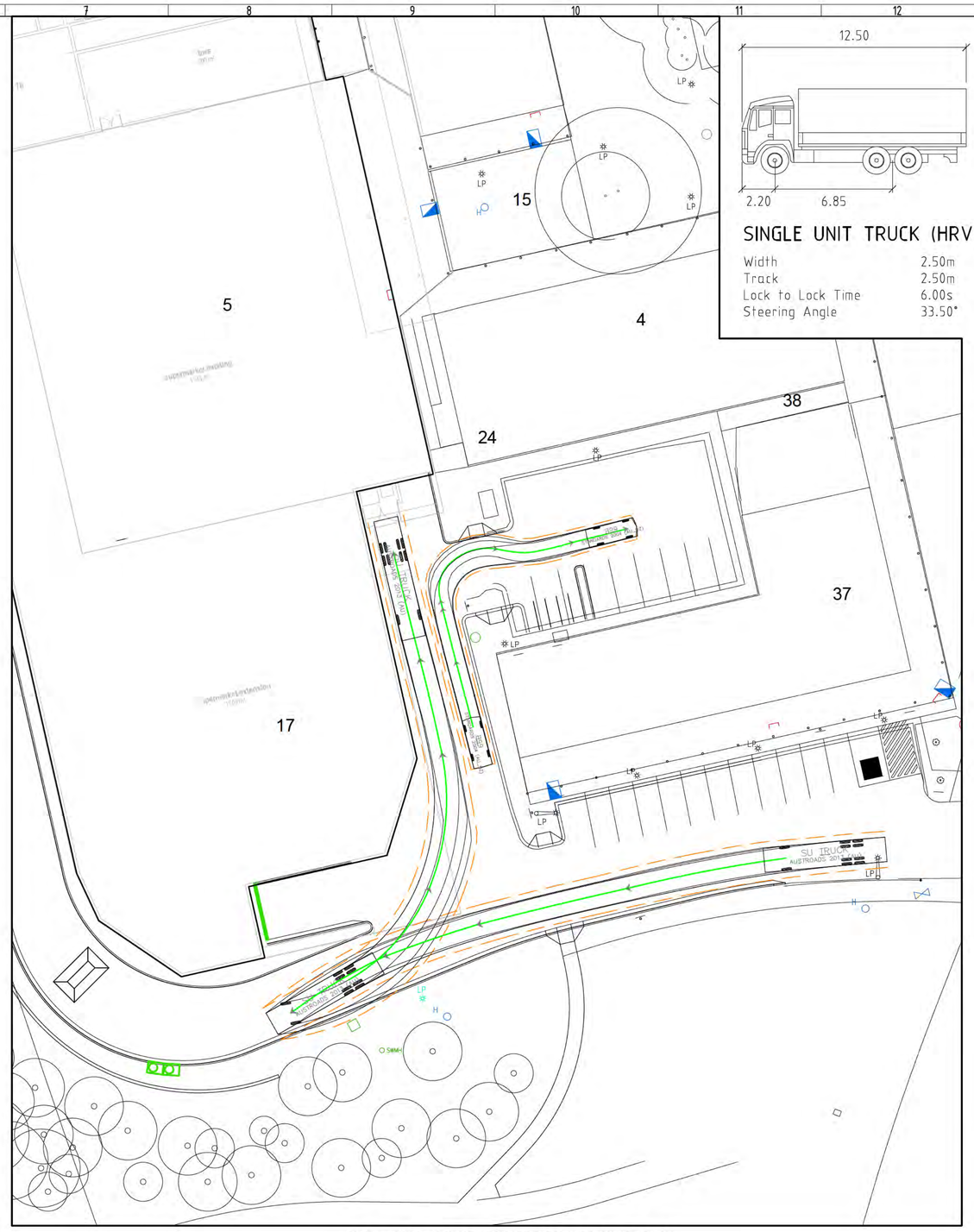


10.5m WASTE COLLECTION TRUCK ENTERING CARPARK



12.5m HRV USING LOCALIZED LOADING BAY

B99 PASSING

ISSUE	DESCRIPTION	DATE	DRAWN
C	FOR DEVELOPMENT APPROVAL	04.04.18	DA
B	FOR DEVELOPMENT APPROVAL	22.03.18	DA
A	FOR INFORMATION ONLY	21.09.17	LT

CLIENT

ARCHITECT

sellick consultants
STRUCTURAL CIVIL HYDRAULIC
canberra | sydney | brisbane
02 6201 0200 www.sellickconsultants.com.au

PROJECT TITLE
PROPOSED WOOLWORTHS EXTENSION

DO NOT SCALE OFF DRAWINGS
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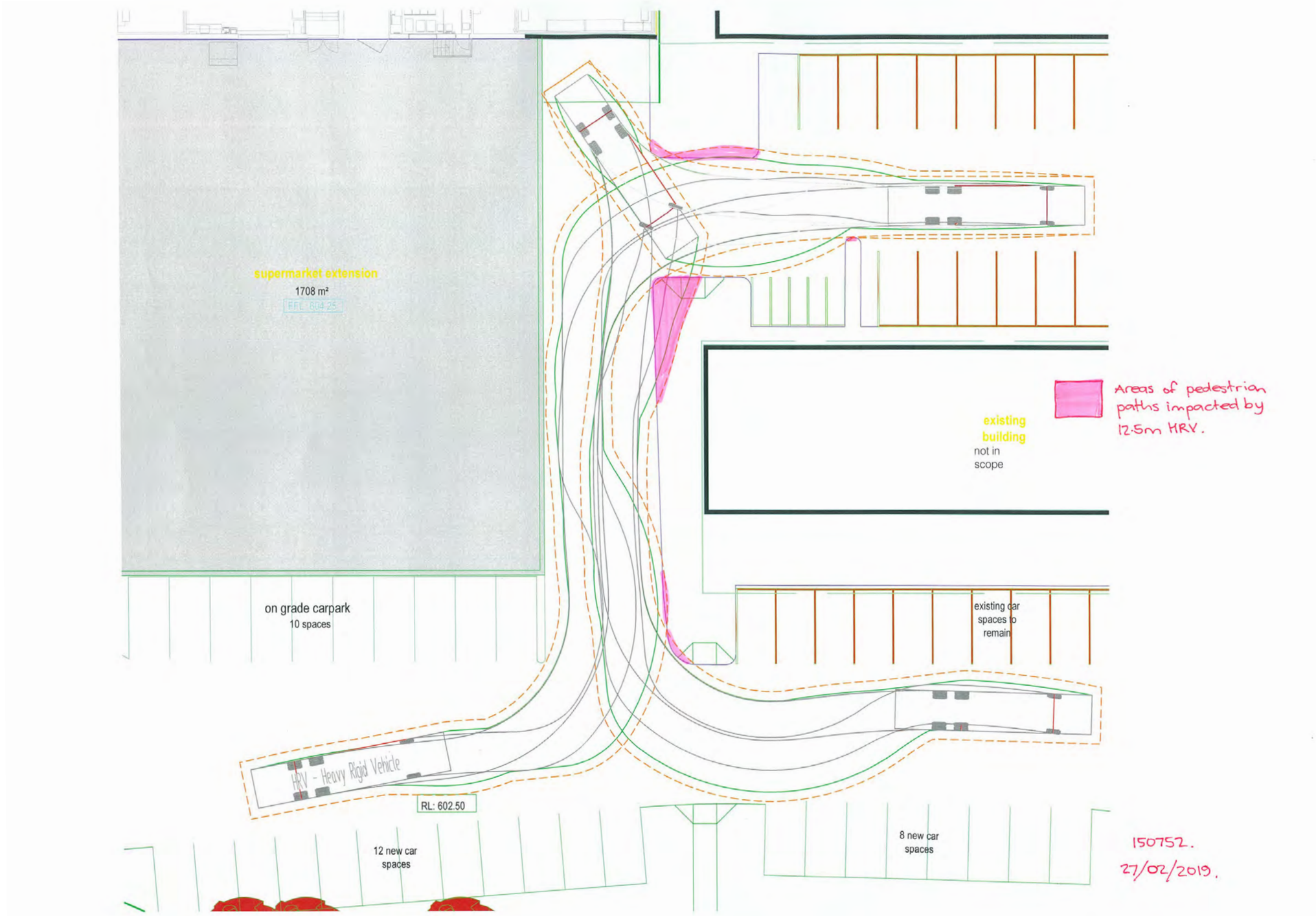
DESIGNED BY: LT
CHECKED BY: AE
AUTHORISED BY:
DATE: 04/04/2018

DRAWING TITLE
TURNING DEMONSTRATION PLAN 5

PROJECT LOCATION
BLOCK 5 SECTION 346
KAMBAH ACT

SCALE
0m 2.5 5 7.5 10 12.5
1:250 @A1 1:500 @A3

JOB NO. 150752
DRAWING NO. C505
REV. C


supermarket extension
1708 m²
FFL: 604.25
existing building not in scope
Areas of pedestrian paths impacted by 12.5m HRV.
on grade carpark
10 spaces
existing car spaces to remain
HRV - Heavy Rigid Vehicle
RL: 602.50
12 new car spaces
8 new car spaces
150752.
27/02/2019.

From: Chowdhury, Abu Sayem
Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice
Cc: TCCS_PC DACOORD; Dillon, Amelia
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Attachments: plans - S144B.OBR; supporting docs - S144B.OBR

Dear Transport Planning Team
You have provided comments on original submission of this DA. We met with the applicant re TCCS comments. Amelia attended that meeting from Transport Planning. Now the applicant submitted S144 submission and addressed previous comments. Could you please have a look and let us know whether this DA can be supported or not.
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM
To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B
BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the above mentioned development application and provide any written advice no later than 15 working days after the date of this notice **(06/05/2019).**

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the prescribed time it will be taken that you have supported the application.

Please forward any written advice via email to Customer Services

EPDcustomerservices@act.gov.au

Please use the following format in the subject line of the email when providing advice:
COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Kind Regards,

Matthew Forman

Customer Services

Phone 02 6207 1923
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From:	TCCS_TPAP Advice
To:	Wyatt, Tim
Subject:	FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Date:	Tuesday, 21 May 2019 3:29:00 PM
Attachments:	image001.jpg plans - S144B.OBR supporting docs - S144B.OBR TRAFFICREPORT-201834203-S144B-01 (A19350888).pdf

UNCLASSIFIED

Hi Tim

Traffic report attached.

Amelia

From: TCCS_TPAP Advice
Sent: Tuesday, 21 May 2019 9:31 AM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Tim

We've received this referral back for comment on the proposed Kambah Woolworths proposal. In our initial comments and at the meeting with the applicant, George advised that the under-utilised park and ride spaces could potentially be reallocated as general car parking. This new referral is now seeking inclusion of the park and ride spaces as general car parking spaces for visitors. Would this proposal be appropriate?

Thanks

Amelia

From: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice <TCCS_TPAP.Advice@act.gov.au>
Cc: TCCS_PC DACOORD <TCCS.DACOORD@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Dear Transport Planning Team

You have provided comments on original submission of this DA. We met with the applicant re TCCS comments. Amelia attended that meeting from Transport Planning. Now the applicant submitted S144 submission and addressed previous comments. Could you please have a look and let us know whether this DA can be supported or not.

Regards

Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
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www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM
To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B

BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the above mentioned development application and provide any written advice no later than 15 working days after the date of this notice **(06/05/2019).**

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the prescribed time it will be taken that you have supported the application.

Please forward any written advice via email to Customer Services EPDcustomerservices@act.gov.au

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COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Kind Regards,

Matthew Forman
Customer Services
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TraffixGroup

Traffic Engineers and Transport Planners

Traffic Engineering Assessment

Proposed Expansion
at
Kambah Group Centre

Prepared for
Indesco

Traffix Group Pty Ltd ABN 32 100 481 570
Address: Suite 8, 431 Burke Road, Glen Iris Victoria 3146
Telephone: 03 9822 2888 Website: www.traffixgroup.com.au
Email: admin@traffixgroup.com.au

Traffic Engineering Assessment

Proposed Expansion
at
Kambah Group Centre

Document Control

Issue No.	Type	Date	Prepared By	Approved By
A	Draft	24/04/2018	C Blair	W de Waard
B	Final	18/05/2018	C Blair	W de Waard
C	Amended	5/04/2019	C Blair	W de Waard
D	Amended	12/04/2019	C Blair	W de Waard
E	Amended	16/04/2019	C Blair	W de Waard

Our Reference: G24107R-01E

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Executive Summary

Traffix Group has been engaged by Indesco to prepare a traffic and parking assessment of a proposed expansion of the Kambah Group Centre. A summary of the key findings is presented below:

- The proposal is to expand the existing Group Centre by the addition of:
  - 1,688m^2 of additional supermarket area,
  - 1,328m^2 of commercial space, and
  - Redevelopment of the existing carpark to provide a total of 277 parking spaces (from the existing 242 spaces)

Traffic Analysis

- The proposed development is expected to generate between 61-293 vehicle trips during the peak hours,
- A comparison between the existing conditions and the post-development conditions was undertaken and it was shown that the traffic generation will not significantly impact on the operation of the nearby intersections,
- A future scenario was developed to analyse network performance ten years post-development which showed the signalised intersection of Drakeford Drive / Marconi Crescent continued to operate at a LOS C during the peak periods,
- The existing pedestrian and bicycle networks in the vicinity of the development will allow pedestrians and cyclists to travel in a safe and efficient manner to key destinations,
- On-road public transport networks will not be significantly impacted by traffic from the development,

Parking Analysis

- The proposed development has a parking requirement of 150 spaces with an existing parking demand of 161 parking spaces for a **total demand of 311 spaces**,
- The redeveloped car park will provide 277 parking spaces on site and the remaining 34 spaces can be accommodated in the nearby parking resources,
- Short term parking restrictions should be installed within 200m of the Kambah Group Centre to ensure the most proximate spaces are utilised by visitors and shoppers,
- The motorcycle parking requirement is satisfied by the eight (8) spaces provided on site , and
- The accessibility parking requirement is satisfied by the ten (10) spaces provided on site.

Sustainable Transport

- Four staff bicycle spaces are required as part of the proposed expansion, which can be provided in the two door lock up bike safe to the west of the supermarket.
- The visitor bicycle parking requirement is 11 spaces, which is satisfied by the 15 visitor spaces shown to the north of the supermarket area.
- It is our understanding that the 18 ‘Park and Ride’ spaces will be converted to standard car parking spaces following consultation with TCCS

Loading and Waste

- The loading and waste collection for the expanded supermarket will occur via a new rear loading dock accessed off Primmer Street to the south of the subject site, and
- Loading for the specialty retail component of the development will occur via a loading bay to the west of the existing service zone / staff parking in the southeast corner of the site.

Table of Contents

1 Introduction 1
2 Proposal 1
3 Background 1
3.1 Kambah Group Centre Masterplan (July, 2012) 1
4 Existing Conditions 3
4.1 Subject Site 3
4.2 Road Network 5
4.3 Public Transport 6
4.4 Pedestrian and Cyclist Facilities 7
4.5 Existing Traffic Conditions 8
4.5.1 Intersection Turning Movements 8
4.5.2 Existing Intersection Performance 9
4.6 Existing Parking Conditions 12
4.6.1 Weekday Parking Occupancy 13
4.6.2 Weekend Parking Occupancy 14
5 Traffic Engineering Assessment 15
5.1 Traffic Generation 15
5.2 Traffic Distribution 15
5.3 Post-Development Intersection Performance 18
5.4 Future Development Intersection Performance (2028) 22
6 Parking Assessment 26
6.1 Car Parking Generation 26
6.2 Car Parking Impacts 26
6.2.1 Parking Demand 26
6.2.2 Post-Development Appropriate Parking Supply 26
6.3 Disabled Parking 27
6.4 Motorcycle Parking 28
6.5 Bicycle Parking 28
7 Loading and Waste 29
8 Pedestrian and Cyclist Impacts 29
9 Public Transport Impacts 29
10 Conclusions 30

List of Figures

Figure 1: Kambah Group Centre Masterplan - Stage A Extract 2
Figure 2: TCCS Indicative Plan 2
Figure 3: Locality Map 3
Figure 4: Aerial Photograph 4
Figure 5: Land Use Zoning 5
Figure 6: Proposed Bus Services 7
Figure 7: ACTive Infrastructure – Kambah Group Centre 8
Figure 8: AM Peak Existing Turning Movement Diagram (8:30am-9:30am) 9
Figure 9: PM Peak Existing Turning Movement Diagram (5:00pm-6:00pm) 9
Figure 10: Weekend Peak Existing Turning Movement Diagram (11:30am-12:30pm) 9
Figure 11: Parking Survey Area 12
Figure 12: Weekday Parking Occupancy 13
Figure 13: Weekend Parking Occupancy 14
Figure 14: AM Peak Development Volumes 16
Figure 15: PM Peak Development Volumes 16
Figure 16: Weekend Peak Development Volumes 17
Figure 17: AM Peak Post-Development Volumes 17
Figure 18: PM Peak Post Development Volumes 17
Figure 19: Weekend Peak Post Development Volumes 18
Figure 20: AM Peak – Future Development Volumes (Drakeford Drive / Marconi Crescent) 22
Figure 21: PM Peak – Future Development Volumes (Drakeford Drive / Marconi Crescent) 23
Figure 22: Weekend Peak – Future Development Volumes (Drakeford Drive / Marconi Crescent) 23

List of Tables

Table 1: Bus Services in the Vicinity 6
Table 2: Level of Service Criteria for Intersections (RMS NSW Method) 10
Table 3: Existing Conditions SIDRA Analysis 11
Table 4: Parking Supply and Restrictions 13
Table 5: Peak Parking Occupancy – 12:30pm 13

Table 6: Peak Parking Occupancy – 11:00am 14
Table 7: Group Centre Peak Hour Traffic Generation 15
Table 8: General Distribution of Traffic – Existing Conditions 15
Table 9: Directional Split Assumptions – Existing Conditions 16
Table 10: Post-Development Intersection Performance – Drakeford Drive / Marconi Crescent / Boddington Crescent 19
Table 11: Post-Development Intersection Performance – Marconi Crescent / Primmer Court (West) 20
Table 12: Post-Development Intersection Performance – Marconi Crescent / Primmer Court (East). 20
Table 13: Future Intersection Performance – Drakeford Drive / Marconi Crescent 24
Table 14: Statutory Parking Requirements 26
Table 15: Car Parking Demand Assessment 26
Table 16: Car Parking Overflow Assessment 27
Table 17: Available Parking Outside Group Centre 27
Table 18: Bicycle Parking Rates and Requirements 28

List of Appendices

Appendix A Development Plans
Appendix B Turning Movement Counts
Appendix C Existing Conditions SIDRA
Appendix D Car Parking Data
Appendix E Traffic Generation and Distribution
Appendix F Post-Development SIDRA
Appendix G Future Conditions SIDRA

1 Introduction

Traffix Group has been engaged by Indesco to prepare a traffic engineering assessment for the proposed expansion of the Kambah Group Centre.

This report provides a detailed traffic engineering assessment of the parking and traffic issues associated with the proposed development.

2 Proposal

The proposal is for an expansion to the existing Kambah Group Centre including the following key components:

- 1,688m^2 of additional supermarket area,
- 1,328m^2 of commercial space, and
- Redevelopment of the existing carpark to provide a total of 277 parking spaces (from the existing 242 spaces)

There is no change in vehicle access to the subject site, with connections provided via Primmer Court to Kett Street and Marconi Crescent.

15 bicycle parking spaces are proposed to be provided north of the supermarket area as well as a two-door lock up bike safe along the western boundary of the site.

A copy of the development plans prepared by i2C (dated April, 2019) is attached at Appendix A to this report.

3 Background

3.1 Kambah Group Centre Masterplan (July, 2012)

A review of the Kambah Group Centre Masterplan has identified a new road to be constructed adjacent to the creek along the eastern boundary of the Kambah Group Centre. Indented parking is shown indicatively along both sides of the proposed road. This area currently contains approximately 38 parking spaces and following construction could have significantly more capacity.

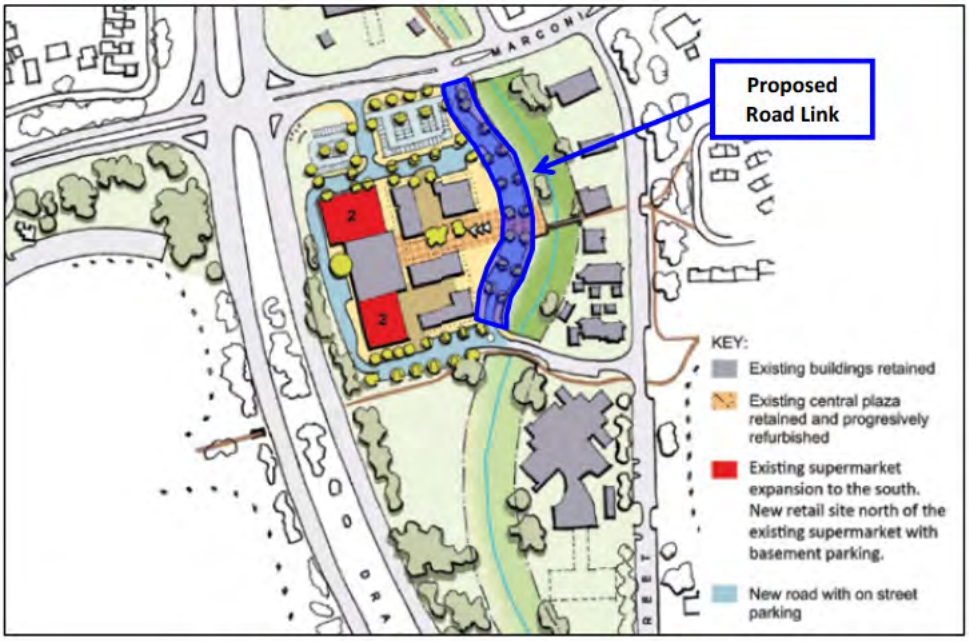


Figure 1: Kambah Group Centre Masterplan - Stage A Extract

TCCS have provided indicative plans to construct up to nine (9) spaces along this road link as shown in Figure 2 below.

Figure 2: TCCS Indicative Plan

4 Existing Conditions

4.1 Subject Site

The Kambah Group Centre is located near the intersection of Drakeford Drive and Marconi Crescent in Kambah. The subject site is bounded by Marconi Crescent to the north, Kett Street to the east, Primmer Court to the south and Drakeford Drive to the west.

The centre currently provides for a range of shopping facilities including a Woolworths supermarket, a newsagent, restaurants and a number of offices for health care professionals.

A locality plan and photograph of the site is presented at Figure 1 and Figure 2, respectively.

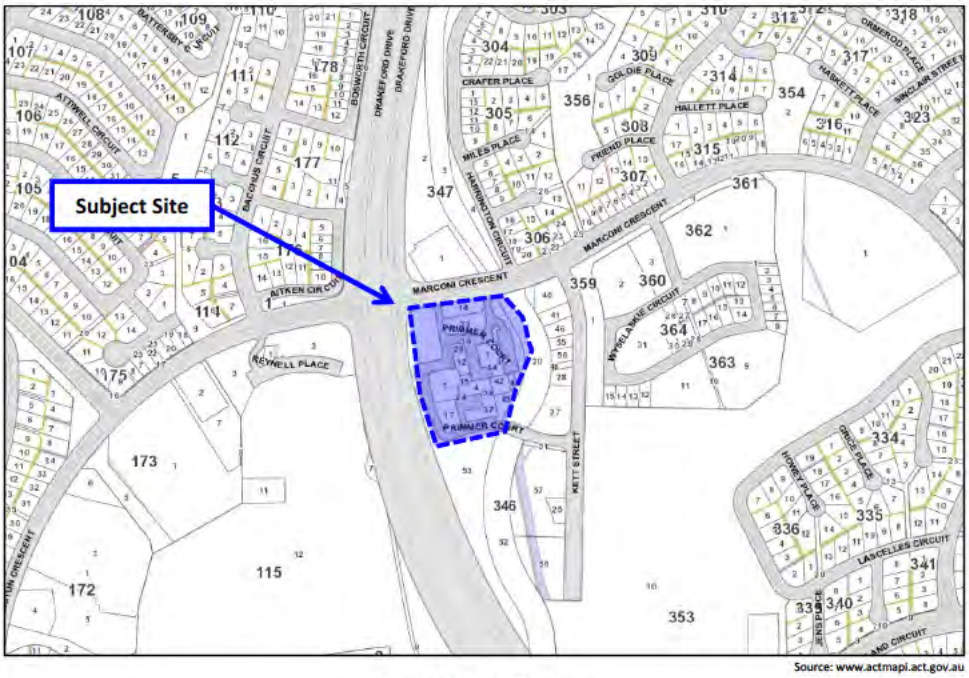


Figure 3: Locality Map

Source: Nearmap

Figure 4: Aerial Photograph

The subject site is located within the CZ1 – 'Core' zone under the ACT Territory Plan Zones as shown below in Figure 5. Land use zoning surrounding the subject site comprises a mix of business, leisure, community facilities with suburban residential zoning to the east of the site.

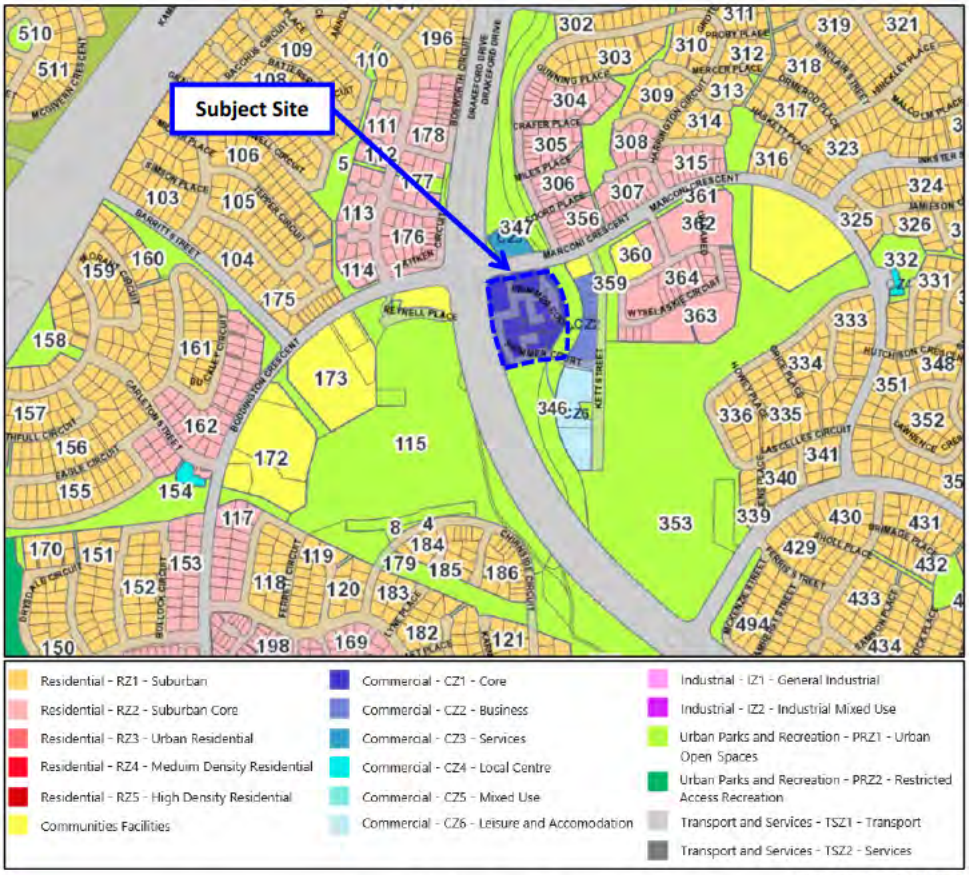


Figure 5: Land Use Zoning

4.2 Road Network

Drakeford Drive is an arterial road that runs from Sulwood Drive in the north to Tharwa Drive in the south.

In the vicinity of the subject site, Drakeford Drive consists of a two-way, six lane divided carriageway with on-road bicycle lanes in each direction. A posted speed limit of 80km/h applies to Drakeford Drive. Parking is not permitted along Drakeford Drive.

Marconi Crescent is a collector road that runs from Drakeford Drive in the west to Summerland Circuit in the southeast.

In the vicinity of the subject site, Marconi Crescent consists of a two-way, four lane divided carriageway with on-road bicycle lanes in each direction. A posted speed limit of 60km/h applies to Marconi Crescent in the vicinity of the subject site. Parking is not permitted along Marconi Crescent near the site.

Kett Street is a two-way, two lane access street that runs in a north-south direction to the east of the subject site. A posted speed limit of 50km/h applies to Kett Street. Parking is permitted in designated angled and indented parking bays in the southern section of Kett Street.

Primmer Court is a two-way, two lane access street that runs through the subject site and then east along the southern border.

4.3 Public Transport

To support the growing population of Canberra, the ACT Government is implementing a number of updates to the bus network including additional rapid routes, higher frequency trips and same weekday and weekend services with extended hours. In addition, a number of changes have been made across the 58 bus routes following a thorough community consultation process.

A number of peak hour only bus routes have been proposed for southern Tuggeranong to provide high frequency services to the City following the removal of the underutilised Xpresso routes.

Bus stops are currently located to the north of the subject site on both sides of Marconi Crescent, to the west of Ketts Street. A summary of the future bus routes in the vicinity of the subject site are provided in Table 1 below.

Table 1: Bus Services in the Vicinity

Service	Destinations
Peak Bus Routes	
Route 180	City, Lanyon Marketplace, Condor, Banks
Route 181	City, Gordon, Banks, Condor, Lanyon Marketplace
Regular Service	
Route 70	Woden, Phillip, Cooleman Court, via Namatijira Drive, Kambah West, Tuggeranong
Route 71	Woden, Phillip, Cooleman Court, via Namatijira Drive, Kambah, Tuggeranong

A map showing the proposed bus services operating in the vicinity of the subject site is shown below in Figure 6.

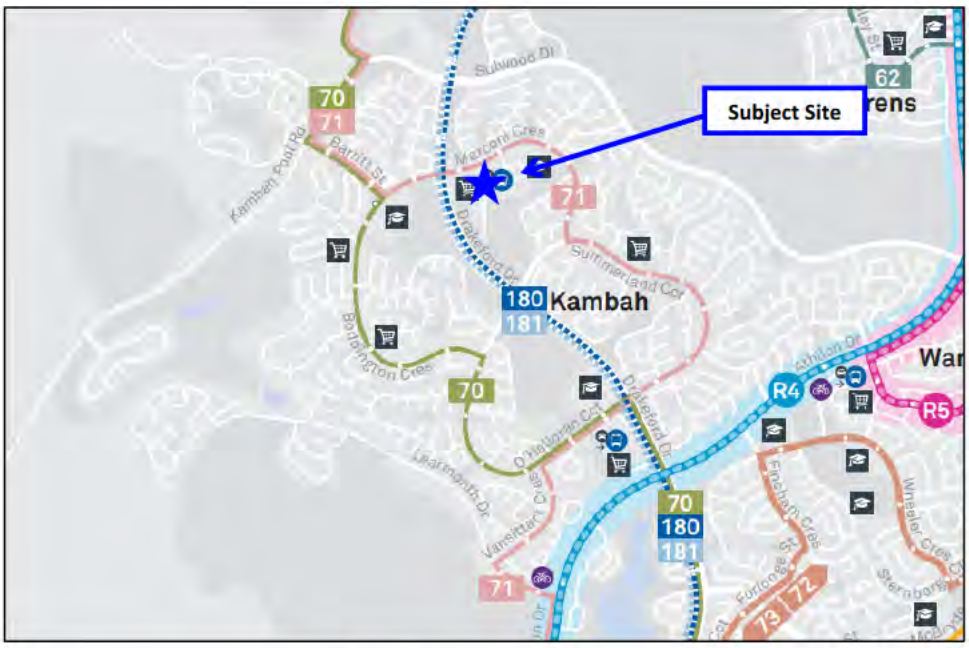


Figure 6: Proposed Bus Services

The bus services in the vicinity of the subject site provide good connectivity to the following key bus interchanges:

- City Interchange,
- Tuggeranong Bus Interchange,
- Lanyon Bus Interchange,
- Coolemon Court Bus Station, and
- Woden Bus Station.

From the above interchanges, passengers can access most of the proposed rapid bus routes throughout the wider bus network.

TCCS have identified that the 18 'Park and Ride' spaces at the Kambah Group Centre are not utilised by commuters and may be incorporated back into the general car parking supply.

4.4 Pedestrian and Cyclist Facilities

There are extensive pedestrian and cyclist facilities currently provided within the vicinity of the subject site. Local community routes are located along the east side of the Group Centre across Primmer Court as well as along the southern side with an underpass under Drakeford Drive providing connectivity east and west of the site. A main community route is located along the eastern side of Drakeford Drive providing connectivity to the north and south. Marconi Crescent is designated as a major collector local on-road cycling route with numerous minor footpath facilities located throughout the local road network.

Figure 7 below details the pedestrian and cyclist facilities in the vicinity of the subject site as outlined in the ACTive Infrastructure Practitioner Tool.

Source: www.activeinfrastructure.net.au

Figure 7: ACTive Infrastructure – Kambah Group Centre

4.5 Existing Traffic Conditions

4.5.1 Intersection Turning Movements

The nearby intersections that are relevant to the proposal are:

- Drakeford Drive / Marconi Crescent / Boddington Crescent,
- Marconi Crescent / Primmer Court (West), and
- Marconi Crescent / Primmer Court (East).

Intersection surveys were conducted on the above intersections to establish the existing traffic conditions on the following days:

- Thursday, 1st March, 2018 from 6:30am-9:30am and 3:30pm-6:30pm, and
- Saturday, 3rd March, 2018 from 11:00am-2:00pm.

These data sources indicated that for the shopping centre access points, the AM peak hour occurs between 8:30am and 9:30am, while the PM peak hour occurs between 5pm and 6pm. The weekend peak occurs between 11:30am and 12:30pm.

A summary of the existing conditions turning movement data is provided at Figure 8 to Figure 10 below, while the full turning movement counts are provided at Appendix B.

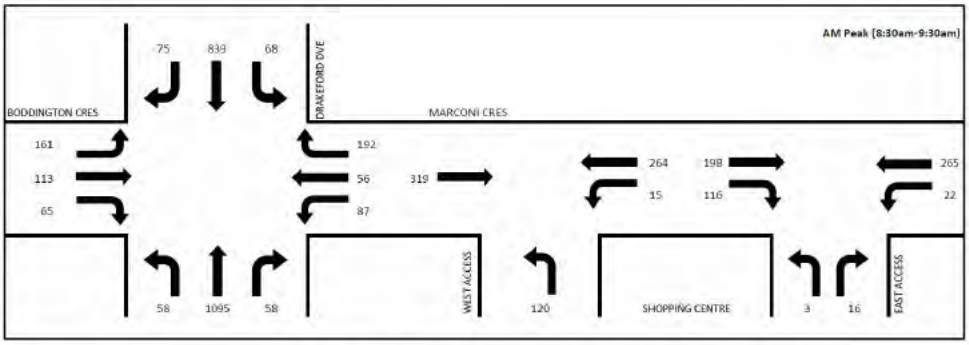


Figure 8: AM Peak Existing Turning Movement Diagram (8:30am-9:30am)

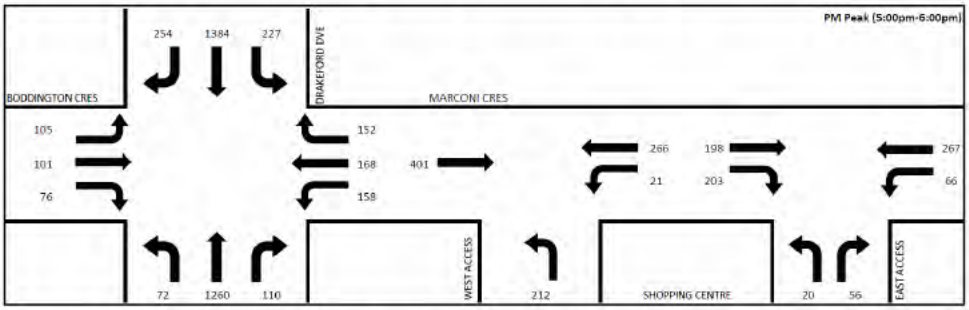


Figure 9: PM Peak Existing Turning Movement Diagram (5:00pm-6:00pm)

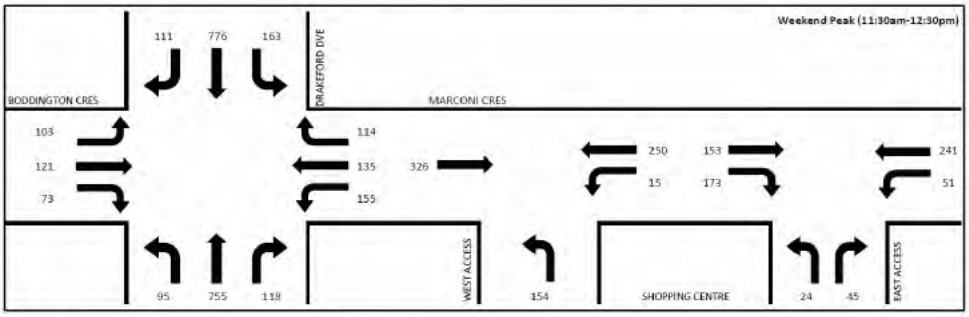


Figure 10: Weekend Peak Existing Turning Movement Diagram (11:30am-12:30pm)

4.5.2 Existing Intersection Performance

SIDRA Intersection 7.0 was used to model the existing traffic conditions of the key intersections in the vicinity of the subject site. The SIDRA analysis has been undertaken in line with the TCCS Guidelines for SIDRA Analysis (August 2016).

The SIDRA Intersection 7.0 software package provides several key indicators to measure intersection performance, including:

- Degree of saturation (DOS),
- Average delay (in seconds),

- Maximum queue length (in metres), and
- Level of service (LOS).

The LOS criteria for intersections is identified in the RMS NSW Traffic Modelling Guidelines (2013) and is shown below in Table 2.

Table 2: Level of Service Criteria for Intersections (RMS NSW Method)

Level of Service	Average Delay (seconds per vehicle)
A	Less than 15
B	15 to 28
C	29 to 42
D	43 to 56
E	56 to 70
F	Greater than 70

Brief summaries of the key SIDRA outputs for the three (3) assessed intersections are presented in Table 3 below, whilst full existing conditions SIDRA outputs are presented at Appendix C.

Table 3: Existing Conditions SIDRA Analysis

Location	AM Peak				PM Peak				Weekend Peak			
	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service
Drakeford Drive / Marconi Crescent / Boddington Crescent												
South	0.48	27	129	B	0.84	55	234	D	0.59	28	74	B
East	0.46	52	48	D	0.54	46	62	D	0.42	34	45	C
North	0.62	27	89	B	0.63	23	132	B	0.55	27	77	B
West	0.53	57	103	E	0.56	64	86	E	0.50	48	68	D
TOTAL	0.62	33	129	C	0.84	40	234	C	0.59	31	77	C
Marconi Crescent / Primmer Court (West)												
South	0.11	6	3	A	0.19	6	6	A	0.14	6	4	A
East	0.08	0	0	N/A	0.08	0	0	N/A	0.07	0	0	N/A
West	0.09	0	0	N/A	0.11	0	0	N/A	0.09	0	0	N/A
TOTAL	0.11	1	3	A*	0.19	2	6	A*	0.14	1	4	A*
Marconi Crescent / Primmer Court (East)												
South	0.05	11	1	A	0.22	13	6	A	0.15	11	4	A
East	0.08	0	0	N/A	0.09	1	0	N/A	0.08	1	0	N/A
West	0.12	2	4	A	0.22	3	7	A	0.18	3	6	A
TOTAL	0.12	2	4	A*	0.22	3	7	A*	0.18	3	6	A*

* Unsignalised intersections do not provide a total Level of Service due to uninterrupted major approaches. For the purposes of this assessment, the level of service for the worst approach was selected

All intersections currently operate well with a level of service of C or better.

4.6 Existing Parking Conditions

Existing parking conditions have been based on parking surveys undertaken for Indesco on:

- Thursday, 1st March, 2018 from 8:00am-6:30pm, and
- Saturday, 3rd March, 2018 from 10:00am-3:30pm.

The parking surveys were undertaken at 30 minute intervals and included the parking within the Kambah Shopping Centre off-street car park as well as along the entire length of Kett Street and Primmer Court. The parking survey area is shown below in Figure 11.

Figure 11: Parking Survey Area

A total of 471 parking spaces were recorded in the vicinity of the subject site. The Group Centre Core contained 242 spaces with the remaining 229 spaces being located within approximately 400m of the subject site on Kett Street and Primmer Court. Approximately 60 spaces are located off Kett Street to the south that are located within the JW Burns Club car park. These spaces are not signed and would likely be utilised by Group Centre vehicles if overflow demands extend that far south.

Table 4: Parking Supply and Restrictions

Location	U/R	2P	P5/P15	Disabled	Park & Ride	Total
Group Centre Core	198	12	5	9	18	242
Primmer Court	15	-	-	-	-	15
Kett Street - North	42	-	-	2	-	44
Kett Street – South	170	-	-	-	-	170
TOTAL	425	12	5	11	18	471

4.6.1 Weekday Parking Occupancy

The parking occupancies within the Kambah Group Centre during the weekday survey period is shown below in Figure 12.

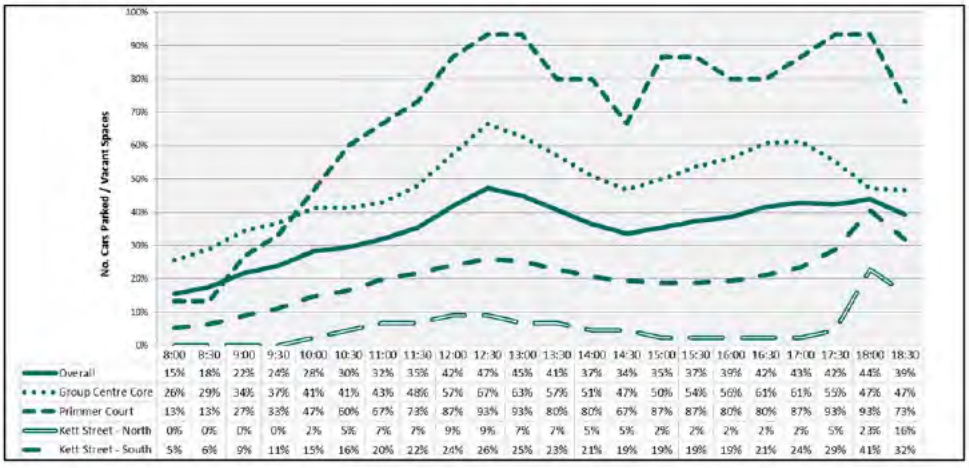


Figure 12: Weekday Parking Occupancy

The peak parking occupancy during the weekday occurred at 12:30pm where a total of 223 parking spaces were occupied and 248 spaces remained vacant (representing a parking occupancy of 47%). The table below details the parking occupancy across the four identified parking areas.

Table 5: Peak Parking Occupancy – 12:30pm

Area	Capacity	Demand	Occupancy	Available Spaces
Group Centre Core	242 spaces	161 spaces	67%	81 spaces
Primmer Court	15 spaces	14 spaces	93%	1 space
Kett Street – North	44 spaces	4 spaces	9%	40 spaces

Area	Capacity	Demand	Occupancy	Available Spaces
Kett Street – South	170 spaces	44 spaces	26%	126 spaces
Total	**471 spaces**	**223 spaces**	**47%**	**248 spaces**

Table 5 above shows that there are 81 spaces available within the Group Centre Core with a demand of 161 spaces (parking occupancy of 67%) during the peak weekday period. Primmer Court is at near capacity with a single available space (93% parking occupancy). Both sections of Kett Street had significant levels of available capacity at the peak time.

4.6.2 Weekend Parking Occupancy

The parking occupancies within the Kambah Group Centre during the weekend survey period is shown below in Figure 13.

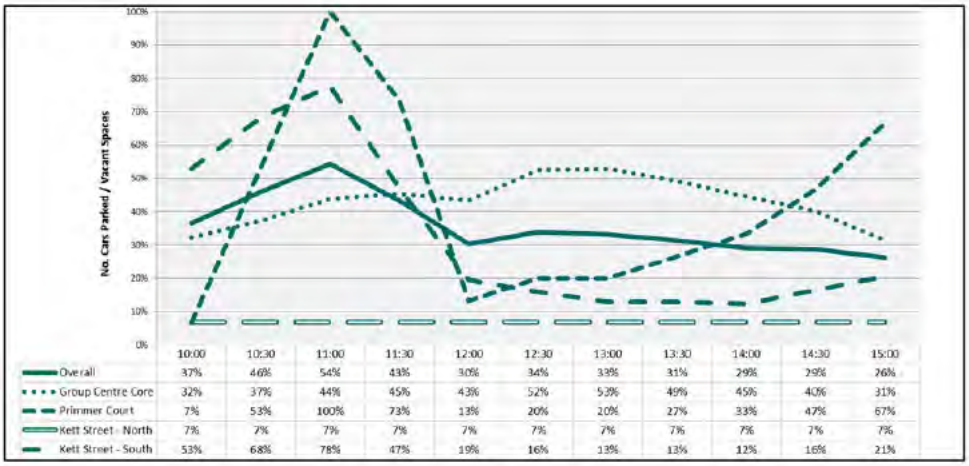


Figure 13: Weekend Parking Occupancy

The peak parking occupancy during the weekend survey period occurred at 11:00am where a total of 256 parking spaces were occupied and 215 spaces remained vacant (representing a parking occupancy of 54%). The table below details the parking occupancy across the four identified parking areas.

Table 6: Peak Parking Occupancy – 11:00am

Area	Capacity	Demand	Occupancy	Available Spaces
Group Centre Core	242 spaces	106 spaces	44%	136 spaces
Primmer Court	15 spaces	15 spaces	100%	0 spaces
Kett Street – North	44 spaces	3 spaces	7%	41 spaces
Kett Street – South	170 spaces	132 spaces	78%	38 spaces
Total	**471 spaces**	**256 spaces**	**54%**	**215 spaces**

Table 6 above shows that there are 136 spaces available within the Group Centre Core with a demand of 106 spaces (parking occupancy of 44%) during the peak weekend period. Primmer Court is at capacity during the weekend peak. The northern section of Kett Street had a low parking occupancy

of 7% (41 available spaces, however the southern section had a parking demand of 132 spaces with only 38 spaces available (parking occupancy of 78%).

Detailed parking data is provided in Appendix D.

5 Traffic Engineering Assessment

5.1 Traffic Generation

Traffic generation rates for proposed developments are typically estimated using the *RTA Guide to Traffic Generating Developments (October, 2012).*

The expected AM peak, PM peak and weekend peak traffic generation of the group centre, based on the RTA Guide to Traffic Generating Developments, are shown in Table 7 below.

It is our understanding that the commercial space could either be retail, office or "non-retail commercial". Given that retail is generally the most intensive use, that has been adopted for the traffic generation calculations. It has been assumed that the gross leasable floor area (GLFA) is approximately 75% of the gross floor area (GFA) and the AM peak traffic generation is 25% of the PM peak.

Table 7: Group Centre Peak Hour Traffic Generation

Use	GFA (m^2)	GLFA (m^2)	AM Peak Rate	AM Peak Trips	PM Peak Rate	PM Peak Trips	Weekend Peak Rate	Weekend Peak Trips
Supermarket	1,688	1,266	39 per 1,000m^2 GLFA	49	155 per 1,000m^2 GFLA	196	147 per 1,000m^2 GFLA	186
Specialty Shops / Retail	1,328	996	12 per 1,000m^2 GLFA	12	46 per 1,000m^2 GFLA	46	107 per 1,000m^2 GFLA	107
TOTAL			61 trips		242 trips		293 trips	

The table above shows that the proposed development will generate up to 61 trips in the AM peak, 242 trips in the PM peak and 293 trips during the weekend peak.

5.2 Traffic Distribution

Access into and out of the subject site will continue to occur via the two Primmer Court access points. The western access, however, is a left in / left out arrangement so any movements out to the east or in from the west will have to take place via the eastern access point.

Traffic distribution has been based on the existing traffic splits into and out of the Kambah Group Centre via the two access points of Primmer Court. The figure below outlines the existing directional splits across the three peak periods that were adopted as part of this assessment.

Table 8: General Distribution of Traffic – Existing Conditions

Peak Hour	Movements In			Movement Out		
	West	East		West	East	
	Left In	Right In	Left In	Left Out	Left Out	Right Out
AM Peak	10%	76%	14%	86%	2%	12%

Peak Hour	Movements In			Movement Out		
	West	East		West	East	
	Left In	Right In	Left In	Left Out	Left Out	Right Out
PM Peak	7%	70%	23%	74%	7%	19%
Weekend Peak	6%	72%	21%	69%	11%	20%

The directional split assumptions, calculated using the same methods, are shown below in Table 9.

Table 9: Directional Split Assumptions – Existing Conditions

Component	'In'	'Out'
AM Peak	52%	48%
PM Peak	50%	50%
Weekend Peak	52%	48%

The traffic distribution through the nearby road network is shown below in Figure 14 to Figure 16.

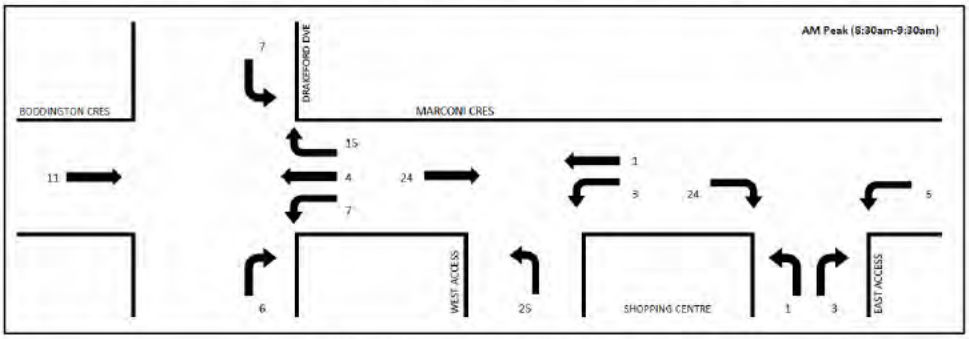


Figure 14: AM Peak Development Volumes

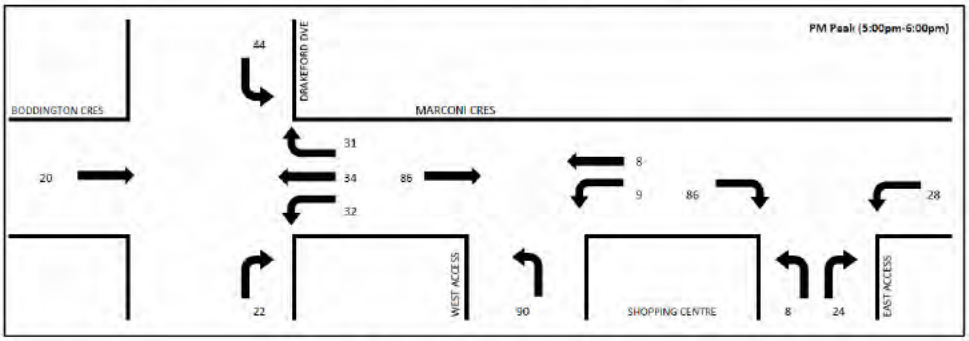


Figure 15: PM Peak Development Volumes

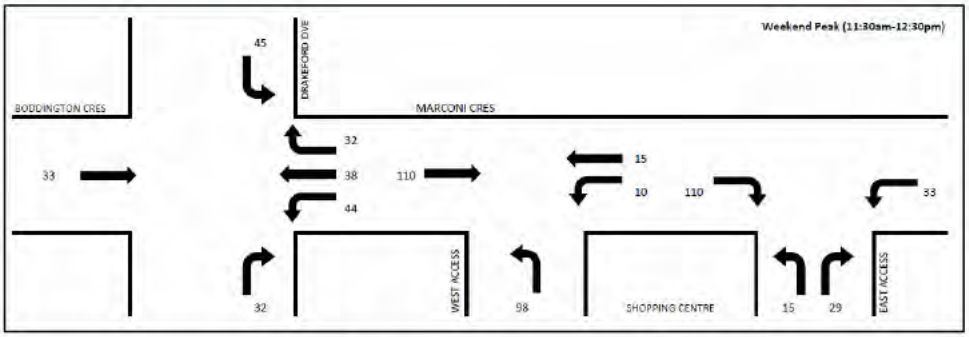


Figure 16: Weekend Peak Development Volumes

The proposed development volumes have been added to the existing volumes to provide a post-development scenario which is detailed in Figure 17 to Figure 19 with full traffic generation and distribution calculations provided at Appendix E.

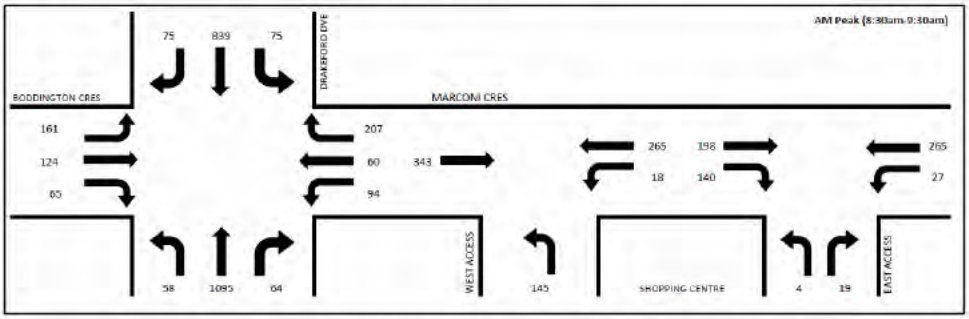


Figure 17: AM Peak Post-Development Volumes

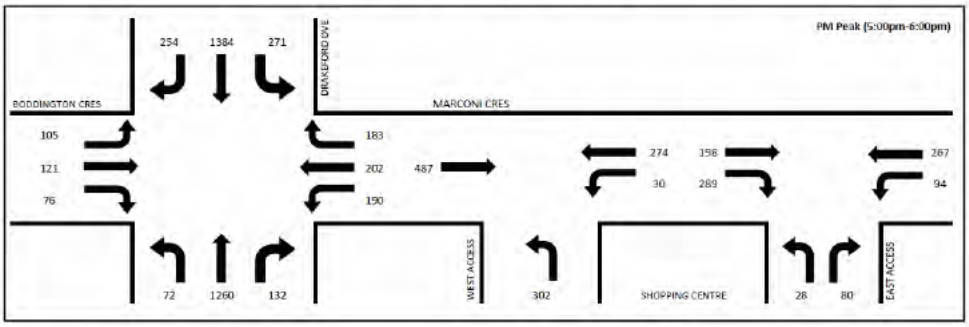


Figure 18: PM Peak Post Development Volumes

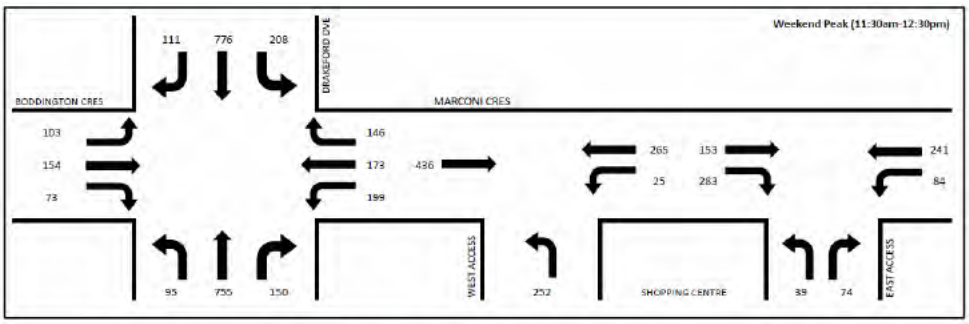


Figure 19: Weekend Peak Post Development Volumes

5.2.1 Post-Development Intersection Performance

Capacity analysis has been undertaken for the post-development operation of the intersections within the vicinity of the Kambah Group Centre. This assessment utilised a similar methodology to the existing conditions assessments detailed in Section 4 of this report. The key change made to the existing conditions model was the addition of the expected development traffic volumes.

The tables below presents a summary of the post-development SIDRA results for the nearby intersections.

Full SIDRA outputs for the post-development intersection conditions are provided at Appendix F.

Table 10: Post-Development Intersection Performance – Drakeford Drive / Marconi Crescent / Boddington Crescent

Location	AM Peak				PM Peak				Weekend Peak			
	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service
South: Drakeford Drive												
Left	0.04	8	5	A	0.07	10	9	A	0.08	9	9	A
Through	0.44	25	126	B	0.85	55	229	D	0.37	26	74	B
Right	0.52	75	33	F	0.80	76	71	F	0.75	61	64	E
East: Marconi Crescent												
Left	0.43	32	48	C	0.66	26	66	B	0.53	20	60	B
Through	0.43	27	48	B	0.66	43	73	D	0.53	34	60	C
Right	0.52	67	51	E	0.66	66	73	E	0.53	54	48	D
North: Drakeford Drive												
Left	0.06	7	5	A	0.20	8	26	A	0.17	8	17	A
Through	0.33	24	88	B	0.63	19	127	B	0.38	26	77	B
Right	0.60	76	39	F	0.57	52	111	D	0.55	57	45	E
West: Boddington Crescent												
Left	0.54	53	104	D	0.62	61	89	E	0.58	49	77	D
Through	0.54	54	104	D	0.62	58	89	E	0.58	46	77	D
Right	0.54	68	58	E	0.62	70	56	E	0.58	56	52	D
TOTAL	**0.60**	**33**	**126**	**C**	**0.85**	**39**	**229**	**C**	**0.75**	**31**	**77**	**C**

Table 11: Post-Development Intersection Performance – Marconi Crescent / Primmer Court (West)

Location	AM Peak				PM Peak				Weekend Peak			
	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service
South: Primmer Court (West)												
Left	0.13	6	4	A	0.28	6	9	A	0.23	6	7	A
East: Marconi Crescent												
Left	0.08	4	0	A	0.09	4	0	A	0.08	4	0	A
Through	0.08	0	0	A	0.09	0	0	A	0.08	0	0	A
West: Marconi Crescent												
Through	0.10	0	0	A	0.14	0	0	A	0.12	0	0	A
TOTAL	0.13	1	4	A	0.28	2	9	A	0.23	2	7	A

Table 12: Post-Development Intersection Performance – Marconi Crescent / Primmer Court (East)

Location	AM Peak				PM Peak				Weekend Peak			
	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service
South: Primmer Court (East)												
Left	0.06	6	2	A	0.38	8	12	A	0.31	7	10	A
Right	0.06	13	2	A	0.38	23	12	B	0.31	19	10	A
East: Marconi Crescent												
Left	0.08	4	0	A	0.10	4	0	A	0.09	4	0	A
Through	0.08	0	0	N/A	0.10	0	0	N/A	0.09	0	0	A

Location	AM Peak				PM Peak				Weekend Peak			
	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service
West: Marconi Crescent												
Through	0.06	0	0	N/A	0.06	0	0	N/A	0.04	0	0	A
Right	0.14	6	4	A	0.32	7	12	A	0.30	6	11	A
TOTAL	**0.14**	**2**	**4**	**A**	**0.38**	**5**	**12**	**A**	**0.33**	**5**	**11**	**A**

The tables above show that the intersections in the vicinity of the Kambah Group Centre are not significantly impacted by the proposed mixed use expansion.

The intersection of Drakeford Drive / Marconi Crescent / Boddington Crescent experiences marginal increases to average delays, queue lengths and degree of saturation across all three periods but maintains an overall Level of Service C.

The unsignalised intersections of Marconi Crescent with Primmer Court (west) and Primmer Court (east) experience minor increases to average delays, queue lengths and degree of saturation and maintain the same Level of Service as the existing conditions.

5.3 Future Development Intersection Performance (2028)

An assessment has been undertaken on the future development traffic scenario in 2028 by applying a traffic volume growth factor of 3% per annum for 10 years to the through volumes along the arterial road network (in this case Drakeford Drive).

This assessment has only been undertaken on the intersection of Drakeford Drive / Marconi Crescent / Boddington Crescent as it is not likely that the intersection of Marconi Crescent with the Primmer Court access points will be heavily impacted by the growth in arterial road volumes.

The 2028 'future development' turning movement volumes at the intersection of Drakeford Drive / Marconi Crescent / Boddington Crescent are shown below in Figure 20 to Figure 22.

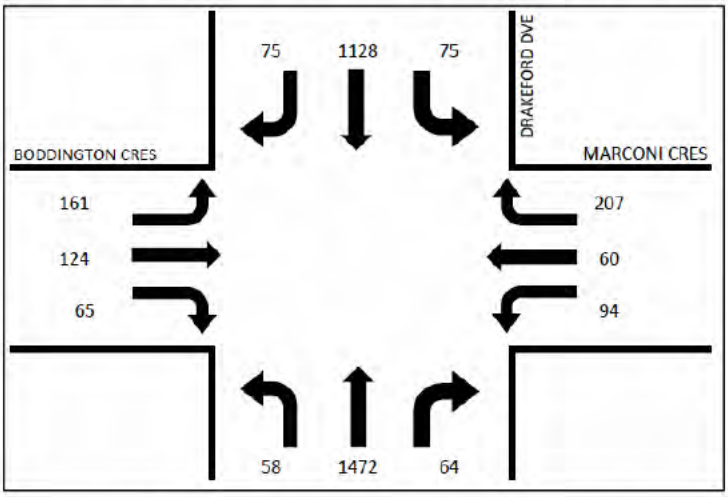


Figure 20: AM Peak – Future Development Volumes (Drakeford Drive / Marconi Crescent)

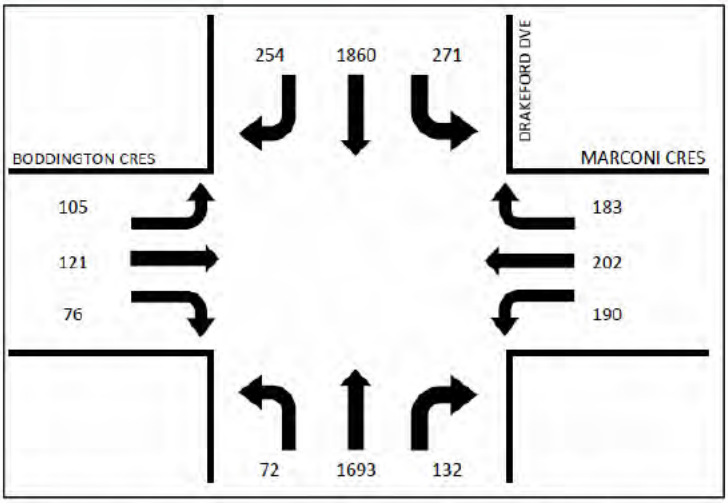


Figure 21: PM Peak – Future Development Volumes (Drakeford Drive / Marconi Crescent)

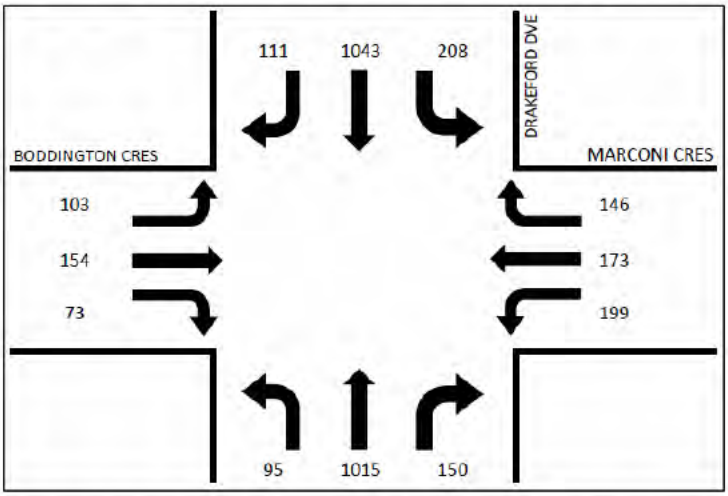


Figure 22: Weekend Peak – Future Development Volumes (Drakeford Drive / Marconi Crescent)

A SIDRA capacity analysis was undertaken for the above future development volumes for the intersection of Drakeford Drive / Marconi Crescent / Boddington Crescent with a summary of the results shown below in Table 13. It should be noted that for the future scenario, the cycle times were maintained from the previous iterations however SIDRA was allowed to determine the appropriate phase timings. This was considered appropriate as it is likely that the phase times will be reviewed on a regular basis to optimise the intersection performance. Full future development SIDRA analysis is provided at Appendix G

Table 13: Future Intersection Performance – Drakeford Drive / Marconi Crescent

Location	AM Peak				PM Peak				Weekend Peak			
	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service	DOS	Average Delay (s)	95th %ile Queue (m)	Level of Service
South: Drakeford Drive												
Left	0.04	7	3	A	0.06	11	10	A	0.08	8	7	A
Through	0.61	29	197	C	0.81	39	280	C	0.59	34	118	C
Right	0.53	77	34	F	0.83	81	75	F	0.61	55	60	D
East: Marconi Crescent												
Left	0.37	26	41	B	0.69	29	80	C	0.45	17	44	B
Through	0.37	22	41	B	0.69	47	80	D	0.45	32	48	C
Right	0.41	63	50	E	0.69	70	77	E	0.45	51	48	D
North: Drakeford Drive												
Left	0.06	8	7	A	0.21	9	29	A	0.18	8	19	A
Through	0.47	27	139	B	0.81	20	192	B	0.61	34	122	C
Right	0.62	78	40	F	0.87	77	146	F	0.45	53	43	D
West: Boddington Crescent												
Left	0.61	58	15	E	0.74	69	101	E	0.62	51	78	D
Through	0.61	58	15	E	0.74	66	101	E	0.62	47	78	D
Right	0.61	72	8	F	0.74	78	60	F	0.62	58	52	E
TOTAL	**0.62**	**34**	**197**	**C**	**0.87**	**36**	**280**	**C**	**0.62**	**35**	**122**	**C**

The table above shows that the intersection of Drakeford Drive / Marconi Crescent / Boddington Crescent continues to operate under capacity and at Level of Service C under all three assessed time periods.

The critical movement in the AM peak is all movements from the west approach, which operate at a degree of saturation of 0.62. Overall, the intersection operates with an average delay of 34 seconds and a maximum queue length of 197m from the south.

The PM peak critical movement is the right turn from the northern approach which operates just below capacity with a degree of saturation of 0.87. Overall, the intersection operates with an average delay of 36 seconds and a maximum queue length of 280m from the south approach.

The critical movement during the weekend peak is all movements from the west approach, which operate at a degree of saturation of 0.63. The intersection operates with an overall average delay of 35 seconds with a maximum queue length of 122m from the north.

It should be noted that none of the critical movements in the future development scenario involve vehicle movements which are directly impacted by the development volumes.

On this basis, the traffic impact of the proposed expansion on the wider road network is considered to be minimal.

6 Parking Assessment

6.1 Car Parking Generation

The required parking provision for the group centre development has been based on the ACTPLA *Parking and Vehicular Access General Code (October, 2014)*.

As per the traffic assessment, the commercial floor area has been calculated as 'speciality shops / retail' as it is generally the more intensive land use.

The statutory parking requirement for the relevant components in a 'Core' zone within a Group Centre are shown below in Table 14.

Table 14: Statutory Parking Requirements

Use	Parking Rate (CZ1 – Core)	No.	Parking requirement
Supermarket Expansion	5 per 100m² GFA	1,688m²	84 spaces
Specialty Shops / Retail		1,328m²	66 spaces
TOTAL			**150 spaces**

The total car parking demand for the development has been estimated to be approximately 150 spaces.

6.2 Car Parking Impacts

6.2.1 Parking Demand

As detailed in Section 3, the existing weekday peak parking for the Kambah Group Centre occurred at 12:30pm on a weekday, where it was found that a total of 161 vehicles were parked within the Group Centre Core. At the weekend peak time of 11:00am, the existing demand within the Group Centre Core is 106 spaces.

Table 15: Car Parking Demand Assessment

Car Parking Demand	Weekday Demand	Weekend Demand
Existing Group Centre Core Demand	161 spaces	106 spaces
Expansion Demand	150 spaces	150 spaces
TOTAL DEMAND	**311 spaces**	**256 spaces**

6.2.2 Post-Development Appropriate Parking Supply

The proposed expansion will involve a complete rebuild of the at-grade car park area to facilitate loading access at the rear of the shopping centre. This rebuilt carpark will provide a total of **277 parking spaces** within the Group Centre Core which includes the 18 'Park and Ride' spaces which are proposed to be reverted to standard parking spaces as well as the nine (9) additional spaces to be constructed by TCCS in the future road link.

A review of the car parking supply in the Kambah Group Centre is shown in Table 16 below.

Table 16: Car Parking Overflow Assessment

Car Parking Demand	Weekday Peak	Weekend Peak
Redeveloped Group Centre Core Supply	277 spaces	277 spaces
Post-Development Demand	311 spaces	256 spaces
Overflow Parking	**34 spaces**	**No Overflow**

The ACTPLA *Parking and Vehicular Access General Code* specifies the location requirements for the various car park users within a commercial zone Group Centre as follows:

- Long stay parking is on-site or within 400m,
- Short stay parking is on-site or within 200m,
- Operational parking is on-site or within 100m, and
- Visitor parking is on-site or within 200m.

On this basis, the overflow parking of **34 weekday parking spaces** can be accommodated in the parking areas outside the Group Centre Core (Primmer Court and Kett Street), as shown below in Table 17.

Table 17: Available Parking Outside Group Centre

Peak Parking Availability	Weekday Supply
Within 200m	
Primmer Court	1 spaces
Kett Street – North	40 spaces
Within 400m	
Kett Street – South	126 spaces
Total Available Parking – Outside Group Centre	**167 spaces**

The table above shows that there is sufficient parking capacity within 200m of the subject site to accommodate the overflow parking demands at the weekday peak time.

Given that the overflow parking demands can likely be accommodated within 200m of the subject site, it is unlikely that the JW Burns Car Park will be utilised by vehicles associated with the Group Centre.

To ensure that the most proximate parking spaces are reserved for the short-stay users of the Kambah Group Centre, it may be necessary to install timed parking restrictions within 200m of the Group Centre Core.

6.3 Disabled Parking

The disabled parking requirement for new developments is specified in the ACTPLA *Parking and Vehicular Access General Code.* Specifically, the code states that parking spaces for people with disabilities must comprise a minimum of 3% of the total spaces provided in a development (rounded up to the nearest whole number) excluding parking spaces allocated to residents.

As 277 parking spaces are provided, a total of nine (9) disabled spaces are required in the at-grade parking space. The development plans show a total of ten (10) disabled spaces which satisfies this requirement.

6.4 Motorcycle Parking

The ACTPLA *Parking and Vehicular Access General Code* specifies the minimum number of motorcycle/motor scooter parking spaces is to be provided for the development at a rate of 3 spaces per 100 car parking spaces.

On this basis, a total of eight (8) motorcycle spaces need to be provided for the Kambah Group Centre. Eight (8) motorcycle spaces are proposed on the development plans which satisfies this requirement.

6.5 Bicycle Parking

The calculation of the bicycle parking provision is based on the ACTPLA *Bicycle Parking General Code (October, 2013)*. The code states that development uses not provided in the code do not require a parking provision. The bicycle parking rates and the total bicycle parking requirements are shown below in Table 18.

Table 18: Bicycle Parking Rates and Requirements

Use	Size	Component	Parking Rate	Parking Requirement
Supermarket	1,688m²	Employee	1 per 750m² GFA after the first 750m² GFA	2 spaces
		Shoppers	1 per 300m² GFA (minimum 2)	6 spaces
Shop	1,328m²	Employee	1 per 500m² GFA after the first 500m² GFA	2 space
		Shoppers	1 per 300m² GFA (minimum 2)	5 spaces
TOTAL	-	**Employee**	-	**4 spaces**
		Visitor	-	**11 spaces**

On this basis, it is recommended that 4 secure bicycle parking spaces be provided on site. The code states that employee spaces should be provided in bicycle lockers or enclosures, whereas the guest bicycle spaces can be provided via bicycle rails. The development plans show a secure lockup area to the west of the subject site which is proposed to cater for eight (8) spaces.

The development plans show an allowance for 15 bicycle spaces that are to be constructed north of the supermarket area which is more than sufficient to cater for the 11 visitor bicycle spaces.

7 Loading and Waste

Loading and waste provision for the supermarket extension is proposed to occur via a new rear loading dock to the south of the Kambah Group Centre which is accessed off Primmer Court to the south. The loading and waste provision for the proposed specialty shops will occur via a designated loading bay to the west of the existing service zone / staff parking in the southeast corner of the site.

8 Pedestrian and Cyclist Impacts

As discussed in Section 4.4, the subject site is well connected to the existing pedestrian and cyclist facilities with existing north-south pedestrian connections to the east of Block 4 and Block 37 and east-west connections between Block 1 and Block 4.

Given that the proposal will not result in the removal of any footpaths or bicycle paths and the subject site currently has very good pedestrian and cyclist connectivity, it is anticipated that there will be minimal impact on pedestrians and cyclists.

The previous section identifies that overflow parking is most likely to occur on Kett Street to the north of Primmer Court. A pedestrian connection is currently provided over the village creek that connects Kambah Group Centre with Kett Street and the proposed overflow parking areas.

9 Public Transport Impacts

As outlined in Section 5 above, the proposed development is not expected to significantly contribute to traffic operation in the vicinity of the subject site. On this basis, the traffic associated with the subject site is not expected to significantly impact public transport operations.

There are currently 18 ‘Park and Ride’ spaces within the existing Kambah Group Centre which TCCS have advised are not currently utilised by commuters. Further consultation with TCCS should be undertaken with a view to converting these spaces into the general parking supply.

10 Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed mixed-use development at the Kambah Group Centre in Kambah, we are of the opinion that:

Traffic Analysis

- The proposed development is expected to generate between 61-293 vehicle trips during the peak hours,
- A comparison between the existing conditions and the post-development conditions was undertaken and it was shown that the traffic generation will not significantly impact on the operation of the nearby intersections,
- A future scenario was developed to analyse network performance ten years post-development which showed the signalised intersect ion of Drakeford Drive / Marconi Crescent continued to operate at a LOS C during the peak periods,
- The existing pedestrian and bicycle networks in the vicinity of the development will allow pedestrians and cyclists to travel in a safe and efficient manner to key destinations,
- On-road public transport networks will not be significantly impacted by traffic from the development,

Parking Analysis

- The proposed development has a parking requirement of 150 spaces with an existing parking demand of 161 parking spaces for a **total demand of 311 spaces**,
- The redeveloped car park will provide 277 parking spaces on site and the remaining 34 spaces can be accommodated in the nearby parking resources,
- Short term parking restrictions should be installed within 200m of the Kambah Group Centre to ensure the most proximate spaces are utilised by visitors and shoppers,
- The motorcycle parking requirement is satisfied by the eight (8) spaces provided on site , and
- The accessibility parking requirement is satisfied by the ten (10) spaces provided on site.

Sustainable Transport

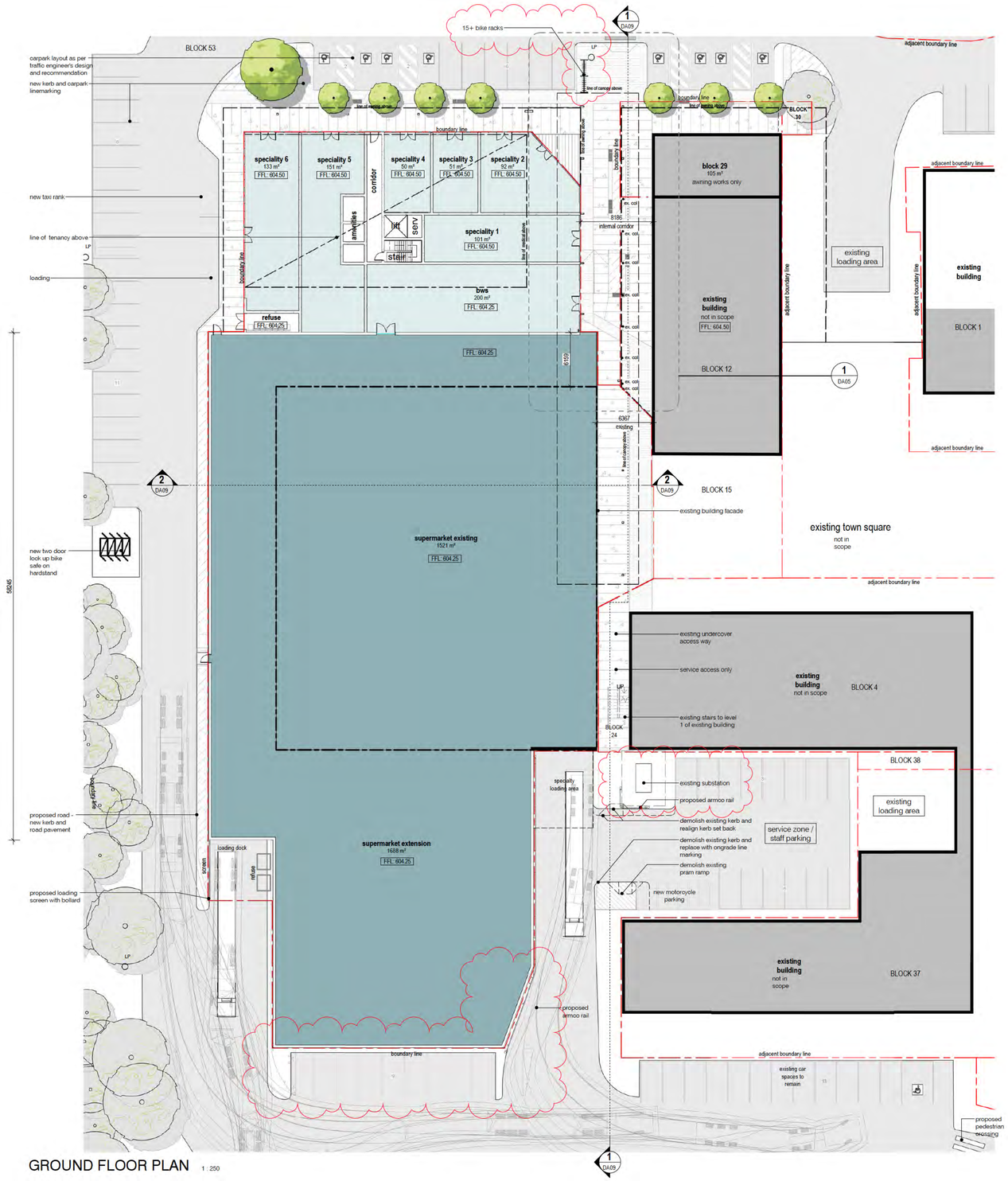
- Four (4) staff bicycle spaces are required as part of the proposed expansion, which can be provided in the two door lock up bike safe to the west of the supermarket.
- The visitor bicycle parking requirement is 11 spaces, which is satisfied by the 15 visitor spaces shown to the north of the supermarket area.
- It is our understanding that the 18 ‘Park and Ride’ spaces could be converted to standard car parking spaces following consultation with TCCS

Loading and Waste

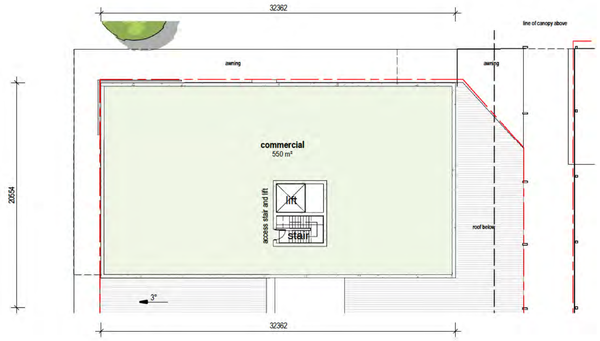
- The loading and waste collection for the expanded supermarket will occur via a new rear loading dock accessed off Primmer Street to the south of the subject site, and
- Loading for the specialty retail component of the development will occur via a loading bay to the west of the existing service zone / staff parking in the southeast corner of the site.

Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix A
Development Plans



GROUND FLOOR PLAN 1 : 250



FIRST FLOOR PLAN 1 : 250

SCHEDULE OF GFA	
Name	Area
SUPERMARKET	
bws	200 m²
supermarket existing	1521 m²
supermarket extension	1688 m²
	3408 m²
SPECIALITY	
speciality 1	101 m²
speciality 2	92 m²
speciality 3	51 m²
speciality 4	50 m²
speciality 5	151 m²
speciality 6	133 m²
	578 m²
SERVICES	
amenities	24 m²
corridor	32 m²
ground level vt	26 m²
refuse	16 m²
	98 m²
LEVEL 1	
commercial	550 m²
	550 m²
TOTAL GFA	4634 m²

carpark schedule	
commercial car space	267 cars
accessible car space	10 cars
total	277 cars
motorbike	8 bikes
staff lock up bicycle storage	8
public bicycle racks	15
trolley bays	7 bays

no.	date	ISSUE / revision	by
P 4	12.07.18	PRELIMINARY DA ISSUE	TB
P 5	23.01.19	DA AMENDMENTS	BB
P 6	01.02.19	REVISED DA AMENDMENTS	TW
P 7	28.03.19	PRELIMINARY ISSUE	RD
P 8	09.06.19	CANOPY AMENDMENT	BB
P 9	16.07.19	MINOR AMENDMENTS FOR DA LODGEMENT	TW
P 10	02.08.19	AREA REVISIONS AS REQUESTED	TW
P 11	15.08.19	LOADING DOCK CHANGE	BB
P 12	21.09.19	DA ISSUE	BB
P 13	29.09.19	REVISED DA ISSUE	TW
P 14	11.04.19	AMENDMENT	BB

client: TZANETOS FAMILY GROUP

project - address: KAMBAH SHOPPING VILLAGE

drawing title: **GROUND FLOOR AND FIRST FLOOR**

D.A. ISSUE

job no. 2013-119

drawing no. DA04

issue P 14

scale @ A1 As indicated

drawn BB

All dimensions in millimetres unless noted otherwise.
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Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix B
Turning Movement Counts

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Drakeford Dr and Marconi Cres, Kambah

Date:	Thu 01/03/18
Weather:	Overcast
Suburban:	Kambah
Customer:	Indesco

North:	Drakeford Dr
East:	Marconi Cres
South:	Drakeford Dr
West:	Marconi Cres

Survey Start	AM:	6:30	PM:	15:30
Vehicular Peakhour		**Pedestrians Peakhour**		
AM:	7:45 AM-8:45 AM	AM:	N/A	
PM:	4:45 PM-5:45 PM	PM:	N/A	

All Vehicles

Time		North Approach Drakeford Dr				East Approach Marconi Cres				South Approach Drakeford Dr				West Approach Marconi Cres				Hourly Total	
Period Start	**Period End**	**U**	**R**	**SB**	**L**	**U**	**R**	**WB**	**L**	**U**	**R**	**NB**	**L**	**U**	**R**	**EB**	**L**	**Hour**	**Peak**
6:30	6:45	0	7	98	9	0	25	6	6	0	13	279	3	0	3	7	50	2379	
6:45	7:00	0	13	149	15	0	25	5	10	0	15	237	7	0	4	16	34	2753	
7:00	7:15	0	5	145	18	0	31	13	13	0	15	292	2	0	3	20	47	3271	
7:15	7:30	0	19	197	21	0	42	8	20	0	18	315	10	0	12	25	52	3664	
7:30	7:45	0	18	259	11	0	39	13	13	0	10	402	12	0	10	26	67	4023	
7:45	8:00	0	14	321	21	0	50	15	18	0	16	448	17	0	8	33	87	4259	Peak
8:00	8:15	0	12	272	26	0	47	4	20	0	14	446	7	0	14	32	103	3834	
8:15	8:30	0	21	339	33	0	54	10	22	0	26	437	22	0	18	41	75	3439	
8:30	**8:45**	**0**	**24**	**340**	**27**	**0**	**59**	**15**	**29**	**0**	**19**	**445**	**22**	**0**	**26**	**38**	**72**	**2867**	
8:45	**9:00**	**0**	**18**	**174**	**14**	**0**	**47**	**14**	**20**	**0**	**15**	**229**	**13**	**0**	**14**	**30**	**35**	**1751**	
9:00	**9:15**	**0**	**18**	**174**	**14**	**0**	**46**	**14**	**19**	**0**	**13**	**226**	**12**	**0**	**13**	**25**	**28**	**1128**	
9:15	**9:30**	**0**	**15**	**151**	**13**	**0**	**40**	**13**	**19**	**0**	**11**	**195**	**11**	**0**	**12**	**20**	**26**	**526**	
15:30	15:45	0	42	337	43	0	31	36	34	0	25	254	15	0	11	18	33	3572	
15:45	16:00	0	51	339	62	0	24	28	33	0	24	255	13	0	19	22	20	3644	
16:00	16:15	0	39	299	60	0	34	39	36	0	26	222	20	0	16	16	23	3806	
16:15	16:30	0	44	345	65	0	19	37	42	0	22	320	19	0	13	24	23	4005	
16:30	16:45	0	89	320	53	0	31	58	40	0	17	251	20	0	15	26	31	4072	
16:45	17:00	0	56	386	41	0	38	41	37	0	20	334	12	0	13	37	37	4192	Peak
17:00	**17:15**	**0**	**61**	**370**	**61**	**0**	**37**	**41**	**44**	**0**	**19**	**325**	**12**	**0**	**12**	**19**	**28**	**4067**	
17:15	**17:30**	**0**	**63**	**352**	**63**	**0**	**31**	**36**	**43**	**0**	**24**	**325**	**25**	**0**	**22**	**33**	**23**	**3863**	
17:30	**17:45**	**0**	**70**	**373**	**60**	**0**	**44**	**46**	**41**	**0**	**32**	**320**	**15**	**0**	**23**	**20**	**27**	**3610**	
17:45	**18:00**	**0**	**60**	**289**	**43**	**0**	**40**	**45**	**30**	**0**	**35**	**290**	**20**	**0**	**19**	**29**	**27**	**2539**	
18:00	18:15	0	40	292	41	0	26	36	36	0	18	234	15	0	22	31	34	1612	
18:15	18:30	0	38	288	46	0	29	35	33	0	16	214	13	0	17	33	25	787	

Peak Time		North Approach Drakeford Dr				East Approach Marconi Cres				South Approach Drakeford Dr				West Approach Marconi Cres				Peak
Period Start	**Period End**	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	**total**
7:45	8:45	0	71	1272	107	0	210	44	89	0	75	1776	68	0	66	144	337	4259
16:45	17:45	0	250	1481	225	0	150	164	165	0	95	1304	64	0	70	109	115	4192

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Drakeford Dr and Marconi Cres, Kambah

Date:	Sat 03/03/18
Weather:	Overcast
Suburban:	Kambah
Customer:	Indesco

North:	Drakeford Dr
East:	Marconi Cres
South:	Drakeford Dr
West:	Marconi Cres

Survey Start	AM:	11:00	PM: 12:00
Vehicular Peakhour		**Pedestrians Peakhour**	
AM:	11:30 AM-12:30 PM	AM:	N/A
PM:	12:00 PM-1:00 PM	PM:	N/A

All Vehicles

Time		North Approach Drakeford Dr				East Approach Marconi Cres				South Approach Drakeford Dr				West Approach Marconi Cres				Hourly Total	
Period Start	**Period End**	**U**	**R**	**SB**	**L**	**U**	**R**	**WB**	**L**	**U**	**R**	**NB**	**L**	**U**	**R**	**EB**	**L**	**Hour**	**Peak**
11:00	11:15	0	21	198	40	0	36	40	43	0	24	148	18	0	19	37	35	2676	
11:15	11:30	0	25	195	33	0	34	25	39	0	26	183	29	0	12	26	22	2684	
11:30	**11:45**	**0**	**24**	**194**	**37**	**0**	**28**	**33**	**33**	**0**	**32**	**188**	**22**	**0**	**26**	**23**	**26**	**2719**	**Peak**
11:45	**12:00**	**0**	**26**	**210**	**42**	**0**	**30**	**38**	**45**	**0**	**31**	**183**	**24**	**0**	**17**	**31**	**25**	**2692**	
12:00	**12:15**	**0**	**32**	**185**	**46**	**0**	**23**	**29**	**37**	**0**	**18**	**196**	**33**	**0**	**13**	**30**	**25**	**2692**	**Peak**
12:15	**12:30**	**0**	**29**	**187**	**38**	**0**	**33**	**35**	**40**	**0**	**37**	**188**	**16**	**0**	**17**	**37**	**27**	**2587**	
12:30	12:45	0	28	185	43	0	29	38	20	0	23	177	18	0	22	34	22	2506	
12:45	13:00	0	31	197	43	0	29	35	39	0	37	199	17	0	15	37	23	2515	
13:00	13:15	0	19	162	38	0	30	25	28	0	16	158	16	0	19	33	18	2177	
13:15	13:30	0	22	178	28	0	25	37	33	0	29	176	19	0	13	21	22	1615	
13:30	13:45	0	18	196	31	0	37	30	27	0	17	194	20	0	20	30	28	1012	
13:45	14:00	0	22	113	18	0	12	12	13	0	17	96	7	0	7	22	25	364	

Peak Time		North Approach Drakeford Dr				East Approach Marconi Cres				South Approach Drakeford Dr				West Approach Marconi Cres				Peak
Period Start	**Period End**	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	**total**
11:30	12:30	0	111	776	163	0	114	135	155	0	118	755	95	0	73	121	103	2719
12:00	13:00	0	120	754	170	0	114	137	136	0	115	760	84	0	67	138	97	2692

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Shopping Centre West Access and Marconi Cres, Kambah

Date:	Thu 01/03/18
Weather:	Overcast
Suburban:	Kambah
Customer:	Indesco

North:	N/A
East:	Marconi Cres
South:	Shopping Centre West Acces
West:	Marconi Cres

Survey Start			
AM:	6:30	PM:	15:30
Vehicular Peakhour Start			
AM:	8:30 AM-9	PM:	5:00 PM-6:00 PM

All Vehicles

Time		East Approach Marconi Cres			roach Shopping Centre We			West Approach Marconi Cres			Hourly Total	
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	Hour	Peak
6:30	6:45	0	36	0	0	0	1	0	0	14	312	
6:45	7:00	0	38	1	0	0	2	0	0	22	371	
7:00	7:15	0	48	1	0	0	9	0	0	32	430	
7:15	7:30	0	47	4	0	0	23	0	0	34	476	
7:30	7:45	0	46	5	0	0	19	0	0	40	532	
7:45	8:00	0	62	5	0	0	21	0	0	34	593	
8:00	8:15	0	50	0	0	0	21	0	0	65	639	
8:15	8:30	0	68	1	0	0	18	0	0	77	695	
8:30	8:45	0	81	4	0	0	22	0	0	64	718	Peak
8:45	9:00	0	63	3	0	0	18	0	0	84		
9:00	9:15	0	62	3	0	0	40	0	0	87		
9:15	9:30	0	58	5	0	0	40	0	0	84		
15:30	15:45	0	59	1	0	0	42	0	0	87	744	
15:45	16:00	0	42	5	0	0	43	0	0	76	791	
16:00	16:15	0	66	8	0	0	43	0	0	82	834	
16:15	16:30	0	54	3	0	0	44	0	0	89	853	
16:30	16:45	0	77	2	0	0	52	0	0	105	879	
16:45	17:00	0	65	5	0	0	51	0	0	88	894	
17:00	17:15	0	67	12	0	0	55	0	0	84	900	Peak
17:15	17:30	0	56	1	0	0	54	0	0	105	871	
17:30	17:45	0	82	5	0	0	49	0	0	115	860	
17:45	18:00	0	61	3	0	0	54	0	0	97		
18:00	18:15	0	46	2	0	0	52	0	0	89		
18:15	18:30	0	50	2	0	0	47	0	0	106		

Peak Time		East Approach Marconi Cres			roach Shopping Centre We			West Approach Marconi Cres			Peak
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	total
8:30	9:30	0	264	15	0	0	120	0	0	319	718
17:00	18:00	0	266	21	0	0	212	0	0	401	900

TRANS TRAFFIC SURVEY

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TURNING MOVEMENT SURVEY

Intersection of Shopping Centre West Access and Marconi Cres, Kambah

Date:	Sat 03/03/18
Weather:	Overcast
Suburban:	Kambah
Customer:	Indesco

North:	N/A
East:	Marconi Cres
South:	Shopping Centre West Acces
West:	Marconi Cres

Survey Start			
AM:	11:00	PM:	12:00
Vehicular Peakhour Start			
AM:	11:45 AM	PM:	12:00 PM-1:00 PM

All Vehicles

Time		East Approach Marconi Cres			oroach Shopping Centre We			West Approach Marconi Cres			Hourly Total	
Period Start	**Period End**	**U**	**WB**	**L**	**U**	**R**	**L**	**U**	**R**	**EB**	**Hour**	**Peak**
11:00	11:15	0	80	0	0	0	39	0	0	73	740	
11:15	11:30	0	57	5	0	0	41	0	0	80	728	
11:30	11:45	0	58	4	0	0	35	0	0	69	745	
11:45	12:00	0	82	3	0	0	32	0	0	82	749	Peak
12:00	12:15	0	52	3	0	0	37	0	0	88	745	Peak
12:15	12:30	0	58	5	0	0	50	0	0	87	734	
12:30	12:45	0	46	5	0	0	41	0	0	78	702	
12:45	13:00	0	60	3	0	0	43	0	0	89	692	
13:00	13:15	0	41	4	0	0	42	0	0	82	660	
13:15	13:30	0	52	5	0	0	43	0	0	68	491	
13:30	13:45	0	52	5	0	0	41	0	0	62	323	
13:45	14:00	0	57	1	0	0	31	0	0	74	163	

Peak Time		East Approach Marconi Cres			oroach Shopping Centre We			West Approach Marconi Cres			Peak
Period Start	**Period End**	U	WB	L	U	R	L	U	R	EB	**total**
11:45	12:45	0	238	16	0	0	160	0	0	335	749
12:00	13:00	0	216	16	0	0	171	0	0	342	745

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Shopping Centre East Access and Marconi Cres, Kambah

Date:	Thu 01/03/18
Weather:	Overcast
Suburban:	Kambah
Customer:	Indesco

North:	N/A
East:	Marconi Cres
South:	Shopping Centre East Access
West:	Marconi Cres

Survey Start			
AM:	6:30	PM:	15:30
Vehicular Peakhour Start			
AM:	8:15 AM-9	PM:	5:00 PM-6:00 PM

All Vehicles

Time		East Approach Marconi Cres			proach Shopping Centre Eas			West Approach Marconi Cres			Hourly Total	
Period Start	**Period End**	**U**	**WB**	**L**	**U**	**R**	**L**	**U**	**R**	**EB**	**Hour**	**Peak**
6:30	6:45	0	35	1	0	1	1	0	1	13	293	
6:45	7:00	0	37	4	0	1	2	0	18	4	346	
7:00	7:15	0	48	0	0	2	1	0	24	8	391	
7:15	7:30	0	51	5	0	2	0	0	24	10	431	
7:30	7:45	0	51	7	0	7	0	0	10	30	497	
7:45	8:00	0	66	6	0	4	1	0	23	11	553	
8:00	8:15	0	49	3	0	5	1	0	30	35	598	
8:15	8:30	0	66	6	0	6	3	0	38	39	637	Peak
8:30	8:45	0	84	8	0	4	1	0	24	40	620	
8:45	9:00	0	65	4	0	2	1	0	12	72		
9:00	9:15	0	61	4	0	5	0	0	38	54		
9:15	9:30	0	55	6	0	5	1	0	42	32		
15:30	15:45	0	60	11	0	9	0	0	41	46	659	
15:45	16:00	0	43	10	0	5	4	0	47	29	695	
16:00	16:15	0	68	16	0	11	6	0	41	41	740	
16:15	16:30	0	50	14	0	11	7	0	64	25	744	
16:30	16:45	0	75	11	0	8	4	0	44	61	765	
16:45	17:00	0	64	15	0	10	6	0	43	45	792	
17:00	17:15	0	74	14	0	10	5	0	44	40	810	Peak
17:15	17:30	0	54	17	0	13	3	0	59	46	784	
17:30	17:45	0	80	14	0	14	7	0	51	64	781	
17:45	18:00	0	59	21	0	19	5	0	49	48		
18:00	18:15	0	46	11	0	13	2	0	39	50		
18:15	18:30	0	51	10	0	21	1	0	46	60		

Peak Time		East Approach Marconi Cres			proach Shopping Centre Eas			West Approach Marconi Cres			Peak
Period Start	**Period End**	U	WB	L	U	R	L	U	R	EB	**total**
8:15	9:15	0	276	22	0	17	5	0	112	205	637
17:00	18:00	0	267	66	0	56	20	0	203	198	810

TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Shopping Centre East Access and Marconi Cres, Kambah

Date:	Sat 03/03/18
Weather:	Overcast
Suburban:	Kambah
Customer:	Indesco

North:	N/A
East:	Marconi Cres
South:	Shopping Centre East Access
West:	Marconi Cres

Survey Start			
AM:	11:00	PM:	12:00
Vehicular Peakhour Start			
AM:	11:30 AM	PM:	12:00 PM-1:00 PM

All Vehicles

Time		East Approach Marconi Cres			proach Shopping Centre Ea			Vest Approach Marconi Cre			Hourly Total	
Period Start	**Period End**	**U**	**WB**	**L**	**U**	**R**	**L**	**U**	**R**	**EB**	**Hour**	**Peak**
11:00	11:15	0	77	4	0	10	3	0	48	25	678	
11:15	11:30	0	56	14	0	12	6	0	38	42	677	
11:30	11:45	0	52	13	0	14	10	0	39	30	687	Peak
11:45	12:00	0	82	11	0	7	3	0	44	38	680	
12:00	12:15	0	50	12	0	11	5	0	40	48	670	Peak
12:15	12:30	0	57	15	0	13	6	0	50	37	651	
12:30	12:45	0	46	11	0	11	5	0	41	37	619	
12:45	13:00	0	58	12	0	11	5	0	52	37	605	
13:00	13:15	0	41	11	0	9	4	0	49	33	587	
13:15	13:30	0	51	11	0	10	6	0	26	42	440	
13:30	13:45	0	52	8	0	10	5	0	39	23	294	
13:45	14:00	0	54	14	0	11	4	0	46	28	157	

Peak Time		East Approach Marconi Cres			proach Shopping Centre Ea			Vest Approach Marconi Cre			Peak
Period Start	**Period End**	U	WB	L	U	R	L	U	R	EB	**total**
11:30	12:30	0	241	51	0	45	24	0	173	153	687
12:00	13:00	0	211	50	0	46	21	0	183	159	670

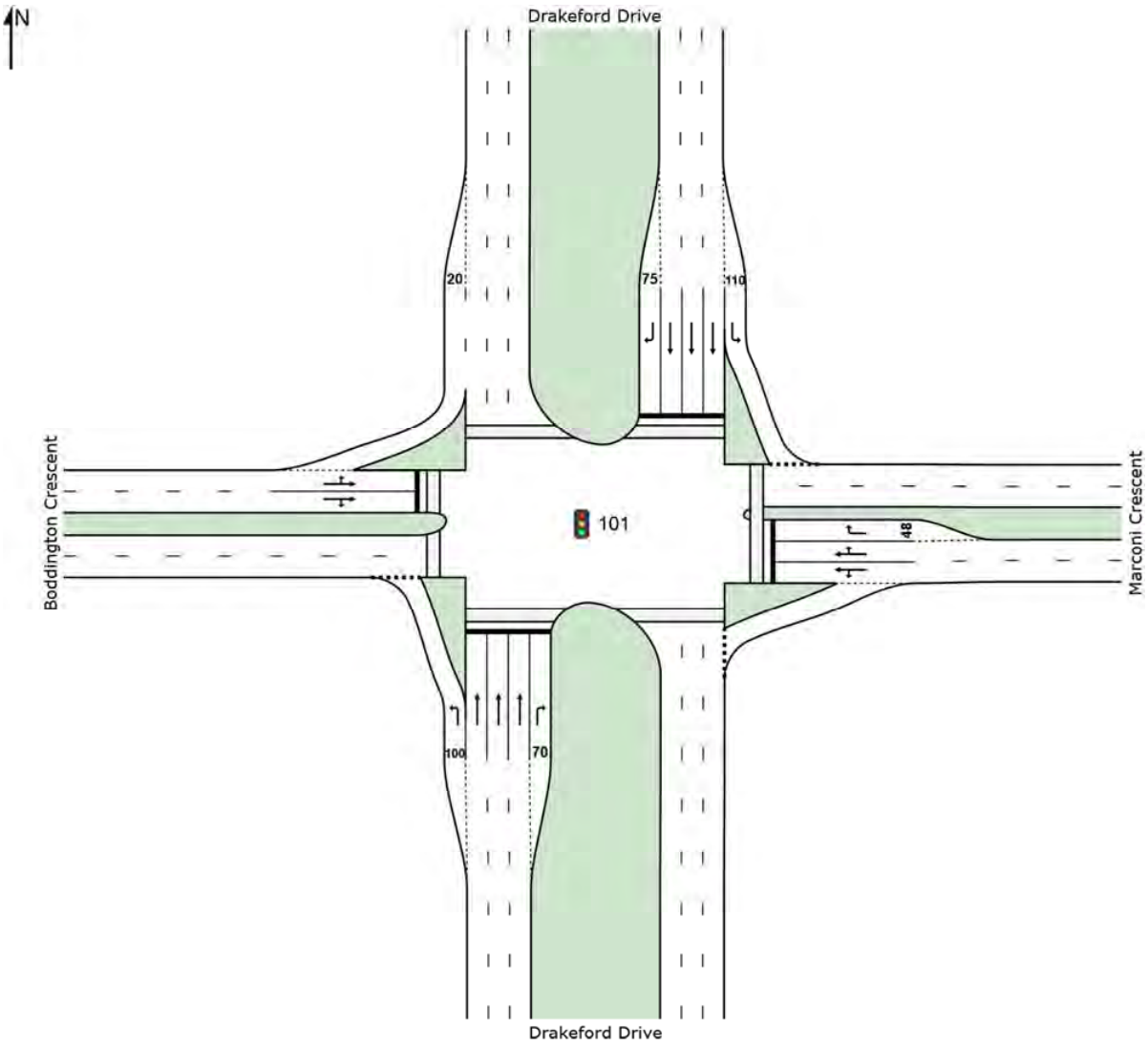
Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix C
Existing Conditions SIDRA

SITE LAYOUT

Site: 101 [Drakeford / Marconi Existing - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated



LANE SUMMARY

Site: 101 [Drakeford / Marconi Existing - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	61	5.0	1390	0.044	100	7.6	LOS A	0.6	4.7	Short	100	0.0	NA
Lane 2	398	5.0	904	0.440	100	25.5	LOS B	17.7	128.9	Full	500	0.0	0.0
Lane 3	398	5.0	904	0.440	100	25.5	LOS B	17.7	128.9	Full	500	0.0	0.0
Lane 4	357	5.0	810[1]	0.440	100	24.8	LOS B	15.4	112.2	Full	500	0.0	0.0
Lane 5	61	5.0	128	0.477	100	76.1	LOS F	4.2	30.7	Short	70	0.0	NA
Approach	1275	5.0		0.477		26.9	LOS B	17.7	128.9				
East: Marconi Crescent													
Lane 1	151	5.0	385	0.391	84[5]	30.3	LOS C	6.3	45.6	Full	50	0.0	0.0
Lane 2	101	5.0	218	0.464	100	67.2	LOS E	6.6	48.1	Full	50	0.0	1.5[8]
Lane 3	101	5.0	218	0.464	100	67.2	LOS E	6.6	48.1	Short	48	0.0	NA
Approach	353	5.0		0.464		51.5	LOS D	6.6	48.1				
North: Drakeford Drive													
Lane 1	72	5.0	1453	0.049	100	6.9	LOS A	0.6	4.3	Short	110	0.0	NA
Lane 2	294	5.0	904	0.326	100	23.8	LOS B	12.2	89.0	Full	500	0.0	0.0
Lane 3	294	5.0	904	0.326	100	23.8	LOS B	12.2	89.0	Full	500	0.0	0.0
Lane 4	294	5.0	904	0.326	100	23.8	LOS B	12.2	89.0	Full	500	0.0	0.0
Lane 5	79	5.0	128	0.616	100	77.5	LOS F	5.5	40.4	Short	75	0.0	NA
Approach	1034	5.0		0.616		26.7	LOS B	12.2	89.0				
West: Boddington Crescent													
Lane 1	240	5.0	456	0.526	100	52.1	LOS D	14.1	102.9	Full	500	0.0	0.0
Lane 2	117	5.0	222	0.526	100	67.0	LOS E	7.7	56.1	Full	500	0.0	0.0
Approach	357	5.0		0.526		57.0	LOS E	14.1	102.9				
Intersection	3018	5.0		0.616		33.3	LOS C	17.7	128.9				

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

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program
8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Existing - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	61	5.0	0.044	7.6	LOS A	0.6	4.7	0.23	0.60	52.5
2	T1	1153	5.0	0.440	25.3	LOS B	17.7	128.9	0.70	0.62	42.5
3	R2	61	5.0	0.477	76.1	LOS F	4.2	30.7	1.00	0.76	18.3
Approach		1275	5.0	0.477	26.9	LOS B	17.7	128.9	0.69	0.62	41.3
East: Marconi Crescent											
4	L2	92	5.0	0.391	31.9	LOS C	6.3	45.6	0.84	0.74	31.5
5	T1	59	5.0	0.391	27.8	LOS B	6.3	45.6	0.84	0.74	32.0
6	R2	202	5.0	0.464	67.2	LOS E	6.6	48.1	0.98	0.78	20.1
Approach		353	5.0	0.464	51.5	LOS D	6.6	48.1	0.92	0.77	23.9
North: Drakeford Drive											
7	L2	72	5.0	0.049	6.9	LOS A	0.6	4.3	0.19	0.59	47.5
8	T1	883	5.0	0.326	23.8	LOS B	12.2	89.0	0.66	0.57	43.2
9	R2	79	5.0	0.616	77.5	LOS F	5.5	40.4	1.00	0.79	26.3
Approach		1034	5.0	0.616	26.7	LOS B	12.2	89.0	0.65	0.59	41.2
West: Boddington Crescent											
10	L2	169	5.0	0.526	53.8	LOS D	14.1	102.9	0.91	0.80	32.5
11	T1	119	5.0	0.526	54.5	LOS D	14.1	102.9	0.94	0.80	22.5
12	R2	68	5.0	0.526	69.3	LOS E	7.7	56.1	0.99	0.79	28.6
Approach		357	5.0	0.526	57.0	LOS E	14.1	102.9	0.94	0.80	28.8
All Vehicles		3018	5.0	0.616	33.3	LOS C	17.7	128.9	0.74	0.65	37.5

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	62.4	LOS F	0.2	0.2	0.94	0.94
P12	South Stage 2	53	60.5	LOS F	0.2	0.2	0.93	0.93
P2	East Full Crossing	53	27.7	LOS C	0.1	0.1	0.63	0.63
P31	North Stage 1	53	62.4	LOS F	0.2	0.2	0.94	0.94
P32	North Stage 2	53	62.4	LOS F	0.2	0.2	0.94	0.94
P41	West Stage 1	53	21.2	LOS C	0.1	0.1	0.55	0.55
P42	West Stage 2	53	21.2	LOS C	0.1	0.1	0.55	0.55
All Pedestrians		368	45.4	LOS E			0.79	0.79

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 [Drakeford / Marconi Existing - AM peak]

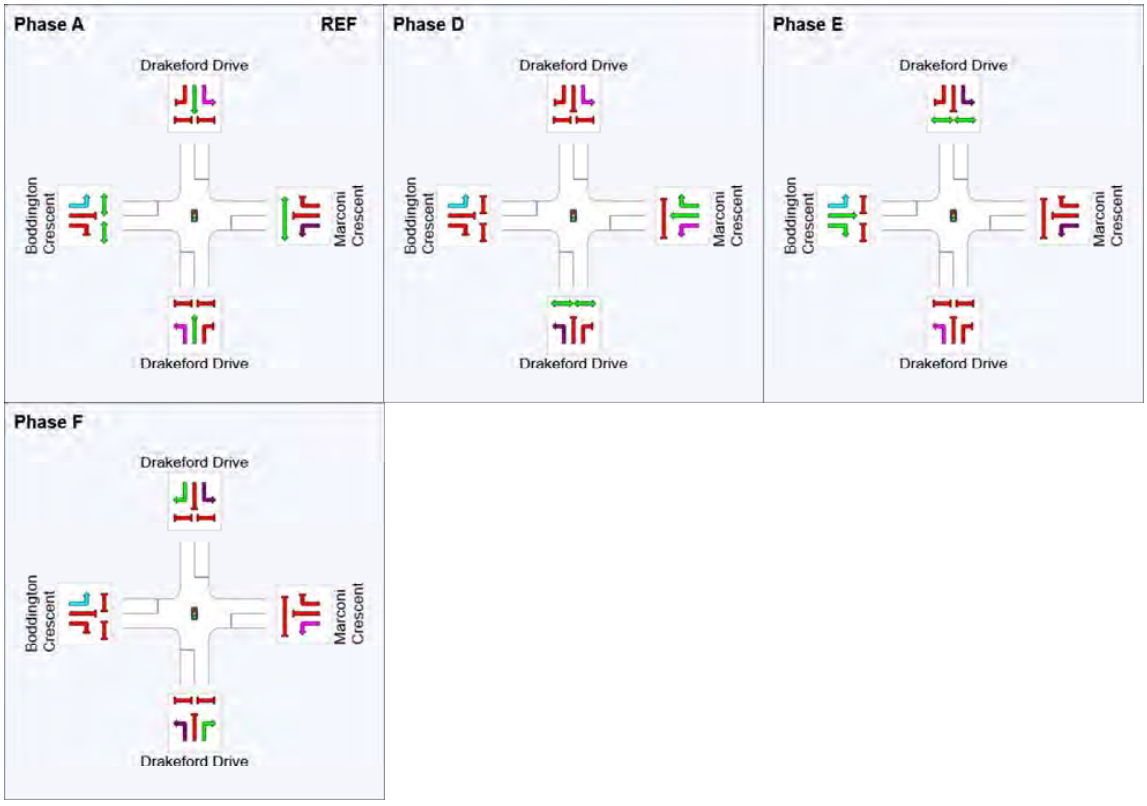
Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Phase Times)

Phase Times specified by the user
Phase Sequence: TCS54
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Phase Timing Results

Phase	A	D	E	F
Phase Change Time (sec)	0	75	99	123
Green Time (sec)	67	17	17	10
Phase Time (sec)	74	24	24	18
Phase Split	53%	17%	17%	13%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



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

LANE SUMMARY

Site: 101 [Drakeford / Marconi Existing - PM peak]

Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	76	5.0	1135	0.067	100	9.7	LOS A	1.2	8.7	Short	100	0.0	NA
Lane 2	453	5.0	537[1]	0.844	100	55.4	LOS D	31.0	226.1	Full	500	0.0	0.0
Lane 3	467	5.0	553	0.844	100	55.7	LOS D	32.1	234.3	Full	500	0.0	0.0
Lane 4	407	5.0	482[1]	0.844	100	54.9	LOS D	27.3	199.3	Full	500	0.0	0.0
Lane 5	116	5.0	179	0.646	100	73.7	LOS F	7.9	57.9	Short	70	0.0	NA
Approach	1518	5.0		0.844		54.5	LOS D	32.1	234.3				
East: Marconi Crescent													
Lane 1	248	1.6	456	0.543	100	25.0	LOS B	7.9	56.0	Full	50	0.0	15.2
Lane 2	130	5.0	239	0.543	100	64.0	LOS E	8.5	62.1	Full	50	0.0	24.8
Lane 3	125	5.0	231	0.543	100	67.1	LOS E	8.2	59.9	Short	48	0.0	NA
Approach	503	3.3		0.543		45.6	LOS D	8.5	62.1				
North: Drakeford Drive													
Lane 1	239	5.0	1420	0.168	100	7.6	LOS A	2.6	19.2	Short	110	0.0	NA
Lane 2	486	5.0	769	0.632	100	20.2	LOS B	18.1	131.8	Full	500	0.0	0.0
Lane 3	486	5.0	769	0.632	100	20.2	LOS B	18.1	131.8	Full	500	0.0	0.0
Lane 4	486	5.0	769	0.632	100	20.2	LOS B	18.1	131.8	Full	500	0.0	0.0
Lane 5	267	5.0	474	0.564	100	53.6	LOS D	15.8	115.4	Short	75	0.0	NA
Approach	1963	5.0		0.632		23.2	LOS B	18.1	131.8				
West: Boddington Crescent													
Lane 1	188	5.0	336	0.560	100	59.7	LOS E	11.8	86.1	Full	500	0.0	0.0
Lane 2	109	5.0	195	0.560	100	70.0	LOS E	7.3	53.2	Full	500	0.0	0.0
Approach	297	5.0		0.560		63.5	LOS E	11.8	86.1				
Intersection	4281	4.8		0.844		39.7	LOS C	32.1	234.3				

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

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Existing - PM peak]

Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	76	5.0	0.067	9.7	LOS A	1.2	8.7	0.30	0.62	51.0
2	T1	1326	5.0	0.844	55.3	LOS D	32.1	234.3	0.99	0.95	31.5
3	R2	116	5.0	0.646	73.7	LOS F	7.9	57.9	1.00	0.81	18.7
Approach		1518	5.0	0.844	54.5	LOS D	32.1	234.3	0.95	0.92	31.2
East: Marconi Crescent											
4	L2	166	0.0	0.543	26.4	LOS B	7.9	56.0	0.88	0.78	34.3
5	T1	177	5.0	0.543	44.2	LOS D	8.5	62.1	0.93	0.79	25.8
6	R2	160	5.0	0.543	67.0	LOS E	8.5	62.1	0.98	0.80	20.3
Approach		503	3.3	0.543	45.6	LOS D	8.5	62.1	0.93	0.79	25.7
North: Drakeford Drive											
7	L2	239	5.0	0.168	7.6	LOS A	2.6	19.2	0.24	0.62	46.8
8	T1	1457	5.0	0.632	20.2	LOS B	18.1	131.8	0.85	0.74	45.1
9	R2	267	5.0	0.564	53.6	LOS D	15.8	115.4	0.92	0.83	31.7
Approach		1963	5.0	0.632	23.2	LOS B	18.1	131.8	0.79	0.74	42.6
West: Boddington Crescent											
10	L2	111	5.0	0.560	62.0	LOS E	11.8	86.1	0.96	0.81	30.5
11	T1	106	5.0	0.560	59.0	LOS E	11.8	86.1	0.97	0.80	21.5
12	R2	80	5.0	0.560	71.5	LOS F	7.3	53.2	1.00	0.79	27.9
Approach		297	5.0	0.560	63.5	LOS E	11.8	86.1	0.97	0.80	27.0
All Vehicles		4281	4.8	0.844	39.7	LOS C	32.1	234.3	0.88	0.82	34.8

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	61.4	LOS F	0.2	0.2	0.94	0.94
P12	South Stage 2	53	59.6	LOS E	0.2	0.2	0.92	0.92
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P31	North Stage 1	53	64.3	LOS F	0.2	0.2	0.96	0.96
P32	North Stage 2	53	64.3	LOS F	0.2	0.2	0.96	0.96
P41	West Stage 1	53	55.0	LOS E	0.2	0.2	0.89	0.89
P42	West Stage 2	53	55.0	LOS E	0.2	0.2	0.89	0.89
All Pedestrians		368	60.6	LOS F			0.93	0.93

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 [Drakeford / Marconi Existing - PM peak]

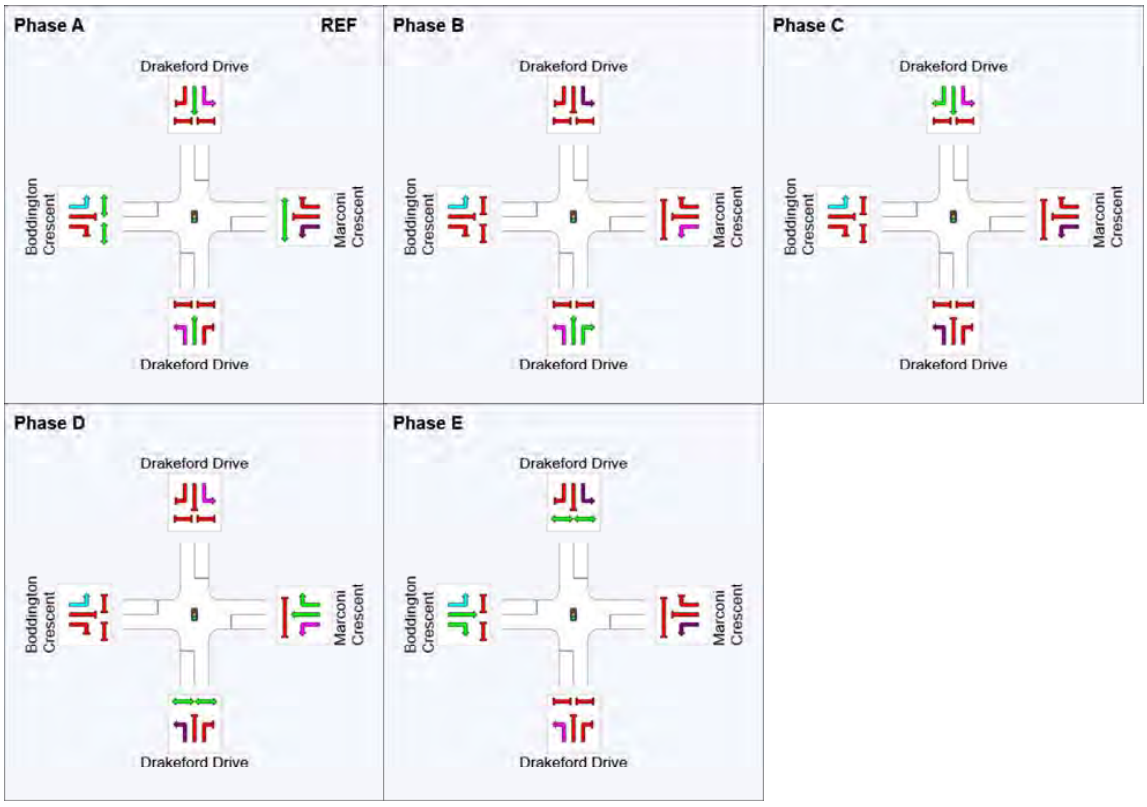
Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Phase Times)

Phase Times specified by the user
Phase Sequence: TCS54
Reference Phase: Phase A
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E

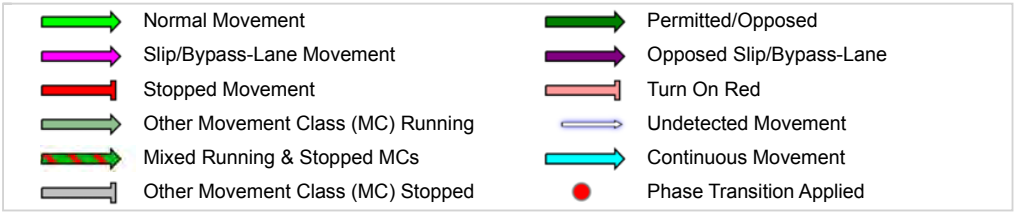
Phase Timing Results

Phase	A	B	C	D	E
Phase Change Time (sec)	0	27	48	92	118
Green Time (sec)	20	14	37	18	15
Phase Time (sec)	27	21	45	25	22
Phase Split	19%	15%	32%	18%	16%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase
VAR: Variable Phase



LANE SUMMARY

Site: 101 [Drakeford / Marconi Existing - Weekend peak]

Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Drakeford Drive													
Lane 1	100	5.0	1263	0.079	100	8.5	LOS A	1.1	8.3	Short	100	0.0	NA
Lane 2	265	5.0	721	0.367	100	26.2	LOS B	10.2	74.2	Full	500	0.0	0.0
Lane 3	265	5.0	721	0.367	100	26.2	LOS B	10.2	74.2	Full	500	0.0	0.0
Lane 4	265	5.0	721	0.367	100	26.2	LOS B	10.2	74.2	Full	500	0.0	0.0
Lane 5	124	5.0	212	0.586	100	57.2	LOS E	6.6	48.0	Short	70	0.0	NA
Approach	1019	5.0		0.586		28.2	LOS B	10.2	74.2				
East: Marconi Crescent													
Lane 1	232	1.5	559	0.415	100	18.4	LOS B	6.3	44.9	Full	50	0.0	0.0
Lane 2	98	5.0	237	0.415	100	50.2	LOS D	5.0	36.7	Full	50	0.0	0.0
Lane 3	95	5.0	228	0.415	100	53.3	LOS D	4.8	35.4	Short	48	0.0	NA
Approach	425	3.1		0.415		33.5	LOS C	6.3	44.9				
North: Drakeford Drive													
Lane 1	172	5.0	1354	0.127	100	7.0	LOS A	1.3	9.3	Short	110	0.0	NA
Lane 2	272	5.0	721	0.378	100	26.3	LOS B	10.5	76.6	Full	500	0.0	0.0
Lane 3	272	5.0	721	0.378	100	26.3	LOS B	10.5	76.6	Full	500	0.0	0.0
Lane 4	272	5.0	721	0.378	100	26.3	LOS B	10.5	76.6	Full	500	0.0	0.0
Lane 5	117	5.0	212	0.551	100	56.9	LOS E	6.2	44.9	Short	75	0.0	NA
Approach	1105	5.0		0.551		26.5	LOS B	10.5	76.6				
West: Boddington Crescent													
Lane 1	196	5.0	388	0.504	100	44.4	LOS D	9.4	68.4	Full	500	0.0	0.0
Lane 2	117	5.0	232	0.504	100	53.6	LOS D	6.1	44.3	Full	500	0.0	0.0
Approach	313	5.0		0.504		47.9	LOS D	9.4	68.4				
Intersection	2862	4.7		0.586		30.5	LOS C	10.5	76.6				

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

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Existing - Weekend peak]

Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	100	5.0	0.079	8.5	LOS A	1.1	8.3	0.31	0.63	51.9
2	T1	795	5.0	0.367	26.2	LOS B	10.2	74.2	0.77	0.65	42.0
3	R2	124	5.0	0.586	57.2	LOS E	6.6	48.0	0.99	0.80	22.0
Approach		1019	5.0	0.586	28.2	LOS B	10.2	74.2	0.75	0.67	40.2
East: Marconi Crescent											
4	L2	163	0.0	0.415	19.7	LOS B	6.3	44.9	0.77	0.73	38.5
5	T1	142	5.0	0.415	32.9	LOS C	6.3	44.9	0.87	0.75	30.0
6	R2	120	5.0	0.415	53.3	LOS D	5.0	36.7	0.96	0.77	23.5
Approach		425	3.1	0.415	33.5	LOS C	6.3	44.9	0.86	0.75	30.2
North: Drakeford Drive											
7	L2	172	5.0	0.127	7.0	LOS A	1.3	9.3	0.23	0.61	47.5
8	T1	817	5.0	0.378	26.3	LOS B	10.5	76.6	0.77	0.66	42.0
9	R2	117	5.0	0.551	56.9	LOS E	6.2	44.9	0.99	0.79	30.8
Approach		1105	5.0	0.551	26.5	LOS B	10.5	76.6	0.71	0.66	40.7
West: Boddington Crescent											
10	L2	108	5.0	0.504	47.0	LOS D	9.4	68.4	0.93	0.79	34.8
11	T1	127	5.0	0.504	44.0	LOS D	9.4	68.4	0.94	0.79	25.5
12	R2	77	5.0	0.504	55.5	LOS D	6.1	44.3	0.98	0.78	31.8
Approach		313	5.0	0.504	47.9	LOS D	9.4	68.4	0.95	0.79	30.8
All Vehicles		2862	4.7	0.586	30.5	LOS C	10.5	76.6	0.77	0.69	38.0

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	49.3	LOS E	0.2	0.2	0.95	0.95
P12	South Stage 2	53	48.3	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	31.4	LOS D	0.1	0.1	0.76	0.76
P31	North Stage 1	53	49.3	LOS E	0.2	0.2	0.95	0.95
P32	North Stage 2	53	49.3	LOS E	0.2	0.2	0.95	0.95
P41	West Stage 1	53	23.6	LOS C	0.1	0.1	0.66	0.66
P42	West Stage 2	53	23.6	LOS C	0.1	0.1	0.66	0.66
All Pedestrians		368	39.3	LOS D			0.84	0.84

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 [Drakeford / Marconi Existing - Weekend peak]

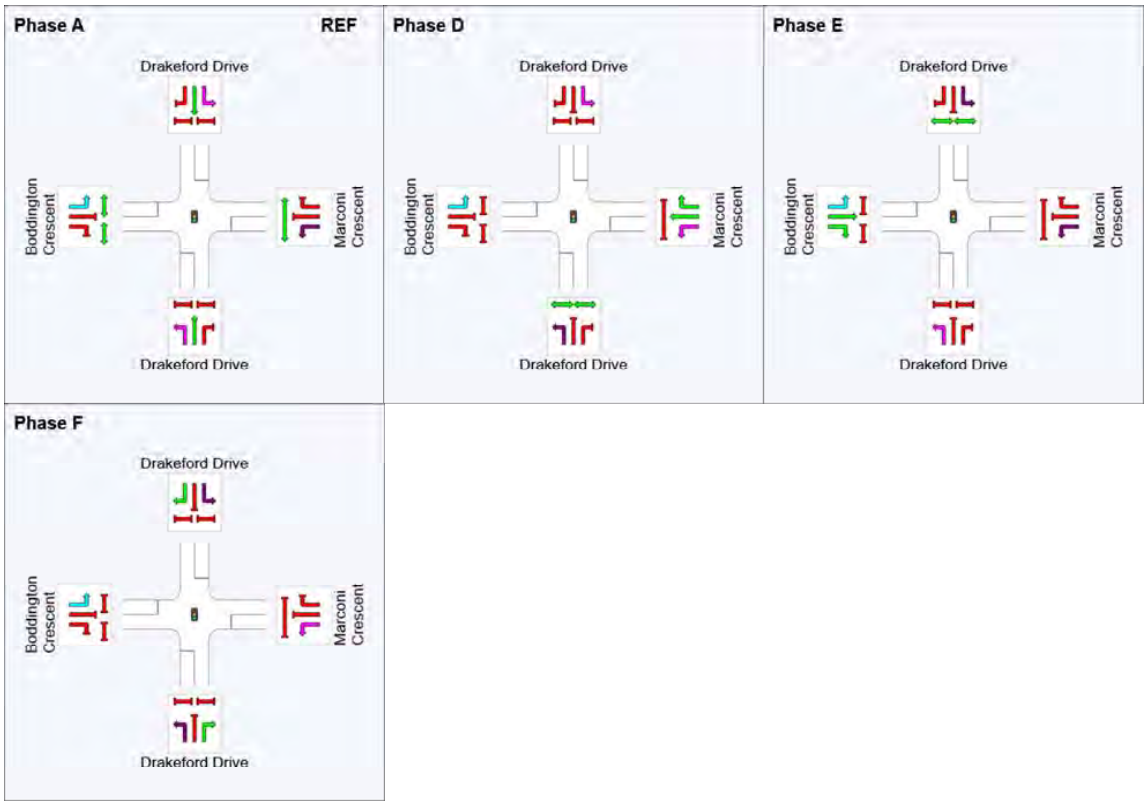
Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Phase Times specified by the user
Phase Sequence: TCCS
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Phase Timing Results

Phase	A	D	E	F
Phase Change Time (sec)	0	50	71	91
Green Time (sec)	42	14	14	13
Phase Time (sec)	49	20	20	21
Phase Split	45%	18%	18%	19%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



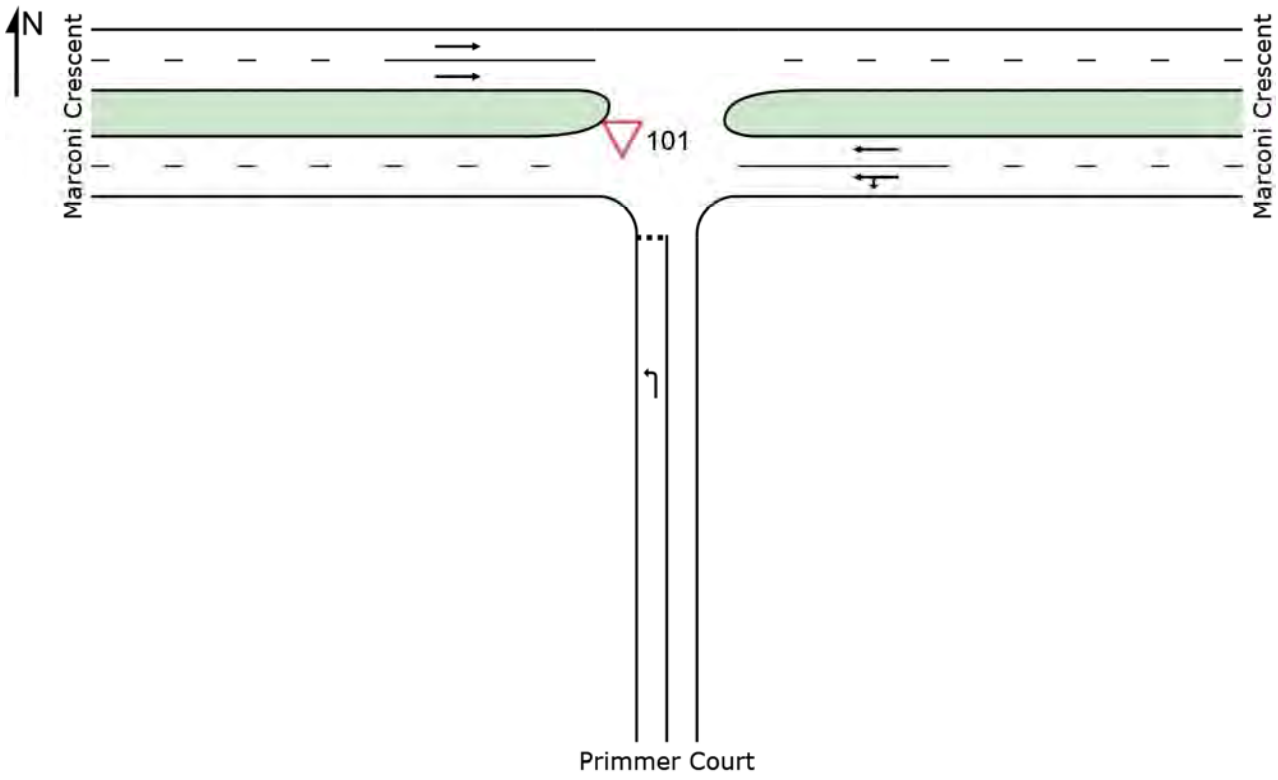
REF: Reference Phase
VAR: Variable Phase

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 [Marconi / West - Existing - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)



LANE SUMMARY

Site: 101 [Marconi / West - Existing - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	126	5.0	1146	0.110	100	5.7	LOS A	0.4	3.0	Full	80	0.0	0.0
Approach	126	5.0		0.110		5.7	LOS A	0.4	3.0				
East: Marconi Crescent													
Lane 1	146	5.0	1878	0.078	100	0.5	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	147	5.0	1889	0.078	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	294	5.0		0.078		0.2	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	168	5.0	1889	0.089	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Lane 2	168	5.0	1889	0.089	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Approach	336	5.0		0.089		0.0	NA	0.0	0.0				
Intersection	756	5.0		0.110		1.0	NA	0.4	3.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / West - Existing - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	126	5.0	0.110	5.7	LOS A	0.4	3.0	0.24	0.56	30.4
Approach		126	5.0	0.110	5.7	LOS A	0.4	3.0	0.24	0.56	30.4
East: Marconi Crescent											
4	L2	16	5.0	0.078	4.3	LOS A	0.0	0.0	0.00	0.06	44.2
5	T1	278	5.0	0.078	0.0	LOS A	0.0	0.0	0.00	0.03	58.2
Approach		294	5.0	0.078	0.2	NA	0.0	0.0	0.00	0.03	57.0
West: Marconi Crescent											
11	T1	336	5.0	0.089	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		336	5.0	0.089	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		756	5.0	0.110	1.0	NA	0.4	3.0	0.04	0.11	49.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / West - Existing - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	223	5.0	1149	0.194	100	5.8	LOS A	0.8	5.8	Full	80	0.0	0.0
Approach	223	5.0		0.194		5.8	LOS A	0.8	5.8				
East: Marconi Crescent													
Lane 1	150	5.0	1874	0.080	100	0.6	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	152	5.0	1889	0.080	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	302	5.0		0.080		0.3	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	211	5.0	1889	0.112	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Lane 2	211	5.0	1889	0.112	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Approach	422	5.0		0.112		0.0	NA	0.0	0.0				
Intersection	947	5.0		0.194		1.5	NA	0.8	5.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / West - Existing - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	223	5.0	0.194	5.8	LOS A	0.8	5.8	0.26	0.57	30.3
Approach		223	5.0	0.194	5.8	LOS A	0.8	5.8	0.26	0.57	30.3
East: Marconi Crescent											
4	L2	22	5.0	0.080	4.3	LOS A	0.0	0.0	0.00	0.09	43.6
5	T1	280	5.0	0.080	0.0	LOS A	0.0	0.0	0.00	0.04	57.7
Approach		302	5.0	0.080	0.3	NA	0.0	0.0	0.00	0.04	56.0
West: Marconi Crescent											
11	T1	422	5.0	0.112	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		422	5.0	0.112	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		947	5.0	0.194	1.5	NA	0.8	5.8	0.06	0.15	46.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / West - Existing - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	162	5.0	1155	0.140	100	5.7	LOS A	0.5	4.0	Full	80	0.0	0.0
Approach	162	5.0		0.140		5.7	LOS A	0.5	4.0				
East: Marconi Crescent													
Lane 1	139	5.0	1877	0.074	100	0.5	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	140	5.0	1889	0.074	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	279	5.0		0.074		0.2	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	172	5.0	1889	0.091	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Lane 2	172	5.0	1889	0.091	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Approach	343	5.0		0.091		0.0	NA	0.0	0.0				
Intersection	784	5.0		0.140		1.3	NA	0.5	4.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / West - Existing - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

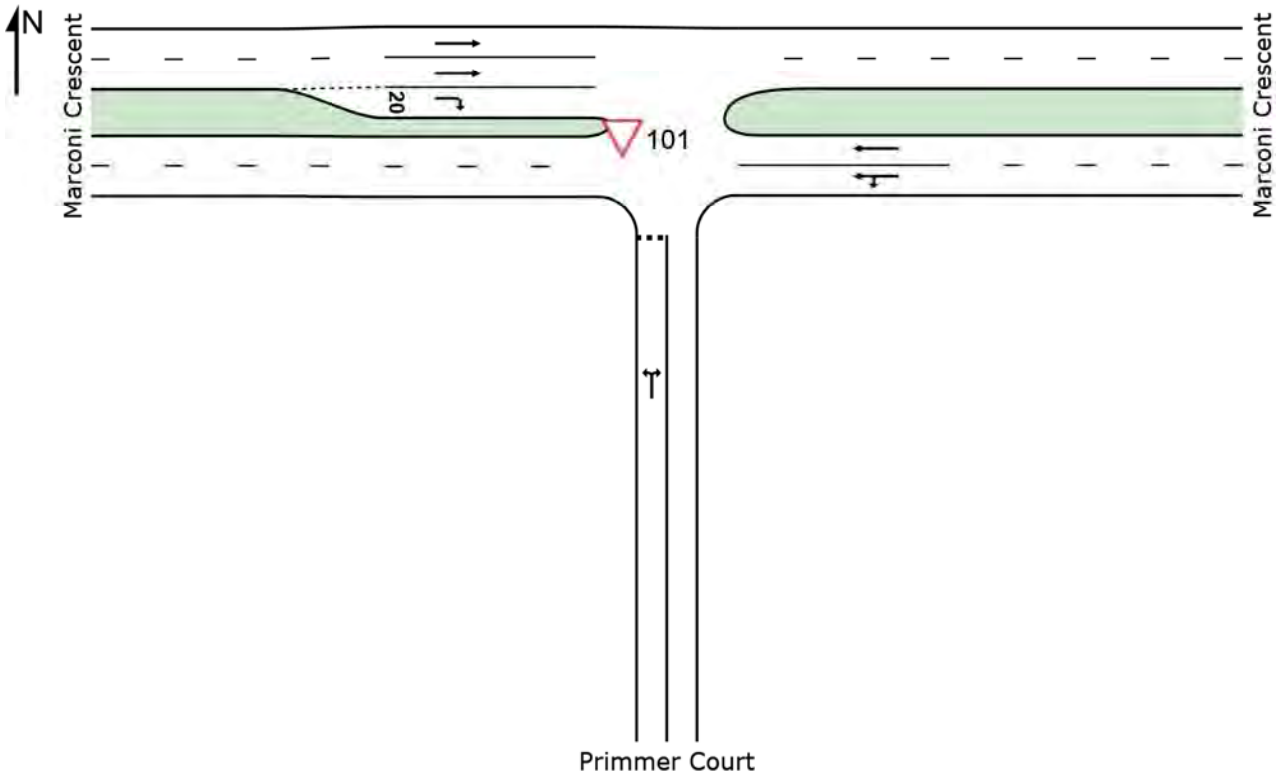
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	162	5.0	0.140	5.7	LOS A	0.5	4.0	0.24	0.56	30.4
Approach		162	5.0	0.140	5.7	LOS A	0.5	4.0	0.24	0.56	30.4
East: Marconi Crescent											
4	L2	16	5.0	0.074	4.3	LOS A	0.0	0.0	0.00	0.07	44.1
5	T1	263	5.0	0.074	0.0	LOS A	0.0	0.0	0.00	0.03	58.1
Approach		279	5.0	0.074	0.2	NA	0.0	0.0	0.00	0.03	56.9
West: Marconi Crescent											
11	T1	343	5.0	0.091	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		343	5.0	0.091	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		784	5.0	0.140	1.3	NA	0.5	4.0	0.05	0.13	47.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Marconi / East - Existing - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)



LANE SUMMARY

Site: 101 [Marconi / East - Existing - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	20	5.0	412	0.048	100	11.4	LOS A	0.2	1.2	Full	80	0.0	0.0
Approach	20	5.0		0.048		11.4	LOS A	0.2	1.2				
East: Marconi Crescent													
Lane 1	150	5.0	1873	0.080	100	0.7	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	152	5.0	1889	0.080	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	302	5.0		0.080		0.3	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 3	122	5.0	1030	0.118	100	5.7	LOS A	0.5	3.5	Short	20	0.0	NA
Approach	331	5.0		0.118		2.1	NA	0.5	3.5				
Intersection	653	5.0		0.118		1.6	NA	0.5	3.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / East - Existing - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	3	5.0	0.048	5.6	LOS A	0.2	1.2	0.50	0.73	23.8
3	R2	17	5.0	0.048	12.4	LOS A	0.2	1.2	0.50	0.73	23.7
Approach		20	5.0	0.048	11.4	LOS A	0.2	1.2	0.50	0.73	23.7
East: Marconi Crescent											
4	L2	23	5.0	0.080	4.3	LOS A	0.0	0.0	0.00	0.09	43.5
5	T1	279	5.0	0.080	0.0	LOS A	0.0	0.0	0.00	0.04	57.7
Approach		302	5.0	0.080	0.3	NA	0.0	0.0	0.00	0.04	56.1
West: Marconi Crescent											
11	T1	208	5.0	0.055	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
12	R2	122	5.0	0.118	5.7	LOS A	0.5	3.5	0.40	0.63	30.9
Approach		331	5.0	0.118	2.1	NA	0.5	3.5	0.15	0.23	43.3
All Vehicles		653	5.0	0.118	1.6	NA	0.5	3.5	0.09	0.16	46.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / East - Existing - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	80	5.0	371	0.215	100	13.4	LOS A	0.8	5.6	Full	80	0.0	0.0
Approach	80	5.0		0.215		13.4	LOS A	0.8	5.6				
East: Marconi Crescent													
Lane 1	173	5.0	1849	0.094	100	1.7	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	177	5.0	1889	0.094	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	351	5.0		0.094		0.9	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 3	214	5.0	976	0.219	100	6.2	LOS A	1.0	7.0	Short	20	0.0	NA
Approach	422	5.0		0.219		3.1	NA	1.0	7.0				
Intersection	853	5.0		0.219		3.2	NA	1.0	7.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / East - Existing - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	21	5.0	0.215	5.6	LOS A	0.8	5.6	0.48	0.72	21.9
3	R2	59	5.0	0.215	16.2	LOS B	0.8	5.6	0.48	0.72	21.8
Approach		80	5.0	0.215	13.4	LOS A	0.8	5.6	0.48	0.72	21.8
East: Marconi Crescent											
4	L2	69	5.0	0.094	4.3	LOS A	0.0	0.0	0.00	0.23	40.2
5	T1	281	5.0	0.094	0.0	LOS A	0.0	0.0	0.00	0.09	55.5
Approach		351	5.0	0.094	0.9	NA	0.0	0.0	0.00	0.11	51.1
West: Marconi Crescent											
11	T1	208	5.0	0.055	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
12	R2	214	5.0	0.219	6.2	LOS A	1.0	7.0	0.47	0.68	30.1
Approach		422	5.0	0.219	3.1	NA	1.0	7.0	0.24	0.34	38.9
All Vehicles		853	5.0	0.219	3.2	NA	1.0	7.0	0.16	0.28	39.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / East - Existing - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	73	5.0	481	0.151	100	10.5	LOS A	0.5	3.9	Full	80	0.0	0.0
Approach	73	5.0		0.151		10.5	LOS A	0.5	3.9				
East: Marconi Crescent													
Lane 1	152	5.0	1854	0.082	100	1.5	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	155	5.0	1889	0.082	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	307	5.0		0.082		0.8	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	81	5.0	1889	0.043	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	81	5.0	1889	0.043	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 3	182	5.0	1024	0.178	100	5.8	LOS A	0.8	5.5	Short	20	0.0	NA
Approach	343	5.0		0.178		3.1	NA	0.8	5.5				
Intersection	723	5.0		0.178		2.9	NA	0.8	5.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / East - Existing - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	25	5.0	0.151	5.5	LOS A	0.5	3.9	0.38	0.67	24.8
3	R2	47	5.0	0.151	13.2	LOS A	0.5	3.9	0.38	0.67	24.6
Approach		73	5.0	0.151	10.5	LOS A	0.5	3.9	0.38	0.67	24.7
East: Marconi Crescent											
4	L2	54	5.0	0.082	4.3	LOS A	0.0	0.0	0.00	0.20	40.8
5	T1	254	5.0	0.082	0.0	LOS A	0.0	0.0	0.00	0.08	55.8
Approach		307	5.0	0.082	0.8	NA	0.0	0.0	0.00	0.10	52.0
West: Marconi Crescent											
11	T1	161	5.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
12	R2	182	5.0	0.178	5.8	LOS A	0.8	5.5	0.42	0.64	30.7
Approach		343	5.0	0.178	3.1	NA	0.8	5.5	0.23	0.34	38.8
All Vehicles		723	5.0	0.178	2.9	NA	0.8	5.5	0.15	0.27	40.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix D
Car Parking Data

Kambah Shopping Centre-Parking Survey

TRANS TRAFFIC SURVEY
trafficsurvey.com.au

Parking Occupancy Survey

Date:	Thursday, 1 March 2018
Location:	Kambah SC
Weather:	Fine
Customer:	Indesco

Public Parking (1/0)	Map Ref	Street	Section	Side	Restriction	Capacity	Parking Occupancy																									
							8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
1		Kett St	Marconi Cres To Primmer Ct	W	Unrestricted	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1				E	Unrestricted	30	0	0	0	0	1	2	3	3	4	4	3	3	2	2	1	1	1	1	1	2	10	7
0		Kett St	Off-Street Carpark At No.4	W	Private parking	28	11	14	17	13	16	14	15	13	14	16	15	17	14	13	12	10	9	10	12	7	7	5
1			Off-Street Carpark At No.8-No.10	W	Disabled	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0					Private parking	22	4	5	7	9	11	12	12	14	15	16	14	14	12	9	10	12	11	13	13	12	12	10
0			Off-Street Carpark At No.12	W	Private parking	10	3	4	5	5	5	5	5	5	5	5	5	5	5	5	4	3	2	2	2	1	1	1
0			Off-Street Carpark At No.14	W	Private parking	12	3	3	3	3	2	2	2	2	2	2	2	2	2	3	3	3	4	4	4	5	5	5
1		Kett St	Primmer Ct To End	W	Unrestricted	116	7	8	10	10	11	12	14	15	17	18	18	16	13	11	12	14	16	18	20	23	35	26
1				E	Unrestricted	54	2	3	5	9	14	16	20	22	24	26	25	23	22	22	20	18	17	18	20	26	34	28
1		Primmer Ct	Kett St To Village Creek	N	No parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1				S	Unrestricted	15	2	2	4	5	7	9	10	11	13	14	14	12	12	10	13	13	12	12	13	14	14	11
1			Village Creek To Bended Rd	N	2P 7:30a-6p M-F	12	2	2	3	4	6	5	6	7	8	10	10	8	6	5	8	10	11	10	9	6	7	7
1					Disabled	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1				S	No parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1			Shop Parking To North-East Of Primmer Ct	N/E	Unrestricted	38	12	13	15	15	17	18	20	21	24	27	26	26	23	22	20	20	18	21	24	20	17	16
1					Disabled	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	1	0	0
1					Loading zone	4	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	1	1
1		Primmer Ct	Bended Rd To Main Carpark	E	Loading zone	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
1				W	Unrestricted	29	8	8	8	9	10	9	7	9	12	14	12	10	7	9	8	7	5	7	9	7	8	8
1		Woolworth Parking Carpark			Park ride 7:30a-10a	18	4	3	3	4	5	4	3	5	7	8	8	6	5	3	5	6	4	5	7	6	3	3
1					Disabled	7	1	1	2	2	3	4	4	3	5	6	4	4	3	2	4	3	4	5	4	3	2	2
1					1/4P	2	0	0	1	2	2	1	0	2	1	2	2	1	2	2	1	1	2	1	2	1	1	1
1					Taxi zone	3	0	0	0	1	1	0	2	1	0	2	1	1	0	0	1	1	0	0	1	2	0	0
1					Loading zone; Goods vehicle 30mins	4	0	0	2	1	0	2	1	1	3	3	3	2	2	1	1	2	3	3	2	1	1	1
1					P 5mins	3	0	0	0	0	1	1	0	0	2	2	1	2	2	1	1	2	2	1	1	2	1	1
1					Unrestricted	131	35	43	51	53	56	58	64	69	80	91	88	80	75	69	74	81	90	96	91	88	75	75
	PUBLIC CAPACITY						**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**	**484**
	PUBLIC OCCUPANCIES						**73**	**83**	**104**	**115**	**134**	**141**	**154**	**170**	**201**	**228**	**216**	**195**	**175**	**159**	**169**	**179**	**185**	**199**	**206**	**203**	**210**	**188**
	PUBLIC VACANCIES						**411**	**401**	**380**	**369**	**350**	**343**	**330**	**314**	**283**	**256**	**268**	**289**	**309**	**325**	**315**	**305**	**299**	**285**	**278**	**281**	**274**	**296**
	PUBLIC % OCCUPANCIES						**15%**	**17%**	**21%**	**24%**	**28%**	**29%**	**32%**	**35%**	**42%**	**47%**	**45%**	**40%**	**36%**	**33%**	**35%**	**37%**	**38%**	**41%**	**43%**	**42%**	**43%**	**39%**

not available for public parking

Kambah Shopping Centre-Parking Survey

TRANS TRAFFIC SURVEY

Parking Occupancy Survey

Date:	Saturday, 3 March 2018
Location:	Kambah SC
Weather:	Fine
Customer:	Indesco

Public Parking (1/0)	Map Ref	Street	Section	Side	Restriction	Capacity	Parking Occupancy										
							10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00
0		Kett St	Marconi Cres To Primmer Ct	W	Unrestricted	12	0	0	0	0	0	0	0	0	0	0	0
0				E	Unrestricted	30	3	3	3	3	3	3	3	3	3	3	3
0		Kett St	Off-Street Carpark At No.4	W	Private parking	28	2	3	4	4	3	4	5	5	4	3	2
0			Off-Street Carpark At No.8-No.10	W	Disabled	2	0	0	0	0	0	0	0	0	0	0	0
0					Private parking	22	3	4	5	5	5	5	6	6	6	6	6
0			Off-Street Carpark At No.12	W	Private parking	10	9	9	9	9	9	9	9	9	9	8	8
0			Off-Street Carpark At No.14	W	Private parking	12	3	3	2	2	3	3	3	3	2	2	2
0		Kett St	Primmer Ct To End	W	Unrestricted	116	42	66	80	45	22	18	15	12	10	14	18
0				E	Unrestricted	54	48	50	52	35	11	9	7	10	11	14	17
0		Primmer Ct	Kett St To Village Creek	N	No parking	0	0	0	0	0	0	0	0	0	0	0	0
0				S	Unrestricted	15	1	8	15	11	2	3	3	4	5	7	10
1			Village Creek To Bended Rd	N	2P 7:30a-6p M-F	12	1	3	6	7	5	7	4	6	8	7	4
1					Disabled	1	0	0	0	0	0	0	0	0	0	0	0
1				S	No parking	0	0	0	0	0	0	0	0	0	0	0	0
1			Shop Parking To North-East Of Primmer Ct	N/E	Unrestricted	38	10	13	15	18	20	25	27	23	20	17	13
1					Disabled	1	0	0	0	0	0	0	0	0	0	0	0
0					Loading zone	4	0	0	0	1	2	2	1	1	0	0	0
0		Primmer Ct	Bended Rd To Main Carpark	E	Loading zone	2	0	0	0	0	0	0	0	0	0	0	0
1				W	Unrestricted	29	11	11	13	13	12	14	13	11	9	8	6
1		Woolworth Parking Carpark			Park ride 7:30a-10a	18	4	3	5	4	2	5	4	3	1	1	0
1					Disabled	7	2	3	4	4	2	3	4	3	2	2	1
1					1/4P	2	0	1	2	1	2	2	1	2	2	1	1
0					Taxi zone	3	0	0	1	0	0	1	1	0	0	0	1
0					Loading zone; Goods vehicle 30mins	4	0	1	2	3	3	3	2	2	2	3	3
1					P 5mins	3	0	1	2	1	2	3	2	1	0	1	0
1					Unrestricted	131	50	55	59	62	60	68	73	70	66	60	51
	PUBLIC CAPACITY						**242**	**242**	**242**	**242**	**242**	**242**	**242**	**242**	**242**	**242**	**242**
	PUBLIC OCCUPANCIES						**78**	**90**	**106**	**110**	**105**	**127**	**128**	**119**	**108**	**97**	**76**
	PUBLIC VACANCIES						**164**	**152**	**136**	**132**	**137**	**115**	**114**	**123**	**134**	**145**	**166**
	PUBLIC % OCCUPANCIES						**32%**	**37%**	**44%**	**45%**	**43%**	**52%**	**53%**	**49%**	**45%**	**40%**	**31%**

not available for public parking

Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix E
Traffic Generation and Distribution

G24107: Kambah Group Centre

Traffic Generation and Distribution

Use	GFA	GLFA	Daily Rate		Daily Trips	AM Rate		Peak Trips	Weekday PM Rate		Peak Trips	Weekend Rate		Peak Trips
Supermarket	1,688	1,266	1,475	per 1,000m2 GLFA	1,867	39	per 1,000m2 GLFA	49.1	155	per 1,000m2 GLFA	196.2	147	per 1,000r	186
Specialty /Retail	1,328	996	555	per 1,000m2 GLFA	553	12	per 1,000m2 GLFA	11.5	46	per 1,000m2 GLFA	45.8	107	per 1,000r	107
TOTAL					**2,420**	**50**		**60.5**			**242.0**			**293**

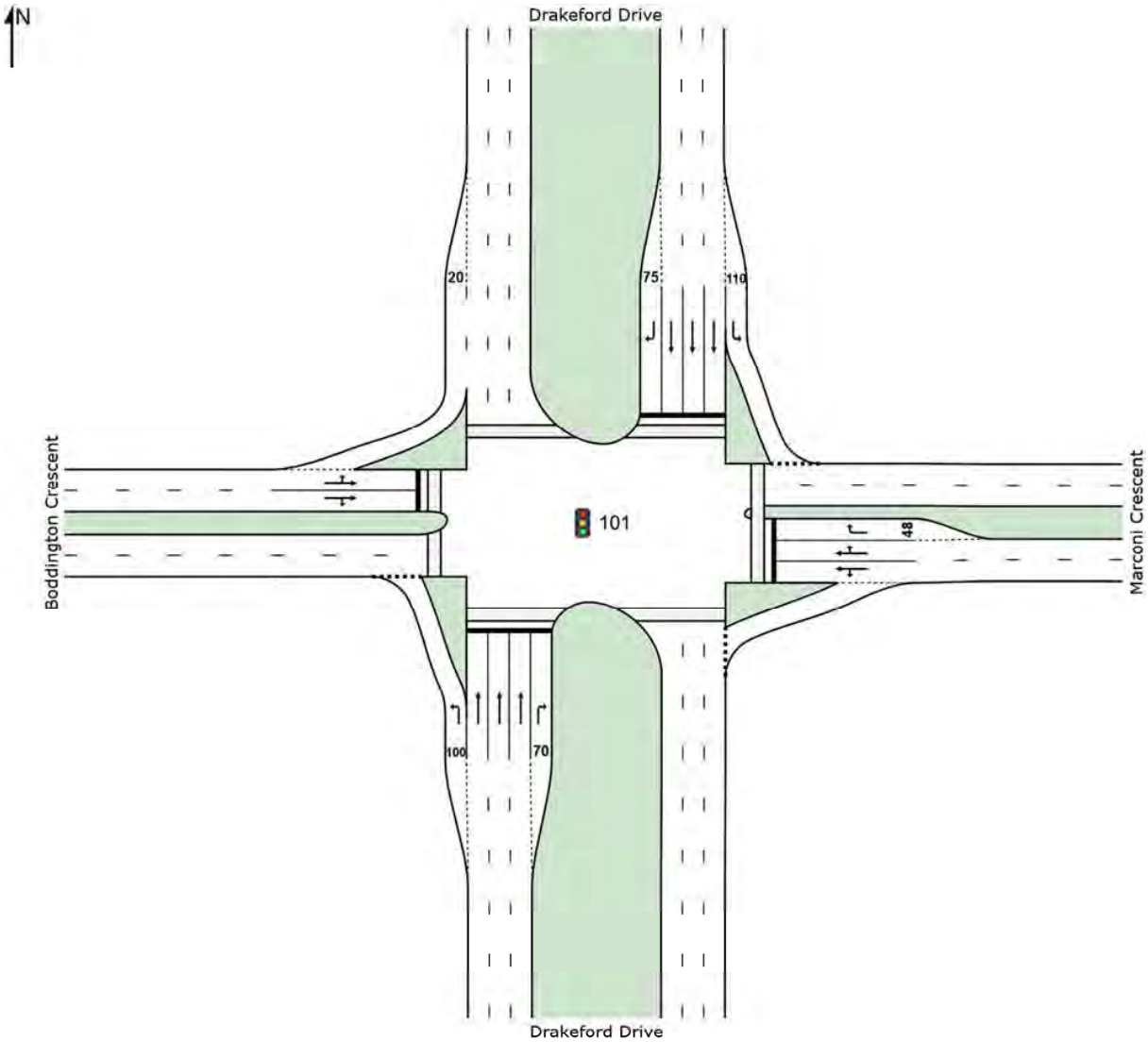
Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix F
Post-Development SIDRA

SITE LAYOUT

Site: 101 [Drakeford / Marconi Post - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated



LANE SUMMARY

Site: 101 [Drakeford / Marconi Post - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 137 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	61	5.0	1383	0.044	100	7.7	LOS A	0.6	4.7	Short	100	0.0	NA
Lane 2	395	5.0	896	0.441	100	25.3	LOS B	17.3	126.1	Full	500	0.0	0.0
Lane 3	395	5.0	896	0.441	100	25.3	LOS B	17.3	126.1	Full	500	0.0	0.0
Lane 4	362	5.0	821[1]	0.441	100	24.8	LOS B	15.5	113.0	Full	500	0.0	0.0
Lane 5	67	5.0	131	0.515	100	74.7	LOS F	4.6	33.2	Short	70	0.0	NA
Approach	1281	5.0		0.515		26.9	LOS B	17.3	126.1				
East: Marconi Crescent													
Lane 1	162	5.0	381	0.425	82[5]	29.9	LOS C	6.6	48.4	Full	50	0.0	2.0
Lane 2	109	5.0	209	0.520	100	67.0	LOS E	7.0	51.4	Full	50	0.0	7.5[8]
Lane 3	109	5.0	209	0.520	100	67.0	LOS E	7.0	51.4	Short	48	0.0	NA
Approach	380	5.0		0.520		51.2	LOS D	7.0	51.4				
North: Drakeford Drive													
Lane 1	79	5.0	1438	0.055	100	7.0	LOS A	0.7	4.8	Short	110	0.0	NA
Lane 2	294	5.0	896	0.329	100	23.7	LOS B	12.0	87.8	Full	500	0.0	0.0
Lane 3	294	5.0	896	0.329	100	23.7	LOS B	12.0	87.8	Full	500	0.0	0.0
Lane 4	294	5.0	896	0.329	100	23.7	LOS B	12.0	87.8	Full	500	0.0	0.0
Lane 5	79	5.0	131	0.603	100	75.6	LOS F	5.4	39.4	Short	75	0.0	NA
Approach	1041	5.0		0.603		26.4	LOS B	12.0	87.8				
West: Boddington Crescent													
Lane 1	245	5.0	450	0.543	100	51.5	LOS D	14.2	103.5	Full	500	0.0	0.0
Lane 2	124	5.0	228	0.543	100	65.3	LOS E	8.0	58.1	Full	500	0.0	0.0
Approach	368	5.0		0.543		56.2	LOS D	14.2	103.5				
Intersection	3071	5.0		0.603		33.2	LOS C	17.3	126.1				

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

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program
8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Post - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 137 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	61	5.0	0.044	7.7	LOS A	0.6	4.7	0.23	0.60	52.5
2	T1	1153	5.0	0.441	25.2	LOS B	17.3	126.1	0.71	0.62	42.5
3	R2	67	5.0	0.515	74.7	LOS F	4.6	33.2	1.00	0.76	18.5
Approach		1281	5.0	0.515	26.9	LOS B	17.3	126.1	0.70	0.63	41.3
East: Marconi Crescent											
4	L2	99	5.0	0.425	31.5	LOS C	6.6	48.4	0.85	0.75	31.7
5	T1	63	5.0	0.425	27.4	LOS B	6.6	48.4	0.85	0.75	32.2
6	R2	218	5.0	0.520	67.0	LOS E	7.0	51.4	0.99	0.79	20.2
Approach		380	5.0	0.520	51.2	LOS D	7.0	51.4	0.93	0.77	23.9
North: Drakeford Drive											
7	L2	79	5.0	0.055	7.0	LOS A	0.7	4.8	0.19	0.60	47.5
8	T1	883	5.0	0.329	23.7	LOS B	12.0	87.8	0.67	0.57	43.3
9	R2	79	5.0	0.603	75.6	LOS F	5.4	39.4	1.00	0.79	26.6
Approach		1041	5.0	0.603	26.4	LOS B	12.0	87.8	0.65	0.59	41.4
West: Boddington Crescent											
10	L2	169	5.0	0.543	53.3	LOS D	14.2	103.5	0.92	0.81	32.7
11	T1	131	5.0	0.543	53.8	LOS D	14.2	103.5	0.95	0.80	22.7
12	R2	68	5.0	0.543	67.9	LOS E	8.0	58.1	0.99	0.79	28.9
Approach		368	5.0	0.543	56.2	LOS D	14.2	103.5	0.94	0.80	28.9
All Vehicles		3071	5.0	0.603	33.2	LOS C	17.3	126.1	0.74	0.65	37.4

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	61.8	LOS F	0.2	0.2	0.95	0.95
P12	South Stage 2	53	59.9	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	27.7	LOS C	0.1	0.1	0.64	0.64
P31	North Stage 1	53	60.9	LOS F	0.2	0.2	0.94	0.94
P32	North Stage 2	53	60.9	LOS F	0.2	0.2	0.94	0.94
P41	West Stage 1	53	21.1	LOS C	0.1	0.1	0.56	0.56
P42	West Stage 2	53	21.1	LOS C	0.1	0.1	0.56	0.56
All Pedestrians		368	44.8	LOS E			0.79	0.79

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 [Drakeford / Marconi Post - AM peak]

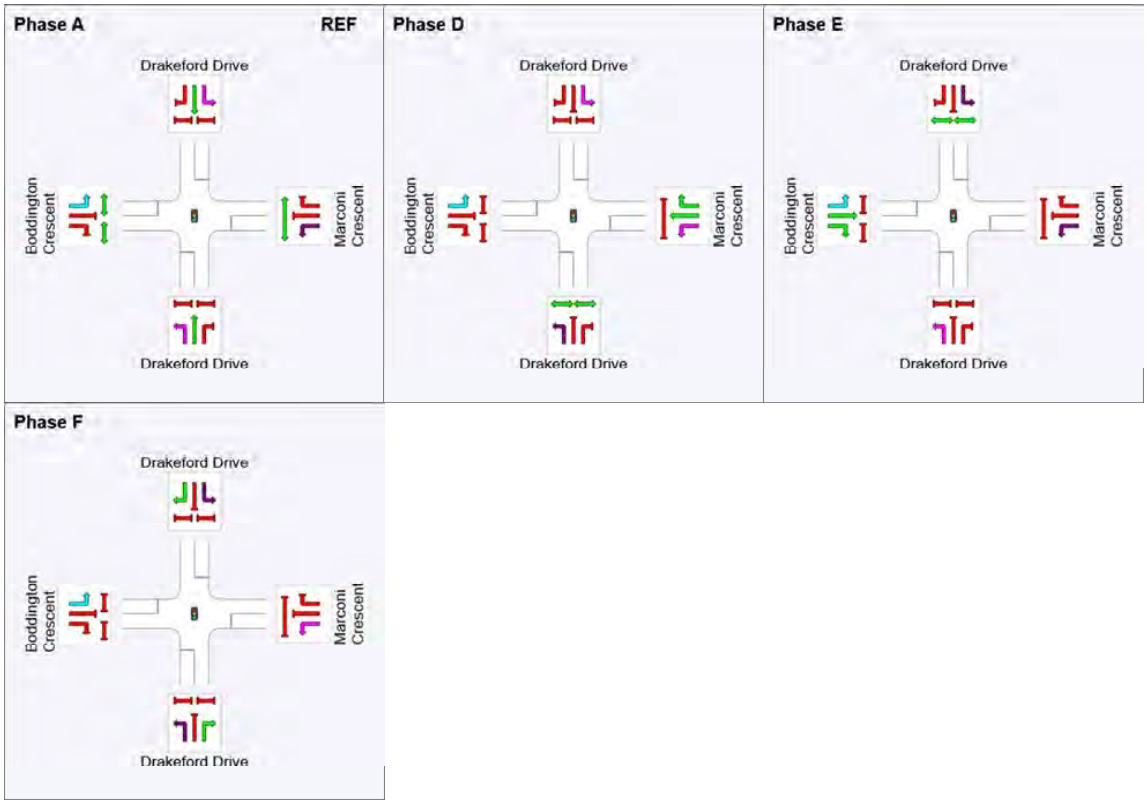
Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 137 seconds (User-Given Phase Times)

Phase Times specified by the user
Phase Sequence: TCS54
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Phase Timing Results

Phase	A	D	E	F
Phase Change Time (sec)	0	73	96	120
Green Time (sec)	65	16	17	10
Phase Time (sec)	72	23	24	18
Phase Split	53%	17%	18%	13%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



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

LANE SUMMARY

Site: 101 [Drakeford / Marconi Post - PM peak]

Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 134 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	76	5.0	1115	0.068	100	9.9	LOS A	1.2	8.7	Short	100	0.0	NA
Lane 2	457	5.0	536[1]	0.852	100	54.7	LOS D	30.5	222.4	Full	500	0.0	0.0
Lane 3	468	5.0	550	0.852	100	54.8	LOS D	31.4	229.2	Full	500	0.0	0.0
Lane 4	402	5.0	472[1]	0.852	100	54.1	LOS D	26.2	191.3	Full	500	0.0	0.0
Lane 5	139	5.0	174	0.799	100	75.9	LOS F	9.7	70.5	Short	70	0.0	NA
Approach	1541	5.0		0.852		54.3	LOS D	31.4	229.2				
East: Marconi Crescent													
Lane 1	299	1.7	454	0.660	100	24.8	LOS B	9.3	66.3	Full	50	0.0	30.8
Lane 2	156	5.0	236	0.660	100	63.2	LOS E	10.0	73.3	Full	50	0.0	39.9
Lane 3	150	5.0	227	0.660	100	66.3	LOS E	9.7	70.8	Short	48	0.0	NA
Approach	605	3.3		0.660		45.0	LOS D	10.0	73.3				
North: Drakeford Drive													
Lane 1	285	5.0	1398	0.204	100	8.2	LOS A	3.6	26.0	Short	110	0.0	NA
Lane 2	486	5.0	775	0.626	100	19.3	LOS B	17.4	127.0	Full	500	0.0	0.0
Lane 3	486	5.0	775	0.626	100	19.3	LOS B	17.4	127.0	Full	500	0.0	0.0
Lane 4	486	5.0	775	0.626	100	19.3	LOS B	17.4	127.0	Full	500	0.0	0.0
Lane 5	267	5.0	468	0.571	100	52.0	LOS D	15.2	111.1	Short	75	0.0	NA
Approach	2009	5.0		0.626		22.1	LOS B	17.4	127.0				
West: Boddington Crescent													
Lane 1	199	5.0	319	0.624	100	58.7	LOS E	12.2	89.2	Full	500	0.0	0.0
Lane 2	119	5.0	190	0.624	100	68.1	LOS E	7.7	56.5	Full	500	0.0	0.0
Approach	318	5.0		0.624		62.2	LOS E	12.2	89.2				
Intersection	4474	4.8		0.852		39.1	LOS C	31.4	229.2				

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

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Post - PM peak]

Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 134 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	76	5.0	0.068	9.9	LOS A	1.2	8.7	0.31	0.63	50.9
2	T1	1326	5.0	0.852	54.5	LOS D	31.4	229.2	0.99	0.97	31.7
3	R2	139	5.0	0.799	75.9	LOS F	9.7	70.5	1.00	0.89	18.3
Approach		1541	5.0	0.852	54.3	LOS D	31.4	229.2	0.96	0.94	31.1
East: Marconi Crescent											
4	L2	200	0.0	0.660	26.1	LOS B	9.3	66.3	0.91	0.81	34.4
5	T1	213	5.0	0.660	43.4	LOS D	10.0	73.3	0.96	0.82	26.0
6	R2	193	5.0	0.660	66.3	LOS E	10.0	73.3	1.00	0.83	20.5
Approach		605	3.3	0.660	45.0	LOS D	10.0	73.3	0.96	0.82	25.9
North: Drakeford Drive											
7	L2	285	5.0	0.204	8.2	LOS A	3.6	26.0	0.28	0.63	46.2
8	T1	1457	5.0	0.626	19.3	LOS B	17.4	127.0	0.85	0.74	45.6
9	R2	267	5.0	0.571	52.0	LOS D	15.2	111.1	0.92	0.83	32.1
Approach		2009	5.0	0.626	22.1	LOS B	17.4	127.0	0.78	0.74	43.1
West: Boddington Crescent											
10	L2	111	5.0	0.624	61.2	LOS E	12.2	89.2	0.98	0.82	30.7
11	T1	127	5.0	0.624	58.2	LOS E	12.2	89.2	0.98	0.81	21.7
12	R2	80	5.0	0.624	70.0	LOS E	7.7	56.5	1.00	0.81	28.3
Approach		318	5.0	0.624	62.2	LOS E	12.2	89.2	0.99	0.81	26.9
All Vehicles		4474	4.8	0.852	39.1	LOS C	31.4	229.2	0.88	0.82	34.7

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	59.4	LOS E	0.2	0.2	0.94	0.94
P12	South Stage 2	53	57.5	LOS E	0.2	0.2	0.93	0.93
P2	East Full Crossing	53	61.3	LOS F	0.2	0.2	0.96	0.96
P31	North Stage 1	53	61.3	LOS F	0.2	0.2	0.96	0.96
P32	North Stage 2	53	61.3	LOS F	0.2	0.2	0.96	0.96
P41	West Stage 1	53	52.1	LOS E	0.2	0.2	0.88	0.88
P42	West Stage 2	53	52.1	LOS E	0.2	0.2	0.88	0.88
All Pedestrians		368	57.8	LOS E			0.93	0.93

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 [Drakeford / Marconi Post - PM peak]

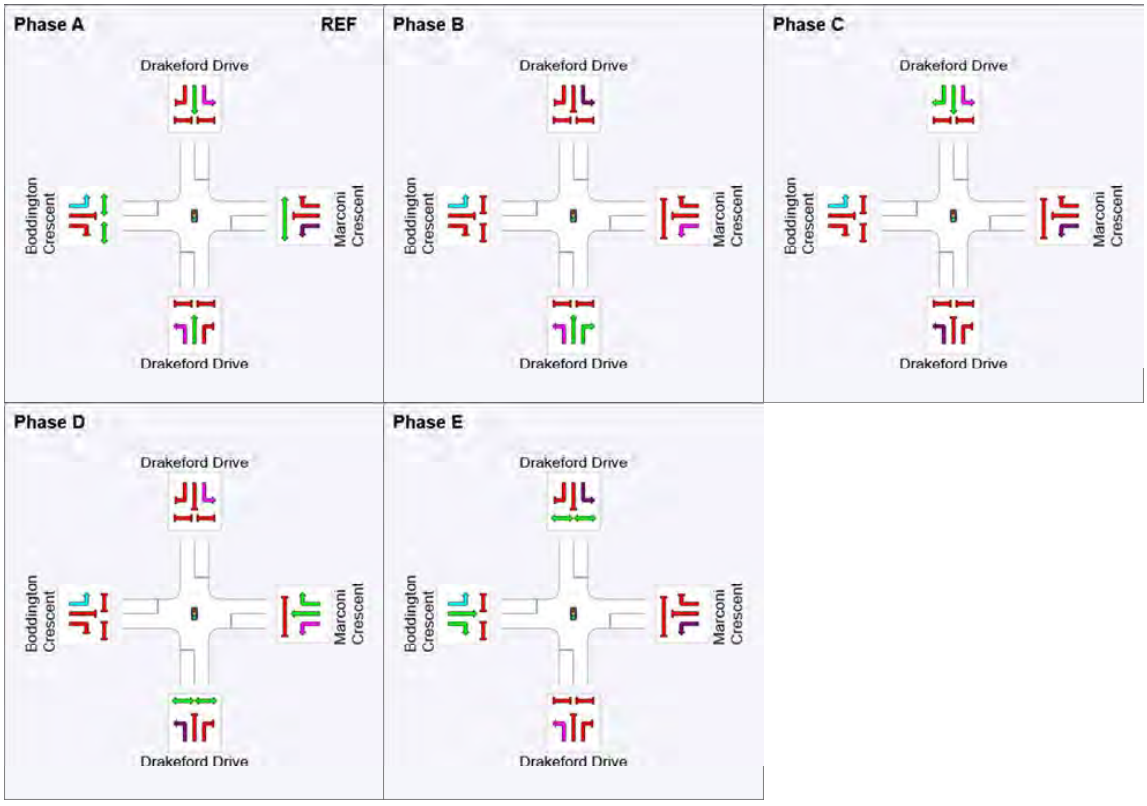
Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 134 seconds (User-Given Phase Times)

Phase Times specified by the user
Phase Sequence: TCS54
Reference Phase: Phase A
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E

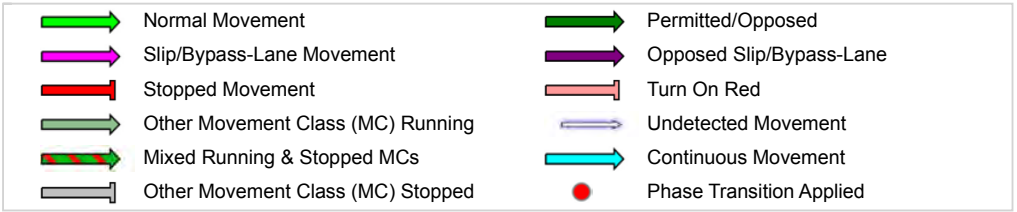
Phase Timing Results

Phase	A	B	C	D	E
Phase Change Time (sec)	0	27	46	88	113
Green Time (sec)	20	13	35	17	14
Phase Time (sec)	26	20	43	24	21
Phase Split	19%	15%	32%	18%	16%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase
VAR: Variable Phase



LANE SUMMARY

Site: 101 [Drakeford / Marconi Post - Weekend peak]

Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	100	5.0	1245	0.080	100	8.7	LOS A	1.2	8.7	Short	100	0.0	NA
Lane 2	265	5.0	721	0.367	100	26.2	LOS B	10.2	74.2	Full	500	0.0	0.0
Lane 3	265	5.0	721	0.367	100	26.2	LOS B	10.2	74.2	Full	500	0.0	0.0
Lane 4	265	5.0	721	0.367	100	26.2	LOS B	10.2	74.2	Full	500	0.0	0.0
Lane 5	158	5.0	212	0.745	100	60.5	LOS E	8.8	64.4	Short	70	0.0	NA
Approach	1053	5.0		0.745		29.6	LOS C	10.2	74.2				
East: Marconi Crescent													
Lane 1	298	1.5	559	0.532	100	19.2	LOS B	8.5	60.1	Full	50	0.0	21.7
Lane 2	126	5.0	237	0.532	100	51.1	LOS D	6.6	47.9	Full	50	0.0	1.1
Lane 3	121	5.0	228	0.532	100	54.2	LOS D	6.3	46.2	Short	48	0.0	NA
Approach	545	3.1		0.532		34.4	LOS C	8.5	60.1				
North: Drakeford Drive													
Lane 1	219	5.0	1287	0.170	100	8.0	LOS A	2.4	17.4	Short	110	0.0	NA
Lane 2	272	5.0	721	0.378	100	26.3	LOS B	10.5	76.6	Full	500	0.0	0.0
Lane 3	272	5.0	721	0.378	100	26.3	LOS B	10.5	76.6	Full	500	0.0	0.0
Lane 4	272	5.0	721	0.378	100	26.3	LOS B	10.5	76.6	Full	500	0.0	0.0
Lane 5	117	5.0	212	0.551	100	56.9	LOS E	6.2	44.9	Short	75	0.0	NA
Approach	1153	5.0		0.551		25.9	LOS B	10.5	76.6				
West: Boddington Crescent													
Lane 1	212	5.0	364	0.581	100	46.6	LOS D	10.5	76.5	Full	500	0.0	0.0
Lane 2	136	5.0	233	0.581	100	53.7	LOS D	7.1	51.9	Full	500	0.0	0.0
Approach	347	5.0		0.581		49.3	LOS D	10.5	76.5				
Intersection	3098	4.7		0.745		31.3	LOS C	10.5	76.6				

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

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Post - Weekend peak]

Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	100	5.0	0.080	8.7	LOS A	1.2	8.7	0.32	0.63	51.7
2	T1	795	5.0	0.367	26.2	LOS B	10.2	74.2	0.77	0.65	42.0
3	R2	158	5.0	0.745	60.5	LOS E	8.8	64.4	1.00	0.87	21.2
Approach		1053	5.0	0.745	29.6	LOS C	10.2	74.2	0.76	0.68	39.3
East: Marconi Crescent											
4	L2	209	0.0	0.532	20.4	LOS B	8.5	60.1	0.81	0.76	37.9
5	T1	182	5.0	0.532	33.7	LOS C	8.5	60.1	0.90	0.77	29.6
6	R2	154	5.0	0.532	54.2	LOS D	6.6	47.9	0.98	0.79	23.3
Approach		545	3.1	0.532	34.4	LOS C	8.5	60.1	0.89	0.77	29.8
North: Drakeford Drive											
7	L2	219	5.0	0.170	8.0	LOS A	2.4	17.4	0.29	0.63	46.4
8	T1	817	5.0	0.378	26.3	LOS B	10.5	76.6	0.77	0.66	42.0
9	R2	117	5.0	0.551	56.9	LOS E	6.2	44.9	0.99	0.79	30.8
Approach		1153	5.0	0.551	25.9	LOS B	10.5	76.6	0.70	0.67	40.8
West: Boddington Crescent											
10	L2	108	5.0	0.581	49.3	LOS D	10.5	76.5	0.96	0.81	34.2
11	T1	162	5.0	0.581	46.1	LOS D	10.5	76.5	0.97	0.80	24.9
12	R2	77	5.0	0.581	56.1	LOS D	7.1	51.9	0.99	0.80	31.8
Approach		347	5.0	0.581	49.3	LOS D	10.5	76.5	0.97	0.80	29.9
All Vehicles		3098	4.7	0.745	31.3	LOS C	10.5	76.6	0.78	0.71	37.2

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	49.3	LOS E	0.2	0.2	0.95	0.95
P12	South Stage 2	53	48.3	LOS E	0.2	0.2	0.94	0.94
P2	East Full Crossing	53	31.4	LOS D	0.1	0.1	0.76	0.76
P31	North Stage 1	53	49.3	LOS E	0.2	0.2	0.95	0.95
P32	North Stage 2	53	49.3	LOS E	0.2	0.2	0.95	0.95
P41	West Stage 1	53	23.6	LOS C	0.1	0.1	0.66	0.66
P42	West Stage 2	53	23.6	LOS C	0.1	0.1	0.66	0.66
All Pedestrians		368	39.3	LOS D			0.84	0.84

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 [Drakeford / Marconi Post - Weekend peak]

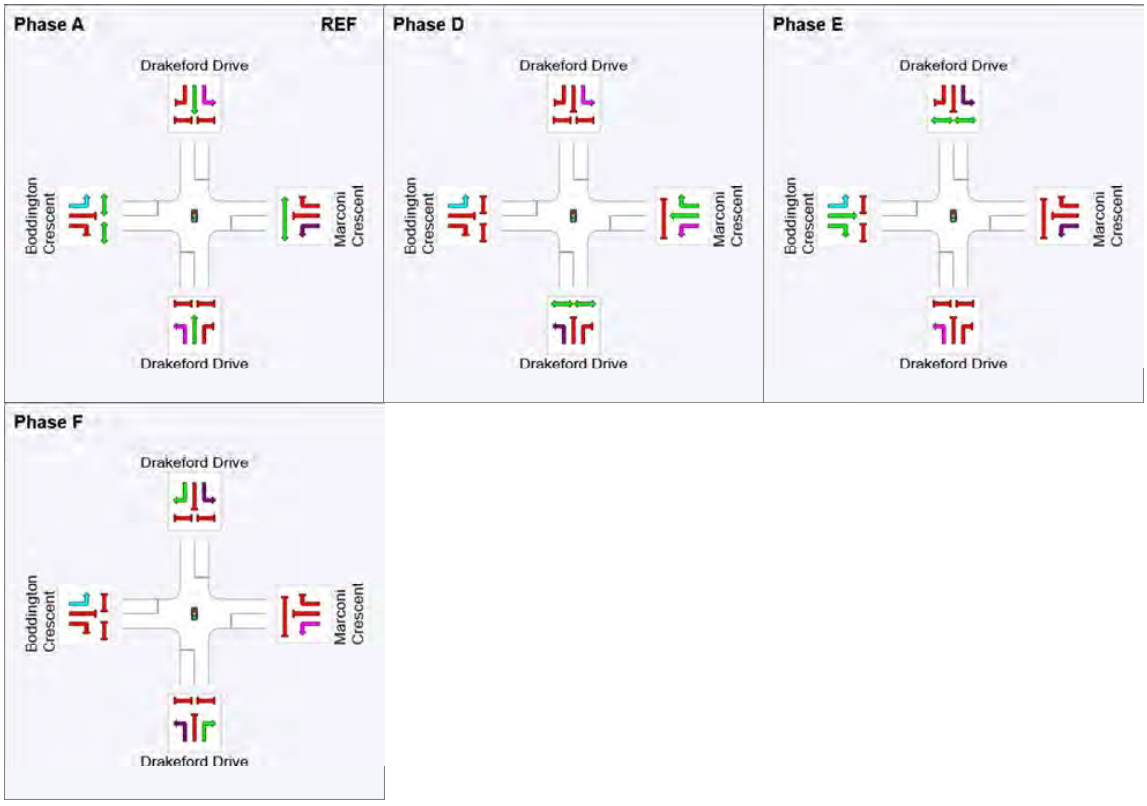
Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Phase Times specified by the user
Phase Sequence: TCCS
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Phase Timing Results

Phase	A	D	E	F
Phase Change Time (sec)	0	50	71	91
Green Time (sec)	42	14	14	13
Phase Time (sec)	49	20	20	21
Phase Split	45%	18%	18%	19%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



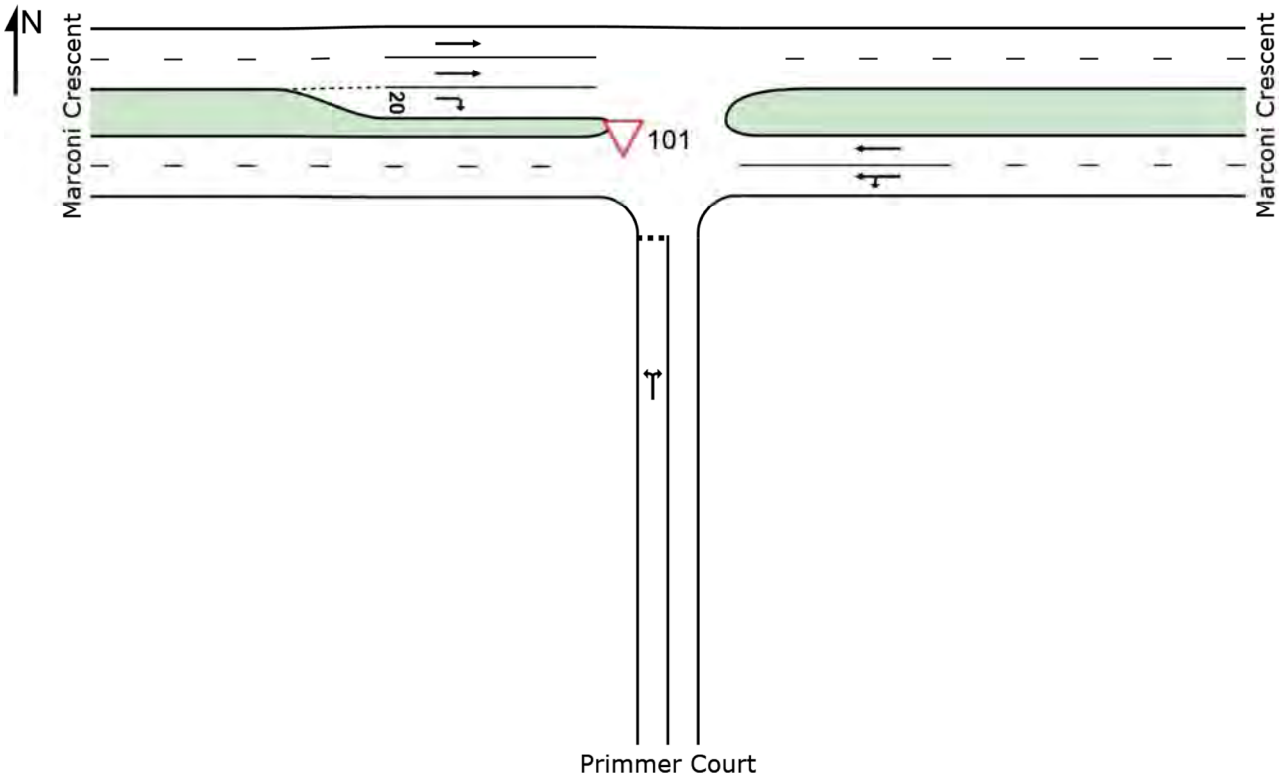
REF: Reference Phase
VAR: Variable Phase

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 [Marconi / East - Post - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)



LANE SUMMARY

Site: 101 [Marconi / East - Post - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	24	5.0	401	0.060	100	11.7	LOS A	0.2	1.5	Full	80	0.0	0.0
Approach	24	5.0		0.060		11.7	LOS A	0.2	1.5				
East: Marconi Crescent													
Lane 1	153	5.0	1870	0.082	100	0.8	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	154	5.0	1889	0.082	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	307	5.0		0.082		0.4	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 3	147	5.0	1024	0.144	100	5.8	LOS A	0.6	4.4	Short	20	0.0	NA
Approach	356	5.0		0.144		2.4	NA	0.6	4.4				
Intersection	687	5.0		0.144		1.8	NA	0.6	4.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / East - Post - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	4	5.0	0.060	5.6	LOS A	0.2	1.5	0.50	0.74	23.5
3	R2	20	5.0	0.060	13.0	LOS A	0.2	1.5	0.50	0.74	23.3
Approach		24	5.0	0.060	11.7	LOS A	0.2	1.5	0.50	0.74	23.3
East: Marconi Crescent											
4	L2	28	5.0	0.082	4.3	LOS A	0.0	0.0	0.00	0.11	43.0
5	T1	279	5.0	0.082	0.0	LOS A	0.0	0.0	0.00	0.05	57.4
Approach		307	5.0	0.082	0.4	NA	0.0	0.0	0.00	0.05	55.4
West: Marconi Crescent											
11	T1	208	5.0	0.055	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
12	R2	147	5.0	0.144	5.8	LOS A	0.6	4.4	0.41	0.64	30.8
Approach		356	5.0	0.144	2.4	NA	0.6	4.4	0.17	0.26	41.9
All Vehicles		687	5.0	0.144	1.8	NA	0.6	4.4	0.11	0.19	45.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / East - Post - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Primmer Court													
Lane 1	114	5.0	303	0.376	100	18.9	LOS B	1.6	11.7	Full	80	0.0	0.0
Approach	114	5.0		0.376		18.9	LOS B	1.6	11.7				
East: Marconi Crescent													
Lane 1	187	5.0	1837	0.102	100	2.3	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	193	5.0	1889	0.102	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	380	5.0		0.102		1.1	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	104	5.0	1889	0.055	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 3	304	5.0	943	0.322	100	6.7	LOS A	1.6	11.7	Short	20	0.0	NA
Approach	513	5.0		0.322		4.0	NA	1.6	11.7				
Intersection	1006	5.0		0.376		4.6	NA	1.6	11.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / East - Post - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	29	5.0	0.376	7.8	LOS A	1.6	11.7	0.53	0.79	18.0
3	R2	84	5.0	0.376	22.8	LOS B	1.6	11.7	0.53	0.79	17.9
Approach		114	5.0	0.376	18.9	LOS B	1.6	11.7	0.53	0.79	18.0
East: Marconi Crescent											
4	L2	99	5.0	0.102	4.3	LOS A	0.0	0.0	0.00	0.30	38.7
5	T1	281	5.0	0.102	0.0	LOS A	0.0	0.0	0.00	0.10	55.0
Approach		380	5.0	0.102	1.1	NA	0.0	0.0	0.00	0.15	49.0
West: Marconi Crescent											
11	T1	208	5.0	0.055	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
12	R2	304	5.0	0.322	6.7	LOS A	1.6	11.7	0.52	0.73	29.3
Approach		513	5.0	0.322	4.0	NA	1.6	11.7	0.31	0.43	36.0
All Vehicles		1006	5.0	0.376	4.6	NA	1.6	11.7	0.22	0.37	35.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / East - Post - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Primmer Court													
Lane 1	119	5.0	383	0.311	100	14.5	LOS A	1.3	9.4	Full	80	0.0	0.0
Approach	119	5.0		0.311		14.5	LOS A	1.3	9.4				
East: Marconi Crescent													
Lane 1	169	5.0	1837	0.092	100	2.3	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	173	5.0	1889	0.092	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	342	5.0		0.092		1.1	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	81	5.0	1889	0.043	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	81	5.0	1889	0.043	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 3	298	5.0	985	0.302	100	6.3	LOS A	1.4	10.3	Short	20	0.0	NA
Approach	459	5.0		0.302		4.1	NA	1.4	10.3				
Intersection	920	5.0		0.311		4.3	NA	1.4	10.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / East - Post - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

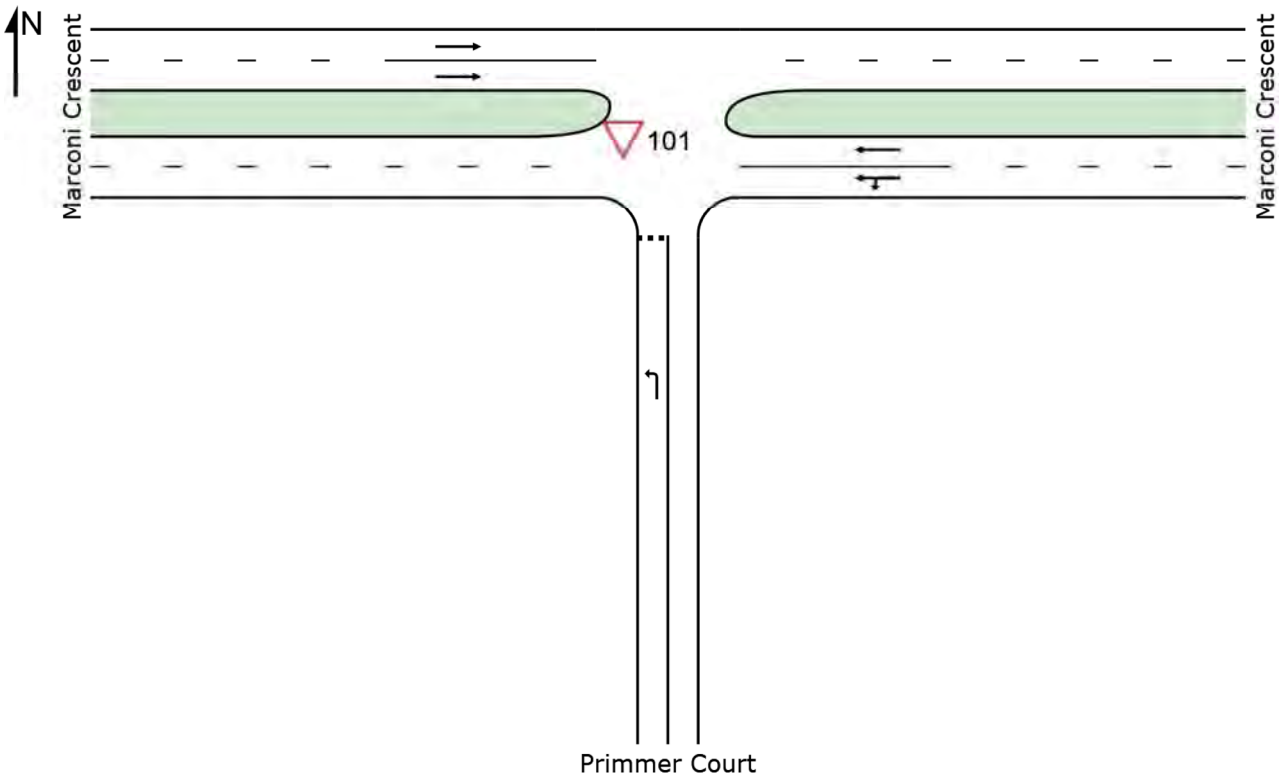
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	41	5.0	0.311	6.5	LOS A	1.3	9.4	0.40	0.70	21.1
3	R2	78	5.0	0.311	18.6	LOS B	1.3	9.4	0.40	0.70	21.0
Approach		119	5.0	0.311	14.5	LOS A	1.3	9.4	0.40	0.70	21.0
East: Marconi Crescent											
4	L2	88	5.0	0.092	4.3	LOS A	0.0	0.0	0.00	0.30	38.7
5	T1	254	5.0	0.092	0.0	LOS A	0.0	0.0	0.00	0.10	55.0
Approach		342	5.0	0.092	1.1	NA	0.0	0.0	0.00	0.15	49.0
West: Marconi Crescent											
11	T1	161	5.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
12	R2	298	5.0	0.302	6.3	LOS A	1.4	10.3	0.49	0.69	29.9
Approach		459	5.0	0.302	4.1	NA	1.4	10.3	0.32	0.45	35.5
All Vehicles		920	5.0	0.311	4.3	NA	1.4	10.3	0.21	0.37	35.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Marconi / West - Post - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)



LANE SUMMARY

Site: 101 [Marconi / West - Post - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	153	5.0	1148	0.133	100	5.7	LOS A	0.5	3.8	Full	80	0.0	0.0
Approach	153	5.0		0.133		5.7	LOS A	0.5	3.8				
East: Marconi Crescent													
Lane 1	148	5.0	1876	0.079	100	0.6	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	149	5.0	1889	0.079	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	298	5.0		0.079		0.3	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	181	5.0	1889	0.096	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Lane 2	181	5.0	1889	0.096	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Approach	361	5.0		0.096		0.0	NA	0.0	0.0				
Intersection	812	5.0		0.133		1.2	NA	0.5	3.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / West - Post - AM peak]

Existing Conditions - AM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	153	5.0	0.133	5.7	LOS A	0.5	3.8	0.25	0.56	30.3
Approach		153	5.0	0.133	5.7	LOS A	0.5	3.8	0.25	0.56	30.3
East: Marconi Crescent											
4	L2	19	5.0	0.079	4.3	LOS A	0.0	0.0	0.00	0.07	43.9
5	T1	279	5.0	0.079	0.0	LOS A	0.0	0.0	0.00	0.03	57.9
Approach		298	5.0	0.079	0.3	NA	0.0	0.0	0.00	0.04	56.5
West: Marconi Crescent											
11	T1	361	5.0	0.096	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		361	5.0	0.096	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		812	5.0	0.133	1.2	NA	0.5	3.8	0.05	0.12	48.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / West - Post - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	318	5.0	1150	0.276	100	5.8	LOS A	1.2	9.0	Full	80	0.0	0.0
Approach	318	5.0		0.276		5.8	LOS A	1.2	9.0				
East: Marconi Crescent													
Lane 1	159	5.0	1869	0.085	100	0.9	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	161	5.0	1889	0.085	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	320	5.0		0.085		0.4	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	256	5.0	1889	0.136	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Lane 2	256	5.0	1889	0.136	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Approach	513	5.0		0.136		0.0	NA	0.0	0.0				
Intersection	1151	5.0		0.276		1.7	NA	1.2	9.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / West - Post - PM peak]

Existing Conditions - PM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	318	5.0	0.276	5.8	LOS A	1.2	9.0	0.28	0.57	30.1
Approach		318	5.0	0.276	5.8	LOS A	1.2	9.0	0.28	0.57	30.1
East: Marconi Crescent											
4	L2	32	5.0	0.085	4.3	LOS A	0.0	0.0	0.00	0.12	42.9
5	T1	288	5.0	0.085	0.0	LOS A	0.0	0.0	0.00	0.05	57.0
Approach		320	5.0	0.085	0.4	NA	0.0	0.0	0.00	0.06	54.8
West: Marconi Crescent											
11	T1	513	5.0	0.136	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		513	5.0	0.136	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1151	5.0	0.276	1.7	NA	1.2	9.0	0.08	0.17	44.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Marconi / West - Post - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Primmer Court													
Lane 1	265	5.0	1152	0.230	100	5.8	LOS A	1.0	7.1	Full	80	0.0	0.0
Approach	265	5.0		0.230		5.8	LOS A	1.0	7.1				
East: Marconi Crescent													
Lane 1	152	5.0	1871	0.081	100	0.7	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	153	5.0	1889	0.081	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	305	5.0		0.081		0.4	NA	0.0	0.0				
West: Marconi Crescent													
Lane 1	229	5.0	1889	0.122	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Lane 2	229	5.0	1889	0.122	100	0.0	LOS A	0.0	0.0	Full	50	0.0	0.0
Approach	459	5.0		0.122		0.0	NA	0.0	0.0				
Intersection	1029	5.0		0.230		1.6	NA	1.0	7.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on average delay per lane.
Minor Road Approach LOS values are based on average delay for all lanes.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Marconi / West - Post - Weekend peak]

Existing Conditions - Weekend peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Primmer Court											
1	L2	265	5.0	0.230	5.8	LOS A	1.0	7.1	0.26	0.57	30.2
Approach		265	5.0	0.230	5.8	LOS A	1.0	7.1	0.26	0.57	30.2
East: Marconi Crescent											
4	L2	26	5.0	0.081	4.3	LOS A	0.0	0.0	0.00	0.10	43.2
5	T1	279	5.0	0.081	0.0	LOS A	0.0	0.0	0.00	0.05	57.3
Approach		305	5.0	0.081	0.4	NA	0.0	0.0	0.00	0.05	55.4
West: Marconi Crescent											
11	T1	459	5.0	0.122	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		459	5.0	0.122	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1029	5.0	0.230	1.6	NA	1.0	7.1	0.07	0.16	45.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

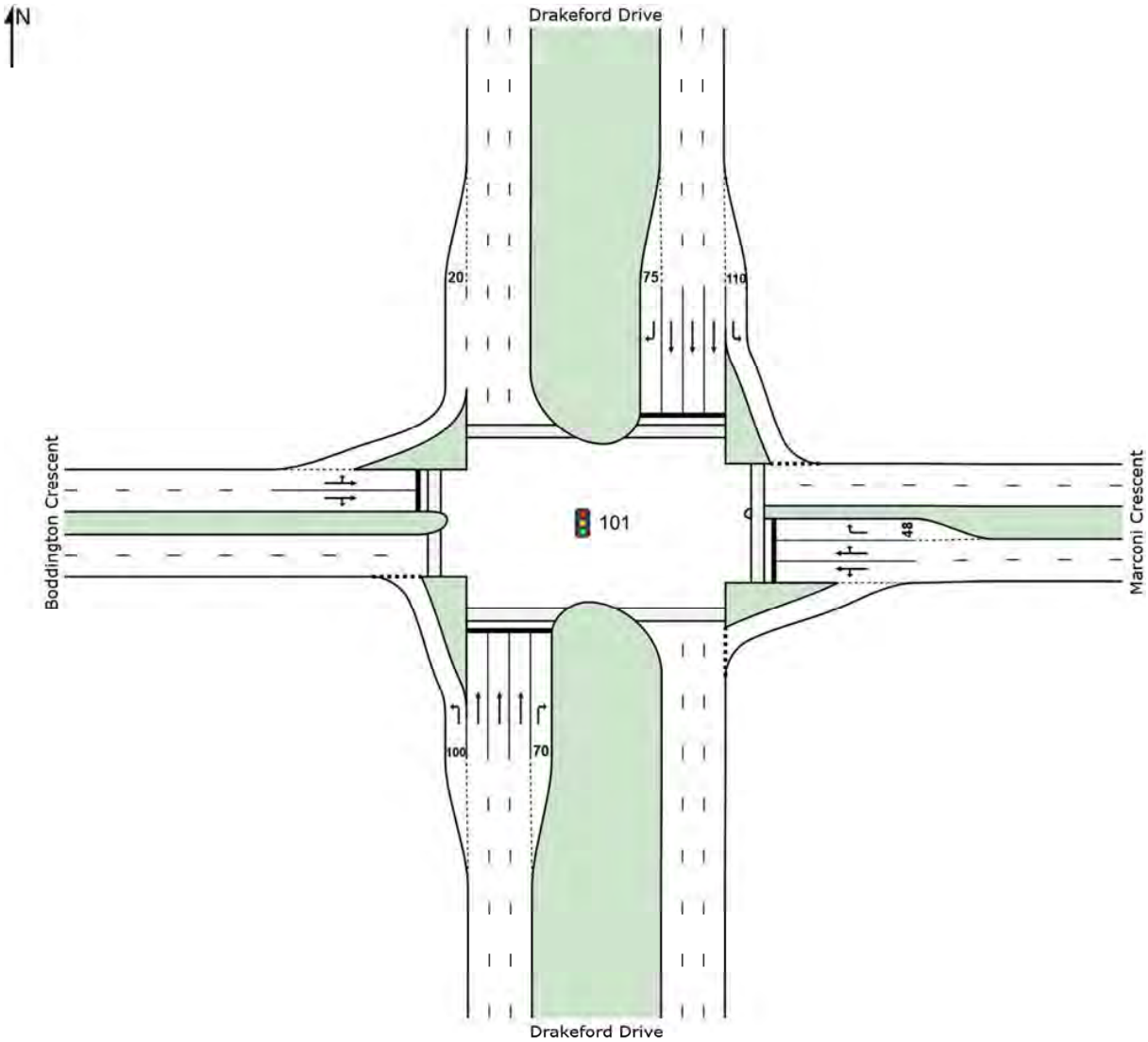
Traffic Engineering Assessment
Kambah Group Centre: Proposed Expansion

Appendix G
Future Conditions SIDRA

SITE LAYOUT

Site: 101 [Drakeford / Marconi Post - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated



LANE SUMMARY

Site: 101 [Drakeford / Marconi Post - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	61	5.0	1458	0.042	100	6.8	LOS A	0.5	3.3	Short	100	0.0	NA
Lane 2	528	5.0	865[1]	0.610	100	29.6	LOS C	26.4	193.0	Full	500	0.0	0.0
Lane 3	535	5.0	877	0.610	100	29.7	LOS C	26.9	196.5	Full	500	0.0	0.0
Lane 4	486	5.0	797[1]	0.610	100	28.7	LOS C	23.6	172.2	Full	500	0.0	0.0
Lane 5	67	5.0	128	0.526	100	76.5	LOS F	4.7	34.0	Short	70	0.0	NA
Approach	1678	5.0		0.610		30.4	LOS C	26.9	196.5				
East: Marconi Crescent													
Lane 1	162	5.0	438	0.370	91[5]	24.7	LOS B	5.7	41.3	Full	50	0.0	0.0
Lane 2	109	5.0	269	0.405	100	62.9	LOS E	6.8	49.9	Full	50	0.0	4.9[8]
Lane 3	109	5.0	269	0.405	100	62.9	LOS E	6.8	49.9	Short	48	0.0	NA
Approach	380	5.0		0.405		46.7	LOS D	6.8	49.9				
North: Drakeford Drive													
Lane 1	79	5.0	1358	0.058	100	8.3	LOS A	1.0	7.4	Short	110	0.0	NA
Lane 2	412	5.0	877	0.470	100	27.2	LOS B	19.0	138.7	Full	500	0.0	0.0
Lane 3	412	5.0	877	0.470	100	27.2	LOS B	19.0	138.7	Full	500	0.0	0.0
Lane 4	362	5.0	770[1]	0.470	100	26.3	LOS B	16.1	117.8	Full	500	0.0	0.0
Lane 5	79	5.0	128	0.616	100	77.5	LOS F	5.5	40.4	Short	75	0.0	NA
Approach	1345	5.0		0.616		28.8	LOS C	19.0	138.7				
West: Boddington Crescent													
Lane 1	248	5.0	405	0.612	100	56.3	LOS D	15.3	111.7	Full	500	0.0	0.0
Lane 2	120	5.0	196	0.612	100	69.6	LOS E	8.1	59.2	Full	500	0.0	0.0
Approach	368	5.0		0.612		60.7	LOS E	15.3	111.7				
Intersection	3772	5.0		0.616		34.4	LOS C	26.9	196.5				

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

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program
8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Post - AM peak]

Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	61	5.0	0.042	6.8	LOS A	0.5	3.3	0.18	0.59	53.2
2	T1	1549	5.0	0.610	29.3	LOS C	26.9	196.5	0.79	0.71	40.6
3	R2	67	5.0	0.526	76.5	LOS F	4.7	34.0	1.00	0.76	18.2
Approach		1678	5.0	0.610	30.4	LOS C	26.9	196.5	0.78	0.71	39.8
East: Marconi Crescent											
4	L2	99	5.0	0.370	26.3	LOS B	5.7	41.3	0.81	0.73	34.4
5	T1	63	5.0	0.370	22.3	LOS B	5.7	41.3	0.81	0.73	35.0
6	R2	218	5.0	0.405	62.9	LOS E	6.8	49.9	0.95	0.78	21.0
Approach		380	5.0	0.405	46.7	LOS D	6.8	49.9	0.89	0.76	25.3
North: Drakeford Drive											
7	L2	79	5.0	0.058	8.3	LOS A	1.0	7.4	0.25	0.61	46.1
8	T1	1187	5.0	0.470	26.9	LOS B	19.0	138.7	0.73	0.64	41.7
9	R2	79	5.0	0.616	77.5	LOS F	5.5	40.4	1.00	0.79	26.3
Approach		1345	5.0	0.616	28.8	LOS C	19.0	138.7	0.72	0.65	40.4
West: Boddington Crescent											
10	L2	169	5.0	0.612	58.1	LOS E	15.3	111.7	0.95	0.82	31.4
11	T1	131	5.0	0.612	58.0	LOS E	15.3	111.7	0.97	0.81	21.7
12	R2	68	5.0	0.612	72.1	LOS F	8.1	59.2	1.00	0.80	28.0
Approach		368	5.0	0.612	60.7	LOS E	15.3	111.7	0.97	0.82	27.7
All Vehicles		3772	5.0	0.616	34.4	LOS C	26.9	196.5	0.79	0.70	37.2

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	58.6	LOS E	0.2	0.2	0.92	0.92
P12	South Stage 2	53	56.8	LOS E	0.2	0.2	0.90	0.90
P2	East Full Crossing	53	29.0	LOS C	0.1	0.1	0.64	0.64
P31	North Stage 1	53	64.3	LOS F	0.2	0.2	0.96	0.96
P32	North Stage 2	53	64.3	LOS F	0.2	0.2	0.96	0.96
P41	West Stage 1	53	22.3	LOS C	0.1	0.1	0.57	0.57
P42	West Stage 2	53	22.3	LOS C	0.1	0.1	0.57	0.57
All Pedestrians		368	45.4	LOS E			0.79	0.79

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 [Drakeford / Marconi Post - AM peak]

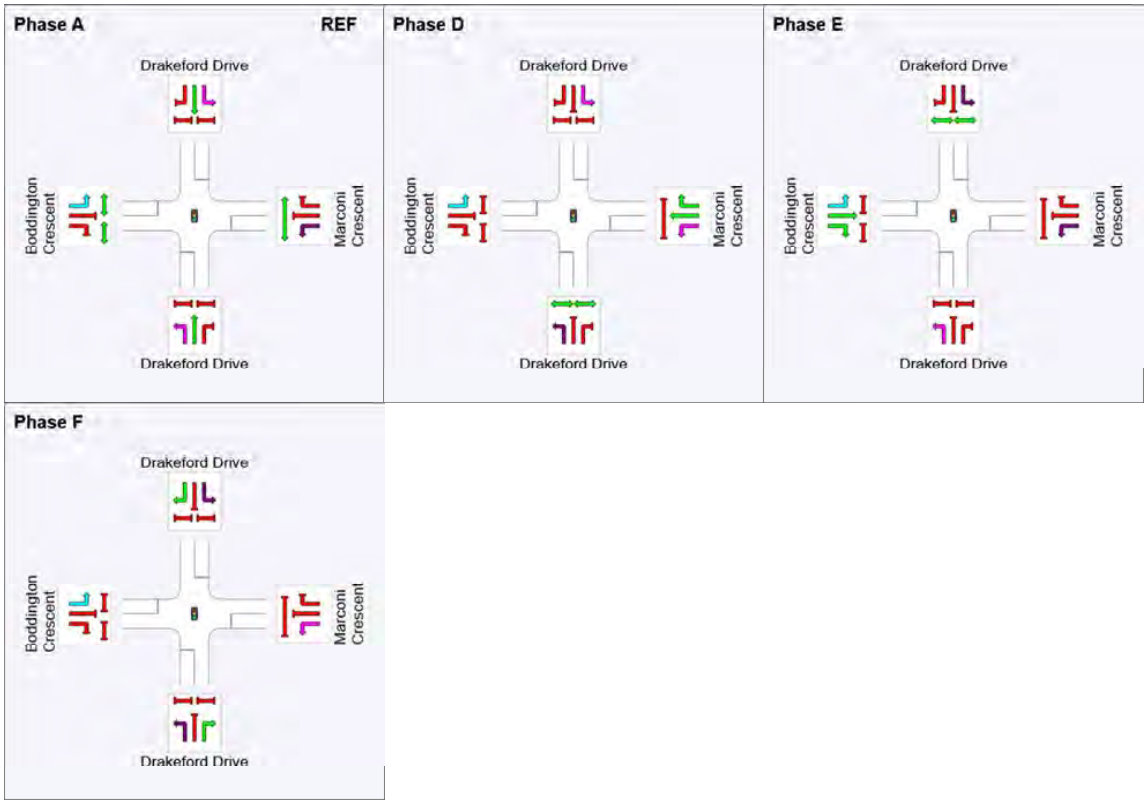
Existing Conditions - AM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase Times determined by the program
Phase Sequence: TCS54
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Phase Timing Results

Phase	A	D	E	F
Phase Change Time (sec)	0	73	101	123
Green Time (sec)	65	21	15	10
Phase Time (sec)	72	28	22	18
Phase Split	51%	20%	16%	13%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



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

LANE SUMMARY

Site: 101 [Drakeford / Marconi Post - PM peak]

Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	76	5.0	1181	0.064	100	10.8	LOS A	1.4	9.9	Short	100	0.0	NA
Lane 2	607	5.0	749[1]	0.810	100	39.1	LOS C	36.2	264.2	Full	500	0.0	0.0
Lane 3	634	5.0	782	0.810	100	39.5	LOS C	38.4	280.3	Full	500	0.0	0.0
Lane 4	542	5.0	668[1]	0.810	100	38.4	LOS C	31.3	228.3	Full	500	0.0	0.0
Lane 5	139	5.0	167	0.834	100	81.2	LOS F	10.3	75.0	Short	70	0.0	NA
Approach	1997	5.0		0.834		40.9	LOS C	38.4	280.3				
East: Marconi Crescent													
Lane 1	301	1.7	439	0.686	100	28.0	LOS B	11.3	80.3	Full	50	0.0	48.5
Lane 2	155	5.0	226	0.686	100	67.1	LOS E	10.5	76.9	Full	50	0.0	44.5
Lane 3	149	5.0	218	0.686	100	70.2	LOS E	10.2	74.3	Short	48	0.0	NA
Approach	605	3.3		0.686		48.4	LOS D	11.3	80.3				
North: Drakeford Drive													
Lane 1	285	5.0	1394	0.205	100	8.5	LOS A	3.9	28.5	Short	110	0.0	NA
Lane 2	674	5.0	836	0.805	100	20.2	LOS B	26.3	191.8	Full	500	0.0	0.0
Lane 3	674	5.0	836	0.805	100	20.2	LOS B	26.3	191.8	Full	500	0.0	0.0
Lane 4	611	5.0	758[1]	0.805	100	20.2	LOS B	23.2	169.1	Full	500	0.0	0.0
Lane 5	267	5.0	307	0.870	100	76.9	LOS F	19.9	145.5	Short	75	0.0	NA
Approach	2511	5.0		0.870		24.9	LOS B	26.3	191.8				
West: Boddington Crescent													
Lane 1	203	5.0	274	0.738	100	66.7	LOS E	13.8	100.7	Full	500	0.0	0.0
Lane 2	115	5.0	156	0.738	100	76.0	LOS F	8.2	59.9	Full	500	0.0	0.0
Approach	318	5.0		0.738		70.1	LOS E	13.8	100.7				
Intersection	5431	4.8		0.870		36.1	LOS C	38.4	280.3				

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

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Post - PM peak]

Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	76	5.0	0.064	10.8	LOS A	1.4	9.9	0.33	0.63	50.3
2	T1	1782	5.0	0.810	39.0	LOS C	38.4	280.3	0.92	0.85	36.6
3	R2	139	5.0	0.834	81.2	LOS F	10.3	75.0	1.00	0.92	17.5
Approach		1997	5.0	0.834	40.9	LOS C	38.4	280.3	0.91	0.84	35.4
East: Marconi Crescent											
4	L2	200	0.0	0.686	29.4	LOS C	11.3	80.3	0.95	0.83	32.7
5	T1	213	5.0	0.686	46.7	LOS D	11.3	80.3	0.98	0.83	25.0
6	R2	193	5.0	0.686	70.2	LOS E	10.5	76.9	1.00	0.83	19.7
Approach		605	3.3	0.686	48.4	LOS D	11.3	80.3	0.98	0.83	24.8
North: Drakeford Drive											
7	L2	285	5.0	0.205	8.5	LOS A	3.9	28.5	0.28	0.64	45.9
8	T1	1958	5.0	0.805	20.2	LOS B	26.3	191.8	0.92	0.82	45.1
9	R2	267	5.0	0.870	76.9	LOS F	19.9	145.5	1.00	0.95	26.4
Approach		2511	5.0	0.870	24.9	LOS B	26.3	191.8	0.85	0.82	41.8
West: Boddington Crescent											
10	L2	111	5.0	0.738	69.3	LOS E	13.8	100.7	1.00	0.88	28.8
11	T1	127	5.0	0.738	66.0	LOS E	13.8	100.7	1.00	0.87	20.1
12	R2	80	5.0	0.738	77.8	LOS F	8.2	59.9	1.00	0.86	26.7
Approach		318	5.0	0.738	70.1	LOS E	13.8	100.7	1.00	0.87	25.2
All Vehicles		5431	4.8	0.870	36.1	LOS C	38.4	280.3	0.90	0.83	36.2

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	62.4	LOS F	0.2	0.2	0.94	0.94
P12	South Stage 2	53	60.5	LOS F	0.2	0.2	0.93	0.93
P2	East Full Crossing	53	49.0	LOS E	0.2	0.2	0.84	0.84
P31	North Stage 1	53	64.3	LOS F	0.2	0.2	0.96	0.96
P32	North Stage 2	53	64.3	LOS F	0.2	0.2	0.96	0.96
P41	West Stage 1	53	40.2	LOS E	0.2	0.2	0.76	0.76
P42	West Stage 2	53	40.2	LOS E	0.2	0.2	0.76	0.76
All Pedestrians		368	54.4	LOS E			0.88	0.88

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 [Drakeford / Marconi Post - PM peak]

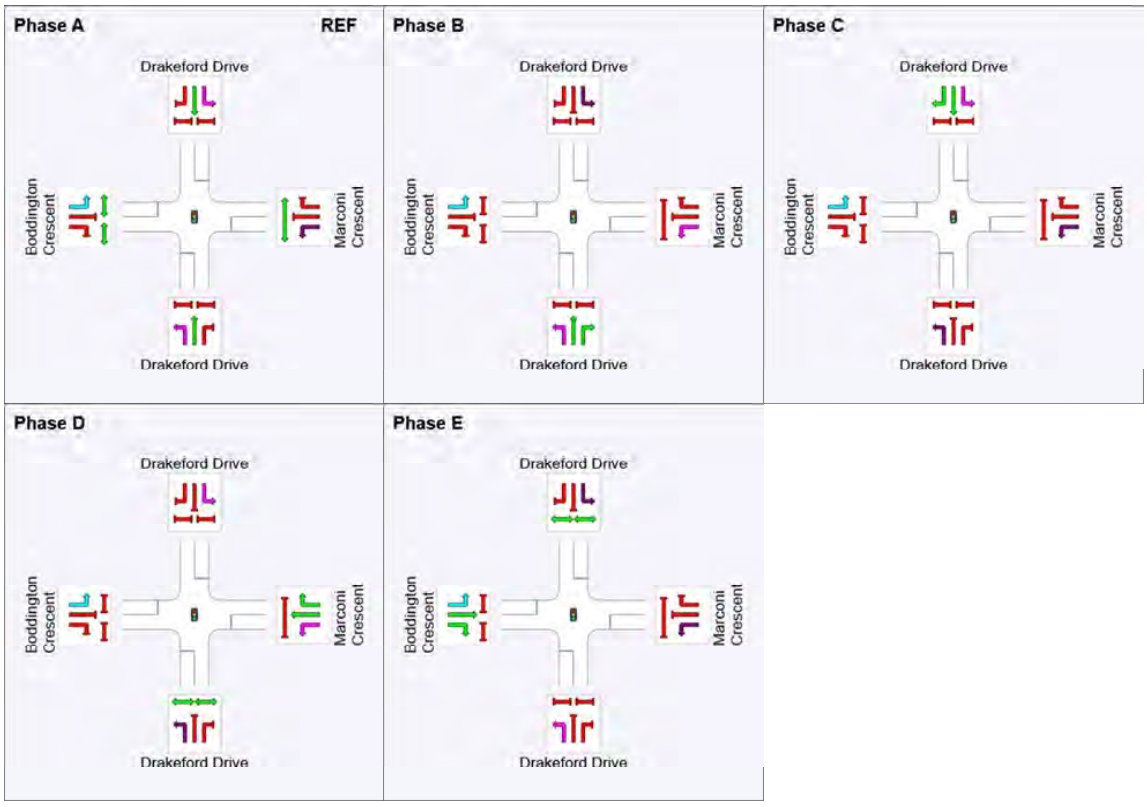
Existing Conditions - PM peak
Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase Times determined by the program
Phase Sequence: TCS54
Reference Phase: Phase A
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E

Phase Timing Results

Phase	A	B	C	D	E
Phase Change Time (sec)	0	45	65	96	121
Green Time (sec)	38	13	24	17	12
Phase Time (sec)	45	20	32	24	19
Phase Split	32%	14%	23%	17%	14%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase
VAR: Variable Phase

LANE SUMMARY

Site: 101 [Drakeford / Marconi Post - Weekend peak]

Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Drakeford Drive													
Lane 1	100	5.0	1301	0.077	100	7.8	LOS A	1.0	7.1	Short	100	0.0	NA
Lane 2	356	5.0	601	0.593	100	34.0	LOS C	16.1	117.5	Full	500	0.0	0.0
Lane 3	356	5.0	601	0.593	100	34.0	LOS C	16.1	117.5	Full	500	0.0	0.0
Lane 4	356	5.0	601	0.593	100	34.0	LOS C	16.1	117.5	Full	500	0.0	0.0
Lane 5	158	5.0	261	0.605	100	54.6	LOS D	8.2	59.8	Short	70	0.0	NA
Approach	1326	5.0		0.605		34.5	LOS C	16.1	117.5				
East: Marconi Crescent													
Lane 1	290	1.4	642	0.452	100	16.1	LOS B	6.2	44.1	Full	50	0.0	0.0
Lane 2	130	5.0	289	0.452	100	47.5	LOS D	6.5	47.6	Full	50	0.0	0.5
Lane 3	125	5.0	277	0.452	100	50.8	LOS D	6.3	45.8	Short	48	0.0	NA
Approach	545	3.1		0.452		31.6	LOS C	6.5	47.6				
North: Drakeford Drive													
Lane 1	219	5.0	1247	0.176	100	8.4	LOS A	2.6	19.2	Short	110	0.0	NA
Lane 2	366	5.0	601	0.609	100	34.2	LOS C	16.7	121.6	Full	500	0.0	0.0
Lane 3	366	5.0	601	0.609	100	34.2	LOS C	16.7	121.6	Full	500	0.0	0.0
Lane 4	366	5.0	601	0.609	100	34.2	LOS C	16.7	121.6	Full	500	0.0	0.0
Lane 5	117	5.0	261	0.448	100	53.2	LOS D	5.9	43.1	Short	75	0.0	NA
Approach	1434	5.0		0.609		31.8	LOS C	16.7	121.6				
West: Boddington Crescent													
Lane 1	213	5.0	345	0.618	100	47.8	LOS D	10.7	78.4	Full	500	0.0	0.0
Lane 2	134	5.0	217	0.618	100	55.2	LOS D	7.1	52.1	Full	500	0.0	0.0
Approach	347	5.0		0.618		50.6	LOS D	10.7	78.4				
Intersection	3653	4.7		0.618		34.5	LOS C	16.7	121.6				

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

MOVEMENT SUMMARY

Site: 101 [Drakeford / Marconi Post - Weekend peak]

Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Drakeford Drive											
1	L2	100	5.0	0.077	7.8	LOS A	1.0	7.1	0.27	0.62	52.4
2	T1	1068	5.0	0.593	34.0	LOS C	16.1	117.5	0.90	0.77	38.6
3	R2	158	5.0	0.605	54.6	LOS D	8.2	59.8	0.99	0.81	22.6
Approach		1326	5.0	0.605	34.5	LOS C	16.1	117.5	0.86	0.77	37.5
East: Marconi Crescent											
4	L2	209	0.0	0.452	17.2	LOS B	6.2	44.1	0.77	0.75	40.2
5	T1	182	5.0	0.452	31.9	LOS C	6.5	47.6	0.87	0.76	30.5
6	R2	154	5.0	0.452	50.8	LOS D	6.5	47.6	0.96	0.79	24.2
Approach		545	3.1	0.452	31.6	LOS C	6.5	47.6	0.86	0.76	31.1
North: Drakeford Drive											
7	L2	219	5.0	0.176	8.4	LOS A	2.6	19.2	0.32	0.64	46.0
8	T1	1098	5.0	0.609	34.2	LOS C	16.7	121.6	0.90	0.78	38.5
9	R2	117	5.0	0.448	53.2	LOS D	5.9	43.1	0.96	0.79	31.8
Approach		1434	5.0	0.609	31.8	LOS C	16.7	121.6	0.82	0.76	38.3
West: Boddington Crescent											
10	L2	108	5.0	0.618	50.5	LOS D	10.7	78.4	0.97	0.81	33.8
11	T1	162	5.0	0.618	47.4	LOS D	10.7	78.4	0.98	0.81	24.5
12	R2	77	5.0	0.618	57.6	LOS E	7.1	52.1	1.00	0.81	31.4
Approach		347	5.0	0.618	50.6	LOS D	10.7	78.4	0.98	0.81	29.5
All Vehicles		3653	4.7	0.618	34.5	LOS C	16.7	121.6	0.85	0.77	36.2

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

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P11	South Stage 1	53	47.4	LOS E	0.2	0.2	0.93	0.93
P12	South Stage 2	53	45.6	LOS E	0.1	0.1	0.91	0.91
P2	East Full Crossing	53	36.9	LOS D	0.1	0.1	0.82	0.82
P31	North Stage 1	53	49.3	LOS E	0.2	0.2	0.95	0.95
P32	North Stage 2	53	49.3	LOS E	0.2	0.2	0.95	0.95
P41	West Stage 1	53	28.4	LOS C	0.1	0.1	0.72	0.72
P42	West Stage 2	53	28.4	LOS C	0.1	0.1	0.72	0.72
All Pedestrians		368	40.8	LOS E			0.86	0.86

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 [Drakeford / Marconi Post - Weekend peak]

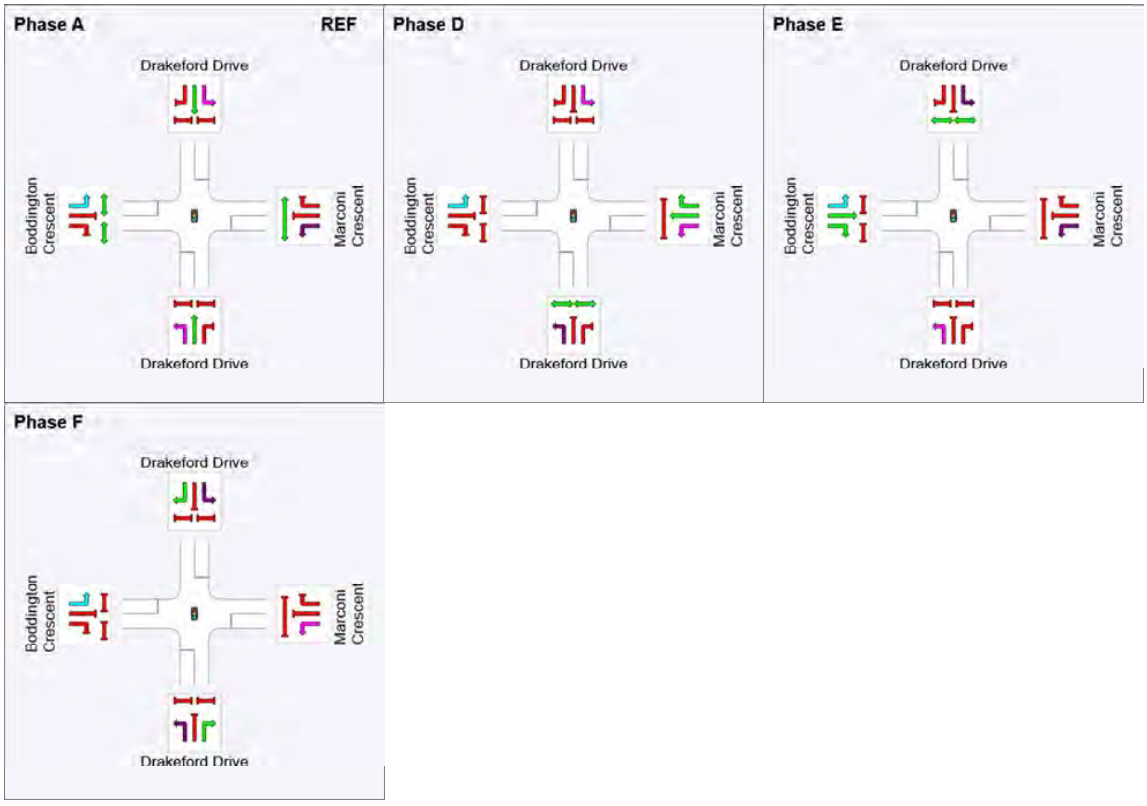
Existing Conditions - Weekend peak
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Cycle Time)

Phase Times determined by the program
Phase Sequence: TCCS
Reference Phase: Phase A
Input Phase Sequence: A, D, E, F
Output Phase Sequence: A, D, E, F

Phase Timing Results

Phase	A	D	E	F
Phase Change Time (sec)	0	43	67	87
Green Time (sec)	35	17	13	16
Phase Time (sec)	42	24	20	24
Phase Split	38%	22%	18%	22%

See the Phase Information section in the Detailed Output 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, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



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

From: Wyatt, Tim
Sent: Wednesday, 22 May 2019 2:11 PM
To: Hubbard, Benjamin; Steele, Peter
Cc: Dillon, Amelia
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Attachments: plans - S144B.OBR; supporting docs - S144B.OBR; TRAFFICREPORT-201834203-S144B-01 (A19350888).pdf

UNCLASSIFIED

Hi Ben / Peter, as part of the redevelopment of the Kambah Woolworths we are advising to discontinue with the current 18 Park and Ride spaces at the Kambah Centre (Marconi Crescent) and reallocate these for other general parking purposes associated with the centre as recommended by our 2018 Park and Ride investigation.

The 2018 investigation concluded that these spaces are not well located for access to RAPID bus services, experience low demand and could be better utilised as parking for shoppers and visitors to the adjoining Kambah Centre.

I'm unclear what arrangement exist with the current property owner but assuming that you both agree then I will recommend that the applicant implement line marking to reflect this ?

Thanks
Tim

From: TCCS_TPAP Advice
Sent: Tuesday, 21 May 2019 9:31 AM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Tim

We've received this referral back for comment on the proposed Kambah Woolworths proposal.

In our initial comments and at the meeting with the applicant, George advised that the under-utilised park and ride spaces could potentially be reallocated as general car parking. This new referral is now seeking inclusion of the park and ride spaces as general car parking spaces for visitors. Would this proposal be appropriate?

Thanks
Amelia

From: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice <TCCS_TPAP.Advice@act.gov.au>
Cc: TCCS_PC DACOORD <TCCS.DACOORD@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Dear Transport Planning Team

You have provided comments on original submission of this DA. We met with the applicant re TCCS comments. Amelia attended that meeting from Transport Planning. Now the applicant submitted S144 submission and addressed previous comments. Could you please have a look and let us know whether this DA can be supported or not.
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM
To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B
BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the above mentioned development application and provide any written advice no later than 15 working days after the date of this notice **(06/05/2019).**

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the prescribed time it will be taken that you have supported the application.

Please forward any written advice via email to Customer Services

EPDcustomerservices@act.gov.au

Please use the following format in the subject line of the email when providing advice:
COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Kind Regards,

Matthew Forman

Customer Services

Phone 02 6207 1923
Access Canberra | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 158 Canberra ACT 2601

Access Canberra is an ACT Government service that brings together customer and regulatory services, including the former Environment and Planning Directorates Customer Services Team. Access Canberra has been set up to make it easier for business, community organisations and individuals to work with ACT Government and deliver a more seamless experience.

www.planning.act.gov.au |EPDcustomerservices@act.gov.au

Intentionally Blank

From: Wyatt, Tim
Sent: Thursday, 23 May 2019 10:56 AM
To: Hubbard, Benjamin
Cc: Steele, Peter; Dillon, Amelia
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Ben, assume no concerns from your area then ?

From: Steele, Peter
Sent: Wednesday, 22 May 2019 2:24 PM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>; Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>
Cc: Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: RE: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Tim,

Agree – there is no need for park and ride space at this location.

Happy for them to revert to parking.

Pete

From: Wyatt, Tim
Sent: Wednesday, 22 May 2019 2:11 PM
To: Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>; Steele, Peter <Peter.Steele@act.gov.au>
Cc: Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Ben / Peter, as part of the redevelopment of the Kambah Woolworths we are advising to discontinue with the current 18 Park and Ride spaces at the Kambah Centre (Marconi Crescent) and reallocate these for other general parking purposes associated with the centre as recommended by our 2018 Park and Ride investigation.

The 2018 investigation concluded that these spaces are not well located for access to RAPID bus services, experience low demand and could be better utilised as parking for shoppers and visitors to the adjoining Kambah Centre.

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Thanks
Tim

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UNCLASSIFIED

Hi Tim

We've received this referral back for comment on the proposed Kambah Woolworths proposal.

In our initial comments and at the meeting with the applicant, George advised that the under-utilised park and ride spaces could potentially be reallocated as general car parking. This new referral is now seeking inclusion of the park and ride spaces as general car parking spaces for visitors. Would this proposal be appropriate?

Thanks
Amelia

From: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice <TCCS_TPAP.Advice@act.gov.au>
Cc: TCCS_PC DACOORD <TCCS.DACOORD@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Dear Transport Planning Team
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Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM
To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B
BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

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EPDcustomerservices@act.gov.au

Please use the following format in the subject line of the email when providing advice:
COMM-Agency Name-20080XXXX-Block XX Section XX SuburbXXXXX-01
Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Kind Regards,

Matthew Forman

Customer Services

Phone 02 6207 1923
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Intentionally Blank

From: Steele, Peter
Sent: Wednesday, 22 May 2019 2:24 PM
To: Wyatt, Tim; Hubbard, Benjamin
Cc: Dillon, Amelia
Subject: RE: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Tim,

Agree – there is no need for park and ride space at this location.

Happy for them to revert to parking.

Pete

From: Wyatt, Tim
Sent: Wednesday, 22 May 2019 2:11 PM
To: Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>; Steele, Peter <Peter.Steele@act.gov.au>
Cc: Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Ben / Peter, as part of the redevelopment of the Kambah Woolworths we are advising to discontinue with the current 18 Park and Ride spaces at the Kambah Centre (Marconi Crescent) and reallocate these for other general parking purposes associated with the centre as recommended by our 2018 Park and Ride investigation.

The 2018 investigation concluded that these spaces are not well located for access to RAPID bus services, experience low demand and could be better utilised as parking for shoppers and visitors to the adjoining Kambah Centre.

I'm unclear what arrangement exist with the current property owner but assuming that you both agree then I will recommend that the applicant implement line marking to reflect this ?

Thanks
Tim

From: TCCS_TPAP Advice
Sent: Tuesday, 21 May 2019 9:31 AM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Tim

We've received this referral back for comment on the proposed Kambah Woolworths proposal.

In our initial comments and at the meeting with the applicant, George advised that the under-utilised park and ride spaces could potentially be reallocated as general car parking. This new referral is now seeking inclusion of the park and ride spaces as general car parking spaces for visitors. Would this proposal be appropriate?

Thanks
Amelia

From: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice <TCCS_TPAP.Advice@act.gov.au>
Cc: TCCS_PC DACOORD <TCCS.DACOORD@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Dear Transport Planning Team
You have provided comments on original submission of this DA. We met with the applicant re TCCS comments. Amelia attended that meeting from Transport Planning. Now the applicant submitted S144 submission and addressed previous comments. Could you please have a look and let us know whether this DA can be supported or not.
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM
To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B
BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the above mentioned development application and provide any written advice no later than 15 working days after the date of this notice **(06/05/2019).**

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the prescribed time it will be taken that you have supported the application.

Please forward any written advice via email to Customer Services

EPDcustomerservices@act.gov.au

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Kind Regards,

Matthew Forman

Customer Services

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Intentionally Blank

From: Dillon, Amelia
Sent: Tuesday, 4 June 2019 4:50 PM
To: Wyatt, Tim
Subject: RE: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Tim

Suggested wording for the advice back on the park and ride spaces is below.

- The request to reallocate park and ride spaces to general parking purposes is supported. The applicant, in consultation with TCCS, must undertake the required line marking changes and associated works to reflect this change.

Amelia

From: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Sent: Thursday, 23 May 2019 10:56 AM
To: Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>
Cc: Steele, Peter <Peter.Steele@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Ben, assume no concerns from your area then ?

From: Steele, Peter
Sent: Wednesday, 22 May 2019 2:24 PM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>; Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>
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UNCLASSIFIED

Tim,

Agree – there is no need for park and ride space at this location.

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Pete

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Thanks
Amelia

From: Chowdhury, Abu Sayem <AbuSayem.Chowdhury@act.gov.au>
Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice <TCCS_TPAP.Advice@act.gov.au>
Cc: TCCS_PC DACOORD <TCCS.DACOORD@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Dear Transport Planning Team
You have provided comments on original submission of this DA. We met with the applicant re TCCS comments. Amelia attended that meeting from Transport Planning. Now the applicant submitted S144 submission and addressed previous comments. Could you please have a look and let us know whether this DA can be supported or not.
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM

To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B
BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

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Example: COMM-Heritage-200801234-Block 10 Section 10 Dickson-01

Kind Regards,

Matthew Forman

Customer Services

Phone 02 6207 1923
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Intentionally Blank

From: Dillon, Amelia
Sent: Wednesday, 5 June 2019 9:43 AM
To: Chowdhury, Abu Sayem
Cc: Wyatt, Tim; TCCS_PC DACOORD; TCCS_TPAP Advice
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Sayem

We have reviewed the request to reallocate the park and ride spaces to general parking and provide the following comment:

- The request to reallocate park and ride spaces to general parking purposes is supported. The applicant, in consultation with TCCS, should prepare and submit a traffic control device relocation plan and undertake the required line marking changes and associated works to reflect this change.

Kind regards
Amelia

From: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Sent: Wednesday, 5 June 2019 8:43 AM
To: Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: RE: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Thanks that's great.. just minor edit.

Also managed to finally catch Ben H. on the phone so it won't come as any surprise to him.

From: Dillon, Amelia
Sent: Tuesday, 4 June 2019 4:50 PM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Subject: RE: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Tim

Suggested wording for the advice back on the park and ride spaces is below.

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Cc: Steele, Peter <Peter.Steele@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
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Sent: Friday, 17 May 2019 12:00 PM
To: TCCS_TPAP Advice <TCCS_TPAP.Advice@act.gov.au>
Cc: TCCS_PC DACOORD <TCCS.DACOORD@act.gov.au>; Dillon, Amelia <Amelia.Dillon@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

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Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
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www.act.gov.au | www.tccs.act.gov.au |

From: EPD, Customer Services
Sent: Tuesday, 14 May 2019 2:10 PM
To: TCCS_PC DA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-S144B-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203-S144B
BLOCK: 23 **SECTION**: 346 **DIVISION:** KAMBAH

S144 Amendment - Proposed amendment prior to decision - AMENDMENT TO DA201834203 - proposal for additions and alterations to existing commercial development. Amendment to development application for proposal for additions and alterations to existing commercial development which is still under consideration - the amendment is building form reduced, relocation of Woolworths loading dock, specialty shop waste storage area relocated, skylight added, columns in entrance walkway extended to support canopy structure, changes to carparking within the centre, 34 car parks added, removal of Park and Ride spaces, changes to kerb and pavement in service zone, safety barriers provided, changes to external lighting.

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Matthew Forman

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From: TCCS_PC DA
Sent: Wednesday, 17 October 2018 1:53 PM
To: Chowdhury, Abu Sayem; TCCS_PC DACOORD
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]
Attachments: plans.obr; supporting docs.obr

From: TCCS_PC DA
Sent: Wednesday, 17 October 2018 12:17 PM
To: Trevithick, Angela <Angela.Trevithick@act.gov.au>; Cloos, Karl <Karl.Cloos@act.gov.au>
Cc: Bell, Jeff <Jeff.Bell@act.gov.au>
Subject: FW: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

Hi Karl / Angela
May we request your team to review this commercial development and send comments back to me before the due date?
Regards
Sayem

Abu Sayem Chowdhury | Senior Project Coordinator | M Engg | MIEAust
Phone: 02 6205 9091 |Email: abusayem.chowdhury@act.gov.au
Place Coordination and Planning | Transport Canberra and City Services Directorate | **ACT Government**
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

ACT Government
Transport Canberra and City Services

Connected services for the people of Canberra

From: EPD, Customer Services
Sent: Tuesday, 9 October 2018 10:05 AM
To: TCCS_CW DRCDA <TCCS.DA@act.gov.au>
Subject: REFERRAL-TCCS-201834203-23/346 KAMBAH-01 [SEC=UNCLASSIFIED]

DEVELOPMENT APPLICATION NO: 201834203
BLOCK: 23 SECTION: 346 DIVISION: KAMBAH

Description: PROPOSAL FOR ALTERATIONS AND ADDITIONS TO EXISTING COMMERCIAL DEVELOPMENT – partial demolition of the existing commercial building, alterations and additions to the existing commercial building, landscaping, and associated works.

Pursuant to Section 148(1) of the Planning and Development Act 2007 the ACT Planning and Land Authority requests that you consider the abovementioned development application and provide any written advice no later than **15 working days** after the date of this notice **(30/10/2018)**.

In accordance with Section 150 of the Planning and Development Act 2007 If advice is not received within the

prescribed time it will be taken that you have supported the application.

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Regards,
Matthew Forman
Customer Services

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Land titles and revenue services are moving to Dame Pattie Menzies House, 16 Challis Street, Dickson and will be co-located with the Access Canberra Environment, Planning and Land Shopfront. These services will be available at this new location from 1 December 2016. For more information visit ***www.act.gov.au/accessCBR***

From:	TCCS_PC DA
To:	Bell, Jeff; Hubbard, Benjamin; Karanfilovski, George; Abeysekera, Ruwan; Chandramohan, Chandra; Trevithick, Angela; Ortiz, Gilbert
Cc:	Dillon, Amelia
Subject:	Kambah Woolworth Expansion DA 201834203-23/346 KAMBAH

Dear All
We need to finalise TCCS comments on the above DA circulated to stakeholders. We like to request relevant persons from Roads, DDR and Transport Planning in this meeting.
Regards
Sayem

Intentionally Blank

From:	Lana, Sheikh
To:	Aster-Stater, Alek
Cc:	Wyatt, Tim; EPD, Customer Services; Riches, Dominic
Subject:	RE: DA 201834203, Kambah Village. [SEC=UNCLASSIFIED]
Date:	Tuesday, 24 September 2019 9:52:29 AM

Hi Alek

Thank you for your email with the condition to be included in the Notice of Decision.

Regards

Lana

From: Aster-Stater, Alek
Sent: Friday, 20 September 2019 4:59 PM
To: Lana, Sheikh <Sheikh.Lana@act.gov.au>
Cc: Wyatt, Tim <Tim.Wyatt@act.gov.au>; EPD, Customer Services <EPDCustomerServices@act.gov.au>
Subject: RE: DA 201834203, Kambah Village. [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Sheikh,

Please include the below condition in the NOD.

TRAFFIC

1. **A Traffic Control Devices (TCD) plan must be submitted at Design Review stage and include the removal of the existing 'Park and Ride' facility. This will be checked in detail during Design Review. The works associated with this conversion must be undertaken at Developer's expense.**

Regards,
Alek

From: Lana, Sheikh <Sheikh.Lana@act.gov.au>
Sent: Friday, 20 September 2019 2:45 PM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Cc: Riches, Dominic <Dominic.Riches@act.gov.au>; Elhassan, Walid <Walid.Elhassan@act.gov.au>; Aster-Stater, Alek <Alek.Aster-Stater@act.gov.au>
Subject: RE: DA 201834203, Kambah Village. [SEC=UNCLASSIFIED]

Hi Tim

Thank you for your response and advice. Highly appreciated.
We can include an advice in the Notice of Decision regarding preparing of a TCD for TCCS approval.

Please let us know if you agree and whether TCCS has a standard wording/ advice for such matters to be included in the Decision.

Regards

Sheikh Lana
Phone 02 62076387 | Fax 02 62071925
Planning Delivery Division | ACTPLA | Environment and Sustainable Development | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.actpla.act.gov.au

---

From: Wyatt, Tim
Sent: Wednesday, 18 September 2019 6:34 PM
To: Lana, Sheikh <Sheikh.Lana@act.gov.au>
Cc: Riches, Dominic <Dominic.Riches@act.gov.au>; Elhassan, Walid <Walid.Elhassan@act.gov.au>; Aster-Stater, Alek <Alek.Aster-Stater@act.gov.au>
Subject: RE: DA 201834203, Kambah Village. [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Sheikh, yes discontinuation of the Park and Ride facility at Kambah Village and reallocation for other general parking purposes associated with the centre is consistent with the recommendations from the 2018 Park and Ride investigation undertaken by TCCS.

I recommend that the applicant be advised they will be responsible for preparing a TCD for TCCS approval to facilitate the change. It is important that TCCS know when the change will occur so that appropriate communications for the public can be put in place.

Apologies as I'm not sure why you never received this advice.

Wahild, Alek suggested that you should be copied also as this came up today at MPG.

Thanks and happy to discuss
Tim

Tim Wyatt | Director, Transport Coordination
Place Coordination and Planning Branch
Phone: 02 6205 4200 | Email: tim.wyatt@act.gov.au
Transport Canberra and City Services | **ACT Government**
496 Northbourne Avenue Dickson | GPO Box 158 Canberra ACT 2601 | www.transport.act.gov.au

---

From: Lana, Sheikh <Sheikh.Lana@act.gov.au>
Sent: Tuesday, 17 September 2019 11:29 AM
To: Wyatt, Tim <Tim.Wyatt@act.gov.au>
Cc: Riches, Dominic <Dominic.Riches@act.gov.au>
Subject: DA 201834203, Kambah Village. [SEC=UNCLASSIFIED]
Importance: High

Hi Tim

I am referring to DA 201834203 for Blocks-5,12,14,17,23,29 and 53, Section-345, Kambah (Kambah Village). The proposal is for extension of existing Super market, reconfiguration and revised layout of parking areas and addition and alteration of the existing commercial building, lease variation and consolidation and other associated work including new road layout within Premier Court.

The Traffic Report submitted by the applicant mentions that as existing there are 18 spaces allocated for "Park and Ride" facilities which will be converted to standard car parking spaces following consultation with TCCS. It appears from the report that the total number of parking spaces i.e 277 nos. will include those 18 spaces.
The DA was referred to TCCS and in the description, removal of "Park and Ride" facility item was included. TCCS did not have any comment on this particular item. This will be helpful to know that you are aware of this matter or if you have any comment on this matter, please advise.

A number of representations have been received and concern about number of parking spaces is raised.

We are in the process of finalising the assessment and your comment will be highly appreciated to complete it and make a decision on this DA soon.
Please contact me if you want to discuss further.

Regards

Sheikh Lana
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