



W A V E R L E Y
C O U N C I L

WAVERLEY TRAFFIC COMMITTEE MEETING

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

10.00 AM, THURSDAY 24 SEPTEMBER 2020

Waverley Council
PO Box 9
Bondi Junction NSW 1355
DX 12006 Bondi Junction
Tel. 9083 8000
E-mail: info@waverley.nsw.gov.au

AGENDA

Apologies

Declarations of Interests

Adoption of Previous Minutes by Council - 27 August 2020 8

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 August 2020 were adopted by Council at its meeting on 15 September 2020 with the following change:

1. TC/V.07/20.08 – Curlewis Street Pop-up Cycleway Concept Plan.

Council adopted the recommendation of the Traffic Committee, subject to amendments to clauses 3 and 4 and the addition of a new clause 10, such that the recommendation now reads as follows:

‘That Council:

1. Approves the concept design for a temporary pop-up cycleway along Curlewis Street between Campbell Parade and Old South Head Road as documented in Attachment 1 (Curlewis Street Pop-up Cycleway for August TC), subject to detailed design.
2. Delegates authority to Executive Manager, Infrastructure Services, to modify the design following preparation of detailed plans by TfNSW with input from Council officers.
3. Notes that Transport for NSW:
 - (a) Notified residents and businesses along Curlewis Street of the proposed pop-up cycleway on Saturday, 5 September 2020, and intends to consider any community feedback when developing the detailed design.
 - (b) Intends to issue a follow up notification at least five days before construction works commence.
 - (c) Is estimating that construction will start in late October 2020.
4. Officers conduct broad community consultation from February 2021 on the pop-up cycleway and the possibility of the cycleway becoming permanent following the temporary pop-up scheme.
5. Requires that the detailed design process to be undertaken includes a road safety assessment for the following three options:
 - (a) A safe north-south crossing of Curlewis Street at the pedestrian crossing on the western side of Gould Street.

- (b) A safe north-south crossing of Curlewis Street at the Glenayr Avenue signalised intersection.
 - (c) No crossing of Curlewis Street with the cycleway to run along the northern side of Curlewis Street between Gould Street and Campbell Parade.
6. Requires that the detailed design includes an examination of potential conflict between traffic westbound on Curlewis Street turning right into Old South Head Road and cyclists crossing Old South Head Road. The assessment is to consider the potential need to introduce a right-turn arrow for the turn from Curlewis Street within the signal design.
 7. Requires that the 40 km/h speed limit on the eastern end of Curlewis Street is extended to Old South Head Road upon opening of the cycleway.
 8. Officers complete a detailed review of cyclist transition to and from the cycleway at Campbell Parade.
 9. Officers investigate the implications of the cycleway along Curlewis Street upon deliveries to and from commercial premises and loading/truck zones.
 10. Receives a briefing report at the Strategic Planning and Development Committee meeting on 3 November 2020, or as appropriate, which includes any changes to the current concept design along Curlewis Street, and an updated timetable for construction and operation of both the Waverley and Woollahra components of the Beach to Bay pop-up cycleway.'

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.01/20.09 40 km/h Speed Limit Changes - Traffic Control Devices (Group 2) (A18/0579) ... 16

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Approves the designs of the 23 traffic control treatments attached to this report for construction at:
 - (a) Tamarama Marine Drive, Tamarama (at the rear of 23 Thompson Street) – 75 mm high speed hump.
 - (b) 67 Watson Street, Bondi – 75 mm high speed hump.
 - (c) 458 Bronte Road, Bronte – 100 mm high speed hump.
 - (d) 492 Bronte Road, Bronte – 100 mm high speed hump.
 - (e) 18 Brown Street, Bronte – 100 mm high speed hump.

- (f) 62 Hewlett Street, Bronte – 75 mm high speed hump.
 - (g) 44 Victoria Street, Waverley – 100 mm high speed hump.
 - (h) Queens Park Road at Bourke Street, Queens Park – Pedestrian refuge.
 - (i) 47 York Road, Queens Park – 100 mm high speed hump.
 - (j) Dickson Street at Birrell Street, Bronte – Kerb build-out.
 - (k) Dickson Street at Read Street, Bronte – 100 mm speed hump and kerb build-out.
 - (l) 25 Murray Street, Bronte – 75 mm high speed hump.
 - (m) 37 Murray Street, Bronte – 75 mm high speed hump.
 - (n) Lugar Street at Brae Street, Bronte – Kerb build-out.
 - (o) 2 Birrell Street, Bondi Junction – Raised pedestrian crossing.
 - (p) 67 Birrell Street, Queens Park – Raised pedestrian crossing.
 - (q) Birrell Street at Henrietta Street, Waverley – Raised pedestrian crossing.
 - (r) Pacific Street at Bronte Road, Bronte – Splitter island.
 - (s) 93 Ocean Street, Bondi – 100 mm speed hump.
 - (t) Park Parade at Birrell Street, Bondi - Kerb build-outs.
 - (u) Evans Street at Brae Street, Bronte – 100 mm speed hump and kerb build-out.
 - (v) 13 Sandridge Street, Bondi – 75 mm speed hump.
 - (w) Bourke Street at Bourke Lane, Queens Park – 75 mm speed hump and kerb build-out.
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

TC/C.02/20.09 Macpherson Street, Bronte - Temporary Road Closure to Dismantle Tower Crane (A19/0394) 53

COUNCIL OFFICER'S PROPOSAL:

That:

1. Council approves the temporary full closure of Macpherson Street, Bronte, between Albion Street and Leichhardt Street, on Sunday, 31 January 2021, from 4.00 am to 11.00 pm, subject to the applicant:
 - (a) Obtaining approval from NSW Police.

- (b) Notifying the State Transit Authority, NSW Ambulance Service and NSW Fire and Rescue.
 - (c) Notifying local residents and businesses prior to the event.
 - (d) Using Transport-for-NSW-accredited traffic controllers.
 - (e) Covering all costs associated with closing the road, including traffic control.
2. A Council officer be on-site for the duration of the works at the applicant's expense, and that this be communicated to the applicant.
 3. Council delegates authority to the Executive Manager, Infrastructure Services, to approve any backup date and times, if required.

TC/C.03/20.09	Arden Street, Waverley - Varna Street to Chesterfield Parade - 100% Detailed Design (SF18/779).....	86
----------------------	--	-----------

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Endorses the 100% detailed design for Arden Street between Varna Street and Chesterfield Parade, Waverley, attached to this report (Attachment 2).
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the design should circumstances arise during the delivery of the project.

TC/C.04/20.09	1 Scott Street, Bronte - 'P Disability Only' Zone (A18/0719).....	116
----------------------	--	------------

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 5.4 m 'P Disability Only' zone outside 1 Scott Street, Bronte.

TC/C.05/20.09	100 St James Road, Bondi Junction - 'P Disability Only' Zone (A18/0719).....	120
----------------------	---	------------

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 5.4 'P Disability Only' Zone outside 100 St James Road, Bondi Junction, centred at the property frontage.

TC/C.06/20.09 110-116 Bronte Road, Bondi Junction - Construction Zone (A03/2514-04)..... 124**COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Installs an 11.5 m 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles' construction zone along the frontage of 116 Bronte Road, Bondi Junction, on Porter Street.
2. 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.01/20.09 30 Anglesea Street, Bondi - No Stopping Line (A14/0145)..... 128****COUNCIL OFFICER'S PROPOSAL:**

That Council installs a 1.5 m unbroken yellow (C3) No Stopping line between 30 Anglesea Street and 32 Anglesea Street, Bondi.

TC/V.02/20.09 21 Curlewis Street, Bondi Beach - Construction Zone (A03/2514-04)..... 130**COUNCIL OFFICER'S PROPOSAL:**

That:

1. Council installs a 9 m 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles' construction zone at 21 Curlewis Street, Bondi Beach.
2. The construction zone be 7 m at the frontage of 21 Curlewis Street, 1 m in front of 19 Curlewis Street and 1 m in front of 23 Curlewis Street.
3. Council delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

TC/V.03/20.09 98-102 Brighton Boulevard, North Bondi - Construction Zone (A03/2514-04).. 134**COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Installs a 16 m 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles' construction zone along the frontage of 98–102 Brighton Boulevard, North Bondi.
2. 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

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.

**MINUTES OF THE WAVERLEY TRAFFIC
COMMITTEE MEETING HELD BY VIDEO
CONFERENCE ON THURSDAY, 27 AUGUST 2020**



Voting Members Present:

Cr P Masselos	Waverley Council – Chair
Sgt L Barrett	NSW Police – Eastern Suburbs Police Area Command – Traffic Services
Mr M Carruthers	Transport for NSW – Network and Safety Officer
Mr P Pearce	Representing Marjorie O’Neill MP, Member for Coogee
Ms J Zin	Representing Gabrielle Upton MP, Member for Vaucluse

Also Present:

Cr T Kay	Waverley Council – Alternate Chair
Mr C Hutcheson	Waverley Council – Service Manager, Traffic and Transport

At the commencement of proceedings at 10.06 am, those present were as listed above.

Apologies

Apologies were received and accepted from Mr D Joannides, Executive Manager, Infrastructure Services.

Declarations of Pecuniary and Non-Pecuniary Interests

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

Adoption of Previous Minutes by Council - 23 July 2020

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 23 July 2020 were adopted by Council at its meeting on 18 August 2020, with the following change:

1. TC/V.04/20.07 - 4 Victory St, Rose Bay - Construction Zone.

Council adopted the recommendation of the Traffic Committee subject to the construction zone being moved 5.5 m to the east so that it includes the driveway of 4 Victory Street.

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/V.03/20.08 383 Old South Head Road, North Bondi - 'P Disability Only' Zone.

TC/V.04/20.08 1-3 Warners Avenue, North Bondi - Proposed new Car Share Space.

TC/V.05/20.08 13 Blair Street, Bondi Beach - Construction Zone.

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.01/20.08 Oxford Street Eastbound Bus Zone near Newland Street - Increase in Bus Zone Length (A14/0145)

COUNCIL OFFICER'S PROPOSAL:

That Council approves an extension of the existing eastbound bus zone on the northern side Oxford Street, just prior to Newland Street by 10 m towards Newland Street.

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.02/20.08 113 Macpherson Street, Bronte - Truck Zone and Associated Pallet Kerb Ramp (DA-231/2019)

COUNCIL OFFICER'S PROPOSAL:

That Council approves the installation of a 15.5 m 'Truck Zone, vehicles under 10 m only 9 am to 12 pm, Monday to Saturday. Taxi Zone at other times' replacing a 'Taxi Zone' outside 113 Macpherson Street, Bronte.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted subject to being amended to read as follows:

'That Council:

- (a) Approves the installation of a 15.5 m “Truck Zone, vehicles under 10 m only 9 am to 12pm (midday), Monday to Saturday. Taxi Zone at other times” replacing a “Taxi Zone” outside 113 Macpherson Street, Bronte.
- (b) Officers conduct a review of the use of the truck zone over a six-month period following the opening of the adjacent supermarket.’

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.01/20.08 10 Craig Avenue, Vaucluse - No Stopping Line (A14/0145)

COUNCIL OFFICER’S PROPOSAL:

That Council installs 7.5 m of unbroken yellow (C3) No Stopping line on the bend of Craig Avenue outside of property No. 10 between the existing pram ramp and the driveway to property number 10.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted subject to being amended to read as follows:

‘That Council installs an unbroken yellow (C3) No Stopping line on the bend of Craig Avenue outside 10 Craig Avenue from the western side of the existing pram ramp and the driveway to 10 Craig Avenue.’

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

TC/V.02/20.08 42 Roe Street, North Bondi - Construction Zone (A03/2514-04)

COUNCIL OFFICER’S PROPOSAL:

That Council:

1. Installs a 9 m long ‘No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles’ zone in front of 42 Roe Street, North Bondi subject to the Complying Development Certificate for the site being lodged with Council.
2. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer’s Proposal be adopted subject to the addition of a new clause 3, such that the recommendation now reads as follows:

‘That Council:

1. Installs a 9 m long “No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised

Vehicles” zone in front of 42 Roe Street, North Bondi, subject to the Complying Development Certificate for the site being lodged with Council.

2. Delegates authority to the Executive Manager, Infrastructure Services, to adjust the length and duration of, or remove, the construction zone, as necessary.
3. Notes that the applicant will be charged fees for 12 m for the construction zone, which includes the driveway.’

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

TC/V.03/20.08 383 Old South Head Road, North Bondi - ‘P Disability Only’ Zone (A18/0719)

COUNCIL OFFICER’S PROPOSAL:

That Council installs a 6 m long ‘P Disability Only’ zone outside 383 Old South Head Road, North Bondi.

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.04/20.08 1-3 Warners Avenue, North Bondi - Proposed New Car Share Space (SF17/2465)

COUNCIL OFFICER’S PROPOSAL:

That Council approves the installation of one GoGet car share space in North Bondi outside 1–3 Warners Avenue, North Bondi (south side) 5.5 m long, immediately adjacent to the north-west side of driveway.

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.05/20.08 13 Blair Street, Bondi Beach - Construction Zone (A03/2514-04)

COUNCIL OFFICER’S PROPOSAL:

That Council:

1. Installs a 10.3 m long ‘No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles’ zone in front of 13 Blair Street Bondi Beach.

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

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.06/20.08 Old South Head Road and Diamond Bay Road - Installation of Kerb Blisters and Line Marking (A14/0145)

COUNCIL OFFICER'S PROPOSAL:

That Council approves the installation and changes to kerb blister islands, chevron signs and line marking at the intersection of Old South Head Road with Diamond Bay Road as per Drawing 9001, Issue A, sheets 1, 2, 3, 4 as shown in the attachment to this report.

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.07/20.08 Curlewis Street Pop-up Cycleway Concept Plan (SF20/3091)

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Approves the concept design for a temporary pop-up cycleway along Curlewis Street between Campbell Parade and Old South Head Road as documented in Attachment 1 (Curlewis Street Pop-up Cycleway for August TC).
2. Delegates authority to Executive Manager, Infrastructure Services, to modify the design following preparation of detailed plans by TfNSW with input from Council officers.
3. Requires notification to residents as part of the Section 115 Emergency Legislation enacted by the Minister for Transport.
4. Officers conduct community consultation on the pop-up cycleway and the possibility of the cycleway becoming permanent following installation of the temporary pop-up scheme.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted subject to the addition of 5 new clauses, such that the recommendation now reads as follows:

‘That Council:

1. Approves the concept design for a temporary pop-up cycleway along Curlewis Street between Campbell Parade and Old South Head Road as documented in Attachment 1 (Curlewis Street Pop-up Cycleway for August TC), subject to detailed design.
2. Delegates authority to Executive Manager, Infrastructure Services, to modify the design following preparation of detailed plans by TfNSW with input from Council officers.
3. Requires notification to residents as part of the Section 115 Emergency Legislation enacted by the Minister for Transport.
4. Officers conduct community consultation on the pop-up cycleway and the possibility of the cycleway becoming permanent following installation of the temporary pop-up scheme.
5. Requires that the detailed design process to be undertaken includes a road safety assessment for the following three options:
 - (a) A safe north-south crossing of Curlewis Street at the pedestrian crossing on the western side of Gould Street.
 - (b) A safe north-south crossing of Curlewis Street at the Glenayr Avenue signalised intersection.
 - (c) No crossing of Curlewis Street with the cycleway to run along the northern side of Curlewis Street between Gould Street and Campbell Parade.
6. Requires that the detailed design includes an examination of potential conflict between traffic westbound on Curlewis Street turning right into Old South Head Road and cyclists crossing Old South Head Road. The assessment is to consider the potential need to introduce a right-turn arrow for the turn from Curlewis Street within the signal design.
7. Requires that the 40 km/h speed limit on the eastern end of Curlewis Street is extended to Old South Head Road upon opening of the cycleway.
8. Officers complete a detailed review of cyclist transition to and from the cycleway at Campbell Parade.
9. Officers investigate the implications of the cycleway along Curlewis Street upon deliveries to and from commercial premises and loading/truck zones.’

Voting members present for this item: Representative of the Member for Vaucluse, NSW Police representative, RMS 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 10.57 PM.

.....
SIGNED AND CONFIRMED
MAYOR
15 SEPTEMBER 2020

REPORT
TC/C.01/20.09

Subject: 40 km/h Speed Limit Changes - Traffic Control Devices
(Group 2)

TRIM No: A18/0579

Author: Amanda Tipping, Project Manager, Major Projects
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Approves the designs of the 23 traffic control treatments attached to this report for construction at:
 - (a) Tamarama Marine Drive, Tamarama (at the rear of 23 Thompson Street) – 75 mm high speed hump.
 - (b) 67 Watson Street, Bondi – 75 mm high speed hump.
 - (c) 458 Bronte Road, Bronte – 100 mm high speed hump.
 - (d) 492 Bronte Road, Bronte – 100 mm high speed hump.
 - (e) 18 Brown Street, Bronte – 100 mm high speed hump.
 - (f) 62 Hewlett Street, Bronte – 75 mm high speed hump.
 - (g) 44 Victoria Street, Waverley – 100 mm high speed hump.
 - (h) Queens Park Road at Bourke Street, Queens Park – Pedestrian refuge.
 - (i) 47 York Road, Queens Park – 100 mm high speed hump.
 - (j) Dickson Street at Birrell Street, Bronte – Kerb build-out.
 - (k) Dickson Street at Read Street, Bronte – 100 mm speed hump and kerb build-out.
 - (l) 25 Murray Street, Bronte – 75 mm high speed hump.
 - (m) 37 Murray Street, Bronte – 75 mm high speed hump.
 - (n) Lugar Street at Brae Street, Bronte – Kerb build-out.
 - (o) 2 Birrell Street, Bondi Junction – Raised pedestrian crossing.
 - (p) 67 Birrell Street, Queens Park – Raised pedestrian crossing.

- (q) Birrell Street at Henrietta Street, Waverley – Raised pedestrian crossing.
 - (r) Pacific Street at Bronte Road, Bronte – Splitter island.
 - (s) 93 Ocean Street, Bondi – 100 mm speed hump.
 - (t) Park Parade at Birrell Street, Bondi - Kerb build-outs.
 - (u) Evans Street at Brae Street, Bronte – 100 mm speed hump and kerb build-out.
 - (v) 13 Sandridge Street, Bondi – 75 mm speed hump.
 - (w) Bourke Street at Bourke Lane, Queens Park – 75 mm speed hump and kerb build-out.
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

1. Executive Summary

This report seeks endorsement of the design for 23 traffic control treatments to be included within the area covered by the 40 km/hr speed limit changes in the southern part of the Waverley local government area (LGA).

The 23 treatments (group 2) complement six treatments (group 1) submitted to the Traffic Committee in May 2020. The group 1 treatments are not part of this report. They are currently under review by Council.

The locations of the treatments submitted to the May Traffic Committee and the treatments presented to this meeting are shown in Figure 1.

The package of treatments aims to limit traffic speeds in the southern part of the Waverley LGA (south of Bondi Road). They are intended to be self-enforcing and not reliant on police enforcement.

The 23 treatments presented to this traffic committee are located at:

1. Tamarama Marine Drive, Tamarama (at the rear of 23 Thompson Street) – 75 mm high speed hump (on a bus route).
2. 67 Watson Street, Bondi – 75 mm high speed hump (on a school bus route).
3. 458 Bronte Road, Bronte – 100 mm high speed hump.
4. 492 Bronte Road, Bronte – 100 mm high speed hump.
5. 18 Brown Street, Bronte – 100 mm high speed hump.
6. 62 Hewlett Street, Bronte – 75 mm high speed hump (on a bus route).
7. 44 Victoria Street, Waverley – 100 mm high speed hump.
8. Queens Park Road at Bourke Street, Queens Park – Pedestrian refuge.
9. 47 York Road, Queens Park – 100 mm high speed hump.
10. Dickson Street at Birrell Street, Bronte – Kerb build-out.
11. Dickson Street at Read Street, Bronte – 100 mm speed hump and kerb build-out.
12. 25 Murray Street, Bronte – 75 mm high speed hump (on a bus route).
13. 37 Murray Street, Bronte – 75 mm high speed hump (on a bus route).
14. Lugar Street at Brae Street, Bronte – Kerb build-out.
15. 2 Birrell Street, Bondi Junction – Raised pedestrian crossing.
16. 67 Birrell Street, Queens Park – Raised pedestrian crossing.
17. Birrell Street at Henrietta Street, Waverley – Raised pedestrian crossing.

18. Pacific Street at Bronte Road, Bronte – Splitter island.
19. 93 Ocean Street, Bondi – 100 mm speed hump.
20. Park Parade at Birrell Street, Bondi – Kerb build-outs.
21. Evans Street at Brae Street, Bronte – 100 mm speed hump and kerb build-out.
22. 13 Sandridge Street, Bondi – 75 mm speed hump.
23. Bourke Street at Bourke Lane, Queens Park – 75 mm speed hump and kerb build-out (on a bus route).

Delegation of authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes is also proposed. This covers situations where factors such as drainage or a minor change in location, size of ramps, wings, or threshold prove necessary.

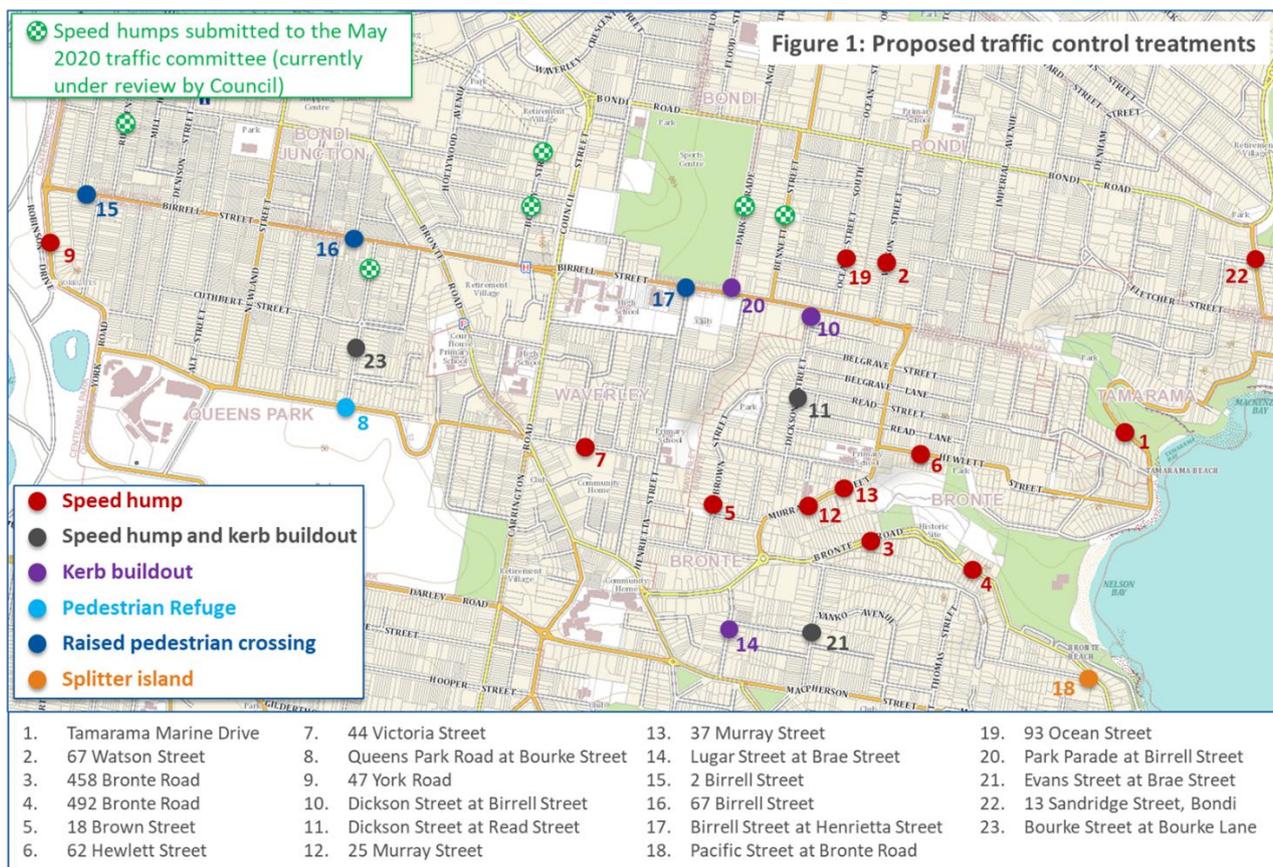


Figure 1. Proposed traffic control treatments.

2. Introduction/Background

Background

Community consultation has found that an overwhelming proportion of residents want cars to travel slower in their neighbourhoods. The proposal to implement a Waverley-wide 40 km/h speed limit was developed as a signature project and adopted by Council in 2017 as part of the adoption of the People, Movement and Places strategy.

The 23 speed humps presented in this report are a subset of 36 traffic control devices approved by Council to assist in enforcing a 40 km/h speed limit on local roads in the southern part of the Waverley LGA. The 36 traffic control devices were considered by Council at the Strategic Planning and Development Committee meeting 3 March 2020. Of the 36 devices:

- 31 were approved to proceed.

- 2 were to be reviewed.
- 3 were to be removed.

The designs for traffic control treatments associated with the 40 km/h speed limit changes are being submitted to the Traffic Committee as each design is finalised. Designs submitted to date are:

- Six treatments designs submitted to the May 2020 traffic committee (Group 1).
- 23 treatments submitted to the September 2020 traffic committee (this meeting) (Group 2).

The six treatments submitted to the May 2020 traffic committee are not part of this report. They are currently under review by Council.

From the total of 33 treatments, post -community consultation review, four treatments are being delivered under separate projects, totalling a number of 29 treatments for the 40 km/h speed limit changes project.

All treatments (29) have been workshopped with Councillors on alternative treatment options and treatment rationale on 28 July 2020.

Contracting for installation of the devices will be undertaken once a package of works is finalised. This will comprise devices recommended for approval by a number of traffic committee meetings.

Community consultation

Community consultation took place from November 2019 to January 2020. A range of engagement methods were used to maximise the opportunity for community participation. Of particular note was the use of an interactive map on Have Your Say (HYS) Council's engagement platform, face to face 'Have Your Say Days' in four locations, door knocking on specifically impacted houses and email communication with a range of organisations and community members.

Table 1 below presents the communication methods used during the consultation.

Table 1. Communication methods.

Communication method	Date
Social media	7 and 18 November 2019
Media release	12 November 2019
Mayor's column	13 November 2019
Advertising – The Beast & Wentworth Courier	15 November 2019
Internal & external email	18-21 November 2019
Flyer - Stage 1 area	20–23 November 2019 (11,000 delivered)
Have Your Say page and mapping tool	November 2019–January 2020 (Over 800 people visited the HYS site and 300 people looked at the map)
Waverley Weekly newsletter	November and December 2019
Engagement letters	November and December 2019
Have your say days	Bondi Markets 30 November 2019 Bondi Junction Markets 5 December 2019 Bronte Beach 12 December 2019 Hunter Ward 15 December 2019
Combined Precincts meeting	5 December 2019
Door-knocking	13 and 17 December 2019 (108 residences)

On 17 March 2020, Council received and noted the summary of community feedback, endorsed the recommended traffic calming measures identified and approved to proceed to detailed design of the recommended traffic calming measures, with a report to be considered by the Traffic Committee before proceeding to procurement for the construction phase.

The table below sets out the relevant Council resolutions.

Table 2. Relevant Council resolutions.

Meeting and date	Minute No.	Decision
Strategic Planning and Development Committee 1 September 2020 (Group 1 treatments only)	PD/5.4/20.09	That Council: 1. Defers this matter in order to gain more information on the following: <ul style="list-style-type: none"> (a) The costing of intersection treatments, using Park Parade as an example. (b) The consequences of deferring traffic calming in Ruthven Street and an examination of the option of angle parking on Ruthven Street on alternating sides along the street with a vehicle slowing device to create slow points similar to Ashton Street and Denison Street. (c) The consequences of not proceeding with the traffic calming in Bourke Street. (d) Consults NSW Police and Transport for NSW on their flexibility in regard to the nature of what traffic calming devices and techniques Council uses. (e) Seeks clarification from the relevant State departments on available funding and any future funding for this initiative, the first in NSW of this size. (f) Investigates an alternative traffic calming solution along the length of Park Parade consisting of two minimum width travel lanes, with the outcome of the investigation to go to the Waverley Traffic Committee 2. Receives a report by the October Council meeting or earlier.
Council 16 June 2020 (Group 1 treatments only)	CM/5.2.1/18.06(2)	That: 1. Council defers this item to a Councillor workshop for further consideration of the location and type of traffic calming devices in the locations of:

		<ul style="list-style-type: none"> (a) Bourke Street, Queens Park. (b) Botany Street Bondi Junction. (c) Park Parade, Bondi. (d) Bennett Street, Bondi. (e) Ruthven Street, Bondi Junction. <p>2. A report comes back to Council.</p>
Strategic Planning and Development Committee 3 March 2020	PD/5.3/20.03	<p>That Council, in relation to the 40 km/h speed limit change project:</p> <ul style="list-style-type: none"> 1. Receives and notes the summary of community feedback attached to this report (Attachment 1). 2. Endorses the recommended traffic calming measures identified in Attachment 2 to this report. 3. Proceeds to detailed design of the recommended traffic calming measures, with a report to be considered by the Traffic Committee before proceeding to procurement for the construction phase.
Strategic Planning and Development Committee 5 November 2019	PD/5.3/19.11	<p>That Council:</p> <ul style="list-style-type: none"> 1. Exhibits the concept designs for the 40 km/h 'Stage 1' Speed Limit Change Project attached to this report for a period of 28 days, subject to: <ul style="list-style-type: none"> (a) On page 178 of the attachment, in regard to Park Parade, Council officers consider repositioning the threshold and kerb blisters further south towards the corner of Birrell Street so as to eliminate the splay corner, minimise the loss of parking and to maximise pedestrian safety. 2. Officers prepare a project summary for exhibition with the concept designs. 3. Noting the design of the Bondi Junction cycleway includes traffic calming measures, investigates whether additional measures are required if the Oxford Street transit mall is to become 40 km/h. 4. Notes 'Stage 1' is the area of the Waverley local government area (LGA) that is south and west of Bondi Road, and it is intended that, subject to funding and Transport for NSW endorsement, Stage

		<p>2 will be investigated next, being the area of the Waverley LGA that is north of Bondi Road.</p> <p>5. Notes that Bondi Road, Council Street and Carrington Road are excluded from the scope of the Speed Review Study.</p> <p>6. Notes the proposed signage treatment is excluded from the public exhibition, being a technical matter for Waverley Traffic Committee consideration.</p> <p>7. Notes, following the public exhibition period, a further report will be prepared for the Traffic Committee summarising the consultation process, key feedback, and recommending revision to concept design, as necessary.</p>
--	--	--

More information is provided below in response to resolution PD/5.4/20.09 from the Strategic Planning and Development Committee on 1 September 2020:

(a) The costing of intersection treatments, using Park Parade as an example.

An intersection treatment on Park Parade would cost around \$100,000. Speed hump treatments will cost around \$25,000 to \$30,000

(b) The consequences of deferring traffic calming in Ruthven Street and an examination of the option of angle parking on Ruthven Street on alternating sides along the street with a vehicle slowing device to create slow points similar to Ashton Street and Denison Street.

Report to be submitted to October 2020 traffic committee.

(c) The consequences of not proceeding with the traffic calming in Bourke Street.

Not proceeding with treatments on Bourke Street is likely to result in some diversions to this road and continuation of high traffic speeds (the 85th percentile speeds are 49 km/h).

While NSW Police will enforce speed restrictions on particular streets in the Waverley LGA from time to time, they do not have resources to do so on a continuous basis. Treatments on Bourke Street result in traffic speeds being self-enforced.

The consequence of an individual treatment being removed could result in the overall project losing effectiveness and rat running through the key streets that have not been treated.

Signposting of the 40 km/h speed limit would not have the desired effect without the treatments. This will result in higher speeds and no improvement to making a safer environment and reducing the number of fatalities and serious injuries on roads in the LGA.

The funding from TfNSW is reliant on an area-wide treatments. This funding could be lost if certain streets were excluded from the package.

(d) Consults NSW Police and Transport for NSW on their flexibility in regard to the nature of what traffic calming devices and techniques Council uses.

Consultation was held on Friday, 11 September 2020, with TfNSW and Waverley Police. TfNSW and the Police confirmed that the proposed traffic calming treatments were the most suitable to slow traffic based on 85th percentile speed and existing road environments.

(e) Seeks clarification from the relevant State departments on available funding and any future funding for this initiative, the first in NSW of this size.

TfNSW have confirmed that there is no further funding for the Changes to Speed limits in Waverley Stage 1 Project.

(f) Investigates an alternative traffic calming solution along the length of Park Parade consisting of two minimum width travel lanes, with the outcome of the investigation to go to the Waverley Traffic Committee

Report to be submitted to October 2020 traffic committee.

3. Technical Analysis

1. Tamarama Marine Drive, Tamarama

A 77 mm high speed hump is proposed on Tamarama Marine Drive near the rear of 23 Thompson Street. It is 1 m south of an existing power pole on the western side of Tamarama Marine Drive. This is around 4.5 m south of the location shown in Figure 2. to ensure the existing power pole is north of the speed hump for signage purposes.

State Transit bus route 381 runs along Tamarama Marine Drive. The height of the speed hump has been reduced from 100 mm to 75 mm to better accommodate bus movements.



Figure 2. Tamarama Marine Drive concept design.

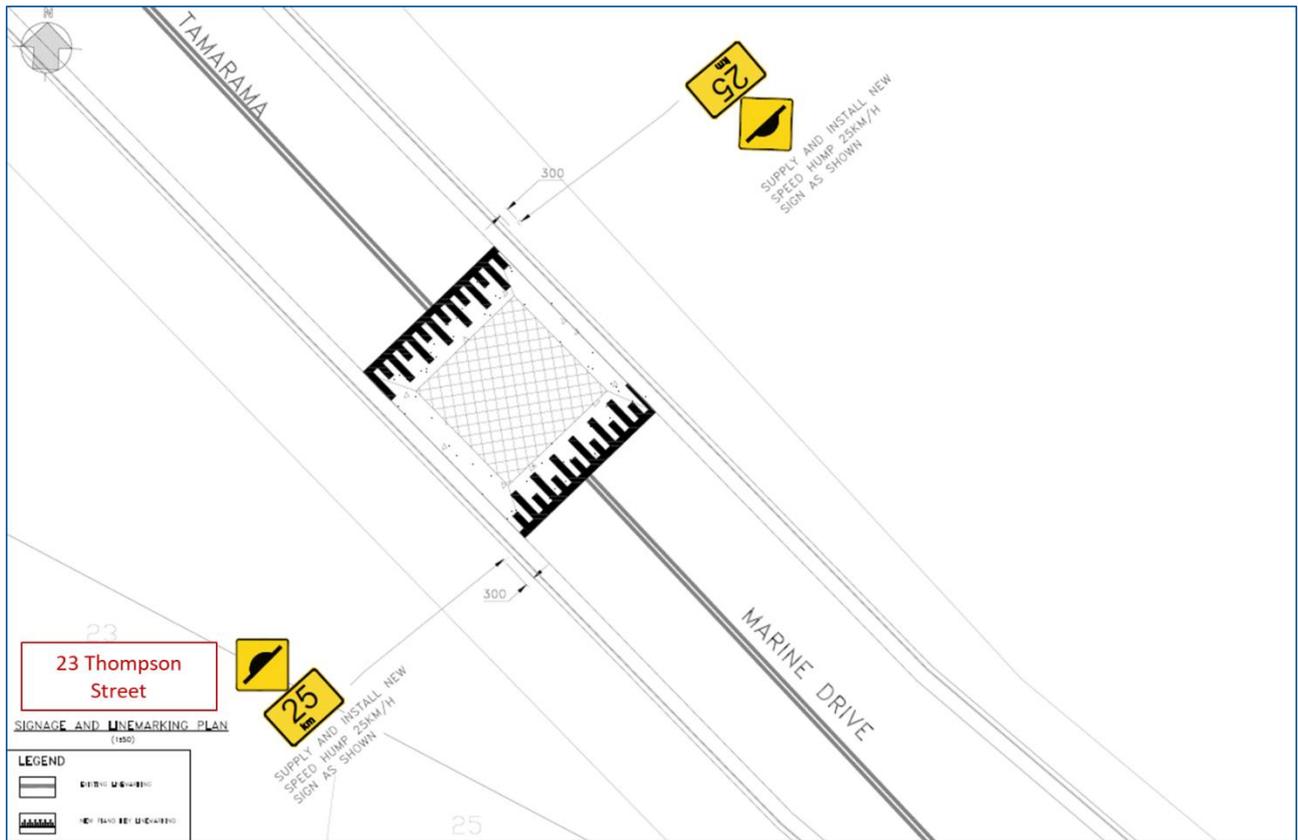


Figure 3. Tamarama Marine Drive design for construction.

2. 67 Watson Street, Bondi

A 75 mm high speed hump is proposed on Watson Street near 67 Watson Street. This street is used by State Transit school special services. The height of the speed hump in Watson Street has been reduced from 100 mm to 75 mm to better accommodate these bus movements.



Figure 4. 67 Watson Street concept design.

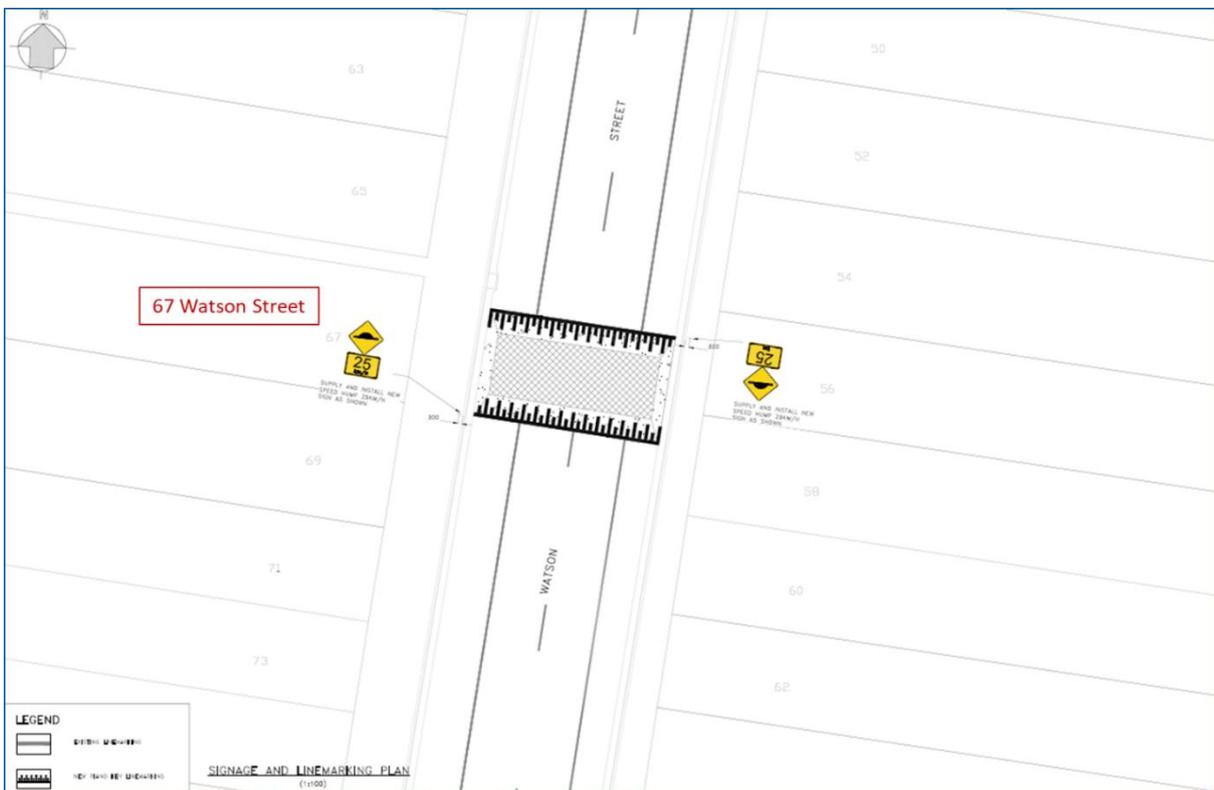


Figure 5. 67 Watson Street design for construction.

3. 458 Bronte Road, Bronte

A 100 mm high speed hump is proposed on Bronte Road near 458 Bronte Road.



Figure 6. 458 Bronte Road concept design.

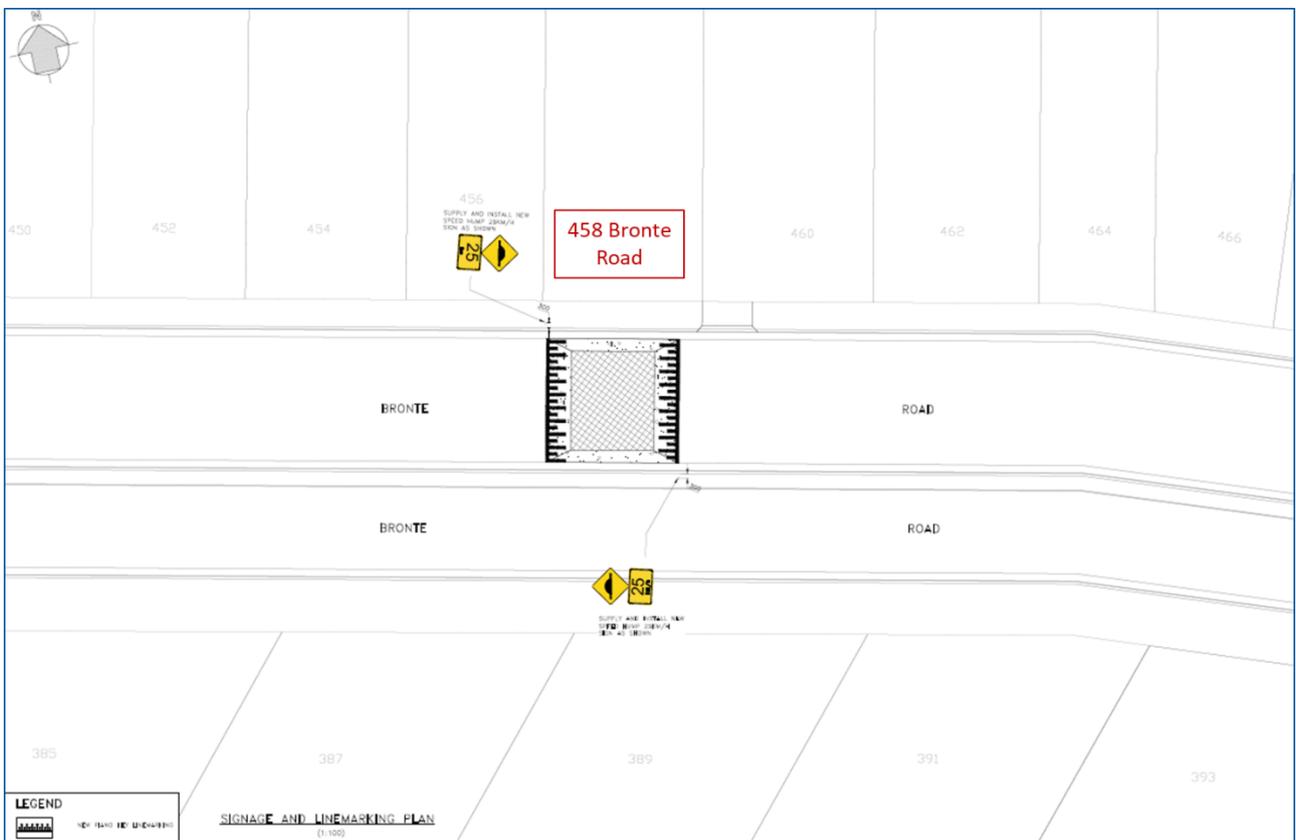


Figure 7. 458 Bronte Road design for construction.

4. 492 Bronte Road, Bronte

A 100 mm high speed hump is proposed on Bronte Road near 492 Bronte Road.



Figure 8. 492 Bronte Road concept design.

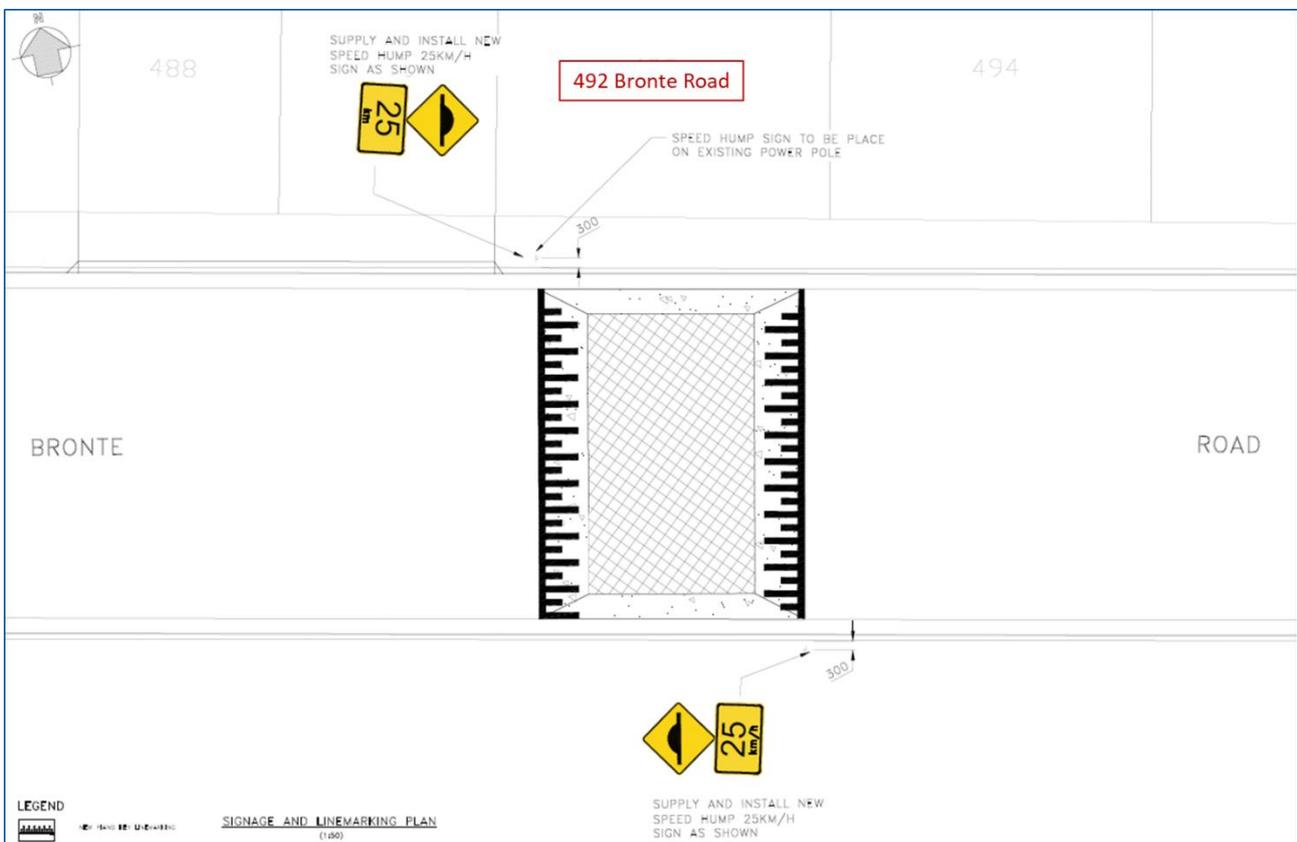


Figure 9. 492 Bronte Road design for construction.

5. 18 Brown Street, Bronte

A 100 mm high speed hump is proposed on Brown Street near 18 Brown Street.



Figure 10. 18 Brown Street concept design.

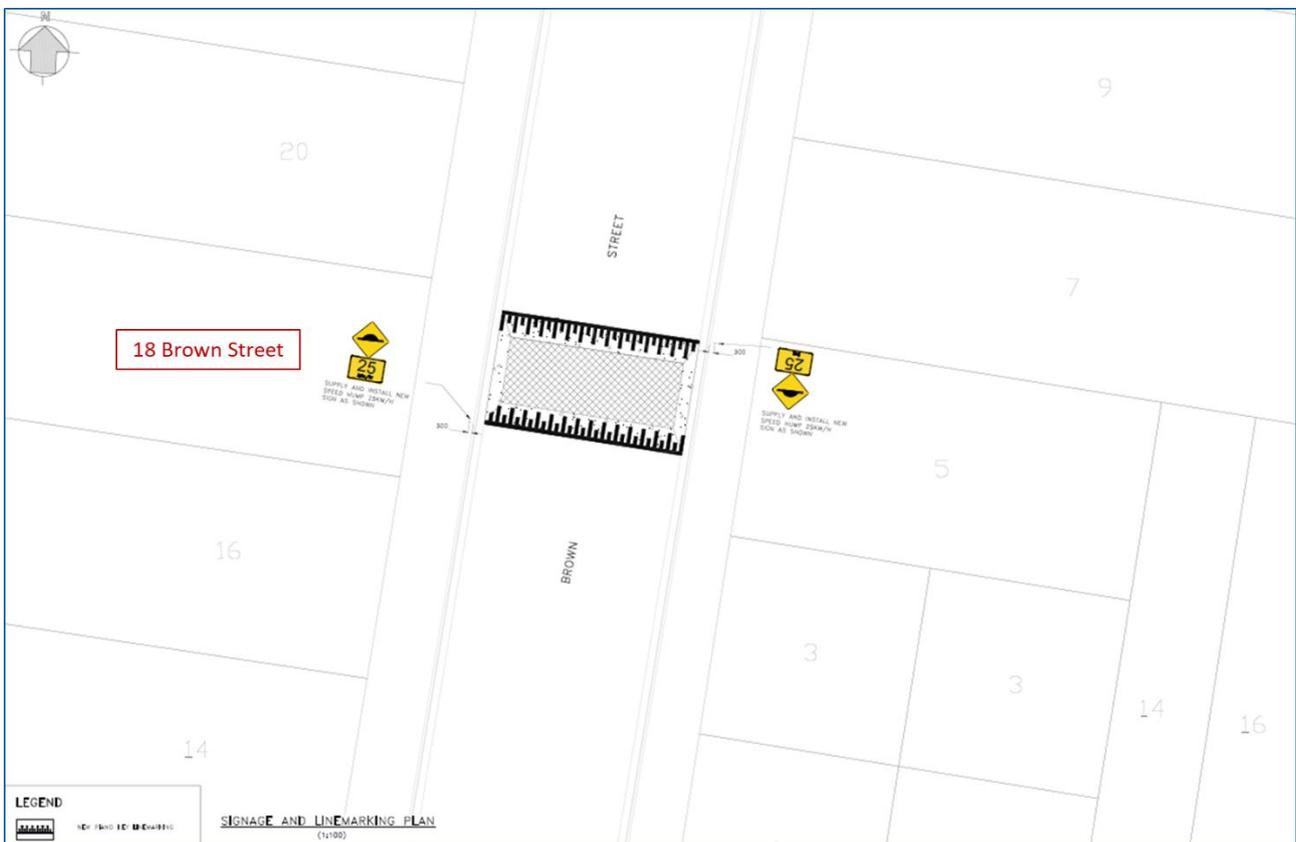


Figure 11. 18 Brown Street design for construction.

6. 62 Hewlett Street, Bronte

A 75 mm high speed hump is proposed on Hewlett Street near 62 Hewlett Street. State Transit bus route 360 runs along this street. The height of the speed hump has been reduced from 100mm to 75mm to better accommodate bus movements.



Figure 12. 62 Hewlett Street concept design.

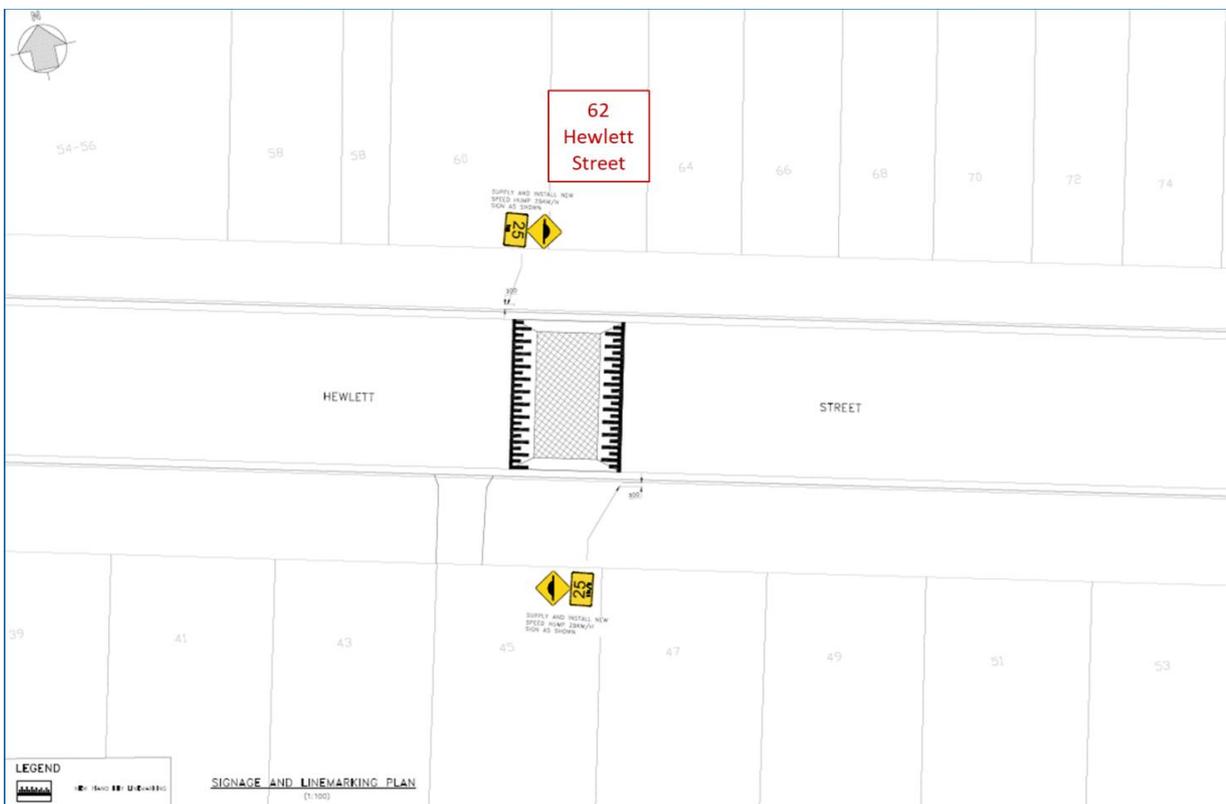


Figure 13. 62 Hewlett Street design for construction.

7. 44 Victoria Street, Waverley

A 100 mm high speed hump is proposed on Victoria Street near 44 Victoria Street.



Figure 14. 44 Victoria Street concept design.

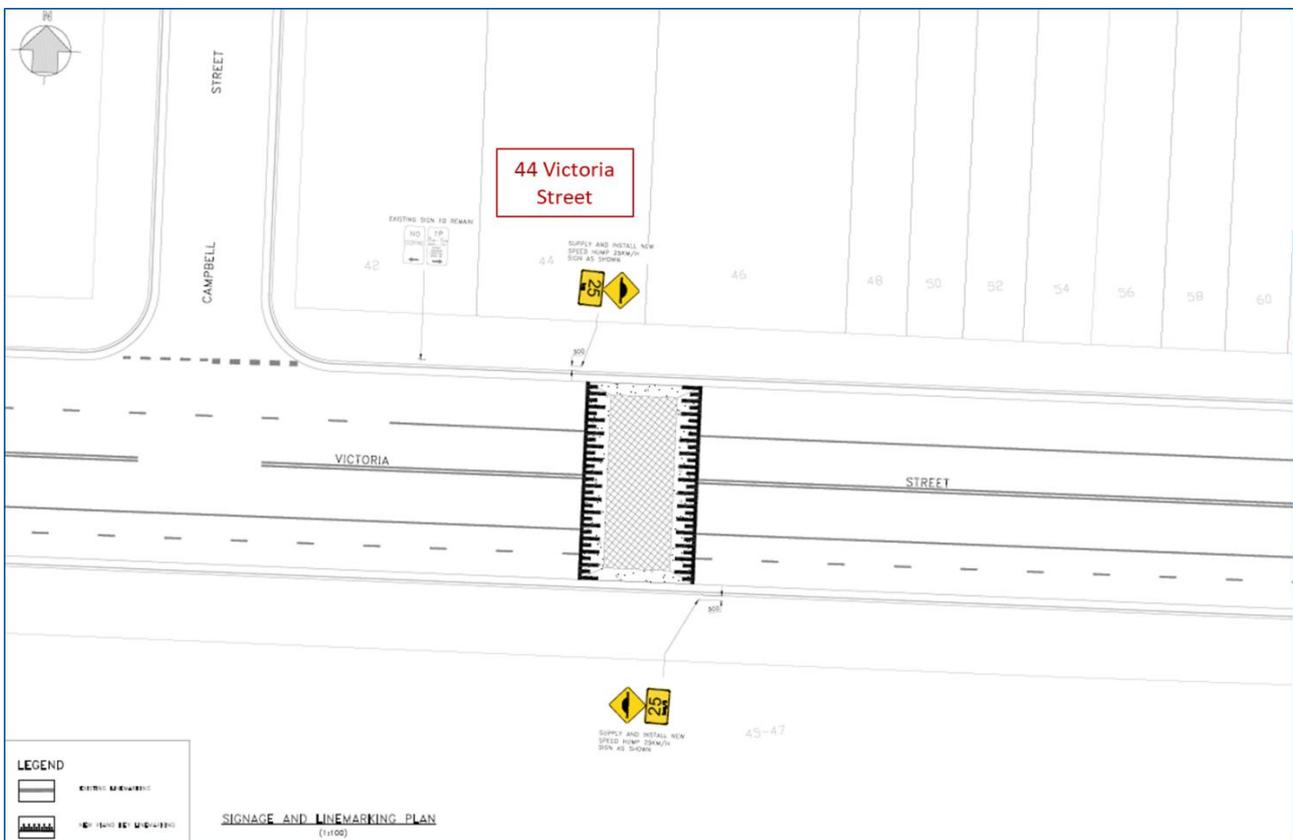


Figure 15. 44 Victoria Street design for construction.

8. Queens Park Road at Bourke Street, Queens Park

A pedestrian refuge is proposed on Queens Park Road on the western side of Bourke Street. The proposed pedestrian refuge includes soft surface beautification. The existing bicycle paths are to be realigned and painted green through the refuge. Some parking on the southern side of Queens Park Road will be replaced by the realigned cycle path.



Figure 16. Queens Park Road at Bourke Street existing layout.

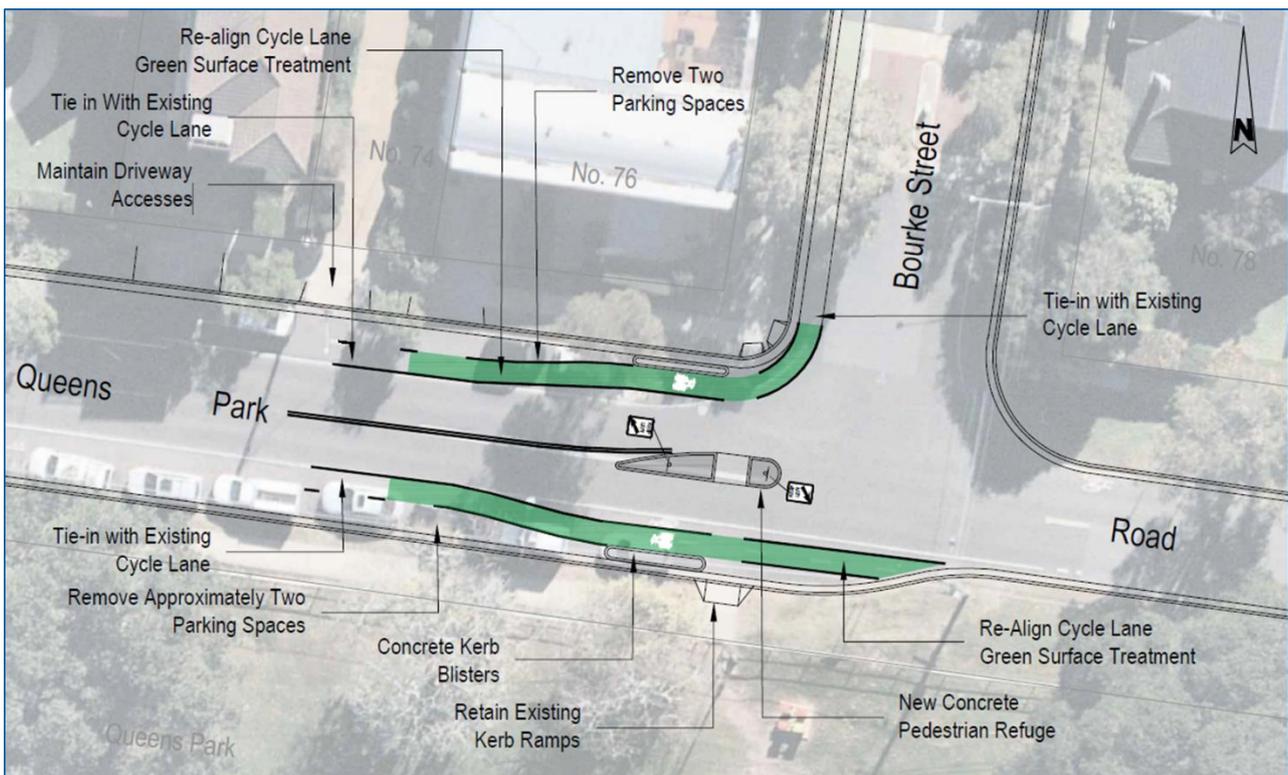


Figure 17. Queens Park Road at Bourke Street concept design.

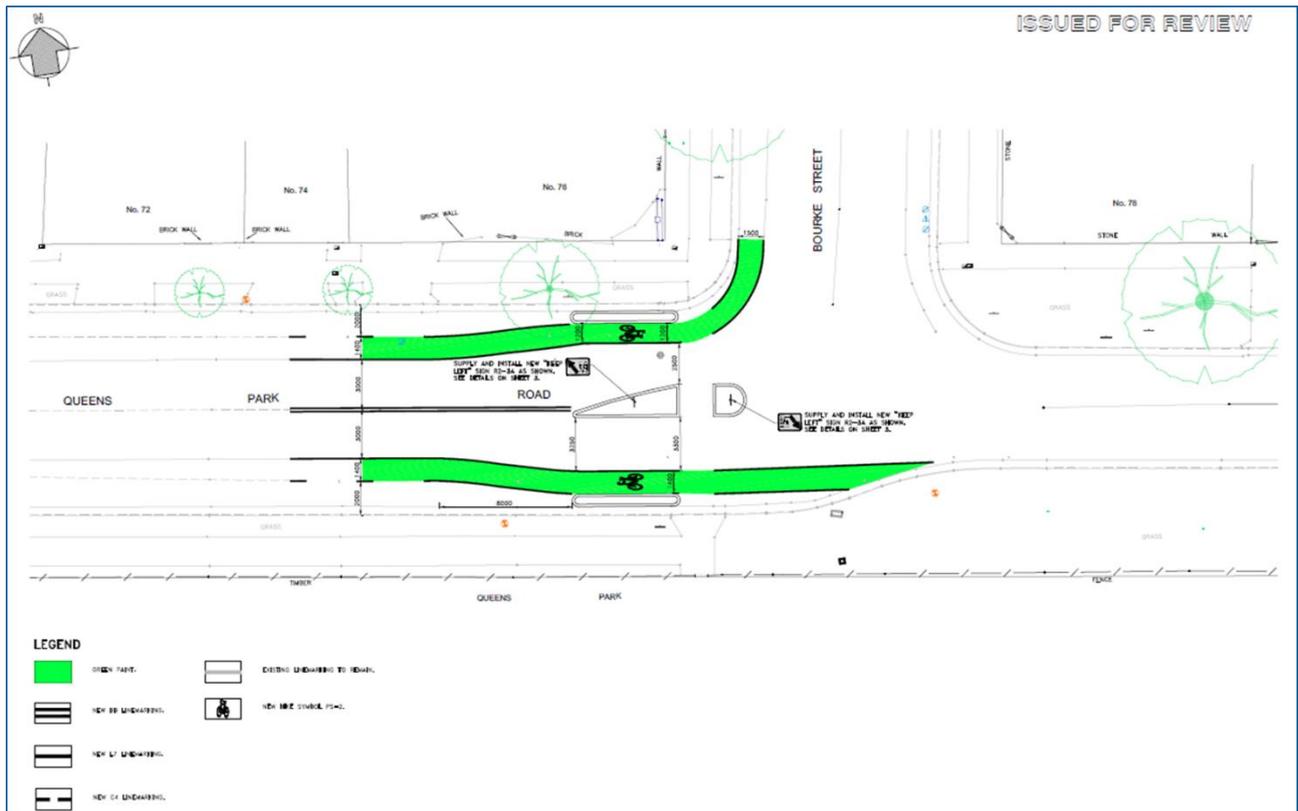


Figure 18. Queens Park Road at Bourke Street design for construction.

9. 47 York Road, Queens Park

A 100 mm high speed hump is proposed on York Road near 458 York Road.



Figure 19. 47 York Road Concept design.

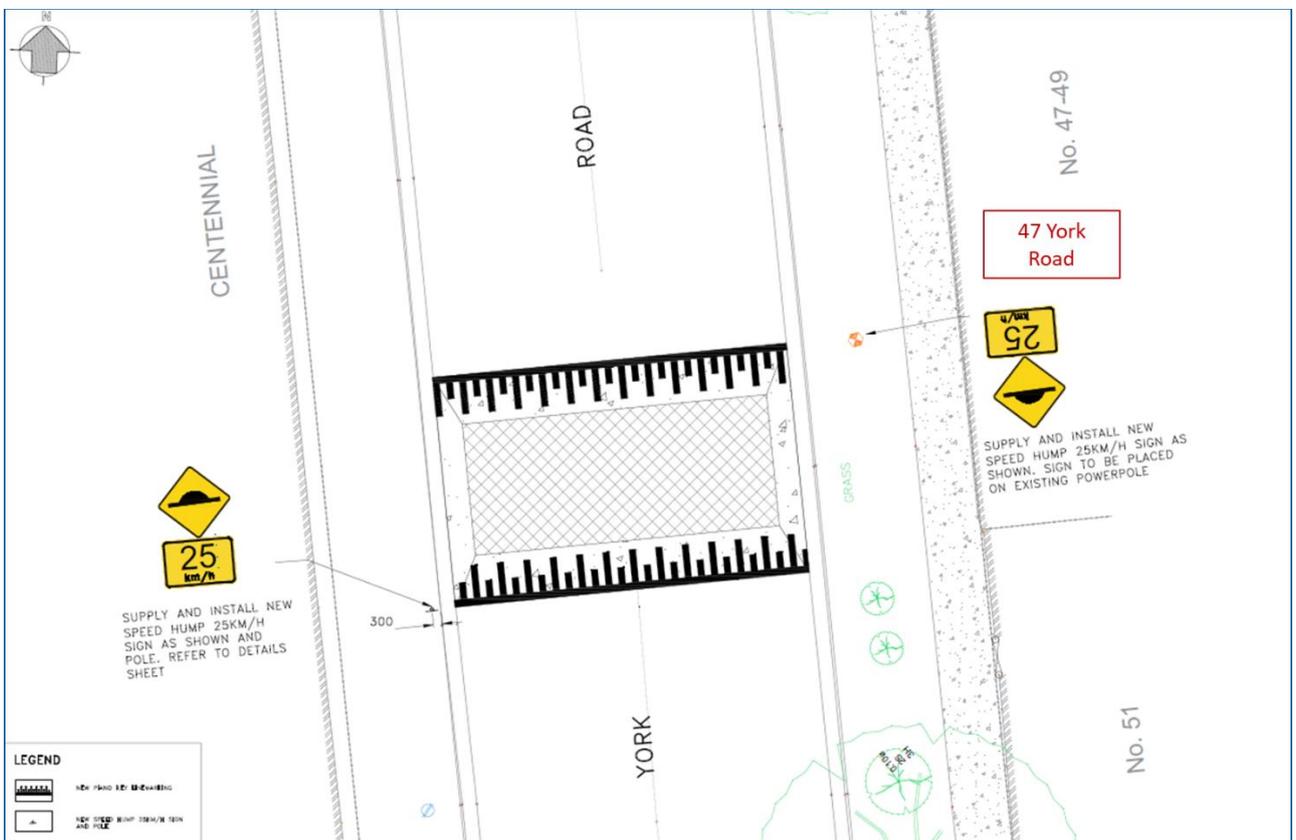


Figure 20. 47 York Road design for construction.

10. Dickson Street at Birrell Street, Bronte

A speed hump recommended in the concept design for Dickson Street at Birrell Street has been replaced with a kerb build-out including soft surface beautification. This reduces the pedestrian crossing distance across Dickson Street and slows cars turning left from Dickson Street into Birrell Street.

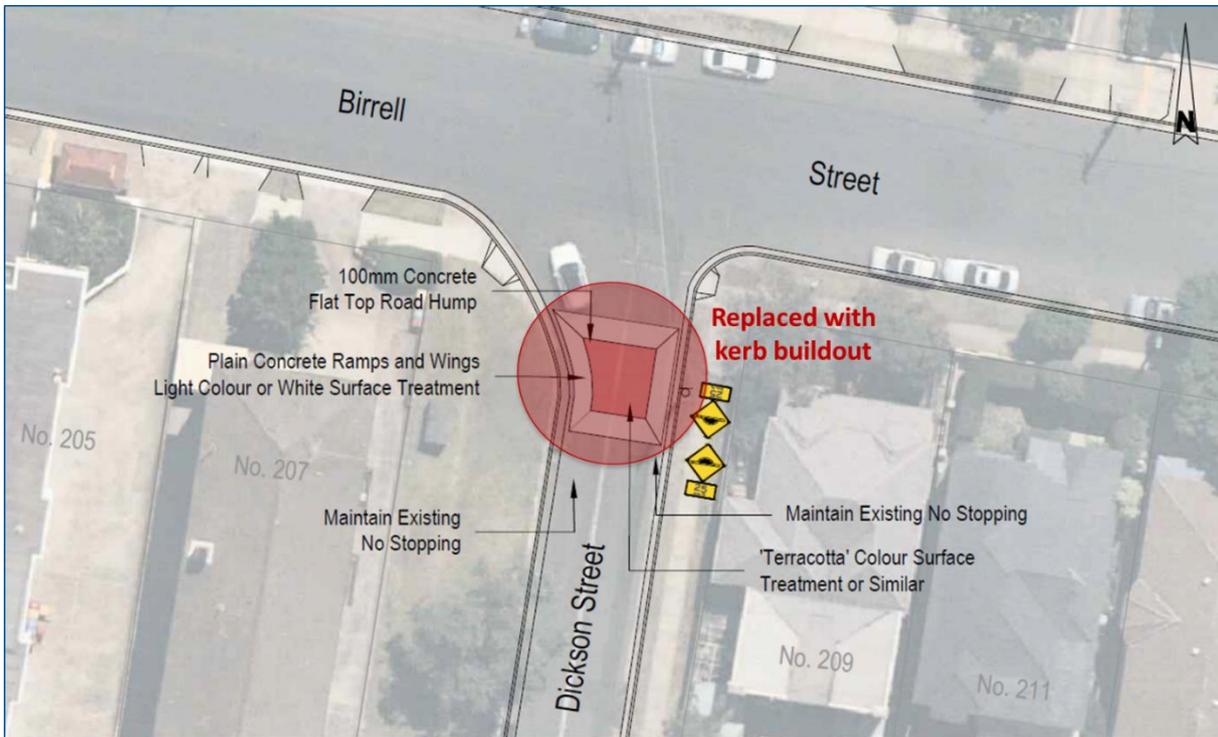


Figure 21. Dickson Street at Birrell Street concept design.

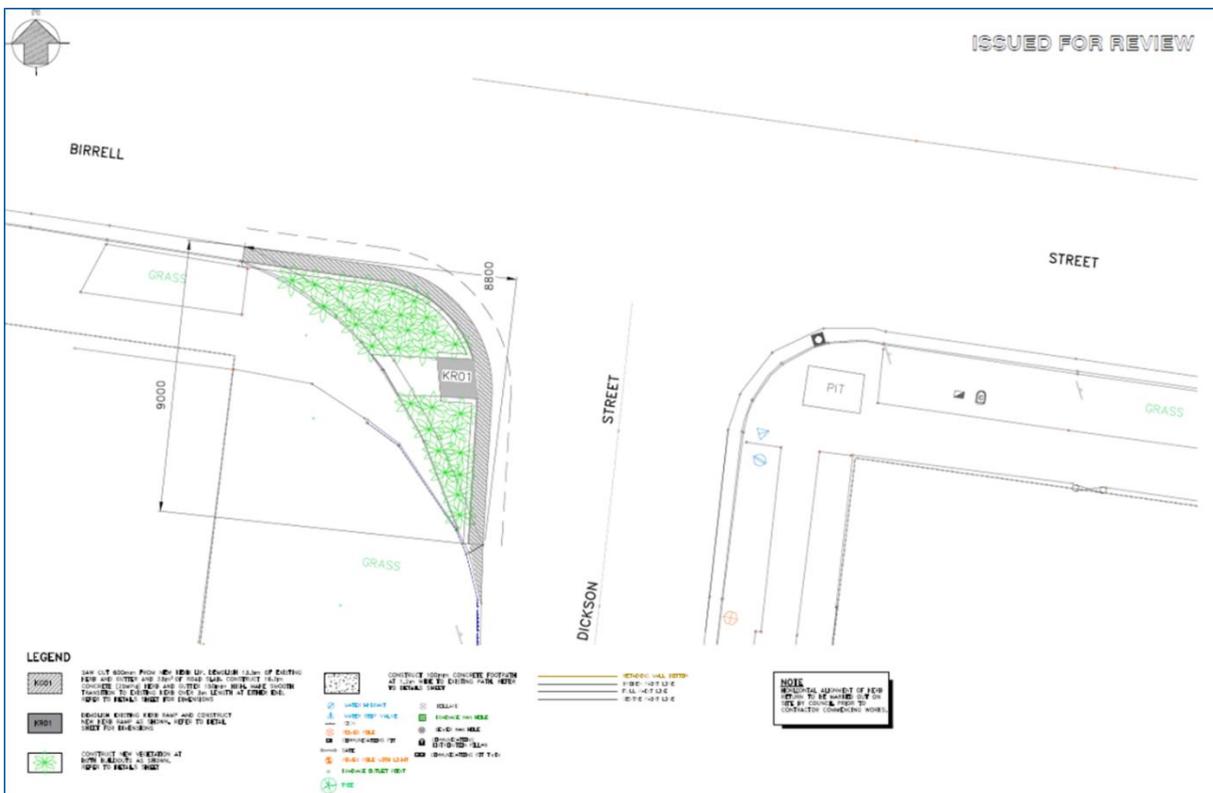


Figure 22. Dickson Street at Birrell Street design for construction.

11. Dickson Street at Read Street, Bronte

A speed hump recommended in the concept design for Dickson Street at Read Street has been replaced with a speed hump and kerb build-out, including soft surface beautification.



Figure 23. Dickson Street at Read Street concept design.

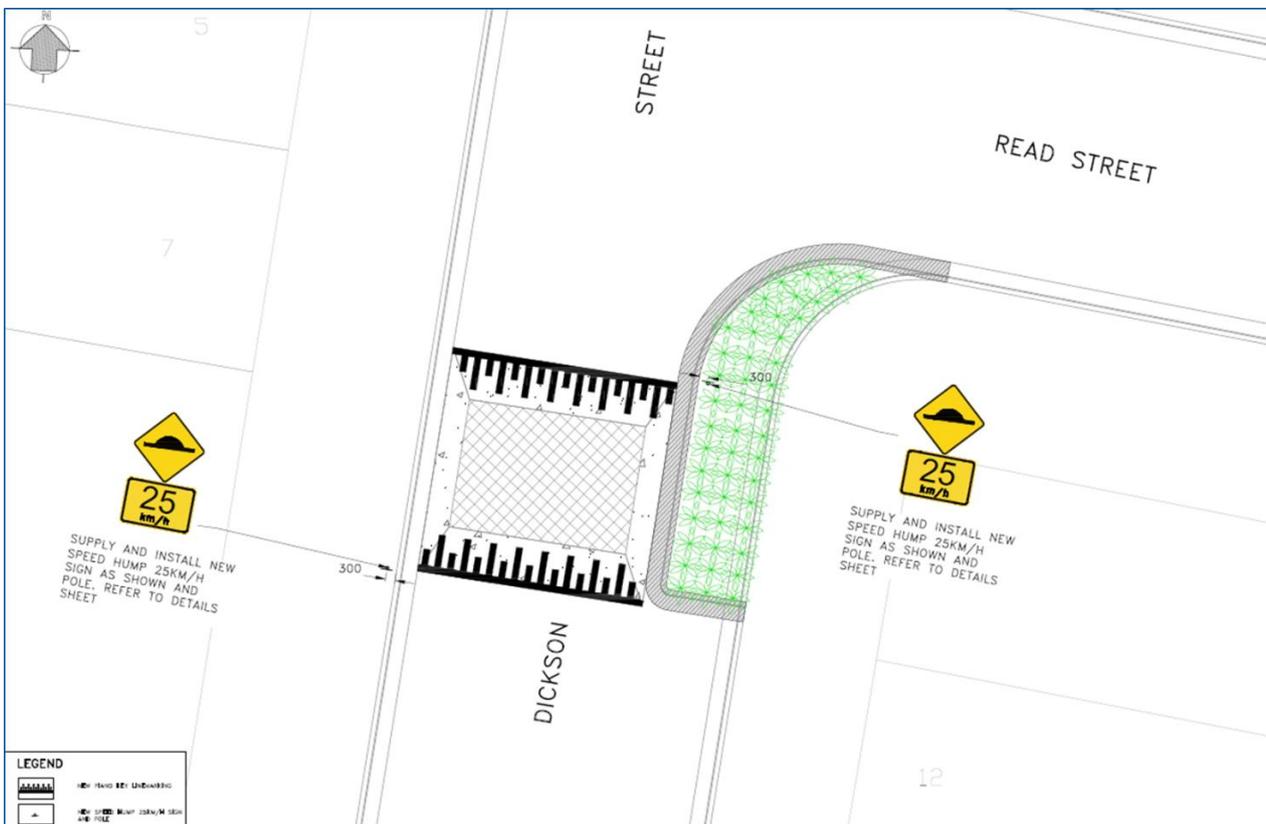


Figure 24. Dickson Street at Read Street design for construction

12. 25 Murray Street, Bronte

The existing kerb blisters on Murray Street shown below will be retained. A speed hump is proposed between the two blisters.

State Transit bus route 360 runs along Murray Street. The height of the speed hump has been reduced from 100 mm to 75 mm to better accommodate the bus movements.



Figure 25. 25 Murray Street – Existing kerb blisters.

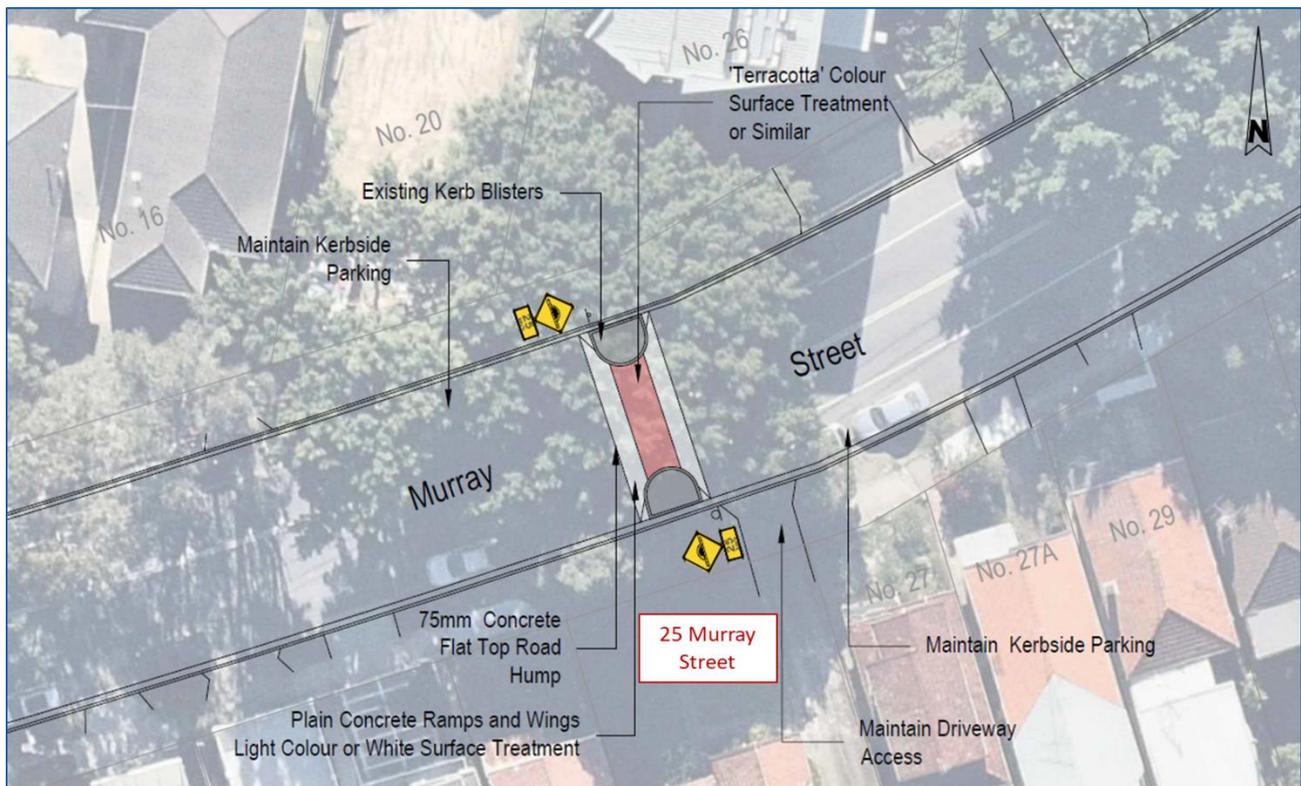


Figure 26. 25 Murray Street concept design.

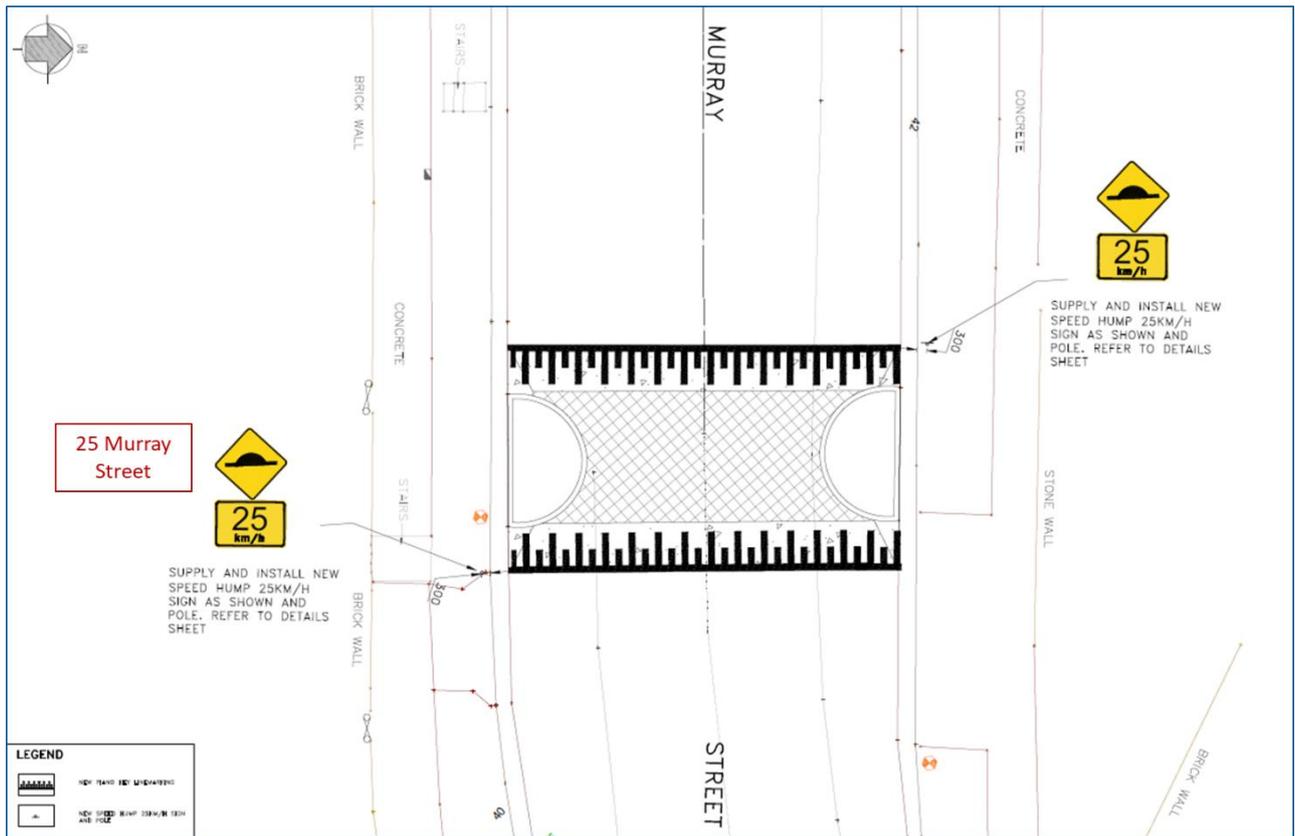


Figure 27. 25 Murray Street design for construction.

13. 37 Murray Street, Bronte

A 75 mm high speed hump is proposed on Murray Street near 37 Murray Street. State Transit bus route 360 runs along the street. The height of the speed hump has been reduced from 100 mm to 75 mm to better accommodate the bus movements.

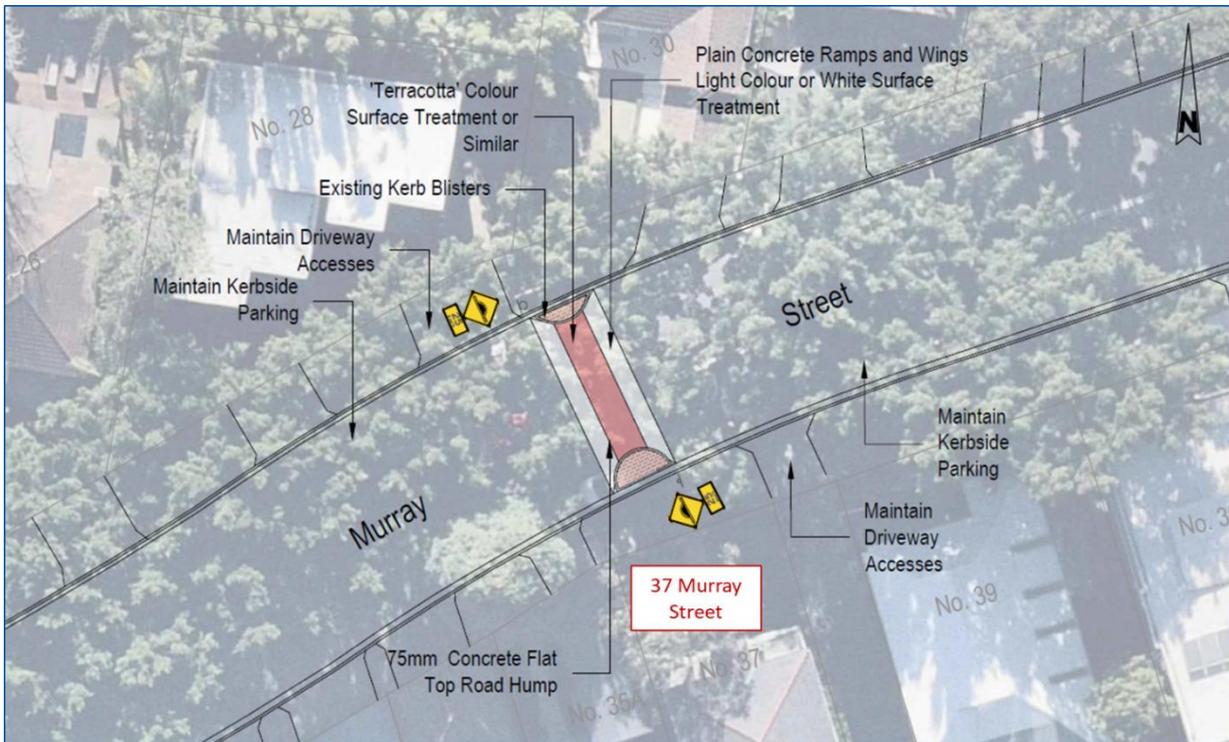


Figure 28. 37 Murray Street concept design.

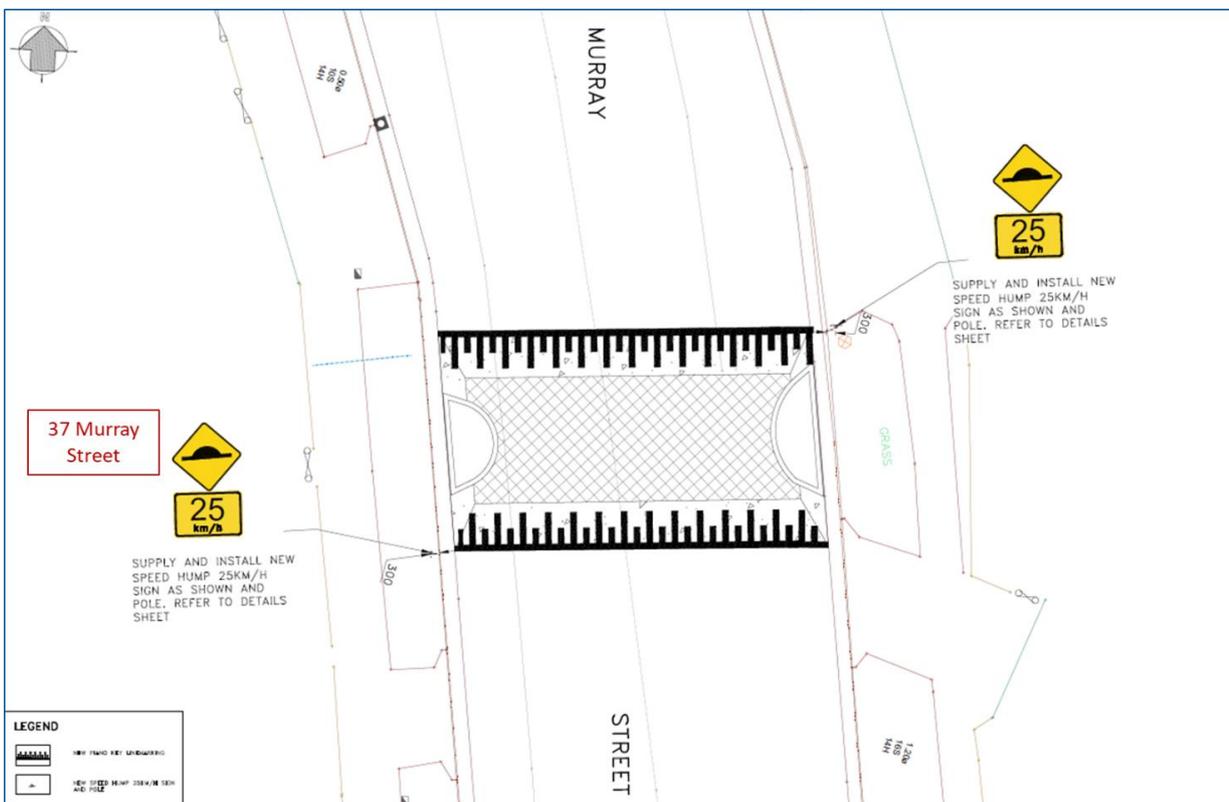


Figure 29. 37 Murray Street design for construction.

14. Lugar Street at Brae Street, Bronte

A 100 mm high speed hump recommended in the concept design for York Road near 458 York Road has been replaced with a kerb build-out, including soft surface beautification.

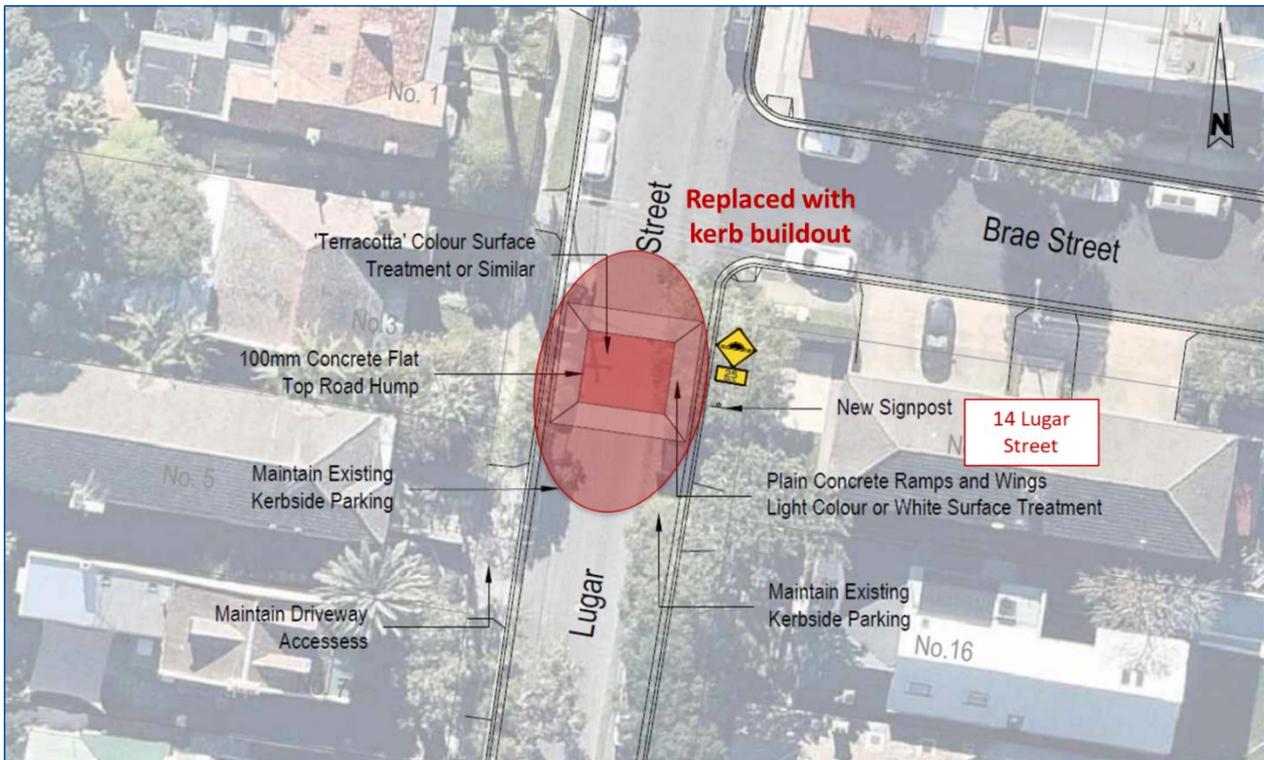


Figure 30. Lugar Street at Brae Street concept design.

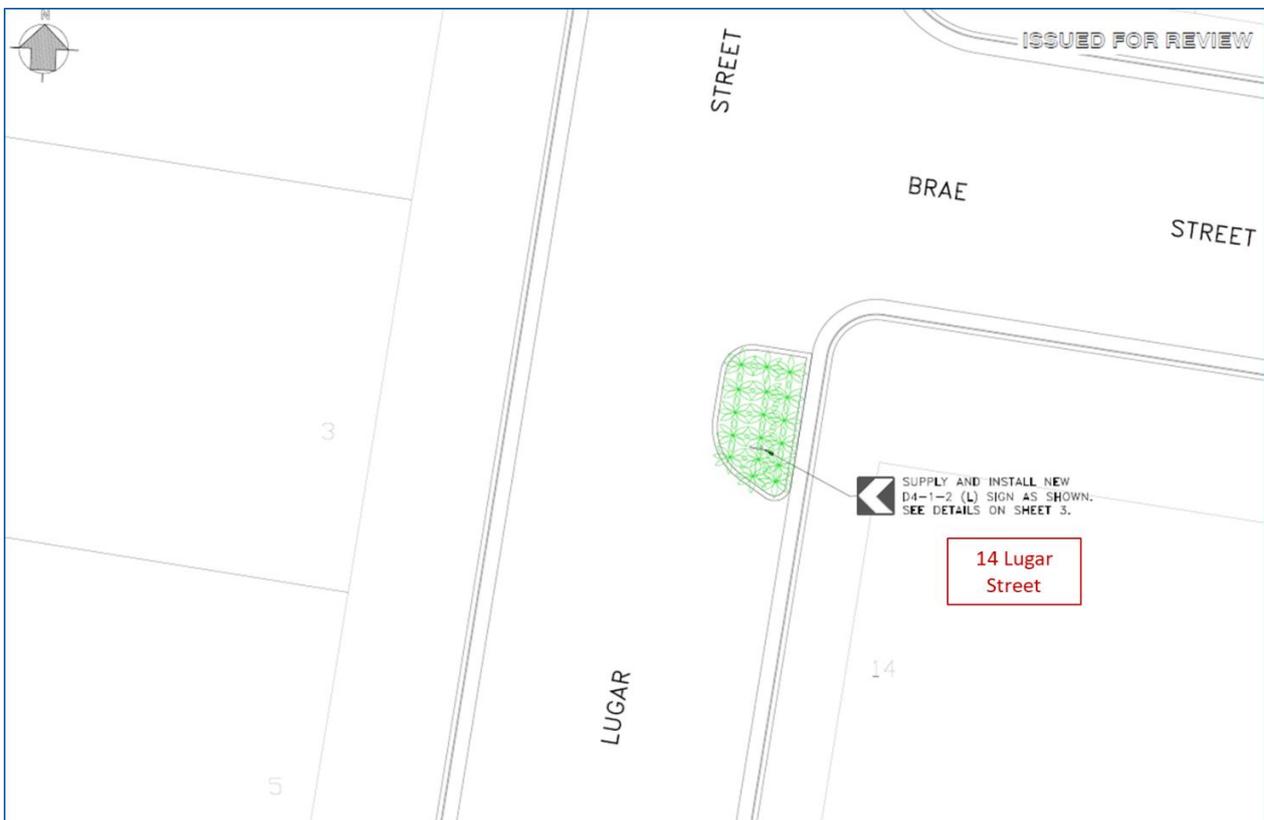


Figure 31. Lugar Street at Brae Street design for construction.

15. 2 Birrell Street, Bondi Junction

The existing pedestrian crossing on Birrell Street at St James Road will be enhanced with a raised platform. Detailed design of the interface between the raised pedestrian crossing and footpath will be undertaken as part of the stormwater design.



Figure 32. 2 Birrell Street – Existing pedestrian crossing.

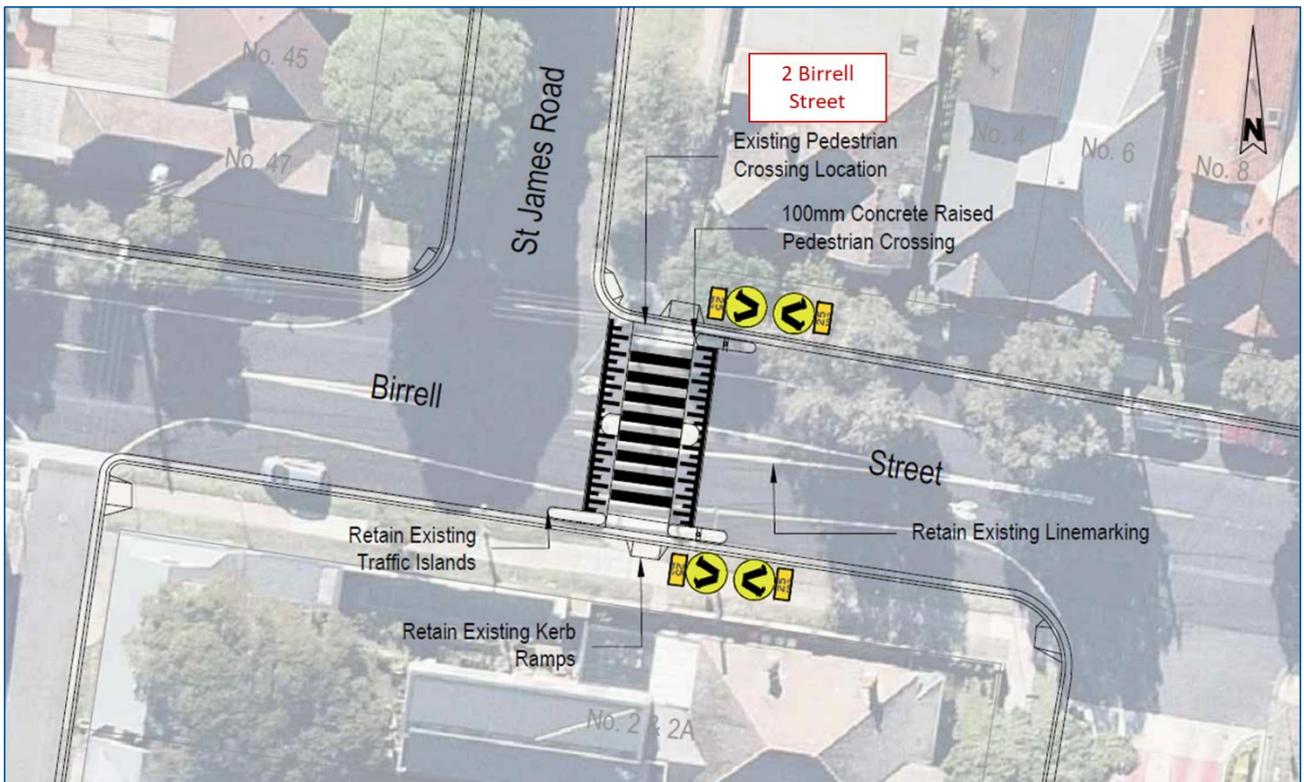


Figure 33. 2 Birrell Street concept design.

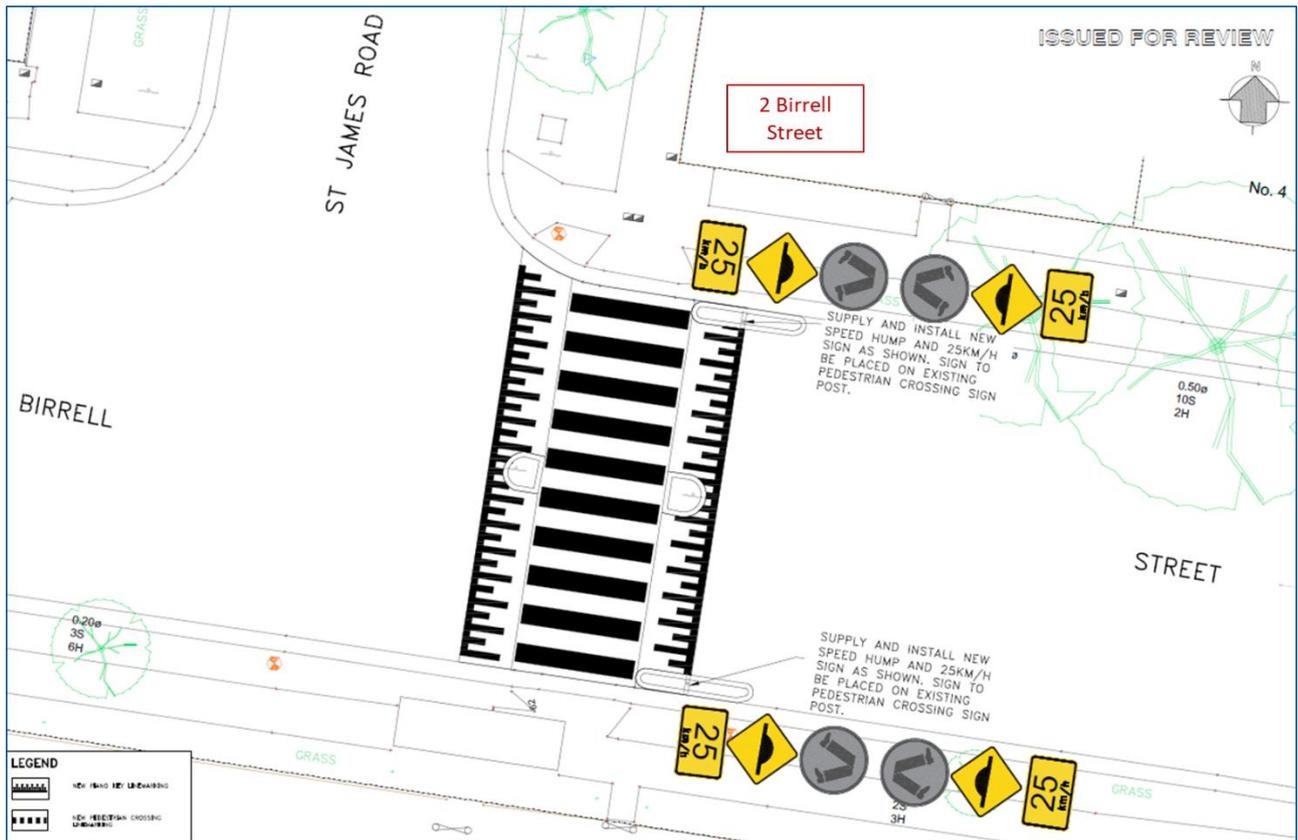


Figure 34. 2 Birrell Street design for construction.

16. 67 Birrell Street at Brisbane Street, Queens Park

The existing pedestrian crossing on Birrell Street at Brisbane Street will be enhanced with a raised platform and soft surface beautification. Detailed design of the interface between the raised pedestrian crossing and footpath will be undertaken as part of the stormwater design.



Figure 35. 67 Birrell Street – Existing pedestrian crossing.

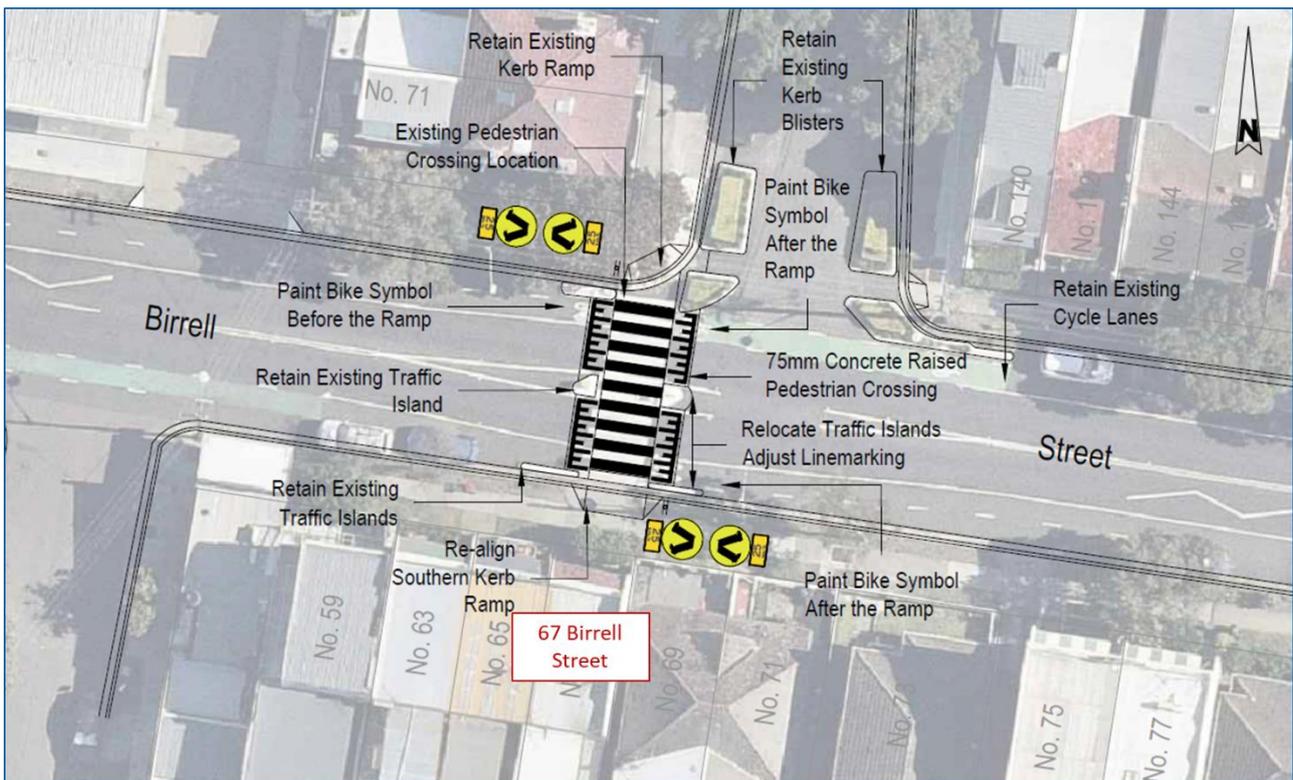


Figure 36. 67 Birrell Street concept design.

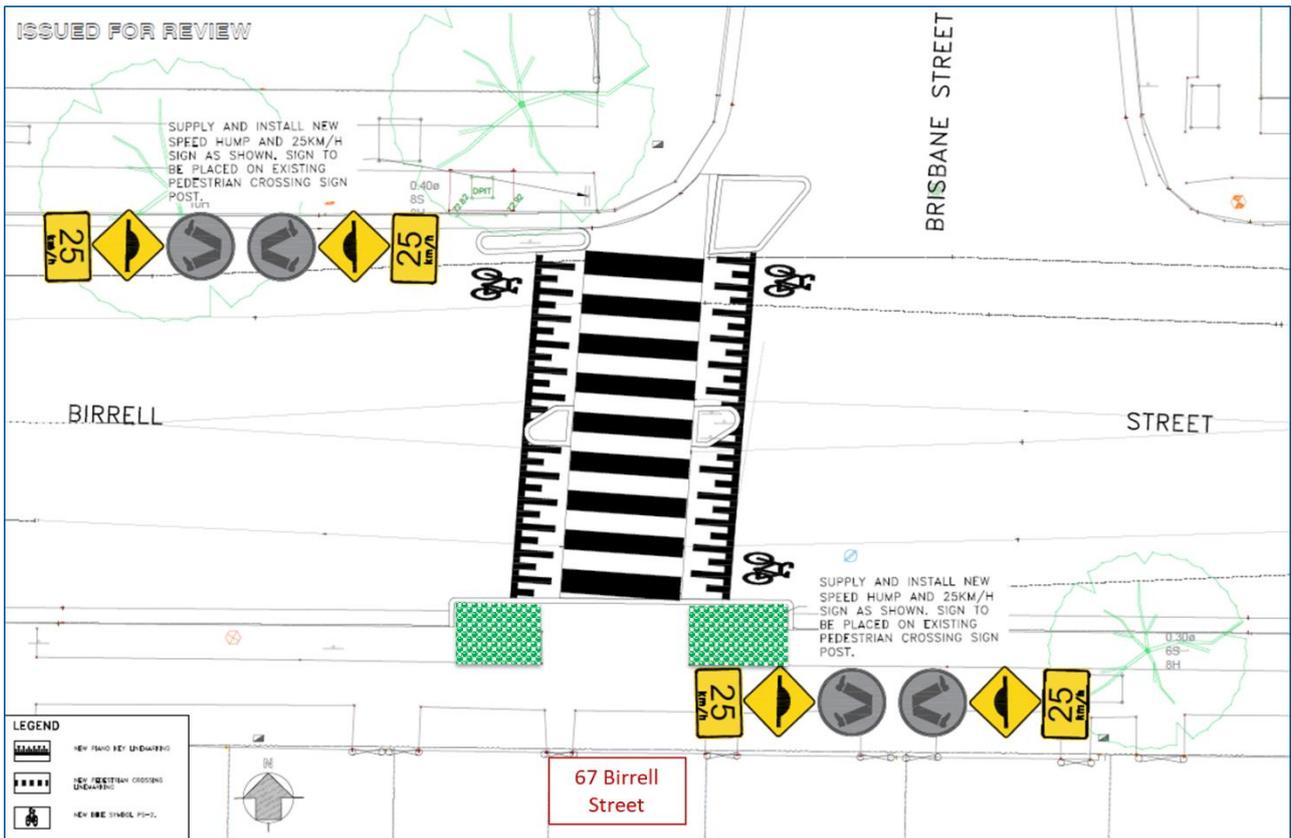


Figure 37. 67 Birrell Street design for construction.

17. Birrell Street at Henrietta Street, Waverley

The existing pedestrian crossing on Birrell Street at Henrietta Street will be enhanced with a raised platform. Detailed design of the interface between the raised pedestrian crossing and footpath will be undertaken as part of the stormwater design.



Figure 38. Birrell Street at Henrietta Street – Existing pedestrian crossing.

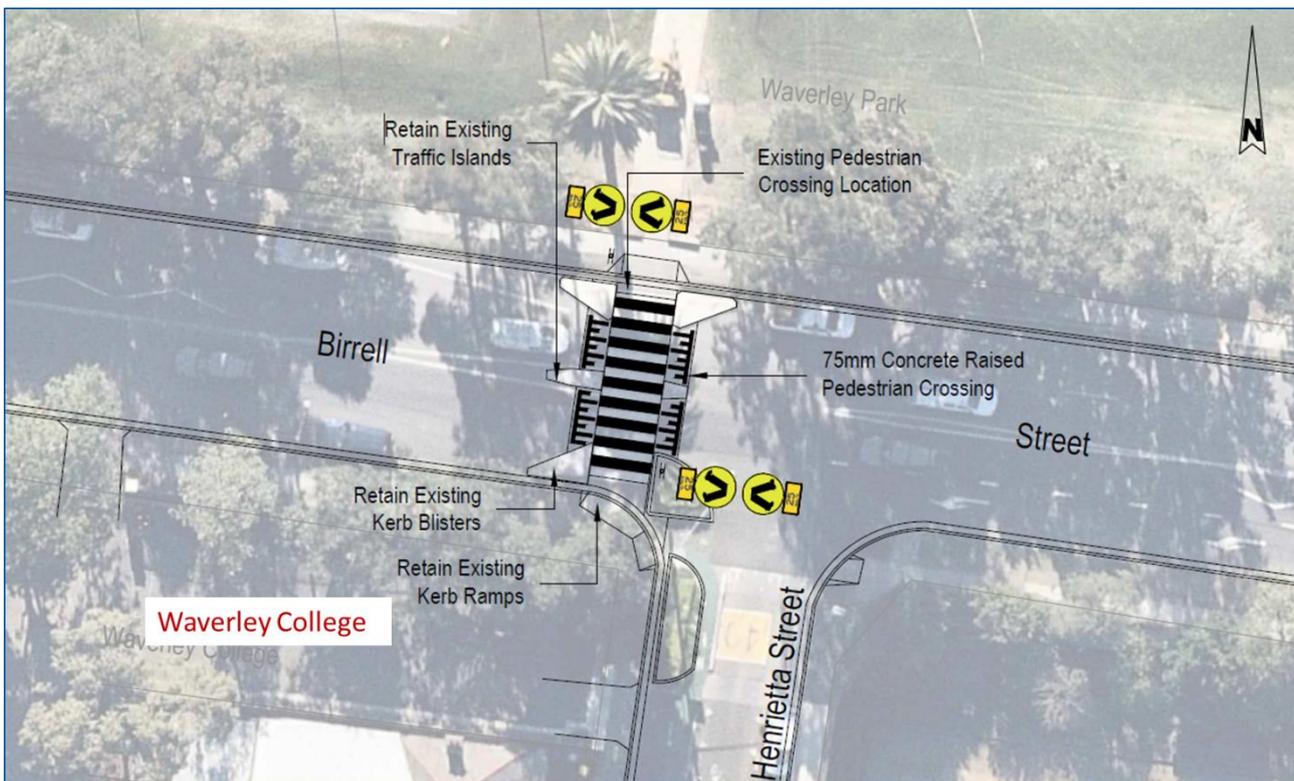


Figure 39. Birrell Street at Henrietta Street concept design.

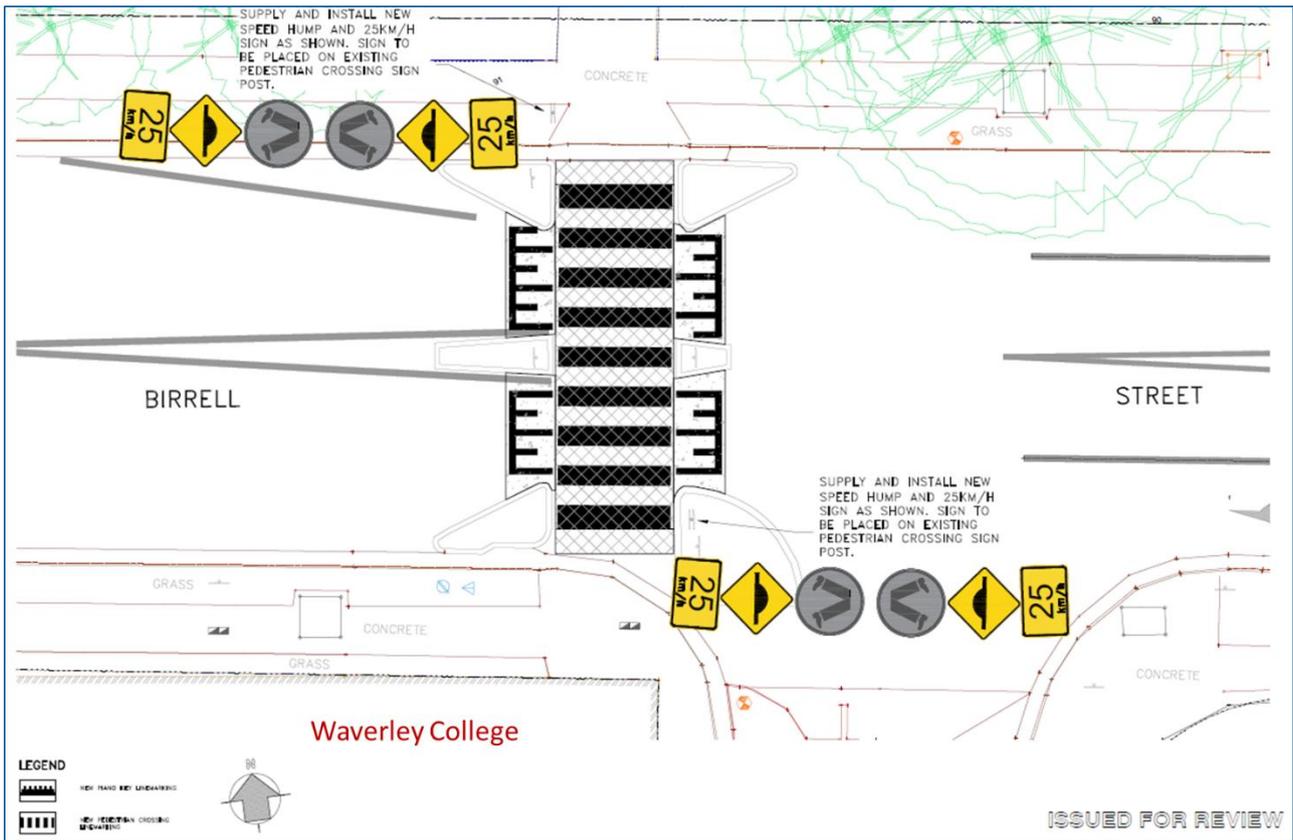


Figure 40. Birrell Street at Henrietta Street design for construction.

18. Pacific Street at Bronte Road, Bronte

A new splitter island and kerb blister are proposed to improve pedestrian safety when crossing Pacific Street. Construction of a footpath along the southern side of Bronte Road west of Pacific Street is under investigation.

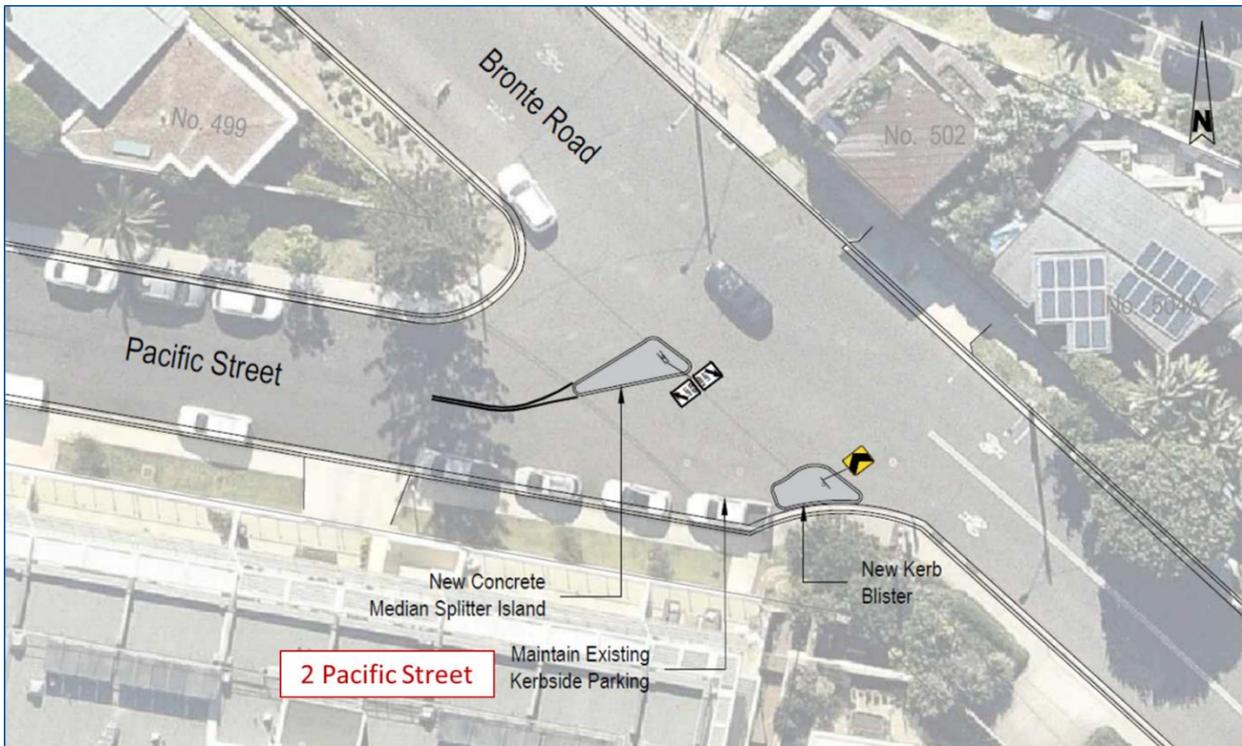


Figure 41. Pacific Street at Bronte Road concept design.

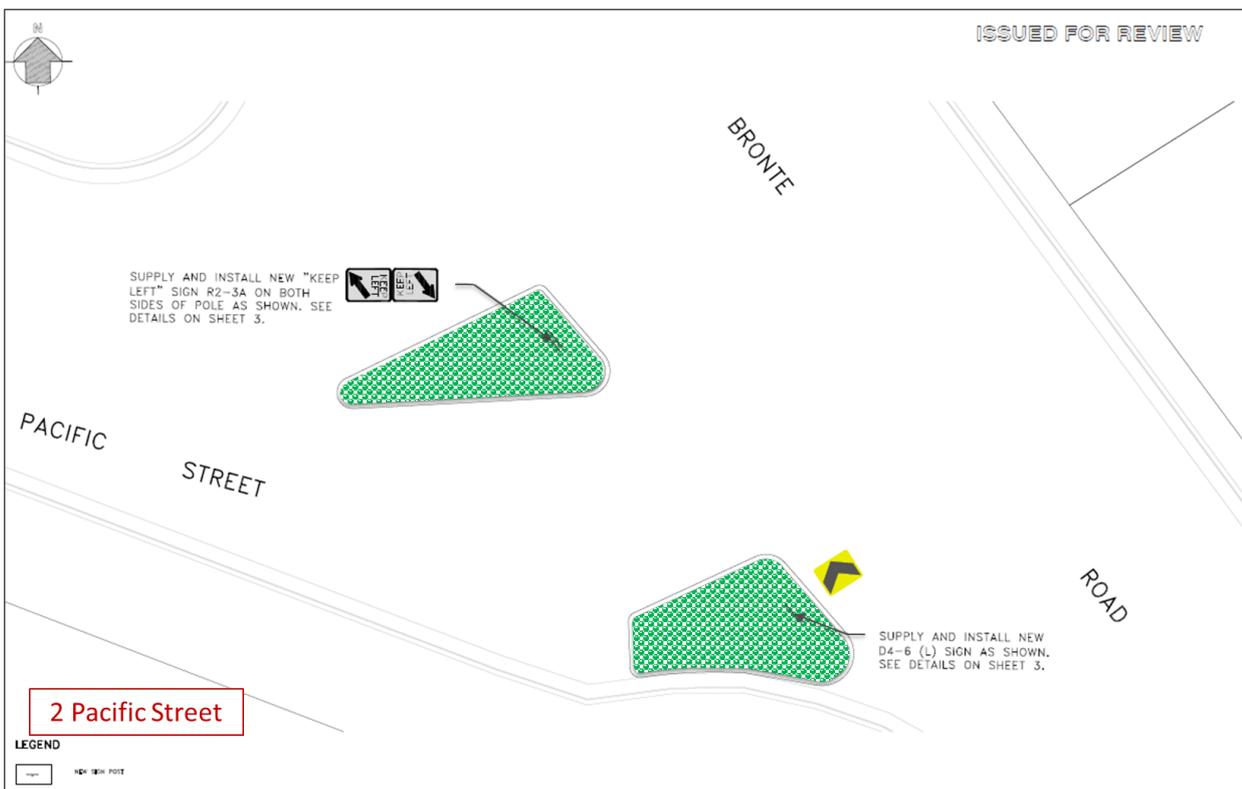


Figure 42. Pacific Street at Bronte Road design for construction.

19. 93 Ocean Street, Bondi

A 100 mm high speed hump is proposed on Ocean Street near 93 Ocean Street.



Figure 43. 93 Ocean Street concept design.

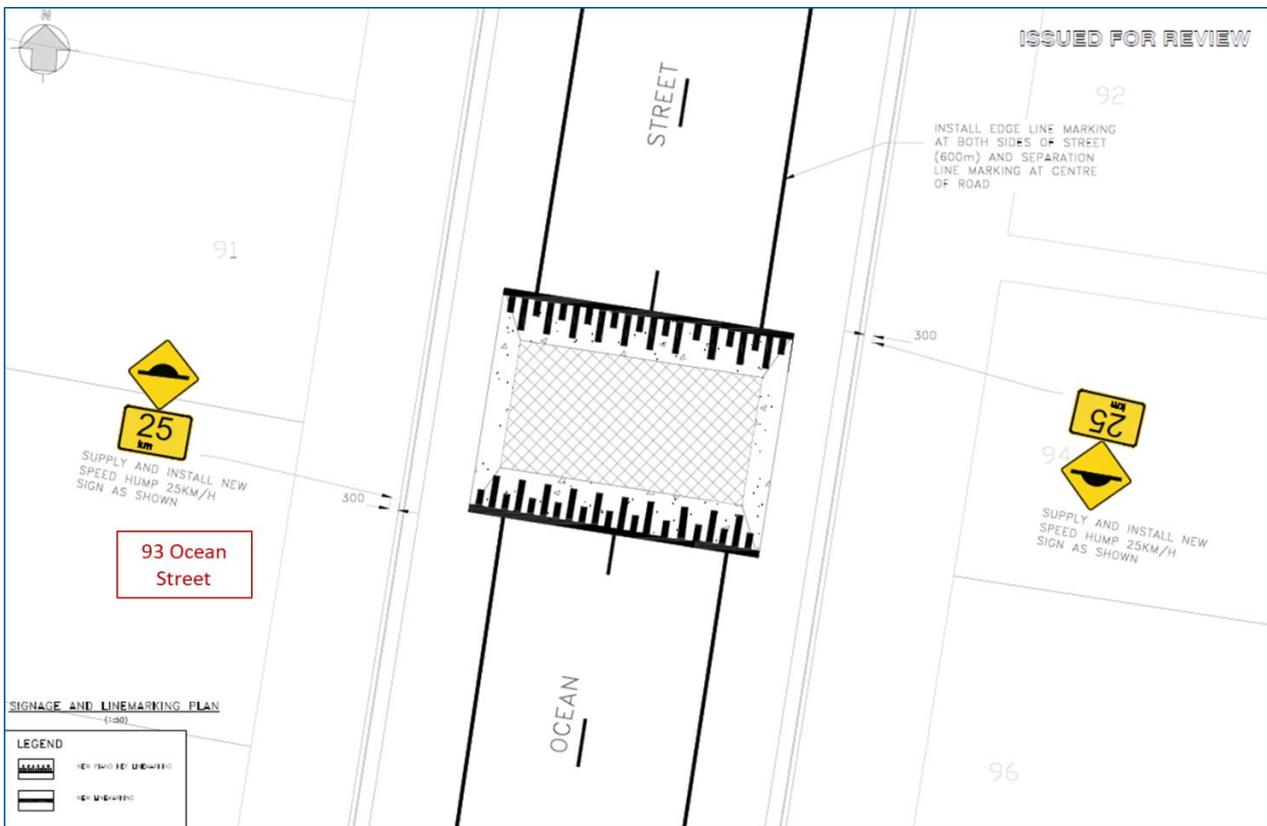


Figure 44. 93 Ocean Street design for construction.

20. Park Parade at Birrell Street, Bondi

A 100 mm high speed hump recommended in the concept design for Park Parade at Birrell Street has been replaced by kerb build-outs on Park Parade, including soft surface beautification.

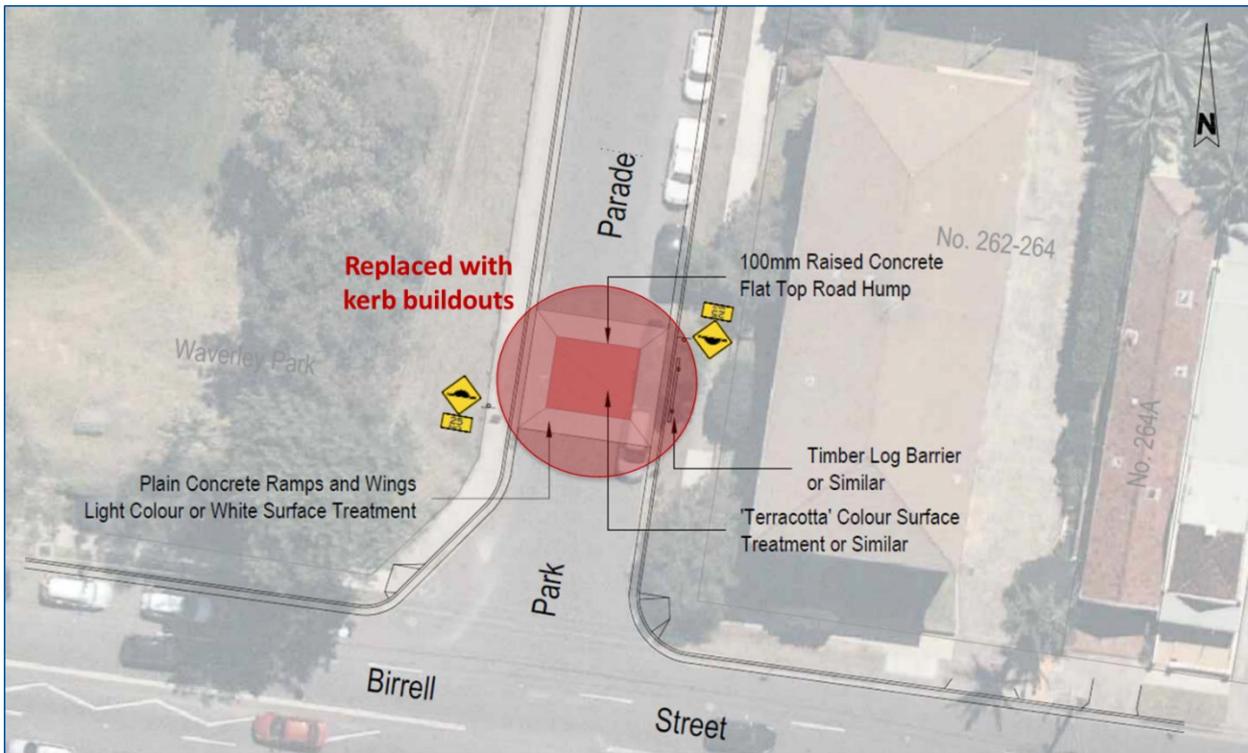


Figure 45. Park Parade at Birrell Street concept design.



Figure 46. Park Parade at Birrell Street design for construction.

21. Evans Street at Brae Street, Bronte

A 100 mm high speed hump recommended in the concept design for Evans Street at Brae Street has been replaced with a narrower speed hump adjacent to a kerb build-out with soft surface beautification.

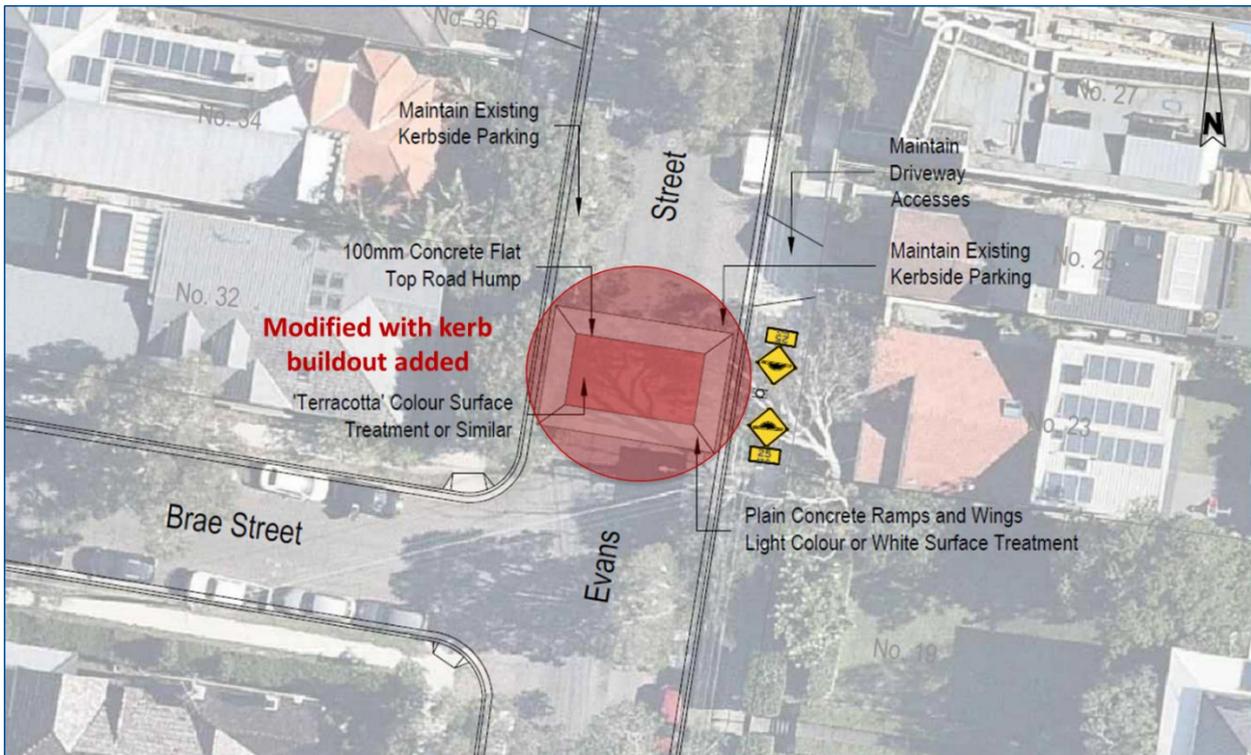


Figure 47. Evans Street at Brae Street concept design.



Figure 48. Evans Street at Brae Street design for construction.

22. 13 Sandridge Street, Bondi

A 75 mm high speed hump is proposed on Sandridge Street near 13 Sandridge Street. The concrete median island in the concept design has been removed to discourage pedestrians using this as a crossing. Sandridge Street is used by State Transit school special services. The height of the speed hump in Sandridge Street has been reduced from 100 mm to 75 mm to better accommodate these bus movements.



Figure 49. 13 Sandridge Street concept design.

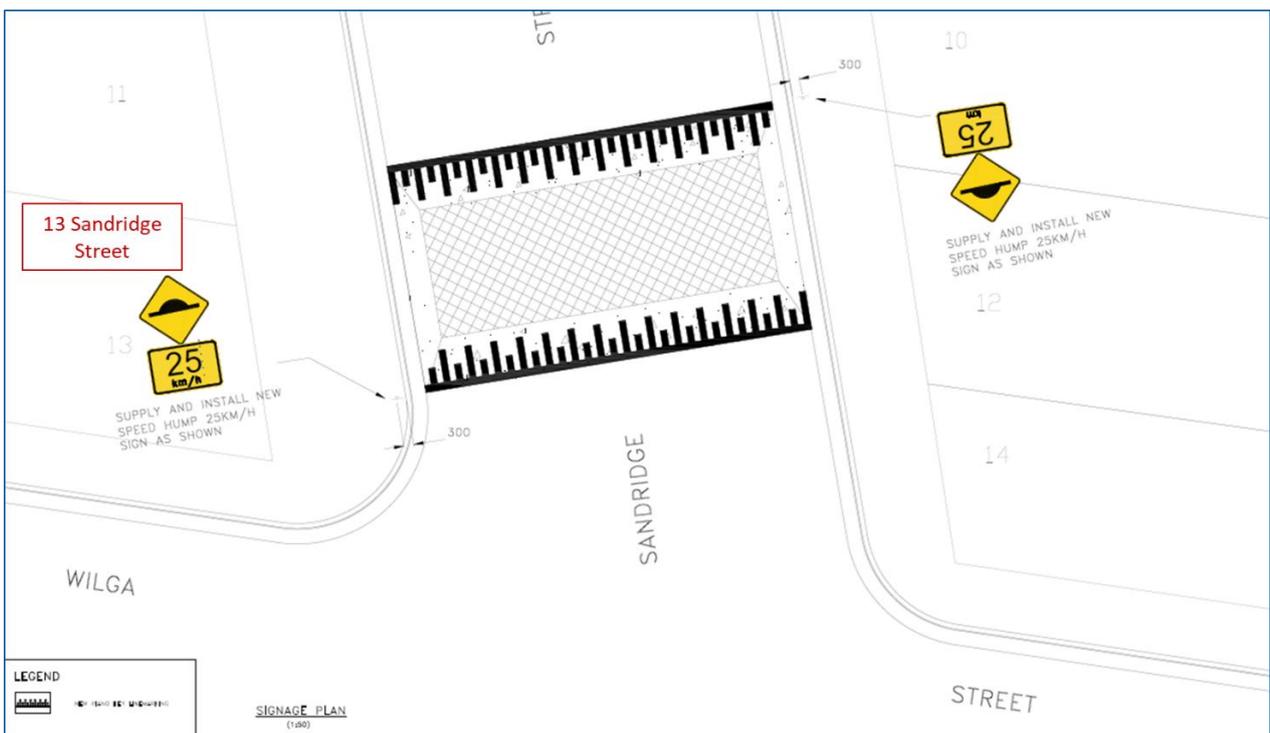


Figure 50. 13 Sandridge Street design for construction.

23. Bourke Street at Bourke Lane, Queens Park

A speed hump recommended in the concept design for Bourke Street at Bourke Lane has been replaced with a speed hump and kerb build-out including soft surface beautification. State Transit bus route 357 runs along Bourke Street. The height of the speed hump has been reduced from 100 mm to 75 mm to better accommodate bus movements.

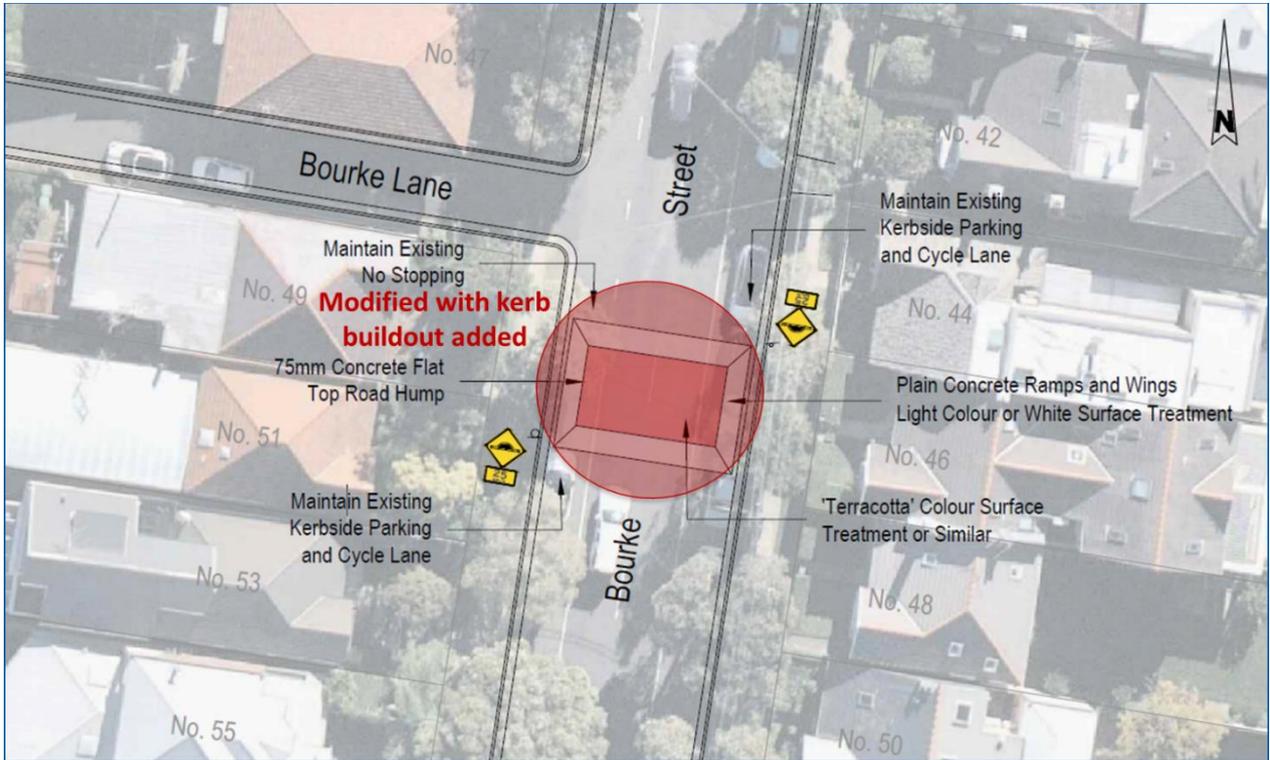


Figure 51. Bourke Street at Bourke Lane concept design.

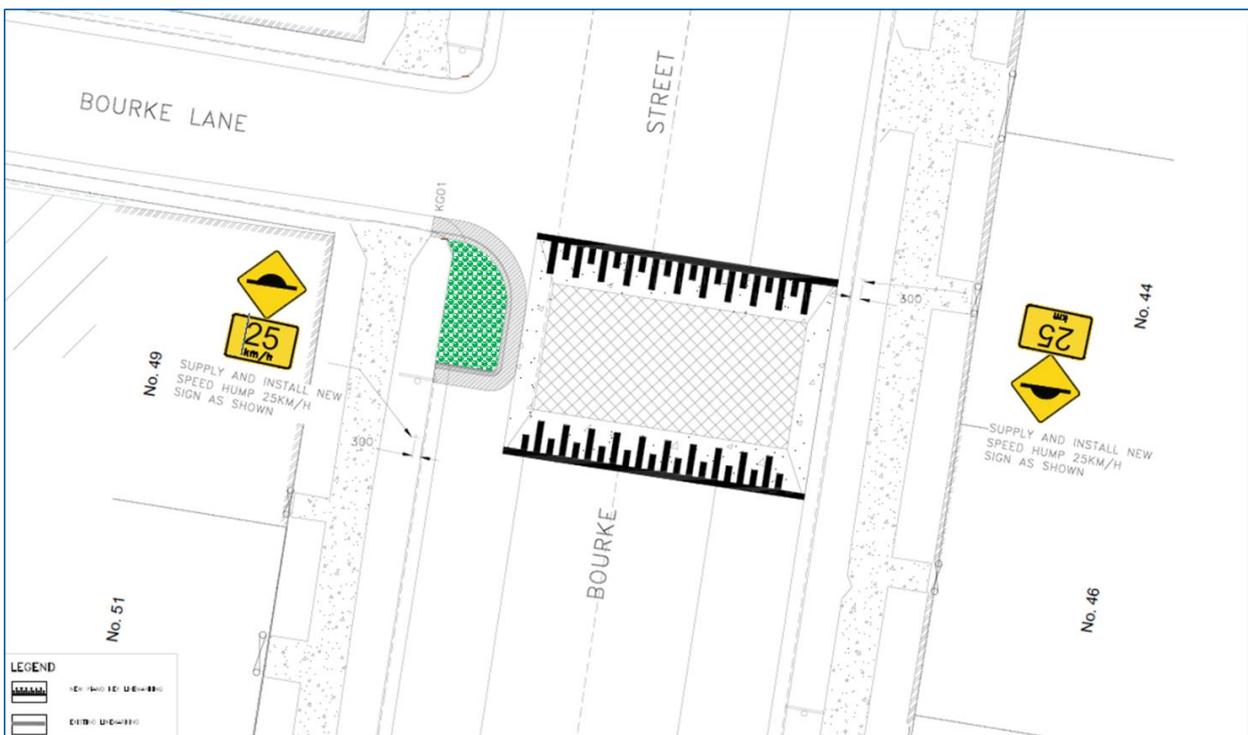


Figure 52. Bourke Street at Bourke Lane design for construction.

4. Financial Information for Council's Consideration

Council has received a commitment of \$1 million for construction from the RMS NSW 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

1. Tamarama Marine Drive, Tamarama (at the rear of 23 Thompson Street) - 75 mm high speed hump (under separate cover) [⇒](#)
2. 67 Watson Street, Bondi - 75 mm high speed hump (under separate cover) [⇒](#)
3. 458 Bronte Road, Bronte - 100 mm high speed hump (under separate cover) [⇒](#)
4. 492 Bronte Road, Bronte - 100 mm high speed hump (under separate cover) [⇒](#)
5. 18 Brown Street, Bronte - 100 mm high speed hump (under separate cover) [⇒](#)
6. 62 Hewlett Street, Bronte - 75 mm high speed hump (under separate cover) [⇒](#)
7. 44 Victoria Street, Waverley - 100 mm high speed hump (under separate cover) [⇒](#)
8. Queens Park Road at Bourke Street, Queens Park - pedestrian refuge (under separate cover) [⇒](#)
9. 47 York Road, Queens Park - 100 mm high speed hump (under separate cover) [⇒](#)
10. Dickson Street at Birrell Street, Bronte - kerb build-out (under separate cover) [⇒](#)
11. Dickson Street at Read Street, Bronte - 100 mm speed hump and kerb build-out (under separate cover) [⇒](#)
12. 25 Murray Street, Bronte - 75 mm high speed hump (under separate cover) [⇒](#)
13. 37 Murray Street, Bronte - 75 mm high speed hump (under separate cover) [⇒](#)
14. Lugar Street at Brae Street, Bronte - kerb build-out (under separate cover) [⇒](#)
15. 2 Birrell Street, Bondi Junction - raised pedestrian crossing (under separate cover) [⇒](#)
16. 67 Birrell Street, Queens Park - raised pedestrian crossing (under separate cover) [⇒](#)
17. Birrell Street at Henrietta Street, Waverley - raised pedestrian crossing (under separate cover) [⇒](#)
18. Pacific Street at Bronte Road, Bronte - splitter island (under separate cover) [⇒](#)
19. 93 Ocean Street, Bondi - 100 mm speed hump (under separate cover) [⇒](#)
20. Park Parade at Birrell Street, Bondi - kerb build-outs (under separate cover) [⇒](#)
21. Evans Street at Brae Street, Bronte - 100 mm speed hump and kerb build-out (under separate cover) [⇒](#)
22. 13 Sandridge Street, Bondi - 100 mm speed hump (under separate cover) [⇒](#)
23. Bourke Street at Bourke Lane - 75 mm speed hump and kerb build-out (under separate cover) [⇒](#) .

REPORT
TC/C.02/20.09

Subject: Macpherson Street, Bronte - Temporary Road Closure to Dismantle Tower Crane

TRIM No: A19/0394

Author: Hamoon Bahari, Professional Engineer, Traffic and Transport
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That:

1. Council approves the temporary full closure of Macpherson Street, Bronte, between Albion Street and Leichhardt Street, on Sunday, 31 January 2021, from 4.00 am to 11.00 pm, subject to the applicant:
 - (a) Obtaining approval from NSW Police.
 - (b) Notifying the State Transit Authority, NSW Ambulance Service and NSW Fire and Rescue.
 - (c) Notifying local residents and businesses prior to the event.
 - (d) Using Transport-for-NSW-accredited traffic controllers.
 - (e) Covering all costs associated with closing the road, including traffic control.
2. A Council officer be on-site for the duration of the works at the applicant's expense, and that this be communicated to the applicant.
3. Council delegates authority to the Executive Manager, Infrastructure Services, to approve any backup date and times, if required.

1. Executive Summary

Council has received an application on behalf of Richard Crookes Constructions requesting the temporary closure of Macpherson Street, between Albion Street and Leichhardt Street, in order to dismantle a tower crane. Council will need to exercise its delegated functions to implement the temporary closure.



Figure 1. Aerial view of Macpherson Street and St Catherine's School.

2. Introduction/Background

A tower crane is to be dismantled adjacent to the construction site at the St Catherine's Performing Arts and Aquatic Centre project in Macpherson Street, Waverley.

The tower crane at this location was installed on Sunday, 19 April 2020 (between 6.00 am and 11.00 pm). Council approved a similar closure between Albion Street and Leichhardt Street for the installation.

The road closure for the dismantling process will occur from 4.00 am to 11.00 pm on Sunday, 31 January 2021, or another Sunday subject to approval by Executive Manager, Infrastructure Services.



Figure 2. Aerial view of Macpherson Street showing extent of closure.

3. Technical Analysis

The traffic control plan and traffic management plan for use during the road closure are attached to this report (Attachment 1 and 2). They have been determined in consultation with Council.

State Transit has raised no objections in relation to detour routes. The agreed routes are included in the Attachment 1.

4. Financial Information for Council's Consideration

The applicant will be required to meet the cost of all traffic control, rubbish removal and damage restoration associated with the road closure.

5. Attachments

1. Traffic Control Plan [↓](#)
2. Traffic Management Plan [↓](#)

ST CATHERINE'S RPAC CRANE PERMIT APPLICATION FOR TEMPORARY ROAD CLOSURE TO FACILITATE TOWER CRANE DISMANTLE

Paper prepared by: RICHARD CROOKES CONSTRUCTIONS

1 THE WORKS

The tower crane in the construction site at the St Catherine's RPAC project in Waverley is set to be dismantled. It will need to be removed from site in large sections, on heavy vehicles and a mobile crane will be used to complete these works. As a result, a temporary road closure of part of Macpherson Street is required so that the tower crane can be safely and efficiently disassembled.

The application is for a crane permit which includes a temporary road closure to facilitate the removal of the tower crane at the St Catherine's RPAC project.

2 SITE PLAN

Construction vehicle access to the site is through Macpherson Street whilst Leichhardt lane is used for pedestrian access



The mobile crane will occupy the front of the site and semi-trailer removing the tower crane sections will be required to occupy Macpherson Street as shown in the highlighted. The mobile crane will be utilised to lift each crane section from the site and onto the semi-trailer in the street.

The spatial requirements for these works require that the road be temporarily be occupied so that the crane disassemble can be safely carried out.

3 SCOPE OF WORKS

3.1 TIMING

- It is expected that the works will take one day to complete.
- Works will occur on 31 January 2021 and will commence at 04:00 31 January 2021 and be completed by 23:00 31 January 2021.
- This time period allows for any weather delays as well as the safe traffic management for the residents who live within the area where the road will be occupied.
- The backup date for the installation is from 04:00 07 February 2021 and be completed by 2300 07 February 2021
- Works are scheduled to commence after hours to minimise disruption to traffic.

3.2 SAFETY

- The first step will be to implement all the traffic control measures required by the site-specific Traffic Control Plan attached. This will include barricades, signage and other traffic control devices as required.
- Macpherson Street will be temporarily closed between Albion street and Leichhardt Street for the duration of the crane assembly works.
- RMS Accredited personnel will always be present to implement this Traffic Control Plan.
- User paid police will be present to;
 - Control traffic and pedestrian/cyclists movements at both ends of Macpherson Street. This will include providing information on the detour route.
 - Providing access to residents requiring access to the closed section of Macpherson Street.
- Lighting towers will be directed to the site and used to help safely conduct the works during the night and early hours of the morning.
- The use of the lighting towers will be restricted to the site and these will be directed away from private properties.
- The mobile crane is considered an oversized load and will be transported under escort with semi-trailers and B-doubles.
- It is preferred that a compliance officer from Waverley Council be present during the assembly to monitor the works and deal with any public queries.

3.3 DISMANTLE OVERVIEW

- Once all the traffic control measures have been implemented, the mobile crane will be delivered to site.
- The mobile will be set up directly in front of the construction site this will take approximately 2hrs
- The semi-trailers which will be used to load the tower crane components will be scheduled to arrive to site after the mobile crane has been set up.
- Removal of the crane sections and truck arrival will be coordinated to minimise traffic congestion within the closure and surrounding streets.

- Safe dismantle of the crane is expected to take 9 hours, without including weather delays or unforeseen circumstances.
- Once the dismantle of the tower crane is complete, the mobile crane will then be packed up, which is expected to take approximately 2 hours.

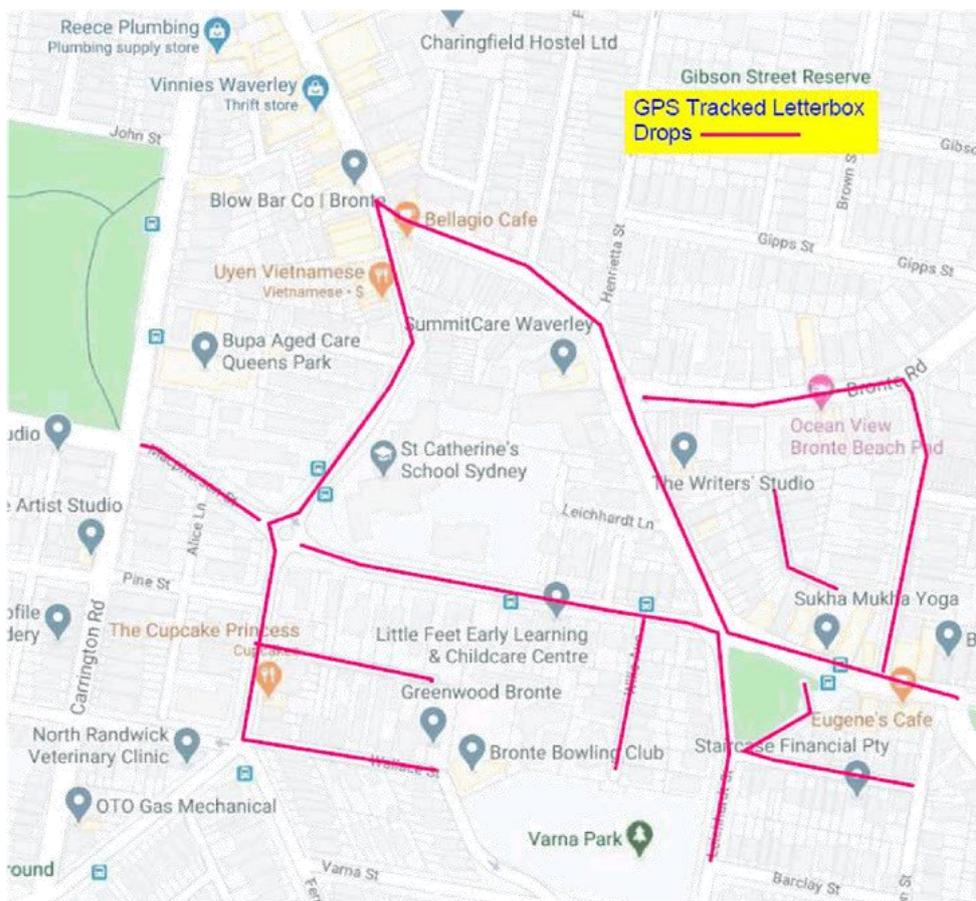
3.4 EQUIPMENT & VEHICLES REQUIRED

- A Franna crane to set up the mobile crane
- B-Doubles to deliver the mobile crane
- Mobile Crane to dismantle the tower crane
- Lighting towers to provide a safe working area for installation
- Semi-trailers to transport the tower crane sections
- Hand tools

4 POSSIBLE IMPACTS

4.1 IMPACT ON THE COMMUNITY

The road closure will affect the community’s movements. To help mitigate the effects of the closure, we will notify the community of the closure using GPS tracked letterbox drops 4 weeks, 1 week and 2 days before the event. The letterbox drop will be restricted to the area shown below.



4.2 IMPACT ON TREES

None expected.

4.3 IMPACT ON POWERLINES

There are some overhead power lines at the front of the site and this will require coordination with Energy Australia to ensure that these are not impacted. The lifting plan has been finalised to account for these lines.

4.4 IMPACT ON STREET PARKING SPACES

There are some parking spaces (as shown in the TMP) in Macpherson Street between Albion Street and Leichhardt Street will be required to be removed during the closure. This will allow for the safe manoeuvres of the semi-trailers and B-Doubles

4.5 IMPACT ON PUBLIC TRANSPORT

Similar to what was done for the tower crane installation, during the Works, there are two bus stops that will be required to detour around Albion Street and Leichhardt Street. STA Buses to confirm that this detour is still acceptable.

LOAD LIST FOR TRANSPORT OF TOWER CRANES

Date/s	Sunday 31 January 2021 BACKUP 07 February 2021
Location	RCC St Catherine's
Install / Dismantle	Dismantle
Crane Type	CTT 561 24A
Crane Number	SPHTC 38
Boom Length	45
No. Towers	7

Truck No.	Trailer Type	Components to be loaded	Time
1	40FT FLAT	BORGERS COUNTERWEIGHTS	05:00
2	40FT FLAT	BORGERS COUNTERWEIGHTS	05:30
3	40FT FLAT	BORGERS COUNTERWEIGHTS	06:00
4	40FT FLAT	BORGERS COUNTERWEIGHTS	06:30
5	40FT	JIB 6 + 2A + 1 C CWS	07:00
6	40FT	JIB 5	07:30
7	40FT	JIB 4 + 7	09:00
8	40FT	10M BOOM TROLLEY	09:30
9	40FT	10M BOOM HOOK	10:00
10	40FT	SHORT DECK + WINCH + 1 C CWS	10:30
11	40FT	LONG REAR DECK + 3 A CWS	11:00
12	40FT	T-PIECE	11:30
13	40FT	MOUNT CABIN AND SLEW TOWER	12:00
14	STEP DECK	TRANSITION + 6M STD TOWER	12:30
15	40FT FLAT	2X HD 19 TOWERS	13:00
16	40FT FLAT	2X HD 19 TOWERS	13:30

Load List	Version 1	Document Owner	Issue Date	Last Amendment	Reds Global
	15_700.01	Storeman	27 th August 2018	27 th August 2018	Page 1 of 2

17	40FT FLAT	2X HD 19 TOWERS	14:00
18	40FT FLAT	BORGERS COUNTERWEIGHTS	15:00
19	40FT FLAT	BORGERS COUNTERWEIGHTS	15:30
20	40FT FLAT	BORGERS COUNTERWEIGHTS	16:00
21	40FT FLAT	BORGERS COUNTERWEIGHTS	16:30

Load List	Version 1	Document Owner	Issue Date	Last Amendment	Reds Global
	15_700.01	Storeman	27 th August 2018	27 th August 2018	Page 2 of 2



RIGGING ARRANGEMENT MAY BE ADJUSTED ON SITE BY SUITABLY TICKETED BORGER RIGGER

BORGER CRANES
A NEW STRENGTH IN LIFTING
 PH. (02) 9832 1044
 FAX. (02) 9832 1033

CLIENT	REDS GLOBAL
PROJECT	RPAC
LOCATION	26 ALBION ST, WAVERLEY
LIFT DESCRIPTION	TC 1 INSTALL CTT561A-24
SUPERVISOR	ADAM LITTLE
DRAWN BY	ADAM LITTLE
DRAWING NUMBER	AL20199
PAGE	1 OF 2
REV.	A
SCALE	1:300 @ A3
DATE	16.07.2020

CRANE DETAIL

CRANE MODEL	GMK6300
OUTRIGGER (W x L)	8.5m(W) x 8.7m(L)
COUNTERWEIGHT	80.0 t
BOOM LENGTH	60.00 m
SUPERLIFT (Y-GUY), SPACER OR FLY JIB	11 m SWING-AWAY JIB AT 5° OFFSET

LIFT STUDY

LIFT WEIGHT	11.80 t
TOTAL FIXED WEIGHT	1.00 t
TOTAL LIFT WEIGHT	12.80 t
PICK UP RADIUS	31.0 m
PLACE RADIUS	31.0 m
CHART CAPACITY	14.00 t
% OF CHART CAP.	91.43 %
CRANE PAD LENGTH	3.0 m
CRANE PAD WIDTH	2.0 m
OUTRIGGER WEIGHT	80.0 t
GROUND PRESSURE	133.3 kPa
(PRESSURE = OUTRIGGER WEIGHT x 10 / PAD AREA)	
CHART WIND SPEED	8.0 m/s 28.8 km/h
DERATED WIND SPEED	-

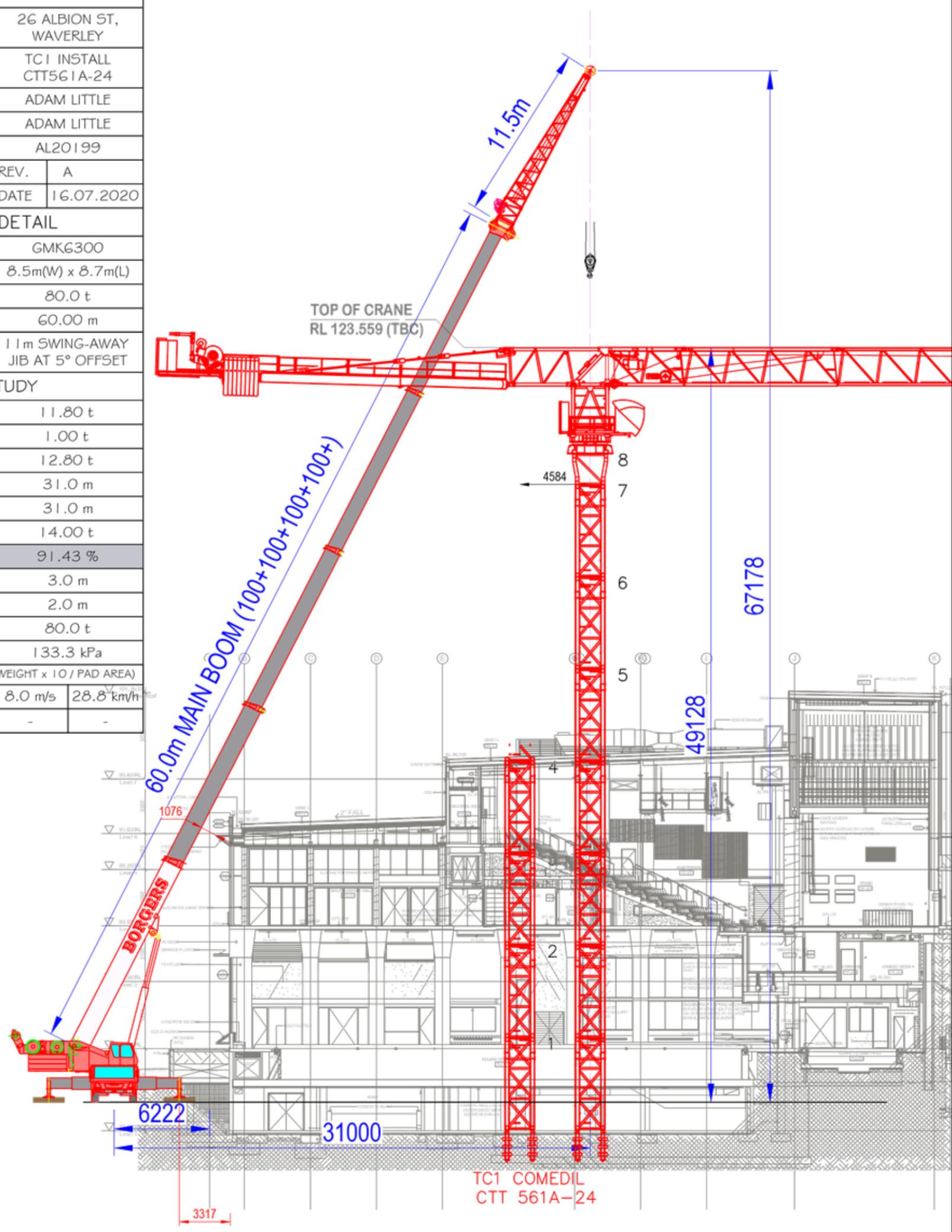
REDS GLOBAL
RPAC - 26 ALBION ST, WAVERLEY
TC 1 DISMANTLE - CTT561A-24



OUTRIGGERS	EASTING	NORTHING
FRONT LEFT	338754.311	6247022.033
FRONT RIGHT	338753.328	6247013.581
REAR LEFT	338745.723	6247023.427
REAR RIGHT	338744.741	6247014.975
CRANE CENTRE	338748.736	6247018.632

This Drawing Has Been Prepared For The Sole Use Of BORGER CRANES. It Is Loaned To The Recipient For His Confidential Use Only. Reproduction Or Distribution Shall Not Be Performed Without The Express Written Consent Of BORGER CRANES.

CLIENT	REDS GLOBAL		
PROJECT PATHWAY	RPAC		
LOCATION	26 ALBION ST, WAVERLEY		
DESCRIPTION	TC1 INSTALL CTT561A-24		
SUPERVISOR	ADAM LITTLE		
DRAWN BY	ADAM LITTLE		
DRAWING NUMBER	AL20199		
PAGE	2 OF 2	REV.	A
SCALE	1:300 @ A3	DATE	16.07.2020
CRANE DETAIL			
CRANE MODEL	GMK6300		
OUTRIGGER (W x L)	8.5m(W) x 8.7m(L)		
COUNTERWEIGHT	80.0 t		
BOOM LENGTH	60.00 m		
SUPERLIFT (Y-GUY), SPACER OR FLY JIB	11m SWING-AWAY JIB AT 5° OFFSET		
LIFT STUDY			
LIFT WEIGHT	11.80 t		
TOTAL FIXED WEIGHT	1.00 t		
TOTAL LIFT WEIGHT	12.80 t		
PICK UP RADIUS	31.0 m		
PLACE RADIUS	31.0 m		
CHART CAPACITY	14.00 t		
% OF CHART CAP.	91.43 %		
CRANE PAD LENGTH	3.0 m		
CRANE PAD WIDTH	2.0 m		
OUTRIGGER WEIGHT	80.0 t		
GROUND PRESSURE	133.3 kPa		
(PRESSURE = OUTRIGGER WEIGHT x 10 / PAD AREA)			
CHART WIND SPEED	8.0 m/s	28.8 km/h	
DERATED WIND SPEED	-	-	



BORGER CRANES
 A NEW STRENGTH IN LIFTING
 PH. (02) 9832 1044
 FAX. (02) 9832 1033

**REDS GLOBAL
 RPAC - 26 ALBION ST, WAVERLEY
 TC 1 DISMANTLE - CTT561A-24**

THIS DRAWING HAS BEEN PREPARED FOR THE SOLE USE OF BORGER CRANES. IT IS LOANED TO THE RECIPIENT FOR HIS CONFIDENTIAL USE ONLY. REPRODUCTION OR DISTRIBUTION SHALL NOT BE PERFORMED WITHOUT THE EXPRESS WRITTEN CONSENT OF BORGER CRANES.

7/21/2020

ST CATHERINE'S RPAC, TOWER CRANE DISMANTLE, TRAFFIC MANAGEMENT PLAN

RICHARD CROOKES
CONSTRUCTION,
2 MACPHERSON STREET,
WAVERLEY 2024



Darren Lindsay
SYDNEY TRAFFIC CONTROL

A Traffic Management Plan (TMP) must be prepared for any activity or event that results in a temporary road closure. Council submits all applications for road closures to the Roads and Maritime Services (RMS) for approval.

The RMS require all TMP's to be prepared and submitted as detailed in the RMS's guidelines titled "Procedures for use in the Preparation of a Traffic Management Plan (TMP)" Ver 2.0 dated December 2001. The relevant details required for the TMP is reproduced below.

ACTIVITY/EVENT	Full Temporary Road closure- Mobile Crane
LOCATION	St Catharine's RPAC Project- 2 Macpherson Street, Waverley
TYPE	Class 1
CLIENT	Richard Crookes Construction
CONTACT	Rumbidzai Banda Richard Crookes Project Engineer bandar@richardcrookes.com.au 02 9902 4620 0419 210 433
APPLICANT CONTACT	Sydney Traffic Control Darren Lindsay Director 0400441775 info@sydneytrafficcontrol.com.au
ADDRESS	Unit 50, 45-51 Huntley Street, Alexandria 2015
EVENT DATE(S) & EVENT HOURS	Monday 18 th January 2021 04:00 – 22:00
BACKUP DATE & EVENT HOURS	Monday 25 th January 2021 04:00 – 22:00

This Traffic Management Plan reviewed by:

Waverley Council:	/ /	
Eastern Suburbs PAC:	/ /	
Transport Management Centre:	/ /	
Transport for NSW:	/ /	

TABLE OF CONTENTS:

- **Event overview.....3**
- **Execution.....4**
- **Management of the TMP.....5**
- **Situation Analysis.....5-6**
- **Traffic Control.....7**
 - Traffic Control Plan
- **Detour routes.....8-11**
- **Assessment of public transport services affected.....12**
- **Assessment of effect on existing developments.....13**
- **Time Management.....13**
 - Bump in
 - Bump out
- **Parking.....13**
- **Details of provisions13**
 - Emergency Vehicles
 - Pedestrians
- **Public consultation.....13-17**
- **User Pay Police Map.....18**
- **Truck Ingress Route.....19**
- **Truck Egress Route.....21**

1. Event overview.

This document – Traffic Management Plan (TMP) aims to provide a plan for vehicular traffic and pedestrian control measures to assist in delivering safe logistical support during the closure of Macpherson Street, Waverley between the Albion Street and Leichhardt Street roundabouts conducted by Richard Crookes construction on Monday 18th January 2021 between the hours of 04:00-22:00 to allow for the standing of a mobile crane and associated vehicles to remove the tower crane on-site at St Catherine’s RPAC, 2 Macpherson Street, Waverley. The underlining objective is to minimise safety conflicts between vehicles and pedestrians and disruption to normal vehicular and pedestrian traffic on all approaches to Macpherson Street, Waverley between the Albion Street and Leichhardt Street roundabouts.

The objectives of this TMP are:

- To provide a high-level description of the various traffic management elements needed to make the event a success
- Ensure effective separation between event patrons and participants from vehicular traffic
- To provide a frame work for each agency to use to develop their own lower level plans
- To serve as the key document that is agreed to by all parties and is the final approval to conduct the event.
- Minimize impact on non-event community and emergency services

2. Execution:

General outline:

The event requires highly coordinated efforts from a number of agencies:

Richard Crookes Constructions will be responsible for:

- Co-ordinates the logistics for closure of a section of Macpherson Street for the setup of a mobile crane for the removal of a tower crane on site.
- Arranges advertising for road closure locations, times, other traffic disruptions / delays and alternative route information in the Local media.
- Provides traffic information signposting as identified in the TMP and associated Traffic Control Plan(s) (TCPs).
- Provides resources and traffic management infrastructure for traffic control and road closures as identified in the TMP.
- Blocking off traffic from parking on the East/West bound lanes along Macpherson Street 12 hours prior to work commencing using traffic cones and traffic controllers to monitor the area.

Sydney Traffic control:

- Prepares the Traffic Management Plan
- Monitors traffic and pedestrians on all roads and footpath(s) approaching St Catherine's School at Macpherson Street Waverley to minimize pedestrian/traffic congestion on the day.

3. Management of the TMP

Richard Crookes Constructions has warranted that it will provide people, materials, resources and systems to properly perform the services related traffic management.

4. Situation Analysis:

On Monday 18th January 2021 between the hours of 04:00am- 22:00pm, Richard Crookes Constructions propose to implement a full temporary road closure of Macpherson Street, between Albion Street and Leichhardt Street intersections, to enable the standing of a mobile crane to facilitate the removal of a tower crane out of St Catherine's School Sydney (2 Macpherson Street, Waverley).

It is suggested that approx. 60m of the roadway will be cordoned off to house the mobile crane, counter weight truck and delivery vehicles(s). Semi-trailers, delivery sections of the tower crane, will be limited to only 1 vehicle on-site at any given moment.

Access along Macpherson Street, will only be permitted from the intersection of Leichhardt Street and Macpherson Street for local residents to access their properties. Residents leaving Macpherson Street are permitted to exit via both Leichhardt Street and Albion Street. Traffic controllers will be in attendance, applying stop/slow control, where vehicles need pass the work area. A minimum of 3m is to be maintained at all times along Macpherson Street to provide adequate spacing for resident vehicles to safely pass the work area. Parking along the southern side (parking lane) will be restricted to allow the aforementioned (ref. section 10).

User paid police will be provided by Eastern Suburbs PAC as required and requested by council.

Traffic Control measures included in this document is a result of consultation undertaken by Richard Crookes Constructions, Waverley Council, Transport Management Centre (TMC), State Transit Authority, Transport for NSW (TfNSW) & Eastern suburbs PAC.

-TRAFFIC ARRANGEMENTS

Traffic control measures include simple hard and soft road closures, use of traffic control devices (traffic signs) to warn motorist of the changes in traffic conditions. It is noted that per NSW Event place Health & Safety (WHS) law the Event Organiser – Richard Crookes Constructions and St Catherine’s School Council–Richard Crookes Constructions, bear individual and shared risks related to the safety of event patrons and motorist. Richard Crookes Construction is identified as being responsible for event related safety risks which are associated with non-transferable WHS statute-posed obligations and Common Law Duty of Care provisions. In this context, Richard Crookes Construction should continue to actively consult and take all reasonable measures to practically exercise their duty of care obligations.

5. Traffic Control

It is suggested that 3 T.C with a vehicle attend to the proposed event and lay out all advanced warning signs and barricades ready for the start. All Traffic controllers in attendance on the day are to be RMS accredited. Vehicle & pedestrian traffic on all approaches to the work area will be under the direction of traffic control.

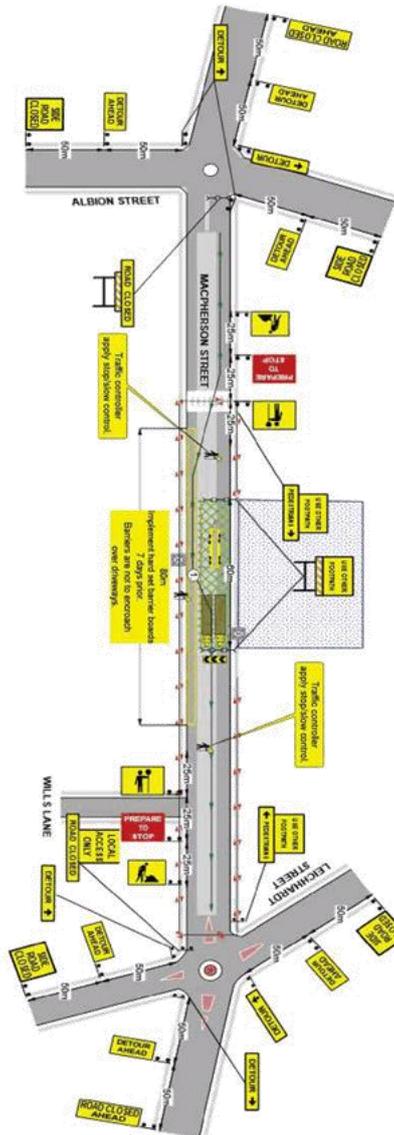
TRAFFIC CONTROL PLAN

TCP R.C 01

ALL SIGNS AND SPACING MUST BE IN ACCORDANCE WITH AUSTRALIAN STANDARD 1742.3

PLAN NOT TO SCALE

NOTES:
 1 A minimum of 3.0m is to be maintained at all times for through traffic.



	<p>Date: 17/04/2020 Author: Darren Lindsay Project: St Catherine's College Sydney Client: Richard Crookes Construction Contact: Rumbhazza Banda Contact Number: 0419 210 433 Plan #: R.C 01</p>
<p>Comments: This plan has been designed by Darren Lindsay of Sydney Traffic Control in accordance with Australian Standards outlined in the RMS's Traffic Control on Worksites Handbook. The plan is designed for the setup of a mobile crane along Macpherson Street, Waverley, to allow for the removal of trees. Certified traffic controllers will be on site to implement and monitor this TCP. If you have any questions please contact Darren Lindsay on 8098-1844 or 0400 441 775.</p>	
<p>Legend</p> <ul style="list-style-type: none"> Barrier Bus stop - closed Cone No stopping Pedestrian route Property sign single traffic controller Work Area Work vehicle route 	
	
	

6. Detour route 1.



59 Macpherson St

Waverley NSW 2024



Head north-west on Macpherson St

62 m



At the roundabout, take the 1st exit onto Leichhardt St

260 m



Turn right onto Varna St

300 m



Turn right onto Fern St

97 m



Turn right onto Albion St

 Destination will be on the right

140 m

Albion St

Randwick NSW 2031

6.2 Detour route 2.



59 Macpherson St

Waverley NSW 2024



Head north-west on Macpherson St

62 m



At the roundabout, take the 3rd exit onto Leichhardt St

200 m



At the roundabout, continue straight onto Bronte Rd

230 m



Turn left onto Albion St

 Go through 1 roundabout

280 m

Albion St

Randwick NSW 2031

7. Assessment of public transport services affected.

Bus stop ID 202429 and ID202429 along Macpherson Street (between Leichhardt Street and Albion Street, will be closed during the works. A temporary detour route has been proposed during the works. Pedestrians requiring bus services along this route will be requested to board at the existing bus stops located along bus stop along Bronte Road ID 202426 & ID 202421 and bus stops ID 202430 & ID 202441 along Macpherson Street.



8. Assessment of effect on existing developments

No effect on existing developments within the area are expected.

9. Bump in/ Bump out.

- Bump In- Setup for the event will begin at approximately 04:00am
- Bump out- Pack-up is proposed to commence at 21:30pm and finish no later than 22:00pm.

10. Parking:

Kerb side parking spaces will be restricted to surrounding residents where reasonable consideration to the surrounding work(s) area has been measured and to allow residents to utilize the through lane provided. Traffic controllers in attendance are to restrict vehicle parking within a proximity of the works where it is deemed unsafe i.e. within the vicinity of the cranes slewing radius. It is suggested that a minimum of 80m along the southern kerb lane be restricted to allow merging of traffic on the approach. Hard set barriers board are to be implemented 7 days prior to exclude the parking spaces. Barriers are not to encroach over driveway access at any given moment. Notification letters will be distributed at least 7 days and 21 days prior to the works to advise of changes to parking conditions.

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

- **Emergency vehicles-** will have been briefed of the day's activities prior to event commencing. Access to the event site will be maintained at all times.
- **Pedestrians-** will be required to follow any and all instructions given by T.C and adhere to all advanced warning signs and devices set out within the T.C.P.

12. Public Consultation Process.

Letters will be distributed to all residents and businesses prior to event commencing and a notice will be placed in the local paper 7 days prior to event.

SYDNEY TRAFFIC CONTROL PTY. LTD.

Unit 50/45-51 Huntley St, Alexandria

Tel: 02 8338 0207

Fax: 02 8068 1844

A.B.N. 70 127 567 417

**Temporary Road Closure.
Macpherson Street, Waverley 2024
Monday 18th January 2021
4:00am to
Monday 18th January 2021
10:00pm**

A temporary road closure will be in affect along Macpherson Street, between Albion Street & Leichhardt Street on Monday 18th January 2021 to enable the setup of a mobile crane for the removal of a tower crane on-site at the St Catherine's School Sydney. Existing bus stops along Macpherson Street, between Leichhardt Street and Albion Street will be temporarily closed due to bus diversions.

Detour routes will be in effect for traffic on the approach between Leichhardt Street and Albion Street during the works. Access for local residents will be permitted via the Leichhardt Street intersection only. No access will be provided via Albion Street. Residents leaving their property are permitted to do so via both, Leichhardt Street & Albion Street. Approx. 80m of kerb side parking along the southern side of Macpherson Street will be restricted a minimum of 7 days prior via hard set barrier boards. Minor delays for traffic and buses are expected during the proposed working hours. Traffic controllers will be in attendance at all times to alleviate any public disruptions and provide local/resident access within the boundaries of the closure. The works will be held over a 1-day period.

For any concerns or if you would like any further information please contact Darren Lindsay, Traffic Planner on

PH: 80681844 Mob: 0400441775

Regards

Darren Lindsay

Director/Traffic Engineer

SYDNEY TRAFFIC CONTROL PTY LTD

Date: 17/04/2020 **Author:** Darren Lindsay **Project:** St Catherine's College Sydney
Client: Richard Crookes Construction **Contact:** Rumbidzai Banda **Contact Number:** 04119 210 433
Plan #: RC 01

Comments:
 This plan has been designed by Darren Lindsay of Sydney Traffic Control in accordance with Australian Standards outlined in the RMS's Traffic Control on Worksites Handbook. The plan is designed for the setup of a mobile crane along Macpherson Street, Waverley, to allow for the removal of trees. Certified traffic controllers will be on site to implement and monitor this TCP. If you have any questions please contact Darren Lindsay on 8068-1844 or 0400 441 775.



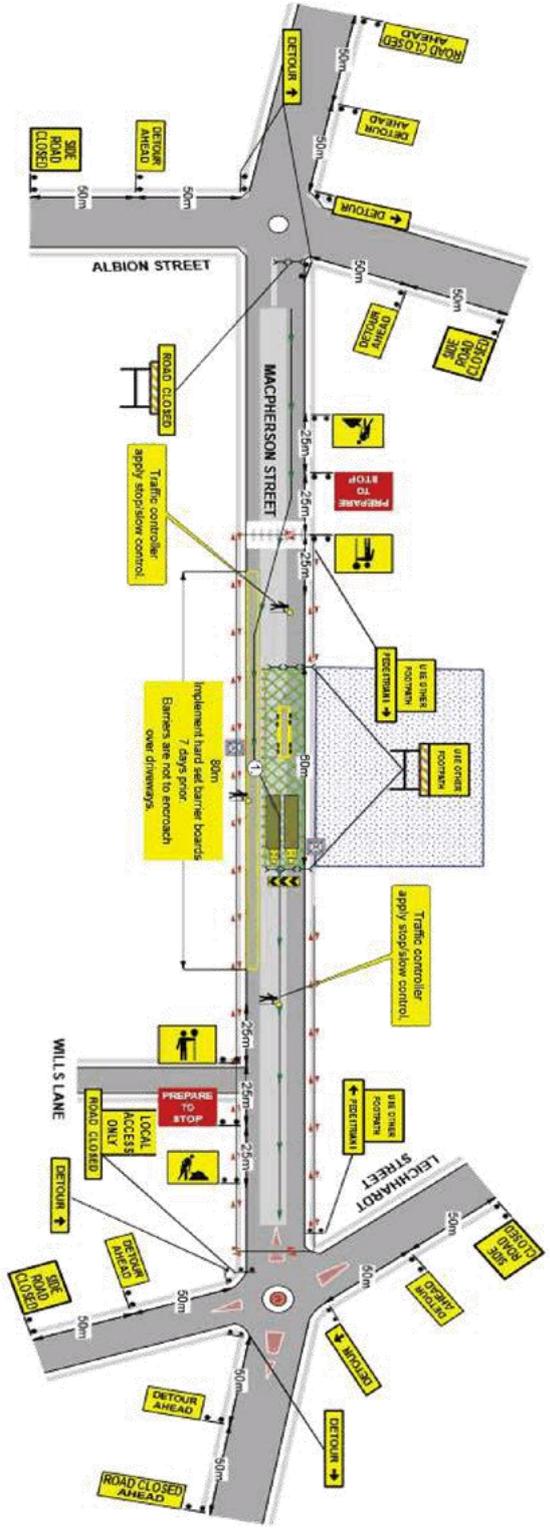
Legend	
	Barrier
	Bus stop- closed
	Cone
	No stopping
	Pedestrian route
	Property
	sign single
	traffic controller
	Work Area
	Work vehicle route

Transport NSW
 Transport for NSW
 111 Pitt Street Sydney NSW 2000
 Tel: 131 500
 www.transport.nsw.gov.au

Project & Work Zone Plan
 Project No. 200207702
 Issue Date: 21/03/2020



Dr Darren Lindsay
 Traffic Controller

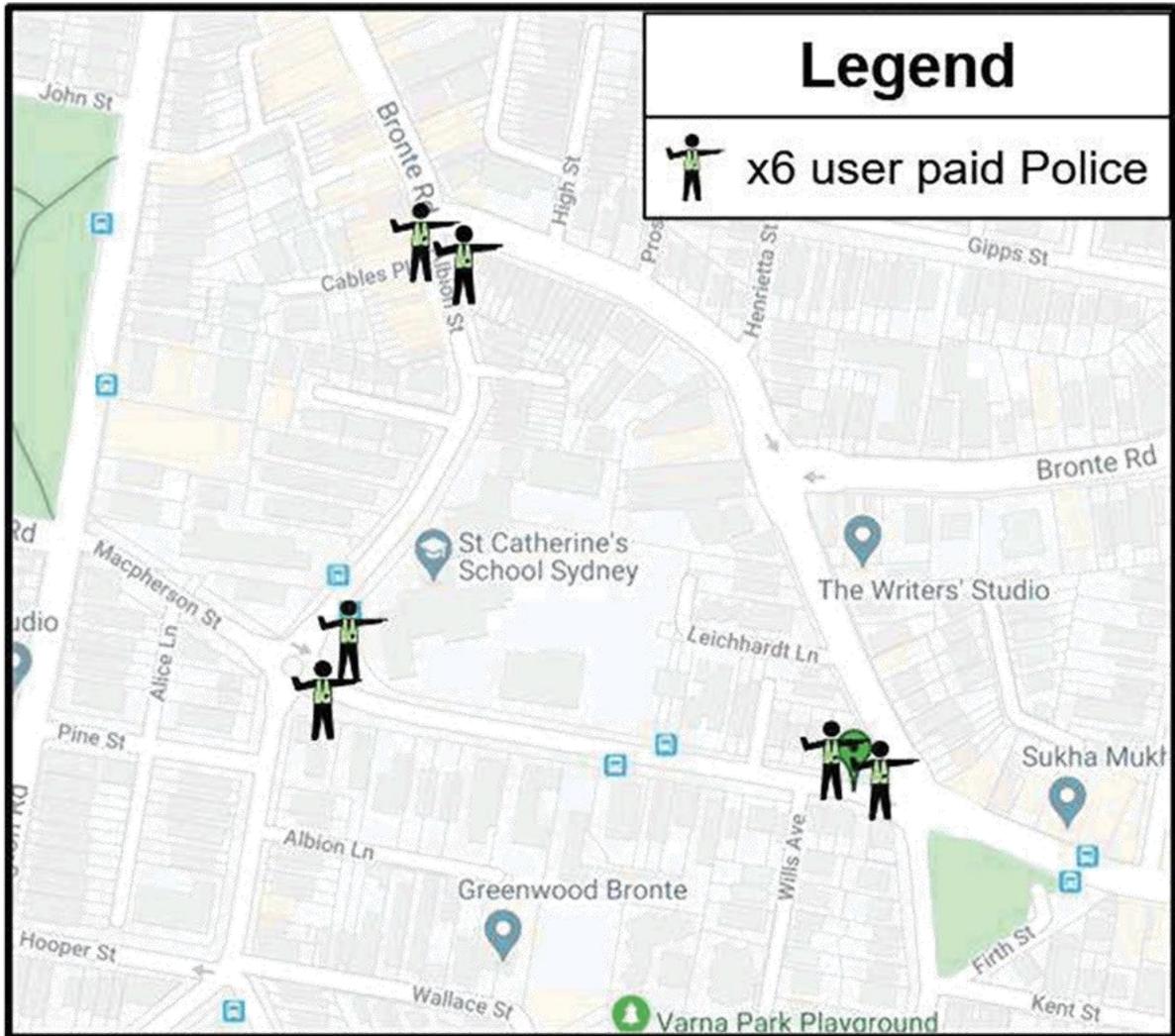


ALL SIGNS AND SPACING MUST BE IN ACCORDANCE WITH AUSTRALIAN STANDARD 1742-3

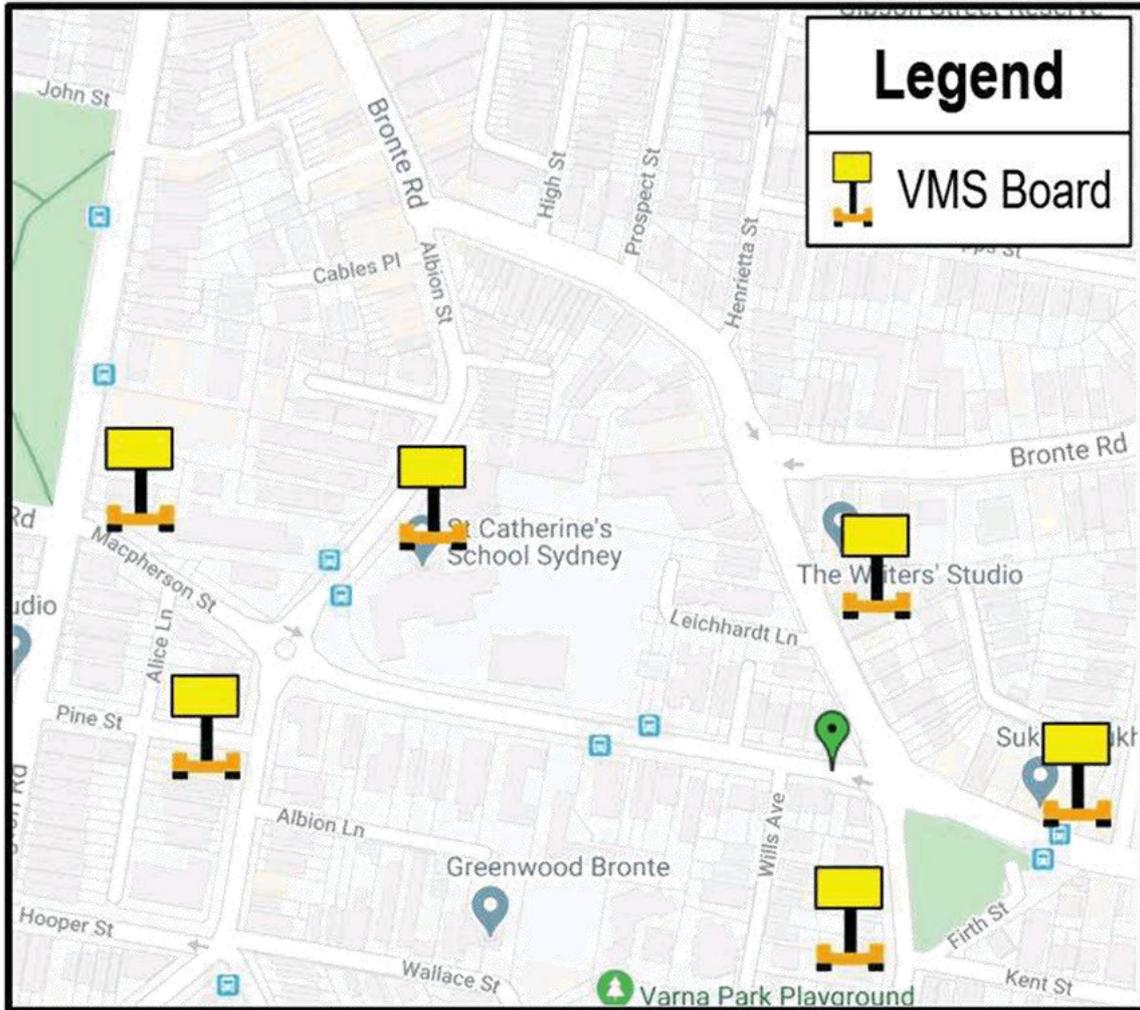
PLAN NOT TO SCALE

NOTES:
 1 A minimum of 3.0m is to be maintained at all times for through traffic.

USER PAY POLICE LOCATION



VMS BOARD MAP

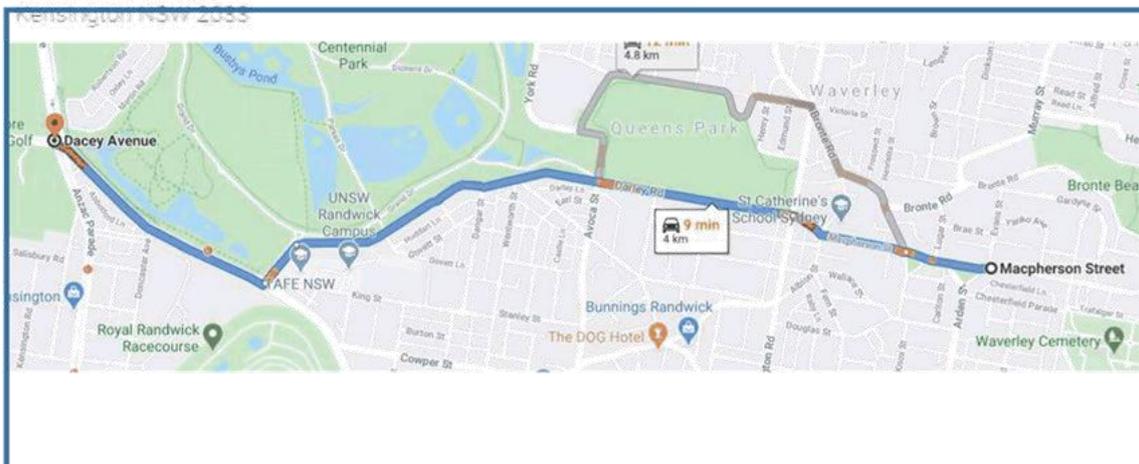


TRUCK INGRESS ROUTE

Macpherson St
Sydney NSW 2024

- ↑ Head west on Macpherson St towards Evans St
350 m
- 📍 At the roundabout, continue straight to stay on Macpherson St
📍 Go through 1 roundabout
450 m
- ↑ Continue onto Darley Rd
📍 Go through 2 roundabouts
2.0 km
- 📍 At the roundabout, take the 1st exit and stay on Darley Rd
190 m
- ↪ Use the right 3 lanes to turn right onto Alison Rd
1.0 km

Dacey Ave
Kensington NSW 2033



TRUCK EGRESS ROUTE

Macpherson Street

Waverley NSW 2024

↑ Head east on Macpherson St towards Wills Ave

22 s (160 m)

∨ Take Arden St and Alison Rd to Dacey Ave in Moore Park

14 min (5.9 km)

📍 At the roundabout, continue straight to stay on Macpherson St

190 m

↗ Turn right onto Arden St

📍 Go through 1 roundabout

750 m

📍 At the roundabout, take the 3rd exit onto Clovelly Rd

700 m

↖ Turn left onto Carrington Rd

650 m

↗ Turn right onto Alison Rd

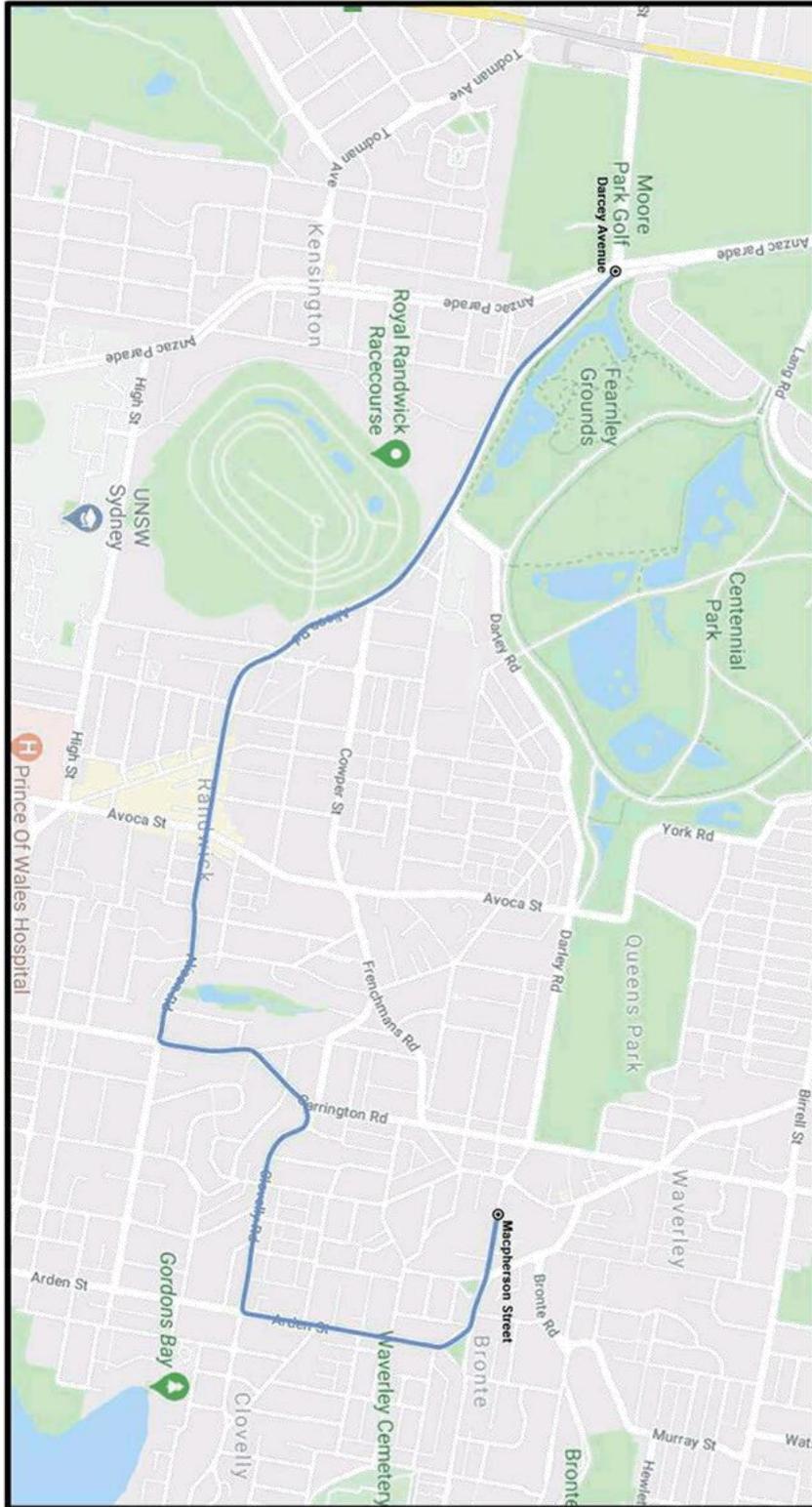
3.0 km

↑ Continue onto Dacey Ave

350 m

Dacey Ave

Sydney NSW



REPORT
TC/C.03/20.09

Subject: Arden Street, Waverley - Varna Street to Chesterfield Parade - 100% Detailed Design

TRIM No: SF18/779

Author: Amanda Tipping, Project Manager, Major Projects
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Endorses the 100% detailed design for Arden Street between Varna Street and Chesterfield Parade, Waverley, attached to this report (Attachment 2).
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the design should circumstances arise during the delivery of the project.

1. Executive Summary

This report seeks Council endorsement of the 100% detailed design for improvements to Arden Street between Varna Street and Chesterfield Parade, Waverley, as detailed in in Attachment 2.

The Arden Street project has largely focused on improving pedestrian access and safety around Clovelly Public School. Community consultation raised the following key issues in relation to Arden Street between Varna Street and Chesterfield Parade:

- Vehicles 'running the red' at the signalized pedestrian crossing on Arden Street
- Motor vehicle speeds.
- Inadequate footpaths on Arden Street for walking and cycling.

100% detailed designs have been prepared for improvements to Arden Street between Varna Street and Chesterfield Parade. This follows a concept design (see Attachment 1) which was considered at the Traffic Committee meeting on 25 July 2019, with further analysis recommended prior to detailed design. The Traffic Committee recommendation was endorsed by Council, subject to consideration of soft surface beautification.

The detailed design does not include potential works along Arden Street from Chesterfield Parade to Macpherson Street. Works in this area subject to further investigations.

The traffic signal design is contained in Attachment 3. It is for information only. Transport for NSW (TfNSW) is responsible for the approval of the traffic signal design.

Figures 1, 2, and 3 present the site location and 100% design.

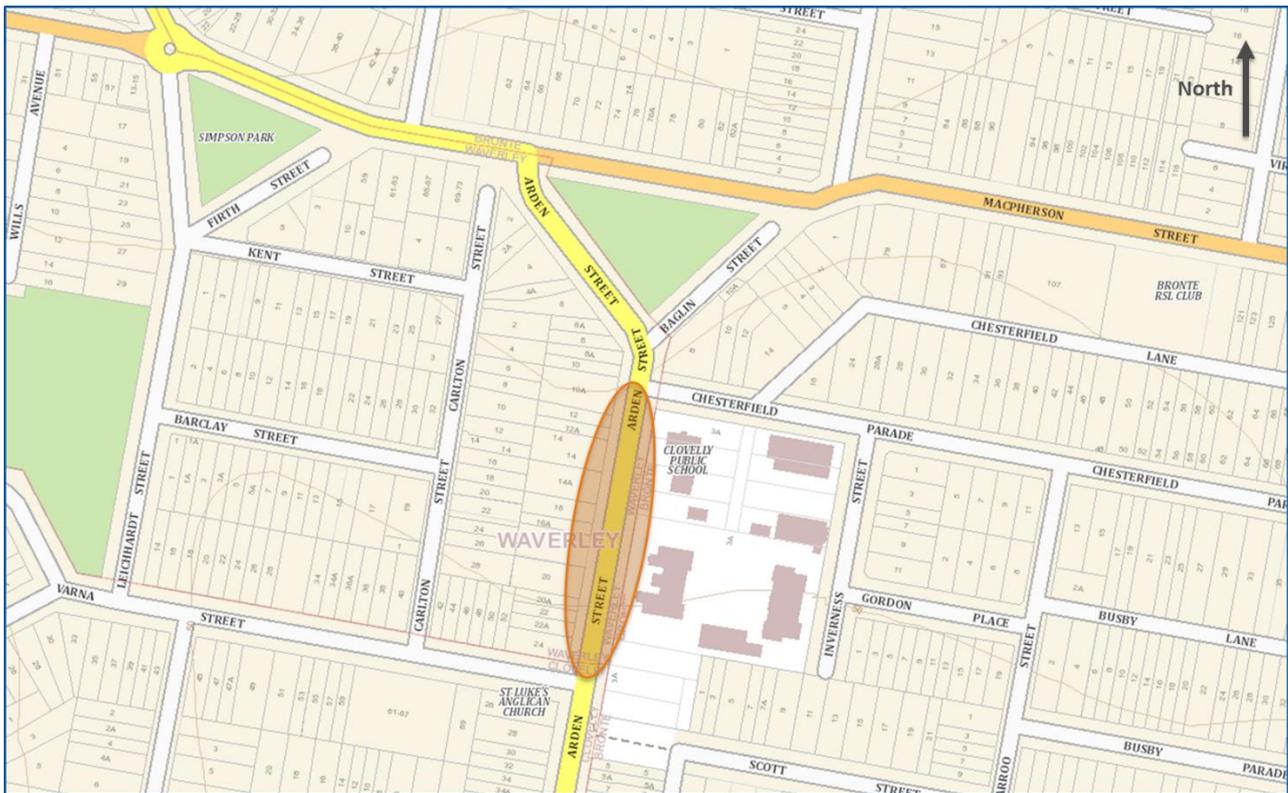


Figure 1. Area of investigation – Arden Street between Varna Street and Chesterfield Parade.



Figure 2. Area of investigation – Arden Street between Varna Street and Chesterfield Parade.

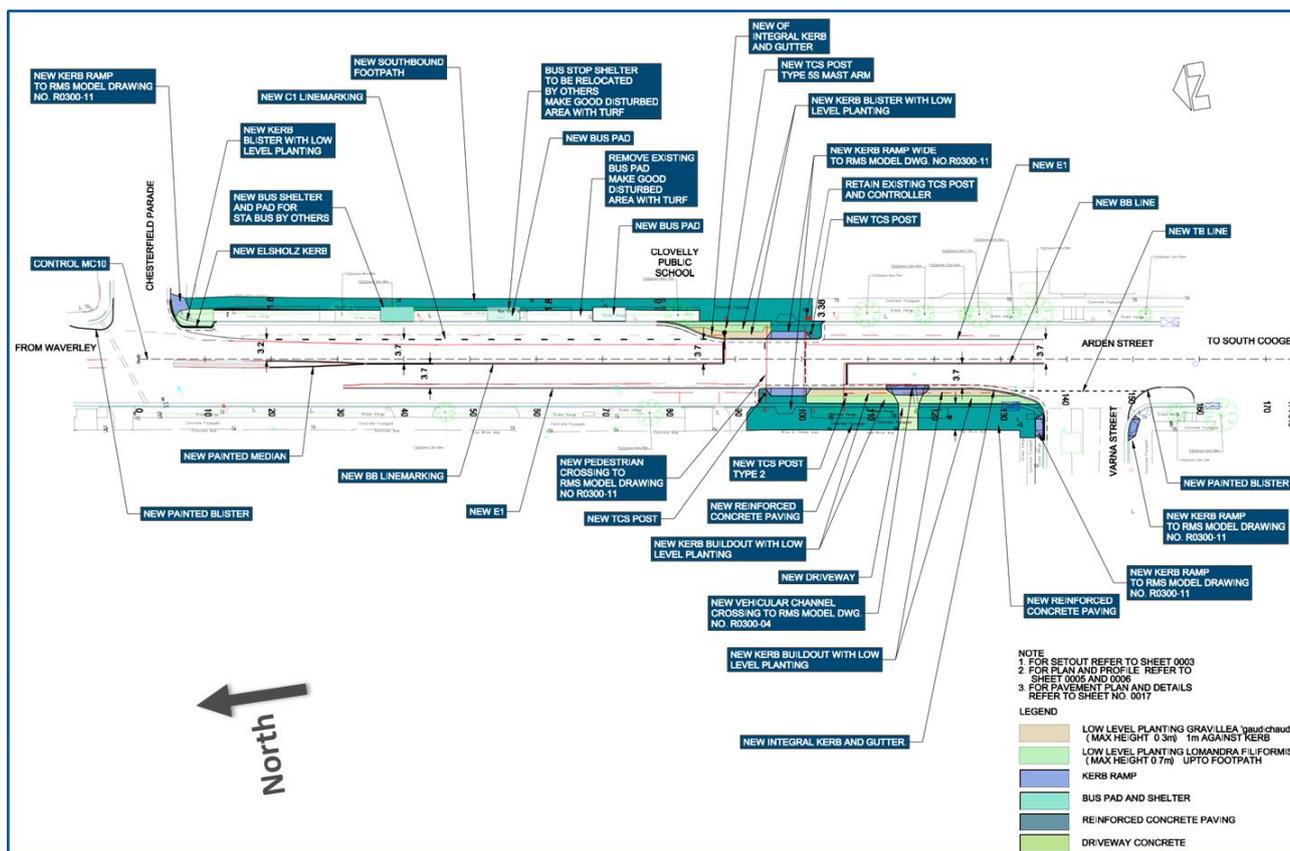


Figure 3: 100% detailed design – Arden Street between Varna Street and Chesterfield Parade (see Attachment 2 for more details).

2. Introduction/Background

This project has arisen in response to community concerns about pedestrian, cyclist, and vehicle conflict along Arden Street between Macpherson Street and Varna Street. The design has considered:

- Conditions at the signalised pedestrian crossing outside Clovelly Public School.
- Movements of pedestrians and cyclists along Arden Street itself and the adjacent footpaths.
- Provision for bus parking on the eastern side of Arden Street outside Clovelly Public School.

Council engaged the consultant The Transport Planning Partnership to undertake a safety review and develop concept design options to improve pedestrian and cycling safety along this section of road and the section of Arden Street between Chesterfield Parade and Macpherson Street.

The safety review identified that the highest priority safety issue is conflict with motor vehicles at the signalised pedestrian crossing outside Clovelly Public School, where too many motorists were observed running red lights. Poor visibility of the red lanterns was considered as the major contributor to this issue. This was exacerbated when school buses were lined up illegally outside the school. Other key issues identified included:

- Pedestrian/vehicle conflicts at the Chesterfield Parade pedestrian crossing.
- Vehicle speeds.
- Inadequate footpath widths.
- Need for safe cycling to and from school by students and their parents.

A concept design to address these issues was submitted to the Traffic Committee meeting on 25 July 2019. It included:

- Kerb build-outs at the signals.
- Relocation of the signal posts.
- Formalisation of the State Transit and school bus zones.

The concept was approved by Council, subject to further investigation including soft surface beautification where possible.

Council engaged MU Group in January 2020 to develop a detailed design for the section of Arden Street between Varna Street and Chesterfield Parade. This included:

- An upgrade to the traffic signals at the pedestrian crossing on Arden St outside Clovelly public school.
- Improvement and formalisation of the bus stop and school Bus Zone area on the eastern side of Arden Street outside Clovelly Public School.
- Improve to the footpaths to enhance safety for pedestrians and traffic.

Feedback from TfNSW has been taken into account in developing the detailed design (also referred to as the 100% design).

The table below sets out the previous Traffic Committee recommendation and Council decision:

Table 1. Previous Traffic Committee recommendation and Council decision.

Meeting and date	Minute No.	Recommendation/decision
Council 20 August 2019	CM/5.2.1/19.08	That the Traffic Committee's recommendation be adopted subject to referring the proposal to the relevant Council team for soft surface beautification.
Traffic Committee 25 July 2019	TC/C.01/19.07	That the Council Officer's Proposal be adopted subject to the following amendments: <ol style="list-style-type: none"> 1. Clause 4 be amended to read as follows: <ol style="list-style-type: none"> 4. Approves in principle the concept designs, subject to the following amendments: <ol style="list-style-type: none"> (a) In response to the results of community consultation and specifically clause 3(a) above, improves the visibility of the traffic lights by building out the kerb and gutter, relocating the lantern posts and improving the bus zone, noting that the kerb buildout on the western side of Arden Street extends to the Varna Street intersection. (b) In response to the results of community consultation and specifically clause 3(b) above, upgrades the Chesterfield Parade pedestrian crossing to improve visibility and increase pedestrian safety through

		<p>implementing a wombat crossing or other measure.</p> <p>(c) In regard to clause 3(g) above, deletes the proposed shared path on the east side of Arden Street between Macpherson Street and Chesterfield Parade.</p> <p>(d) Installs kerb blisters in Macpherson Street, east and west of Arden Street, to facilitate the movement of the stop line.</p> <p>And:</p> <p>(e) Further investigates the location of the STA bus stop including the option of relocating it to the south side of the pedestrian crossing, and amends the concept design as necessary.</p> <p>2. The addition of a new clause 7 that reads as follows:</p> <p>‘All of the above proposed works are to be the subject of a further report to the Traffic Committee.</p>
--	--	--

3. Technical Analysis

The proposed design is contained in Attachment 2 to this report. It comprises:

1. Building out the kerb and gutter on the approaches to the Arden Street signalised pedestrian crossing and improving visibility of the traffic lights by installing new primary and secondary signal posts on the build-outs.
2. The kerb build-out on the southbound approach has been installed within the 10 m no stopping zone prior to the traffic signals. It will prevent buses parking within the statutory no stopping zone. This will improve pedestrian visibility with the buses parked further back from the signals.
3. The kerb build-out on the Arden Street northbound approach will be from Varna Street to the traffic signals.
4. Low-level planting for the southbound and northbound kerb build-outs to deter pedestrians jaywalking in this area. A sight line envelope assessment has been undertaken to ensure the low-level plantings do not impact the line of sight to pedestrians at the signals.
5. A kerb build-out at the intersection of Chesterfield Parade and Arden Street, will assist with formalising the bus stop area outside Clovelly Public School. The kerb build-out at this location is also intended to improve safety by providing greater clearance to the footpath from errant vehicles traveling southbound on Arden Street at the sharp horizontal curve and steep downward grade.
6. Widening of the concrete footpath outside Clovelly Public School, adjacent to Arden Street southbound between Chesterfield Parade and the signalised pedestrian crossing.

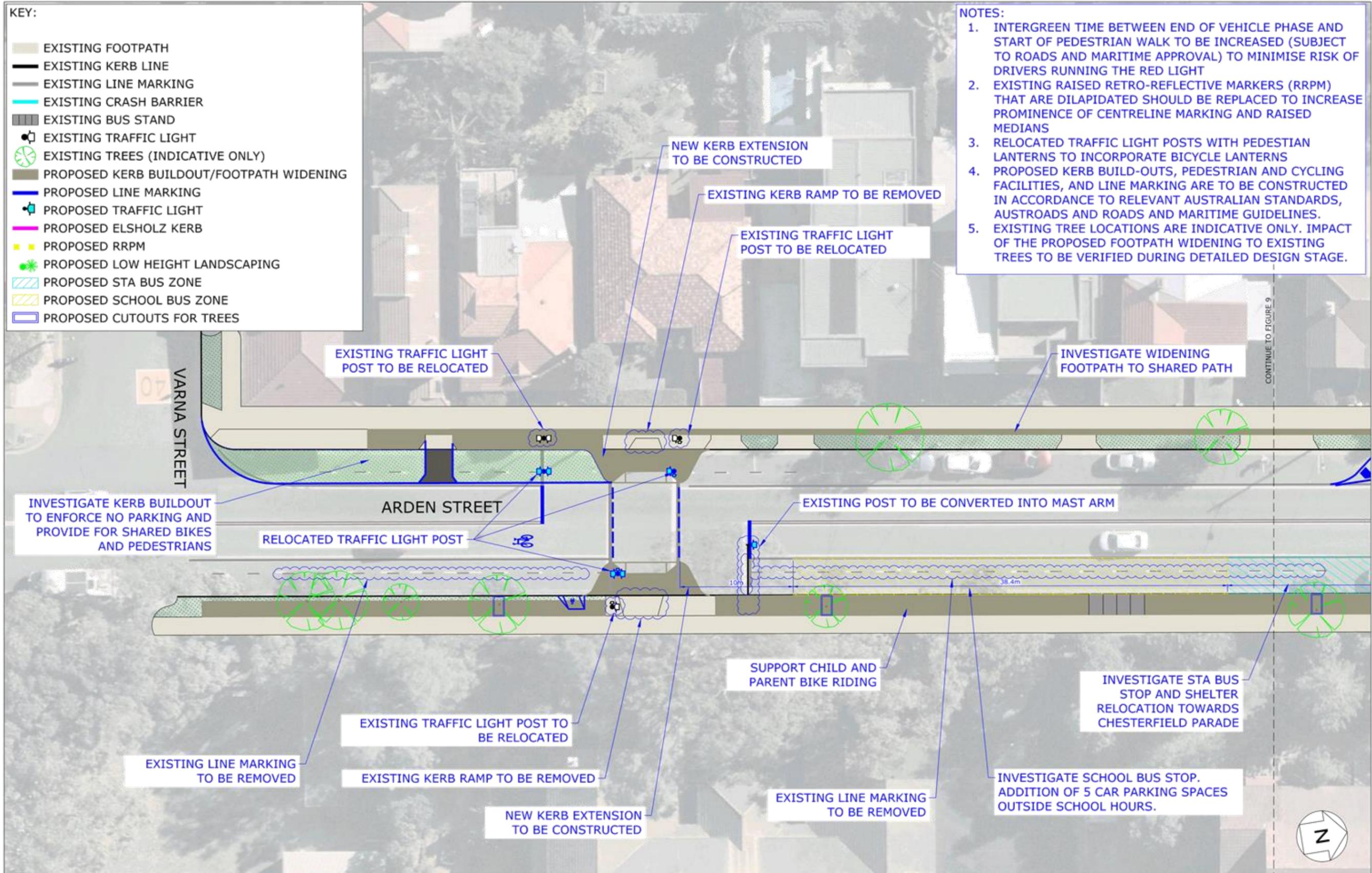
7. Removal of the dedicated southbound on road-bicycle lane and replace with bicycle pavement markings within the southbound traffic lane.
8. Removal of the dedicated northbound on road-bicycle lane and replacement with bicycle pavement markings within the northbound traffic lane.
9. Provision of a stormwater drainage system to improve the existing drainage situation where possible.

4. Financial Information for Council's Consideration

The capital works budget for 2020–2021 currently has \$407,734 allocated to the project.

5. Attachments

1. Concept design considered by Traffic Committee on 25 July 2019 [↓](#)
2. 100% detailed design [↓](#)
3. Traffic signal design [↓](#) .

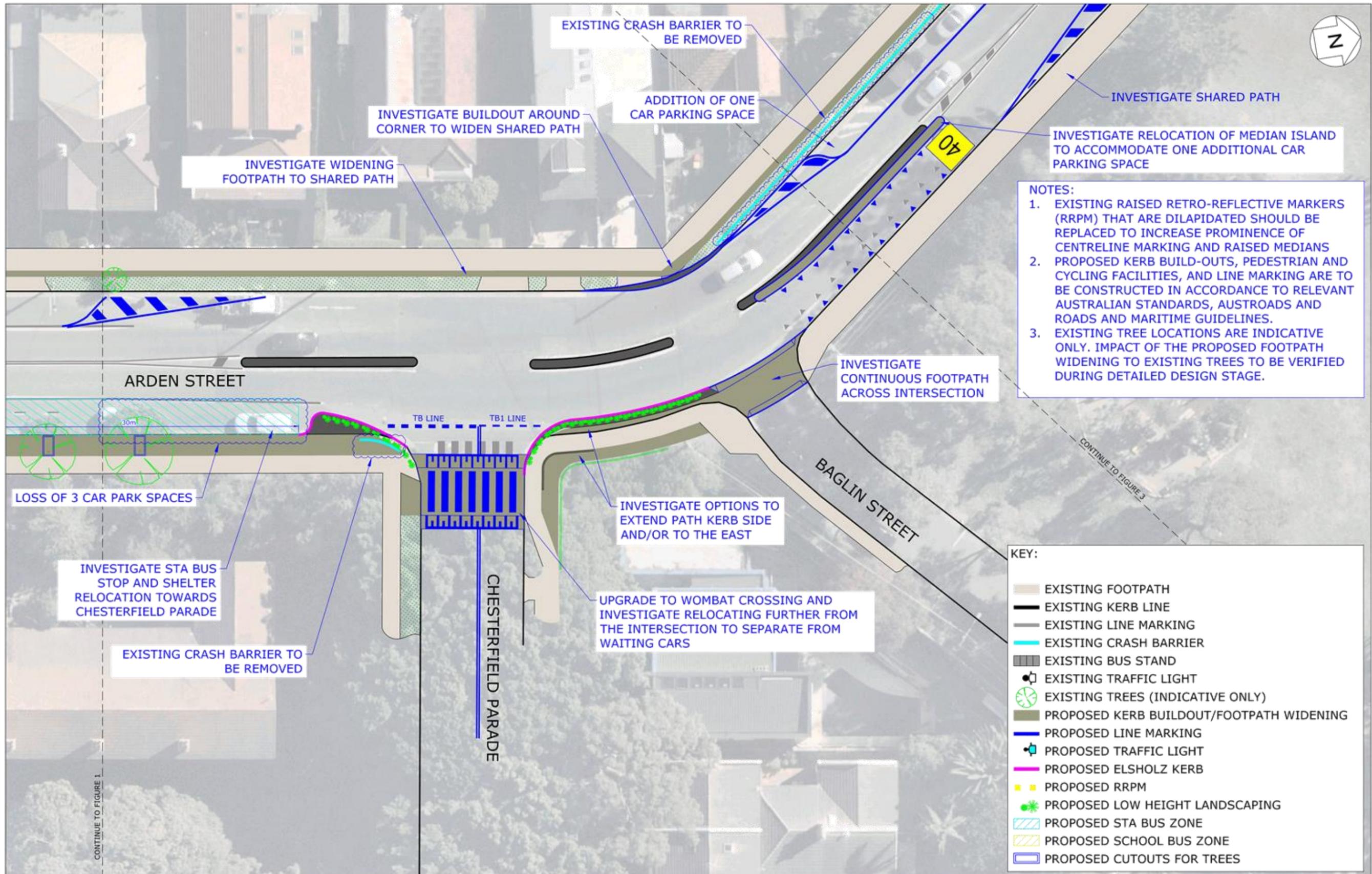


- NOTES:**
1. INTERGREEN TIME BETWEEN END OF VEHICLE PHASE AND START OF PEDESTRIAN WALK TO BE INCREASED (SUBJECT TO ROADS AND MARITIME APPROVAL) TO MINIMISE RISK OF DRIVERS RUNNING THE RED LIGHT
 2. EXISTING RAISED RETRO-REFLECTIVE MARKERS (RRPM) THAT ARE DILAPIDATED SHOULD BE REPLACED TO INCREASE PROMINENCE OF CENTRELIN MARKING AND RAISED MEDIANS
 3. RELOCATED TRAFFIC LIGHT POSTS WITH PEDESTIAN LANTERNS TO INCORPORATE BICYCLE LANTERNS
 4. PROPOSED KERB BUILD-OUTS, PEDESTRIAN AND CYCLING FACILITIES, AND LINE MARKING ARE TO BE CONSTRUCTED IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS, AUSTRROADS AND ROADS AND MARITIME GUIDELINES.
 5. EXISTING TREE LOCATIONS ARE INDICATIVE ONLY. IMPACT OF THE PROPOSED FOOTPATH WIDENING TO EXISTING TREES TO BE VERIFIED DURING DETAILED DESIGN STAGE.

- KEY:**
- EXISTING FOOTPATH
 - EXISTING KERB LINE
 - EXISTING LINE MARKING
 - EXISTING CRASH BARRIER
 - EXISTING BUS STAND
 - EXISTING TRAFFIC LIGHT
 - EXISTING TREES (INDICATIVE ONLY)
 - PROPOSED KERB BUILDOUT/FOOTPATH WIDENING
 - PROPOSED LINE MARKING
 - PROPOSED TRAFFIC LIGHT
 - PROPOSED ELSHOLZ KERB
 - PROPOSED RRPM
 - PROPOSED LOW HEIGHT LANDSCAPING
 - PROPOSED STA BUS ZONE
 - PROPOSED SCHOOL BUS ZONE
 - PROPOSED CUTOUTS FOR TREES

REV.	DESCRIPTION	DRAWN	CHECK	APPD	DATE	PROJECT	TITLE	DWG No.	DATE STAMP	PROJECT No.	SCALE	REV.
A	ISSUE FOR DISCUSSION	LM	WJ	WJ	03/04/19							





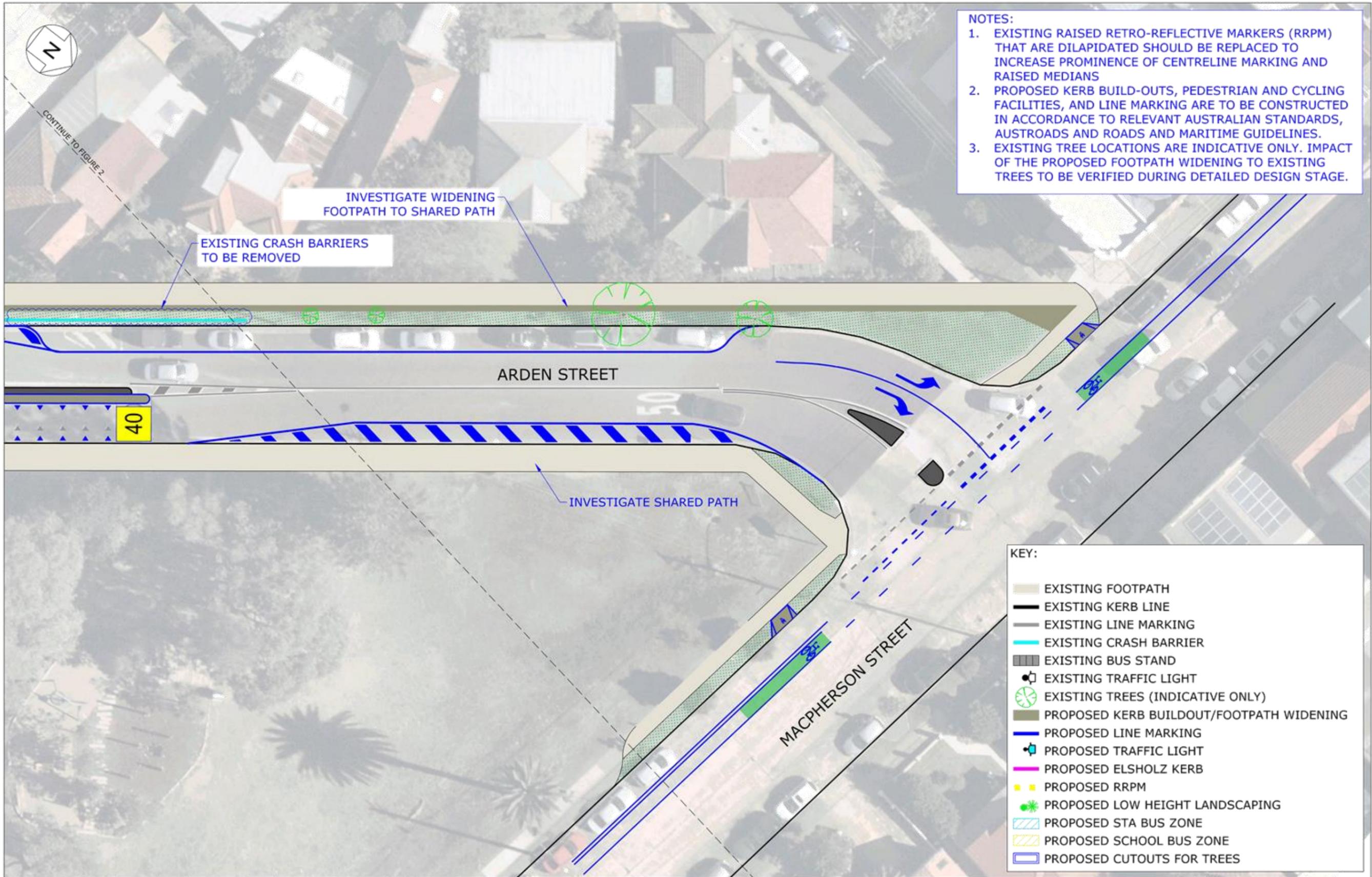
REV.	DESCRIPTION	DRAWN	CHECK	APPD	DATE
A	ISSUE FOR DISCUSSION	LM	WJ	WJ	03/04/19



PROJECT: ARDEN STREET, WAVERLEY RECTIFICATION MEASURES

TITLE: INTERSECTIONS OF ARDEN ST WITH BAGLIN ST AND CHESTERFIELD PARADE
ULTIMATE CONCEPT DESIGN

DWG No.	18104CAD016		
	FIGURE 2		
DATE STAMP	03 APRIL 2019		
PROJECT No.	SCALE	REV.	
18104	1:300 @A3	A	



- NOTES:**
1. EXISTING RAISED RETRO-REFLECTIVE MARKERS (RRPM) THAT ARE DILAPIDATED SHOULD BE REPLACED TO INCREASE PROMINENCE OF CENTRELINE MARKING AND RAISED MEDIANS
 2. PROPOSED KERB BUILD-OUTS, PEDESTRIAN AND CYCLING FACILITIES, AND LINE MARKING ARE TO BE CONSTRUCTED IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS, AUSTRROADS AND ROADS AND MARITIME GUIDELINES.
 3. EXISTING TREE LOCATIONS ARE INDICATIVE ONLY. IMPACT OF THE PROPOSED FOOTPATH WIDENING TO EXISTING TREES TO BE VERIFIED DURING DETAILED DESIGN STAGE.

- KEY:**
- EXISTING FOOTPATH
 - EXISTING KERB LINE
 - EXISTING LINE MARKING
 - EXISTING CRASH BARRIER
 - EXISTING BUS STAND
 - EXISTING TRAFFIC LIGHT
 - EXISTING TREES (INDICATIVE ONLY)
 - PROPOSED KERB BUILDOUT/FOOTPATH WIDENING
 - PROPOSED LINE MARKING
 - PROPOSED TRAFFIC LIGHT
 - PROPOSED ELSHOLZ KERB
 - PROPOSED RRPM
 - PROPOSED LOW HEIGHT LANDSCAPING
 - PROPOSED STA BUS ZONE
 - PROPOSED SCHOOL BUS ZONE
 - PROPOSED CUTOUTS FOR TREES

REV.	DESCRIPTION	DRAWN	CHECK	APPD	DATE
A	ISSUE FOR DISCUSSION	LM	WJ	WJ	03/04/19



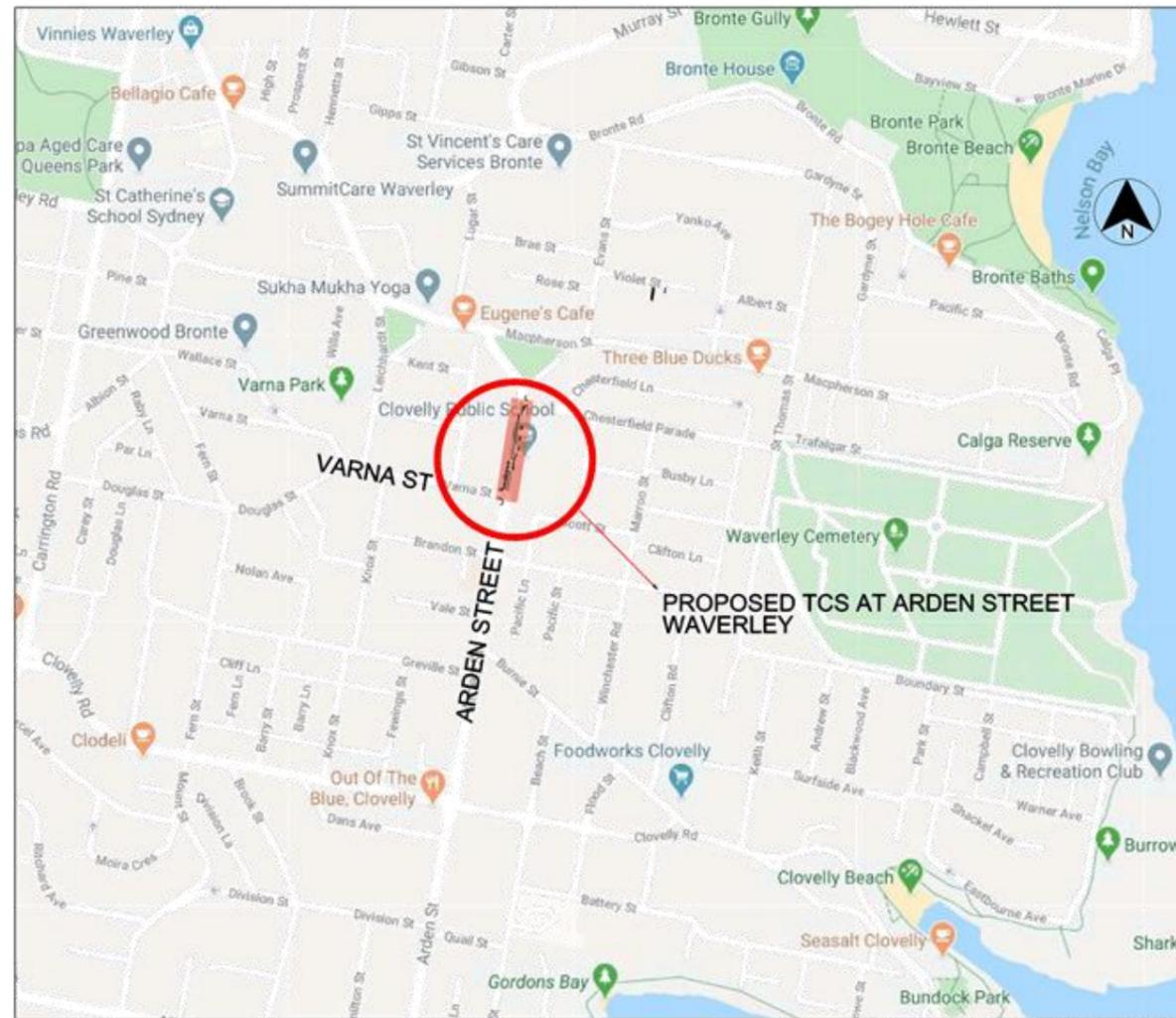
PROJECT
ARDEN STREET, WAVERLEY RECTIFICATION MEASURES

TITLE
**ARDEN STREET-MACPHERSON STREET INTERSECTION
ULTIMATE CONCEPT DESIGN**

DWG No.	18104CAD016		
	FIGURE 3		
DATE STAMP	03 APRIL 2019		
PROJECT No.	SCALE	REV.	
18104	1:300 @A3	A	

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET WAVERLEY

100% DETAILED DESIGN



LOCALITY PLAN - PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

REFERENCE GOOGLE MAPS

REV	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	G K	2 SEPT 2020
D	Fourth Issue	G K	3 AUG 2020
C	Third Issue	G K	25 JUNE 2020
B	Second Issue	G K	02 JUNE 2020
No.	Amendment Description	Initials	Date

A3 original This sheet may be prepared using colour and may be incomplete if copied

SCALES
HORIZONTAL SCALE 1:10000m

PREPARED BY
DESIGNED G. Krishnasamy
REVIEWED T. Lance
APPROVED M. Murphy

MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills
NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE	PRINTED DATE	ISSUE
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY COVER SHEET	2 SEPT 2020	E
DRAWING REGISTRATION NUMBER 20_4_DD_0001		

100mm On Original A3



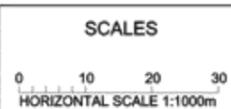
REF DOCUMENTS

1. RMS SUPPLEMENT, AUSTRROADS DESIGN GUIDELINE AND RMS DELINEATION GUIDELINES
2. RMS DELINEATION MANUAL, AS 1742.1 AND AS 1742.2 FOR SIGNPOSTING AND LINE MARKING
3. WAVERLEY COUNCIL PUBLIC DOMAIN TECHNICAL MANUAL - REVISION E FEBRUARY 2019
4. RMS TRAFFIC SIGNAL DESIGN GUIDELINES
5. AUSTRALIAN STANDARDS AS1428.4.1
6. WAVERLEY COUNCIL STANDARD DRAWINGS FOR CONSTRUCTION NOTES, PITS AND PIPE INSTALLATION

DRAWING INDEX

Sno.	Drawing Reg. No.	Drawing Title
1	20-4-DD-0001	COVER SHEET
2	20-4-DD-0002	KEY PLAN GENERAL NOTES AND INDEX
3	20-4-DD-0003	SETOUT COORDINATES
4	20-4-DD-0004	GENERAL ARRANGEMENTS
5	20-4-DD-0005	ROAD PLAN AND LONG SECTION-CH0 TO CH70 MC10
6	20-4-DD-0006	ROAD PLAN AND LONG SECTION-CH70 TO CH142 MC10
7	20-4-DD-0007	LONG SECTION KERB AND GUTTER
8	20-4-DD-0008	CROSS SECTIONS 0-30-MC10 ARDEN STREET
9	20-4-DD-0009	CROSS SECTIONS 40-70-MC10 ARDEN STREET
10	20-4-DD-0010	CROSS SECTIONS 80-110-MC10 ARDEN STREET
11	20-4-DD-0011	CROSS SECTIONS 120-140-MC10 ARDEN STREET
12	20-4-DD-0012	CROSS SECTIONS 150-174-MC10 ARDEN STREET
13	20-4-DD-0013	DRAINAGE AND CONTOUR PLAN
14	20-4-DD-0014	DRAINAGE DETAILS
15	20-4-DD-0015	DRAINAGE DETAILS - CONVERTER PIT
16	20-4-DD-0016	ROADSIDE FURNITURE AND LINEMARKING
17	20-4-DD-0017	PAVEMENT PLAN AND DETAILS
18	20-4-DD-0018	DEMOLITION PLAN
19	20-4-DD-0019	BUS STOP DETAILS
20	20-4-DD-0020	UTILITIES PLAN

REV	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date



PREPARED BY

DESIGNED G. Krishnasamy
 REVIEWED T. Lance
 APPROVED M. Murphy

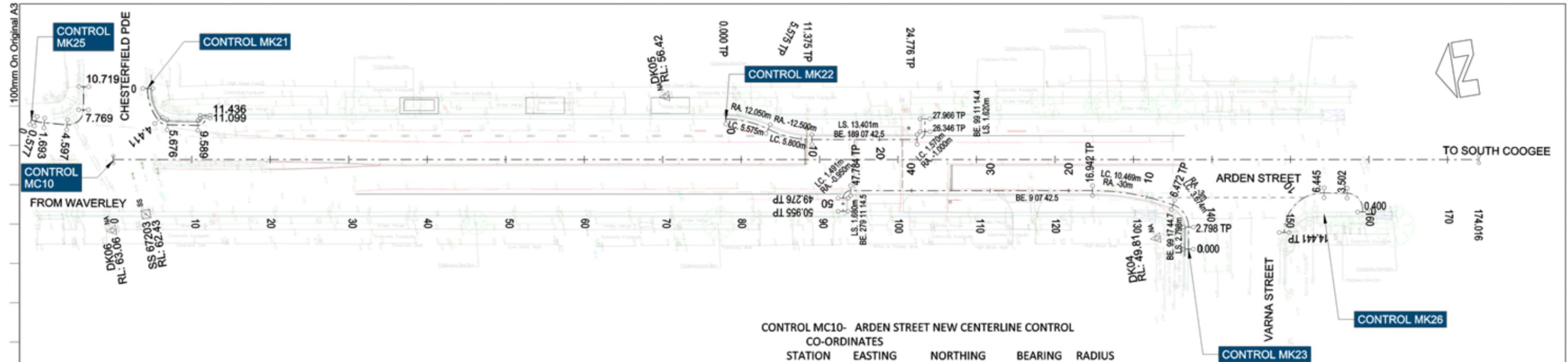


Level 4, 23-33 Mary Street, Surry Hills NSW 2010
 T 02 9016 7272 www.mugroup.com.au



WAVERLEY COUNCIL
 PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY KEY PLAN GENERAL NOTES AND INDEX	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0002		



CONTROL MK21- CHESTERFIELD PDE NEW KERB BLISTER CONTROL LEFT OUT
CO-ORDINATES

STATION	EASTING	NORTHING	BEARING	RADIUS
T.P. 0.000	339122.14262	6246824.96232	279 30 42.0	
CENTRE	339121.07677	6246818.60100		-6.450
T.P. 4.411	339117.88385	6246824.20526	240 19 42.2	
CENTRE	339118.60164	6246822.94539		-1.450
T.P. 5.676	339117.17521	6246823.20575	190 20 39.6	
T.P. 9.589	339116.47262	6246819.35656	190 20 39.6	
CENTRE	339117.40717	6246819.18598		-0.950
T.P. 11.099	339117.25404	6246818.24840	99 16 34.7	
T.P. 11.436	339117.58717	6246818.19399	99 16 34.7	

CONTROL MK22- ARDEN STREET NEW KERB BLISTER CONTROL SOUTHERN APPROACH TO NEW SIGNAL
CO-ORDINATES

STATION	EASTING	NORTHING	BEARING	RADIUS
T.P. 0.000	339106.60016	6246752.80303	189 12 17.6	
CENTRE	339094.70534	6246754.73061		12.050
T.P. 5.575	339104.48937	6246747.69675	215 42 46.2	
CENTRE	339114.63878	6246740.40021		-12.500
T.P. 11.375	339102.29709	6246742.38332	189 7 42.5	
T.P. 24.776	339100.17097	6246729.15166	189 7 42.5	
CENTRE	339101.15831	6246728.99301		-1.000
T.P. 26.346	339100.99865	6246728.00584	99 11 14.4	
T.P. 27.966	339102.59749	6246727.74725	99 11 14.4	

CONTROL MK23- NEW KERB BLISTER LEFT OUT FROM VARNA STREET
CO-ORDINATES

STATION	EASTING	NORTHING	BEARING	RADIUS
T.P. 0.000	339080.92751	6246697.22271	99 17 44.7	
T.P. 2.798	339083.68874	6246696.77075	99 17 44.7	
CENTRE	339084.17334	6246699.73135		-3.000
T.P. 6.472	339086.79405	6246698.27126	29 7 25.5	
CENTRE	339060.58693	6246712.87218		-30.000
T.P. 16.942	339090.20698	6246708.11272	9 7 42.5	
T.P. 47.784	339095.10014	6246738.56483	9 7 42.5	
CENTRE	339094.16217	6246738.71555		-0.950
T.P. 49.276	339094.31385	6246739.65336	279 11 14.5	
T.P. 50.955	339092.65567	6246739.92155	279 11 14.5	

CONTROL MC10- ARDEN STREET NEW CENTERLINE CONTROL
CO-ORDINATES

STATION	EASTING	NORTHING	BEARING	RADIUS
T.P. 0.000	339113.90320	6246830.68600	189 7 42.5	
T.P. 174.016	339086.29570	6246658.87344	189 7 42.5	

CONTROL MK25- NEW BLISTER LINEMARKING NORTHERN APPROACH
CO-ORDINATES

STATION	EASTING	NORTHING	BEARING	RADIUS
T.P. 0.000	339120.53644	6246840.18369	206 38 42.4	
T.P. 0.577	339120.27766	6246839.66792	206 38 42.4	
CENTRE	339124.74666	6246837.42561		-5.000
T.P. 1.693	339119.89208	6246838.62268	193 51 7.3	
T.P. 4.597	339119.19695	6246835.80367	193 51 7.3	
CENTRE	339121.07535	6246835.34048		-1.935
T.P. 7.769	339120.74228	6246833.43470	99 54 47.5	
T.P. 10.719	339123.64828	6246832.92683	99 54 47.5	

CONTROL MK26- NEW BLISTER LINEMARKING SOUTHERN APPROACH
CO-ORDINATES

STATION	EASTING	NORTHING	BEARING	RADIUS
T.P. 0.000	339082.06959	6246674.57040	99 0 48.1	
T.P. 0.400	339082.46431	6246674.50779	99 0 48.1	
CENTRE	339082.77764	6246676.48309		-2.000
T.P. 3.502	339084.74647	6246676.13138	10 7 42.4	
T.P. 6.445	339085.26391	6246679.02791	10 7 42.4	
CENTRE	339080.34183	6246679.90719		-5.000
T.P. 14.441	339081.08043	6246684.85233	278 29 41.4	

NOTES:

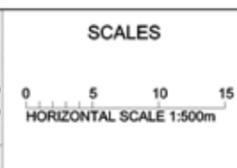
1. FOR ROAD PLAN AND LONGITUDINAL SECTION REFER TO SHEET 0005 AND 0006
2. FOR KERB LONGITUDINAL SECTION REFER TO SHEET 0007
3. SURVEY MARK DK05 AFFECTED BY FOOTPATH

SURVEY MARKS - ARDEN STREET

MARK	HEIGHT	CLASS	ORDER	SOURCE	MGA		ZONE	CLASS	ORDER	SOURCE	CSF
					EASTING	NORTHING					
SS 67203 *	62.43	D	4	233609	339106.395	6246827.690	56	B	2	229320	0.999906
SS 67209	68.261	LC	L3	203211	338790.361	6246706.503	56	B	2	229320	0.999906
SS 67210	75.752	LC	L3	203211	338740.483	6246668.099	56	B	2	229320	0.999905
SS 67206	55.870	LC	L3	203211	338838.350	6246748.245	56	B	2	229320	0.999908
SS 62458	71.051	LC	L3	203211	339175.455	6246916.552	56	B	2	229320	0.999904
DK04	49.808	LC	L3	DKN	339082.960	6246700.983	56	D	4	DKN	0.99991922
DK05	56.420	LC	L3	DKN	339110.662	6246759.926	56	D	4	DKN	0.99991911
DK06	63.063	LC	L3	DKN	339105.043	6246832.217	56	D	4	DKN	0.99991913

* SS 67203 IS USED IN HORIZONTAL NETWORK ONLY.

REV	DESCRIPTION	INITIALS	DATE
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date



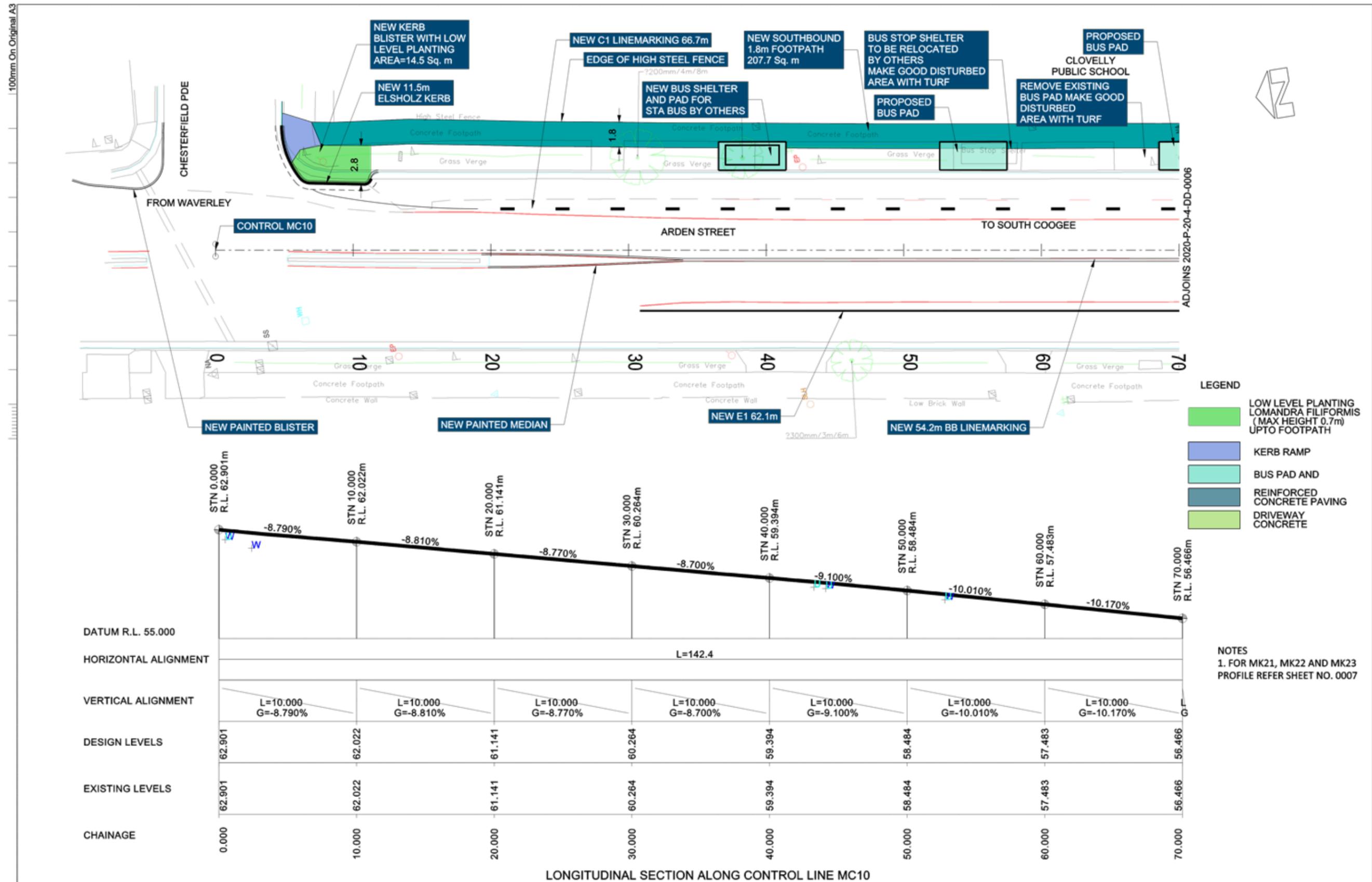
PREPARED BY

DESIGNED	G. Krishnasamy
REVIEWED	T. Lance
APPROVED	M. Murphy

Level 4, 23-33 Mary Street, Surry Hills NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY SETOUT COORDINATES	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0003		



REV	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.			

SCALES

HORIZONTAL SCALE 1:250m

VERTICAL SCALE 1:250m

PREPARED BY

DESIGNED G. Krishnasamy

REVIEWED T. Lance

APPROVED M. Murphy

MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

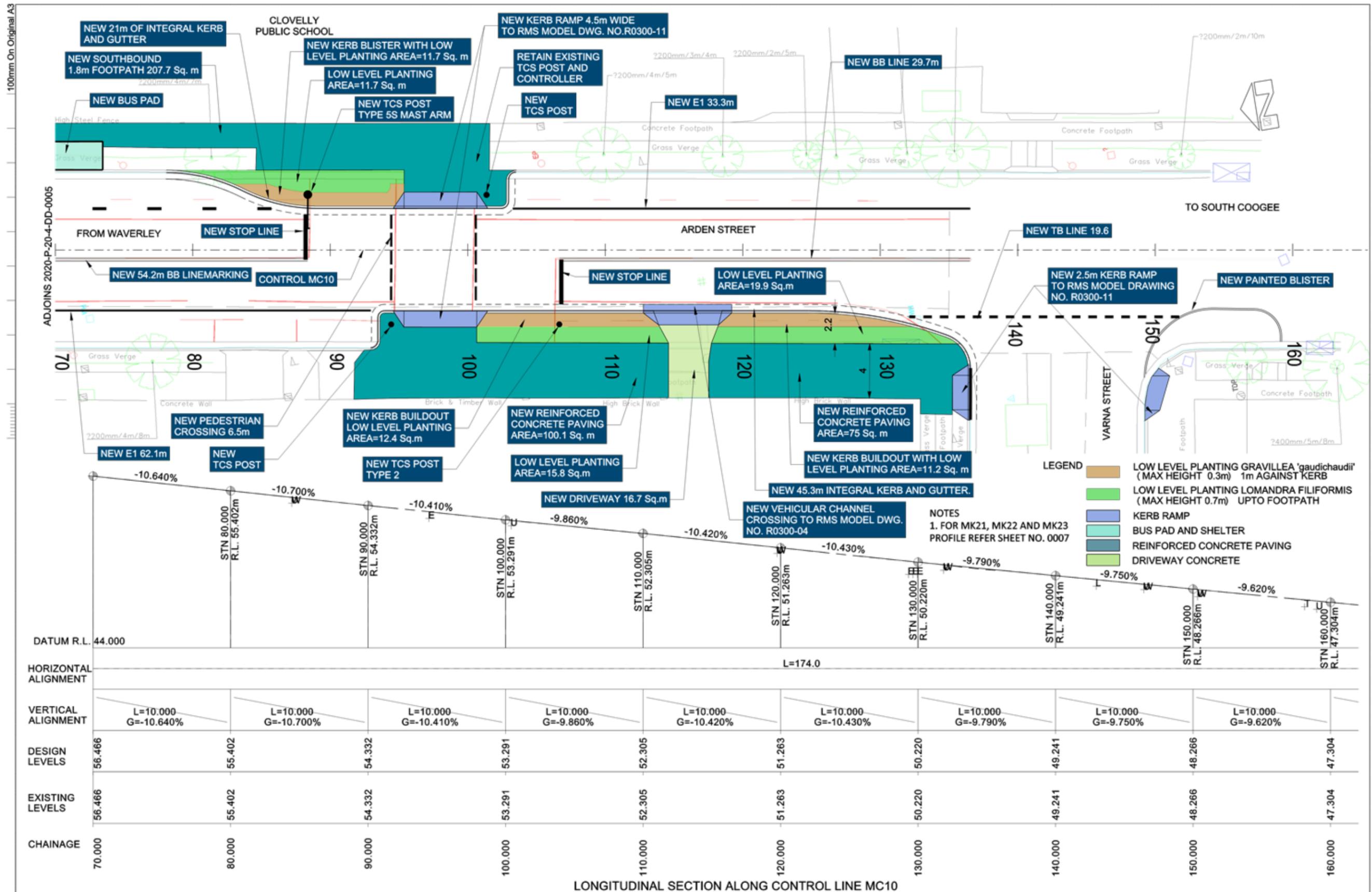
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY
ROAD PLAN AND LONG SECTION-CH0 TO CH70 MC10

PRINTED DATE
2 SEPT 2020

ISSUE
E

DRAWING REGISTRATION NUMBER
20_4_DD_0005



REV	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.			

SCALES

HORIZONTAL SCALE 1:250m

VERTICAL SCALE 1:250m

PREPARED BY: G. Krishnasamy

DESIGNED: T. Lance

REVIEWED: M. Murphy

APPROVED: M. Murphy

MUGROUP

TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills NSW 2010

T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

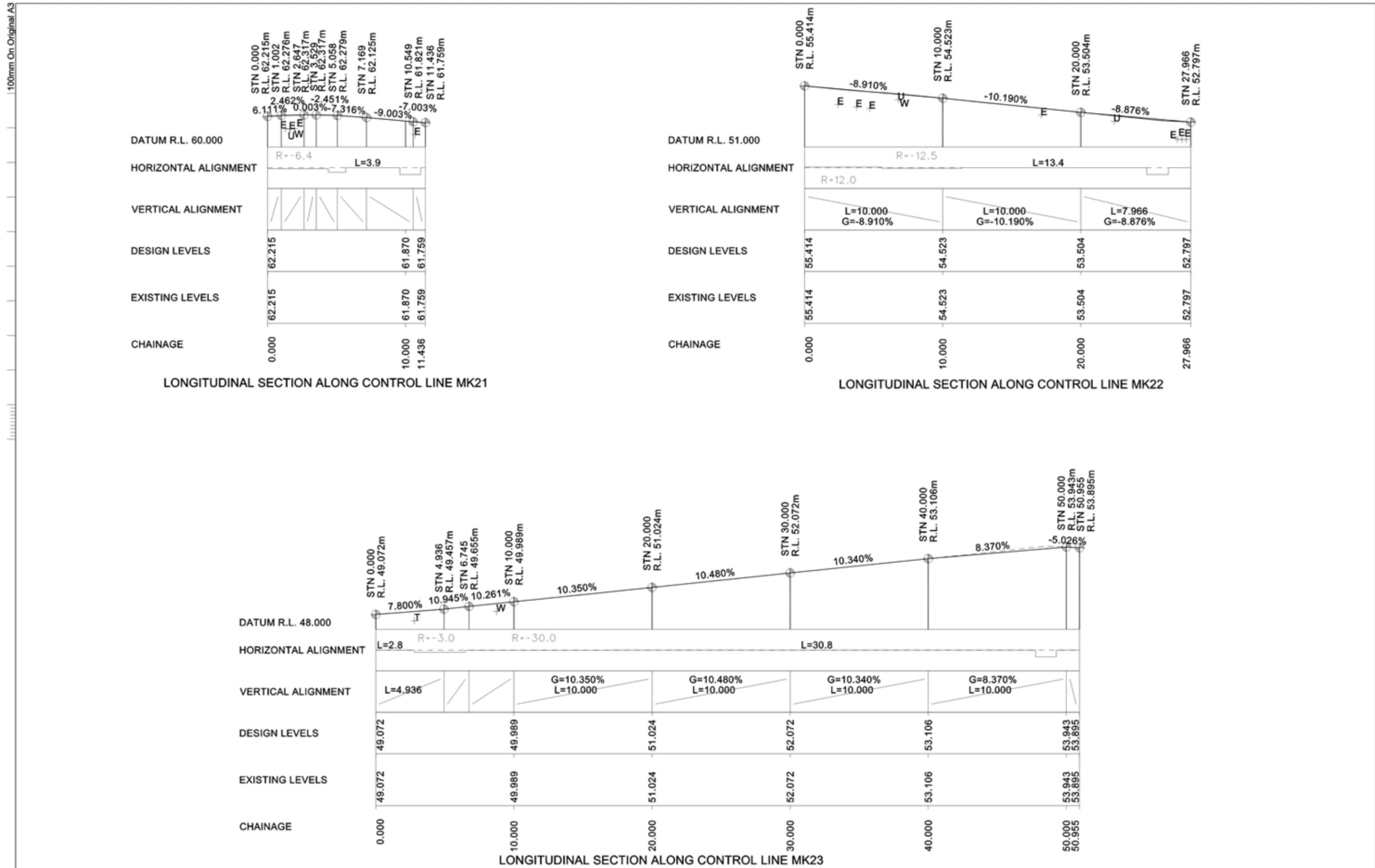
DRAWING TITLE: PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

ROAD PLAN AND PROFILE -CH70 TO CH142 MC10

PRINTED DATE: 2 SEPT 2020

ISSUE: E

DRAWING REGISTRATION NUMBER: 20_4_DD_0006



REV	Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date

SCALES	
HORIZONTAL SCALE	1:250m
VERTICAL SCALE	1:250m

PREPARED BY	
DESIGNED	G. Krishnasamy
REVIEWED	T. Lance
APPROVED	M. Murphy

MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills
NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE	PRINTED DATE	ISSUE
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY LONG SECTION KERB & GUTTER - MK21, MK22, MK23	2 SEPT 2020	E
DRAWING REGISTRATION NUMBER 20_4_DD_0007		

100mm On Original A3

R.L. 54.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	CE31	LA01	MC10	LD01	LE02
58.476	58.433	58.382	58.260	58.406	58.484	58.496	58.423
-9.169	-7.369	-5.801	-5.179	-3.000	-0.000	0.750	4.400
58.476	58.445	58.399	58.260	58.302	58.360	58.432	58.354
-8.778	-7.290	-6.287	-5.179	-4.543	-3.726	-2.475	7.276
-7.861	-5.727	-5.384	-5.179	-3.621	-3.374	-2.203	8.204
-7.290	-5.179	-5.179	-5.179	-3.621	-3.374	-2.203	8.900
-0.963							
0.702							
2.873							6.679
3.767							7.276
3.976							8.204
							8.900

MC10-ch.50

R.L. 52.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	CE31	LA01	MC10	LD01	LE02
56.478	56.448	56.381	56.258	56.371	56.466	56.483	56.435
-9.201	-7.401	-5.811	-5.157	-3.000	-0.000	0.724	4.400
56.478	56.457	56.387	56.258	56.334	56.440	56.468	56.352
-8.267	-6.955	-6.835	-5.811	-4.543	-3.726	-2.475	7.276
-7.848	-6.835	-5.811	-5.157	-3.777	-3.503	-2.223	8.127
-7.848	-6.835	-5.811	-5.157	-3.777	-3.503	-2.223	8.696
-7.848	-6.835	-5.811	-5.157	-3.777	-3.503	-2.223	8.878
-0.924							
0.649							
2.237							5.650
3.759							6.672
3.998							7.177
							7.448
							8.127
							8.696
							8.878

MC10-ch.70

LEGEND

- U UNKNOWN ASSET
- W EXISTING WATER MAIN
- G EXISTING LOW PRESSURE GAS MAIN
- E EXISTING UNDERGROUND ELECTRICITY LINE
- F EXISTING COMMUNICATIONS UNDERGROUND OPTICAL FIBRE
- - - EXISTING SURFACE

R.L. 55.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	CE31	LA01	MC10	LD01	LE02
59.351	59.317	59.261	59.149	59.287	59.394	59.417	59.366
-9.213	-7.413	-5.800	-5.169	-3.000	-0.000	0.763	4.400
59.351	59.331	59.262	59.149	59.219	59.417	59.416	59.392
-8.600	-7.861	-7.113	-5.800	-4.040	-3.667	-2.978	7.216
-7.861	-7.113	-5.800	-5.169	-3.667	-2.978	-2.222	7.803
-7.113	-5.800	-5.169	-5.169	-3.667	-2.978	-1.433	8.608
-1.433							8.834
0.764							
0.888							
3.775							5.839
							6.654
							7.216
							7.803
							8.608
							8.834

MC10-ch.40

R.L. 53.000

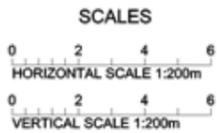
CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	CE31	LA01	MC10	LD01	LE02
57.491	57.421	57.378	57.253	57.403	57.483	57.495	57.437
-9.174	-7.374	-5.780	-5.174	-3.000	-0.000	0.737	4.400
57.491	57.455	57.403	57.253	57.393	57.460	57.475	57.347
-8.624	-7.821	-6.834	-5.661	-4.025	-3.181	-2.228	6.211
-7.821	-6.834	-5.661	-5.174	-4.025	-3.181	-2.228	6.752
-6.834	-5.661	-5.174	-5.174	-4.025	-3.181	-2.228	7.283
-4.025							7.448
0.639							8.364
2.423							9.104
3.771							
							5.650
							6.672
							7.177
							7.448
							8.127
							8.696
							8.878

MC10-ch.60

REV	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.			

A3 original This sheet may be prepared using colour and may be incomplete if copied



PREPARED BY

DESIGNED G. Krishnasamy
REVIEWED T. Lance
APPROVED M. Murphy

MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills
NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY
CROSS SECTIONS CH40-CH70-MC10

PRINTED DATE
2 SEPT 2020

DRAWING REGISTRATION NUMBER
20_4_DD_0009

ISSUE
E

100mm On Original A3

R.L. 49.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	CB22	MK22	MC10	LE02
54.500	54.414	54.310	54.390	54.280	54.332	54.316
-9.189	-7.388	-5.793	-3.180	-2.550	-0.000	4.400
54.500	54.451	54.314	54.257	54.270	54.333	54.342
-8.364	-5.951	-5.448	-3.050	-2.550	0.063	3.789
	-5.159	-4.632			1.089	4.156
						5.037
						5.190
						6.676
						7.234
						7.912
						8.194
						9.092

MC10-ch.90

R.L. 51.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	MK22	LA01	MC10	LD01	LE02
55.440	55.415	55.333	55.224	55.331	55.402	55.413	55.375
-9.206	-7.406	-5.788	-4.984	-3.000	-0.000	0.711	4.400
55.440	55.421	55.375	55.214	55.301	55.413	55.400	55.388
-9.021	-7.228	-6.002	-5.152	-2.721	0.626	3.328	4.125
-7.890	-6.774	-5.522	-4.908	-2.204		5.080	6.069
				-1.236		4.125	6.840
						5.080	7.301
						6.069	8.156
						6.840	8.362
						7.301	
						8.156	
						8.362	

MC10-ch.80

R.L. 47.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

LE01	MC10	LD02	MK23	CB23	MCW1	EW01
52.239	52.305	52.314	52.249	52.359	52.274	52.406
-3.000	-0.000	0.700	3.950	4.580	6.762	10.762
52.403	52.305	52.308	52.253	52.200	52.115	52.403
-8.626	-0.044	0.947	3.768	4.642	7.046	10.762
-7.531			4.119	5.153	7.616	
-6.798			5.245	5.600	8.089	
-6.757			5.236	5.600	8.917	
-5.725			5.218	5.600	9.759	
-5.169			5.163	5.600	10.750	
-4.353			5.163	5.600	10.762	
-3.634			5.208	5.600		
-2.751			5.251	5.600		
-2.172			5.273	5.600		

MC10-ch.110

R.L. 48.000

CUT STRING
DESIGN LEVEL
DESIGN OFFSET
EXISTING LEVEL
EXISTING OFFSET

EW21	EW22	CB31	CB22	CT22	MK22	MC10	MK23	CT23	CB23	MCW1	EW01
53.424	53.370	53.265	53.420	53.243	53.263	53.291	53.284	53.264	53.358	53.317	53.556
-9.187	-7.387	-5.793	-4.200	-3.004	-2.550	-0.000	3.950	4.404	5.600	6.739	10.737
53.424	53.380	53.320	53.188	53.250	53.271	53.287	53.288	53.270	53.249	53.163	53.556
-8.562	-7.936	-6.432	-4.339	-3.039	-2.269	-0.420	3.595	4.472	4.836	6.674	10.737
-7.936	-7.307	-5.793	-4.339	-3.039	-2.269	0.999	4.472	4.836	5.600	7.182	
							5.600	5.600	5.600	7.877	
							6.674	6.674	6.674	8.900	
							7.182	7.182	7.182	9.468	
							7.877	7.877	7.877	10.737	

MC10-ch.100

LEGEND

- U UNKNOWN ASSET
- W EXISTING WATER MAIN
- +G EXISTING LOW PRESSURE GAS MAIN
- E EXISTING UNDERGROUND ELECTRICITY LINE
- F EXISTING COMMUNICATIONS UNDERGROUND OPTICAL FIBRE
- EXISTING SURFACE

REV	No.	Amendment Description	Initials	Date
E		100% DETAILED DESIGN	GK	2 SEPT 2020
D		Fourth Issue	GK	3 AUG 2020
C		Third Issue	GK	25 JUNE 2020
B		Second Issue	GK	02 JUNE 2020

A3 original This sheet may be prepared using colour and may be incomplete if copied

SCALES

HORIZONTAL SCALE 1:200m

VERTICAL SCALE 1:200m

PREPARED BY

DESIGNED G. Krishnasamy

REVIEWED T. Lance

APPROVED M. Murphy

MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

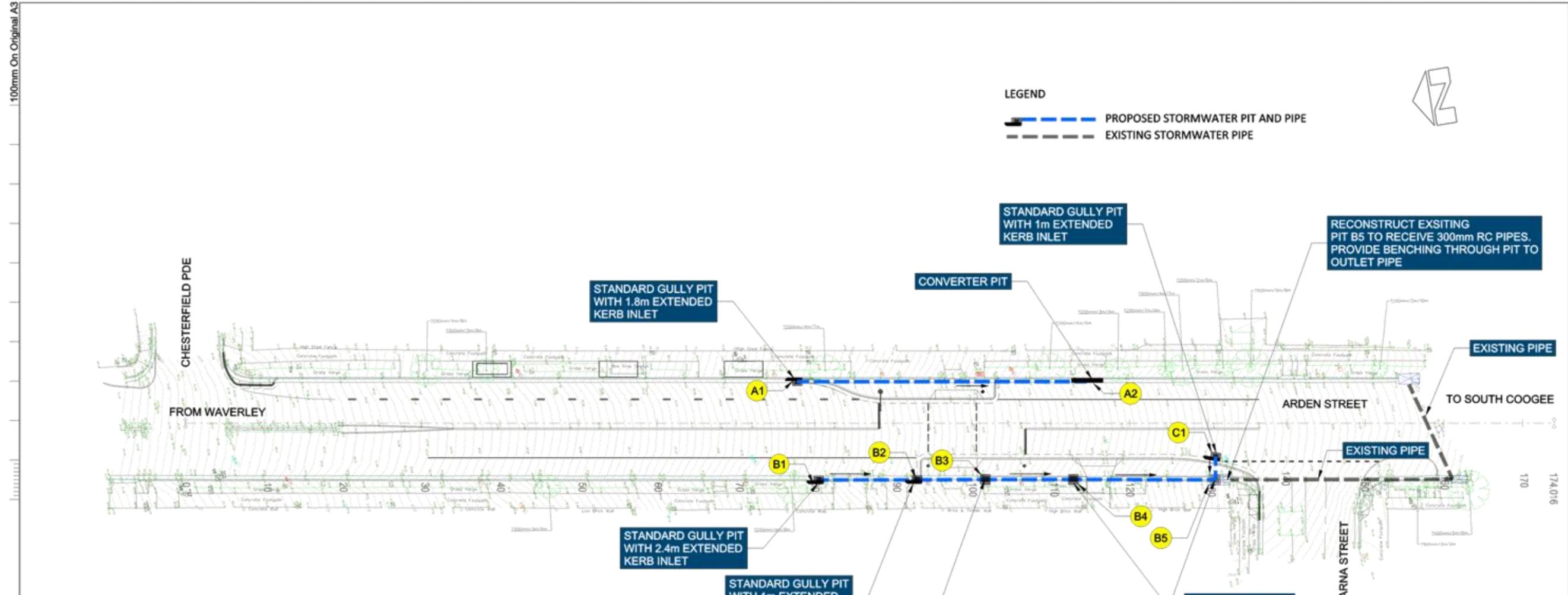
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY
CROSS SECTIONS CH80-CH110-MC10

PRINTED DATE
2 SEPT 2020

DRAWING REGISTRATION NUMBER
20_4_DD_0010

ISSUE
E



LEGEND

— PROPOSED STORMWATER PIT AND PIPE

- - - EXISTING STORMWATER PIPE

PIT SCHEDULE

Pit	Type	Refer
A1	Grated Gully Pit, 1.8m Lintel	Waverley Council Standard Drawings D1
A2	Converter Pit	See Sheet 15
B1	Grated Gully Pit, 2.4m Lintel	Waverley Council Standard Drawings D1
B2	Kerb Inlet, 1.0m Lintel	See Sheet 14
B3	Inspection Pit with flush Surface Heelsafe grate.	Waverley Council Sump inlet pit Drawing D4, without apron and grate. Modified with a flush Surface Heelsafe grate.
B4	Inspection Pit with flush Surface Heelsafe grate.	Waverley Council Sump inlet pit Drawing D4, without apron and grate. Modified with a flush Surface Heelsafe grate.
B5	Modified Existing Pit	Expose and modify existing pit to accept pipe from C1, provide access covers and fit with flush Surface Heelsafe grate.
C1	Grated Gully Pit, 1.0m Lintel	Waverley Council Standard Drawings D1

DRAINAGE LINE A

Pit	To	Location		Location Offset to control string		
		Eastings	Northings	Station	control	Offset
A1	A2	339106.783	6246753.058	77.831	MC10	-5.285
A2		339101.240	6246716.685	114.566	MC10	-5.583

DRAINAGE LINE B

Pit	To	Location		Location Offset to control string		
		Eastings	Northings	Station	control	Offset
B1	B2	339094.050	6246752.358	80.486	MC10	7.175
B2	B3	339092.099	6246739.985	93.000	MC10	7.139
B3	B4	339090.738	6246731.417	101.649	MC10	6.846
B4	B5	339088.963	6246720.363	112.882	MC10	7.122
B5		339086.063	6246702.520	130.96	MC10	7.154

DRAINAGE LINE C

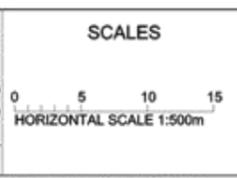
C1	B5	339088.945	6246702.060	130.96	MC10	4.200
----	----	------------	-------------	--------	------	-------

- DRAINAGE NOTES**
- REMOVE EXISTING VEHICLE CROSSING BETWEEN B1 AND B2. REINSTATE VEHICLE CROSSING.
 - STANDARD DRAINAGE DRAWING D7 - PIPE INSTALLATION UNDER ROADWAYS.
 - STANDARD DRAINAGE DRAWING D1 - GRATED GULLY PIT WITH EXTENDED KERB INLET.
 - PIPE AND PIT AS PER COUNCIL STANDARD DRAINAGE DRAWING D6 - STEP IRON DETAILS.
 - WAVERLEY COUNCIL STANDARD DETAILS TO BE ADOPTED UNLESS STATED OTHERWISE.
 - ALL STORMWATER DRAINAGE PIPES SHALL BE 300mm DIAMETER RUBBER RING JOINTED (RRJ) REINFORCED CONCRETE (CLASS 3) UNLESS NOTED OTHERWISE.
 - THE SET-OUT CONTROL POINT FOR LOCATION OF PITS, IS ASSUMED TO BE IN THE CENTER OF THE PIT CHAMBER, UNLESS STATED OTHERWISE.
 - ALL GRATES ARE TO BE CLASS D (UNLESS NOTED OTHERWISE) AND BICYCLE SAFE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3996 UNLESS NOTED OTHERWISE.
 - WHERE A CONNECTION IS MADE TO AN EXISTING DRAINAGE PIPE OR PIT, THE LEVEL OF THAT ELEMENT WILL NEED BE INCORPORATED INTO THE CONSTRUCTION.
 - EXISTING PIPE SOURCE 5.4 MAP 1 -STORMWATER PIPE DIAMETERS. PIPE SIZES SHOWN IN A RANGE OF 100mm TO 300mm AS AT 30/06/2012.
 - ANY UNMAPPED OR UNKNOWN EXISTING DRAINAGE INFRASTRUCTURE MAY BE PRESENT WITHIN THE PROJECT EXTENTS, WHICH MAY IMPACT ON THE VIABILITY OF THE PROPOSED WORKS SHOWN. THESE ITEMS MAY REQUIRE ADDITIONAL PROTECTION/ TREATMENT.
 - POTHOLES OF ALL SERVICES/UTILITIES HAS NOT BEEN CARRIED OUT AS PART OF THE DESIGN. THE LOCATION OF ALL SERVICES/UTILITIES SHALL BE CONFIRMED PRIOR TO CONSTRUCTION AND CHECKED FOR CONFLICT WITH THE STORMWATER DRAINAGE SYSTEM.
 - WHERE CONNECTION IS TO BE MADE TO AN EXISTING DRAINAGE STRUCTURE, THE POSITION AND LEVEL OF THE EXISTING DRAINAGE STRUCTURE TO BE CONFIRMED PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL MEASURES.

REV

No.	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020

A3 original This sheet may be prepared using colour and may be incomplete if copied



PREPARED BY

DESIGNED: G. Krishnasamy
 REVIEWED: T. Lance
 APPROVED: M. Murphy

MUGROUP
 TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills
 NSW 2010
 T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE
 PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY DRAINAGE AND CONTOUR PLAN

PRINTED DATE
 2 SEPT 2020

DRAWING REGISTRATION NUMBER
 20_4_DD_0013

ISSUE
 E

100mm On Original A3

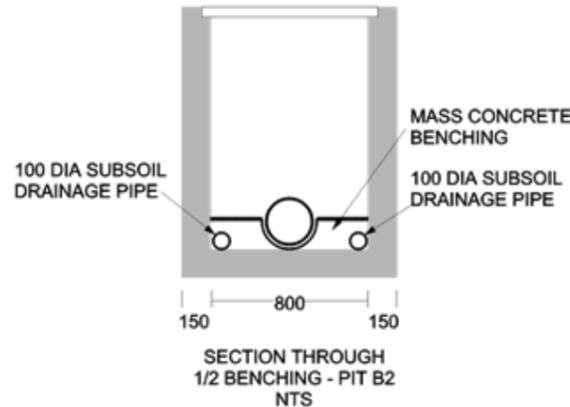
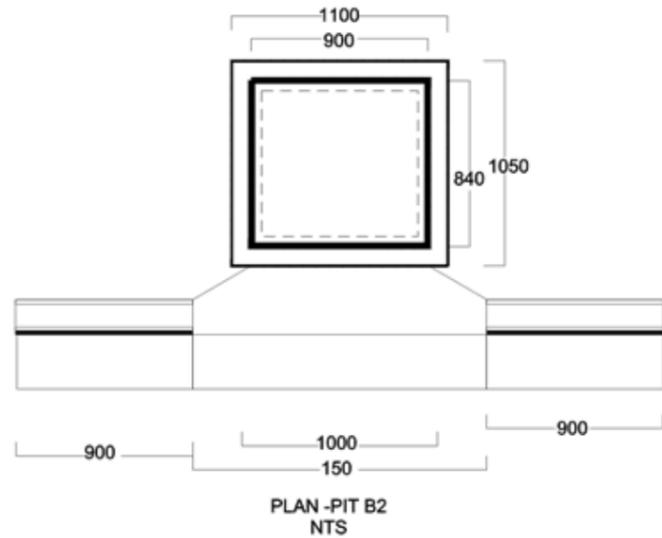
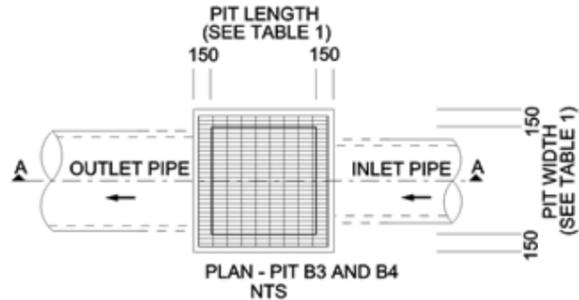
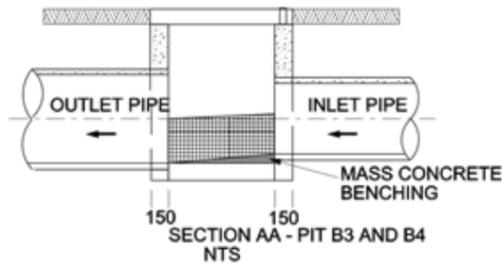
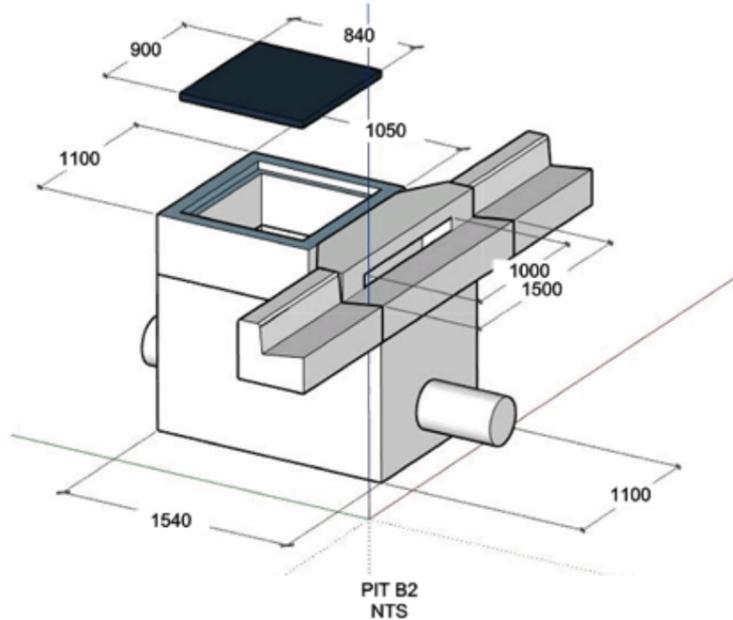
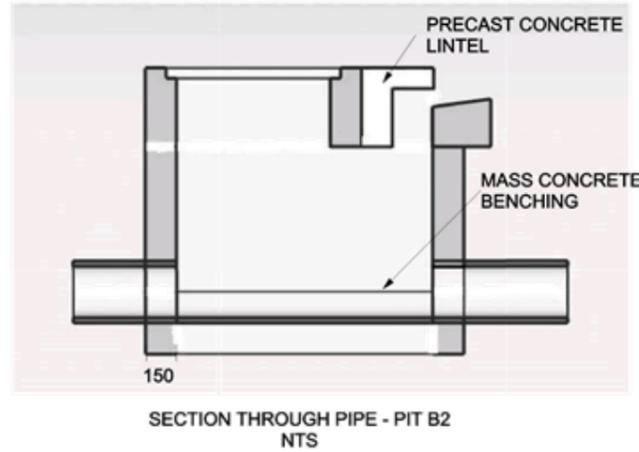


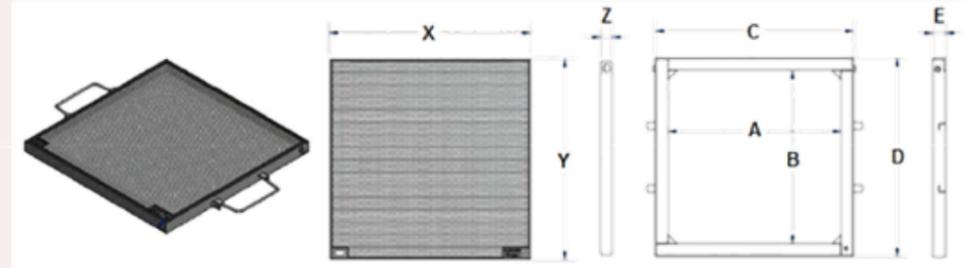
TABLE 1 - PIT SIZE

PIT SIZE	NOMINAL INSIDE PIT SIZE DIMENSIONS (mm)	PRODUCT CODE
TYPE A	600 x 600	HPC66HT
TYPE B	600 x 900	HPC96HT
TYPE C	900 x 900	HPC99HT

SOURCE WAVERLEY COUNCIL STANDARD DRAWINGS AND DURHAM (WAVERLEY COUNCIL SUMP INLET PIT DRAWING D4, WITHOUT APRON AND GRATE. MODIFIED WITH A FLUSH SURFACE HEELSAFE GRATE.)



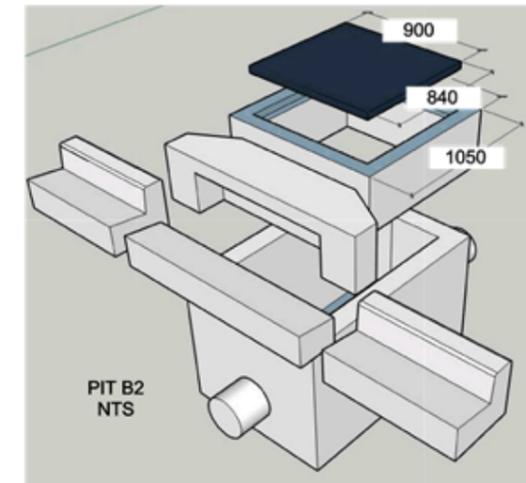
INSPECTION PIT B3 AND B4 GALVANISED HEEL GUARD GRATE & FRAME - HT Product Specifications *



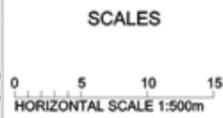
Product Code	Opening A	Opening B	Frame C	Frame D	Frame E	Grate X	Grate Y	Grate Z	Quantity
HPC44HT	450	450	560	560	45	540	540	40	0
HPC66HT	600	600	710	710	45	690	690	40	0
HPC96HT	900	600	1010	710	55	990	690	50	0
HPC99HT	900	900	1010	1010	55	990	990	50	0

NOTES FROM STANDARD DRAWING COUNCIL

1. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 20MPa.
2. TOP or BENCHING TO BE 1/2 OF OUTLET PIPE DIAMETER.
3. 100 DIA. SUBSOIL DRAINAGE PIPE 3M LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
4. PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS. REFER TO STANDARD DRAWING D6 FOR STEP IRON DETAILS.
5. REINFORCEMENT: FOR PIT DEPTHS LESS THAN 1.5m NO WALL REINFORCEMENT IS REQUIRED. FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12@ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS, FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED.
6. LOCATE LINTELS CENTRALLY IN SAG PITS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
8. FIT, CLASS B 900mm BY 845mm FAC77B DURHAM COVER LID OR EQUILENT.



REV	DESCRIPTION	INITIALS	DATE
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date



PREPARED BY	
DESIGNED	G. Krishnasamy
REVIEWED	T. Lance
APPROVED	M. Murphy

MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

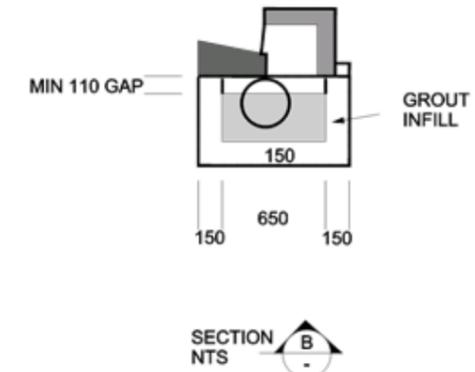
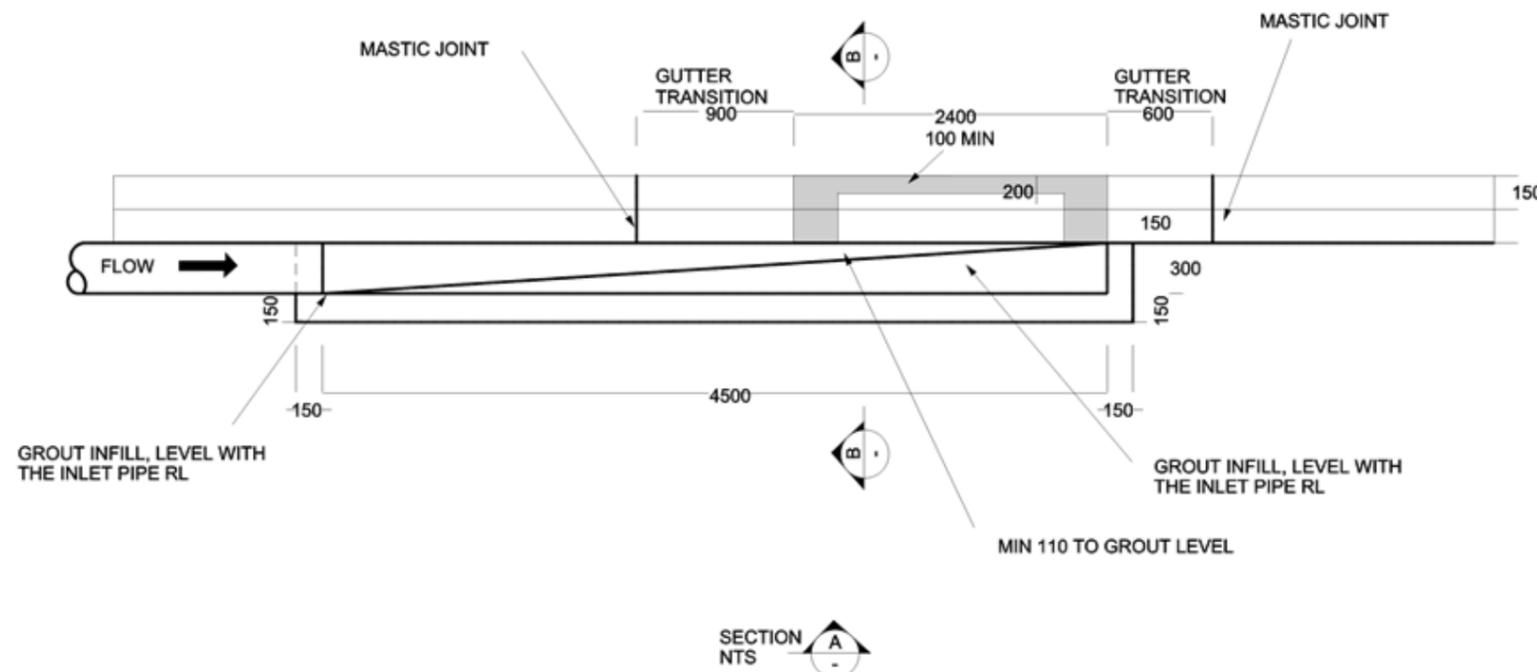
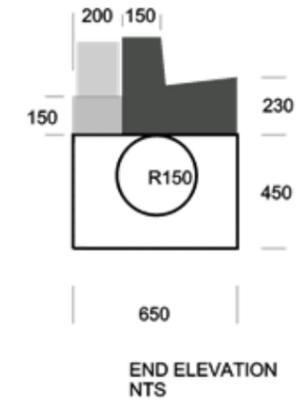
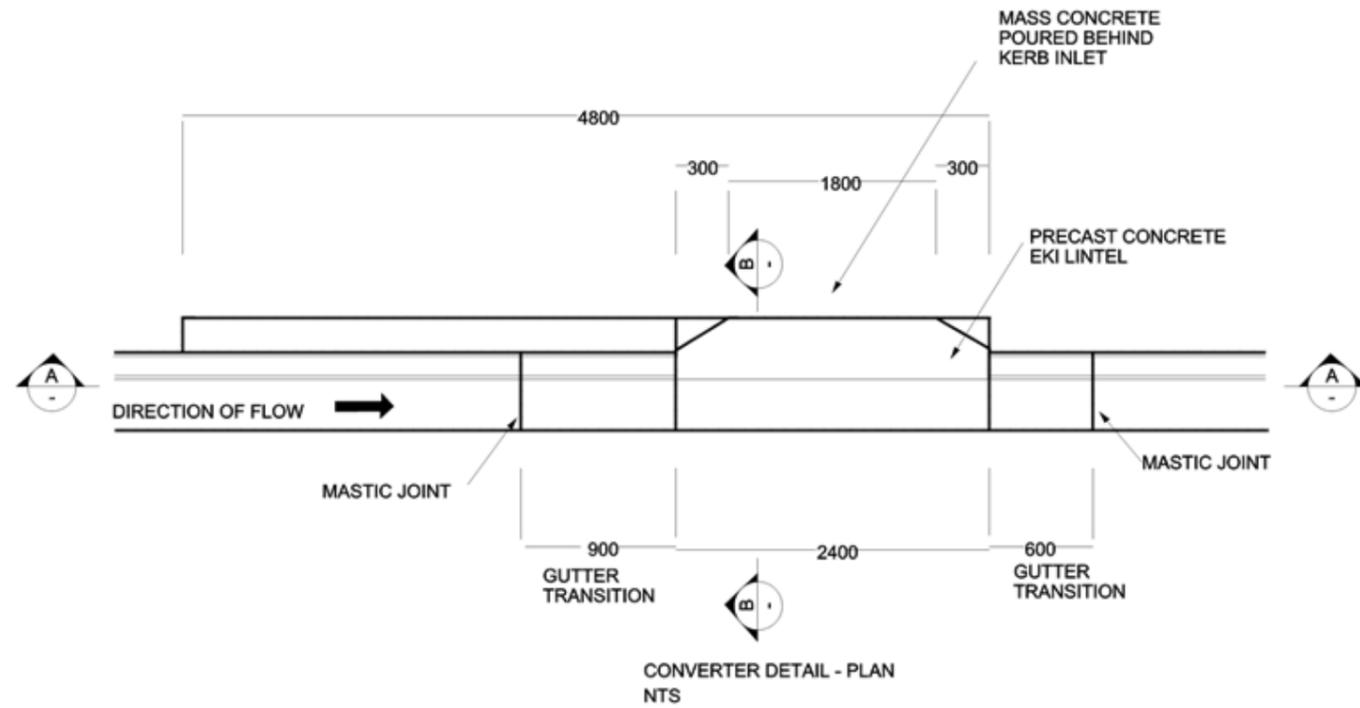
DRAWING TITLE
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY DRAINAGE DETAILS

PRINTED DATE
2 SEPT 2020

DRAWING REGISTRATION NUMBER
20_4_DD_0014

ISSUE
E

100mm On Original A3

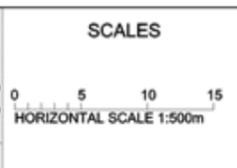


NOTES

1. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 20MPa.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

REV	Amendment Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date

A3 original This sheet may be prepared using colour and may be incomplete if copied



PREPARED BY

DESIGNED G. Krishnasamy

REVIEWED T. Lance

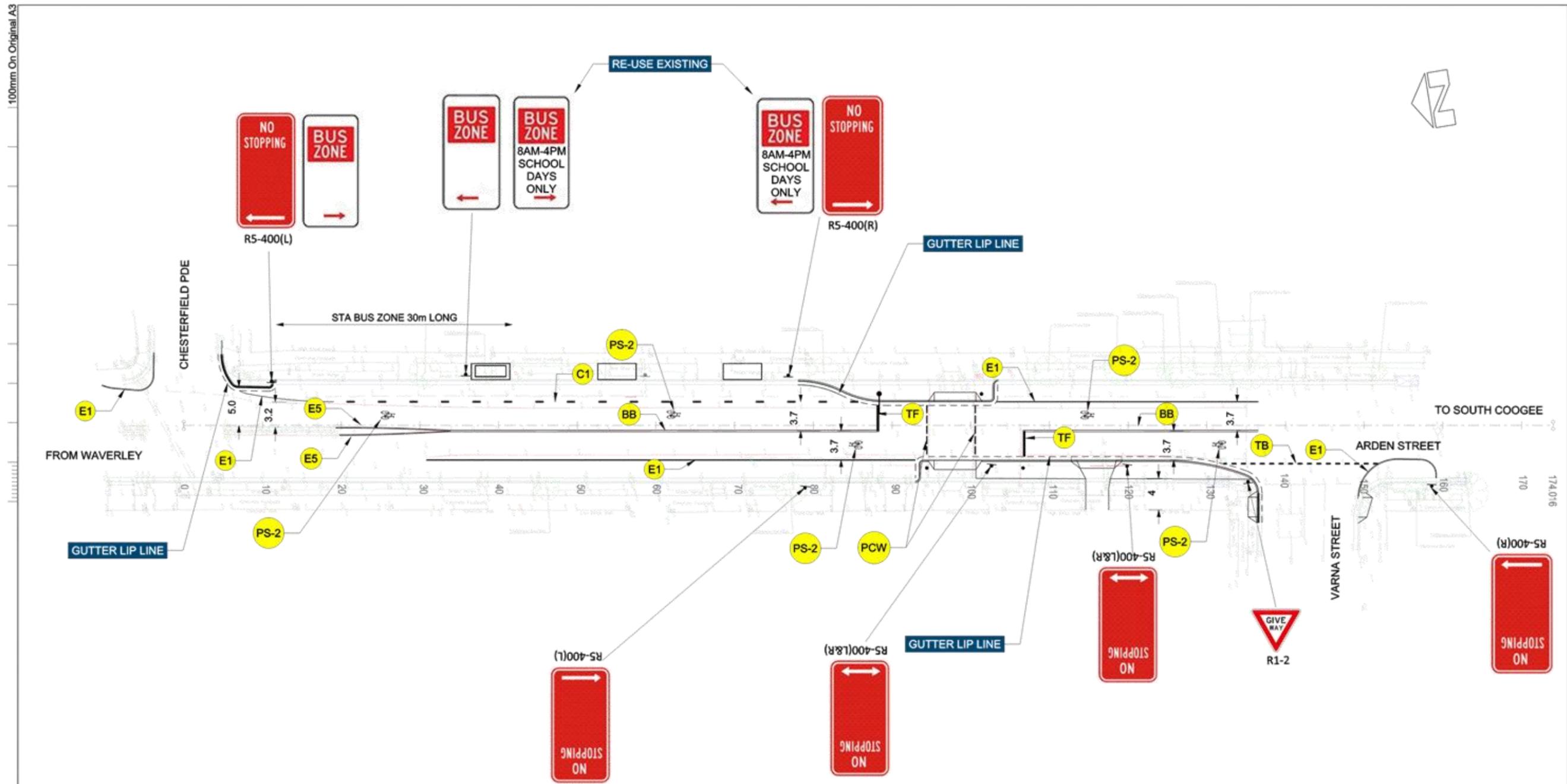
APPROVED M. Murphy

Level 4, 23-33 Mary Street, Surry Hills
NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

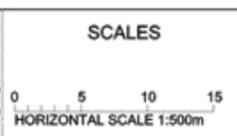
DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY DRAINAGE DETAILS - CONVERTER PIT	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0015		



NOTE
 1. FOR SETOUT REFER TO SHEET 0003
 2. FOR GENERAL ARRANGEMENTS REFER TO SHEET 0004
 3. FOR PLAN AND PROFILE REFER TO SHEETS 0005, 0006, 0007
 4. FOR LINEMARKING IN PROXIMITY TO TCS, DRAWING REG NO. DS2014/002524 TCS NO 2133 TAKES PRECEDENCE

REV	DESCRIPTION	INITIALS	DATE
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date

A3 original This sheet may be prepared using colour and may be incomplete if copied



PREPARED BY

DESIGNED G. Krishnasamy
 REVIEWED T. Lance
 APPROVED M. Murphy

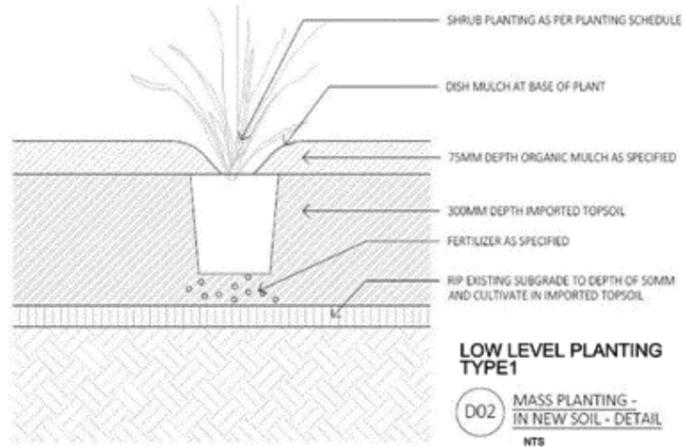
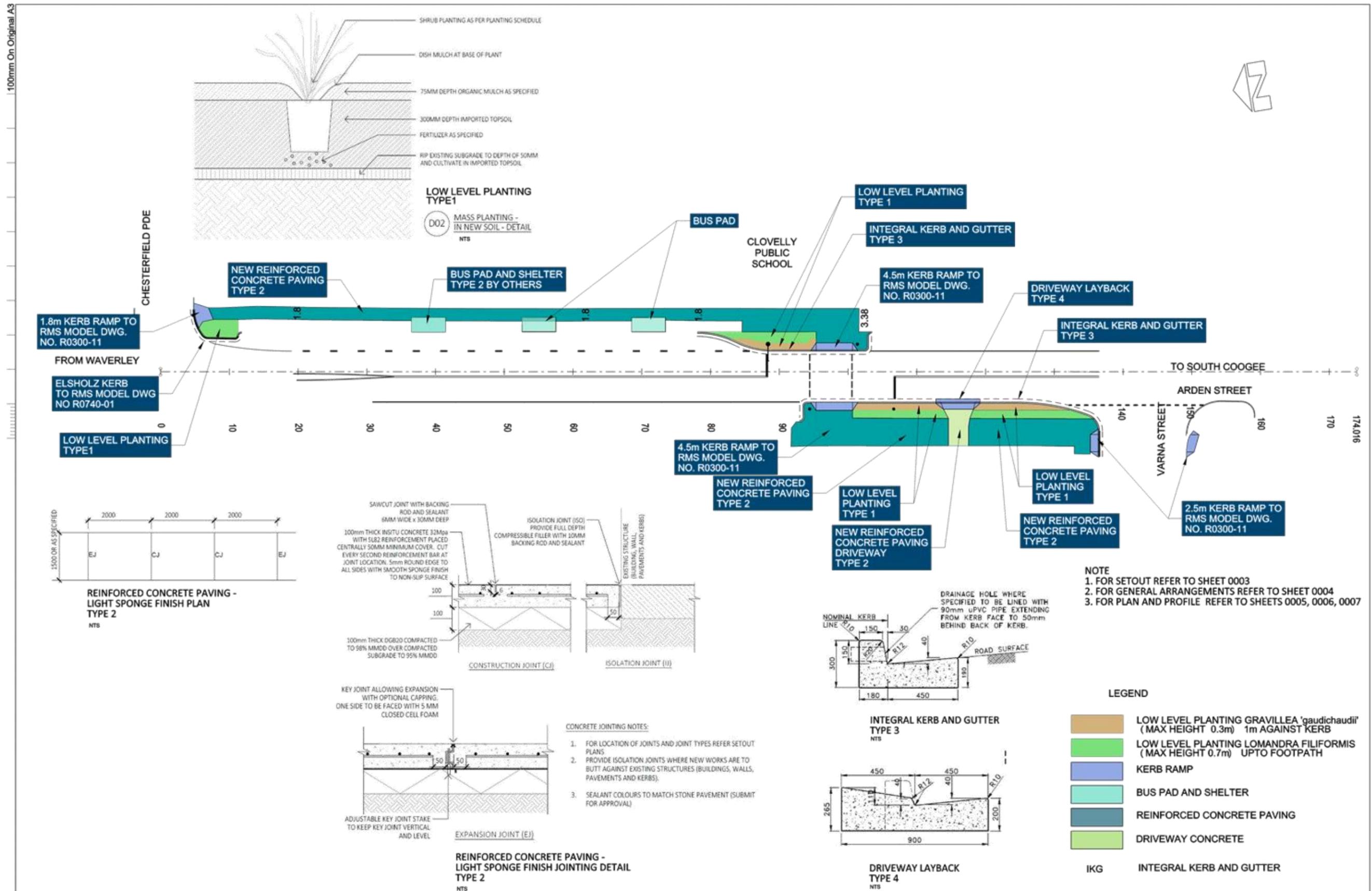
MUGROUP
 TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills
 NSW 2010
 T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

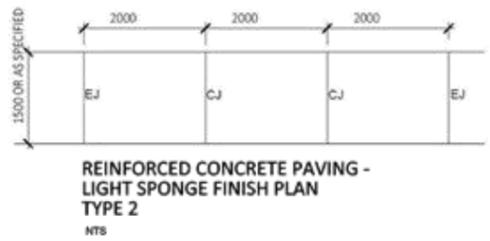
PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY ROADSIDE FURNITURE AND LINEMARKING	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0016		

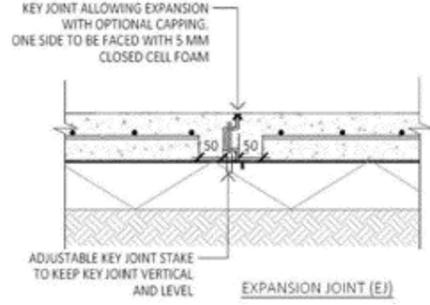
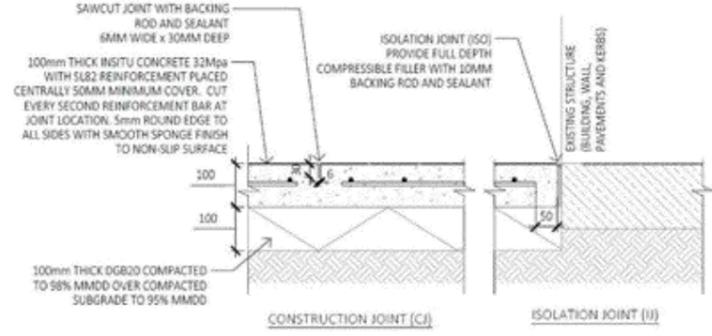


LOW LEVEL PLANTING TYPE 1

D02 MASS PLANTING - IN NEW SOIL - DETAIL NTS

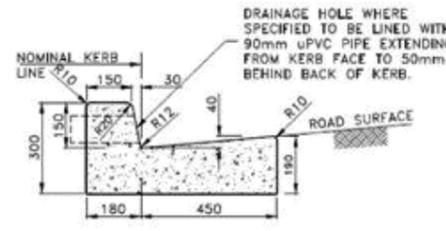


REINFORCED CONCRETE PAVING - LIGHT SPONGE FINISH PLAN TYPE 2 NTS

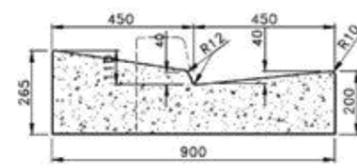


REINFORCED CONCRETE PAVING - LIGHT SPONGE FINISH JOINTING DETAIL TYPE 2 NTS

- CONCRETE JOINTING NOTES:
- FOR LOCATION OF JOINTS AND JOINT TYPES REFER SETOUT PLANS
 - PROVIDE ISOLATION JOINTS WHERE NEW WORKS ARE TO BUTT AGAINST EXISTING STRUCTURES (BUILDINGS, WALLS, PAVEMENTS AND KERBS).
 - SEALANT COLOURS TO MATCH STONE PAVEMENT (SUBMIT FOR APPROVAL)



INTEGRAL KERB AND GUTTER TYPE 3 NTS



DRIVEWAY LAYBACK TYPE 4 NTS

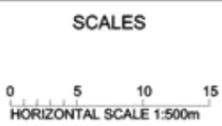
- NOTE
- FOR SETOUT REFER TO SHEET 0003
 - FOR GENERAL ARRANGEMENTS REFER TO SHEET 0004
 - FOR PLAN AND PROFILE REFER TO SHEETS 0005, 0006, 0007

LEGEND

	LOW LEVEL PLANTING GRAVILLEA 'gaudichaudii' (MAX HEIGHT 0.3m) 1m AGAINST KERB
	LOW LEVEL PLANTING LOMANDRA FILIFORMIS (MAX HEIGHT 0.7m) UPTO FOOTPATH
	KERB RAMP
	BUS PAD AND SHELTER
	REINFORCED CONCRETE PAVING
	DRIVEWAY CONCRETE
	IKG INTEGRAL KERB AND GUTTER

REV	DESCRIPTION	INITIALS	DATE
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date

A3 original This sheet may be prepared using colour and may be incomplete if copied



PREPARED BY

DESIGNED	G. Krishnasamy
REVIEWED	T. Lance
APPROVED	M. Murphy

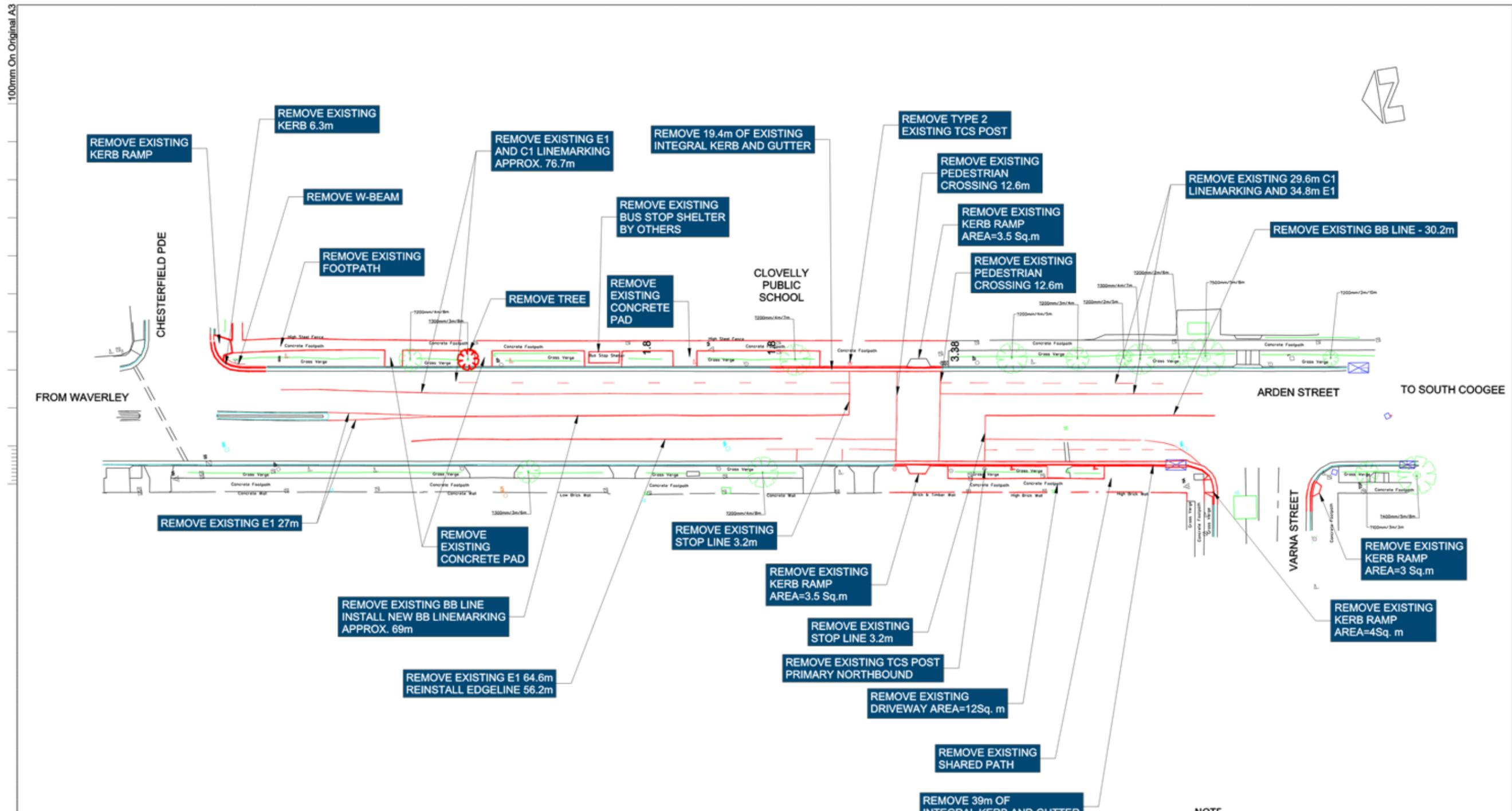
MUGROUP
TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills NSW 2010
T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

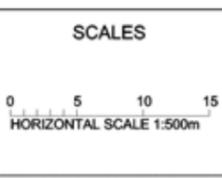
DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY PAVEMENT PLAN AND DETAILS	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0017		



NOTE
 1. FOR SETOUT REFER TO SHEET 0003
 2. FOR GENERAL ARRANGEMENTS REFER TO SHEET 0004
 3. FOR PLAN AND PROFILE REFER TO SHEETS 0005, 0006, 0007

REV	Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date

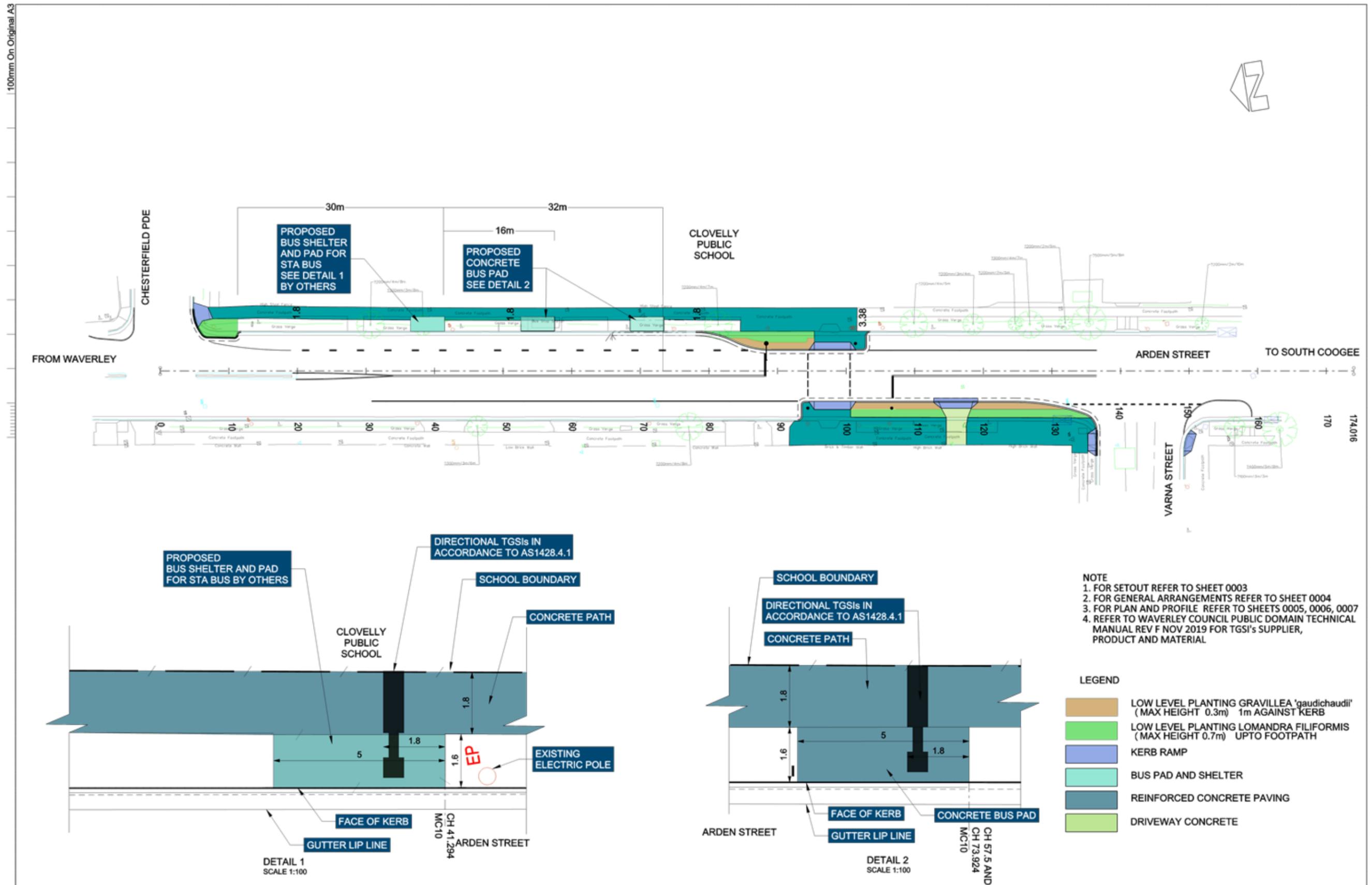
A3 original This sheet may be prepared using colour and may be incomplete if copied



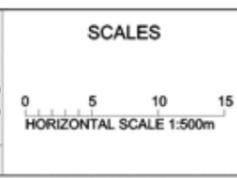
PREPARED BY

DESIGNED G. Krishnasamy
 REVIEWED T. Lance
 APPROVED M. Murphy

DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAYERLEY DEMOLITION PLAN	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0018		



REV	Description	Initials	Date
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date



PREPARED BY

DESIGNED: G. Krishnasamy
 REVIEWED: T. Lance
 APPROVED: M. Murphy

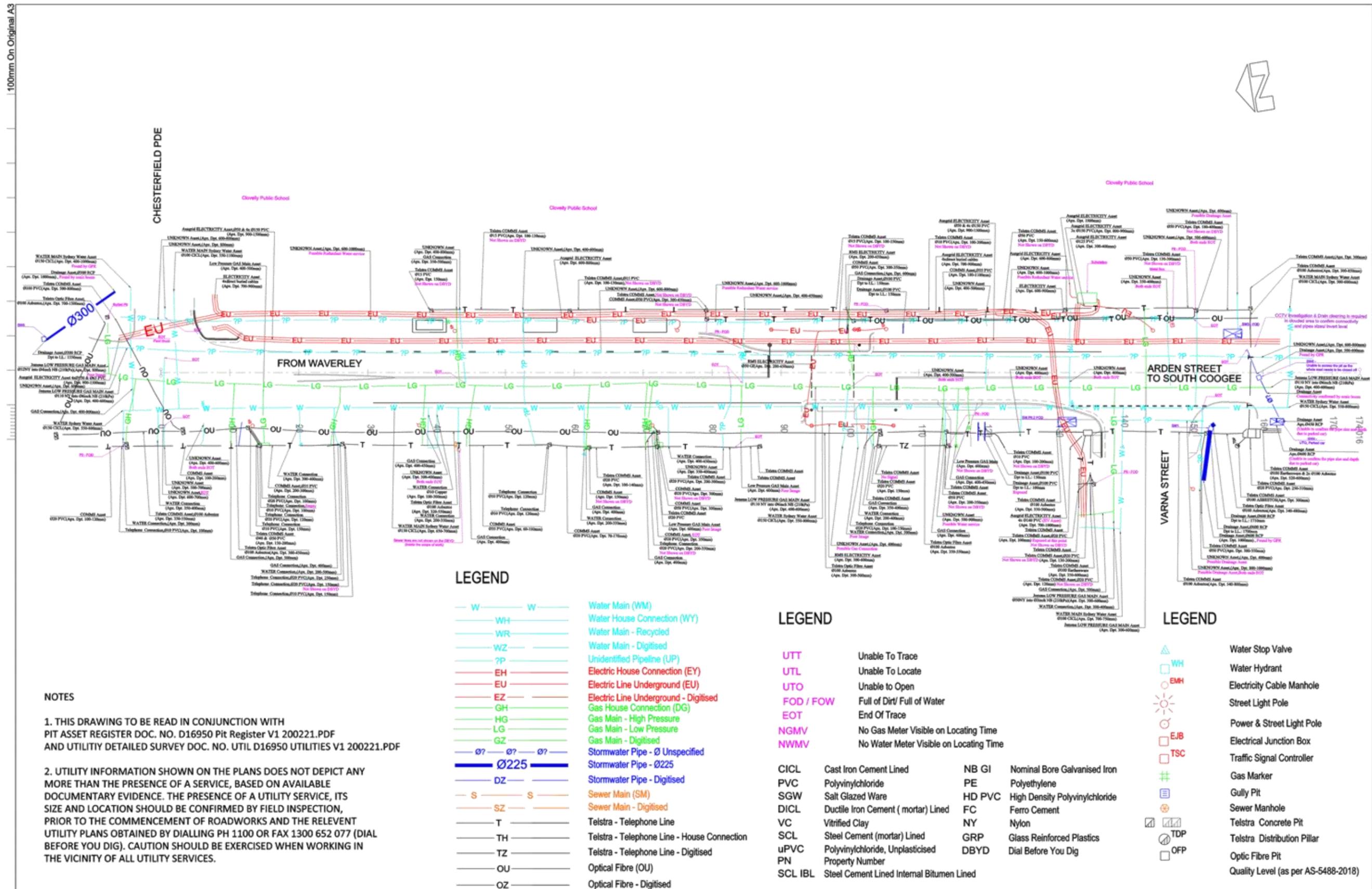
MUGROUP
 TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills
 NSW 2010
 T 02 9016 7272 www.mugroup.com.au

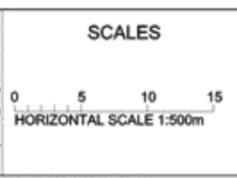
WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY BUS STOP DETAILS	PRINTED DATE 2 SEPT 2020	ISSUE E
DRAWING REGISTRATION NUMBER 20_4_DD_0019		



REV	DESCRIPTION	INITIALS	DATE
E	100% DETAILED DESIGN	GK	2 SEPT 2020
D	Fourth Issue	GK	3 AUG 2020
C	Third Issue	GK	25 JUNE 2020
B	Second Issue	GK	02 JUNE 2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		



PREPARED BY

DESIGNED: G. Krishnasamy
 REVIEWED: T. Lance
 APPROVED: M. Murphy

MUGROUP
 TRANSPORT & INFRASTRUCTURE

Level 4, 23-33 Mary Street, Surry Hills NSW 2010
 T 02 9016 7272 www.mugroup.com.au

WAVERLEY COUNCIL

PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY

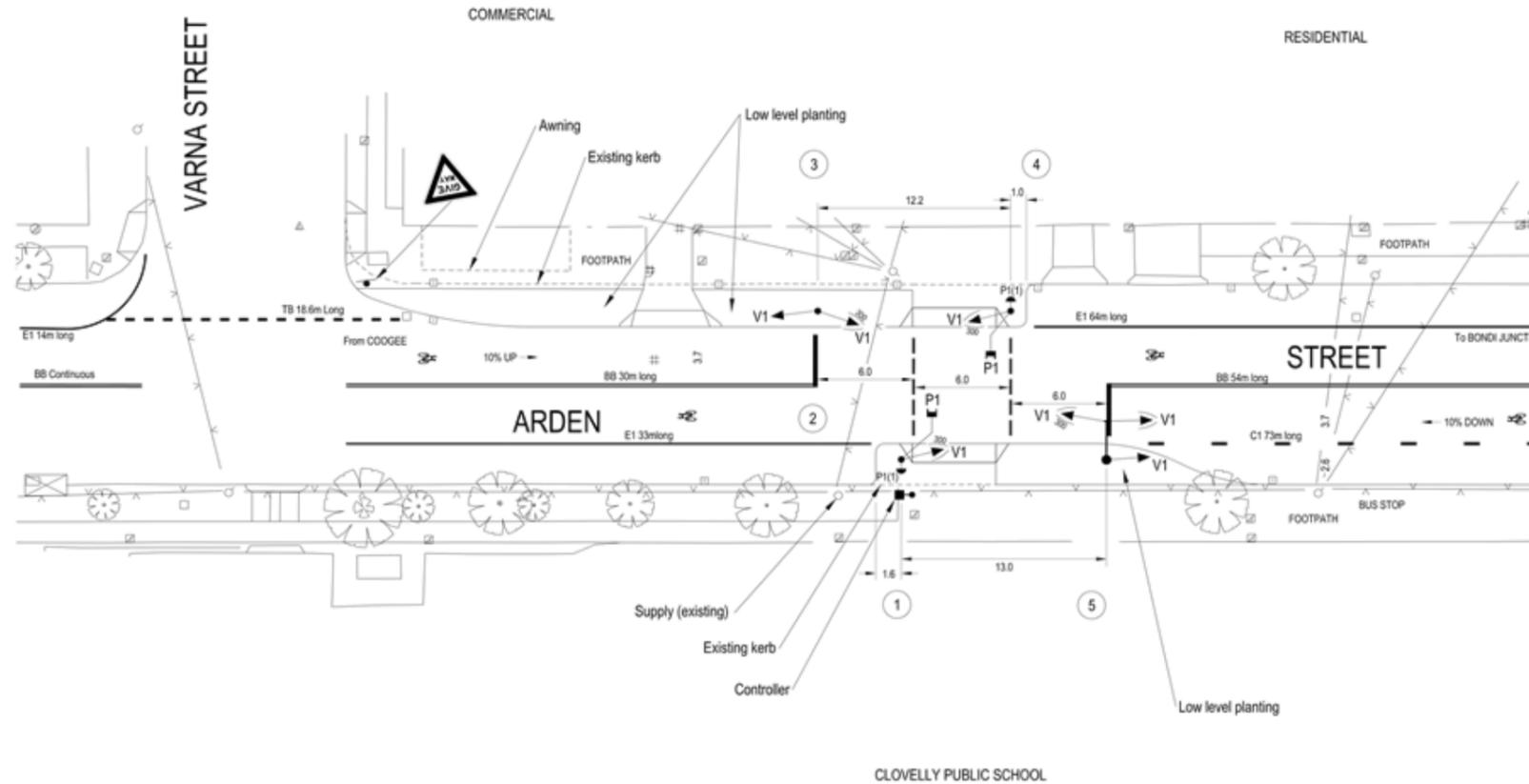
DRAWING TITLE PROPOSED SIGNAL AND SAFETY UPGRADE AT ARDEN STREET, WAVERLEY UTILITIES PLAN	PRINTED DATE 2 SEPT 2020	ISSUE A
DRAWING REGISTRATION NUMBER 20_4_DD_0020		

TCS 2133

DATE IN SERVICE : 15/05/73



POSTS				
POST	TYPE	LENGTH	OFFSET	REMARKS
1	2	3.2	3.2	EXISTING
2	2	4.1	1.0	NEW
3	2	4.1	1.0	NEW
4	2	4.1	1.0	NEW
5	5S	-	1.0	NEW



NOTES

1. This site is SCATS linked.
2. Audio tactile push buttons are provided on posts 2 and 4.
3. Kerb ramps to be constructed at new pedestrian crossings in accordance with RMS Standard Drawing R0300-11.
4. For associated civil works refer to registered drawings No. 20_4_DD_0001-0019 by MU Group Consulting.

A ORIGINAL ISSUE	PUBLIC UTILITY LEGEND	REFERENCE PLANS	U.S.D. Ref: Mpa 257 H10 I.S.G. E: 323 911 O3-OROS N: 1 248 830	DESIGN APPROVAL APPROVED NAME: Matt Murphy POSITION: Director DATE: 02/09/2020	RMS RECOMMENDATION ROAD DESIGN ENGINEERING NAME: _____ POSITION: _____ DATE: _____	RMS ACCEPTANCE ACCEPTED NAME: _____ POSITION: _____ DATE: _____	ROADS AND MARITIME SERVICES WAVERLEY COUNCIL AREA TRAFFIC SIGNALS AT ARDEN STREET NORTH OF VARNA STREET WAVERLEY	EXISTING <input type="checkbox"/> PROPOSED <input checked="" type="checkbox"/>
	HYDRANT <input type="checkbox"/>	SYMBOLS/ABRVS V0033-6	U.S.D. Ref: Mpa 257 H10	DESIGNED: Steven Ludzika	NAME: _____	NAME: _____	DESIGN LAYOUT	CADD FILE: WV2133_5A_DES.DGN
	STOP VALVE <input type="checkbox"/>	STD POSN CMP1 V0011-5	DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	POSITION: Director	POSITION: _____		SCALE: 1:200
	GAS VALVE <input type="checkbox"/>	INSTL STOP DET V0015-17	DESIGNED: Steven Ludzika	CHECKED: George Ebege	DATE: 02/09/2020	DATE: _____		FILE: SF2014/010695
SEWER MANHOLE <input type="checkbox"/>	VEH GROUP OP TS-TN-019	DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____	REG No. DS2014/002524	SUPERSEDES SHEET/ISSUE 1/F	
COMMS PIT <input type="checkbox"/>	DET LOGIC OP TS-TN-020	DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____	TCS No. 2133	ISSUE A	
ELECT LIGHT POLE <input type="checkbox"/>	PED MVT OP TS-TN-021	DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____	SHEET 5		
POWER POLE <input type="checkbox"/>		DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____			
STAY POLE <input type="checkbox"/>		DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____			
TELEPHONE BOX <input type="checkbox"/>		DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____			
COMMS PILLAR <input type="checkbox"/>		DESIGNED: Steven Ludzika	CHECKED: Terry Lanco	DATE: _____	DATE: _____			

REPORT
TC/C.04/20.09



WAVERLEY
COUNCIL

Subject: 1 Scott Street, Bronte - 'P Disability Only' Zone

TRIM No: A18/0719

Author: Hamoon Bahari, Professional Engineer, Traffic and Transport
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' zone outside 1 Scott Street, Bronte.

1. Executive Summary

Council has received a request from a resident for the installation of a 'P Disability Only' parking zone at 1 Scott Street, Bronte.

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

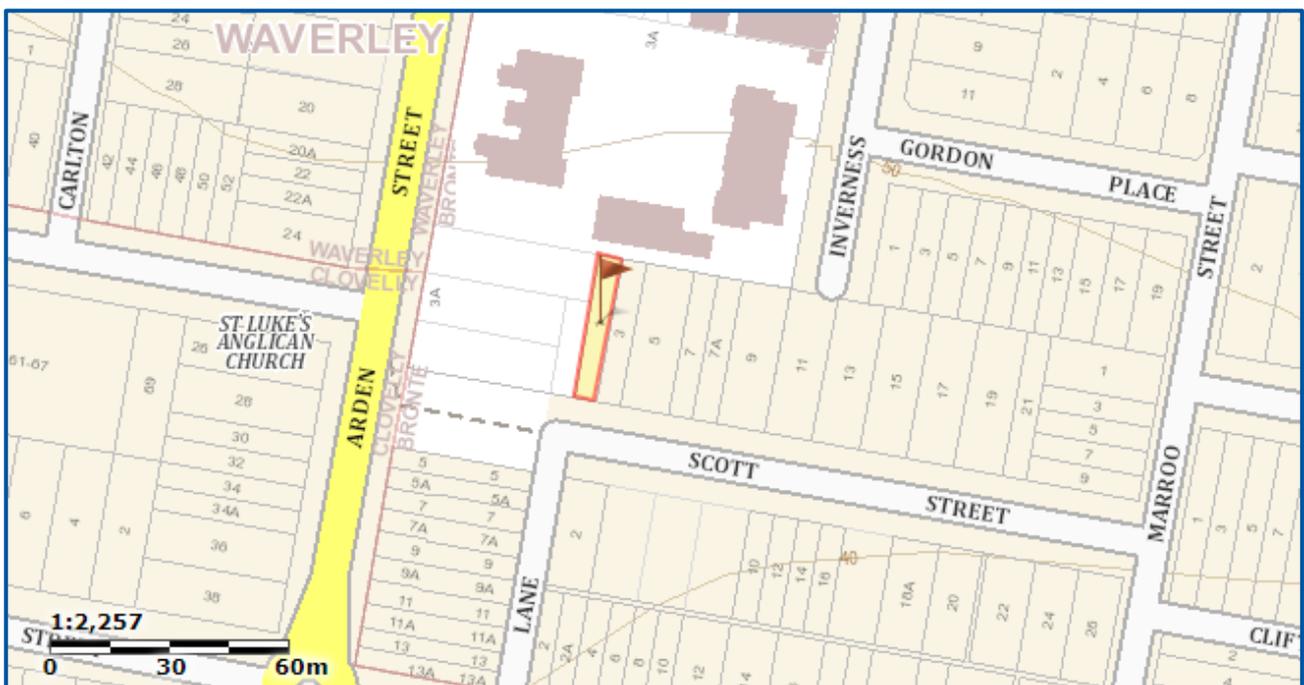


Figure 1. Site location.

2. Introduction/Background

These following procedures are applied by Council when a new application is lodged at Waverley for an on-street disabled parking space.

Council requirements include:

- A copy of a current vehicle registration certificate with the address matching the residence of the applicant.
- A copy of a current mobility parking permit from NSW Roads and Maritime Services.
- If the address is part of an apparent building, proof that the resident does not have access to an off-street parking space via a letter from the strata manager.

On assessment, the following guidelines have been adopted by the Waverley Traffic Committee:

1. Applicant must have a vehicle registered to the address fronting the new disability parking space.
2. Applicant must have an approved RMS Mobility Parking Permit.
3. Applicant must not have access to off-street parking within their property.
4. Three site visits to be carried out annually to help assess the level of parking within 50 m either side of the property being or above 85% capacity on each separate occasion.
5. Letters to be sent to all disability parking space holders annually to determine if still required.



Figure 2. Location of proposed P Disability parking space.

3. Technical analysis

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

Table 1. Compliance with Council requirements.

Address	1 Scott Street, Bronte
Mobility Parking Permit	Yes
Circumstances leading to requirement	Applicant has difficulty in walking to and from property and does not have access to off-street parking.
Off-street parking available	No
Length of zone	5.4 m
Level of parking within 50 m of proposed space	90–100% occupied during the day
Other on street disability spaces	0



Figure 3. Street view.

The proposed length is based on Australian Standard AS2890.5-2020 – On-street parking. This is shown in Figure 4 below.

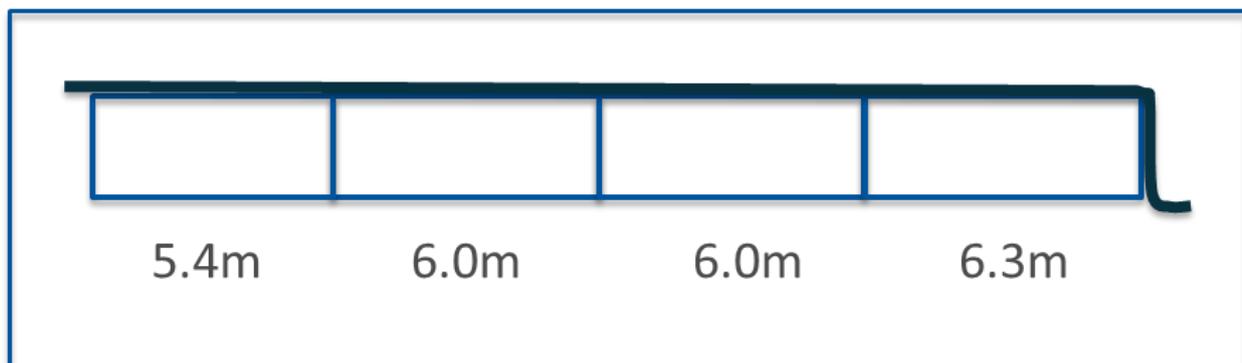


Figure 4. Dimensions for on-street disability parking spaces.

Signage

The proposed signage is shown below.

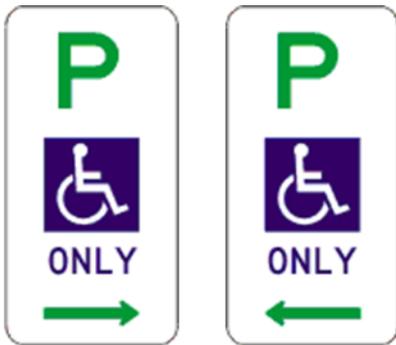


Figure 5. Proposed signage.

4. Financial Information for Council's Consideration

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

5. Attachments

Nil.

REPORT
TC/C.05/20.09



Subject: 100 St James Road, Bondi Junction - 'P Disability Only' Zone

TRIM No: A18/0719

Author: Hamoon Bahari, Professional Engineer, Traffic and Transport
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 5.4 'P Disability Only' Zone outside 100 St James Road, Bondi Junction, centred at the property frontage.

1. Executive Summary

Council has received a request from a resident for the installation of a 'P Disability Only' parking zone at 100 St James Road, Bondi Junction. Council will need to exercise its delegated functions to implement the proposal.

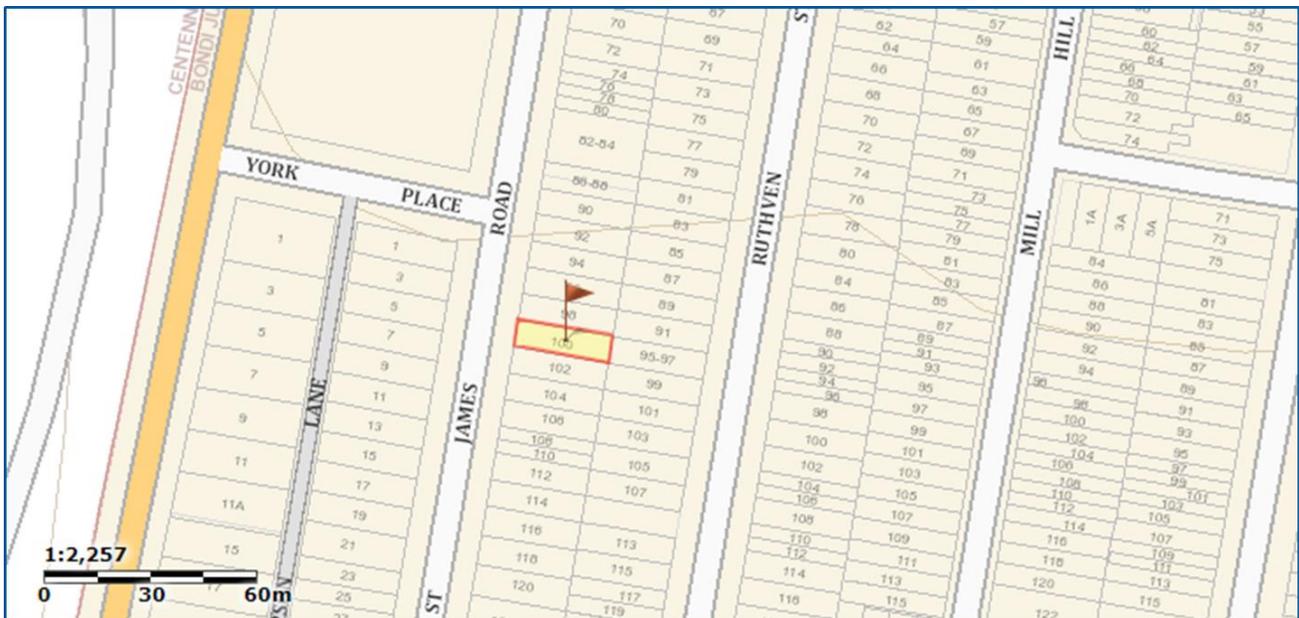


Figure 1. Site location.

2. Introduction/Background

These following procedures are applied by Council when a new application is lodged at Waverley for an on-street disabled parking space.

Council requirements include:

- A copy of a current vehicle registration certificate with the address matching the residence of the applicant.
- A copy of a current mobility parking permit from NSW Roads and Maritime Services.
- If the address is part of an apparent building, proof that the resident does not have access to an off-street parking space via a letter from the strata manager.

On assessment, the following guidelines have been adopted by the Waverley Traffic Committee:

1. Applicant must have a vehicle registered to the address fronting the new disability parking space.
2. Applicant must have an approved RMS Mobility Parking Permit.
3. Applicant must not have access to off-street parking within their property.
4. Three site visits to be carried out annually to help assess the level of parking within 50 m either side of the property being or above 85% capacity on each separate occasion.
5. Letters to be sent to all disability parking space holders annually to determine if still required.



Figure 2. Location of proposed P Disability parking space.

3. Technical analysis

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

Table 1. Compliance with Council requirements.

Address	100 St James Road, Bondi Junction
Mobility Parking Permit	Yes
Circumstances leading to requirement	Applicant has difficulty in walking to and from property and does not have access to off-street parking.
Off-street parking available	No
Length of zone	5.4 m (centred at frontage)
Level of parking within 50 m of proposed space	90-100% during the day
Other on street disability spaces	0

A disability space is recommended at the property frontage for a length of 5.4 m centred.

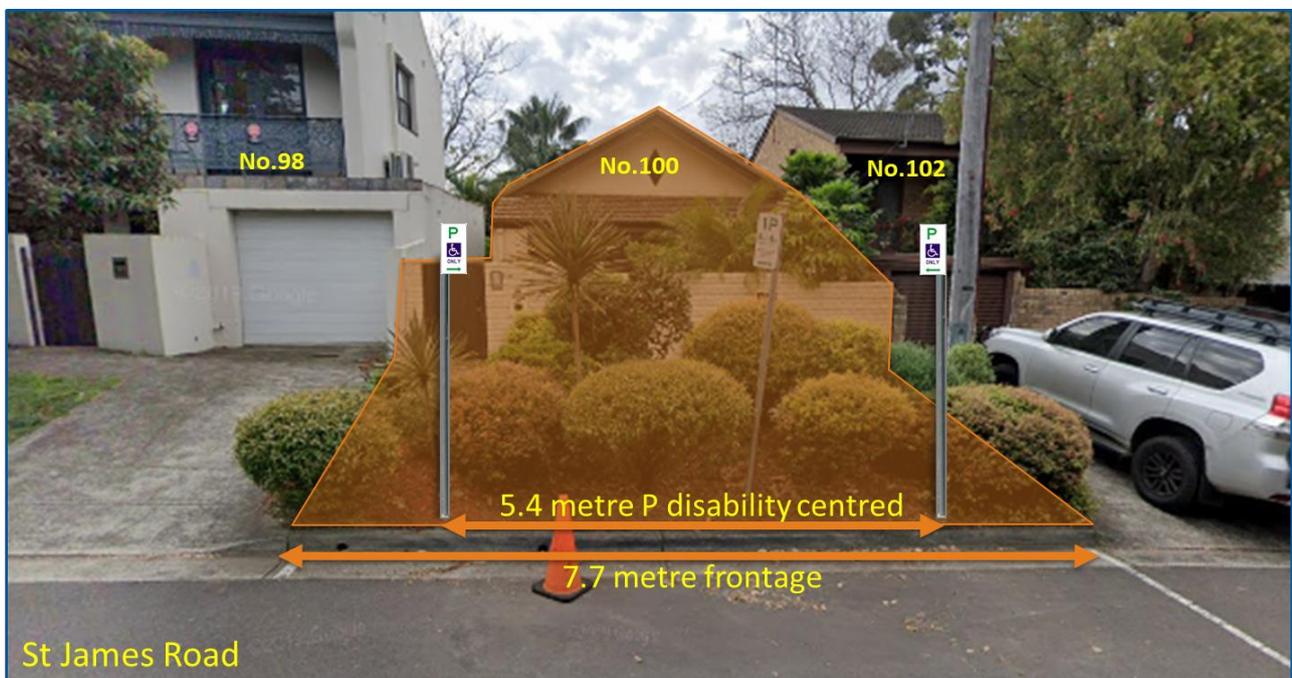


Figure 3. Street view.

The proposed length is based on Australian Standard AS2890.5-2020 – On-street parking. This is shown in Figure 4 below.

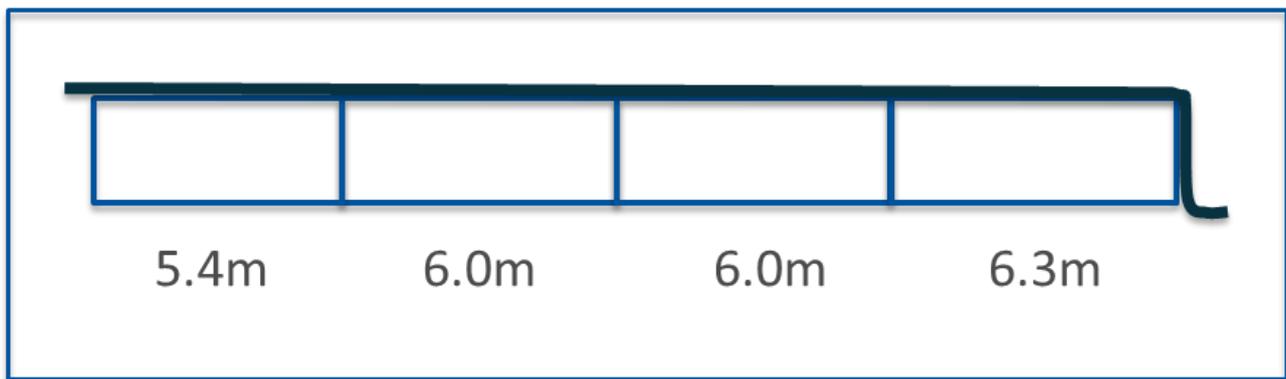


Figure 4. Dimensions for on-street disability parking spaces.

Signage

The proposed signage is shown below.



Figure 5. 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.06/20.09



Subject: 110-116 Bronte Road, Bondi Junction - Construction Zone

TRIM No: A03/2514-04

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

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

WAVERLEY
COUNCIL

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs an 11.5 m 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles' construction zone along the frontage of 116 Bronte Road, Bondi Junction, on Porter Street.
2. 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 at 110–116 Bronte Road, Bondi Junction, for the installation of a 9 m construction zone on Porter Street. Porter Street is on the south-eastern frontage of the site.

Council officers propose the installation of an 11.5 m zone, which includes a 2.5 m section of parking that would be lost due to the location of the construction zone. Council will need to exercise its delegated functions to implement the proposal.

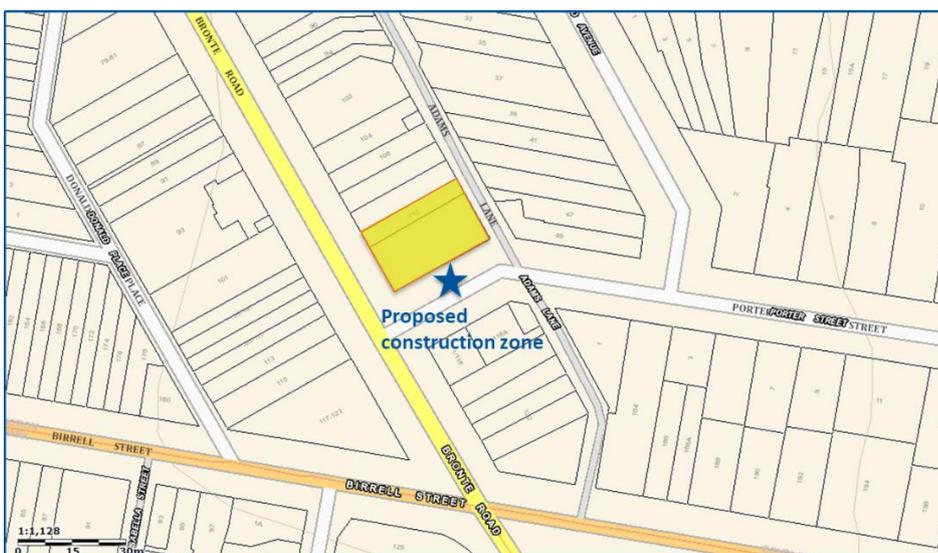


Figure 1. Site location.

2. Introduction/Background

In accordance with standard practice at Council, it is proposed that the construction zone is signposted ‘No Parking Council Authorised Vehicles Excepted Excludes Public Holidays’ 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 m along the site frontage with a minimum period of 13 weeks.

3. Technical Analysis

The frontage of the site on Porter Street is 30.6 m, of which 22 m is metered parking and the remainder ‘No Stopping.’

The applicant has requested a 9 m construction zone space, leaving 13 m for car parking.

The 13 m can accommodate two cars. However, only 10.5 m is required for these cars (one x 5 m end space and one x 5.5 m intermediate space). These leaves 2.5 m of parking that is alienated by the construction zone.

It is recommended that the construction zone is extended from 9 m to 11.5 m to include this. The 11.5 m is referred to as the effective construction zone for which fees are payable.

The existing and recommended parking allocation is shown below.

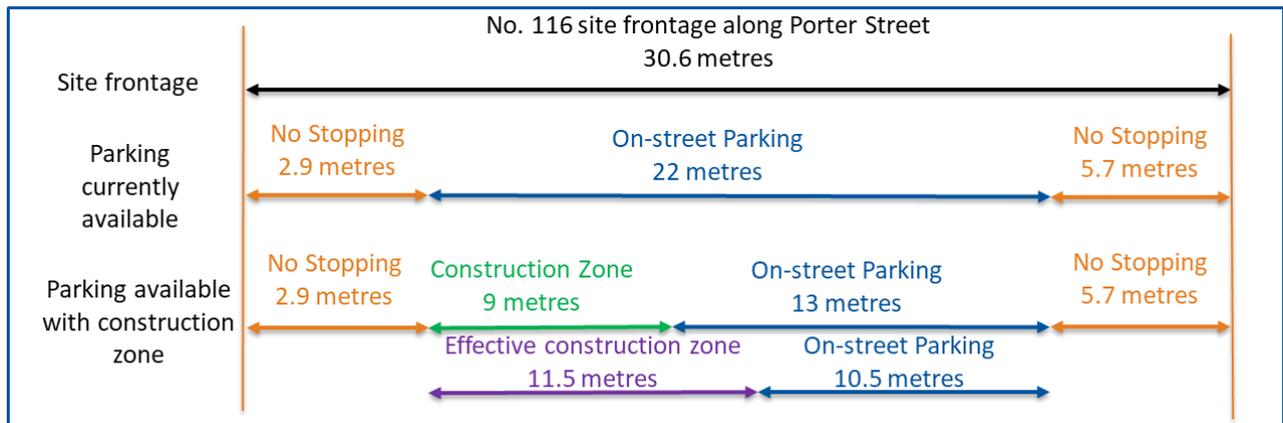


Figure 2. On-street parking allocation.

Table 1. Application details.

Applicant	Sitecorp Construction
Development application	DA-419/2015
Works	Demolition of existing buildings, and construction of a six-storey shop top housing.
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage length	30 m
Road	Porter Street
Existing parking	½P Ticket 8 am–12 pm; 2P Ticket 12 pm–6 pm
Length requested by applicant	9 m
Length to be signposted	11.5 m
Effective constriction zone - Total length available for construction	11.5 m
Duration	13 weeks
Fee area	Mixed-use/commercial area with parking restrictions
Estimated fees	\$1,814.30 per week



Figure 3. Location to install construction zone signs.

Signage

The proposed signage is shown below.



Figure 4. Proposed signage.

4. Financial Information for Council's Consideration

The applicant will be required to pay the approved application fee, which covers the cost of administration and signage.

The approved usage charges for the 2020–2021 financial year are:

- \$66.60 per m per week in a residential area.
- \$92.20 per m per week in a commercial and mixed-use area.
- \$377.00 per m (ticket) car parking space per week in addition to above fees (where applicable).

The cost to the applicant for the 11.5 m made available for construction vehicles will be \$1,814.30 per week (11.5 m x \$92.20 per m + 2 metered car parking spaces x \$377).

5. Attachments

Nil.

REPORT
TC/V.01/20.09WAVERLEY
COUNCIL

Subject: 30 Anglesea Street, Bondi - No Stopping Line

TRIM No: A14/0145

Author: Hamoon Bahari, Professional Engineer, Traffic and Transport
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 1.5 m unbroken yellow (C3) No Stopping line between 30 Anglesea Street and 32 Anglesea Street, Bondi.

1. Executive Summary

Council has received representations from a resident regarding vehicles parking in a short length of kerbside space in between 30 Anglesea Street and 32 Anglesea Street, Bondi. It is proposed to install a 1.5 m painted yellow edge line (No Stopping line). Council will need to exercise its delegated functions to implement the proposal.



Figure 1. Aerial image of 30 and 32 Anglesea Street.

2. Introduction/Background

Anglesea Street is bound by Bondi Road to the south and Orr Street to the north, with unrestricted parking on both sides of the street. It is one-way northbound.

3. Technical Analysis

It has been reported that vehicles have been parked parking on the short section of kerb between 30 and 32 Anglesea Street.

This has caused problems for residents going in and out of the driveway to 30 and 32 Anglesea Street. Both 'No Stopping' signage and line-marking options have been considered for this location.

No Stopping line-marking is recommended for the short length at this location.



Figure 2. Location of proposed No Stopping line.

4. Financial Information for Council's Consideration

Council will meet the cost of line-marking from existing budgets.

5. Attachments:

Nil.

REPORT
TC/V.02/20.09WAVERLEY
COUNCIL

Subject: 21 Curlewis Street, Bondi Beach - Construction Zone

TRIM No: A03/2514-04

Author: Hamoon Bahari, Professional Engineer, Traffic and Transport
Calum Hutcheson, Service Manager, Traffic and Transport

Authoriser: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That:

1. Council installs a 9 m 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles' construction zone at 21 Curlewis Street, Bondi Beach.
2. The construction zone be 7 m at the frontage of 21 Curlewis Street, 1 m in front of 19 Curlewis Street and 1 m in front of 23 Curlewis Street.
3. Council 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 at 21 Curlewis Street, Bondi Beach, for the installation of an 8 m construction zone. It is recommended that a 9 m construction zone is installed, including the 7 m property frontage and 1 m of frontage either side of the property.

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



Figure 1. Site location.

2. Introduction/Background

The construction zone will be signposted ‘No Parking 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 m along the site frontage, with a minimum period of 13 weeks.

3. Technical Analysis

The applicant’s site frontage at 21 Curlewis Street is 7 m. Because this length is shorter than the minimum length recommended for construction zones, the applicant has consulted their neighbours on either side, 19 and 23 Curlewis Street.

Both neighbours expressed their disagreement with the extension of 2 m across their frontage for their own property/business parking purposes.

Having taken the objections into consideration, it is still considered appropriate to install a 9 m construction zone. The proposed construction zone includes 1 m on each side of the subject property.

The 9 m construction zone will comprise 7 m front of property 21 Curlewis Street, 1 m in front of 19 Curlewis Street and 1 m in front of 23 Curlewis Street.

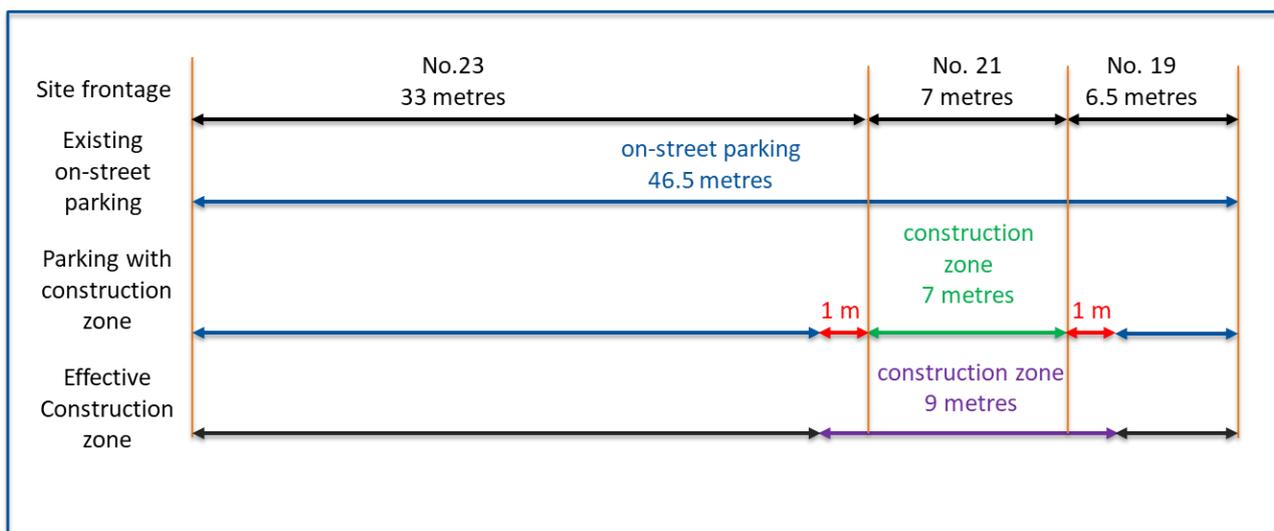


Figure 2. On-street parking allocation.

Table 1. Application details.

Applicant	Blank Super Pty Ltd
Development application	DA-320/2018/A
Works	Modification of internal layout and addition of extra floor space
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage length	7 m
Road	Curlewis Street
Existing parking	Unrestricted parking
Length requested by applicant	8 m
Length to be signposted	9 m
Effective constriction zone - Total length available for construction	9 m, comprising 7 m in front of 21 Curlewis Street, 1 m in front of 19 Curlewis Street and 1 m in front of 23 Curlewis Street
Duration	20 October 2020–20 April 2021
Fee area	Residential with unrestricted parking
Estimated fees	\$599.40 per week (9 m x \$66.60 per m)

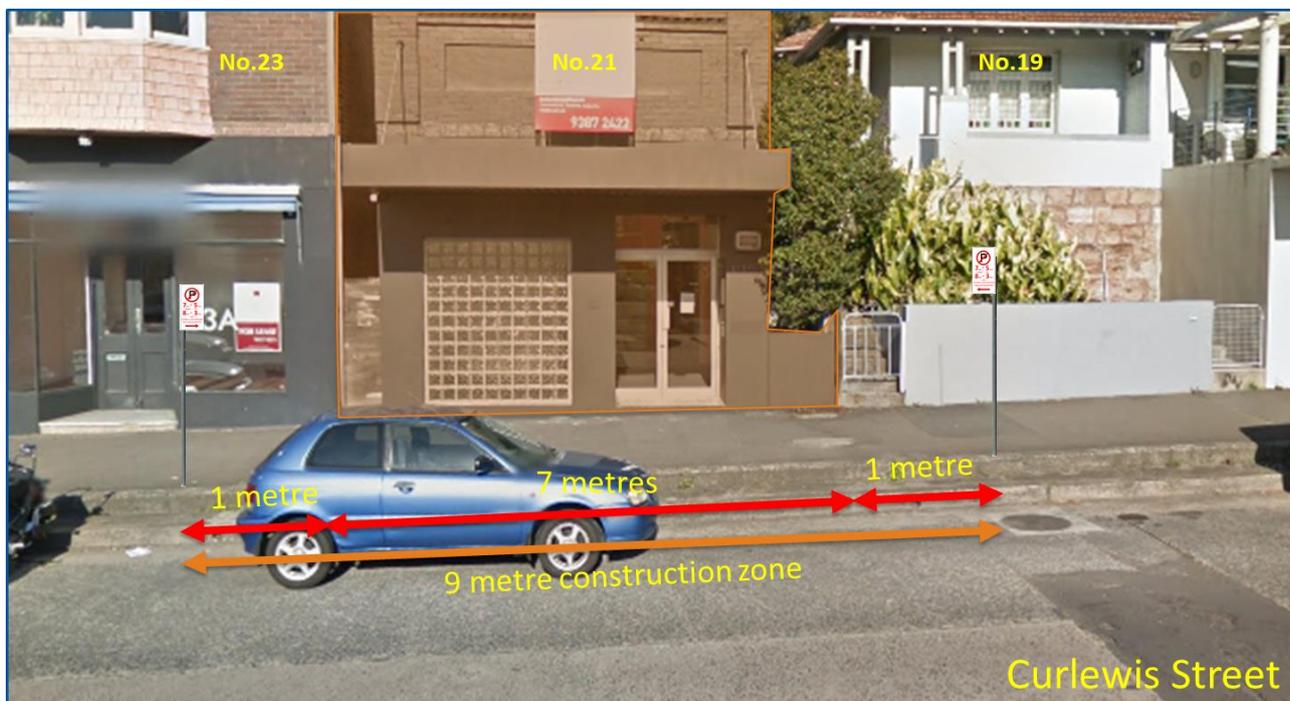


Figure 3. Location to install construction zone signs.

Signage

The proposed signage is shown below.

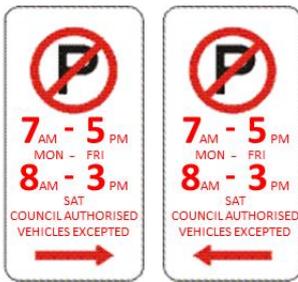


Figure 4. Proposed signage.

4. Financial Information for Council's Consideration

The applicant will be required to pay the approved application fee, which covers the cost of administration and signage.

The approved usage charges for the 2019–20 financial year are:

- \$66.60 per m per week in a residential development area.
- \$92.20 per m per week in a commercial and mixed-use development area.
- \$377.00 per metred (ticket) car parking space per week in addition to above fees (where applicable).

The cost to the applicant for the 9 m made available for construction vehicles will be \$599.40 per week (9 m x \$66.60 per m).

5. Attachments

Nil.

REPORT

TC/V.03/20.09



Subject: 98-102 Brighton Boulevard, North Bondi - Construction Zone

TRIM No: A03/2514-04

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 16 m 'No Parking 7 am–5 pm Mon–Fri, 8 am–3 pm Saturday Council Authorised Vehicles' construction zone along the frontage of 98–102 Brighton Boulevard, North Bondi.
2. 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 at 98–102 Brighton Boulevard, North Bondi, for the installation of a 16 m construction zone. Council will need to exercise its delegated functions to implement the proposal.

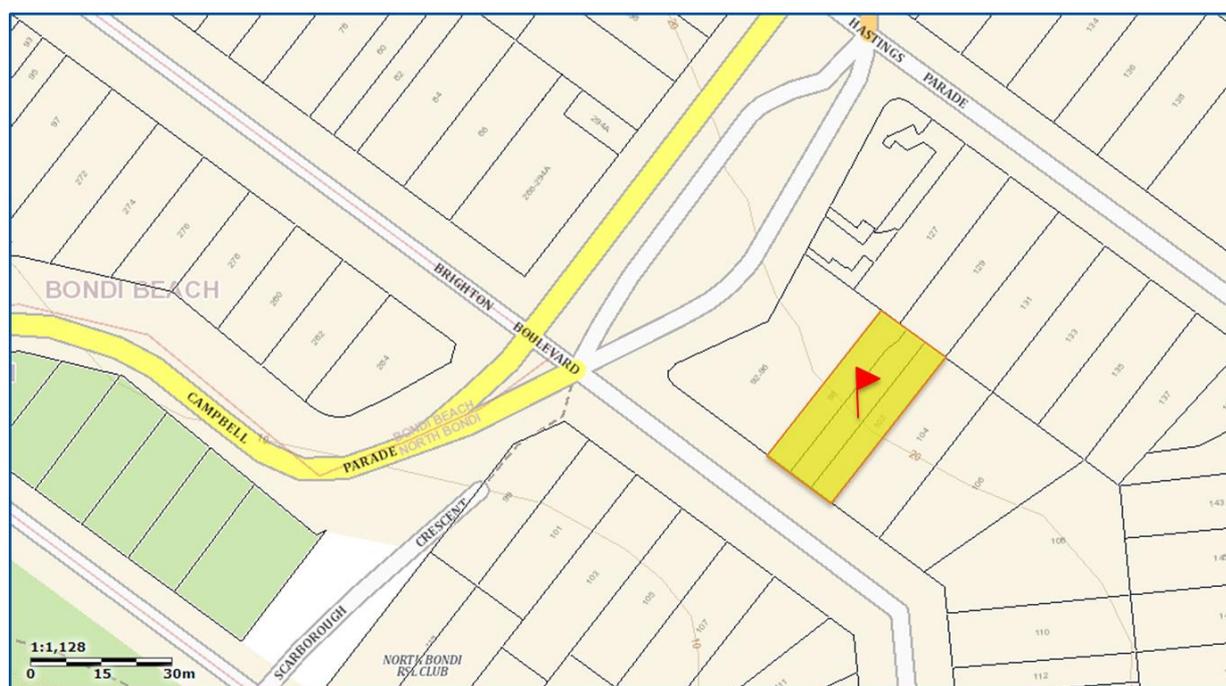


Figure 1. Site location.

2. Introduction/Background

In accordance with standard practice at Council, it is proposed that the construction zone is signposted 'No Parking Council Authorised Vehicles Excepted Excludes Public Holidays' 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 m along the site frontage, with a minimum period of 13 weeks.

3. Technical Analysis

The frontage length of the site on Porter Street is 17 m. The current on-street parking along the site frontage is 16.6 m between existing signposts. The applicant has requested a 16 m construction zone space. The signage will be installed using the existing signposts. Fees will be based on the 16.6 m between signs.

The existing and recommended parking allocation is shown below.

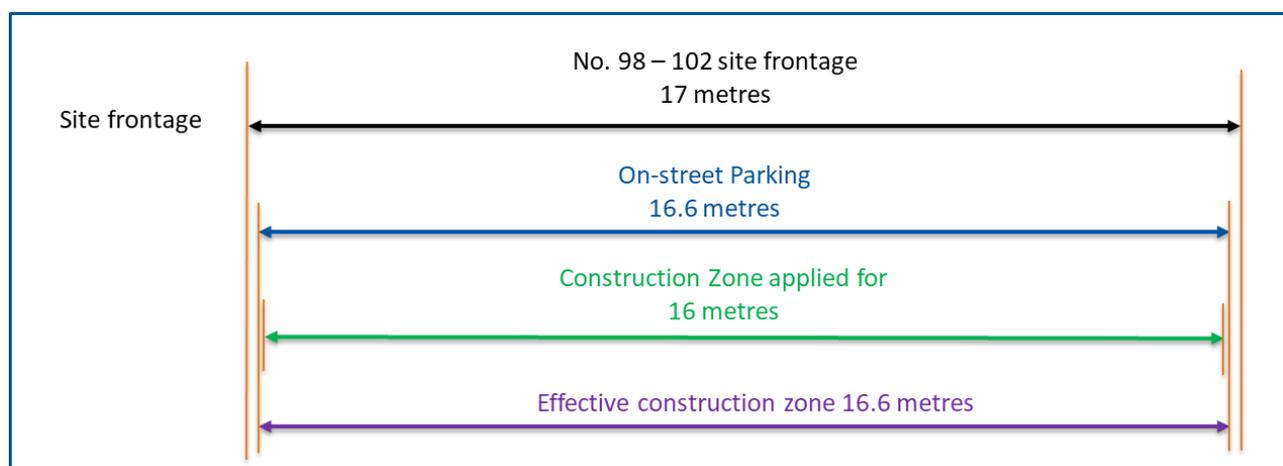


Figure 2. On-street parking allocation.

Table 1. Application details.

Applicant	All About Building and Stuff Pty Ltd
Development application	DA-159/2015
Works	Demolition of existing buildings, and construction of a new four storey shop top housing development
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage length	17 m
Road	Brighton Boulevard
Existing parking	2P, 8 am–10 pm, permit holders excepted
Length requested by applicant	16 m
Length to be signposted	16.6 m
Effective construction zone - Total length available for construction	16.6 m
Duration	6 months
Fee area	Mixed-use/commercial area with parking restrictions
Estimated fees	\$1,530.52 per week



Figure 3. Location to install construction zone signs.

Signage

The proposed signage is shown below.



Figure 4. Proposed signage.

4. Financial Information for Council’s Consideration

The applicant will be required to pay the approved application fee, which covers the cost of administration and signage.

The approved usage charges for the 2020–2021 financial year are:

- \$66.60 per m per week in a residential area.
- \$92.20 per m per week in a commercial and mixed-use area.
- \$377.00 per md (ticket) car parking space per week in addition to above fees (where applicable).

The cost to the applicant for the 16.6 m made available for construction vehicles will be \$1,530.52 per week (16.6 m x \$92.20 per m).

5. Attachments

Nil.