

17 March 2016 File: COR2009/206

NOTICE OF MEETING

You are advised of the following meeting:

Thursday 17 March 2016

Ryde Traffic Committee Meeting

Committee Room 1, Level 5, Civic Centre, 1 Devlin Street, Ryde - 10.00am

MEMBERS

City of Ryde (Chair)	. Group Manager Public Works
Roads and Maritime Services of NSW	. Sydney North Region
NSW Police Force	. Ryde Local Area Command
Member for Ryde (3 items)	•
Member for Lane Cove (2 items)	. The Hon. A Roberts MP
,	

ADVISORS

Sydney Buses Western Region

Committee members and advisors are invited to attend the next meeting of the Traffic Committee. Alternatively, please forward comments on any matter to City of Ryde's Team Leader - Traffic Services, Mr Greg Holding, via email **gholding@ryde.nsw.gov.au** by 5pm Tuesday 15 March 2016. If no comments are received, it is intended to deal with the matters in accordance with the Agenda proposals.

Councillors with an interest in any Agenda item should forward comments to City of Ryde's Team Leader - Traffic Services, Mr Greg Holding, via email **gholding@ryde.nsw.gov.au** by 5pm Tuesday 15 March 2016.



Meeting Date: Thursday 17 March 2016

Location: Committee Room 1, Level 5, Civic Centre, 1 Devlin Street, Ryde

Time: 10.00am

NOTICE OF BUSINESS

APOLOGIES

DECLARATIONS OF INTEREST

CONFIRMATION OF PREVIOUS MINUTES

MATTERS ARISING FROM PREVIOUS MINUTES

MATTERS FOR CONSIDERATION

1 SUBJECT: WEST RYDE PUBLIC SCHOOL MONS AVENUE, WEST RYDE

KISS & RIDE

ELECTORATE: LANE COVE

WARD: EAST

COR REF: T2015-02171 OFFICER: L Pears

2 SUBJECT: VIVYAN CLOSE, DENISTONE

WASTE-COLLECTION VEHICLE MANOUVERING ACCESS

ELECTORATE: RYDE

WARD: CENTRAL

COR REF: D15/99070 & T2015-01420 OFFICER: S Rabah

3 SUBJECT: HOPETOUN AVENUE, DENISTONE EAST

NO PARKING

ELECTORATE: RYDE

WARD: WEST

COR REF: OTHER-1787396 & T2016-00097 OFFICER: S Rabah

4 SUBJECT: ISABEL STREET, RYDE

'NO STOPPING'

ELECTORATE: RYDE

WARD: CENTRAL

COR REF: D15/82707 & T2015-01236 OFFICER: S Rabah

5 SUBJECT: BUNNINGS REDEVELOPMENT

461-495 VICTORIA ROAD, GLADESVILLE COLLEGE STREET TRIAL CLOSURE

ELECTORATE: LANE COVE

WARD: EAST

COR REF: D15/136145 & T2015-02187 OFFICER: P Bastawrous



EXTRA ITEMS

GENERAL BUSINESS



SUBJECT: WEST RYDE PUBLIC SCHOOL MONS AVENUE, WEST RYDE

KISS & RIDE

ELECTORATE: LANE COVE

WARD: EAST

COR REF: T2015-02171 OFFICER: L Pears

REQUEST

City of Ryde Rangers & Parking Services in conjunction with West Ryde Public School, requests consideration be given to the implementation of a Kiss & Ride zone in Mons Avenue, West Ryde for West Ryde Public School.

BACKGROUND

West Ryde Public School currently has no designated Kiss & Ride or pick up/drop off area for the morning peak and only two spaces available during the afternoon peak which results in congestion, double parking and pedestrians having to walk in the road during peak times.

CONTEXT

- 1. Mons Avenue is a local road with a 12.5m wide carriageway and unrestricted parking on both sides.
- 2. West Ryde Public School is located at the northern end of Mons Avenue between Victoria Road and Bennett Street.
- 3. A pedestrian crossing is located adjacent to the school entrance.
- 4. North of the existing pedestrian crossing 'NO PARKING 2.30PM-4PM SCHOOL DAYS' restrictions are in place for 15m.
- 5. On the eastern side of Mons Avenue opposite the school are unit blocks and houses, the majority of which have their own off street parking.

LEGISLATION, STANDARDS & GUIDELINES

• [NSW] Road Rules 2014 Rule 168 No Parking signs

ROAD FUNCTION

CONSULTATION

Local

Residents have been consulted

Properties consulted	48
Responses received	8
Supported	3
Not Supported	4
Undecided	1



DISCUSSION

48 properties on the eastern side of Mons Avenue (opposite the school) were consulted on the proposals and 8 responses were received. Whilst 3 responses were in support, 1 was undecided and 4 were against the proposals. Two of those against the proposals included comments which expressed concern about their ability to park outside their property during the day. Mons Avenue is currently unrestricted and apart from the frontage of the school will remain so as a part of these proposals. This includes the frontage of the properties that were consulted and both sides of Mons Avenue immediately south of West Ryde Public School.

With the new restrictions in place it will not be necessary to maintain the existing 15m 'NO PARKING 2.30PM-4PM SCHOOL DAYS' at the northern end of Mons Avenue and it is recommended that this be removed to provide an additional 2 'UNRESTRICTED' parking spaces.

The western side of Mons Avenue outside the school is heavily parked during the day and it is likely that a large number of these vehicles belong to commuters using West Ryde Station. At peak times this leaves no kerb space for parents to pull up and drop off their children. The consequence of this is that vehicles often double park at peak times leading to congestion, reduced sightlines and pedestrians in the road.

To reduce the risk of conflicts in this location and to provide adequate space for children to be dropped off it is recommended to install 83m of 'NO PARKING 8AM-9.30AM 2.30PM-4PM SCHOOL DAYS' along the Mons Avenue frontage of West Ryde Public School, this will remove approximately 13 car parking spaces during these times.

	Current provision of drop off facilities –	Proposed provision of drop off facilities –	Total provision of drop off facilities – number
	number of spaces	number of spaces	of spaces
Total number of spaces at West Ryde Public School – 350+	2 (PM only – to be removed)	13 (AM and PM)	13 (AM and PM)

¹ car space is equivalent to 6m.

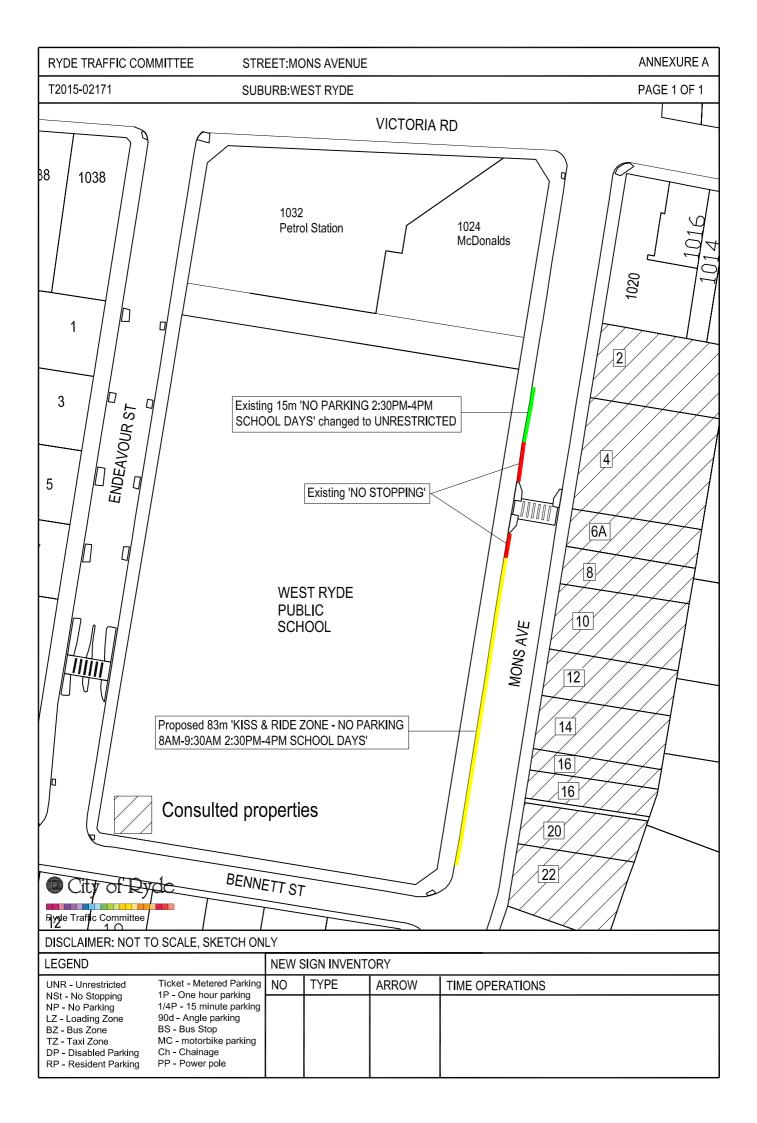
PROPOSAL

To install an 83m 'Kiss & Ride Zone – NO PARKING 8AM-9.30AM 2.30PM-4PM SCHOOL DAYS' on the western side of Mons Avenue, extending along the school frontage from Bennett Street to the existing NO STOPPING zone at the pedestrian crossing.

In addition, remove the existing 15m 'NO PARKING 2.30PM-4PM SCHOOL DAYS' on the northern side of the pedestrian crossing which is to become UNRESTRICTED.









SUBJECT: VIVYAN CLOSE, DENISTONE

WASTE-COLLECTION VEHICLE ACCESS

ELECTORATE: RYDE **WARD**: CENTRAL

COR REF: D15/99070 & T2015-01420 **OFFICER:** S Rabah

REQUEST

City of Ryde has received correspondence from a resident requesting consideration be given to improving access for waste collection vehicles in the cul-de-sac section of Vivyan Close, Denistone.

CONTEXT

- 1. Vivyan Close is a local road with a 7m wide carriageway and unrestricted parking on both sides.
- 2. The area proposed for parking restrictions is a cul-de-sac with a turn-around area for vehicles.

LEGISLATION, STANDARDS & GUIDELINES

• [NSW] Road Rules 2014 Rule 168 No Parking signs

ROAD FUNCTION

CONSULTATION

Local

Local residents have been consulted

Properties consulted	5
Responses received	4
Supported	4
Not Supported	0
Undecided	0

DISCUSSION

Waste collection vehicles currently experience access difficulties when attempting to service Vivyan Close because of vehicles that regularly park in the cul-de-sac area. These parked vehicles reduce the available space for the waste collection vehicles to manoeuvre and force them to make a multi-point turn to collect the bins and exit the street. It is undesirable and potentially unsafe for large vehicles to reverse in a residential area and the installation of 'NO PARKING 5AM-11AM WED' restrictions along the cul-de-sac of Vivyan Close will remove this obstructive parking and provide City of Ryde waste vehicles unimpeded access.

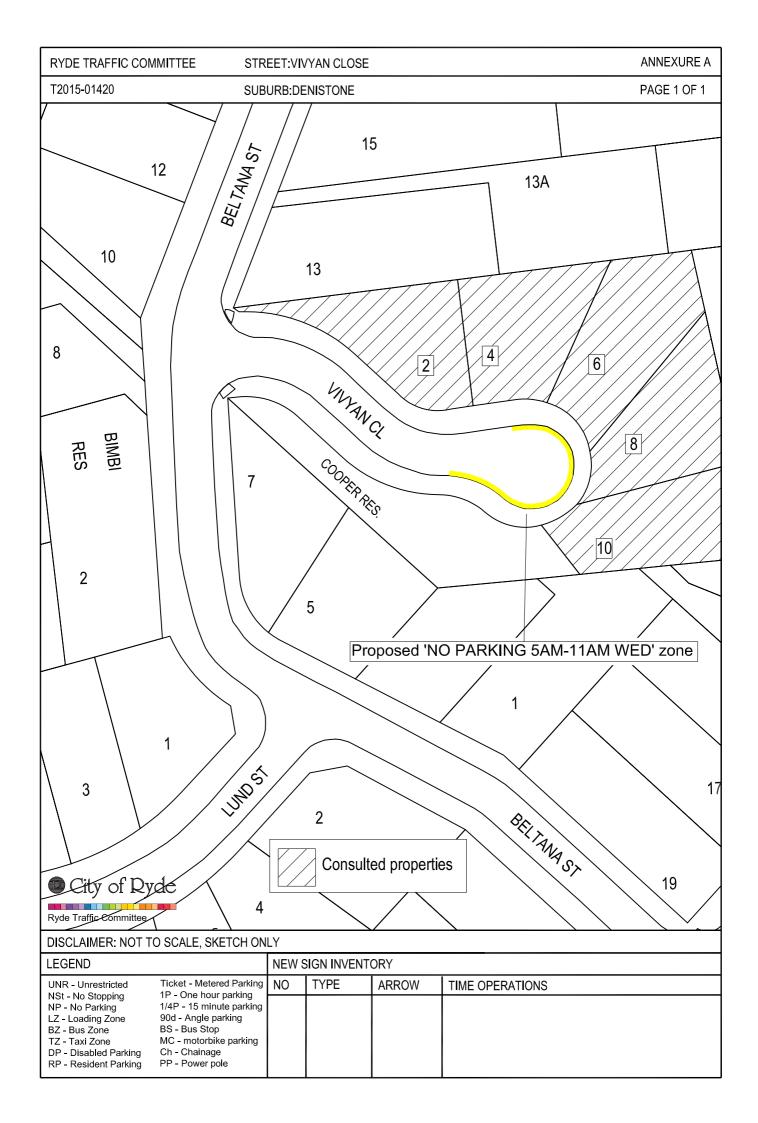
The majority of residents within Vivyan Close support the proposal and it is therefore recommended that a 42m 'NO PARKING 5AM-11AM WED' zone be installed to assist waste collection vehicles.



PROPOSAL

To install a 42m 'NO PARKING 5AM-11AM WED' zone in the cul-de-sac of Vivyan Close, Denistone.







SUBJECT: HOPETOUN AVENUE, DENISTONE EAST

TRAFFIC OBSTRUCTION

ELECTORATE: RYDE WARD: WEST

COR REF: OTHER-1787396 & T2016-00097 **OFFICER**: S Rabah

REQUEST

City of Ryde has received correspondence regarding access issues in Hopetoun Avenue, Denistone East, as a result of parked vehicles on both sides of the narrow road.

CONTEXT

- 1. Hopetoun Avenue is a local road with a 6 m wide carriageway and unrestricted parking on both sides.
- 2. Vehicles currently park on both sides of the road.

LEGISLATION, STANDARDS & GUIDELINES

- [NSW] Road Rules 2014 Rule 167 No Stopping signs
- [NSW] Road Rules 2014 Rule 208 Parallel Parking on road

ROAD FUNCTION

CONSULTATION

Local

Residents have been consulted

Properties consulted	13
Responses received	11
Supported	8
Not Supported	3
Undecided	0

DISCUSSION

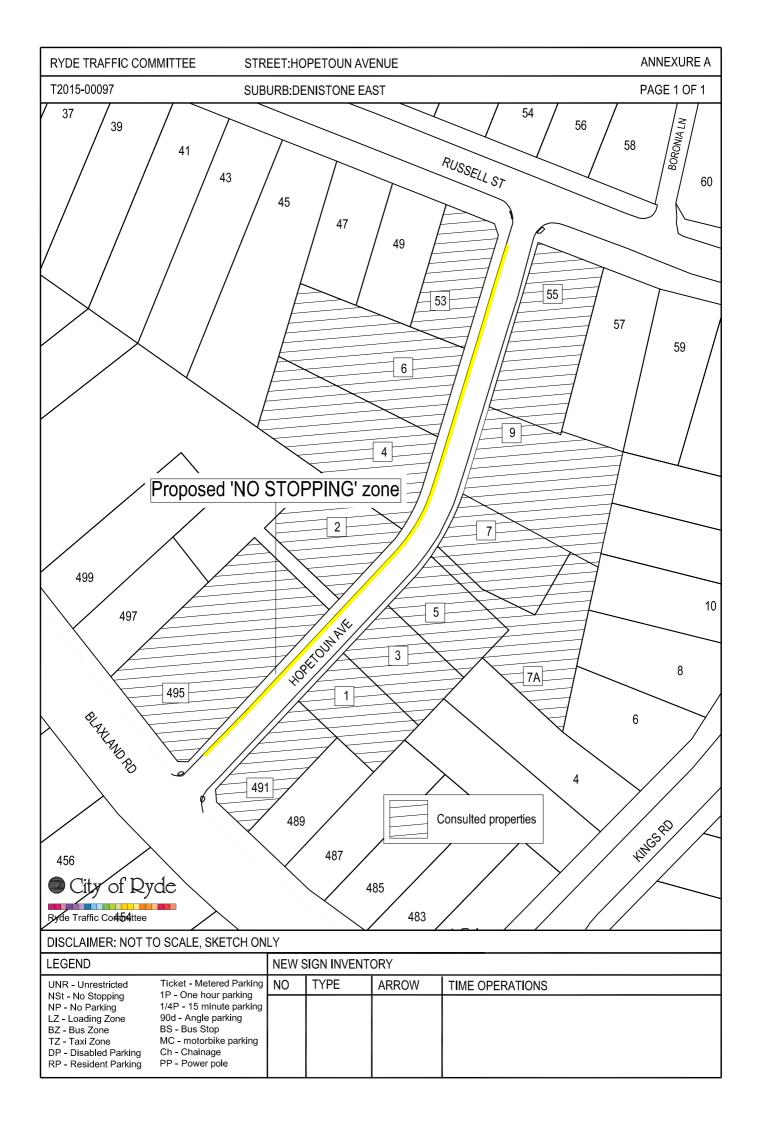
When vehicles are parked on both sides of Hopetoun Avenue, the available road width is reduced to one lane. This often leads to congestion within the street and presents access problems for larger vehicles including City of Ryde waste collection vehicles. The installation of 'NO STOPPING' measures along the western side of Hopetoun Avenue will ensure two-way flow is maintained whilst preserving parking on one side of the road.

PROPOSAL

To install 160m of 'NO STOPPING' measures on the western side of Hopetoun Avenue, Denistone East.









SUBJECT: ISABEL STREET, RYDE

GIVE WAY LINES AT INTERSECTION

ELECTORATE: RYDE **WARD**: CENTRAL

COR REF: D15/82707 & T2015-01236 OFFICER: S RABAH

REQUEST

City of Ryde has received correspondence from a resident of Isabel Street requesting consideration be given to improve visibility at the intersection of Isabel Street and Smith Street, Ryde.

CONTEXT

- 1. The intersection of Isabel Street and Smith Street is a T-intersection.
- 2. On-street parking occupancy is high in both Smith Street and Isabel Street.
- 3. NO STOPPING signs have already been installed at the statutory 10 m from the intersection.
- 4. The road topography creates sightlines of less than 30 m for vehicles exiting Isabel Street into Smith Street.
- 5. Near misses have been reported by the resident.

LEGISLATION, STANDARDS & GUIDELINES

- Australian Standards' AS 1742.2:- 2009 MUTCD Part 2 Traffic control devices for general use
- [NSW] Road Rules 2014 Rule 67 Stopping and giving way at a stop sign or stop line at an intersection without traffic lights
- [NSW] *Road Rules 2014* Rule 197 Stopping on a path, dividing strip, nature strip, painted island or traffic island

ROAD FUNCTION

CONSULTATION

Non-Classified

An advisory letter has been sent to the residents of 12 & 15 Isabel St, and to 15, 17, 19, 21, 23 & 25 Smith Street.

DISCUSSION

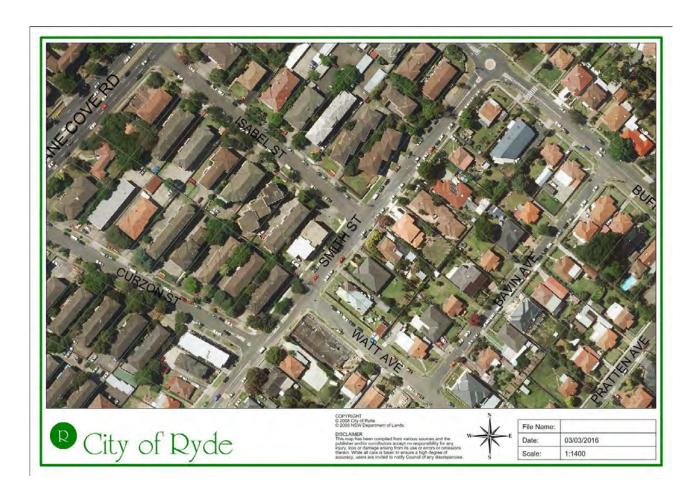
Australian Standards recommends installing a 'STOP' sign and associated linemarking within a 50km/h limit when sightlines at an intersection are 30m or less and alternative measures to improve conditions are not feasible. Extending the existing 10m of NO STOPPING in Smith Street to 15m will not provide sightlines in excess of 30m.

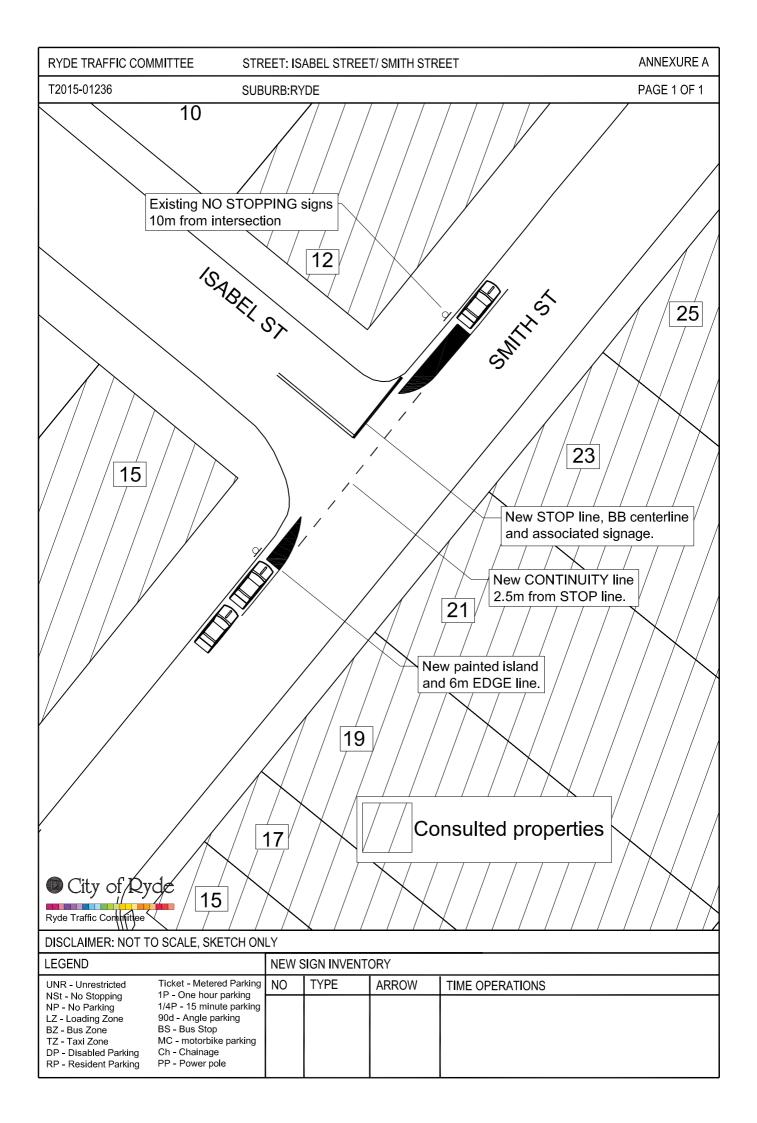


By installing a 'STOP LINE' at this intersection in association with painted islands and a 'CONTINUATION LINE' 2.5m ahead of the 'STOP LINE' it is only necessary to utilise the Statutory 10m of 'NO STOPPING' either side of the intersection. This solution improves sightlines and does not require the loss of any on-street parking spaces. To encourage good parking placement adjacent to the intersection it is proposed to install 'EDGE LINES' for a distance of 6m from each island.

PROPOSAL

- 1. To install painted islands on the western side of Smith Street, for 10m either side of Isabel Street, Ryde.
- 2. To install a 'STOP LINE' and associated linemarking in Isabel Street at Smith Street, Ryde.
- 3. To install a 'CONTINUATION LINE' 2.5m ahead of the 'STOP LINE'.
- 4. To install 6m of 'EDGE LINES' either side of the intersection.







SUBJECT: BUNNINGS REDEVELOPMENT

461-495 VICTORIA ROAD, GLADESVILLE COLLEGE STREET TRIAL CLOSURE

ELECTORATE: LANE COVE

WARD: EAST

COR REF: D15/136145 & T2015-02187 **OFFICER:** P Bastawrous

REQUEST

City of Ryde has received a Traffic Management Plan from Bunnings' Traffic Consultant Transport and Traffic Planning Associates for the 'trial' full closure of College Street persuant to Conditions 4, 5 and 6 of Consent No: LDA2015/214 dated 28 October 2015.

BACKGROUND

In 2012 Bunnings lodged a Planning Proposal (PP) to rezone 461-495 Victoria Road to enable a Bunnings warehouse/bulky goods store. The effect of the Planning Proposal is to amend the existing LEP to permit garden centre land uses and to increase the height across the site from the existing permissible 10m to a maximum of between 12m and 15m on Victoria Road (approximately the same as the Kennards Hire adjacent). The floor space proposed is already permissible under the LEP.

In July 2013 Council approved a separate development application to widen Victoria Road along the frontage of the Bunnings site to implement a bus lane and access to the Bunnings site at Tennyson Road. Construction by the Roads and Maritime Services (RMS) has commenced. If there are any impacts on the access arrangement to and from Frank Street during the widening of Victoria Road, the 'trial' full closure of College should be delayed to reduce the impact on the network.

Community consultation on the Planning Proposal occurred in June/July 2013, with approximately 85 submissions received. In October 2013 the consultation outcomes were presented to Council with a recommendation that the Planning Proposal (PP) be deferred until a traffic impact study was completed. In November 2013 Council resolved the scope of the Traffic Study – to be funded by Bunnings and managed by City of Ryde. The scope of the traffic study set by Council included:

- The study area is bounded by Morrison Road, Pittwater Road, Higginbotham Road and Cressy Road.
- The traffic study must consider cumulative impacts of growth as a result of the Bunnings and other potential development within the study area.
- The traffic study must recommend preferred mitigation measures and assign responsibility for these to either the Bunnings or others as appropriate.



The traffic study commenced in June 2014 with the data collection and issues identification phase. A community workshop was held in August 2014 regarding the findings of the data collection stage and the proposed mitigation options that would be modelled in the next stage of the Traffic Study. The August 2014 workshop revealed that the greatest community concern was through traffic in local streets and that this would likely increase as a result of the Bunnings development, particularly on weekends and in the evenings. This community input assisted with informing the options to be tested by the traffic model. The outcome of the traffic modelling was presented to another community workshop held in November 2014.

The key recommendations of the Traffic Study are collectively known as the "preferred road network". The following are to be implemented by Bunnings at no cost to Council:

- Partial or full closure of College Street at the boundary between the residential and the industrial land uses.
- Right hand turn ban for traffic exiting the Bunnings site in Frank Street which is only required in the event of the partial closure of College Street.
- Cressy Road widening to enable an additional lane at the Victoria Road approach in order to mitigate the impact of traffic diverted from College Street. (Note: This can be accommodated within the existing road reserve.)
- Site access from Victoria Road to be implemented at stage 1 of the site development.

The Traffic Study was exhibited from 17 December 2014 to 31 January 2015. Of the 517 submissions to the traffic study; each raised 1 or more of the following issues:

- Supports a full closure in College Street.
- Supports partial / one-way closure in College Street.
- Objects to any closure in College Street ("Do nothing option").
- Concerns regarding speed & safety (excluding College Street).
- Objects to a Bunnings development.
- Supports a Bunnings development.

Finally, it should be noted that only 10 objections to a Bunnings Development had been lodged. This low objection rate (approx. 2%) is noteworthy given the considerable community interest in the Bunnings planning proposal (e.g. 425 people visited the Bunnings Planning Proposal webpage a total of 633 times and 517 submissions were received). It was finally recommended that Council endorse the Planning Proposal and consequently, rezoning of 461-495 Victoria Road was to proceed.

CONTEXT

- 1. The site is bound by Frank Street to the west, College Street to the north, Victoria Road to the south and Monash Road to the east.
- 2. The proposal includes the following:
 - demolition of existing structures;
 - bulk earthworks and construction and fitout of a Bunnings Warehouse;



- construction of a bulky goods Homemakers Centre comprising two tenancies (no fitout proposed);
- construction of a child care centre for up to 50 children (no fitout or operational details proposed);
- two levels of car parking containing 900 parking spaces;
- vehicular access from Frank Street and Victoria Road, temporary vehicular access from College Street;
- road works in Frank Street, College Street and Victoria Road;
- trial closure of College Street; and
- removal of trees, landscaping works, stratum subdivision and signage.
- 3. Proposed hours of operation for Bunnings Warehouse are 6am to 10pm Mondays to Fridays and 6am to 7pm weekends and public holidays.
- 4. Proposed hours of operation for bulky goods uses are 8am to 9pm Monday to Friday and 8am to 7pm weekends and public holidays.
- 5. The development is to be constructed in 3 stages.
- 6. The traffic generated from the site is anticipated to be approximately 450 vehicle trips in the pm peak and 1,230 vehicle trips during the weekend peak.
- 7. The proposed access points to the site are off Frank Street and Victoria Road, with access to the childcare centre from College Street.
- 8. The width of College Street is 11.0m kerb to kerb consisting of two (2) parking lanes and two (2) travel lanes.

LEGISLATION, STANDARDS & GUIDELINES

Not applicable to the approval of the Traffic Management Plan.

ROAD FUNCTION CONSULTATION

Multiple

The Traffic Study was exhibited from 17 December 2014 to 31 January 2015. Of the 517 submissions to the traffic study; each raised 1 or more of the following issues:

Supports a full closure in College Street	288
Supports partial / one-way closure in College Street	148
Objects to any closure in College Street ("Do nothing option")	35
Concerns regarding speed & safety (excluding College Street)	103
Objects to a Bunnings development	10
Supports a Bunnings development	4

Note: The figures for these issues are not mutually exclusive



DISCUSSION

The traffic model prepared by Bitzios demonstrates that the existing operations of the following intersections are near optimum performance:

Street	Weekday Performance – PM		Weekend Perfor	mance – Midday
	Level of	Average Delay	Level of	Average Delay
	Service	(sec)	Service	(sec)
Cressy Rd/Victoria Rd	Α	7	Α	6
Frank St/Victoria Rd	Α	6	Α	3
Monash Rd/Victoria Rd A		8	Α	9
Tennyson Rd/Victoria Rd	Α	6	А	5

Post implementation of the Development and geometry/intersection and closure treatments reveal operation levels as follows;

Street	Weekday Performance – PM		Weekend Perfor	mance – Midday
	Level of	Average Delay	Level of	Average Delay
	Service	(sec)	Service	(sec)
Cressy Rd/Victoria Rd	Α	7	Α	6
Frank St/Victoria Rd	Α	5	Α	7
Monash Rd/Victoria Rd	A	8	A	9
Tennyson Rd/Victoria Rd	В	26	D	47

All levels indicating satisfactory performance on the network assuming all treatments are implemented prior to the operation of the Bunnings.

While the recommendation of the traffic study address the range of matters in the local road network, the key issues raised in the submission relate to the closure of College Street. In consideration of the submissions and the operations of the surrounding road network, the partial/one way closure of College Street is recommended in the traffic study because:

- It achieves for residents most of the benefits of full road closure of College Street.
- Less traffic is diverted to Buffalo Road, Cressy Road and Monash Road than with full closure.
- The wait times at the Frank Street/Victoria Road intersection are less than for full closure –
 i.e. less impact on business.
- There are approximately 70 businesses in College Street that will suffer some loss of accessibility due to the closure of College Street.

The Sydney East JRPP, having considered the outcome of the community consultation process and the results of the Bitzios Study (and consistent with Council's resolution of 28 April 2015), resolved to approve the Bunnings Development Application and the trial closure of College Street. The consent contains the following requirements in relation to the trial closure of College Street.

4. Traffic Management. A Traffic Management Plan (TMP) is to be submitted to and approved by Council and RMS prior to the commencement of demolition and will require tabling through the Ryde Traffic Committee for the Technical input prior to finalisation.



The TMP is to include the installation of measures to introduce a trial full closure of College St, that follows the RMS Proforma. In conjunction with the TMP, suitably prepared drawings detailing the proposed measures shall be submitted to and approved by Council prior to the commencement of demolition. The trial full closure shall be implemented at no cost to Council by Bunnings. These works are to be completed prior to any demolition works commencing on the site.

- **5. Trial Full Closure of College Street.** Prior to the commencement of demolition for Stage 1 works, the works required for the completion of the trial full closure of College Street in accordance with condition 4 are to be completed to Council's satisfaction. The trial full closure can be in the form of temporary bollards or barriers until after the 12 month trial and review required by Condition 6.
- **6. Trial Full Closure Review.** The trial full closure of College Street, in accordance with conditions 4 and 5, shall be reviewed after 12 months of operation of the Bunnings store and the results reported back to Council at that time. The applicant shall cover the full cost of the traffic review, surveys and any supporting technical studies.

The report detailing the outcome of the review shall be provided by the applicant and submitted to and approved by Council and RMS for the implementation of the preferred treatment of College Street. All alterations and/or formalisation of College Street shall be undertaken by the applicant at no cost to Council.

It is also recommended to amend the DCP that was exhibited for 461-495 Victoria Road to strengthen controls to:

- ensure that Council's preferred road network is implemented prior to Bunnings commencing operations;
- protect resident's amenity; and
- require an attractive, safe public domain.

With the anticipated vehicular movements through College Street during the trial closure, it is also envisaged that trucks both associated with the proposed development as well as existing businesses in the area will require the ability to undertake a U-turn if they arrive at the College Street closure point. This will require the use of driveways for them to undertake a 3-point turn as the width of College Street is unsuitable to perform a single, uninterrupted U-turn manoeuvre.

It should be considered that upon adoption of a final treatment post trial, the developer should be required to implement a formalised turning area at the closure point along College Street to ensure vehicles can perform a U-turn without impeding on access driveways to the local businesses. The cost of the associated works should be borne by the applicant as the impacts are directly attributed to the requirements to the network due to the development.

It should be noted that one of the additional works to the road infrastructure include the widening of Cressy Road as this is necessary to alleviate the congestion caused by the anticipated number of vehicles that will utilise Cressy Road as an alternative access to the local area. The report identified Cressy Road will need to accommodate additional full lane widths in a 'split' approach configuration to ensure uninterrupted and efficient traffic flow through the area. The Traffic Impact Report indicates this is required as the local road network will struggle to function efficiently enough to handle the demand without the widening of Cressy Road.



RMS is likely to impose a condition requiring Bunnings to seek and obtain detailed design approval from RMS for the Cressy Road works within six (6) months of the implementation of the trial full closure of College Street.

The purpose of having the detailed drawings approved by RMS at this stage is to ensure that if traffic counts indicate significant increase in traffic movements along Cressy Road, after the implementation of the trial full closure of College Street, Bunnings will have all the necessary approvals to commence the construction of Cressy Road improvements.

PROPOSAL

That Council supports the Traffic Management Plan (Reference 16001) dated February 2016 (Rev G) to enable the trial closure to proceed, subject to the following:

- A. The report shall be amended to include the provision of a formalised turning area at the closure point of College Street to facilitate an uninterrupted U-turn at this location, subject to the final outcome of the trial. All works and costs associated with the formalisation of the turning area shall be borne by the applicant at no cost to Council.
- B. The applicant implements any pre-determined civil works as directed in any RMS written approval for the "trial" closure assessment at no cost to Council (including delivery which is a pre-trial requirement).
- C. Prior to the commencement of demolition for stage 1 works, the works required for the completion of the trial full closure of College Street in accordance with the approved Traffic Management Plan be completed to Council's satisfaction.
- D. The trial full closure of College Street, in accordance with the approved Traffic Management Plan, shall be reviewed after 12 months of operation of the Bunnings Store and the results reported back to Council at that time. The applicant shall cover the full cost of the traffic review, surveys and any supporting technical studies.
- E. The report detailing the outcome of the review shall be provided by the applicant and submitted to and approved by Council and RMS for the implementation of the preferred treatment of College Street via the Traffic Committee.
- F. All alterations and/or formalisation of the College Street trial full closure approved by Council and RMS as a result of considering the trial review undertaken in accordance with condition 'D' above shall be undertaken by the applicant at no cost to Council.
- G. The applicant shall obtain detailed design approval from RMS, in writing, for the Cressy Road works within six (6) months of the implementation of the trial full closure of College Street.





PROPOSED BUNNINGS GLADESVILLE

COLLEGE STREET TRIAL CLOSURE

Traffic Management Plan

February 2016 (Rev G)

Reference 16001

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Transportation, Traffic and Design Consultants
Suite 502, Level 5
282 Victoria Avenue
CHATSWOOD 2067
Telephone (02) 9411 5660
Facsimile (02) 9904 6622
Email: ross@ttpa.com.au

TABLE OF CONTENTS

1.	INTRODU	JCTION	1
2.	DETAILS	OF PROPOSED TRIAL CLOSURE	3
	Actions F Data Coll	Prior to Trial Closureollowing Commencement of Trial Closureectionupation Review Process	4 5
3.	EXISTING	G TRAFFIC CIRCUMSTANCES	6
4.	BITZIOS	ASSESSMENT	7
5.	COMMUI	NITY CONSULTATION	8
	PENDIX A	TMP PROFORMA EXTRACT OF BITZIOS REPORT	
	PENDIX C	EXTRACT OF COMMUNITY CONSULTATION SUMMARY	
APP	PENDIX D	COMMUNICATIONS AND CONSULTATION STRATEGY	

LIST OF ILLUSTRATIONS

FIGURE 1	LOCATION
FIGURE 2	SITE

FIGURE 3 PROPOSED CLOSURE DETAILS FIGURE 4 EXISTING TRAFFIC VOLUMES

1. Introduction

This report has been prepared to document a Traffic Management Plan (TMP) prepared as required by Consent Condition No. 4 (DA2015/0214) and the RMS Guidelines to enable consideration and approval of the proposed trial closure of College Street in association with the Bunnings development at Gladesville (Figure 1). The TMP contains the completed RMS Proforma in Appendix A.

The potential traffic implications of the Bunnings development was the subject (in part) of a comprehensive Traffic Study undertaken by Bitzios for Council (see Appendix B extracts). That study:

- assessed the potential traffic generation of the proposed Bunnings development including the separate associated bulky goods element
- assessed the potential traffic implications of other known impending and potential developments in the area
- identified and assessed various traffic management options using sophisticated network traffic modelling (AIMSUM)

One of the identified and assessed options to mitigate the impacts of the traffic generated by the new development was the closure of College Street immediately to the west of Orient Street. Council was aware that there were likely to be differing community views in relation to the proposed closure and undertook a very extensive and comprehensive community consultation process in relation to the proposal.

Council resolved on 28.4.15 to adopt the final study inclusive of a recommendation to install a trial closure of College Street in conjunction with the future Bunnings development.

The Sydney East JRPP, having considered the outcome of the community consultation process and the results of the Bitzios Study (and consistent with Council's resolution of 28.4.15), resolved to approve the Bunnings Development Application and the trial closure of College Street. That consent contains the following requirements in relation to the trial closure of College Street.

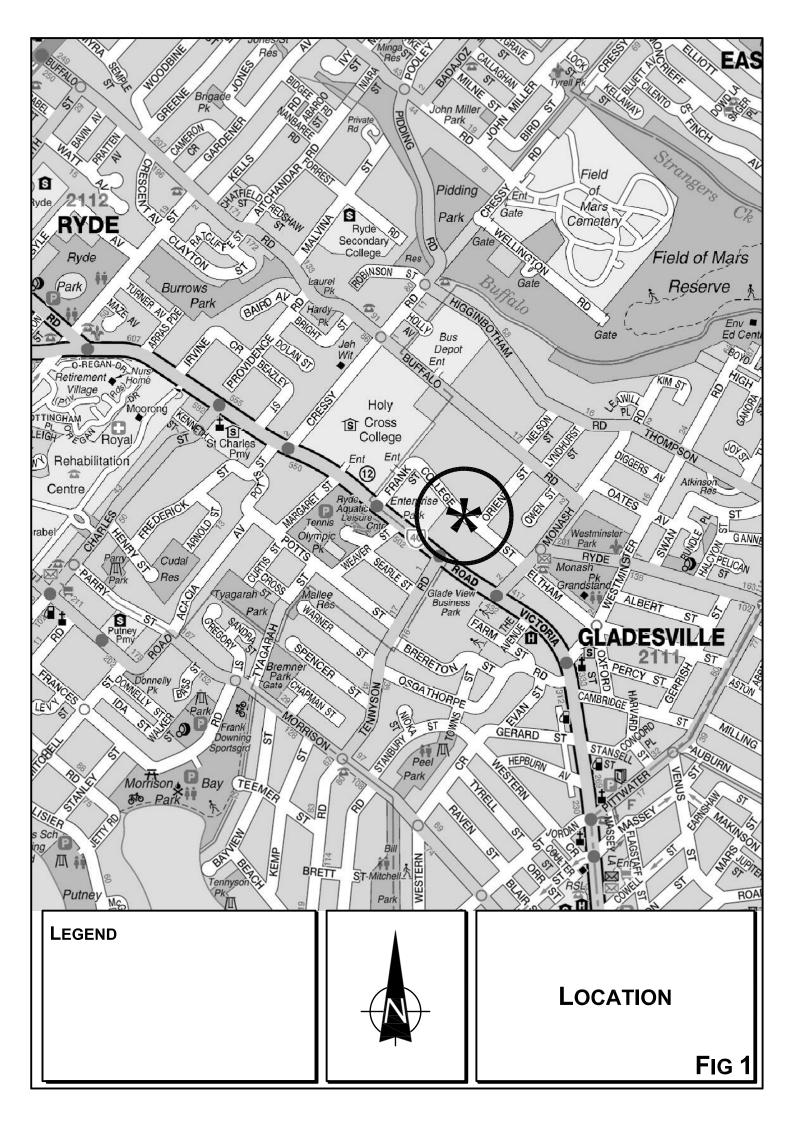
4. Traffic Management. A Traffic Management Plan (TMP) is to be submitted to and approved by Council and RMS prior to the commencement of demolition and will require tabling through the Ryde Traffic Committee for the Technical input prior to finalisation.

The TMP is to include the installation of measures to introduce a trial full closure of College St, that follows the RMS Proforma. In conjunction with the TMP, suitably prepared drawings detailing the proposed measures shall be submitted to and approved by Council prior to the commencement of demolition. The trial full closure shall be implemented at no cost to Council by Bunnings. These works are to be completed prior to any demolition works commencing on the site.

- 5. Trial Full Closure of College Street. Prior to the commencement of demolition for Stage 1 works, the works required for the completion of the trial full closure of College Street in accordance with condition 4 are to be completed to Council's satisfaction. The trial full closure can be in the form of temporary bollards or barriers until after the 12 month trial and review required by Condition 6.
- 6. Trial Full Closure Review. The trial full closure of College Street, in accordance with conditions 4 and 5, shall be reviewed after 12 months of operation of the Bunnings store and the results reported back to Council at that time. The applicant shall cover the full cost of the traffic review, surveys and any supporting technical studies.

The report detailing the outcome of the review shall be provided by the applicant and submitted to and approved by Council and RMS for the implementation of the preferred treatment of College Street. All alterations and/or formalisation of College Street shall be undertaken by the applicant at no cost to Council.

The required Traffic Management Plan is presented in this document including the RMS proforma.



2. DETAILS OF PROPOSED TRIAL CLOSURE

The site is indicated on Figure 2 and the images overleaf while the road closure details are provided on Figure 3. It is proposed to implement the trial closure using precast concrete "Jersey kerb" sections installed at 90° across the roadway which will have chevron hazard markers facing each way. There will be a 1.5m gap between the barrier and each kerb to allow surface water and cyclists to pass. There is existing street lighting directly above the closure position.

There will be very conspicuous advance warning signage of the road closure in terms of:

- VMS pre-closure warning
- VMS post-closure warning
- Permanent NO THROUGH ROAD signage

There is relatively little existing "through" traffic along College Street/Frank Street. Orient Street has a Light Traffic restriction and the closure will be quite visible for drivers approaching from the east. Whilst there are existing industrial properties along College Street these are only small and light industrial in nature and traffic movements along College Street will only involve "local access" movements with drivers being familiar with the circumstances.

Observations of the nature of the existing vehicle movements along College Street is that these are almost entirely made up of small vehicles (cars, vans and SRV's) with the largest vehicle observed being the MRV type vehicle shown on the image overleaf.

The ability for MRV trucks to turn around at the proposed closure is demonstrated on the SP1 and 2 diagrams provided overleaf. It will also be possible for 10.2m refuse trucks to turn as indicated on SP3 and 4.

ACTIONS PRIOR TO TRIAL CLOSURE

2 weeks prior to closure the following stakeholder notification strategies will be implemented:

- VMS warning signs will be deployed as indicated on the plan
- Advertisements will be placed in local print media weekly for five weeks, commencing 2 weeks prior to the trial closure, informing the broader community about traffic changes
- A briefing will be offered to Holy Cross Ryde (school) to outline access changes via College Street
- A newsletter will be distributed to nearby stakeholders, including residents and adjacent business owners/operators (an electronic version will be distributed via Council to people who made submissions during previous consultation periods)

ACTIONS FOLLOWING COMMENCEMENT OF TRIAL CLOSURE

- For the first 3 weeks of the trial closure, VMS warning signs will be deployed as indicated on the plan.
- For the duration of the trial closure, traffic conditions will be monitored by Council's staff and any necessary remedial actions taken.
- For the duration of the trial closure, stakeholders, including community members, will be able to provide feedback via an online survey (this feedback will be included in the review)
- Communications channels will be available to allow affected stakeholders to express comments, concerns, feedback and to ask questions
- a 4 week post-implementation review process will be undertaken to address concerns raised by residents, businesses and Council

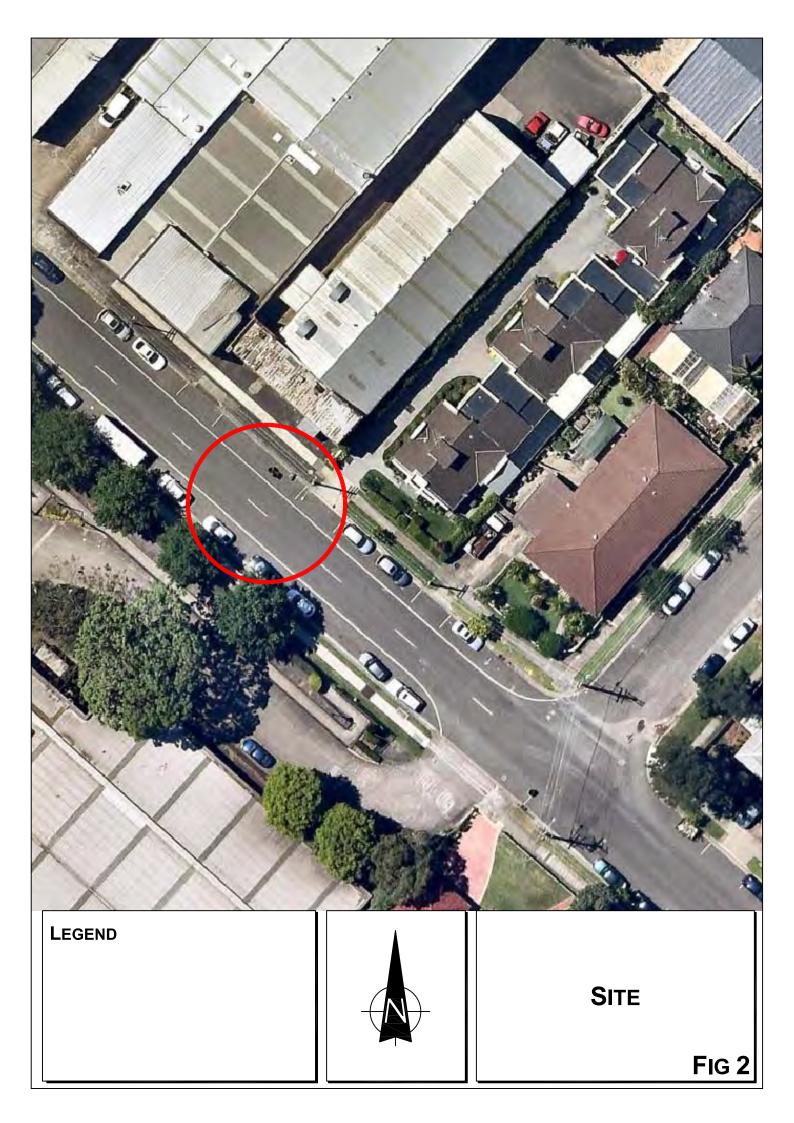
DATA COLLECTION

Automatic vehicle surveys (7 days/24 hours) will be undertaken prior to the closure and for every third month for 12 months after implementation of the trial closure at the following locations for assessment in relation to the changes resultant to the closure and issues raised:

- Cressy Street north of Victoria Road
- Orient Street north of College Street
- College Street east of Orient Street

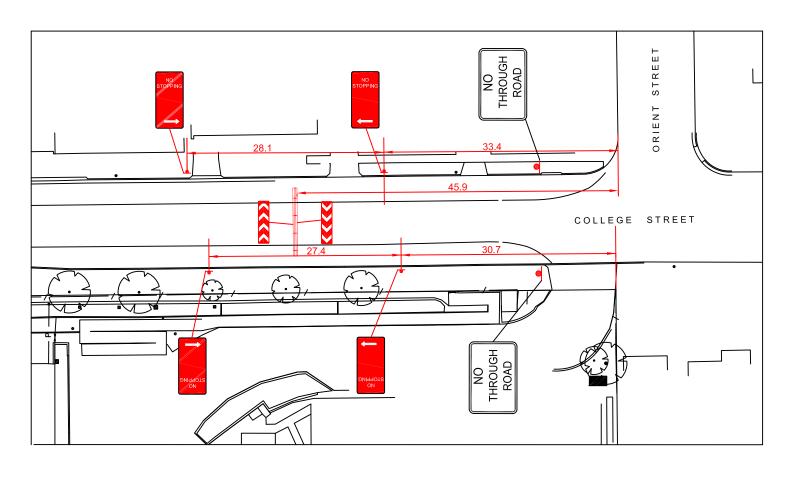
POST OCCUPATION REVIEW PROCESS

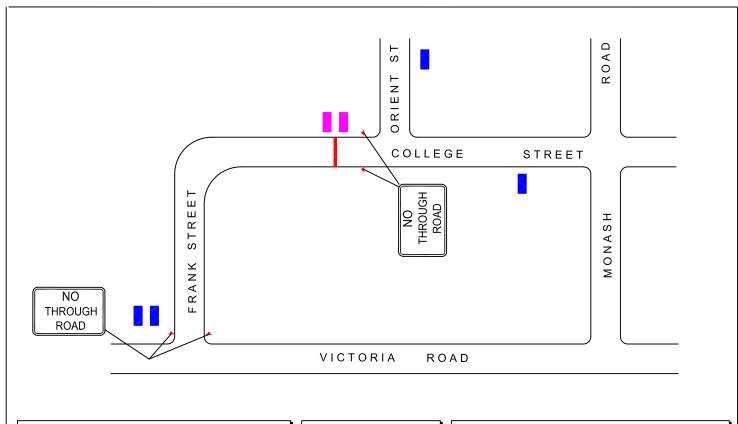
Condition 6 of the DA requires a "Trial Full Closure Review" report to be prepared at that time for Council's consideration. This review will be informed by additional consultation with Council staff and consultation with the community at that time to receive feedback into the functional issues that have arisen in that 12 month period.



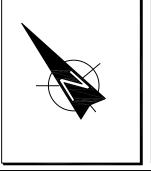






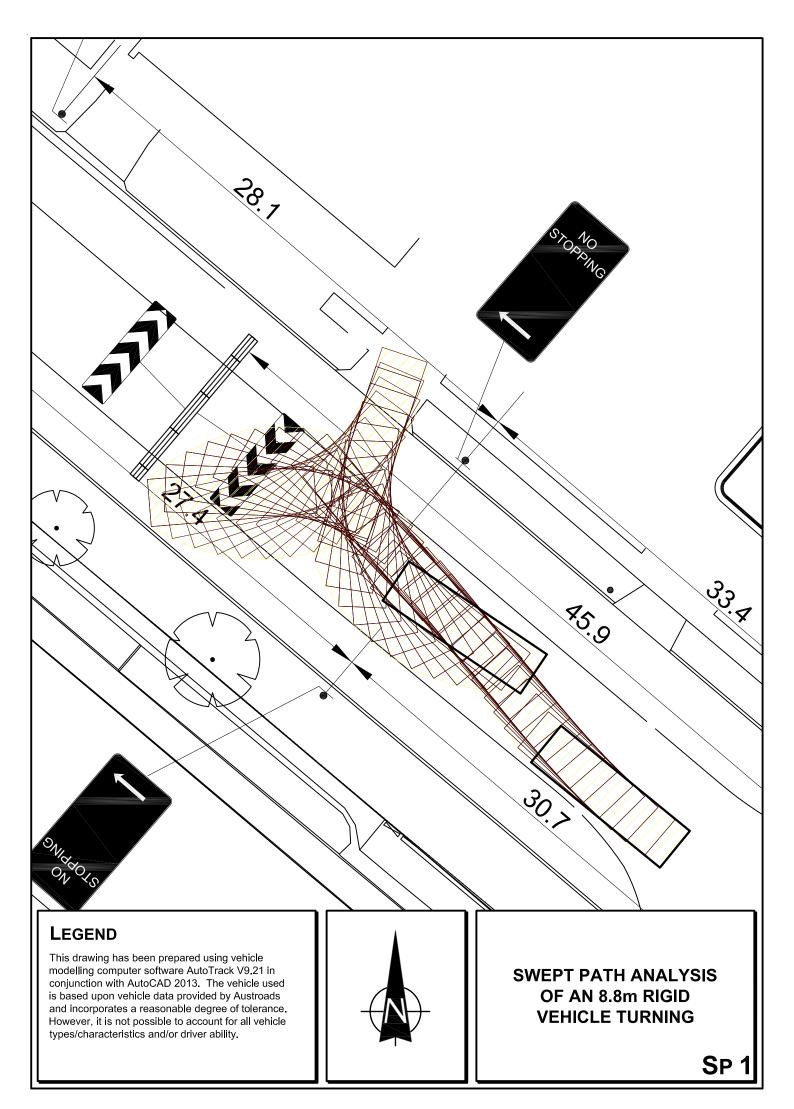


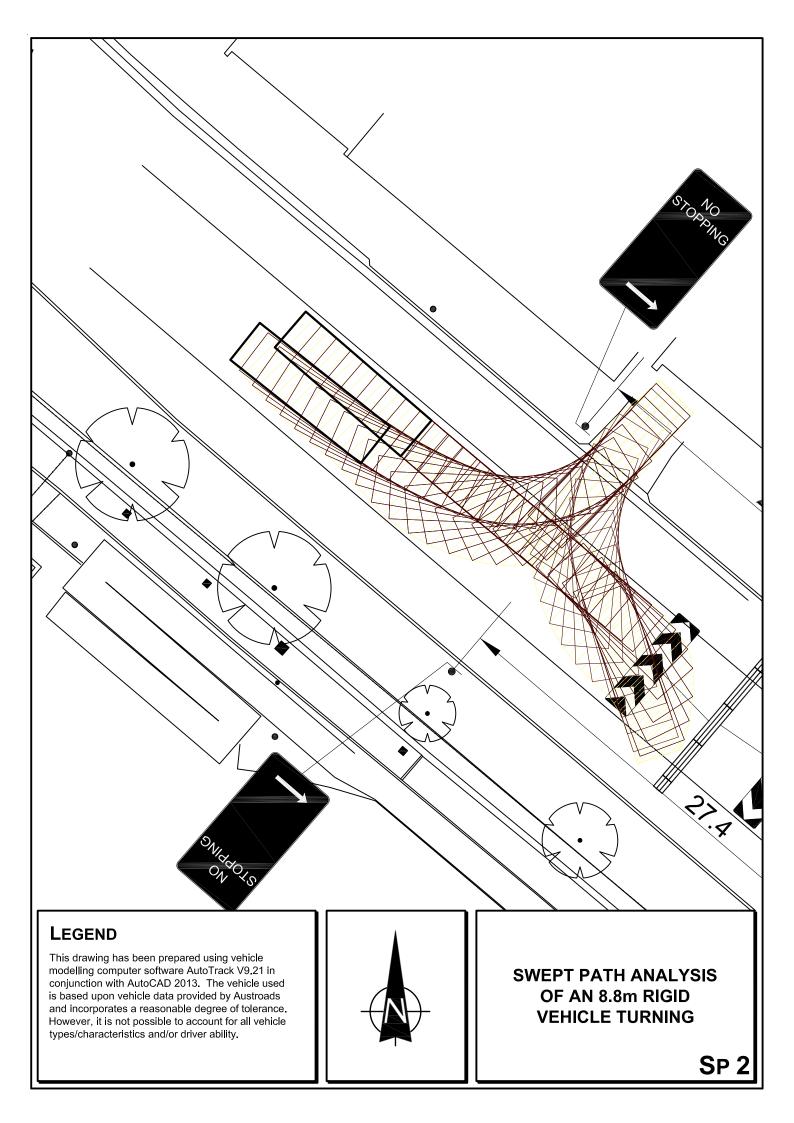


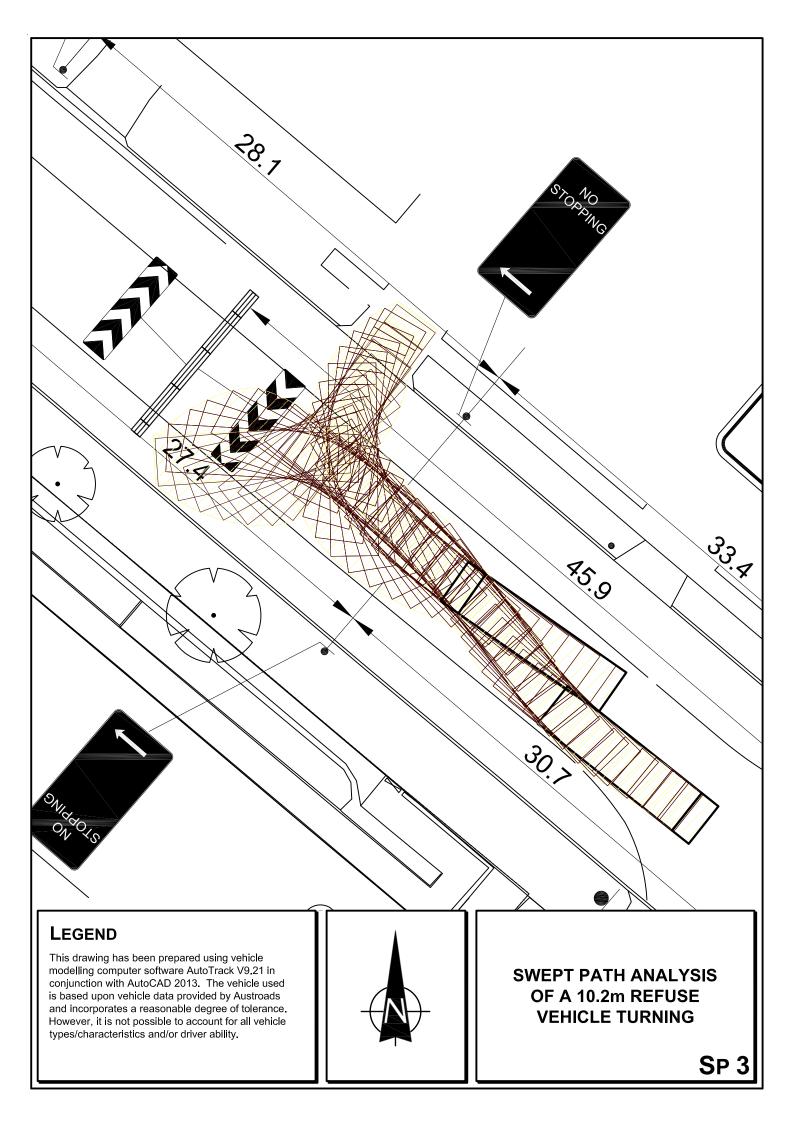


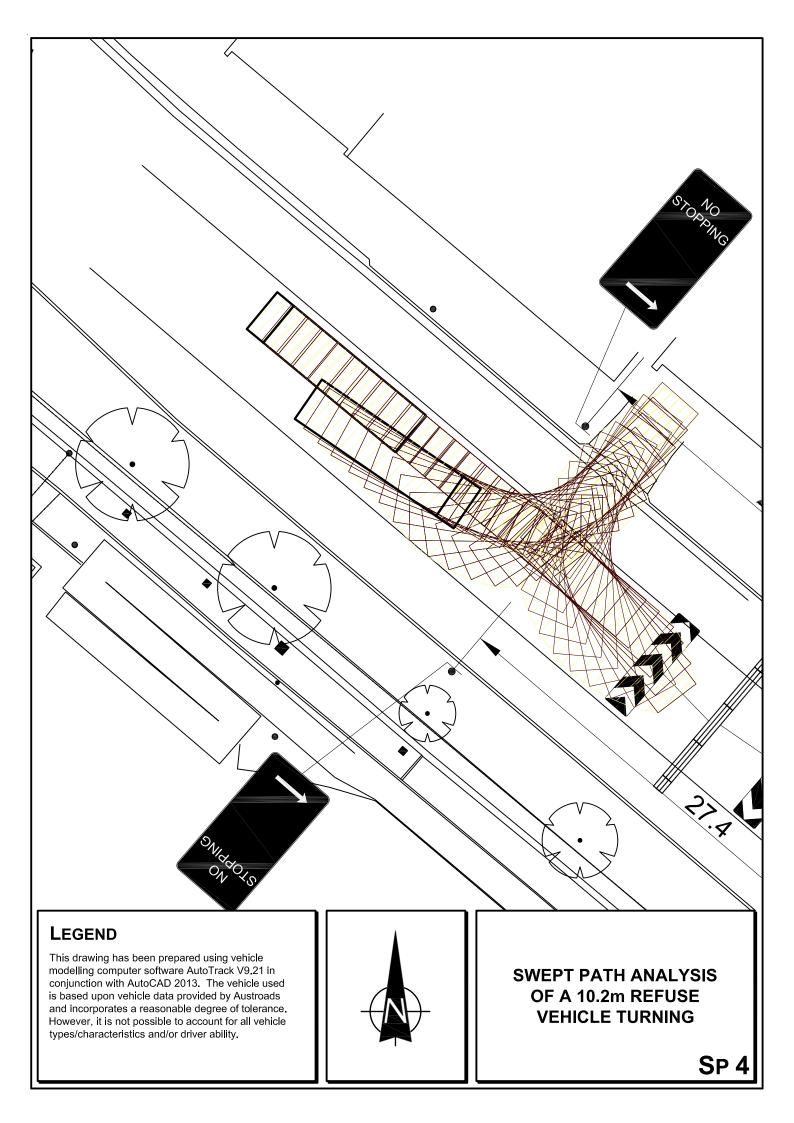
PROPOSED ROAD CLOSURE DETAILS

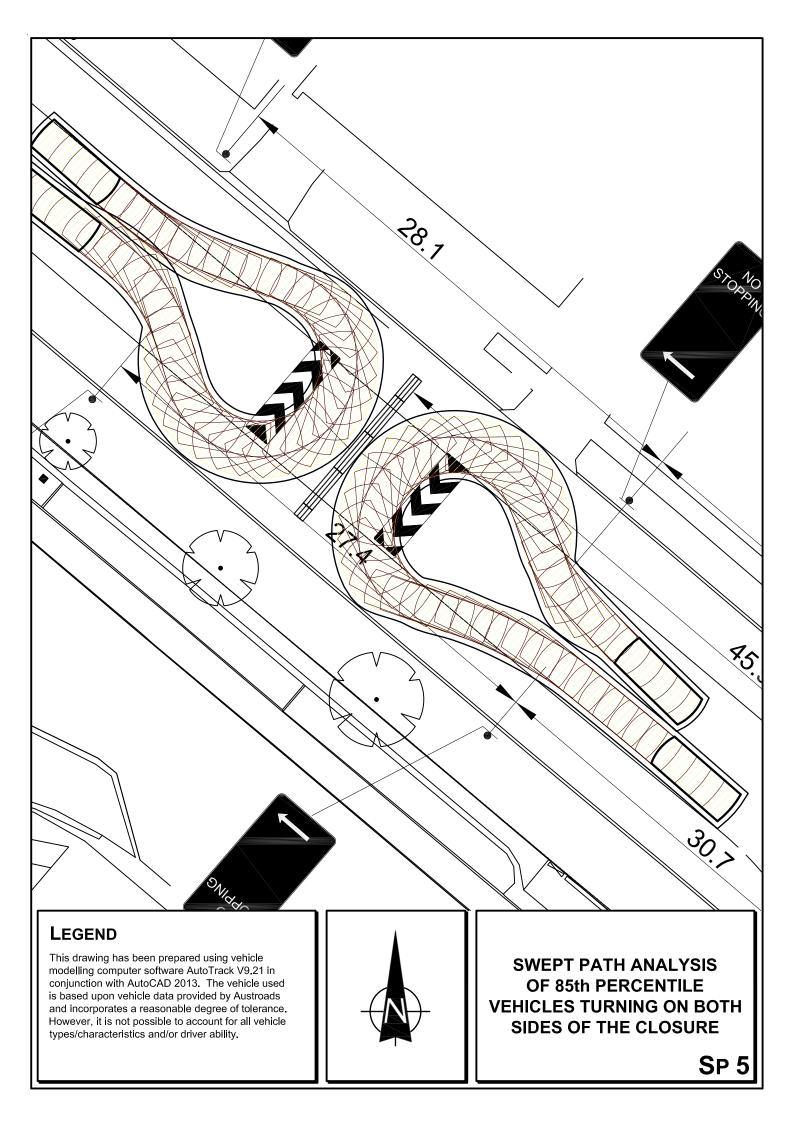
FIG 3

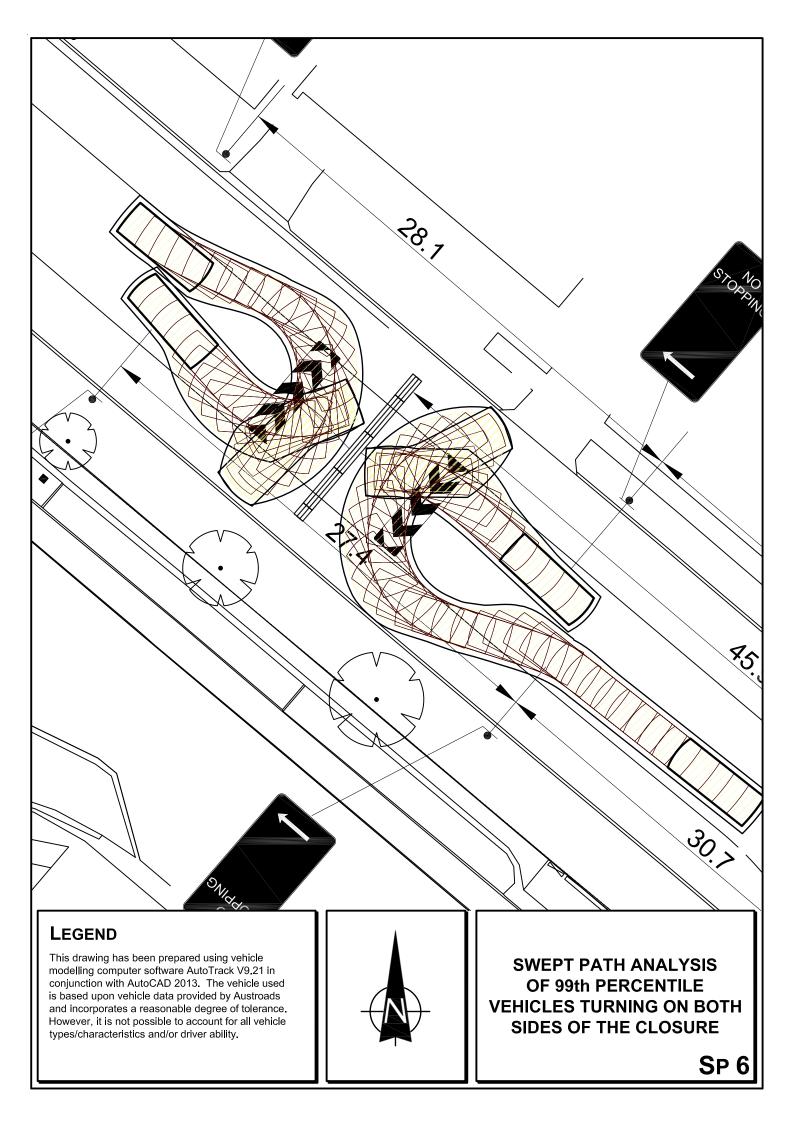












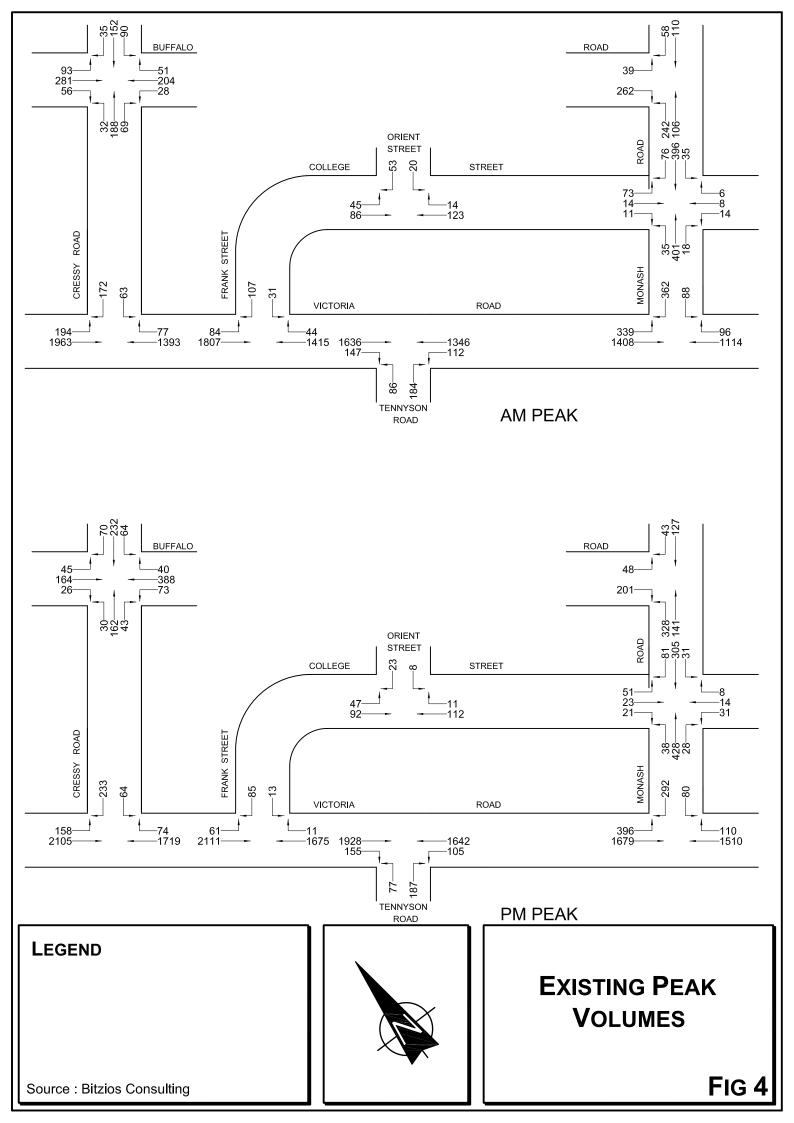
3. EXISTING TRAFFIC CIRCUMSTANCES

Traffic surveys were undertaken for the Bitzios Study during the weekday morning and afternoon peak periods at a number of intersections in the vicinity.

The results of these surveys are provided in Figure 4 while the peak 1-hour flows along the section of College Street which is to be closed were recorded as follows:

	AM	PM
Eastbound	132	139
Westbound	175	175
Total:	307	314

It is noted that a significant proportion of these vehicles are generated by the existing uses along College Street, Frank Street and Orient Street.



4. BITZIOS ASSESSMENT

Assessment of the potential traffic implications of the proposed closure were the subject of the Bitzios Traffic Study. Pertinent details and conclusions of that study are provided in the extracts reproduced in Appendix B.

A principal conclusion of the study was that the proposed closure could be implemented without any adverse traffic implications.

5. COMMUNITY CONSULTATION

Council undertook a comprehensive community consultation process prior to making the resolution to approve the trial closure of College Street in conjunction with the Bunnings development.

Council convened community forums on 28th August 2014 and 27th November 2014 and also actively solicited submissions from the community. In total there were 515 submissions received and these were heavily weighted towards support for the full closure. A full summary of the submissions is available on the Council's website while some extracts from that summary are provided in Appendix C while a copy of the proposed Communications and Consultation Strategy is provided in Appendix D.

APPENDIX A

TMP PROFORMA

C. TMP FORMAT

A. Description or detailed plan of proposed measures. Is a detailed plan of the proposed measures necessary?

Yes Provided in the TMP No (state reason)

B. Identification and assessment of impact of proposed measures. Is a detailed assessment required?

Yes Provided in the Bitzios Study. No (state reason)

C. Measures to ameliorate the impact of re-assigned traffic. Is an assessment required?

Yes Cressy Street to be widened as identified in the Bitzios Study and the Victoria Road/Frank Street and Victoria Road/Tennyson Street intersections are to be upgraded.

No (state reason)

D. Assessment of public transport service affected. Is an assessment required?

Yes

No (state reason) There are no public transport services affected. Bus priority measures on Victoria Road will be upgraded as a result of the Bunnings development.

E. Details of provision made for emergency vehicles, heavy vehicles, cyclists and pedestrians.

Are these details required?

Yes Pedestrians and cyclists will not be affected. Heavy vehicles and emergency vehicles will divert via Monash Road but will still be able to access College Street via Frank Street.

No (state reason)

F. Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures.

Is an assessment required?

Yes Assessment is provided in the Bitzios Study. No (state reason)

G. Assessment of effect of proposed measures on traffic movements in adjoining Council areas.

Is an assessment required?

Yes

No (state reason) There will be no effect in the adjoining Council areas which are at least 2km away.

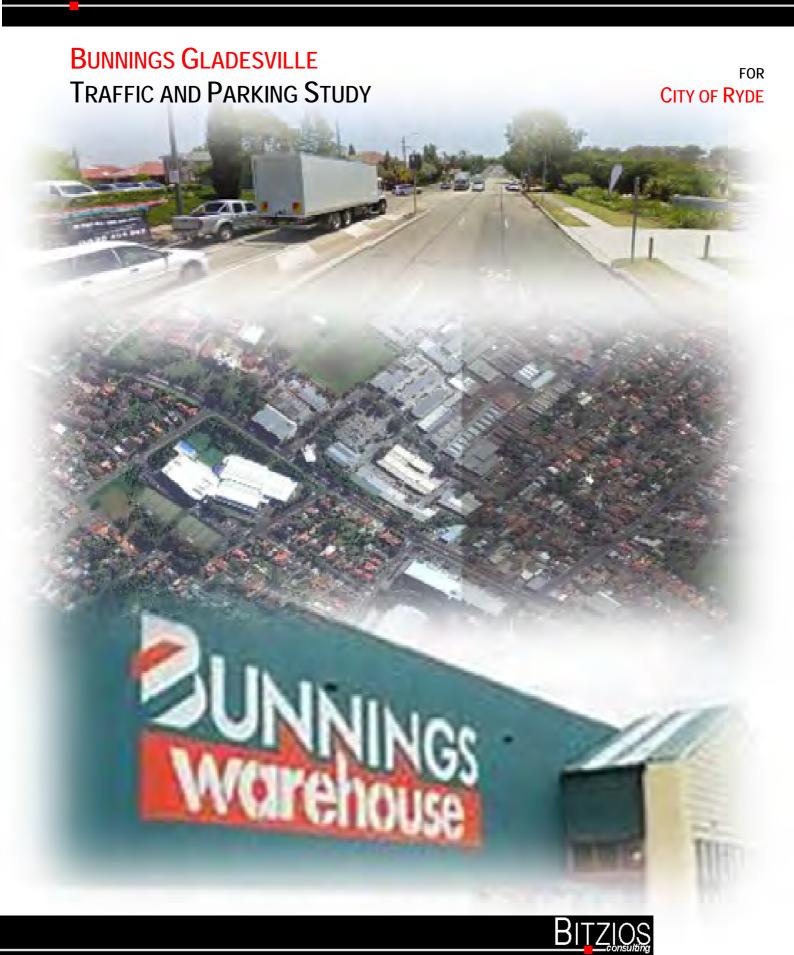
H. Public consultation process. Is a public consultation process required?

Yes A comprehensive consultation was undertaken by Council and some 515 representations and letters of support were received and Council resolved to proceed with the trial closure.

No (state reason)

APPENDIX B

EXTRACT OF BITZIOS REPORT



Gold Coast

Suite 26, 58 Riverwalk Avenue Robina QLD 4226 P: (07) 5562 5377

W: www.bitziosconsulting.com.au

Brisbane

Level 2, 428 Upper Edward Street Spring Hill QLD 4000 P: (07) 3831 4442 E: admin@bitziosconsulting.com.au Sydney

Studio 203, 3 Gladstone Street Newtown NSW 2042 P: (02) 9557 6202

Project No: P1688 Version No: 004 Issue date: 22 June 2014



CONTENTS

		Page
Exe	CUTIVE SUMMARY	VI
1.	Introduction	1
1.1	Background	1
1.2	Proposed Site	1
1.3	Purpose of the Study	2
1.4	STUDY PROCESS	2
2.	EXISTING ROAD, PARKING AND PUBLIC TRANSPORT	4
2.1	Existing Road Network	4
2.1.1	Road Hierarchy	4
2.1.2	Victoria Road	4
2.1.3	Ryde Road	5
2.1.4	Pittwater Road	5
2.1.5 2.1.6	Monash Road Morrison Road	5 5
2.1.7	Higginbotham Road / Thompson-street	5
2.1.8	Charles Street	5
2.1.9	Cressy Road	6
2.1.10		6
2.2	Existing Public Transport Services	6
2.3	Parking Provision and Restrictions	7
2.3.1	On-Street Parking	7
2.3.2	Off-Street Parking in Major Developments	7
3.	DATA COLLECTION	
3.1	Traffic Survey Details	9
3.1.1	Data Sources	9
3.1.2	Traffic Counts Travel Time Surveys	9 12
3.1.4	Origin-Destination Surveys	12
3.2	Survey Results	13
3.2.1	Traffic Counts	13
3.2.2	Travel Time Surveys	15
3.2.3	Origin-Destination Surveys	19
3.3	Independent Data Audit	23
4.	BASE YEAR MODEL DEVELOPMENT	24
4.1	AIMSUN AND MESOSCOPIC MODELLING	24
4.2	NETWORK CODING AND ZONING	24
4.2.1	Modelled Periods	24
4.2.2	Model Coverage	24
4.2.3 4.2.4	Link Categories Lane Restrictions	25 25
4.2.4	Traffic Signals	26
4.2.6	Zone System	26
4.2.7	School Zones	27
4.3	Traffic Matrices Development	27
4.4	BASE MODEL CALIBRATION AND VALIDATION	28
4.4.1	Model Calibration to Volume Counts	28
4.4.2	Model Validation to Travel Times	28
4.5	FIT FOR PURPOSE STATEMENT	28
5.	EXISTING ISSUES ASSESSMENT	29
5.1	Traffic Issues	29
5.1.1	Morning Peak	29
5.1.2	Evening Peak	30
5.1.3	Saturday Peak	31
5.2	Parking Issues	32
6.	DEVELOPMENT FORECASTS AND TRIP GENERATION	34
6.1	Bunnings Proposal	34
6.2	Traffic Generation	35

75

75

12.1

12.2

TRAFFIC

PARKING



Bunnings Gladesville Traffic and Parking S	
Tables	
Table 2.1:	Bus Routes
Table 3.1:	Intersection Counts
Table 3.2:	Tube Counts
Table 3.3:	Origin-Destination Survey Locations
Table 3.4:	Results of Travel Survey – Average Speed (km/h)
Table 3.5:	Origin-Destination Survey Results (Number of Vehicles)
Table 4.1:	GEH Statistics
Table 4.2:	Travel Time Comparison
Table 6.1:	Bunnings Traffic Generation Rates (Trips per 100sqm GFA)
Table 6.2:	Bunnings Customer Trip Distribution
Table 6.3:	Additional Traffic Generated (Vehicles)
Table 8.1:	Treatments Options
Table 8.2:	List of Treatments with Benefits and Impacts from Modelling
Table 9.1:	Responsibilities and Staging of Preferred Network Elements
Table 10.1:	Recommended Parking Demands for the Bunnings Site
Table 10.2:	Senior's Housing/High Density Residential Parking Provision Rates
Table 12.1:	Recommended Infrastructure, Responsibilities, and Staging of Works
Figures	
Figure ES1:	Study Area and Subject Site
Figure ES2:	Morning Peak Traffic and Parking Issues
Figure ES3:	Evening Peak Traffic and Parking Issues
Figure ES4:	Saturday Peak Traffic and Parking Issues
Figure ES5:	Traffic Data used for Model Development
Figure ES6:	Aimsun Model Network and Extents
Figure ES7:	Bunnings Site Development Proposal
Figure ES8:	Assumed Development Sites
Figure ES9:	Victoria Road Upgrade (Tennyson to Frank)
Figure ES10:	Daily Traffic, Do Nothing Network (with Bunnings Site + Other Growth), Weekday
Figure ES11:	Daily Traffic, Do Nothing Network (with Bunnings Site + Other Growth), Saturday
Figure ES12:	Daily Traffic, Do Nothing Network (with Bunnings Site only), Weekday
Figure ES13:	Daily Traffic, Do Nothing Network (with Bunnings Site only), Saturday
Figure ES14:	Expected Off-street Parking Demand Increases (2014-2031)
Figure ES15:	Network Scenarios Modelled
Figure ES16:	Frank Street-College Street Traffic Management Scheme
Figure ES17:	College Street Closure Concept
Figure ES18:	Preferred Network Weekday Treffic Volume Comparison (Dynnings - Other Crouth)
Figure ES19:	Preferred Network Weekday Traffic Volume Comparison (Bunnings + Other Growth)
Figure ES20:	Preferred Network Weekday Traffic Volume Comparison (Bunnings Site Only) Preferred Network Saturday Traffic Volume Comparison (Bunnings + Other Growth)
Figure ES21: Figure ES22:	Preferred Network Saturday Traffic Volume Comparison (Bunnings + Other Growth) Preferred Network Saturday Traffic Volume Comparison (Bunnings Site Only)
Figure ES23:	On-Street Parking Strategy
rigure L323.	On-Street Farking Strategy
Figure 1.1:	Study Area and Subject Site
Figure 1.1:	Study Process
Figure 2.1:	Road Hierarchy
Figure 2.1:	Bus Routes Map
Figure 2.3:	Existing Parking Provision and Restrictions
Figure 3.1:	Traffic Data Collection Locations and Times
Figure 3.2:	Origin Destination Survey Locations
Figure 3.3:	Hourly Traffic Volumes - AM Peak (7am-8am)
Figure 3.4:	Hourly Traffic Volumes - PM Peak (5pm-6pm)
Figure 3.5:	Hourly Traffic Volumes - Saturday Peak (10:45am-11:45am)
Figure 3.6:	Results of Travel Time Survey - AM Peak (7am – 8am)
Figure 3.7:	Results of Travel Time Survey - PM Peak (5pm – 6pm)
Figure 3.8:	Results of Travel Time Survey - Saturday Peak (10:45am – 11:45am)
Figure 3.9:	O-D Routes- AM Peak (7:00am-8:00am)
Figure 3.10:	O-D Routes - PM Peak (5:00pm-6:00pm)
Figure 3.11:	O-D Routes - Saturday Peak (10:45am-11:45am)

Aimsun Base Model Coverage

AM Peak Traffic Issues

Zone System

O-D Routes - Saturday Peak (10:45am-11:45am)

Figure 3.11:

Figure 4.1:

Figure 4.2:

Figure 5.1:

Page iv Version: 004 Project No: P1688



Figure 5.2:	PM Peak Traffic Issues
Figure 5.3:	Saturday Peak Traffic Issues
Figure 5.4:	Existing Parking Issues
Figure 6.1:	Proposed Bunnings Site Development
Figure 6.2:	Indicative Catchments for Current Bunnings Warehouse Sites
Figure 6.3:	Expected Development by 2031 (Source: CoR)
Figure 6.4:	Proposed Developments in the Victoria Road Corridor
Figure 7.1:	Victoria Road Upgrade (Tennyson Road to Frank Street)
Figure 7.2:	Rapid Bus Service
Figure 7.3:	Daily Traffic, 'Do Nothing' Network (with Bunnings Site + Other Growth) Weekday
Figure 7.4:	Daily Traffic, 'Do Nothing' Network (with Bunnings Site + Other Growth) Saturday
Figure 7.5:	Daily Traffic, 'Do Nothing' Network (with Bunnings Site only) Weekday
Figure 7.6:	Daily Traffic, 'Do Nothing' Network (with Bunnings Site only) Saturday
Figure 7.7:	Daily Traffic, 'Do Nothing' Network (NO Bunnings Site) Weekday
Figure 7.8:	Daily Traffic, 'Do Nothing' Network (NO Bunnings Site) Saturday
Figure 7.9:	2031 PM Peak Bunnings Site Traffic Routes – Do Nothing
Figure 8.1:	Network Options and Model Runs
Figure 8.2:	Treatment Measure Locations
Figure 8.3:	Right Turn Ban at Frank Street Access
Figure 8.4:	One-Way Scheme at College Street / Preferred Option A
Figure 8.5:	Example LATM Measures
Figure 8.6:	Ryde Road/Monash Road Roundabout to be replicated at Buffalo/Monash
Figure 9.1:	College Street Closure Concept / Preferred Option B
Figure 9.2:	Preferred Network
Figure 9.3:	Industrial Sites Heavy Rigid Vehicle Turning Path Assessment
Figure 9.4:	Preferred Network Weekday Traffic Volume Comparison (Bunnings Site + Other Growth)
Figure 9.5:	Preferred Network Saturday Traffic Volume Comparison (Bunnings Site + Other Growth)
Figure 9.6:	Preferred Network Weekday Traffic Volume Comparison (Bunnings Site Only)
Figure 9.7:	Preferred Network Saturday Traffic Volume Comparison (Bunnings Site Only)
Figure 9.8:	Preferred Network Weekday Traffic Volume Comparison (NO Bunnings Site)
Figure 9.9:	Preferred Network Saturday Traffic Volume Comparison (NO Bunnings Site)
Figure 9.10:	Preferred Network A – Bunnings Site Access/Egress Routes - PM Peak
Figure 9.11:	Preferred Network A – Bunnings Site Access/Egress Routes - Saturday Peak
Figure 9.12:	Preferred Network B – Bunnings Site Access/Egress Routes - PM Peak
Figure 9.13:	Preferred Network B – Bunnings Site Access/Egress Routes - Saturday Peak
Figure 10.1:	Bunnings Site Conceptual Parking Layout (Floor 1)
Figure 10.2:	Indicative Additional Expected Off-Street Parking Demand to 2031
Figure 10.3:	Examples of Marked Parking Bays (Culloden Street, Macquarie Park; Albany Street, St Leonards)
Figure 10.4:	Suggested On-Street Parking Strategy

Appendices

Appendix A:	Traffic Survey Data
Appendix B:	Traffic Data Audit

Appendix C: Calibration and Validation Report

Appendix D: Bunnings Traffic and Parking Generation Rates

Appendix E: Other Development: Dwellings and Business Potential for Ryde, Gladesville and Trip Generation

Appendix F: Option Modelling Results Technical Notes
Appendix G: Preferred Network Detailed Model Results

Appendix H: Council Report for Planning Proposal 491-495 Victoria Road (Bunnings)

Appendix I: Extract from Council Minutes of Meeting of the 28 April 2015



INTRODUCTION

1.1 BACKGROUND

Gladesville is located within the City of Ryde, approximately 12km north-west of the Sydney CBD. The suburb is made up of residential, commercial, light industrial, retail, schools and recreational areas. In recent years, there has been significant redevelopment interest and there are currently a number of 'live' planning proposals, including one lodged by Bunning's Group Limited in March 2012 for amendments to the Ryde Local Environmental Plan 2010 (RLEP2010) to enable a Bunning's Warehouse and adjacent Bulky Goods Retail development (hereafter referred to as the "Bunnings Site") at 461-495 Victoria Road.

There is an emerging potential for a significant increase in traffic in the area. Victoria Road is already heavily congested in peak periods, with long delays observed in the eastbound direction in the morning peak, and westbound in the afternoon peak. This has resulted in the increasing use of parallel routes such as Morrison Road and Buffalo Road with traffic filtering through to the next order of roads such as College Street, Orient Street and Eltham Street as well. Increasing through traffic volumes is also placing pressure on a number of lower order north-south links between Victoria Road and its parallel routes.

Plans for further development under the potential in the LEP, including the Bunnings proposal, are raising concerns in the local community regarding associated traffic and parking impacts. Measures will be required to manage traffic volumes in residential streets but also on the higher order road network whilst maintaining business and residential accessibility and catering for pedestrians, cyclist and buses.

1.2 PROPOSED SITE

The proposed Bunnings development site is located at 461-495 Victoria Road, and is bounded by Frank Street to the west and College Street to the north. The broader study area is bounded by Higginbotham Street / Thompson-street to the north, Pittwater Road / Meriton Street to the east, Morrison Road to the south, and Charles Street to the west. A map of the study area is shown in Figure 1.1.



Figure 1.1: Study Area and Subject Site

The 3.83 hectare site was occupied by a variety of light industrial and commercial buildings. It is situated near the Holy Cross College Ryde, Gladesville Business Park, Ryde Aquatic Leisure Centre and a Fitness Centre.

A separate Development Application associated with the Bunnings site has been lodged to construct a new vehicle crossing at the intersection of Victoria Road and Tennyson Road. This proposal includes the demolition of an existing industrial building and construction of a new vehicle ramp from Victoria Road down to the ground level of the proposed Bunning's Site.

Also, the Bunnings Site has dedicated land across its Victoria Road frontage to allow for the widening of Victoria Road to provide a continuous bus lane in each direction through this section.

1.3 PURPOSE OF THE STUDY

Bitzios Consulting has been commissioned by the City of Ryde to develop traffic and parking strategies to manage the performance of the network in the future as growth throughout the study area occurs. The study has a particular focus on immediate impacts and needs generated by the development of the Bunnings Site but considers these impacts in the context of the cumulative impact of all expected development in the study area to 2031. Year 2031 is a common future assessment year used in similar studies reflecting a typical horizon for which planning and growth information is available. Both traffic and parking impacts have been assessed.

As part of this study, a traffic model was developed for the study area to quantify the impacts of the proposed development in the study area and determine to test a variety of mitigation measures. The key outcomes of the study are a recommended traffic network improvement strategy including implementation responsibilities and timeframes as well as a parking management strategy.

This report describes:

- the existing traffic and transport system (Chapter 2);
- the data collected for this study (Chapter 3);
- the development of the traffic model (Chapter 4);
- an assessment of the existing traffic and parking issues (Chapter 5);
- the calculation of development-related traffic volumes and parking demands (Chapter 6);
- the development of the future year traffic models and the identification of "do nothing" traffic conditions in 2031 (Chapter 7);
- the testing of mitigation treatments to manage future traffic issues (Chapter 8);
- the culmination of the modelling and evaluation in a preferred network strategy (Chapter 9) and a Parking Strategy (Chapter 10); and
- Conclusions (Chapter 11) and summary recommendations (Chapter 12).

1.4 STUDY PROCESS

The study process has been divided into four stages, namely:

- Stage 1: Data Collection and Validation;
- Stage 2: Model Development and Calibration;
- Stage 3: Options Development and Testing; and
- Stage 4: Plan Development, Consultation, Staging and Reporting.

The study process and tasks associated with each stage is shown in Figure 1.2.

Prior to the Final Report (this report) being submitted, the Draft Report and study recommendations were considered by Council at its meeting of the 28th April 2015. Council's resolution from this meeting is contained in Chapter 13.



8. MITIGATION TREATMENTS TESTING

8.1 OBJECTIVES

In most traffic and transport studies, the focus in on providing sufficient capacity in the network to cater as best as possible for future year traffic increases. Whilst this was a key consideration for this study, the study also targeted ways of reducing the use of local streets by through traffic and ensuring that additional development in the area did not exacerbate current levels of usage of local streets by through traffic. The aim therefore was, through recommended infrastructure interventions, to encourage the right type of traffic on the streets/roads most appropriate for carrying this traffic.

At a Community Forum on the 28th of August 2014 at the City of Ryde Civic Hall to introduce the study, the overwhelming feedback from the community was the need to preserve street amenity as development (and particularly the development of the Bunnings Site) occurred in the area. The consensus feedback from the meeting was that the collected data and model reflected the existing situation effectively and that amenity impacts were of greatest concern related to increasing traffic volumes in residential streets during week-day off-peak periods and weekend periods.

This feedback was critical in shaping the treatments assessed to mitigate impacts and for generating the preferred traffic network strategy. The options development process subsequently considered methods to prohibit or restrict through traffic using local streets and consequentially to introduce infrastructure upgrades on the higher order road network to cater for the traffic diverted out of residential areas due to these measures.

Before identifying local upgrades and treatments to test in the model and evaluate thereafter, it was important to clearly define the objectives of the upgrades or management measures being considered.

The primary objectives of the mitigation treatment testing and options development are outlined as follows:

- to minimise the impacts of development traffic in residential streets, particularly in off-peak times;
- to optimise traffic operations during peak periods on through traffic-carrying roads within the study area;
- to limit the impact of parking demand growth on residential streets whilst allowing business to prosper;
 and
- to improve pedestrian safety and convenience.

8.2 TREATMENT OPTIONS

Given the objectives listed above, treatment options needed to be considered at two levels, namely:

- localised treatments at specific locations that aim to address a particular traffic issue in accordance with the objectives above (both amenity and capacity objectives); and
- combinations of localised treatments that logically "work together" to form a network of improvements.

A total of 13 localised treatments were generated by the study team in consultation with the project steering group for testing to address the identified issues in accordance with the objectives. These treatments and their reasoning are listed in Table 8.1.

Table 8.1: Treatments Options

No.	Treatment	Reasoning
1	Cressy Road approach to Victoria Road – widened to 2 lanes (double right turn)	To offset the impacts of any closure/one-way scheme tested in Frank Street or College Street.
2	New link - Frank Street to Buffalo Road	To offset the impacts of any closure/one-way scheme tested in Frank Street or College Street.
3	Speed management scheme : Higginbotham-Thompson	To better manage the identified speed and traffic safety issues in this street.
4	College Street closed just west of Orient Street	To effectively ban through traffic to/from the Frank Street/Victoria Road intersection from using College or Orient Streets.
5	College Street/Eltham/Monash signals	To overcome issues with traffic not being able to safely exit side streets in peak periods, as well as to provide formalised pedestrian crossing opportunities as this area redevelops.
6	Ryde Road/Monash Road signals	To test if signalisation of this intersection improves operations locally and in the broader area.
7	Monash approach to Victoria Road widened	To see whether an additional (third) lane at this approach will appreciably reduce delays at peak times.
8	Signalised right turn from Victoria to Westminster	To see whether introducing this turn takes pressure off the right turn into Monash Road to and understand the consequential impacts and benefits of this.
9	Close Eltham east of Westminster	To see what impacts this closure would have on local traffic circulation and congestion.
10	Eltham Street one-way eastbound between Aldi and west of the Oxford/Westminster roundabout	To see what impacts this closure would have on local traffic circulation and congestion.
11	Afternoon peak right turn ban from Victoria into Jordan Street	To see what benefits might accrue to through traffic by taking this opposing movement away at peak times, to facilitate more northbound green time.
12	Frank Street left in/out at Victoria and new 4 way signals at Weaver/Victoria/Bunnings (all movements)	To test an alternative Bunnings Site access arrangement opposite Weaver Street rather than opposite Tennyson Road, to understand the pros and cons of this arrangement.
13	Frank Street access for Bunnings	A theoretical "what if" scenario should for some unforeseen reason access not be available off Victoria Road.

8.3 LAND USE SCENARIOS AND MODEL RUNS

The treatment option testing was modelled across three different land use scenarios (as also discussed previously in Section 7.1). The three land use/development scenarios tested were:

- Scenario 1: Bunnings Site development only;
- Scenario 2: All other expected development only (i.e. without Bunnings Site); and
- Scenario 3: Bunnings Site + all other expected development.

These land use scenarios were necessary to isolate the Bunnings Site impacts from impacts caused by other development in the area, as well as to understand cumulative impacts of all development.

A total of 14 network options were subsequently created as combinations of land use scenarios and local treatment options. These network options and model run combinations are presented in Figure 8.1. Figure 8.2 shows the locations of the localised treatment options.

Project No: P1688 Version: 004



MODELLING RESULTS FOR THE PREFERRED OPTION

The preferred network was run in the Aimsun traffic model to test its combined performance, any refinements to intersections required and to determine if the objectives of reducing through traffic off local streets was achieved, whilst managing peak operational performance on the major road system.

Results from the preferred network option modelling were compared with the "Do Nothing" option. It is important to note that the preferred network was tested as two separate options for comparison purposes, namely:

- Preferred Option A: the preferred network with the College Street one-way scheme in place and existing priority intersection at Buffalo Road / Monash Road intersection; and
- Preferred Option B: the preferred network with adjustments following community feedback (i.e. with College Street full closure and new roundabout at Buffalo Road / Monash Road intersection).

The results show that the two preferred network options A and B effectively bring traffic volumes on College Street, Orient Street and Eltham Street back to similar levels as in 2014 weekdays, even with all of the proposed development in place by 2031. Both options also effectively prevent traffic associated with Bunnings accessing these residential streets. The Preferred Network Option B, with the full closure of College Street, means that volumes on College Street west are limited to only traffic coming into and out of the industrial sites off College Street. The closure also reduces the use of College Street as a 'rat-run', which was an issue evident in both directions in the 2014 base case and the 2031 "Do Nothing" case.

The consequence of the preferred network through closing College Street, or implementing a one-way scheme is that volumes increase on Monash Road, Cressy Road and Victoria Road in particular to accommodate the diverted traffic, particularly seen during the Saturday peak. These results are shown in Figures ES19-ES22. These roads however are more appropriate to absorb this additional traffic from an amenity impact perspective.

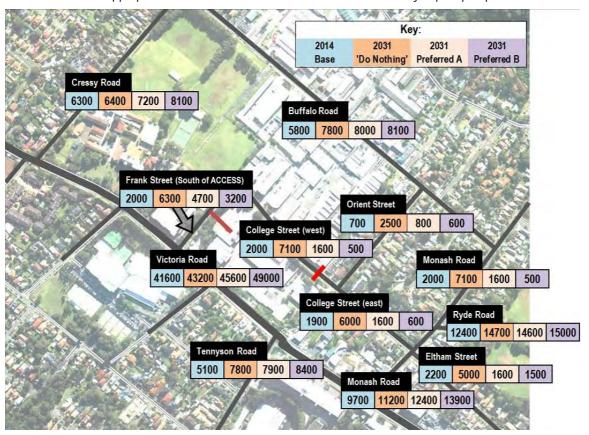


Figure ES19: Preferred Network Weekday Traffic Volume Comparison (Bunnings + Other Growth)

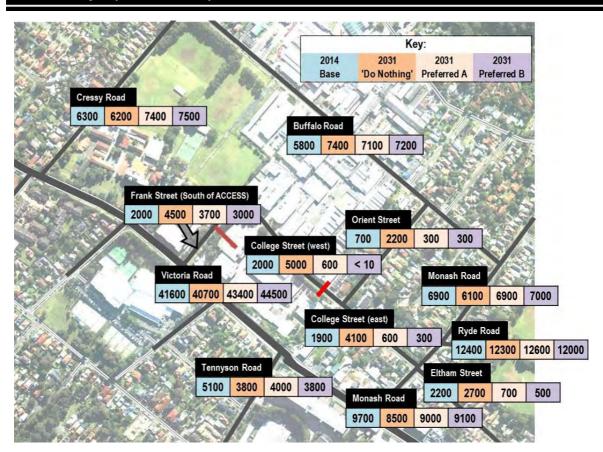


Figure ES20: Preferred Network Weekday Traffic Volume Comparison (Bunnings Site Only)

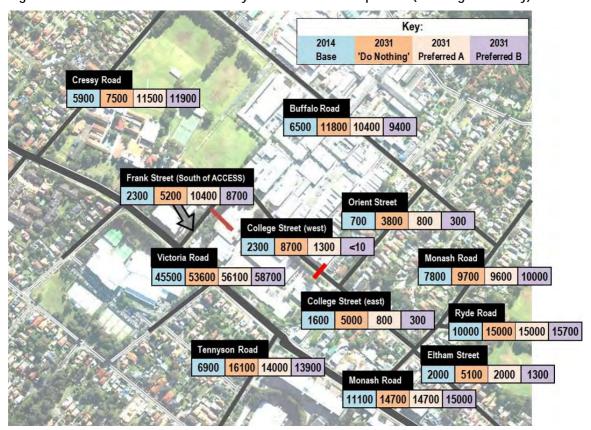


Figure ES21: Preferred Network Saturday Traffic Volume Comparison (Bunnings + Other Growth)

11. CONCLUSIONS

The Gladesville area is growing with many new residential, commercial, and retail developments planned through to 2031 and some already well into their construction phase. With the Gladesville area already experiencing some amenity and congestion issues associated with through traffic, these new developments, including the Bunnings Site development, will impact the traffic and parking across the broader road network. Traffic modelling undertaken has identified that these issues will be exacerbated unless a Traffic Management Plan is put in place.

This outcome was determined through modelling a "Do Nothing" scenario, where no mitigation measures were put in place. The issues observed from the modelling results as well as the major concerns raised by members of the community, are summarised as follows:

- through traffic from new developments, specifically the Bunnings Site development, accessing local residential streets;
- congestion and long traffic queues observed along Victoria Road corridor across all three peaks (AM, PM and Saturday peak periods) with concerns that more development will result in more congestion; and
- Saturday peak traffic growing significantly as a result of new development, particularly the retail development proposed in the Victoria Road corridor.

Based on an assessment of the current and expected future traffic and parking issues within the study area, as well as considering community input, the key objectives for "designing" mitigation treatments were identified as:

- to minimise the impacts of development, commercial, industrial and retail traffic in local residential areas, particularly in off-peak times;
- to optimise traffic operations in the study area during peak periods;
- to limit the impact of parking demand growth on residential streets whilst allowing business to prosper;
 and
- to improve pedestrian safety and convenience.

The most effective mitigation measures to achieve the above objectives involved a combination of full and partial street closures, intersection upgrades and Local Area Traffic Management (LATM) Schemes. Through consideration of the modelling results and the assessment of various treatment options, in consultation also with the community and the study steering group, a preferred traffic network was generated.

The main purpose of the preferred network which followed the treatments testing was to address existing and forecast capacity and amenity issues identified during the study process as best possible given the geometric and property constraints in the area. The draft preferred network was run through the Aimsun traffic model, and the results demonstrated that many of the current and expected future amenity issues in the study area will be overcome primarily surrounding the Bunnings Site development. The impacts of additional development on the operations of the major road network can also be effectively managed with targeted upgrades.

The preferred network effectively prohibited movements to/from the Bunnings Site and Victoria Road via Orient Street-College Street-Frank Street and essentially splits College Street into a light industrial section and a residential section. A one-way scheme in Eltham Street (eastbound movements allowed only) reduced traffic in this road as well whilst signalising the Monash Road/Eltham Street intersection will improve capacity and safety in this area for vehicles and pedestrians.

Other measures such as the new right turn into Westminster Road from Victoria Road and the extra turning lane for turning out of Cressy Road to Victoria Road augments existing turning capacity to cater for increased development demands and traffic diverted away from local residential streets. Also, a LATM scheme in Orient Street and in the Higginbotham-Thompson corridor will act to discourage speeding and improve safety for all road users. A new local roundabout is also proposed at the Monash Road/Buffalo Road intersection.

Traffic modelling of the preferred network showed achievement of the following key objectives:

- reducing through traffic on residential streets, including College Street, Eltham Street, and Orient Street:
- preventing any Bunnings Site related traffic from accessing residential streets including College Street, Eltham Street, and Orient Street, with minimal traffic accessing residential streets south of Victoria Road:
- preventing the pre-existing issue of westbound and eastbound "rat-running" through College Street and Eltham Street at all times of the day and week;
- separating College Street into industrial and residential sections, and effectively reducing the number of heavy vehicles accessing the residential section, including Orient Street;
- improving the safety and efficiency of intersections on Monash Road, especially as development is expected to increase nearer to Victoria Road, generating more pedestrians to and from this area; and
- optimising the major through traffic movements on Victoria Road during peak times.

Whilst more traffic is expected on Morrison Road and Tennyson Road further south, the Tennyson Road traffic is mostly associated with a new major development proposed at 2-14 Tennyson Road. The Morrison Road corridor has attracted through traffic for some time now and is related to a broader issue of congestion on most of the length of Victoria Road through Gladesville and Meadowbank.

The closure of College Street results in more traffic using Cressy Road to head north-south and there is a minor reduction in impact on Cressy Road traffic if College Road only has a one-way threshold treatment to allow eastbound movements only. In any event, Cressy Road is a major collector road to access Victoria Road, and with development and background growth expected to increase, it is evident that more traffic will be diverted to Cressy Road to Victoria Road. Furthermore, it is more appropriate for a road such as Cressy Road, as it is a current bus route and major collector road, to cater for the expected additional traffic compared to this traffic funnelling through other lower order residential streets.

Heavy Rigid Vehicle turning path assessments for each light industrial driveway in College Street have identified that these vehicles will be able to drive in or reverse in to driveways under the proposed new cul de sac arrangement. There are benefits to both truck traffic and pedestrians in this area of the full closure through the removal of passing traffic.

In terms of expected parking impacts, the Bunnings Site development concept (submitted with the planning proposal) includes well in excess of its on-site parking requirements and the potential for on-street parking by staff and customers is minimal. Other development in other areas may however impact on heavily used on-street parking areas and methods to manage this include:

- line marking of parking bays where simple parking lanes currently exist;
- introduction of more time-regulated parking areas near commercial development; and
- introduction of metered parking as needed near new retail areas.

In addition, there may be the opportunity in Eltham Street (where the trial one-way scheme is being introduced) to use the spare road space for 45 degree parking, particularly as retail/commercial development moves into the southern side of Eltham Street.

In terms of future development in the area, it will be important that it provides its parking in accordance with the rates in Council's DCP so that the risk of overspill into already heavily parked areas is minimised.

Overall, should the recommended upgrades identified in Chapter 12 be implemented, then the impacts of development traffic, and particularly Bunnings Site traffic, will be effectively managed to ensure the right types of traffic and parking in the right types of streets, and that sufficient capacity at major intersections is provided to manage the impacts of traffic growth.

12. **RECOMMENDATIONS**

12.1 TRAFFIC

The key infrastructure elements of the preferred network and recommended apportionment of responsibilities of these elements (and timing) are summarised in Table 12.1.

Table 12.1: Recommended Infrastructure, Responsibilities, and Staging of Works

	Preferred Network Element	Responsibility	Reasoning	Staging
1	College Street closure separating the industrial complex and residential complex	Bunnings Site	To stop Bunnings traffic accessing the site via Orient-College-Frank	(*) Stage 1 of Bunnings Site development
2	Cressy Road widened to two lanes to allow double right turn into Victoria Road	Bunnings Site	A consequential impact of Item 1	(*) Stage 1 of Bunnings Site development
3	Proposed Bunnings access point at Tennyson Road	Bunnings Site	Required for primary access	(*) Stage 1 of Bunnings Site development
4	New signalised intersection at Monash/College/Eltham	Future Development	Due to local development growth	As development occurs
5	Eltham Street one-way eastbound between Aldi and commercial development	Future Development	Due to local development growth	As development occurs
6	No parking on Monash Road (eastern side) south of Eltham Street during all peaks	Future Development	Due to local development growth	As development occurs
7	Introduce signalised (non-filtered) right turn into Westminster Road from Victoria Road	Future Development	Due to local development growth	As development occurs
8	Ban right turn into Jordan Street from Victoria Road during PM peak	Future Development	Due to local development growth	As development occurs
9	New roundabout at Buffalo Road / Monash Road intersection	City of Ryde	Cumulative impact, existing issues and safety concerns	Subject to CoR programing
10	LATM measures in Orient Street	City of Ryde	Cumulative impact, existing issues and speed management	Subject to CoR programing
11	Speed management scheme in Higginbotham/Thompson corridor	City of Ryde	Cumulative impact, existing issues and speed management	Subject to CoR programing

(*) Prior to issue of any "staged" or "interim" occupational certificate.

12.2 PARKING

The following recommendations have been made regarding parking in the study area:

- any new development in the study area be required to provide its full parking requirement in accordance with the DCP parking rates of City of Ryde (and City of Hunters Hill if outside of CoR);
- parking rates for new developments not be reduced as part of any short-to-medium term review of the DCP;
- new parking duration restrictions be put in place in areas adjacent to and surrounding proposed commercial and retail developments as future development occurs;
- line-marking of parking bays throughout the study area, where on-street parking is provided via a
 parking lane and is heavily occupied. This achieves a cost-effective use of street space; and
- further investigation be undertaken into accommodating additional on-street, 45 degree angled parking
 on the road space generated by the proposed Eltham Street one-way scheme (subject to the
 impending trial of the one-way scheme being successful).

13. COUNCIL DECISION

Council considered the draft of this report, along with the Council Officer's report (see Appendix H) and community representations at its meeting of the 28th April 2015. At that meeting Council made the following resolution (also see Appendix I):

- a) That Council exercise the delegation issued by the Minister for Planning and Infrastructure to make the planning proposal to amend the land use zone applicable to 461-495 Victoria Road from IN2 Light Industrial to B5 Business Development and the permissible height under Ryde Local Environmental Plan (LEP) 2014 applicable to the site from 10m to RL63, RL52 and RL42 (stepping down from 12-15m on Victoria Road to approximately 7-17m on College Street).
- b) That in making the LEP amendment Council will adjust the exhibited map site boundaries to reflect the Victoria Road widening in accordance with recent subdivision approval to create LOT 300 DP 1194688, 461-495 Victoria Road, Gladesville.
- c) That Council adopt the following for inclusion in the Bunnings Gladesville Traffic and Parking Study:
 - i. Trial full closure of College Street to be implemented prior to Bunnings commencing construction (at no cost to Council by Bunnings). The trial shall be reviewed after 12 months of operation of the Bunnings store and the results reported back to Council at that time. The applicant shall cover the full cost of the traffic review, surveys and any supporting technical studies
 - ii. Cressy Road carriageway widening to be implemented prior to Bunnings commencing operations (at no cost to council by Bunnings)
 - iii. Cressy Road (eastern side) full width footpath and safety fence from Victoria Road corner to Holy Cross College entry to be implemented prior to Bunnings commencing operations (at no cost to council by Bunnings)
 - iv. Tennyson Road and Frank Street site access to be implemented at stage 1 and operable on commencement of Bunnings operations (at no cost to Council by Bunnings)
 - v. Traffic signals changes and site access at Tennyson Road to be implemented prior to Bunnings commencing operations (at no cost to Council by Bunnings)
 - vi. Pedestrian and road safety audit and management plan be prepared that considers the high probability that parents will park at Bunnings to pick up school children or for access to sporting fields (at no cost to council by Bunnings) and also to consider the impact of the two proposed child care centres in that location
- vii. A parking optimisation plan for Frank Street and College Street between Frank Street and Orient Street be prepared to counteract any loss of parking due to the Bunnings development and implemented (at no cost to Council by Bunnings)
- viii. Roundabout at Monash/Buffalo Road intersection.
- ix. Detailed study into the impacts of a right hand turn at Westminster Street and a right hand turn ban during the evening peak at Jordan Street from Victoria Road (at no cost to Council developer funded)
- x. Detailed study into the traffic and parking impacts be undertaken for any proposed rezoning that includes land use changes and increased densities for sites adjoining Tennyson Road. The aforementioned traffic and parking impact study is to be modelled on the Bunnings Gladesville Traffic and Parking Impact Study in terms of its scope and deliverables. (at no cost to Council developer funded).
- xi. An additional traffic and parking study, as detailed in part (x) above, be undertaken for the area bounded by Pittwater Road to Monash Road and Ryde Road to Victoria Road. (at no cost to Council developer funded).
- d) That a Roundabout at Monash/Buffalo Road intersection be included in the 2016/2017 City of Ryde Delivery Plan with the funds drawn from the Section 94 reserve.
- e) That Council refer the following matters to the Traffic Committee for consideration:
 - i. Speed management for the area bounded by Cressy, Pittwater, Higginbotham and Victoria Roads
 - ii. Parking optimisation for Eltham Street
- f) That Council adopt a site specific Development Control Plan for 461-495 Victoria Road Gladesville amended in accordance with the above changes in the Bunnings Gladesville Traffic and Parking Study.
- g) That Council delegate the General Manager to make amendment to the site specific Development Control Plan for 461-495 Victoria Road Gladesville to implement Council's resolutions prior to notifying the plan in accordance with the Environmental Planning and Assessment Act.
- h) That Council notify all community members who made a submission regarding the planning proposal of the outcomes and thank them for taking the time to become involved in local planning.



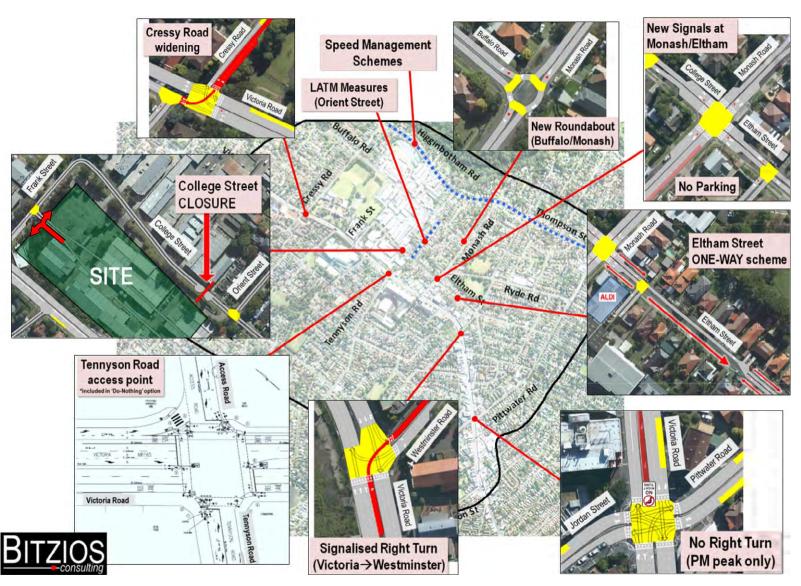


Figure ES18: Preferred Network

APPENDIX C

EXTRACT OF COMMUNITY CONSULTATION SUMMARY

o. FILE REF	Summary of Submission	Consideration of Issues	Recommendation
	Full Closure Form Submissions - Resident Orient St Comments received 1 December 2014 following Information Session held 27 November 2014 Thanks Council for community consultation		
	 Pull closure would negate the need for complicated traine arrangements at Bullings Prank St entrance, allow exiting traffic to proceed to other businesses within the industrial area One-way option does not take into consideration inevitable future development on the northern side of College St West The one-way option would require all industrial traffic to enter and exit the business park via Victoria Rd 	existing congestion at the intersections of Victoria/Monash, Victoria/Cressy and Victoria/ Pittwater. The preferred network responds to these circumstances and reduces rat running in local streets directing traffic to collector roads including Monash and Cressy Roads.	
	All residents would prefer the minor inconvenience of no access to/from Frank St – i.e. a full closure	Property values No evidence is provided or available regarding the impact of Bunnings on College Street business or industrial property values. However, it is noted that land owners from College Street have advised Council over a period of years that it is increasingly difficult to attract new tenants to the area and that vacancies exist (some long term). There is some evidence therefore that factors, other than the Bunnings proposal, influence tenant decisions to locate in	

Page **1** of **90**

No.	FILE REF	Summary of Submission	Consideration of Issues	Recommendation
				Amend the site specific Bunnings DCP to require implementation of Council's resolutions with respect to the Bunnings Gladesville Traffic and Parking Study.
63	D15/6499	 (Resident, Higginbotham Rd) Agrees with most of the traffic study Does not agree with traffic calming in Higginbotham Rd traffic calming as cause for annoyance for emergency services, buses and local traffic. Police can monitor those who speed. 	Speed Management in Higginbotham Rd/Thompson St Corridor The traffic study recommends treatments for Higginbotham Rd and Thompson Street to slow down traffic in this area. However, the type of speed management measures is not detailed	Refer recommendations for Submission No 1 In relation to Speed Management
			Refer comments on Full Closure Form Submission No 1 In relation to Speed Management	
64	D15/6656	BUSINESS Form Submission - Employee College St business Prefers partial closure to full closure College St – however, both result in inconvenience to staff and deliveries and may impact on business	Preference for a one-way closure over full closure is noted. OBJECTION to full closure in College St is noted.	Refer recommendations for Submission No 4
		Objects to Bunnings if full closure is the outcome of this process.	Refer comments on BUSINESS Form Submission No 4	
65	D15/6675	 Supports Full Closure Form Submission – Resident Brereton St SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic Additional comments re Tennyson Road/Sth Victoria Road: Disappointed study re traffic issues on southern side of Victoria Rd Tennyson Rd and surrounding streets under pressure from Putney development & RALC traffic Bunnings will add to current traffic issues Even more development planned – 2-12&14 Tennyson Road PP, child care centre cnr Victoria Rd/Tennyson Rd, Primrose Hill, expansion of Putney Hill. 	Refer comments on Full Closure Submission No 1 Tennyson Road/South of Victoria Road The scope of the traffic study included assessment of whether or not traffic volumes will exceed acceptable growth and if so recommend mitigation measures. The traffic model identifies and quantifies traffic growth in Tennyson Rd. It also indicates that the Tennyson/Victoria intersection experiences congestion on the Victoria Rd leg in the PM peak due to the storage capacity i.e. the short distance between Tennyson and Morrison Rd. As a result of the study and traffic modelling, the consultants did not identify a need for mitigation measures in Tennyson Road/south of Victoria Road, as a result of traffic associated with the Bunnings planning proposal.	Refer recommendations for Submission No 1 While no amendments are required to the Planning Proposal or the site specific DCP, it is proposed to require that the proponent of any density increase in Tennyson Road or South of Victoria Road undertakes a detailed traffic study to identify issues and mitigation measures. This approach is supported by the RMS.
66	D15/6676	 (Outside LGA, regular visitor to relatives in College St) Concerned about speeding vehicles and additional traffic in College St Traffic access to College St is an issue 	The traffic study puts forward two options – one-way or full closure - to reduce traffic in College St. Both options address through traffic and speeding traffic.	Refer recommendations for Submission No 1
67	D15/6677	 Supports Full Closure Form Submission – Resident Searle St SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic Additional comments re Tennyson Road/Sth Victoria Road: Disappointed study re traffic issues on southern side of Victoria Rd Tennyson Rd and surrounding streets under pressure from Putney development & RALC traffic 	Refer comments on Full Closure Submission No 1 Refer comments on Tennyson Road/South of Victoria Road on Submission No 65	Refer recommendations for Submission No 1 Refer recommendations for Submission No 65

Page **17** of **90**

o. FILE R	F Summary of Submission	Consideration of Issues	Recommendation
	 Council needs to consider childcare centres on College and Frank Sts Does not SUPPORT small one-way option because it will not sufficiently limit traffic on College St, will put residents at risk if motorist disobey the one-way – already evident at Eltham St trial one-way. 		
16 D15/76	 (Resident, Cressy Road) Strongly SUPPORTS Bunnings and other developments, but impact on residents is a major factor sharing the burden of traffic and noise Hidden issues slowly changing the dynamics in the area need addressing – including: Parking for residences Increase in traffic flow Access for school children – Holy Cross College Reduction in traffic delays – am/pm school pickup/drop off Reduce damage caused by illegal drop offs. Suggestions re Cressy Road: Wants Cressy Road made one-way southbound towards Buffalo Road – this will widen Cressy Rd to 2 lanes, allow parking in off peak times for at least half of Cressy Rd (currently nearly all taken up during work hours) Limit drop off same side of road (no u-turns) Increase flow of traffic out of Cressy onto Victoria Allow parking in bus bay in non-school times Eliminate traffic blockage at end of school time for students alighting buses to depart Permit left turn at end of Cressy Rd Achievable at minimum cost. Applauds Council for approach, professional manner. 	Victoria Rd is considered a regional road and Cressy Rd a higher order road in the road hierarchy than other local streets such as College St. As a result options such as one way were not considered by the traffic study. The Bunnings traffic impacts will be experienced on Cressy Road as all options - do nothing, partial or full closure College St – result in increased traffic. Both options for partial and full closure College St divert traffic to Cressy Road, but mitigation measures are able to decease wait times at the northern approach to the Victoria/ Cressy Rd intersection and improve the intersection performance. The mitigation measures include widening the street at the intersection. This in particular will benefit locals and reduce wait times at the lights.	Refer recommendations for Submission No 1
D15/76 Duplica D15/99	Strongly OBJECTS to full closure – cul-de-sac in College St If the Bunnings development is only possible with full closure, then OBJECTS also to Bunnings	Preference for a one-way closure over full closure is noted. OBJECTION to full closure in College St is noted. Refer comments on BUSINESS Form Submission No 4	Refer recommendations for Submission No 4
18 D15/77	 (Resident, Tennyson Rd, Gladesville) Current traffic Tennyson Rd traffic at saturation, difficult to cross or gain access from driveway Extremely concerned regarding traffic Wants residents not to be inconvenienced and to be heard over the needs of big business. 	Concerns re traffic issues are noted.	No further action recommended

Page **27** of **90**

No.	FILE REF	Summary of Submission	Consideration of Issues	Recommendation
310	D15/9229	(Employee, College St business) OBJECTS to full closure because Parking would be difficult for business and residents Would affect my work Questions the need for another Bunnings.	Refer comments on Business Form Submission No 4	Refer recommendations for Submission No 4
311	D15/9231	(Resident, Eltham St) OBJECTS to a Bunnings development due to traffic and parking impacts	Objection to Bunnings development/planning proposal is noted.	No further action is recommended
312	D15/9234	(Employee, College St business) SUPPORTS partial closure because works at College St business and deliveries on a daily basis	Refer comments on Business Form Submission No 4	Refer recommendations for Submission No 4
313	D15/9235	(Relatives live in Orient St) SUPPORTS full closure of College St as it provides best separation residential and industrial areas, addresses safety and residents amenity.	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
314	D15/9236	(Relatives live in Orient St) SUPPORTS full closure of College St as it provides best separation residential and industrial areas, addresses safety and residents amenity. And other recommendations of the Traffic Study	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
315	D15/9248	(Resident, College St) SUPPORTS full closure of College St as it provides best separation residential and industrial areas, addresses safety and residents amenity.	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
316	D15/9250	(Resident, Orient St) SUPPORTS full closure of College St as it provides best separation residential and industrial areas, addresses safety and residents amenity.	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
317	D15/9252	(Past resident of Nelson St) SUPPORTS full closure of College St as it provides best separation residential and industrial areas, addresses safety and residents amenity.	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
318	D15/9253	(Resident, Buffalo Rd) SUPPORTS full closure of College St as it provides best separation residential and industrial areas, addresses safety and residents amenity. AND Requests additional measures to address pedestrian safety in Buffalo Rd (safe crossing near Orient St intersection.	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
319	D15/9256 Duplicate: D15/9316	 BUSINESS form submission - Runs a business in College St OBJECTS to full closure College St, and any changes to traffic flow/condition on College St Half, or worse, full closure will inconvenience staff, deliveries, clients by having limited access to College St OBJECTS to Bunnings development if full closure is the result 	OBJECTION to ANY closure of College St is noted - Do nothing option preferred Refer also comments on BUSINESS Form Submission No. 4 Refer also comments on "Do Nothing" Submission No. 24	No further action is recommended in response.

No.	FILE REF	Summary of Submission	Consideration of Issues	Recommendation
		Council should give weight to protection of amenity, social and health issues		
445	D15/11670	Supports Full Closure Form Submission – Resident Stanbury St Gladesville SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
146	D15/11675	Supports Full Closure Form Submission – Resident East Ryde SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
447	D15/11679	Supports Full Closure Form Submission – Resident Albert St Gladesville SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
448	D15/11684 Duplicate: D15/11708	 Supports Full Closure Form Submission (Outside Ryde LGA) SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic 	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
149	D15/11687	Supports Full Closure Form Submission – Resident Buffalo Rd Gladesville SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic Additional comment Council should give weight to protection of amenity, social and health issues	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
50	D15/11690	Supports Full Closure Form Submission – Resident East Ryde SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
1 51	D15/11694	Supports Full Closure Form Submission – Resident Sunnyside St Gladesville SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
152	D15/11697	Supports Full Closure Form Submission (No address provided) SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
153	D15/11701	Supports Full Closure Form Submission – Resident Sunnyside St Gladesville SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No
154	D15/11707	 Supports Full Closure Form Submission – Resident Parry St Ryde SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic 	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No

Page **82** of **90**

No.	FILE REF	Summary of Submission	Consideration of Issues	Recommendation
510	D15/12717	Supports Full Closure Form Submission - Resident, Eltham Street SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
511	D15/14083	 (Received 4 Feb) (Residents, College St) Concern about increase in traffic volumes - impact on traffic safety Need for lights to control traffic using College St as a speedway Don't turn lovely suburb into another Chatswood 	Concerns about increased traffic volumes and safety issues are noted. Refer comments on Full Closure Submission No 1	Amend the site specific Bunnings DCP to require implementation of Council's resolutions with respect to the Bunnings Gladesville Traffic and Parking Study. Refer recommendations for Submission No 1
512	D15/14084	 (Received 4 Feb) (Residents, Owen St, Gladesville) Concerned with proposed traffic changes Current problems of doing a right turn out of Owen St into Buffalo Road will increase with the proposed development Cumulative impact when Putney Hill complete – traffic will use Morrison and Buffalo Roads as alternate to Victoria Road Proposed roundabout and lights at Eltham Street will slow traffic even more causing build up difficulty driving up to Victoria Road. 	Refer comments on Full Closure Submission No 1 in relation to speed management A roundabout at the intersection of Buffalo and Monash is recommended to be implemented.	Refer recommendations for Submission No 1
513	D15/13312	Supports Full Closure Form Submission – Regular visitor College Street SUPPORTS recommendations traffic study Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1
515	D15/13314	Supports Full Closure Form Submission – Regular visitor College Street • SUPPORTS recommendations traffic study • Strongly SUPPORTS FULL closure College St, and separation of residential and industrial traffic	Refer comments on Full Closure Submission No 1	Refer recommendations for Submission No 1

APPENDIX D

COMMUNICATIONS AND CONSULTATION STRATEGY

The trial closure of College Street – a communications and consultation strategy

About this strategy

The purpose of this strategy is to ensure that impacted stakeholders – particularly local residents, adjacent business owners and operators and people accessing the nearby school, Holy Cross Ryde, are informed about the trial closure of College Street.

Through a proactive upfront communication approach, the element of surprise will be alleviated and stakeholders will have the opportunity to make alternative arrangements to minimise any frustration or negative impacts upon stakeholders.

Implementation strategy

Implementation strategy				
Key stakeholder meeting – Holy Cross Ryde	Offer a briefing with the project team to Holy Cross Ryde to: » establish a good relationship with the key stakeholder	Three weeks prior to commencement of works		
	» provide relevant information to the school, to distribute to students and school users. May also offer electronic versions of easy-to-read maps and details about the closure for inclusion in written and/or electronic school communication with students and school families.			
Key stakeholder meetings – Emergency services	Offer briefings on the changes to emergency services including Police, ambulance and fire services.	Early 2016		

Newsletter / letter to stakeholders	A newsletter detailing the trial full closure to be distributed via letterbox drop to local stakeholders, including residents, local business owners/operators and the Holy Cross Ryde school community. The catchment area will be agreed with the project team.	Min. 2 weeks prior to commencement of trial full closure of College Street
	The newsletter will include:	
	» an introduction to the project and context	
	» easy-to-read maps showing traffic changes	
	» contact information for the project team (including dedicated project email address and infoline) and the City of Ryde.	
Email notification to Council database	An electronic form of the above letter to stakeholders will be distributed to stakeholders listed on the Council database, with some tailored language. Council has the email contacts of most of the people who made submissions during previous consultation phases relating to the proposal.	Min. 2 weeks prior to commencement of trial full closure of College Street (same day as the above letterbox distribution)
Project infoline	A project infoline (1800 number) will be set up to field comments, concerns and feedback from stakeholders about the trial full closure of College Street. Elton Consulting would organise set up and management of the infoline. Where necessary, the calls will be escalated to the project team for response or action. All feedback received via the infoline will be captured and reported back to the project team for inclusion in the review of the trial.	Min. 2 weeks prior to commencement until 4 weeks following implementation.

Project email	A dedicated project email will be set up to field comments, concerns and feedback from stakeholders about the trial full closure of College Street. Elton Consulting would organise set up and monitoring of the inbox, including providing agreed responses. Where necessary, the emails will be escalated to the project team for response or action. All feedback received via the project email will be captured and reported back to the project team for inclusion in the review of the trial.	Min. 2 weeks prior of commencement until completion of trial full closure
Newspaper notifications	Notifications / advertisements will be placed in local newspapers to advise the community about the traffic changes to College Street.	Min. 1 and 2 weeks prior to the commencement of the trial full closure Weekly for the first 3 weeks of the trial
Online survey	Provide an online survey to capture thoughts and feedback about the trial full closure. The purpose of the survey would be to:	Available online continuously, from the commencement of the trial to completion (12 months)
	» provide useful, comparable data for analysis in the review of the trial full closure of College Street	
	» demonstrate that the project team is actively seeking feedback on the trial	
	» investigate what the traffic changes mean to key stakeholders.	
Variable message signs (VMS)	» Install two VMS units at suitable locations to the trial closure, so as to inform drivers of the closure, who may not be captured via other consultation methods.	From commencement of work until 4 weeks following implementation
Four week review	» Adjacent businesses and residents in College St will be consulted four weeks after the commencement of the pilot to understand potential issues with the new traffic conditions.	From commencement of work until 4 weeks following implementation
	» Consultation could include a door knock or online survey and a preliminary report would be provided to Council outlining feedback received.	

Elton Consulting would draft copy, content and graphic design of written and electronic communications listed above. Where required, the project team will provide technical input and drawings, including maps, as required.