



WAVERLEY TRAFFIC COMMITTEE MEETING

A meeting of the WAVERLEY TRAFFIC COMMITTEE will be held by video conference at:

10.00 AM, THURSDAY 24 MARCH 2022

Waverley Council
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AGENDA

Apologies

Declarations of Interests

Adoption of Previous Minutes by Council - 24 February 2022 9

The recommendations contained in Part 1 – Matters Proposing that Council Exercise its Delegated Functions – of the minutes of the Waverley Traffic Committee meeting held on 24 February 2022 were adopted by Council at its meeting on 15 March 2022 with the following change:

1. TC/V.01/22.02 – Chaleyer Street, Rose Bay – Passing Bays.

Council adopted the recommendation of the Traffic Committee subject to the deletion of clauses 1(b) and 1(d) and the addition of new clauses such that the recommendation now reads as follows:

That Council:

1. Installs 'No Parking' zones across the driveways of the following addresses along Chaleyer Street, Rose Bay, as shown in Figure 4 of the report:
 - (a) 117 and 119.
 - (b) 56 and 58.
 - (c) 23.
 - (d) 6 and 8.
 - (e) 1 and 457 Old South Head Road.
2. Defers for three months the installation of 'No Parking' zones across the following addresses along Chaleyer Street for further discussion with residents
 - (a) 91 and 95 because one was against and one was no response.
 - (b) 28 and 30 because one was against and one was no response.
3. Officers review the effect of the installation of the 'No Parking' zones on traffic flow and congestion and prepare a report to Council after six months from the time the zones have been installed.
4. Officers investigate the addition and/or extension of 'No Stopping' zones at each end of Chaleyer Street, with a report to be prepared for the Traffic Committee.

PART 1 – MATTERS PROPOSING THAT COUNCIL EXERCISE ITS DELEGATED FUNCTIONS

NOTE: *The matters listed under this part of the agenda propose that Council either does or does not exercise the traffic related functions delegated to it by TfNSW. The recommendations made by the Committee under this part of the agenda will be submitted to Council for adoption.*

TC/C STATE ELECTORATE OF COOGEE

TC/C.01/22.03 40 km/h Speed Limit Changes - Traffic Control Devices - Park Parade and Dickson Street at Birrell Street, Bondi (A18/0579)..... 17

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Endorses the designs for the intersections of Park Parade/Birrell Street and Dickson Street/Birrell, as set out in Appendix D of the report by PDC Consultants attached to the report.
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

TC/C.02/22.03 37 Llandaff Street, Bondi Junction - 'P Disability Only' Zone (A20/0534)..... 80

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 6 metre 'P Disability Only' parking zone in front of 35–37 Llandaff Street, Bondi Junction.

TC/C.03/22.03 13/1 Silva Street, Tamarama - 'P Disability Only' Zone (A20/0534) 83

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 5.4 m 'P Disability Only' parking zone on the northern side of Dellview Lane near Silva Street, Tamarama.

TC/C.04/22.03 20 Illawong Avenue, Tamarama - Construction Zone (A03/2514-04)..... 86

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 10 metre 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' construction zone on the southern side of Illawong Avenue near 20 Illawong Avenue, Tamarama.
2. Requires the applicant to notify residents in the vicinity of the construction zone prior to it being installed.

3. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

TC/V STATE ELECTORATE OF VAUCLUSE**TC/V.01/22.03 Anzac Day - Ramsgate Avenue and Campbell Parade, North Bondi - Temporary Road Closure (A19/0394) 90****COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Approves the Traffic Control Plans attached to the report for the temporary closure of Ramsgate Avenue and Campbell Parade, North Bondi, on 25 April 2022 between 4 am and 8 am, subject to the applicant:
 - (a) Submitting a Traffic Management Plan to Transport for NSW for approval.
 - (b) Providing public liability insurance for the event.
 - (c) Obtaining NSW Police Force approval and assessment of the event classification.
 - (d) Notifying the State Transit Authority, NSW Ambulance Service and NSW Fire and Rescue (Bondi, Woollahra, and Randwick fire stations) at least seven days prior to the event.
 - (e) Notifying local residents and businesses at least seven days prior to the event.
 - (f) Using traffic controllers accredited by Transport for NSW to regulate traffic.
 - (g) Covering all costs associated with traffic control.
 - (h) Submitting a copy of the approved road occupancy licence to the Executive Manager, Infrastructure Services, prior to the event taking place.
2. Delegates authority to Executive Manager, Infrastructure Services, to modify the Traffic Control Plans should on-site circumstances warrant changes.

TC/V.02/22.03 Oceanview Avenue east of Old South Head Road, Vaucluse - Double Centre (BB) Line Marking (A03/0042-04) 95**COUNCIL OFFICER'S PROPOSAL:**

That Council installs 10 metres of double centre (BB) line marking in Oceanview Avenue east of Old South Head Road, Vaucluse, as shown in Figure 1 of the report.

TC/V.03/22.03	38 and 40 Roscoe Street, Bondi Beach - 'P Motor Bikes Only' Parking Zone (SF22/504).....	97
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COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 'P Motor Bikes Only' zone in the kerbside lane between the driveways of 38 and 40 Roscoe Street, Bondi Beach.
2. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the 'P Motor Bikes Only' parking zones, as necessary.

TC/V.04/22.03	5 Strickland Street, Rose Bay - 'P Motor Bikes Only' Parking Zone (SF22/496).....	101
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COUNCIL OFFICER'S PROPOSAL:

That Council installs a 'P Motor Bikes Only' parking zone between the driveways of 3A and 5 Strickland Street, Rose Bay.

TC/V.05/22.03	203 Military Road, Dover Heights - 'P Motor Bikes Only' Zone and 'No Stopping' Zone (SF22/952).....	105
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COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 'P Motor Bikes Only' parking zone between the driveways of 203 and 205 Military Road, Dover Heights.
2. Reduces the length of the 28.5 metre 'No Stopping' zone in front of 199, 201 and 203 Military Road to 10 metres.
3. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the 'P Motor Bikes Only' parking zone, as necessary.

TC/V.06/22.03	82 Ramsgate Avenue, Bondi Beach - Construction Zone (A03/2514-04)	109
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COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs an 8 metre 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' construction zone in front of 82 Ramsgate Avenue, Bondi Beach.
2. Removes the '2P 8 am–10 pm Permit Holders Excepted Area 6' (left and right) sign in front of 82 Ramsgate Avenue for the period during which the construction zone is used.

3. Requires the applicant to notify residents in the vicinity of the construction zone prior to it being installed.
4. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

TC/V.07/22.03 10 Hastings Parade, North Bondi - Construction Zone (A03/2514-04)..... 113

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 10 metre 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' construction zone in front of 10 Hastings Parade, North Bondi.
2. Requires the applicant to notify residents in the vicinity of the construction zone prior to it being installed.
3. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

TC/CV ELECTORATES OF COOGEE AND VAUCLUSE

TC/CV.01/22.03 Guide for On-street Mobility Parking Spaces (A20/0534)..... 118

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Endorses the process outlined in the report for the assessment of on-street mobility parking applications.
2. Endorses the *Guide for On-street Mobility Parking Spaces in the Waverley Local Government Area* attached to the report.
3. Publishes the guide on Council's website.
4. Delegates authority to Executive Manager, Infrastructure Services, to modify the assessment process or guide.

TC/CV.02/22.03 Craig Avenue, Trafalgar Street, Castlefield Street and Calga Place - Electric Vehicle Charging Stations (A17/0477)..... 125

COUNCIL OFFICER'S PROPOSAL:

That Council installs a single 'No Parking, Electric Vehicles Excepted Only While Charging' parking zone and associated equipment at each of the following locations:

1. The eastern side of Craig Avenue, east of Diamond Bay Road, Vaucluse.
2. The southern side of Trafalgar Street, south of Pembroke Street, Bronte.
3. The eastern side of Castlefield Street, outside 15 Castlefield Street, Bondi.
4. The eastern side of Calga Place, south of Macpherson Street, Bronte.

PART 2 – TRAFFIC ENGINEERING ADVICE

NOTE: The matters listed under this part of the agenda seek the advice of the WTC only and do not propose that Council exercise its delegated functions at this point in time (though they may or may not require it in the future).

TC/TEAC STATE ELECTORATE OF COOGEE

Nil.

TC/TEAV STATE ELECTORATE OF VAUCLUSE

Nil.

TC/TEACV ELECTORATES OF COOGEE AND VAUCLUSE

Nil.

**MINUTES OF THE WAVERLEY TRAFFIC COMMITTEE
MEETING HELD BY VIDEO CONFERENCE ON
THURSDAY, 24 FEBRUARY 2022**



Voting Members Present:

Cr P Masselos	Waverley Council – Chair
Snr Cst A Birchansky	NSW Police – Eastern Suburbs Police Area Command – Traffic Services
Mr P Pearce	Representing Marjorie O’Neill, MP, Member for Coogee
Mr R Sritharan	Transport for NSW – Network and Safety Officer
Ms J Zin	Representing Gabrielle Upton, MP, Member for Vacluse

Also Present:

Mr B Gidiess	State Transit – Traffic and Services Manager (Eastern Region)
Mr D Joannides	Waverley Council – Executive Manager, Infrastructure Services
Mr C Hutcheson	Waverley Council – Service Manager, Traffic and Transport
Mr C Yabuka	Waverley Council – Manager, Strategic Transport
Mr N Zervos	Waverley Council – Manager, Asset Systems and Planning
Mr M Almuhanha	Waverley Council – Senior Traffic Engineer
Mr P Cai	Waverley Council – Traffic Engineer
Ms B Wang	Waverley Council – Professional Engineer, Traffic and Development
Cr L Fabiano	Waverley Council
Cr T Kay	Waverley Council

At the commencement of proceedings at 10.01 am, those present were as listed above.

At 10.17 am, Mr P Pearce left the meeting and did not return.

Apologies

There were no apologies.

Declarations of Pecuniary and Non-Pecuniary Interests

The Chair called for declarations of interest and none were received.

Adoption of Previous Minutes by Council - 27 January 2022

The recommendations contained in Part 1 – Matters Proposing that Council Exercise its Delegated Functions – of the minutes of the Waverley Traffic Committee meeting held on 27 January 2022 were adopted by Council at its meeting on 15 February 2022 with the following changes:

1. TC/C.01/22.01 – Waverley Bus Depot – Access Improvements.

Council adopted the recommendation of the Traffic Committee subject to an amendment to clause 1 and the addition of a new clause 10 such that the recommendation now reads as follows:

That Council:

1. Supports the closure of the Waverley Bus Depot access to Oxford Street and the signalisation of the York Road/Waverley Bus Depot intersection, subject to no consideration being given to any widening of York Road into the nature strip on the Centennial Park side.
2. Supports 'No Stopping' restrictions on York Road across the Bus Depot intersection and 20 metres on either side in accordance with Transport for NSW (TfNSW) Technical Direction 2002/12c (Stopping and Parking Restrictions at Intersections and Crossings).
3. Extends the 20 metre 'No Stopping' restrictions on the western side of York Road north of the intersection by 30 metres on a six-month trial basis.
4. Requests TfNSW to fund the renewal of the road surface and the installation of compliant street lighting on multi-function poles between the new signals and Oxford Street.
5. Requests TfNSW to investigate options to reduce the length of the 20 metre 'No Stopping' restrictions on the approaches/departures to the York Road/Waverly Bus Depot intersection.
6. Investigates the existing parking restrictions on both sides of York Road to the north of the York Road bus depot bus access for conversion to unrestricted parking outside peak times, with a report to the Traffic Committee six months after the project's implementation.
7. Requests TfNSW to provide more detailed analysis of the effects on the Oxford Street/York Road and Syd Einfeld Drive/Ocean Street intersections.
8. Requests TfNSW to consult NSW Police and Woollahra Council.
9. Requests TfNSW to consult Mill Hill Bondi Junction Precinct, Queens Park Precinct, Moriah College and local residents prior to commencing the project.
10. Requests TfNSW to inform residents in Oxford Street, York Road and surrounding streets about TfNSW plans for the closure of the Oxford Street entrance to the bus depot and the construction of a new signalised entrance in York Road.

2. TC/C.04/22.01 – Bronte Bowling Club, 16 Wallace Street, Waverley – Loading Zone.

Council adopted the recommendation of the Traffic Committee subject to an amendment to clause 1 such that the recommendation now reads as follows:

That Council:

1. Installs a 12 metre 'Loading Zone, 12 pm–4 pm, Tuesday, Thursday' on the eastern side of Wallace Street, Waverley, in front of Bronte Bowling Club on a six-month trial basis, as shown in Figure 1 of the report.
2. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of the loading zone, as necessary.
3. TC/V.01/22.01 – Murriverie Road, North Bondi – Bus Zone Modification.

Council did not adopt the recommendation of the Traffic Committee and made the following decision:

That Council defers the matter for an on-site meeting between Council officers, the residents of 38, 40 and 42 Murriverie Road and other interested parties, including Councillors.

ITEMS BY EXCEPTION

The following items on the agenda were dealt with together and the Council Officer's Proposal for each item was unanimously supported by the Committee:

- TC/C.03/22.02 Ebley Street, Bondi Junction – Driving Test Parking Restrictions.
- TC/C.04/22.02 Alfred Street and Belgrave Lane Intersection, Bronte – 'No Stopping' Signs.
- TC/V.02/22.02 Clarke Street and Jensen Avenue, Dover Heights – 'No Stopping' Zone.
- TC/V.03/22.02 25 Ramsgate Avenue, Bondi Beach – 'P Disability Only' Zone – Extension.

PART 1 – MATTERS PROPOSING THAT COUNCIL EXERCISE ITS DELEGATED FUNCTIONS

NOTE: The matters listed under this part of the agenda propose that Council either does or does not exercise the traffic related functions delegated to it by TfNSW. The recommendations made by the Committee under this part of the agenda will be submitted to Council for adoption.

TC/C STATE ELECTORATE OF COOGEE

- TC/C.01/22.02 Bronte Road and Pacific Street, Bronte - Footpath and Kerb Extensions (SF22/475)

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a new footpath on the western side of Bronte Road, Bronte, between Pacific Street and the Bronte Beach shops, and kerb extensions and a blister at the intersection of Bronte Road and Pacific Street, as shown in Attachment 1 of the report.
2. Delegates authority to Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted.

Voting members present for this item: Representative of the Member for Coogee, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

TC/C.02/22.02 Macpherson Street/St Thomas Street, Bronte - Intersection Upgrade (SF21/3069)**COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Endorses Option 2 for the additional upgrade works at the intersection of Macpherson Street and St Thomas Street, Bronte, as set out in the report.
2. Delegates authority to Executive Manager Infrastructure Services to modify the designs should on-site circumstances warrant changes.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted.

Voting members present for this item: Representative of the Member for Coogee, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

TC/C.03/22.02 Ebley Street, Bondi Junction - Driving Test Parking Restrictions (A21/0105)**COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Changes the parking restrictions along the 29 metre zone on the northern side of Ebley Street outside 19–23 Hollywood Avenue, Bondi Junction, to:
 - (a) 'No Parking Vehicles with Applicants for Service NSW Driving Tests Excepted 8 am–5 pm Mon–Fri, 8 am–3 pm Sat.'
 - (b) '2P Meter Registration 5 pm–9 pm Mon–Fri, 3 pm–9 pm Sat, 8 am–9 pm Sun, Permit Holders Excepted Area 22.'
2. Changes the parking restrictions along the 22 metre zone on the northern side of Gray Street, Bondi Junction, to '1/2P Meter Registration 8 am–6 pm' and '3P 6 pm–9 pm.'

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted.

Voting members present for this item: Representative of the Member for Coogee, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

TC/C.04/22.02 Alfred Street and Belgrave Lane Intersection, Bronte - 'No Stopping' Signs (A14/0145)

COUNCIL OFFICER'S PROPOSAL:

That Council installs 'No Stopping' signs for the existing 'No Stopping' zones at the intersection of Alfred Street and Belgrave Lane, Bronte.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted.

Voting members present for this item: Representative of the Member for Coogee, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

TC/V STATE ELECTORATE OF VAUCLUSE

TC/V.01/22.02 Chaleyer Street, Rose Bay - Passing Bays (A20/0069)

COUNCIL OFFICER'S PROPOSAL:

That Council installs 'No Parking' zones across the driveways of the following addresses along Chaleyer Street, Rose Bay, as shown in Figure 4 of the report:

1. 117 and 119.
2. 91 and 95.
3. 56 and 58.
4. 28 and 30.
5. 23.
6. 6 and 8.
7. 1 and 457 Old South Head Road.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted subject to the addition of a new clause such that the recommendation now reads as follows:

That Council:

1. Installs 'No Parking' zones across the driveways of the following addresses along Chaleyer Street, Rose Bay, as shown in Figure 4 of the report:
 - (a) 117 and 119.
 - (b) 91 and 95.

- (c) 56 and 58.
 - (d) 28 and 30.
 - (e) 23.
 - (f) 6 and 8.
 - (g) 1 and 457 Old South Head Road.
2. Officers investigate the addition and/or extension of 'No Stopping' zones at each end of Chaleyer Street, with a report to be prepared for the Traffic Committee.

Voting members present for this item: Representative of the Member for Vaucluse, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

C Cleminson and B Levido addressed the meeting.

TC/V.02/22.02 Clarke Street and Jensen Avenue, Dover Heights - 'No Stopping' Zone (A14/0145)

COUNCIL OFFICER'S PROPOSAL:

That Council replaces the 'No Stopping 6 am–9 am Mondays' zone at the corner of Clarke Street and Jensen Avenue, Dover Heights with a 'No Stopping' zone.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted.

Voting members present for this item: Representative of the Member for Vaucluse, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

TC/V.03/22.02 25 Ramsgate Avenue, Bondi Beach - 'P Disability Only' Zone - Extension (A20/0534)

COUNCIL OFFICER'S PROPOSAL:

That Council lengthens the 5.6 metre 'P Disability Only' zone in front of 25 Ramsgate Avenue, Bondi Beach, by 2 metres to include the existing pedestrian kerb ramp on the western side of the existing zone.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted.

Voting members present for this item: Representative of the Member for Vaucluse, NSW Police representative, TfNSW representative and Waverley Council representative (Chair).

TC/CV ELECTORATES OF COOGEE AND VAUCLUSE

Nil.

PART 2 – TRAFFIC ENGINEERING ADVICE

NOTE: The matters listed under this part of the agenda seek the advice of the WTC only and do not propose that Council exercise its delegated functions at this point in time (though they may or may not require it in the future).

TC/TEAC STATE ELECTORATE OF COOGEE

Nil.

TC/TEAV STATE ELECTORATE OF VAUCLUSE

Nil.

TC/TEACV ELECTORATES OF COOGEE AND VAUCLUSE

Nil.

THE MEETING CLOSED AT 10.31 AM.

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SIGNED AND CONFIRMED
MAYOR
15 MARCH 2022

REPORT
TC/C.01/22.03

Subject: 40 km/h Speed Limit Changes - Traffic Control Devices -
Park Parade and Dickson Street at Birrell Street, Bondi

TRIM No: A18/0579

Author: Malik Almuhanha, Senior Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Endorses the designs for the intersections of Park Parade/Birrell Street and Dickson Street/Birrell, as set out in Appendix D of the report by PDC Consultants attached to the report.
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

1. Executive Summary

Council has been considering intersection treatments at the intersections of Park Parade and Dickson Street with Birrell Street, Bondi (See Figure 1). This is part of the 40km/h speed review project funded by Transport for NSW. The matter has been considered by the Traffic Committee at the November 2020, March 2021, and May 2021 committee meetings.

Table 1 presents a summary of Council resolutions and associated Traffic Committee recommendations.

Following the most recent resolution, it was decided that an independent consultant would be engaged to undertake a local area traffic study including intersection analysis at the Park Parade and Dickson Street with Birrell Street intersections. The study has been finalised. Attachment 1 contains a copy of the consultant report.

The consultants have recommended:

- Park Parade/Birrell Street (Figure 2) – Kerb buildouts on the eastern and western sides, new centre line road marking with raised reflective pavement markers, and 'Do Not Queue Across Intersection' signage on Birrell Street (east) approach, facing east.
- Dickson Street/Birrell Street (Figure 3) – Kerb buildout on the western side, a realignment on the eastern side, and a 2.0 metre wide pedestrian refuge island.

Council will need to exercise its delegated functions to implement the proposal.

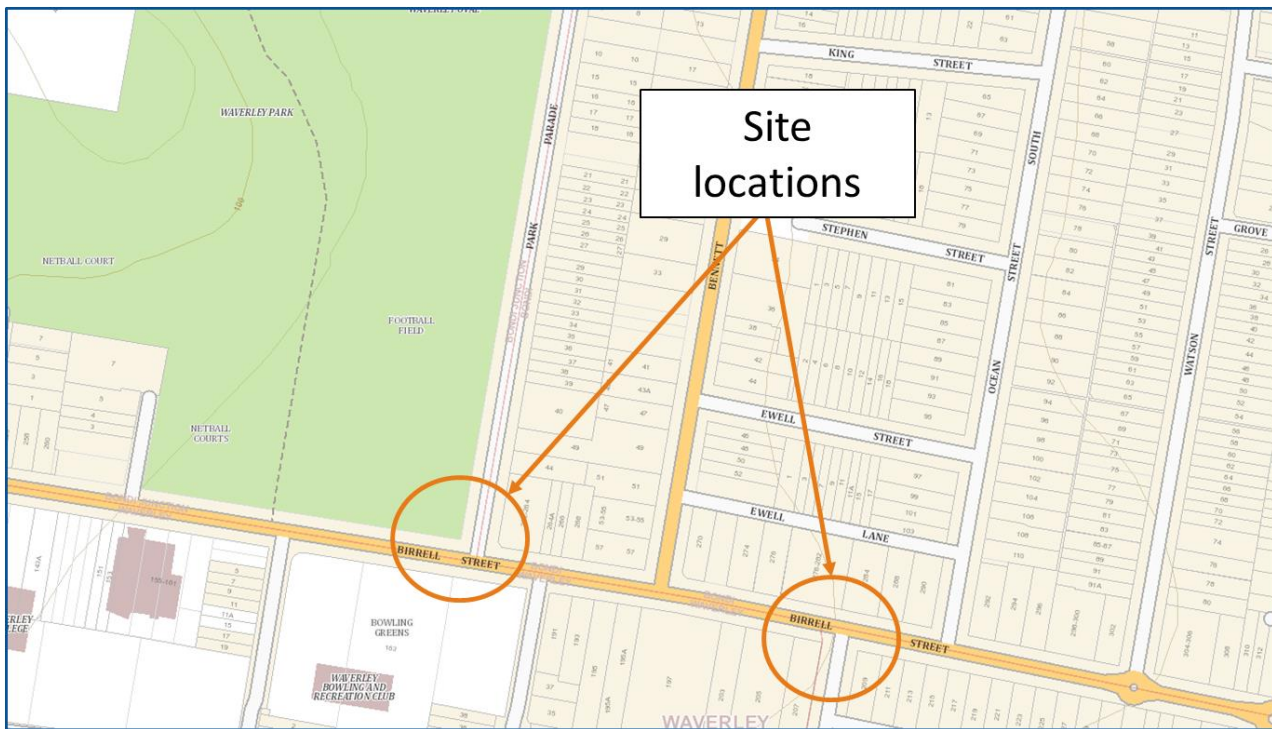


Figure 1. Park Parade and Dickson Street intersections with Birrell Street.

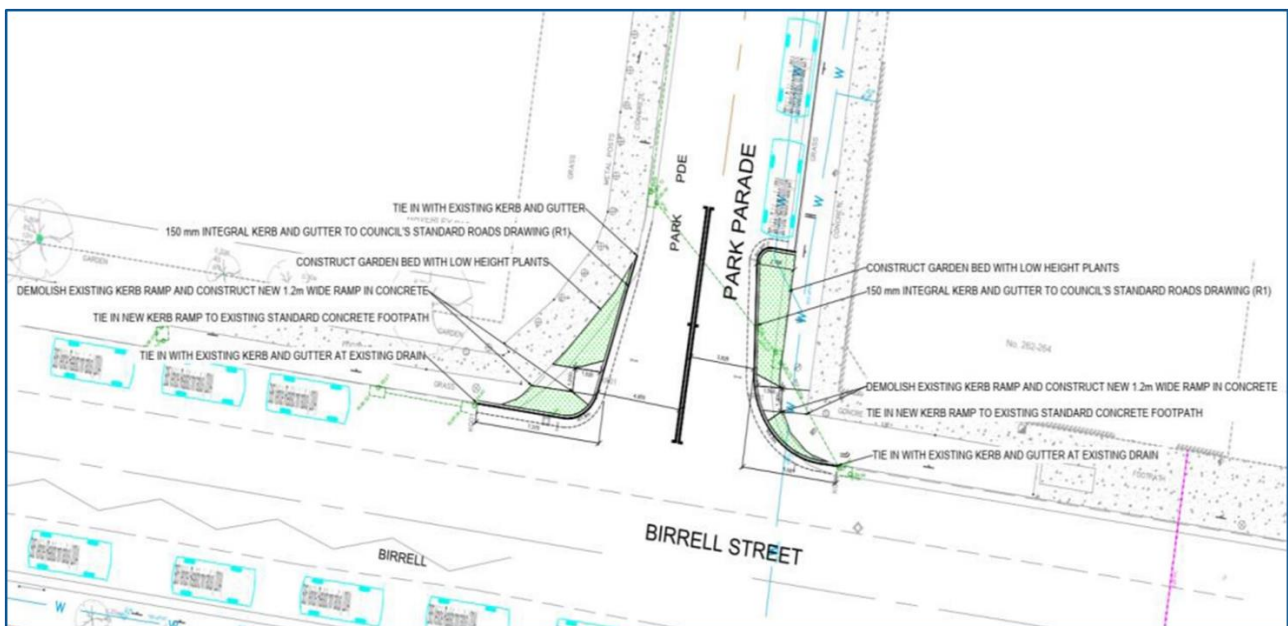


Figure 2. Park Parade intersection with Birrell Street.

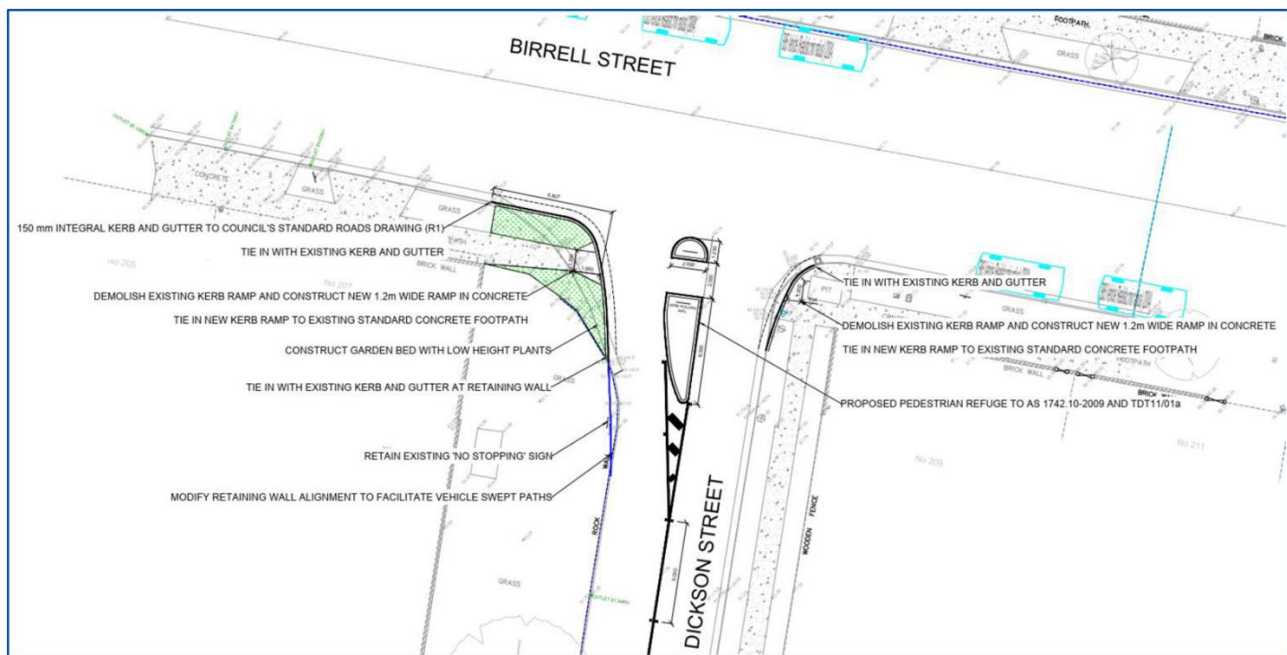


Figure 3. Dickson Street intersection with Birrell Street.

2. Introduction/Background

The study area comprises the two priority intersections of Birrell Street with Park Parade and with Dickson Street, Bondi. The intersections are located approximately 1.2 kilometres south-east of Bondi Junction Railway Station. The two intersections are approximately 200 metres apart, either side of the signalised intersection of Birrell Street with Bennett Street.

Birrell Street provides width for two-lanes in each direction through the two intersections. However, a variety of unrestricted and time restricted on-street parking is permitted, reducing effective capacity largely to one-lane in each direction.

Both the Park Parade and Dickson Street approaches provide a single approach lane that then flares on the immediate approach to Birrell Street to effectively provide a short length of two (2) lanes, allowing a left turn and right turn vehicle to stand side by side at the stop line. Both intersections operate under (Give Way) priority control, with priority to Birrell Street.

The matter has been considered by Council three times. Table 1 sets out the relevant Council resolutions.

Table 1. Relevant Council resolutions and Waverley Traffic Committee recommendations.

Meeting and date	Item No.	Resolution/recommendation
Council 22 June 2021	CM/5.2.1/21.06	That Council: <ol style="list-style-type: none"> Does not proceed with the proposals for the Birrell Street intersections with Park Parade and Dickson Street. Officers investigate short-term measures that can enhance pedestrian and vehicle safety without impacting traffic flow unduly, such as stop lines/signs at both intersections, concrete blisters in the regulatory 'No Stopping' setback in Birrell Street at Dickson Street

		<p>(as per April 2021 Council resolution), and a temporary kerb extension to the western corner of Park Parade, with a report to be presented to the Waverley Traffic Committee for consideration.</p> <p>3. Undertakes a local area traffic study to develop a comprehensive long-term solution to traffic issues at these locations.</p>
Traffic Committee 27 May 2021	TC/C.01/21.05	<p>That Council:</p> <ol style="list-style-type: none"> 1. Installs a centre line marking with kerb extensions at the intersection of Park Parade and Birrell Street, Bondi, as shown in Figure 9 of the report. 2. Installs a pedestrian refuge island with kerb extensions at the intersection of Dickson Street and Birrell Street, Bondi, as shown in Figure 10 of the report. 3. Installs 'Do not queue across intersection' signs at the intersections of Birrell Street with Park Parade and Dickson Street. 4. Installs a no right turn, 7.30 am to 9.30 am, from Park Parade into Birrell Street for a trial of 12 months. 5. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes. 6. Investigates the installation of a no right turn, 7.30 am to 9.30 am, from Dickson Street into Birrell Street, and officers report back to the next Traffic Committee meeting. 7. Undertakes a local area traffic study to develop a more comprehensive long-term solution to traffic issues at this location.
Council 20 April 2021	CM/5.2.2/21.04	<p>That Council defers this item for a schema and commentary on the consequences of the following proposed changes relative to the Traffic Committee's recommendation:</p> <ol style="list-style-type: none"> 1. Approves the installation of centre line marking with kerb extensions at the intersection of Park Parade and Birrell Street as shown in Figure 2, subject to deletion of the kerb extension on the eastern corner to retain two exit lanes from Park Parade and consideration of increasing the proposed kerb extension on the western corner for improved pedestrian safety. 2. Approves the installation of a pedestrian refuge island with kerb extensions at the intersection of Dickson Street and Birrell Street as shown in Figure 3, subject to

		<p>deletion of the kerb extension on the western corner to retain two exit lanes from Dickson Street and consideration of removing or minimising the proposed kerb reduction on the eastern corner for improved pedestrian safety.</p> <ol style="list-style-type: none"> 3. Installs 'Do not queue across intersection' sign (sign G9-237) on the southern side of Birrell Street at the Park Parade intersection. 4. Installs 'Do not queue across intersection' sign (sign G9-237) on the southern side of Birrell Street at the Dickson Street intersection. 5. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes. 6. Investigates the addition of kerb blisters and line markings within the regulatory No Stopping zones in Birrell Street at each intersection to improve line of sight for exiting vehicles.
Traffic Committee 25 March 2021	TC/C.03/21.03	<p>That the Council Officer's Proposal be adopted subject to being amended to read as follows:</p> <ol style="list-style-type: none"> 1. Approves the installation of centre line marking with kerb extensions at the intersection of Park Parade and Birrell Street as shown in Figure 2. 2. Approves the installation of a pedestrian refuge island with kerb extensions at the intersection of Dickson Street and Birrell Street as shown in Figure 3. 1. Installs 'Do not queue across intersection' sign (sign G9-237) on the Southern side of Birrell Street at the Park Parade intersection. 2. Installs 'Do not queue across intersection' sign (sign G9-237) on the Southern side of Birrell Street at the Dickson Street intersection. 5. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

Council 8 December 2020	CM/5.3.2/20.12	<p>That Council officers:</p> <ol style="list-style-type: none"> 1. Subject to providing analyses of traffic and pedestrian flows, consults the community on, but not limited to, the following options for the intersections of Park Parade and Dickson Street at Birrell Street: <ol style="list-style-type: none"> (a) Proposed kerb extensions, as set out in Attachments 1 and 2 of the Traffic Committee report. (b) Proposed kerb extensions, as per Option 1 above, with a 'No Right Turn' traffic restriction on exit into Birrell Street. (c) Traffic island (offset 'centre' refuge) similar to the design at the intersection of Wellington Street and Bondi Road, if technically feasible. (d) No action. 2. Prepare a report on the community consultation for the Traffic Committee's consideration.
Traffic Committee 26 November 2020	TC/C.01/20.11	<p>That Council:</p> <ol style="list-style-type: none"> 1. Approves the designs for the intersections of Dickson Street at Birrell Street, Bronte, and Park Parade at Birrell Street, Bondi, including 10 metres of BB centre lines with raised pavement markers, as set out in Attachment 1 and 2 of the report. 2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

3. Technical Analysis

Proposed designs

The proposed intersection treatments will provide a safer crossing experience for pedestrians and reduce turning speeds. The kerb extensions will minimise crossing distances for pedestrians.

The traffic devices will also act as entry threshold treatments that will provide traffic calming.

The proposed designs for Park Parade intersections with Birrell Street and Dickson Street will not have an impact on existing kerbside parking. The intersection treatments will have little to no increase in traffic noise generation.

One and two exit lane comparison

Provision of two exit lanes has safety issues at both Park Parade/Birrell Street and Dickson Street/Birrell Street intersections.

Austroads AGRD04-17 states that the crash rate at intersections with two stand-up lanes side-by-side on a minor road approach to a priority sign-controlled intersection is 'significantly higher' than for one stand-up lane, noting 'The higher crash rate can be attributed to vehicles in the offside stand-up lane blocking visibility for vehicles in the nearside lane, and vice versa'.

Pedestrians crossing a two-exit lane street must negotiate two lanes. This can result in motorists moving in one lane not seeing a pedestrian who is crossing within the adjacent lane. In traffic engineering terms, pedestrian crossing points are not encouraged where they clash with two lanes of traffic traveling in the same direction as is the case here.

Community feedback

1,420 households were consulted via letterbox drop in October 2021. 151 responses were received. The consultation took place in October 2021. The majority of the community preferred kerb extensions and pedestrian refuge island treatments.

Recommended designs

The aim of the independent study was to improve road safety for drivers and pedestrians and support a self-enforcing speed reduction to 40 km/h proposed for parts of the Waverley local government area south of Bondi Road. It was also delivered in accordance with Waverley's People, Movement and Places initiative, which aims for zero deaths or major injuries on Council roads through its adoption and promotion of a 'people first' approach to transport planning.

The proposals have been designed in accordance with all relevant design standards, and significantly reduce the crossing distances across the Park Parade and Dickson Street approaches to Birrell Street while maintaining all current on-street car parking provision.

The proposals result in the loss of the short second stand-up lanes. The detailed traffic assessment of the existing and future operation of these approaches and the intersections has determined that the proposals would have no significant impact on existing operations.

Park Parade/Birrell Street

Characters of the proposed treatment include:

- Kerb buildouts on the eastern and western sides with dropped kerb pram ramps and new landscaping.
- Removal of the second stand-up lane on the Park Parade approach.
- New centre line road marking with raised reflective pavement markers.
- Erection of 'Do Not Queue Across Intersection' sign on Birrell Street (east) approach, facing east.
- No loss of on-street car parking.

Dickson Street/Birrell Street

Characters of the proposed treatment include:

- Kerb buildout on the western side and realignment on the eastern side, with pram ramps and landscaping.
- New 2.0 metre wide pedestrian refuge island on Dickson Street.
- Minor realignment of the retaining wall on the western side of Dickson Street.
- Provision of a new 'Give Way' sign on the Dickson Street approach.
- No loss of on-street car parking.

4. Financial Information for Council's Consideration

This project was part of the Transport-for-NSW-funded Safe Speeds in High Pedestrian Activity and Local Area program. However, Council has missed the cut off date for the funding due to frequent item amendments. This will now be funded as part of Council's 2022–2023 capital works program.

5. Attachments

1. PDC Consultants - Traffic and Pedestrian Safety Study Park Parade and Dickson Street Traffic Calming, Waverley [↓](#)



TRAFFIC & PEDESTRIAN SAFETY STUDY

Park Parade and Dickson Street Traffic Calming,
Waverley

PREPARED FOR:
Waverley Council

REFERENCE:
0463r01v02

DATE:
3/03/2022



TRAFFIC & PEDESTRIAN SAFETY STUDY

Park Parade and Dickson Street Traffic Calming, Waverley

Prepared for: Waverley Council

ABN: 12 502 583 608

Reference: 0463r01v02

Date: 3/03/2022

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Revision History

VERSION	DATE	PREPARED	REVIEWED	APPROVED	SIGNED
01	1/12/2021	Ben Midgley	Anton Reisch	Paul Corbett	Original signed
02	3/03/2022	Ben Midgley	Paul Corbett	Paul Corbett	

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Table of Contents

1. Introduction	3
1.1. Overview	3
1.2. Policy Context	3
1.3. Objectives	5
1.4. Structure of this Report	6
1.5. References	6
2. Existing Conditions	7
2.1. Location and Site	7
2.2. Road Network	7
2.3. Historical Crash Data	10
2.4. Public and Active Transport	11
2.5. Existing Traffic Conditions	16
3. Proposed Intersection Treatments	18
3.1. Birrell Street / Park Parade	18
3.2. Birrell Street / Dickson Street	18
4. Design Aspects	20
4.1. Overview	20
4.2. Reduced Crossing Width	20
4.3. Reduced Vehicle Speeds	20
4.4. Number of Lanes on the Minor Road	21
4.5. Design and Checking Vehicle	21
4.6. Intersection Design Specifics	22
5. Traffic Impacts	23
6. Conclusions	24



List of Figures

Figure 1: Council's Transport Hierarchy	4
Figure 2: Site Map	8
Figure 3: Road Hierarchy	9
Figure 4: Crashes by Severity	10
Figure 5: Dickson Street Pedestrian Crossing	11
Figure 6: Park Parade Pedestrian Crossing	11
Figure 7: Undesirable Pedestrian Crossing Behaviour	12
Figure 8: Child Cycling on Pedestrian Footpath along Birrell Street	13
Figure 9: Public and Active Transport	15
Figure 10: Proposed Upgrade Options	19
Figure 11: Fatality Risk by Speed	20

List of Tables

Table 1: Hourly Pedestrian Volumes	12
Table 2: Bus Services	14
Table 3: Summary of SIDRA Modelling Results – Existing Performance	16
Table 4: Summary of SIDRA Modelling Results – Option Performance	23

Appendices

Appendix A:	Raw Crash Data
Appendix B:	Base Model Outputs
Appendix C:	Community Consultation
Appendix D:	Concept Plans
Appendix E:	Swept Path Analysis
Appendix F:	Option Model Outputs



1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Waverley Council (Council) to undertake a Traffic & Pedestrian Safety Study (study) of proposed traffic calming treatments at two priority sign-controlled intersections at Birrell Street, Waverley, being Park Parade and Dickson Street.

The proposed treatments are designed to improve road safety for drivers and pedestrians, and are consistent with a posted speed reduction to 40 km/h proposed for parts of the Waverley local government area (LGA) south of Bondi Road.

Council has been investigating intersection treatments at the two intersections since 2020. Designs were first considered by Council's Traffic Committee in September 2020, with a motion made for Council to undertake further investigations and seek community feedback. Four (4) options for each intersection were released for community consultation, with 151 responses from 1,420 households received.

The community feedback was endorsed by Council and referred to the Waverley Traffic Committee; in response, the Traffic Committee put forth a motion for further detailed investigations, and specifically investigations into the retention of the existing provision for two approach lanes on the Park Parade and Dickson Street approaches to Birrell Street, i.e. providing a separate left and right turn lane – so as not to unduly impact traffic flow.

Further to these investigations, Council officers confirmed their original recommendation to reduce the approaches to Birrell to a single lane, specifically to improve pedestrian safety by reducing the potential for conflict with vehicles, and improving pedestrian mobility by reducing the overall crossing width in both Park Parade and Dickson Street.

The Traffic Committee's latest resolution (June 2021) was to not proceed with the Council officers' recommendations, but rather to investigate short-term measures to improve safety without unduly impacting traffic flow, while also undertaking a broader Local Area Traffic Study (LATS) to develop a comprehensive, long-term solution to address traffic issues at these and other locations.

1.2. Policy Context

The proposed treatments aim to improve road safety for drivers and pedestrians, and support Council's *People, Movement and Places* policy (PMP Policy) in achieving 'Vision Zero', which aims for zero deaths or major injuries on Council roads.

The PMP Policy identifies that Waverley has a much higher mode share to walking, cycling, and public transport trips than the broader Greater Sydney area, with only half of all trips made by car and a third of all trips on foot. Nine out of ten residents in Waverley have said they would consider switching car travel to other modes if alternative transport options were available.



In response, Council has adopted a 'people first' approach to transport planning across the LGA, with a vision to increase transport choices for residents and visitors; improve accessibility to local centres; and reduce car travel and dependence upon private vehicles. This in turn would improve traffic congestion; reduce detrimental and harmful environmental impacts; and improve the health of individuals through leading more active lifestyles.

Council's transport hierarchy is identified as having a strong focus on active transport, with private vehicles considered the lowest priority mode, as illustrated by **Figure 1**.

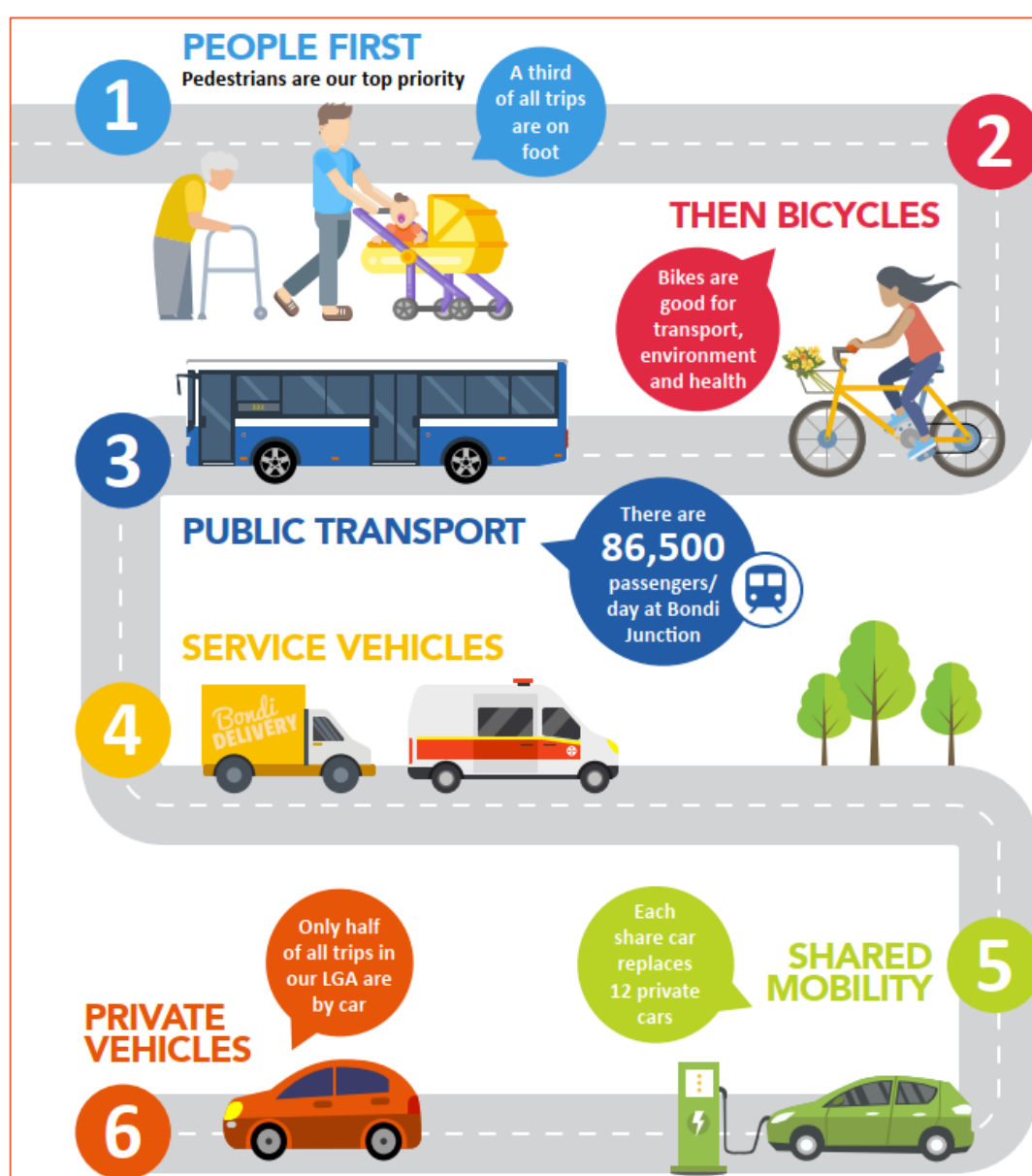


Figure 1: Council's Transport Hierarchy



The PMP Policy identifies 12 signature projects which will make the biggest improvements to transport across the LGA. The first of these is the 'Better Streetscapes' project, which aims to apply the 'people first' mantra to all road and footpath works. This includes a wide range of activities such as reviewing road alignments; removing unsafe traffic movements; and reducing traffic on quiet residential streets.

However, the signature difference is a reduction of posted speed limits throughout the LGA to 40 km/h or less.

Reducing speeds is the most cost-effective way of improving road safety and streetscape amenity, with the comparable implementation of School Zone speed restrictions responsible for a 24 per cent reduction in pedestrian and bicycle crashes near schools.

During community consultation in regard to the proposed changes across the LGA (November 2019 – January 2020) the community provided overall support for the reduction in posted speed limits to 40 km/h, with many respondents noting concern with Waverley's general road safety and the impact of cars.

Another key signature project identified in the policy is the 'Walking Strategy' project, which aims to improve walking access, convenience, and safety for everybody in the community. Focus is placed on highly pedestrianised areas such as village centres, schools, and parks, but also on local residential streets.

The Walking Strategy audits existing conditions to identify works Council can undertake to improve every aspect of the walking experience. Measures identified in the policy include narrowing road widths at intersections to reduce vehicle speeds before turning; and providing greater profile and priority to pedestrians with shorter crossing distances.

These policies and initiatives are central to the assessment of the proposed treatments provided in sections below.

1.3. Objectives

This study provides a detailed assessment of the proposed traffic calming measures at the two intersections, noting the following key objectives and outcomes requested by Council:

- Concept Plans developed as part of the study should reduce speeds at and around the intersections.
- Pedestrian crossing facilities should form part of the design.
- Cyclists should be considered in the design.
- The Concept Plans should minimise the removal of on-street parking as far as practical.
- The Concept Plans should consider the flow of traffic for vehicles on the Park Parade and Dickson Street approaches, and not exacerbate congestion in the area.
- The broader study should consider the implications of the proposed treatments on school traffic generated by Waverley College to the west and Bronte Public School to the south-east of the intersections.



1.4. Structure of this Report

- Section 2: Describes the proposed treatment sites and existing traffic conditions in the vicinity of the sites.
- Section 3: Describes the proposed treatments.
- Section 4: Discusses specific design considerations and features of the proposed treatments.
- Section 5: Assesses the potential traffic impacts arising from the implementation of the treatments.
- Section 6: Presents the overall conclusions of the study.

1.5. References

- Waverley's People, Movement and Places 2017 (PMP Policy).
- Changes to Speed Limits in Waverley – Consultation Report 2020.
- Cycling In Waverley & Woollahra 2007.
- Waverley Bike Plan 2013 (Bike Plan).
- Waverley Council Standard Roads Drawing R1 – Standard Kerb Profiles (Standard Drawing R1).
- Waverley Council Public Domain Technical Manual 2017 (Public Domain Manual).
- Revised Traffic and Parking Assessment Report, 163 Birrell Street, Waverley, Varga Traffic Planning 2019 (Bowling Club TIA).
- RMS Traffic Modelling Guidelines 2013.
- Australian Standard (AS) 1428.1-2001 Design for Access and Mobility – General Requirements for Access – New Building Works (AS 1428.1).
- AS 1906.3-1992 Retroreflective materials and devices for road traffic control purposes – Raised pavement markers (retroreflective and non-retroreflective) (AS 1906.3).
- AS 1742.1-2003 Manual of Uniform Traffic Control Devices - Introduction and Index of Signs (AS 1742.1).
- Australian Standard 1742.2-2009 Manual of Uniform Traffic Control Devices - Traffic Control Devices for General Use (AS 1742.2).
- Australian Standard 2890.5-2020 On-Street Parking (AS 2890.5).
- RTA Technical Direction – Pedestrian Refuges 2011 (TDT2011/01a).
- Austroads Guide to Road Design Part 4: Intersections and Crossings – General (AGRD04-17).
- Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling (AGRD06A-17).
- Austroads Design Vehicle and Turning Path Templates 2013 (Austroads Swept Path Templates).



2. Existing Conditions

2.1. Location and Site

The study area comprises the two priority intersections of Birrell Street with Park Parade and with Dickson Street, Waverley. The intersections are located approximately 1.2 kilometres south-east of Bondi Junction Railway Station, and 5.6 kilometres south-east of Sydney CBD. The two intersections are approximately 200 metres apart, either side of the signalised intersection of Birrell Street with Bennett Street.

Birrell Street provides width for two-lanes in each direction through the two intersections; however, a variety of unrestricted and time restricted on-street parking is permitted, reducing effective capacity largely to one-lane in each direction. Both the Park Parade and Dickson Street approaches provide a single approach lane that then flares on the immediate approach to Birrell Street to effectively provide a short length of two (2) lanes, allowing a left turn and right turn vehicle to stand side by side at the stop line.

The two intersections operate under priority (Give Way) control, with priority to Birrell Street.

Figure 2 and **Figure 3** show the locations of the intersections in their local and suburban context respectively.

2.2. Road Network

The road hierarchy in the vicinity of the intersections is shown by **Figure 3**, with the following roads being particularly relevant to the assessment:

- **Birrell Street:** an unclassified regional road (Road No. 7335) that runs in an east-west direction between its intersection with York Road in the west and Cross Street in the east. Through the subject intersections it is subject to 50 km/h speed zoning restrictions, with School Zone speed restrictions operating west of Park Parade during school pick up and drop off periods.

Birrell Street provides width for two (2) lanes of traffic in each direction, but as discussed on-street parking effectively reduces traffic to a single lane in each direction for most of the day. Exceptions to this are No Stopping restrictions near intersections (including the intersections being assessed in this study) and timed No Stopping restrictions which operate in the westbound direction between Langlee Avenue and Henrietta Street during weekday AM and PM peaks.
- **Park Parade:** a local road that runs in a north-south direction between Birrell Street in the south and Bondi Road in the north. It is subject to 50 km/h speed zoning restrictions and is signposted as a designated 'local traffic area'. Park Parade provides a single traffic lane in each direction, with No Stopping parking restrictions near the intersection with Birrell Street; as discussed, this allows for a widening of Park Parade on the immediate approach to Birrell Street to two (2) lanes for approximately 10 metres. No Stopping parking restrictions apply along the northbound carriageway, with unrestricted parallel parking permitted along the southbound carriageway.
- **Dickson Street:** a local road that runs in a north-south direction between Birrell Street in the north and a cul-de-sac south of Palmerston Avenue to the south and is subject to 50 km/h speed zoning restrictions.



Dickson Street provides a single lane of traffic in either direction, flaring at the intersection with Birrell Street to provide an effective second short lane for approximately 8 metres. No Stopping parking restrictions apply on the northbound carriageway and for approximately 50 metres from the Birrell street intersection on the southbound carriageway, south of which unrestricted parallel parking is permitted.



Figure 2: Site Map

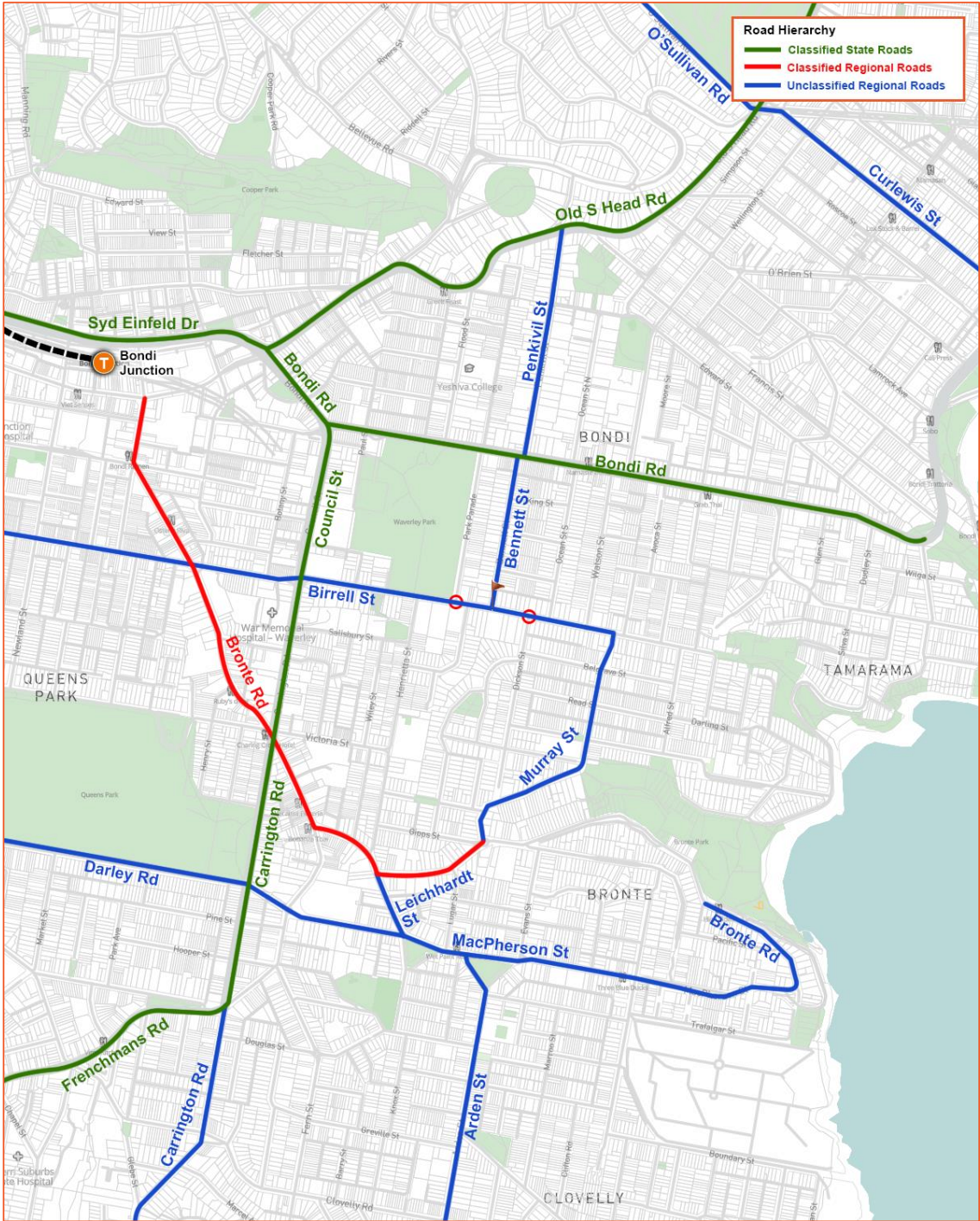


Figure 3: Road Hierarchy



2.3. Historical Crash Data

Crash data for the five-year period of 01/01/2016 to 31/12/2020 was obtained from TfNSW for all recorded incidents along Birrell Street between the intersections of St Mary's Avenue to the west and Ocean Street to the east, thereby including the two subject intersections with Park Parade and Dickson Street. Crashes by severity are summarised in **Figure 4** and the detailed crash report is provided as **Appendix A**.

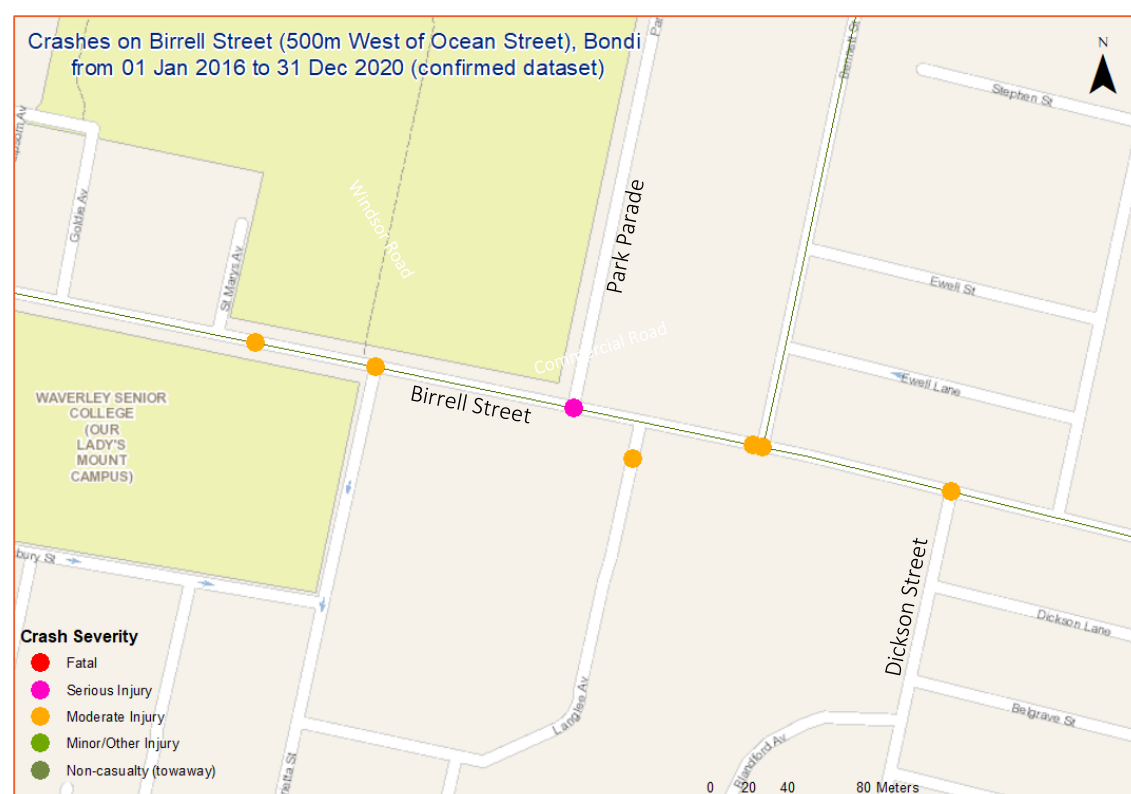


Figure 4: Crashes by Severity

A total of 12 crashes were recorded during the five-year period, three (3) of which (or 25%) involved pedestrians. Of those involving pedestrians were the one (1) serious injury crash which occurred at Park Parade as a pedestrian attempted to cross Birrell Street. The remaining two (2) pedestrian crashes occurred west of the subject intersections, again with pedestrians attempting to cross Birrell Street, resulting in minor injuries.

Aside from the above, a further four (4) crashes occurred at the Park Parade intersection, all between vehicles. Three (3) of these involved right turning vehicles, two (2) of which were right turners out of Park Parade onto Birrell Street.

Two (2) crashes occurred near the Dickson Street intersection, however, were not related to turns into or out of Dickson Street.



2.4. Public and Active Transport

2.4.1. Pedestrian Network

Pedestrian footpaths of 1.8 – 2.0 metres are provided along both sides of Birrell Street through the two intersections. A 1.6 – 2.0 metres wide footpath is provided along both sides of Park Parade, while Dickson Street provides only a 1.2-metre-wide footpath along its eastern side.

Pedestrian crossings at the two intersections are informal and not conducive to encouraging active transport and walking; however, visibility along Birrell Street (both to and from the intersections and pedestrian crossing points) is generally good, given its straight alignment and lack of prohibitive on-street furniture or other obstructions.

At Dickson Street, dropped kerb pram ramps are provided; however, given the significant flaring of the approach to Birrell Street, the crossing distance is measured as up to 13.2 metres (shown in **Figure 5**). Assuming a typical walking speed of 1.2 m/s, this would take approximately 11 seconds to cross under unimpacted conditions; however, the vertical slope of Birrell Street further reduces walking speed, particularly for parents with prams, thereby increasing crossing durations further.



Figure 5: Dickson Street Pedestrian Crossing

At Park Parade, dropped kerb pram ramps are also provided however, the wide crossing distance of 14.5 metres again results in a lengthy crossing duration of approximately 12 seconds. The closeness of this intersection to Waverley College (and a pedestrian access point to Waverley Park), increases the proportion of vulnerable users making this crossing, including children, parents with prams, and dog walkers, as shown in **Figure 6**,



Figure 6: Park Parade Pedestrian Crossing



Given the width and lack of formal pedestrian crossing facilities, undesirable and potentially unsafe behaviour was observed at both intersections. This includes pedestrians crossing in between or behind queued cars, which limit motorists' visibility to other vehicles, and indeed to these pedestrians, as shown by **Figure 7**. It is noted that a few pedestrians opted to cross Park Parade informally away from the intersection where the crossing distance is narrower.

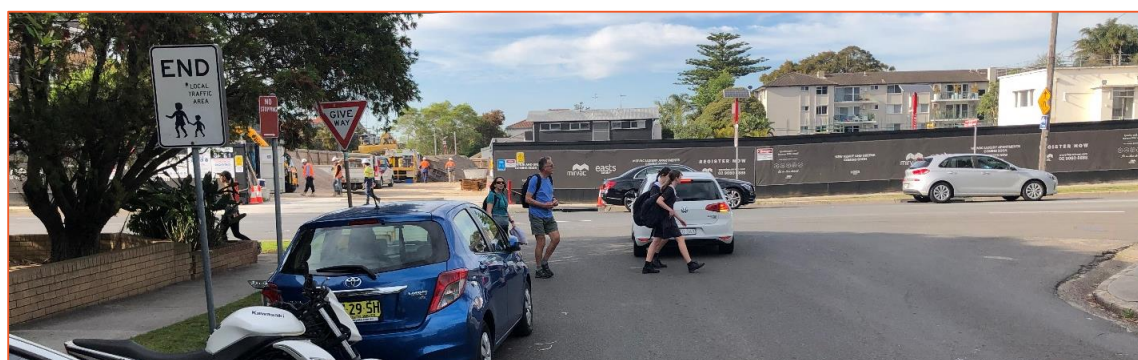


Figure 7: Undesirable Pedestrian Crossing Behaviour

Such behaviour is contrary to the aims and objectives of the PMP Policy, which notes cost effective ways of improving safety as providing better infrastructure for vulnerable road users, such as shorter crossing distances and raised pedestrian crossings.

Pedestrian counts were undertaken across the respective side arms for 30-minute periods during AM (07:45 – 08:45) and PM (15:00 – 16:00) peak hours on Thursday 04/11/2011 at each intersection, identifying total pedestrian counts and counts of those who look 16 years or younger. Scaling these 30-minute counts to hourly counts yields pedestrian volumes presented in **Table 1**.

Table 1: Hourly Pedestrian Volumes

INTERSECTION LEG	AM PEAK		PM PEAK	
	VOLUME	PROPORTION UNDER 16	VOLUME	PROPORTION UNDER 16
Park Parade	68	21%	32	56%
Dickson Street	98	22%	36	22%

Table 1 indicates that pedestrian volumes during the AM peak are higher at both intersections than during the PM peak, with a single pedestrian crossing the respective minor approaches every 35 – 55 seconds in the AM peak, reducing to one pedestrian every 110 seconds during the PM peak.

The proportion of children using each crossing is much higher than average given the proximity of schools in the area, with up to 56% of all pedestrians crossing being school children during the PM peak at Park Parade. Additional pedestrian trips were generated by other more vulnerable users such as parents pushing prams, elderly people, and people with a mobility impairment.



The pedestrian volumes provided also do not include the anticipated vulnerable pedestrian volume increase likely to result from the Waverley Bowling Club seniors living development, due for completion in 2023. This development will provide 55 seniors living apartments and further increase pedestrian demand in the area upon completion.

2.4.2. Cycle Network

Figure 9 shows that neither Birrell Street, Park Parade nor Dickson Street are provided with designated on or off-road cycle path; however, cycle paths are provided nearby along Henrietta Street, through Waverley Park, and on Birrell Street to the east of the intersections.

The Waverley Bike Plan 2013 (the Bike Plan) sets a goal of significantly increasing the number of trips made by bicycle to reduce traffic congestion and parking pressure in Waverley, while simultaneously improving the health and amenity of the LGA.

The Bike Plan identifies Birrell Street as a key strategic 'mixed traffic' cycle route, a designation which aligns with Council's *Cycling in Waverley and Woollahra Map*'s identification of Birrell Street as a 'local bicycle route on a high-traffic street'. Birrell Street serves as a key east-west cycle route alternative to the busier Bondi Road to the north, providing access between the Sydney CBD and Bondi Junction in the west to the Eastern Suburbs.

In addition, the proximity of Waverley College to the west of the two subject intersections increases the volume of children on bicycles using the two intersections, as shown by **Figure 8**.



Figure 8: Child Cycling on Pedestrian Footpath along Birrell Street



2.4.3. Bus Services

Birrell Street provides for a single public bus route, Route 360, which operates between Clovelly and Bondi Junction at relatively high frequency across the day.

Table 2 shows the key local and sub-regional centres accessible by public bus services along Birrell Street, or within 800m of local residents in the vicinity of the intersections. These public bus routes are shown in **Figure 9**.

Table 2: Bus Services

ROUTE NO.	ROUTE (TO / FROM)	ROUTE DESCRIPTION	AVERAGE HEADWAY
313	Coogee to Bondi Junction	Via Waverley	Weekdays: 20 - 30 minutes Weekends: 30 minutes on
314	Coogee to Bondi Junction	Via Randwick, Waverley	Weekdays: 30 minutes Weekends: 30 minutes
316	Eastgardens to Bondi Junction	Via South Coogee, Randwick, Waverley	Weekdays: 30 minutes Weekends: 30 minutes
317	Eastgardens to Bondi Junction	Via South Coogee, Randwick, Waverley	Weekdays: 30 minutes Weekends: 30 minutes
333	North Bondi to City Circular Quay	Via Bondi Junction, Centennial Square, Paddington	Weekdays: 5-15 minutes Weekends: 15-30 minutes
348	Wolli Creek to Bondi Junction	Via Temp, St Peters, Alexandria, Beaconsfield, Zetland, Randwick, Waverley	Weekdays: 15 - 30 minutes Weekends: 30 minutes
353	Eastgardens to Bondi Junction	Via Maroubra, South Coogee, Coogee, Waverley	Weekdays: 15 - 30 minutes Weekends: 30 minutes
360	Clovelly to Bondi Junction	Via Bronte Road, Birrell Street, Murray Street, Arden Street, Clovelly Road & Boundary Street	Weekdays: 10-20 minutes Weekends: 20 minutes
379	Banksmeadow to Central Railway Square (Express Service)	Via Botany, Mascot, Beaconsfield, Waterloo, Redfern	Weekdays: 10 minutes Weekends: No Services
380	Watsons Bay to Bondi Junction	Via Dover Heights, Bondi Beach	Weekdays: 15 - 20 minutes Weekends: 15 - 20 minutes
381	Bondi Junction to Tamarama (Loop Service)	Via Bondi	Weekdays: 20 - 30 minutes Weekends: 30 minutes
400N	Bondi Junction to Eastgardens (Night Service)	Via Waverley, Randwick	Weekdays: 7 Services Only Weekends: 4 Services on Saturdays / 6 Services on Sundays

Private school buses also use Birrell Street, primarily serving Waverley College. These services provide transport to and from Waverley College via Bondi Junction, North Bondi, Edgecliff, Dover Heights, Randwick, Botany, Watsons Bay, Rose Bay, Mascot, Matraville, and Maroubra, through a few consolidated services. These services are in addition to those presented in **Table 2** and shown by **Figure 9**, which are public services only.

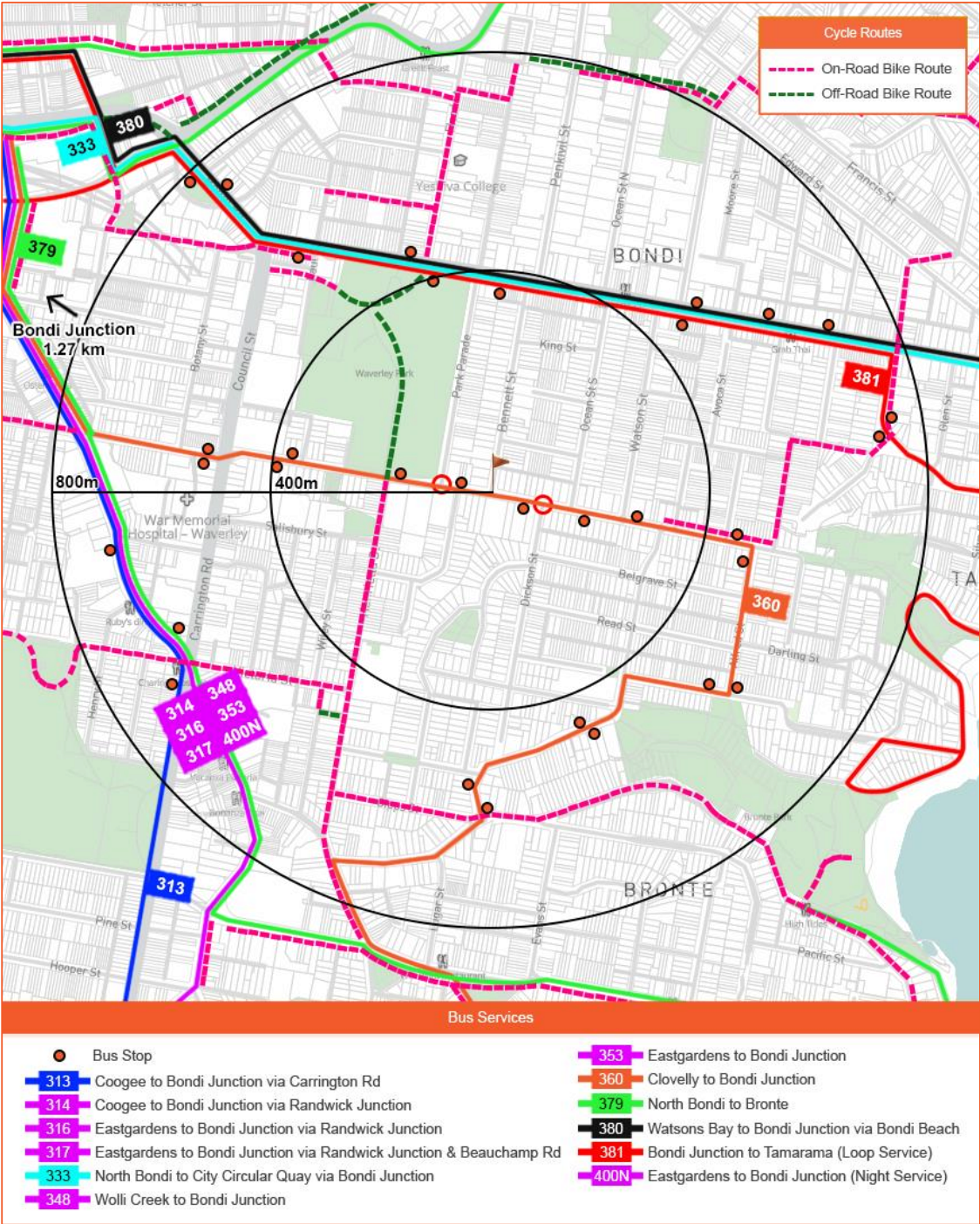


Figure 9: Public and Active Transport



2.5. Existing Traffic Conditions

Classified intersection turn count surveys were undertaken in October 2021 for an AM and PM weekday peak period at the two intersections. To confirm the veracity of this data, a check was undertaken against turn counts undertaken in May 2019 as part of the Bowling Club TIA.

Overall intersection turn counts at the Park Parade intersection, which was the only one surveyed during both 2019 and 2021, were found to be 6% higher in 2019 during the AM peak hour and 7% higher in 2019 during the PM peak hour; however, Park Parade approach right and left volumes were found to be higher during the 2021 assessment year.

The surveys were used to develop a base SIDRA Intersection traffic models of the intersections for the two weekday peaks, which reflect existing operation and can be used as a baseline for assessing the impact of any proposed traffic calming treatments.

SIDRA modelling outputs a range of performance measures, in particular:

- Degree of Saturation (DOS) – The DOS, or vehicle to capacity ratio (V/C), is used to measure the performance of intersections, where a value of 1.0 represents an intersection at theoretical capacity. As the performance of an intersection approaches DOS of 1.0, queue lengths and delays increase rapidly. The RMS Guide notes a DOS upper limit of 0.9 is appropriate, with satisfactory operation generally achieved with DOS of 0.7 – 0.8.
- Average Vehicle Delay (AVD) – The AVD (or average delay per vehicle, in seconds) for intersections provides a measure of the operational performance of an intersection and is used to determine an intersection's Level of Service. For give way controlled intersections, the AVD is that for the movement with the highest AVD.
- Level of Service (LOS) – A comparative measure that provides an indication of the operating performance, based on AVD.

The performance of the base models is summarised by **Table 3**. Detailed SIDRA model outputs, which contain peak-hourly vehicle turn counts, are provided as **Appendix B**.

Table 3: Summary of SIDRA Modelling Results – Existing Performance

INTERSECTION	PEAK	DOS	AVERAGE DELAY (s)	LOS
Birrell Street / Park Parade	AM	0.48	27.5	B
	PM	0.29	19.1	B
Birrell Street / Dickson Street	AM	0.13	21.5	B
	PM	0.12	24.0	B

Results shown are for the movement with the highest delay, in accordance with the RMS Guide.

Table 3 shows that the existing performance is good at both intersections during both weekday peak periods, with levels of service (LOS) B for the worst-case movements at each intersection during each peak period. The average delay values presented in **Table 3** are for the worst performing movements at each intersection, which are the right turns from the Park Parade and Dickson Street to Birrell Street. These movements experience on average 19 – 28



seconds of delay, considered good performance, with all other movements at both intersections experiencing much lower delays and performing at LOS A.

A large contributor to congestion at the Park Parade intersection is westbound queuing along Birrell Street arising from the Birrell Street / Carrington Road / Council Road intersection, and the Henrietta Street zebra crossing, blocking back beyond the Park Parade approach.

This at times makes it difficult for a vehicle to turn right from Park Parade given the stationary queue of traffic; conversely, this can actually make it easier to turn right if a driver in Birrell Street leaves a gap in the queue from Carrington Road, effectively providing a 'Keep Clear' area. Notwithstanding, it is noted that the right turn volume from Park Parade is relatively low peaking at 54 vehicles per hour (vph) during the AM peak and 73 vph during the PM peak.

The congestion and queue blocking described above at Park Parade occurs very infrequently at the Dickson Street intersection but can result from congestion at the Birrell Street / Bennett Street intersection. However, these queues are transitory and clear quickly, causing only minor delays to the Dickson Street left turn movement. Right turn volumes from Dickson Street are also very low, peaking at 23 vph during the AM peak and 18 vph during the PM peak.



3. Proposed Intersection Treatments

As discussed in Section 1.1, Council has developed several upgrade options for the two intersections seeking to achieve the core scope and objectives set out in Section 1.3, being to improve pedestrian safety and reduce vehicle traffic speeds, while limiting the loss of on-street parking.

To support the development of these options, the community was consulted in early 2021 on four potential upgrade options; the outcomes of the community consultation are summarised in Council's prior reporting to the Traffic Committee, and are included as **Appendix C** for reference.

A majority of respondents (78% for Park Parade and 77% for Dickson Street) were in favour of implementing some form of upgrade/treatment at the intersections which provides reduced pedestrian crossing distances through the removal of the second short approach lane in the Park Parade and Dickson Street approaches to Birrell Street; as previously discussed, this would reduce these approaches to a single lane such that a left and right turning vehicles could not stand side by side at the Birrell Street stop line.

AGRD04-17 states that the crash rate at intersections with two stand-up lanes side-by-side on a minor road approach to a priority sign-controlled intersection is "*significantly higher*" than for one stand-up lane, noting "*The higher crash rate can be attributed to vehicles in the offside stand-up lane blocking visibility for vehicles in the nearside lane, and vice versa*".

The upgrade options developed by Council have been further refined by PDC Consultants to enhance their pedestrian safety and traffic calming credentials, thereby achieving the core aims of the PMP Policy, and moreover good traffic safety practice in line with the appropriate TfNSW, Austroads Guidelines and Australian Standards.

A summary of the key changes proposed at each intersection is provided below and are shown in **Figure 10**.

3.1. Birrell Street / Park Parade

- Kerb buildouts on the eastern and western sides with dropped kerb pram ramps and new landscaping.
- Removal of the second stand-up lane on the Park Parade approach.
- New centre line road marking with raised reflective pavement markers.
- Erection of 'Do Not Queue Across Intersection' sign on Birrell Street (east) approach, facing east.
- No loss of on-street car parking.

3.2. Birrell Street / Dickson Street

- Kerb buildout on the western side and realignment on the eastern side, with pram ramps and landscaping.
- New 2.0-metre-wide pedestrian refuge island on Dickson Street.



- Minor realignment of the retaining wall on the western side of Dickson Street.
- Provision of a new 'Give Way' sign on the Dickson Street approach.
- No loss of on-street car parking.

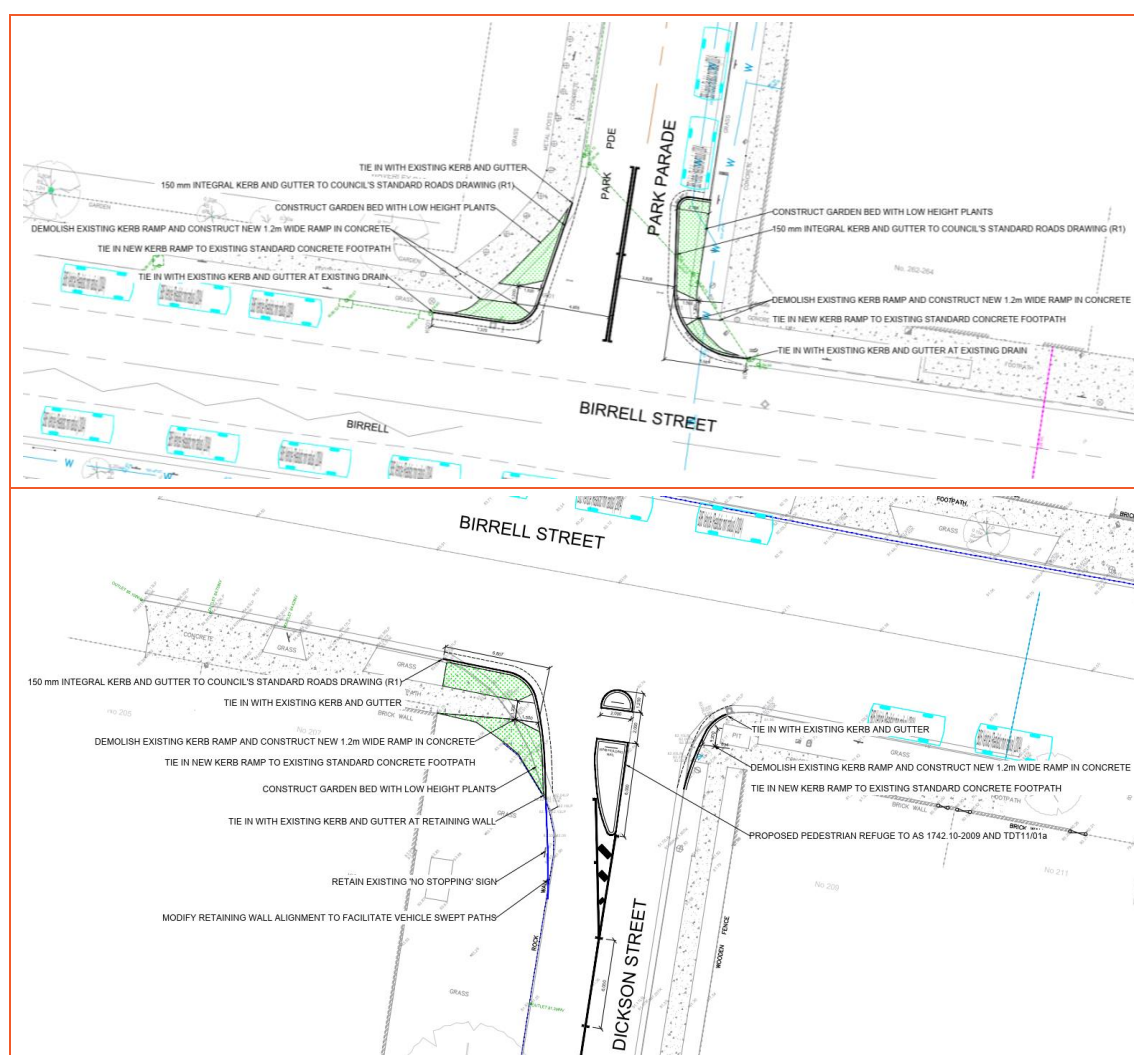


Figure 10: Proposed Upgrade Options

A copy of the Concept Plans is provided as **Appendix D**. Further details on the design aspects of the proposal treatments are provided in **Section 4**, while the traffic implications arising from the proposed treatments are discussed in **Section 5**.



4. Design Aspects

4.1. Overview

The proposed intersection layouts discussed in Section 0 and provided as **Appendix D** have been designed in accordance with the core aims of the study and the objectives outlined in Section 1.3, being to improve pedestrian safety and reduce vehicle traffic speeds, whilst limiting the loss of on-street parking. Key features of the proposed intersection layouts in achieving this aims and objectives are discussed below.

4.2. Reduced Crossing Width

At its widest, the distance pedestrians must currently travel across the Park Parade leg between pedestrian ramps is 14.5 metres, equating to a travel time of approximately 12 seconds. This is reduced to 10.0 metres under the proposal, resulting in a travel time of 8 seconds, or a reduction of 33%.

Similarly, at Dickson Street the current crossing width of 13.2 metres, equating to 11 seconds travel time, is reduced to 11.5 metres between kerbs, but with a maximum single-stage crossing distance of 5.2 metres between the kerb and the pedestrian refuge, which would equate to a 4 second travel time or a reduction of 64%.

These savings are significant and reduce the duration of time pedestrians and vulnerable road users are in direct conflict with vehicles, thereby providing a safer crossing environment.

4.3. Reduced Vehicle Speeds

The proposed kerb alignment will contribute towards reduced vehicle speeds through the intersections by reducing turn radii, and thereby the speed at which a turn movement can be undertaken. This, combined with an overall reduction in lane width at the intersections to Birrell Street, further encourages – if not mandates - lower vehicle speeds at the intersections.

These reduced vehicle speeds directly align with the intent of the PMP Policy, which specifically identifies a means of encouraging drivers to travel at safe speeds being “*narrowing roadways at intersections so that cars slow down before turning*”, and “*providing greater profile to pedestrians – such as shorter crossing distances*”.

The risk of fatality after being hit by a car is significantly increased as vehicle speed increases, as illustrated by the NSW Centre for Road Safety figure provided as **Figure 11**. Crash severity reduced at lower speeds.

Breaking distances are also significantly reduced at the lower speeds required further to the proposed treatments, with stopping from 40 km/h taking an average of 27 metres and stopping at 30 km/h taking an average of 19 metres.

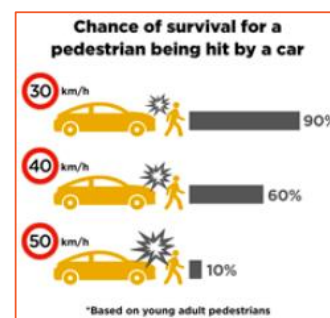


Figure 11: Fatality Risk by Speed



4.4. Number of Lanes on the Minor Road

Currently, the Park Parade approach to Birrell Street has No Stopping parking restrictions for approximately 10 metres from the effective give-way point, thereby allowing two vehicles to stand side-by-side whilst giving way to traffic movements on Birrell Street.

Similarly, the Dickson Street approach widens significantly on approach to Birrell Street, thereby allowing an approximate distance of 8 metres over which two vehicles can stand side-by-side whilst giving way.

These effective short second lanes theoretically provide additional capacity; however, this is additional capacity is very limited at the intersections, with further discussion provided in Section 5.

As mentioned, AGRD04-17 states that the crash rate at intersections with two stand-up lanes side-by-side on a minor road approach to a priority sign-controlled intersection is “*significantly higher*” than for one stand-up lane, noting “*The higher crash rate can be attributed to vehicles in the offside stand-up lane blocking visibility for vehicles in the nearside lane, and vice versa*”.

As such, AGRD04-17 concludes “*for the above reasons, only one stand-up lane should be provided on minor road approaches at unsignalised intersections*”.

The proposed intersection treatments therefore not only contribute to increased pedestrian safety through reduced crossing distances and lower travel speeds, but also reduce the likelihood of crashes through the removal of the existing unsafe feature of two side-by-side lanes on the minor road approaches.

4.5. Design and Checking Vehicle

The amended kerb alignments have been assessed using vehicle turn swept path analysis in accordance with the Austroads Swept Path Templates, in turn adopting the principles of design and checking vehicles discussed in AGRD04-17.

The swept path analysis shows that the intersections will wholly accommodate the design vehicle’s swept path, defined by AGRD04-17 as being “*the largest vehicle likely to regularly perform a movement at an intersection*”, adopted as an 8.8-metre medium rigid vehicle (MRV).

Swept paths have however also been assessed for slightly larger Council’s 9.9-metre waste truck. The checking vehicle has been assessed in accordance with AGRD04-17, which notes “*the design vehicle for a particular case is not necessarily the largest of the vehicles that may operate at that location but is intended to represent the majority of the vehicles allowed to operate there. A larger vehicle may not be precluded from the road, but may need to operate with reduced clearances or encroach into adjacent lanes (where legal within a jurisdiction). While this may inconvenience some road users, the low frequency of the occurrence of these vehicles makes this acceptable.*”

The swept path analysis for the checking vehicle – provided as **Appendix E** – shows a minor incursion into adjacent traffic lanes whilst making the respective turn movements, but this is considered acceptable at the intersections



given the low frequency of the occurrence of these waste collection vehicle movements. Moreover, it is noted that this minor incursion is permitted in local road intersections in accordance with AS 2890.2.

4.6. Intersection Design Specifics

The Concept Plans have been developed in accordance with all relevant standards and guidelines, with the following considered noteworthy:

4.6.1. Birrell Street / Park Parade

- Road markings and signage have been designed in accordance with the relevant requirements of AS 1742.
- Kerb and gutters have been designed in accordance with Standard Drawing R1.
- Pram ramps and tie-in with existing concrete footpaths have been designed in accordance with the Public Domain Manual and AS 1428.1.
- Retro-reflective pavement markers are proposed in accordance with AS 1906.3.
- On-street car parking provision on the eastern side of Park Parade has been assessed against AS 2890.5, which confirms the number of available on-street spaces is not affected by implementation of the kerb buildout.
- Vehicle swept paths have been assessed in accordance with the Austroads Swept Path Templates and specifications for Council's waste truck, as provided by Council.

4.6.2. Birrell Street / Dickson Street

- Road markings and signage have been designed in accordance with the relevant requirements of AS 1742.
- Kerb and gutters have been designed in accordance with Standard Drawing R1.
- Pram ramps and tie in with existing concrete footpaths have been designed in accordance with the Public Domain Manual and AS 1428.1.
- Retro-reflective pavement markers are proposed in accordance with AS 1906.3.
- The pedestrian refuge has been designed in accordance with AGRD04-17, AS 1428.1, and TDT2011/01a.
- Vehicle swept paths have been assessed in accordance with the Austroads Swept Path Templates and specifications for Council's waste truck, as provided by Council.



5. Traffic Impacts

SIDRA assessment of the two intersections further to the proposed upgrades has been undertaken to ensure that the changed conditions do not have any significant impact on the operation of the intersections. The results of this analysis, and a comparison with the existing operation of the intersections (**Table 3**) is provided in **Table 4**.

Table 4: Summary of SIDRA Modelling Results – Option Performance

INTERSECTION	PEAK	SCENARIO	DOS	AVERAGE DELAY (s)	LOS
Birrell Street / Park Parade	AM	Existing	0.48	27.5	B
		Upgrade Option	0.49	31.2	C
	PM	Existing	0.29	19.1	B
		Upgrade Option	0.39	21.0	B
Birrell Street / Dickson Street	AM	Existing	0.13	21.5	B
		Upgrade Option	0.26	24.9	B
	PM	Existing	0.12	24.0	B
		Upgrade Option	0.17	25.9	B

Results shown are for the movement with the highest delay, in accordance with the RMS Guide.

With reference to **Table 4**, the SIDRA modelling shows that the removal of the second stand-up lanes in Park Parade and Dickson Street approaches to Birrell Street has no significant impact on the performance of these approaches, with average delay per vehicle increasing by a maximum of 3.7 seconds for the Park Parade right turn during the AM peak.

This is largely because the second stand-up lanes currently present at the two intersections are very short, being approximately 10 metres on the Park Parade approach and 8 metres on the Dickson Street approach. These lanes would each only be able to accommodate one vehicle, or in other words, it would only take one stationary right turning vehicle giving way to Birrell Street to block access to these short left turn lanes.

The benefit they offer from a capacity perspective is therefore limited, and their removal is inconsequential to road network performance.

In summary, the removal of the second short approach lane to Birrell Street in both Park Parade and Dickson Street has no impact on the performance of these approaches of the intersections more generally, while providing significant superior safety outcomes for vehicular traffic, pedestrians, and cyclists. As such, the proposed upgrades are entirely supported.

Detailed model outputs for the upgrade options are provided as **Appendix F**.



6. Conclusions

PDC Consultants has been commissioned by Council to undertake a Traffic & Pedestrian Safety Study of proposed pedestrian safety and traffic calming measures at the intersections of Park Parade and Dickson Street with Birrell Street, Waverley.

The study aims to improve road safety for drivers and pedestrians and support a posted speed reduction to 40 km/h proposed for parts of the Waverley local government area (LGA) south of Bondi Road, and is being delivered in accordance with Waverley's People, Movement and Places initiative, which aims for zero deaths or major injuries on Council roads through its adoption and promotion of a 'people first' approach to transport planning.

Intersection improvement measures have been identified to address the scope and objectives, which provide enhanced pedestrian facilities and encourage slower vehicle speeds, thereby improving safety for vulnerable road users.

The proposals have been designed in accordance with all relevant design standards, and significantly reduce the crossing distances across the Park Parade and Dickson Street approaches to Birrell Street while maintaining all current on-street car parking provision.

The proposals result in the loss of the short second stand-up lane in both approaches; however, the detailed traffic assessment of the existing and future operation of these approaches and the intersections has determined that the proposals would have no significant impact on existing operations.

The proposals are therefore considered supportable on traffic and transport planning grounds, and achieve the core scope of the investigation, being to improve safety of pedestrians.

VISION ZERO



Appendix A

Detailed Crash Report

TrNSW Region / LGA / Town / Street	Crash ID	Data Source	Date of crash	Day of Week	Time	Distance	Direction	ID Feature	Location type	Alignment	Weather	Surface condition	Speed limit	TU Type	TU Direction	TU Manoeuvre	Age / Gender	Road User Class	Degree of casualty	Degree of crash	Killed	Serious Injury	Moderate Injury	Minor Other Injury	Uncategorised Injury	Crash Factor
Greater Sydney Waverley WAVERLEY BIRRELL ST	1160743	P	15/11/17	Wed	1730	0 m	at	HENRIETTA ST	T-jun	Str	Fine	Dry	50	CAR	W in BIRRELL ST	Proceeding in lane	23 F	MV driv.	N							
														PED	N in BIRRELL ST	Walk across carriageway	21 F	Ped.	M	MC	0	0	1	0	0	
	1159667	P	11/12/17	Mon	0900	20 m	E	ST MARYS AVE	2-way	Str	Fine	Dry	40	CAR	E in BIRRELL ST	Proceeding in lane	91 M	MV driv.	N							
														PED	S in BIRRELL ST	Run across carriageway	16 M	Ped.	M	MC	0	0	1	0	0	
	1205680	P	27/05/19	Mon	1248	5 m	W	BENNETT ST	T-jun	Str	Ovcst	Dry	50	M/C	W in BIRRELL ST	Proceeding in lane	Unk M	MC rider	M	MC	0	0	1	0	0	
	1246434	P	28/10/20	Wed	1510	0 m	at	BENNETT ST	T-jun	Str	Fine	Dry	50	CAR	S in BENNETT ST	Proceeding in lane	28 M	MV driv.	M							
														CAR	S in BENNETT ST	Stationary	21 F	MV driv.	N	MC	0	0	1	0	0	
	1183556	P	09/08/18	Thu	1047	0 m	at	BIRRELL ST	T-jun	Str	Fine	Dry	50	CAR	W in BIRRELL ST	Proceeding in lane	42 M	MV driv.	N							
														PED	S in BIRRELL ST	Walk across carriageway	87 F	Ped.	S	SC	0	1	0	0	0	
Greater Sydney Waverley BRONTE BIRRELL ST	1251068	P	03/10/20	Sat	1355	0 m	at	DICKSON ST	T-jun	Str	Fine	Dry	50	P/C	E in BIRRELL ST	Pull out opposite	20 M	P/C rider	M							
														CAR	E in BIRRELL ST	Turning right	41 M	MV driv.	N	MC	0	0	1	0	0	
Greater Sydney Waverley BONDI BIRRELL ST	1130081	P	18/02/17	Sat	0920	0 m	at	PARK PDE	T-jun	Str	Fine	Dry	50	WAG	S in PARK PDE	Turning right	49 M	MV driv.	N							
														P/C	E in BIRRELL ST	Proceeding in lane	Unk M	P/C rider	O	OC	0	0	0	1	0	

Page 53

Detailed Crash Report

Crashes on Birrell Street (500m west of Ocean street), Bondi from 01 Jan 2016 to 31 Dec 2020 (Confirmed dataset)

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data.



Appendix B

MOVEMENT SUMMARY

▼ Site: 101 [Birrell & Dickson - AM - Option D (Base) (Site Folder: Birrell & Dickson)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Dickson St														
1	L2	147	1.0	155	1.0	0.130	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	46.6
3	R2	23	1.0	24	1.0	0.131	21.5	LOS B	0.4	2.7	0.83	0.92	0.83	38.3
Approach		170	1.0	179	1.0	0.131	6.9	LOS A	0.4	2.7	0.11	0.58	0.11	45.3
East: Birrell St														
4	L2	12	1.0	13	1.0	0.007	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	46.6
5	T1	503	4.0	529	4.0	0.310	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach		515	3.9	542	3.9	0.310	0.2	NA	0.0	0.0	0.00	0.01	0.00	49.8
West: Birrell St														
11	T1	448	4.0	472	4.0	0.324	1.0	LOS A	1.1	8.2	0.20	0.07	0.24	48.7
12	R2	55	1.0	58	1.0	0.324	9.0	LOS A	1.1	8.2	0.20	0.07	0.24	48.2
Approach		503	3.7	529	3.7	0.324	1.9	NA	1.1	8.2	0.20	0.07	0.24	48.7
All Vehicles		1188	3.4	1251	3.4	0.324	1.9	NA	1.1	8.2	0.10	0.12	0.12	48.6

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

Queue Model: SIDRA Standard.

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

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

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MOVEMENT SUMMARY

▼ Site: 101 [Birrell & Dickson - PM - Option D (Base) (Site Folder: Birrell & Dickson)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Dickson St														
1	L2	65	1.0	68	1.0	0.057	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	46.6
3	R2	18	1.0	19	1.0	0.117	24.0	LOS B	0.3	2.4	0.85	0.93	0.85	37.4
Approach		83	1.0	87	1.0	0.117	8.8	LOS A	0.3	2.4	0.18	0.61	0.18	44.2
East: Birrell St														
4	L2	18	1.0	19	1.0	0.010	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	46.6
5	T1	545	4.0	574	4.0	0.335	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach		563	3.9	593	3.9	0.335	0.3	NA	0.0	0.0	0.00	0.02	0.00	49.7
West: Birrell St														
11	T1	448	4.0	472	4.0	0.349	1.5	LOS A	1.6	11.4	0.26	0.09	0.33	48.3
12	R2	68	1.0	72	1.0	0.349	9.8	LOS A	1.6	11.4	0.26	0.09	0.33	47.8
Approach		516	3.6	543	3.6	0.349	2.6	NA	1.6	11.4	0.26	0.09	0.33	48.2
All Vehicles		1162	3.6	1223	3.6	0.349	1.9	NA	1.6	11.4	0.13	0.09	0.16	48.6

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

Queue Model: SIDRA Standard.

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

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

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MOVEMENT SUMMARY

Site: 101 [Birrell & Park - AM - Option D (Base) (Site Folder: Birrell & Park)]

Network: N101 [Birrell & Park - AM - Option D (Base) (Network Folder: General)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Birrell St														
5	T1	749	4.0	749	4.0	0.523	2.3	LOS A	1.5	10.5	0.33	0.15	0.45	46.6
6	R2	171	1.0	171	1.0	0.523	10.8	LOS A	1.5	10.5	0.42	0.18	0.57	50.9
Approach		920	3.4	920	3.4	0.523	3.9	NA	1.5	10.5	0.35	0.15	0.48	47.9
North: Park Pde														
7	L2	127	1.0	127	1.0	0.100	5.7	LOS A	0.2	1.1	0.13	0.55	0.13	53.2
9	R2	57	1.0	57	1.0	0.482	27.5	LOS B	0.4	2.6	0.85	1.00	1.10	31.7
Approach		184	1.0	184	1.0	0.482	12.5	LOS A	0.4	2.6	0.35	0.69	0.43	47.3
West: Birrell St														
10	L2	20	1.0	20	1.0	0.230	4.9	LOS A	0.0	0.0	0.00	0.20	0.00	49.0
11	T1	481	4.0	481	4.0	0.230	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.8
Approach		501	3.9	501	3.9	0.230	0.2	NA	0.0	0.0	0.00	0.03	0.00	49.7
All Vehicles		1605	3.3	1605	3.3	0.523	3.7	NA	1.5	10.5	0.24	0.18	0.32	48.3

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Birrell & Park - PM - Option D (Base) (Site Folder: Birrell & Park)]

Network: N101 [Birrell & Park - PM - Option D (Base) (Network Folder: General)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]	v/c	sec		[Veh. veh]	[Dist m]				km/h
East: Birrell St														
5	T1	579	4.0	579	4.0	0.414	1.9	LOS A	0.8	5.8	0.27	0.11	0.35	47.2
6	R2	104	1.0	104	1.0	0.414	10.6	LOS A	0.8	5.8	0.34	0.14	0.45	51.2
Approach		683	3.5	683	3.5	0.414	3.2	NA	0.8	5.8	0.28	0.12	0.37	48.2
North: Park Pde														
7	L2	148	1.0	148	1.0	0.113	5.6	LOS A	0.2	1.2	0.06	0.55	0.06	53.4
9	R2	77	1.0	77	1.0	0.289	19.1	LOS B	0.4	2.7	0.82	0.96	0.95	37.1
Approach		225	1.0	225	1.0	0.289	10.2	LOS A	0.4	2.7	0.32	0.69	0.36	48.9
West: Birrell St														
10	L2	62	1.0	62	1.0	0.263	5.4	LOS A	0.0	0.0	0.00	0.51	0.00	49.5
11	T1	511	4.0	511	4.0	0.263	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach		573	3.7	573	3.7	0.263	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.8
All Vehicles		1481	3.2	1481	3.2	0.414	3.3	NA	0.8	5.8	0.18	0.19	0.22	48.9

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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Appendix C

2. Introduction

This report seeks endorsement of recommended designs for the intersections of Park Parade and Dickson Street with Birrell Street.

The Park Parade and Dickson Street intersections with Birrell Street currently have sufficient room for a driver turning left into Birrell Street to pass a single stationary vehicle waiting to turn right into Birrell Street. This is due to the carriageways of Park Parade and Dickson Street widening on the approach to Birrell Street.

The designs presented introduce kerb extensions in order to reduce pedestrian crossing distances across Park Parade and Dickson Street. This results in significant safety improvements for pedestrians at these two locations.

Consultation

The designs are in response to community consultation via letterbox drop to occupants of 1,420 dwellings in the vicinity of the works. Figure 4 shows the consultation area.

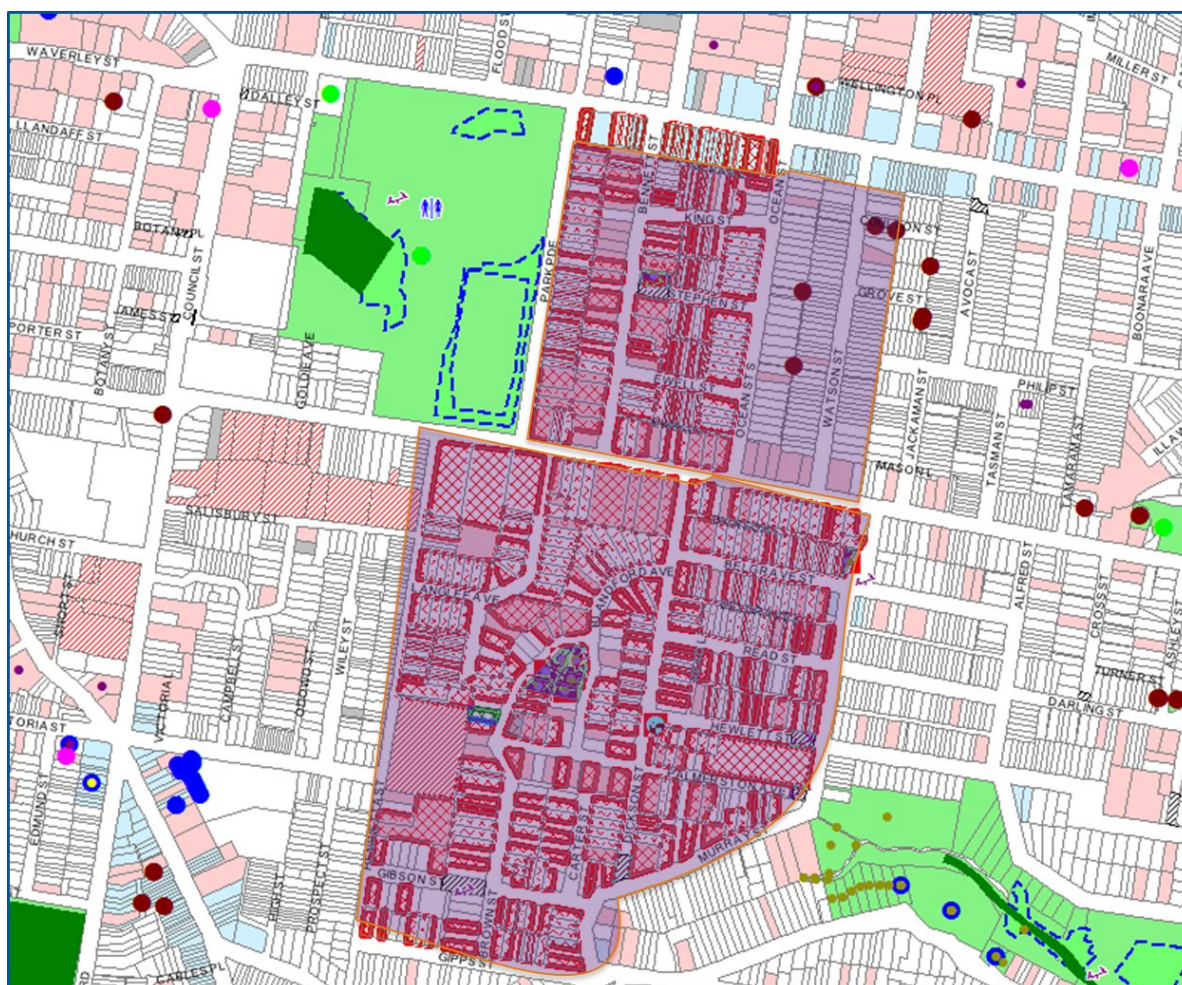


Figure 4. Park Parade and Dickson Street consultation area.

Intersection options

The options for intersection treatments that were delivered to residents are presented in Figures 5 and 6.

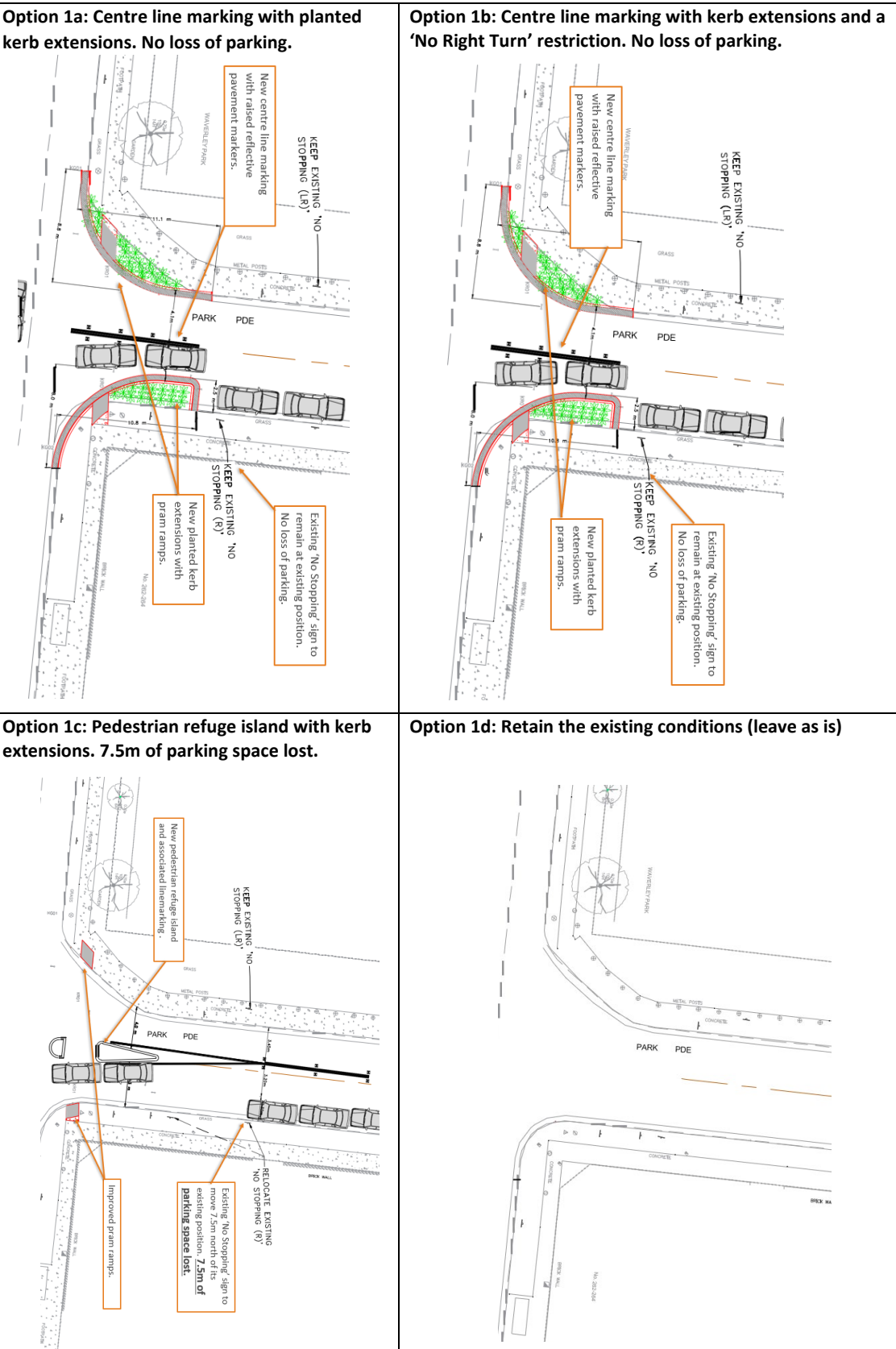


Figure 5. Park Parade / Birrell Street options presented to residents.



Figure 6. Dickson Street / Birrell Street options presented to residents.

3. Technical Analysis

Proposed designs

The proposed intersection treatments are expected to provide a safer crossing experience for pedestrians whilst reducing speeds. The kerb extensions will minimise crossing distances for pedestrians in both Park Parade and Dickson Street intersections with Birrell Street.

The traffic devices will also act as entry threshold treatments that will provide traffic calming. This is especially suitable when transitioning from a local to a non-local street, which is the case here.

The proposed designs for Park Parade intersection with Birrell Street and Dickson Street intersection with Birrell Street are not expected to have an impact on existing kerbside parking. The intersection treatments will have little to no traffic noise generation, which is desirable in local areas.

Community Feedback Analysis

1,420 households were consulted via letterbox drop, and 151 responses were received (Figure 4 shows the consultation area).

Park Parade intersection

Figure 7 presents a summary of the feedback on the Park Parade options.

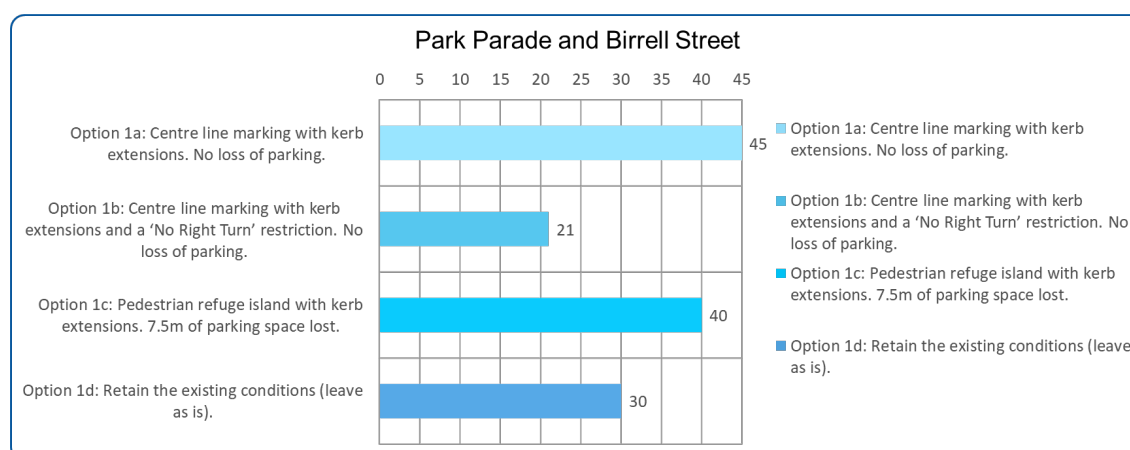


Figure 7. Community feedback on Park Parade intersection with Birrell Street treatment design.

45 votes were in favour of option 1a, with option 1c being a close second with 40 votes.

Option 1c is expected to be the most effective in providing a safer crossing for pedestrians and reducing speeds around the intersection. However, the 7.5m loss of kerbside parking was not supported. It is recommended that option 1a as shown in Figure 2 is adopted.

It is also recommended that an addition of a 'No Right Turn, 8am-9:30am and 2:30pm-4pm, Mon-Fri' restriction for southbound motorists is approved to avoid queuing of vehicles at peak hours. This is derived from community concerns raised during the consultation period.

Dickson Street intersection

Figure 8 presents a summary of the feedback on the Dickson Street options.

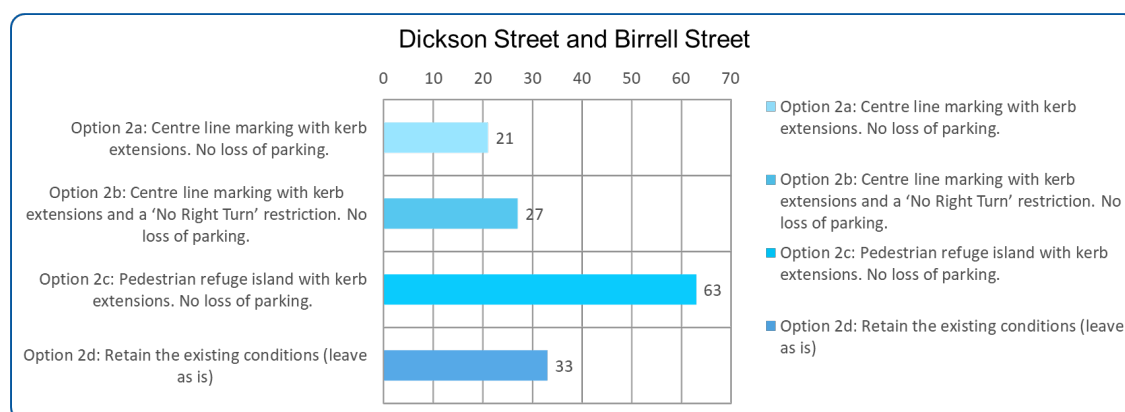


Figure 8. Community feedback on Dickson Street intersection with Birrell Street treatment design.

Option 2c, which received 63 votes.

Option 2c is expected to be the most effective in providing a safer crossing for pedestrians and reducing speeds around the intersection. It is recommended that option 2c as shown in Figure 3 is adopted.

It is also recommended that an addition of a 'No Right Turn, 8am-9:30am and 2:30pm-4pm, Mon-Fri' restriction for northbound motorists is approved to avoid queuing of vehicles at peak hours. This is derived from community concern during the consultation period.

4. Financial Information for Council's Consideration

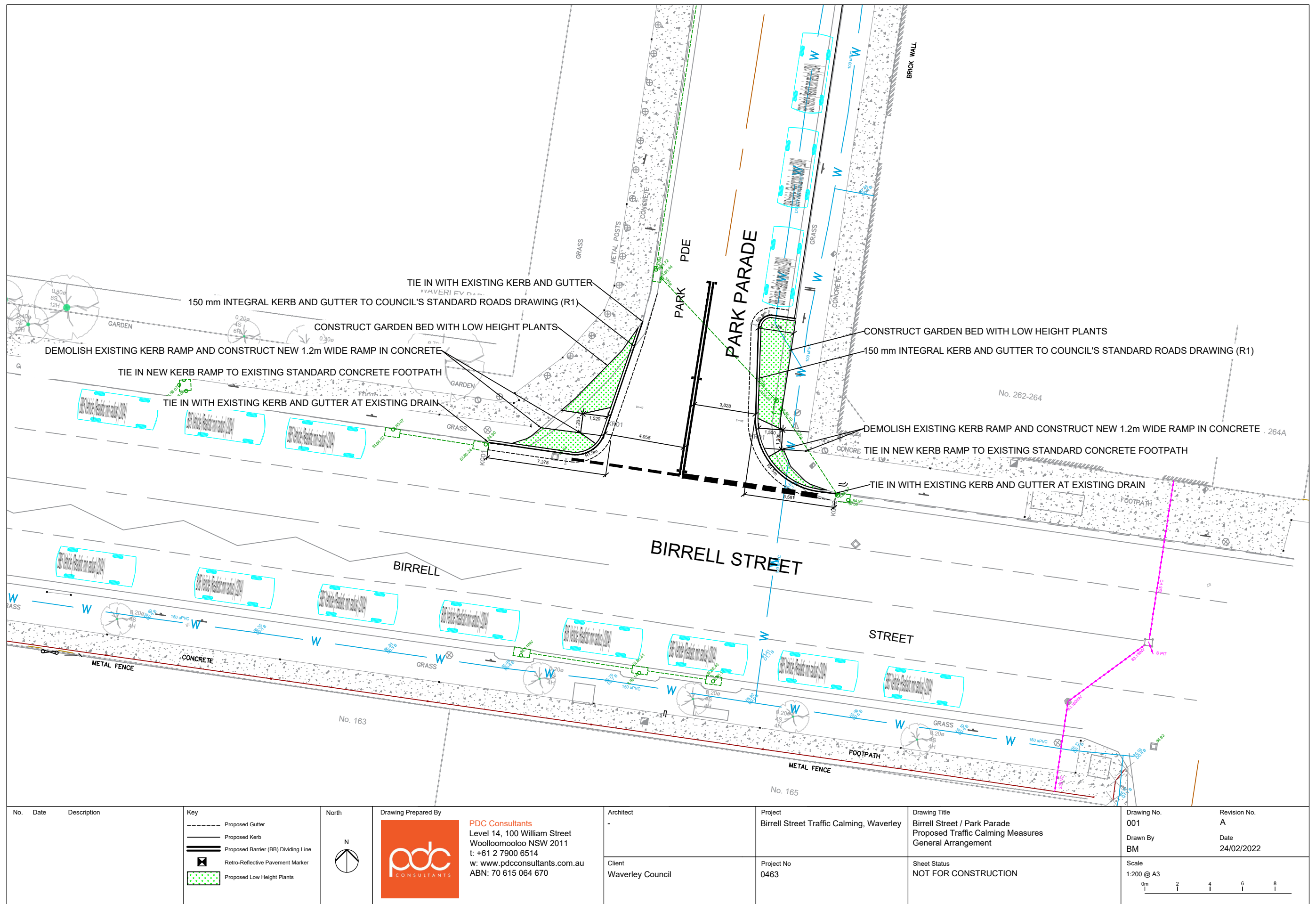
Council has received a commitment of \$1 million for construction from the TfNSW Safe Speeds in High Pedestrian Activity and Local Area program. The \$1 million is required to be spent or committed by 30 June 2021.

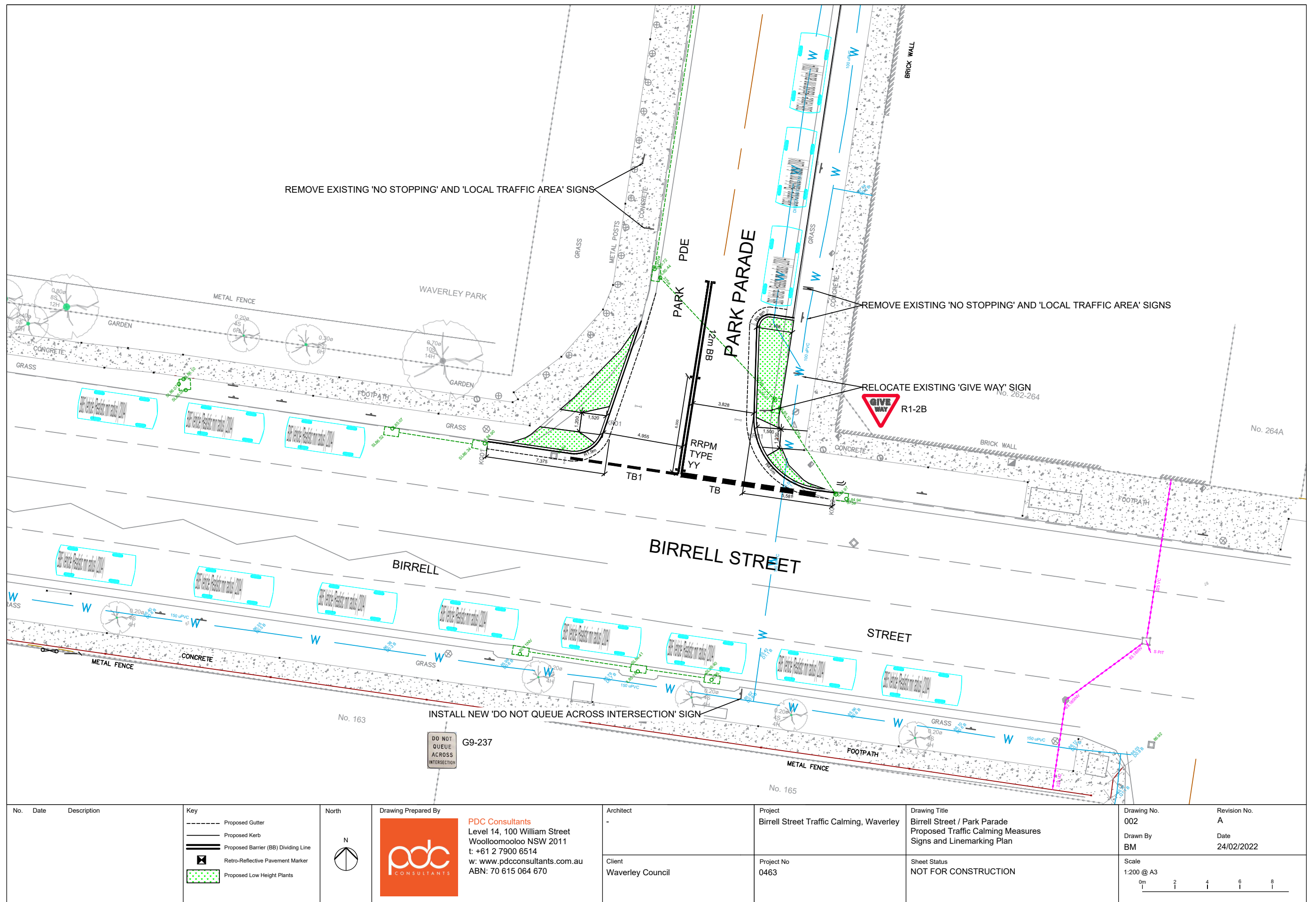
5. Attachments

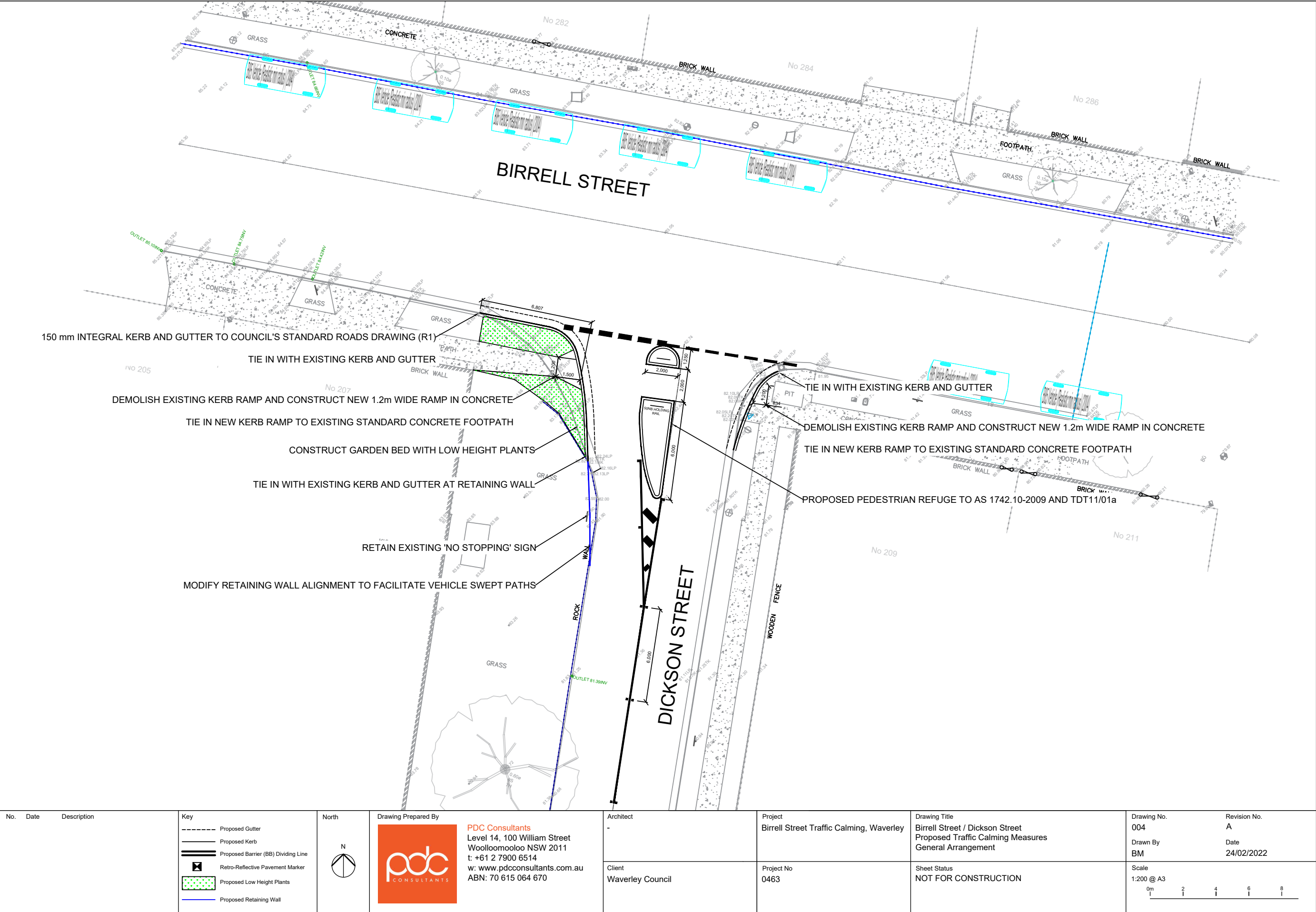
Nil .



Appendix D



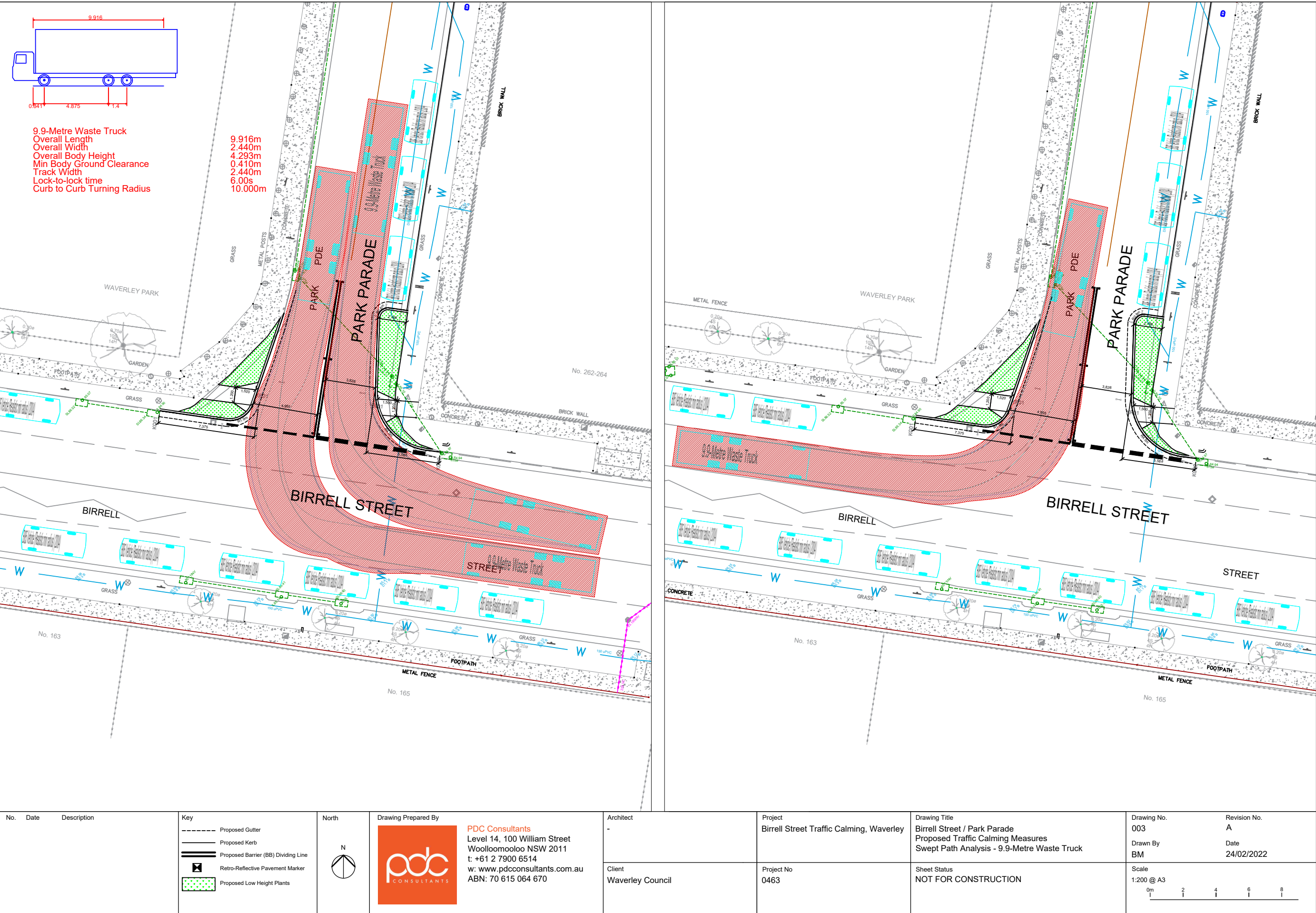


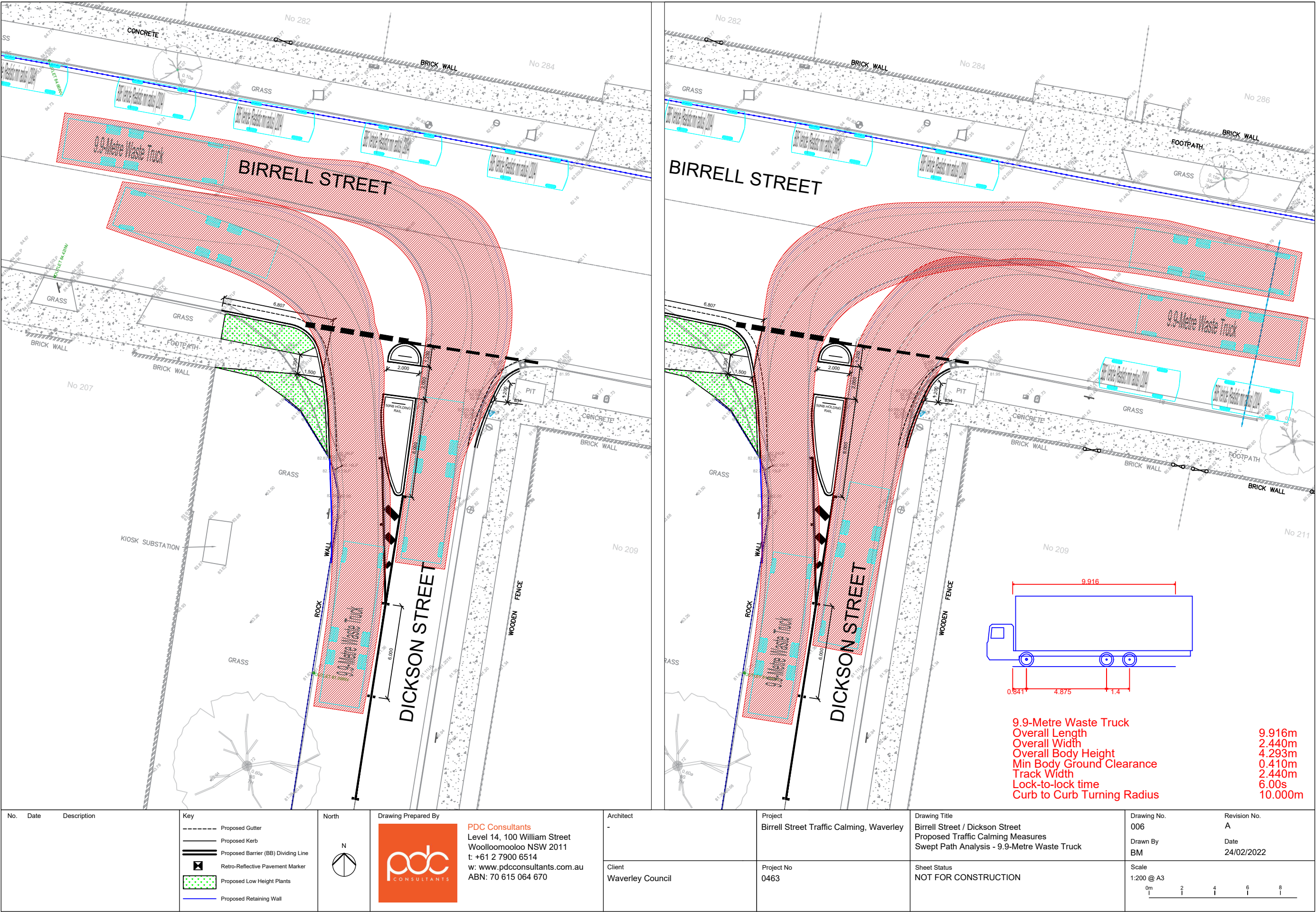






Appendix E







Appendix F

MOVEMENT SUMMARY

▼ Site: 101 [Birrell & Dickson - AM - Options A & C (Kerb Buildout) (Site Folder: Birrell & Dickson)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Dickson St														
1	L2	147	1.0	155	1.0	0.261	4.6	LOS A	0.4	3.0	0.00	0.53	0.00	45.0
3	R2	23	1.0	24	1.0	0.261	24.9	LOS B	0.4	3.0	0.00	0.53	0.00	45.0
Approach		170	1.0	179	1.0	0.261	7.3	LOS A	0.4	3.0	0.00	0.53	0.00	45.0
East: Birrell St														
4	L2	12	1.0	13	1.0	0.007	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	46.6
5	T1	503	4.0	529	4.0	0.310	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach		515	3.9	542	3.9	0.310	0.2	NA	0.0	0.0	0.00	0.01	0.00	49.8
West: Birrell St														
11	T1	448	4.0	472	4.0	0.324	1.0	LOS A	1.1	8.2	0.20	0.07	0.24	48.7
12	R2	55	1.0	58	1.0	0.324	9.0	LOS A	1.1	8.2	0.20	0.07	0.24	48.0
Approach		503	3.7	529	3.7	0.324	1.9	NA	1.1	8.2	0.20	0.07	0.24	48.6
All Vehicles		1188	3.4	1251	3.4	0.324	2.0	NA	1.1	8.2	0.09	0.11	0.10	48.6

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

Queue Model: SIDRA Standard.

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

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

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MOVEMENT SUMMARY

▼ Site: 101 [Birrell & Dickson - PM - Options A & C (Kerb Buildout) (Site Folder: Birrell & Dickson)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Dickson St														
1	L2	65	1.0	68	1.0	0.174	4.6	LOS A	0.4	2.5	0.00	0.53	0.00	44.0
3	R2	18	1.0	19	1.0	0.174	25.9	LOS B	0.4	2.5	0.00	0.53	0.00	44.0
Approach		83	1.0	87	1.0	0.174	9.2	LOS A	0.4	2.5	0.00	0.53	0.00	44.0
East: Birrell St														
4	L2	18	1.0	19	1.0	0.010	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	46.6
5	T1	545	4.0	574	4.0	0.335	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach		563	3.9	593	3.9	0.335	0.3	NA	0.0	0.0	0.00	0.02	0.00	49.7
West: Birrell St														
11	T1	448	4.0	472	4.0	0.349	1.5	LOS A	1.6	11.4	0.26	0.09	0.33	48.2
12	R2	68	1.0	72	1.0	0.349	9.8	LOS A	1.6	11.4	0.26	0.09	0.33	47.6
Approach		516	3.6	543	3.6	0.349	2.6	NA	1.6	11.4	0.26	0.09	0.33	48.2
All Vehicles		1162	3.6	1223	3.6	0.349	2.0	NA	1.6	11.4	0.12	0.09	0.15	48.6

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

Queue Model: SIDRA Standard.

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

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

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MOVEMENT SUMMARY

Site: 101 [Birrell & Park - AM - Options A & C (Kerb Buildout)
(Site Folder: Birrell & Park)]

Network: N101 [Birrell & Park - AM - Options A & C (Kerb Buildout) (Network Folder: General)]

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

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total HV]	veh/h %	v/c	sec		[Veh. veh]	Dist m				km/h
East: Birrell St														
5	T1	749	4.0	749	4.0	0.523	2.3	LOS A	1.5	10.5	0.33	0.15	0.45	46.6
6	R2	171	1.0	171	1.0	0.523	10.8	LOS A	1.5	10.5	0.42	0.18	0.57	50.7
Approach		920	3.4	920	3.4	0.523	3.9	NA	1.5	10.5	0.35	0.15	0.48	47.8
North: Park Pde														
7	L2	127	1.0	127	1.0	0.491	10.1	LOS A	1.0	6.7	0.19	0.62	0.29	46.1
9	R2	57	1.0	57	1.0	0.491	31.2	LOS C	1.0	6.7	0.19	0.62	0.29	39.0
Approach		184	1.0	184	1.0	0.491	16.6	LOS B	1.0	6.7	0.19	0.62	0.29	44.6
West: Birrell St														
10	L2	20	1.0	20	1.0	0.230	4.9	LOS A	0.0	0.0	0.00	0.20	0.00	49.0
11	T1	481	4.0	481	4.0	0.230	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.8
Approach		501	3.9	501	3.9	0.230	0.2	NA	0.0	0.0	0.00	0.03	0.00	49.7
All Vehicles		1605	3.3	1605	3.3	0.523	4.2	NA	1.5	10.5	0.22	0.17	0.31	47.8

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Birrell & Park - PM - Options A & C (Kerb Buildout)
(Site Folder: Birrell & Park)]

Network: N101 [Birrell & Park - PM - Options A & C (Kerb Buildout) (Network Folder: General)]

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

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist m]				
East: Birrell St														
5	T1	579	4.0	579	4.0	0.414	1.9	LOS A	0.8	5.8	0.27	0.11	0.35	47.2
6	R2	104	1.0	104	1.0	0.414	10.6	LOS A	0.8	5.8	0.34	0.14	0.45	51.0
Approach		683	3.5	683	3.5	0.414	3.2	NA	0.8	5.8	0.28	0.12	0.37	48.1
North: Park Pde														
7	L2	148	1.0	148	1.0	0.388	6.7	LOS A	0.8	5.4	0.05	0.58	0.06	49.2
9	R2	77	1.0	77	1.0	0.388	21.0	LOS B	0.8	5.4	0.05	0.58	0.06	43.7
Approach		225	1.0	225	1.0	0.388	11.6	LOS A	0.8	5.4	0.05	0.58	0.06	48.0
West: Birrell St														
10	L2	62	1.0	62	1.0	0.263	5.4	LOS A	0.0	0.0	0.00	0.51	0.00	49.5
11	T1	511	4.0	511	4.0	0.263	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach		573	3.7	573	3.7	0.263	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.8
All Vehicles		1481	3.2	1481	3.2	0.414	3.5	NA	0.8	5.8	0.14	0.17	0.18	48.7

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

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

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

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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REPORT
TC/C.02/22.03**WAVERLEY**
COUNCIL**Subject:** 37 Llandaff Street, Bondi Junction - 'P Disability Only' Zone**TRIM No:** A20/0534**Author:** Beryl Wang, Professional Engineer, Traffic and Development
Calum Hutcheson, Service Manager, Traffic and Transport**Authoriser:** Dan Joannides, Executive Manager, Infrastructure Services**COUNCIL OFFICER'S PROPOSAL:**

That Council installs a 6 metre 'P Disability Only' parking zone in front of 35–37 Llandaff Street, Bondi Junction.

1. Executive Summary

Council has received a request from a resident for a 'P Disability Only' Parking zone in Llandaff Street, outside 37 Llandaff Street Bondi Junction.

An assessment of the request was undertaken in March 2022.

It is recommended that a 6 metre mobility parking is installed in front of 35–37 Llandaff Street. The location is shown in Figure 1. The proposed mobility parking zone is shown in Figure 2.

Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Site location.



Figure 2. Proposed 'P Disability Only' parking zone.

2. Introduction/Background

Council's requirements for approval of on-street disabled parking zones outside individual properties are:

1. Applicant must have an approved Mobility Parking Scheme Permit.
2. Application must be for a vehicle registered to the address.
3. Applicant must not have access to off-street parking within their property.
4. The level of parking within 50 metres either side and opposite of the property to be surveyed on two occasions at random by Council officers. The parking demand is to be above 85% capacity on both occasions.

3. Technical Analysis

Compliance of the proposal with Council standard requirements is presented below.

Table 1. Compliance with Council requirements.

Address	37 Llandaff Street, Bondi Junction
Mobility Parking Permit	Yes
Circumstances leading to requirement	The applicant has medical conditions and requires walkers and wheelchair.
Off-street parking available	No
Length of property frontage	4.7 metres
Length of zone	6 metres
On-street parking occupancy within 50 metres either side of the property	93.5% occupied during the day

The proposed length of 6 metres is based on Australian Standard AS2890.5-2020 – On-street parking, as shown in Figure 3 below.

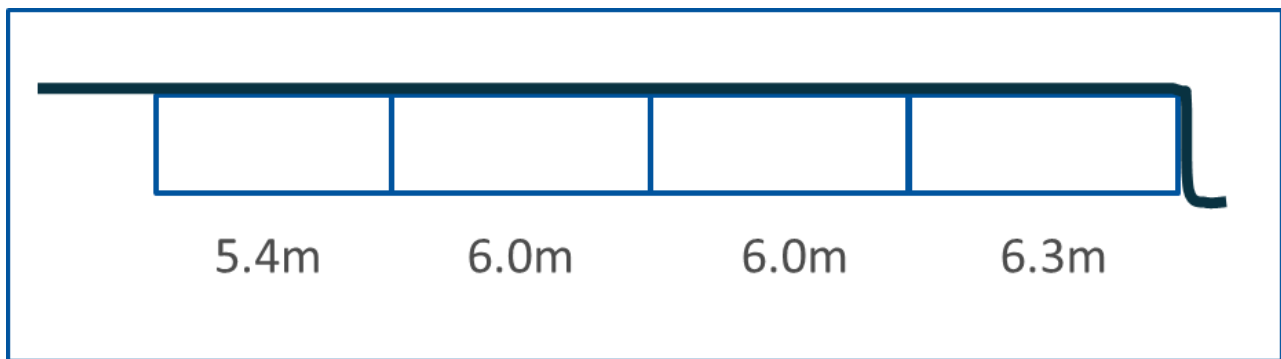


Figure 3. Dimensions for on-street parking spaces.

Signage

The proposed signage is shown below.



Figure 4. Proposed signage.

4. Financial Information for Council's Consideration

Council will supply and install the signs and remove existing signs with funds from existing budgets.

5. Attachments

Nil.

REPORT
TC/C.03/22.03

Subject: 13/1 Silva Street, Tamarama - 'P Disability Only' Zone

TRIM No: A20/0534

Author: Beryl Wang, Professional Engineer, Traffic and Development
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 5.4 m 'P Disability Only' parking zone on the northern side of Dellview Lane near Silva Street, Tamarama.

1. Executive Summary

Council has received a request from a resident for a 'P Disability Only' parking zone at 1 Silva Street, Tamarama.

An assessment of the request was undertaken in March 2022.

It is recommended that a 5.4 metre disability zone is installed on the northern side of Dellview Lane, west of an existing 'No Stopping' zone near Silva Street. The location of the site is shown in Figure 1. The proposed disability parking zone is shown in Figure 2.

Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Site location.



Figure 2. Proposed 'P Disability Only' parking zone.

2. Introduction/Background

Council's requirements for approval of on-street disabled parking zones outside individual properties are:

1. Applicant must have an approved Mobility Parking Scheme Permit.
2. Application must be for a vehicle registered to the address.
3. Applicant must not have access to off-street parking within their property.
4. The level of parking within 50 metres either side and opposite of the property to be surveyed on two occasions at random by Council officers. The parking demand is to be above 85% capacity on both occasions.

3. Technical Analysis

Compliance of the proposal with Council standard requirements is presented below.

Table 1. Compliance with Council requirements.

Address	13/1 Silva Street, Tamarama
Mobility Parking Permit	Yes
Circumstances leading to requirement	Applicant has medical conditions and cannot walk for long distances
Off-street parking available	No (confirmed by strata manager)
Length of property frontage	N/A
Length of zone	5.4 metres
On-street parking occupancy within 50 metres either side of the property	89% occupied during the day

The proposed length of 5.4 metres is based on Australian Standard AS2890.5-2020 – On-street parking, as shown in Figure 3 below.

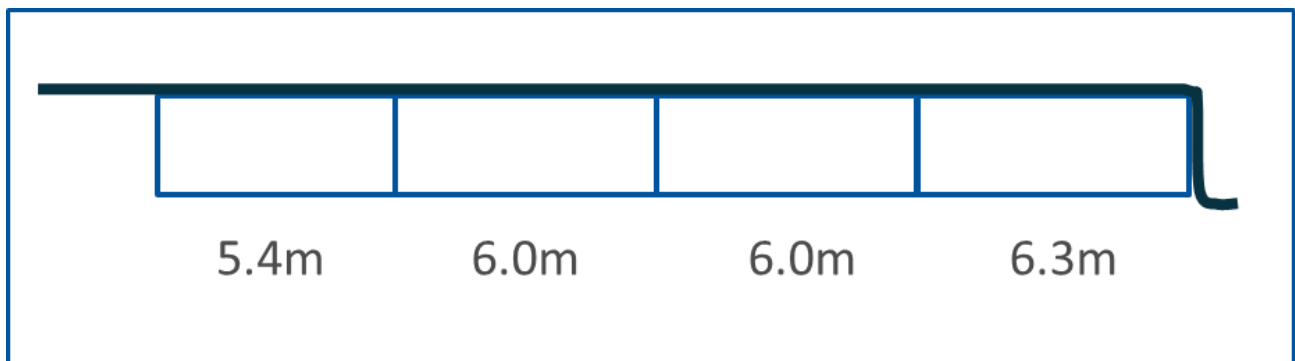


Figure 3. Dimensions for on-street parking spaces

Signage

The proposed signage is shown below.



Figure 4. Proposed signage.

4. Financial Information for Council's Consideration

Council will supply and install the signs and remove existing signs with funds from existing budgets.

5. Attachments

Nil.

REPORT
TC/C.04/22.03

Subject: 20 Illawong Avenue, Tamarama - Construction Zone

TRIM No: A03/2514-04

Author: Beryl Wang, Professional Engineer, Traffic and Development
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 10 metre 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' construction zone on the southern side of Illawong Avenue near 20 Illawong Avenue, Tamarama.
2. Requires the applicant to notify residents in the vicinity of the construction zone prior to it being installed.
3. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

1. Executive Summary

Council has received an application from the builder/developer associated with a development at 20 Illawong Avenue, Tamarama, for the installation of a 10 metre construction zone in Illawong Avenue.

Council officers propose the installation of a 10 metre construction zone on the southern side of Illawong Avenue near 20 Illawong Avenue.

Figure 1 shows the site location. Figure 2 shows the proposed construction zone.

Council will need to exercise its delegated functions to implement the proposal.

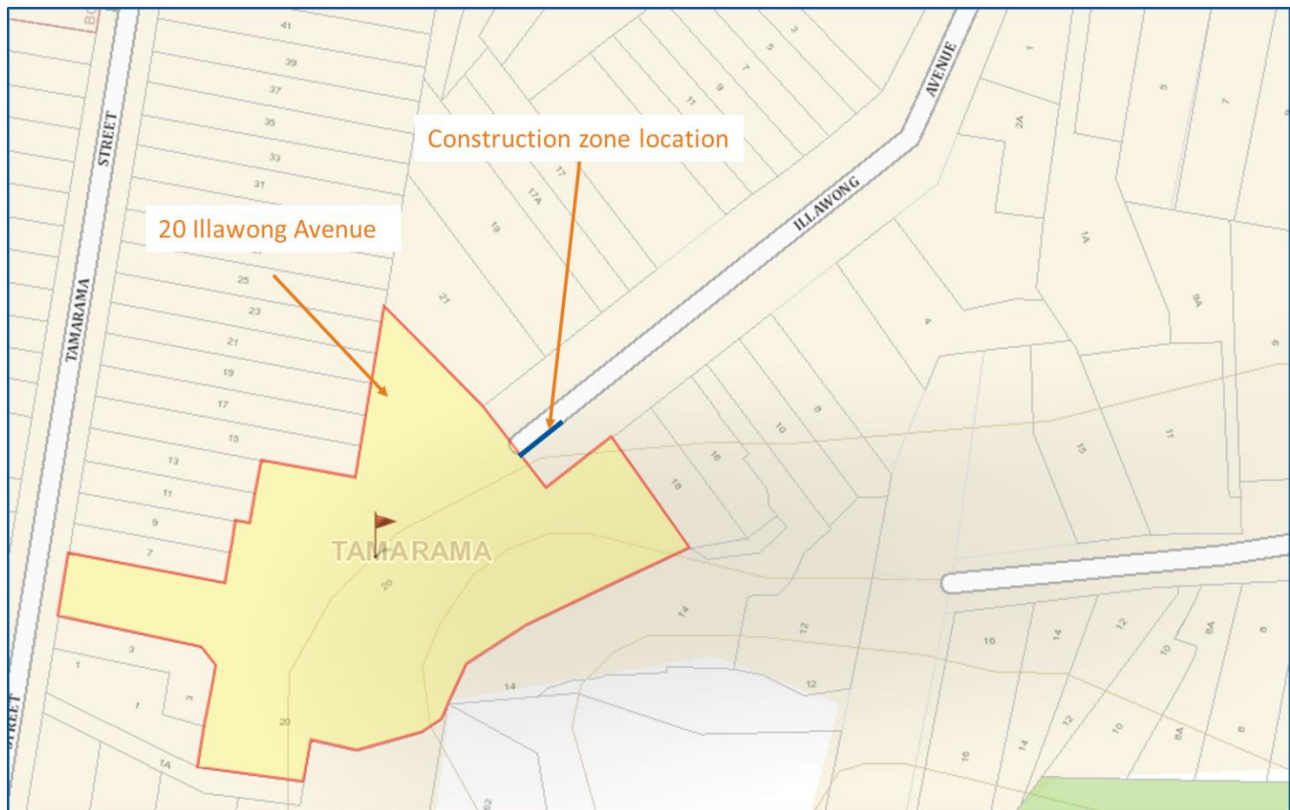


Figure 1. Site location in Illawong Avenue.



Figure 2. Location to install construction zone signs.

2. Introduction/Background

In accordance with standard practice at Council, it is proposed that the construction zone is signposted 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' for the approved construction hours under the development consent. Council will then supply the applicant with transferable permits to be used on the applicant's construction vehicles. The Traffic Committee and Council's requirements for permit approvals are a minimum length of 9 metres along the site frontage with a minimum period of 13 weeks.

3. Technical Analysis

The subject site has a frontage of 11 metres on the south side of Illawong Avenue. The applicant has requested a 10 metre construction zone. Council officers propose to install a 10 metre construction zone. Figure 3 shows the existing and recommended parking allocation in Illawong Avenue.

Council officers propose to install a construction zone at the end on the southern side of Illawong Avenue.

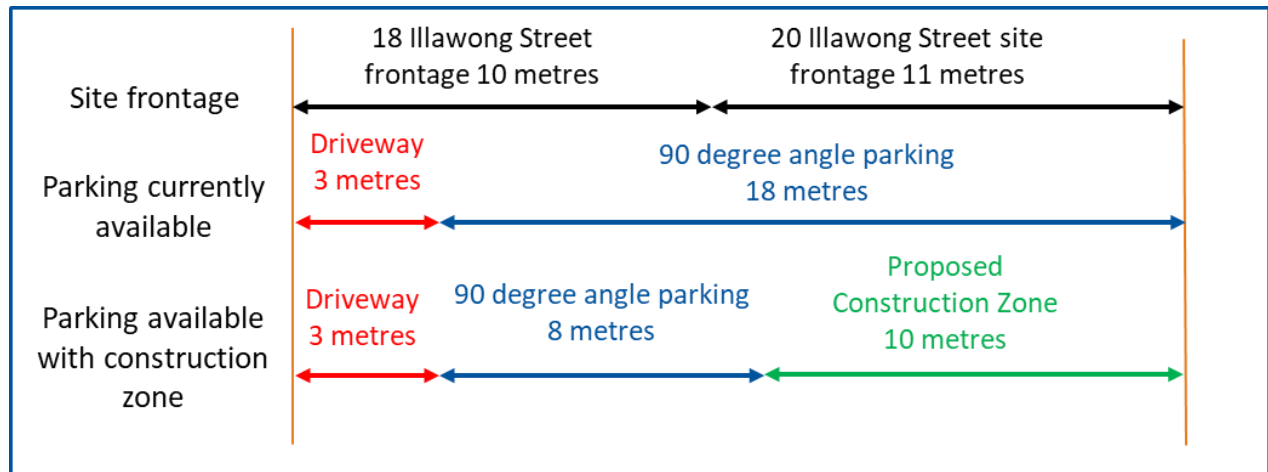


Figure 3. Parking controls.

Table 1. Application details.

Applicant	Point Built Pty Ltd
Development application	DA-125/2012/C
Works	Alteration and addition to multi-storey residential flat building
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage/Rear length	11 metres (Southern side of Illawong Avenue)
Road	Illawong Avenue
Existing parking	90 degree angle parking rear to kerb vehicles under 6m only
Length requested by applicant	10 metres
Length to be signposted	10 metres
Planned duration	14 weeks
Fee area	Medium-density residential zoning

Signage

The proposed signage is shown below.



Figure 4. Proposed signage.

Notification

Businesses and residents in the vicinity of the construction zone will be notified prior to it being installed. Figure 5 shows the properties to be notified about the construction zone.

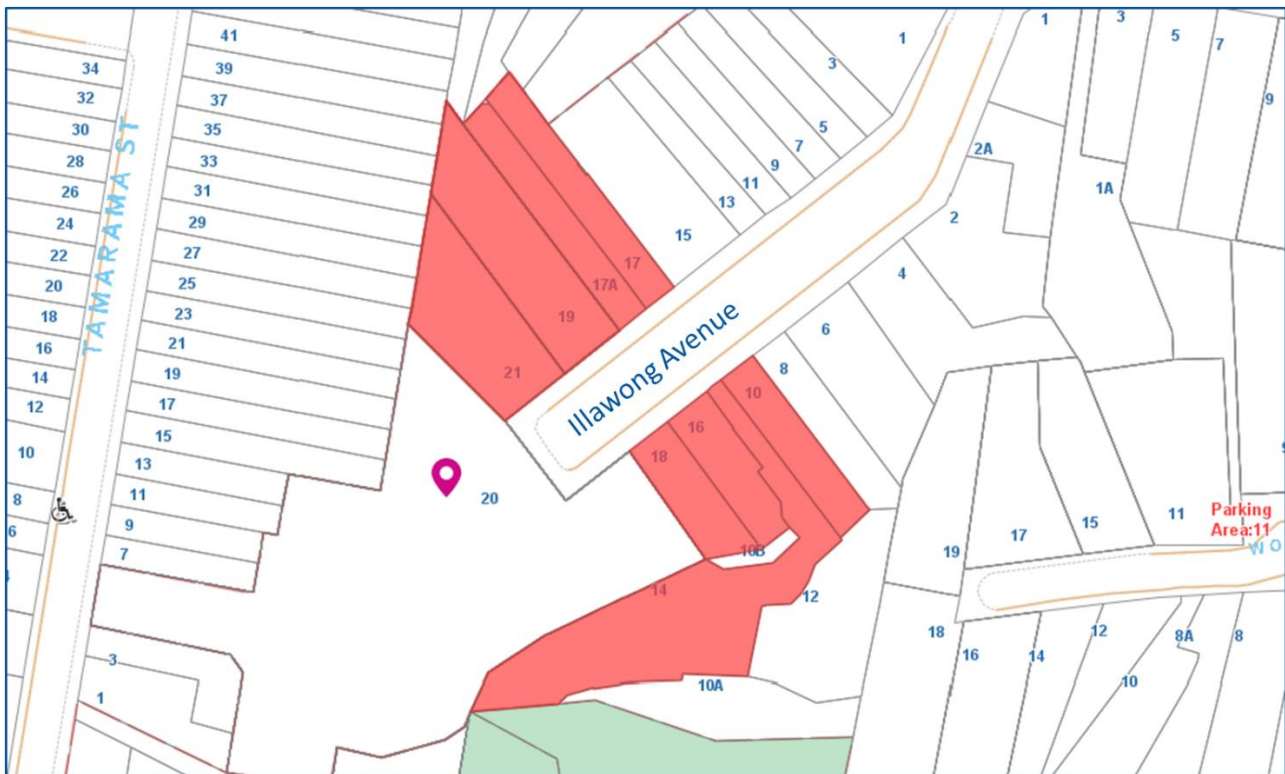


Figure 5. Notification area (red).

4. Financial Information for Council's Consideration

The estimated fees for the construction zone are shown in Table 2.

Table 2. Estimated weekly fees.

Category	Unit	Number/ Dimensions	Rate (GST Exempt)	Fee
Fee (Areas zoned low, medium, or high density residential)				
- Parallel parking	per metre	-	\$70.00	-
- Angle parking	per week	10 metres	\$139.00	\$1,390.00
Fee (Areas zoned neighbourhood centre, commercial core, or mixed use)				
- Parallel parking	per metre	-	\$97.00	-
- Angle parking	per week	-	\$190.00	-
Occupation of metered parking spaces (in addition to the above fees)	per space	-	\$387.00	-
Weekly Fee				\$1,390.00

5. Attachments

Nil.

REPORT
TC/V.01/22.03

Subject: Anzac Day - Ramsgate Avenue and Campbell Parade,
North Bondi - Temporary Road Closure

TRIM No: A19/0394

Author: Malik Almuhanha, Senior Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Approves the Traffic Control Plans attached to the report for the temporary closure of Ramsgate Avenue and Campbell Parade, North Bondi, on 25 April 2022 between 4 am and 8 am, subject to the applicant:
 - (a) Submitting a Traffic Management Plan to Transport for NSW for approval.
 - (b) Providing public liability insurance for the event.
 - (c) Obtaining NSW Police Force approval and assessment of the event classification.
 - (d) Notifying the State Transit Authority, NSW Ambulance Service and NSW Fire and Rescue (Bondi, Woollahra, and Randwick fire stations) at least seven days prior to the event.
 - (e) Notifying local residents and businesses at least seven days prior to the event.
 - (f) Using traffic controllers accredited by Transport for NSW to regulate traffic.
 - (g) Covering all costs associated with traffic control.
 - (h) Submitting a copy of the approved road occupancy licence to the Executive Manager, Infrastructure Services, prior to the event taking place.
2. Delegates authority to Executive Manager, Infrastructure Services, to modify the Traffic Control Plans should on-site circumstances warrant changes.

1. Executive Summary

Council has received an application on behalf of North Bondi RSL Club requesting consideration be given to approving the temporary closure of Ramsgate Avenue and Campbell Parade, North Bondi, in order to hold an ANZAC Day march and dawn service on 25 April 2022.

Council will need to exercise its delegated functions to implement the proposal.

2. Introduction/Background

Due to the COVID-19 pandemic, the event was last hosted by North Bondi RSL in 2019. No changes are proposed to the last road closure from 2019. The traffic plans from the 2019 event are attached to this report. A traffic management plan is being prepared for submission to Transport for NSW.

This event is considered to be a Class 2 Special Event in accordance with the Transport for NSW's *Guide to Traffic and Transport Management for Special Events*.

This event will require an approval from the Transport Management Centre (TMC), as a temporary full closure is proposed. The applicant will be advised to contact the TMC to obtain the required approval.

Once all approvals have been received and all conditions have been met, Council's Executive Manager, Infrastructure Services, can approve the application.

3. Technical Analysis

The Traffic Management Plan proposes the following closure schedule:

Table 1. Proposed closure schedule.

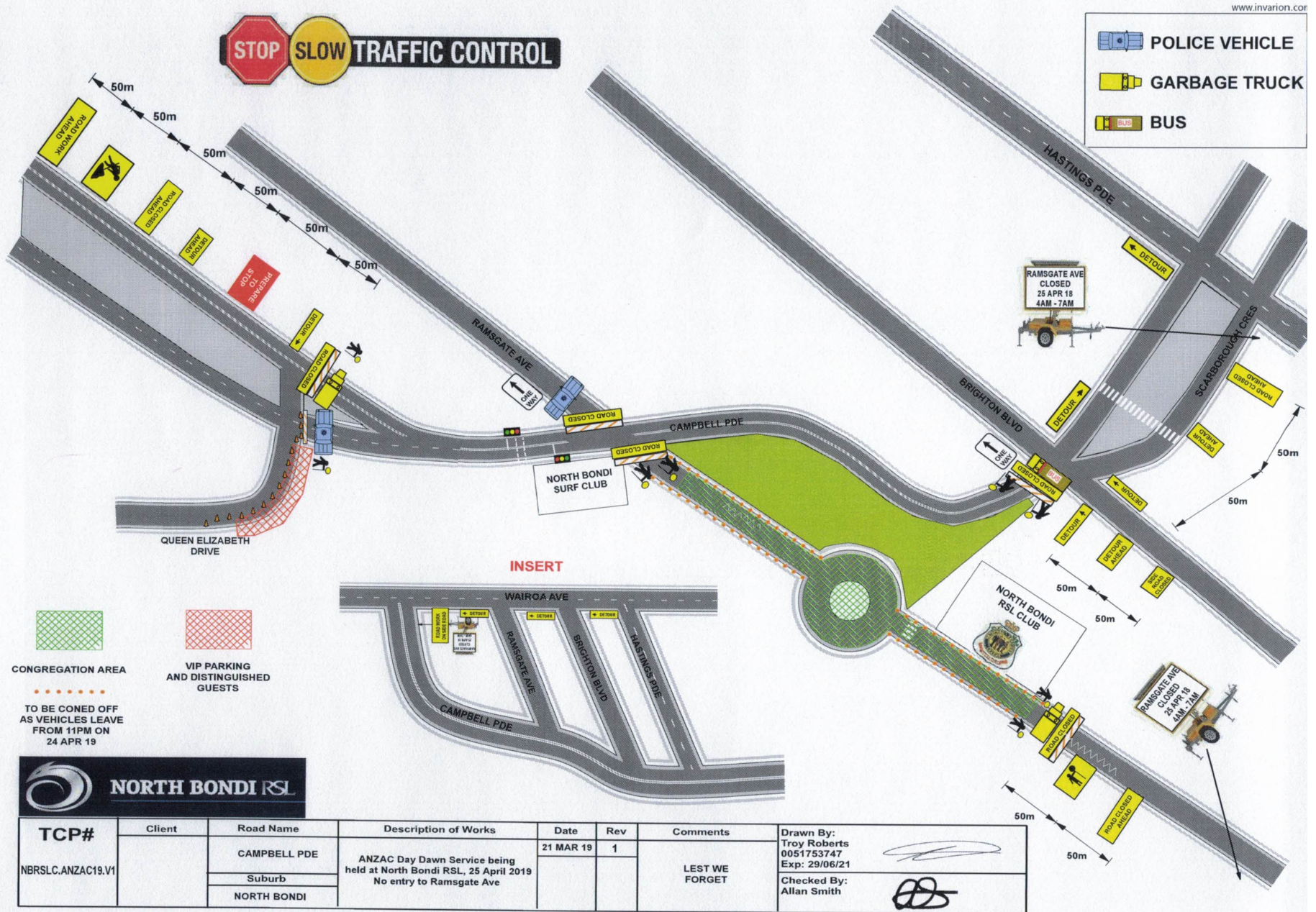
Date	Time	Activity
Monday, 25 April 2022	4.00 am	Implement temporary closure of Ramsgate Avenue and Campbell Parade. Access for emergency vehicles and pedestrians to remain.
	5.00 am	Participants to form up in Ramsgate Avenue.
	5.30 am	Participants and spectators assemble in Ramsgate Avenue, adjacent to North Bondi War Memorial.
	6.00 am	Dawn service and wreath-laying ceremony commences.
	6.45 am	Participants and spectators invited to RSL Club
	8.00 am	Ramsgate Avenue and Campbell parade opens and all normal traffic conditions to resume.

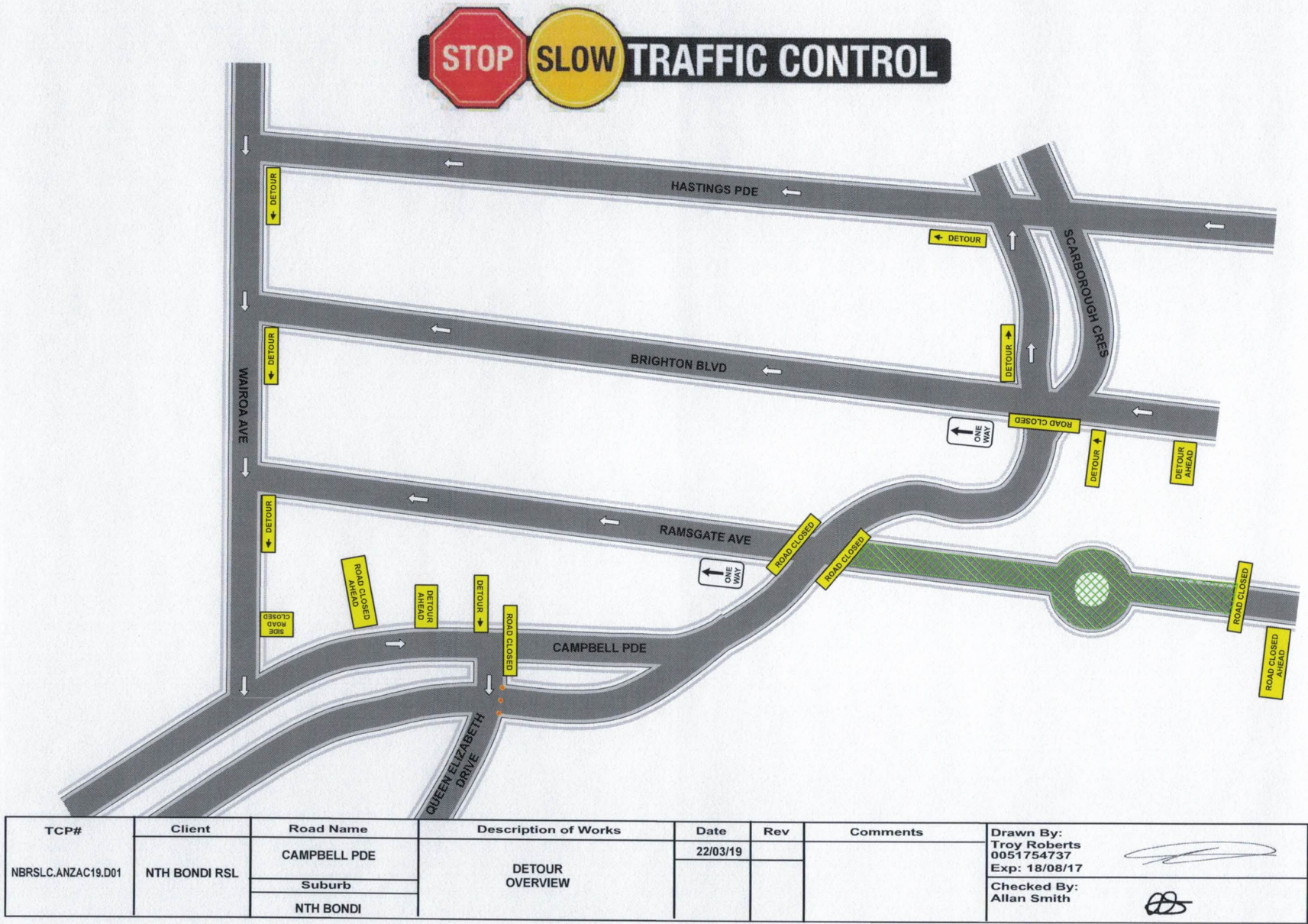
4. Financial Information for Council's Consideration

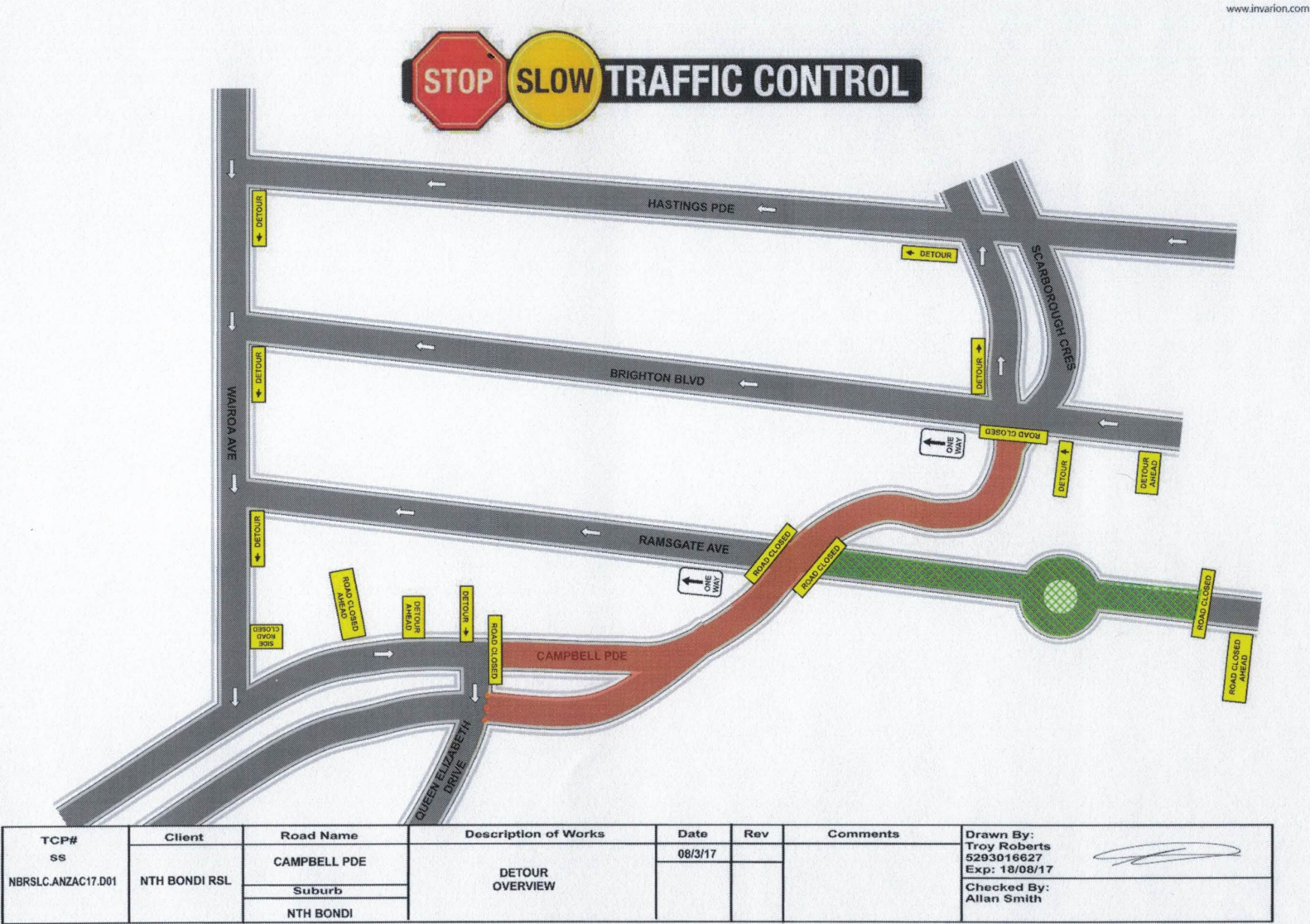
The applicant will be required to meet the cost of all traffic control, waste removal and damage restoration.

5. Attachments

1. Anzac Day - 2022 Traffic Control Plans [↓](#)







Page 2

REPORT
TC/V.02/22.03

Subject: Oceanview Avenue east of Old South Head Road,
Vaucluse - Double Centre (BB) Line Marking

TRIM No: A03/0042-04

Author: Malik Almuhanha, Senior Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs 10 metres of double centre (BB) line marking in Oceanview Avenue east of Old South Head Road, Vaucluse, as shown in Figure 1 of the report.

1. Executive Summary

Council has received requests to review the intersection of Oceanview Avenue and Old South Head Road, Vaucluse. This is due to motorists crossing the centre of Oceanview Avenue when entering and exiting Oceanview Avenue. Figure 1 shows the site location.

'No Stopping' restrictions at Oceanview Avenue are currently located 8.5 metres on the northern side and 9.5 metres on the southern side from Old South Head Road.

It is proposed that a 10 metre double barrier (BB) line is installed along the centre of Oceanview Avenue. This will enhance safety at the intersection and provide improved guidance for motorists entering and exiting Oceanview Avenue at Old South Head Road. Figure 2 shows the proposed restrictions.

Council will need to exercise its delegated functions to implement the proposal.

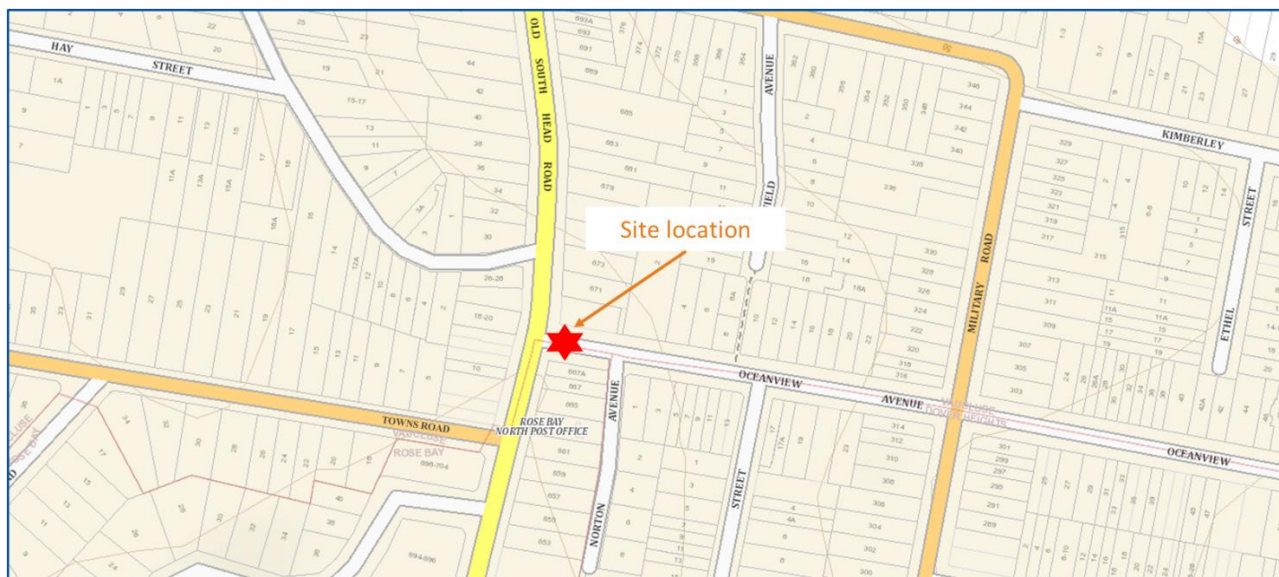


Figure 1. Site location.

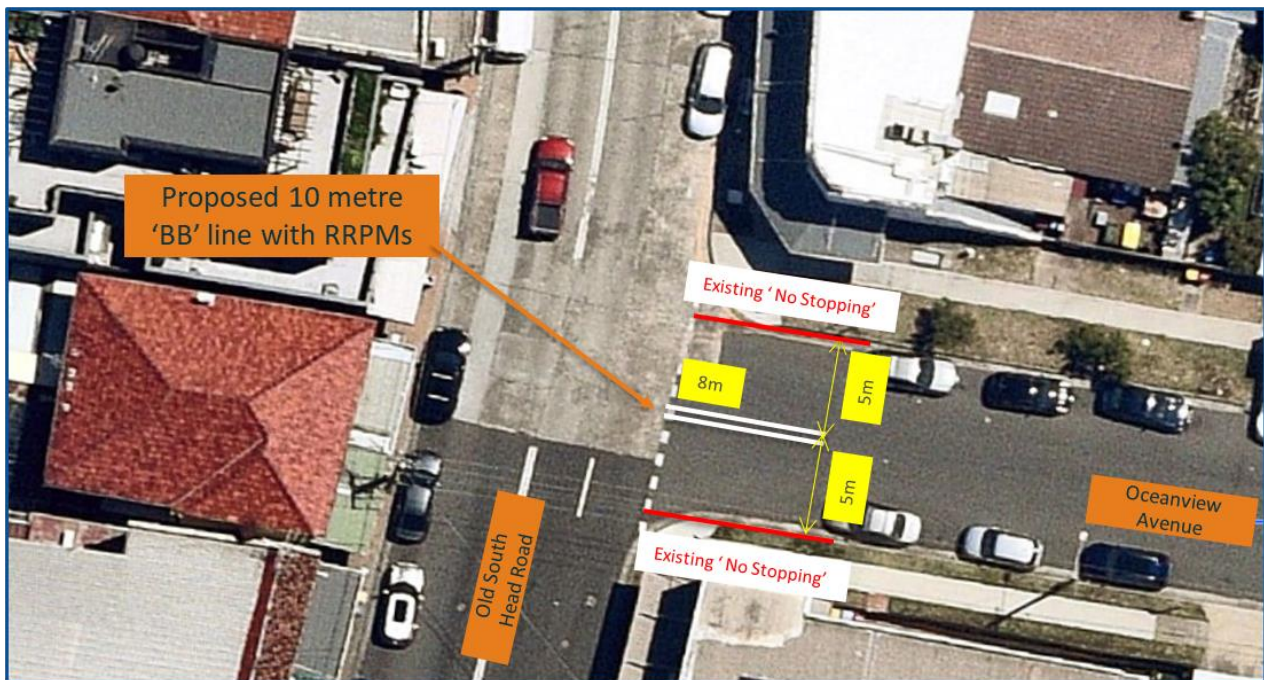


Figure 2. Proposed BB line along Oceanview Avenue east of Old South Head Road.

2. Introduction/Background

Council has received feedback requesting a review of the existing traffic arrangement at the intersection of Oceanview Avenue and Old South Head Road, where it is reported that motorists are performing a U-turn movement from Oceanview Avenue into Old South Head Road.

This report recommends the installation of 10 m BB lines.

3. Technical Analysis

Oceanview Avenue is a 10 m wide street east of its intersection with Old South Head Road. It services a two-way traffic movement with parking on both sides. The current signposted 'No Stopping' restrictions at Francis Street are 8.5 m and 9.5 m long along the northern and southern side respectively.

Installation of a double barrier (BB) line marking will address this issue of dangerous U-turn movements and improve turning paths for vehicles entering/exiting Oceanview Avenue, ensuring vehicles are better guided to turn to the right side of the road.

No parking spaces will be affected as a result of the proposed intersection treatment.

4. Financial Information for Council's Consideration

Council will fund the installation of the intersection treatment.

5. Attachments

Nil.

REPORT
TC/V.03/22.03

Subject: 38 and 40 Roscoe Street, Bondi Beach - 'P Motor Bikes Only' Parking Zone

TRIM No: SF22/504

Author: Paul Cai, Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 'P Motor Bikes Only' zone in the kerbside lane between the driveways of 38 and 40 Roscoe Street, Bondi Beach.
2. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the 'P Motor Bikes Only' parking zones, as necessary.

1. Executive Summary

Council has received a request to consider restricting car parking in the gap between the driveways of 38 and 40 Roscoe Street, Bondi Beach. The request arose due to the distances between two driveways not being long enough to accommodate most cars.

'No Parking' restrictions are currently in place between 40 and 42 Roscoe Street. Parking between 38 and 40 Roscoe Street is '2P, 8 am–10 pm, Permit Holders Excepted.'

53 residents were surveyed by letterbox drop about whether they supported motor bike parking. There were submissions from two residences. One submission raised concerns about access to 42 Roscoe Street being compromised by removal of the 'No Parking' restrictions.

It is proposed that the 'No Parking' restrictions remain and that the '2P, 8 am–10 pm, Permit Holders Excepted' between 38 and 40 Roscoe Street is converted to 'P Motor Bikes Only'.

The location of the site is shown in Figure 1. The proposed signage for the motor bike parking zone is shown in Figure 2. The motor bike parking zone is setback 900 mm from the eastern end of the driveway of 38 Roscoe Street. This is to facilitate access to the car parking area at this address.

Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Site location.



Figure 2. Proposed signage for the motor bike parking zone.

2. Introduction/Background

Council has investigated introduction of motor bike parking between the driveways of 38, 40 and 42 Roscoe Street. A small car parked between the driveways can potentially block access to the driveways.

3. Technical Analysis

Austroads guidelines and Council resolutions support the use of motor bike parking spaces in circumstances where the gaps between two driveways are too narrow to accommodate a car.

Austroads' Guide to Traffic Management – Part 11: Parking (section 7.8.3) states that motor bike parking provision can be achieved by using under-sized parking spaces. The Traffic Committee and Council have supported this principle and have previously been in favour of installing 'P Motor Bikes Only' zones in short sections of kerb where other vehicles would obstruct vehicular access.

Warrants

Criteria for consideration when assessing the justification for installing a 'P Motor Bike Only' zone are presented below:

1. Distance check

4.2 metres has been adopted as the maximum distance between driveway spaces for motorbike parking to be considered. The distance between the driveways of 38 and 40 Roscoe Street and the driveways of 40 and 42 Roscoe Street is approximately 3.8 metres. The distance check is satisfied.

2. Motor bike parking demand check

A site visit was conducted on 14 December 2021. More than 90% of the kerb-side parking on Roscoe Street was occupied. The high demands will result in cars being parked in the narrow gaps between the driveways from time to time.

3. Resident views check

53 properties near the site were surveyed by letterbox drop for the proposal of installing motor bikes parking zone between the driveways of 38 and 40 Roscoe Street and the driveways of 40 and 42 Roscoe Street.

An objection was received from the owners of 40 Roscoe Street to changing the existing 'No Parking' zone to a motor bike parking zone as it would restrict access to their driveway.

One other objection was received. The reason for the objection was that Roscoe Street has limited on-street parking spaces.

Take into consideration the survey feedback, it is proposed to install a 'Motor Bikes Only' parking zone between the driveways of 38 and 40 Roscoe Street. The existing 'No Parking' restrictions between 40 and 42 Roscoe Street will remain.

The proposed motor bikes only parking zone will have no impact on on-street parking for cars.

Signage

The proposed signage is shown in Figure 3.

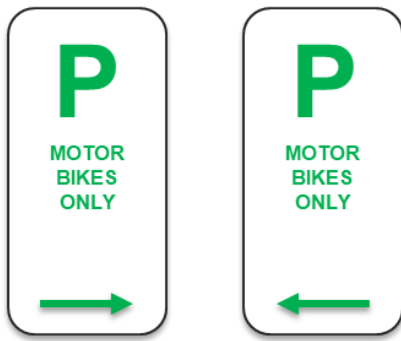


Figure 3. Proposed signage.

4. Financial Information for Council's Consideration

Council will fund the cost of installing the signs or line marking from existing budgets if the 'P Motor Bikes Only' zone is approved.

5. Attachments

Nil.

REPORT
TC/V.04/22.03

Subject: 5 Strickland Street, Rose Bay - 'P Motor Bikes Only' Parking Zone

TRIM No: SF22/496

Author: Paul Cai, Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 'P Motor Bikes Only' parking zone between the driveways of 3A and 5 Strickland Street, Rose Bay.

1. Executive Summary

Council has received a request from residents to install a 'P Motor Bikes Only' parking zone between the driveways of 3A and 5 Strickland Street, Rose Bay (see Figure 1). Currently there are no parking restrictions at this zone.

This request arises because of cars being parked between the two driveways overhanging into either one or both driveways. The motor bike only parking restriction is being proposed to stop this issue.

The distance between the two driveways is 3 metres. This is less than the 4.2 metres that has been adopted as the maximum distance between driveway splays before motor bike parking is considered.

The proposed motor bike parking zone signage is shown in Figure 2.

Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Site location.



Figure 2. Proposed motor bikes only parking signage.

2. Introduction/Background

Strickland Street has a high parking demand that is frequently used by residents and visitors. It was reported by residents that cars have parked in this space blocking access to the driveways of 3A and 5 Strickland Street.

The distance between the two driveways is 3 metres. This is insufficient to fit a small car. Motor bikes only parking restriction is recommended.

3. Technical Analysis

Austroads guidelines and Council resolutions support the use of motor bike parking spaces in circumstances such as the space between 3A and 5 Strickland Street.

Austroads' Guide to Traffic Management – Part 11: Parking (section 7.8.3) states that motor bike parking provision can be achieved by using under-sized parking spaces. The Traffic Committee and Council have supported this principle and have previously been in favour of installing 'P Motor Bikes Only' zones in short sections of kerb where other vehicles would obstruct vehicular access.

Warrants

Criteria for consideration when assessing the justification for installing a 'P Motor Bike Only' zone are presented below.

1. Distance check – 4.2 metres has been adopted as the maximum distance between driveway spaces for motorbike parking to be considered. The distance between the two driveways is approximately 3 metres. The distance check is satisfied.
2. Motor bike parking demand check – A site visit was conducted on 1 December 2021. More than 85% of the kerb-side parking near the site was occupied. The high demands will result in cars being parked between the driveways of 3A and 5 Strickland Street from time to time. This condition warrant consideration of installing motor bike parking.
3. Resident views check – 40 residents near the site were surveyed by letterbox drop. Two responses were received: one in favour and one against.

The submission in favour was from one of the residents whose driveway is adjacent to the proposed motor bike zone.

The submission against was from a resident further up the street. The resident advised that drivers could use the gap between 3A and 5 Strickland Street as a waiting bay for other vehicles to pass. Another concern was raised that the proposed motor bikes parking zone would increase the number of motor bikes in the street.

While the gap between 3A and 5 Strickland Street could be used as a waiting bay, there are ample opportunities elsewhere along the street for this to occur. The motor bike zone provides for accommodation of existing and future parking demands.

The proposed motor bike only parking zone will have no impact on on-street parking for cars. A motor bike parking zone as shown in Figure 2 is recommended.

Signage

The proposed signage is shown in Figure 3.

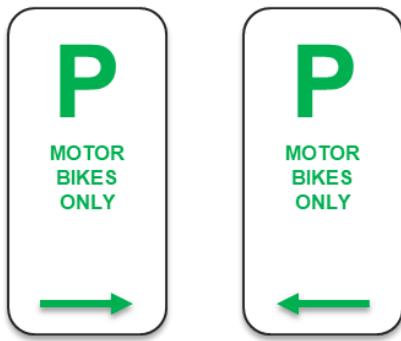


Figure 3. Proposed signage.

4. Financial Information for Council's Consideration

Council will fund the cost of installing the signs or line marking from existing budgets if the 'P Motor Bikes Only' zone is approved.

5. Attachments

Nil.

REPORT
TC/V.05/22.03

Subject: 203 Military Road, Dover Heights - 'P Motor Bikes Only' Zone and 'No Stopping' Zone

TRIM No: SF22/952

Author: Paul Cai, Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 'P Motor Bikes Only' parking zone between the driveways of 203 and 205 Military Road, Dover Heights.
2. Reduces the length of the 28.5 metre 'No Stopping' zone in front of 199, 201 and 203 Military Road to 10 metres.
3. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the 'P Motor Bikes Only' parking zone, as necessary.

1. Executive Summary

Council has received a request to consider installing a motor bike only parking zone in the gap between the driveways of 203 and 205 Military Road, Dover Heights. The request is to restrict car parking between the two driveways as the distance is not long enough to accommodate most cars.

The distance between the two driveways is 3.5 metres. This is less than the 4.2 metres that has been adopted as the maximum distance between driveway splays before motor bike parking is considered. Currently, there are no parking restrictions at this gap.

There is an excessively long 'No Stopping' zone in front of 199, 201 and 203 Military Road. This 'No Stopping' zone is 28.5 metres from the intersection with Myuna Road. This exceeds the statutory 10 metres 'No Stopping' requirement under the NSW Road Rules.

It is proposed to:

- Install a motorbike zone between the driveways of 203 and 205 Military Road.
- Reduce the existing 28.5 metre 'No Stopping' zone to 10 metres from Myuna Road. This will provide one additional on-street parking space between 201 and 203 Military Road.

The site location is shown in Figure 1. The proposed signage for the motor bike parking zone is shown in Figure 2. Modifications to the existing 'No Stopping' zone are shown in Figure 3.

Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Site location.



Figure 2. Proposed motor bikes only parking zone and signs.



Figure 3. Proposed 10 metres no stopping zone from the intersection with Myuna Road.

2. Introduction/Background

Council has investigated introduction of motor bike parking between the driveway of 203 and 205 Military Road. A car parked between the driveways can potentially block access to the driveways.

The distance between the two driveways is 3.5 metres. This is insufficient to fit a small car either. Motor bikes only parking restriction is recommended.

By reducing the existing no stopping zone to statutory 10 metres is able to provide one car parking space between the driveways of 203 and 201 Military Road.

3. Technical Analysis

Motor bike parking

Austroads guidelines and Council resolutions support the use of motor bike parking spaces in circumstances where the gaps between two driveways are too narrow to accommodate a car.

Austroads' Guide to Traffic Management – Part 11: Parking (section 7.8.3) states that motor bike parking provision can be achieved by using under-sized parking spaces. The Traffic Committee and Council have supported this principle and have previously been in favour of installing 'P Motor Bikes Only' zones in short sections of kerb where other vehicles would obstruct vehicular access.

Warrants

Criteria for consideration when assessing the justification for installing a 'P Motor Bike Only' zone are presented below.

1. Distance check – 4.2 metres has been adopted as the maximum distance between driveway spaces for motorbike parking to be considered. The distance between the two driveways is approximately 3.5 metres. The distance check is satisfied.
2. Motor bike parking demand check – The site is located near Dudley Page Park. This results in eastern side of Military Road opposites to Dudley Page Park being a high parking demand area by visitors. Cars may be parked between the driveways of 203 and 205 Military Road from time to time. This warrants consideration of installing motor bike parking.

3. Resident views check – 10 properties near the site were surveyed by letterbox drop. One response was received. It was in favour of the changes. No objections were submitted.

The proposed motor bike only parking zone will have no impact on on-street parking for cars. A motor bike parking zone as shown in Figure 2 is recommended.

Signage

The proposed motor bike parking signage is shown below.

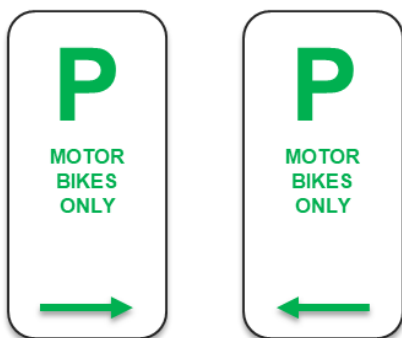


Figure 4. Proposed signage.

Reduction of No Stopping Zone

Rule 170 of the NSW Road Rules (stopping in or near an intersection) states that:

(3) A driver must not stop on a road within 10 metres from the nearest point of an intersecting road at an intersection without traffic lights, unless the driver stops—

(a) at a place on a length of road, or in an area, to which a parking control sign applies and the driver is permitted to stop at that place under these Rules, or

(b) if the intersection is a T-intersection—along the continuous side of the continuing road at the intersection.

The reduction in the length to 10 metres complies with the NSW Road Rules. There were no objections from surveyed residents to the reduction in length. Reduction of the length of the existing 'No Stopping' zone from 28 metres to 10 metres as shown in Figure 3 is recommended.

4. Financial Information for Council's Consideration

Council will fund the cost of installing the signs from existing budgets.

5. Attachments

Nil.

REPORT
TC/V.06/22.03

Subject: 82 Ramsgate Avenue, Bondi Beach - Construction Zone

TRIM No: A03/2514-04

Author: Beryl Wang, Professional Engineer, Traffic and Development
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs an 8 metre 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' construction zone in front of 82 Ramsgate Avenue, Bondi Beach.
2. Removes the '2P 8 am–10 pm Permit Holders Excepted Area 6' (left and right) sign in front of 82 Ramsgate Avenue for the period during which the construction zone is used.
3. Requires the applicant to notify residents in the vicinity of the construction zone prior to it being installed.
4. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

1. Executive Summary

Council has received an application from the builder/developer associated with a development at 82 Ramsgate Avenue, Bondi Beach, for the installation of a construction zone in Ramsgate Avenue.

Council officers propose the installation of an 8 metre construction zone in front of 82 Ramsgate Avenue. An existing '2P 8 am–10 pm Permit Holders Excepted Area 6' (left and right) sign in front of 82 Ramsgate Avenue will be removed for the period during which the construction zone is used.

Figure 1 shows the site location. Figure 2 shows the proposed construction zone.

Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Site location in Ramsgate Avenue.



Figure 2. Location to install construction zone signs.

2. Introduction/Background

In accordance with standard practice at Council, it is proposed that the construction zone is signposted 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' for the approved construction hours under the development consent. Council will then supply the applicant with transferable permits to be used on the applicant's construction vehicles. The Traffic Committee and Council's requirements for permit approvals are a minimum length of 9 metres along the site frontage with a minimum period of 13 weeks.

3. Technical Analysis

The frontage of 82 Ramsgate Avenue is 6 metres. The distance between the driveways of 80 and 84 Ramsgate Avenue is 8 metres. Council officers propose to install an 8 metre construction zone instead of the minimum 9 metres. The construction zone includes the driveway of 82 Ramsgate Avenue. Figure 3 shows the existing and recommended parking allocation in Ramsgate Avenue.

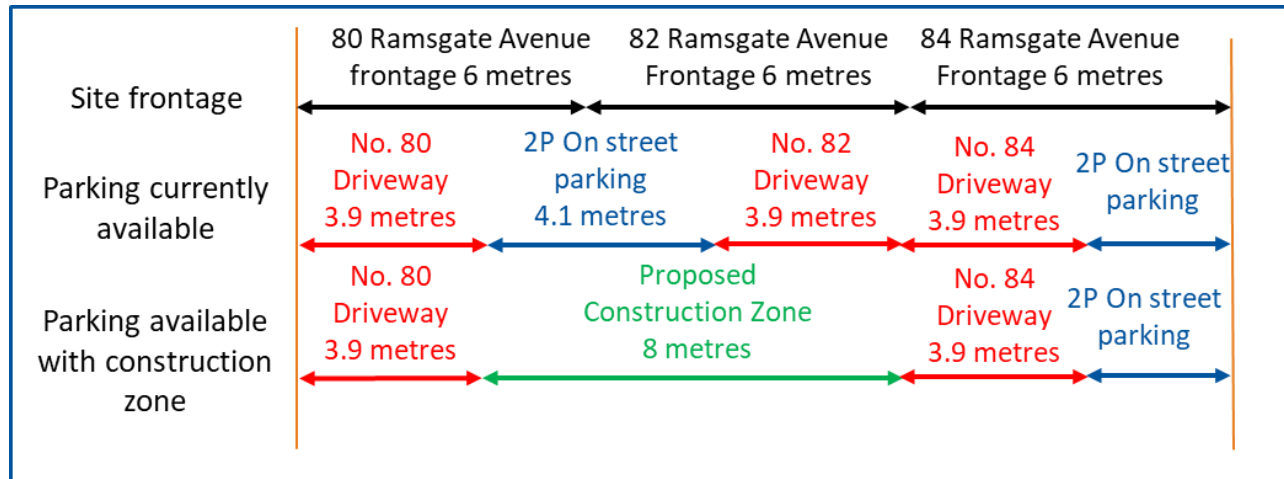


Figure 3. Parking controls.

Table 1. Application details.

Applicant	Sally Greenwood
Development application	DA-452/2021
Works	Demolition and alterations and additions to the semi-detached dwelling
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage/Rear length	6 metres
Road	Ramsgate Avenue
Existing parking	2P 8 am–10 pm Permit Holders Excepted Area 6
Length requested by applicant	8 metres
Length to be signposted	8 metres
Planned duration	13 weeks
Fee area	Medium-density residential zoning

Signage

The proposed signage is shown below.



Figure 4. Proposed signage.

Notification

Businesses and residents in the vicinity of the construction zone will be notified prior to it being installed. Figure 5 shows the properties to be notified about the construction zone.



Figure 5. Notification area (red).

4. Financial Information for Council's Consideration

The estimated fees for the construction zone are shown in Table 2.

Table 2. Estimated weekly fees.

Category	Unit	Number/ Dimensions	Rate (GST Exempt)	Fee
Fee (Areas zoned low, medium, or high density residential)				
- Parallel parking	per metre	8 metres	\$70.00	\$560.00
- Angle parking	per week	-	\$139.00	-
Fee (Areas zoned neighbourhood centre, commercial core, or mixed use)				
- Parallel parking	per metre	-	\$97.00	-
- Angle parking	per week	-	\$190.00	-
Occupation of metered parking spaces (in addition to the above fees)	per space	-	\$387.00	-
Weekly Fee				\$560.00

5. Attachments

Nil.

REPORT
TC/V.07/22.03

Subject: 10 Hastings Parade, North Bondi - Construction Zone

TRIM No: A03/2514-04

Author: Beryl Wang, Professional Engineer, Traffic and Development
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 10 metre 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' construction zone in front of 10 Hastings Parade, North Bondi.
2. Requires the applicant to notify residents in the vicinity of the construction zone prior to it being installed.
3. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

1. Executive Summary

Council has received an application from the builder/developer associated with a development at 10 Hastings Parade, Bondi Beach, for the installation of a construction zone in Hastings Parade along the south side of the property.

Council officers propose the installation of a 10 metre construction zone in front of 10 Hastings Parade, 10.5 metres east of existing 'No Stopping' zone.

Figure 1 shows the site location. Figure 2 shows the proposed construction zone.

Council will need to exercise its delegated functions to implement the proposal.

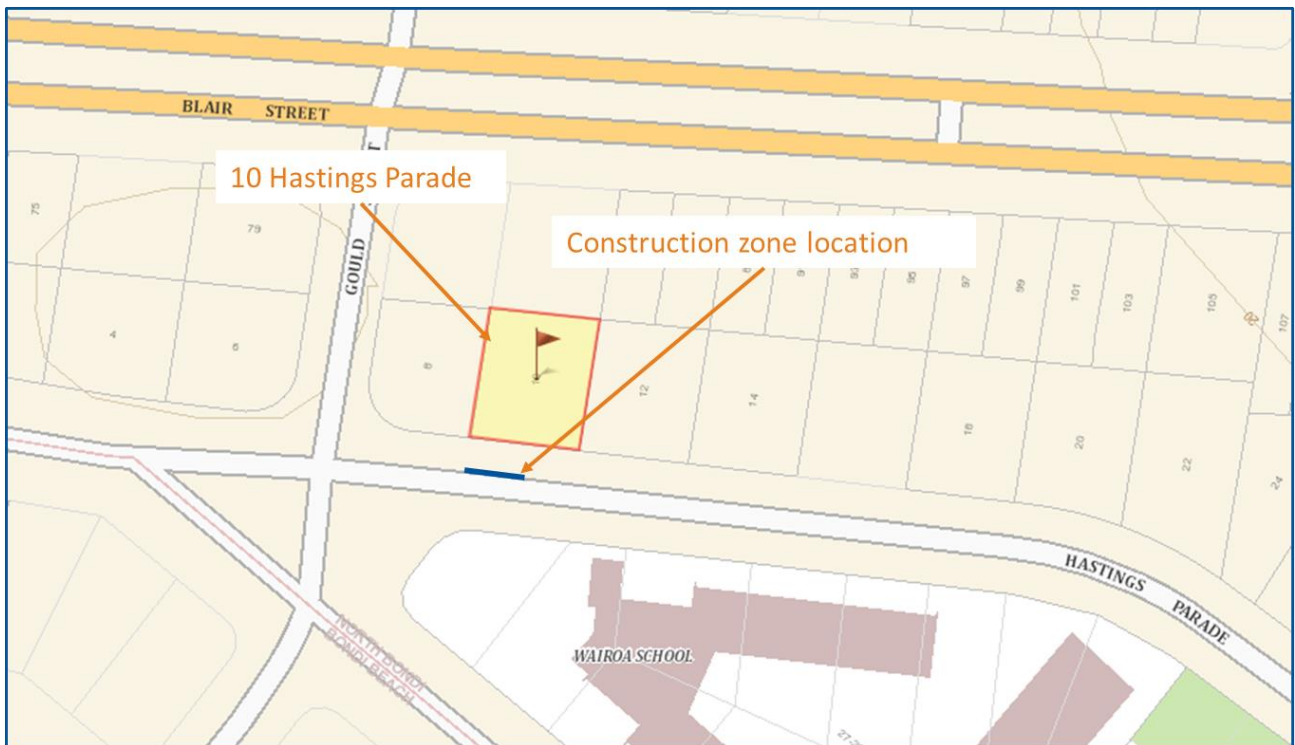


Figure 1. Site location in Hastings Parade.



Figure 2. Location to install construction zone signs.

2. Introduction/Background

In accordance with standard practice at Council, it is proposed that the construction zone is signposted 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Sat, Council Authorised Vehicles Excepted' for the approved construction hours under the development consent. Council will then supply the applicant with transferable permits to be used on the applicant's construction vehicles. The Traffic Committee and

Council's requirements for permit approvals are a minimum length of 9 metres along the site frontage with a minimum period of 13 weeks.

3. Technical Analysis

The subject site has a frontage of 17.5 metres. The applicant has requested a 10 metre construction zone. Council officers propose to install a 10 metre construction zone. Figure 3 shows the existing and recommended parking allocation in Hastings Parade.

Council officers propose to install construction zone 10.5 metres east of the no stopping zone in front of 8 Hastings Parade.

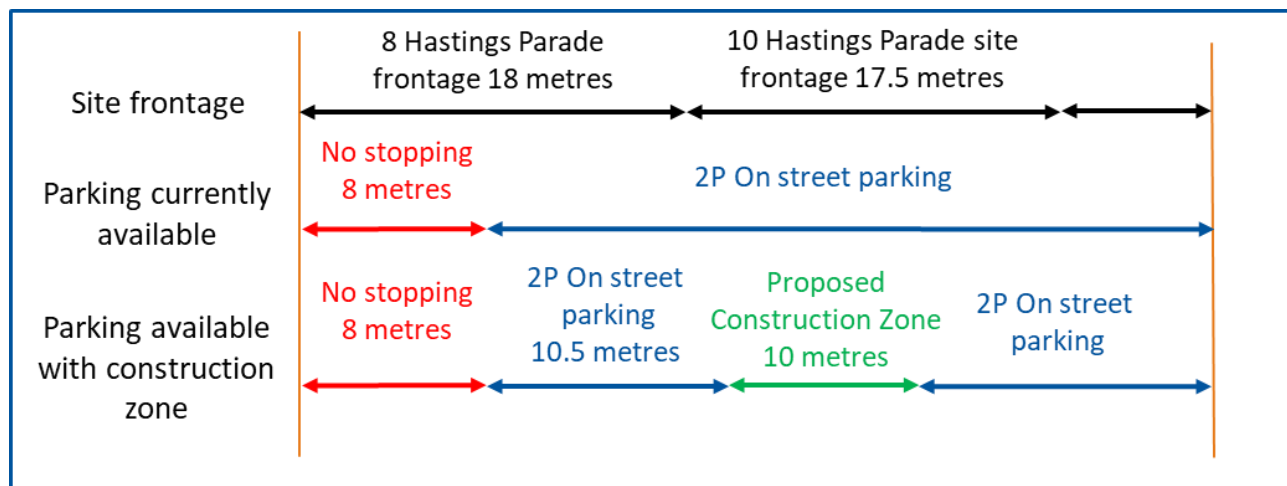


Figure 3. Parking controls.

Table 1. Application details.

Applicant	Gregory Villain
Development application	DA-271/2021
Works	Alterations and additions to residential flat building
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage/Rear length	17.5 metres
Road	Hastings Parade
Existing parking	2P 8 am–10 pm Permit Holders Excepted Area 8
Length requested by applicant	10 metres
Length to be signposted	10 metres
Planned duration	13 weeks
Fee area	Medium-density residential zoning

Signage

The proposed signage is shown below.

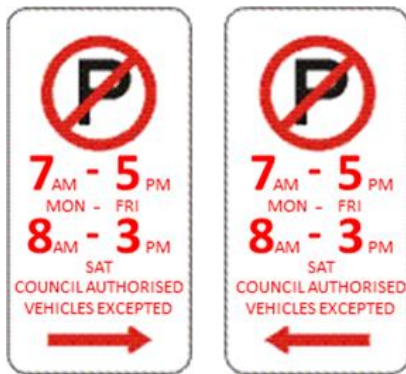


Figure 4. Proposed signage.

Notification

Businesses and residents in the vicinity of the construction zone will be notified prior to it being installed. Figure 5 shows the properties to be notified about the construction zone.

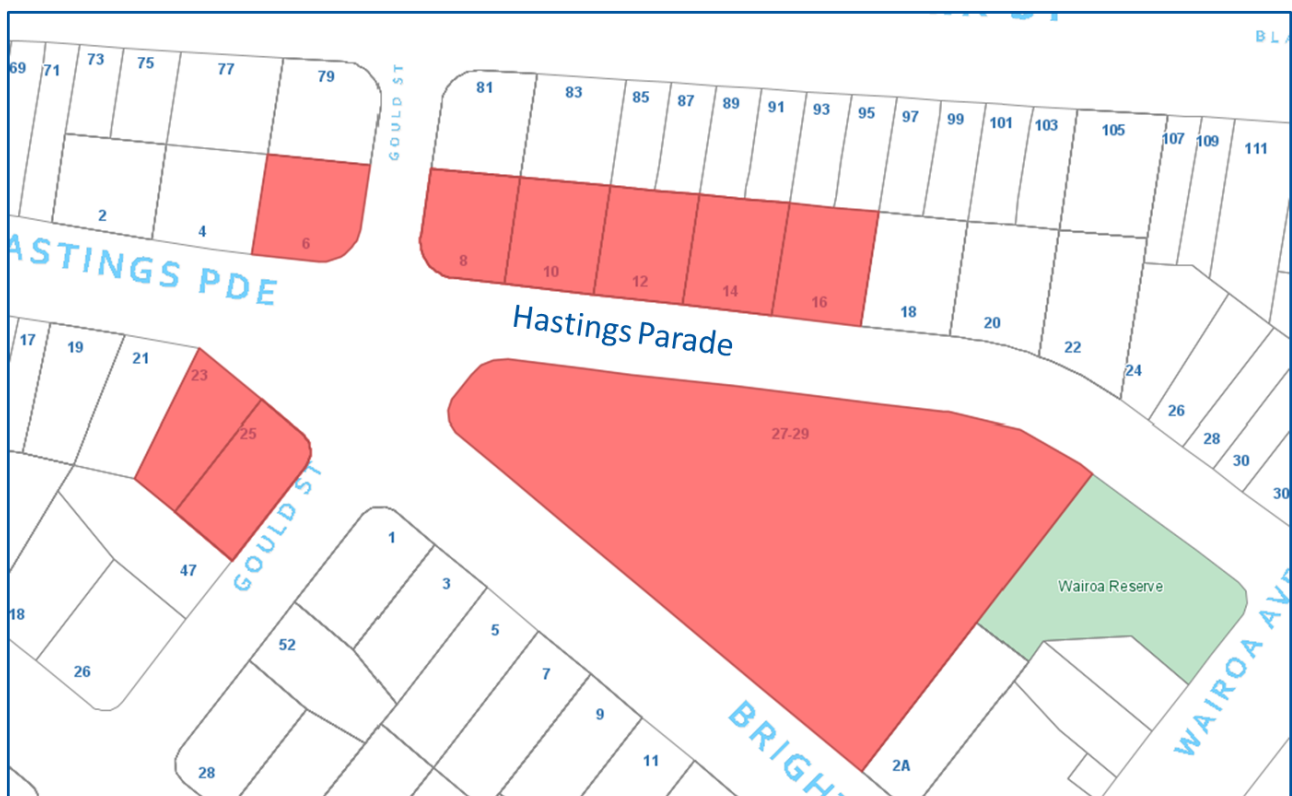


Figure 5. Notification area (red).

4. Financial Information for Council's Consideration

The estimated fees for the construction zone are shown in Table 2.

Table 2. Estimated weekly fees.

Category	Unit	Number/ Dimensions	Rate (GST Exempt)	Fee
Fee (Areas zoned low, medium, or high density residential)				
- Parallel parking	per metre	10 metres	\$70.00	\$700.00
- Angle parking	per week	-	\$139.00	-
Fee (Areas zoned neighbourhood centre, commercial core, or mixed use)				
- Parallel parking	per metre	-	\$97.00	-
- Angle parking	per week	-	\$190.00	-
Occupation of metered parking spaces (in addition to the above fees)	per space	-	\$387.00	-
	per week			
Weekly Fee				\$700.00

5. Attachments

Nil.

REPORT
TC/CV.01/22.03

Subject: Guide for On-street Mobility Parking Spaces

TRIM No: A20/0534

Author: Beryl Wang, Professional Engineer, Traffic and Development
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Endorses the process outlined in the report for the assessment of on-street mobility parking applications.
2. Endorses the Guide for On-street Mobility Parking Spaces in the Waverley Local Government Area attached to the report.
3. Publishes the guide on Council's website.
4. Delegates authority to Executive Manager, Infrastructure Services, to modify the assessment process or guide.

1. Executive Summary

This report presents the approach being taken by Council officers when assessing an application for an on-street mobility parking space. On-street mobility parking spaces are provided adjacent to the address of the applicant. They are installed for residents who have Mobility Parking Scheme (MPS) permits and do not have accessible off-street parking. The mobility parking spaces are not reserved for private use. They can be used by any eligible MPS permit holder.

Mobility parking spaces are approved by Council taking into consideration the recommendations of the Traffic Committee. The assessment procedure presented in this report defines the factors to be taken into consideration when assessing an application prior to assessment by the Traffic Committee. This includes:

1. The applicant is a resident living at the address.
2. The applicant has an approved Transport for NSW (TfNSW) Mobility Parking Scheme permit. Note that temporary permits will only be considered if there are extenuating circumstances.
3. The application is for a vehicle registered to the address.
4. The property does not have accessible off-street parking.
5. The parking demand within 50 metres either side and opposite of the property is to be above 85% capacity (this will be assessed by Council officers via a random day-time site visit and review of Google Street View images).

A guideline for applicants has been prepared (Attachment 1). This guide will be updated from time to time as required.

Endorsement from Council of the assessment process is sought. This is required to assist in the streamlining of processing the applications and to provide Council a framework to approve applications.

2. Introduction/Background

Council receives applications for on-street mobility parking spaces for residents with Mobility Parking Scheme permits. The provision of an on-street mobility parking can benefit the residents with mobility disabilities that do not have accessible off-street parking.

Council must confirm the validity of the applicant's circumstances and assess the impacts on neighbours and local traffic conditions.

On-street mobility parking spaces ideally should be installed outside of the applicant's address, in front of their home. Where physical restrictions make this difficult, the mobility parking space may be installed elsewhere in proximity of the applicant's home.

3. Technical Analysis

Assessment criteria

1. The applicant is a resident living at the address.
2. The applicant has an approved Transport for NSW (TfNSW) Mobility Parking Scheme permit. Note that temporary permits will only be considered if there are extenuating circumstances.
3. The application is for a vehicle registered to the address.
4. The property does not have accessible off-street parking.
5. The parking demand within 50 metres either side and opposite of the property is to be above 85% capacity (this will be assessed by Council officers via a random daytime site visit and review of Google Street View images).

Consideration will be given if the off-street parking cannot be accessed by the MPS permit holder and the MPS permitholder is also the driver. MPS holders who are passengers can board and alight cars at the footpath or the street.

Length and location of mobility parking spaces

On-street mobility parking space lengths are shown in the Figure 1 below.

- 5.4 metres for an end space (typically next to a driveway).
- 6 metres for an intermediate space (a space with parking or physical constraints on both sides).
- 6.4 metres for a car space adjacent to a physical object such as a kerb extension.

These lengths are based on Australian Standard AS2890.5 - 2020 – On Street Parking.

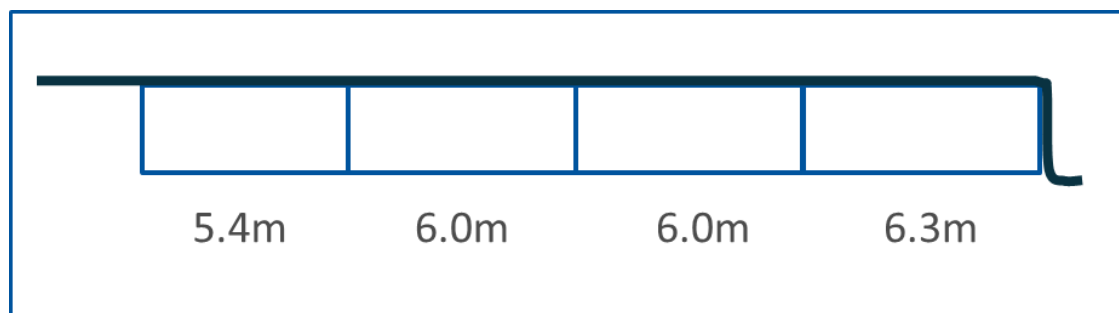


Figure 1. Lengths of on-street mobility parking spaces in the Waverley local government area.

Typical assessments

Each site may have its own characteristics. They are treated on a case-by-case basis. Council officers will contact the applicant to hold site meetings where required. The assessment process involves:

1. A site inspection and review of on street parking demands.
2. An initial mobility parking space application assessment.
3. A report prepared for Waverley Traffic Committee if application is considered to satisfy criteria.
4. Waverley Traffic Committee to make a recommendation to Council.
5. Council to endorse, modify, or refuse the application.

4. Financial Information for Council's Consideration

Council will supply and install the signs and remove existing signs with funds from existing budgets.

5. Attachments

1. Guide for On-street Mobility Parking Spaces in the Waverley Local Government Area [↓](#)

Guide for On-street Mobility Parking in the Waverley Local Government Area



Introduction

Mobility Parking Scheme (MPS) permit holders can park in spaces showing the international symbol of access for people with mobility disability. Waverley Council provides on-street mobility parking spaces for use by people with MPS permits subject to an assessment of available off-street and on-street parking.

These on-street mobility parking spaces are installed for MPS permit holders who do not have accessible off-street parking. The mobility parking spaces are not reserved for private use. They can be used by any eligible MPS permit holder.



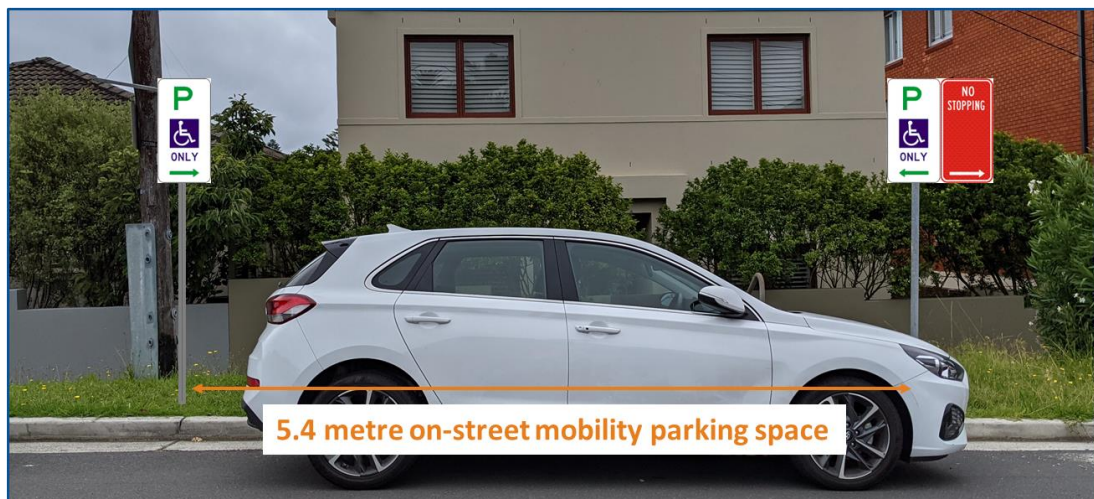
An application does not guarantee a mobility parking space will be installed. Council must confirm the validity of the applicant's circumstances and assess the impacts on neighbours and local traffic conditions. A report is prepared for Waverley Traffic Committee if Council officers conclude that a space is warranted. Waverley Traffic Committee makes a recommendation to Council. Council then considers the recommendation and makes a determination whether to approve the space or not.

1. On-street mobility parking in Waverley LGA

On-street mobility parking spaces in Waverley LGA function in the same way as any other mobility parking spaces found in NSW. The mobility parking spaces can be used by any permit holders. They are not reserved for private use.

It is part of the conditions of use for MPS permits that the NSW MPS permit and the Australian Disability Parking permit (large purple card) are displayed at all times a car is parked in a mobility parking space.

Shortage of available street parking in the Waverley LGA is a significant issue. The applicant should advise Council of changes in circumstances if they no longer need use of the space so that it can be freed up for use by others.





2. Mobility Parking Scheme permits

Transport for NSW (TfNSW) issues two types of Mobility Parking Scheme permits. They are:

- individual (blue card) – issued for 5 years if you have permanent disability
- temporary (red card) – issued for up to 6 months if you have a temporary disability.

An Australian Disability Parking permit (large purple card) is also issued by TfNSW. It must be displayed with your MPS permit to use a mobility parking spaces.

You are eligible for a Mobility Parking Scheme permit if:

- You are unable to walk due to the permanent or temporary loss of use of one or both legs, or other permanent medical or physical condition, or
- Your physical condition is detrimentally affected as a result of walking 100 metres, or
- You require the use of crutches, a walking frame, callipers, scooter, wheelchair or other similar mobility aid.

People who are permanently blind are also eligible.

MPS permits can be applied through Service NSW.

(<https://www.service.nsw.gov.au/transaction/apply-replace-or-renew-mobility-parking-scheme-permit-online>)

3. Eligibility for an on-street mobility parking in Waverley LGA

The following is required to be eligible for consideration of an on-street mobility parking space:

1. The applicant is a resident living at the address.
2. The applicant has an approved TfNSW Mobility Parking Scheme permit. Note that temporary permits will only be considered if there are extenuating circumstances.
3. The application is for a vehicle registered to the address.
4. The property does not have accessible off-street parking.
5. The parking demand within 50 metres either side and opposite of the property is to be above 85% capacity (this will be assessed by Council officers via a random daytime site visit and review of Google Street View images).

Consideration will be given if the off-street parking cannot be accessed by the MPS permit holder and the MPS permitholder is also the driver. MPS holders who are passengers can board and alight cars at the footpath or the street.

4. Documents required by Council

The following documents are required by Council:

- A completed On-street Mobility Parking Space application form.
- A copy of both sides of a current mobility parking scheme permit from Transport for NSW. A photo or scan is OK.



- A copy of a current vehicle registration certificate with the address matching the residence. The owner of the vehicle can be another person who resides at the same address. A photo or scan is OK.
- Confirmation that the resident does not have access to an off-street parking space (disabled or otherwise). For apartments this could be a letter from the strata manager confirming that the residence does not have an allocated parking spot within the property.

5. Processing of an application

Applications can be submitted to Council via:

- EMAIL: traffic@waverley.nsw.gov.au
- IN PERSON: Customer Service Centre, 55 Spring St, Bondi Junction, Monday to Friday - 9am to 5pm
- POST: PO Box 9, Bondi Junction NSW 1355

Processing of applications may take up to 8 weeks. The steps in the process are:

1. An application is submitted to Council.
2. The application is assessed by a Council officer. The Council officer may contact the applicant for more details.
3. A report is prepared for Waverley Traffic Committee if the application satisfies the eligibility criteria.
4. Waverley Traffic Committee reviews the report and makes a recommendation to Council.
5. Council reviews the recommendation from the Waverley Traffic Committee and then decides whether or not to approve the application.
6. If approved, Council officers then arrange for the signs to be installed.

Waverley Traffic Committee is an advisory committee which makes recommendations to Council. There are 4 voting members on the committee. They are representatives from TfNSW, Police, The State Member, and an endorsed councillor.

The Waverley Traffic Committee meeting is held on the fourth Thursday of every month (check Council's website for dates).

Council approval or refusal is generally given at the next Council meeting (check Council's website for dates).

6. On-street mobility parking space locations and lengths

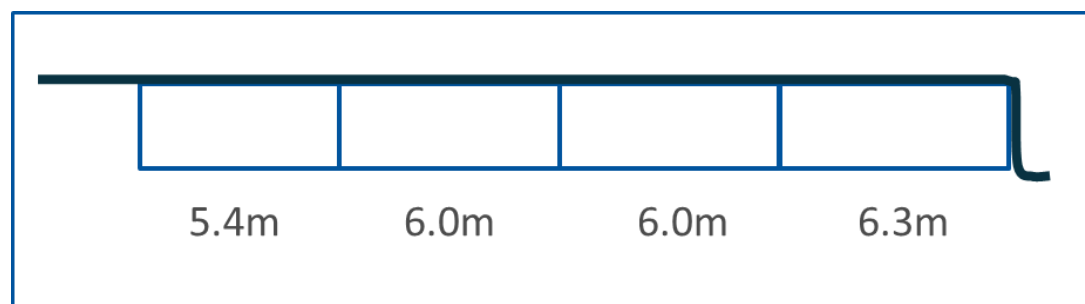
On-street mobility parking spaces ideally should be installed outside of the applicant's address, in front of their home. Where physical restrictions make this difficult, the mobility parking space may be installed elsewhere in close proximity of the applicant's home.

Consultation with affected neighbours is required if the mobility space is to be installed outside their boundary.

On-street mobility car space lengths are shown in the figure below.

1. 5.4 metres for an end space (typically next to a driveway)
2. 6 metres for an intermediate space (a space with parling or physical constraints on both sides)
3. 6.4 metres for a car space adjacent to a physical object such as a kerb extension.

These lengths are based on Australian Standard AS2890.5 - 2020 - On Street Parking.



7. General conditions for on-street mobility parking spaces

The following conditions apply to on-street mobility parking spaces:

- a) The applicant uses the mobility parking space at their own risk. Council is not responsible for any loss, damage, injury or death relating to the applicant's use of the zone.
- b) Users are responsible for displaying mobility parking permits correctly. For more information visit



<https://www.nsw.gov.au/topics/driver-and-rider-licences/health-conditions-and-disability/disability-parking-permits/displaying-a-permit>.

- c) The mobility parking spaces can be used by any permit holders. They are not reserved for private use.

REPORT
TC/CV.02/22.03

Subject: Craig Avenue, Trafalgar Street, Castlefield Street and Calga Place - Electric Vehicle Charging Stations

TRIM No: A17/0477

Author: Malik Almuhanha, Senior Traffic Engineer
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs a single 'No Parking, Electric Vehicles Excepted Only While Charging' parking zone and associated equipment at each of the following locations:

1. The eastern side of Craig Avenue, east of Diamond Bay Road, Vaucluse.
2. The southern side of Trafalgar Street, south of Pembroke Street, Bronte.
3. The eastern side of Castlefield Street, outside 15 Castlefield Street, Bondi.
4. The eastern side of Calga Place, south of Macpherson Street, Bronte.

1. Executive Summary

In line with Council's Electric Vehicle Transportation Policy (Attachment 1), four new electric vehicle charging locations are proposed in the Waverley local government area (LGA). The policy was approved by Council in February 2022.

The proposal is in support of the uptake of electric vehicles in the Waverley LGA to hasten the transition from internal combustion engine (ICE) vehicles to EVs. The policy affirms Council's commitment to support the use and uptake of electric vehicles, understanding that their use will require some changes to local infrastructure and parking.

The locations are shown in Figures 1 to 4 in the report.

Council will need to exercise its delegated functions to implement the proposal.

2. Introduction/Background

Research shows that even while the majority of EV charging occurs at home, the availability of public charging infrastructure is essential to driving uptake of electric vehicles as it reassures drivers that they will not be stranded with insufficient battery power. This is especially true if positioned in convenient locations at shopping and beach destinations. There are additional significant promotional and awareness-raising benefits related to putting chargers in high-profile areas with high public visibility.

An electrical assessment has been carried out at the proposed locations to locate the most suitable parking space in order to minimise electrical connection costs.

The benefits of implementing electric vehicle charging stations in the Waverley LGA include:

- 'Zero emission' transport options for residents and visitors.
- Encouragement for greater electric vehicle use.
- Promotion and awareness in a high-density area.

3. Technical Analysis

Location 1 – Craig Avenue, east of Diamond Bay Road, Vaucluse

This is a 90-degree angle parking space within proximity to high-density living, residential and tourist/visitor locations. Parking is currently unrestricted at the proposed location.

Figure 1 shows the location of the proposed single space.



Figure 1. Craig Avenue, east of Diamond Bay Road, Vaucluse.

Location 2 – Trafalgar Street, south of Pembroke Street, Bronte

This is a 90-degree angle parking within proximity to high-density living, residential and tourist/visitor locations. Parking is currently restricted with a 4P restriction at the proposed location.

Figure 2 shows the location of the proposed single space.



Figure 2. Trafalgar Street, south of Pembroke Street, Bronte.

Location 3 – Castlefield Street outside 15 Castlefield Street

This is a 90-degree angle parking within proximity to Bondi Road shops, high-density living, residential and tourist/visitor locations. Parking is currently restricted with a 2P restriction at the proposed location.

Figure 3 shows the location of the proposed single space.



Figure 3. Castlefield Street outside 15 Castlefield Street.

Location 4 – Calga Place south of Macpherson Street, Bronte

This is a kerb side parking space in proximity to Bondi Road shops, high-density living, residential and tourist/visitor locations. Parking is currently metered at the proposed location, resulting in a loss of revenue up to around \$150 per day.

Figure 4 shows the location of the proposed single space.



Figure 4. Calga Place south of Macpherson Street, Bronte.

Signage and line marking

The proposed parking space will be line marked and signposted for use only by electric vehicles for use while charging. The signage and the proposed line marking are shown below in Figures 5 and 6.



Figure 5. Proposed signage



Figure 6. Proposed stencil/line marking (indicative).

4. Financial Information for Council's Consideration

The cost of installing the electric vehicle charging station, signs and line marking will come from the Environmental Sustainability Capital Expenditure budget.

5. Attachments

1. Electric Vehicle Transportation Policy [↓](#) .



WAVERLEY
COUNCIL

Electric Vehicle Transportation Policy

Electric Vehicle Transportation Policy

Policy owner	Executive Manager, Environmental Sustainability
Approved by	Council
Date approved	15 February 2022
Commencement date	15 February 2022
TRIM reference	A11/0853
Next revision date	February 2027
Relevant legislation/codes	
Related policies/procedures/guidelines	A National Strategy for Electric Vehicles (2019) NSW Electric and Hybrid Vehicle Plan Waverley Council People, Movement and Places Waverley Council Environmental Action Plan 2018-2030 Waverley Council Fleet Policy
Related forms	

Table of Contents

1. Background 4

2. Purpose..... 4

3. Scope 4

4. Policy Content 4

 Greenhouse gas emissions 4

 Electric vehicle charging..... 4

 Off-street charging and development controls..... 5

 Education and engagement 5

 E-bikes and other approved electric micro-mobility devices..... 6

 Trucks, buses and commercial vehicles 6

5. Review of Policy 6

6. Definitions..... 6

1. Background

The transport sector in the Waverley local government area (LGA) is the second largest contributor to greenhouse gas emissions, making up approximately 20% of community emissions. This is due to the emissions produced from combustion of fossil fuels in petrol, diesel and gas vehicles. A key opportunity to reduce community greenhouse gas emissions, is the transition of transport vehicles from using fossil fuels to electricity from a renewable source. Electric vehicles (EV) and other electric transport modes provide a pathway to decarbonise the transport sector when the electricity comes from a renewable resource. In addition to this, EVs assist in reducing local noise and air pollution.

2. Purpose

To support the uptake of electric vehicles in the Waverley LGA to hasten the transition from internal combustion engine (ICE) vehicles to EVs. The policy affirms Council's commitment to support the use and uptake of electric vehicles, understanding that their use will require some changes to local infrastructure and parking.

3. Scope

This policy applies to Council programs, services and activities related to the delivery and support of electric transportation and parking in the Waverley LGA where related to electric transport vehicles including cars, buses, trucks, light commercial and other on road vehicles as well as other smaller personal vehicles such as e-bikes and scooters.

Note: while this policy may support Council's own vehicular fleet, fleet electrification is addressed by Council's Fleet Policy

4. Policy Content

Greenhouse gas emissions

- 4.1. Where electric vehicle charging is provided by Council, this electricity should be from a renewable source (such as solar or wind power). This will help to maximise the environmental benefits of the transition to electric vehicles.

Electric vehicle charging

- 4.2. A key component of this policy is to guide the creation of a network of electric vehicle charging points in the Waverley LGA so that charging is available for residents, visitors and businesses. This policy outlines that:
 - (a) Council actively supports the provision of a comprehensive network of electric vehicle charging stations on street and at car parks that they manage.
 - (b) Council is guided by the following principles when installing or supporting the installation of EV charging points on street and at car parks that they manage:

Principles	Details
Locations prioritised appropriately	That EV charge points be prioritised in locations where current demand is high or where future demand is assessed as being high. For residential areas, locations where residents do not have off-street parking should be prioritised. Although these areas can be more congested, EV charging stations will become essential to allow residents to operate EVs.
Appropriate EV charging is provided	A mix of slow, medium and fast chargers should be available catering for the range of demand, such as residents charging, visitor charging or charging for car share vehicles or commercial vehicles (e.g. taxis). Medium and fast chargers shall be prioritised in areas with high parking demand and/or where short stay parking occurs, while slow to medium chargers shall be prioritised where longer stay parking occurs such as in residential areas or for overnight use.
Streetscape impact is minimised	The installation of chargers should have a minimal impact on the streetscape and be integrated with the location and with other street furniture where possible.
EV charging locations are actively promoted with signage	Signage be installed on EV charging spaces to give electric vehicle owners priority in accordance with NSW Government guidelines.
Collaboration	Council will cooperate with other agencies, local governments and stakeholders, such as car share businesses, where this accelerates the installation of EV chargers.
Costs	Council will recoup the costs of electricity for charging, but full cost recovery that includes the cost to construct a charge point is not required in the short term due to the need to actively support the uptake of EVs.

Off-street charging and development controls

- 4.3. Development controls should be implemented that ensure that EV charging can occur at residential properties in Waverley and also commercial properties.
- 4.4. That Council maintains and continually updates development controls in the Waverley Development Control Plan to ensure that new buildings facilitate the provision of on-site electric vehicle charging.
- 4.5. Council programs support existing buildings to retrofit charging infrastructure where possible.

Education and engagement

- 4.6. Council supports the community to transition to electric vehicles and electric transportation modes through education and engagement.

E-bikes and other approved electric micro-mobility devices

- 4.7. Council supports the uptake and use of electric vehicle transportation such as e-bikes.

Trucks, buses and commercial vehicles

- 4.8. Council supports the electrification of these vehicles where possible, recognising the benefit to our streets from decreased air and noise pollution.

5. Review of Policy

This policy should be reviewed in five years.

6. Definitions

Term	Definition
<i>Electric vehicle (EV)</i>	Passenger vehicle, Light commercial vehicle, Truck and Bus that are primarily powered by an electric motor and are able to be plugged in to a power source to recharge.
<i>Electric vehicle transportation</i>	Electric vehicle transportation may include electric bikes and other approved electric micro-mobility devices (e.g. electric scooters)