



WAVERLEY TRAFFIC COMMITTEE MEETING

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

10AM, THURSDAY 28 MAY 2020

Dan Joannides
Executive Manager, Infrastructure Services

Waverley Council
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AGENDA

Apologies

Declarations of Interests

Adoption of previous Minutes by Council - 23 April 2020..... 6

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 April 2020 were adopted by Council at its meeting on 5 May 2020.

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.01/20.05 40 km/hr speed limit changes - traffic control devices (A18/0579) 12

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Approves the attached designs of six speed humps for construction at:
 - (a) 13 Bourke Street, Bondi Junction.
 - (b) 14 Botany Street, Bondi Junction.
 - (c) 19 Park Parade, Bondi.
 - (d) 27 Bennett Street, Bondi Junction.
 - (e) 91 Ruthven Street, Bondi Junction.
 - (f) Botany Street at Allens Parade, Bondi Junction.
2. Delegates authority to the Executive Manager, Infrastructure Services, to modify the designs should on-site circumstances warrant changes.

TC/C.02/20.05 Ocean Street (South) / Birrell Street, Bondi - Kerb Buildout (A20/0069) 46**COUNCIL OFFICER'S PROPOSAL:**

That Council approves the installation of a kerb buildout on both sides of Ocean Street, planting within the buildout, and kerb ramps aligned for direct access across Ocean Street at the intersection with Birrell Street, as per Drawing 9004 Issue A attached to this report.

TC/C.03/20.05 York Road improvements - Moriah College (A20/0069) 57**COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Provides in principle support to the following upgrade options as part of the proposed development of Moriah College (subject to detailed design):
 - (a) Seagull intersection treatment at York Road-and Queens Park Road.
 - (b) Introduction of a left-turn slip lane on York Road (west) at York Road-and Baronga Avenue.
 - (c) Upgrade of the existing pedestrian refuge on York Road just south of Queens Park Road to a formal pedestrian crossing.
2. Detailed designs being submitted to Council's Traffic Committee.
3. Advise that all costs associated with the design and construction of the road upgrades are to be borne by the applicant.

TC/V STATE ELECTORATE OF VAUCLUSE**TC/V.01/20.05 Murriverie Road, North Bondi - 15 Minute Parking Restrictions (A02/0637)..... 65****COUNCIL OFFICER'S PROPOSAL:**

That Council installs a 5.5 metre "1/4 P 9.30 am–8 pm Mon–Fri, 8.30 am–12.30 pm Sat" zone from the No Stopping sign on Murriverie Road at Mitchell Street to the west as shown in Figure 3 in this report.

TC/V.02/20.05 58 Military Road, Dover Heights - Construction Zone (A03/2514-04)..... 69**COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Installs a 15 metre long "No Parking 7 am – 5 pm Mon – Fri, 8 am – 3 pm Saturday Council Authorised Vehicles Excepted" zone in front of 58 Military Road, Dover Heights.
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.03/20.05 80 O'Brien Street, Bondi Beach - Construction Zone (A03/2514-04) 72

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 12 metre long "No Parking 7 am – 5 pm Mon – Fri, 8 am – 3 pm Saturday Council Authorised Vehicles" zone in front of 80 and 82 O'Brien Street, Bondi Beach fronting both properties.
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.04/20.05 Barracluff Avenue, Bondi Beach - Traffic Assessment (A03/0042-04)..... 75

COUNCIL OFFICER'S PROPOSAL:

That Council prepares a preferred option and alternatives for community consultation that include:

1. Preferred option:
 - (a) Construction of pedestrian/traffic islands with associated line marking and signage at the intersections of Barracluff Avenue and Francis Street, and Barracluff Avenue and Lamrock Avenue, Bondi Beach, as shown in Drawing 9005 Issue A attached to this report.
 - (b) Kerb extensions in Barracluff Avenue on both sides of the road opposite:
 - (i) 23 Barracluff Avenue and 25 Barracluff Avenue.
 - (ii) 5 Barracluff Avenue and 7 Barracluff Avenue.
2. Alternative option: closure of Barracluff Avenue in the vicinity of 21 Barracluff Avenue.

TC/V.05/20.05 Rickard Avenue, Bondi Beach - Closure at Lamrock Avenue (A20/0069) 95

COUNCIL OFFICER'S PROPOSAL:

That Council makes the temporary closure of Rickard Avenue permanent given that it has no adverse traffic related impact on surrounding streets.

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 EMAIL ON
THURSDAY, 23 APRIL 2020**



Voting Members Present:

Cr P Masselos	Waverley Council – Chair
S/Cst A Birchansky	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 B Gidies	State Transit – Traffic and Services Manager (Eastern Region)
Mr D Joannides	Waverley Council – Executive Manager, Infrastructure Services
Mr C Hutcheson	Waverley Council – Service Manager, Traffic and Transport
Mr C Handsaker	Waverley Council – Manager Parking Control

This meeting was originally scheduled to be a video conference meeting. However, due to technical issues with the conferencing platform the Committee decided to hold the meeting by email, as permitted under clause 5.4 of the Traffic Committee Charter.

Apologies

There were no apologies.

Declarations of Pecuniary and Non-Pecuniary Interests

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

Adoption of Previous Minutes by Council - 26 March 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 26 March 2020 were adopted by Council at its meeting on 21 April 2020.

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.01/20.04 Ocean Street South, Bondi - Temporary Road Closure for Crane Lifts (CD-58/2020)****COUNCIL OFFICERS PROPOSAL:**

That Council:

1. Approves the temporary closure of Ocean Street South, Bondi, between Bondi Road and Birrell Street over two days during a working week (7.00 am on Day 1 to 11:30 pm on Day 2) on dates to be agreed with Council in accordance with the Construction Traffic and People Plan of Management attached to this report, subject to the Applicant:
 - (a) Notifying NSW Police and Transport for NSW and obtaining relevant approvals.
 - (b) Obtaining relevant approvals from the National Heavy Vehicle Regulator.
 - (c) Notifying the State Transit Authority, NSW Ambulance Service and NSW Fire and Rescue.
 - (d) Notifying local residents and businesses around 5 working days prior to the event with a follow up notification on the day prior to Day 1 of the closure.
 - (e) Obtaining approval of any tree pruning from Council's tree management team.
 - (f) The applicant liaising with and assisting affected residents and other people during the two days of operation.
 - (g) Using RMS-accredited traffic controllers.
 - (h) Covering all costs associated with closing the road, including traffic control.
 - (i) Completing all work by 11.30 pm on Day 2 when full access to Ocean Street South and residences will be restored.
2. Delegates authority to the Executive Manager, Infrastructure Services, to approve the dates that the operation will occur.
3. Requires a Council compliance officer to be on-site for the duration of the works at the Applicant's expense, and that this be communicated to the Applicant.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That the Council Officer's Proposal be adopted subject to the addition of new clause 1(j) and amendments to clause 3 such that the WTC Recommendation now reads as follows:

That Council:

1. Approves the temporary closure of Ocean Street South, Bondi, between Bondi Road and Birrell Street over two days during a working week (7.00 am on Day 1 to 11:30 pm on Day 2) on dates to be agreed with Council in accordance with the Construction Traffic and People Plan of Management attached to this report, subject to the Applicant:
 - (a) Notifying NSW Police and Transport for NSW and obtaining relevant approvals.
 - (b) Obtaining relevant approvals from the National Heavy Vehicle Regulator.
 - (c) Notifying the State Transit Authority, NSW Ambulance Service and NSW Fire and Rescue.
 - (d) Notifying local residents and businesses around 5 working days prior to the event with a follow up notification on the day prior to Day 1 of the closure.
 - (e) Obtaining approval of any tree pruning from Council's tree management team.
 - (f) Liaising with and assisting affected residents and other people during the two days of operation.
 - (g) Using RMS-accredited traffic controllers.
 - (h) Covering all costs associated with closing the road, including traffic control.
 - (i) Completing all work by 11.30 pm on Day 2 when full access to Ocean Street South and residences will be restored.
 - (j) Paying NSW Police user charges on the day of installation.
2. Delegates authority to the Executive Manager, Infrastructure Services, to approve the dates that the operation will occur.
3. Requires, at the applicant's expense:
 - (a) A Council compliance officer to be on-site for the duration of the works, and that this be communicated to the Applicant.
 - (b) All tree pruning to be undertaken under the supervision of Council's arborist.
 - (c) Authorised traffic controllers provided by the Applicant to assist residents with locating parking and manoeuvring in the streets on both days of the closure.

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

Information about the resident consultation undertaken by the applicant was provided to the Committee and is attached to Council's file.

TC/V STATE ELECTORATE OF VAUCLUSE**TC/V.01/20.04 64 Blair Street, North Bondi - Construction Zone (A03/2514-04)****COUNCIL OFFICER'S PROPOSAL:**

That Council:

1. Installs an 11 metre long 'No Parking 7AM-5PM Mon-Fri / 8AM to 3PM Sat Council Authorised Vehicles Excepted Excludes Public Holidays' zone fronting 64 Blair Street, North Bondi.
2. Delegates authority to the Executive Manager, Creating Waverley, 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 (the Chair).

TC/V.02/20.04 Barracluff Avenue, Bondi Beach - Traffic Assessment (A03/0042-04)**COUNCIL OFFICER'S PROPOSAL:**

That Council prepares a preferred option and alternatives for community consultation that include:

1. Preferred option:
 - (a) Construction of pedestrian/traffic islands with associated line marking and signage at the intersections of Barracluff Avenue and Francis Street, and Barracluff Avenue and Lamrock Avenue, Bondi Beach, as shown in Drawing 9005 Issue A attached to this report.
 - (b) Kerb extensions in Barracluff Avenue on both sides of the road opposite:
 - (i) 23 Barracluff Avenue and 25 Barracluff Avenue.
 - (ii) 5 Barracluff Avenue and 7 Barracluff Avenue.
2. Alternative option: closure of Barracluff Avenue in the vicinity of 21 Barracluff Avenue.

WTC RECOMMENDATION (UNANIMOUS SUPPORT):

That:

1. The Council Officer's Proposal not be adopted.
2. The matter be deferred until the proposed closure of Rickard Avenue is reported to the Traffic Committee to allow both matters to be considered together at the same meeting.

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

The Committee requested that it be noted in the minutes that NSW Police supports the preferred option referred to in the Council Officer's Proposal, and does not support the alternative option.

A written submission from the chief petitioner on this matter was provided to all Committee members prior to the meeting.

TC/CV ELECTORATES OF COOGEE AND VAUCLUSE

TC/CV.01/20.04 Reduction in the Number of Parking Meters Installed in Beach Front Locations (A20/0145)

COUNCIL OFFICER'S PROPOSAL:

That Council reduces the number of parking meters installed in Queen Elizabeth Drive, Park Drive North, Park Drive South and Bronte Cutting from 36 to 19 at the locations identified in 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, Representative of the Member for Coogee, NSW Police representative, TfNSW representative and Waverley Council representative (the Chair).

TC/CV.02/20.04 Bondi and Bronte Beach Car Parks (A20/0245)

COUNCIL OFFICER'S PROPOSAL:

That Council delegates authority to the General Manager to adjust the parking restrictions at Bondi and Bronte Beach carparks as necessary to support the implementation of the beach management that provides access to the water at all three of Council's beaches.

WTC RECOMMENDATION (UNANIMOUS SUPPORT)

That the Council Officer's Proposal be adopted.

The Committee requested that it be noted in the minutes that should it be necessary to temporarily close the Bondi and Bronte Beach car parks to support the implementation of beach management, it would be undertaken in consultation with the Mayor, the Local Area Police Commander and Council's General Manager or their nominees.

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

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 ENDED ON 24 APRIL 2020.

.....
SIGNED AND CONFIRMED
MAYOR
5 MAY 2020

REPORT
TC/C.01/20.05

Subject: 40 km/hr speed limit changes - traffic control devices

TRIM No: A18/0579

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

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Approves the attached designs of six speed humps for construction at:
 - (a) 13 Bourke Street, Bondi Junction.
 - (b) 14 Botany Street, Bondi Junction.
 - (c) 19 Park Parade, Bondi.
 - (d) 27 Bennett Street, Bondi Junction.
 - (e) 91 Ruthven Street, Bondi Junction.
 - (f) Botany Street at Allens Parade, Bondi Junction.
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 six traffic control devices to be included within the area covered by the 40 km/hr speed limit changes in the southern part of Waverley Council. The devices are located at (see map):

1. 13 Bourke Street, Bondi Junction – 75 mm high speed hump (on a bus route)
2. 14 Botany Street, Bondi Junction – 100 mm high speed hump
3. 19 Park Parade, Bondi – 100 mm high speed hump
4. 27 Bennett Street, Bondi Junction – 100 mm high speed hump (previously at 29 Bennett Street)
5. 91 Ruthven Street, Bondi Junction – 100 mm high speed hump
6. Botany Street at Allens Parade, Bondi Junction – 100 mm high speed hump

A speed hump originally proposed adjacent to 29 Bennett Street has been moved to 27 Bennett Street to avoid damaging tree routes.

The 29 Bennett Street location was endorsed at the 3 March 2020 Strategic Planning and Development Committee meeting. This report proposes the relocation to 27 Bennett Street in addition to approval of the design.

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.

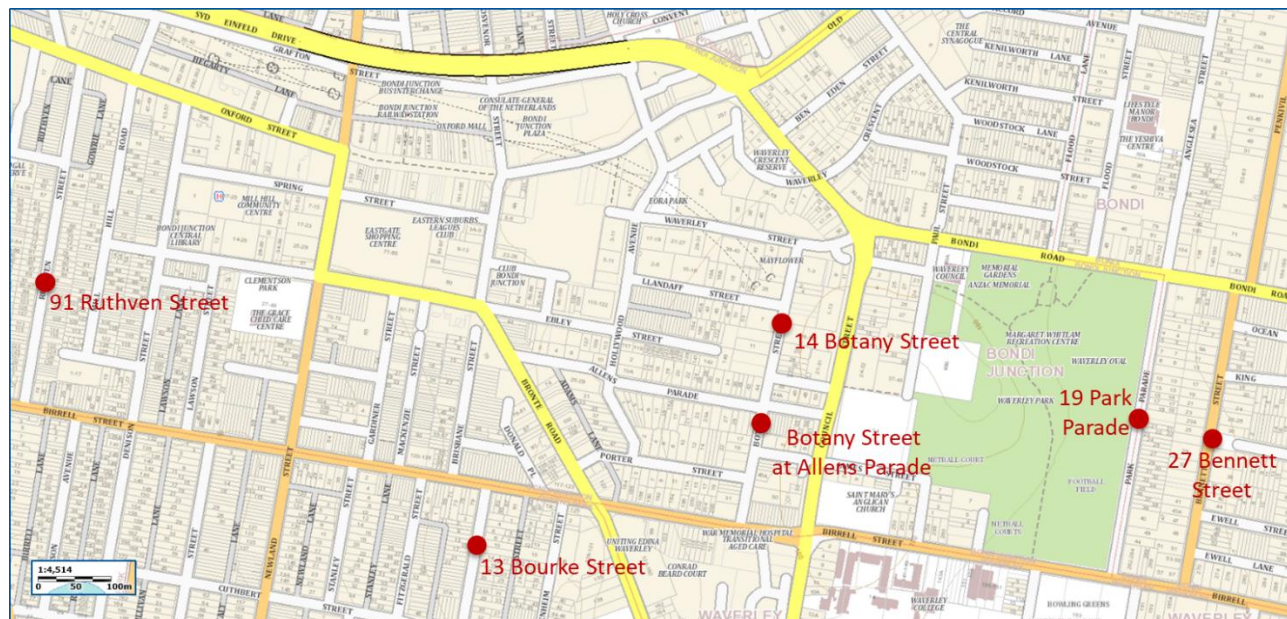


Figure 1.1: Speed hump locations

2. Introduction/Background

Community consultation within the Waverley Council area 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 “Waverley’s People Movement and Places” strategy.

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

- 31 were approved to proceed.
- 2 were to be reviewed.
- 3 were to be removed.

3. Relevant Council Resolutions

Meeting and date	Minute No.	Decision
Strategic Planning and Development Committee 3 March 2020	PD/5.3/20.03	That Council, in relation to the 40 km/h speed limit change project: <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. Minutes of Strategic Planning and Development Committee Meeting 3 March 2020
Council 17 March 2020	PD/5.3/20.03	Rescission Motion: That resolution PD/5.3/20.03 – 40 km/h Speed Limit Changes – Consultation Outcomes, passed at the Strategic Planning and Development Committee meeting on 3 March 2020, be rescinded. THE MOTION WAS PUT AND DECLARED LOST.

4. Technical Analysis

Features common to the six speed humps are:

1. black asphaltic concrete threshold for the hump.
2. 1,500 mm concrete ramps at the two ends of the hump.
3. standard piano bar markings on the two concrete ramps.
4. 750 mm wings on either side of the hump (kerbside) to allow for kerbside parking.
5. speed hump height of 75 mm on roads with bus routes and 100 mm on other roads.

The black asphaltic concrete threshold is an alternative to colour surface treatment such as terracotta. It does not fade or become “dirty” as experienced with coloured treatments. It is longer lasting than coloured treatments. Maintenance can be delayed until such time as general re-sheeting of the road occurs.

The piano bars are not included in the concept designs. They are standard inclusions for speed humps. They cover both sides of the road in both direction. The piano bar treatment will require ongoing maintenance over time.

Concept plans for the ramps location were presented to the 3 March 2020 Strategic Planning and Development Committee meeting. The concept plans and “design for construction” plans are presented below.

4.1 13 Bourke Street, Bondi Junction

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 the bus movements.



Figure 4.1a: 13 Bourke Street concept design

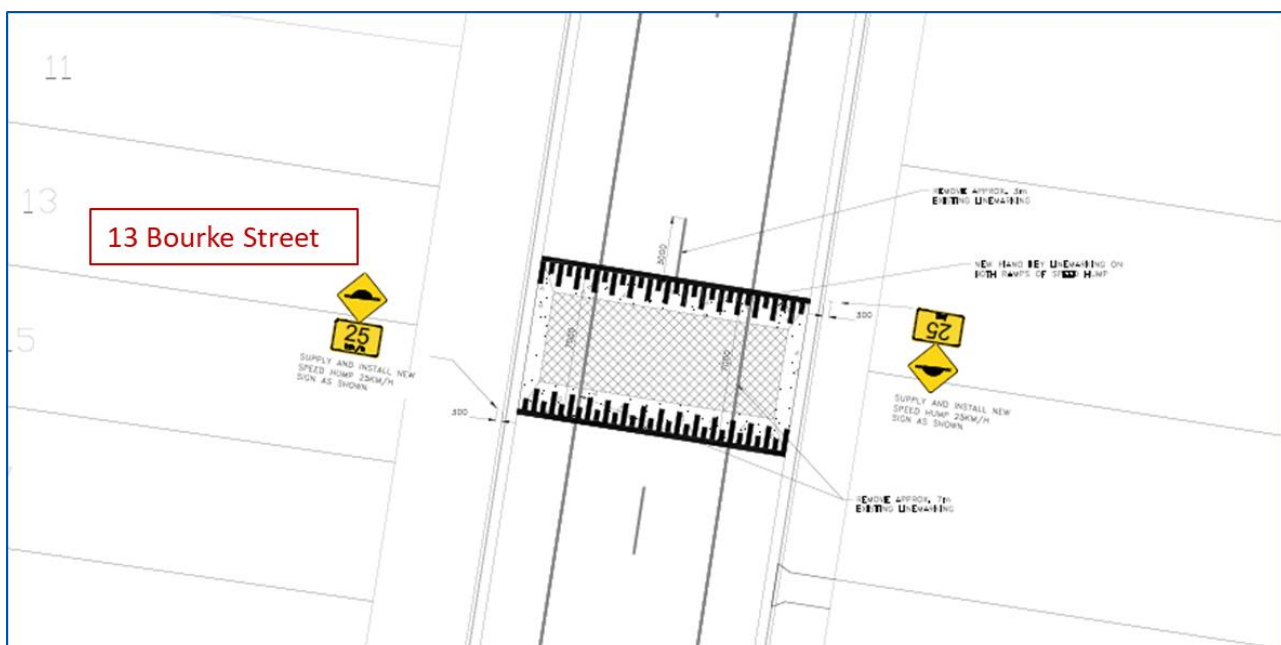


Figure 4.1b: 13 Bourke Street design for construction

4.2 14 Botany Street, Bondi Junction

The No Stopping restriction on the western side of Botany Street has been relocated so that it is 10 metres from the intersection with Llandaff Street. This provides an additional kerb-side parking space on Botany Street.

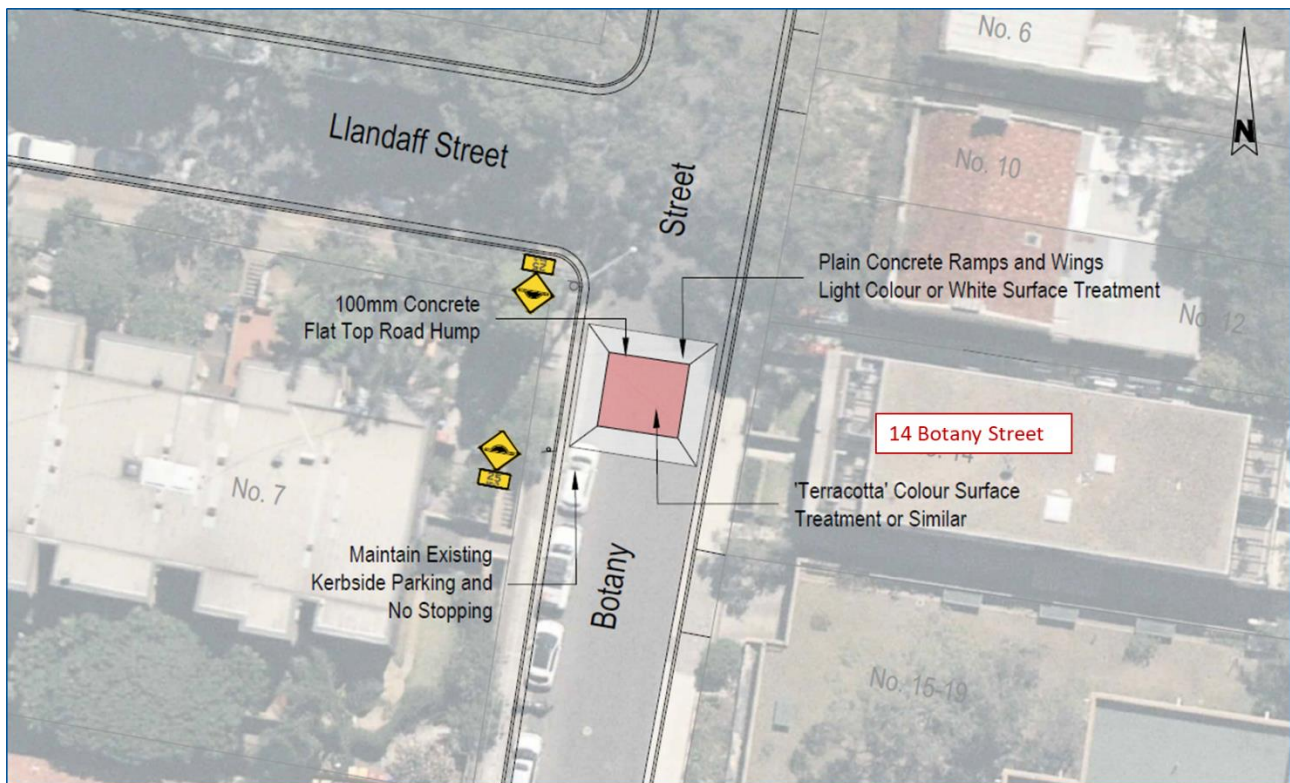


Figure 4.2a: 14 Botany Street concept design

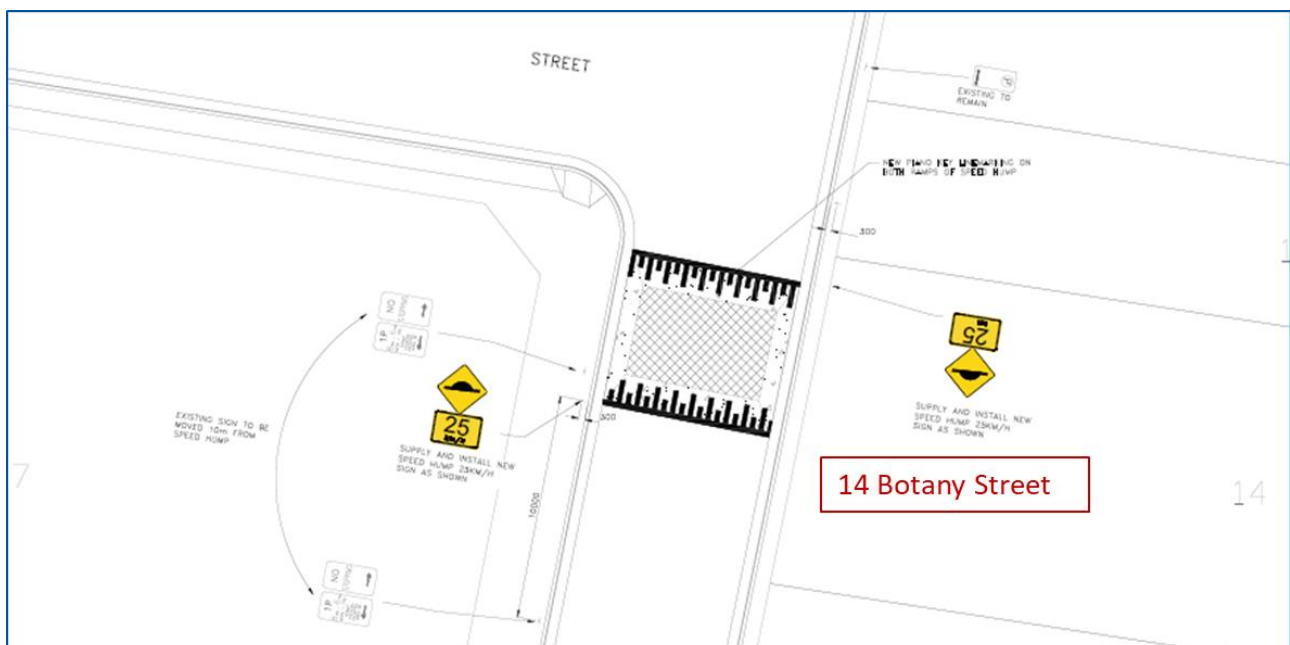


Figure 4.2b: 14 Botany Street design for construction

4.3 19 Park Parade, Bondi

The concept design allowed for a barrier on the eastern side of the speed hump. This was intended to deter people crossing Park Parade at this point on the assumption that it was a pedestrian crossing point. This is no longer required. The 750 mm wings on each side of the speed hump in the “design for construction” plans make it clear that it is not a pedestrian crossing. The wide wings also allow for cars to be parked on the side of the road over the speed hump.



Figure 4.3a: 19 Park Parade concept design

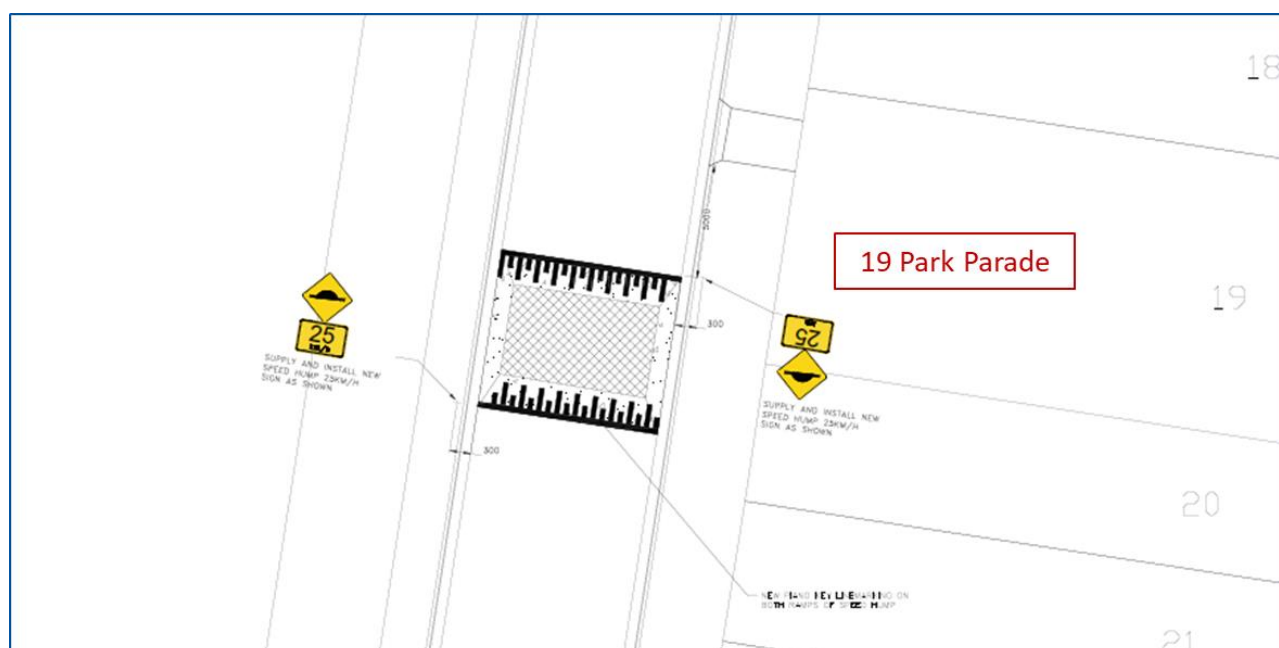


Figure 4.3b: 19 Park Parade design for construction

4.4 27 Bennett Street, Bondi Junction

The speed hump proposed adjacent to 27 Bennett Street has been moved north from an earlier location at 29 Bennett Street. It has been moved to avoid damaging tree routes.

Bennett Street is used by State Transit school special services. It is also used as a diversion for Bondi Road services during major events like New Years Eve when Bondi Rd is closed. The height of the speed hump in Bennett Street has been reduced from 100 mm to 75 mm to better accommodate these bus movements.



Figure 4.4a: 27 Bennett Street concept design

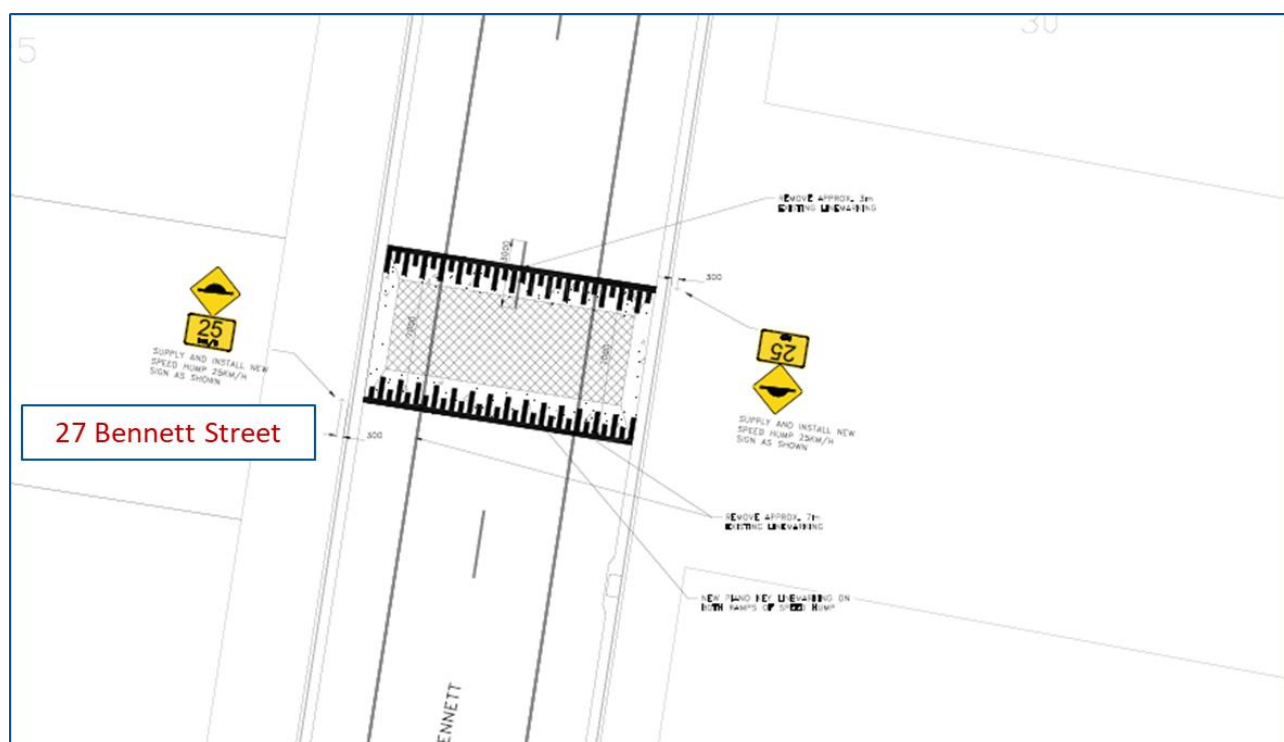


Figure 4.4b: 27 Bennett Street design for construction

4.5 91 Ruthven Street, Bondi Junction

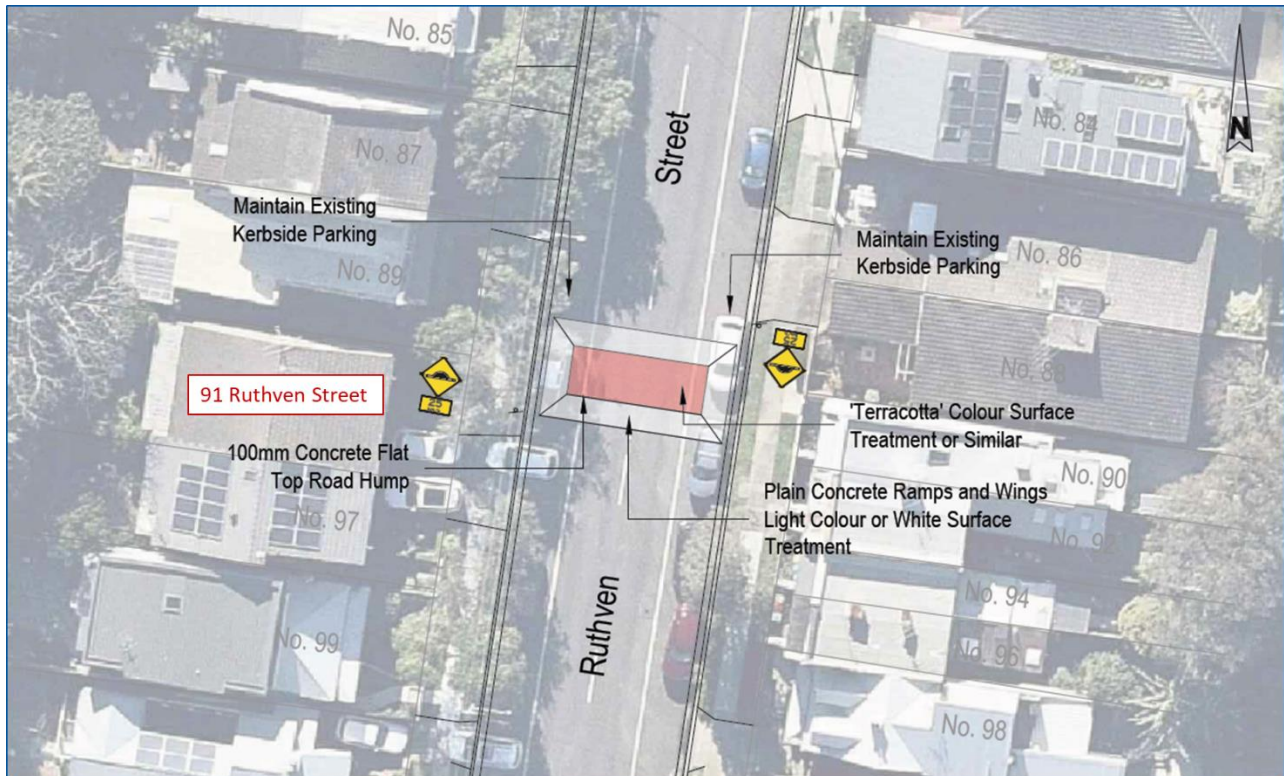


Figure 4.5a: 91 Ruthven Street concept design

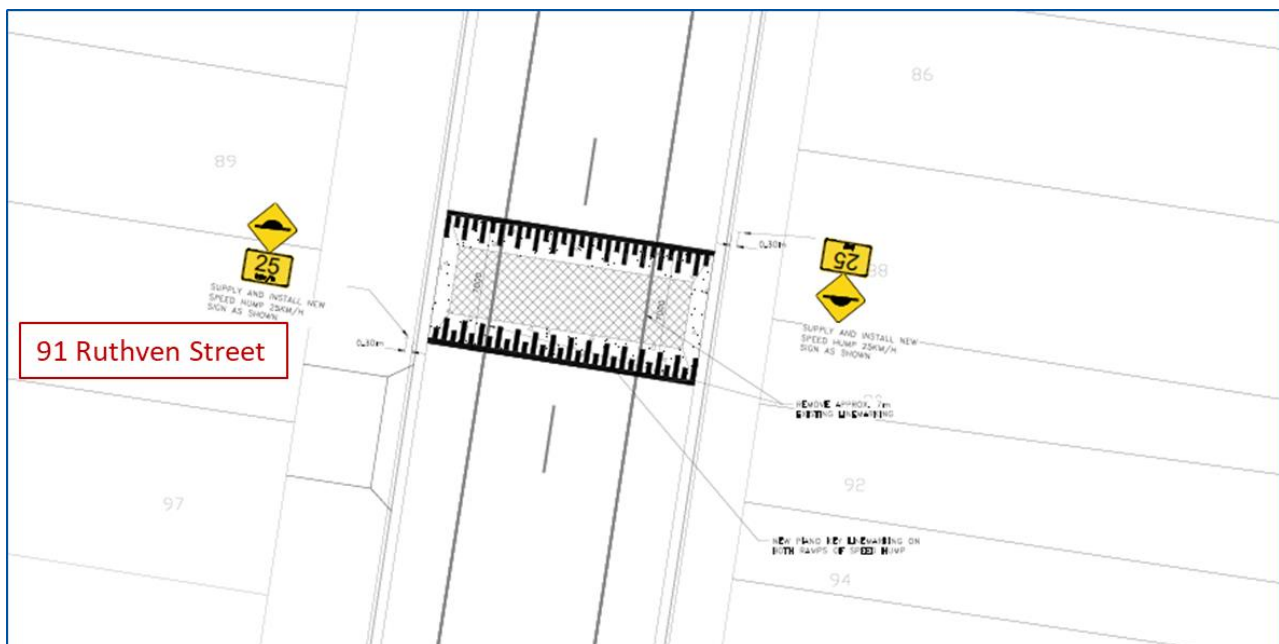
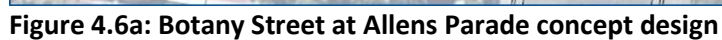


Figure 4.5b: 91 Ruthven Street design for construction

The B-B line on Botany Street will be reduced in length by 9400 mm so that it ends on the northern side of the speed hump.



5. Financial Information for Council's Consideration

The project delivery cost is currently estimated at \$1.4 million. Council has received a commitment of \$1 million for construction over two financial years from the RMS NSW Safe Speeds in High Pedestrian Activity and Local Area program. The first \$500,000 must be spent or committed by 30 June 2020 and the remaining \$500,000 fully acquitted by 30 June 2021. Council has allocated an additional \$400,000 in the draft 2021 capital works program.

Council has contacted and is awaiting approval from TfNSW to have funding for the 19/20 financial year transferred to 20/21 financial year, due to delays to the project through Council approvals and COVID-19.

6. Attachments

1. 13 BOURKE STREET SPEED HUMP [↓](#)
2. 14 BOTANY STREET SPEED HUMP [↓](#)
3. 19 PARK PARADE SPEED HUMP [↓](#)
4. 27 BENNETT STREET SPEED HUMP - 75 mm [↓](#)
5. 91 RUTHVEN STREET SPEED HUMP [↓](#)
6. BOTANY STREET SPEED HUMP [↓](#) .

FOR CONSTRUCTION

BONDI 40KM/H PROPOSAL AT 13 BOURKE STREET, BONDI JUNCTION PROPOSED SPEED HUMP

GENERAL NOTES

1. THE DESIGN DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT COUNCIL'S STANDARD DRAWINGS.
2. DURING CONSTRUCTION THE WORK IS TO BE SIGNPOSTED AND MARKED TO THE REQUIREMENTS OF AS1742.2-2009 AND AS1742.3-2009 "TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS".
3. A TRAFFIC MANAGEMENT PLAN & SITE SAFETY PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
4. SOIL AND WATER MANAGEMENT PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
5. ALL WORK IS TO BE CARRIED OUT TO BEST PRACTICE STANDARDS AND TO THE SATISFACTION OF COUNCIL'S PROJECT MANAGER.
6. THE WORK SITE IS TO BE PROTECTED USING APPROPRIATE SIGNAGE, FENCING, BARRICADING, AND PARAWEBBING FOR DURATION OF PROJECT CONSTRUCTION.
7. DURING WORKS, CONTRACTOR TO INSTALL TEMPORARY SIGNS - "CHANGED TRAFFIC CONDITIONS AHEAD" ON ALL APPROACHES 75-100M IN ADVANCE OF THE WORK SITE AND MAINTAIN FOR THE DURATION OF THE WORKS.
8. ALL RESIDENTS AFFECTED BY THE PROPOSED WORKS ARE TO BE NOTIFIED AT LEAST 3 WORKING DAYS BEFORE THE COMMENCEMENT OF ROADWORKS TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
9. SUITABLE VEHICULAR ACCESS SHALL BE MAINTAINED TO EACH DRIVEWAY OR ALTERNATIVE ARRANGEMENTS MADE WITH THE OWNERS.
10. WORK TO BE CARRIED OUT WITHIN THE APPROVED HOURS ONLY.

SERVICES

11. UTILITIES (IF SHOWN) ARE DIAGRAMMATIC ONLY AND HAVE BEEN PREPARED FROM THE INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THE SERVICE AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.
12. AUSGRID REQUIRES THAT CONTRACTOR SHOULD CONTACT THEM IF WORKING WITHIN 5.0M FROM UNDERGROUND ELECTRICITY CONDUITS.
13. WHERE EXISTING SERVICE COVERS ARE NOMINATED TO BE ADJUSTED TO DESIGN LEVELS, CONTRACTOR IS TO CARRY OUT ALL WORKS IN ACCORDANCE WITH RELEVANT SERVICE AUTHORITY REQUIREMENTS.
14. NO SERVICE COVERS ARE TO BE COVERED.

SIGNS & LINEMARKING

15. ALL TRAFFIC SIGNS TO COMPLY WITH NATSPEC 1192 & RMS SPECIFICATION R143 AND TO BE OF HIGH INTENSITY CLASS 1 REFLECTIVITY.
16. ALL LINEMARKING IS TO COMPLY WITH NATSPEC 1191 & RMS SPECIFICATION R141 - "PAVEMENT MARKING".
17. LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RRPMS TO COMPLY WITH RMS SPECIFICATION R142.
18. KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
19. ALL LINEMARKING AND RRPMS REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS ARE TO BE REINSTATED UNLESS NOTED OTHERWISE.
20. ALL EXISTING SIGNS TO REMAIN UNLESS NOTED OTHERWISE.
21. LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
22. REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
23. ALL SIGNPOSTING ON SPLITTER, KERB OR PEDESTRIAN REFUGE ISLANDS TO BE ERRECTED USING V-NOTCH INSERTS, UNLESS NOTED OTHERWISE.
24. UNLESS SHOWN ON PLANS, NO STATE SURVEY MARKS ARE TO BE REMOVED PRIOR TO CONSULTING WITH COUNCIL'S SUPERINTENDENT.
25. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. CONCRETE QUALITY.

ELEMENT	SLUMP	MAX AGGREGATE SIZE	CEMENT TYPE	CEMENT GRADE
ALL	80mm	20mm	GP	25MPa

NO ADMIXTURES SHALL BE USED WITHOUT THE APPROVAL OF COUNCIL'S SUPERINTENDENT.

3. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN-

ELEMENT	SURFACE OF MEMBER IN INTERIOR ENVIRONMENT	SURFACE OF MEMBER IN ABOVE GROUND EXTERIOR ENVIRONMENT	SURFACE OF MEMBER IN CONTACT WITH GROUND (1)	SURFACE OF MEMBER IN WATER
ALL	35	45	55	75

NOTE:
1. COVER MAY BE REDUCED BY 10mm IF THE SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE.
2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER, OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED ON THE DRAWINGS.

SIGNPOSTING SCHEDULE

SIGN NO.	QUANTITY	STEM	CONDITION	LOCATION
W3-4	2	LONG	NEW	VERGE

NOTE: SIGNS TO BE REMOVED ARE NOT INCLUDED IN THIS SCHEDULE.

DRAWING SCHEDULE

- 1/4 - NOTES AND SCHEDULES
- 2/4 - LAYOUT PLAN
- 3/4 - DETAILS PLAN
- 4/4 - SIGNAGE AND LINEMARKING PLAN

LEGEND

SYMBOLS	
	STATE SURVEY MARK
	PERMANENT SURVEY MARK
	SURVEY STATION
	DRILLED HOLE
	SURVEY NAIL
	SIGN
	SILENT COP
	COLUMN
	EXISTING SURFACE LEVEL
	BOLLARD
	HYDRANT
	POWER POLE
	LIGHT POLE
	ELECTRICITY & LIGHT POLE
	ELECTRICITY PILLAR
	PHONE BOOTH
	MAIL BOX
	TELECOM SERVICE COVER
	TELECOMMUNICATION PILLAR
	RUBBISH BIN
	STORMWATER MANHOLE
	SEWER MANHOLE
	STOP VALVE
	WATER METER
	GAS VALVE
	TRAFFIC LIGHT BOX
	TRAFFIC LIGHT
	UNKNOWN SERVICE COVER
	PARKING METER
	TREE

LINE STYLES	
	FENCELINE
	WOODEN FENCE
	HAND RAIL
	GUARD RAIL
	GATE
	BOUNDARY LINE
	TOP OF BANK
	TABLE DRAIN
	EXISTING DRAINAGE LINE
	NEW DRAINAGE LINE
	HEDGE
	EDGE OF TREE CANOPY
	EDGE OF BITUMEN
	LINEMARKING (TLC1, etc)
	LINEMARKING (TLC1, etc)

LOCATION OF WORKS



LOCALITY PLAN
(NTS)



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IN CASE OF EMERGENCY, CONTACT THE FOLLOWING UTILITIES IF THEIR SERVICES ARE INVOLVED:

TELSTRA	: 132203
AGL (GAS)	: 131245
SYDNEY WATER	: 132090
AUSGRID	: 131388

LINEMARKING
ALL NEW LINEMARKING TO BE IN THERMOPLASTIC UNLESS NOTED OTHERWISE

NOTE
ALL EXISTING SIGNS AND LINES TO REMAIN UNLESS NOTED OTHERWISE.

IMPORTANT
REDUNDANT LINE MARKING MUST BE REMOVED BY GRINDING WHERE INDICATED ON PLANS.

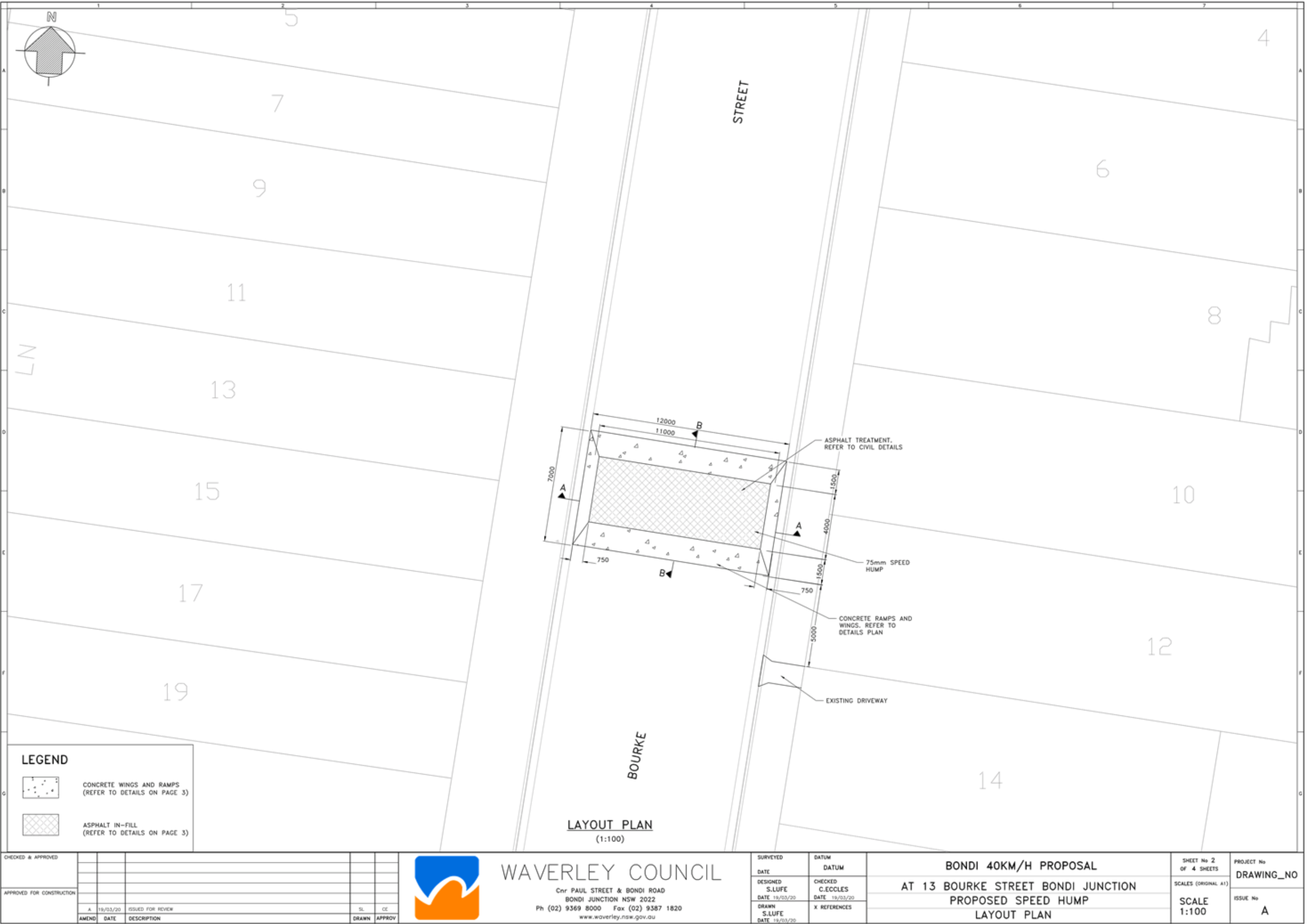
CHECKED & APPROVED					
APPROVED FOR CONSTRUCTION					
AMEND	DATE	DESCRIPTION	DRAWN	APPROVED	
A	19/03/20	ISSUED FOR REVIEW	SL	CE	

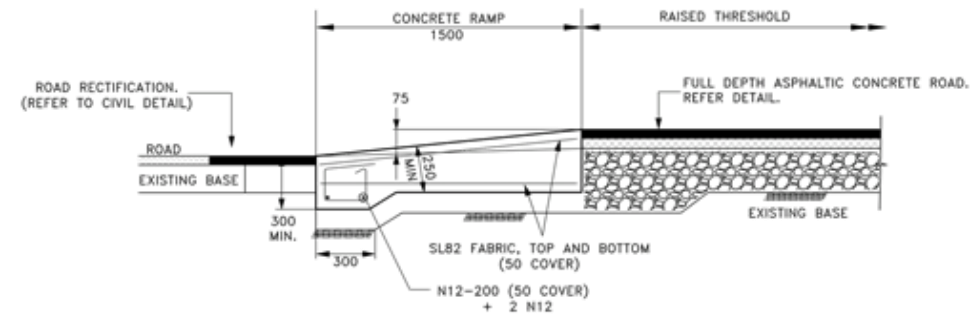


WAVERLEY COUNCIL

Cnr PAUL STREET & BONDI ROAD
BONDI JUNCTION NSW 2022
Ph (02) 9369 8000 Fax (02) 9387 1820
www.waverley.nsw.gov.au

SURVEYED DATE	DATUM DATE	BONDI 40KM/H PROPOSAL AT 13 BOURKE STREET BONDI JUNCTION PROPOSED SPEED HUMP NOTES AND SCHEDULES	SHEET No 1 OF 4 SHEETS SCALE (ORIGINAL A1) SCALE NTS	PROJECT No DRAWING_NO ISSUE No A
DESIGNED S.LUFE DATE 19/03/20	CHECKED C.ECCLES DATE 19/03/20			
DRAWN S.LUFE DATE 19/03/20	X REFERENCES			

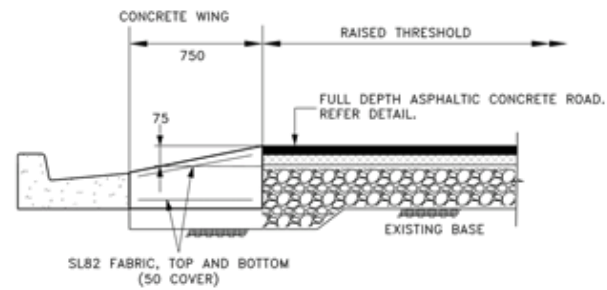




FULL DEPTH ASPHALT CROSSING WITH CONCRETE RAMPS

SECTION B-B

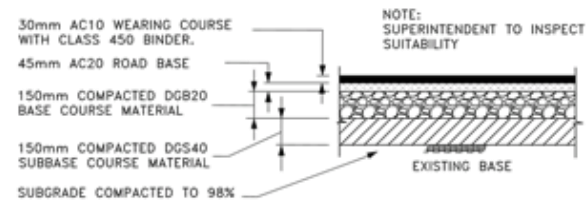
SCALE 1:20



FULL DEPTH ASPHALT CROSSING WITH CONCRETE WINGS

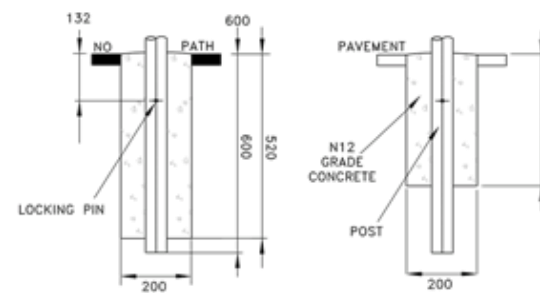
SECTION A-A

SCALE 1:20



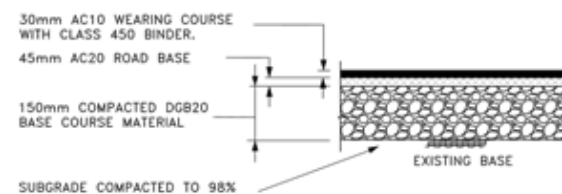
FULL DEPTH ASPHALT CONCRETE ROAD

SCALE 1:20



SIGNPOST FOOTING

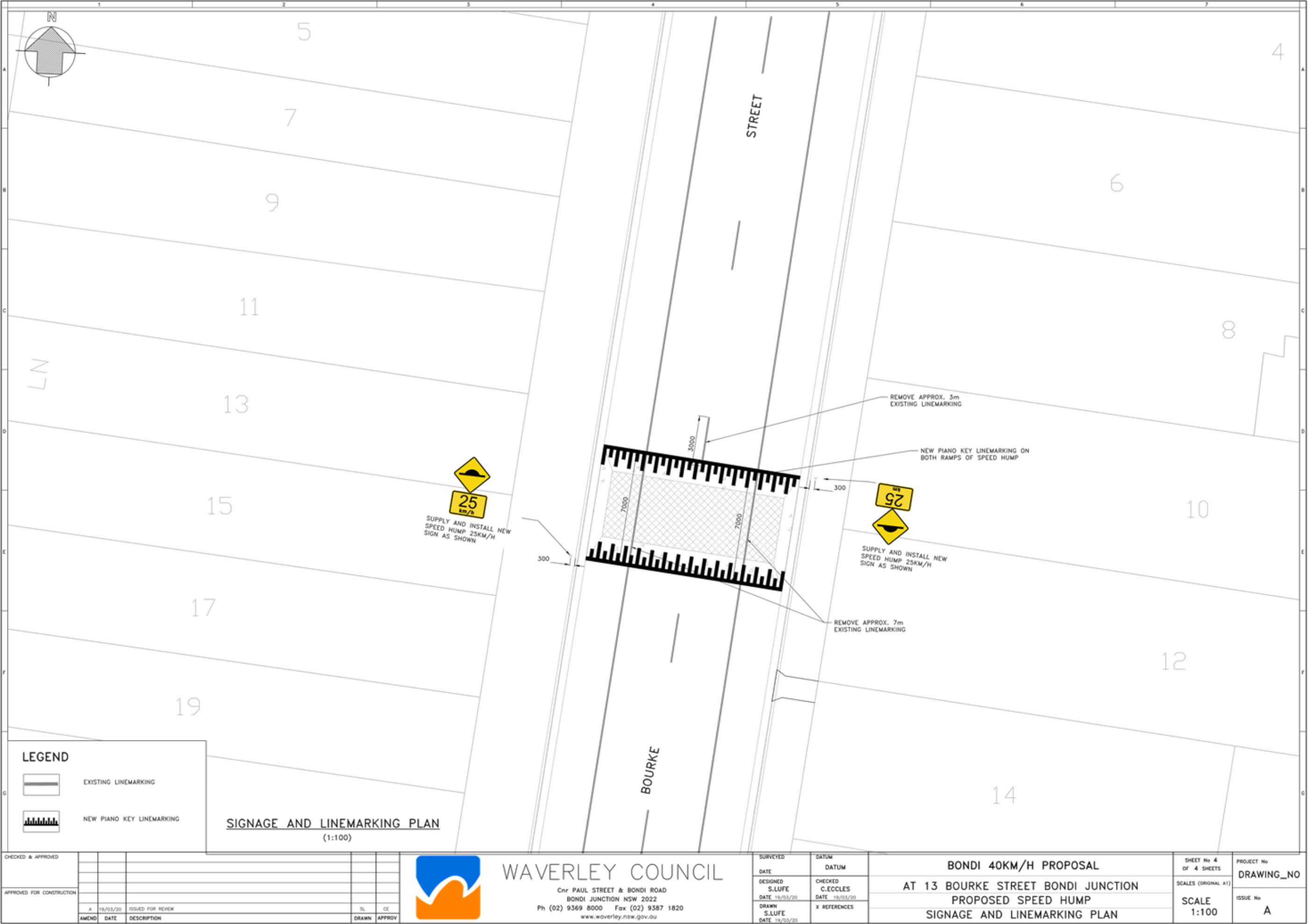
SCALE 1:10



ROAD RECTIFICATION

SCALE 1:20

CHECKED & APPROVED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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FOR CONSTRUCTION

BONDI 40KM/H PROPOSAL AT 14 BOTANY STREET, BONDI JUNCTION PROPOSED SPEED HUMP

GENERAL NOTES

1. THE DESIGN DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT COUNCIL'S STANDARD DRAWINGS.
2. DURING CONSTRUCTION THE WORK IS TO BE SIGNPOSTED AND MARKED TO THE REQUIREMENTS OF AS1742.2-2009 AND AS1742.3-2009 "TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS".
3. A TRAFFIC MANAGEMENT PLAN & SITE SAFETY PLAN IS TO BE SUBMITTED TO COUNCIL'S SUPERINTENDENT PRIOR TO IMPLEMENTATION.
4. SOIL AND WATER MANAGEMENT PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
5. ALL WORK IS TO BE CARRIED OUT TO BEST PRACTICE STANDARDS AND TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
6. THE WORK SITE IS TO BE PROTECTED USING APPROPRIATE SIGNAGE, FENCING, BARRICADING, AND PARAWEBBING FOR DURATION OF PROJECT CONSTRUCTION.
7. DURING WORKS, CONTRACTOR TO INSTALL TEMPORARY SIGNS - "CHANGED TRAFFIC CONDITIONS AHEAD" ON ALL APPROACHES 75-100M IN ADVANCE OF THE WORK SITE AND MAINTAIN FOR THE DURATION OF THE WORKS.
8. ALL RESIDENTS AFFECTED BY THE PROPOSED WORKS ARE TO BE NOTIFIED AT LEAST 3 WORKING DAYS BEFORE THE COMMENCEMENT OF ROADWORKS TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
9. SUITABLE VEHICULAR ACCESS SHALL BE MAINTAINED TO EACH DRIVEWAY OR ALTERNATIVE ARRANGEMENTS MADE WITH THE OWNERS.
10. WORK TO BE CARRIED OUT WITHIN THE APPROVED HOURS ONLY.

SERVICES

11. UTILITIES (IF SHOWN) ARE DIAGRAMMATIC ONLY AND HAVE BEEN PREPARED FROM THE INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THE SERVICE AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.
12. AUSGRID REQUIRES THAT CONTRACTOR SHOULD CONTACT THEM IF WORKING WITHIN 5.0M FROM UNDERGROUND ELECTRICITY CONDUITS.
13. WHERE EXISTING SERVICE COVERS ARE NOMINATED TO BE ADJUSTED TO DESIGN LEVELS, CONTRACTOR IS TO CARRY OUT ALL WORKS IN ACCORDANCE WITH RELEVANT SERVICE AUTHORITY REQUIREMENTS.
14. NO SERVICE COVERS ARE TO BE COVERED.

SIGNS & LINEMARKING

15. ALL TRAFFIC SIGNS TO COMPLY WITH NATSPEC 1192 & RMS SPECIFICATION R143 AND TO BE OF HIGH INTENSITY CLASS 1 REFLECTIVITY.
16. ALL LINEMARKING IS TO COMPLY WITH NATSPEC 1191 & RMS SPECIFICATION R141 - "PAVEMENT MARKING".
17. LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RRPMS TO COMPLY WITH RMS SPECIFICATION R142.
18. KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
19. ALL LINEMARKING AND RRPMS REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS ARE TO BE REINSTATED UNLESS NOTED OTHERWISE.
20. ALL EXISTING SIGNS TO REMAIN UNLESS NOTED OTHERWISE.
21. LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
22. REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
23. ALL SIGNPOSTING ON SPLITTER, KERB OR PEDESTRIAN REFUGE ISLANDS TO BE ERECTED USING V-NOTCH INSERTS, UNLESS NOTED OTHERWISE.
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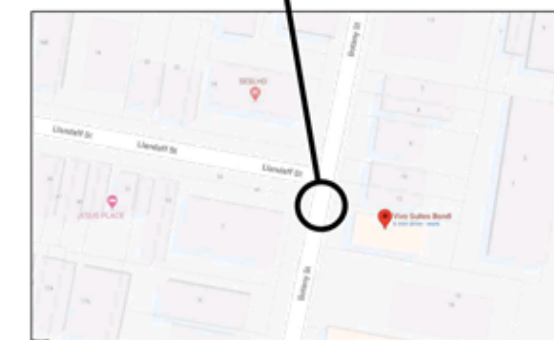
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■	TELECOMMUNICATION PILLAR
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○	STORMWATER MANHOLE
○	SEWER MANHOLE
■	STOP VALVE
○	WATER METER
○	GAS VALVE
■	TRAFFIC LIGHT BOX
■	UNKNOWN SERVICE COVER
○	PARKING METER
○	TREE
LINE STYLES	
—	FENCELINE
—	WOODEN FENCE
—	HAND RAIL
—	GUARD RAIL
—	GATE
—	BOUNDARY LINE
—	TOP OF BANK
—	TABLE DRAIN
—	EXISTING DRAINAGE LINE
—	NEW DRAINAGE LINE
—	HEDGE
—	EDGE OF TREE CANOPY
—	EDGE OF BITUMEN
—	LINEMARKING (100, 150, 200)
—	LINEMARKING (150, 200, 250)

LOCATION OF WORKS



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(NTS)



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SYDNEY WATER : 132090
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APPROVED FOR CONSTRUCTION					
AMEND	DATE	DESCRIPTION	DRAWN	APPROVED	
A	19/03/20	ISSUED FOR REVIEW	SL	CE	



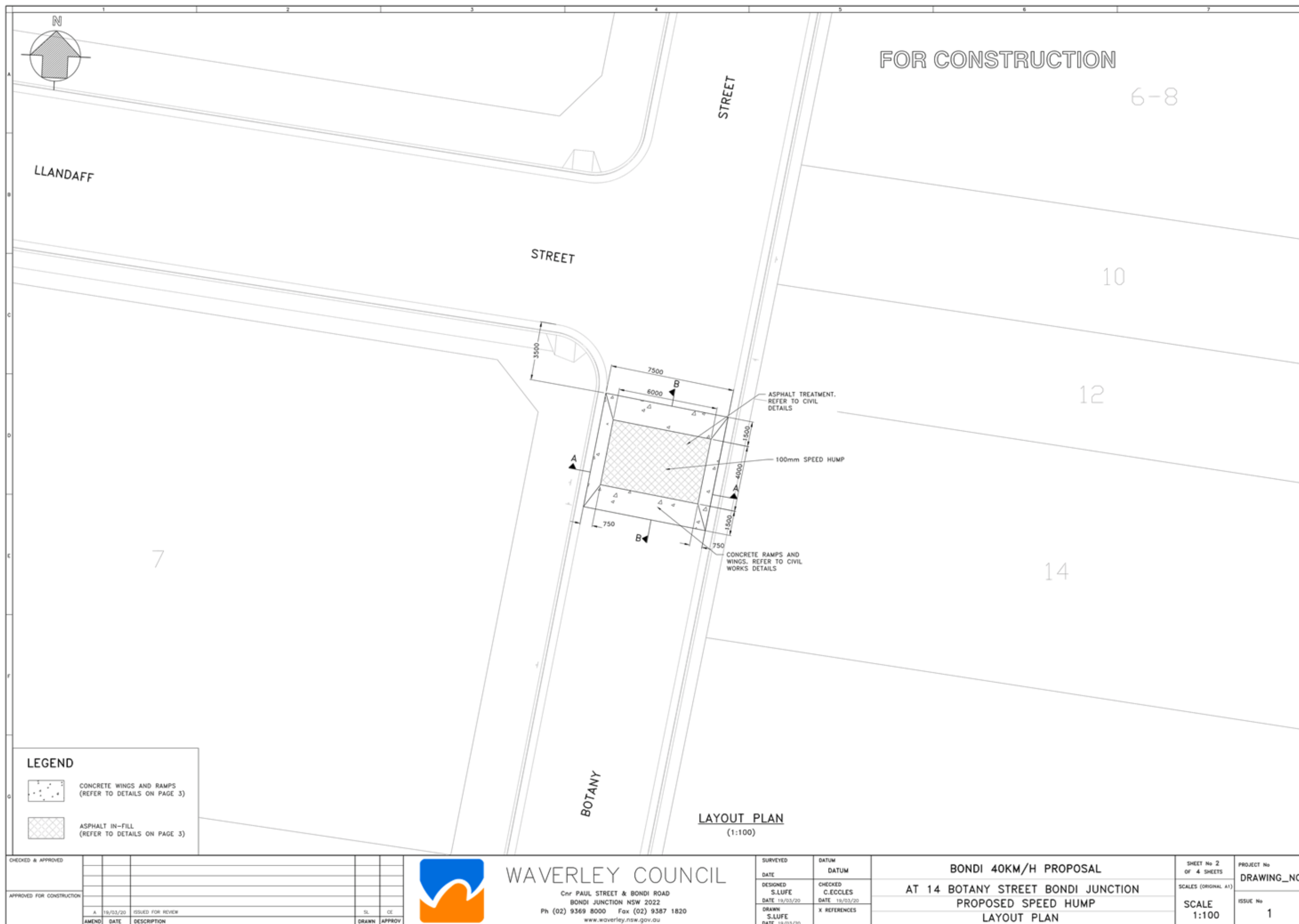
WAVERLEY COUNCIL

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BONDI JUNCTION NSW 2022
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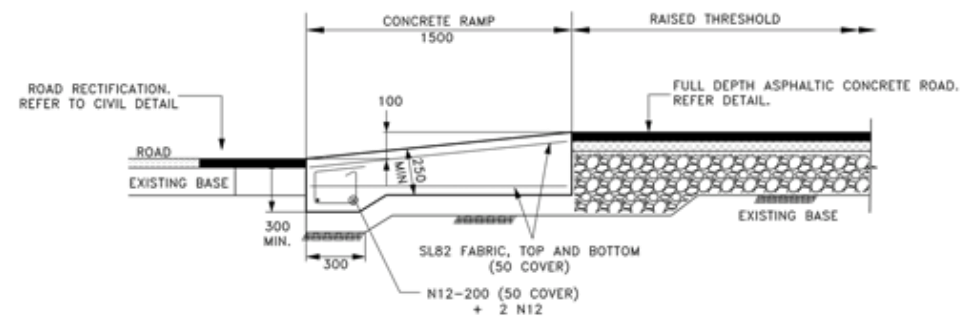
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DESIGNED S.LUFE	CHECKED C.ECCLES
DATE 19/03/20	DATE 19/03/20
DRAWN S.LUFE	X REFERENCES
DATE 19/03/20	

BONDI 40KM/H PROPOSAL
AT 14 BOTANY STREET BONDI JUNCTION
PROPOSED SPEED HUMP
NOTES AND SCHEDULES

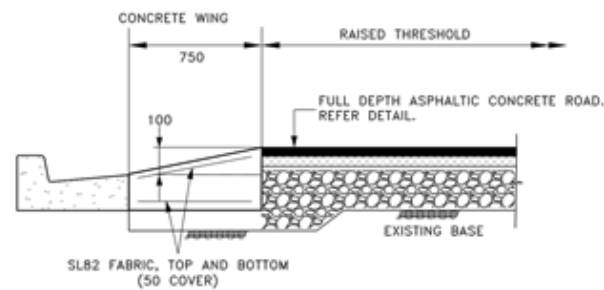
SHEET No 1 OF 4 SHEETS	PROJECT No
SCALE (ORIGINAL A1)	DRAWING_NO
SCALE NTS	ISSUE No 1



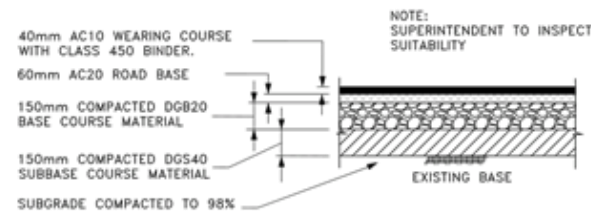
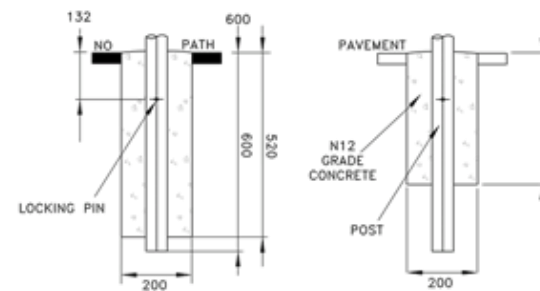
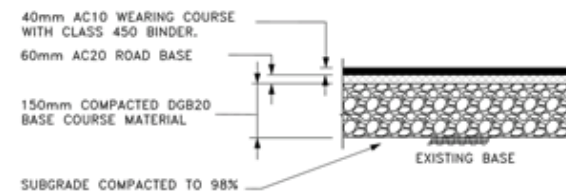
FOR CONSTRUCTION



FULL DEPTH ASPHALT CROSSING WITH CONCRETE RAMPS

SECTION B-B
SCALE 1:20

FULL DEPTH ASPHALT CROSSING WITH CONCRETE WINGS

SECTION A-A
SCALE 1:20FULL DEPTH ASPHALT CONCRETE ROAD
SCALE 1:20SIGNPOST FOOTING
SCALE 1:10ROAD RECTIFICATION
SCALE 1:20

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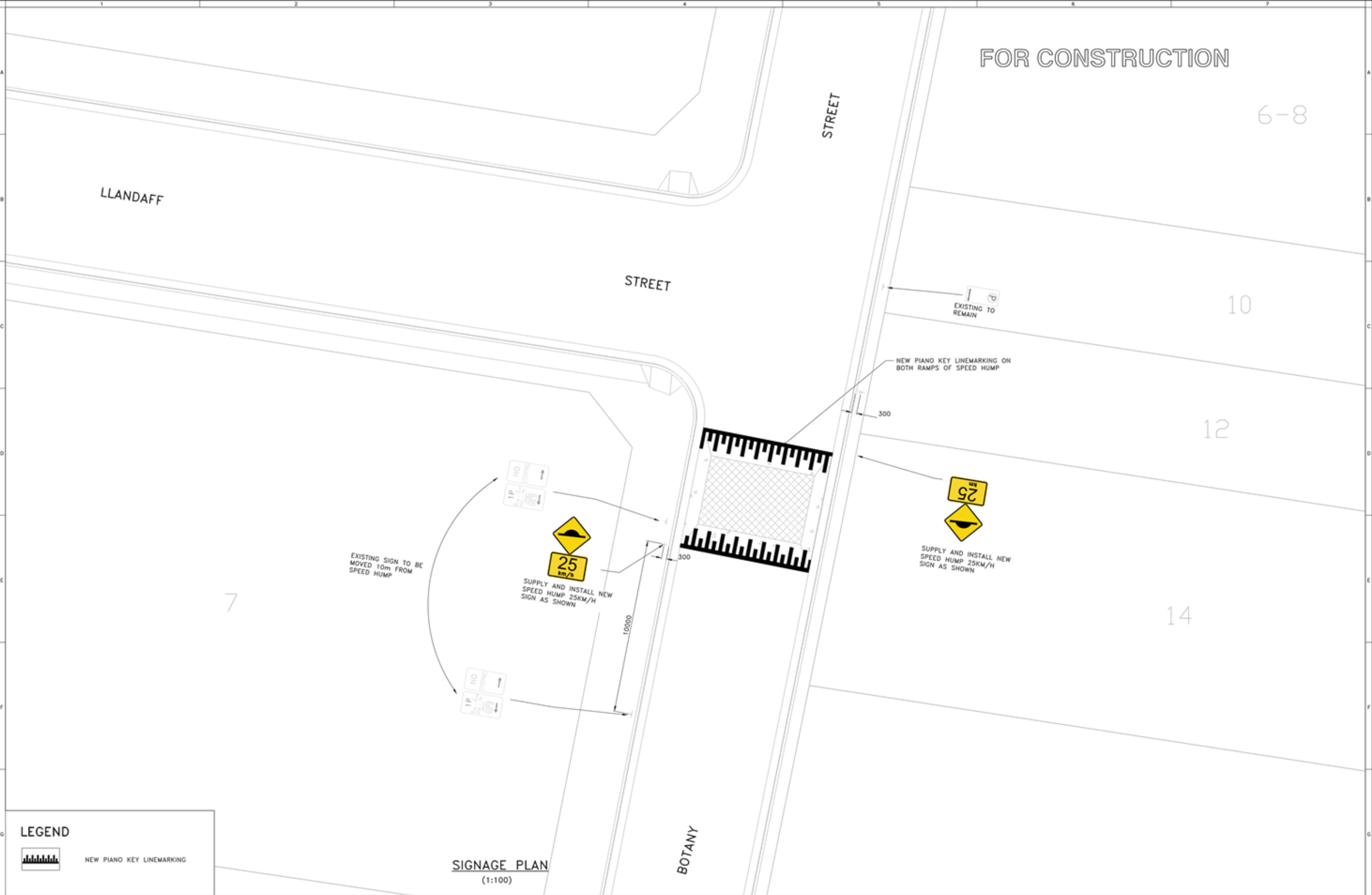
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SURVEYED	DATUM
DATE	DATUM
DESIGNED	CHECKED
S.LUFE	C.ECCLES
DATE 19/03/20	DATE 19/03/20
DRAWN	X REFERENCES
S.LUFE	
DATE 19/03/20	

BONDI 40KM/H PROPOSAL
AT 14 BOTANY STREET BONDI JUNCTION
PROPOSED SPEED HUMP
DETAILS PLAN

SHEET No 3 OF 4 SHEETS	PROJECT No DRAWING_NO
SCALE 1:20	ISSUE No 1



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FOR CONSTRUCTION

BONDI 40KM/H PROPOSAL AT 19 PARK PARADE, BONDI PROPOSED SPEED HUMP

GENERAL NOTES

1. THE DESIGN DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT COUNCIL'S STANDARD DRAWINGS.
2. DURING CONSTRUCTION THE WORK IS TO BE SIGNPOSTED AND MARKED TO THE REQUIREMENTS OF AS1742.2-2009 AND AS1742.3-2009 "TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS".
3. A TRAFFIC MANAGEMENT PLAN & SITE SAFETY PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
4. SOIL AND WATER MANAGEMENT PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
5. ALL WORK IS TO BE CARRIED OUT TO BEST PRACTICE STANDARDS AND TO THE SATISFACTION OF COUNCIL'S PROJECT MANAGER.
6. THE WORK SITE IS TO BE PROTECTED USING APPROPRIATE SIGNAGE, FENCING, BARRICADING, AND PARAWEBBING FOR DURATION OF PROJECT CONSTRUCTION.
7. DURING WORKS, CONTRACTOR TO INSTALL TEMPORARY SIGNS - "CHANGED TRAFFIC CONDITIONS AHEAD" ON ALL APPROACHES 75-100M IN ADVANCE OF THE WORK SITE AND MAINTAIN FOR THE DURATION OF THE WORKS.
8. ALL RESIDENTS AFFECTED BY THE PROPOSED WORKS ARE TO BE NOTIFIED AT LEAST 3 WORKING DAYS BEFORE THE COMMENCEMENT OF ROADWORKS TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
9. SUITABLE VEHICULAR ACCESS SHALL BE MAINTAINED TO EACH DRIVEWAY OR ALTERNATIVE ARRANGEMENTS MADE WITH THE OWNERS.
10. WORK TO BE CARRIED OUT WITHIN THE APPROVED HOURS ONLY.

SERVICES

11. UTILITIES (IF SHOWN) ARE DIAGRAMMATIC ONLY AND HAVE BEEN PREPARED FROM THE INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THE SERVICE AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.
12. AUSGRID REQUIRES THAT CONTRACTOR SHOULD CONTACT THEM IF WORKING WITHIN 5.0M FROM UNDERGROUND ELECTRICITY CONDUITS.
13. WHERE EXISTING SERVICE COVERS ARE NOMINATED TO BE ADJUSTED TO DESIGN LEVELS, CONTRACTOR IS TO CARRY OUT ALL WORKS IN ACCORDANCE WITH RELEVANT SERVICE AUTHORITY REQUIREMENTS.
14. NO SERVICE COVERS ARE TO BE COVERED.

SIGNS & LINEMARKING

15. ALL TRAFFIC SIGNS TO COMPLY WITH NATSPEC 1192 & RMS SPECIFICATION R143 AND TO BE OF HIGH INTENSITY CLASS 1 REFLECTIVITY.
16. ALL LINEMARKING IS TO COMPLY WITH NATSPEC 1191 & RMS SPECIFICATION R141 - "PAVEMENT MARKING".
17. LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RRPMS TO COMPLY WITH RMS SPECIFICATION R142.
18. KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
19. ALL LINEMARKING AND RRPMS REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS ARE TO BE REINSTATED UNLESS NOTED OTHERWISE.
20. ALL EXISTING SIGNS TO REMAIN UNLESS NOTED OTHERWISE.
21. LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
22. REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
23. ALL SIGNPOSTING ON SPUTTER, KERB OR PEDESTRIAN REFUGE ISLANDS TO BE ERECTED USING V-NOTCH INSERTS, UNLESS NOTED OTHERWISE.
24. UNLESS SHOWN ON PLANS, NO STATE SURVEY MARKS ARE TO BE REMOVED PRIOR TO CONSULTING WITH COUNCIL'S SUPERINTENDENT.
25. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. CONCRETE QUALITY.

ELEMENT	SUMP	MAX AGGREGATE SIZE	CEMENT TYPE	CEMENT GRADE
ALL	80mm	20mm	GP	25MPa

NO ADMIXTURES SHALL BE USED WITHOUT THE APPROVAL OF COUNCIL'S SUPERINTENDENT.

3. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN-

ELEMENT	SURFACE OF MEMBER IN INTERIOR ENVIRONMENT	SURFACE OF MEMBER IN ABOVE GROUND EXTERIOR ENVIRONMENT	SURFACE OF MEMBER IN CONTACT WITH GROUND (1)	SURFACE OF MEMBER IN WATER
ALL	35	45	55	75

NOTE:
1. COVER MAY BE REDUCED BY 10mm IF THE SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE.
2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER, OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED ON THE DRAWINGS.

SIGNPOSTING SCHEDULE

SIGN NO.	QUANTITY	STEM	CONDITION	LOCATION
W3-4	2	LONG	NEW	VERGE

NOTE: SIGNS TO BE REMOVED ARE NOT INCLUDED IN THIS SCHEDULE.

DRAWING SCHEDULE

- 1/4 - NOTES AND SCHEDULES
2/4 - LAYOUT PLAN
3/4 - DETAILS PLAN
4/4 - SIGNAGE AND LINEMARKING PLAN

LEGEND

SYMBOLS

- STATE SURVEY MARK
- PERMANENT SURVEY MARK
- SURVEY STATION
- DRILLED HOLE
- SURVEY NAIL
- SIGN
- SALENT COP
- COLUMN
- EXISTING SURFACE LEVEL
- BOLLARD
- HYDRANT
- POWER POLE
- ELECTRICITY & LIGHT POLE
- ELECTRICITY PILLAR
- PHONE BOOTH
- MAIL BOX
- TELECOMM. SERVICE COVER
- TELECOMMUNICATION PILLAR
- RUBBISH BIN
- SEWER MANHOLE
- STOP VALVE
- WATER METER
- GAS VALVE
- TRAFFIC LIGHT BOX
- TRAFFIC LIGHT
- UNKNOWN SERVICE COVER
- PARKING METER
- TREE

LINE STYLES

- FENCELINE
- WOODEN FENCE
- HAND RAIL
- GUARD RAIL
- GATE
- BOUNDARY LINE
- TOP OF BANK
- TABLE DRAIN
- EXISTING DRAINAGE LINE
- NEW DRAINAGE LINE
- HEDGE
- EDGE OF TREE CANOPY
- EDGE OF BITUMEN
- LINEMARKING (T8,C1, etc)
- LINEMARKING (E1,E4, etc)

LOCATION OF WORKS



LOCALITY PLAN
(NTS)



UTILITIES, IF SHOWN, ARE DIAGRAMMATIC ONLY. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.

IN CASE OF EMERGENCY, CONTACT THE FOLLOWING UTILITIES IF THEIR SERVICES ARE INVOLVED:

- TELSTRA : 132203
- AGL (GAS) : 131245
- SYDNEY WATER : 132090
- AUSGRID : 131388

LINEMARKING

ALL NEW LINEMARKING TO BE IN THERMOPLASTIC UNLESS NOTED OTHERWISE

NOTE

ALL EXISTING SIGNS AND LINES TO REMAIN UNLESS NOTED OTHERWISE.

IMPORTANT

REDUNDANT LINE MARKING MUST BE REMOVED BY GRINDING WHERE INDICATED ON PLANS.

CHECKED & APPROVED					
APPROVED FOR CONSTRUCTION					
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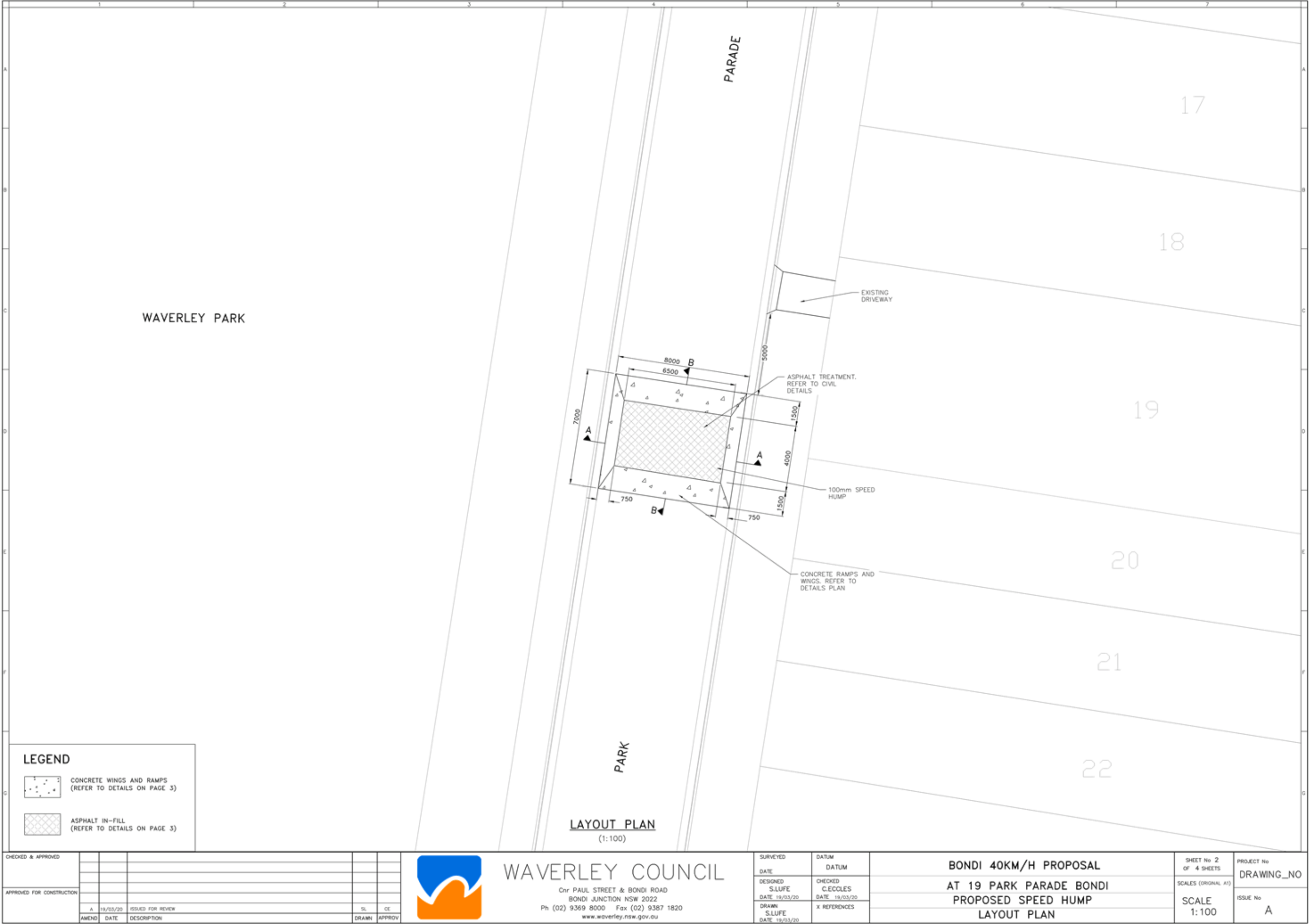
WAVERLEY COUNCIL

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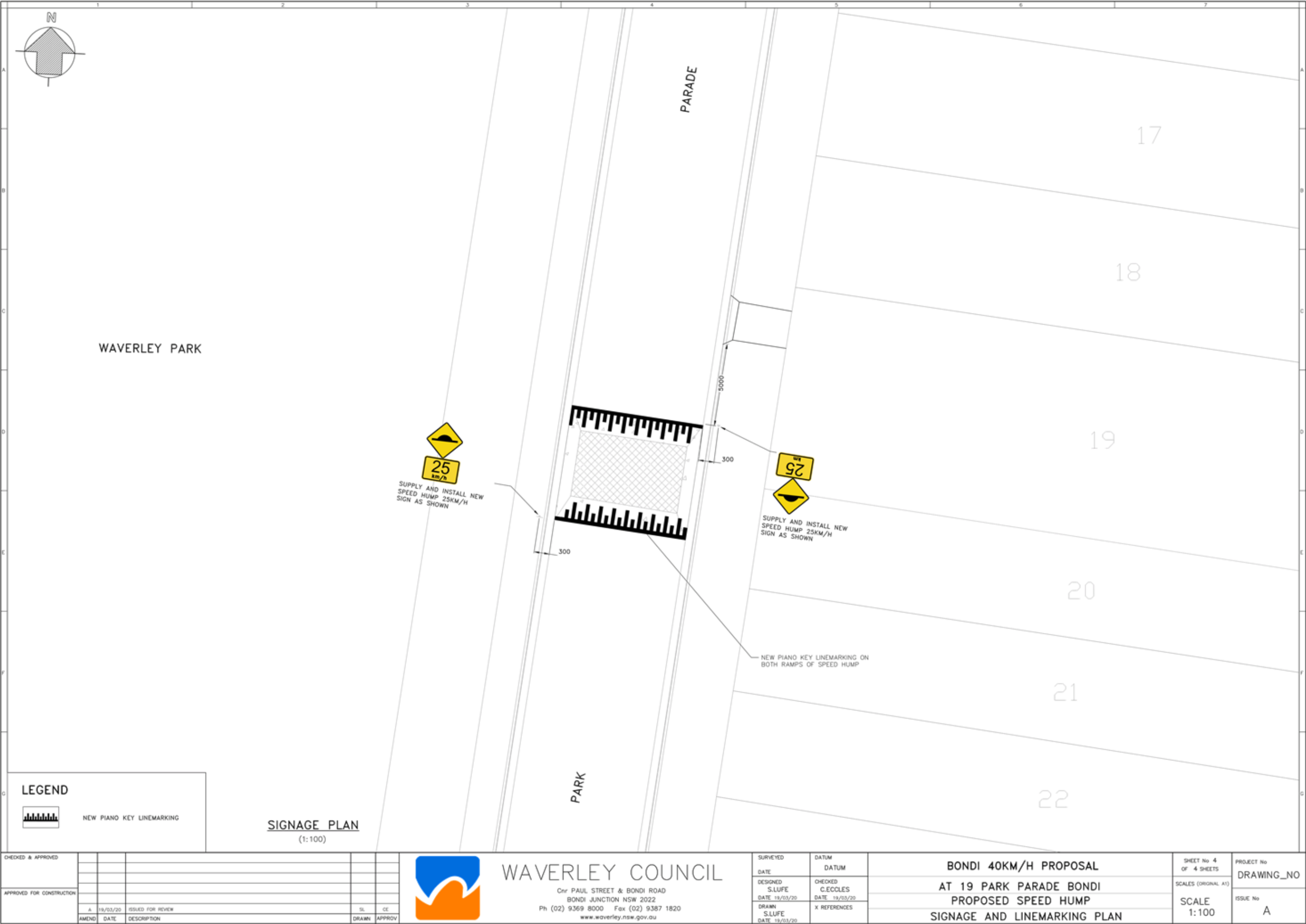
SURVEYED	DATUM
DATE	DATUM
DESIGNED	CHECKED
DATE 19/03/20	DATE 19/03/20
DRAWN	X REFERENCES
DATE 19/03/20	

BONDI 40KM/H PROPOSAL
AT 19 PARK PARADE BONDI
PROPOSED SPEED HUMP
NOTES AND SCHEDULES

SHEET No 1 OF 4 SHEETS	PROJECT No DRAWING_NO
SCALE NTS	ISSUE No A



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FOR CONSTRUCTION

BONDI 40KM/H PROPOSAL AT 27 BENNETT STREET, BONDI JUNCTION PROPOSED SPEED HUMP

GENERAL NOTES

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- ALL LINEMARKING IS TO COMPLY WITH NATSPEC 1191 & RMS SPECIFICATION R141 - "PAVEMENT MARKING".
- LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RRPMS TO COMPLY WITH RMS SPECIFICATION R142.
- KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
- ALL LINEMARKING AND RRPMS REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS ARE TO BE REINSTATED UNLESS NOTED OTHERWISE.
- ALL EXISTING SIGNS TO REMAIN UNLESS NOTED OTHERWISE.
- LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
- REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
- ALL SIGNPOSTING ON SPLITTER, KERB OR PEDESTRIAN REFUGE ISLANDS TO BE ERECTED USING V-NOTCH INSERTS, UNLESS NOTED OTHERWISE.
- UNLESS SHOWN ON PLANS, NO STATE SURVEY MARKS ARE TO BE REMOVED PRIOR TO CONSULTING WITH COUNCIL'S SUPERINTENDENT.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.

CONCRETE

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- CONCRETE QUALITY.

ELEMENT	SLUMP	MAX AGGREGATE SIZE	CEMENT TYPE	CEMENT GRADE
ALL	80mm	20mm	GP	25MPa

NO ADMIXTURES SHALL BE USED WITHOUT THE APPROVAL OF COUNCIL'S SUPERINTENDENT.

- CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN-

ELEMENT	SURFACE OF MEMBER IN INTERIOR ENVIRONMENT	SURFACE OF MEMBER IN ABOVE GROUND EXTERIOR ENVIRONMENT	SURFACE OF MEMBER IN CONTACT WITH GROUND (1)	SURFACE OF MEMBER IN WATER
ALL	35	45	55	75

NOTE:
1. COVER MAY BE REDUCED BY 10mm IF THE SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE.
2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER, OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED ON THE DRAWINGS.

SIGNPOSTING SCHEDULE

SIGN NO.	QUANTITY	STEM	CONDITION	LOCATION
W3-4	2	LONG	NEW	VERGE

NOTE: SIGNS TO BE REMOVED ARE NOT INCLUDED IN THIS SCHEDULE.

DRAWING SCHEDULE

- 1/4 - NOTES AND SCHEDULES
- 2/4 - LAYOUT PLAN
- 3/4 - DETAILS PLAN
- 4/4 - SIGNAGE AND LINEMARKING PLAN

LEGEND

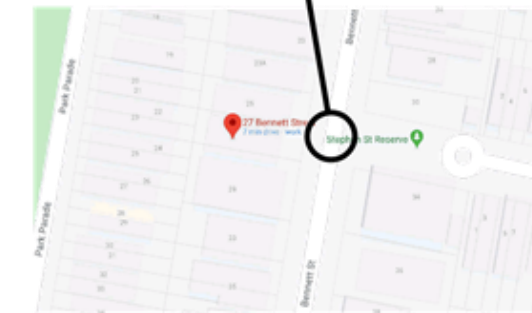
SYMBOLS

- STATE SURVEY MARK
- PERMANENT SURVEY MARK
- SURVEY STATION
- DRILLED HOLE
- SURVEY NAIL
- SIGN
- SILENT COP
- COLUMN
- EXISTING SURFACE LEVEL
- BOLLARD
- HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRICITY & LIGHT POLE
- ELECTRICITY PILLAR
- PHONE BOOTH
- MAIL BOX
- TELECOMM. SERVICE COVER
- TELECOMMUNICATION PILLAR
- RUBBISH BIN
- STORMWATER MANHOLE
- SEWER MANHOLE
- STOP VALVE
- WATER METER
- GAS VALVE
- TRAFFIC LIGHT BOX
- TRAFFIC LIGHT
- UNKNOWN SERVICE COVER
- PARKING METER
- TREE

LINE STYLES

- FENCELINE
- WOODEN FENCE
- HAND RAIL
- GUARD RAIL
- GATE
- BOUNDARY LINE
- TOP OF BANK
- TABLE DRAIN
- EXISTING DRAINAGE LINE
- NEW DRAINAGE LINE
- HEDGE
- EDGE OF TREE CANOPY
- EDGE OF BITUMEN
- LINEMARKING (TILE, etc)
- LINEMARKING (11,14, etc)

LOCATION OF WORKS



LOCALITY PLAN
(NTS)



UTILITIES, IF SHOWN, ARE DIAGRAMMATIC ONLY. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.

IN CASE OF EMERGENCY, CONTACT THE FOLLOWING UTILITIES IF THEIR SERVICES ARE INVOLVED:

TELSTRA	: 132203
AGL (GAS)	: 131245
SYDNEY WATER	: 132090
AUSGRID	: 131388

LINEMARKING
ALL NEW LINEMARKING TO BE IN THERMOPLASTIC UNLESS NOTED OTHERWISE

NOTE
ALL EXISTING SIGNS AND LINES TO REMAIN UNLESS NOTED OTHERWISE.

IMPORTANT
REDUNDANT LINE MARKING MUST BE REMOVED BY GRINDING WHERE INDICATED ON PLANS.

CHECKED & APPROVED					
APPROVED FOR CONSTRUCTION					
AMEND	DATE	DESCRIPTION	DRAWN	APPROV	
A	19/03/20	ISSUED FOR REVIEW	SL	CE	




WAVERLEY COUNCIL

Cnr PAUL STREET & BONDI ROAD
BONDI JUNCTION NSW 2022
Ph (02) 9369 8000 Fax (02) 9387 1820
www.waverley.nsw.gov.au


SURVEYED DATE	DATUM DATUM	BONDI 40KM/H PROPOSAL AT 27 BENNETT STREET BONDI PROPOSED SPEED HUMP NOTES AND SCHEDULES	SHEET No 1 OF 4 SHEETS	PROJECT No DRAWING_NO
DESIGNED S.LUFE DATE 19/03/20	CHECKED C.ECCLES DATE 19/03/20		SCALES (ORIGINAL A1)	ISSUE No A
DRAWN S.LUFE DATE 19/03/20	X REFERENCES		SCALE NTS	



LEGEND



CONCRETE WINGS AND RAMP
(REFER TO DETAILS ON PAGE 3)



ASPHALT IN-FILL
(REFER TO DETAILS ON PAGE 3)

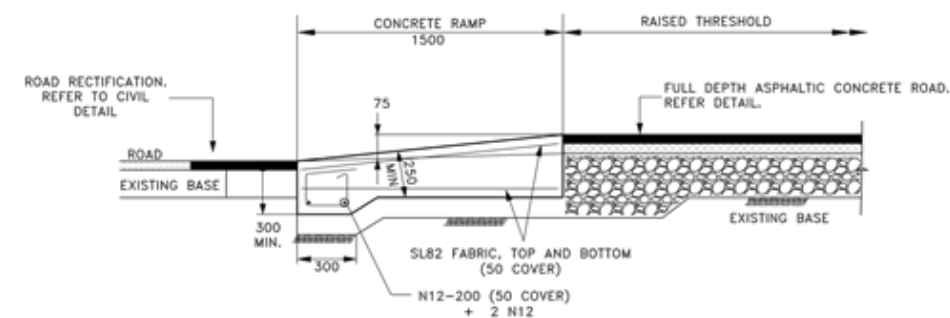
CHECKED & APPROVED																			
APPROVED FOR CONSTRUCTION																			
A				19/03/20				ISSUED FOR REVIEW				SL				CE			
AMEND				DATE				DESCRIPTION				DRAWN				APPROV			



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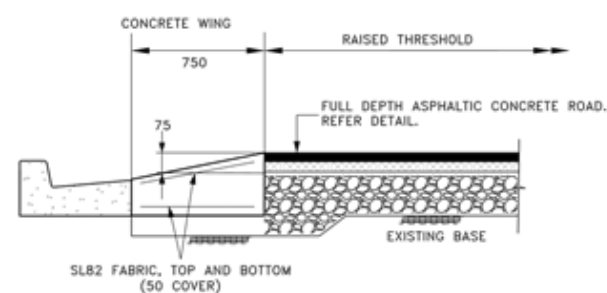
SURVEYED DATE	DATUM DATUM	BONDI 40KM/H PROPOSAL AT 27 BENNETT STREET BONDI PROPOSED SPEED HUMP LAYOUT PLAN				SHEET No 2 OF 4 SHEETS	PROJECT No
DESIGNED S.LUFE DATE 19/03/20	CHECKED C.ECCLES DATE 19/03/20					SCALES (ORIGINAL A1)	DRAWING_NO
DRAWN S.LUFE DATE 19/03/20	X REFERENCES					SCALE 1:100	ISSUE No A



FULL DEPTH ASPHALT CROSSING WITH CONCRETE RAMPS

SECTION B-B

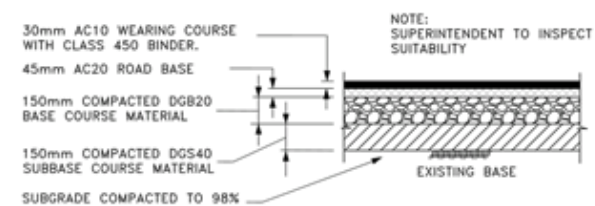
SCALE 1:20



FULL DEPTH ASPHALT CROSSING WITH CONCRETE WINGS

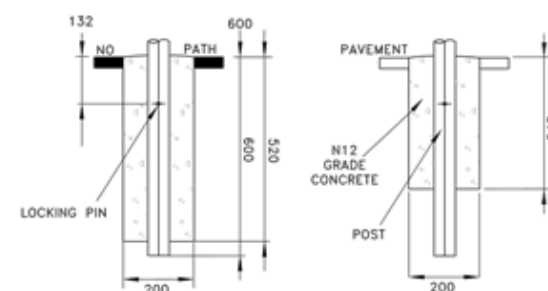
SECTION A-A

SCALE 1:20



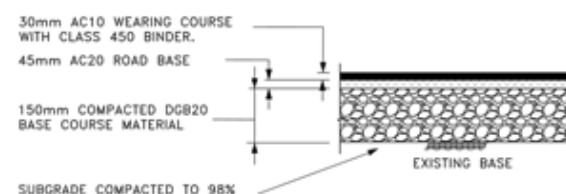
FULL DEPTH ASPHALT CONCRETE ROAD

SCALE 1:20



SIGNPOST FOOTING

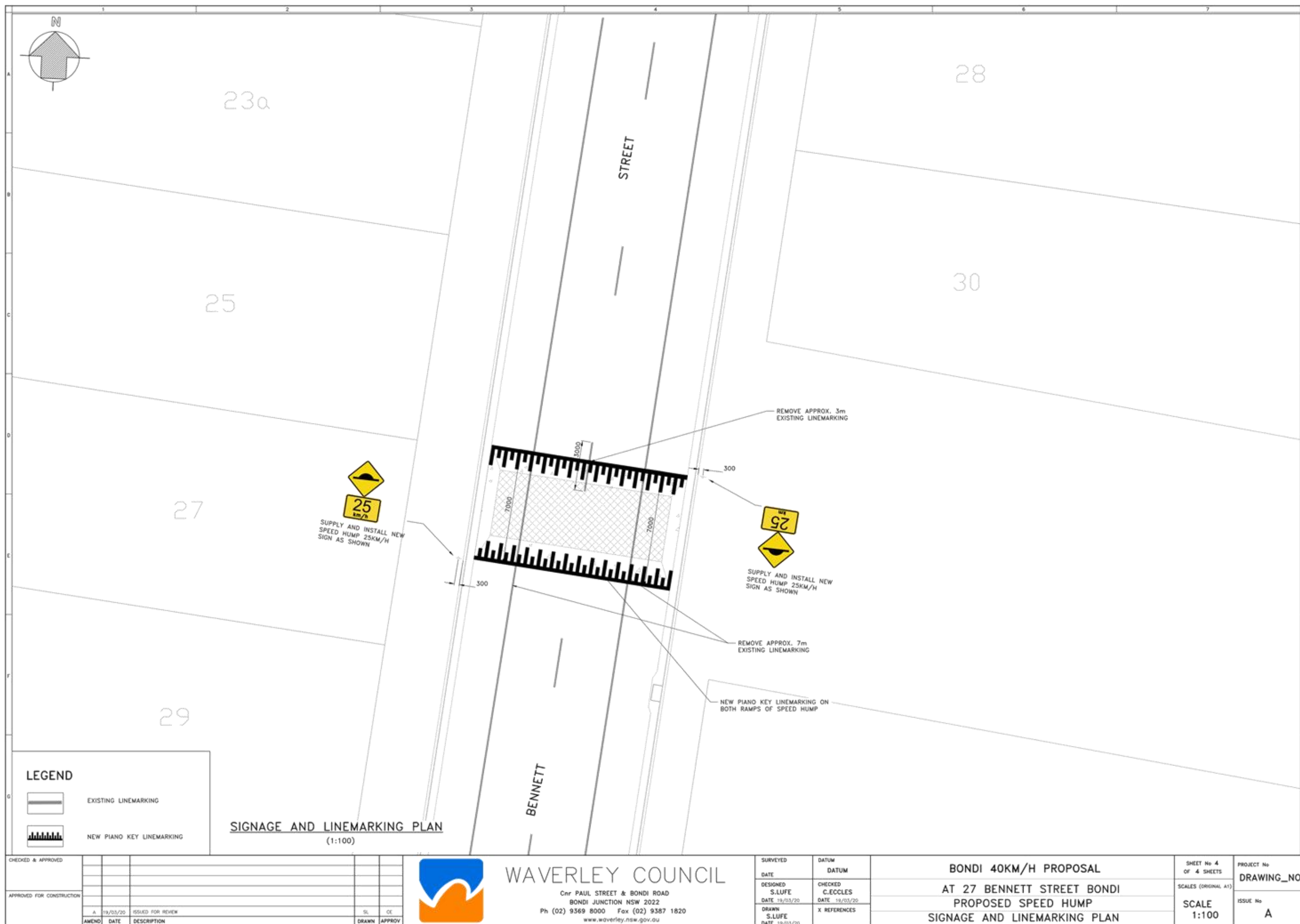
SCALE 1:10



ROAD RECTIFICATION

SCALE 1:20

CHECKED & APPROVED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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FOR CONSTRUCTION

BONDI 40KM/H PROPOSAL AT 91 RUTHVEN STREET, BONDI JUNCTION PROPOSED SPEED HUMP

GENERAL NOTES

1. THE DESIGN DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT COUNCIL'S STANDARD DRAWINGS.
2. DURING CONSTRUCTION THE WORK IS TO BE SIGNPOSTED AND MARKED TO THE REQUIREMENTS OF AS1742.2-2009 AND AS1742.3-2009 "TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS".
3. A TRAFFIC MANAGEMENT PLAN & SITE SAFETY PLAN IS TO BE SUBMITTED TO COUNCIL'S SUPERINTENDENT PRIOR TO IMPLEMENTATION.
4. SOIL AND WATER MANAGEMENT PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
5. ALL WORK IS TO BE CARRIED OUT TO BEST PRACTICE STANDARDS AND TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
6. THE WORK SITE IS TO BE PROTECTED USING APPROPRIATE SIGNAGE, FENCING, BARRICADING, AND PARAWEBBING FOR DURATION OF PROJECT CONSTRUCTION.
7. DURING WORKS, CONTRACTOR TO INSTALL TEMPORARY SIGNS - "CHANGED TRAFFIC CONDITIONS AHEAD" ON ALL APPROACHES 75-100M IN ADVANCE OF THE WORK SITE AND MAINTAIN FOR THE DURATION OF THE WORKS.
8. ALL RESIDENTS AFFECTED BY THE PROPOSED WORKS ARE TO BE NOTIFIED AT LEAST 3 WORKING DAYS BEFORE THE COMMENCEMENT OF ROADWORKS TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
9. SUITABLE VEHICULAR ACCESS SHALL BE MAINTAINED TO EACH DRIVEWAY OR ALTERNATIVE ARRANGEMENTS MADE WITH THE OWNERS.
10. WORK TO BE CARRIED OUT WITHIN THE APPROVED HOURS ONLY.

SERVICES

11. UTILITIES (IF SHOWN) ARE DIAGRAMMATIC ONLY AND HAVE BEEN PREPARED FROM THE INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THE SERVICE AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.
12. AUSGRID REQUIRES THAT CONTRACTOR SHOULD CONTACT THEM IF WORKING WITHIN 5.0M FROM UNDERGROUND ELECTRICITY CONDUITS.
13. WHERE EXISTING SERVICE COVERS ARE NOMINATED TO BE ADJUSTED TO DESIGN LEVELS, CONTRACTOR IS TO CARRY OUT ALL WORKS IN ACCORDANCE WITH RELEVANT SERVICE AUTHORITY REQUIREMENTS.
14. NO SERVICE COVERS ARE TO BE COVERED.

SIGNS & LINEMARKING

15. ALL TRAFFIC SIGNS TO COMPLY WITH NATSPEC 1192 & RMS SPECIFICATION R143 AND TO BE OF HIGH INTENSITY CLASS 1 REFLECTIVITY.
16. ALL LINEMARKING IS TO COMPLY WITH NATSPEC 1191 & RMS SPECIFICATION R141 - "PAVEMENT MARKING".
17. LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RRPMS TO COMPLY WITH RMS SPECIFICATION R142.
18. KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
19. ALL LINEMARKING AND RRPMS REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS ARE TO BE REINSTATED UNLESS NOTED OTHERWISE.
20. ALL EXISTING SIGNS TO REMAIN UNLESS NOTED OTHERWISE.
21. LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
22. REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
23. ALL SIGNPOSTING ON SPLITTER, KERB OR PEDESTRIAN REFUGE ISLANDS TO BE ERECTED USING V-NOTCH INSERTS, UNLESS NOTED OTHERWISE.
24. UNLESS SHOWN ON PLANS, NO STATE SURVEY MARKS ARE TO BE REMOVED PRIOR TO CONSULTING WITH COUNCIL'S SUPERINTENDENT.
25. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. CONCRETE QUALITY.

ELEMENT	SLUMP	MAX AGGREGATE SIZE	CEMENT TYPE	CEMENT GRADE
ALL	80mm	20mm	GP	25MPa

NO ADMIXTURES SHALL BE USED WITHOUT THE APPROVAL OF COUNCIL'S SUPERINTENDENT.

3. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN-

ELEMENT	SURFACE OF MEMBER IN INTERIOR ENVIRONMENT	SURFACE OF MEMBER IN ABOVE GROUND EXTERIOR ENVIRONMENT	SURFACE OF MEMBER IN CONTACT WITH GROUND (1)	SURFACE OF MEMBER IN WATER
ALL	35	45	55	75

NOTE:

1. COVER MAY BE REDUCED BY 10mm IF THE SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE.
2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER, OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED ON THE DRAWINGS.

SIGNPOSTING SCHEDULE

SIGN NO.	QUANTITY	STEM	CONDITION	LOCATION
W3-4	2	LONG	NEW	VERGE

NOTE: SIGNS TO BE REMOVED ARE NOT INCLUDED IN THIS SCHEDULE.

DRAWING SCHEDULE

- 1/4 - NOTES AND SCHEDULES
- 2/4 - LAYOUT PLAN
- 3/4 - DETAILS
- 4/4 - SIGNAGE AND LINEMARKING PLAN

LEGEND

SYMBOLS

- STATE SURVEY MARK
- PERMANENT SURVEY MARK
- SURVEY STATION
- DRILLED HOLE
- SURVEY NAIL
- SIGN
- SILENT COP
- COLUMN
- EXISTING SURFACE LEVEL
- BOLLARD
- HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRICITY & LIGHT POLE
- ELECTRICITY PILLAR
- PHONE BOOTH
- MAIL BOX
- TELECOMM. SERVICE COVER
- TELECOMMUNICATION PILLAR
- RUBBISH BIN
- STORMWATER MANHOLE
- SEWER MANHOLE
- STOP VALVE
- WATER METER
- GAS VALVE
- TRAFFIC LIGHT BOX
- TRAFFIC LIGHT
- UNKNOWN SERVICE COVER
- PARKING METER
- TREE

LINE STYLES

- FENCELINE
- WOODEN FENCE
- HAND RAIL
- GUARD RAIL
- GATE
- BOUNDARY LINE
- TOP OF BANK
- TABLE DRAIN
- EXISTING DRAINAGE LINE
- NEW DRAINAGE LINE
- HEDGE
- EDGE OF TREE CANOPY
- EDGE OF BITUMEN
- LINEMARKING (T1, C1, #10)
- LINEMARKING (T1, C1, #10)

LOCATION OF WORKS



LOCALITY PLAN
(NTS)



UTILITIES, IF SHOWN, ARE DIAGRAMMATIC ONLY. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.

IN CASE OF EMERGENCY, CONTACT THE FOLLOWING UTILITIES IF THEIR SERVICES ARE INVOLVED:

TELSTRA : 132203
AGL (GAS) : 131245
SYDNEY WATER : 132090
AUSGRID : 131388

LINEMARKING
ALL NEW LINEMARKING TO BE IN THERMOPLASTIC UNLESS NOTED OTHERWISE

NOTE
ALL EXISTING SIGNS AND LINES TO REMAIN UNLESS NOTED OTHERWISE.

IMPORTANT
REDUNDANT LINE MARKING MUST BE REMOVED BY GRINDING WHERE INDICATED ON PLANS.

CHECKED & APPROVED					
APPROVED FOR CONSTRUCTION					
AMEND	DATE	DESCRIPTION	SL	CE	APPROV
	19/03/20	ISSUED FOR REVIEW			



WAVERLEY COUNCIL

Cnr PAUL STREET & BONDI ROAD
BONDI JUNCTION NSW 2022
Ph (02) 9369 8000 Fax (02) 9387 1820
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SURVEYED	DATUM
DATE	DATUM
DESIGNED	CHECKED
S.LUFE	C.ECCLES
DATE 19/03/20	DATE 19/03/20
DRAWN	X REFERENCES
S.LUFE	
DATE 19/03/20	

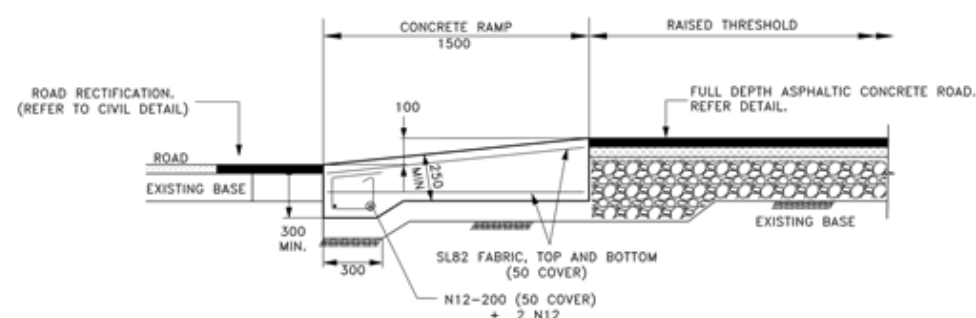
BONDI 40KM/H PROPOSAL
AT 91 RUTHVEN STREET BONDI JUNCTION
PROPOSED SPEED HUMP
NOTES AND SCHEDULES

SHEET No 1
OF 4 SHEETS
SCALE (ORIGINAL A1)
SCALE
NTS

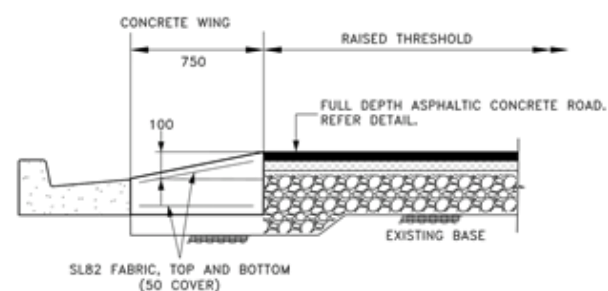
PROJECT No
DRAWING_NO
ISSUE No
1



FOR CONSTRUCTION

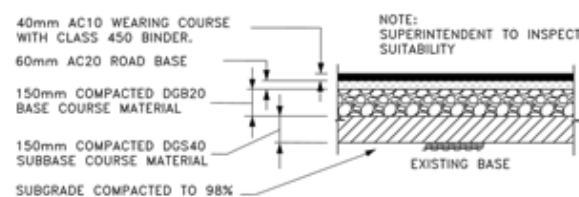


FULL DEPTH ASPHALT CROSSING WITH CONCRETE RAMPS
SECTION B-B
SCALE 1:20

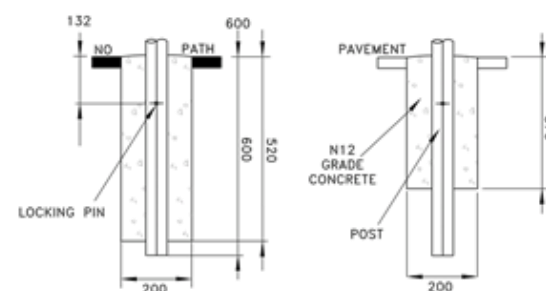


FULL DEPTH ASPHALT CROSSING WITH CONCRETE WINGS

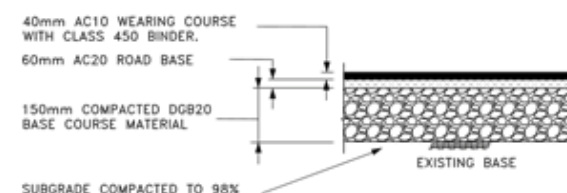
SECTION A-A
SCALE 1:20



FULL DEPTH ASPHALT CONCRETE ROAD
SCALE 1:20

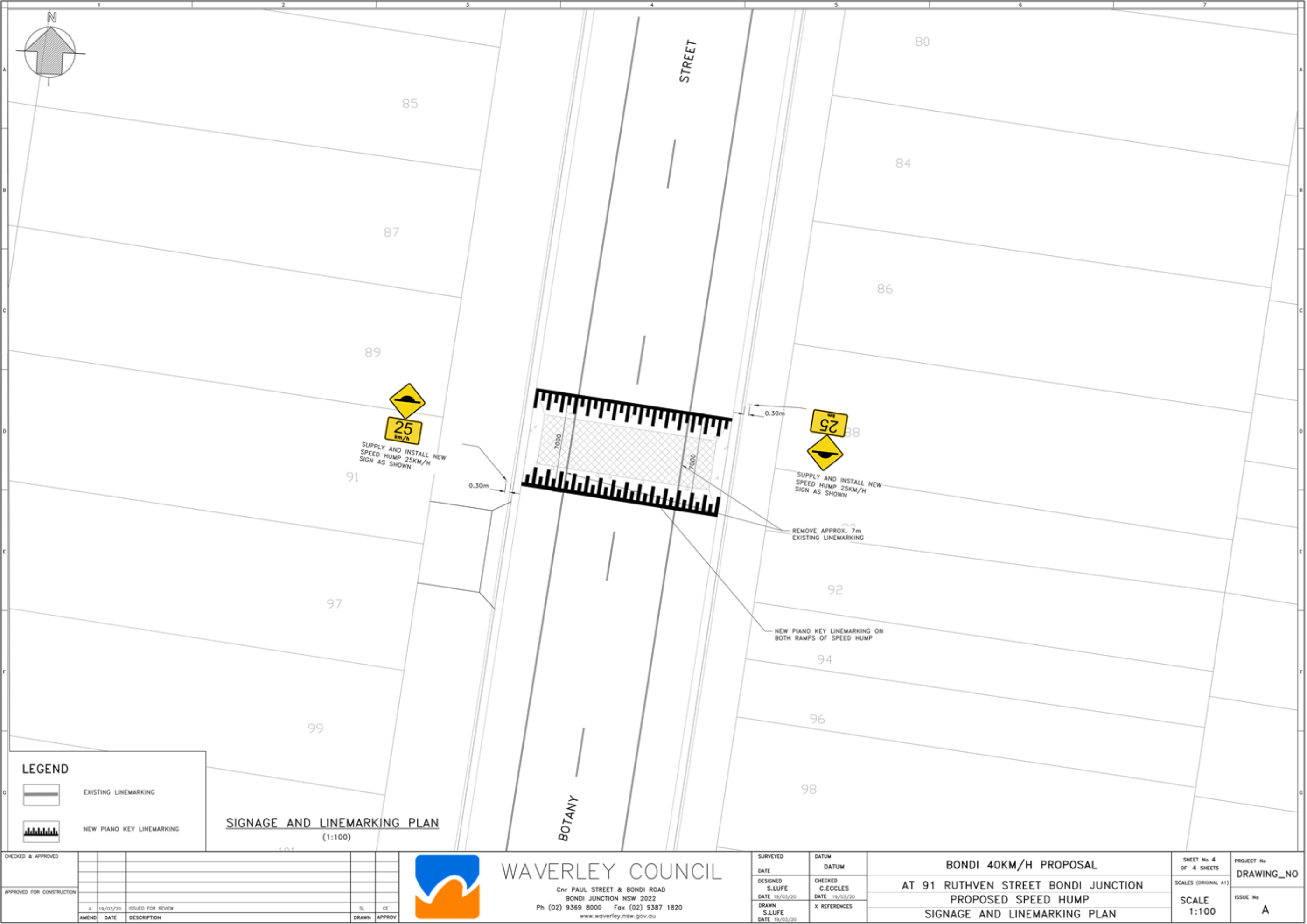


SIGNPOST FOOTING
SCALE 1:10



ROAD RECTIFICATION
SCALE 1:20

CHECKED & APPROVED							WAVERLEY COUNCIL Cnr PAUL STREET & BONDI ROAD BONDI JUNCTION NSW 2022 Ph (02) 9369 8000 Fax (02) 9387 1820 www.waverley.nsw.gov.au	SURVEYED DATE	DATUM DATUM	BONDI 40KM/H PROPOSAL AT 91 RUTHVEN STREET BONDI JUNCTION PROPOSED SPEED HUMP DETAILS PLAN	SHEET No 3 OF 4 SHEETS	PROJECT No DRAWING_N
	APPROVED FOR CONSTRUCTION								DESIGNED S.LUFE DATE 19/03/20		CHECKED C.ECCLES DATE 19/03/20	SCALES (ORIGINAL A1)
	A	19/03/20	ISSUED FOR REVIEW	SL	CE			DRAWN S.LUFE	X REFERENCES			
	AMEND	DATE	DESCRIPTION	DRAWN	APPROV							



FOR CONSTRUCTION

BONDI 40KM/H PROPOSAL AT BOTANY STREET, BONDI JUNCTION PROPOSED SPEED HUMP

GENERAL NOTES

1. THE DESIGN DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT COUNCIL'S STANDARD DRAWINGS.
2. DURING CONSTRUCTION THE WORK IS TO BE SIGNPOSTED AND MARKED TO THE REQUIREMENTS OF AS1742.2-2009 AND AS1742.3-2009 "TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS".
3. A TRAFFIC MANAGEMENT PLAN & SITE SAFETY PLAN IS TO BE SUBMITTED TO COUNCIL'S SUPERINTENDENT PRIOR TO IMPLEMENTATION.
4. SOIL AND WATER MANAGEMENT PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
5. ALL WORK IS TO BE CARRIED OUT TO BEST PRACTICE STANDARDS AND TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
6. THE WORK SITE IS TO BE PROTECTED USING APPROPRIATE SIGNAGE, FENCING, BARRICADING, AND PARAWEBBING FOR DURATION OF PROJECT CONSTRUCTION.
7. DURING WORKS, CONTRACTOR TO INSTALL TEMPORARY SIGNS - "CHANGED TRAFFIC CONDITIONS AHEAD" ON ALL APPROACHES 75-100M IN ADVANCE OF THE WORK SITE AND MAINTAIN FOR THE DURATION OF THE WORKS.
8. ALL RESIDENTS AFFECTED BY THE PROPOSED WORKS ARE TO BE NOTIFIED AT LEAST 3 WORKING DAYS BEFORE THE COMMENCEMENT OF ROADWORKS TO THE SATISFACTION OF COUNCIL'S SUPERINTENDENT.
9. SUITABLE VEHICULAR ACCESS SHALL BE MAINTAINED TO EACH DRIVEWAY OR ALTERNATIVE ARRANGEMENTS MADE WITH THE OWNERS.
10. WORK TO BE CARRIED OUT WITHIN THE APPROVED HOURS ONLY.

SERVICES

11. UTILITIES (IF SHOWN) ARE DIAGRAMMATIC ONLY AND HAVE BEEN PREPARED FROM THE INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THE SERVICE AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.
12. AUSGRID REQUIRES THAT CONTRACTOR SHOULD CONTACT THEM IF WORKING WITHIN 5.0M FROM UNDERGROUND ELECTRICITY CONDUITS.
13. WHERE EXISTING SERVICE COVERS ARE NOMINATED TO BE ADJUSTED TO DESIGN LEVELS, CONTRACTOR IS TO CARRY OUT ALL WORKS IN ACCORDANCE WITH RELEVANT SERVICE AUTHORITY REQUIREMENTS.
14. **NO SERVICE COVERS ARE TO BE COVERED.**

SIGNS & LINEMARKING

15. ALL TRAFFIC SIGNS TO COMPLY WITH NATSPEC 1192 & RMS SPECIFICATION R143 AND TO BE OF HIGH INTENSITY CLASS 1 REFLECTIVITY.
16. ALL LINEMARKING IS TO COMPLY WITH NATSPEC 1191 & RMS SPECIFICATION R141 - "PAVEMENT MARKING".
17. LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RRP'S TO COMPLY WITH RMS SPECIFICATION R142.
18. KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
19. ALL LINEMARKING AND RRP'S REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS ARE TO BE REINSTATED UNLESS NOTED OTHERWISE.
20. ALL EXISTING SIGNS TO REMAIN UNLESS NOTED OTHERWISE.
21. LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
22. REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
23. ALL SIGNPOSTING ON SPLITTER, KERB OR PEDESTRIAN REFUGE ISLANDS TO BE ERECTED USING V-NOTCH INSERTS, UNLESS NOTED OTHERWISE.
24. UNLESS SHOWN ON PLANS, NO STATE SURVEY MARKS ARE TO BE REMOVED PRIOR TO CONSULTING WITH COUNCIL'S SUPERINTENDENT.
25. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
2. CONCRETE QUALITY.

ELEMENT	SLUMP	MAX AGGREGATE SIZE	CEMENT TYPE	CEMENT GRADE
ALL	80mm	20mm	GP	25MPa

NO ADMIXTURES SHALL BE USED WITHOUT THE APPROVAL OF COUNCIL'S SUPERINTENDENT.

3. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN-

ELEMENT	SURFACE OF MEMBER IN INTERIOR ENVIRONMENT	SURFACE OF MEMBER IN ABOVE GROUND EXTERIOR ENVIRONMENT	SURFACE OF MEMBER IN CONTACT WITH GROUND (1)	SURFACE OF MEMBER IN WATER
ALL	35	45	55	75

NOTE:

1. COVER MAY BE REDUCED BY 10mm IF THE SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE.
2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER, OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED ON THE DRAWINGS.

SIGNPOSTING SCHEDULE

SIGN NO.	QUANTITY	STEM	CONDITION	LOCATION
W3-4	2	LONG	NEW	VERGE

NOTE: SIGNS TO BE REMOVED ARE NOT INCLUDED IN THIS SCHEDULE.

DRAWING SCHEDULE

- 1/4 - NOTES AND SCHEDULES
- 2/4 - LAYOUT PLAN
- 3/4 - DETAILS
- 4/4 - SIGNAGE AND LINEMARKING PLAN

LEGEND

SYMBOLS	
	STATE SURVEY MARK
	PERMANENT SURVEY MARK
	SURVEY STATION
	DRILLED HOLE
	SURVEY NAIL
	SIGN
	SILENT COP
	COLUMN
	EXISTING SURFACE LEVEL
	BOLLARD
	HYDRANT
	POWER POLE
	LIGHT POLE
	ELECTRIFY & LIGHT POLE
	ELECTRIFY PILLAR
	PHONE BOOTH
	MAIL BOX
	TELECOM SERVICE COVER
	TELECOMMUNICATION PILLAR
	RUBBISH BIN
	STORMWATER MANHOLE
	SEWER MANHOLE
	STOP VALVE
	WATER METER
	GAS VALVE
	TRAFFIC LIGHT BOX
	TRAFFIC LIGHT
	UNKNOWN SERVICE COVER
	PARKING METER
	TREE
LINE STYLES	
	FENCE LINE
	WOODEN FENCE
	HAND RAIL
	GUARD RAIL
	GATE
	BOUNDARY LINE
	TOP OF BANK
	TABLE DRAIN
	EXISTING DRAINAGE LINE
	NEW DRAINAGE LINE
	HEDGE
	EDGE OF TREE CANOPY
	EDGE OF BITUMEN
	LINEMARKING (T1, E1, etc.)
	LINEMARKING (T1, E1, etc.)

LOCATION OF WORKS



LOCALITY PLAN
(NTS)



UTILITIES, IF SHOWN, ARE DIAGRAMMATIC ONLY. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.

IN CASE OF EMERGENCY, CONTACT THE FOLLOWING UTILITIES IF THEIR SERVICES ARE INVOLVED:

TELSTRA : 132203
AGL (GAS) : 131245
SYDNEY WATER : 132090
AUSGRID : 131388

LINEMARKING
ALL NEW LINEMARKING TO BE IN THERMOPLASTIC UNLESS NOTED OTHERWISE

NOTE
ALL EXISTING SIGNS AND LINES TO REMAIN UNLESS NOTED OTHERWISE.

IMPORTANT
REDUNDANT LINE MARKING MUST BE REMOVED BY GRINDING WHERE INDICATED ON PLANS.

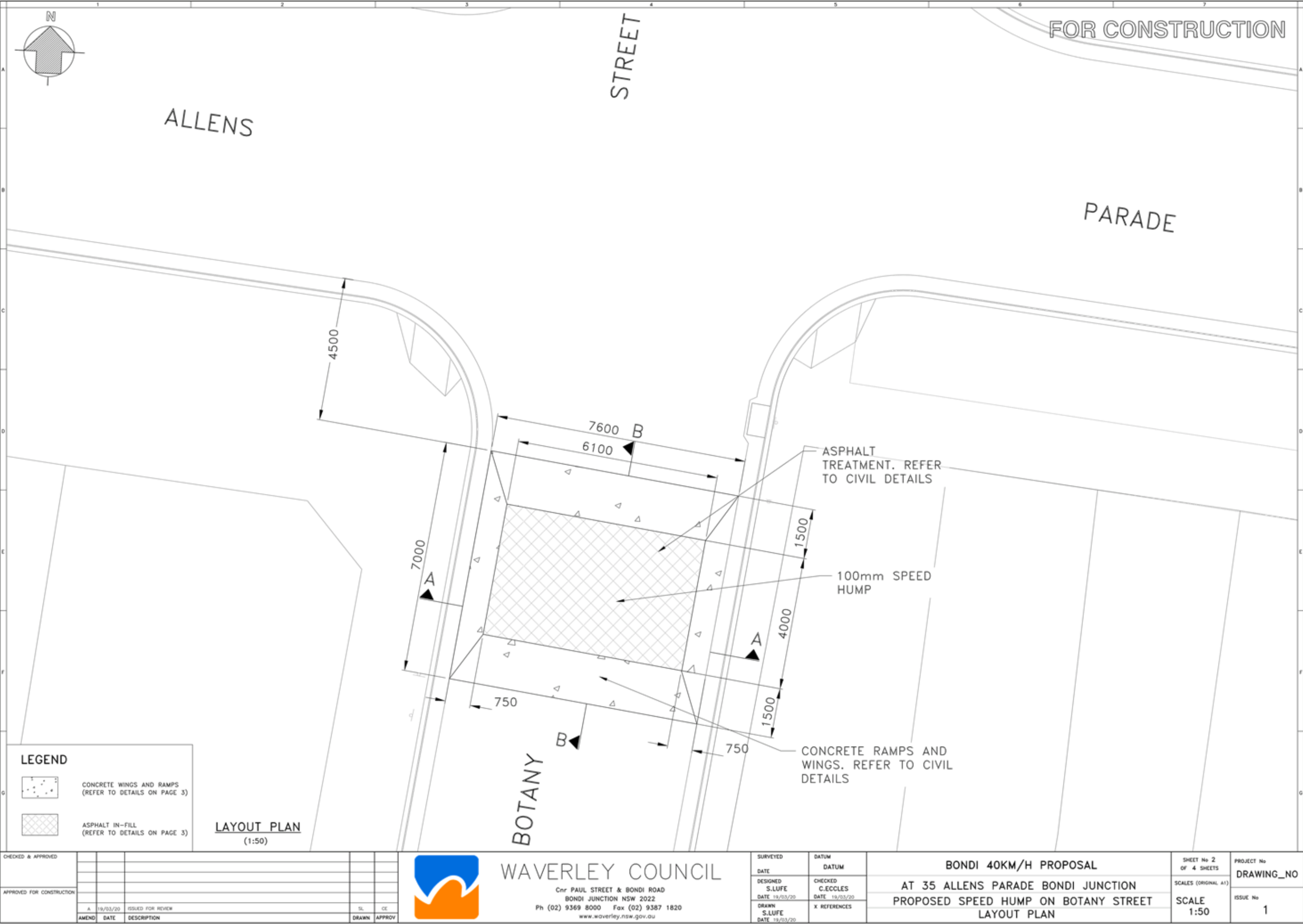
CHECKED & APPROVED					
APPROVED FOR CONSTRUCTION					
AMEND	DATE	DESCRIPTION	DRAWN	APPROV	
A	19/03/20	ISSUED FOR REVIEW	SL	CE	



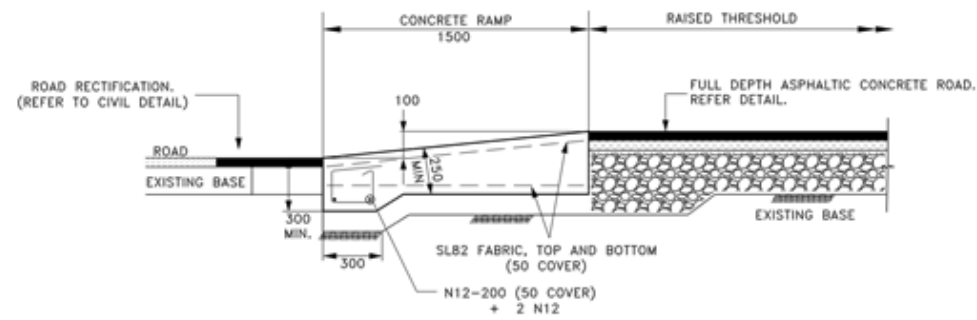
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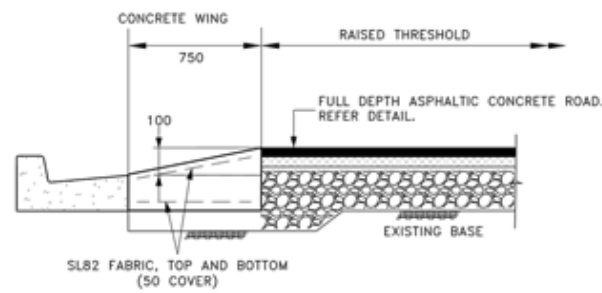
SURVEYED DATE	DATUM DATE	BONDI 40KM/H PROPOSAL AT 35 ALLENS PARADE BONDI JUNCTION PROPOSED SPEED HUMP ON BOTANY STREET NOTES AND SCHEDULES	SHEET No 1 OF 4 SHEETS	PROJECT No DRAWING_NO
DESIGNED S.LUFE DATE 19/03/20	CHECKED C.ECCLES DATE 19/03/20		SCALE (ORIGINAL A1)	ISSUE No 1
DRAWN S.LUFE DATE 19/03/20	X REFERENCES		SCALE NTS	



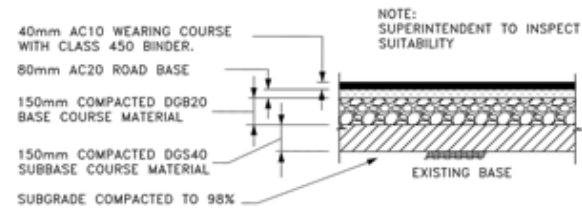
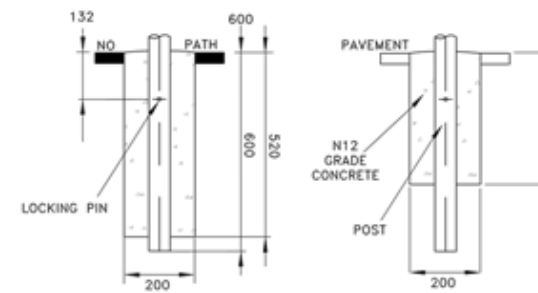
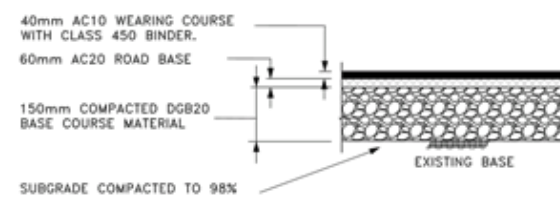
FOR CONSTRUCTION



FULL DEPTH ASPHALT CROSSING WITH CONCRETE RAMPS

SECTION B-B
SCALE 1:20

FULL DEPTH ASPHALT CROSSING WITH CONCRETE WINGS

SECTION A-A
SCALE 1:20FULL DEPTH ASPHALT CONCRETE ROAD
SCALE 1:20SIGNPOST FOOTING
SCALE 1:10ROAD RECTIFICATION
SCALE 1:20

CHECKED & APPROVED					
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S.LUFE	
DATE 19/03/20	

BONDI 40KM/H PROPOSAL
AT 35 ALLENS PARADE BONDI JUNCTION
PROPOSED SPEED HUMP ON BOTANY STREET
DETAILS PLAN

SHEET No 3 OF 4 SHEETS	PROJECT No DRAWING_NO
SCALES (ORIGINAL A1)	ISSUE No 1
SCALE	



REPORT

TC/C.02/20.05



Subject: Ocean Street (South) / Birrell Street, Bondi - Kerb Buildout

TRIM No: A20/0069

Author: Calum Hutcheson, Service Manager, Traffic and Transport

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council approves the installation of a kerb buildout on both sides of Ocean Street, planting within the buildout, and kerb ramps aligned for direct access across Ocean Street at the intersection with Birrell Street, as per Drawing 9004 Issue A attached to this report.

1. Executive Summary

Council approved the installation of kerb blisters and associated line marking and signage on Ocean Street (South) immediately north of the intersection with Birrell Street, Bondi at the 17 September 2019 Council meeting (CM/5.2/19.09).

Council officers have re-examined the site and propose a modified design which includes a kerb buildout on both sides of Ocean Street, planting within the buildout, and kerbs ramps aligned for direct access across Ocean Street at the intersection.

The modified design provides an improved configuration for drivers, pedestrians, and visual amenity.

2. Introduction/Background

Council at its meeting on 16 April 2019 resolved as follows:

That Council:

- 1. Investigates the feasibility of establishing a blister on the western corner of Ocean Street at its junction with Birrell Street.*
- 2. Notes that the blister is to be designed in such a way that prevents parking within approximately eight metres of the corner (Road Rules require 10 metres), as far as the tree which is planted in the roadway, to improve sight distances.*
- 3. Notes that the blister could include planting of low shrubbery in the blister footprint and could include harder design features to prevent drivers parking on the blister.*
- 4. Notes that the blister could incorporate the existing tree at its northern end.*

Council's design team has re-examined the location taking into consideration that Council indicated a desire for low shrubbery and incorporating the existing tree. The modified design achieves these objectives.

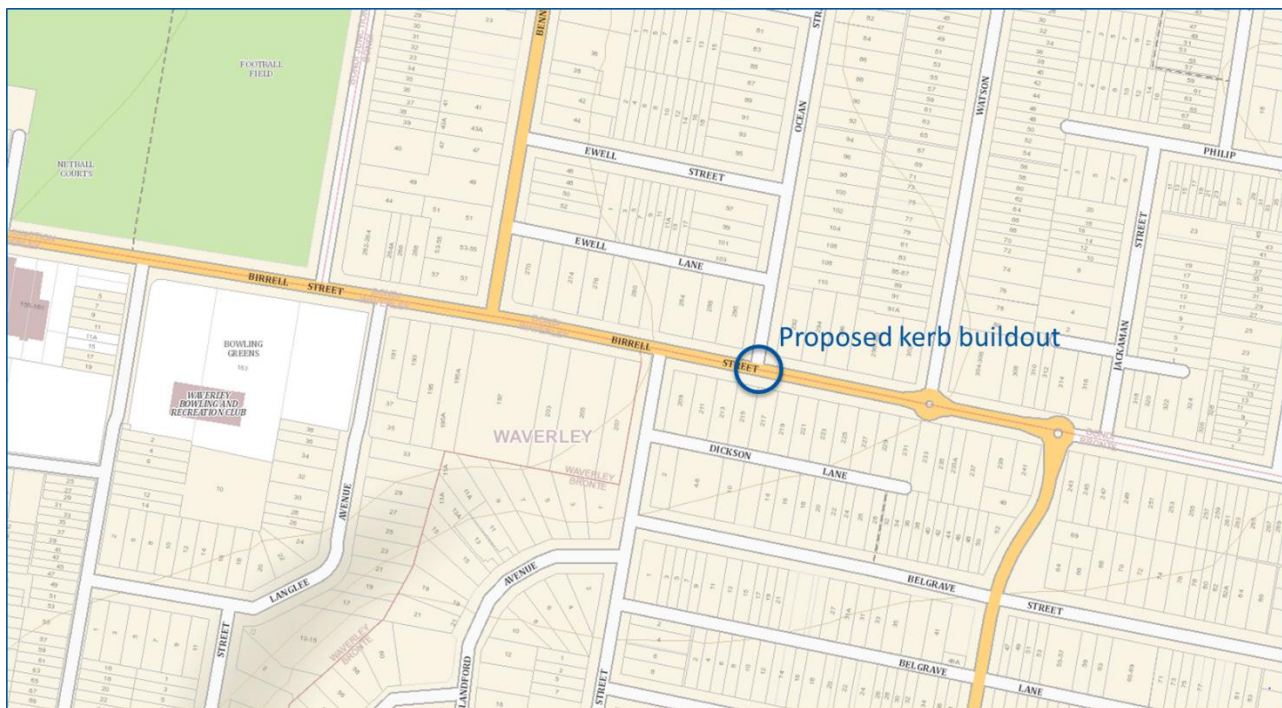


Figure 1: Location of proposed kerb buildout

3. Technical Analysis

The approved and modified designs are presented below. Additional details of the modified design are attached.

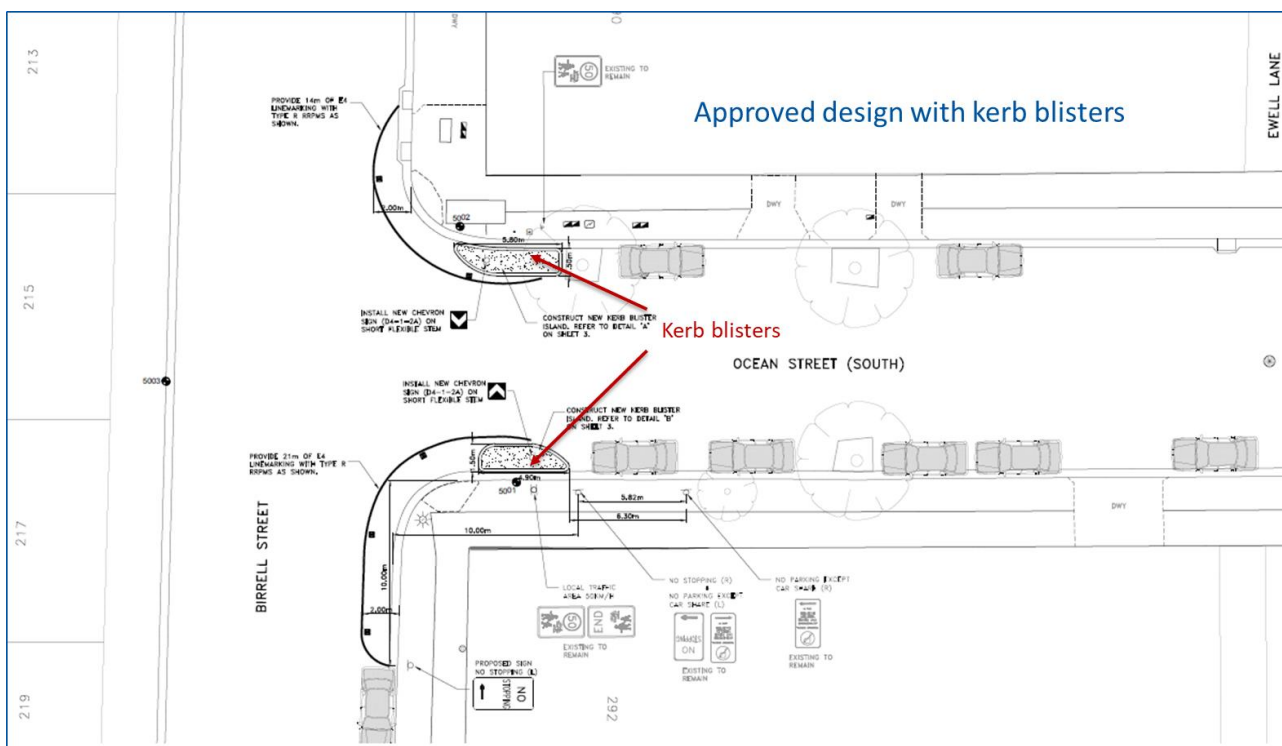


Figure 2: Council approved kerb blisters (September 2019)

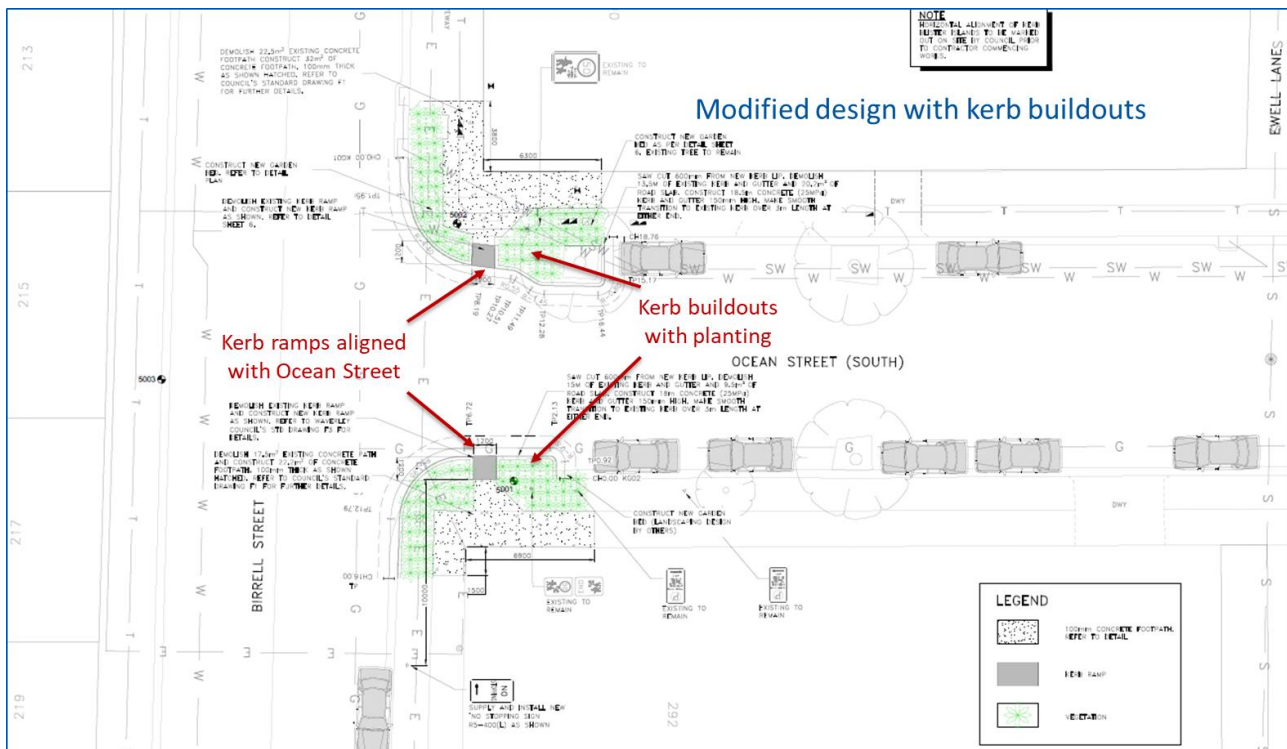


Figure 3: Proposed kerb buildout

4. Financial Information for Council's Consideration

Council will fund the installation of the kerb blister from existing budgets.

5. Attachments

1. Ocean St At Birrell St - Kerb Buildout - Traffic Committee Planset [↓](#) .



NOTE
HORIZONTAL ALIGNMENT OF KERB
BLUSTER ISLANDS TO BE MARKED
OUT ON SITE BY COUNCIL PRIOR
TO CONTRACTOR COMMENCING
WORKS.

OCEAN STREET (SOUTH)

BIRRELL STREET

LAYOUT PLAN
SCALE 1:100

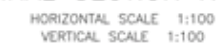
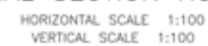
LEGEND

100mm CONCRETE FOOTPATH.
REFER TO DETAIL.

KERB RAMP

VEGETATION

[illegible]



SCALE 1:100



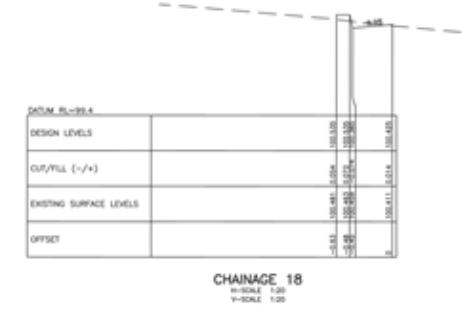
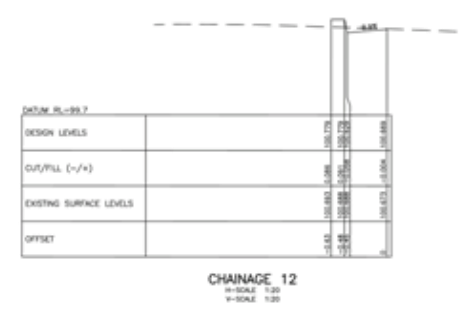
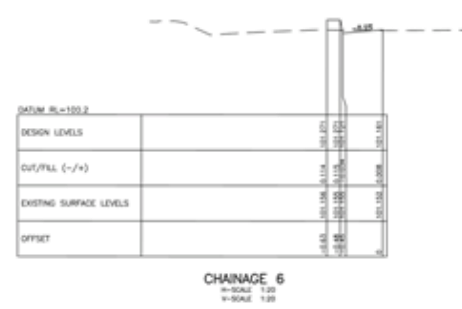
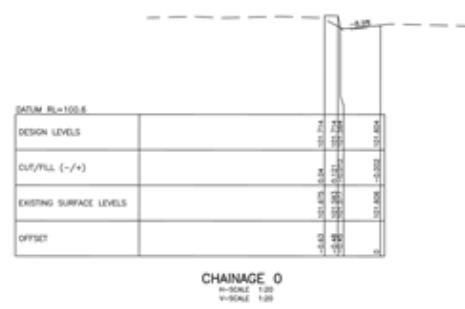
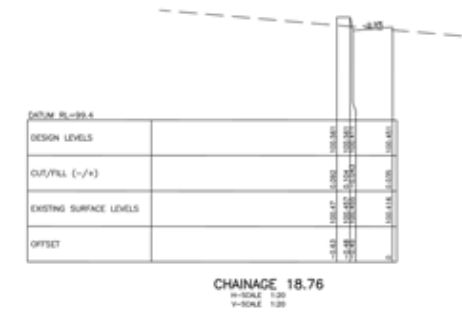
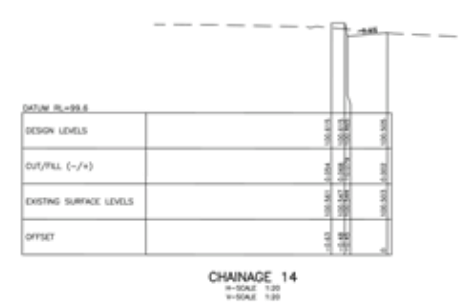
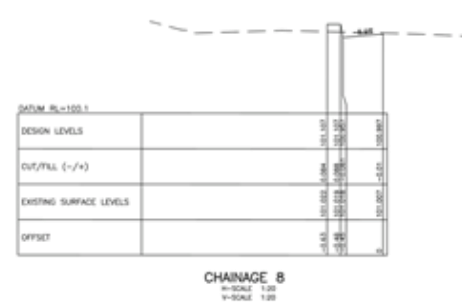
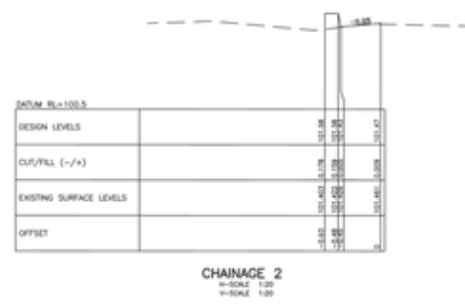
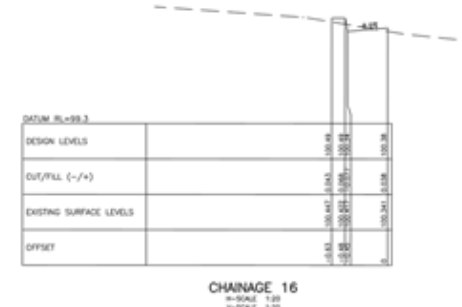
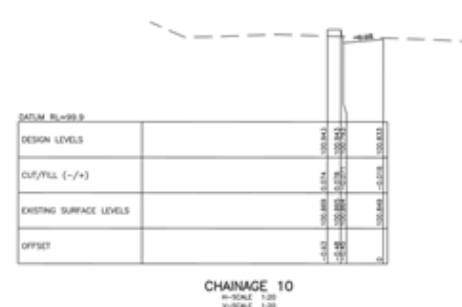
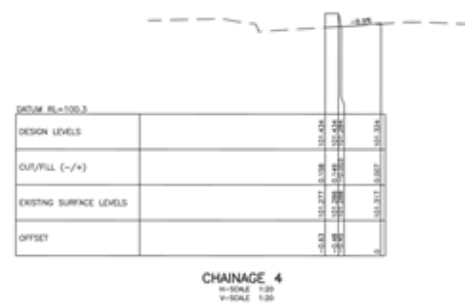
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X REFERENCES	

OCEAN STREET SOUTH, BONDI
AT BIRRELL STREET INTERSECTION
PROPOSED KERB BUILDOUTS
LONG SECTIONS

SHEET No 3 OF 8 SHEETS	PROJECT No 9004
SCALES (ORIGINAL A1)	ISSUE No A
SCALE 1:100	

FOR CONSTRUCTION

CROSS SECTIONS KG01
SCALE 1:20

CHECKED & APPROVED					
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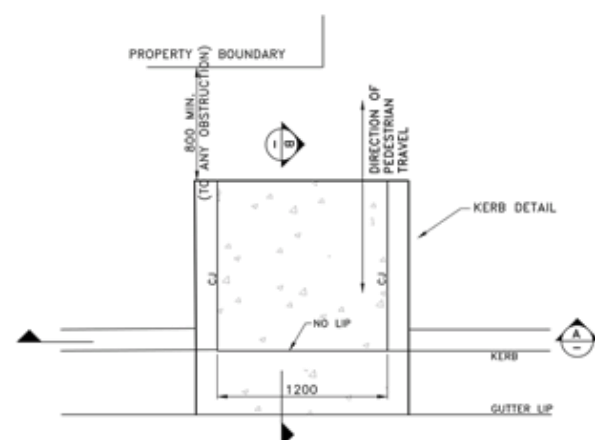
OCEAN STREET SOUTH, BONDI
AT BIRRELL STREET INTERSECTION
PROPOSED KERB BUILDOUTS
CROSS SECTIONS KG01

SHEET No 4 OF 8 SHEETS	PROJECT No 9004
SCALE (ORIGINAL A1)	ISSUE No A
SCALE 1:20	

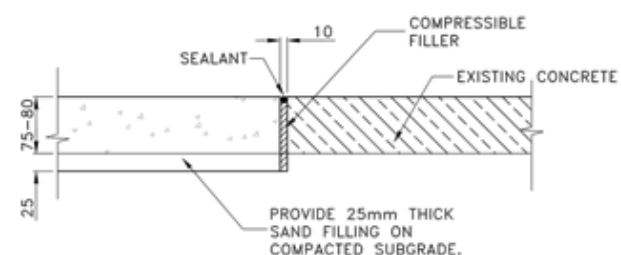


Technical drawing of a drainage hole detail. The drawing shows a cross-section of a concrete curb and a drainage hole. The curb has a nominal kerb line and a radius of 150. The drainage hole has a radius of 150 and a depth of 40. The hole is lined with 90mm uPVC pipe. The drawing includes dimensions for the curb height (300), the hole depth (40), and the radius of the hole (150). A label points to the drainage hole with the text: "DRAINAGE HOLE WHERE SPECIFIED TO BE LINED WITH 90mm uPVC PIPE EXTENDING FROM KERB FACE TO 50mm BEHIND BACK OF KERB." The road surface is shown on the right side of the curb.

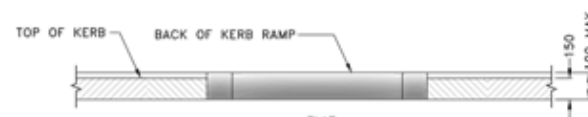
150mm INTEGRAL
KERB & GUTTER
SCALE 1:10



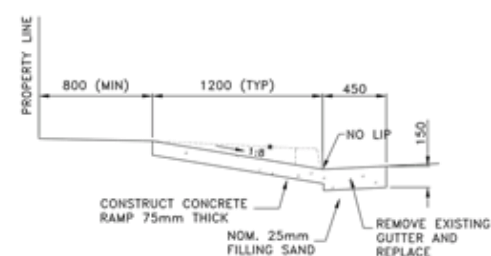
KERB RAMP NO WINGS-TYPE A
KERB RAMP DETAIL (TYPICAL)
SCALE 1:40



EXPANSION JOINT B (EJ-B)
SCALE 1:20

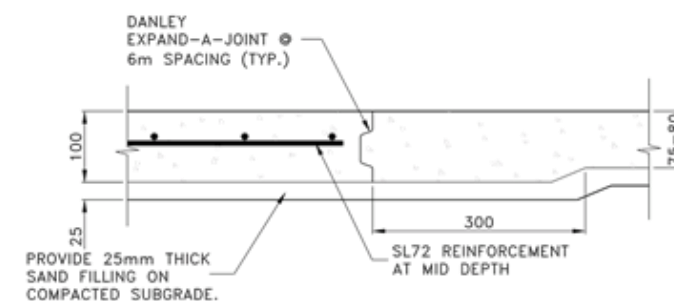


SECTION A
SCALE 1:40

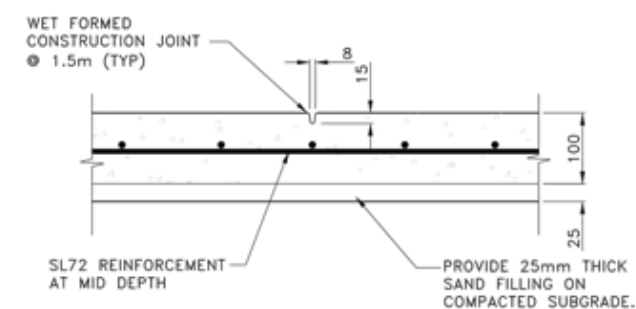


SECTION **B**
SCALE 1:40

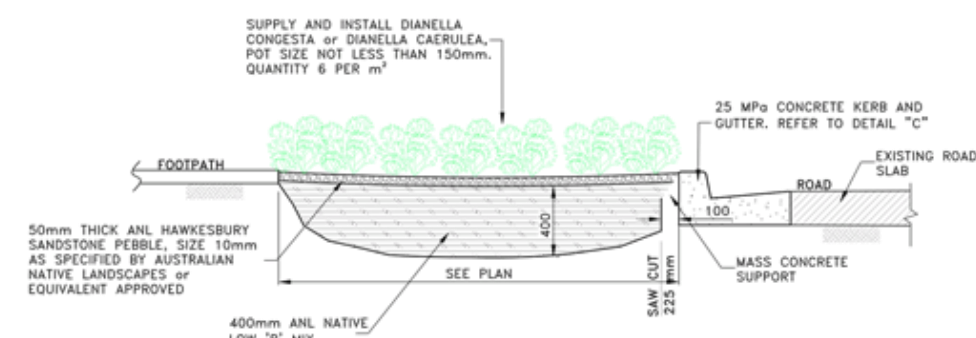
* NOTE:
1 IN 8-MAXIMUM



DANLEY EXPAND-A-JOINT (EJ-A)
SCALE 1:20

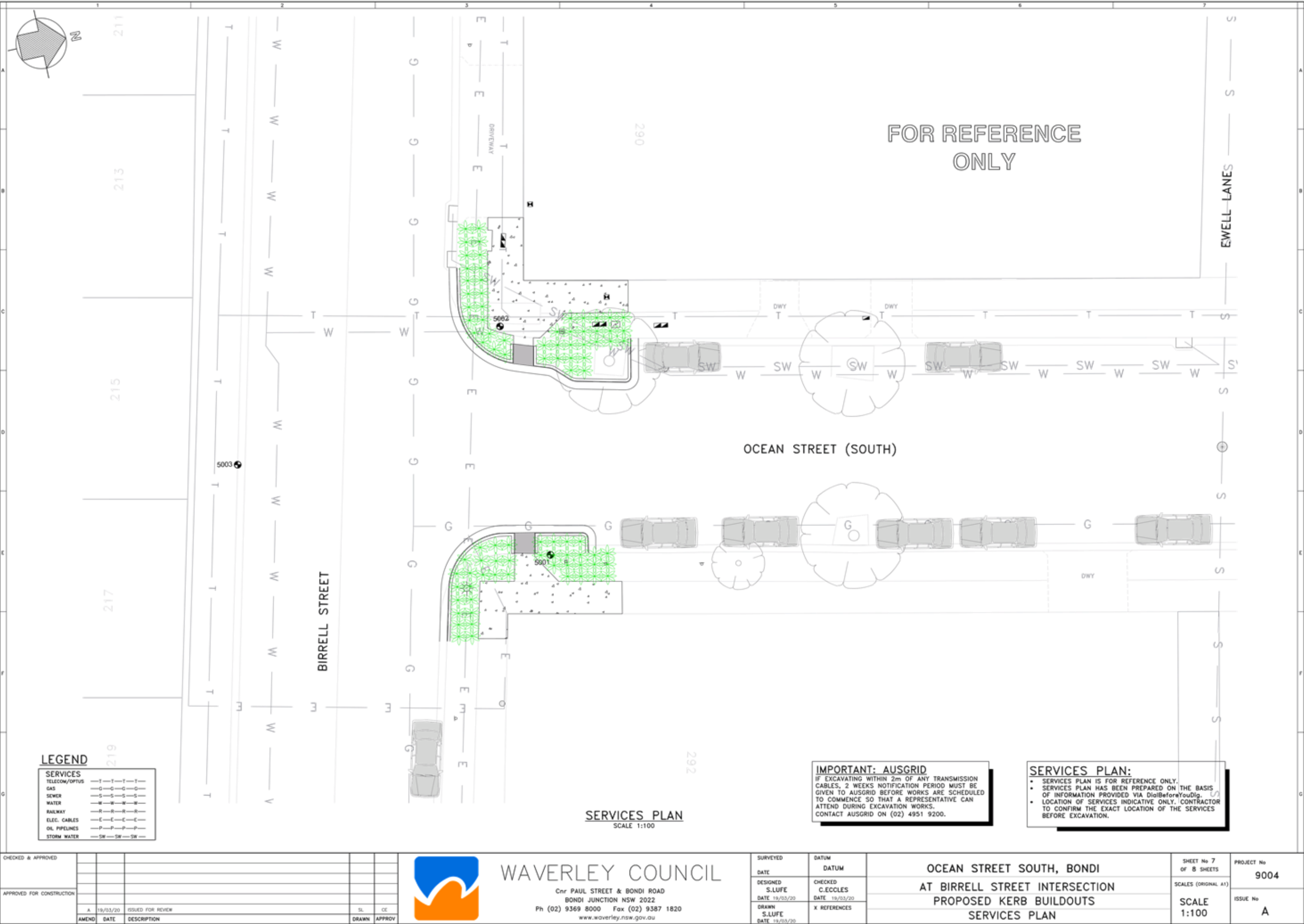


CONSTRUCTION JOINT (CJ)
SCALE 1:10



X-SECTION B-B
SCALE 1:20

CHECKED & APPROVED				<div></div> <div>WAVERLEY COUNCIL</div> <div>Cnr PAUL STREET & BONDI ROAD BONDI JUNCTION NSW 2022 Ph (02) 9369 8000 Fax (02) 9387 1820 www.waverley.nsw.gov.au</div>				SURVEYED		DATUM		OCEAN STREET SOUTH, BONDI				SHEET No 6 OF 8 SHEETS		PROJECT No 9004			
APPROVED FOR CONSTRUCTION								DESIGNED		CHECKED						AT BIRRELL STREET INTERSECTION PROPOSED KERB BUILDOUTS DETAILS PLAN				SCALES (ORIGINAL A1)	
A		19/03/20						ISSUED FOR REVIEW		S.L		C.ECCLES		DATE 19/03/20							
AMEND		DATE		DESCRIPTION		DRAWN		APPROV		X REFERENCES											





SWEPT PATH PLAN
SCALE 1:100

CHECKED & APPROVED									WAVERLEY COUNCIL Cnr PAUL STREET & BONDI ROAD BONDI JUNCTION NSW 2022 Ph (02) 9369 8000 Fax (02) 9387 1820 www.waverley.nsw.gov.au	SURVEYED	DATUM	OCEAN STREET SOUTH, BONDI AT BIRRELL STREET INTERSECTION PROPOSED KERB BUILDOUTS SWEPT PATH PLAN	SHEET No 8 OF 8 SHEETS	PROJECT No 9004	
APPROVED FOR CONSTRUCTION										DESIGNED S.LUFE DATE 19/03/20	CHECKED C.ECCLES DATE 19/03/20		X REFERENCES	SCALE 1:100	ISSUE No A
A	19/03	ISSUED FOR REVIEW				SL	CE			DRAWN S.LUFE DATE 19/03/20					
AMEND	DATE	DESCRIPTION				DRAWN	APPROV								

REPORT
TC/C.03/20.05

Subject: York Road improvements - Moriah College

TRIM No: A20/0069

Author: Calum Hutcheson, Service Manager, Traffic and Transport

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Provides in principle support to the following upgrade options as part of the proposed development of Moriah College (subject to detailed design):
 - (a) Seagull intersection treatment at York Road-and Queens Park Road
 - (b) Introduction of a left-turn slip lane on York Road (west) at York Road-and Baronga Avenue
 - (c) Upgrade of the existing pedestrian refuge on York Road just south of Queens Park Road to a formal pedestrian crossing
2. Detailed designs being submitted to Council's Traffic Committee.
3. Advise that all costs associated with the design and construction of the road upgrades are to be borne by the applicant.

1. Executive Summary

Council has received concept plans for upgrades to intersections as part of the assessment process for the redevelopment of Moriah College.

The proposed upgrades are:

1. Seagull intersection treatment at York Road-and Queens Park Road.
2. Introduction of a left-turn slip lane on York Road (west) at York Road-and Baronga Avenue.
3. Upgrade of the existing pedestrian refuge on York Road just south of Queens Park Road to a formal pedestrian crossing.

Copies of the proposed concept designs are attached. Note that the attached plans include an alternative children's crossing at the existing pedestrian refuge on York Road. This is not supported.

It is recommended that the concept plans are supported in principle subject to Traffic Committee review of detail plans.

2. Introduction/Background

The development is being assessed by the NSW Government as a State Significant Development (SSD) - Application Number SSD-10352. The SSD application seeks staged consent for the redevelopment of the southern portion of the Senior School Campus.

3. Technical Analysis

Seagull intersection treatment at York Road-and Queens Park Road

The intersection of York Road and Queens Park Road will operate at a Level of Service F during the morning peak in the future irrespective of the proposed development. Upgrading of this intersection to a seagull intersection, such that right turn traffic from Queens Park Road would be able to turn onto York Road in two stages is proposed as an ameliorative measure.

Under the seagull arrangements, right-turn movements would have to first give way to one direction of traffic (i.e. southbound traffic on Queens Park Road) to travel into the “merge lane”, before merging onto Queens Park Road in the northbound direction.

Introduction of a left-turn slip lane on York Road (west) at York Road-and Baronga Avenue

The York Road / Baronga Avenue intersection will continue to operate at Level of Service F in the future as a result of traffic turning right from York Road into Baronga Avenue during school peak periods. Limited road infrastructure improvement works can be accommodated based upon existing site constraints. A left-turn slip lane on York Road southbound is proposed to improve right-turn movements.

Upgrade of the existing pedestrian refuge on York Road just south of Queens Park Road to a formal pedestrian crossing

The TfNSW (RMS) warrant for a pedestrian crossing for sites used predominately by school children is for two counts of one hour duration immediately before and after school hours:

- a) Pedestrian flows are greater than or equal to 30 movements across the crossing.
- b) Vehicle flows are greater than or equal to 200 movements.

Pedestrian and vehicle flows are presented in Table 1.

Table 1: Pedestrian and vehicle flows at York Road pedestrian refuge

Time	Pedestrian flow per hour (P)		Vehicular flow per hour (V)	
	P	≥ 30	V	≥ 200
7:45am-8:45am	62	Yes	1,979	Yes
3:30pm-4:30pm	37	Yes	1,319	Yes

The traffic and pedestrian movements satisfy the TfNSW (RMS) warrant for upgrade of the existing pedestrian refuge to a formal pedestrian crossing. Hence, a marked pedestrian crossing is justified.

The pedestrian crossing point is not just used in the morning and afternoon. It is also used for school activities to and from Queens Park during the day. This further warrants the installation of the safer marked crossing.

Note that the attached plans include an alternative children's crossing at the existing pedestrian refuge on York Road. This is not supported.

4. Financial Information for Council's Consideration

All costs associated with the proposal shall be at the applicant's expense.

5. Attachments

1. York Road improvements - Moriah College - 19143CAD022-CONCEPT DESIGN-191203 [↓](#) .



Filename: 19143CAD022-CONCEPT DESIGN-191201.dwg Date: 3 December 2019 By: Lefina.mallam

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	LM	JN	KH	03/12/19



PROJECT	MORIAH COLLEGE		
TITLE	KEY MAP		

DWG No.	19143CAD022		
	FIGURE 1		
DATE STAMP	3 DECEMBER 2019		
PROJECT No.	SCALE	REV.	
19143	N.T.S.	A	



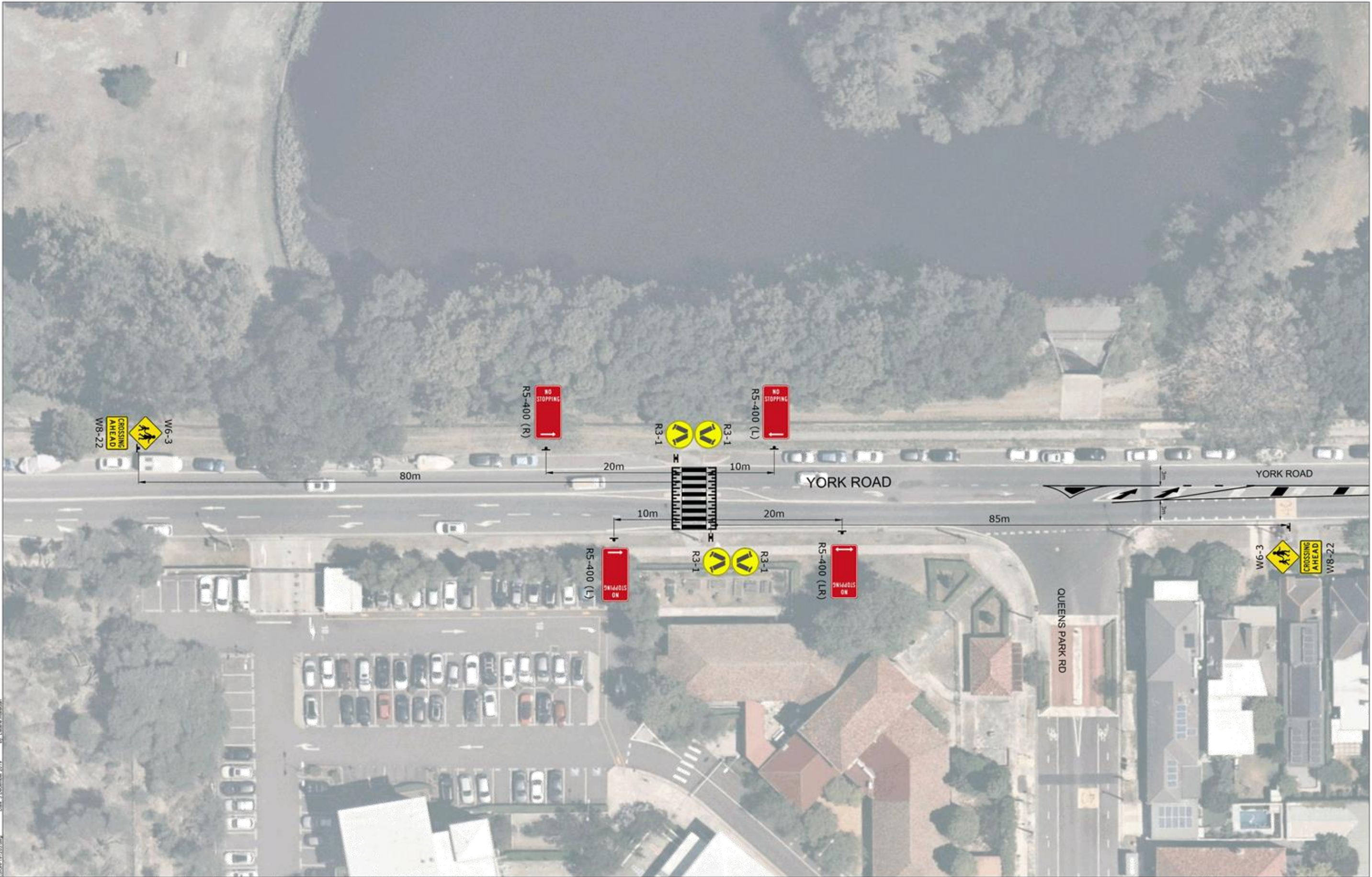
Filename: 19143CAD022-CONCEPT DESIGN-191205.dwg Date: 3 December 2019 By: Lefana.moliso

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	LM	JN	KH	03/12/19



PROJECT	MORIAH COLLEGE
TITLE	CONCEPT DESIGN YORK ROAD-QUEENS PARK ROAD INTERSECTION UPGRADE

DWG No.	19143CAD022
FIGURE 2	
DATE STAMP	3 DECEMBER 2019
PROJECT No.	19143
SCALE	1:300 @A3
REV.	A



Filename: 19143CAD022-CONCEPT DESIGN-191201.dwg Date: 3 December 2019 By: Lefana.mallam

REV.	DESCRIPTION	DRAWN	CHECK	APPD	DATE
A	ISSUE FOR DISCUSSION	LM	JN	KH	03/12/19



PROJECT	MORIAH COLLEGE
TITLE	CONCEPT DESIGN YORK ROAD PEDESTRIAN CROSSING (OPTION 1: ZEBRA CROSSING)

DWG No.	19143CAD022
FIGURE 3	
DATE STAMP	3 DECEMBER 2019
PROJECT No.	19143
SCALE	1:500 @A3
REV.	A



Filename: 19143CAD022-CONCEPT DESIGN-191201.dwg Date: 3 December 2019 By: Lefana.mallam

REV.	DESCRIPTION	DRAWN	CHECK	APPD	DATE
A	ISSUE FOR DISCUSSION	LM	JN	KH	03/12/19



PROJECT	MORIAH COLLEGE
TITLE	CONCEPT DESIGN YORK ROAD PEDESTRIAN CROSSING (OPTION 2: CHILDREN CROSSING)

DWG No.	19143CAD022
FIGURE 4	
DATE STAMP	3 DECEMBER 2019
PROJECT No.	19143
SCALE	1:500 @A3
REV.	A



REPORT

TC/V.01/20.05



Subject: Murriverie Road, North Bondi - 15 Minute Parking Restrictions

TRIM No: A02/0637

Author: Calum Hutcheson, Service Manager, Traffic and Transport

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council installs a 5.5 metre "1/4 P 9.30 am–8 pm Mon–Fri, 8.30 am–12.30 pm Sat" zone from the No Stopping sign on Murriverie Road at Mitchell Street to the west as shown in Figure 3 in this report.

1. Executive Summary

Council has resolved to investigate the installation of a 15-minute parking zone for one car spot on the southern side of Murriverie Road near the intersection of Mitchell Street fronting Basgers Pharmacy, North Bondi. This is to assist local residents needing short-term parking to access to the chemist on the corner and the other shops, in particular to get their scripts filled. The request is supported.

2. Introduction/Background

There is a small shopping precinct on and around the corner of Murriverie Road and Glenayr Avenue. The café on the eastern corner was recently upgraded and expanded. On street parking demands surrounding the shops have increased. Residents are reported to be having difficulty getting short-term parking to access the Chemist on the corner and other shops. Installing a 15-minute parking space will allow residents better access to the local retailers.

Relevant Council Resolutions

Meeting and date	Minute No.	Decision
Council 17 March 2020	CM/8.3/20.03	<p>That:</p> <ol style="list-style-type: none"> 1. Council investigates the installation of a 15 minute parking zone for one car spot on the southern side of Murriverie Road, North Bondi, west of Glenayr Avenue. 2. The 15 minute parking zone operates between 9.30 am to 8.00 pm Monday to Friday and 8.30 am to 12.30 pm Saturday. 3. Council undertakes the necessary consultations. 4. A report come back to the May Traffic Committee Meeting.

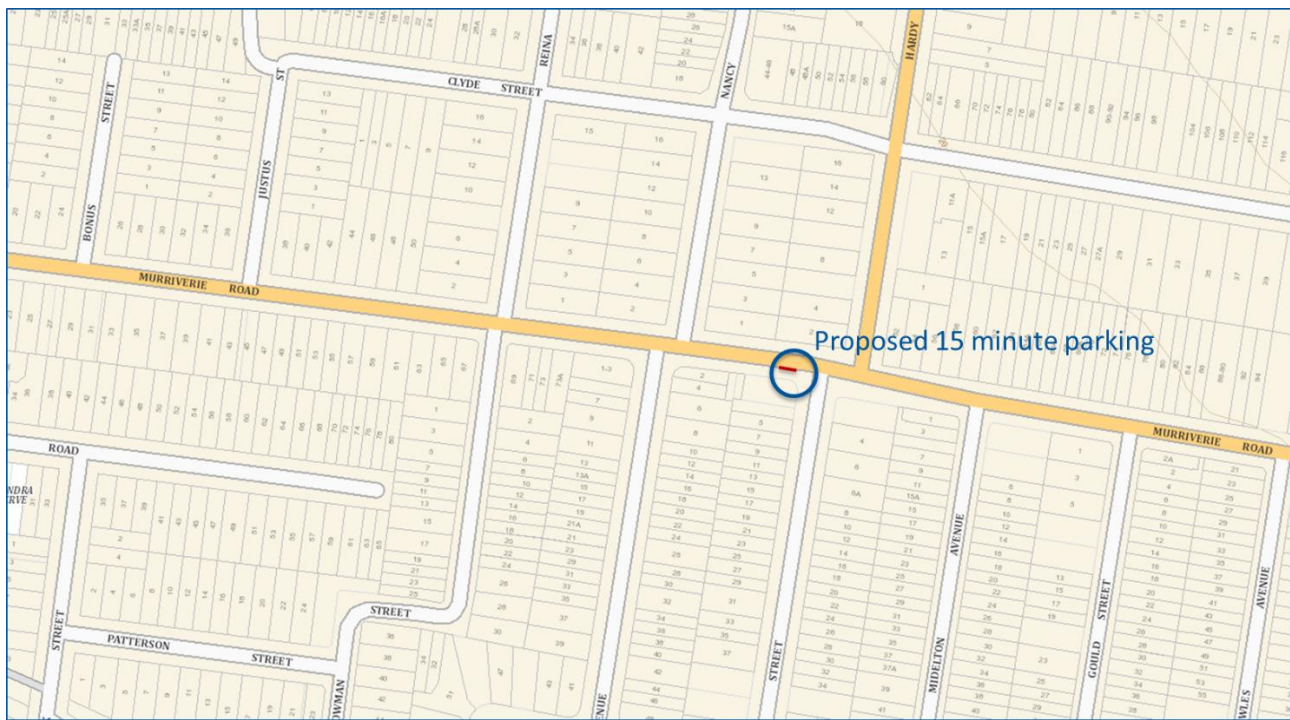


Figure 1: Location of proposed 15 minute parking

3. Technical Analysis

Bus Stop

There is a J-pole indicating a bus stop in Murrivier Road fronting the chemist. Council's database indicates that this is a school bus stop that operates from 7.30am to 9.30am on school days only.

State Transit have advised that their database indicates that the location is accessed by school buses at 7.26 am, 3.46 pm, 4.02 pm and 4.03 pm. The afternoon services do not have access to the school bus stop. School bus signage supports this (see **Figure 2**).



Figure 2: School bus stop signage (note southern side has different times on the 2 faces)

Community feedback

Council has consulted with the local business community seeking their views on the application. One response was received. This was from the chemist who is supportive of the proposal.

Advice

There are benefits in providing the 15 minute parking zone for short term visitors. The local businesses do not oppose it. It is recommended that it is installed operating between 9.30 am to 8.00 pm Monday to Friday and 8.30 am to 12.30 pm Saturday. The 15 minute parking zone is to be 5.5 metres long (one car length).

The 15 minute parking restrictions do not impact on the existing school bus zone times.



Figure 2: Proposed 15-minute parking zone.

4. Financial Information for Council's Consideration

If approved, Council will fund the cost of removing and installing the signs from existing budgets.

5. Attachments

Nil .

REPORT
TC/V.02/20.05

Subject: 58 Military Road, Dover Heights - Construction Zone

TRIM No: A03/2514-04

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

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 15 metre long "No Parking 7 am – 5 pm Mon – Fri, 8 am – 3 pm Saturday Council Authorised Vehicles Excepted" zone in front of 58 Military Road, Dover Heights.
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 58 Military Road, Dover Heights for the installation of a construction zone outside the site. Council will need to exercise its delegated function to implement the proposal.



Figure 1: Aerial image of 58 Military Road, Dover Heights

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 applicants 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.

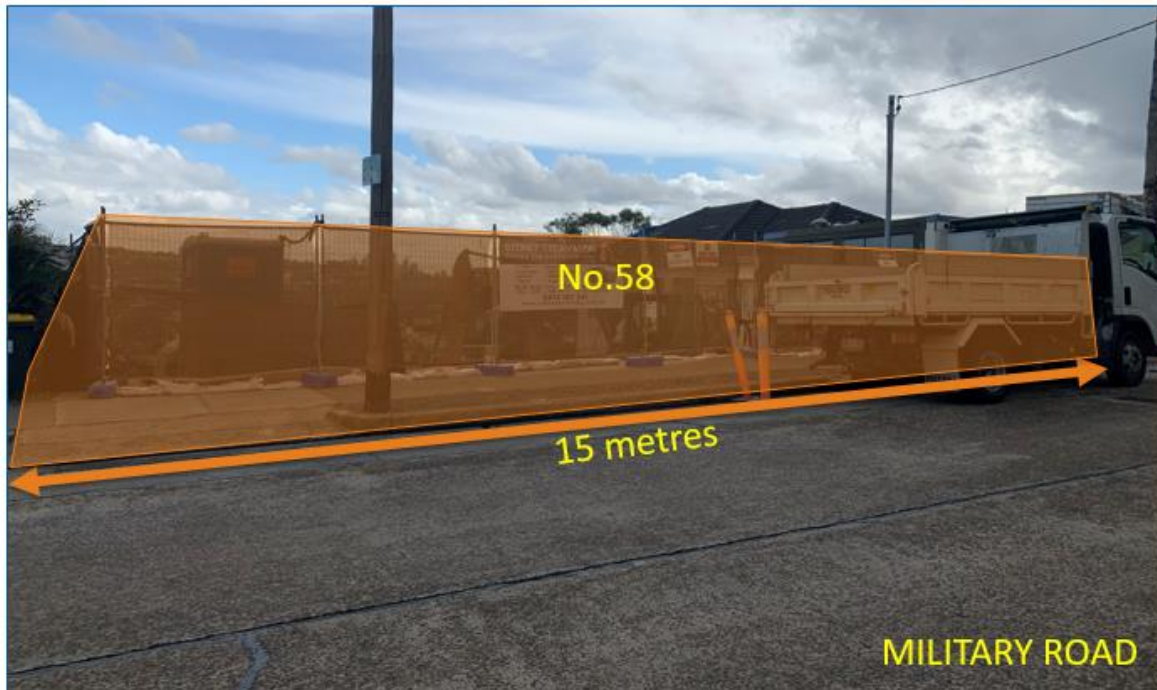


Figure 2: Construction zone location at 58 Military Road, Dover Heights

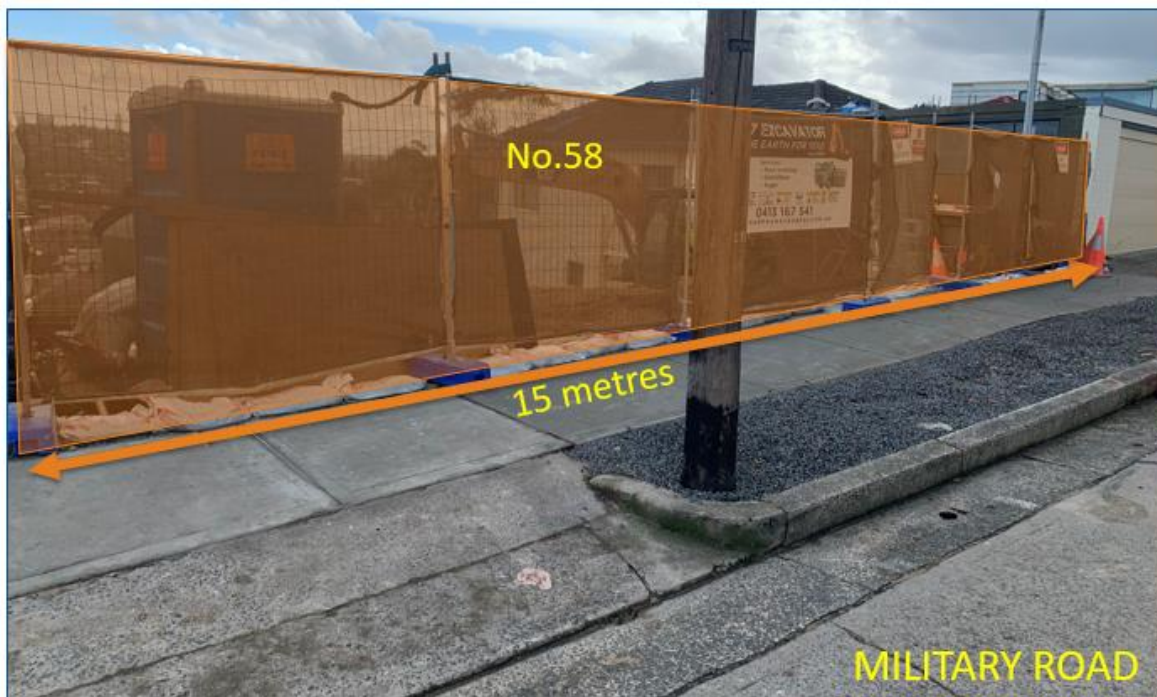


Figure 3: Construction work site at 58 Military Road, Dover Heights

3. Technical Analysis

The applicant has applied for a 15 metre construction zone spanning across the existing property driveway.

Table 1: Application details

Applicant	Gumcy Group Pty Ltd
Development application	DA-468/2017
Works	Demolition of building and construction of an attached dual occupancy
Approved hours of construction	7 am–5 pm Monday–Friday; 8 am–3 pm Saturday
Frontage length	15 metres (including driveway)
Road	Military Road, Dover Heights
Existing parking	Unrestricted free parking
Requested length	15 metres
Proposed length	15 metres
Duration	20 April 2020 to 08 August 2020
Fee area	Residential with parking restrictions
Estimated fees	\$999.00 per week (based on xx m provided)

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.
- \$370 per metred (ticket) car parking space per week in addition to above fees (where applicable).

5. Attachments

Nil .

REPORT
TC/V.03/20.05

Subject: 80 O'Brien 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

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council:

1. Installs a 12 metre long "No Parking 7 am – 5 pm Mon – Fri, 8 am – 3 pm Saturday Council Authorised Vehicles" zone in front of 80 and 82 O'Brien Street, Bondi Beach fronting both properties.
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 80 O'Brien Street, Bondi Beach for the installation of a 12 metre construction zone outside the site at No.80 and the adjacent site at No.82. Council will need to exercise its delegated functions to implement the proposal.



Figure 1: Aerial image OF 80 and 82 O'Brien Street, Bondi Beach

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 applicants 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.

Extension of the Constriction Zone to include frontage of neighbouring property (No. 82)

The applicant (No.80) has advised Council that the neighbour at No. 82 had been contacted and had no objection to use of the frontage of No.82 for part on the Construction Zone. Council notified the resident of No. 82 by letterbox drop requesting confirmation within 7 days. The notification also stated that the resident did not have to reply if he/she had no objection. No response was received. Hence, it has been determined that there is no objection to the construction Zone being across both No. 80 and No. 82.

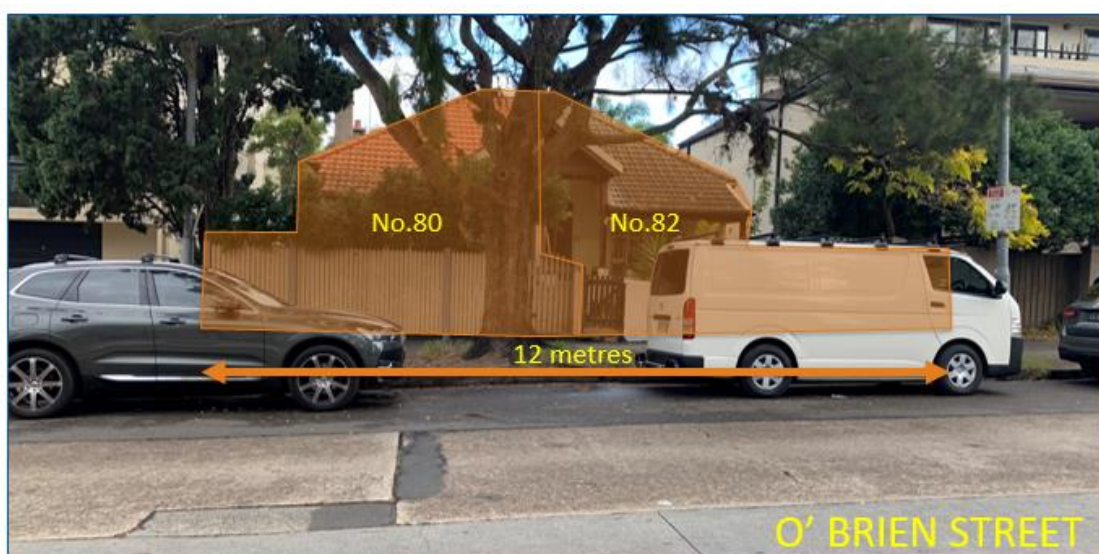


Figure 2: Construction work zone location



Figure 3: Frontage of No.80 & No.82 O'Brien Street, Bondi Beach

3. Technical Analysis

The applicant has applied for a 12 metre construction zone fronting properties No.80 and No.82 O'Brien Street, Bondi Beach.

Table 1. Application details.

Applicant	Champion Homes Pty Ltd
Development application	DA-128/2019
Works	Demolition of building and construction of a two storey dwelling with car park and hardstand
Approved hours of construction	7 am – 5 pm Monday – Friday; 8 am – 3 pm Saturday
Frontage length	12 metres (including frontage of No.82)
Road	O'Brien Street, Bondi Beach
Existing parking	2P 8am – 10pm, Permit Holders Excepted, Area 4
Requested length	12 metres
Proposed length	12 metres
Duration	06 April 2020 to 05 October 2020
Fee area	Residential with parking restrictions
Estimated fees	\$799.20 per week

Figure 4. Proposed construction zone at 80 O'Brien Street, Bondi Beach

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.
- \$370 per metred (ticket) car parking space per week in addition to above fees (where applicable).

5. Attachments

Nil .

REPORT
TC/V.04/20.05

Subject: Barracluff Avenue, Bondi Beach - Traffic Assessment

TRIM No: A03/0042-04

Author: Calum Hutcheson, Service Manager, Traffic and Transport

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council prepares a preferred option and alternatives for community consultation that include:

1. Preferred option:
 - (a) Construction of pedestrian/traffic islands with associated line marking and signage at the intersections of Barracluff Avenue and Francis Street, and Barracluff Avenue and Lamrock Avenue, Bondi Beach, as shown in Drawing 9005 Issue A attached to this report.
 - (b) Kerb extensions in Barracluff Avenue on both sides of the road opposite:
 - (i) 23 Barracluff Avenue and 25 Barracluff Avenue.
 - (ii) 5 Barracluff Avenue and 7 Barracluff Avenue.
2. Alternative option: closure of Barracluff Avenue in the vicinity of 21 Barracluff Avenue.

1. Executive Summary

This matter was previously considered by the Committee at its meeting in March 2020. At that meeting the Committee resolved to defer the matter to this meeting.

This report considers traffic data, resident submissions, and physical road conditions for Barracluff Avenue, Bondi Beach. Resident requests for a road closure or traffic calming treatments have been reviewed taking into consideration the efficiency of the road network, local amenity, and road safety.

A road closure for Barracluff Avenue is not recommended as the volumes are low and any closure would adversely impact other streets already carrying significant levels of traffic. Traffic speeds can be better addressed in the consideration of traffic calming.

Traffic calming is preferred over road closures. Traffic calming is the appropriate measure for reducing speeds at the intersections resulting in reduced mid-block speeds. It also improves amenity and safety for pedestrians and cyclists.

The introduction of pedestrian refuges at intersections is recommended to improve pedestrian safety and slow traffic turning into and out of Barracluff Avenue. Locations recommended for pedestrian refuges are:

- Barracluff Avenue at Francis Street.
- Barracluff Avenue at Lamrock Avenue

- Lamrock Avenue at Barracluff Avenue

Mid-block kerb extensions with plantings can also be introduced to keep traffic near the centre of the road reducing potential conflict with people accessing parked cars. Plantings in mid-block kerb extensions assist in enhancing the urban environment. Two mid-block kerb extensions are possible. They are:

- Kerb extension outside 23 Barracluff Avenue and 25 Barracluff Avenue.
- Kerb extension outside 5 Barracluff Avenue and 7 Barracluff Avenue.

Installation of the kerb extension will require consultation with the directly affected residents. This does not defer the recommendation for intersection treatments.

Mid-block pedestrian refuges are not recommended as they result in the loss of significant on street parking spaces.

2. Introduction/Background

Traffic concerns in relation to Barracluff Avenue have been raised by residents for a considerable number of years. In more recent times, Council has determined the need to investigate traffic calming and/or road closures for Barracluff Avenue. Council considered a June 2019 report from Traffic Committee recommending construction of pedestrian refuges at Barracluff Avenue/Francis Street, and Barracluff Avenue/Lamrock Avenue. Council determined that this report should be deferred until consideration of the potential closure of Barracluff Avenue at the north end, south end or centre was also investigated.

Barracluff Avenue is a 12.8 m wide two-way local road with parking on both sides. The default speed limit is 50 km/h. It is around 185 m long between Francis Street and O'Brien Street (see Figure 1).

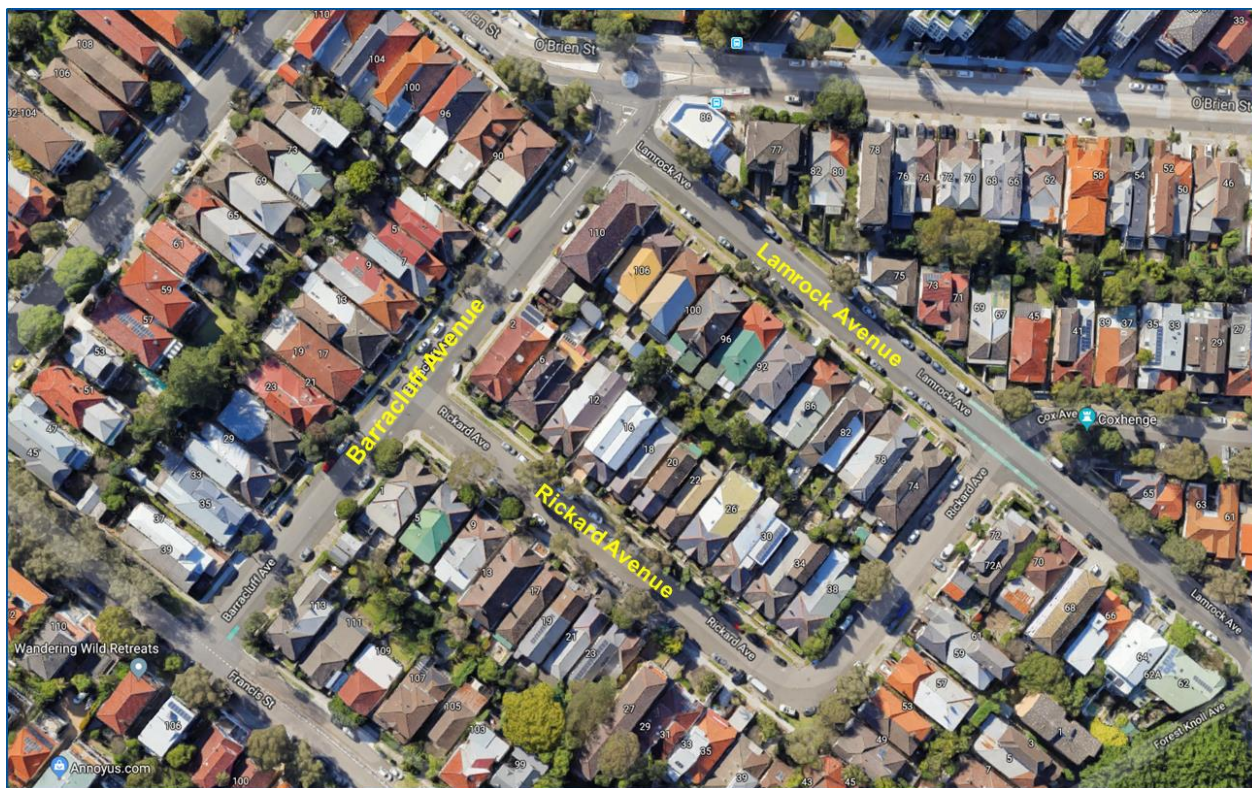


Figure 1. Aerial image of Barracluff Avenue, Bondi Beach.

A part of Barracluff Avenue includes a designated marked bike route as shown in Figure 2.

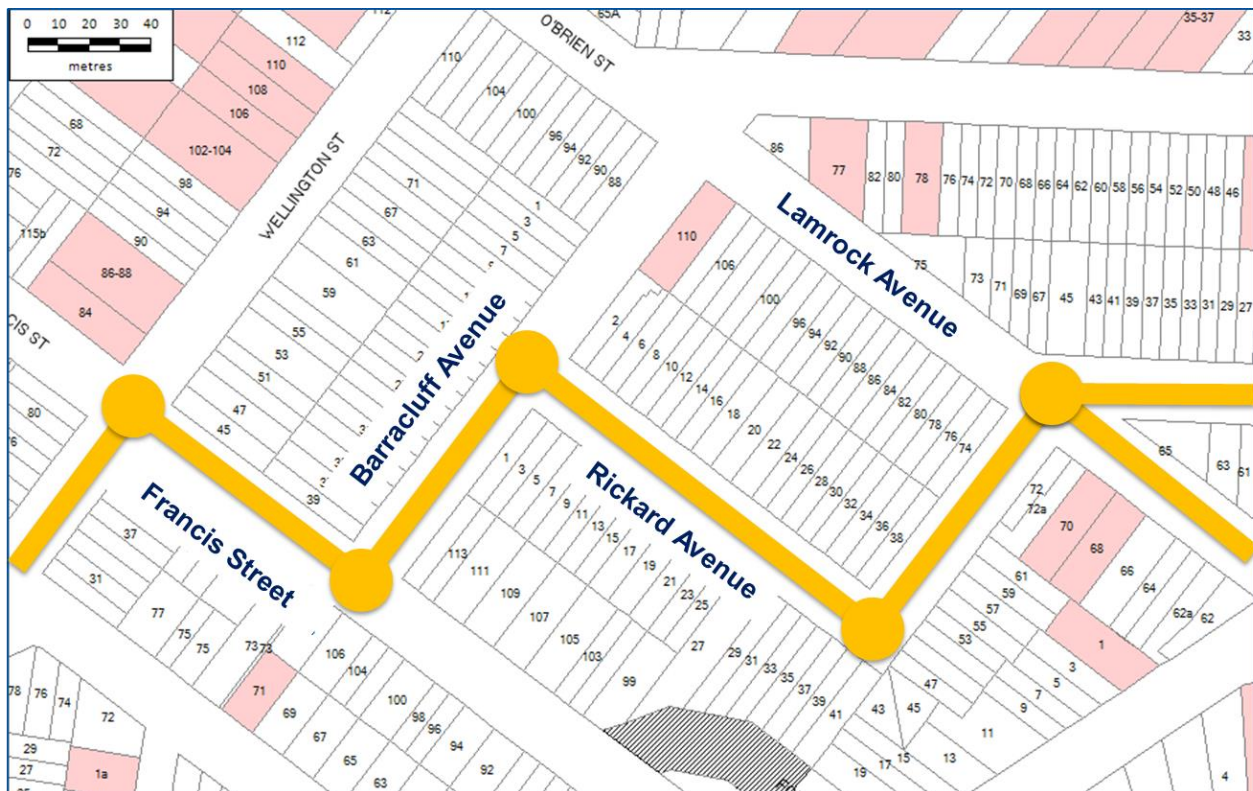


Figure 2. Bike route in Barracluff Avenue and Rickard Avenue.

Traffic concerns in relation to Barracluff Avenue (and Rickard Avenue) have been raised by residents for a considerable number of years. The most recent issues considered by Council are summarised below.

1. November 2016 – Council passed a motion that:
 - (a) Notes that in 2006 plans were prepared for Barracluff and Rickard Avenues to reduce traffic speed and provide more parking (angle parking and refuges). Based on residents' responses the Waverley Traffic Committee determined to not implement these plans.
 - (b) Notes that in April 2014 the Waverley Traffic Committee concluded that no action be taken on Barracluff Avenue traffic calming due to reported speed counts at the time.
 - (c) Notes that an incident occurred in Barracluff Avenue on 22 October 2016. The Police are investigating the circumstances of the matter to determine its classification.
 - (d) Notes that a speed counter has been installed around mid-block in Barracluff Avenue, near Rickard Avenue, and results will be available in a few weeks.
 - (e) Continues the investigation into traffic calming in Barracluff Avenue subject to speed count results, including a reassessment of the 2006 plans and other traffic calming measures.
2. June 2018 – A request was received for the removal of 'No Parking' signage across the driveways of 1 Rickard Avenue and 115 Francis Street.

Council resolved to implement the measure.
3. September 2018 – Council considered a petition containing 51 signatures from the residents of Rickard Avenue, Bondi Beach, requesting the closure of Rickard Avenue at its intersection with

Lamrock Avenue, and the installation of central refuges in Rickard Avenue at its intersection with Barracluff Avenue.

The petition raised '*Safety concerns for the large number of children living in Rickard Avenue from traffic*'. It requested that Council '*Close Rickard Avenue at its intersection with Lamrock Avenue and place central refuges in Rickard Avenue at its intersection with Barracluff Avenue and at the "dog leg" bend.*'

Council resolved that the petition requesting the closure of Rickard Avenue at its intersection with Lamrock Avenue, and the installation of central refuges in Rickard Avenue at its intersection with Barracluff Avenue, be forwarded to the Executive Manager, Creating Waverley, for appropriate action, including consideration of closure and/or traffic calming at the intersection of Barracluff Avenue.

4. November 2018 – A petition was received from residents with properties fronting or adjacent to Barracluff Avenue requesting that traffic calming measures be installed in Barracluff Avenue to reduce vehicle speeds in the street. The petition contained 22 signatures from 19 households in Barracluff Avenue and 1 signature from a household in Rickard Avenue adjacent to Barracluff Avenue. Residents raised concerns regarding the speed of vehicles and the street being used as a short cut principally in peak times.

Council referred the matter to the Executive Manager, Creating Waverley, for consideration.

5. June 2019 – A report was prepared for Waverley's Local Traffic committee recommending construction of pedestrian refuge islands at the intersections of Barracluff Avenue/Francis Street, and Barracluff Avenue/Lamrock Avenue.

Council deferred this matter this item for an investigation into the closure of Barracluff Avenue at the north end, south end or centre.

6. June 2019 – A petition was received from residents who live in or directly beside Barracluff Avenue requesting that Barracluff Avenue be converted into a cul-de-sac. A second preference for centre island treatments to be installed at each end of the street. The petition contained:
 - (a) 13 signatures from households in Barracluff Avenue.
 - (b) Two signatures from households in Rickard Avenue adjacent to Barracluff Avenue.
 - (c) One signature from a household in Francis Street adjacent to Barracluff Avenue.
 - (d) One signature from a household in O'Brien Street adjacent to Barracluff Avenue.

Council referred the matter to the Executive Manager, Creating Waverley, for appropriate action

7. November 2019 – Council noted previous motions in relation to Barracluff Avenue and Rickard Avenue. It was resolved by Council to:
 - (a) Prepares options for community consultation to:
 - (i) Fully or partially close Barracluff Avenue with partial closure being for exit from Barracluff into Francis Street.

- (ii) Install traffic calming devices on the corner of Barracluff and Lamrock Avenues and at other points along Barracluff as deemed appropriate.

- (b) Officers report back to Council prior to community consultation.

This report addresses the November 2019 motion and previous submissions.

2014 investigation

Council had considered traffic conditions in Barracluff Avenue in 2014 (referred to above). This was part of an overall assessment of traffic conditions at specific locations within the Council area. Traffic volumes and speeds were surveyed at 23 locations. The survey results for Barracluff Avenue are presented in Table 1.

Table 1. Surveyed traffic speeds and volumes on Barracluff Avenue (November 2013).

Location	Speed Limit (km/h)	Direction	85th %ile Speed (km/h)	Morning Peak Hour Volume	Evening Peak Hour Volume	Daily average
near No. 1	50	Northeast	47	33	33	387
		Southwest	49	83	66	780
		Combined	49	111	96	1167
near No. 29	50	Northeast	46	27	35	366
		Southwest	48	94	64	795
		Combined	47	119	94	1161

** The 85th percentile speed is defined as 'the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions past a monitored point.'*

The assessment criteria for traffic conditions at that time were:

Council would generally only consider the installation of LATM treatments if:

- a) the 85th percentile speed is considerably above the posted speed limit,*
- b) a speed-related crash history is known, or*
- c) volumes suggest that the road is being used as a "rat-run".*

Barracluff Avenue was deemed to not meet the criteria and was excluded from further analysis. This assessment was primarily vehicle based. It could have placed more weight on residential amenity considerations.

Resident petitions from 2018 and 2019

Two resident petitions from 2018 and 2019 are documented below. They relate to requests from residents of Barracluff Avenue. They do not include petitions related to Lamrock Avenue.

Figure 3 shows the coverage of the households from which the petitions were signed. It shows good support for traffic improvements.

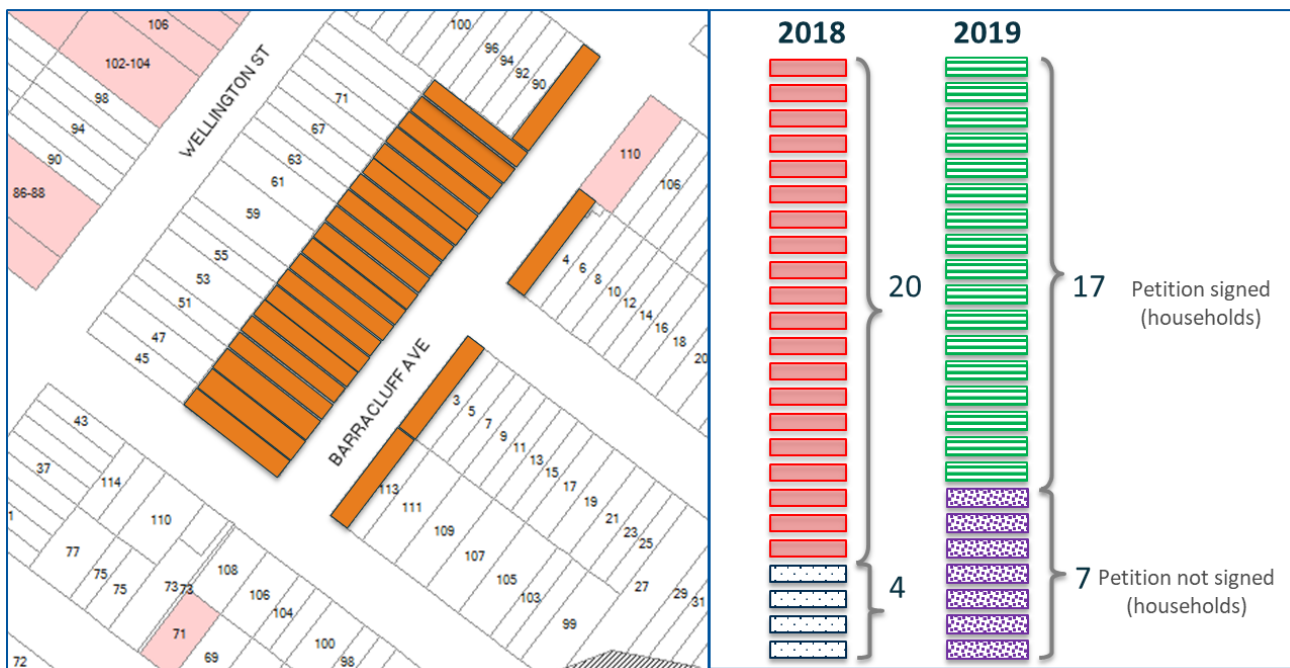


Figure 3. Resident petitions (2018 for traffic calming and 2019 for road closure).

Council survey from 2019

Council undertook a survey of resident views on implementing traffic calming in Barracluff Avenue in April 2019. Residents were presented with 3 locations for treatments and asked whether they supported these treatments. The information sent to residents is shown in Figure 4. The facilities included:

1. A pedestrian refuge island on Barracluff Avenue at Francis Street.
2. A pedestrian refuge island on Barracluff Avenue at Lamrock Avenue.
3. Replacement of a splitter island with a pedestrian refuge island on Lamrock Avenue at Barracluff Avenue.

Figure 5 shows the feedback from the Council survey. It indicates good support for consideration of the traffic calming approach with 14 responses in favour and four against.



Figure 4. Council survey information submitted to residents.

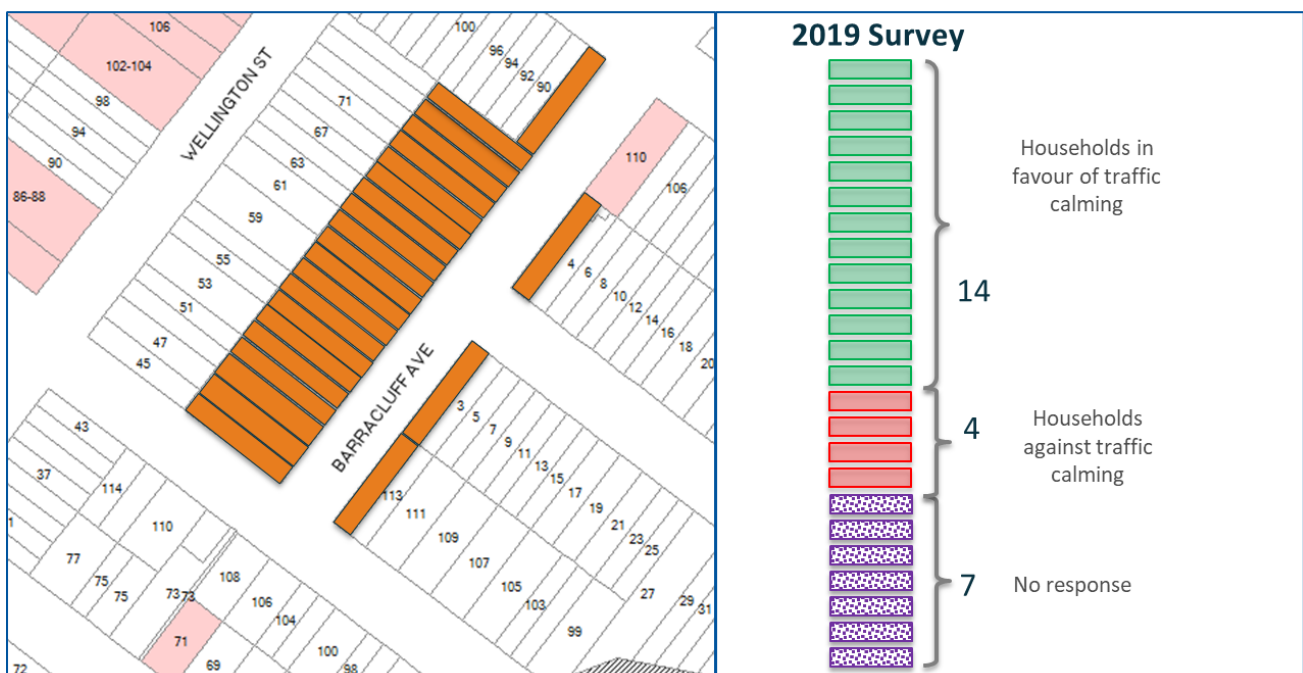


Figure 5. Resident response to Council Survey (2019 for traffic calming).

3. Technical Analysis

Assessment criteria

It is appropriate at this stage to revisit the criteria from which road closures and traffic calming measures should be assessed.

The RMS Guide to Traffic Generating Developments identifies ways in which traffic can have an impact. Ways relevant to the assessment of Barracluff Avenue include:

1. Impact on traffic efficiency.
2. Impact on amenity.
3. Impact on safety.

Traffic efficiency

Impact on traffic efficiency essentially relates to the capacity of the road system to accommodate the traffic demands. Delays mid-block and at intersections determine the efficiency. The efficiency is reported within a range from Level of Service A (free flow conditions) to Level of Service F (forced flow conditions).

Level of Service C is the point at which consideration of future traffic growth could warrant upgrades to the road system. It is in the zone of stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience declines noticeably at this level.

Traffic amenity

Traffic amenity for local roads is best addressed by comparison against environmental capacity criteria. Traffic characteristics to consider include:

1. Traffic volume.
2. Traffic composition, particularly proportion of heavy vehicles.
3. Vehicle speed.

The RMS Guide to Traffic Generating Developments specifies criteria by which amenity can be assessed. These are shown in Table 2.

Table 2. Environmental capacity performance standards on residential streets.

Road class	Road type	Maximum speed (kilometres per hour)	Maximum peak hour volume (vehicles per hour)
Local	Access way	25	100
	Street	40	200 environmental goal 300 maximum
Collector	Street	50	300 environmental goal
			500 maximum

Source: RMS Guide to Traffic Generating Developments (2002)

Note that the threshold speeds for local streets are 40 km/h. The general urban speed limit of 50 km/h does not apply when assessing impacts on amenity.

Traffic safety

Traffic safety is initially assessed by comparison against historical crash data. This data contains records of all crashes which involved an injury or fatality that has been reported to police. It does not include lower order crashes or near misses. These are best assessed by on site observations and feedback from residents who see traffic conditions on their streets on a daily (and nightly) basis.

Survey data – December 2018

Council carried out speed and volume tube counts in Barracluff Avenue, Rickard Avenue and Francis Street in early December 2018. The results of the surveys are presented in Tables 3 and 4 and Figures 6 and 7.

Traffic flows on Barracluff Avenue are up to 140 vehicles in peak hours which is below the environmental goal of 200 vehicles. Traffic speeds are around 45 km/h, which is higher than the desirable maximum of 40 km/h.

Table 2: Traffic volumes on Barracluff Avenue, Rickard Avenue, and Francis Street (December 2018).

Location	Speed Limit (km/h)	Direction	Morning Peak Hour Volume	Daily average
Barracluff Avenue (north of Rickard Avenue)	50	Northeast	29	380
		Southwest	104	891
		Combined	133	1,271
Barracluff Avenue (south of Rickard Avenue)	50	Northeast	29	380
		Southwest	111	891
		Combined	140	1,271
Rickard Avenue	50	Southeast	13	213
		Northwest	24	195
		Combined	37	408
Francis Street (north of Barracluff)	50	Southeast	37	487
		Northwest	166	1,080
		Combined	203	1,567
Francis Street (south of Barracluff)	50	Southeast	29	446
		Northwest	72	544
		Combined	101	990

Table 3: Traffic speeds on Barracluff Avenue, Rickard Avenue, and Francis Street (December 2018).

Location	Speed Limit (km/h)	Direction	85th %ile Speed (km/h)
Barracluff Avenue (higher 85%ile speed)	50	Northeast	41
		Southwest	45
		Combined	43
Rickard Avenue	50	Southeast	38
		Northwest	40
		Combined	39
Francis Street (higher 85%ile speed)	50	Southeast	43
		Northwest	45
		Combined	44

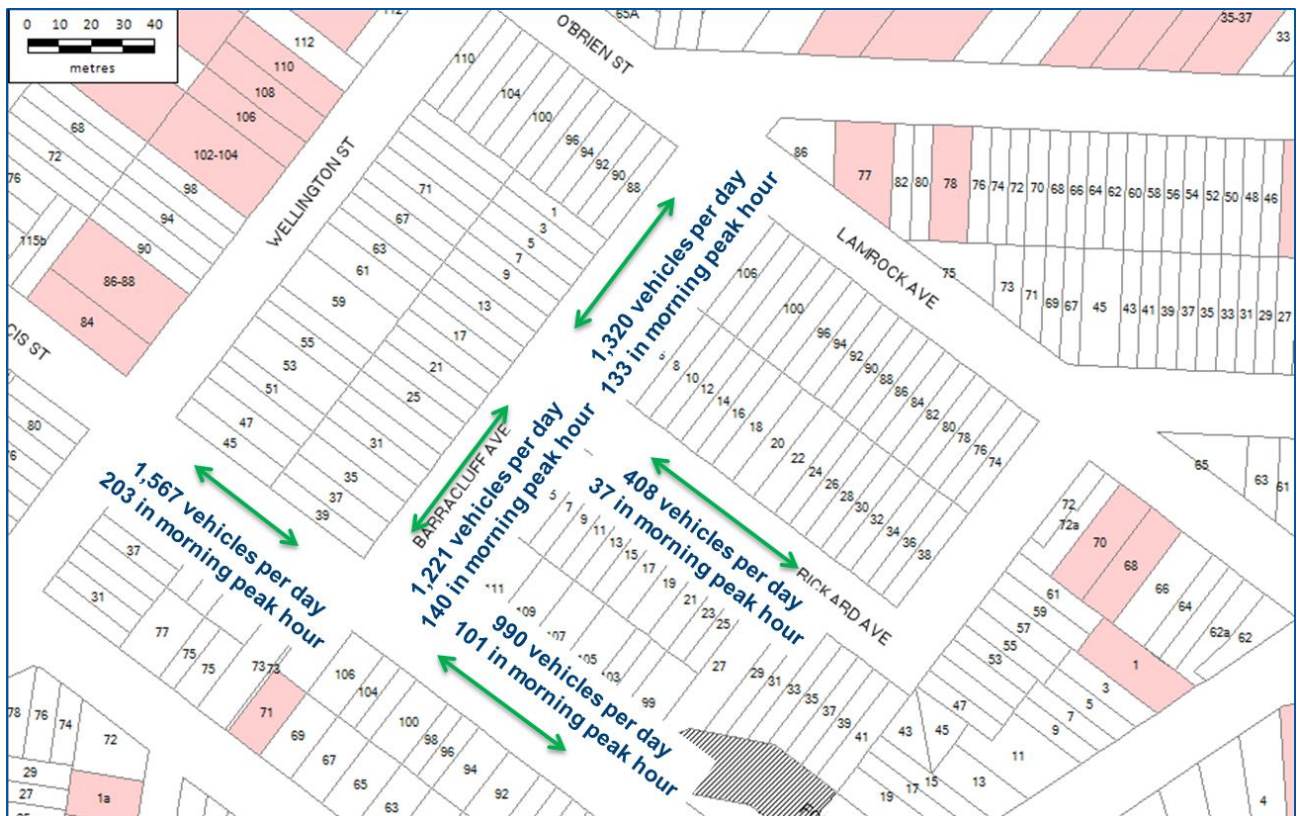


Figure 6. Traffic volumes on Barracluff Avenue, Rickard Avenue, and Francis Street (December 2018).

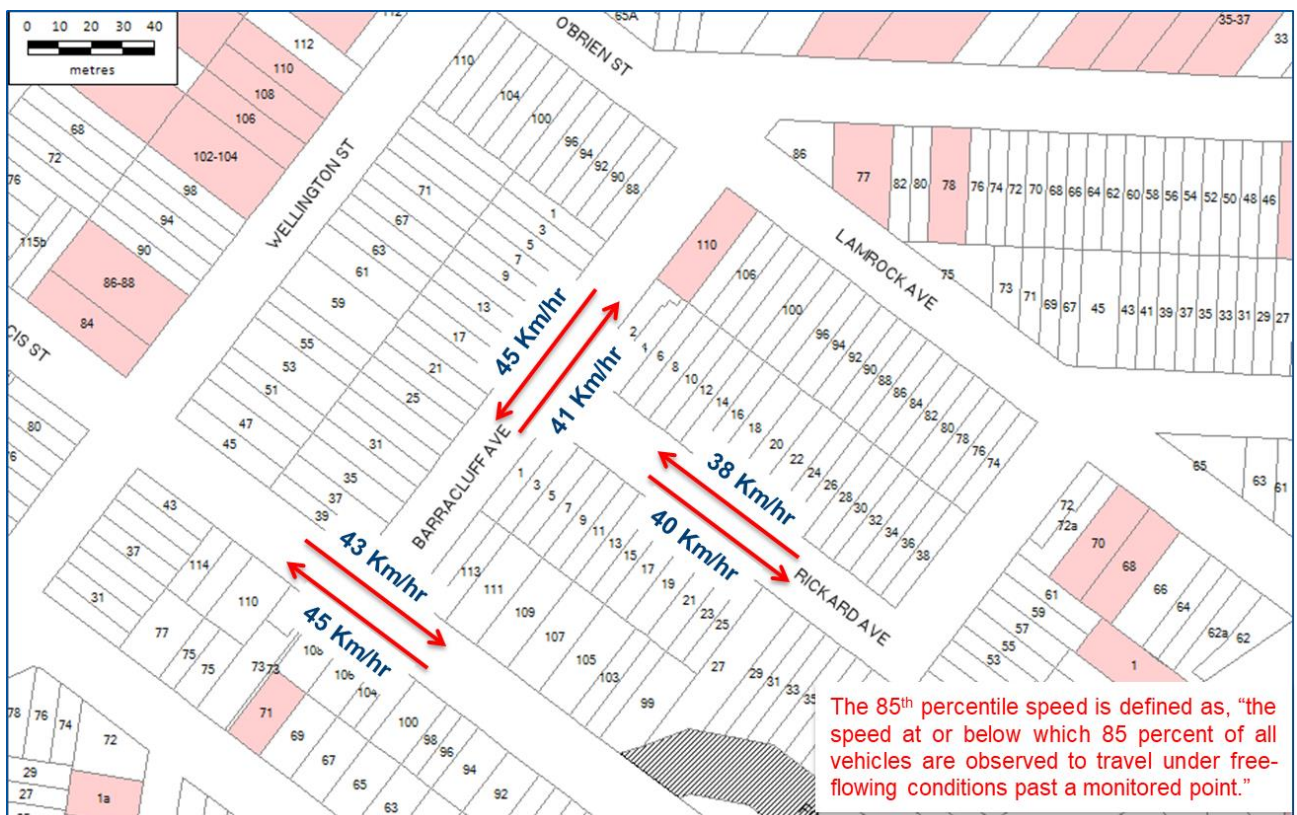


Figure 7. Traffic speeds on Barracluff Avenue, Rickard Avenue, and Francis Street (December 2018).

Impacts of Rickard Avenue closure

Rickard Avenue was closed at Lamrock Avenue on 25 September 2019 for a six-month trial. The six-month trial is now complete.

Traffic volumes and speeds counts were undertaken during the closure. These counts as well as the pre-closure counts from 1998 are presented in Table 4.

Table 4. Changes in traffic flows and speeds with Rickard Road closure.

Location	Direction	2018	2019	Change
Average daily traffic (7 days)				
Francis Street to Rickard Avenue	Two - way	1221	1189	-3%
Rickard Avenue to Lamrock Avenue	Two - way	1319	1440	9%
Morning peak hour traffic (5 days)				
Francis Street to Rickard Avenue	Two - way	129	158	22%
Rickard Avenue to Lamrock Avenue	Two - way	129	168	30%
Average speed (7 days)				
Francis Street to Rickard Avenue	Northbound	42	42	0%
Rickard Avenue to Lamrock Avenue	Northbound	42	45	7%
Rickard Avenue to Francis Street	Southbound	46	46	0%
Lamrock Avenue to Rickard Avenue	Southbound	45	41	-9%

The traffic data from before and during the trial closure of Rickard Avenue shows no significant impact on Barracluff Avenue except for the peak hour. Diversions by 'rat-running' traffic using Rickard Avenue has now diverted back to Barracluff Street. The volumes are not significant.

The trial closure of Rickard Avenue can be treated as a separate item to be reported to an upcoming traffic committee.

Traffic assessment

Traffic efficiency

Traffic conditions in Barracluff Avenue and surrounding streets operate at a Level of Service C or better. Congestion in the immediate surrounds is low. There is some through traffic on Barracluff Avenue. This is primarily local residents travelling between streets and the homes.

There are no traffic efficiency grounds for modifying the road infrastructure of Barracluff Avenue.

Traffic amenity

Traffic volumes on Barracluff Avenue are well below the RMS environmental limits. The speeds of around 45 km/h are slightly higher than the 40 km/h threshold set by the RMS. Speeds on the other adjacent streets are similar.

The 40 km/h threshold is an important factor to consider in streets where there is significant pedestrian and cyclist activity. It is desirable that this is achieved as part of the long-term planning for a better community environment. Slowing of traffic at intersections assists in reducing mid-block speeds to the benefit of vulnerable road users.

It is justified to undertake works that aim to reduce traffic speeds on Barracluff Avenue.

Traffic safety

There was one crash recorded on Barracluff Avenue in NSW Roads and Maritime Services records of crashes for the period from January 2010 to September 2018 (just under nine years). The crash occurred at 4.20 pm in October 2016. It was around 20 m south of Rickard Avenue. A 29-year-old female standing in the roadway was struck by a station wagon driven by a 57-year-old male driver. The station wagon was reported to be reversing on Barracluff Avenue at around 20 km/h.

Note that RMS records do not contain some 'minor' crashes. Regardless, it is apparent that the number of crashes which have resulted in injuries are low. Traffic calming can still be considered where there is a view that potential conflicts could occur.

Common to the petitions received from Barracluff Avenue and the Council survey was the theme from residents that they are concerned about conflicts between pedestrians and vehicles. Residents have reported near misses with children as well as injuries to pets. Conflicts between vehicles is not mentioned.

Traffic safety is a concern for all local neighbourhoods. Measures have recently been undertaken with a six-month trial of the closure of Rickard Avenue. This has a low to negligible impact on conditions in Barracluff Avenue. In other words, conditions in Barracluff Avenue remain relatively the same as prior to the closure.

It is justified to undertake works that minimise conflicts between vulnerable road users and vehicles on Barracluff Avenue.

Other issues

Circulating traffic

Barracluff Avenue is used as a cross link by circulating traffic accessing Edward Street, Francis Street, Lamrock Avenue, and O'Brien. This traffic is generally associated with local resident movements and activities at Bondi Beach itself. The Bondi Beach traffic is generally looking for parking close to the beach.

Circulating traffic will continue with or without the introduction of traffic calming. Road closures are the only measure available to address excessive circulation. However, closures also affect access to neighbours' properties and local shops.

Impact on cyclists

Traffic calming at intersections improves safety for cyclists by slowing traffic and allowing for identification of cyclist routes. Providing access is maintained, road closures for vehicles do not affect cyclists.

Potential road treatment 1 – Road closure

There are four potential locations where Barracluff Avenue could potentially be closed to prevent through traffic. They are shown in Figure 8. Location 2 in the vicinity of 21 Barracluff Avenue has been nominated by residents in the 2019 petition as a preferred location.

Closure at any of the locations impacts residents beyond those who live in Barracluff Street. Road closure would transfer through and circulating traffic movements to other residential streets, particularly Wellington Street. Wellington Street already carries significant levels of traffic performing a collector as well as a local road function. Traffic flows on Wellington Street are around 6,000 vehicles per day (600 peak hour vehicles). These flows are already in excess of the desirable maximum for Wellington Street functioning as a collector road (500 vehicle per hour maximum threshold).

Road closures affect accessibility for the residents within the affected street in two ways. The first is loss of parking due to an area required to turn vehicles around at the dead end. The second is impacts on manoeuvrability of larger vehicles making deliveries and waste vehicles undertaking weekly collections.

Road closure for Barracluff Avenue is not recommended as the volumes are low and any closure would adversely impact other streets already carrying significant levels of traffic. Traffic speeds can be addressed in the consideration of traffic calming. Nevertheless, road closure option 2 in the vicinity of 21 Barracluff Avenue should be presented to the community as part of further consultation.



Figure 8. Potential road closure locations.

Potential road treatment 2 – Traffic calming

Traffic calming will not reduce traffic flows. Given the low volumes, this is not the main issue. The main issue is safety for pedestrians and other vulnerable road users including cyclists.

Traffic calming at intersections and/or mid-block can be used to reduce traffic speeds and improve accessibility for pedestrians.

Mid-block treatment in the form of speed humps will slow speeds but has the negative effect of noise impacts on nearby residents.

Mid-block pedestrian refuges are not recommended as they result in the loss of significant on street parking spaces.

Mid-block kerb extensions with plantings are preferred.

The introduction of pedestrian refuges at intersections is recommended to improve pedestrian safety and slow traffic turning into and out of Barracluff Avenue. Locations recommended for pedestrian refuges are:

- Barracluff Avenue at Francis Street.
- Barracluff Avenue at Lamrock Avenue.
- Lamrock Avenue at Barracluff Avenue.

Mid-block kerb extensions with plantings can also be introduced to keep traffic near the centre of the road reducing potential conflict with people accessing parked cars. Plantings in mid-block kerb extensions assist in enhancing the urban environment. Two mid-block kerb extensions are possible. They are:

- Kerb extension outside numbers 23 and 25 Barracluff Avenue.
- Kerb extension outside numbers 5 and 7 Barracluff Avenue.

Installation of the kerb extension will require consultation with the directly affected residents. This does not defer the recommendation for intersection treatments.

Traffic calming at intersections is preferred over road closures. Mid-block speed humps are not preferred. Traffic calming is the appropriate measure for reducing speeds at the intersections resulting in reduced mid-block speeds.

Traffic calming treatments at intersections have been examined in the past. They have been re-examined and updated to incorporate the needs for cyclist safety. Plans of these treatments are attached.

4. Financial Information for Council's Consideration

Works will be funded from existing budgets.

5. Attachments

1. Barracluff Avenue - Pedestrian Refuge Island Design - Updated [↓](#) .

GENERAL NOTES

1. THE DESIGN DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT COUNCIL'S STANDARD DRAWINGS.
2. DURING CONSTRUCTION THE WORK IS TO BE SIGNPOSTED AND MARKED TO THE REQUIREMENTS OF AS1742.2-2009 AND AS1742.3-2009 "TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS".
3. A TRAFFIC MANAGEMENT PLAN & SITE SAFETY PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
4. SOIL AND WATER MANAGEMENT PLAN IS TO BE SUBMITTED TO COUNCIL'S PROJECT MANAGER PRIOR TO IMPLEMENTATION.
5. ALL WORK IS TO BE CARRIED OUT TO BEST PRACTICE STANDARDS AND TO THE SATISFACTION OF COUNCIL'S PROJECT MANAGER.
6. THE WORK SITE IS TO BE PROTECTED USING APPROPRIATE SIGNAGE, FENCING, BARRICADING, AND PARAWEBBING FOR DURATION OF PROJECT CONSTRUCTION.
7. WHERE TRAFFIC CONDITIONS HAVE CHANGED DUE TO WORKS, CONTRACTOR TO INSTALL TEMPORARY SIGNS - "CHANGED TRAFFIC CONDITIONS AHEAD" ON ALL APPROACHES 75-100M IN ADVANCE OF THE WORK SITE AND MAINTAIN FOR 3 MONTHS AFTER COMPLETION OF WORKS.
8. ALL RESIDENTS AFFECTED BY THE PROPOSED WORKS ARE TO BE NOTIFIED AT LEAST 3 WORKING DAYS BEFORE THE COMMENCEMENT OF ROADWORKS.
9. SIGNABLE VECULAR ROADWAYS ARE TO BE MAINTAINED TO EACH DRIVEWAY OR ALTERNATIVE ARRANGEMENTS MADE WITH THE OWNERS.
10. WORK TO BE CARRIED OUT WITH IN THE APPROVED TIMINGS ONLY.

SERVICES

11. UTILITIES (IF SHOWN) ARE DIAGRAMMATIC ONLY AND HAVE BEEN PREPARED FROM THE INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THE SERVICE AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDELINES.
12. ASDGRD REQUIRES THAT CONTRACTOR SHOULD CONTACT THEM IF WORKING WITHIN 5.0M FROM UNDERGROUND ELECTRICITY CONDUITS.
13. EXISTING SERVICE COVERS SHOULD BE ADJUSTED TO DESIRED LEVELS TO THE REQUIREMENTS OF THE RELEVANT SERVICE AUTHORITY.
14. NO SERVICE COVERS ARE TO BE COVERED.

SIGNS & LINEMARKING

15. ALL TRAFFIC SIGNS TO COMPLY WITH AUSPEC 262 & RMSQA SPECIFICATION R65 AND TO BE OF HIGH INTENSITY CLASS 1 REFLECTIVITY.
16. ALL LINEMARKING IS TO COMPLY WITH AUSPEC 261 & RMS SPECIFICATION R141 - "PAVEMENT MARKING"
17. LINEMARKING TO BE IN THERMOPLASTIC TYPE (UNLESS STATED OTHERWISE) AND INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATIONS 3357 AND 3353 RESPECTIVELY. ALL RPRM'S TO COMPLY WITH RMS SPECIFICATION R62.
18. KERB FACES OF ALL ISLANDS TO BE PAINTED WHITE AND TO INCLUDE GLASS BEADS IN ACCORDANCE WITH RMS SPECIFICATION NO. 3353.
19. ALL LINEMARKING AND RPRM'S REMOVED OR AFFECTED DURING THE COURSE OF THE WORKS IS TO BE REINSTATED UNLESS NOTED OTHERWISE.
20. ALL EXISTING SIGNS TO REMAIN UNLESS OTHER WISE NOTED.
21. LINEMARKING AND SIGNPOSTING TO BE INSTALLED AS SOON AS PRACTICABLE.
22. REDUNDANT LINEMARKING IS TO BE REMOVED BY GRINDING WHERE SHOWN ON PLANS OR WHERE NEW LINEMARKING IS PROVIDED.
23. ALL SIGNPOSTING ON SPLITTER, KERB OR PEDESTAL REFUGE ISLANDS TO BE ERCTED USING Y-SHAPED INSERTS, UNLESS OTHERWISE NOTED.
24. UNLESS SHOWN ON PLANS, NO STATE SURVEY MARKS ARE TO BE REMOVED PRIOR TO CONSULTING WITH COUNCIL'S SENIOR DESIGN TEAM LEADER.
25. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.

IN CASE OF EMERGENCY, CONTACT
THE FOLLOWING UTILITIES IF THEIR
SERVICES ARE INVOLVED :

TELSTRA	: 132203
AGL (GAS)	: 131909
SYDNEY WATER	: 132090
AUSGRID	: 131388

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. CONCRETE QUALITY.

ELEMENT	SLUMP	MAX AGGREGATE SIZE	CEMENT TYPE	CEMENT GRADE
ALL	80mm	20mm	GP	25MPa

NO ADMIXTURES SHALL BE USED WITHOUT THE APPROVAL OF THE MANAGER DESIGN.

3. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN-

ELEMENT	SURFACE OF MEMBER IN INTERIOR ENVIRONMENT	SURFACE OF MEMBER IN ABOVE GROUND EXTERIOR ENVIRONMENT	SURFACE OF MEMBER IN CONTACT WITH GROUND (1)	SURFACE OF MEMBER WATER
ALL	35	45	55	75

NOTE:

1. COVER MAY BE REDUCED BY 10mm IF THE SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE.
2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER, OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED ON THE DRAWINGS.



UTILITIES, ARE DIAGRAMMATIC ONLY.
CONTRACTORS ARE RESPONSIBLE TO
LOCATE AND AVOID DAMAGE TO
THEM AS SPECIFIED BY EACH
UTILITIES EXCAVATION GUIDELINES.

DRAWING SCHEDULE

- 1/4 - NOTES AND SCHEDULES
2/4 - LAYOUT, SIGNS AND LINEMARKING PLAN (1)
3/4 - LAYOUT, SIGNS AND LINEMARKING PLAN (2)
4/4 - DETAILS

RELEVANT STANDARD DRAWINGS:

FOLLOWING ARE WAVERLEY COUNCIL'S STANDARD DRAWINGS
RELEVANT TO THIS PROJECT
















- R1 - STANDARD KERB PROFILES
- G1 - SEDIMENT & EROSION CONTROL PLAN

LEGEND

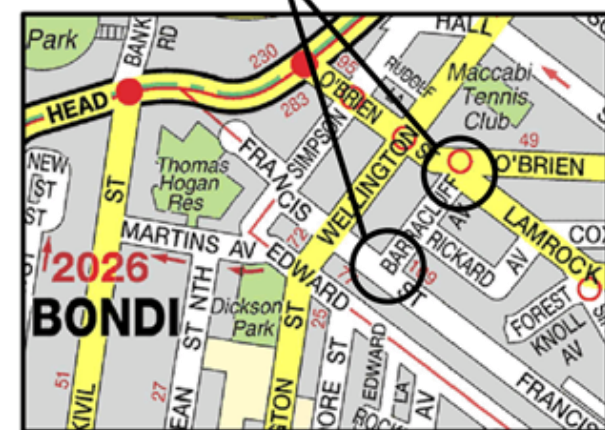
SYMBOLS

- STATE SURVEY MARK
- PERMANENT SURVEY MARK
- SURVEY STATION
- DRILLED HOLE
- SURVEY NAIL
- SION
- SILENT COP
- COLUMN
- EXISTING SURFACE LEVEL
- BOLLARD
- HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRICITY & LIGHT POLE
- ELECTRICITY POLE
- PHONE BOOTH
- MAIL BOX
- TELECOMMUNICATION COVER
- TELECOMMUNICATION CABLE
- RUBBER BIN
- STORMWATER MANHOLE
- SEWER MANHOLE
- STOP VALVE
- WATER METER
- GAS VALVE
- TRAFFIC LIGHT BOX
- TRAFFIC LIGHT
- UNKNOWN SERVICE COVER
- PARKING METER
- TREE

LINE_STYLES

- | | |
|---|---------------------------|
|  | FENCELINE |
|  | WOODEN FENCE |
|  | HAND RAIL |
|  | GUARD RAIL |
|  | GATE |
|  | BOUNDARY LINE |
|  | TOP OF BANK |
|  | TABLE DRAIN |
|  | EXISTING DRAINAGE LINE |
|  | NEW DRAINAGE LINE |
|  | HEDGE |
|  | EDGE OF TREE CANOPY |
|  | EDGE OF BITUMEN |
|  | LINEMARKING (TBLCT, etc) |
|  | LINEMARKING (E1, E4, etc) |

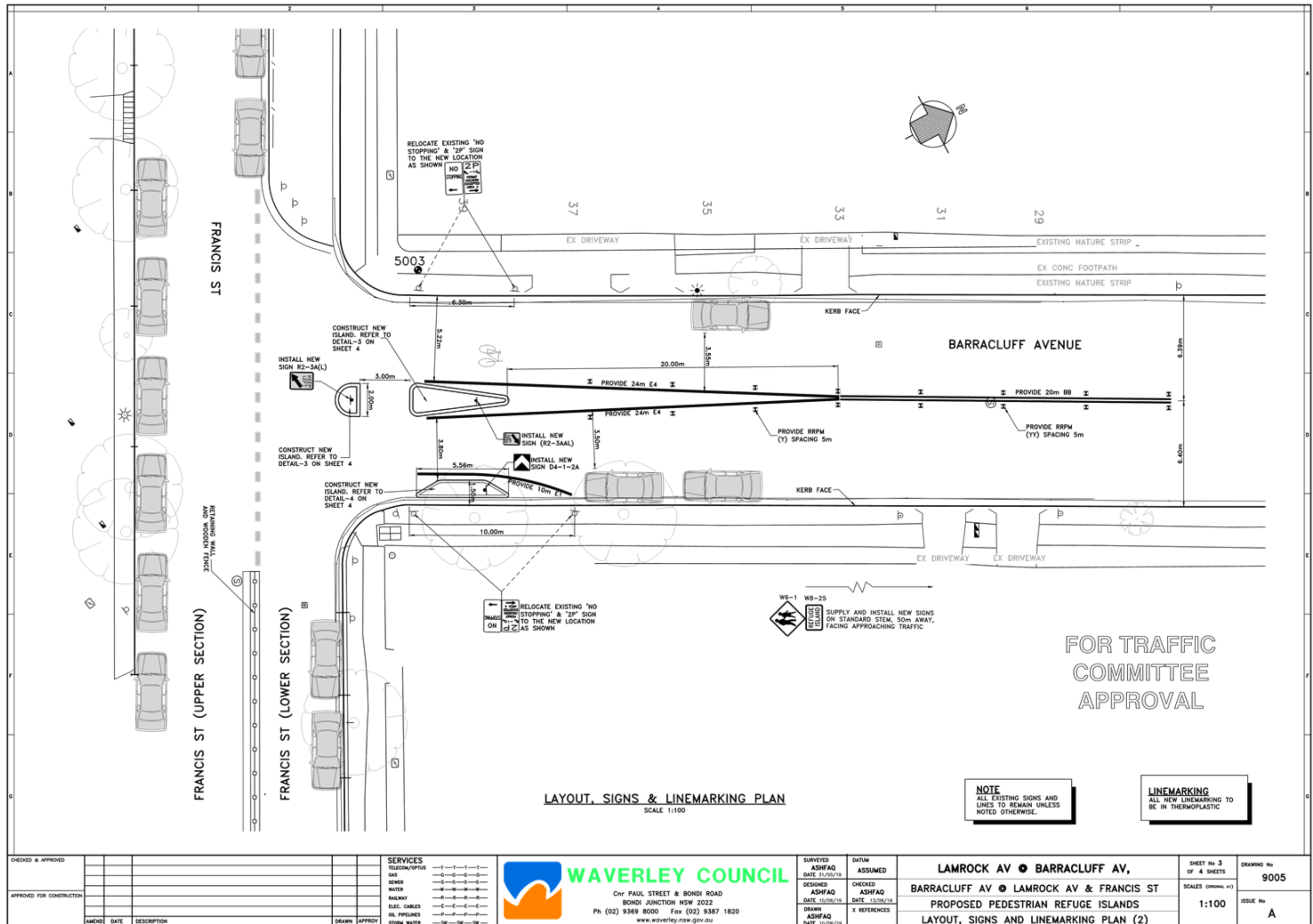
LOCATION OF WORKS

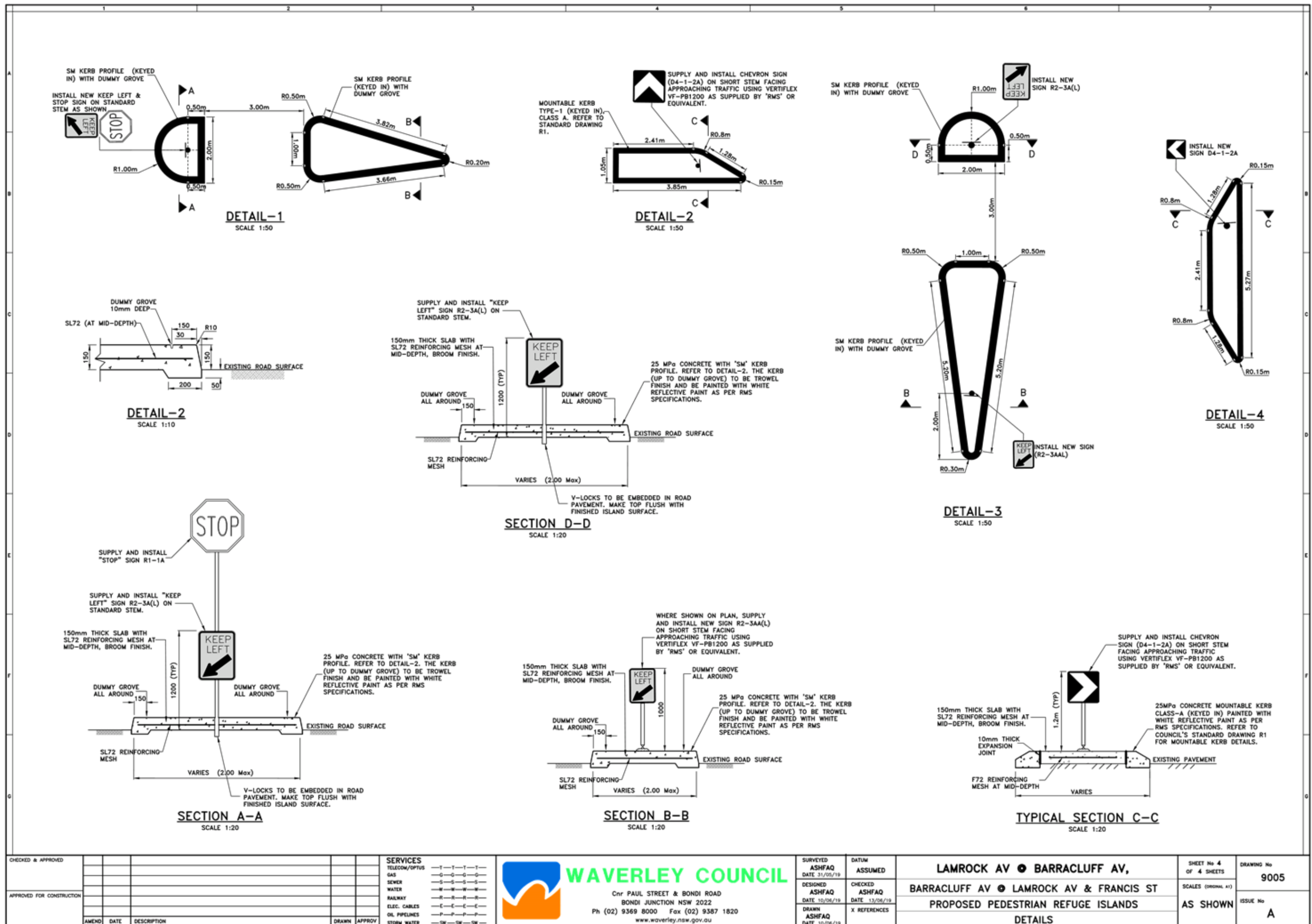


LOCALITY PLAN
(NTS)

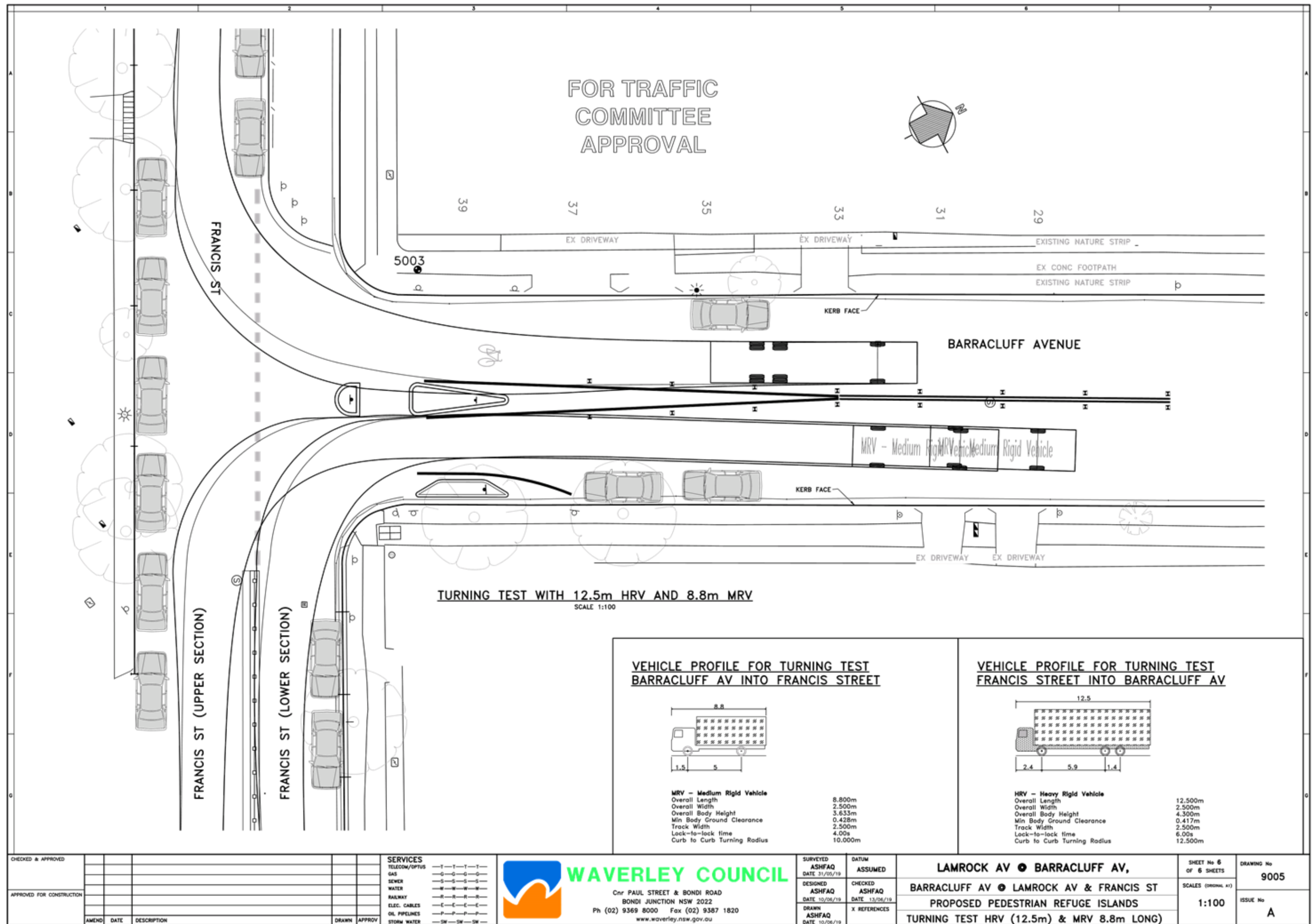
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REPORT
TC/V.05/20.05

Subject: Rickard Avenue, Bondi Beach - Closure at Lamrock Avenue

TRIM No: A20/0069

Author: Calum Hutcheson, Service Manager, Traffic and Transport

Director: Dan Joannides, Executive Manager, Infrastructure Services

COUNCIL OFFICER'S PROPOSAL:

That Council makes the temporary closure of Rickard Avenue permanent given that it has no adverse traffic related impact on surrounding streets.

1. Executive Summary

This report follows the completion of a six month trial of the closure of Rickard Avenue at Lamrock Avenue.

Impacts of the closure are:

1. Impact on traffic efficiency – marginal negligible impact on congestion.
2. Impact on amenity – marginal reduction on traffic flows and speeds.
3. Impact on safety – small improvement for pedestrians. The closure does allow for safer conditions when children are playing in the street. This practice is not encouraged.
4. Impact on cyclists – small improvement in safety for cyclists using the Bondi Junction to Bondi Beach cycle route.

The changes in traffic conditions on other streets as a result of the trial have been low. There are no significant traffic related reasons to prevent the temporary closure becoming permanent.

Given this it is recommended that Council considers makes the temporary closure of Rickard Avenue permanent.

2. Introduction/Background

The temporary closure of Rickard Avenue at Lamrock Avenue was considered at the 27 June 2019 meeting of the Waverley Traffic Committee to Council. The traffic committee recommended that:

Council:

(a) Approves the closure of Rickard Avenue at the Lamrock Avenue kerb alignment on a temporary, trial basis for 12 months.

(b) Closes the roadway using temporary materials such as New Jersey style concrete barriers or similar.

(c) Installs a 'No Through Road' sign at the western end of Rickard Avenue.

(d) Extends the existing 'No Stopping' restrictions on both sides of Rickard Avenue at Lamrock Avenue to 15 metres south-west of the Lamrock Avenue kerb alignment to aid vehicle turn movements, including heavy vehicle movements.

(e) Installs gaps in the barriers to cater for existing bicycle movements.

2. Following the completion of the 12-month trial period, a report be brought back to the Waverley Traffic Committee on the outcome of the temporary closure.

And that:

Council notes:

(a) The lack of consultation with surrounding streets.

(b) That the low volume of traffic would not normally justify closure, and that other calming measures could be considered.'

Council adopted the traffic committee recommendation subject to the trial being reduced to six months or until the report on the closure of Barracluff Avenue is presented to Council.

Relevant Council Resolutions

Meeting and date	Minute No.	Decision
Council 16 July 2019	CM/5.2.2/19.07	That the Traffic Committee's recommendation be adopted subject to the trial being reduced to six months or until the report on the closure of Barracluff Avenue is presented to Council.

Rickard Avenue

Rickard Avenue is a local road with a speed limit of 50 km/h and is approximately 12.9 m wide. The trial closure at Lamrock Avenue has resulted in vehicular access being limited to Barracluff Avenue. No stopping restrictions in Rickard Avenue have been extended to 15 metres at Lamrock Avenue during the trial closure. Access for bicycles has been maintained.

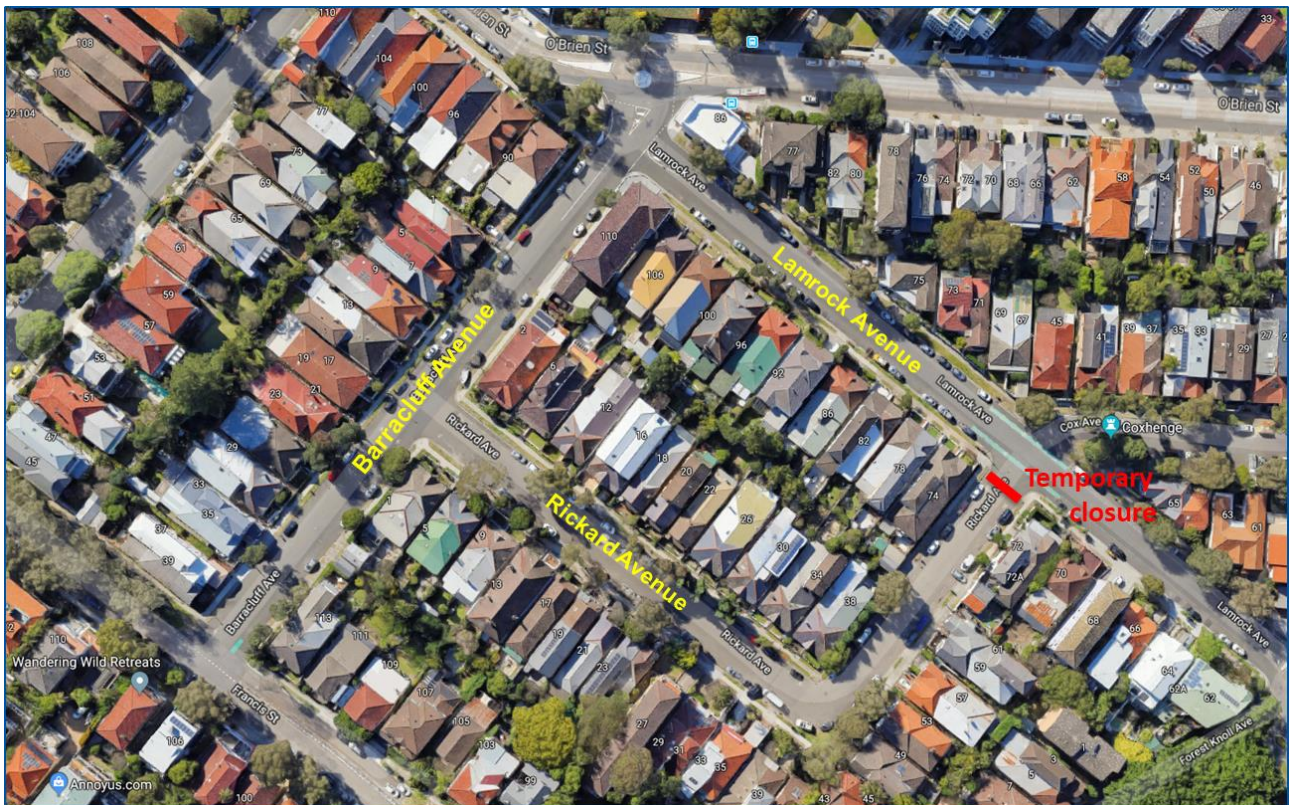


Figure 1: Aerial image of Rickard Avenue, Bondi Beach.

Rickard Avenue is part of the Bondi Junction to Bondi Beach cycle route as shown in Figure 2.

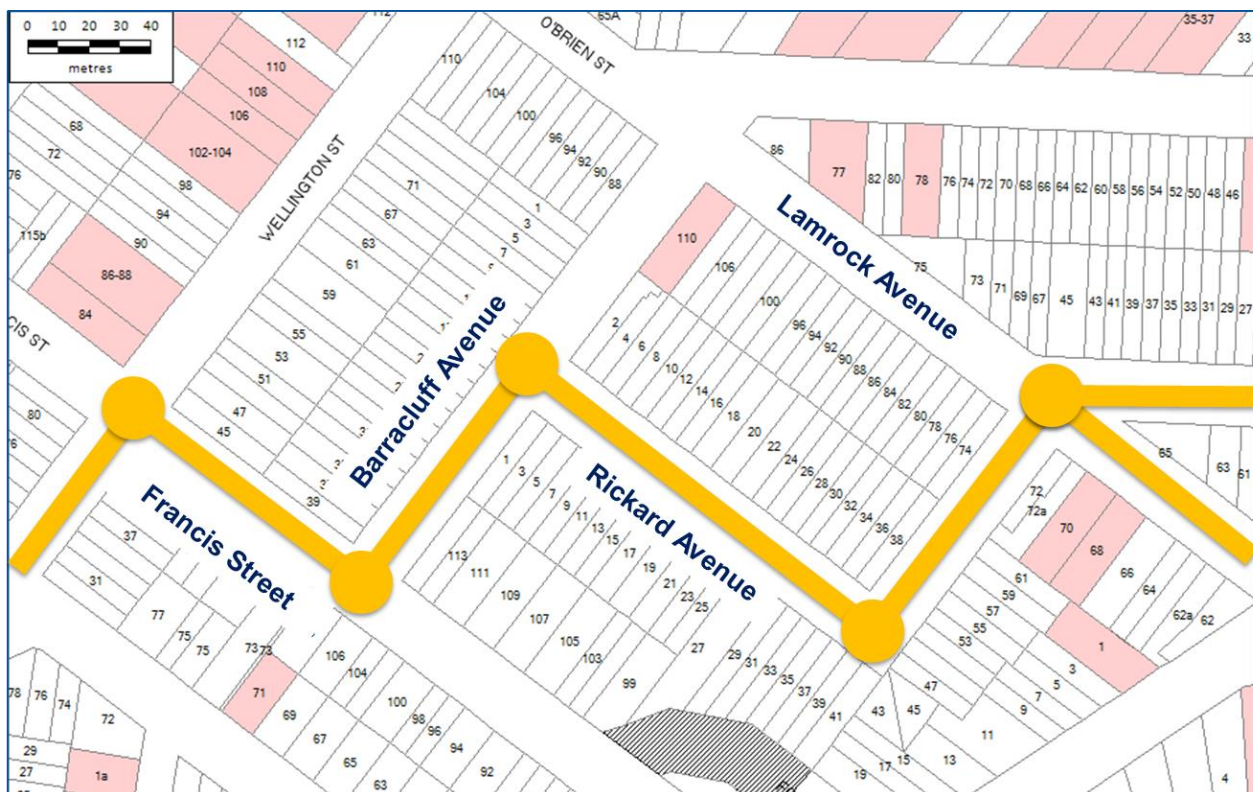


Figure 2: Bike route in Rickard Avenue and other streets

3. Technical Analysis

Assessment criteria

It is appropriate at this stage to revisit the criteria from which road closures and traffic calming measures should be assessed.

The RMS Guide to Traffic Generating Developments identifies ways in which traffic can have an impact. Ways relevant to the assessment of Rickard Avenue include:

- Impact on traffic efficiency.
- Impact on amenity.
- Impact on safety.

Traffic efficiency

Impact on traffic efficiency essentially relates to the capacity of the road system to accommodate the traffic demands. Delays mid-block and at intersections determine the efficiency. The efficiency is reported within a range from Level of Service A (free flow conditions) to Level of Service F (forced flow conditions).

Level of Service C is the point at which consideration of future traffic growth could warrant upgrades to the road system. It is in the zone of stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience declines noticeably at this level.

Traffic amenity

Traffic amenity for local roads is best addressed by comparison against environmental capacity criteria. Traffic characteristics to consider include:

1. Traffic volume.
2. Traffic composition, particularly proportion of heavy vehicles.
3. Vehicle speed.

The RMS Guide to Traffic Generating Developments specifies criteria by which amenity can be assessed. These are shown in Table 1.

Table 1: Environmental capacity performance standards on residential streets.

Road class	Road type	Maximum speed (kilometres per hour)	Maximum peak hour volume (vehicles per hour)
Local	Access way	25	100
	Street	40	200 environmental goal 300 maximum
Collector	Street	50	300 environmental goal
			500 maximum

Source: RMS Guide to Traffic Generating Developments (2002)

Note that the threshold speeds for local streets are 40 km/h. The general urban speed limit of 50 km/h does not apply when assessing impacts on amenity.

Traffic safety

Traffic safety is initially assessed by comparison against historical crash data. This data contains records of all crashes which involved an injury or fatality that has been reported to police. It does not include lower order crashes or near misses. These are best assessed by on site observations and feedback from residents who see traffic conditions on their streets on a daily (and nightly) basis.

Survey data – December 2018 (pre-closure) and November 2019 (during closure)

Council carried out speed and volume tube counts in Barracluff Avenue, Rickard Avenue and Francis Street in early December 2018 and November 2019. The results of the surveys are presented in Table 2.

Table 2: Changes in traffic flows and speeds with Rickard Road closure

Location	Direction	Pre-closure 2018	During closure 2019	Change
Average daily traffic (7 days)				
Rickard Avenue outside No. 20	Two - way	408	380	-7%
Barracluff Avenue(north of Rickard Avenue)	Two - way	1221	1189	-3%
Barracluff Avenue(south of Rickard Avenue)	Two - way	1319	1440	9%
Morning peak hour traffic (5 days)				
Rickard Avenue outside No. 20	Two - way	37	31	-16%
Barracluff Avenue(north of Rickard Avenue)	Two - way	129	158	22%
Barracluff Avenue(south of Rickard Avenue)	Two - way	129	168	30%
Average speed (7 days)				
Rickard Avenue outside No. 20	Northbound	38	32	-16%
	Southbound	40	31	-23%
Barracluff Avenue(north of Rickard Avenue)	Northbound	42	42	0%
	Southbound	46	46	0%
Barracluff Avenue(south of Rickard Avenue)	Northbound	42	45	7%
	Southbound	45	41	-9%

The traffic data from before and during the trial closure of Rickard Avenue shows low reductions in traffic flows on Rickard Avenue. This indicates that there has not been significant levels of through traffic on Rickard Avenue when it was open to traffic at Lamrock Avenue.

Traffic speeds on Rickard Avenue has dropped significantly. This indicates that the through (rat-running) traffic that was using Rickard Avenue was doing so at higher speeds than local traffic (Rickard Avenue residents). This is occurring outside of peak hours.

There is no significant impact on Barracluff Avenue volumes except for the peak hour. Diversions by the low volume of through traffic using Rickard Avenue has now diverted back to Barracluff Street. The increase has occurred at both ends of Barracluff Avenue. This indicates that the bulk of the increase is not related to Rickard Avenue through traffic. The differences are within the daily and weekly variations that can occur through the year. Hence, the increases in peak hour flows on Barracluff cannot be attributed solely to the closure of Rickard Avenue.

Traffic flows on Rickard Avenue with and without the closure are 30 to 40 vehicles in peak hours which is significantly below the environmental goal of 200 vehicles. Traffic speeds are around 30 to 40 km/h, which is satisfies the maximum goal of 40 km/h.

In summary traffic flows and speeds with or without the closure of Rickard Avenue at Lamrock Avenue are within acceptable levels.

Traffic assessment*Traffic efficiency*

Traffic conditions in Rickard Avenue and surrounding streets operate at a Level of Service C or better. Congestion in the immediate surrounds is low. There is some through traffic on Rickard Avenue without the closure. The volumes are negligible. Through traffic speeds are higher than traffic from properties in Rickard Avenue but still within acceptable levels.

There are no traffic efficiency grounds for modifying the road infrastructure of Rickard Avenue.

Traffic amenity

Traffic volumes on Rickard Avenue are well below the RMS environmental limits with and with the closure at Lamrock Avenue. Speeds are also within RMS goals. Higher speeds from 3 cars of around 40 m/hr were recorded early in the morning (prior to 5.00 am) over seven days during the closure. These speeds are still within RMS goals.

Traffic amenity is good with or without the closure of Rickard Avenue at Lamrock Avenue.

Traffic safety

There were no crashes recorded on Barracluff Avenue in NSW Roads and Maritime Services records of crashes for the period from January 2010 to September 2018 (just under nine years).

Note that RMS records do not contain some 'minor' crashes. Regardless, it is apparent that the number of crashes which have resulted in injuries are low. Traffic calming can still be considered where there is a view that potential conflicts could occur.

Residents from Rickard Avenue has previously expressed concerns with the safety of children who play in the street. They requested that the road be closed at Lamrock Avenue as they consider it will result in a lower speeds and volumes of traffic along Rickard Avenue.

The recorded changes in traffic speeds and volumes in Rickard Avenue are marginal. The closure does allow for safer conditions when children are playing in the street. This practice is not encouraged.

Other issues*Impact on cyclists*

The closure of Rickard Avenue improves safety for cyclists using the Bondi Junction to Bondi Beach cycle route. Improvements along this route, however small, are beneficial to the local and wider community.

4. Financial Information for Council's Consideration

Funding will need to be sought should Council decide to make the closure of Rickard Avenue at Lamrock Avenue permanent via treatments beyond the current temporary barriers.

5. Attachments

Nil.