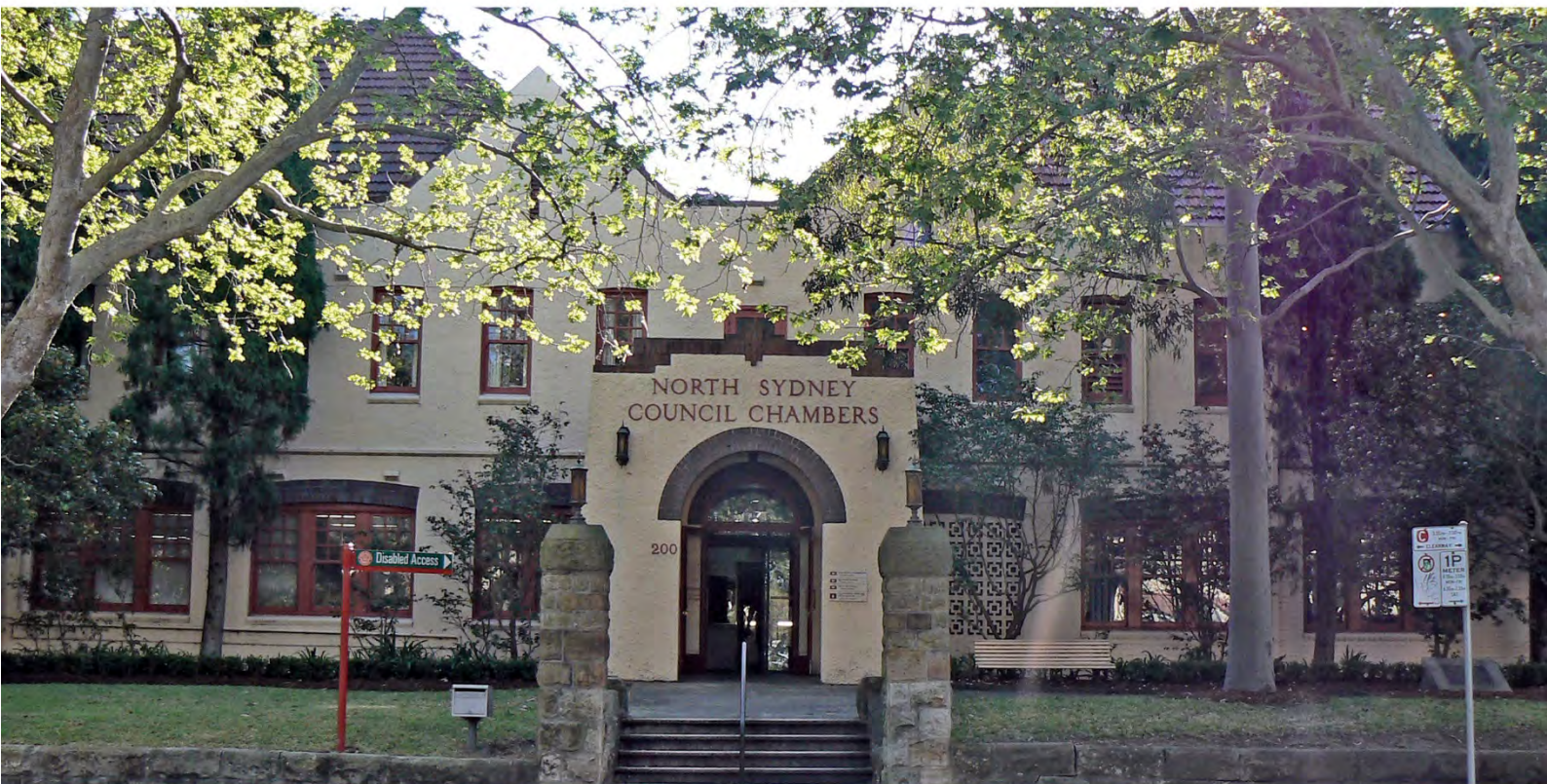




AGENDA

A **MEETING** of the **Traffic Committee** will be held at the Council Chambers, 200 Miller Street, North Sydney at 10:00 AM on Friday 18 November 2022.
The agenda is as follows.

Joseph Hill
A/GENERAL MANAGER



North Sydney Council is an Open Government Council. The records of Council are available for public viewing in accordance with this policy, with the only exception being made for certain confidential documents such as legal advice, matters required by legislation not to be divulged, and staff matters.

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1. Confirmation of Minutes

The Minutes of the previous meeting held on 14 October 2022, copies of which had been previously circulated, were taken as read and confirmed.

2. Disclosures of Interest

Nil

3. Matters Arising from the Minutes

Nil.

4. Matters Arising from Council Resolutions

Nil.

5. Items for Consideration

5.1. Traffic Delegations

AUTHOR: Narelle Lamond, Traffic Operations Officer

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS:

1. 5.01 Attach Traffic Delegations [5.1.1 - 3 pages]

PURPOSE:

To report to the Committee matters given approval under delegated authority to the Traffic & Transport Operations Manager.

EXECUTIVE SUMMARY:

Attached is a list of projects given approval under delegated authority to the Traffic & Transport Operations Manager. Approval was given subject to concurrence of Transport for NSW, the NSW Police and the local State Members

FINANCIAL IMPLICATIONS:

There are no direct financial implications arising from this report

RECOMMENDATION:

1. **THAT** the information regarding Delegated Authority items be received.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

2. Our Built Infrastructure

2.1 Infrastructure and assets meet diverse community needs

2.4 Efficient traffic mobility and parking

CONSULTATION REQUIREMENTS

Community engagement is not required.

**APPROVAL FOR PROJECTS UNDER
DELEGATED AUTHORITY TO THE TRAFFIC & TRANSPORT OPERATIONS MANAGER
551st TRAFFIC COMMITTEE – 18 November 2022**

No.	Street	Location	Precinct, Ward, Electorate	Issue	Recommendation	Appr	Date	ECM	Comments
Resident Parking									
Nil									
Temporary Road Closures									
22-101	Willoughby Rd	425-429 Pacific Hwy	Registry, St Leonards, Willoughby	Temporary Road Closure	<ol style="list-style-type: none"> 1. THAT Council raise no objection to the temporary road closure of Willoughby Rd for 31.10.22, from 9pm-5am for the purpose of crane works, as per the submitted application and council's standard road closure conditions. Approval is subject to managed access to all affected properties and the applicant notifying all affected residents/tenants as per Council's standard conditions of approval. 2. THAT should Council receive an application for an extension or alternative date/s to carry out these works due to inclement weather or operational delays, that application be approved, subject to Police Permit approval. 	Yes	25.10.22	9064604	
Special Use Zones									
22-096	McDougall Street	McDougall Street, Kirribilli	Milson, Cammeraygal, North Shore	TMP_Jacaranda	1.THAT the Traffic Management Plan (TMP) for special event in McDougal Street be approved for the Jacaranda Season in 2022	Y	21.10.22	9090154	

No.	Street	Location	Precinct, Ward, Electorate	Issue	Recommendation	Appr	Date	ECM	Comments
Regulatory Signs									
22/099	East Crescent Street	East Crescent Street, McMahons Point	Lavender Bay, Cammeraygal, North Shore	Street Shared Space	<p>1.THAT the narrowing of street width and street scaping at the intersection of East Crescent Street and Blues Point Road, McMahons Point be approved to mitigate the speeding at this intersection.</p> <p>2.That the introduction of pocket parking and signage relocation be approved at East Crescent Street and Blues Point Road, McMahons Point to ensure that there is no loss of parking.</p>	Yes	26.10.22	9092598	
Signs Across Driveways									
22-090	Bank Street	45 Bank Street, North Sydney	Union, Cammeraygal, North Shore	Line marking on the side of number 45	THAT Council paint a line on the right side of the driveway of 45 Bank Street.	Yes	5.10.22	9064478	
22-093	Ben Boyd Rd	28-26 Ben Boyd St, Neutral Bay	Neutral, Cammeraygal, North Shore	Driveway Line Markings	THAT Council paint a line on the either side of the driveway between 26 and 28 Ben Boyd Road Neutral Bay NSW 2089	Yes	17.10.22	9068754	
Warning Signs									
Nil									
Construction Management Plan									
22-094	Atchison Street	23-35 Atchison St Leonards NSW	Neutral, Cammeraygal, North Shore	CTMP – Demolition and Excavation only	1.THAT the traffic aspects of the Construction Traffic Management Plan dated 23.9.22 prepared by Local Traffic Services of the approved development (Development Consent 161/20) at 23-35 Atchison Street, St Leonards be approved subject to the conditions of approval.	Yes	20.10.2022	9065151	

No.	Street	Location	Precinct, Ward, Electorate	Issue	Recommendation	Appr	Date	ECM	Comments
					<p>2.THAT a 10m Works Zone for stage 1 demolition and 2 x 10m Works Zones for stage 2 demolition on Atchison Street in this CTMP to be approved under delegated authority of Council's Traffic Engineer, with the same conditions pending lodgement of a Work Zone application and payment of all applicable fees.</p> <p>3.THAT 2 x 10m Works Zones for stage 1 excavation and a 22m Works Zone for stage 2 excavation on Atchison Street in this CTMP to be approved under delegated authority of Council's Traffic Engineer, with the same conditions pending lodgement of a Work Zone application and payment of all applicable fees.</p>				
Australian Road Rules Compliance Signs									
Nil									
Traffic Facilities									
Nil									
Council Decisions									

5.2. 34 Grosvenor Street, Neutral Bay - Amended Construction Traffic Management Plan - Truck and Dog Trailers (Excavation Stage Only)

AUTHOR: Brin Baskaran, Traffic and Transport Engineer

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS:

1. 5.4 Attach 30-34 Grosvenor Street, Neutral Bay - CTMP Final G [5.2.1 - 60 pages]
2. 5.4 Attach 34 Grosvenor Street, Neutral Bay – Truck and Dog Trailers - CTMP Conditions [5.2.2 - 4 pages]
3. 5.4 Attach 30-34 Grosvenor Street, Neutral Bay - CTMP Approval Letter & Conditions [5.2.3 - 5 pages]
4. 5.4 Attach TDA - 22 - 068 @ 30-34 Grosvenor St, Neutral Bay - CTMP [5.2.4 - 55 pages]

PURPOSE:

Council has received an amended CTMP for the approved development at 34 Grosvenor Street, Neutral Bay (Development Consent 237/20) prepared by Transport and Traffic Planning Associates dated September 2022 revision G proposing to use truck and dog trailers instead of 12.5m Heavy Rigid Vehicles (HRV).

The use of Truck and Dog is not generally supported by the Traffic Committee which has been a long-standing decision by Traffic committee members.

EXECUTIVE SUMMARY:

The current Construction Traffic Management Plan (CTMP) prepared by Transport and Traffic Planning Associates dated July 2022 revision E, was approved by the Traffic Committee under Delegated Authority (TDA 068/22).

Council has received an amended CTMP proposing to use of truck and dog trailers instead of Heavy Rigid Vehicles.

The use of Truck and Dog is not generally supported by the Traffic Committee due to trucks queuing in no stopping zones, unsafe reversing manoeuvres with inadequate traffic control posing an unsatisfactory risk to pedestrians and the general public. The trucks also have a wider turning path which poses a greater risk to pedestrians if the driver misjudges the turns at intersections or on driveways.

FINANCIAL IMPLICATIONS:

Nil.

RECOMMENDATION:

1. THAT the proposed use of 19m Articulated Vehicles (on regular basis) and Truck and Dog trailers for 34 Grosvenor Street is not approved due to the following concerns:

1. The Truck and Dog and 19m AV pass through high pedestrian activity area in Grosvenor Street on the route to the site. This is a potential pedestrian safety.
2. The development at 34 Grosvenor Street shares the same truck route in Grosvenor Street and Ben Boyd Road with development at 12-14 Waters Road, which may impact on the road network and safety issues amongst the road users.
3. Truck and Dog travels over the existing refuge island when turning left from Grosvenor Street onto Young Street.
4. Truck and Dog straddles over two traffic lanes at the intersection of Young Street and Belgrave Street.
5. Truck and Dog straddles over two traffic lanes at the sharp bend in Belgrave Street.
6. The 19m AV straddles over two traffic lanes in Waters Road when turning left from Grosvenor Street.
7. The 19m AV travels over a parked vehicle in Belgrave Street when turning left from Waters Road.
8. The 19m AV straddles over two traffic lanes at the sharp bend in Belgrave Street.
9. The report does not provide turning paths for:
 - a. Truck and Dog and 19m Av, carrying out left turn from Military Road onto Ben Boyd Road, which may conflict with parked vehicles on the western side of Ben Boyd Road.
 - b. Truck and Dog and 19m Av, carrying out right turn from Ben Boyd Road onto Grosvenor Street, which may straddle over two traffic lanes in Grosvenor Street.
10. Safety concerns over the implementation of new cycleway in Young Street in 2023 when Truck and Dogs turn left on Young Street from Grosvenor Street.

In addition, the proposed truck route map is not consistent with the submitted truck turning paths.

2. THAT should the Traffic Committee approve the use of Truck and Dog trailers:

- a) The approval be subject to the attached conditions.
- b) The applicant is to liaise with developers/site managers at 12-14 Waters Road, to minimise the development's traffic impacts and ensure that construction traffic from both developments is staggered in a way such that it does not create traffic issues.
- c) Approval will be subject to a review period during the excavation phase.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

- 5. Our Civic Leadership
- 5.3 Community is engaged in what Council does
- 5.4 Council services are efficient and easy to access

CONSULTATION REQUIREMENTS

Community engagement is not required.

Standard or Guideline Used: RMS Traffic Control at Work Sites Manual, AS 1742.3

Signs & Lines Priority: N/A

Precinct and Ward: Parks, St Leonards

Impact on Bicycles: Safety concerns over the new cycle way in Young Street when truck and dogs turn left into Young Street from Grosvenor Street.

Impact on Pedestrians: Safety concerns over truck and dogs traveling through a high pedestrian activity area in Grosvenor Street.

Impact on Parking: Potential loss of parking spaces in Belgrave Street and Ben Boyd Road

DETAILS

The current Construction Traffic Management Plan (CTMP) prepared by Transport and Traffic Planning Associates dated July 2022 revision E, for the approved development at 34 Grosvenor Street, Neutral Bay (Development Consent 237/20) was approved by the Traffic Committee under Delegated Authority (TDA 068/22) with the largest Truck size accessing the site of 12.5 Heavy Rigid Vehicle (HRV).

The original CTMP proposed truck movements to the site as follow.

*It should be noted that approval to use 19m AV was only given for installation and dismantle of cranes.

Demolition and Excavation Stage

- 12.5m Length, the frequency is 1-3 Vehicles daily
- 19m Length, the frequency is 5-7 Vehicles daily (The use of 19m Articulated Vehicle (AV) was only approved for installation and dismantle of cranes)

Structure Stage

- 12.5m Length, the frequency is 1-3 Vehicles Daily
- 12.5m Length, the frequency is 30 Vehicles for Concrete pours (7 Times in Project life)
- 19m Length, the frequency is 1-3 Vehicles Per Week (The use of 19m Articulated Vehicle (AV) was only approved for installation and dismantle of cranes)

The restriction on the 19m AV under the approved CTMP, would have increased the frequency of 12.5m HRV trucks during all stages of work.

The amended CTMP proposes truck movements to the site as follow:

Demolition Stage

- 12.5m Length, the frequency is 1-3 Vehicles daily
- 19m Length, the frequency is 5-7 Vehicles daily

Excavation Stage

- 18.1m Length, the frequency is 1-2 Vehicles daily
- 19m Length, the frequency is 14-21 Vehicles daily

Structure Stage

- 12.5m Length, the frequency is 1-3 Vehicles Daily
- 12.5m Length, the frequency is 30 Vehicles for Concrete pours (7 Times in Project life)
- 19m Length ,the frequency is 1-3 Vehicles Per Week

The frequency of trucks between the original CTMP and amended CTMP at different stages of development are shown on the table below:

	Original CTMP Truck size/frequency	Amended CTMP Truck size/frequency
Demolition	<ul style="list-style-type: none"> • HRV (1-3 Trucks) • AV (5-7 Trucks) 	<ul style="list-style-type: none"> • HRV (1-3 Trucks) • AV (5-7 Trucks)
Excavation	<ul style="list-style-type: none"> • HRV (1-3 Trucks) • AV (5-7 Trucks) 	<ul style="list-style-type: none"> • T&D (1-2 Trucks) • AV (14-21 Trucks)
Construction	<ul style="list-style-type: none"> • HRV (1-3 Trucks) • HRV Concrete Pours (30 Trucks, 7 in total) • AV (1-3 Trucks per week) 	<ul style="list-style-type: none"> • HRV (1-3 Trucks) • HRV Concrete Pours (30 Trucks, 7 in total) • AV (1-3 Trucks per week)

It should be noted that the amended CTMP heavily relies on the use of 19m Avs during excavation stage which makes a total of 15-22 combined Truck and Dogs/19m Avs per day, compared to the proposal under the original CTMP with 6-10 combined 12.5m HRV/19m AV.

The CTMP has indicated that the use of Truck and Dog (T&D) will reduce the construction period by more than four months. Both original and amended CTMPs rely on the use of 19m

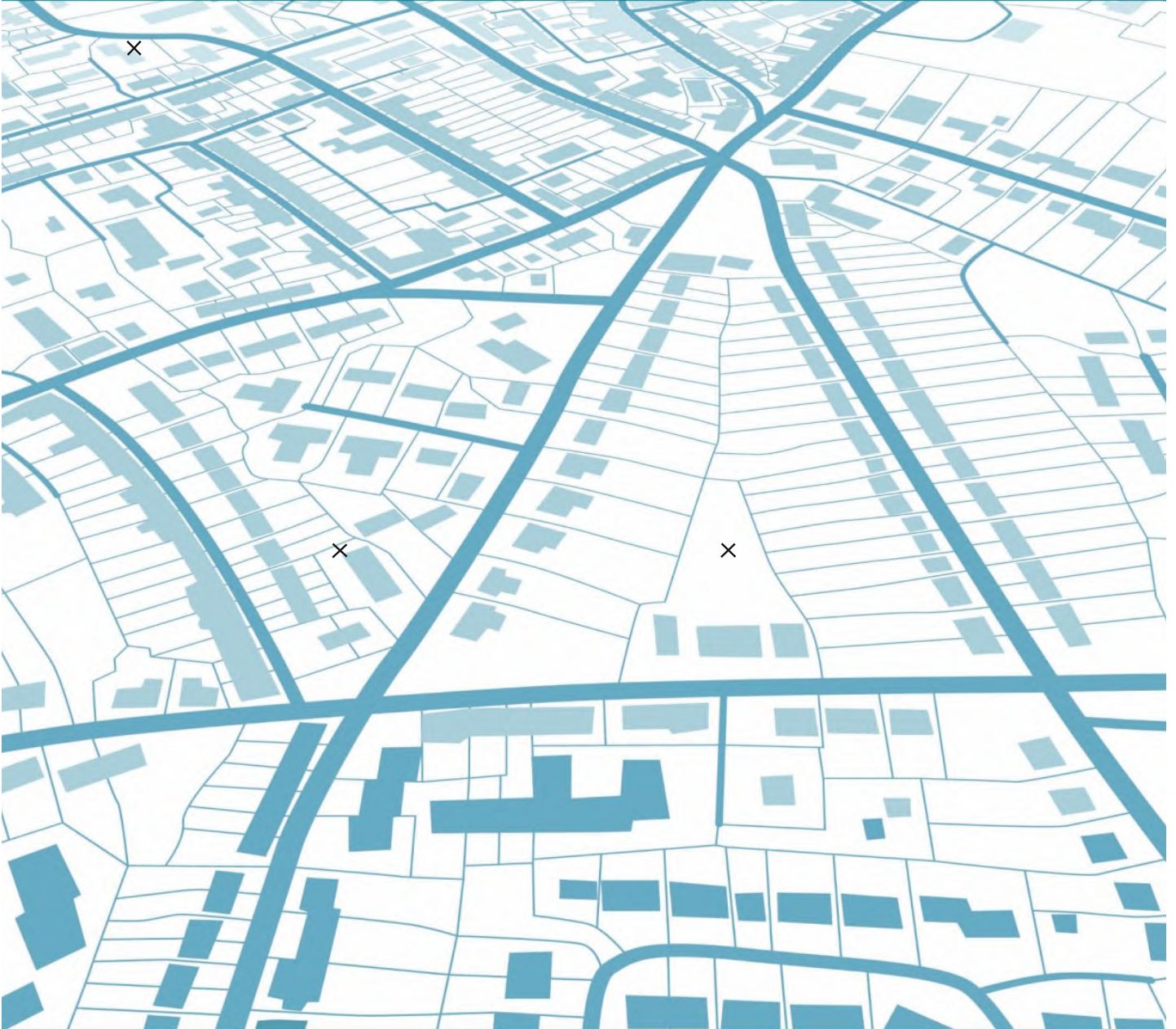
Articulated Vehicles (AV) throughout the development, where the amended CTMP is heavily relying on the use of AV during excavation stage.

The routine use of AV was not approved under the current CTMP and will not be supported on the amended CTMP. This is due to the unsafe maneuvering of the AV along the truck route on a regular basis.

In addition, none of the two CTMPS indicate timing of development phase to enable a rational comparison. Therefore, it is unclear as how the use of Truck and Dogs will reduce construction period by four months as stated in the amended CTMP.

Council's Traffic Engineers have concerns over the use of Truck and Dog and the 19m AV for this site mainly due to truck route traveling in high pedestrian activity area, safety concern for the bicycle users that will be using the new cycleway when it is implemented in Young Street, potential loss of parking spaces in Belgrave Street and Ben Boyd Road and trucks straddling 2 lanes of traffic when turning.

Further, various sites that are larger or similar scale to this site are only using 12.5m long Heavy Rigid Vehicle (HRV) as their largest truck.



34 Grosvenor Street, Neutral Bay

Proposed Residential Development

Construction and Traffic Management Plan

Ref: 20136
Date: September 2022
Issue: G

Document Set ID: 9051547
Version: 1, Version Date: 23/09/2022

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Appendix C	Turning Path Assessment
Appendix D	Traffic Guidance Schemes

1.0 Introduction

This Construction Traffic Management Plan (CTMP) has been prepared for the approved residential development on 34 Grosvenor Street, Neutral Bay (Figure 1).

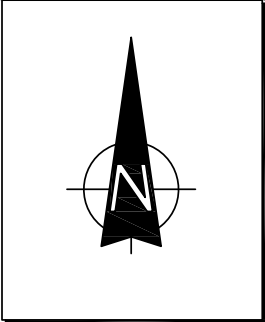
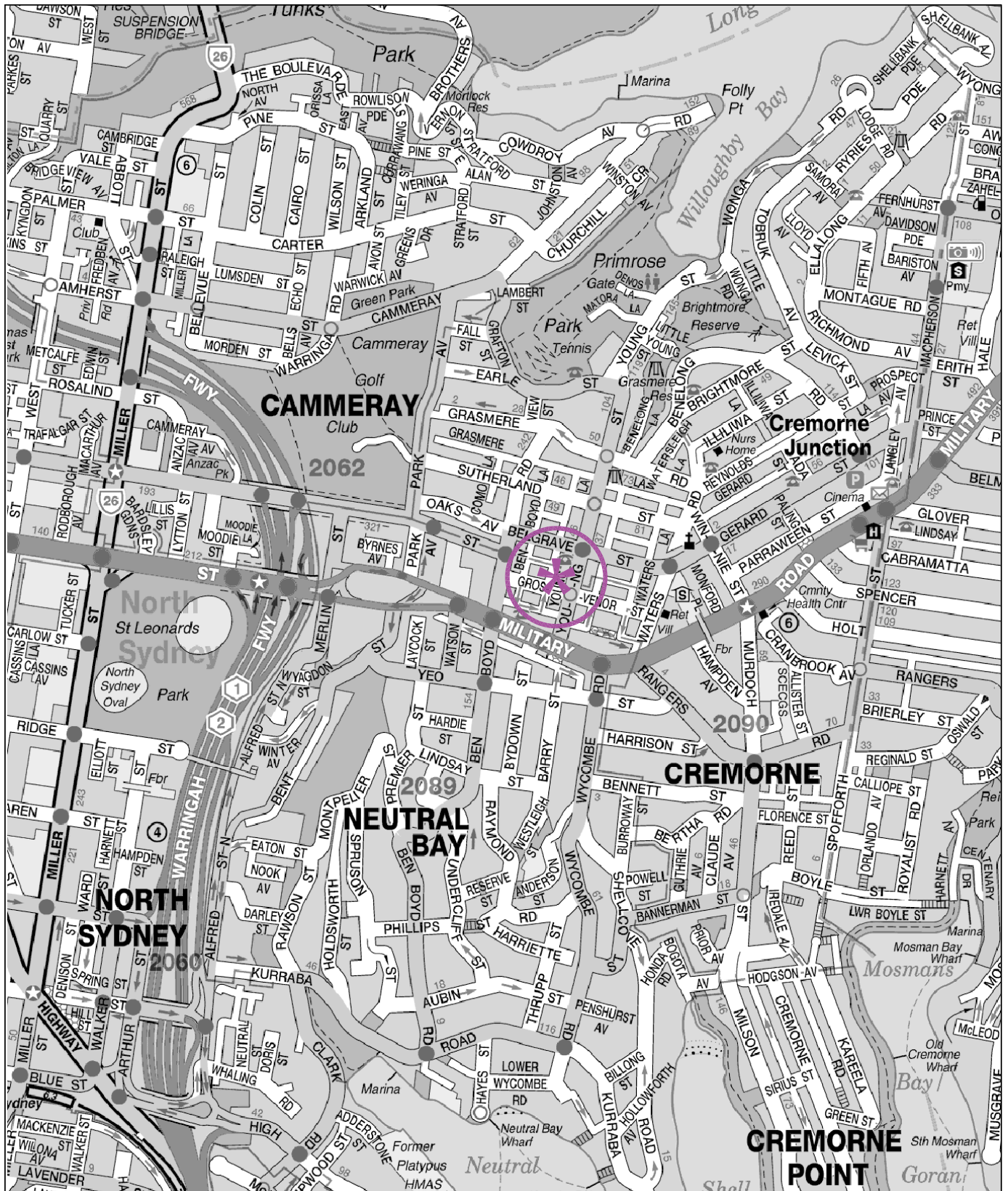
The popular Lower North Shore area is continuing to experience a continuation of the transformation and redevelopment of underutilised buildings in recent years. This process has been heightened as a result of the frequent/high-capacity bus services (including the B-Line service), which provided improved public transport accessibility. Due to its convenient location in the nearby supermarket, restaurant and entertainment facilities within the Neutral Bay Local Centre, the site presents an ideal opportunity to develop a residential apartment complex.

The approved development scheme comprises 9 residential apartments with lower-ground and basement carpark.

The approved July 2022 CTMP proposes the use of up to an 8.8m medium rigid vehicle for excavation stage. The use of truck and dog trailers will reduce the construction period considerably by 4+ months (from 16-month construction program to a 12-month program). This equates to a reduction of the construction duration by 25%.

To address the community concerns of minimising the construction period and disruption to the local area., Australex Group (Australex) would like to seek Council's approval as part of this updated CTMP to:

- utilise truck and dog trailers for excavation stage with additional traffic controllers in the immediate surrounding of the site to ensure safety for pedestrians and other vehicles.
- permit MRV, HRV and semi to arrive/depart during peak hours noting that the construction activities will only generate no more than 4 trucks during the peak hour (1 truck every 15 minutes).



LOCATION

FIG 1

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This CTMP has been prepared by engineers who holds the Roads and Maritime Services/ SafeWork NSW - Prepare a Work Zone Traffic Management Plan accreditation, detailed as follows:

Siew Hwee Kong
Certificate No: SOC 5065905
Lachlan Ellson
Certificate No: 0052125163

The CTMP has also been reviewed and checked by a suitably qualified and experienced civil (traffic) engineer, Siew Hwee Kong (Meg), with 15 years of professional experience. Meg has completed CTMP for more than 200 sites in Sydney, including the North Sydney Council area.

2.0 Approved development Scheme

2.1 Site, Context and Existing Circumstances

The site (Figure 2) is a consolidation of 3 lots (Lots A, B and C of DP 341243) occupying a rectangular-shaped total area of 839.3m² at 34 Grosvenor Street in Neutral Bay. The site, with frontages of 18m to Young Lane and Young Street as well as a 46m frontage to Grosvenor Street, is located just to the north of Grosvenor Street between Young Lane and Young Street. The Neutral Bay Local Centre extends to the south along Military Road.

The surrounding uses comprise:

- ❖ the adjoining low and medium residential developments to the north, east and west
- ❖ the mixed-use extending along the southern side of Grosvenor Street and Military Road.

The site is currently occupied by:

- ❖ 30 Grosvenor Street: a relationship health service provider known as “The Family Systems Institute”
- ❖ 32 and 34 Grosvenor Street: 2 single dwelling houses.

Accesses to these properties are provided as follows:

- ❖ 30 Grosvenor Street: a driveway on Young Lane
- ❖ 32 Grosvenor Street: a driveway on Grosvenor Street
- ❖ 34 Grosvenor Street: a driveway on Grosvenor Street and another driveway on Young Street.

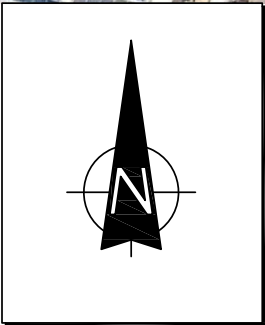


Young Lane

Young Street

SITE

Grosvener Street



SITE

FIG 2

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2.2 Approved Development

The approved development includes the demolition of all existing structures on-site and undertakes an excavation to provide a level-platform for a 4-storey apartment building and lower-ground and basement carpark.

The proposed new building complex comprises:

- 1 x One-Bed apartment
- 1 x Two-Bed apartments
- 7 x Three Bed apartments
- Total of 9 apartments**

The 2-level carpark parking facility which can accommodate up to 15 spaces, will be accessed via a single two-way driveway on Young Street:

Details are provided on the plans prepared by Koichi Takada Architects are reproduced in part in Appendix A.

2.3 Construction Program

A process has been established for completion of the various work processes within 16 months with tentative commencement date of June 2022.

2.4 Construction Process

Demolition

Demolition of existing building elements will be in the initial phase of the construction process, with this activity being preceded by the erection of an A and B-Class perimeter hoarding. The number of workers on the site at any one time will be 5 - 7 persons. The transport of demolition material will generally be undertaken by a single unit type of up to 8.8m medium rigid vehicle (MRV). Up to MRVs will access the site via the existing driveways on Grosvenor Street and stand within the site. When the on-site structures have been demolished and the site is cleared, the trucks will enter via

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Grosvenor Street and exit via Young Street.

There will be no on-site parking for construction workers. All workers will be encouraged to use public transport to access the site given the site's proximity to high-frequency public transport services or carpool wherever possible.

A tool drop-off and storage facility will be provided within the site. This would allow tradespeople to drop-off and store their tools and machinery, allowing them to use public transport to travel to/ from the site on a daily basis. Workers will also be informed of with appropriate tool/ equipment drop-off and storage arrangements made within site sheds and amenities provided on-site. Bus and train schedules will be provided to all workers during site induction to demonstrate alternative modes of transport available.

Excavation

The number of workers on-site will remain at some 5 - 7 persons.

It is proposed to utilise up to 18.1m truck and dog trailers for the transport of excavated material to reduce the duration of the excavation activities. The use of truck and dog trailers (over to an 8.8m medium rigid vehicle (MRV)) is expected to reduce the construction duration by 4 months.

During the excavation stage, construction vehicles associated with the excavation process will rely on a 19m long works zone during the approved construction hours. The works zone will be located on the northern side of Grosvenor Street to the west of the Grosvenor Street driveway and can accommodate up to 19m semi (including truck and dog trailers). A separate application for the works zone would be submitted as required for approval from Council prior to the implementation of the works zone.

3 on-street parking spaces on the northern side of Grosvenor Street would have to be temporarily removed during the construction for the works zone provision. These parking spaces are currently used by the buildings (including Alouette Child Care on 3 Grosvenor Street) which will be demolished.

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As such, the temporary loss of 3 parking spaces would present a negligible impact to the existing on-street parking conditions.

Construction and Fitout

The construction and fitout phase will be the process of longest duration and at peak, activity involved in the order of 15 – 20 persons on the site any one time, with more visitations during concrete pours.

During construction, vehicle access for this process will be via works zone. The provision for loading/unloading for this process will involve up to 19m semi standing within the works zone, with all materials be unloaded and stored within site.

The new parking spaces will be available for workers during the fitout process. This process will only involve small, infrequent deliveries which can occur in the areas adjacent to the new building with access through the new driveway on Young Street.

Crane Installation/Dismantling

It is noted that a 19m semi will only be used for the erection/dismantling of the tower crane. Australex will submit a separate permit to stand plant/road closure application to Council for approval.

3.0 Road Network and Traffic Conditions

3.1 Road Network

The existing road network serving the site (Figure 3) comprises:

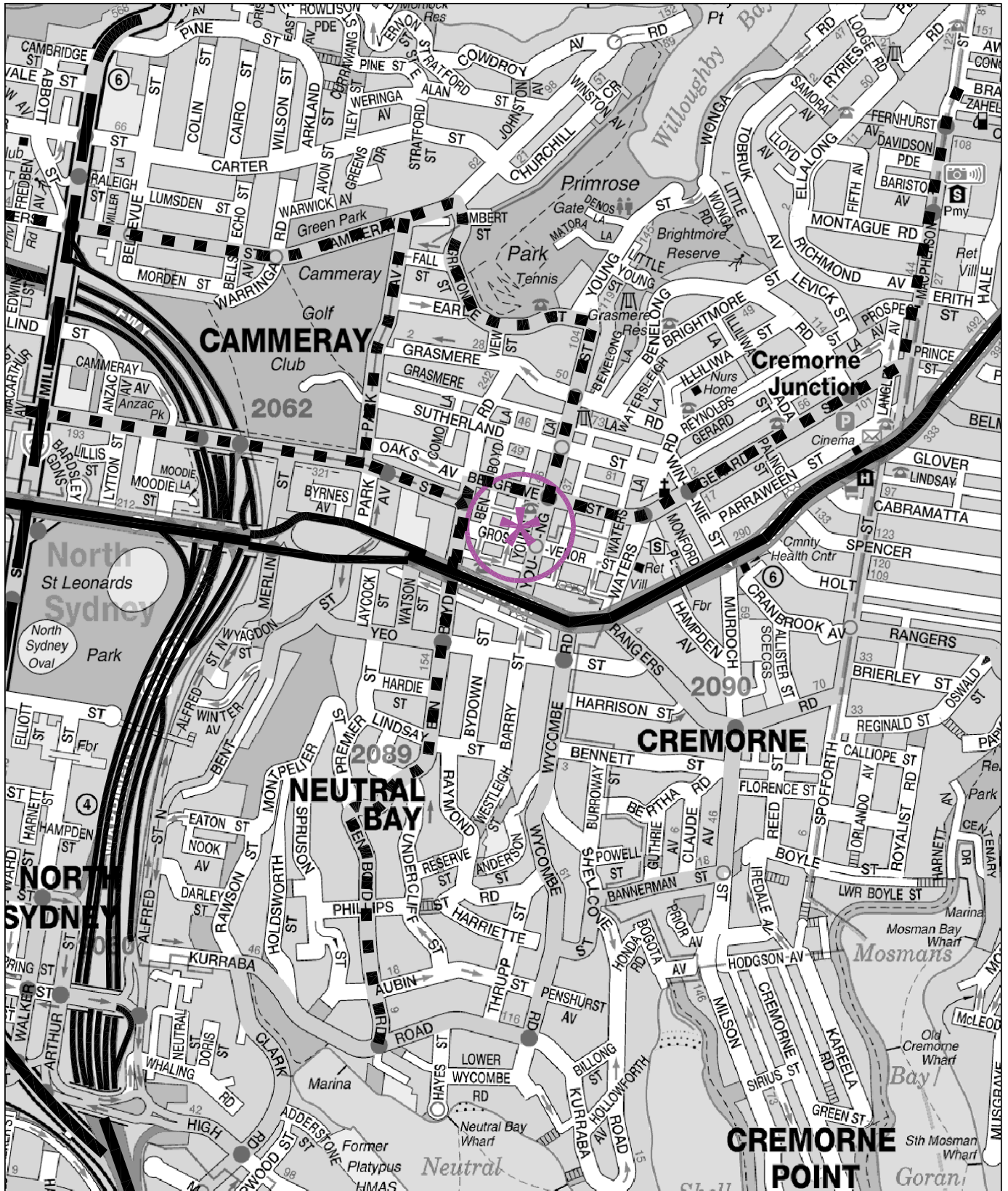
- ❖ *Gore Hill / Warringah Freeway* – a State Road (MR 651) and an arterial route connecting between Gore Hill Freeway in Naremburn in the north and Lavender Street in North Sydney to the south. The road generally runs in a north-south direction and has 3 lanes of traffic in each direction with a line marked divided carriageway.
- ❖ *Military Road* – a State Highway (HW 10) and arterial route linking the Warringah Freeway at North Sydney in the south to Newcastle Freeway at Ourimbah Interchange in the north. The road generally runs in a north-south direction and has three lanes (including 1 T3 lane) of traffic in each direction.
- ❖ *Young Lane* – a local, unclassified laneway that is primarily used to provide rear vehicular and pedestrian access to properties fronting Young Lane.
- ❖ *Grosvenor Street* – a local access road that traverses in an east-west direction connecting Ben Boyd Road and Waters Road.
- ❖ *Young Street* – a minor collector road that traverses in a north-south direction connecting Military Road and Young Street-Earle Street.

Young Street has a straight and level alignment along the site's frontage. It has a carriageway width of 12.5m with a single lane of traffic in each direction and kerbside parking on both sides of the road.




3.2 Traffic Controls

The existing traffic controls in the vicinity of the site (Figure 4) comprise:

- ❖ the traffic signal-controlled intersections along:



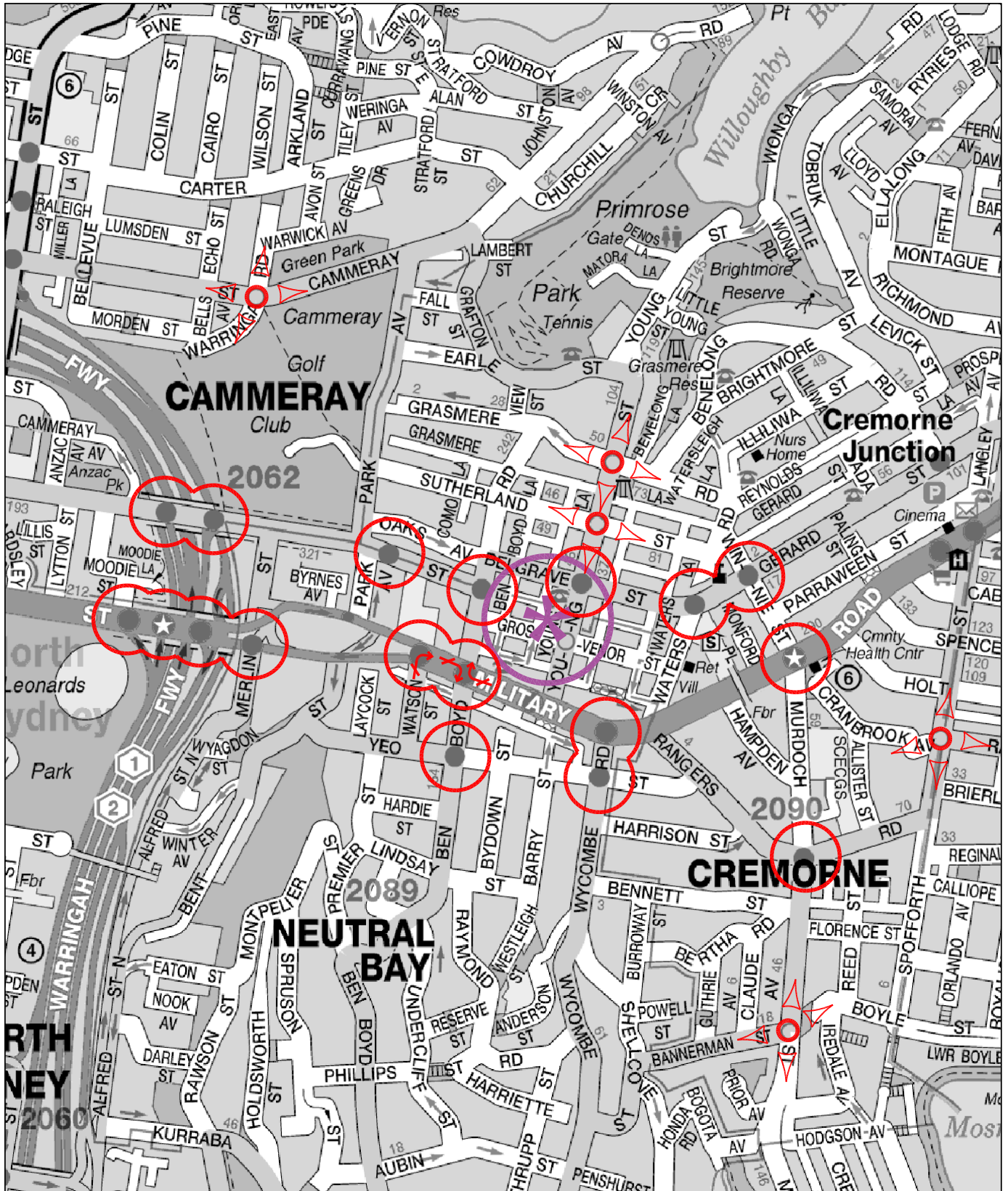
LEGEND

-  **ARTERIAL**
-  **SUB-ARTERIAL**
-  **COLLECTOR**






ROAD NETWORK

FIG 3



LEGEND

-  TRAFFIC SIGNAL CONTROL
-  ROUNDABOUT
-  RESTRICTED TURNING MOVEMENT



TRAFFIC CONTROLS

FIG 4

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- the Military Road including the Ben Boyd Road, Wycombe Road and Waters Road-Rangers Road, Watson Street-Young Street intersections
- the Ben Boyd Road/ Ernest Street, Young Street/Belgrave Street and Belgrave Street-Gerard Street/Waters Road intersections
- ❖ a signalised pedestrian crossing in Military Road, just west of Young Street
- ❖ the numerous NO RIGHT TURN restrictions along Military Road including the No right-turn eastbound and westbound restrictions in Military Road turning onto Ben Boyd Road
- ❖ a central median island in Military Road, which restricts right-turn movements into and out of Young Street.
- ❖ the roundabout at the Young Street/Grosvenor Street intersection
- ❖ ½P restrictions along both sides of Military Road. Clearway restrictions operate between 6:00 am and 10:00 am and 3:00 pm and 7:00 pm, Monday to Friday.
- ❖ No Parking restrictions along both sides of Young Lane
- ❖ ½P restrictions along the northern side of Grosvenor Street along the site's frontage between 8:30 am and 6:00 pm (Monday through Friday) and between 8:30 am and 4:00 pm, Saturday. These restrictions do not apply to permit holders of Area 27.
- ❖ 2P restrictions along both sides of Young Street along the site's frontage between 8:30 am and 6:00 pm (Monday through Friday) and between 8:30 am and 12:30 pm, Saturday. These restrictions do not apply to permit holders of Area 27.
- ❖ No Stopping zone on the western side of Young Street between 4:30 pm and 6:30 pm (Monday through Friday)
- ❖ a posted speed limit of 80kph on Gore Hill / Warringah Freeway
- ❖ a posted speed limit of 60kph on Military Road

Transport and Traffic Planning Associates

- ❖ a posted speed limit of 50kph on all local roads including Grosvenor Street, Young Street and Young Lane

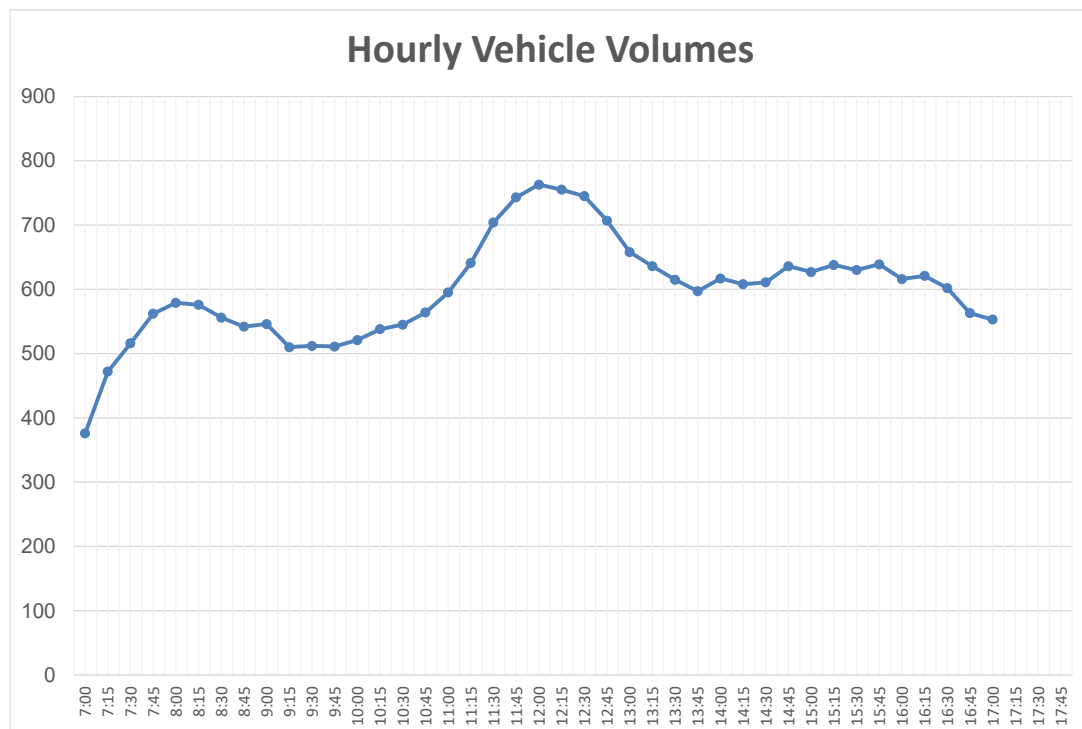
3.3 Traffic Conditions

An indication of the existing traffic and pedestrian conditions at the intersection of Grosvenor Street/Young Street in the vicinity of the site is provided by the surveys undertaken as part of this study. The surveys were completed to support the use of truck and dog trailers for the site. The surveys were completed on Thursday, 1 September 2022, between 7:00 am and 6:00 pm. The survey periods coincide with the peak commuting and late-night shopping periods. The results of traffic surveys indicate the peak traffic and pedestrian movements occur during:

- ❖ AM Peak: 11:00 am - 12:00 pm
- ❖ PM Peak: 12:00 pm - 1:00 pm

Details of the survey is provided overleaf with the peak hour data summarised in the following figures.

Hourly Intersection Vehicle Volumes



TRANS TRAFFIC SURVEY
TURNING MOVEMENT SURVEY

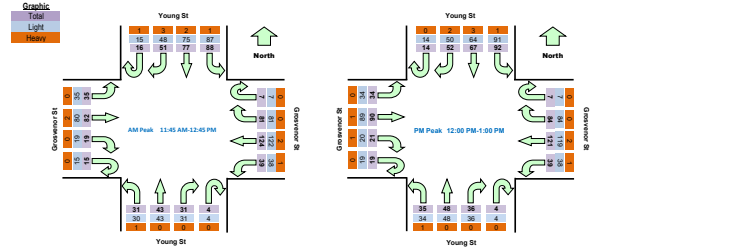
Intersection of Grosvenor St and Young St, Neutral Bay

GPS: -33.529963, 151.227624	North: Young St	Survey Period AM: 7:00 AM-12:00 PM
Date: Thu 01/09/22	East: Grosvenor St	Survey Period PM: 12:00 PM-4:00 PM
Weather: Fine	South: Young St	Survey Period Peak: 11:45 AM-12:45 PM
Suburban: Neutral Bay	West: Grosvenor St	Survey Period Peak PM: 12:00 PM-1:00 PM
Customer: N/A		

Time		North Approach Young St				East Approach Grosvenor St				South Approach Young St				West Approach Grosvenor St				Hourly Total		
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak	
7:00	7:15	0	6	11	8	0	5	11	4	0	1	0	4	0	2	8	8	376		
7:15	7:30	0	8	17	8	4	11	18	4	0	1	4	3	3	2	5	10	472		
7:30	7:45	2	13	7	5	0	13	19	7	0	0	3	6	1	5	7	7	516		
7:45	8:00	1	7	14	13	1	15	24	2	0	0	2	8	0	6	16	6	562		
8:00	8:15	1	13	11	25	3	29	35	1	0	2	4	4	2	5	20	9	579		
8:15	8:30	1	11	10	7	2	22	37	4	0	1	6	11	2	1	13	14	576		
8:30	8:45	2	11	17	11	0	16	31	5	1	3	5	7	1	5	17	9	566		
8:45	9:00	4	6	15	20	2	18	18	5	0	1	7	6	0	3	17	10	542		
9:00	9:15	2	10	19	14	2	19	30	9	0	4	4	10	4	8	22	4	546		
9:15	9:30	1	13	6	18	0	15	27	5	1	2	4	4	3	2	17	4	510		
9:30	9:45	2	6	14	17	3	15	12	8	0	5	9	7	2	6	14	7	512		
9:45	10:00	2	12	13	18	4	14	29	0	0	3	10	7	1	2	13	8	511		
10:00	10:15	1	4	16	21	2	15	18	5	1	3	9	6	1	10	7	6	521		
10:15	10:30	0	10	12	22	1	13	30	2	0	3	3	4	1	3	14	6	538		
10:30	10:45	1	8	12	14	2	16	18	9	1	4	6	5	2	8	15	5	545		
10:45	11:00	0	11	11	24	1	15	32	5	0	2	2	10	1	6	22	4	564		
11:00	11:15	1	5	14	11	3	20	38	5	0	3	5	6	3	4	14	10	595	Peak	
11:15	11:30	0	4	11	20	2	20	24	6	0	8	4	8	4	7	5	8	641		
11:30	11:45	1	3	11	15	2	16	33	7	0	3	10	10	2	11	15	6	704		
11:45	12:00	3	9	23	19	1	23	36	11	0	3	6	10	3	6	15	9	743		
12:00	12:15	2	11	21	23	2	20	26	12	2	13	17	4	4	5	21	5	783	Peak	
12:15	12:30	6	17	20	28	2	18	17	9	0	8	14	12	3	5	23	12	755		
12:30	12:45	5	14	13	18	2	20	45	7	2	7	6	5	5	3	23	9	745		
12:45	13:00	1	10	13	23	1	25	32	11	0	8	11	14	7	8	23	8	707		
13:00	13:15	3	7	23	15	3	12	46	15	0	2	9	9	3	2	26	5	658		
13:15	13:30	1	11	23	20	1	27	45	9	0	1	7	6	2	4	17	10	636		
13:30	13:45	2	4	10	20	1	23	33	4	0	5	8	5	2	2	21	6	615		
13:45	14:00	2	3	14	25	1	21	34	7	0	1	6	5	4	2	19	4	597		
14:00	14:15	1	11	17	12	3	24	34	9	2	4	7	7	1	9	16	1	617		
14:15	14:30	2	10	9	23	4	16	40	8	0	1	9	12	2	6	16	5	608		
14:30	14:45	0	7	12	14	2	17	24	3	1	2	7	4	7	14	7	611			
14:45	15:00	0	11	11	14	4	17	39	4	0	7	11	7	4	8	21	10	636		
15:00	15:15	0	17	13	17	0	17	23	5	1	2	7	17	0	5	18	7	627		
15:15	15:30	0	8	8	22	3	28	31	3	0	2	12	10	2	3	27	7	638		
15:30	15:45	1	7	17	16	2	16	29	4	0	4	12	5	1	2	31	6	630		
15:45	16:00	0	7	15	20	1	20	31	6	0	7	4	13	0	4	21	10	639		
16:00	16:15	3	14	12	13	2	22	34	5	2	5	7	9	5	5	13	9	616		
16:15	16:30	2	18	19	9	0	17	33	7	0	5	9	9	1	9	15	5	621		
16:30	16:45	3	9	13	20	0	15	38	3	1	0	11	11	3	8	21	6	602		
16:45	17:00	4	10	12	12	4	19	25	4	0	0	4	9	3	4	18	8	563		
17:00	17:15	1	13	11	25	3	29	34	1	0	2	4	4	2	7	21	8	563		
17:15	17:30	1	11	10	7	2	22	38	4	0	1	6	11	2	1	13	10	563		
17:30	17:45	1	4	16	21	2	15	16	5	1	3	9	6	1	10	7	6	6	6	
17:45	18:00	0	10	12	23	1	13	29	2	0	3	3	5	1	4	14	6	6		

Peak Time	North Approach Young St				East Approach Grosvenor St				South Approach Young St				West Approach Grosvenor St				Peak total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Peak total
11:45	12:45	16	51	77	88	7	81	124	39	4	31	43	31	15	19	82	35	743
12:00	13:00	14	52	67	92	7	84	121	39	4	36	48	35	19	21	90	34	763

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.



Time		North Approach Young St		East Approach Grosvenor St		South Approach Young St		West Approach Grosvenor St		Hourly Total	Hourly West Approach Total	Hourly North Approach Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hourly Total	Hourly West Approach Total	Hourly North Approach Total
7:00	7:15	3	2	3	3	4	3	6	2	129	35	9
7:15	7:30	0	1	7	5	3	4	8	5	145	34	13
7:30	7:45	1	1	15	4	3	5	8	0	164	30	17
7:45	8:00	0	1	12	4	7	3	3	3	186	31	20
8:00	8:15	2	7	7	9	6	4	6	1	213	42	26
8:15	8:30	3	2	11	14	9	4	7	2	210	43	21
8:30	8:45	1	4	27	7	5	6	8	1	207	50	19
8:45	9:00	5	2	16	10	5	5	11	6	193	51	21
9:00	9:15	2	2	12	3	7	5	5	3	188	47	16
9:15	9:30	1	2	8	8	4	10	10	6	182	49	15
9:30	9:45	4	3	7	9	6	7	3	3	167	44	15
9:45	10:00	1	1	7	7	17	9	7	6	173	44	17
10:00	10:15	1	2	11	4	3	2	5	5	168	39	19
10:15	10:30	2	1	7	4	5	4	4	4	176	36	18
10:30	10:45	6	3	8	11	6	7	6	4	184	35	19
10:45	11:00	0	4	9	11	11	7	6	2	184	33	17
11:00	11:15	1	1	10	8	3	11	2	5	173	33	17
11:15	11:30	1	3	4	6	9	6	4	6	190	36	17
11:30	11:45	6	1	14	5	13	7	1	1	215	41	23
11:45	12:00	1	3	1	4	13	9	6	2	240	45	22
12:00	12:15	2	0	14	6	21	5	5	5	262	47	27
12:15	12:30	6	4	10	10	10	12	10	5	266	52	29
12:30	12:45	3	3	17	10	24	7	8	4	264	46	26
12:45	13:00	7	2	6	8	19	9	5	5	254	45	26
13:00	13:15	1	3	4	14	12	13	7	8	261	47	25
13:15	13:30	5	2	9	16	12	12	6	3	250	45	27
13:30	13:45	3	3	9	16	7	17	7	4	235	47	24
13:45	14:00	5	3	5	7	4	32	9	3	222	42	29
14:00	14:15	6	0	3	10	12	7	8	5	200	38	26
14:15	14:30	2	2	6	14	7	8	4	7	196	39	22
14:30	14:45	1	10	10	9	7	10	2	4	188	38	22
14:45	15:00	5	0	1	12	5	15	5	3	182	46	16
15:00	15:15	2	0	6	12	8	5	4	10	189	52	13
15:15	15:30	1	3	6	6	8	8	4	6	187	49	17
15:30	15:45	5	0	5	11	7	5	3	11	188	52	16
15:45	16:00	2	0	9	13	9	6	5	9	179	47	15
16:00	16:15	3	3	6	9	10	6	3	2	180	45	22
16:15	16:30	3	0	8	12	2	5	10	3	177	41	26
16:30	16:45	3	1	6	8	3	8	2	7	186	37	27
16:45	17:00	6	3	4	14	7	8	6	6	207	37	28
17:00	17:15	2	7	7	9	6	4	6	1	213	42	26
17:15	17:30	3	2	11	14	9	4	7	2	213	42	26
17:30	17:45	1	4	27	7	5	6	8	1	1		
17:45	18:00	5	2	16	10	5	5	11	6	1		

Peak Time	North Approach Young St		East Approach Grosvenor St		South Approach Young St		West Approach Grosvenor St		Peak hour total	Peak hour total	Peak hour total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Peak hour total	Peak hour total
11:45	12:45	15	10	42	30	66	33	29			

Time		North Approach Young St				East Approach Grosvenor St				South Approach Young St				West Approach Grosvenor St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	6	11	8	0	5	10	4	0	1	0	4	0	1	7	8
7:15	7:30	0	8	17	8	4	11	15	4	0	1	4	3	3	1	5	10
7:30	7:45	2	13	7	5	0	13	19	5	0	0	3	6	0	3	7	7
7:45	8:00	1	7	14	13	1	15	24	2	0	0	2	8	0	4	15	6
8:00	8:15	1	13	11	25	3	29	34	1	0	2	4	4	2	5	20	9
8:15	8:30	1	11	10	7	2	22	37	4	0	1	6	11	2	1	13	14
8:30	8:45	2	11	17	10	0	16	30	5	1	3	5	6	1	3	17	9
8:45	9:00	4	5	13	19	2	18	16	5	0	1	7	6	0	2	16	10
9:00	9:15	2	9	19	14	2	19	29	9	0	4	4	10	4	8	22	4
9:15	9:30	1	12	6	18	0	14	25	5	1	2	4	3	2	17	4	
9:30	9:45	2	6	13	17	3	15	10	7	0	5	9	5	2	5	13	7
9:45	10:00	2	10	12	18	4	14	28	0	0	3	10	7	1	1	13	8
10:00	10:15	1	4	16	21	2	15	16	5	1	3	9	6	1	10	7	6
10:15	10:30	0	10	12	22	1	13	28	2	0	3	3	4	1	2	14	6
10:30	10:45	1	8	12	14	2	16	18	9	1	4	6	5	2	7	15	5
10:45	11:00	0	11	11	24	1	14	30	5	0	2	2	10	1	5	22	4
11:00	11:15	1	5	14	10	3	20	37	5	0	3	5	6	3	3	14	10
11:15	11:30	0	4	11	20	2	20	24	6	0	8	4	8	4	6	5	8
11:30	11:45	1	2	11	15	2	16	32	7	0	3	10	10	2	9	15	6
11:45	12:00	2	8	23	19	1	23	35	10	0	3	6	10	3	6	14	9
12:00	12:15	2	10	19	23	2	20	26	12	2	13	17	4	4	5	21	5
12:15	12:30	6	16	20	28	2	18	17	9	0	8	14	11	3	5	23	12
12:30	12:45	5	14	13	17	2	20	44	7	2	7	6	5	5	3	22	9
12:45	13:00	1	10	12	23	1	26	32	10	0	8	11	14	7	7	23	8
13:00	13:15	2	7	22	15	3	12	44	13	0	2	9	9	3	2	26	5
13:15	13:30	1	11	23	20	1	27	45	9	0	1	6	6	2	4	17	10
13:30	13:45	2	4	10	20	1	23	33	4	0	5	8	5	2	1	21	6
13:45	14:00	2	3	14	25	1	21	34	7	0	1	6	5	4	2	19	4
14:00	14:15	1	11	17	12	3	24	33	8	2	4	7	6	1	8	16	1
14:15	14:30	2	10	9	23	4	16	39	8	0	1	9	11	2	6	16	5
14:30	14:45	0	7	12	14	2	17	23	3	1	2	7	7	4	7	13	7
14:45	15:00	0	11	9	14	4	17	39	3	0	7	10	5	4	8	21	10
15:00	15:15	0	17	13	17	0	17	23	5	1	2	7	17	0	4	18	7
15:15	15:30	0	8	8	22	3	28	31	2	0	2	12	10	2	3	27	7
15:30	15:45	1	7	17	16	2	16	29	4	0	4	12	5	1	2	31	6
15:45	16:00	0	7	15	20	1	20	31	6	0	7	4	13	0	4	21	10
16:00	16:15	3	14	12	13	2	22	33	5	2	5	7	9	5	5	13	9
16:15	16:30	2	18	19	9	0	17	33	7	0	5	9	9	1	9	14	5
16:30	16:45	3	8	13	20	0	15	38	3	1	0	11	11	3	8	21	6
16:45	17:00	4	9	12	12	4	19	25	4	0	0	4	9	3	4	18	8
17:00	17:15	1	13	11	25	3	29	34	1	0	2	4	4	2	5	20	8
17:15	17:30	1	11	10	7	2	22	37	4	0	1	6	11	2	1	13	10
17:30	17:45	1	4	16	21	2	15	16	5	1	3	9	6	1	10	7	6
17:45	18:00	0	10	12	22	1	13	28	2	0	3	3	4	1	2	14	6

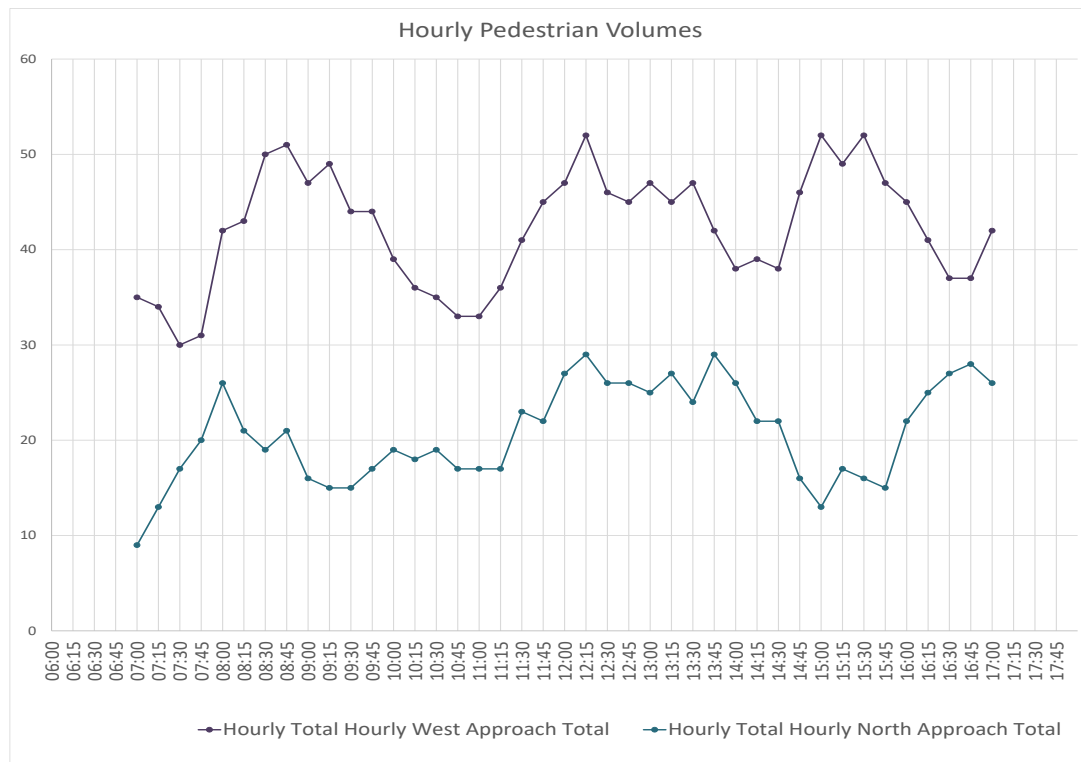
Peak Time		North Approach Young St				East Approach Grosvenor St				South Approach Young St				West Approach Grosvenor St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Peak total
11:45	12:45	15	48	75	87	7	81	122	38	4	31	43	30	15	19	80	35	730
12:00	13:00	14	50	84	91	7	84	119	38	4	36	48	34	19	20	89	34	751

Time		North Approach Young St				East Approach Grosvenor St				South Approach Young St				West Approach Grosvenor St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
7:00	7:15	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
7:15	7:30	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	0
7:30	7:45	0	0	0	0	0	0	2	0	0	0	0	0	0	1	2	0
7:45	8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
8:00	8:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	8:45	0	0	0	1	0	0	1	0	0	0	0	1	0	2	0	0
8:45	9:00	0	1	2	1	0	0	2	0	0	0	0	0	0	1	1	0
9:00	9:15	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:15	9:30	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	1	0	0	0	2	1	0	0	0	2	0	1	1	0
9:45	10:00	0	2	1	0	0	0	1	0	0	0	0	0	0	1	0	0
10:00	10:15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
10:15	10:30	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0
10:30	10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:45	11:00	0	0	0	0	0	1	2	0	0	0	0	0	0	1	0	0
11:00	11:15	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0
11:15	11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30	11:45	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0
11:45	12:00	1	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0
12:00	12:15	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	12:30	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:30	12:45	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0
12:45	13:00	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0
13:00	13:15	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
13:30	13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
13:45	14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	14:15	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	0
14:15	14:30	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
14:30	14:45	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
14:45	15:00	0	0	2	0	0	0	0	1	0	0	1	2	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
15:15	15:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:30	16:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
17:15	17:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	1	0	0	1	0	0	0	0	1	0	2	0	0

Peak Time		North Approach Young St				East Approach Grosvenor St				South Approach Young St				West Approach Grosvenor St				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Peak total
11:45	12:45	1	3	2	1	0	0	2	1	0	0	0	1	0	0	2	0	13
12:00	13:00																	

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Hourly Pedestrian Volumes



As shown on the above data:

- ❖ the vehicle volumes at the Grosvenor Street/Young Street intersection peaks outside the standard commuting peak hours between 11am and 1pm.
- ❖ the vehicle volumes at the Grosvenor Street/Young Street intersection during:
 - the AM commuting peak hour is 576 veh/hour
 - the PM commuting peak hour is 621 veh/hour
- ❖ the above AM and PM commuting peak hour vehicle volumes of 11 veh/minute and are distributed among the 4 intersection legs
- ❖ the affected north-south pedestrian crossing (west approach) has a peak hourly volume of 51 pedestrians per hour (no more than 1 pedestrian per minute)
- ❖ the affected east-west pedestrian crossing (north approach) has a peak hourly volume of 29 pedestrians per hour (no more than 1 pedestrian per 2 minutes)

Based on the minor pedestrian movements and to minimise the traffic impact on

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vehicular traffic, it is proposed to permit the use of truck and dog trailers prior to 11am.

The roundabout creates ample and safe gaps are available in the Young Street traffic flow for vehicles to ingress and egress the site.

3.4 Existing Transport Services

The site is highly accessible by public transport.

Bus Services

Access to the Metropolitan Transport Network for the site is currently provided by the more than 40 bus services which run along the Military Road (with the nearest bus stop 150m walking distance southeast of the site).

These services provide express bus services to the Central Sydney CBD and connections to North Sydney and St Leonards Railway Stations, Chatswood Interchange, allow access to the wider public transport network with this railway/Metro station providing services on the T1 – North Shore Line and the CCN – Central Coast - Newcastle Line and Sydney Metro, providing a connection to the City and the wider rail network.

These services also provide connections to the Ferry Services on Sydney Harbour at Neutral Bay and Cremorne Point wharves, Northern Beaches area, including Manly Vale, Brookvale, Dee Why, Narrabeen, Newport, Mona Vale and Palm Beach, Kirribilli, Cammeray and Crows Nest.

Bus services into and out of the City via the Warringah Freeway have the benefit of dedicated bus lanes for the majority of the journey, resulting in reduced travel times between Neutral Bay and Wynyard. The site is therefore considered to be very well served by public transport services. These bus routes provide frequent services during the weekday peak hour periods. Details of the bus services available are provided in Appendix B

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Railway Services

North Sydney Railway Station is located approximately 1.8km southwest of the site and is accessible by bus routes 229 and 230. The station is a major hub in the Sydney Trains network, with frequent services on four rail lines, namely T1 – North Shore Line and the CCN – Central Coast and Newcastle Line. Details of the train services available at the North Sydney Station are provided in Appendix B

Metro Services

The Sydney Metro Northwest project is one of Australia's largest public transport infrastructure projects and currently delivers faster, safer and more reliable service to the northwest region of Sydney. The Sydney Metro Northwest provides a rail connection from the existing Chatswood Interchange through to Cudgegong Railway Station. As part of this connection, the train line passes through Chatswood Station, which provides an additional train every four minutes during the weekday AM and PM peak periods. The station locations and rail alignment of the Sydney Metro are shown below. Details of the Metro services available at the Chatswood Station are provided in Appendix B.



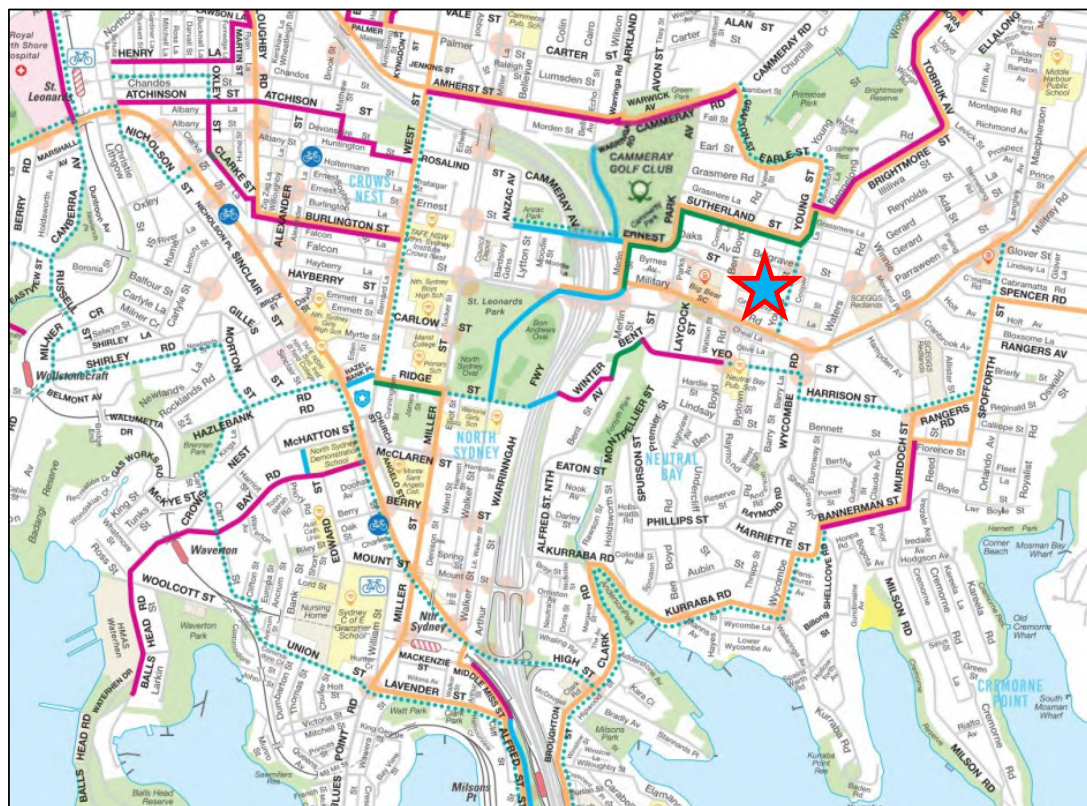
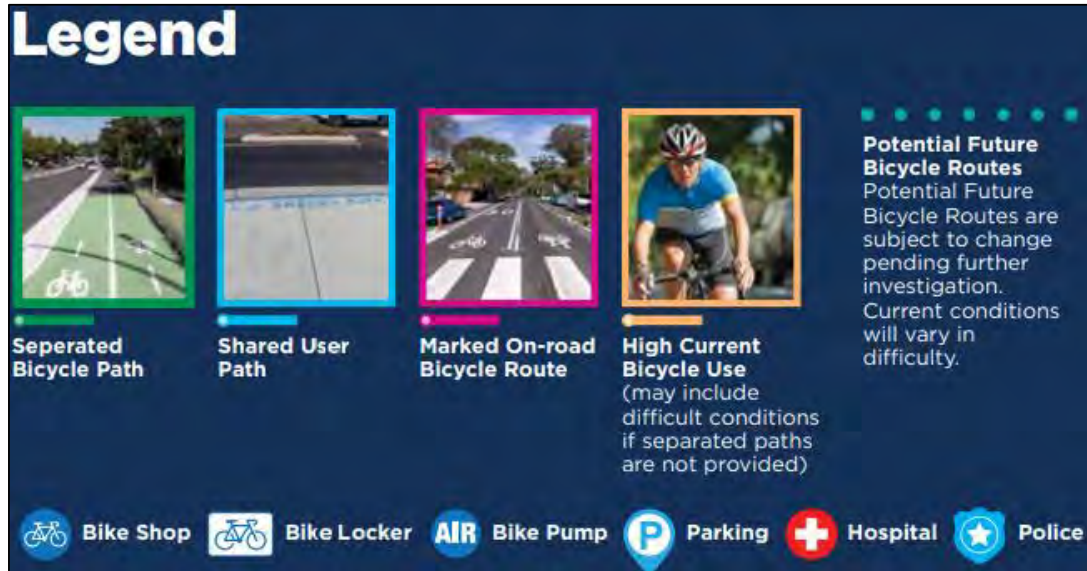
Pedestrian Infrastructure

Pedestrian footpaths are located on both sides of all streets surrounding the site. Marked foot crossings are provided at all signalised intersections within the area, including along Young Street, West Street and Miller Street.

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Cycle Infrastructure

The site is well situated within Sydney's cycle network with cycle routes surrounding the site with the nearest route along Military Road to the south of the site. The bicycle network surrounding the site is shown in the figure below, with details provided in figure overleaf.



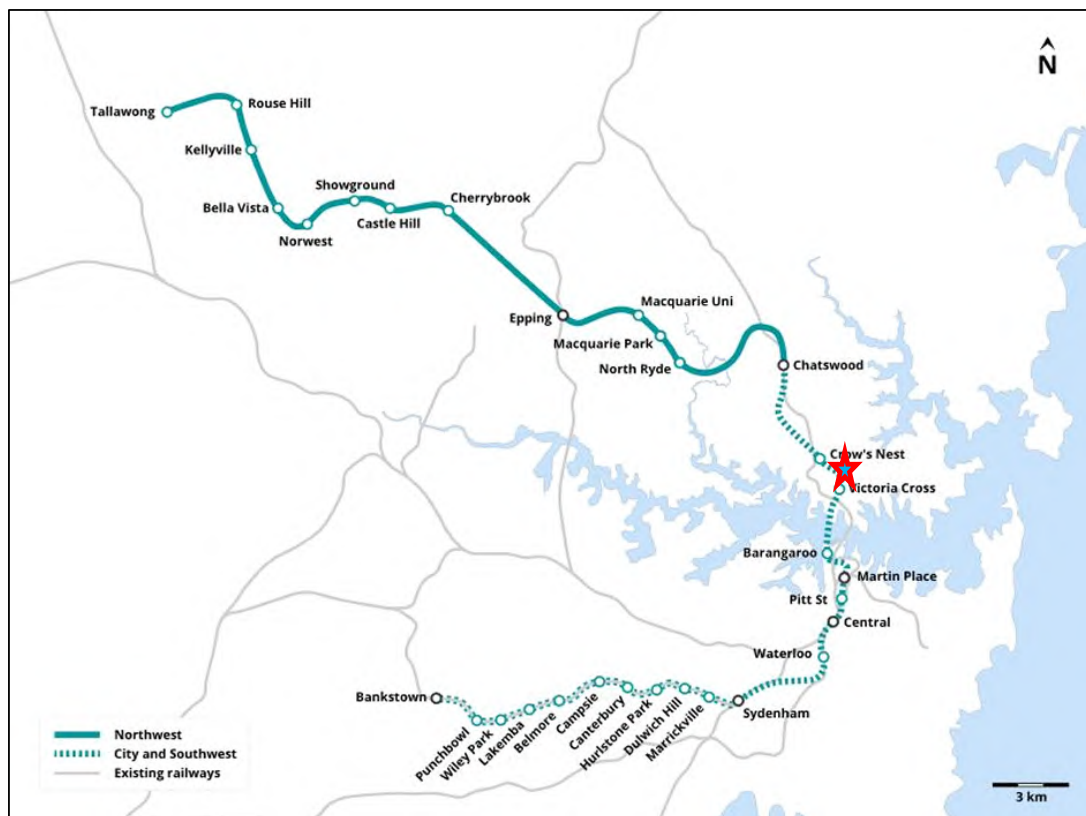
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3.5 Proposed Transport Services

The site is located within 2km of Crows Nest Metro Station, which is currently under construction as part of the Metro City and Southwest Line. After completion in 2024, this station will provide metro trains every four minutes during peak hours and connect the area to Sydney Central Business District, Northwest Sydney and Southwest Sydney.

The site is expected to benefit greatly from the Sydney Metro project, given the increased incentives to travel by train on the regular fast service with the Neutral Bay town centre planning, largely reflecting this inherent change.

The station locations and rail alignment of the Sydney Metro are shown below.



4.0 Proposed Construction Traffic Management Plan

4.1 Construction Vehicle Route

Truck movements associated with the construction processes will access the site via Grosvenor Street, as illustrated in Figure 5. Details of critical vehicles swept paths in and out of the site are provided in Appendix C.

It is noted that on departure:

- ❖ 6.4m small rigid vehicle (SRV) will use Ernest Street towards Warringah Freeway/Pacific Highway given that Ernest Street has 10t load limit
- ❖ All vehicles longer than SRV, i.e., MRV, HRV and semi will use Ben Boyd Road towards Military Road

4.2 Truck Movements

The envisaged truck arrivals will be:

Demolition Stage

12.5m Length

The frequency is 1-3 Vehicles daily

The total load is 23 ton

19m Length

The frequency is 5-7 Vehicles daily

The total load is 48 ton

Excavation Stage

18.1m Length

The frequency is 1-2 Vehicles daily

The total load is 23 ton

19m Length

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The frequency is 14-21 Vehicles daily

The total load is 48 ton

For Structure Stage

12.5m Length

The frequency is 1-3 Vehicles Daily

The total load is 23 ton

12.5m Length

The frequency is 30 Vehicles for Concrete pours (7 Times in Project life)

The total load is 27 ton

19m Length

The frequency is 1-3 Vehicles Per Week

The total load is 48 ton

Given the low truck movements, a truck holding area will not be required. Truck drivers will be advised of the designated truck routes to/ from the site. No queuing or marshalling of trucks will be permitted on public roads in the vicinity of the site. Accredited traffic controller/ site personnel will ensure they are in radio contact with truck drivers, ensuring each vehicle arrival is anticipated and planned.

4.3 Construction Hours

The hours of construction activity will be:

7.00am – 5.00pm	Monday to Friday
8.00am – 1.00pm	Saturday
No work	Sunday and public holidays

4.4 Pedestrian Management

The following protections would be provided for pedestrians in the perimeter of the site:

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- ❖ Grosvenor Street and Young Street: Class B hoarding will be provided on the footpath along the northern side of Grosvenor Street and the western side of Young Street, to ensure safe pedestrian passage past the site.
- ❖ Young Lane: Pedestrians walking along the pedestrian link along Markham Avenue will be protected by A-Class hoarding

RMS accredited traffic controllers will supervise all vehicle and materials movements into and out of the site, loading area and works zone, as well as loading/unloading activities at all times.

4.5 Contact Details

The contact person who is to have authority without reference to other persons to comply with instructions issued by the Council's Traffic Engineer or the Police is as follows:

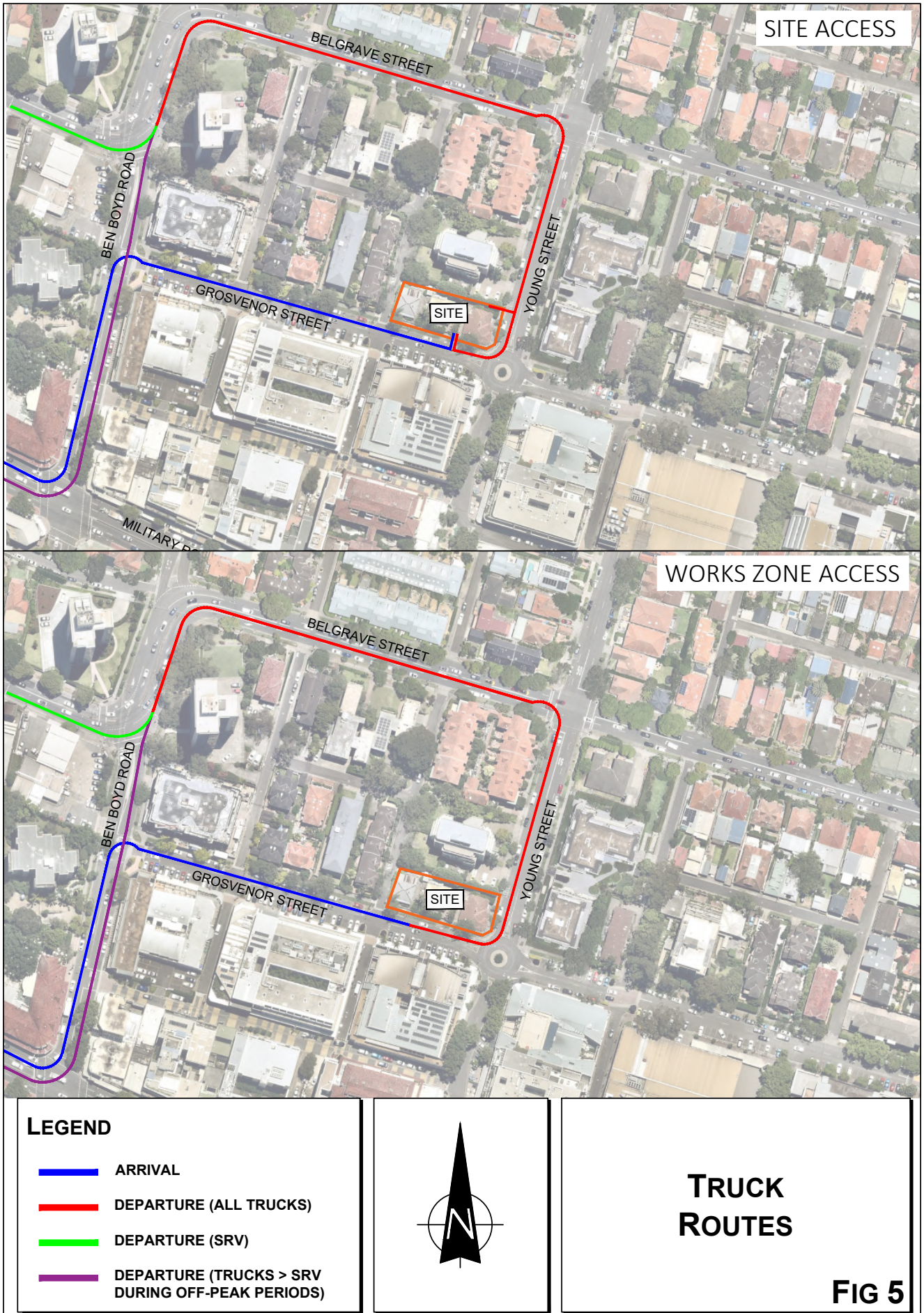
Rohail Iyaz
General Manager
Australex Group Pty Ltd
rohail@australex.net.au

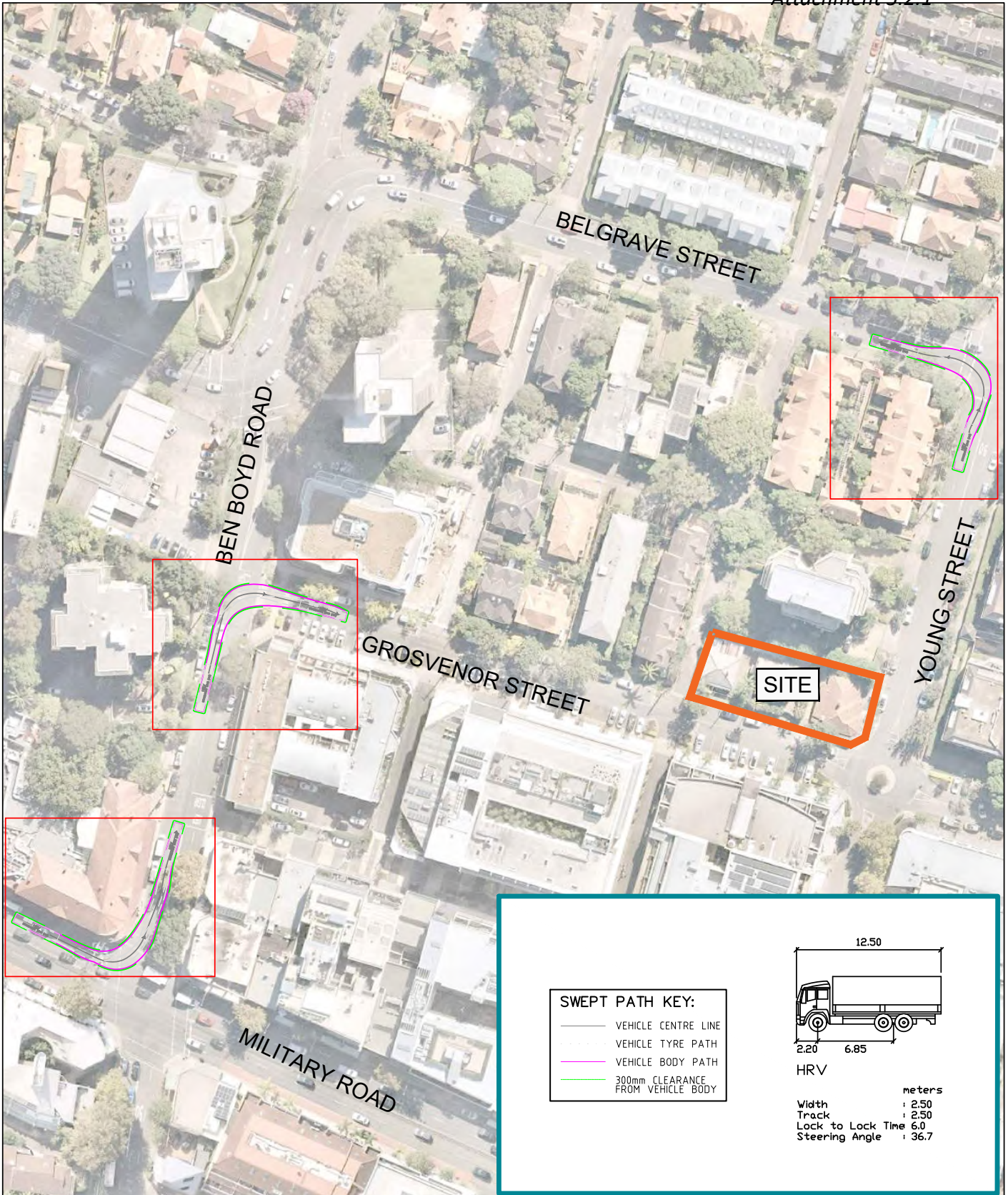
4.6 Works Zone

A 19m long Works Zone will be required on the 30, 32 and 34 Grosvenor Street frontage during the latter construction and fitout processes to facilitate delivery vehicles stoppages.

The Works Zone will require the temporary removal of 2-3 on-street parking spaces on the northern side of Grosvenor Street.

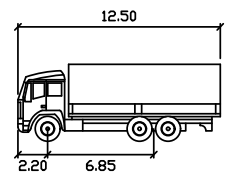
A separate application for the works zone would be submitted separately as required for approval from the North Sydney Traffic Committee prior to the operation of the works zone. The applicant will pay all appropriate Council advertised fees and charges, including the cost of the signage and loss of parking fee. It is noted that there





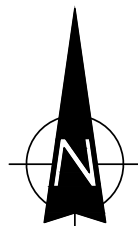
SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



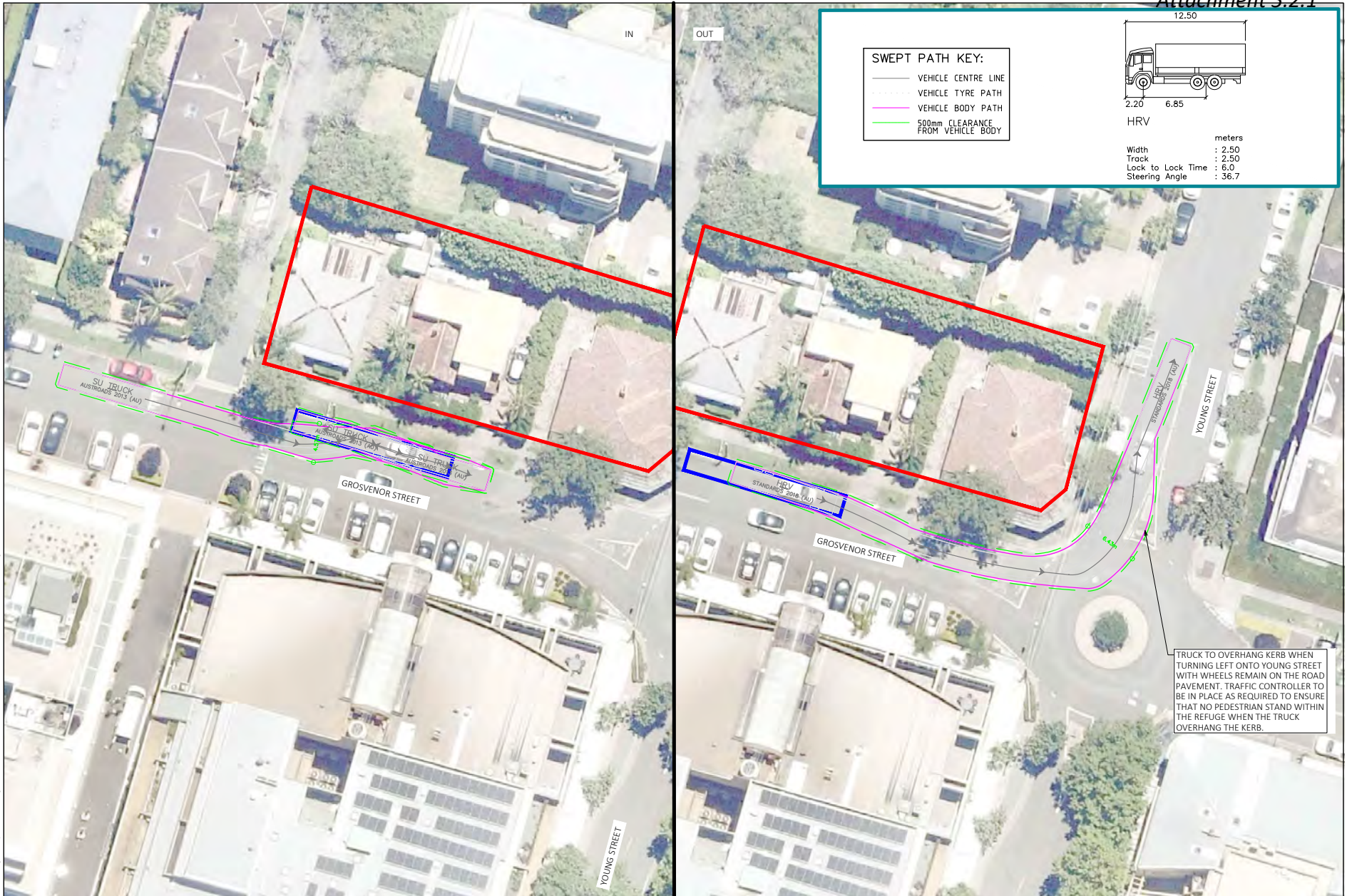
HRV

Width	: 12.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 36.7



TRUCK TURNING PATHS

FIG 6



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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 12.5M HRV ENTERING AND EXITING THE WORKS ZONE

DRAWING REF NO. 20136-V1.4-SP

SHEET NO. 01 OF 02

ISSUE DATE 16 July 2022

DESIGNED BY
LELSSON

REVIEWED BY
B.LO

SCALE
A3 0 4.0 8.0 1:400



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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 12.5M HRV EXITING FROM YOUNG STREET TO BELGRAVE STREET

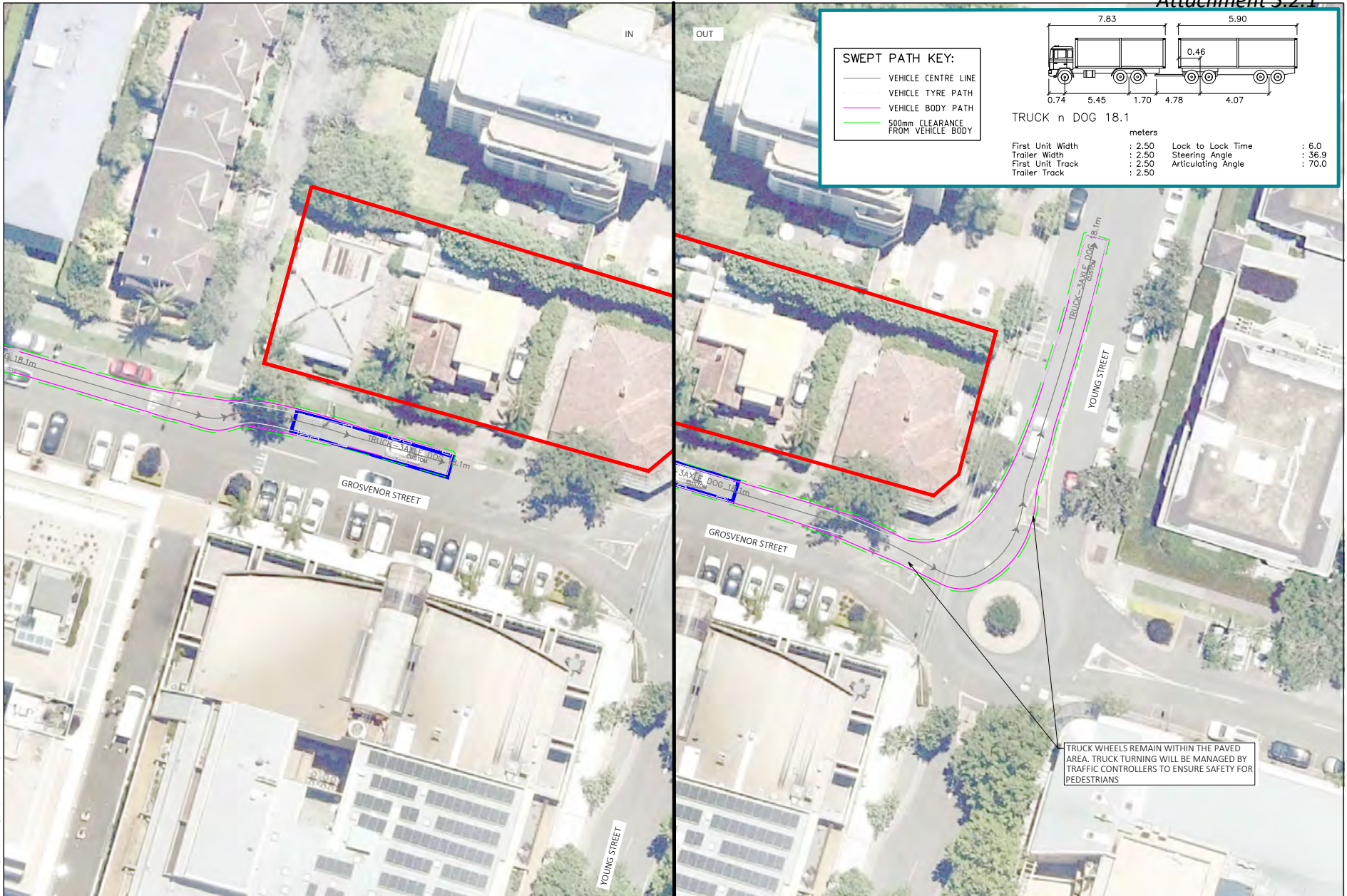
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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 18.1M TRUCK & DOG TRAILERS ENTERING & EXITING THE WORKS ZONE

DRAWING REF NO. 20136-V1.3.5-SP SHEET NO. 01 OF 02 ISSUE DATE 11 September 2022

DESIGNED BY LELSSON REVIEWED BY B.LO

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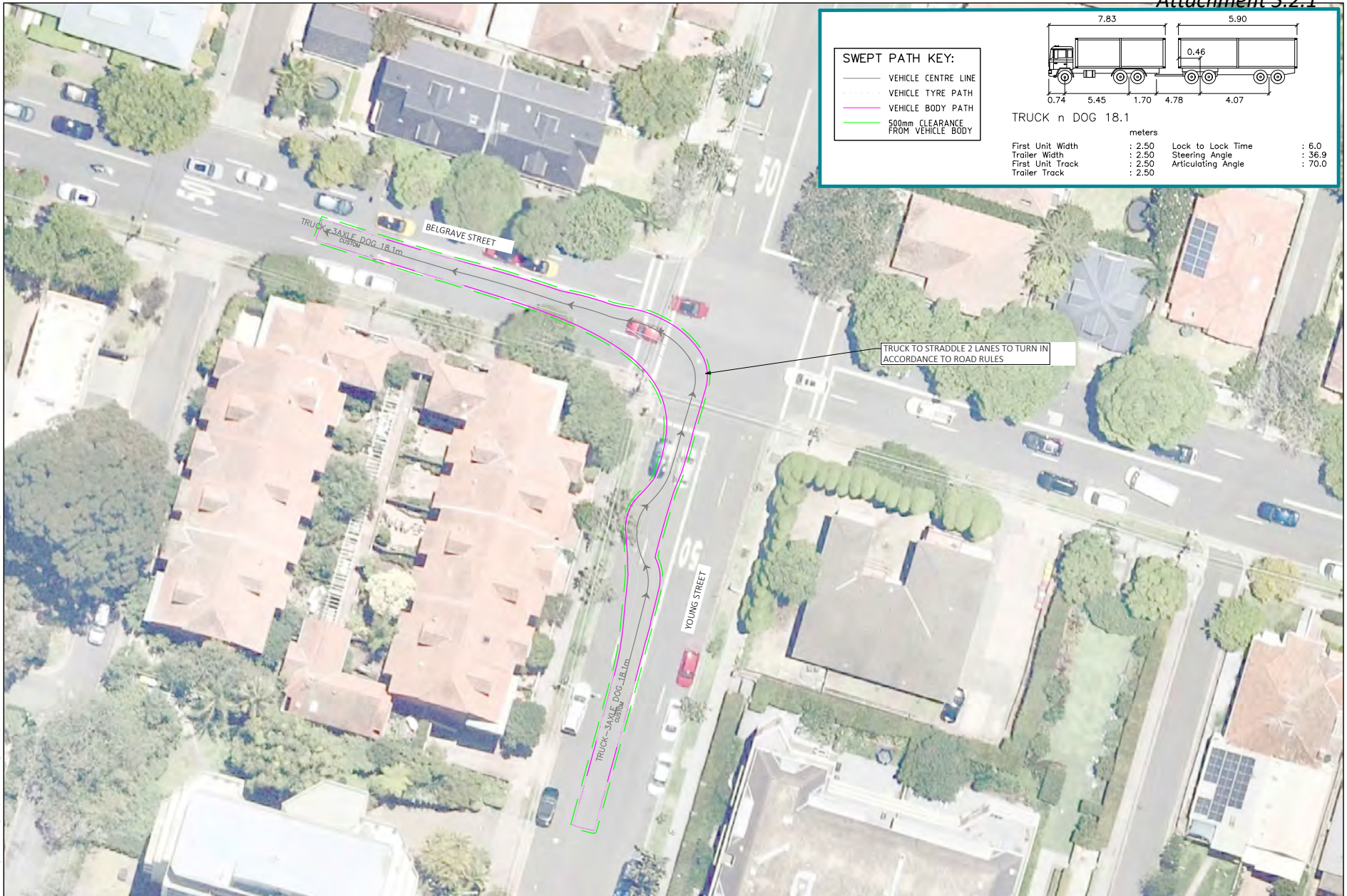


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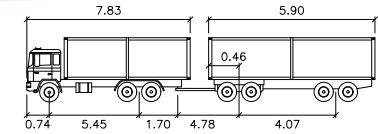
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SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- ⋯ VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 500mm CLEARANCE FROM VEHICLE BODY



TRUCK n DOG 18.1

meters	
First Unit Width	: 2.50
Trailer Width	: 2.50
First Unit Track	: 2.50
Trailer Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 36.9
Articulating Angle	: 70.0

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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 18.1M TRUCK & DOG TRAILERS EXITING THE WORKS ZONE

DESIGNED BY LELSSON
 REVIEWED BY B.L.O
 SCALE A3 0 4.0 8.0 1:400



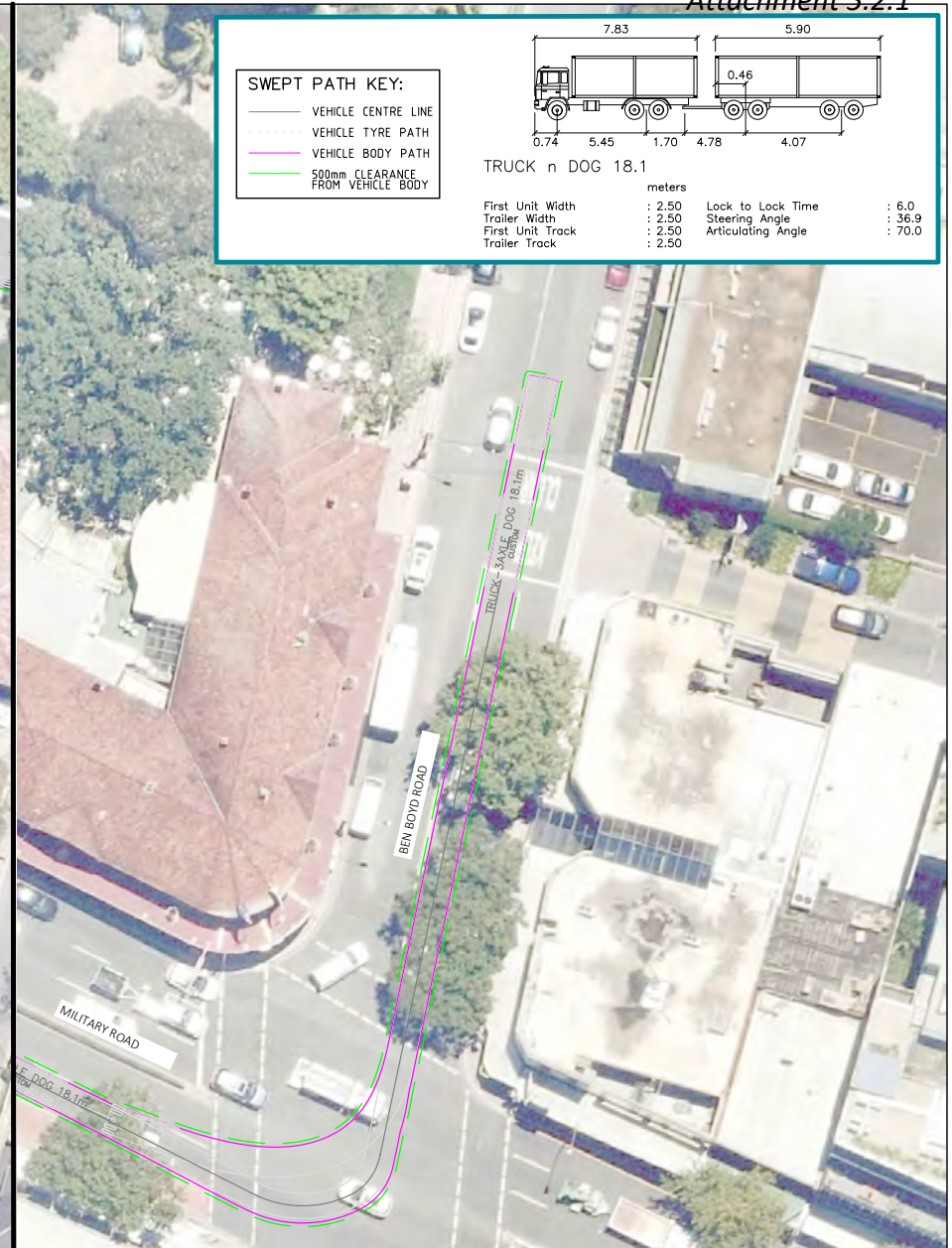
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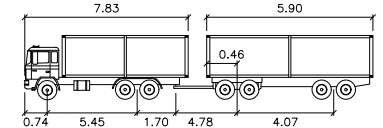
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DRAWING REF NO. 20136-V1.3.5-SP SHEET NO. 02 OF 02 ISSUE DATE 11 September 2022



SWEPT PATH KEY:
 — VEHICLE CENTRE LINE
 - - - VEHICLE TYRE PATH
 — VEHICLE BODY PATH
 — 500mm CLEARANCE FROM VEHICLE BODY



TRUCK n DOG 18.1

First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 36.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 19M SEMI ENTERING AND EXITING THE WORKS ZONE

DESIGNED BY L. LELSON REVIEWED BY B. LO

SCALE A3 1:##

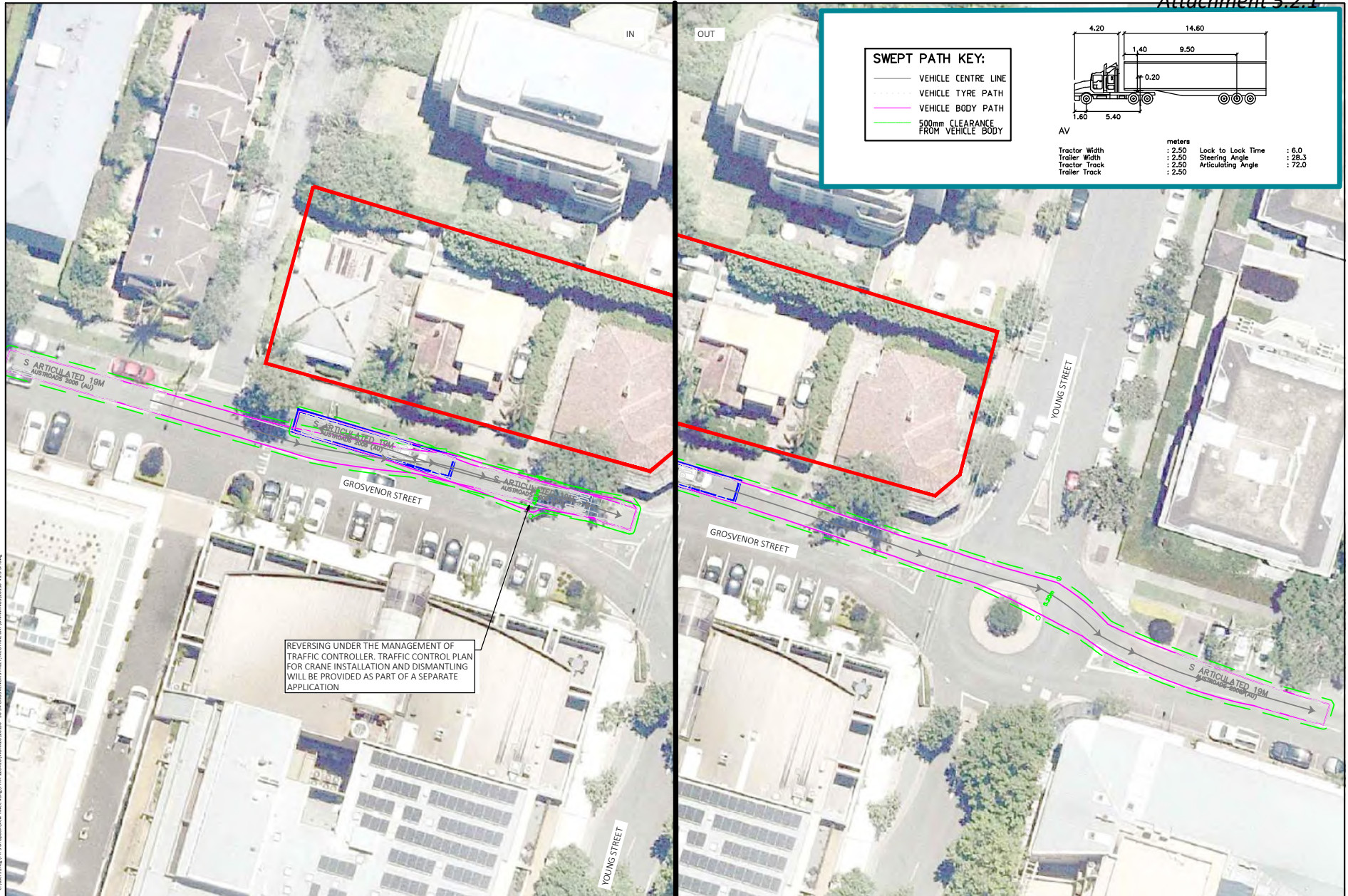
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 AND TO BE RESPONSIBLE FOR YOUR OWN SAFETY

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REVERSING UNDER THE MANAGEMENT OF TRAFFIC CONTROLLER. TRAFFIC CONTROL PLAN FOR CRANE INSTALLATION AND DISMANTLING WILL BE PROVIDED AS PART OF A SEPARATE APPLICATION

34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 19M HRV ENTERING AND EXITING THE WORKS ZONE (FOR CRANE WORKS)

DESIGNED BY LELSSON REVIEWED BY B.I.O.
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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 19M HRV ENTERING AND EXITING THE WORKS ZONE (FOR CRANE WORKS)

DESIGNED BY: LELLSON
 REVIEWED BY: B.L.O.
 SCALE: 1:400



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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 19M SEMI ENTERING AND EXITING THE WORKS ZONE

DESIGNED BY LLELSON REVIEWED BY B.L.O

SCALE A3 1:##

DRAWING REF NO. 20136-V1.3.4-SP SHEET NO. 03 OF 02 ISSUE DATE 27 July 2022



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will be no meter removal required as part of the Works Zone application. The works zone will not be used for private kerbside parking by contractors, tradesman or visitors to the site.

4.7 Cranage and Materials Handling

1 tower crane will be erected within the site, and specific areas will be available for loading/unloading, materials handling and storage, and worker sheds, etc. The tower crane will be utilised for materials handling within the works zone and the on-site material handling zone.

A separate application for temporary road closure and crane use from the public property will be submitted to Council for approval as required prior to the installation of the on-site tower crane.

Light materials will be loaded/unloaded between the works zone using either forklifts or trolleys.

4.8 Site Induction

All workers and visitors employed on the site by the appointed contractor (including sub-contractors) will be required to undergo a formal 'site induction' process and all the inductions will be performed specifically to each trade according to Workcover OH & S requirements.

The induction will include details of approved access routes to and from the construction site for site staff and delivery vehicles, parking arrangements, as well as standard environmental, WHS, driver protocols and emergency procedures. The agreed work hours must be included as part of this induction.

4.9 Construction Worker Parking

There will be no on-site car parking available for workers during the earlier construction stage. Once the internal driveway and basement carpark are built (and when construction activity is most intensive), additional worker parking may be available.

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Some unrestricted on-street parking will be available along the surrounding local streets for the workers. Given the proximity of the site to high-frequency public transport services, all workers will be encouraged at all times to utilise the highly accessible public transport system which exists in the vicinity of the site or to carpool wherever possible.

A tool drop-off and storage facility will be provided within the site. This would allow tradespeople to drop-off and store their tools and machinery, allowing them to use public transport to travel to/ from the site on a daily basis.

Workers will also be informed of appropriate tool/ equipment drop-off and storage arrangements made within site sheds and amenities provided on-site. Bus and train schedules will be provided to all workers during site induction to demonstrate alternative modes of transport available.

4.10 Traffic Guidance Schemes

The TGS presents the principles of traffic management, with the detailed information for worksite operations is contained in the Roads and Maritime Services Traffic Control at Work Sites Technical Manual Version 5.0 dated 27 July 2018. The control of traffic at work sites must be undertaken with reference to WorkCover requirements and Australex's Constructions Workplace Health and Safety Manuals.

The TGSs prepared by the Traffic Control contractor (a Certified Traffic Controller under RMS regulations) as required throughout the process and in accordance with Australian Standards 1742.3, for all construction processes are provided in Appendix D.

4.11 Tree Protection Management Measures

Australex will complete the construction works without encroaching the tree protection zones (TPZs). Protective fencing and ground protection will be installed in accordance with the tree management plan provided overleaf. Australex will ensure that the

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existing trees within the TPZs are protected in accordance with the Australian Standards, based on the following guidelines:

- * no works will be undertaken without the supervision of a qualified arborist
- * no people, vehicles or machinery can enter the zone
- * no stockpiling of building materials, debris or soil within the zone
- * no fuel, oil dumps or chemicals allowed within or around the zone
- * no altering of soil levels within the zone
- * no open trenching within the zone
- * no attachment of wires, nails, screws or any other fixing device or as a winch support or anchorage
- * supplementary watering is provided to trees through dry periods, during and after the construction process.

4.12 Construction related Vehicle Movements

A maximum of 30 trucks per day during peak construction. The heavy vehicle movements are likely to be spread throughout the day. However, in the worst-case assessment, it has been assumed that 12.5%, or 4 vehicles (8 two-way vehicle movements), would occur during the peak hour. Queuing or marshalling of construction vehicles will not be permitted on the road network and call-up procedures must be put in place to manage arrivals.

Workers typically begin and end their workday outside of network peak periods (i.e., 6.30 am – 3.30 pm) and as such is unlikely to adversely impact the surrounding road network.

4.13 Impact on Public Transport Services

The heavy vehicle haulage routes will largely be limited on arterial and sub-arterial roads which are designed to accommodate heavy vehicle movements. As such, the impacts on public transport services will be minimal on the approach/departure routes. While the

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truck route will overlap with this bus route during the construction period, it is not expected that traffic generation of no more than 6 vehicle visitations per day would be adverse to the efficiency of the existing bus service.

4.14 Impact on Pedestrian Movements

Pedestrian movements will remain on Grosvenor Street, Young Street and Young Lane, separated from the site through the provision of hoarding along the perimeter of the site where applicable.

Where the frontage footpath along Grosvenor Street will be affected by the Works Zone operation, accredited traffic controllers who will be present at the works zone and access points will ensure pedestrians are given right of way by construction vehicles to heighten their safety.

The above measures will be incorporated into the site induction program. Workers/subcontractors will be inducted to drive with extra caution and according to the posted speed limit at all times.

4.15 Temporary Road Closure

It is not anticipated that the proposed works would require a road closure. If required:

- The costs and application processes for the required permits are to be borne by Australex.
- Temporary road closures shall be confined to weekends and off-peak hour times and are subject to the approval of the Council.
- Before implementation of any road closure during construction, Council shall be advised of these changes and a TGS shall be submitted to Council for approval.
- This TGS shall include times and dates of changes, measures, signage, road markings and any temporary traffic control measures.

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4.16 Impact on Emergency Vehicle Access

Emergency protocols on the site would include a requirement for an accredited traffic controller to assist with emergency access, and as such, access to the site by emergency vehicles will not be affected. The liaison will be maintained with the police and emergency services agencies throughout the construction period and a site contact will be made available for out-of-hours emergencies and access.

4.17 Spoil Management

To ensure that soil/excavated material is not transported on wheels or tracks of vehicles and deposited on surrounding roadways, a wheel wash station will be positioned at the entry/exit point.

4.18 Road Serviceability

Australex will be responsible for ensuring that the road pavement, kerb and gutter along Grosvenor Street, Young Street and Young Lane, remain in clean and serviceable states during the course of the construction.

4.19 Public Notification

Australex would prepare notification letters, under the approval of Council, that would be delivered to adjoining property owners, to advise of the construction works and timeframes for completion of each phase of the process.

4.20 Impact on Neighboring Properties

Access to neighbouring properties will be maintained at all times. Workers/subcontractors will be directed not to park their vehicles at the driveways of the neighbouring properties. This will be incorporated into the site induction program. Australex would take appropriate action if informed of this activity occurring.

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4.21 Dilapidation Report

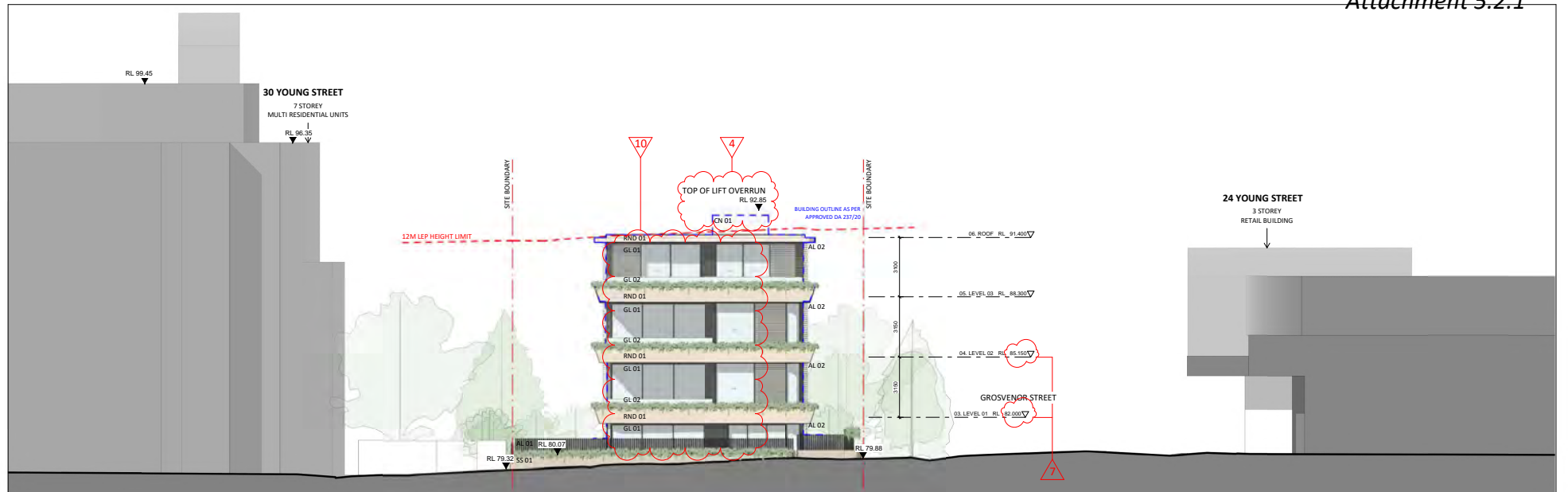
A dilapidation report will be provided before and after the construction activities as required by Council.

Transport and Traffic Planning Associates

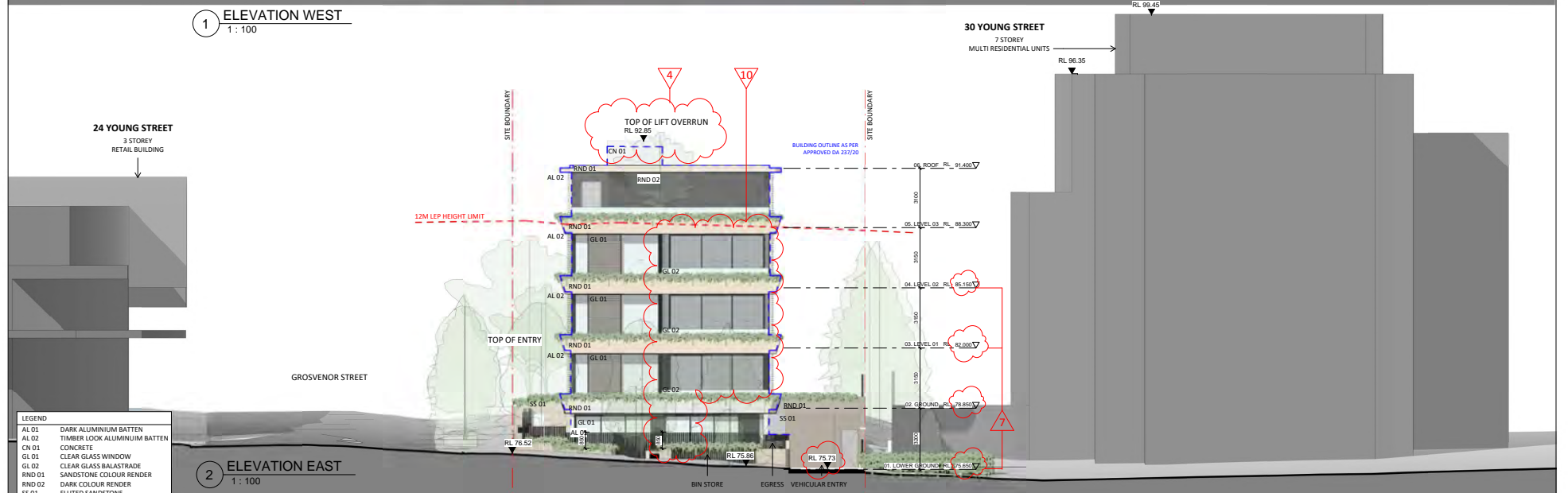
Appendix A

Architectural Plans





1 ELEVATION WEST
1: 100



2 ELEVATION EAST
1: 100

LEGEND

AL 01	DARK ALUMINIUM BATTEN
AL 02	TIMBER LOOK ALUMINIUM BATTEN
CN 01	CONCRETE
GL 01	CLEAR GLASS BALUSTRADE
GL 02	CLEAR GLASS BALUSTRADE
RND 01	SANDSTONE COLOUR RENDER
RND 02	DARK COLOUR RENDER
SS 01	FLUTED SANDSTONE

NO.	REVISION	DATE	BY	CHKD	NO.	REVISION	DATE	BY	CHKD
1	ISSUE FOR PERMIT	22/09/22							
2	REVISED PERMIT	22/09/22							
3	REVISED PERMIT	22/09/22							
4	REVISED PERMIT	22/09/22							
5	REVISED PERMIT	22/09/22							



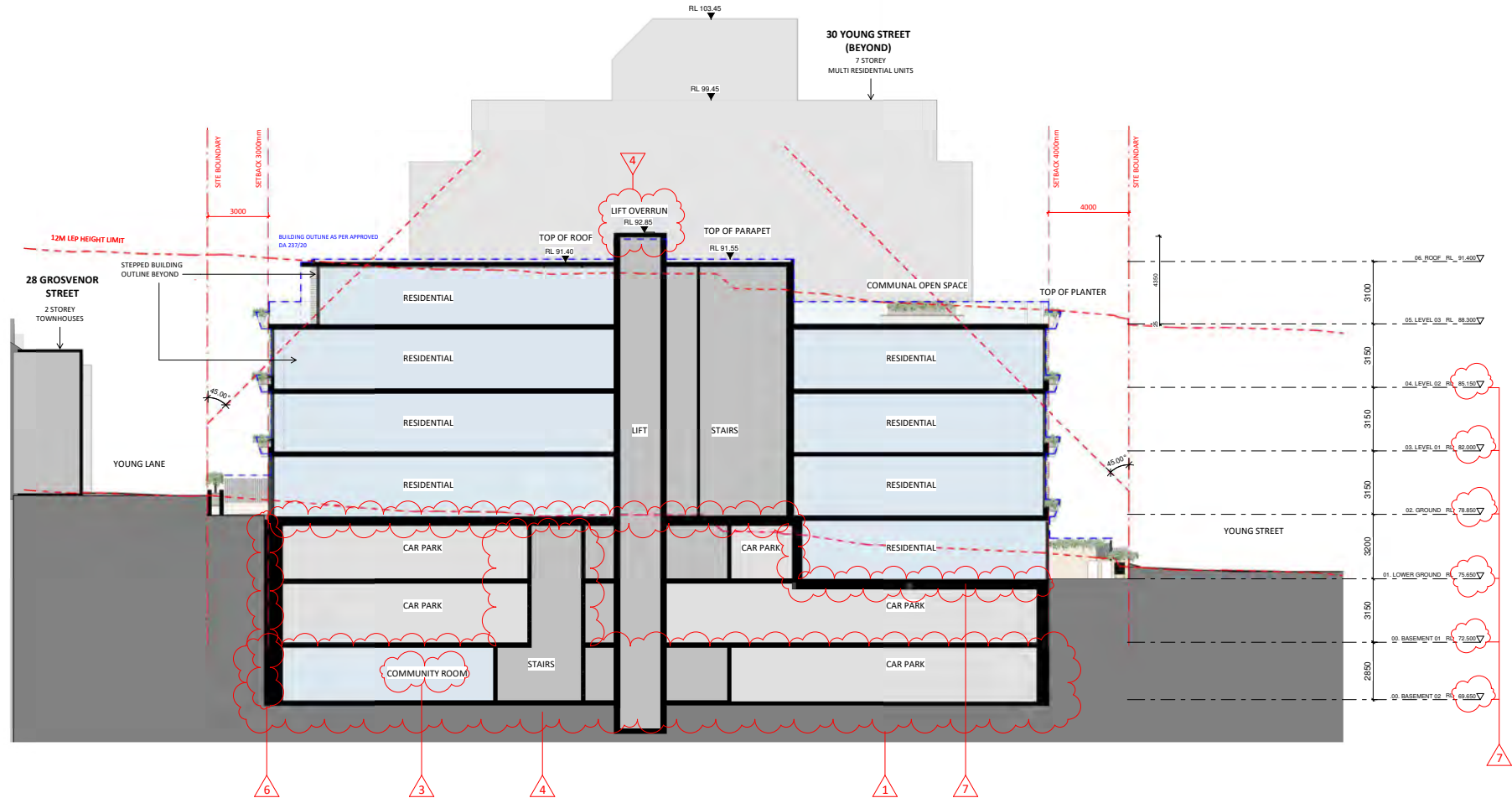
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1	ISSUE FOR PERMIT	22/09/22		
2	REVISED PERMIT	22/09/22		
3	REVISED PERMIT	22/09/22		
4	REVISED PERMIT	22/09/22		
5	REVISED PERMIT	22/09/22		

CLIENT
MOSMAN FINANCE No.13 PTY LTD
3.01196 PITT STREET, SYDNEY NSW 2000
ABN: 95 619 934 146

ARCHITECT
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70/71 Chardon Street
85 Leicesters NSW 2085
T: +61 2 9427 3188
E: info@team2.com.au
REG NO: 19160
MELBOURNE
3137/37 Burnwood Road
Highpoint East VIC
ABN: 72 104 833 507
REG VIC: 19360

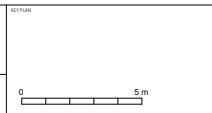


PROJECT	30-34 GROSVENOR STREET NEUTRAL BAY, NSW 2089	DATE	03.09.21	DRAWN	SO
SCALE	1:100@A1, 1:200@A3	CHECKED	KD	APPROVED	
PROJ NO	1031	DATE		REVISION	D
STATUS	DEVELOPMENT APPLICATION	DWG NO	A0201		
REV. DATE	ELEVATIONS 02	NOTES	DO NOT SCALE FROM DRAWINGS VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK COPYING OR THE REPRODUCTION OF THIS DRAWING IS STRICTLY PROHIBITED WITHOUT THE CONSENT OF THE ARCHITECT TEAM2 ARCHITECTS		



NO.	REVISION	DATE	BY	CHKD.	NO.	REVISION	DATE	BY	CHKD.
1	ISSUE FOR PERMIT	03/09/21							
2	ISSUE FOR PERMIT	03/09/21							
3	ISSUE FOR PERMIT	03/09/21							
4	ISSUE FOR PERMIT	03/09/21							

NO.	REVISION	DATE	BY	CHKD.
1	ISSUE FOR PERMIT	03/09/21		
2	ISSUE FOR PERMIT	03/09/21		
3	ISSUE FOR PERMIT	03/09/21		
4	ISSUE FOR PERMIT	03/09/21		



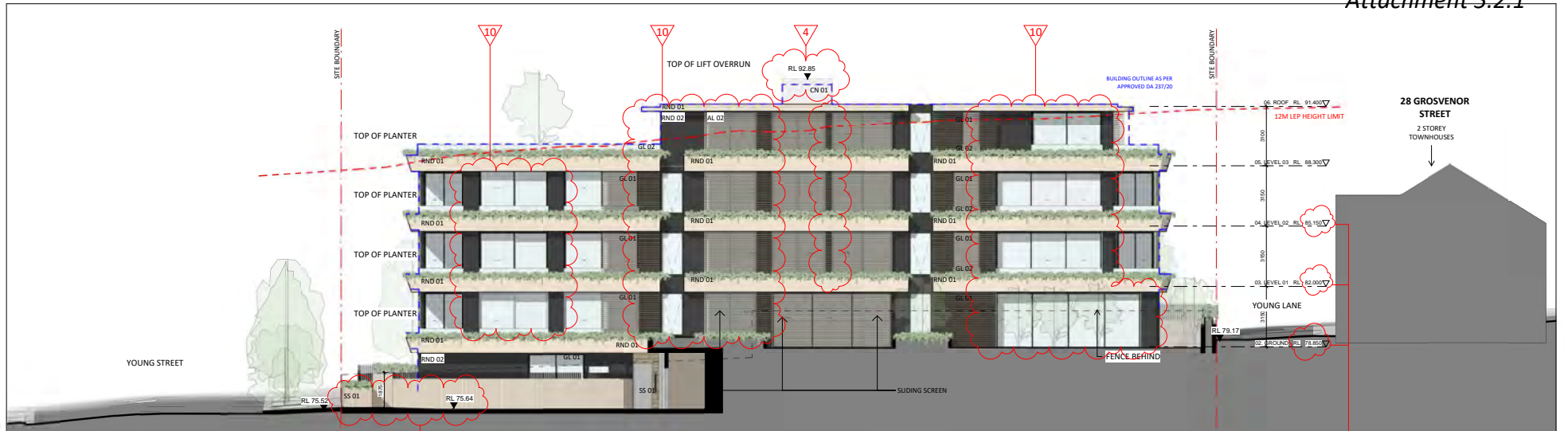
CLIENT
MOSMAN FINANCE No.13 PTY LTD
3.01.95 PITT STREET, SYDNEY NSW 2000
ABN: 95 619 934 146

ARCHITECT
SYDNEY
70/71 Chandos Street
85 Leopards NSW 2085
T: +61 2 9427 3188
E: info@team2.com.au
REG NO: 19940

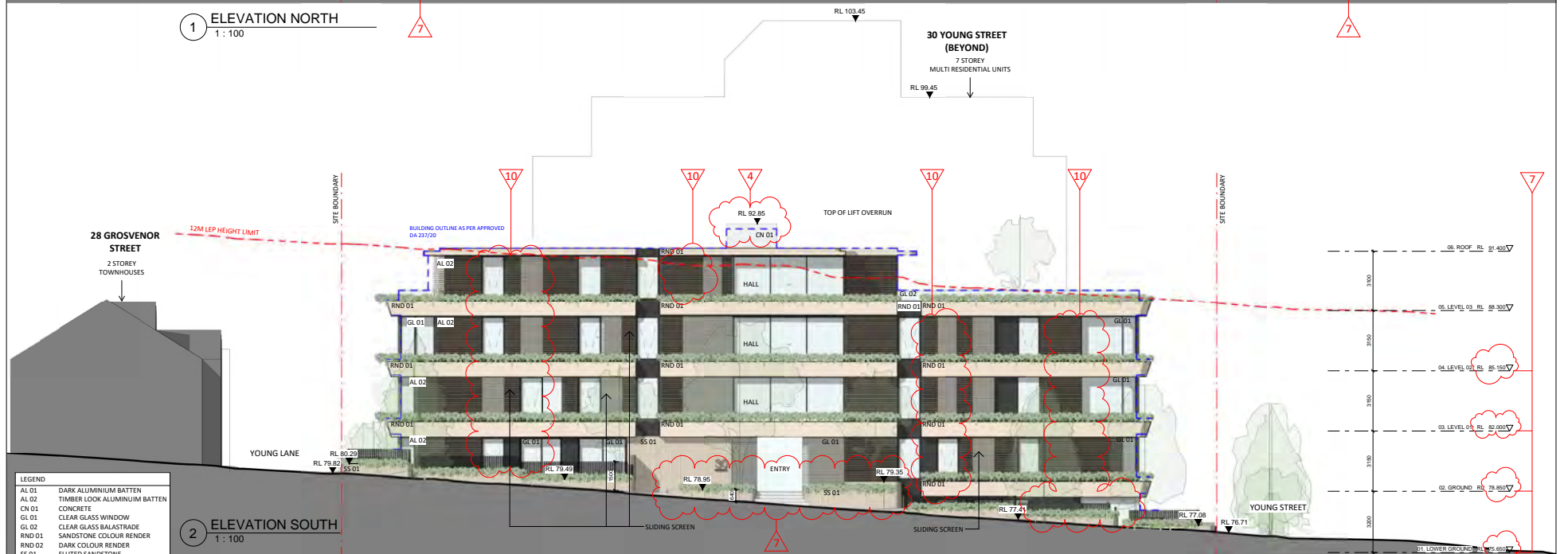
MELBOURNE
313/37 Burnwood Road
Haglemore East VIC
ABN: 72 104 833 507
REG VIC: 19360



PROJECT	30-34 GROSVENOR STREET NEUTRAL BAY, NSW 2089	DATE	03.09.21	DRAWN	SO
SCALE	1:100@A1, 1:200@A3	CHECKED	KD	APPROVED	
PROJ NO	1031	DATE		REVISION	D
STATUS	DEVELOPMENT APPLICATION	DWG NO	A0300		
SECTION	SECTION 01				



1 ELEVATION NORTH
1 : 100

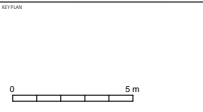
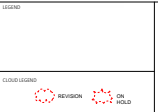


2 ELEVATION SOUTH
1 : 100

LEGEND

AL 01	DARK ALUMINIUM BATTEN
AL 02	TIMBER LOOK ALUMINIUM BATTEN
CN 01	CONCRETE
GL 01	CLEAR GLASS WINDOW
GL 02	CLEAR GLASS BALASTRADE
RND 01	SANDSTONE COLOUR RENDER
RND 02	DARK COLOUR RENDER
SS 01	FLUTED SANDSTONE

NO.	REVISION	DATE	BY	CHKD	DATE	REVISION
1	ISSUED FOR PERMIT	03/09/21				
2	REVISED PERMIT CONDITIONS	03/09/21				
3	REVISED PERMIT CONDITIONS	03/09/21				
4	REVISED PERMIT CONDITIONS	03/09/21				



CLIENT
MOSMAN FINANCE No.13 PTY LTD
3.01/96 PITT STREET, SYDNEY NSW 2000
ABN: 95 619 934 146

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E: info@team2architects.com.au
REG NSW: 19640

MELBOURNE
3137/37 Burwood Road
Hazelton East VIC
3123
ABN: 72 104 833 507
REG VIC: 19360



PROJECT	30-34 GROSVENOR STREET NEUTRAL BAY, NSW 2089	DATE	03/09/21	STATUS	SO
SCALE	1:100 @ A1, 1:200 @ A3	DESIGNED	1031	CHECKED	KD
STATUS	DEVELOPMENT APPLICATION	DRAWN	A0200	APPROVED	
REVISED	ELEVATIONS 01	REVISION		D	

NOTE: DO NOT SCALE FROM DRAWINGS. VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK. COPYING OR THE REPRODUCTION OF THIS DRAWING IS STRICTLY PROHIBITED WITHOUT THE CONSENT OF TEAM2 ARCHITECTS.

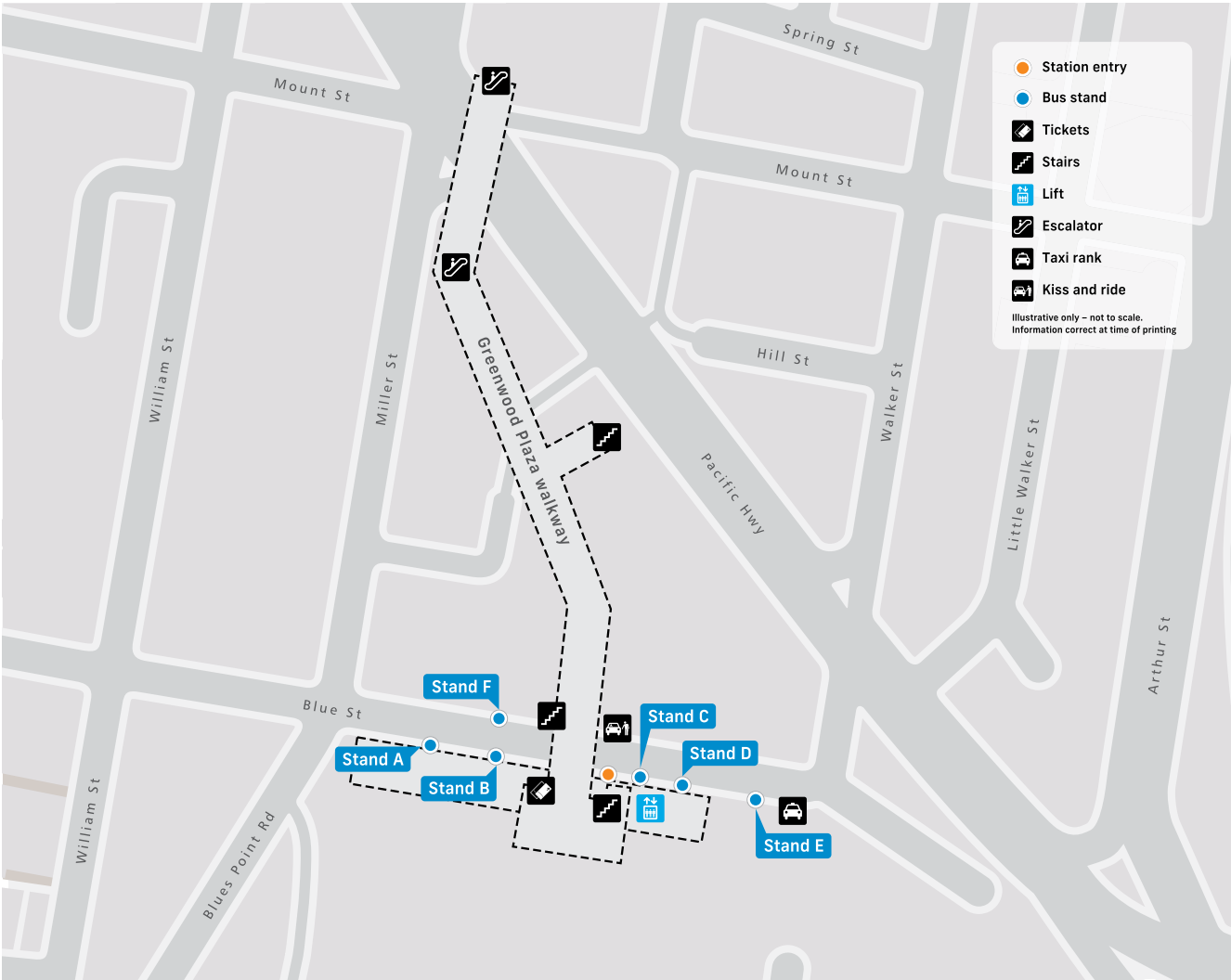
Transport and Traffic Planning Associates

Appendix B

Public Transport Provision



North Sydney Station Public Transport Map



- T** **T1** North Shore & Western Line
North Shore
Western
Richmond
- T9** Northern Line
Northern
Gordon
- Central Coast**



Stand A

- Stop no. 206011
- 261 Lane Cove
- 263 Crows Nest
- 343 Chatswood

Stand B

- Stop no. 206012
- 252 Gladesville
- 286 Denistone East
- 287 Ryde
- 290 Epping
- 622 Dural
- 653 West Pennant Hills
- M20 Gore Hill

Stand C

- Stop no. 206092
- 202 Northbridge
- 203 Castlecrag
- 207 East Lindfield
- 208 East Lindfield
- 209 East Lindfield

Stand D

- Stop no. 206014
- 151 Mona Vale
- 168 North Balgowlah
- 173 Narraweena
- 188 Avalon
- 227 Mosman Junction
- 228 Clifton Gardens

- 229 Beauty Point
- 230 Mosman Wharf
- 245 Balmoral Beach
- 246 Balmoral Heights
- 247 Taronga Zoo
- E50 Manly
- E54 Mona Vale
- N90 Hornsby via Chatswood
- N91 Macquarie Park

Stand F

- Stop no. 206015
- 254 McMahons Point
- 260 Terrey Hills
- 265 Lane Cove
- 269 Kirribilli

Stand E

- Stop no. 206084
- Arrivals only

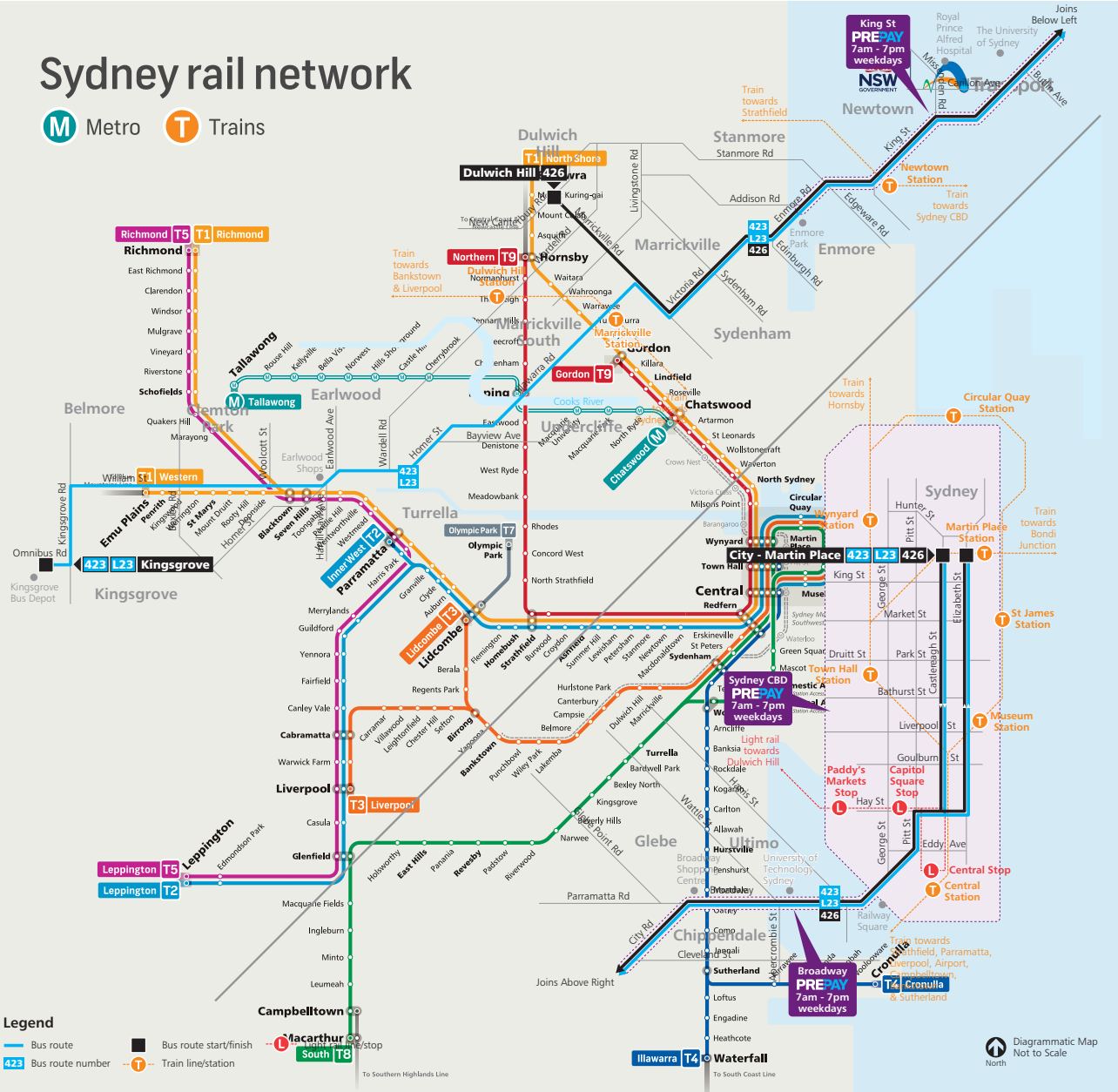
For more information transportnsw.info

Routes 423, L23, 426



Sydney rail network

M Metro **T** Trains



Route L23 to City

Picks up and sets down as requested at all stops to Marrickville Rd & Conners Ave Marrickville, then Enmore Rd & Addison Rd Marrickville (Enmore Park), Enmore Rd & Addison Rd Enmore, Newtown Station, King St & Missenden Rd Newtown, The University of Sydney (City Rd & Butlin Ave), Broadway & Mountain St Ultimo, then all stops from Central Station Railway Square.

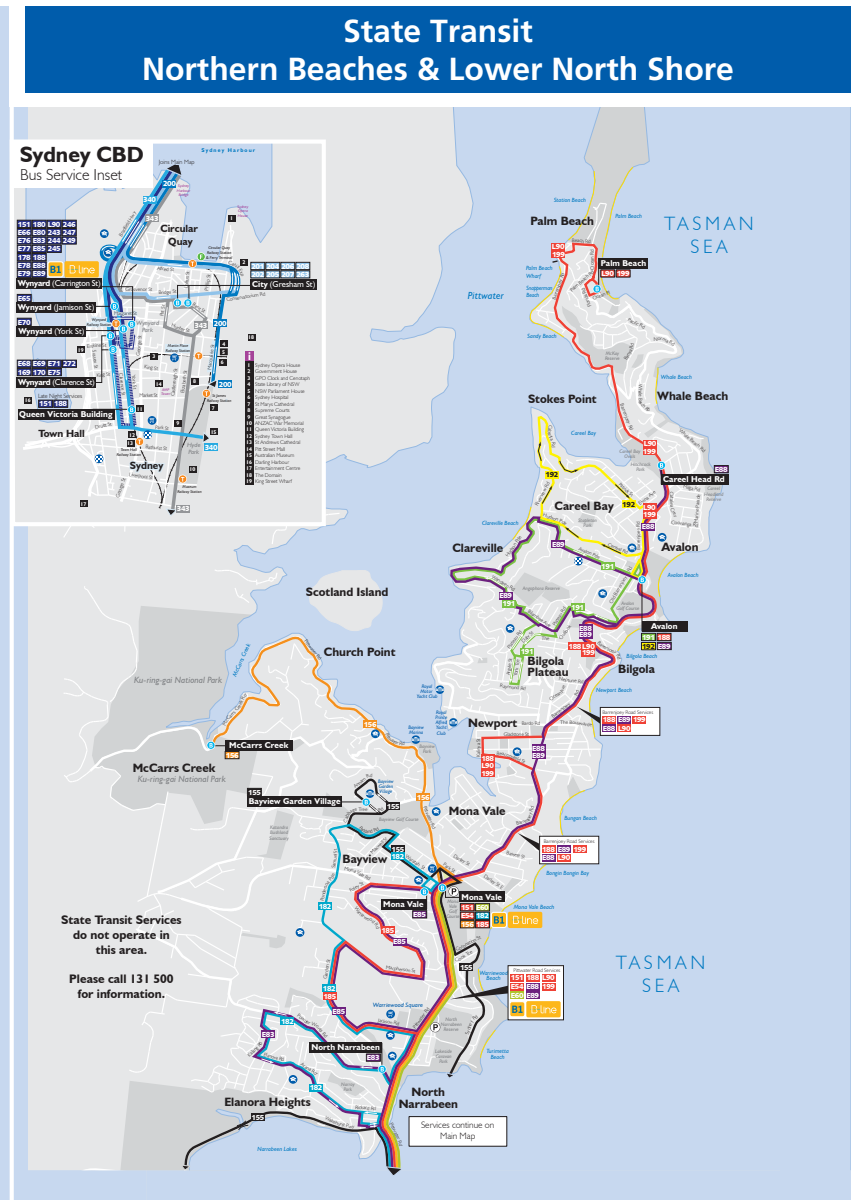
Route L23 to Kingsgrove Depot

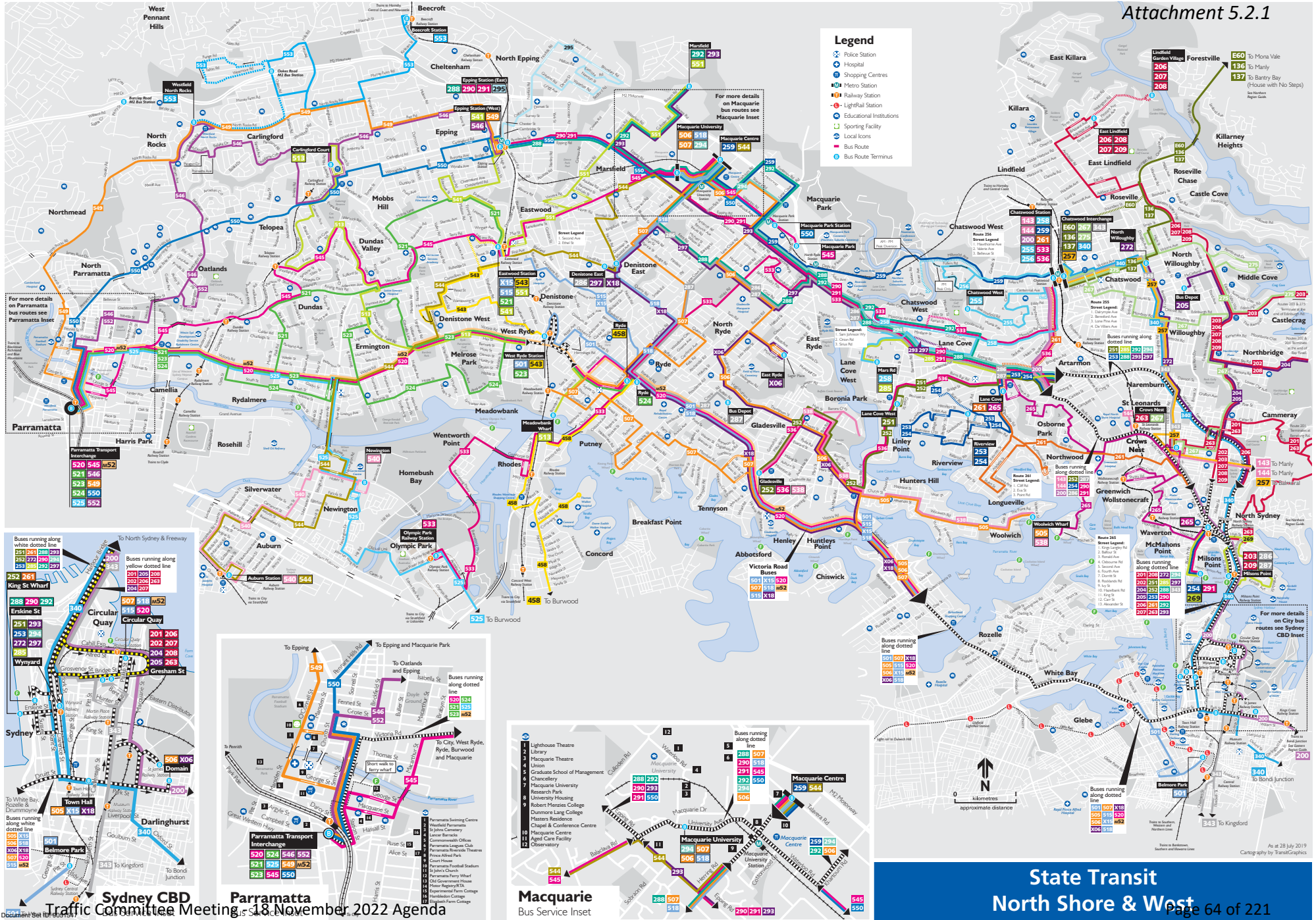
Picks up and sets down as requested at all stops to Railway Square, then Broadway & Buckland St Ultimo, The University of Sydney (City Rd & Butlin Ave), King St & Missenden Rd Newtown, Newtown Station, Enmore Rd & Edgeware Rd Enmore, Enmore Rd & Addison Rd Marrickville (Enmore Park), then all stops from Marrickville Rd & Illawarra Rd Marrickville.

Check timetables and trip planners for train services and connections
Visit transportnsw.info



transportnsw.info





Buses around the Northern Beaches



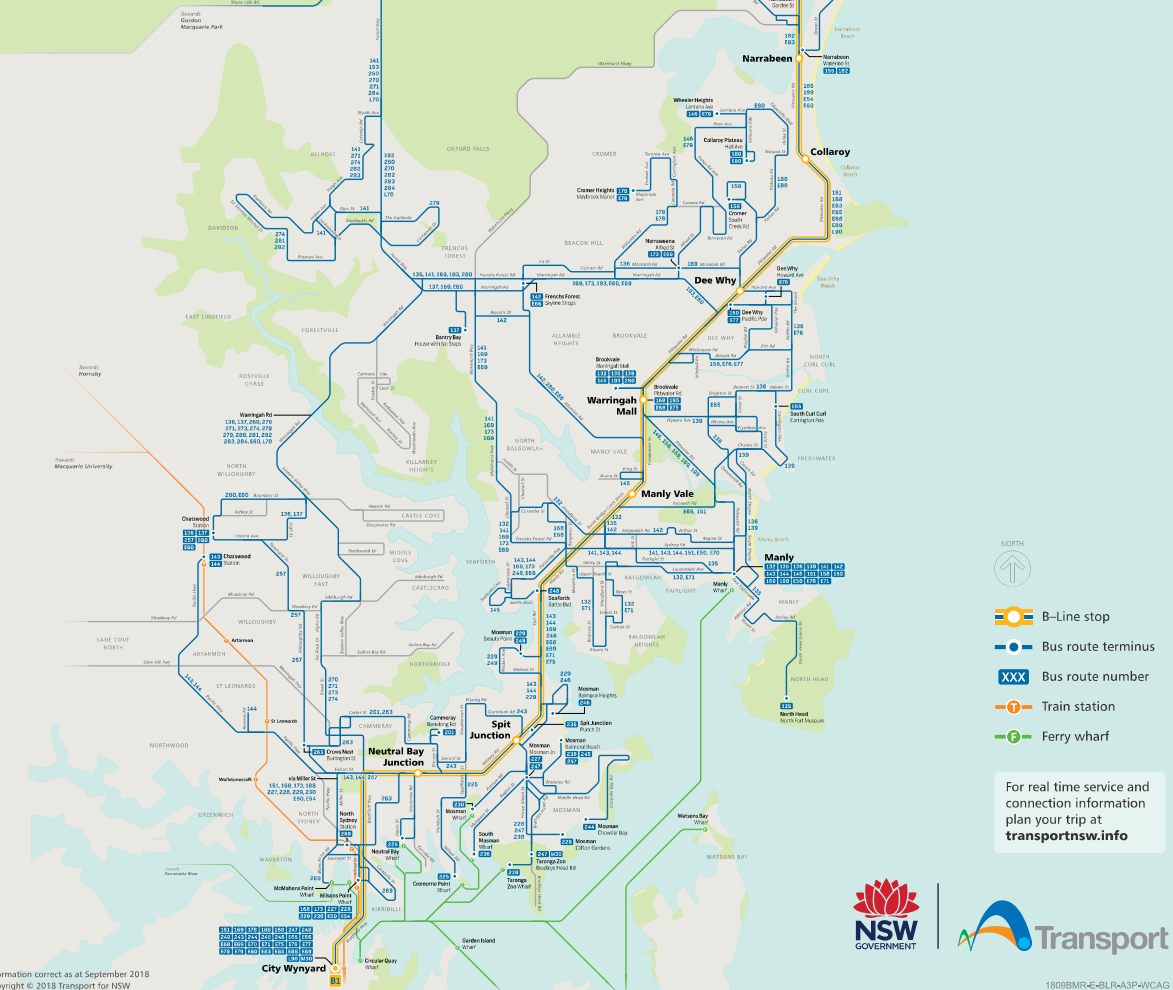
City
 B Catch a B1 B-Line bus from Warringah Mall, Pittwater Rd, Stand B to City Wynyard.
 F Catch an F1 ferry from Manly Wharf to Circular Quay.

Manly
 B Catch a bus from Warringah Mall, Pittwater Rd, Stand A to Manly.

Palm Beach
 B Catch a B1 B-Line bus from Warringah Mall, Pittwater Rd, Stand C to Mona Vale.
 Change at Mona Vale for connecting bus services to Palm Beach.

Chatswood
 B Catch a B1 B-Line bus to Neutral Bay Junction.
 Change at Neutral Bay Junction for a 143, 144 or 257 bus to Chatswood.

*Images from Destination NSW



NORTH
 B-Line stop
 Bus route terminus
 Bus route number
 Train station
 Ferry wharf

For real time service and connection information plan your trip at transportnsw.info



1809BMR-E-BLR-A3P-WC-AG

Information correct as at September 2018
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 Document Set ID: 9051547
 Version: 1, Version Date: 23/09/2022

Transport and Traffic Planning Associates

Appendix C

Turning Path Assessments





T:\WORK\20216 - 34 GROSVENOR STREET, NEUTRAL BAY\DRAWINGS\20216\118P.PAK

34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 6.4M SRV ENTERING AND EXITING THE SITE

DESIGNED BY
L. ELLSON

REVIEWED BY
B. LO

SCALE
A3 1:400



PRELIMINARY PLAN
 FOR DISCUSSION PURPOSES
 ONLY SUBJECT TO CHANGE
 WITHOUT NOTIFICATION

WARNING
 No liability is accepted for any loss or damage arising from the use of this information without the prior written consent of the provider.

tpa TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
 Established 1984

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 P: (02) 9411 5640 E: info@tpa.com.au W: www.tpa.com.au

DRAWING REF NO. 20136-V1.1-SP SHEET NO. 01 OF 02

ISSUE DATE 20 June 2022



E:\WORK\20216 - 34 GROSVENOR STREET, NEUTRAL BAY\DWG\20216\34V11P.PAK

34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 8.8M SRV ENTERING AND EXITING THE SITE

DESIGNED BY
L. ELLSON

REVIEWED BY
B. LO

SCALE
AS

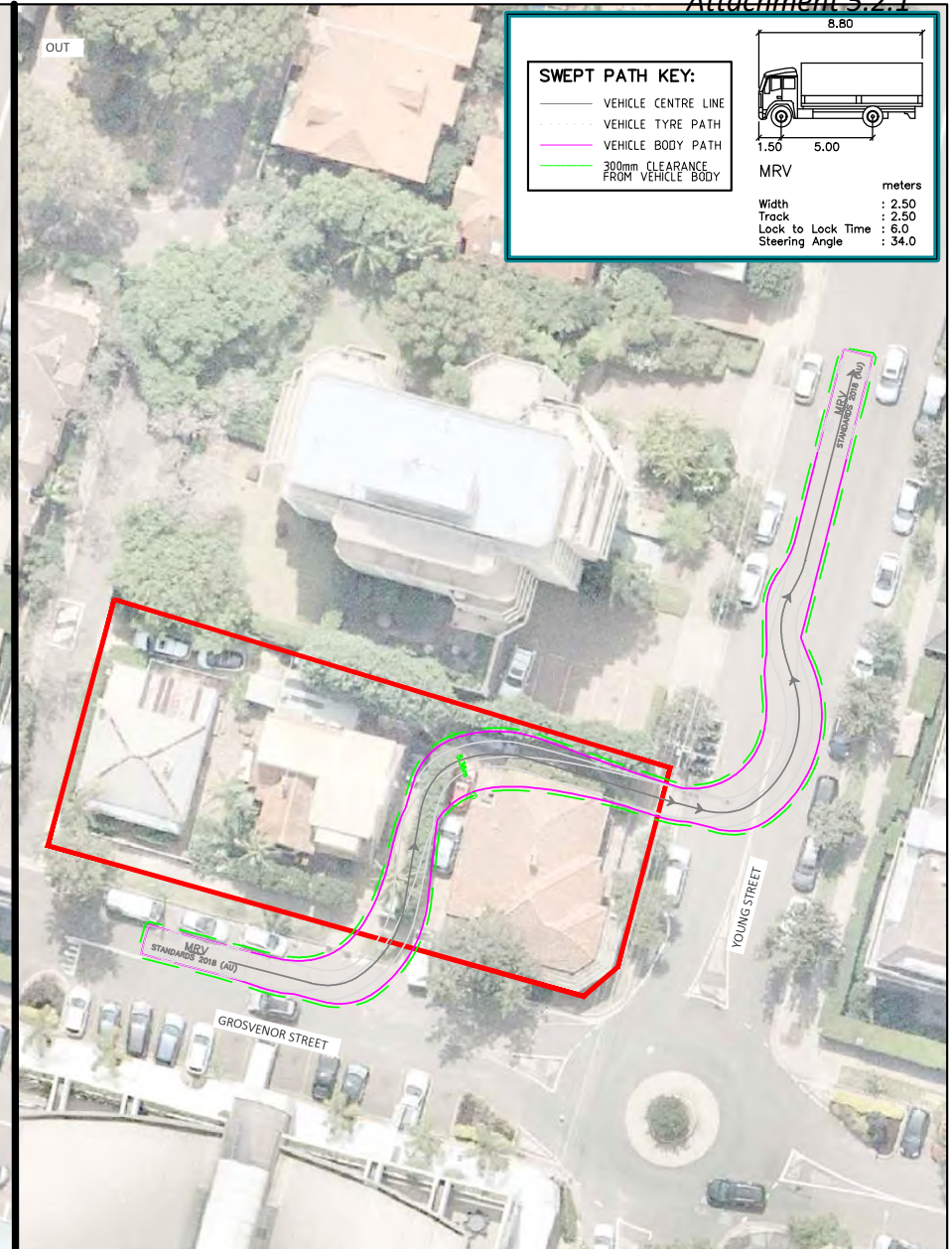
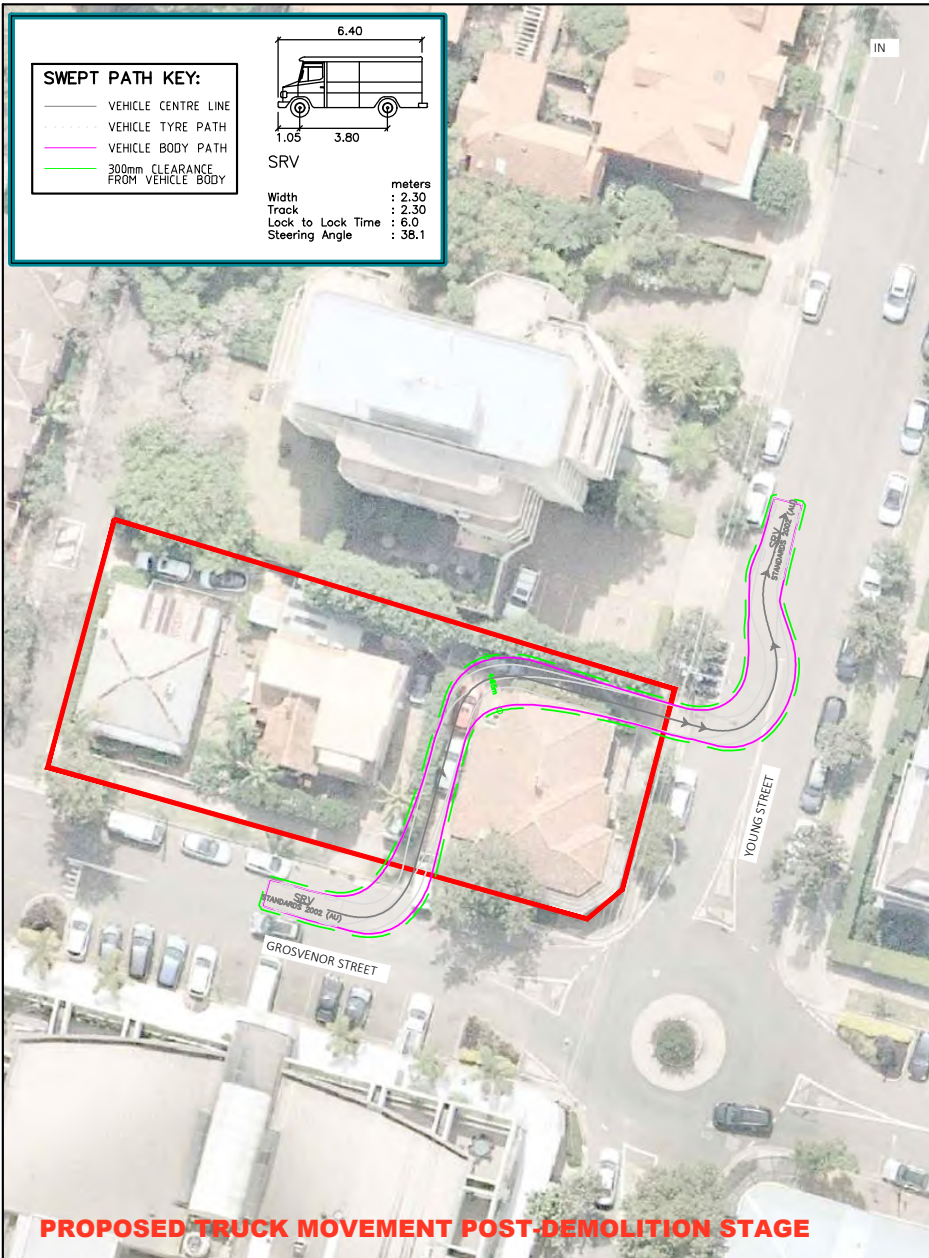


PRELIMINARY PLAN
 FOR DISCUSSION PURPOSES
 ONLY SUBJECT TO CHANGE
 WITHOUT NOTIFICATION



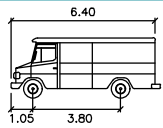
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SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- - - VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

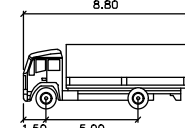


SRV

Width : 2.30 meters
 Track : 2.30
 Lock to Lock Time : 6.0
 Steering Angle : 38.1

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- - - VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



MRV

Width : 2.50 meters
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 34.0

C:\Users\jmg\Documents\Projects\TPA\2024\34 GROSVENOR STREET, NEUTRAL BAY\DRAWINGS\01 SRV-111-SP2.dwg
 11.1-SP2
 Version: 1, Version Date: 23/09/2022

34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF 6.4M SRV & 8.8M MRV ENTERING VIA GROSVENOR ST AND EXITING VIA YOUNG ST

DESIGNED BY
LELLSON

REVIEWED BY
B.L.O

SCALE
A3 0 4.0 8.0 1:400



PRELIMINARY PLAN
 FOR DISCUSSION PURPOSES
 ONLY SUBJECT TO CHANGE
 WITHOUT NOTIFICATION

WARNING
 THIS DOCUMENT IS PRELIMINARY
 AND IS NOT TO BE USED FOR
 ANY OTHER PURPOSES WITHOUT
 THE WRITTEN APPROVAL OF TPTA

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 Established 1984

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Transport and Traffic Planning Associates

Appendix D

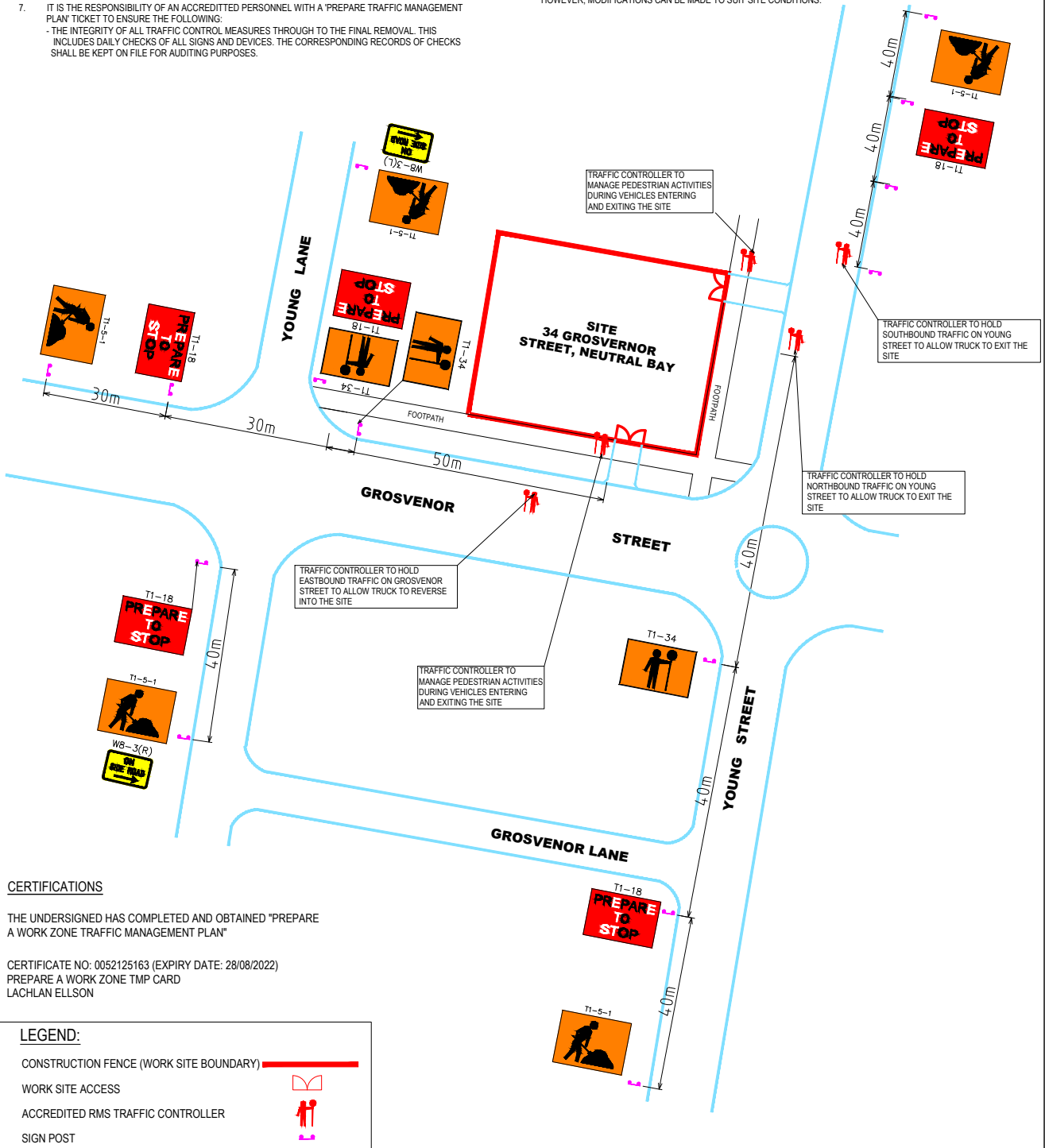
Traffic Guidance Schemes



NOTES

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL VERSION 5.0 DATED 27 JULY 2018 AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
5. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN 'IMPLEMENT TRAFFIC CONTROL PLANS' (YELLOW) TICKET AND THE RMS TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
6. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.
7. IT IS THE RESPONSIBILITY OF AN ACCREDITED PERSONNEL WITH A 'PREPARE TRAFFIC MANAGEMENT PLAN' TICKET TO ENSURE THE FOLLOWING:
- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.

9. - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.
10. - AT ALL TIMES AN UP-TO-DATE COPY OF 'TRAFFIC CONTROL AT WORK SITES' SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.
11. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
12. IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS. TRAFFIC CONTROLLERS ARE TO BE REQUIRED AT THE ACCESS FULL TIME AND THEY ARE TO BE SUITABLY ACCREDITED TO AUSTRALIAN STANDARDS AND RMS ACCREDITATION AS REQUIRED. WHEN REQUIRED T1-34 AND T1-10 SIGNS ARE TO BE SET UP IN ACCORDANCE TO AUSTRALIAN STANDARDS AND RMS REQUIREMENTS.
13. ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
14. ALL SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
15. ALL NIGHT WORK OR DAY/NIGHT MUST USE RMS STANDARD NIGHT SIGNS AND DEVICES UNLESS OTHERWISE STATED.
16. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.
17. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.



CERTIFICATIONS

THE UNDERSIGNED HAS COMPLETED AND OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN"

CERTIFICATE NO: 0052125163 (EXPIRY DATE: 28/08/2022)
PREPARE A WORK ZONE TMP CARD
LACHLAN ELLSON

LEGEND:

- CONSTRUCTION FENCE (WORK SITE BOUNDARY)
- WORK SITE ACCESS
- ACCREDITED RMS TRAFFIC CONTROLLER
- SIGN POST

34 GROSVENOR STREET, NEUTRAL BAY
TRAFFIC GUIDANCE SCHEME

SITE ACCESSES (EXISTING DRIVEWAY) ON GROSVENOR STREET AND YOUNG STREET

DRAWING REF NO. 20069-01-01 ISSUE A ISSUE DATE 04/07/2022

DESIGNED BY L. ELLSON APPROVED BY M. KONG

SCALE A3 NOT TO SCALE

FINAL PLAN
ANY CHANGES TO THE PLAN SHALL BE DONE WITHIN THE ALLOWANCE PROVIDED IN THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL, VERSION 5.0 DATED 27 JULY 2018

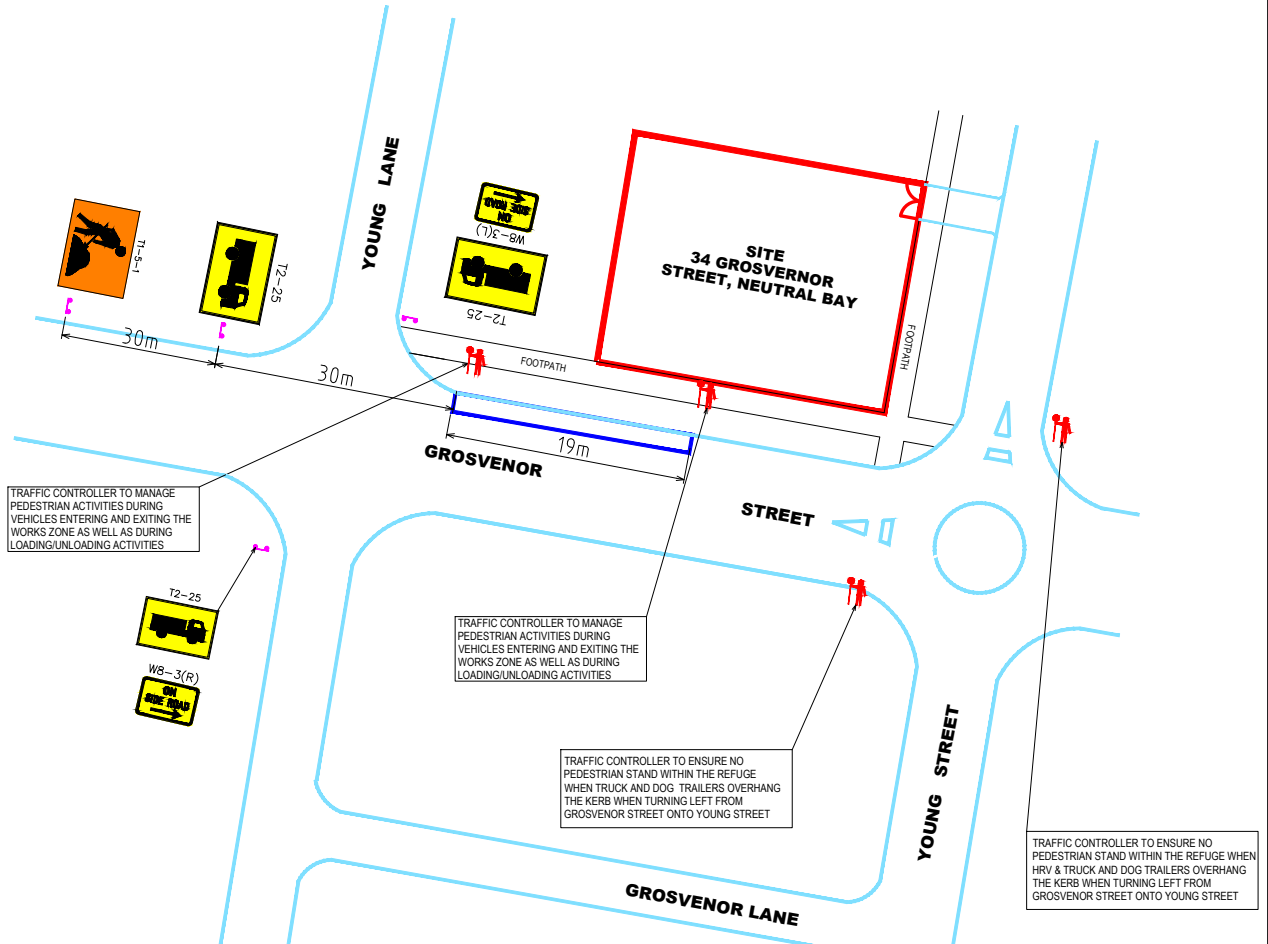


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Established 1994

Address: Suite 502, Level 5, 282 Victoria Avenue, Chatswood NSW 2067
P: (02) 9411 5660 F: (02) 9904 6622 W: www.ttpa.com.au

NOTES

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
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8. - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.
- AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.
9. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
10. IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS. TRAFFIC CONTROLLERS ARE TO BE REQUIRED AT THE ACCESS FULL TIME AND THEY ARE TO BE SUITABLY ACCREDITED TO AUSTRALIAN STANDARDS AND RMS ACCREDITATION AS REQUIRED. WHEN REQUIRED T1-34 AND T1-10 SIGNS ARE TO BE SET UP IN ACCORDANCE TO AUSTRALIAN STANDARDS AND RMS REQUIREMENTS.
11. ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
12. ALL SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
13. ALL NIGHT WORK OR DAY/NIGHT MUST USE RMS STANDARD NIGHT SIGNS AND DEVICES UNLESS OTHERWISE STATED.
14. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.
15. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.



CERTIFICATIONS

THE UNDERSIGNED HAS COMPLETED AND OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN"

CERTIFICATE NO: 0052125163 (EXPIRY DATE: 28/08/2022)
PREPARE A WORK ZONE TMP CARD
LACHLAN ELLSON

LEGEND:

- CONSTRUCTION FENCE (WORK SITE BOUNDARY)
- WORK SITE ACCESS
- ACCREDITED RMS TRAFFIC CONTROLLER
- SIGN POST
- WORKS ZONE

34 GROSVENOR STREET, NEUTRAL BAY
TRAFFIC GUIDANCE SCHEME

WORKS ZONE ACCESS AND OPERATION ON THE NORTHERN SIDE OF GROSVENOR STREET

DRAWING REF NO: 20069-01-01 ISSUE A ISSUE DATE 04/07/2022

DESIGNED BY L. ELLSON APPROVED BY M.KONG

SCALE A3 NOT TO SCALE

FINAL PLAN
ANY CHANGES TO THE PLAN SHALL BE DONE WITHIN ALLOWANCE PROVIDED IN THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL, VERSION 5.0 DATED 27 JULY 2018



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Established 1994

Address: Suite 502, Level 5, 282 Victoria Avenue, Chatswood NSW 2067
P: (02) 9411 5660 F: (02) 9904 6622 W: www.ttpa.com.au

*** REPRINT ***

TAX INVOICE/RECEIPT
 ABN #:32353260317
 North Sydney Council
 200 Miller Street
 NORTH SYDNEY NSW 2060
 Ph 9936 8100 Fax *9936 8177
 Email: council@northsydney.nsw.gov.au
 Web:

Date 23/09/2022 13:06
 Receipt 02799658:0001 Terminal 5:4327
 Grosvenor Development Co Pty Ltd

Details	Amount
Const Traffic Manage	1500.00
023.2022.00000086.001	
Merchant Service Fee	11.25
(GST 1.02)	
Invoice/Receipt Total:	1511.25
Total Non-Taxable:	1500.00
Total Taxable:	10.23
Total GST Payable:	1.02

Total Value	1511.25
Tendered	
Credit	1511.25
Change	0.00

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34 Grosvenor Street, Neutral Bay – Truck and Dog Trailers - CTMP Conditions

CONDITIONS OF APPROVAL

Works on Road Reserve

1. All works on any public road are to be undertaken in accordance with AS 1742.3.
2. All Traffic Management Plans and Traffic Control Plans must be endorsed with the name of the person preparing the plan along with their level of certified qualification and certificate number. Only persons with current “Select/Modify Traffic Control Plans” or “Design Audit Traffic Control Plans” tickets are qualified to develop and endorse Traffic Management Plans and Traffic Control Plans.
3. Any Traffic Control Plans (TCP) prepared are to comply with AS1742.3 and Transport for NSW "Traffic Control at Worksites" manual V6 (2020) and be signed by a person with RMS certification to prepare TCP's. A copy of the TCP is to be held on site at all times by the responsible traffic controllers.
4. Provision of RMS accredited traffic controllers is required to assist truck and pedestrian movements.
5. A minimum of two RMS accredited traffic controllers are to be provided to direct entering and exiting vehicles in Grosvenor Street and Young Street at the entry/exit to the works zone whilst ensuring no pedestrians or vehicles enter the zone of heavy vehicle movement.
6. At no time shall Grosvenor Street or any other road be blocked by any vehicle or works associated with the construction of the proposed development. Through traffic is to be maintained at all times.
7. Grosvenor Street, Young Street or any other road are not to be used as a waiting/queuing area for trucks delivering to or awaiting pick up of materials etc. from the proposed development.
8. Materials are to be stored on-site. At no time, are materials to be stored on any public road or any Council property.
9. Tower cranes shall be located wholly on-site.
10. Parking Bays and any other on-street parking areas are not to be barricaded.
11. As far as possible, the provision of an on-site parking area for employees, tradesperson and construction vehicles be provided.
12. Provide an onsite tool drop-off area for the workers to encourage the use of the public transport when travelling to the site.
13. The applicant/builder is responsible for covering the full cost of any damages caused to Council signs, parking meters and any other infrastructure within the road reserve as a result of building works.

Construction Vehicles

14. The maximum size of delivery and construction vehicles must not exceed 18.1m long Truck and Dog and unless demonstrated by adequate swept path analysis and authorised by Council’s Traffic Engineer.
15. The maximum size of construction vehicles (just for tower crane installation/dismantling) to be used for the subject site must not exceed 19m in length.
16. The proposed 19m (crane installation/dismantling) truck route passes through the “School Zone” in Waters Road, no construction vehicle movements are to occur during school drop-off (8.00am to 9.30am) and pick up (2.30pm to 4.00pm) times on school days.

34 Grosvenor Street, Neutral Bay – Truck and Dog Trailers - CTMP Conditions

17. Any oversize and over-mass vehicles other than the approved 12.5m HRV and 19m truck stated in conditions 14 and 15 are not allowed to travel on Local Road unless approval for a one-off occasion is obtained from North Sydney Council's traffic section.
18. The applicant/builder shall liaise with 12-14 Waters Road, Neutral Bay site regarding the vehicle movement for the proposed 19m truck and the future road closure.
19. Any oversize and over-mass vehicles are not allowed to travel on Local Road unless approval for a one-off occasion is obtained from North Sydney Council's traffic section.
20. Reverse movement out of the site is not permitted under any circumstances.
21. A traffic route map and conditions are to be made available to truck drivers engaged for this development.
22. A list of truck drivers' names with their licences and vehicle plate numbers and conditions are to be kept on-site by the undersigned at all times, and be made available for inspection by Council Officers, Police Officers, and Council Rangers.
23. No construction vehicle movements are to occur during school drop-off (8.00am to 9.30am) and pick up (2.30pm to 4.00pm) times on school days, if the trucks pass through "School Zone" in both approach to the site and/or departure from the site.

Vehicular Access

24. Approval must be obtained from Council for all temporary construction vehicular crossings.
25. Construction vehicular crossings must be adequate to accommodate all vehicle ingress and egress. The proposed construction vehicle access via the existing driveway must be widened to accommodate the approved truck size.
26. Barricades and signs are to be provided in accordance with Australian Standards.
27. Appropriate advanced signage to warn drivers about changes in road conditions is required.
28. Access must be maintained for emergency vehicles at all times.

Work Zone

29. Prior to the installation of the Works Zone signs, the applicant/builder must pay the appropriate fees and acknowledge acceptance of these conditions of approval, in writing.
30. The applicant/builder must notify NSC if the Works Zone is required to be extended with at least 2 weeks written notice prior to the expiry date. It's the undersigned's responsibility to pay for the Works Zone lease fee if the Works Zone signs remain.
31. The minimum Works Zone extension period is 4 weeks unless otherwise approved by Council's Traffic Section.
32. The applicant/builder must give North Sydney Council (NSC) at least 2 weeks written notice if they wish to suspend the Works Zone. NSC may, at its sole discretion, allow for the suspension of the Works Zone subject to certain conditions. (Note: Generally, a Works Zone suspension will not be allowed if the suspension period is less than 4 weeks). The undersigned will not be required to pay the lease fees for any period of Works Zone suspension.
33. The applicant/builder must give NSC at least 2 weeks written notice if the Works Zone is no longer required. The applicant/builder must notify NSC's Traffic Operations Officer at Engineering@northsydney.nsw.gov.au for the Works Zone to be removed.
34. Council will not assess or issue any further permits for the site if any fees associated with the Works Zone are outstanding.

34 Grosvenor Street, Neutral Bay – Truck and Dog Trailers - CTMP Conditions

- 35. Repeated failure to comply with any of these conditions will result in removal of any Work Zone under notice.
- 36. Any approved Work Zone is to be used only to pick up and drop off materials and equipment. Construction vehicles are not to wait or park in the Works Zone, Truck Zone and Loading Zone.

Community

- 37. Access to adjoining residents and businesses are to be maintained at all times.
- 38. The residents/occupiers of Grosvenor Street and Young Street are to be notified by letter that if a Work Zone 7am to 5pm Monday to Friday, 8am to 1pm Saturday is to be installed. The letter should indicate the length of the Work Zone, the existing parking restrictions the Work Zone will replace and the duration of the Work Zone. A copy of the notification is to be provided to Council before the signs are installed. The notification is to include the name and number of the site manager in case of complaints.
- 39. The adjoining residents and businesses are to be updated monthly and at key construction stages, particularly in relation to construction vehicle movements, and be provided with a phone number to contact the site manager.

Permits

- 40. If a Permit to Stand Plant is required, application must be made to Council in accordance with Council's Stand Plant Permit Form and Conditions.
- 41. If a Permit to Stand Plant or Temporary Road Closure is required, application must be made to NSW Police, North Shore Local Area command.
- 42. If a Temporary Road Closure is required, application must be made to Council in accordance with Council's Temporary Road Closure Form and Conditions.
- 43. Mobile cranes shall be located wholly on-site or with an approved Stand Plant Permit.
- 44. Concrete pumps shall be located wholly on-site or with an approved Stand Plant Permit, unless the pump and trucks can stand wholly within the signposted Work Zone and do not protrude further than 2.5 metres from the face of kerb.
- 45. Installation of any Hoarding is subject to the applicant paying all appropriate Council advertised fees and charges, including the cost of the signage, and is subject to separate approval from the North Sydney Council.

Pedestrian Safety

- 46. Pedestrian access on Grosvenor Street or any other roads must be maintained at all times.
- 47. Pedestrian access and the diversion of pedestrians shall be carried out in accordance with Australian Standard 1742.3 and 1742.10.
- 48. If pedestrians are diverted, pram ramps must be provided in accordance with Australian Standard 1428.1.
- 49. All pump lines crossing Council footpaths must be ramped over to allow safe pedestrian/ wheelchair traffic at all times.

Other

- 50. A "pre-construction commencement" meeting with Council's Permit and Work Zone officers can be organised, in order to establish the initial communication, review of the WZ and Permit processes and the chance to ask questions. The applicant must give NSC

34 Grosvenor Street, Neutral Bay – Truck and Dog Trailers - CTMP Conditions

traffic section at least 2 weeks' written notice if the applicant wishes to proceed to a pre-construction meeting with Council's traffic section.

Please note the construction management program is a condition that forms part of the development application for the site. Therefore, any non-compliance with these construction management program conditions of approval constitutes a breach of the conditions of approval for the development application.

NB: Please note that additional changes cannot be added once the matter is approved by the Traffic Committee. Any such requests for changes, an updated CTMP is required to be submitted to NSC for review and this request, submitted to the Traffic Committee for approval.



**NORTH SYDNEY
COUNCIL**

200 Miller Street, North Sydney, NSW 2060 | ABN 32 353 260 317
All correspondence PO Box 12, North Sydney, NSW 2059
P (02) 9936 8100 | **E** council@northsydney.nsw.gov.au
W www.northsydney.nsw.gov.au

Mr Adam Arias
 Plaza Building Australia Square
 Level 5, 95 Pitt Street
 SYDNEY NSW 2000

adam@platformpps.com.au

31 August 2022

Dear Mr Arias,

RE: 34 GROSVENOR STREET (30-34 GROSVENOR STREET) - CONSTRUCTION TRAFFIC MANAGEMENT PLAN

I refer to the Construction Traffic Management Plan dated July 2022 prepared by TTPA for the approved development (237/20) at 34 Grosvenor Street.

This matter was considered by Council's Traffic and Transport Engineer and the following recommendation was made:

THAT the traffic aspects of the Construction Traffic Management Plan (Issue E) dated July 2022 prepared by TTPA of the approved development (Development Consent 237/20) at 30-34 Grosvenor Street, Neutral Bay be approved subject to the conditions of approval.

This recommendation was forwarded to Transport for NSW (TfNSW), the NSW Police and the local State Member as members of the North Sydney Traffic Committee and subsequently received no objection subject to applicant meeting conditions of approval.

Additionally, Transport for NSW (TfNSW), Greater Sydney Division has reviewed the CTMP and endorse the proposed temporary construction arrangements, subject to the following comments:

"Transport for NSW (TfNSW), Greater Sydney Division has reviewed the CTMP and endorse the proposed temporary construction arrangements.

Endorsement of the CTMP is not an approval to the type of traffic management or delineation devices used, nor is it an approval to any traffic guidance schemes depicted within the CTMP. It is assumed that the proponent has used type approved devices and has developed its traffic guidance schemes in accordance with the relevant Australian Standards and Guidelines.

The proponent is to ensure local residents, businesses, schools and other stakeholders in the affected area as well as emergency service organisations are notified of the changes associated with the CTMP, prior to its implementation.

34 Grosvenor Street (30-34 Grosvenor Street), Neutral Bay – CONSTRUCTION TRAFFIC MANAGEMENT PLAN - CONDITIONS OF APPROVAL – 31 Aug 2022

The proponent is to address any issues raised by Council, STA, Taxi Council, residents/businesses or Emergency Services in the TMP approval process; and address the requirements arising as an outcome of the Local Traffic Committee meeting.

Please ensure this CTMP is shared and adhered to by all contractors. If the CTMP changes, please forward a copy to Developments.CJP@transport.nsw.gov.au or further review and endorsement.”

Please find attached the conditions of approval from Council. Please note the construction management program is a condition that forms part of the development application for the site. Therefore, any non-compliance with these construction management program conditions of approval constitutes a breach of the conditions of approval for the development application.

Should you have any enquiries regarding this matter, please contact me on 9936 8266.

Yours Sincerely,



Lizzie Cheng
TRAFFIC & TRANSPORT ENGINEER

CONDITIONS OF APPROVAL FOR

34 Grosvenor Street (30-34 Grosvenor Street), Neutral Bay

Works on Road Reserve

1. All works on any public road are to be undertaken in accordance with AS 1742.3.
2. All Traffic Management Plans and Traffic Control Plans must be endorsed with the name of the person preparing the plan along with their level of certified qualification and certificate number. Only persons with current "Select/Modify Traffic Control Plans" or "Design Audit Traffic Control Plans" tickets are qualified to develop and endorse Traffic Management Plans and Traffic Control Plans.
3. Any Traffic Control Plans (TCP) prepared are to comply with AS1742.3 and Transport for NSW "Traffic Control at Worksites" manual V6 (2020) and be signed by a person with RMS certification to prepare TCP's. A copy of the TCP is to be held on site at all times by the responsible traffic controllers.
4. Provision of RMS accredited traffic controllers is required to assist truck and pedestrian movements.
5. A minimum of two RMS accredited traffic controllers are to be provided at each vehicular crossing point to direct entering and exiting vehicles in Grosvenor Street and Young Street at the entry/exit to the works zone/vehicular crossing whilst ensuring no pedestrians or vehicles enter the zone of heavy vehicle movement.
6. At no time shall Grosvenor Street and Young Street or any other road be blocked by any vehicle or works associated with the construction of the proposed development. Through traffic is to be maintained at all times.
7. Grosvenor Street and Young Street or any other road are not to be used as a waiting/queuing area for trucks delivering to or awaiting pick up of materials etc. from the proposed development.
8. Materials are to be stored on-site. At no time, are materials to be stored on any public road or any Council property.
9. Tower cranes shall be located wholly on-site.
10. Parking Bays and any other on-street parking areas are not to be barricaded.
11. As far as possible, the provision of an on-site parking area for employees, tradesperson and construction vehicles be provided.
12. The applicant/ builder is responsible for covering the full cost of any damages caused to Council signs, parking meters and any other infrastructure within the road reserve as a result of building works.

Construction Vehicles

13. No truck and dog trailers are to be used for the site.
14. The **maximum size** of construction vehicles to be used for the subject site must not exceed a **heavy rigid vehicle (HRV) of 12.5m in length**, unless demonstrated by adequate swept path analysis and authorised by Council's Traffic Engineer.
15. The **maximum size** of construction vehicles (just for tower crane installation/dismantling) to be used for the subject site must not exceed **19m** in length.
16. Any oversize and over-mass vehicles other than the approved 12.5m HRV and 19m truck stated in conditions 14 and 15 are not allowed to travel on Local Road unless approval for a one-off occasion is obtained from North Sydney Council's traffic section.
17. Reverse movement out of the site is not permitted under any circumstances.

34 Grosvenor Street (30-34 Grosvenor Street), Neutral Bay – CONSTRUCTION TRAFFIC MANAGEMENT PLAN - CONDITIONS OF APPROVAL – 31 Aug 2022

18. A traffic route map and conditions are to be made available to truck drivers engaged for this development.
19. A list of truck drivers' names with their licences and vehicle plate numbers and conditions are to be kept on-site by the undersigned at all times, and be made available for inspection by Council Officers, Police Officers, and Council Rangers.
20. The proposed 19m (crane installation/dismantling) truck route passes through the "School Zone" in Waters Road, no construction vehicle movements are to occur during school drop-off (8.00am to 9.30am) and pick up (2.30pm to 4.00pm) times on school days.
21. The proposed 8.8m (SRV) trucks must exit the site via Ernest Street at all times.
22. The proposed trucks that are greater than 8.8m (SRV) **must not** exit the site via Ben Boyd Road/Military Road intersection during peak traffic hours 7.30am to 9.30am, 2.30pm to 5.00pm Mon – Fri; and 10am – 1pm Sat, but can use Ernest Street to exit.
23. The proposed haulage route is going through a section of Ernest Street with a 10t load limit, therefore, a **pavement dilapidation** survey/report before and after construction is required to be submitted.
24. A **dilapidation report** before/ after construction for the roundabout and associated refuge islands and signs at the intersection of Grosvenor Street and Young Street is required to be submitted.
25. The applicant/builder shall liaise with 12-14 Waters Road, Neutral Bay site regarding the vehicle movement for the proposed 19m truck and the future road closure.

Vehicular Access

26. Approval must be obtained from Council for all temporary construction vehicular crossings.
27. Construction vehicular crossings must be adequate to accommodate all vehicle ingress and egress. The proposed construction vehicle access via the existing driveway must be widened to accommodate the approved truck size.
28. Barricades and signs are to be provided in accordance with Australian Standards.
29. Appropriate advanced signage to warn drivers about changes in road conditions is required.
30. Access must be maintained for emergency vehicles at all times.

Community

31. Access to adjoining residents and businesses are to be maintained at all times.
32. The adjoining residents and businesses are to be updated monthly and at key construction stages, particularly in relation to construction vehicle movements, and be provided with a phone number to contact the site manager.

Permits

33. If a Permit to Stand Plant is required, application must be made to Council in accordance with Council's Stand Plant Permit Form and Conditions.
34. If a Permit to Stand Plant or Temporary Road Closure is required, application must be made to NSW Police, North Shore Local Area command.
35. If a Temporary Road Closure is required, application must be made to Council in accordance with Council's Temporary Road Closure Form and Conditions.
36. Mobile cranes shall be located wholly on-site or with an approved Stand Plant Permit.

34 Grosvenor Street (30-34 Grosvenor Street), Neutral Bay – CONSTRUCTION TRAFFIC MANAGEMENT PLAN - CONDITIONS OF APPROVAL – 31 Aug 2022

37. Concrete pumps shall be located wholly on-site or with an approved Stand Plant Permit, unless the pump and trucks can stand wholly within the signposted Work Zone and do not protrude further than 2.5 metres from the face of kerb.
38. Installation of any Hoarding is subject to the applicant paying all appropriate Council advertised fees and charges, including the cost of the signage, and is subject to separate approval from the North Sydney Council.

Pedestrian Safety

39. Pedestrian access on Grosvenor Street and Young Street or any other roads must be maintained at all times.
40. Pedestrian access and the diversion of pedestrians shall be carried out in accordance with Australian Standard 1742.3 and 1742.10.
41. If pedestrians are diverted, pram ramps must be provided in accordance with Australian Standard 1428.1.
42. All pump lines crossing Council footpaths must be ramped over to allow safe pedestrian/ wheelchair traffic at all times.

Others

43. A meeting with the Council's permit and work zone officers before the construction activity starts can be arranged in order to establish the initial communication and the chance to ask questions. The applicant must give NSC traffic section at least 2 weeks' written notice if the applicant wishes to proceed to a pre-construction meeting with Council's traffic section.

Please note the construction management program is a condition that forms part of the development application for the site. Therefore, any non-compliance with these construction management program conditions of approval constitutes a breach of the conditions of approval for the development application.

TRAFFIC DELEGATION REQUEST – TDA 22/068

To: Mr D Osborne, Transport fNSW
David.Osborne@transport.nsw.gov.au

Sgt R Edwards, NSW Police
nspactraf@police.nsw.gov.au

Cc: Willoughby Electorate Office
willoughby@parliament.nsw.gov.au

Date: 28.7.22

Pages: 55

Sender: Lizzie Cheng, Traffic & Transport Engineer
engineering@northsydney.nsw.gov.au

Telephone: 02 9936 8266



ABN 32353260317

200 Miller Street
 North Sydney NSW 2060
 DX 10587 North Sydney
 Telephone : 9936 8100
 Facsimile: 9936 8177
 Email: council@northsydney.nsw.gov.au
All correspondence to:
 General Manager
 North Sydney Council
 PO Box 12, North Sydney NSW 2059

Request: 30-34 Grosvenor St, Neutral Bay – Construction Traffic Management Plan

Request From: Adam Arias, Platform Project Services (ECM 8981081)

Traffic Engineer’s Recommendation:

THAT the traffic aspects of the Construction Traffic Management Plan (Issue E) dated July 2022 prepared by TTPA of the approved development (Development Consent 237/20) at 30-34 Grosvenor Street, Neutral Bay be approved subject to the conditions of approval.

THAT the 19m long Works Zone on Grosvenor Street as described in this CTMP is approved under delegated authority of Council’s Traffic Engineer, with the same conditions pending lodgement of a Work Zone application and payment of all applicable fees.

Subject to no objection being received, I intend to approve this recommendation under Delegated Authority. It would be appreciated if you could respond within 10 days.

Lizzie Cheng
Traffic & Transport Engineer

- Object
- Do Not Object
- Transport for NSW
- Police Local Area (North Shore Area Command)
- Local Member

Authorised Officer: (Signature) (Print Name)
 (Position) (Date)

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CONDITIONS OF APPROVAL FOR

30-34 Grosvenor Street, Neutral Bay

Works on Road Reserve

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2. All Traffic Management Plans and Traffic Control Plans must be endorsed with the name of the person preparing the plan along with their level of certified qualification and certificate number. Only persons with current "Select/Modify Traffic Control Plans" or "Design Audit Traffic Control Plans" tickets are qualified to develop and endorse Traffic Management Plans and Traffic Control Plans.
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6. At no time shall Grosvenor Street and Young Street or any other road be blocked by any vehicle or works associated with the construction of the proposed development. Through traffic is to be maintained at all times.
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Pedestrian Safety

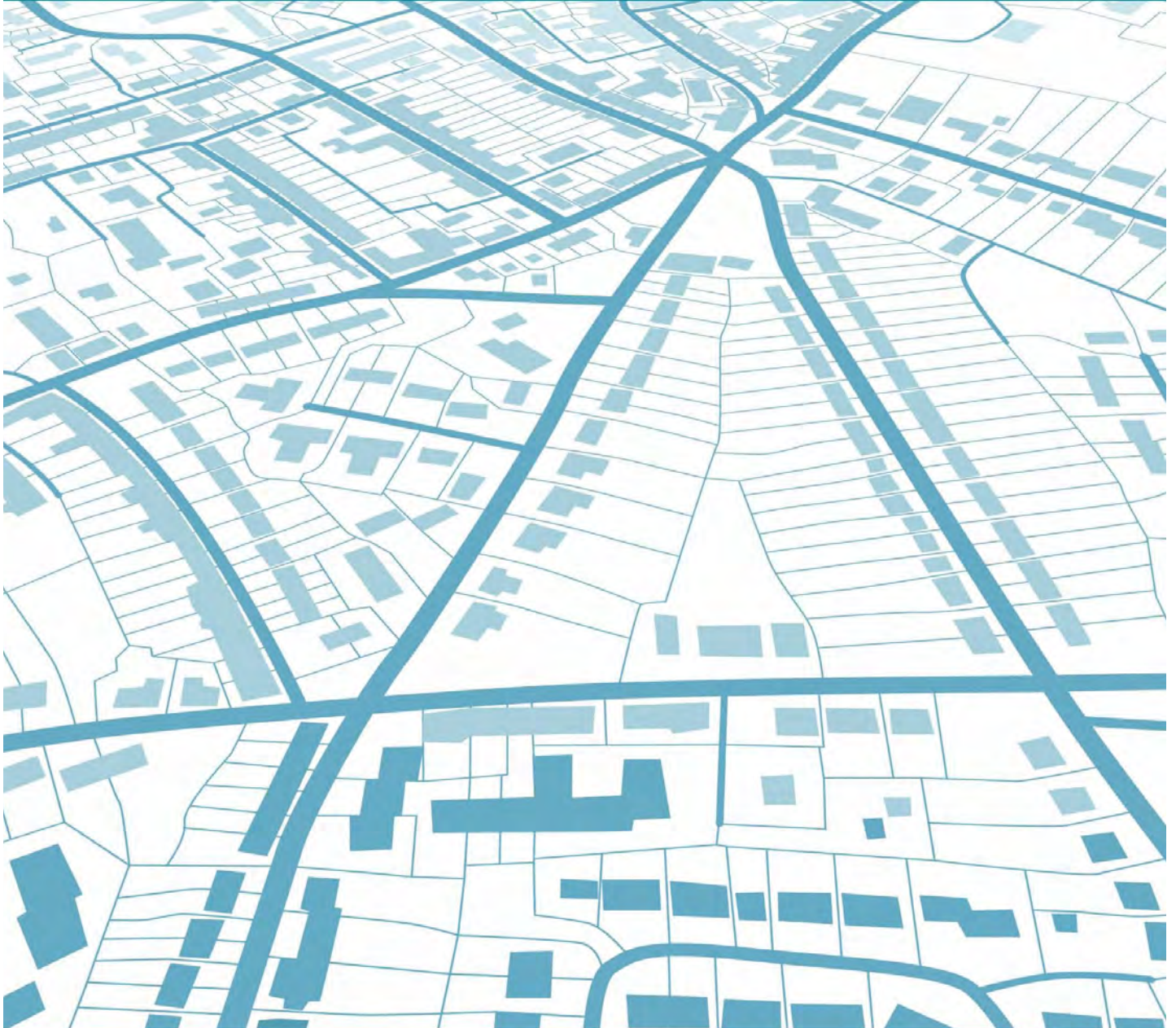
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34 Grosvenor Street, Neutral Bay

Proposed Residential Development

Construction and Traffic Management Plan

Ref: 20136
Date: July 2022
Issue: E

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1.0 Introduction

This Construction Traffic Management Plan (CTMP) has been prepared for the approved residential development on 34 Grosvenor Street, Neutral Bay (Figure 1).

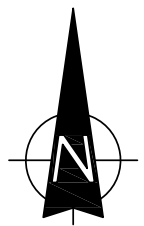
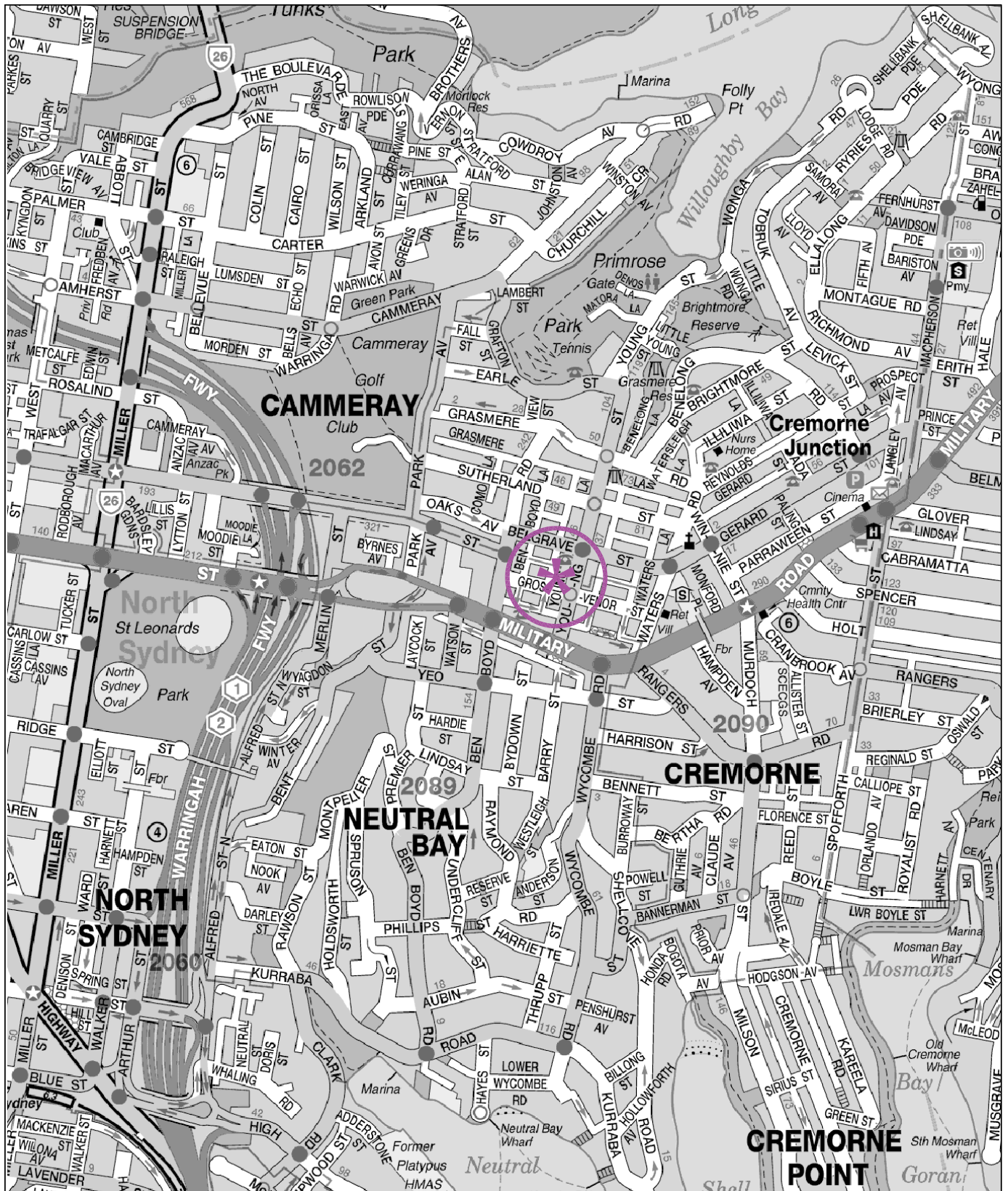
The popular Lower North Shore area is continuing to experience a continuation of the transformation and redevelopment of underutilised buildings in recent years. This process has been heightened as a result of the frequent/high-capacity bus services (including the B-Line service), which provided improved public transport accessibility. Due to its convenient location in the nearby supermarket, restaurant and entertainment facilities within the Neutral Bay Local Centre, the site presents an ideal opportunity to develop a residential apartment complex.

The approved development scheme comprises 9 residential apartments with lower-ground and basement carpark.

This CTMP has been prepared by an engineer who holds the Roads and Maritime Services Prepare a Work Zone Traffic Management Plan accreditation, detailed as follows:

Lachlan Ellson
Certificate No: 0052125163
Expiry Date: 28/08/2022

The CTMP has also been reviewed and checked by a suitably qualified and experienced civil (traffic) engineer, Meg Kong, with 15 years of professional experience. Meg has completed CTMP for more than 200 sites in Sydney, including the North Sydney Council area.



LOCATION

FIG 1

2.0 Approved development Scheme

2.1 Site, Context and Existing Circumstances

The site (Figure 2) is a consolidation of 3 lots (Lots A, B and C of DP 341243) occupying a rectangular-shaped total area of 839.3m² at 34 Grosvenor Street in Neutral Bay. The site, with frontages of 18m to Young Lane and Young Street as well as a 46m frontage to Grosvenor Street, is located just to the north of Grosvenor Street between Young Lane and Young Street. The Neutral Bay Local Centre extends to the south along Military Road.

The surrounding uses comprise:

- ❖ the adjoining low and medium residential developments to the north, east and west
- ❖ the mixed-use extending along the southern side of Grosvenor Street and Military Road.

The site is currently occupied by:

- ❖ 30 Grosvenor Street: a relationship health service provider known as “The Family Systems Institute”
- ❖ 32 and 34 Grosvenor Street: 2 single dwelling houses.

Accesses to these properties are provided as follows:

- ❖ 30 Grosvenor Street: a driveway on Young Lane
- ❖ 32 Grosvenor Street: a driveway on Grosvenor Street
- ❖ 34 Grosvenor Street: a driveway on Grosvenor Street and another driveway on Young Street.

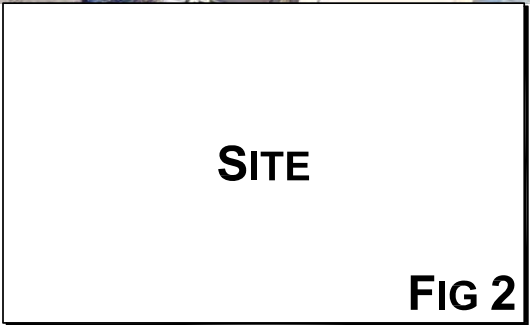
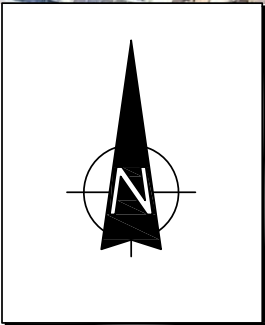
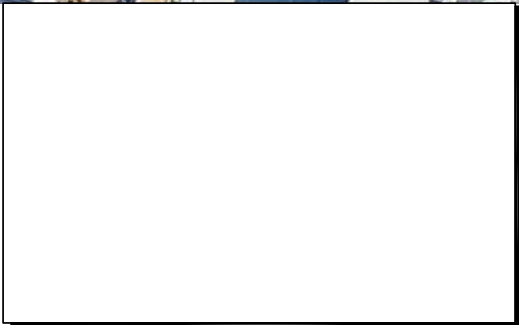


Young Lane

Young Street

SITE

Grosvener Street



SITE

FIG 2

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2.2 Approved Development

The approved development includes the demolition of all existing structures on-site and undertakes an excavation to provide a level-platform for a 4-storey apartment building and lower-ground and basement carpark.

The proposed new building complex comprises:

- 1 x One-Bed apartment
- 1 x Two-Bed apartments
- 7 x Three Bed apartments
- Total of 9 apartments**

The 2-level carpark parking facility which can accommodate up to 15 spaces, will be accessed via a single two-way driveway on Young Street:

Details are provided on the plans prepared by Koichi Takada Architects are reproduced in part in Appendix A.

2.3 Construction Program

A process has been established for completion of the various work processes within 16 months with tentative commencement date of June 2022.

2.4 Construction Process

Demolition

Demolition of existing building elements will be in the initial phase of the construction process, with this activity being preceded by the erection of an A and B-Class perimeter hoarding. The number of workers on the site at any one time will be 5 - 7 persons. The transport of demolition material will generally be undertaken by a single unit type of up to 8.8m medium rigid vehicle (MRV). Up to MRVs will access the site via the existing driveways on Grosvenor Street and stand within the site. When the on-site structures have been demolished and the site is cleared, the trucks will enter via

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Grosvenor Street and exit via Young Street.

There will be no on-site parking for construction workers. All workers will be encouraged to use public transport to access the site given the site's proximity to high-frequency public transport services or carpool wherever possible.

A tool drop-off and storage facility will be provided within the site. This would allow tradespeople to drop-off and store their tools and machinery, allowing them to use public transport to travel to/ from the site on a daily basis. Workers will also be informed of with appropriate tool/ equipment drop-off and storage arrangements made within site sheds and amenities provided on-site. Bus and train schedules will be provided to all workers during site induction to demonstrate alternative modes of transport available.

Excavation

The number of workers on-site will remain at some 5 - 7 persons. The transport of excavated material during this process will be undertaken by up to an 8.8m medium rigid vehicle (MRV).

During the early excavation stage, construction vehicles associated with the excavation process will continue to enter via the existing driveway on Grosvenor Street and exit via Young Street. All trucks will stand wholly within the site.

At a latter excavation stage, the construction vehicles will rely on a 19m long works zone during the approved construction hours. The works zone will be located on the northern side of Grosvenor Street to the west of the Grosvenor Street driveway and can accommodate up to 19m semi. A separate application for the works zone would be submitted as required for approval from Council prior to the implementation of the works zone.

3 on-street parking spaces on the northern side of Grosvenor Street would have to be temporarily removed during the construction for the works zone provision. These parking spaces are currently used by the buildings (including Alouette Child Care on 3 Grosvenor Street) which will be demolished.

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As such, the temporary loss of 3 parking spaces would present a negligible impact to the existing on-street parking conditions.

Construction and Fitout

The construction and fitout phase will be the process of longest duration and at peak, activity involved in the order of 15 – 20 persons on the site any one time, with more visitations during concrete pours.

During construction, vehicle access for this process will be via works zone. The provision for loading/unloading for this process will involve up to 19m semi standing within the works zone, with all materials be unloaded and stored within site.

The new parking spaces will be available for workers during the fitout process. This process will only involve small, infrequent deliveries which can occur in the areas adjacent to the new building with access through the new driveway on Young Street.

Crane Installation/Dismantling

It is noted that a 19m semi will only be used for the erection/dismantling of the tower crane. The contractor will submit a separate permit to stand plant/road closure application to Council for approval.

3.0 Road Network and Traffic Conditions

3.1 Road Network

The existing road network serving the site (Figure 3) comprises:

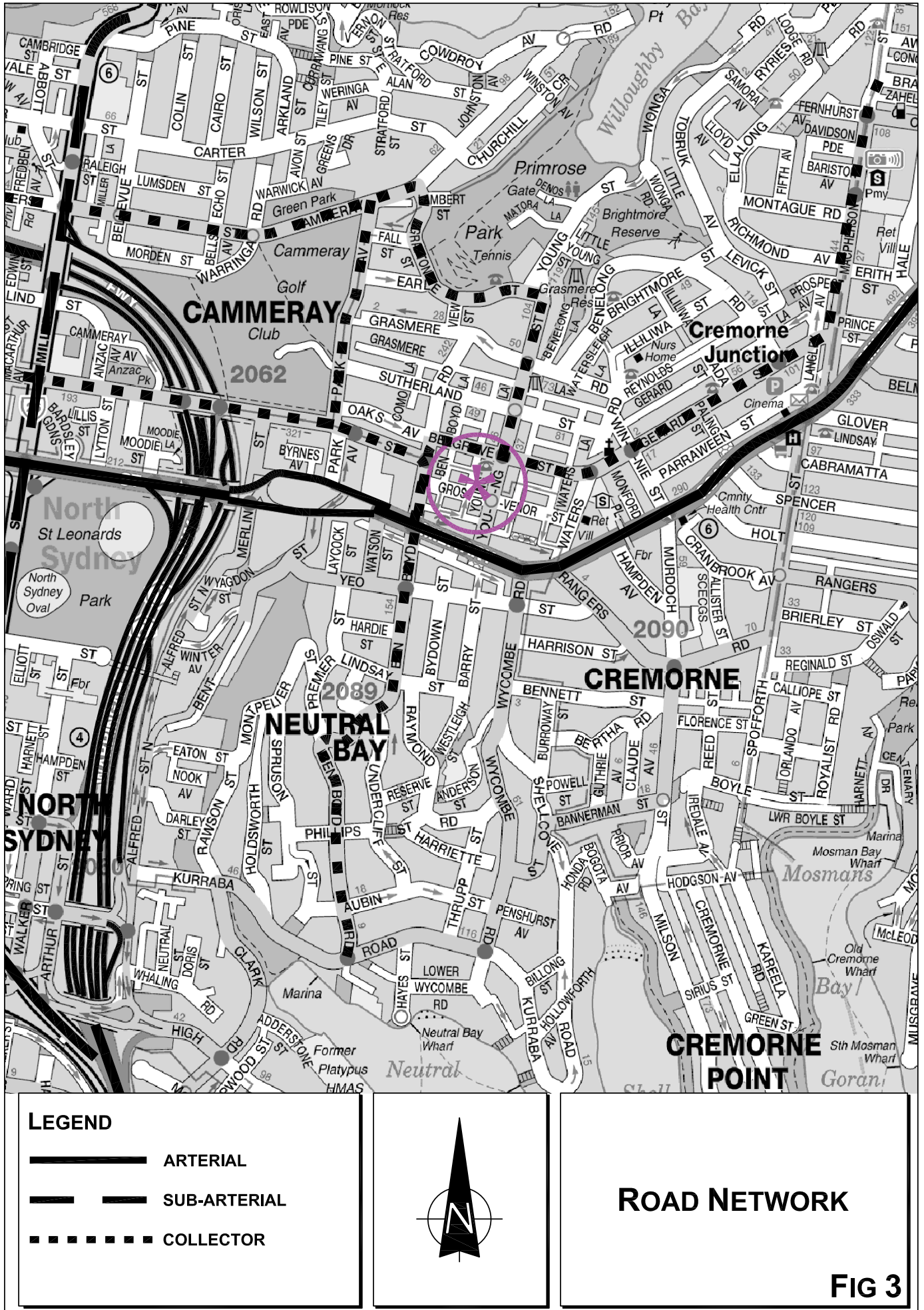
- ❖ *Gore Hill / Warringah Freeway* – a State Road (MR 651) and an arterial route connecting between Gore Hill Freeway in Naremburn in the north and Lavender Street in North Sydney to the south. The road generally runs in a north-south direction and has 3 lanes of traffic in each direction with a line marked divided carriageway.
- ❖ *Military Road* – a State Highway (HW 10) and arterial route linking the Warringah Freeway at North Sydney in the south to Newcastle Freeway at Ourimbah Interchange in the north. The road generally runs in a north-south direction and has three lanes (including 1 T3 lane) of traffic in each direction.
- ❖ *Young Lane* – a local, unclassified laneway that is primarily used to provide rear vehicular and pedestrian access to properties fronting Young Lane.
- ❖ *Grosvenor Street* – a local access road that traverses in an east-west direction connecting Ben Boyd Road and Waters Road.
- ❖ *Young Street* – a minor collector road that traverses in a north-south direction connecting Military Road and Young Street-Earle Street.

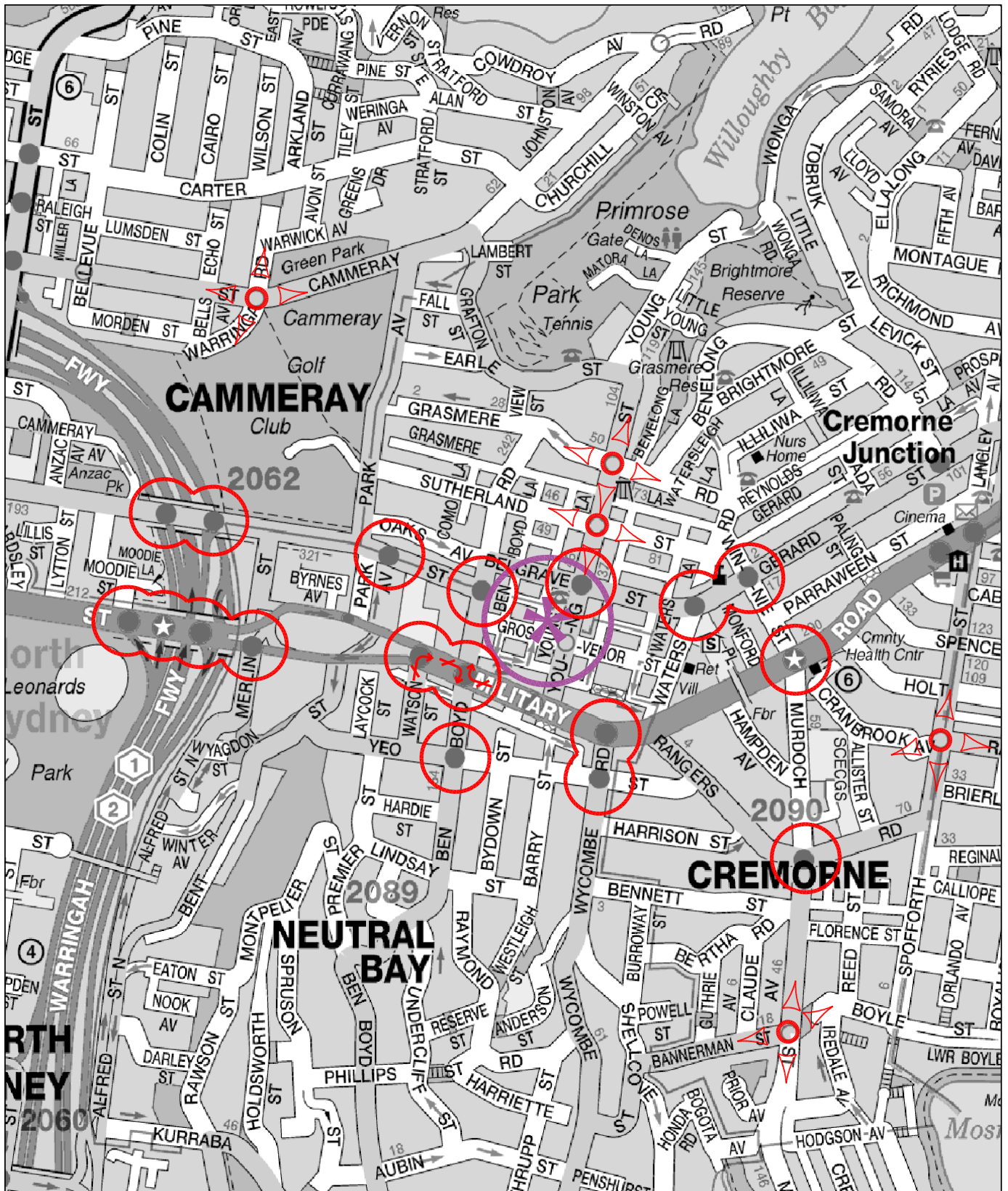
Young Street has a straight and level alignment along the site's frontage. It has a carriageway width of 12.5m with a single lane of traffic in each direction and kerbside parking on both sides of the road.

3.2 Traffic Controls




The existing traffic controls in the vicinity of the site (Figure 4) comprise:

- ❖ the traffic signal-controlled intersections along:





LEGEND

-  TRAFFIC SIGNAL CONTROL
-  ROUNDABOUT
-  RESTRICTED TURNING MOVEMENT



TRAFFIC CONTROLS

FIG 4

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- the Military Road including the Ben Boyd Road, Wycombe Road and Waters Road-Rangers Road, Watson Street-Falcon Street intersections
- the Ben Boyd Road/ Ernest Street, Young Street/Belgrave Street and Belgrave Street-Gerard Street/Waters Road intersections
- ❖ a signalised pedestrian crossing in Military Road, just west of Young Street
- ❖ the numerous NO RIGHT TURN restrictions along Military Road including the No right-turn eastbound and westbound restrictions in Military Road turning onto Ben Boyd Road
- ❖ a central median island in Military Road, which restricts right-turn movements into and out of Young Street.
- ❖ the roundabout at the Young Street/Grosvenor Street intersection
- ❖ ½P restrictions along both sides of Military Road. Clearway restrictions operate between 6:00 am and 10:00 am and 3:00 pm and 7:00 pm, Monday to Friday.
- ❖ No Parking restrictions along both sides of Young Lane
- ❖ ½P restrictions along the northern side of Grosvenor Street along the site's frontage between 8:30 am and 6:00 pm (Monday through Friday) and between 8:30 am and 4:00 pm, Saturday. These restrictions do not apply to permit holders of Area 27.
- ❖ 2P restrictions along both sides of Young Street along the site's frontage between 8:30 am and 6:00 pm (Monday through Friday) and between 8:30 am and 12:30 pm, Saturday. These restrictions do not apply to permit holders of Area 27.
- ❖ No Stopping zone on the western side of Young Street between 4:30 pm and 6:30 pm (Monday through Friday)
- ❖ a posted speed limit of 80kph on Gore Hill / Warringah Freeway
- ❖ a posted speed limit of 60kph on Military Road

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- ❖ a posted speed limit of 50kph on all local roads including Grosvenor Street, Young Street and Young Lane

3.3 Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by the data published by the Roads and Maritime Services (RMS), which is expressed in terms of Annual Average Daily Traffic (AADT). The most recently published data is as follows:

	AADT
Military Road, West of Melrose Street, Mosman	46,497

Observations of traffic activity in the vicinity of the development site during the morning peak period reveal some queuing occurs at times along Young Street and Grosvenor Street due to the traffic congestion through the Neutral Bay Local Centre. Much of the congestion at the intersections along these roads are influenced by the major signalised intersections along Military Road at the Ben Boyd Road, Wycombe Road and Waters Road-Rangers Road, Watson Street-Falcon Street intersections

Access/circulation on the road system is facilitated by the various priority-controlled, roundabout and signal-controlled facilities.

Ample gaps are available in the Young Street traffic flow for vehicles to ingress and egress the site.

3.4 Existing Transport Services

The site is highly accessible by public transport.

Bus Services

Access to the Metropolitan Transport Network for the site is currently provided by the more than 40 bus services which run along the Military Road (with the nearest bus stop 150m walking distance southeast of the site).

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These services provide express bus services to the Central Sydney CBD and connections to North Sydney and St Leonards Railway Stations, Chatswood Interchange, allow access to the wider public transport network with this railway/Metro station providing services on the T1 – North Shore Line and the CCN – Central Coast - Newcastle Line and Sydney Metro, providing a connection to the City and the wider rail network.

These services also provide connections to the Ferry Services on Sydney Harbour at Neutral Bay and Cremorne Point wharves, Northern Beaches area, including Manly Vale, Brookvale, Dee Why, Narrabeen, Newport, Mona Vale and Palm Beach, Kirribilli, Cammeray and Crows Nest.

Bus services into and out of the City via the Warringah Freeway have the benefit of dedicated bus lanes for the majority of the journey, resulting in reduced travel times between Neutral Bay and Wynyard. The site is therefore considered to be very well served by public transport services. These bus routes provide frequent services during the weekday peak hour periods. Details of the bus services available are provided in Appendix B

Railway Services

North Sydney Railway Station is located approximately 1.8km southwest of the site and is accessible by bus routes 229 and 230. The station is a major hub in the Sydney Trains network, with frequent services on four rail lines, namely T1 – North Shore Line and the CCN – Central Coast and Newcastle Line. Details of the train services available at the North Sydney Station are provided in Appendix B

Metro Services

The Sydney Metro Northwest project is one of Australia's largest public transport infrastructure projects and currently delivers faster, safer and more reliable service to the northwest region of Sydney. The Sydney Metro Northwest provides a rail connection from the existing Chatswood Interchange through to Cudgegong Railway Station. As part of this connection, the train line passes through Chatswood Station, which provides an additional train every four minutes during the weekday AM and PM peak periods. The

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station locations and rail alignment of the Sydney Metro are shown below. Details of the Metro services available at the Chatswood Station are provided in Appendix B.







Pedestrian Infrastructure







Pedestrian footpaths are located on both sides of all streets surrounding the site. Marked foot crossings are provided at all signalised intersections within the area, including along Falcon Street, West Street and Miller Street.

Cycle Infrastructure

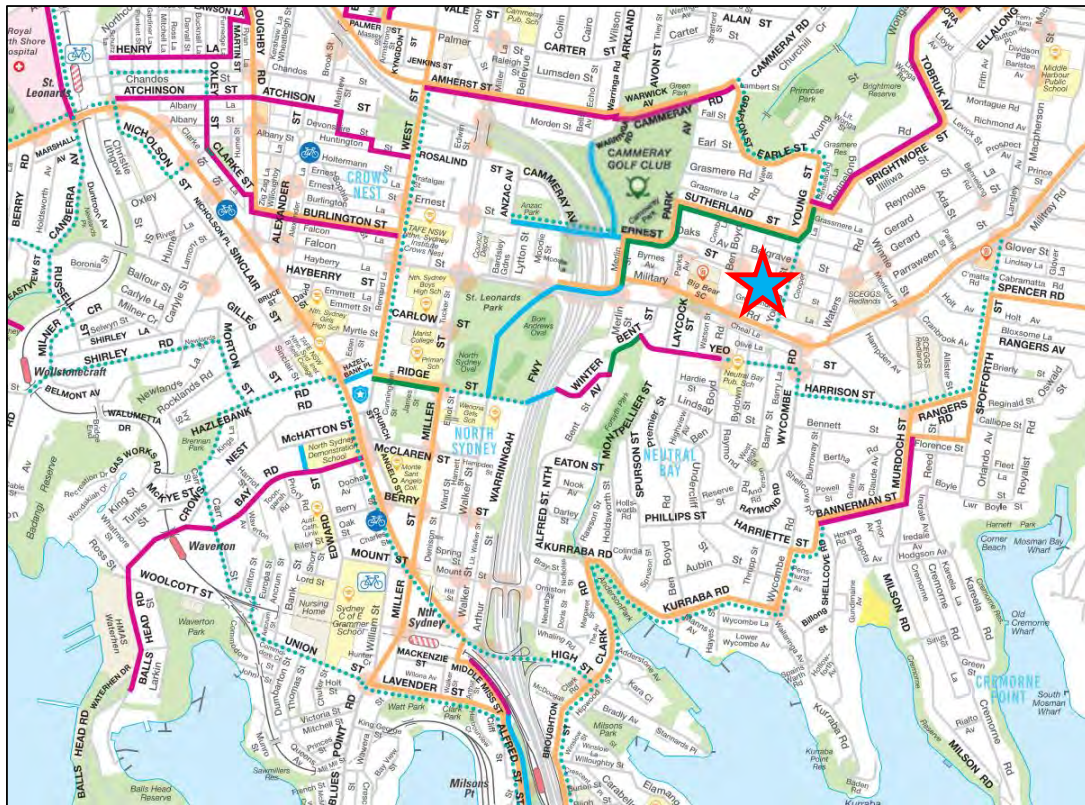
The site is well situated within Sydney’s cycle network with cycle routes surrounding the site with the nearest route along Military Road to the south of the site. The bicycle network surrounding the site is shown in the figure below, with details provided in figure overleaf.

Legend

				<p>Potential Future Bicycle Routes Potential Future Bicycle Routes are subject to change pending further investigation. Current conditions will vary in difficulty.</p>
Separated Bicycle Path	Shared User Path	Marked On-road Bicycle Route	High Current Bicycle Use (may include difficult conditions if separated paths are not provided)	

 Bike Shop
  Bike Locker
  AIR Bike Pump
  Parking
  Hospital
  Police

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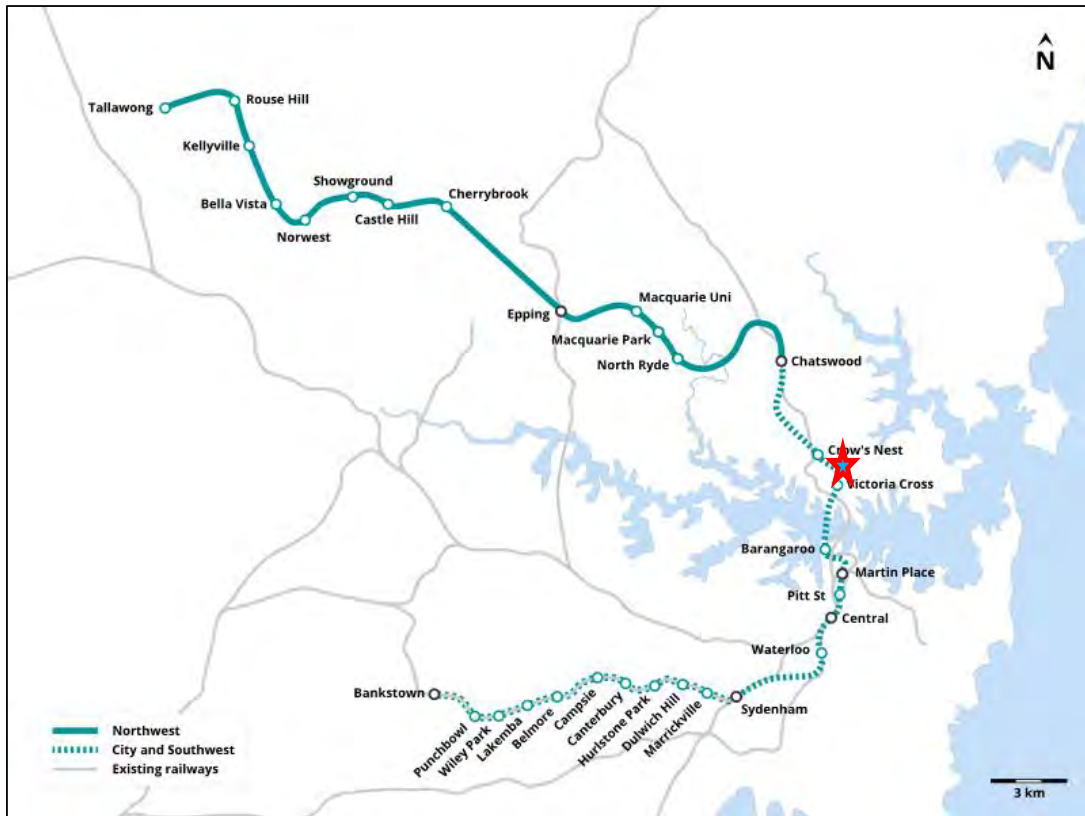
3.5 Proposed Transport Services

The site is located within 2km of Crows Nest Metro Station, which is currently under construction as part of the Metro City and Southwest Line. After completion in 2024, this station will provide metro trains every four minutes during peak hours and connect the area to Sydney Central Business District, Northwest Sydney and Southwest Sydney.

The site is expected to benefit greatly from the Sydney Metro project, given the increased incentives to travel by train on the regular fast service with the Neutral Bay town centre planning, largely reflecting this inherent change.

The station locations and rail alignment of the Sydney Metro are shown below.

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4.0 Proposed Construction Traffic Management Plan

4.1 Construction Vehicle Route

Truck movements associated with the construction processes will access the site via Grosvenor Street, as illustrated in Figure 5. Details of critical vehicles swept paths in and out of the site are provided in Appendix C.

It is noted that on departure:

- ❖ 6.4m small rigid vehicle (SRV) will use Ernest Street towards Warringah Freeway/Pacific Highway given that Ernest Street has 10t load limit
- ❖ All vehicles longer than SRV, i.e., MRV, HRV and semi which will be programmed to arrive outside of peak hours will use Ben Boyd Road towards Military Road

4.2 Truck Movements

The envisaged truck arrivals will be:

Demolition and Excavation Stage

12.5m Length

The frequency is 1-3 Vehicles daily

The total load is 23 ton

19m Length

The frequency is 5-7 Vehicles daily

The total load is 48 ton

For Structure Stage

12.5m Length

The frequency is 1-3 Vehicles Daily

The total load is 23 ton

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12.5m Length

The frequency is 30 Vehicles For Concrete pours (7 Times in Project life)

The total load is 27 ton

19m Length

The frequency is 1-3 Vehicles Per Week

The total load is 48 ton

Given the low truck movements, a truck holding area will not be required. Truck drivers will be advised of the designated truck routes to/ from the site. No queuing or marshalling of trucks will be permitted on public roads in the vicinity of the site. Accredited traffic controller/ site personnel will ensure they are in radio contact with truck drivers, ensuring each vehicle arrival is anticipated and planned. The proposed truck route passes through

4.3 Construction Hours

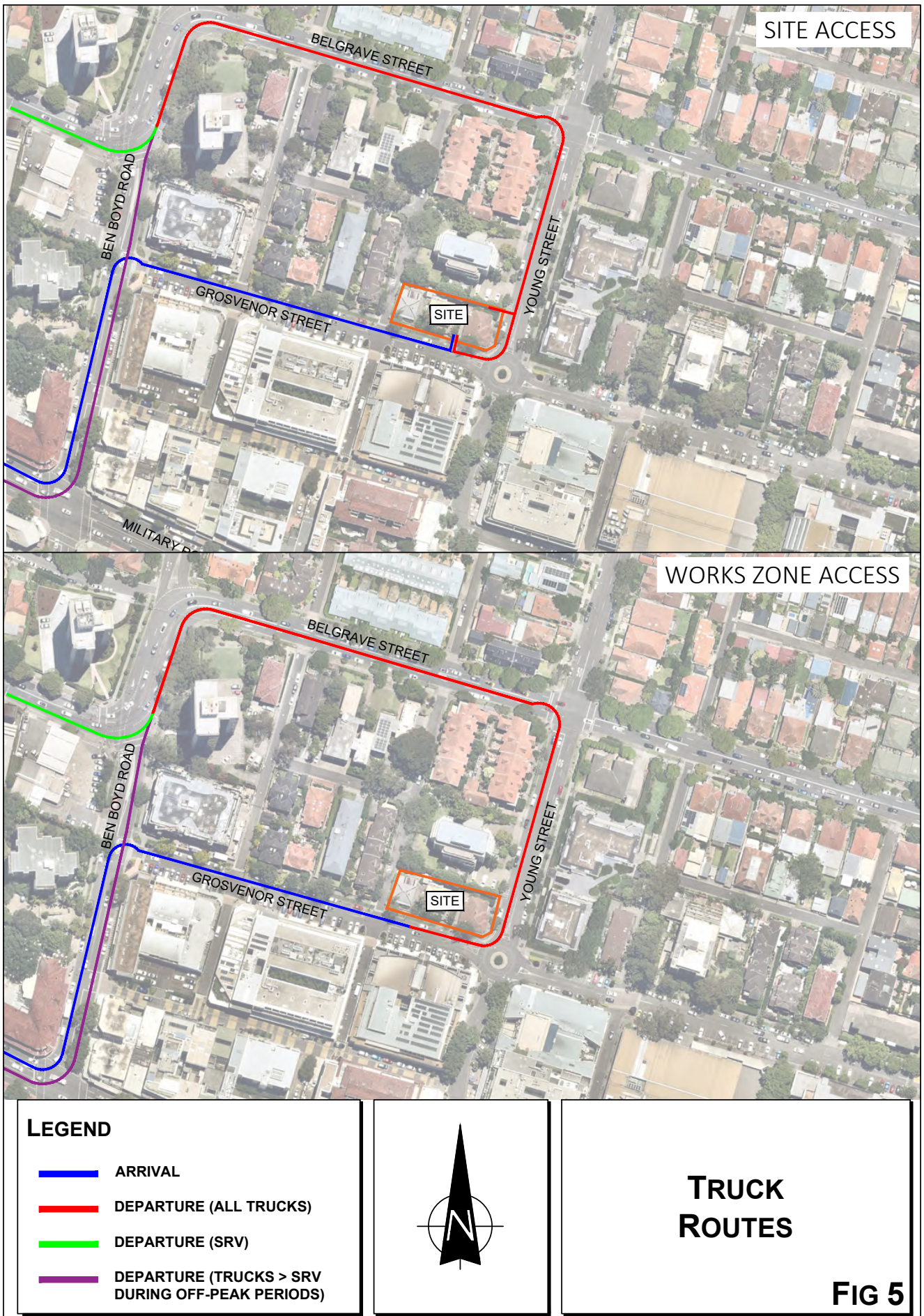
The hours of construction activity will be:

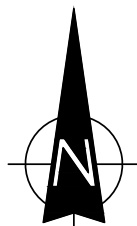
7.00am – 5.00pm	Monday to Friday
8.00am – 1.00pm	Saturday
No work	Sunday and public holidays

4.4 Pedestrian Management

The following protections would be provided for pedestrians in the perimeter of the site:

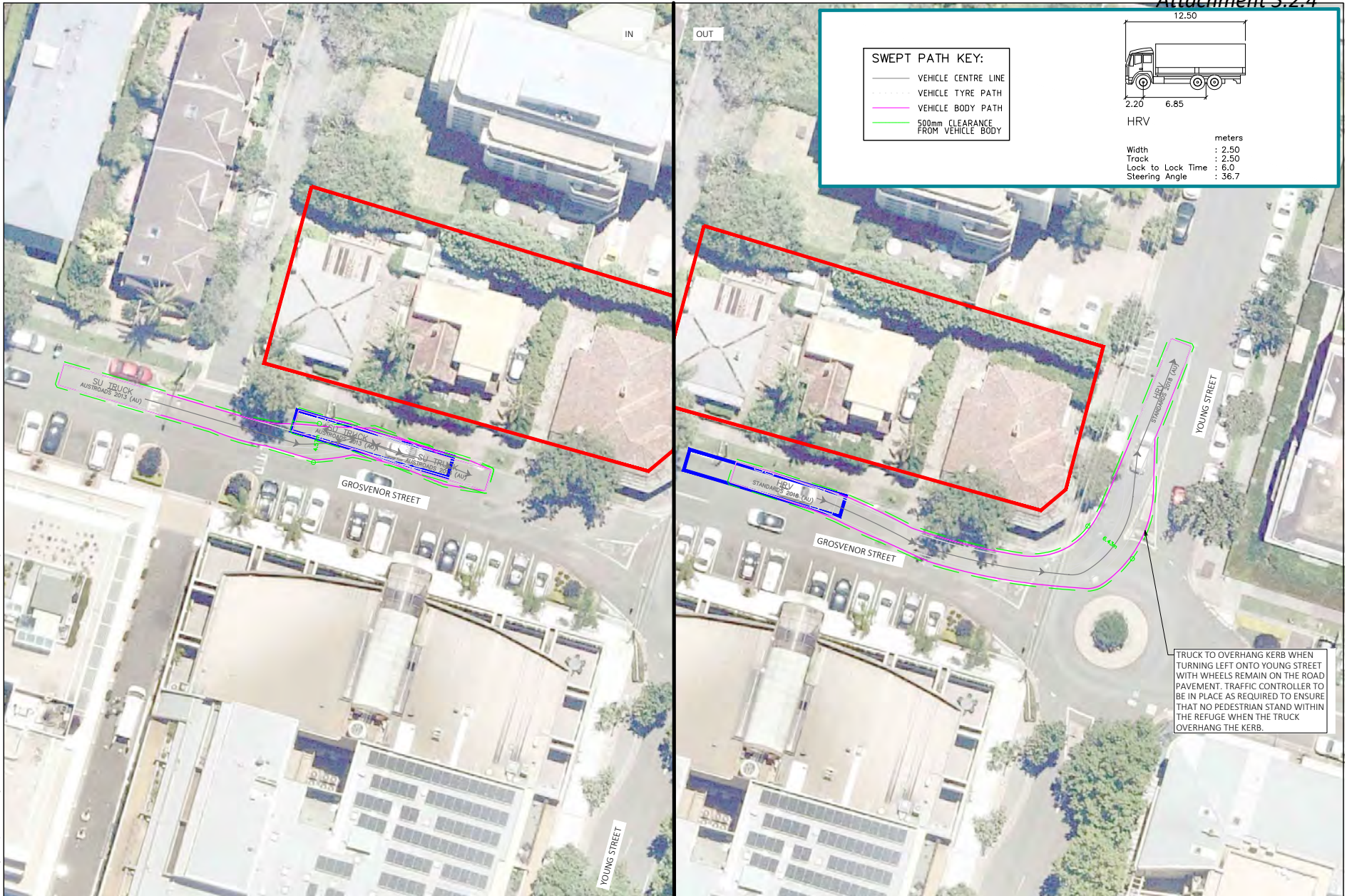
- ❖ Grosvenor Street and Young Street: Class B hoarding will be provided on the footpath along the northern side of Grosvenor Street and the western side of Young Street, to ensure safe pedestrian passage past the site.
- ❖ Young Lane: Pedestrians walking along the pedestrian link along Markham Avenue will be protected by A-Class hoarding





TRUCK TURNING PATHS

FIG 6



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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 12.5M HRV ENTERING AND EXITING THE WORKS ZONE

DRAWING REF NO. 20136-V1.4-SP

SHEET NO. 01 OF 02

ISSUE DATE 16 July 2022

DESIGNED BY
LELLSON

REVIEWED BY
B.L.O

SCALE
A3 0 4.0 8.0 1:400



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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 12.5M HRV EXITING FROM YOUNG STREET TO BELGRAVE STREET

DESIGNED BY LELLSON REVIEWED BY B.LO
 SCALE A3 0 4.1 8.2 1:412

DRAWING REF NO. 20136-V1.4-SP SHEET NO. 02 OF 02 ISSUE DATE 16 July 2022

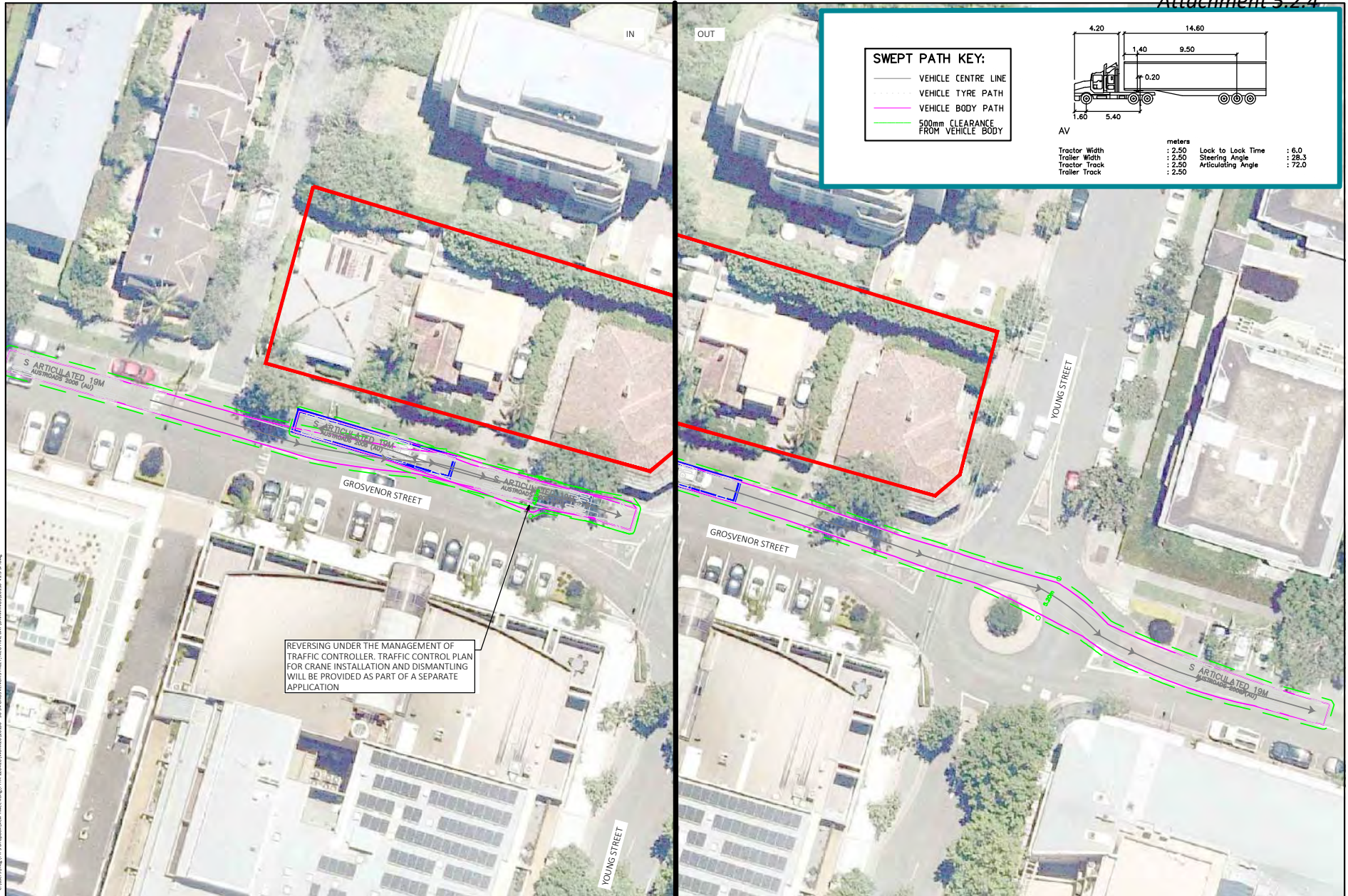


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REVERSING UNDER THE MANAGEMENT OF TRAFFIC CONTROLLER. TRAFFIC CONTROL PLAN FOR CRANE INSTALLATION AND DISMANTLING WILL BE PROVIDED AS PART OF A SEPARATE APPLICATION

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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEPT PATH ASSESSMENT OF A 19M HRV ENTERING AND EXITING THE WORKS ZONE (FOR CRANE WORKS)

DRAWING REF NO. 20136-V1.3-SP SHEET NO. 01 OF 02 ISSUE DATE 4 July 2022

DESIGNED BY LELSSON REVIEWED BY B.LO
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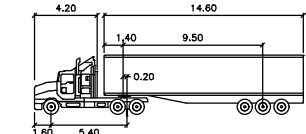
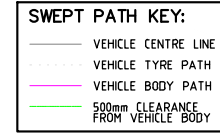
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AV		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 17.0
Trailer Track	: 2.50		

TRUCK TO STRADDLE 2 LANES TO TURN IN ACCORDANCE TO ROAD RULES

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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 19M HRV ENTERING AND EXITING THE WORKS ZONE (FOR CRANE WORKS)
 DRAWING REF NO. 20136-V1.3-SP SHEET NO. 02 OF 02 ISSUE DATE 4 July 2022

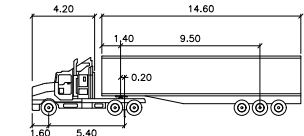
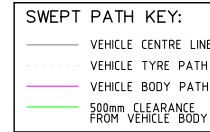
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 SCALE A3 0 4.0 8.0 1:400



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AV

meters	
Tractor Width	: 4.20
Trailer Width	: 14.60
Tractor Track	: 1.60
Trailer Track	: 5.40
Lock to Lock Time	: 6.0
Steering Angle	: 28.3
Articulating Angle	: 72.0

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34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEPT PATH ASSESSMENT OF A 19M SEMI ENTERING AND EXITING THE WORKS ZONE

DESIGNED BY LLELSON REVIEWED BY B.LO

SCALE A3 1:##

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RMS accredited traffic controllers will supervise all vehicle and materials movements into and out of the site, loading area and works zone, as well as loading/unloading activities at all times.

4.5 Contact Details

The interim contact person who is to have authority without reference to other persons to comply with instructions issued by the Council's Traffic Engineer or the Police is as follows:

Adam Arias
Assistant Development Manager
Platform Project Services Pty Ltd
M: 0421 024 056
E: adam@platformpps.com.au

The above contact will be updated once a contractor has been engaged.

4.6 Works Zone

A 19m long Works Zone will be required on the 30, 32 and 34 Grosvenor Street frontage during the latter construction and fitout processes to facilitate delivery vehicles stoppages.

The Works Zone will require the temporary removal of 2-3 on-street parking spaces on the northern side of Grosvenor Street.

A separate application for the works zone would be submitted separately as required for approval from the North Sydney Traffic Committee prior to the operation of the works zone. The applicant will pay all appropriate Council advertised fees and charges, including the cost of the signage and loss of parking fee. It is noted that there will be no meter removal required as part of the Works Zone application. The works zone will not be used for private kerbside parking by contractors, tradesman or visitors to the site.

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4.7 Cranage and Materials Handling

1 tower crane will be erected within the site, and specific areas will be available for loading/unloading, materials handling and storage, and worker sheds, etc. The tower crane will be utilised for materials handling within the works zone and the on-site material handling zone.

A separate application for temporary road closure and crane use from the public property will be submitted to Council for approval as required prior to the installation of the on-site tower crane.

Light materials will be loaded/unloaded between the works zone using either forklifts or trolleys.

4.8 Site Induction

All workers and visitors employed on the site by the appointed contractor (including sub-contractors) will be required to undergo a formal 'site induction' process and all the inductions will be performed specifically to each trade according to Workcover OH & S requirements.

The induction will include details of approved access routes to and from the construction site for site staff and delivery vehicles, parking arrangements, as well as standard environmental, WHS, driver protocols and emergency procedures. The agreed work hours must be included as part of this induction.

4.9 Construction Worker Parking

There will be no on-site car parking available for workers during the earlier construction stage. Once the internal driveway and basement carpark are built (and when construction activity is most intensive), additional worker parking may be available.

Some unrestricted on-street parking will be available along the surrounding local streets for the workers. Given the proximity of the site to high-frequency public transport services, all workers will be encouraged at all times to utilise the highly

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accessible public transport system which exists in the vicinity of the site or to carpool wherever possible.

A tool drop-off and storage facility will be provided within the site. This would allow tradespeople to drop-off and store their tools and machinery, allowing them to use public transport to travel to/ from the site on a daily basis.

Workers will also be informed of appropriate tool/ equipment drop-off and storage arrangements made within site sheds and amenities provided on-site. Bus and train schedules will be provided to all workers during site induction to demonstrate alternative modes of transport available.

4.10 Traffic Guidance Schemes

The TGS presents the principles of traffic management, with the detailed information for worksite operations is contained in the Roads and Maritime Services Traffic Control at Work Sites Technical Manual Version 5.0 dated 27 July 2018. The control of traffic at work sites must be undertaken with reference to WorkCover requirements and the contractor's Constructions Workplace Health and Safety Manuals.

The TGSs prepared by the Traffic Control contractor (a Certified Traffic Controller under RMS regulations) as required throughout the process and in accordance with Australian Standards 1742.3, for all construction processes are provided in Appendix D.

4.11 Tree Protection Management Measures

The contractor will complete the construction works without encroaching the tree protection zones (TPZs). Protective fencing and ground protection will be installed in accordance to the tree management plan provided overleaf. The contractor will ensure that the existing trees within the TPZs are protected in accordance with the Australian Standards, based on the following guidelines:

- * no works will be undertaken without the supervision of a qualified arborist

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- * no people, vehicles or machinery can enter the zone
- * no stockpiling of building materials, debris or soil within the zone
- * no fuel, oil dumps or chemicals allowed within or around the zone
- * no altering of soil levels within the zone
- * no open trenching within the zone
- * no attachment of wires, nails, screws or any other fixing device or as a winch support or anchorage
- * supplementary watering is provided to trees through dry periods, during and after the construction process.

4.12 Construction related Vehicle Movements

An average of 4 trucks per day is expected, with a maximum of 6 trucks per day during peak construction (12 movements per day). The heavy vehicle movements are likely to be spread throughout the day. However, in the worst-case assessment, it has been assumed that 25%, or 3 vehicles (6 two-way vehicle movements), would occur during the peak hour. Queuing or marshalling of construction vehicles will not be permitted on the road network and call-up procedures must be put in place to manage arrivals.

Workers typically begin and end their workday outside of network peak periods (i.e., 6.30 am – 3.30 pm) and as such is unlikely to adversely impact the surrounding road network.

4.13 Impact on Public Transport Services

The heavy vehicle haulage routes will largely be limited on arterial and sub-arterial roads which are designed to accommodate heavy vehicle movements. As such, the impacts on public transport services will be minimal on the approach/departure routes. While the truck route will overlap with this bus route during the construction period, it is not expected that traffic generation of no more than 6 vehicle visitations per day would be adverse to the efficiency of the existing bus service.

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4.14 Impact on Pedestrian Movements

Pedestrian movements will remain on Grosvenor Street, Young Street and Young Lane, separated from the site through the provision of hoarding along the perimeter of the site where applicable.

Where the frontage footpath along Grosvenor Street will be affected by the Works Zone operation, accredited traffic controllers who will be present at the works zone and access points will ensure pedestrians are given right of way by construction vehicles to heighten their safety.

The above measures will be incorporated into the site induction program. Workers/subcontractors will be inducted to drive with extra caution and according to the posted speed limit at all times.

4.15 Temporary Road Closure

It is not anticipated that the proposed works would require a road closure. If required:

- The costs and application processes for the required permits are to be borne by the contractor.
- Temporary road closures shall be confined to weekends and off-peak hour times and are subject to the approval of the Council.
- Before implementation of any road closure during construction, Council shall be advised of these changes and a TGS shall be submitted to Council for approval.
- This TGS shall include times and dates of changes, measures, signage, road markings and any temporary traffic control measures.

4.16 Impact on Emergency Vehicle Access

Emergency protocols on the site would include a requirement for an accredited traffic controller to assist with emergency access, and as such, access to the site by emergency vehicles will not be affected. The liaison will be maintained with the police

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and emergency services agencies throughout the construction period and a site contact will be made available for out-of-hours emergencies and access.

4.17 Spoil Management

To ensure that soil/excavated material is not transported on wheels or tracks of vehicles and deposited on surrounding roadways, a wheel wash station will be positioned at the entry/exit point.

4.18 Road Serviceability

The contractor will be responsible for ensuring that the road pavement, kerb and gutter along Grosvenor Street, Young Street and Young Lane, remain in clean and serviceable states during the course of the construction.

4.19 Public Notification

The contractor would prepare notification letters, under the approval of Council, that would be delivered to adjoining property owners, to advise of the construction works and timeframes for completion of each phase of the process.

4.20 Impact on Neighboring Properties

Access to neighbouring properties will be maintained at all times. Workers/subcontractors will be directed not to park their vehicles at the driveways of the neighbouring properties. This will be incorporated into the site induction program. The contractor would take appropriate action if informed of this activity occurring.

4.21 Dilapidation Report

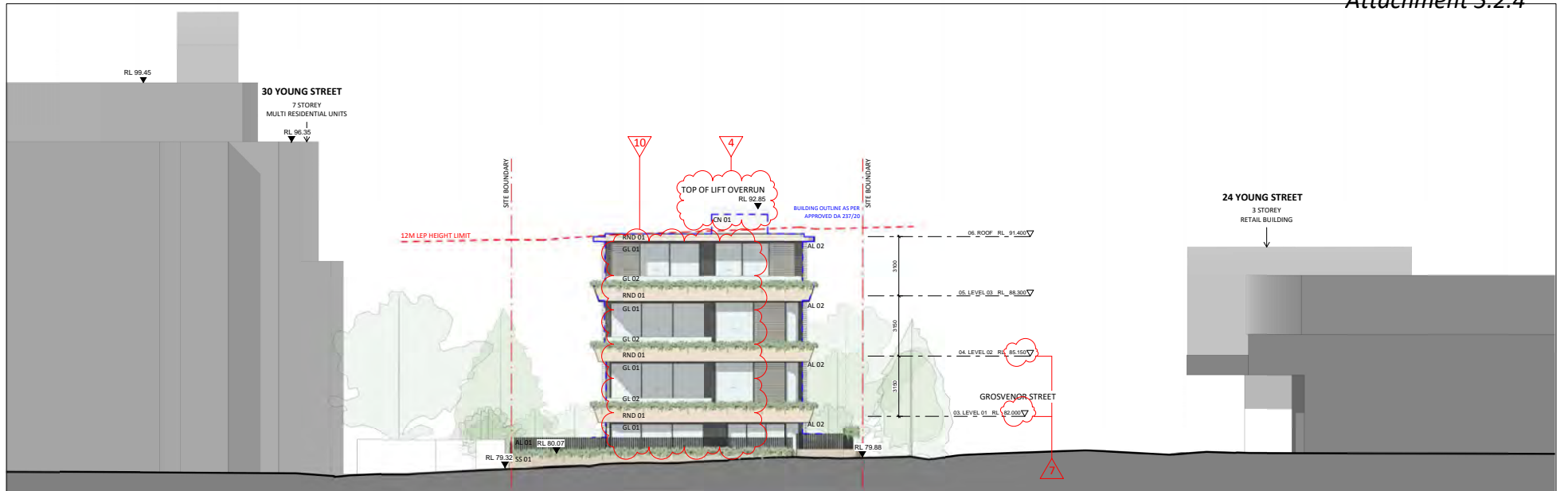
A dilapidation report will be provided before and after the construction activities as required by Council.

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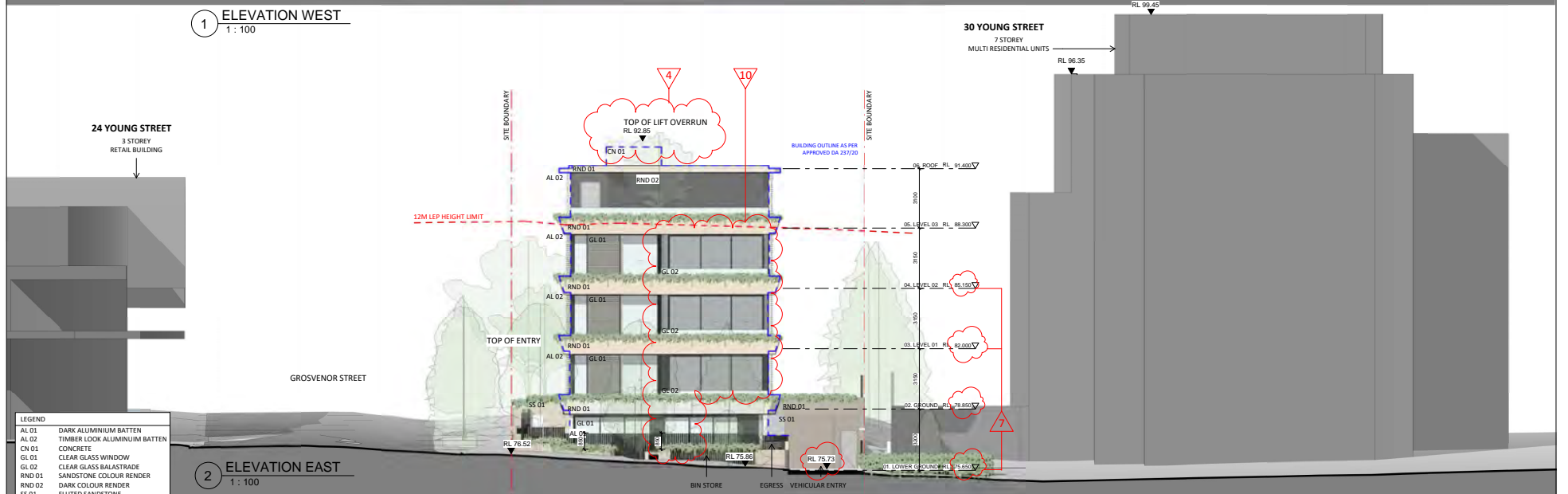
Appendix A

Architectural Plans





1 ELEVATION WEST
1: 100



2 ELEVATION EAST
1: 100

LEGEND

AL 01	DARK ALUMINIUM BATTEN
AL 02	TIMBER LOOK ALUMINIUM BATTEN
CN 01	CONCRETE
GL 01	CLEAR GLASS WINDOW
GL 02	CLEAR GLASS BALUSTRADE
RND 01	SANDSTONE COLOUR RENDER
RND 02	DARK COLOUR RENDER
SS 01	FLUTED SANDSTONE

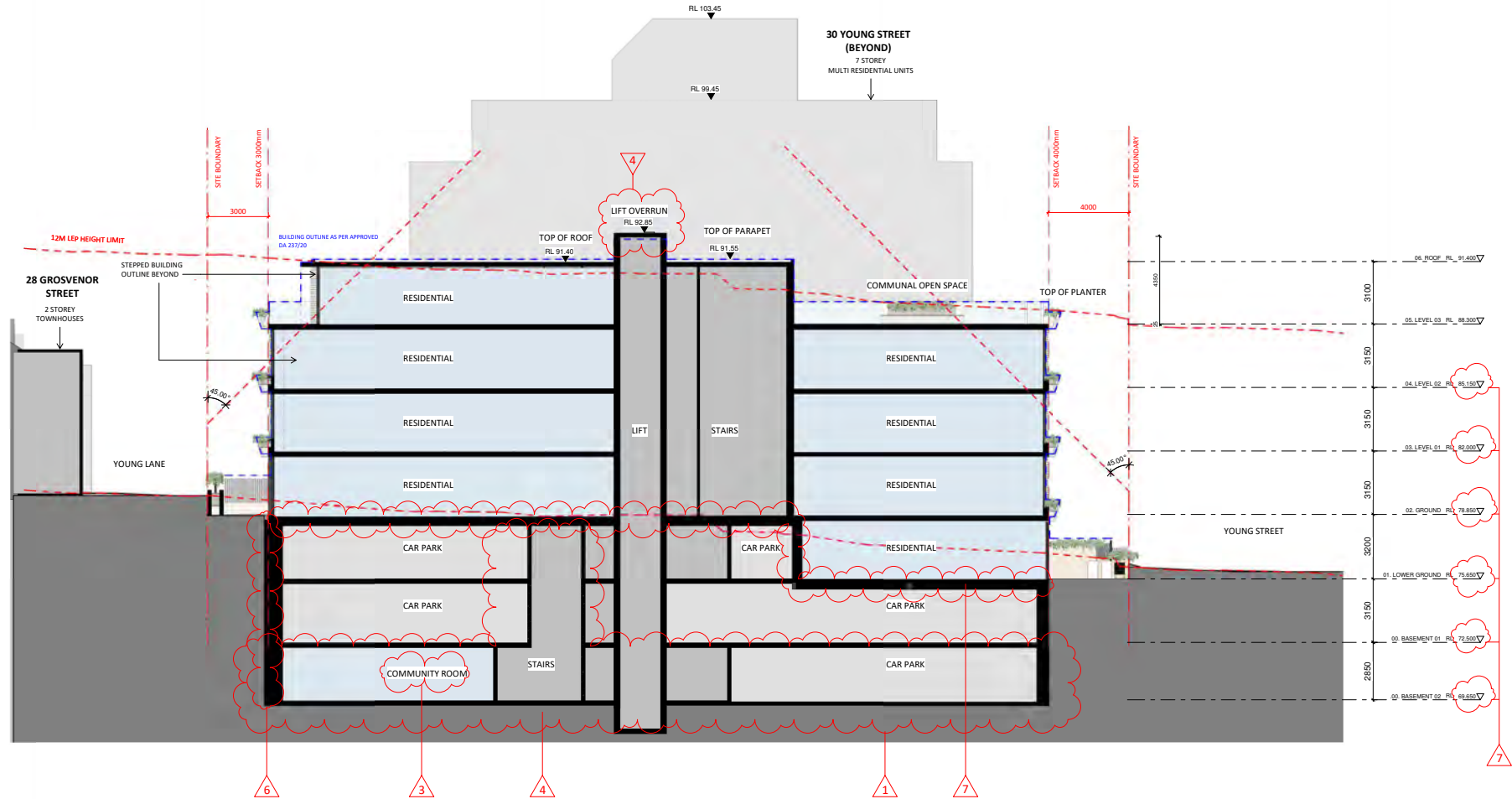
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1	ISSUED FOR PERMIT	22/09/22							
2	REVISED PERMIT CONDITIONS	22/09/22							
3	REVISED PERMIT CONDITIONS	22/09/22							
4	REVISED PERMIT CONDITIONS	22/09/22							



CLIENT	MOSMAN FINANCE No.13 PTY LTD 3.01196 PITT STREET, SYDNEY NSW 2000 ABN: 95 619 934 146
ARCHITECT	SYDNEY 7011 Chandos Street 85 Leopards NSW 2086 T: +61 2 9422 3188 E: info@team2.com.au REG NO: 19940 MELBOURNE 3137/37 Burnwood Road Highpoint East VIC ABN: 72 104 833 507 REG VIC: 19360

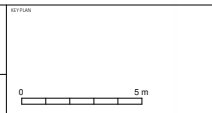
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DWG NO	A0201
REV. DATE	
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NO. OF SETS FROM DRAWINGS	
VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK	
COPYING OR THE REPRODUCTION OF THIS DRAWING IS STRICTLY PROHIBITED WITHOUT THE CONSENT OF TEAM2 ARCHITECTS	

DATE	03.09.21	DRAWN	SO
SCALE	1:100@A1, 1:200@A3	CHECKED	KD
PROJ NO	1031	APPROVED	
STATUS	DEVELOPMENT APPLICATION	DESIGN	D
DWG NO	A0201		



REV	NO.	DATE	BY	CHKD	NO.	REVISION
A	01	02/09/21				ISSUED FOR PERMIT
B	02	02/09/21				ISSUED FOR PERMIT
C	03	02/09/21				ISSUED FOR PERMIT
D	04	02/09/21				ISSUED FOR PERMIT

NO.	DATE	BY	CHKD	NO.	REVISION

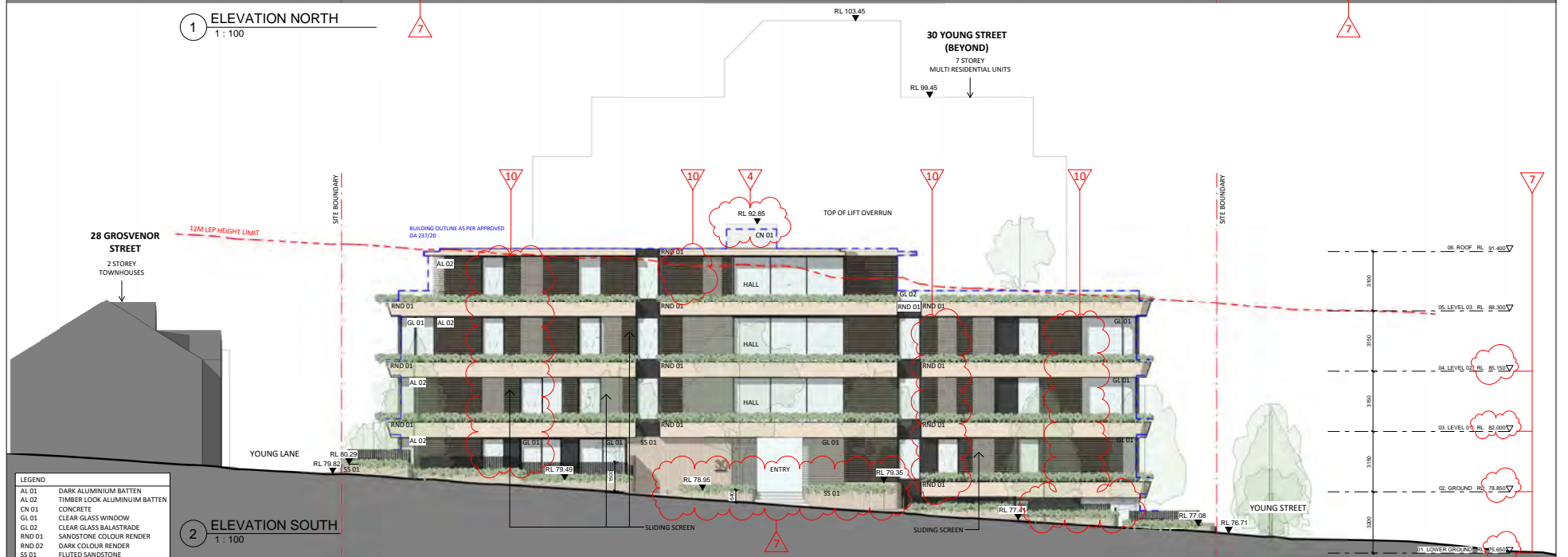
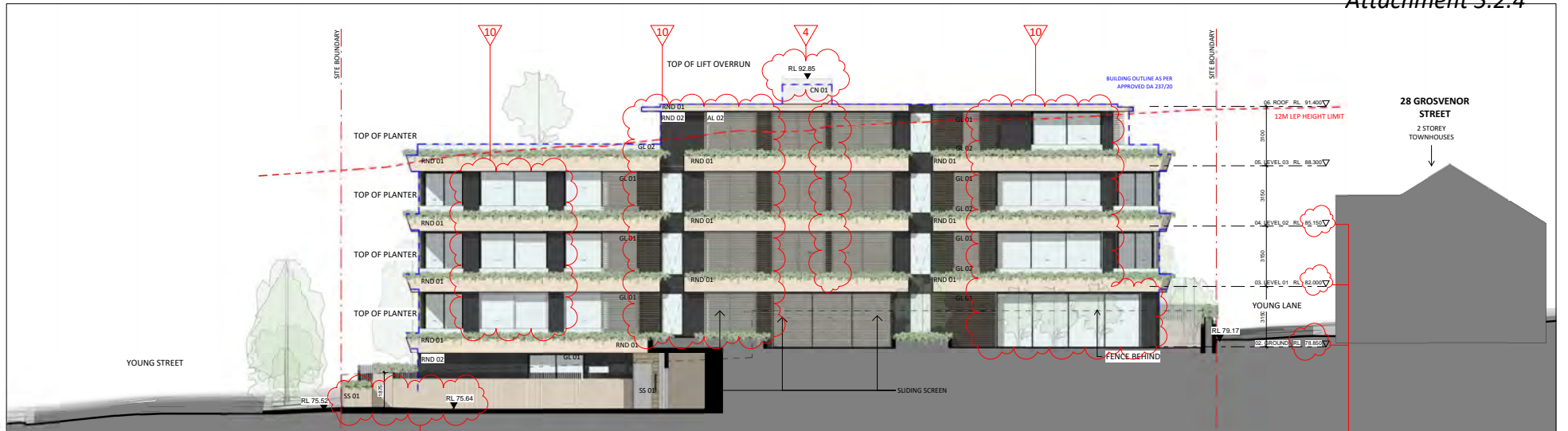


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 REG VIC: 19340



PROJECT	30-34 GROSVENOR STREET NEUTRAL BAY, NSW 2089	DATE	03.09.21	DRAWN	SO
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PROJ NO	1031	DATE		REVISION	D
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SECTION	SECTION 01				



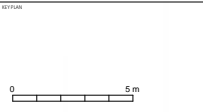
LEGEND

AL 01	DARK ALUMINIUM BATTEN
AL 02	TIMBER LOOK ALUMINIUM BATTEN
CN 01	CONCRETE
GL 01	CLEAR GLASS WINDOW
GL 02	CLEAR GLASS BALASTRADE
RND 01	SANDSTONE COLOUR RENDER
RND 02	DARK COLOUR RENDER
SS 01	FLUTED SANDSTONE

NO.	REVISION	DATE	BY	CHKD	APPD	REMARKS
1	ISSUED FOR PERMIT	03/09/21				
2	REVISED PER PERMIT COMMENTS	03/09/21				
3	REVISED PER PERMIT COMMENTS	03/09/21				
4	REVISED PER PERMIT COMMENTS	03/09/21				

REVISIONS

REVISION	DATE	BY	CHKD	APPD	REMARKS



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REG VIC: 19360



PROJECT	30-34 GROSVENOR STREET NEUTRAL BAY, NSW 2089	DATE	03/09/21	DESIGNER	SO
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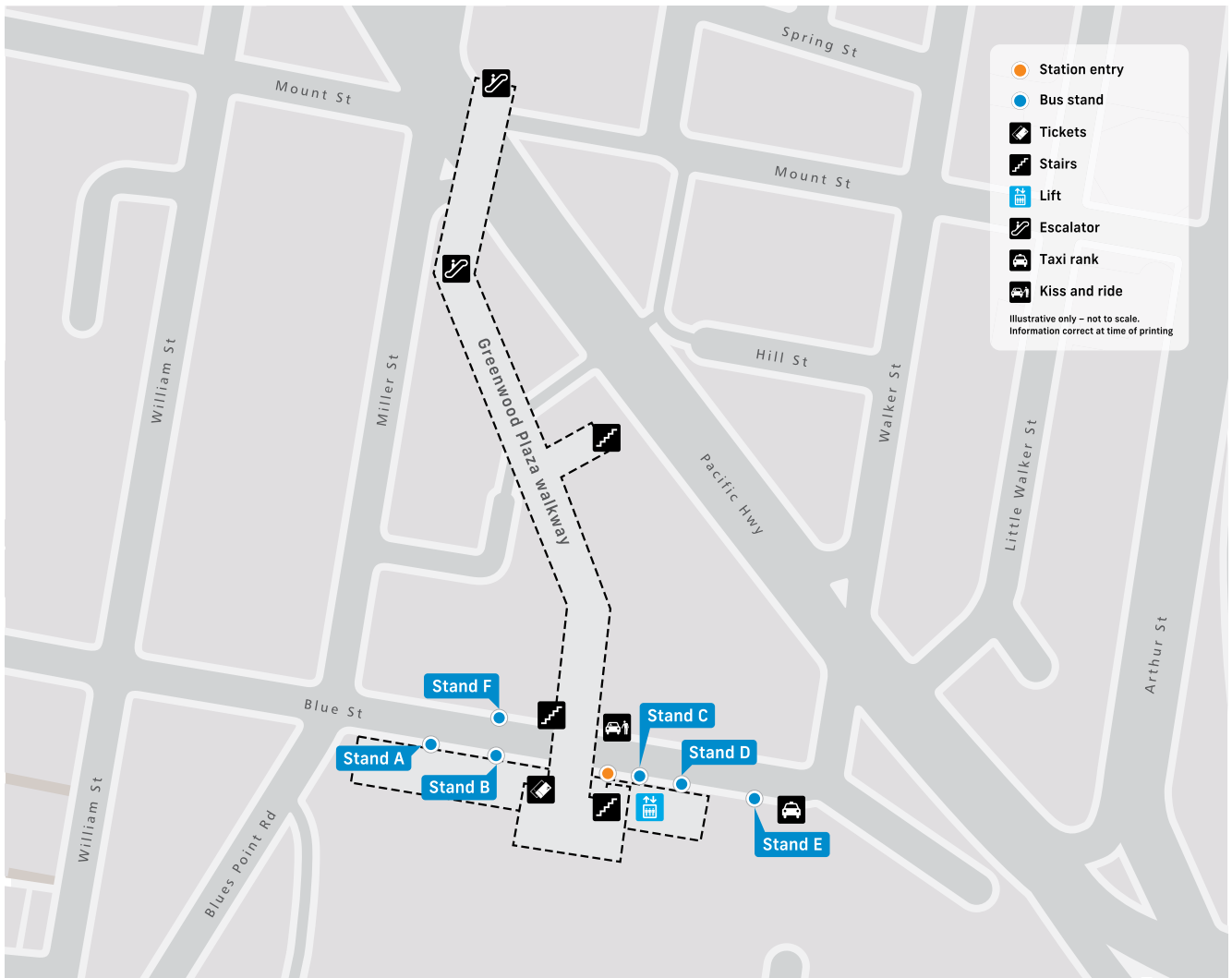
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Appendix B

Public Transport Provision



North Sydney Station Public Transport Map



- T** **T1** North Shore & Western Line
North Shore
Western
Richmond
- T9** Northern Line
Northern
Gordon
- Central Coast**



Stand A

- Stop no. 206011
- 261 Lane Cove
- 263 Crows Nest
- 343 Chatswood

Stand B

- Stop no. 206012
- 252 Gladesville
- 286 Denistone East
- 287 Ryde
- 290 Epping
- 622 Dural
- 653 West Pennant Hills
- M20 Gore Hill

Stand C

- Stop no. 206092
- 202 Northbridge
- 203 Castlecrag
- 207 East Lindfield
- 208 East Lindfield
- 209 East Lindfield

Stand D

- Stop no. 206014
- 151 Mona Vale
- 168 North Balgowlah
- 173 Narrabeena
- 188 Avalon
- 227 Mosman Junction
- 228 Clifton Gardens

Stand E

- 229 Beauty Point
- 230 Mosman Wharf
- 245 Balmoral Beach
- 246 Balmoral Heights
- 247 Taronga Zoo
- E50 Manly
- E54 Mona Vale
- N90 Hornsby via Chatswood
- N91 Macquarie Park

Stand F

- Stop no. 206015
- 254 McMahons Point
- 260 Terrey Hills
- 265 Lane Cove
- 269 Kirribilli

For more information
transportnsw.info

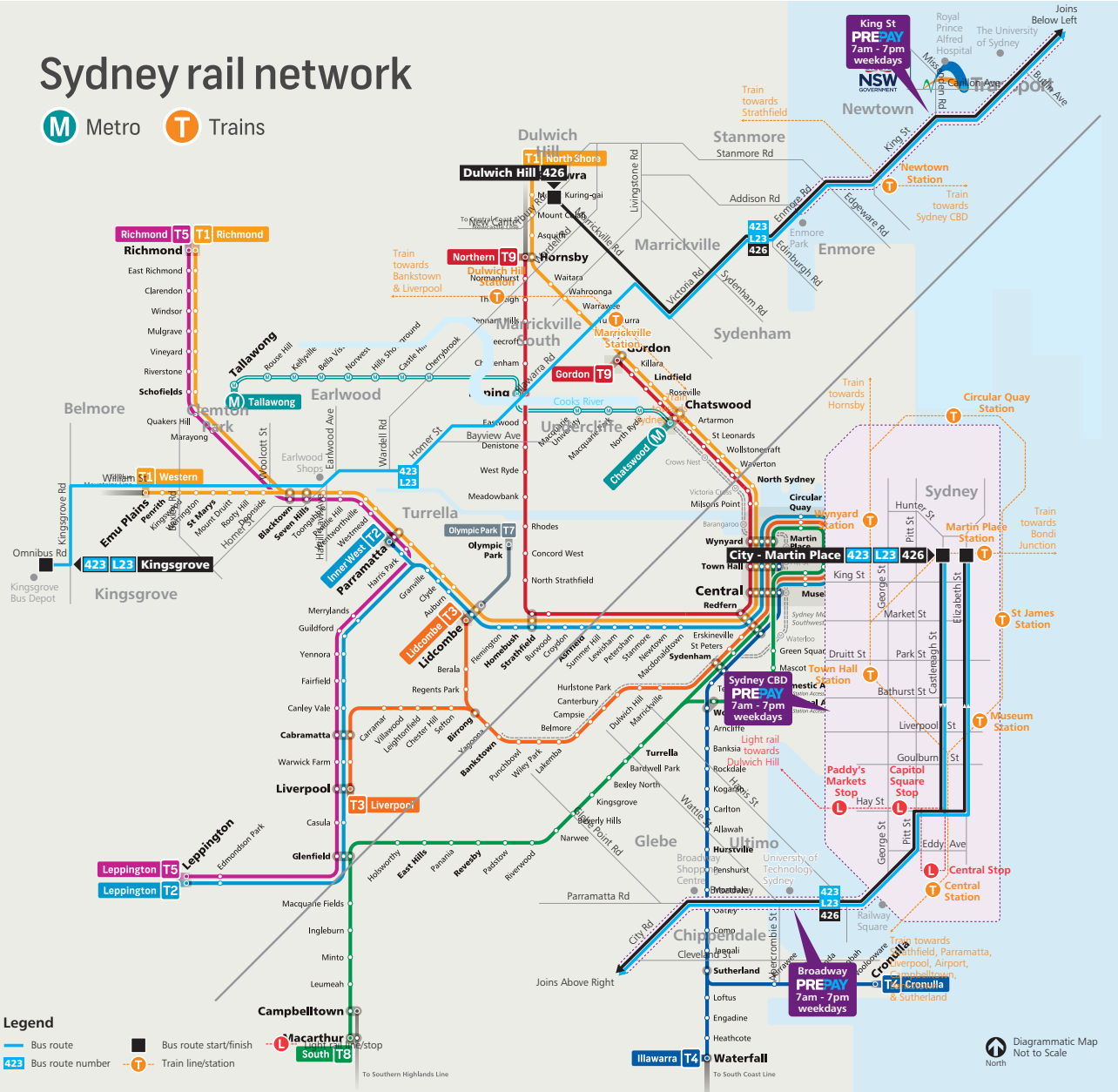


Routes 423, L23, 426



Sydney rail network

M Metro **T** Trains



Legend

- Bus route
- Bus route number
- T Train line/station
- L Macarthur South stop
- M Sydney Metro and Light rail

Diagrammatic Map
Not to Scale

Route L23 to City

Picks up and sets down as requested at all stops to Marrickville Rd & Conners Ave Marrickville, then Enmore Rd & Addison Rd Marrickville (Enmore Park), Enmore Rd & Addison Rd Enmore, Newtown Station, King St & Missenden Rd Newtown, The University of Sydney (City Rd & Butlin Ave), Broadway & Mountain St Ultimo, then all stops from Central Station Railway Square.

Route L23 to Kingsgrove Depot

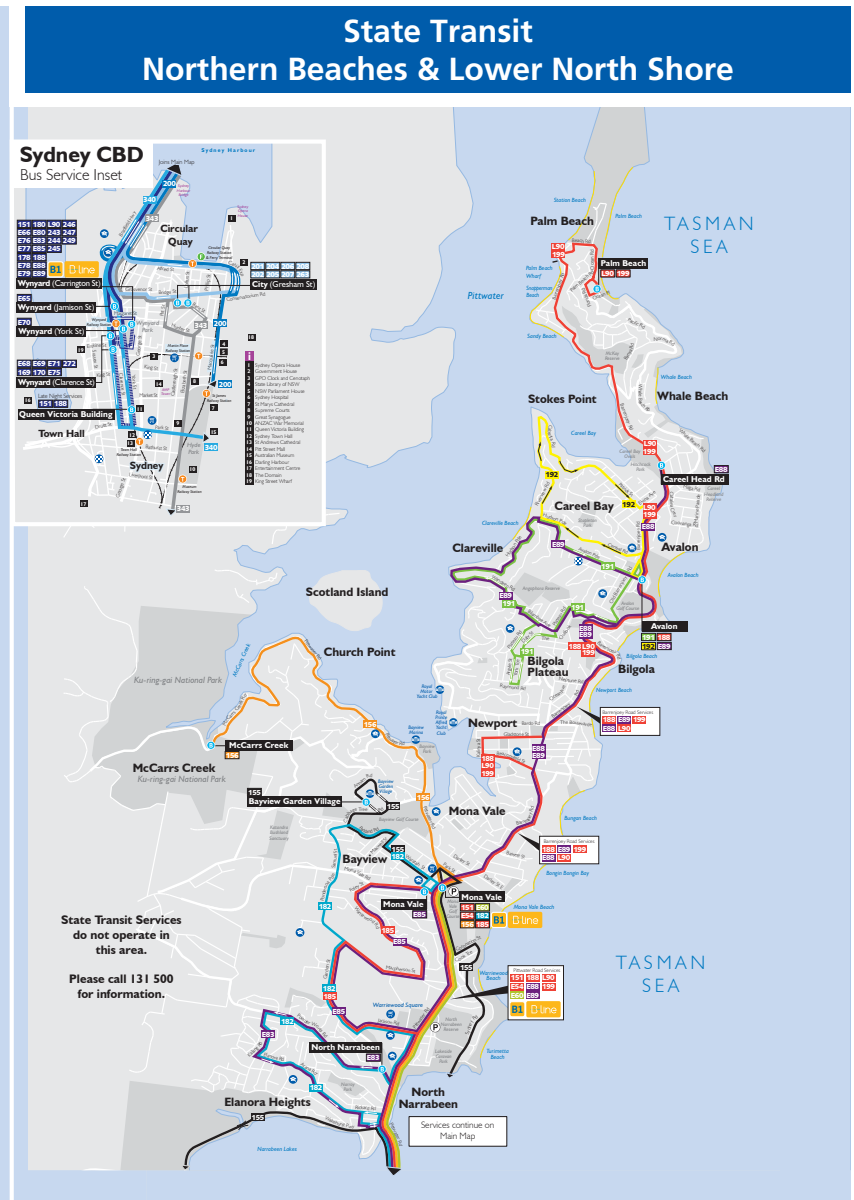
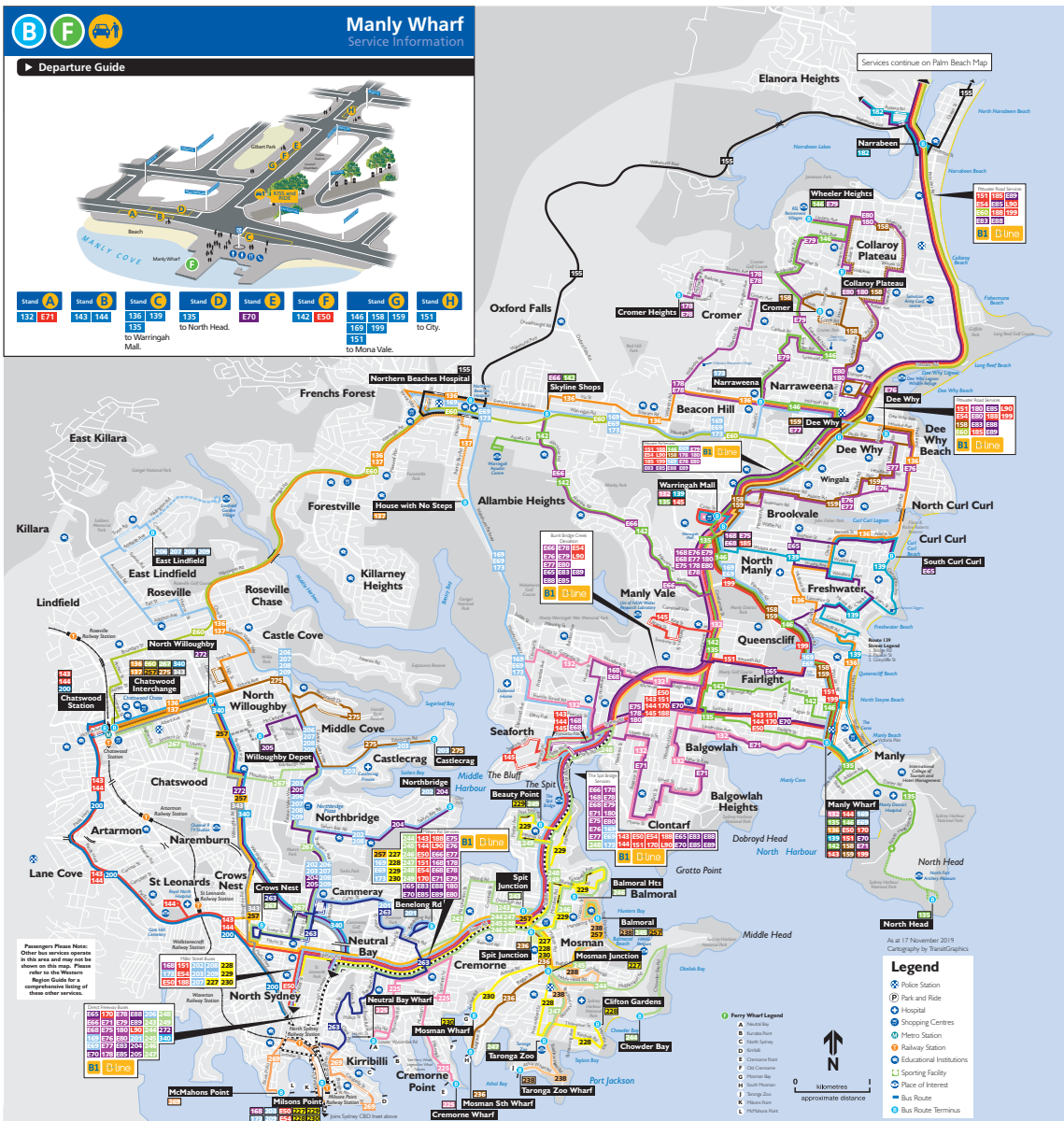
Picks up and sets down as requested at all stops to Railway Square, then Broadway & Buckland St Ultimo, The University of Sydney (City Rd & Butlin Ave), King St & Missenden Rd Newtown, Newtown Station, Enmore Rd & Edgeware Rd Enmore, Enmore Rd & Addison Rd Marrickville (Enmore Park), then all stops from Marrickville Rd & Illawarra Rd Marrickville.

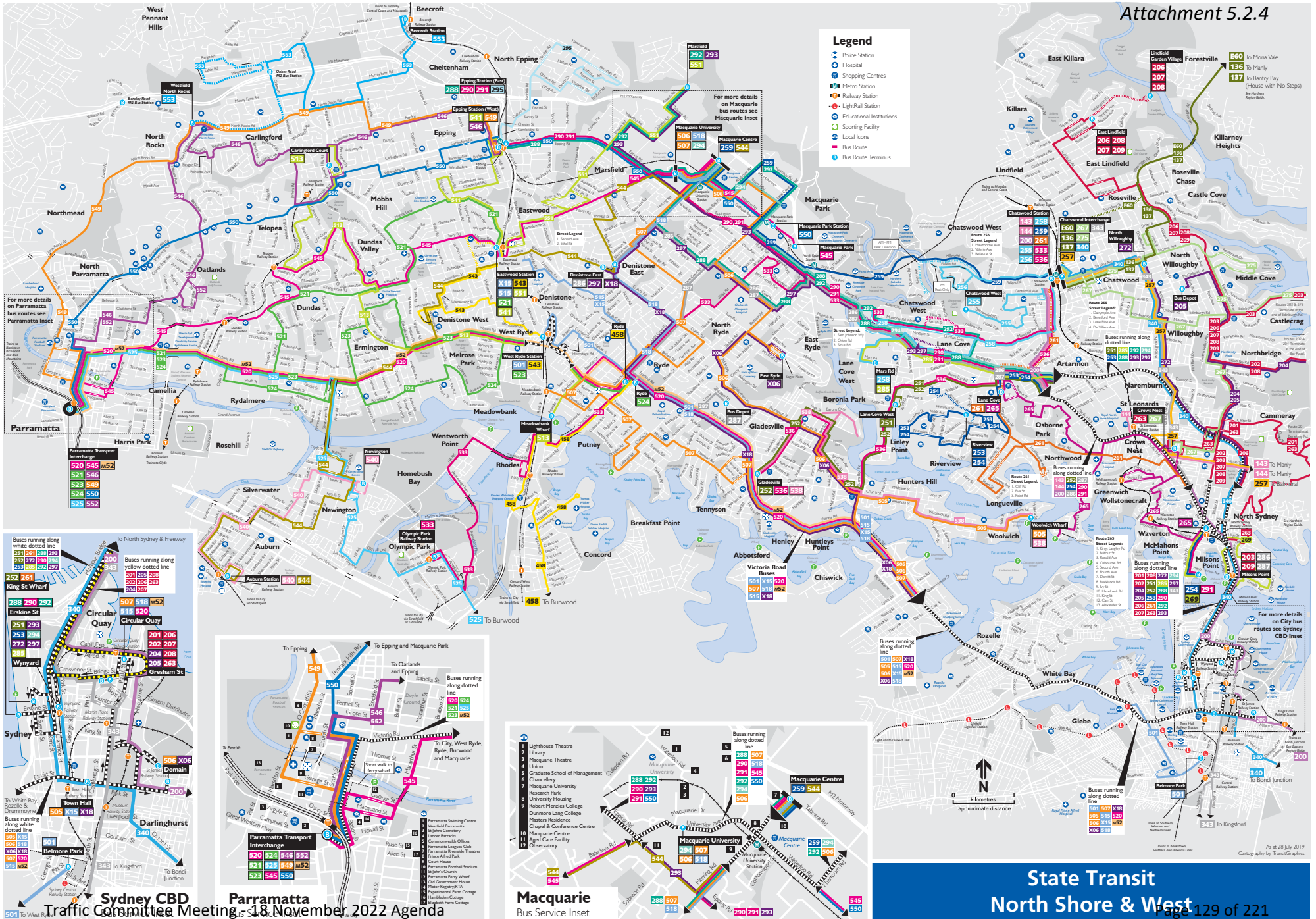
Check timetables and trip planners for train services and connections

Visit transportnsw.info



transportnsw.info





Buses around the Northern Beaches



City

- B** Catch a B1 B-Line bus from Warringah Mall, Pittwater Rd, Stand B to City Wynyard.
- F** Catch an F1 ferry from Manly Wharf to Circular Quay.

Manly

- B** Catch a bus from Warringah Mall, Pittwater Rd, Stand A to Manly.

Palm Beach

- B** Catch a B1 B-Line bus from Warringah Mall, Pittwater Rd, Stand C to Mona Vale. Change at Mona Vale for connecting bus services to Palm Beach.

Chatswood

- B** Catch a B1 B-Line bus to Neutral Bay Junction. Change at Neutral Bay Junction for a 143, 144 or 257 bus to Chatswood.

*Images from Destination NSW



- B-Line stop
- Bus route terminus
- Bus route number
- Train station
- Ferry wharf

For real time service and connection information plan your trip at transportnsw.info



1809BMR-E-BLR-A3P-WCAG

Information correct as at September 2018
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Appendix C

Turning Path Assessments





T:\WORK\2022\16 - 34 GROSVENOR STREET, NEUTRAL BAY\DWG\2022\34V1.1-SP.PAK

34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF A 6.4M SRV ENTERING AND EXITING THE SITE

DRAWING REF NO. 20136-V1.1-SP SHEET NO. 01 OF 02 ISSUE DATE 20 June 2022

DESIGNED BY L. ELLSON
 REVIEWED BY B. LO

SCALE AS 1:400



PRELIMINARY PLAN
 FOR DISCUSSION PURPOSES
 ONLY SUBJECT TO CHANGE
 WITHOUT NOTIFICATION

WARNING
 This drawing is preliminary and is for discussion purposes only. It is subject to change without notification.

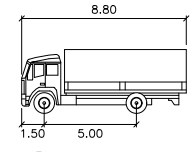
ttpa TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
 Established 1994

Address: Level 5, Suite 502 / 282 Victoria Ave, Chadwood NSW 2047
 P: (02) 9411 5640 E: info@tpa.com.au W: www.tpa.com.au



SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

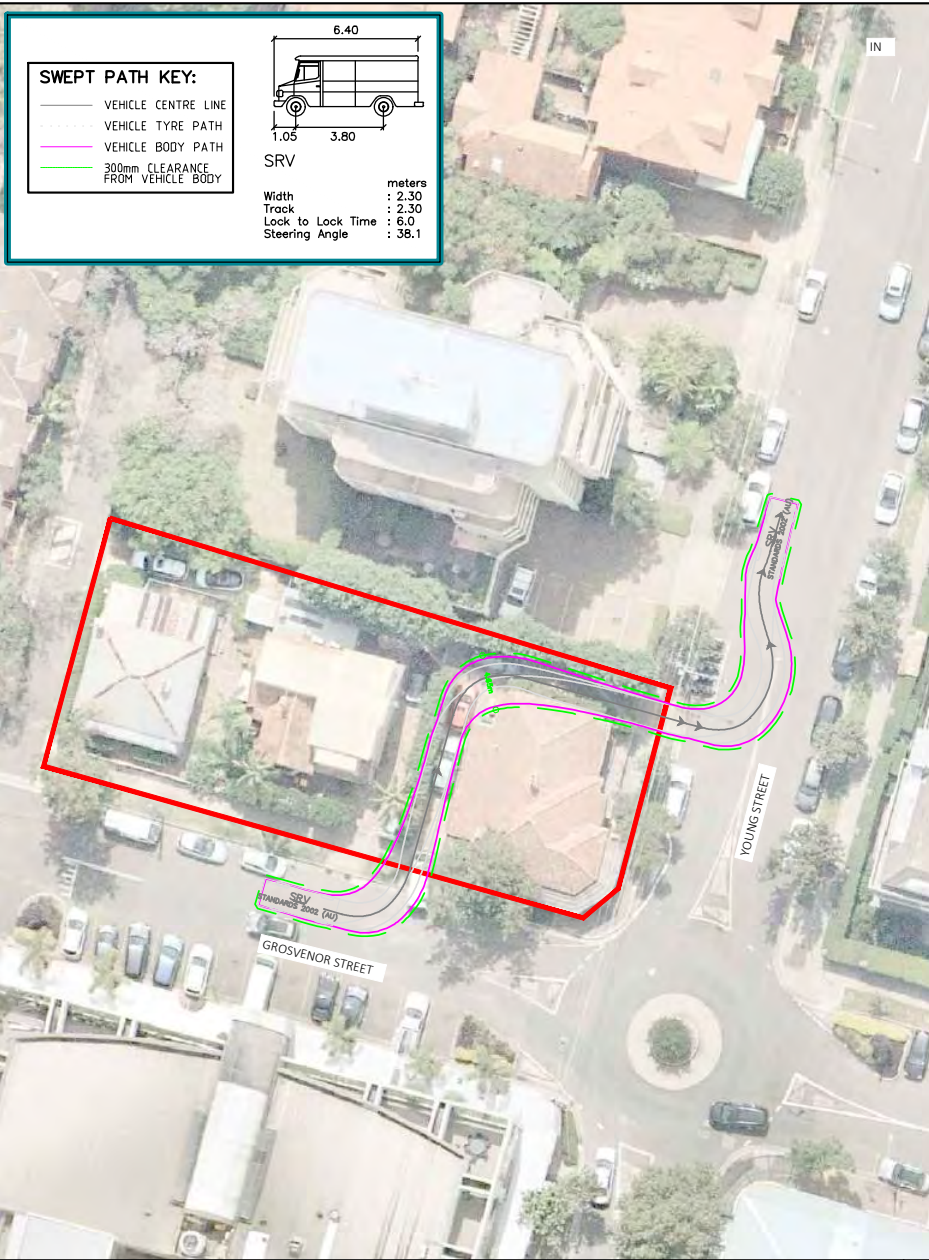


MRV meters

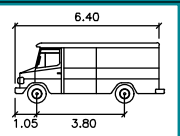
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Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

T:\WORK\2021\16 - 34 GROSVENOR STREET, NEUTRAL BAY\DWG\2021\34-V1-SP.PAK

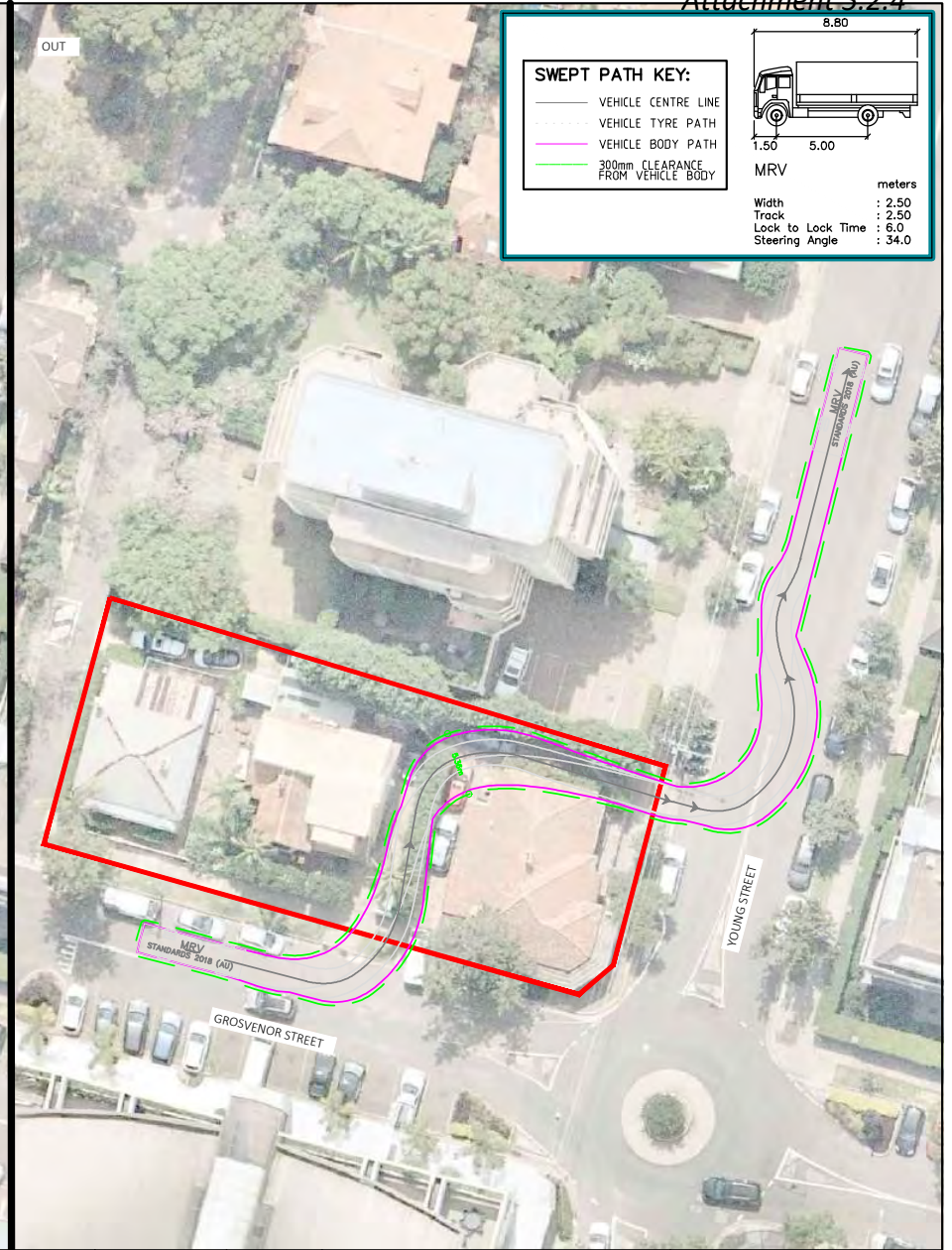
<p>34 GROSVENOR STREET, NEUTRAL BAY PROPOSED RESIDENTIAL DEVELOPMENT SWEPT PATH ASSESSMENT OF A 8.8M SRV ENTERING AND EXITING THE SITE</p> <p>DRAWING REF NO. 20136-V1.1-SP SHEET NO. 02 OF 02 ISSUE DATE 20 June 2022</p>	<p>DESIGNED BY L. ELLSON</p> <p>REVIEWED BY B. LO</p>	<p>SCALE AS</p>		<p>PRELIMINARY PLAN FOR DISCUSSION PURPOSES ONLY SUBJECT TO CHANGE WITHOUT NOTIFICATION</p>	<p>WARNING No liability is accepted for any errors or omissions in this drawing. It is the user's responsibility to ensure that the drawing is used for the intended purpose and that all relevant standards and codes of practice are followed.</p>	<p>ttpa TRANSPORT AND TRAFFIC PLANNING ASSOCIATES Established 1994</p> <p>Address: Level 5, Suite 502 / 282 Victoria Ave, Chadwood NSW 2047 P: (02) 9411 5640 E: info@tpa.com.au W: www.tpa.com.au</p>
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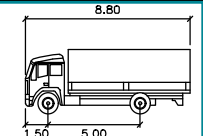
SWEPT PATH KEY:
 — VEHICLE CENTRE LINE
 VEHICLE TYRE PATH
 — VEHICLE BODY PATH
 — 300mm CLEARANCE FROM VEHICLE BODY



SRV
 Width : 6.40 meters
 Track : 1.05 meters
 Lock to Lock Time : 3.80
 Steering Angle : 38.1



SWEPT PATH KEY:
 — VEHICLE CENTRE LINE
 VEHICLE TYRE PATH
 — VEHICLE BODY PATH
 — 300mm CLEARANCE FROM VEHICLE BODY



MRV
 Width : 8.80 meters
 Track : 1.50 meters
 Lock to Lock Time : 5.00
 Steering Angle : 34.0

C:\Users\jmg\OneDrive\Documents\Projects\TPA\20136\WORKING\20136-10-34 GROSVENOR STREET, NEUTRAL BAY\DRAWINGS\20136-10-34 SP2.dwg

34 GROSVENOR STREET, NEUTRAL BAY
 PROPOSED RESIDENTIAL DEVELOPMENT
 SWEEP PATH ASSESSMENT OF 6.4M SRV & 8.8M MRV ENTERING VIA GROSVENOR ST AND EXITING VIA YOUNG ST
 DRAWING REF NO. 20136-V1.1-SP2 SHEET NO. 01 OF 02 ISSUE DATE 4 July 2022

DESIGNED BY LELLSON
 REVIEWED BY B.L.O.
 SCALE A3 0 4.0 8.0 1:400



PRELIMINARY PLAN
 FOR DISCUSSION PURPOSES
 ONLY SUBJECT TO CHANGE
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 AND IS NOT TO BE USED FOR
 ANY OTHER PURPOSES WITHOUT
 THE WRITTEN APPROVAL OF TPTA

tpta TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
 Established 1984
 Address Level 5, Suite 502 / 292 Victoria Ave. Chatterwood NSW 2067
 P: (02) 9411 5640 E: info@tpta.com.au W: www.tpta.com.au

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Appendix D

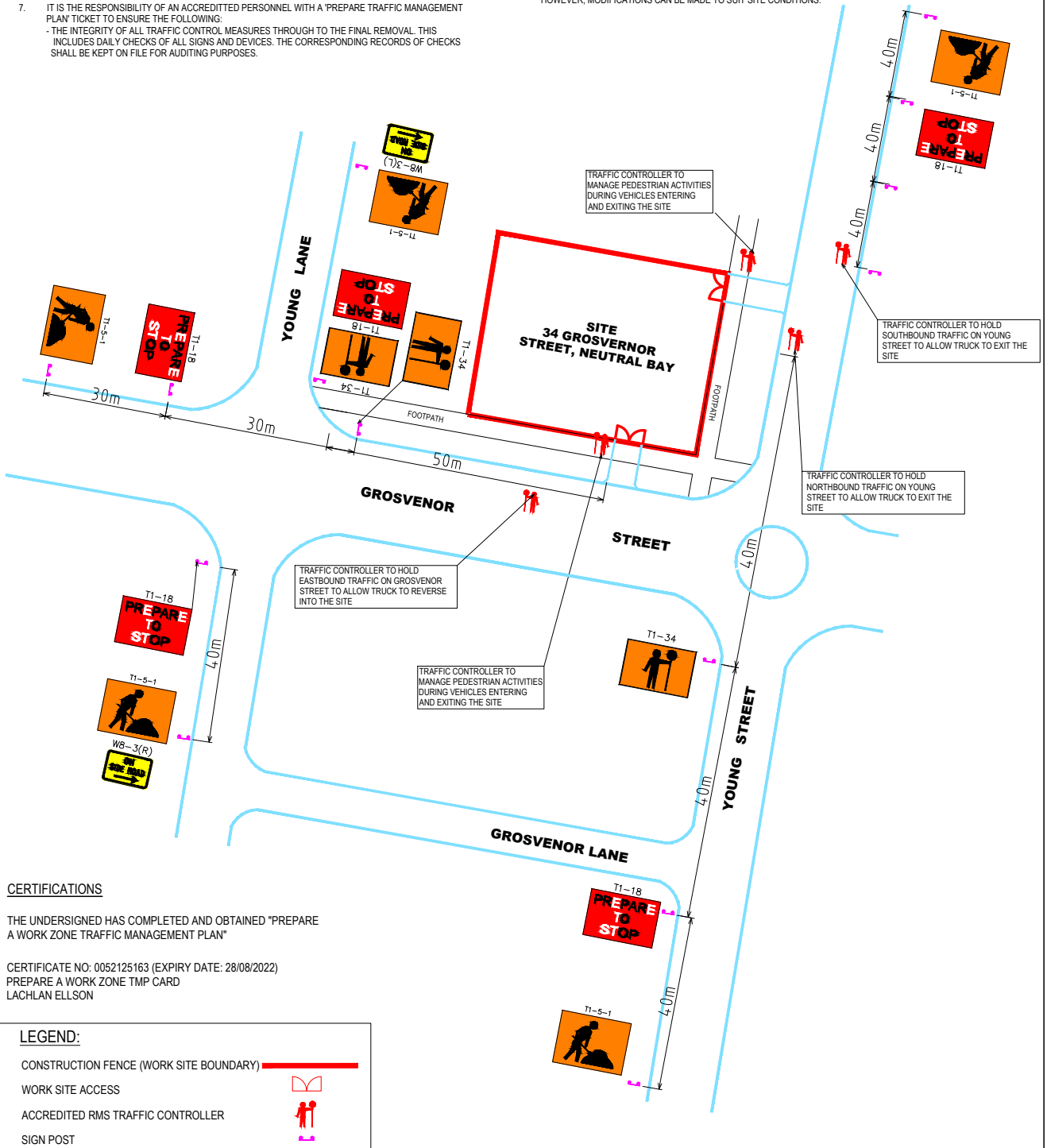
Traffic Guidance Schemes



NOTES

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL VERSION 5.0 DATED 27 JULY 2018 AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
5. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "IMPLEMENT TRAFFIC CONTROL PLANS" (YELLOW) TICKET AND THE RMS TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
6. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.
7. IT IS THE RESPONSIBILITY OF AN ACCREDITED PERSONNEL WITH A 'PREPARE TRAFFIC MANAGEMENT PLAN' TICKET TO ENSURE THE FOLLOWING:
- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.

9. - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.
10. - AT ALL TIMES AN UP-TO-DATE COPY OF 'TRAFFIC CONTROL AT WORK SITES' SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.
11. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
12. IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS. TRAFFIC CONTROLLERS ARE TO BE REQUIRED AT THE ACCESS FULL TIME AND THEY ARE TO BE SUITABLY ACCREDITED TO AUSTRALIAN STANDARDS AND RMS ACCREDITATION AS REQUIRED. WHEN REQUIRED T1-34 AND T1-10 SIGNS ARE TO BE SET UP IN ACCORDANCE TO AUSTRALIAN STANDARDS AND RMS REQUIREMENTS.
13. ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
14. ALL SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
15. ALL NIGHT WORK OR DAY/NIGHT MUST USE RMS STANDARD NIGHT SIGNS AND DEVICES UNLESS OTHERWISE STATED.
16. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.
17. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.



CERTIFICATIONS

THE UNDERSIGNED HAS COMPLETED AND OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN"
 CERTIFICATE NO: 0052125163 (EXPIRY DATE: 28/08/2022)
 PREPARE A WORK ZONE TMP CARD
 LACHLAN ELLSON

LEGEND:

- CONSTRUCTION FENCE (WORK SITE BOUNDARY)
- WORK SITE ACCESS
- ACCREDITED RMS TRAFFIC CONTROLLER
- SIGN POST

34 GROSVENOR STREET, NEUTRAL BAY TRAFFIC GUIDANCE SCHEME

SITE ACCESSES (EXISTING DRIVEWAY) ON GROSVENOR STREET AND YOUNG STREET

DRAWING REF NO. 20069-01-01 ISSUE A ISSUE DATE 04/07/2022

DESIGNED BY L. ELLSON APPROVED BY M. KONG

SCALE A3 NOT TO SCALE

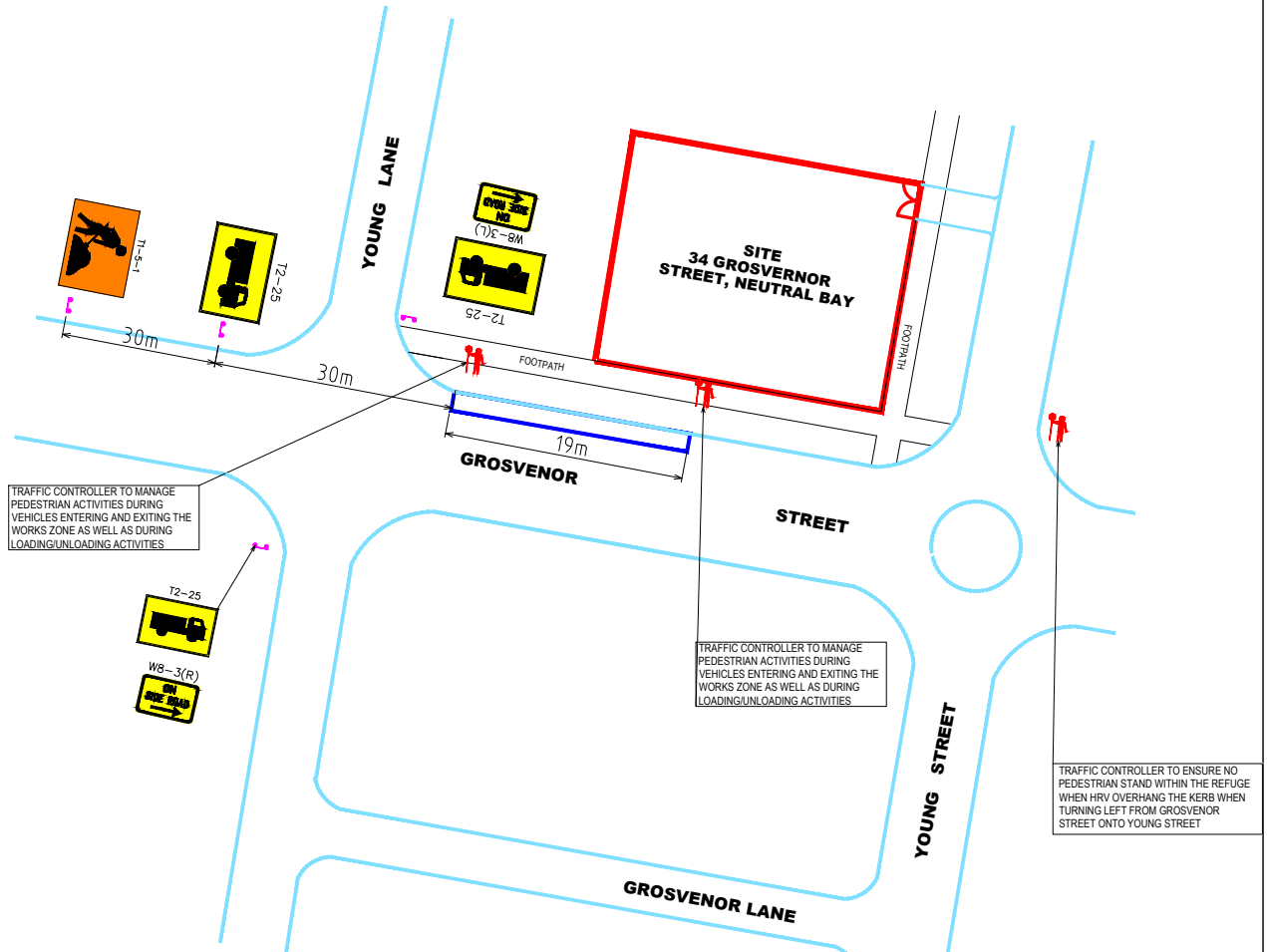
FINAL PLAN
 ANY CHANGES TO THE PLAN SHALL BE DONE WITHIN ALLOWANCE PROVIDED IN THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL, VERSION 5.0 DATED 27 JULY 2018

ttpa TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
 Established 1994

Address: Suite 502, Level 5, 282 Victoria Avenue, Chatswood NSW 2067
 P: (02) 9411 5660 F: (02) 9904 6622 W: www.ttpa.com.au

NOTES

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL VERSION 5.0 DATED 27 JULY 2018 AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
5. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "IMPLEMENT TRAFFIC CONTROL PLANS" (YELLOW) TICKET AND THE RMS TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
6. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.
7. IT IS THE RESPONSIBILITY OF AN ACCREDITED PERSONNEL WITH A "PREPARE TRAFFIC MANAGEMENT PLAN" TICKET TO ENSURE THE FOLLOWING:
- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
8. VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.
9. AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.
10. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS. TRAFFIC CONTROLLERS ARE TO BE REQUIRED AT THE ACCESS FULL TIME AND THEY ARE TO BE SUITABLY ACCREDITED TO AUSTRALIAN STANDARDS AND RMS ACCREDITATION AS REQUIRED. WHEN REQUIRED T1-34 AND T1-10 SIGNS ARE TO BE SET UP IN ACCORDANCE TO AUSTRALIAN STANDARDS AND RMS REQUIREMENTS.
ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
11. ALL SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
12. ALL NIGHT WORK OR DAY/NIGHT MUST USE RMS STANDARD NIGHT SIGNS AND DEVICES UNLESS OTHERWISE STATED.
13. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.
14. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.



CERTIFICATIONS

THE UNDERSIGNED HAS COMPLETED AND OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN"

CERTIFICATE NO: 0052125163 (EXPIRY DATE: 28/08/2022)
PREPARE A WORK ZONE TMP CARD
LACHLAN ELLSON

LEGEND:

- CONSTRUCTION FENCE (WORK SITE BOUNDARY)
- WORK SITE ACCESS
- ACCREDITED RMS TRAFFIC CONTROLLER
- SIGN POST
- WORKS ZONE

34 GROSVENOR STREET, NEUTRAL BAY
TRAFFIC GUIDANCE SCHEME
WORKS ZONE ACCESS AND OPERATION ON THE NORTHERN SIDE OF GROSVENOR STREET

DRAWING REF NO. 20069-01-01 ISSUE A ISSUE DATE 04/07/2022

DESIGNED BY L. ELLSON APPROVED BY M. KONG

SCALE A3 NOT TO SCALE

FINAL PLAN
ANY CHANGES TO THE PLAN SHALL BE DONE WITHIN ALLOWANCE PROVIDED IN THE ROADS AND MARITIME SERVICES TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL, VERSION 5.0 DATED 27 JULY 2018



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Established 1994

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5.3. Ernest Street at Sophia Street, Crows Nest - Traffic Calming Review

AUTHOR: Brin Baskaran, Traffic and Transport Engineer

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS:

1. Traffic Committee Approved Ernest St at Sophia St Crows Nest - Refuge Island Reconstruction Plan [5.3.1 - 4 pages]

PURPOSE:

At the Traffic Committee meeting dated 10 June 2022, it was resolved to recommend:

***THAT** a report come back to the committee in 3 months to see if the Traffic Calming on the corner of Palmer and Abbott Street, Cammeray as well as the intersection on the corner of Sophia Street and Ernest Street are both working.*

This matter was endorsed at the 376th Council meeting dated 27 June 2022. Therefore, the refuge island reconstruction in Ernest Street at Sophia Street is now due for review.

EXECUTIVE SUMMARY:

As part of the 2019/2020 implementation of North Sydney Council's Local Area Traffic Management (LATM) Action Plans, it was proposed to reconstruct the existing Refuge Island in Ernest Street at Sophia Street to comply with the current Australian Standard. This work resulted in gaining of 2 additional parking spaces on south side of Ernest Street. This proposal was approved by the Traffic Committee under Delegated Authority (TDA 038/20) on 6 April 2020, with following recommended and subsequently adopted by Council:

***THAT** Council reconstructs the existing Refuge Island in Ernest Street at Sophia Street to comply with the current Australian Standard, after the affected properties are notified by letterbox delivery*

The construction of Refuge Island and associated civil works were completed in September 2020.

At the Traffic Committee meeting dated 10 June 2022, it was resolved to recommend:

***THAT** a report come back to the committee in 3 months to see if the Traffic Calming on the corner of Palmer and Abbott Street, Cammeray as well as the intersection on the corner of Sophia Street and Ernest Street are both working.*

This matter was endorsed at the 376th Council meeting dated 27 June 2022.

FINANCIAL IMPLICATIONS:

Nil.

RECOMMENDATION:

1. **THAT** the constructed refuge island in 2020 at the intersection of Ernest Street and Sophia Street, Crows Nest to remain.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

2. Our Built Infrastructure
 - 2.1 Infrastructure and assets meet diverse community needs
 - 2.2 Vibrant public domains and villages
5. Our Civic Leadership
 - 5.3 Community is engaged in what Council does
 - 5.4 Council services are efficient and easy to access

CONSULTATION REQUIREMENTS

Community engagement is not required.

Standard or Guideline Used: AS1742.10

Signs & Lines Priority: N/A

Precinct and Ward: Holtermann, St Leonards

Impact on Bicycles: No impact on bicycles. The site is not on a bicycle route.

Impact on Pedestrians: the proposal will improve pedestrian's safety.

Impact on Parking: gaining 2 additional parking spaces

DETAIL

As part of the 2019/2020 implementation of North Sydney Council's Local Area Traffic Management (LATM) Action Plans, it was proposed to reconstruct the existing Refuge Island in Ernest Street at Sophia Street to comply with the current Australian Standard. This work resulted in gaining of 2 additional parking spaces on south side of Ernest Street. This proposal was approved by the Traffic Committee under Delegated Authority (TDA 038/20) on 6 April 2020, with following recommended and subsequently adopted by Council:

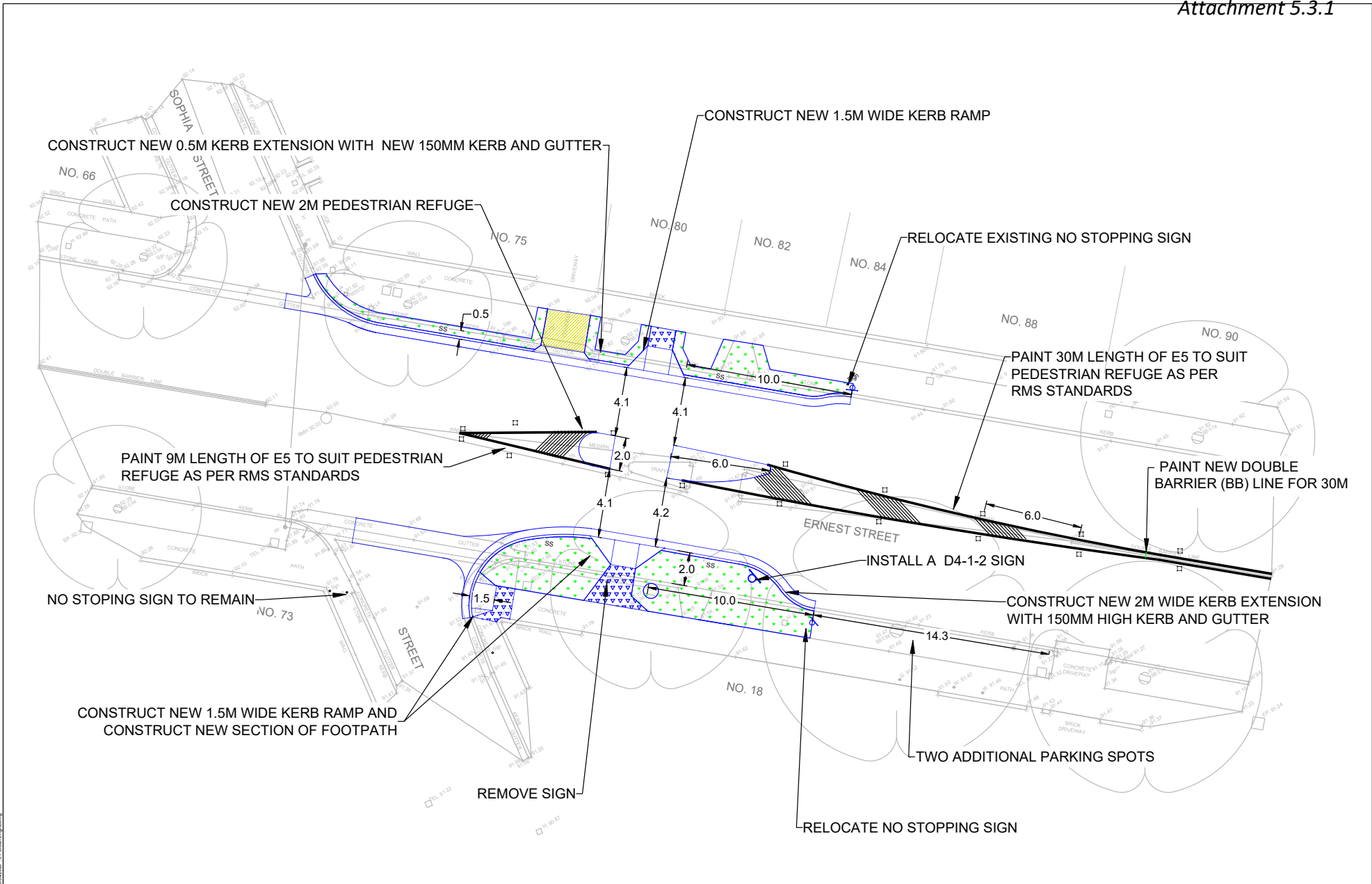
THAT Council reconstructs the existing Refuge Island in Ernest Street at Sophia Street to comply with the current Australian Standard, after the affected properties are notified by letterbox delivery

The construction of Refuge Island and associated civil works were completed in September 2020.

At the Traffic Committee meeting dated 10 June 2022, it was resolved to recommend:

THAT a report come back to the committee in 3 months to see if the Traffic Calming on the corner of Palmer and Abbott Street, Cammeray as well as the intersection on the corner of Sophia Street and Ernest Street are both working.

This matter was endorsed at the 376th Council meeting dated 27 June 2022. Council has not received any feedback from the community since the reconstruction of the refuge island. Hence, no further action is required at this intersection.



3	CONCEPT DESIGN	PT	JC	PT	PT	03/03/2020
2	CONCEPT DESIGN	PT	JC	PT	PT	16/03/2020
1	CONCEPT DESIGN	PT	JC	PT	PT	10/03/2020
1	ISSUE					

CLIENT




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 www.northsydney.nsw.gov.au

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CO-ORDINATE SYSTEM
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PLAN SCALE
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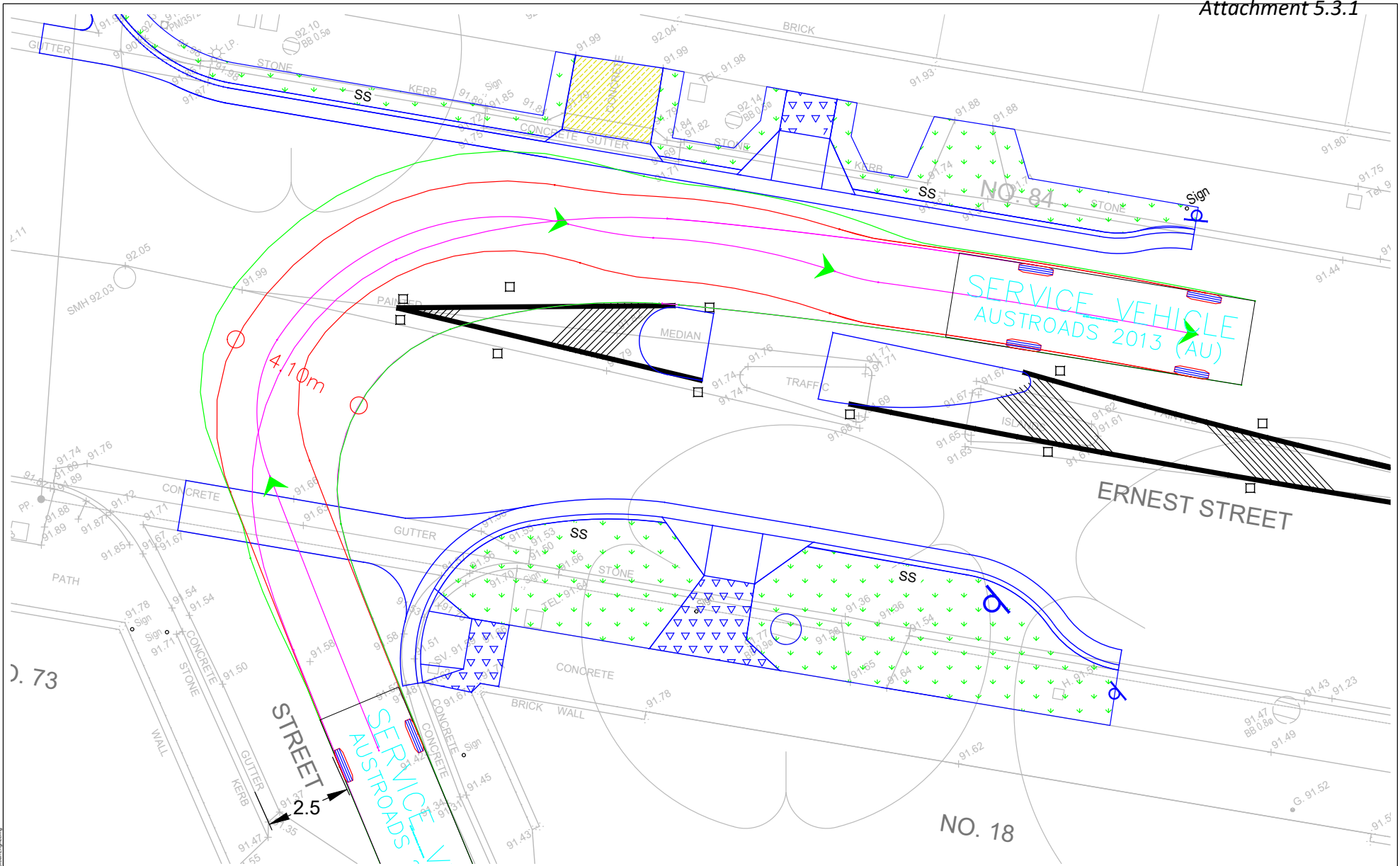
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 MAROUBRA NSW 2035 E.pau@urbanengineering.com.au

PROJECT
 PEDESTRIAN REFUGE UPGRADE
 ERNEST ST AND SOPHIA ST, CROWS NEST

DRAWING TITLE
 LAYOUT PLAN

STATUS: CONCEPT
PROJECT No.: 19-027C
DWG No.: 19-027C-203
SHEET No.: 3



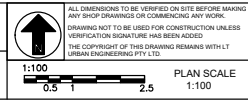
SERVICE VEHICLE AT 5KM/H

NO.	DESCRIPTION	DATE	BY	CHECKED	STATUS
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2	CONCEPT DESIGN	PT	JC	PT	16/03/2020
1	CONCEPT DESIGN	PT	JC	PT	10/03/2020
1	ISSUE	PT	JC	PT	10/03/2020

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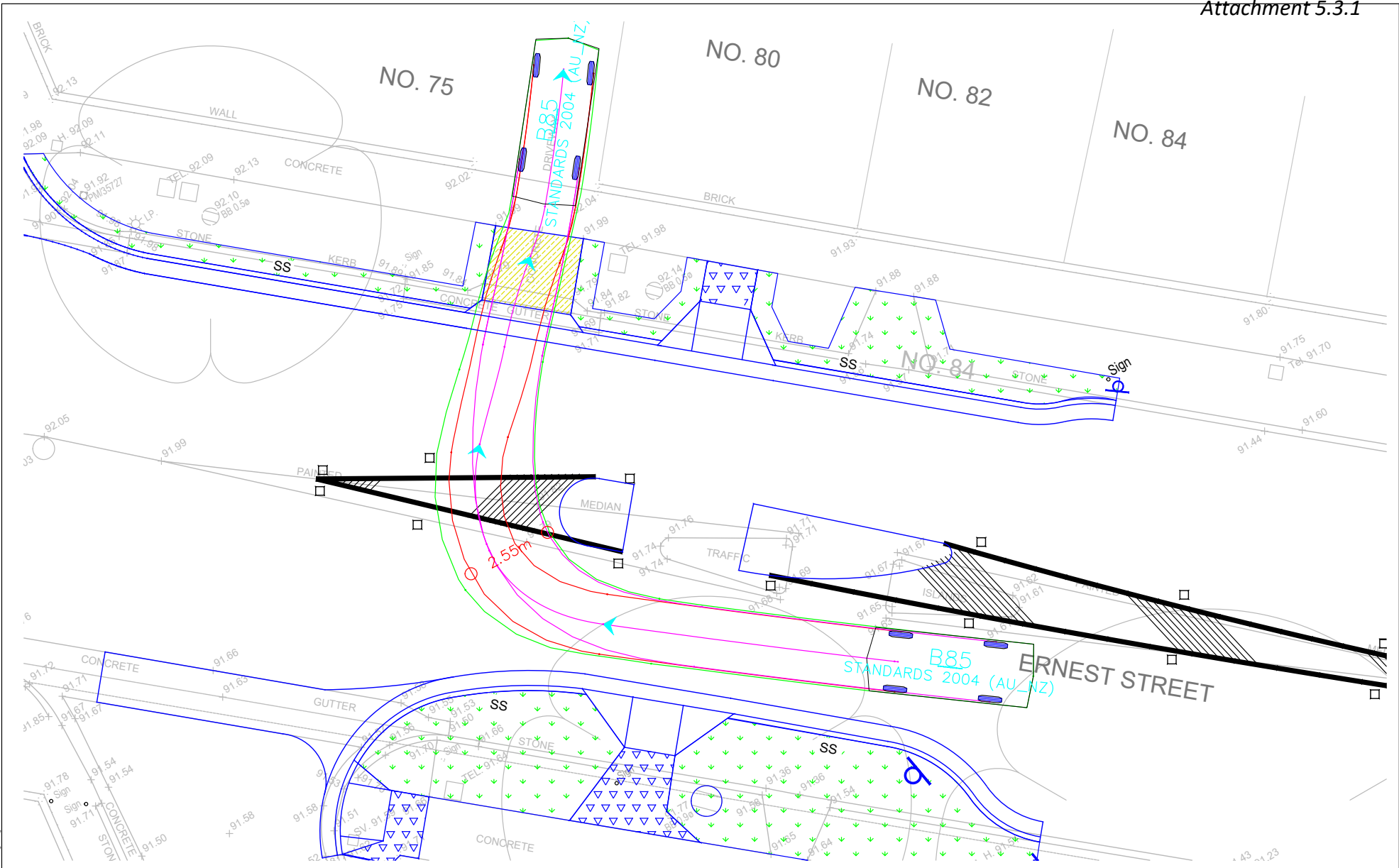


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 E pa@lturbanengineering.com.au

PROJECT
 PEDESTRIAN REFUGE
 UPGRADE
 ERNST ST AND SOPHIA
 ST, CROWS NEST

DRAWING TITLE
 SWEPHTH PATH ANALYSIS 1

STATUS:
 CONCEPT
 PROJECT No.: 19-027C
 DWG No.: 19-027C-204
 PAPER: A3
 ISSUE: 3



B85 VEHICLE AT 5KM/H

NO.	DESCRIPTION	DATE	BY	CHECKED	STATUS
3	CONCEPT DESIGN	PT	JC	PT	03/03/2020
2	CONCEPT DESIGN	PT	JC	PT	16/03/2020
1	CONCEPT DESIGN	PT	JC	PT	16/03/2020

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PROJECT
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 UPGRADE
 ERNST ST AND SOPHIA
 ST, CROWS NEST

DRAWING TITLE
 SWEPH ANALYSIS 2

STATUS:
 CONCEPT
 PROJECT No.: 19-027C
 DWG No.: 19-027C-205
 PAPER: A3
 ISSUE: 3



B85 VEHICLE AT 5KM/H


2	CONCEPT DESIGN	PT	JC	PT	PT	03/03/2020
1	CONCEPT DESIGN	PT	JC	PT	PT	16/03/2020
1	CONCEPT DESIGN	PT	JC	PT	PT	16/03/2020

CLIENT

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PROJECT
 PEDESTRIAN REFUGE
 UPGRADE
 ERNST ST AND SOPHIA
 ST, CROWS NEST

DRAWING TITLE
 SWEPH ANALYSIS 3

STATUS:
 CONCEPT
PROJECT
 No.: 19-027C
DWG
 No.: 19-027C-206
PAPER: A3
ISSUE: 2

5.4. Palmer Street at Abbott Street, Cammeray – Traffic Calming Review

AUTHOR: Brin Baskaran, Traffic and Transport Engineer

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS:

1. Traffic Committee Approved Abbott Street and Palmer Street - Installation of pedestrian refuge and [5.4.1 - 1 page]

PURPOSE:

At the Traffic Committee meeting dated 10 June 2022, it was resolved to recommend:

***THAT** a report come back to the committee in 3 months to see if the Traffic Calming on the corner of Palmer and Abbott Street, Cammeray as well as the intersection on the corner of Sophia Street and Ernest Street are both working.*

This matter was endorsed at the 376th Council meeting dated 27 June 2022. Therefore, the traffic calming in Palmer Street at Abbott Street is now due for review.

EXECUTIVE SUMMARY:

As part of the 2021/2022 implementation of North Sydney Council's Local Area Traffic Management (LATM) Action Plans, a pedestrian refuge and speed cushions at the intersection of Abbott Street and Palmer Street, Cammeray were installed to slow down traffic and reduce the crossing distance. This proposal was approved by Traffic Committee under Delegated Authority (TDA 107/21) on 11 February 2022, with the following recommendation which was subsequently adopted by Council:

***THAT** Council installs a pedestrian refuge and speed cushions at the intersection of Abbott Street and Palmer Street, Cammeray, after the affected properties are notified by letterbox delivery.*

At the Traffic Committee meeting dated 10 June 2022, it was resolved to recommend:

***THAT** a report come back to the committee in 3 months to see if the Traffic Calming on the corner of Palmer and Abbott Street, Cammeray as well as the intersection on the corner of Sophia Street and Ernest Street are both working.*

This matter was endorsed at the 376th Council meeting dated 27 June 2022.

FINANCIAL IMPLICATIONS:

Nil.

RECOMMENDATION:

1. THAT the constructed pedestrian refuge and speed cushions in 2022 at the intersection of Palmer Street and Abbott Street, Cammeray to remain.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

2. Our Built Infrastructure

- 2.1 Infrastructure and assets meet diverse community needs
- 2.2 Vibrant public domains and villages

5. Our Civic Leadership

- 5.3 Community is engaged in what Council does
- 5.4 Council services are efficient and easy to access

CONSULTATION REQUIREMENTS

Community engagement is not required.

Standard or Guideline Used: AS1742.10

Signs & Lines Priority: N/A

Precinct and Ward: Bridgeview, St Leonards

Impact on Bicycles: No impact on bicycles. The site is not on a bicycle route.

Impact on Pedestrians: the proposal will improve pedestrian's safety.

Impact on Parking: No loss of legal parking spaces.

DETAIL

As part of the 2021/2022 implementation of North Sydney Council's Local Area Traffic Management (LATM) Action Plans, a pedestrian refuge and speed cushions at the intersection of Abbott Street and Palmer Street, Cammeray were installed to slow down traffic and reduce the crossing distance. This proposal was approved by Traffic Committee under Delegated Authority (TDA 107/21) on 11 February 2022, with the following recommendation which was subsequently adopted by Council:

THAT Council installs a pedestrian refuge and speed cushions at the intersection of Abbott Street and Palmer Street, Cammeray, after the affected properties are notified by letterbox delivery.

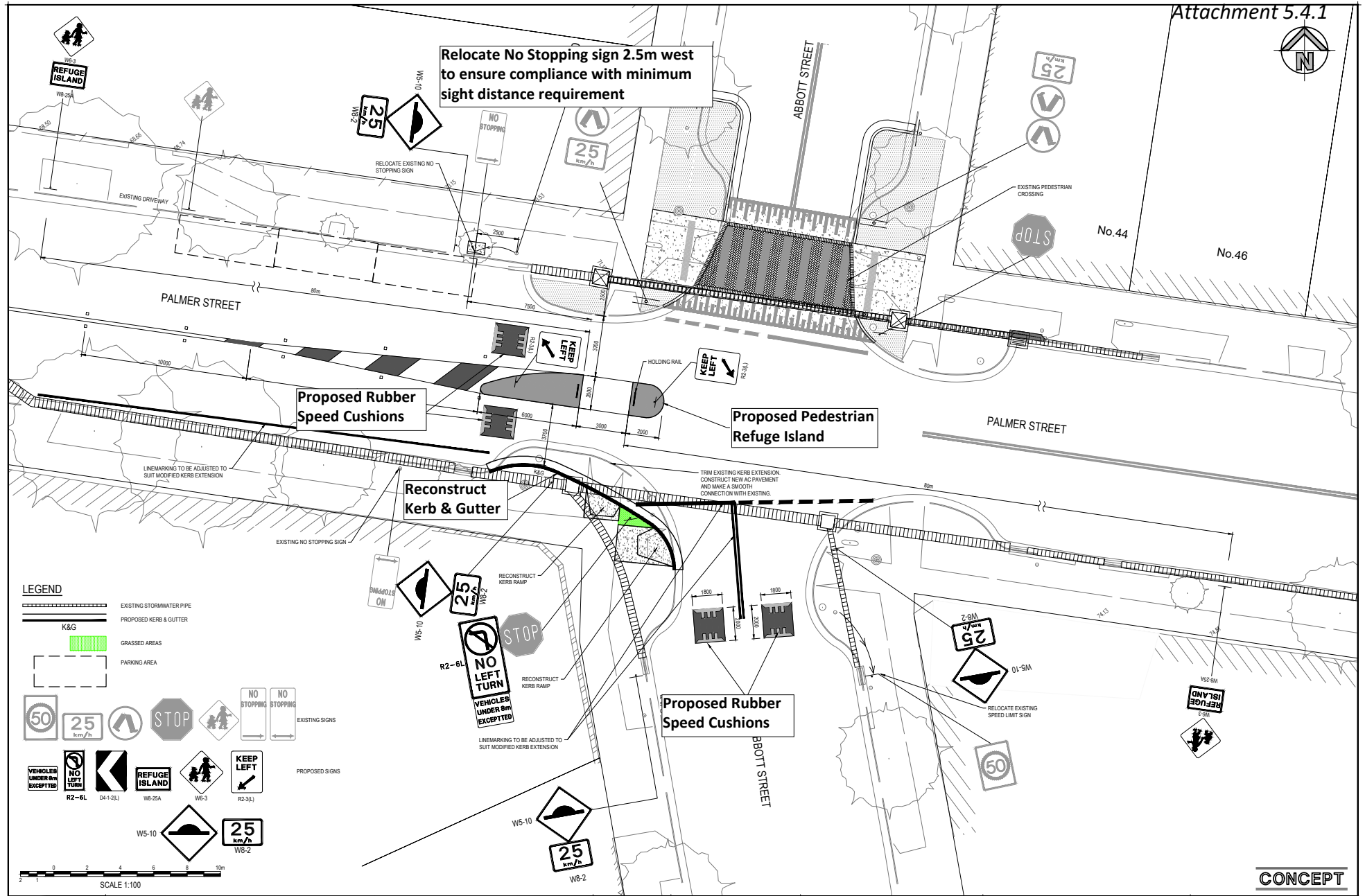
At the Traffic Committee meeting dated 10 June 2022, it was resolved to recommend:

THAT a report come back to the committee in 3 months to see if the Traffic Calming on the corner of Palmer and Abbott Street, Cammeray as well as the intersection on the corner of Sophia Street and Ernest Street are both working.

This matter was endorsed at the 376th Council meeting dated 27 June 2022.

Council has received one feedback from the community after the construction of refuge island and speed cushion was completed and there has been no further feedback since then.

Resident Comment	Officer Comment
<p>Good afternoon, I am writing to voice my anger at the stupidity of the pedestrian island that has recently been added to the intersection of Abbott & Palmer St Cammeray.</p> <p>Whose bright idea was it to make the road narrower & then fill it in with a pedestrian island!!. And now overnight we have speed bumps to boot!!. Seriously, I don't own a large car & now it's difficult to get around the corner. Not to mention that now pedestrians fly out in front of you to stand on the island, whereas before they would have waited. This will be more dangerous than it was previously.</p> <p>I would like to know what study was done to come to the conclusion to erect this "safety" crossing. Even the pedestrian crossing is in a stupid place, all it does is stop the flow of traffic. Honestly, try consulting with residents not councillors. I believe there will be a lot of angry residents & more accidents.</p>	<p>The pedestrian refuge and speed cushion have been installed in accordance with the Australian Standard.</p> <p>The purpose of narrowing the street width is to reduce the speeding in the street and shortened crossing distance for pedestrian. Traffic tube count was taken prior and after the installation of pedestrian refuge and speed cushion. Prior to the installation, the 85th percentile speed was 47km/hr and after the installation, the 85th percentile speed was 40km/hr. Hence, the traffic calming installation has reduced speeding on Palmer Street.</p> <p>The travel lane is more than 3m and vehicles can manoeuvre without any difficulties.</p> <p>As part of the 2021/2022 implementation of North Sydney Council's Local Area Traffic Management (LATM) Action Plans, it was proposed to install a pedestrian refuge and speed cushions.</p> <p>Community consultation took place from 6 November 2020 until 6 December 2020. Approximately 68 questionnaires were sent to properties in the surrounding area, and Tunks and The Plateau Precincts. The survey was available online through Council's 'Have Your Say' webpage. A total of 9 responses were received. This represents a response rate of 13.2%, which is above the average response rate of 10 to 12%. The results indicate a community preference for the installation a pedestrian refuge (88.9% support and 11.1% objection) and speed cushions (55.6% support and 44.4% objection).</p>



CONCEPT

SURVEY INFORMATION SURVEYED BY C&A SURVEYORS DATUM: AHD		NORTH SYDNEY COUNCIL C-SIDE SURVEYORS		Level: 5, 79 Victoria Avenue Chateau NSW 2067 Telephone: +61 2 9417 8400 Facsimile: +61 2 9417 8337 Email: enquiries@hny.com.au Web: www.henryhymas.com.au		Project: PEDESTRIAN CROSSING DESIGN ABBOTT - PALMER STREETS, CAMMERAY The GENERAL ARRANGEMENT (OPTION 2)		Client: D. Tran Designer: D. Rhodes Checked: M. Williamson Approved: L. Harrigan Date: Nov 2019 Scale: 1:100 Drawing number: 19D97_SK_C103_02 Revision:	
Traffic Committee Meeting - 18 November 2022 Agenda		This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.				19D97_SK_C103_02 Page 149 of 221			

5.5. New Car Share Applications- Consultation Outcomes

AUTHOR: Max White, {position}

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS:

1. Attachment A Community Engagement Strategy - New Car Share Applications ECM 9056530 [5.5.1 - 5 pages]
2. Attachment B Motorbike and Scooter Parking Strategy and Action Plan [5.5.2 - 19 pages]

PURPOSE:

This report recommends one parking space in Angelo Street, Blue Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest be converted to dedicated car share spaces. The application is informed by data provided by the operator that demand for car share is increasing and surplus demand exists at the sites, and consultation outcomes with the community.

EXECUTIVE SUMMARY:

The Car Share provider GoGet has proposed five dedicated car share spaces in Angelo Street, Blue Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest. In October 2022, GoGet submitted applications for the locations, which included three months usage data and memberships within a 250-meter radius of each location.

In addition, GoGet has completed its Annual Survey and the result for North Sydney revealed a steep decrease in car ownership after residents joined. The survey found that 30% of members had given up a car entirely since joining GoGet, combined with customers that already did not have a car, this results in 63% of North Sydney members no longer owning a car. These members reported that joining carshare enabled them to defer the purchase of a car.

This report recommends the proposed dedicated parking spaces in Angelo Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest be converted to dedicated car share spaces in line with the data provided by the operator that surplus demand exists at the sites and consultation outcomes with the community.

FINANCIAL IMPLICATIONS:

There will be no financial implications to Council.

RECOMMENDATION:

1. THAT the consideration of the new car share spaces in Angelo Street, Blue Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest be approved by the Council.

LINK TO COMMUNITY STRATEGIC PLAN

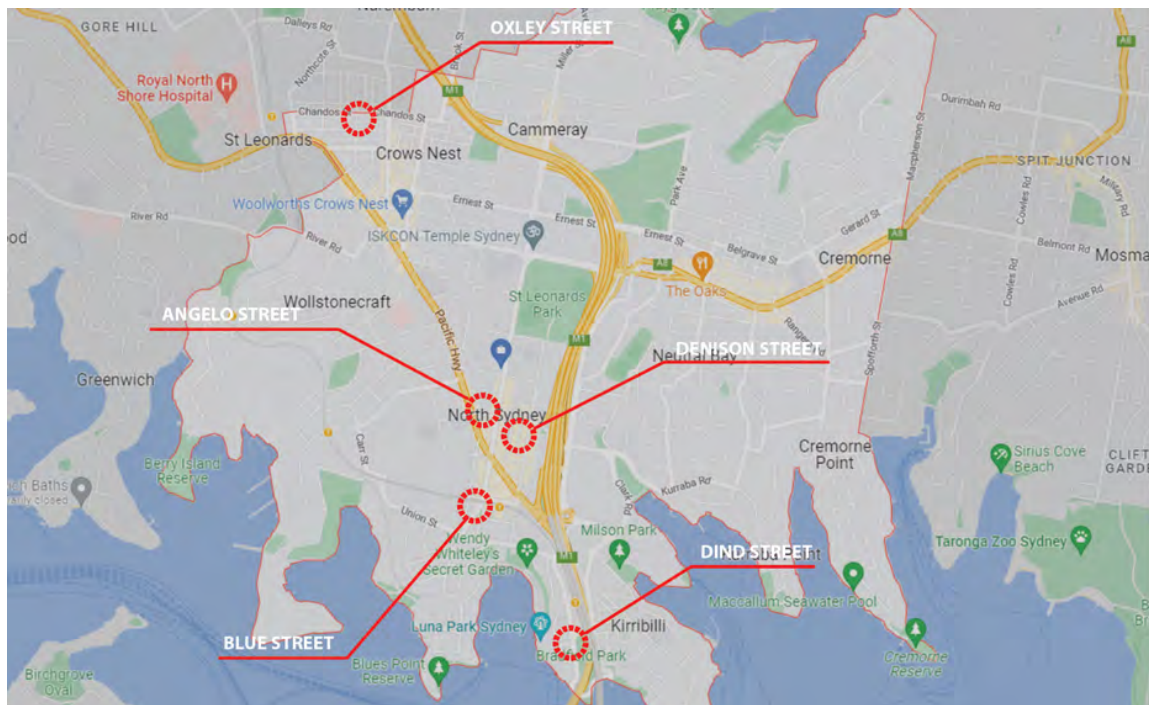
The relationship with the Community Strategic Plan is as follows:

- 2. Our Built Infrastructure
 - 2.3 Prioritise sustainable and active transport
 - 2.4 Efficient traffic mobility and parking
- 3. Our Innovative City
 - 3.2 North Sydney is smart and innovative

BACKGROUND

The North Sydney Community Strategic Plan North Sydney Vision 2040 ('CSP') sets a target to increase the number of car share membership in the North Sydney LGA. The expanded provision of on-road dedicated car share spaces in appropriate locations is required to achieve this target.

In line with the CSP, this report recommends the proposed dedicated parking spaces in Angelo Street, Blue Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest be converted to dedicated car share spaces in line with the data provided by the operator that surplus demand exists at the sites and consultation outcomes with the community.



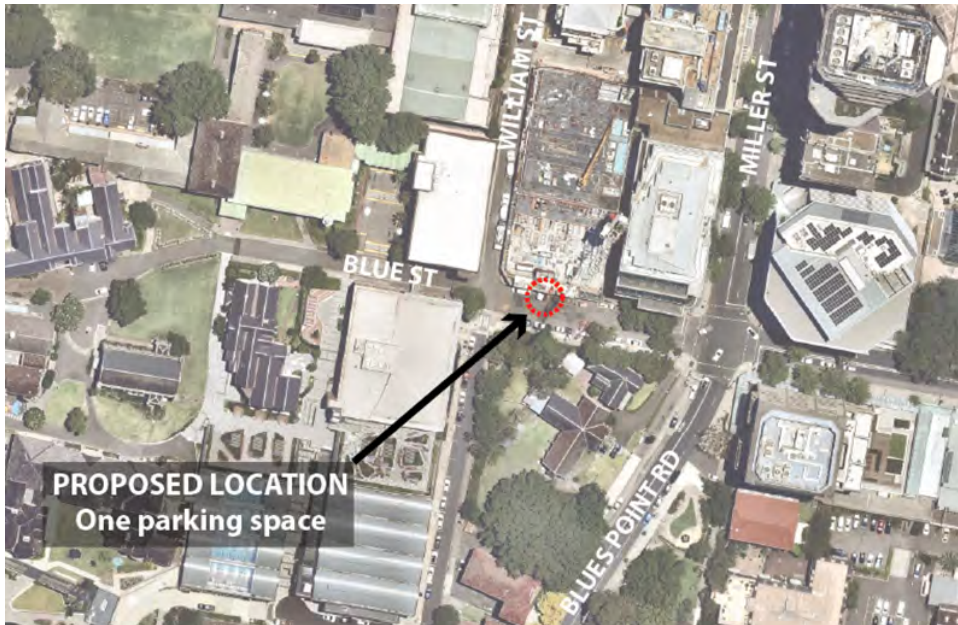
Map 1. Proposed dedicated car share locations



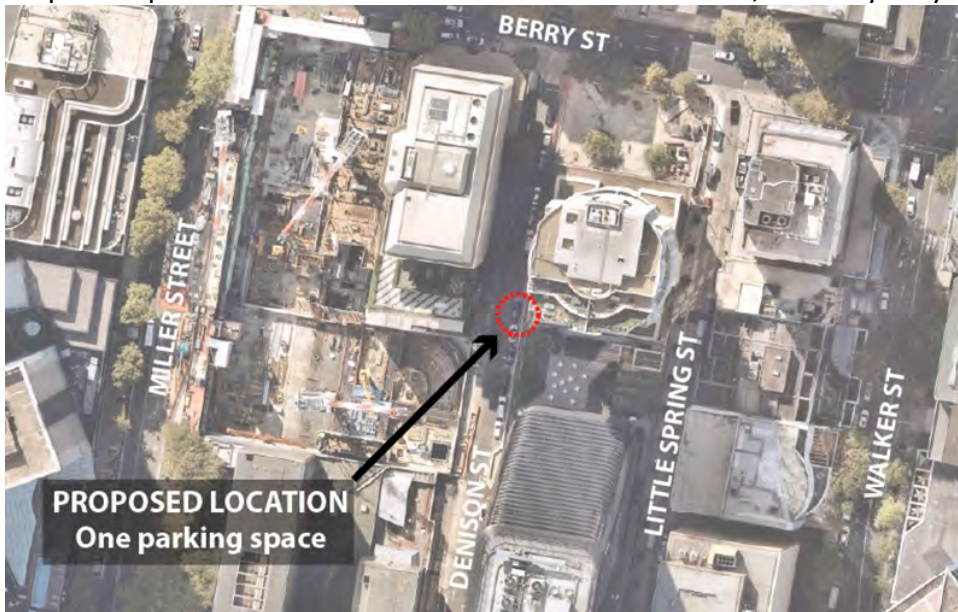
Map 2. Proposed dedicated car share location Dind Street, Milsons Point



Map 3. Proposed dedicated car share location Oxley Street, Crows Nest



Map 4. Proposed dedicated car share location Blue Street, North Sydney



Map 5. Proposed dedicated car share location Denison Street, North Sydney



Map 6. Proposed dedicated car share location Angelo Street, North Sydney

Car Share schemes provide several potential benefits to scheme members and the broader community as they can:

- Enable residents to have car free households
- Encourage walking, cycling and greater use of public transport
- Increase parking capacity, as one car/space can cater for many residents
- Ease traffic congestion by reducing traffic 'cruising' for parking
- Improve cost of living through reduced dependency on car ownership
- Clean the air and reduce carbon emissions through less car kilometers travelled

CONSULTATION REQUIREMENTS

Community consultation has been undertaken as outlined in the New Car Share Application – Community Engagement Strategy (refer to attachment A)

Relates to ECM No: 9052406, 9052849, 9052833, 9052890, 9052863

Standard or Guideline Used: New Car Share Application – Community Engagement Strategy, North Sydney Car Share Policy, RMS TTD 2018/001

Signs & Lines Priority: 2

Precinct and Ward: Lavender Bay precinct, Central Business District precinct, Stanton precinct, Holtermann precinct. Cammeraygal Ward, St Leonards Ward."[Precinct], [Ward]"

Impact on Bicycles: Nil

Impact on Pedestrians: Nil

Impact on Parking: The recommendation results in the conversion of five (5) parking spaces to dedicated car share spaces.

DETAIL

Consultation

Operators seeking to install a new vehicle space are first required to submit an application to Council that contains information relevant to the criteria set out in the North Sydney Car Share Policy, and a justification for the installation of the space. Applications are subject to a fee.

The application process includes the following steps:

The steps involved include:

1. Application - the Car Share Provider applies to Council for a new car share parking location. Council Traffic & Transport Operation staff assess the application, and if they do not conflict with the North Sydney Car Share Policy, TfNSW car share guidelines, or any other of Council's Policies, a sign is installed seeking community feedback on the proposal.
2. Community Consultation - the community is provided opportunity to comment on the proposed car share location. The consultation period is 14 days and personally addressed letters are mailed to residents and businesses within 100 metres of each location, and signage installed at the site.



Image 1. Example of signage installed at proposed car share parking location

3. Traffic Committee - the application and outcomes from the community consultation are taken to the North Sydney Traffic Committee for consideration.
4. Installation - if approved, signage indicating the changes to parking are exhibited for 14 days after which car share parking signage is installed.



Image 2. Example of signage installed at approved car share parking location

Consultation on the proposed three dedicated car share spaces in Angelo Street, Blue Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest was conducted in November 2022. as outlined in the New Car Share Application – Community Engagement Strategy (refer to Attachment A for further details).

The spaces proposed do not conflict with any key technical standards or guidelines. Submissions indicated medium to high support for Blue, Denison, Oxley and Angelo Street, and for Dind Street there were significantly more people opposing the dedicated bay than supported. The main concern was the loss of parking.

Contrary to submission concerns, car share has been shown to reduce the strain on parking. In a recent annual survey of GoGet, customers in North Sydney reported a steep decrease in car ownership after residents joined. The survey found that 30% of members had given up a car entirely since joining GoGet, combined with customers that already did not own a car, this results in 63% of North Sydney members no longer owning a car. These members reported that joining cars share enabled them to defer the purchase of a car.

GoGet has provided further local data on the positive impact car share has on parking specific to each location. This is outlined in the submissions report.

Feedback Summary

Feedback on applications received for car share parking locations in Angelo Street, Blue Street, Denison Street, North Sydney, Dind Street, Milsons Point, and Oxley Street, Crows Nest closed 14 November 2022. In accordance with Council's Car Share Policy, before finalising assessment of each application, community feedback is sought on the proposed car share locations via notification of each proposal.

Angelo Street

A total of 6 submissions were received for the dedicated Car Share on Angelo Street. Of these submissions, 4 (67%) submissions supported the location. Convenience and improved access for older adults were the main themes.

Of the 2 (33%) submissions that opposed the location, preference for motorbike parking and noise pollution were the main themes.

The submission that raised noise pollution as a problem had mistaken Car Share as a Taxi Rank.

A response (by theme) to the submissions opposing the location is provided below:

No.	Issues	Response
1	Motorbike Parking	This submission requested that the proposed Car Share Bay be used for Motorbike parking. There are currently 37 motorbike parking spaces within 150 metres of the proposed site, including 8 motorbike parking spaces immediately adjacent to the proposed site. Council does encourage residents to nominate potentially redundant No Parking and No Stopping zones for investigation through the feedback form on Council's website Further information regarding Motorbike Parking is available in the Motorbike and Scooter Parking Strategy and Action Plan (Attachment B)
1	Noise complaint	This submission mistook the Car Share location as a Taxi/Ride Share rank. Concern was raised about the noise made by customers late at night waiting for a ride share. Noise from Car Share members would be minimal, particularly late at night. Majority of Car Share bookings are made during the day.

Blue Street

A total of 3 submissions were received for the dedicated Car Share on Blue Street. Of these submissions, 2 (66%) submissions that supported the location, reducing car ownership was the main theme.

Of the 1 (33%) submission that supported the location, interference with a construction site was the main concern.

A response to the submitter that did not support the location is provided below:

No.	Issues	Response
1	Interference with Construction site	There is currently a construction site on the corner of William Street and Blue Street, North Sydney. The proposed Car Share parking would not interfere with any work zones and parking is still available at the proposed Car Share site. In consultation with GoGet, it has been decided to recommend approving the dedicated bay however wait until restoration of the pavement by the developer is complete before installation. This is planned for February-March 2023.

Denison Street

A total of 5 submissions were received for the dedicated Car Share on Denison Street. Of these submissions, 4 (80%) submissions supported the proposal. Convenience and affordability were the main themes.

Of the 1 (20%) submission that opposed the location, parking and equity were the main themes.

A response (by theme) to the submissions opposing the location is provided below:

No.	Issues	Response
1	Parking	<p>Council understand that parking is a concern for residents and difficulty locating parking can cause issues with access. On-street parking is a finite resource and additional on-street parking is rarely possible. This means Council must use this resource more efficiently and Car Share is one tool that can free up on-street parking. Car Share can have significant benefits for residents in alleviating parking capacity issues.</p> <p>For the Denison Street application, GoGet provided 3 consecutive months data for the nearest GoGet Bay, Walker Street North Sydney. The Walker Street data included</p> <ul style="list-style-type: none"> • June – 33 trips, 7-hour average per day, 226 hours total • July – 31 trips, 11-hour average per day, 353 hours total • August – 34 trips, 8-hour average per day, 254 hours total <p>In June 2020, GoGet data suggested that 801 metres of on-street parking has been saved in North Sydney due to the carshare induced deferral of vehicle purchases, which would have otherwise been parked on local streets.</p>
1	Equity	<p>Equitable access is a major consideration for Council with any change to parking.</p> <p>Providing dedicated bays for Car Share is important as they represent parking for a large section of the community. There are 822 GoGet members within 250 metres (or approximately 3 minutes' walk) of the Denison Street parking bay. Council must weigh up the benefit between free access to residents, tourists and visitors, and dedicated access to potentially 822 residents.</p> <p>Overall, the net benefit would suggest dedicated bays improve the experience for members (generally residents not visitors) and therefore encourages use. This then leads to reduced need for private vehicles and more on-street parking.</p>

Dind Street

A total of 11 submissions were received for the dedicated Car Share on Dind Street. Of these submissions, 4 (36%) submissions supported the proposal. Reducing car ownership, environmental sustainability and reducing strain on parking were the main themes.

Of the 7 (64%) submissions that opposed the location, parking and noise pollution were the main themes.

A response (by theme) to the submissions opposing the location is provided below:

No.	Issues	Response
6	Parking	<p>Council understand that parking is a concern for residents and difficulty locating parking can cause issues with access. On-street parking is a finite resource and additional on-street parking is rarely possible. This means Council must use this resource more efficiently and Car Share is one tool that can free up on-street parking. Car Share can have significant benefits for residents in alleviating parking capacity issues. For the Dind Street application, GoGet provided 3 consecutive months data for the nearest GoGet Bay, Milsons Point - Dind Street near Alfred Street South. The data included</p> <ul style="list-style-type: none"> • June – 37 trips, 6-hour average per day, 181 hours total • July – 31 trips, 4-hour average per day, 131 hours total • August – 34 trips, 4-hour average per day, 146 hours total <p>In June 2020, GoGet data suggested that 298 metres of on-street parking has been saved in Milsons Point due to the carshare induced deferral of vehicle purchases, which would have otherwise been parked on local streets.</p>
1	Noise pollution	<p>This submission mistook the Car Share location as a Taxi/Ride Share rank. Concern was raised about the noise made by customers late at night waiting for a ride share.</p> <p>Noise from Car Share members would be minimal, particularly late at night. Majority of Car Share bookings are made during the day.</p>

Oxley Street

A total of 2 submissions were received for the dedicated Car Share on Angelo Street.

Of these submissions, 2 (100%) submissions supported the location. Density, environmental sustainability, and affordability were the main themes.

No response is required due to unanimous support.

COMMUNITY ENGAGEMENT STRATEGY



New Car Share Applications

Prepared June 2022

Amended September 2022

Councils are required under the *Local Government Act 1993* to inform the community of issues that potentially affect their way of life. North Sydney Council is committed both in principle and in practice, to engaging on matters affecting the North Sydney community.

The purpose of this project-specific Community Engagement Strategy is to outline the ways stakeholders can be involved in the decision-making process. Community engagement opportunities will be provided across a range of 'engagement' levels.

1. Introduction

Council is committed to engaging the community to ensure adequate opportunity is provided for feedback on proposed car share locations. Council supports car share schemes as they are identified in the *North Sydney Community Plan* and the *North Sydney Transport Strategy (2018)* to encourage sustainable transport. Car share schemes provide potential benefits to the community, not just scheme members as they can:

- reduce the level of private vehicle ownership
- reduce pressure on parking, as one car/space can cater for many residents
- reduce traffic congestion caused by traffic 'cruising' to find parking.

Car share schemes also provide a transport option for residents and community members who don't or can't own their own car.

1.1 Council's Community Engagement Protocol

This strategy has been prepared in accordance with Council's *Community Engagement Protocol*. The Protocol is used to determine the level of 'level(s) of impact' applicable to this project/decision (proposal). This proposal has been determined as:

LEVEL OF IMPACT	LEVEL OF ENGAGEMENT
Low/Local	Inform and Consult

1.2 Relevant Legislation, Policies and Plans

This Engagement Strategy is informed by the following Council policies and plans:

- Car Share Policy
- Community Strategic Plan
- Compliance and Enforcement Policy
- Parking Management and Enforcement Policy
- Resident Parking Permit Policy

New Car Share Applications Community Engagement Strategy

Council used the framework shown below in Table 1.1 to select the most appropriate level(s) of engagement for this proposal to ensure an appropriate range of engagement levels and methods were offered:

LEVEL	DESCRIPTION
Inform	Providing balanced and objective information to help the community understand problems, alternatives, opportunities and/or solutions
Consult	Obtain public feedback on alternatives and/or decisions
Involve	Work directly with the community throughout the process to ensure that public concerns and aspirations are consistently understood and considered
Collaborate	Partner with the public in each aspect of the decision including the development of alternatives and identification of the preferred solution

Table 1.1 Derived from the IAP2 Public Participation Spectrum

2. Background

Council's *Car Share Policy* was introduced in August 2005. In August 2013, Council adopted a new process for notifying the community of proposed car share installation prior to the matter being referred to the North Sydney Traffic Committee. The Policy was amended in September 2022 to include the requirement that once the application fee is received, that Council notifies the community of the proposed location. The period for providing feedback on each proposed location is a minimum of two (2) weeks i.e. no less than 14 days.

Initially, Council's Traffic & Transport Operations Department assess the appropriateness of a proposed car share location. If the location is deemed appropriate, a temporary sign is placed next to the proposed location indicating that the location is being considered for a car share parking space. Notification letters are distributed to residents and businesses within a 100m radius and opportunities for feedback are provided through letter, email and online form hosted via the Your Say North Sydney webpage.

The signs are installed at each location for a minimum of two (2) weeks. An example of the sign is provided below.



New Car Share Applications Community Engagement Strategy

3. Community Engagement Strategy

3.1 Who are our community stakeholders?

The Engagement Strategy identifies the following groups to engage with in the local community:

- residents
- businesses
- related car share provider (applicant).

3.2 Key Communication Messages

Per application received:

- Car share benefits the community as it can reduce the level of private vehicle ownership, reduce pressure on parking as one car/space can cater for many residents, and reduce traffic congestion caused by traffic 'cruising' to find parking. Car share schemes also provide a transport option for residents and community members who don't or can't own their own car.
- The community will be notified of each new car share application, giving a minimum of 14 days to provide feedback on the proposal.
- All feedback received will be collated and analysed and used to inform the recommendation. A recommendation to proceed (or not) with the car share location will be reported to the Traffic Committee. Approval of a car share location occurs after the Traffic Committee has approved the location and minutes of the Traffic Committee meeting have been reported to Council.
- The car share provider will be informed whether their application has been successful, and an invoice issued for the signage fee.
- Signage indicating the parking changes will be installed for a minimum 14 days before the car share signage is installed.

3.3 Assessment and Notification Process

The following table outlines the assessment process per application. Stakeholder engagement will occur as noted at Step 2.

STEP	DESCRIPTION
1. Car Share Provider Application	<p>A car share provider applies to Council via the Sustainable Transport Project Coordinator.</p> <p>Applications for new car share spaces must demonstrate that there are multiple potential users in the immediate area, and that there are no existing alternatives that service this demand.</p>

New Car Share Applications Community Engagement Strategy

STEP	DESCRIPTION
	<p>An invoice is issued to the car share provider to pay the application fee as outlined in Council's annual Fees & Charges Schedule.</p>
2. Community Consultation	<p>Once the application fee is received, Council notifies stakeholders and seeks feedback on the appropriateness of the proposed location. The feedback is not voting as such, but it will assist in determining support for the proposed car share locations.</p> <p>The feedback period will be for a minimum of two (2) weeks (i.e. 14 days).</p> <p>Signage is erected at the site outlining the proposal to install car share parking, and letters are sent to residents and businesses within a 100m radius of the site.</p> <p>Feedback can be provided via:</p> <ul style="list-style-type: none"> • email to yoursay@northsydney.nsw.gov.au (include reference to location) • letter posted to North Sydney Council, PO Box 12, North Sydney NSW 2059 (include reference to location) • online feedback form via the Your Say North Sydney site <p>Council's Sustainable Transport Project Coordinator is available via phone call, however formal submissions must be made through the above methods.</p> <p>After the notification period has ended, submissions are collated and assessed, and submissions summary is prepared.</p>
3. Traffic Committee Approval	<p>If the site is deemed appropriate for car share, a recommendation to install the car share space is reported to the next available North Sydney Traffic Committee.</p> <p>The Traffic Committee may:</p> <ul style="list-style-type: none"> • approve the car share application and proceed with installation • request further consultation to assess the need for the car share location; or • reject the car share application. <p>Submitters will be informed of the outcome. A temporary sign will also be erected onsite a minimum of 14 days prior to the change in restriction, advising that the parking restrictions at this location will change and the signage will be replaced, indicating that this space will be reserved for car share parking.</p>
4. Signage Fee	<p>If the car share location is approved, the car share provider will be informed and issued with an invoice for the installation of signage. After payment is received, Council's Sustainable Transport Project Coordinator submits a Signage and Lines Instruction form to Council's Works Engineering</p>

New Car Share Applications Community Engagement Strategy

STEP	DESCRIPTION
	Department.
5. Signage	The temporary signage at Step 3 will be replaced with the permanent new sign stating the new restriction.

The following methods will be used to notify and seek feedback on each proposal. Not listed in priority order.

METHOD	ENGAGEMENT LEVEL	PURPOSE
'Have Your Say' Web Page	Inform	Inform the community of the proposed car share location and provide ease of access to all information regarding the proposal. Includes FAQs.
Letterbox Drop/Direct Letter	Inform	Distributed to properties (residents and businesses) within a 100m radius of each application informing of the proposal and opportunity to provide feedback
Onsite Signage	Inform	Inform the general community of the proposed car share location and opportunity to provide feedback
eNewsletters - Council eNews, Business eNews, Precinct eNews	Inform	Inform subscribers of the proposed car share location and opportunity to provide feedback
Submissions	Consult	Free form feedback accepted by email or posted letter as well as via online form.

4. Opportunity Cost/Rationale

Engaging the community in this proposal may entail financial costs to Council to achieve a high-quality engagement process. If the process is robust, community ownership of the decisions made will ensure efficient outcomes. Insufficient or poor-quality engagement can result in poor long-term decisions requiring further resources to rectify. The aim of a high-quality community engagement process is to make sustainable decisions. The engagement process will help Council staff and/or Councillors to understand the related recommendations rationale.

5. Further Information

For further information contact Council's Max White, Sustainable Transport Project Coordinator, Traffic & Transport Operations Department:

Phone: 9936 8100
 Email: yoursay@northsydney.nsw.gov.au
 Website: www.northsydney.nsw.gov.au

MOTORBIKE & SCOOTER PARKING STRATEGY & ACTION PLAN

NORTH SYDNEY COUNCIL



March 2019

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Key Objectives

The North Sydney Council Transport Strategy (2017) aims to reduce the negative social, environmental and economic impacts that private vehicle usage has on the community.

While walking, cycling and public transport trips have a significantly greater benefit for the community, use of motorbikes and scooters by North Sydney residents, commuters and businesses is increasing, and is one alternative to the single occupancy motor vehicle which can help to reduce parking demand and offset some of the negative impacts. This strategy has been developed to review the current motorbike parking network and identify opportunities to continue to support motorbikes and scooters as an alternative form of travel.

The objectives of this strategy are to:

- Offset the number of single occupant car trips to North Sydney with motorbike trips
- Increase opportunities for motorbike parking through more efficient use of the available kerb space
- Increase the quantity of dedicated motorbike parking spaces over the next 10 years, particularly in and around the North Sydney CBD

Motorbike Registrations in the North Sydney LGA

Motorbikes and scooters comprise 4.2% of all vehicles registered in the North Sydney LGA¹. This is comparable to other North Shore and inner Sydney Council areas, and is within the median range (Figure 1).

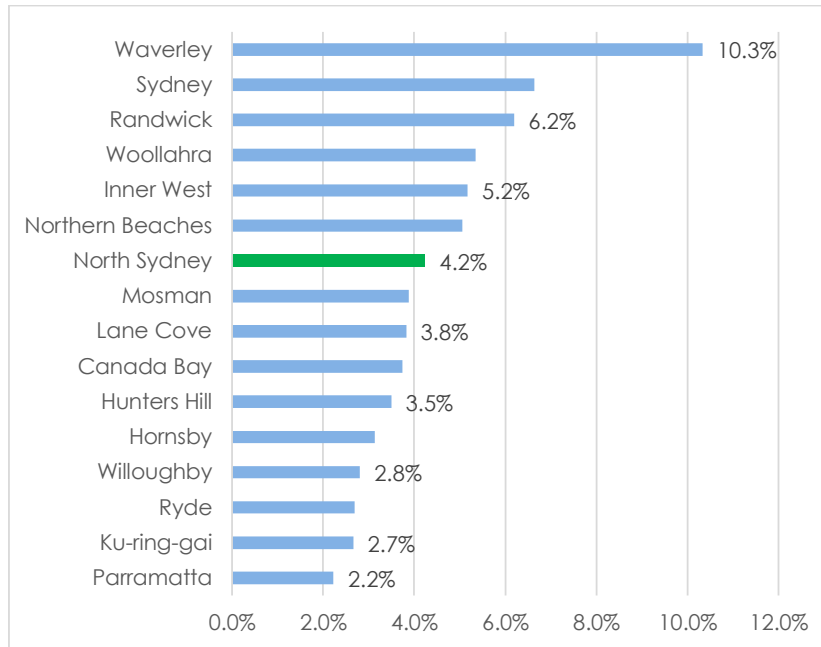


Figure 1 Proportion of motorbikes/scooters to total vehicle registrations based on LGA (2018)

¹ RMS Registration Statistics as at 30 June 2018

There has been a steady yearly increase in the proportion of motorbikes and scooters to total vehicle registrations in the North Sydney LGA since 2000 as shown in Figure 2.

Localities in the North Sydney LGA with the highest proportion of registered motorbikes and scooters are Cremorne, Cremorne Point, Neutral Bay and Kurraba Point, with 5.0% of registered vehicles in these areas being motorbikes or scooters (Figure 3).

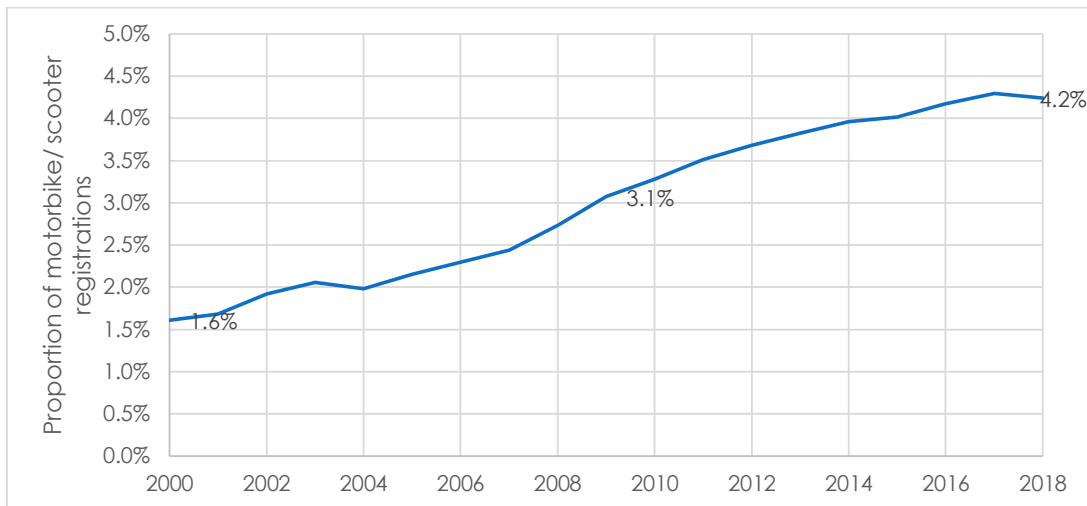


Figure 2 Motorbike/scooter registration trends in North Sydney LGA

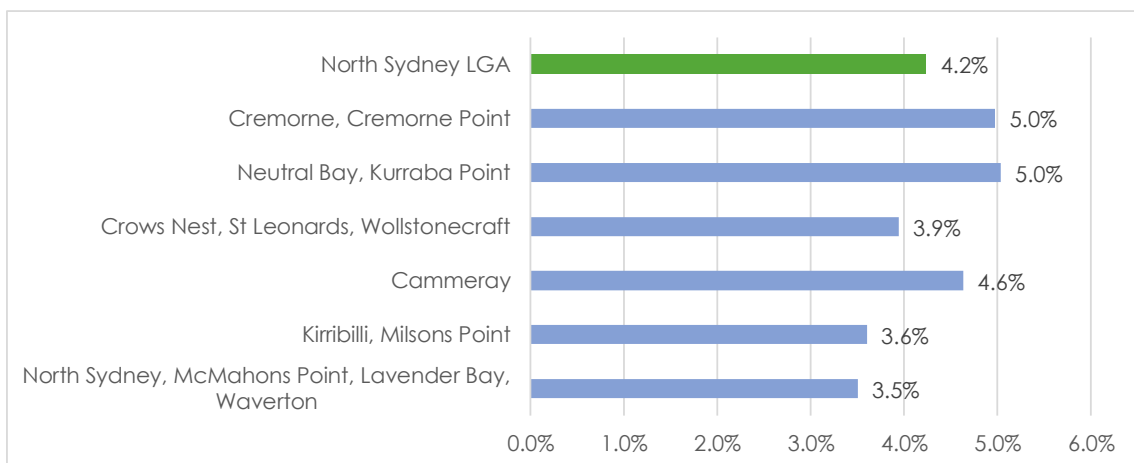


Figure 3 Proportion of motorbikes/scooters to total vehicle registrations based on locality (2018)

Journeys to Work by Motorbike & Scooter

Motorbikes and scooter journeys make up 1.0% of all transport modes for journeys to workplaces in the North Sydney LGA, and 0.6% of all journeys to a workplace within the North Sydney LGA that originate from within the LGA are made by motorbike or scooter. While 14% of all journeys to workplaces within North Sydney LGA (all transport modes) originate from within the North Sydney LGA, only 8% of all motorbike and scooter journeys to a workplace within the North Sydney LGA originate from within the North Sydney LGA. The remaining 92% of motorbike/ scooter journeys originate from outside the LGA, with the majority of journeys originating from the North Shore (25%); Northern Beaches (17%) and East Sydney (14%) (Figure 4).²

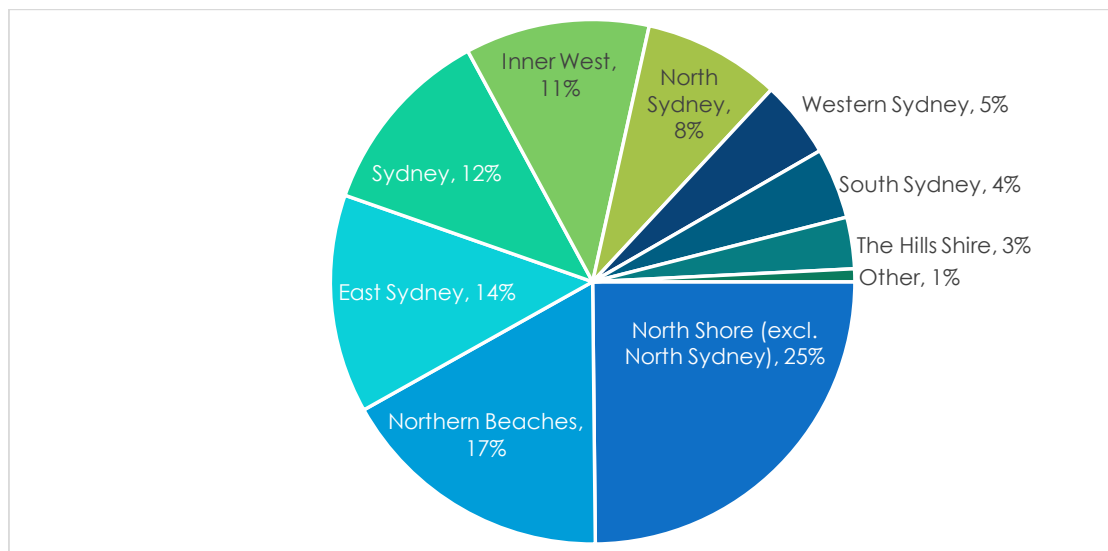


Figure 4 Origins of motorbike/scooter journeys to North Sydney LGA (2011)

² Transport for NSW Journey to Work Data (2011)

Each day, this equates to approximately 757 commuters travelling by motorbike or scooter to the North Sydney Council area, including 693 travelling from outside the LGA. As shown in Figure 5, the vast majority of motorbike and scooter commuters travel to destinations near the North Sydney CBD. Elsewhere, there is a moderate concentration of motorbike and scooter users in Milsons Point, Crows Nest/ St Leonards, Waverton and Neutral Bay/ Cremorne.

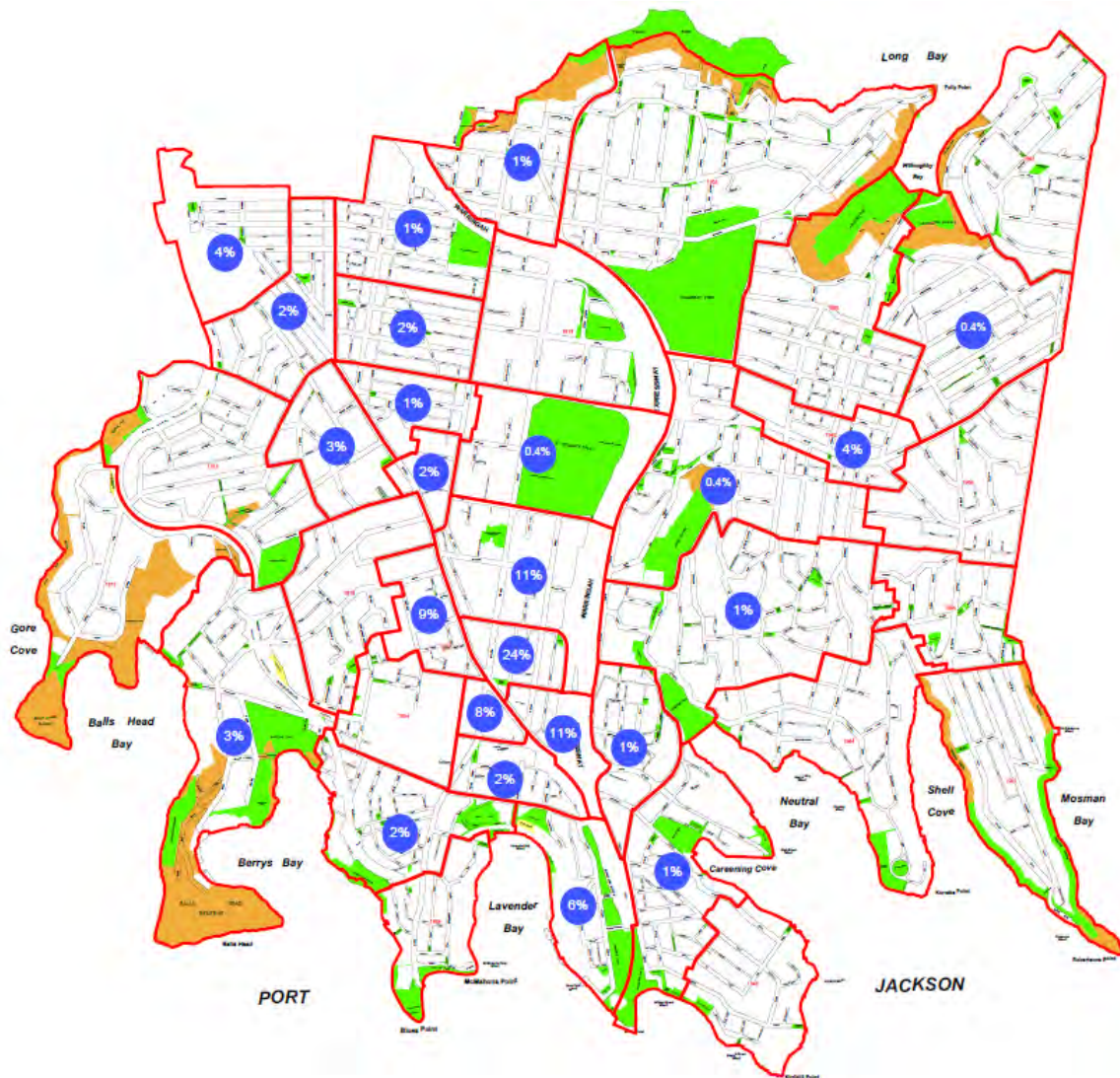


Figure 5 Journey to work destinations for motorbike and scooter commuters (2011)

LATM Consultation 2016

During community engagement for the Local Area Traffic Management (LATM) Action Plan in 2016, a total of 16 submissions referred to motorbike parking were received, with 2 to 3 requests in each of the seven LATM zones. 5 submissions were concerned with noise from motorbikes.

Existing Motorbike Parking Network

In August 2009 there were 214 motorbike parking spaces in the North Sydney LGA. As at September 2018, there are a total of 522 dedicated motorbike parking spaces throughout the North Sydney LGA.

Table 1 On-street motorbike parking supply and demand (September 2018)

Locality	No. motorbike spaces	Average Occupancy	Turnover (4 hours)
North Sydney CBD	280	75%	13%
St Leonards/Crows Nest	87	56%	25%
Cremorne/ Neutral Bay	74	26%	19%
Kirribilli/ Milsons Point	64	52%	7%
Other Areas	17	-	-
Total	522	64%	14%

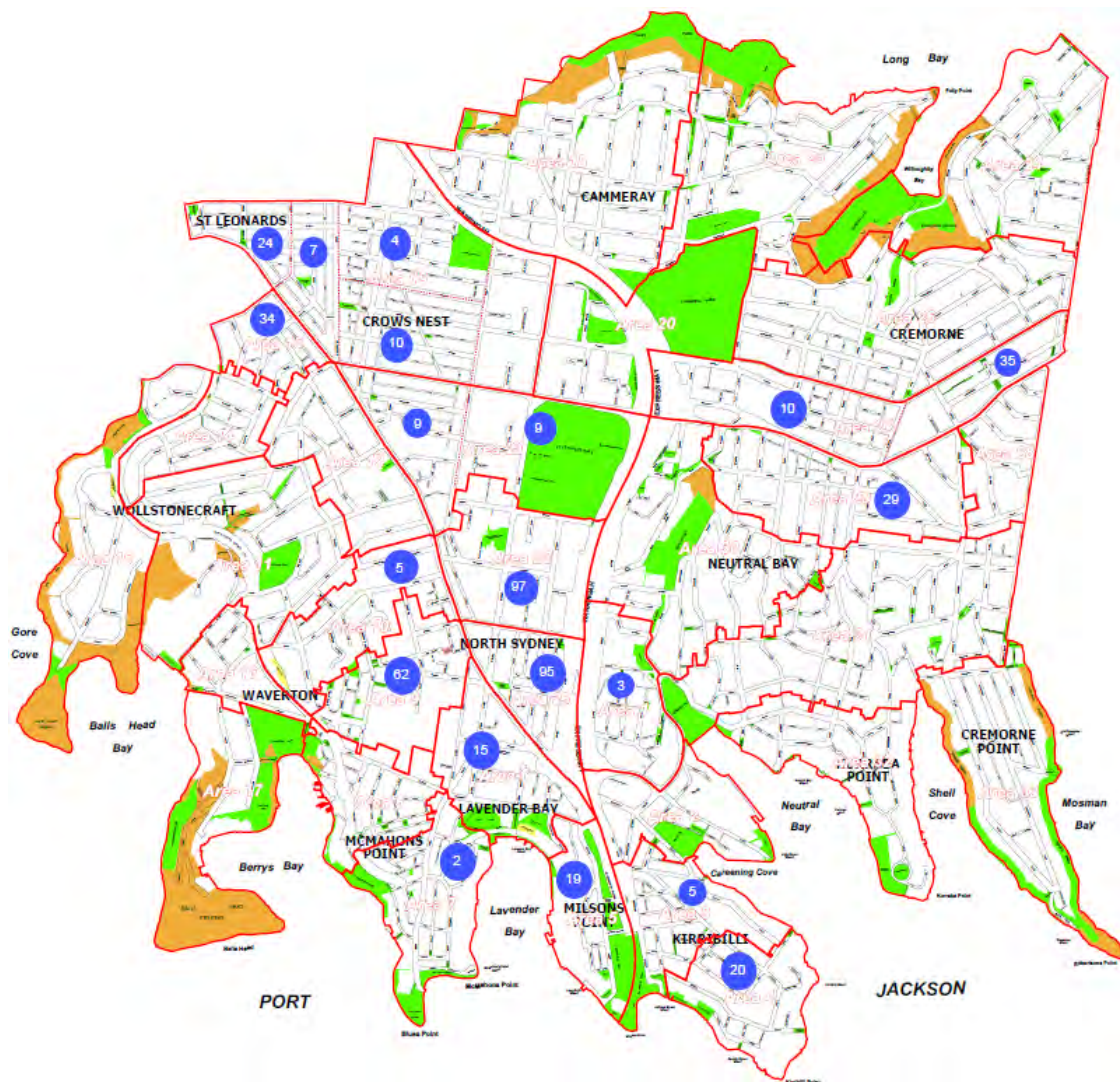


Figure 6 Existing dedicated motorbike parking network (2018)

Motorbike Parking Demand

Demand for motorbike parking generally consists of long-term (commuters, residents, local businesses) and short-term parking (couriers and visitors). The majority (86%) of motorbikes observed parking in North Sydney are parked for longer than 4 hours. Therefore, the greatest demand for dedicated motorbike parking is for long-term (all day) parking.

The greatest demand for motorbike parking is within the North Sydney CBD. Of the 280 spaces in the CBD, 29 spaces are unavailable during clearway times and therefore may not be desirable for long-term commuter parking. Figure 6 shows the relative supply, occupancy and turnover for motorbike parking, excluding those in clearways, in the CBD according to resident parking area boundaries. Generally, there is a higher demand for motorbike parking in areas close to the CBD centre.



Figure 7 North Sydney CBD motorbike parking supply & demand (September 2018)

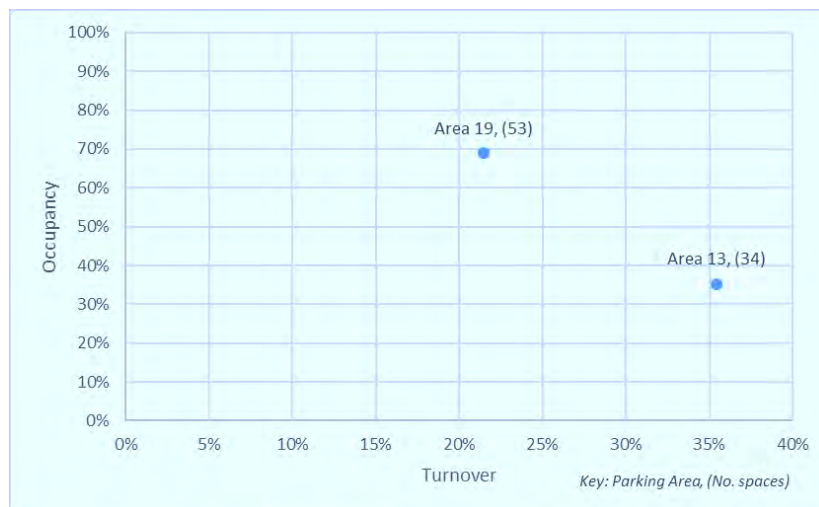


Figure 8 St Leonards & Crows Nest motorbike parking supply & demand (September 2018)

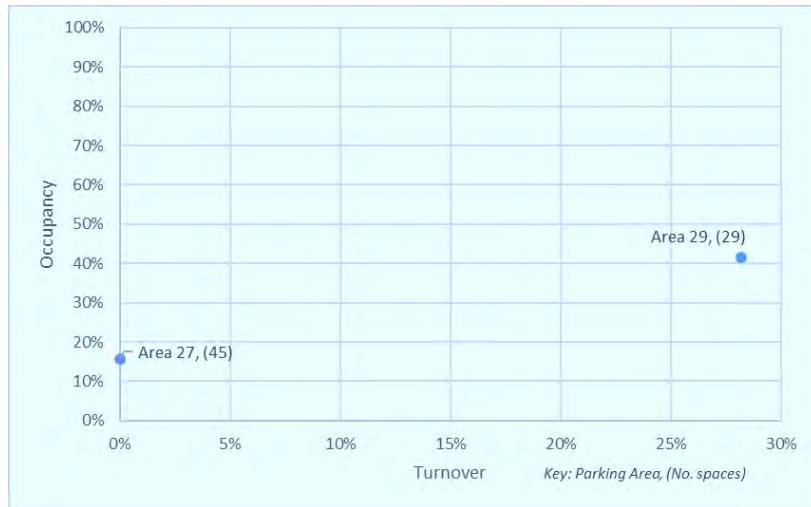


Figure 9 Neutral Bay/ Cremorne motorbike parking supply & demand (September 2018)

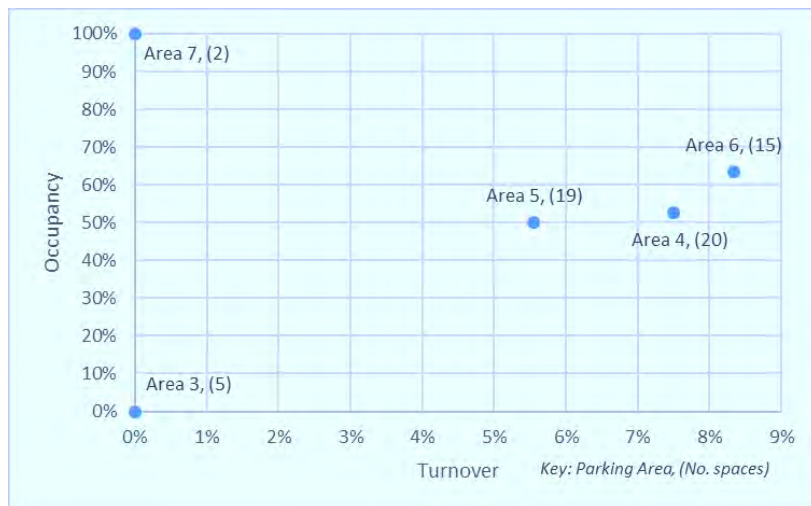


Figure 10 Kirribilli/Milsons Point motorbike parking supply & demand (September 2018)

Resident Parking Permits

Eligible residents can apply for a resident parking permit for their motorbike or scooter under the Resident Parking Scheme. Eligibility requirements for motorbikes and scooters are the same as for other vehicles. To prevent damage, Council recommends using a holder similar to a motorbike registration holder to display the permit. As the vehicle registration number is listed on the permit, the permit is only valid for the specified motorbike or scooter and therefore risk of theft or misuse is low.

Council does not currently have a separate fee for motorbike parking permits, although motorbikes and scooters occupy a smaller footprint compared to standard vehicles. It is therefore recommended that Council introduce a new parking permit fee for motorbikes and scooters at a smaller proportion of the standard permit fee.

Unmetered Parking Areas

Council doesn't generally mark parking bays in unmetered parking areas. Therefore, motorbikes and scooters can conveniently park in these areas and, as with other vehicles, are required to comply with the sign-posted time restrictions. In some of these areas Council has installed motorbike parking where the road space is too small for a car to park, such as in between driveways, in response to requests for more motorbike parking or to resolve parking compliance issues.

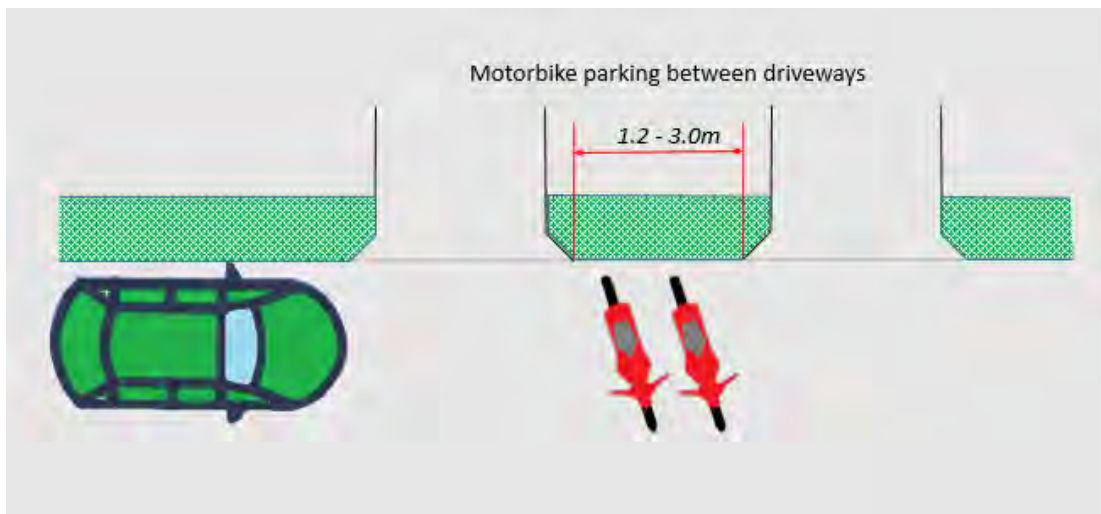


Figure 11 Motorbike parking between driveways

Metered Parking Areas

North Sydney Council operates metered parking in areas where there is a need to encourage parking turnover to support the parking demand. Council uses Pay-and-Go meters which are pay by space and require the marking of individual bays, which are typically a minimum of 5.4-6.0 metres long.

While the City of Sydney allows free parking for motorbikes in ticket parking areas, provided that riders observe the time restrictions, such a scheme is not feasible in North Sydney Council due to the different operation of the parking meters. One of the benefits of North Sydney Council's parking meters is that they are ticketless and therefore the risk of tickets blowing away or being stolen from motorbikes is eliminated. Instead, bays are marked and the vehicle occupying the bay is required to pay the relevant fee. When marking parking bays at the standard minimum lengths, often there is a small amount of road space left over at the end. This small space as a matter of course is now dedicated to free, untimed motorbike parking.

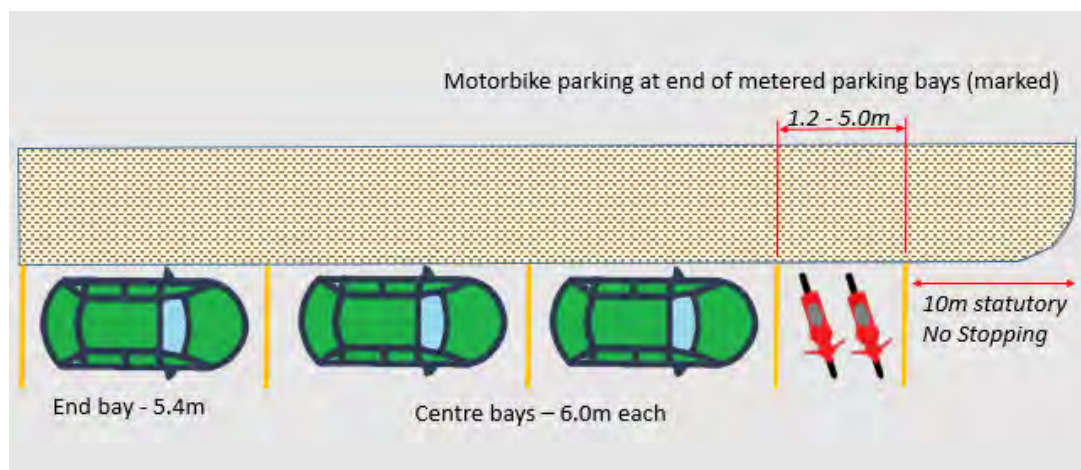


Figure 12 Motorbike parking bays adjacent to metered parking bays

Sometimes motorbike riders will park at the end of a bay to leave room for another car to park in the space, or multiple motorbikes will occupy a single bay. While this is usually done with good intentions, other motorists can have difficulty manoeuvring in and out of spaces due to the smaller available space. Under the NSW Road Rules (2014), in metered parking areas, a driver must not park in a metered parking space while any other vehicle is parked in the space, or in such a manner that any part of the vehicle lies over the markings for the space.



Figure 13 Motorbike parked at the end of a metered parking space

Council has installed parking sensors in the middle of metered parking bays which are integrated with the parking meters to improve turnover and parking management. Should motorbike riders wish to park in an empty metered parking bay, it is recommended that the motorbike is parked in the centre of the bay directly over the sensor, to prevent other vehicles from triggering the sensor and clearing the payment.

Footpath Parking

Motorbikes and scooters are not permitted to park on the footpath under the NSW Road Rules (2014). Footpath parking should not be encouraged as it can impact on access for pedestrians due to the restricted width of many footpaths in North Sydney, and reduces the amenity of the streetscape due to clutter. Notwithstanding, there are a number of locations within the North Sydney CBD where motorbikes are observed parked in open areas adjacent to buildings, many of which are on private property. The continued expansion of the motorbike parking network and providing more publicly accessible information about formal motorbike parking locations may assist to alleviate this issue.

Off-street Motorbike Parking

Council requires a minimum provision of 1 motorbike parking space per 10 car spaces in all new mixed use and non-residential developments under the North Sydney Development Control Plan (2013). This represents 9% of the parking provisions for those developments in recognition of the travel mode share of motorbikes. These rates support the motorbike commuters by providing dedicated parking at their place of work, and off-set the on-street motorbike parking demand.

Council owns and operates a number of public car parks. Designated motorbike parking is provided in Alexander Street and Holtermann Street car parks. There is some demand for motorbike parking in Ridge Street carpark, however there are no designated spaces.

Table 2 Off-street motorbike parking supply and demand (September 2018)

Carpark Name	No. of marked spaces for motor cycles	No. motorbikes parked within designated motorbike spaces	No. motorbikes parked within car spaces	No. motorbikes parked within other areas of the carpark (eg. remnant areas adjacent to columns etc.)
Ridge Street Carpark, North Sydney	No Spaces	No Spaces	2	3
Alexander Street Carpark Crows Nest	8	2	0	0
Holtermann Street Carpark, Crows Nest	6	1	0	0

Parking occupancy data indicates that there is a lower utilisation of motorbike parking in Council's off-street parking areas compared to on-street. This is likely attributable to the relative cost of parking. Council does not currently have a separate fee for motorbikes in its off-street car parks. To encourage use of the existing off-street motorbike spaces, Council could consider the introduction of a reduced motorbike parking fee or free motorbike parking at its car parks. In addition, where there is capacity to accommodate motorbikes, Council could consider creation of dedicated motorbike parking bays within all car parks. To ensure minimal impact on car parking supply, these could be in unused areas of the carpark that don't impact on pedestrian or utilities access, but are of adequate size to accommodate one or more motorbikes.

On-street parking opportunities and considerations

Existing No Stopping & No Parking Areas

Council will sometimes install No Stopping restrictions that exceed the statutory No Stopping distances near intersections and pedestrian crossings, or in other locations where there are sight line issues mainly due to parking of large vehicles that obstruct sight lines at critical locations. Due to the lower height of motorbikes, in some locations it may be feasible to restrict the parking to motorbikes only instead of No Stopping restrictions where the zone exceeds the statutory distance.

Council invites members of the public to nominate potentially redundant No Parking and No Stopping zones for investigation through a feedback form on Council's website. Where these locations are identified, Council officers can consider if the zone may be suitable for motorbike parking, if it is not deemed suitable for general parking.

In addition, when Council receives new requests for parking to be removed due to sight issues and the request is supported, consideration can be given to the installation of motorbike parking in lieu of No Stopping or No Parking.

Parking is generally not permitted within the statutory 10 metres from an unsignalised intersection. The RMS may allow parking closer than 10 metres in accordance with their technical direction 2014/005 provided that it does not increase risk to road users. Requests for motorbike parking in such locations submitted to Council will be investigated on a case-by-case basis in accordance with the RMS technical direction.

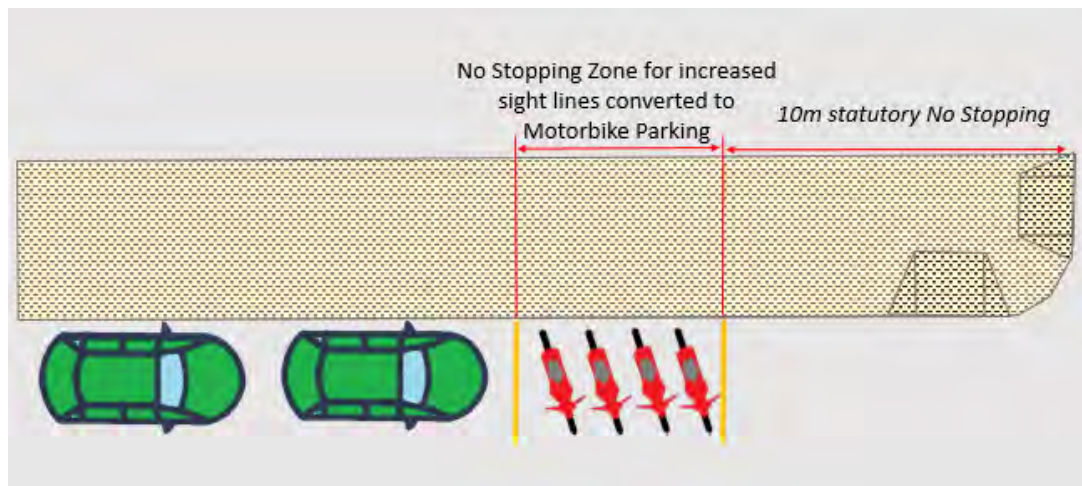


Figure 14 Conversion of No Stopping/ No Parking to Motorbike Parking

Where road widths are between 4.2 metres to 5.1 metres, they are generally not wide enough for a parking lane and travel lane, however may be suitable for motorbike parking if the motorbike is parked parallel to the kerb. Motorbike parking should only be considered in these situations if the cross fall is not too steep and traffic volumes are relatively low to prevent motorbikes from toppling or being knocked over. Motorbike parking areas will need to be delineated to maintain a minimum 3 metre travel lane.

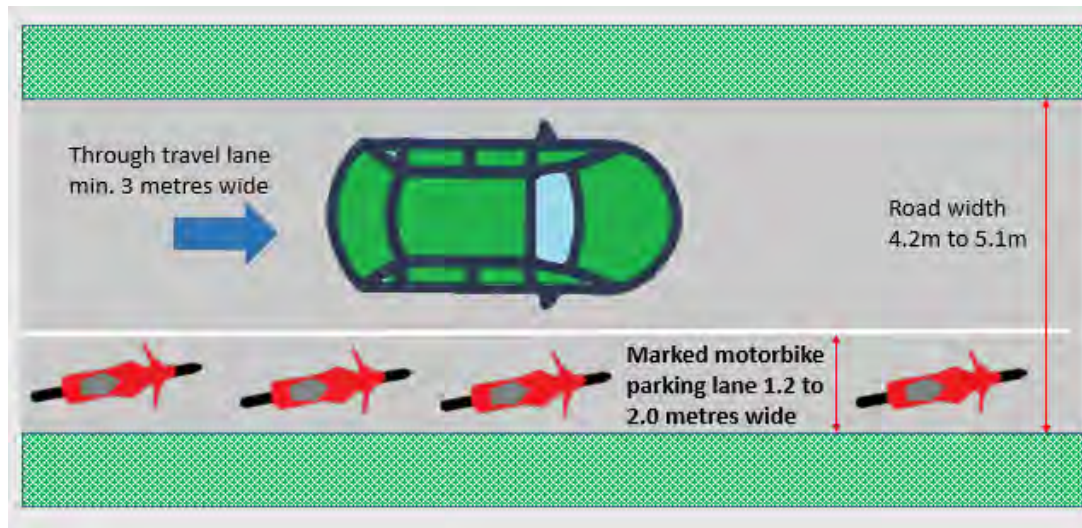


Figure 15 Motorbike parking on narrow roads

Noise

Most objections to installation of motorbike parking in residential areas are related to noise. Some motorbikes may have modified exhaust systems which increase noise pollution. The Australian Design Rule 83/00 states the legal noise limits for vehicles manufactured from 2005. For older vehicles, the Protection of the Environment (Noise Control) Regulation 2017 specifies the prescribed noise levels.

Noise from individual vehicles is regulated by RMS, the police and the EPA. Noisy motor vehicle exhaust can be reported to the EPA.

When installing motorbike parking consideration is given to the demand for motorbike parking, gradient and condition of the road, available kerb space and proximity to residential properties.

Action Plan

The following Action Plan has been developed with the objective of providing more opportunities for motorbike parking in North Sydney to support the existing and growing number of motorbikes and scooters in the area. Figure 16 shows the target dedicated motorbike parking network to be achieved through implementation of this strategy and action plan by 2028.

Table 3 Motorbike parking action plan

Action	Description	Timeframe
1. Motorbike Parking Map	Provide online map of motorbike parking locations	2018/19
2. Resident Motorbike Parking Permits	Introduce a new parking permit fee for motorbikes and scooters at a smaller proportion of the standard permit fee in recognition of the smaller footprint.	2019/20
3. Areas between driveways	Designate areas between driveways that are between 1.2m-3m long as motorbike parking	Ongoing
4. Metered Parking Areas – Marking bays	Designate kerb spaces which are too short for minimum car space length to motorbike parking	Ongoing
5. Metered Parking Areas - Information	Provide online information about requirements and tips for motorbikes parking in metered parking areas	2018/19
6. No Stopping & No Parking Areas	Investigate if potentially redundant No Stopping and No Parking zones can be converted to motorbike parking; or if new requests to remove parking due to sight issues are more suitable for motorbike parking	Ongoing
7. Narrow Roads	Consider motorbike parking on road widths between 4.2m-5.1m where general parking is otherwise not achievable, provided that cross falls are suitable.	Ongoing
8. Off-street parking	Introduction of a reduced parking rate or free parking for motorbikes at Council carparks	2019/20
9. Off-street parking	Creation of dedicated motorbike parking bays at all Council carparks	2019/20
10. North Sydney CBD	Continue to increase the amount of motorbike parking spaces particularly in Areas 23, 10 and 1 and 7; and in surrounding parking areas close to these boundaries (Parking Areas 22, 9 and 6).	Ongoing

Target Motorbike Parking Network (10 Year)

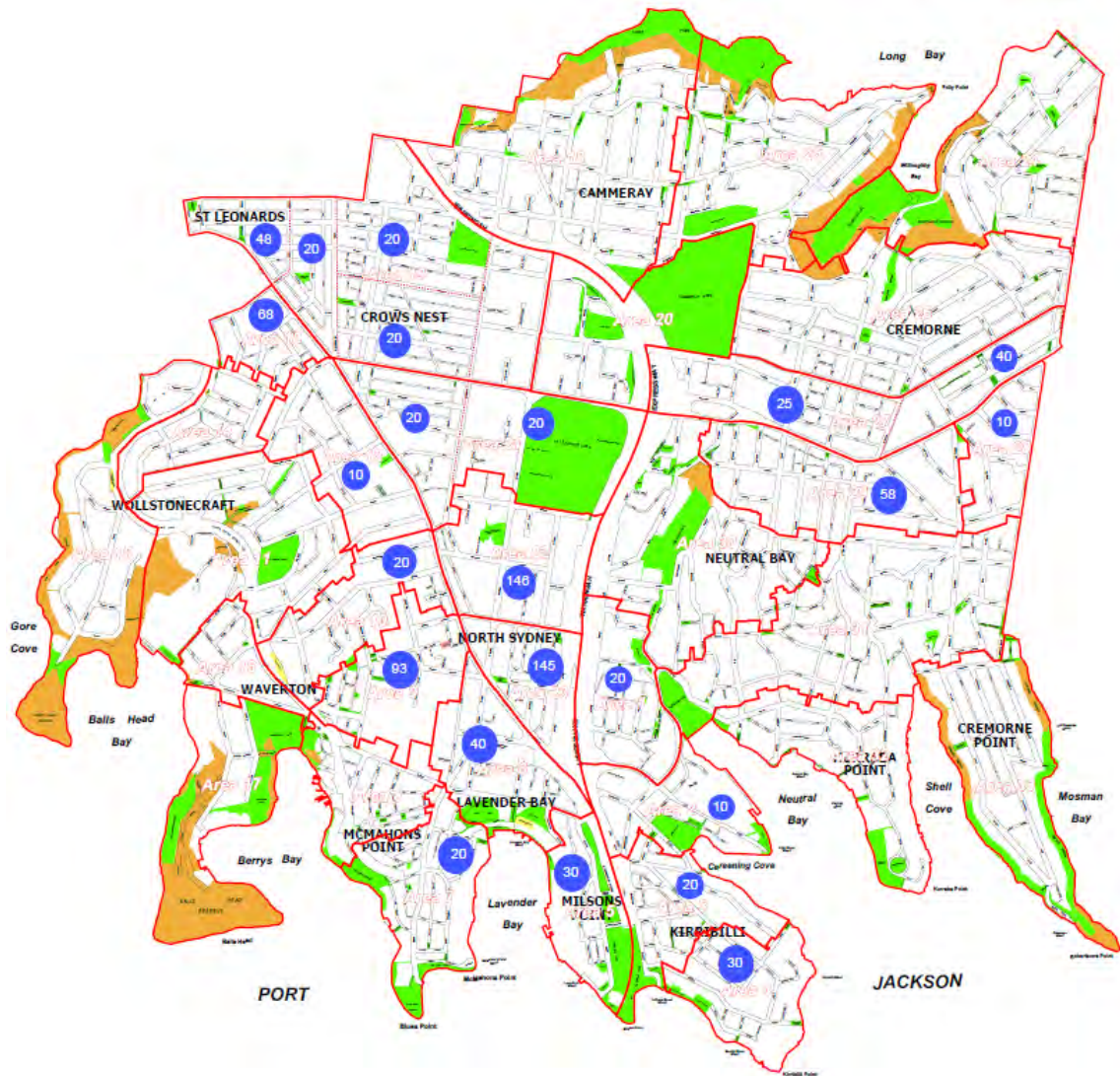


Figure 16 Target motorbike parking network - 2028

Related Strategies and Policies

North Sydney Transport Strategy (2017)

North Sydney Integrated Traffic & Parking Strategy (2015)

North Sydney LATM Action Plans (2017)

North Sydney Resident Parking Permit Policy (2018)

RMS Technical Direction TDT 2004/02

Australian Standard AS2890.5 – On-street parking

Australian Standard AS2890.1 – Off-street car parking

6. Informal Items for Consideration

6.1. Standing Item - Pedestrian Safety

AUTHOR: Iman Mohammadi, Acting Manager Traffic and Transport Operations

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS: Nil

PURPOSE:

To provide a report to the Committee on current pedestrian safety matters and projects, and their current status.

EXECUTIVE SUMMARY:

At the 530th Traffic Committee meeting on 7 February 2020, it was recommended that pedestrian safety be added to the agenda as a standing item. A list of current pedestrian safety standing items and their current status is attached.

FINANCIAL IMPLICATIONS:

There are no financial implications arising directly from this report.

RECOMMENDATION:

- 1. THAT** the information concerning Standing Item - Pedestrian Safety be received.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

- 2. Our Built Infrastructure
 - 2.1 Infrastructure and assets meet community needs
 - 2.3 Sustainable transport is encouraged

BACKGROUND

At the 530th Traffic Committee meeting on 7 February 2020 it was recommended that pedestrian safety be added to the agenda as a standing item.

CONSULTATION REQUIREMENTS

Community engagement is not required.

Relates to ECM No: N/A

Standard or Guideline Used: N/A

Signs & Lines Priority: N/A

Precinct and Ward: All Precincts, All Wards

Impact on Bicycles: Impacts on cyclists will be assessed for individual projects when they are reported to the Committee in detail.

Impact on Pedestrians: This report highlights current projects that benefit pedestrians

Impact on Parking: Impacts on parking will be assessed for individual projects when they are reported to the Committee in detail.

DETAIL

The table below has the current status of projects that relate to pedestrian safety.

6.2. Standing Item - Blues Point Road - Vehicle Noise & Traffic Issues

AUTHOR: Iman Mohammadi, Acting Manager Traffic and Transport Operations

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS:

1. Attach Blues Point Road Table 1 Summary of previous Traffic Committ [6.2.1 - 3 pages]

PURPOSE:

The purpose of this report is to provide an update on previous Council resolutions in regard to traffic management in Blues Point Road, McMahons Point.

EXECUTIVE SUMMARY:

At the Traffic Committee meeting on 19 March 2021, it was recommended that the matter of vehicle noise and traffic issues in Blues Point Road, McMahons Point be kept as a standing item at the Traffic Committee meetings.

This report provides an update on previous Council resolutions in relation to this matter.

FINANCIAL IMPLICATIONS:

Financial implications will be outlined for any proposed measures prior to the matter being considered by Council for adoption.

RECOMMENDATION:

1. **THAT** the updates concerning Standing Item - Blues Point Road – Vehicle Noise & Traffic Issues be received.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

2. Our Built Infrastructure

2.4 Improved traffic and parking management

BACKGROUND

A petition was tabled at the Traffic Committee meeting on 12 June 2020 from residents of McMahons Point concerning vehicle noise, illegal parking and street racing in Blues Point Road near Blues Point Reserve. Council has received representations concerning this issue since that time and the matter has been considered by the Traffic Committee on numerous occasions since then. A report was considered at the Traffic Committee meeting on 5 February 2021 where the Traffic Committee recommended a number of interventions for further investigation.

At the Traffic Committee meeting on 19 March 2021, it was recommended that the matter of vehicle noise and traffic issues in Blues Point Road, McMahons Point be kept as a standing item at the Traffic Committee meetings.

CONSULTATION REQUIREMENTS

Community engagement will be undertaken in accordance with Council's Community Engagement Protocol.

Relates to ECM No: 8525770; 8446599; 8272680

Standard or Guideline Used: Austroads Guide to Traffic Management Part 8: Local Street Management

Signs & Lines Priority: N/A

Precinct and Ward: Lavender Bay, Wollstonecraft

Impact on Bicycles: Nil

Impact on Pedestrians: Nil

Impact on Parking: Impacts as outlined in reports.

DETAIL

The list of Council resolutions relating to Blues Point Road traffic management and latest updates since the previous Traffic Committee meeting is attached.

Table 1 Summary of previous Traffic Committee recommendations and Council resolutions

Traffic Committee Recommendation / Council Resolution	Status
Traffic Committee: 5-Feb-2021 / Council Meeting: 22-Feb-2021 https://www.northsydney.nsw.gov.au/Council_Meetings/Meetings/Committees/Traffic_Committee/2021/5_February_2021	
1. THAT Council consults with the affected community with regard to the speed cushion traffic calming scheme for Blues Point Road between Princes Street and Blues Point Reserve as shown in the attached plans. (4.3)	<i>Consultation was undertaken between 4 May to 6 June 2021. The community engagement outcomes are detailed in the report to the Traffic Committee 23 July 2021.</i>
2. THAT Council request police enforcement of excessive noise from vehicles, illegal parking and street racing as raised by local residents, particularly on Friday and Saturday evenings between 9pm and 4am. (4.3)	<i>Police enforcement requested through discussions at the Traffic Committee</i>
3. THAT Council request TfNSW install a speed camera in Blues Point Road between East Crescent Street and Blues Point Reserve. (4.3)	<i>Online request submitted through the Safer NSW website on 15/4/21</i>
4. THAT the traffic calming proposal be included in any funding applications for the McMahons Point (Blues Point Road) Public Domain Upgrade Masterplan and vice versa. (4.3)	<i>Council will continue to seek funding opportunities for both projects.</i>
5. THAT a site inspection be held ASAP with the Mayor, Councillor Keen, the Director Open Space and Environmental Services and Manager Traffic & Parking to determine: a) where new line marking can be painted to clearly delineate legal parking spaces eastern side of Blues Point Road; b) how signage can be made more effective and efficient; c) where extra lighting can be installed. d) where short term parking can be provided (4.3)	<i>A site meeting was held on 18 March 2021.</i>
6. THAT the Committee give in principle approval for CCTV on Blues Point Road and report to next Traffic Committee on how these measures can proceed. (4.3)	<i>Investigations continuing. Blues Point Road closed in association with Sydney Metro works for approx.. 3 months from August 2021 & current public health orders prohibit gatherings. Will review the situation after November 2021.</i>
Traffic Committee: 19-Mar-2021 / Council Meeting: 26-Apr-2021 https://www.northsydney.nsw.gov.au/Council_Meetings/Meetings/Committees/Traffic_Committee/2021/19_March_2021	
THAT Blues Point Road be kept as a standing item on the Agenda. (7.9)	<i>Standing item added from 30 April 2021 meeting onwards.</i>

Traffic Committee Recommendation / Council Resolution	Status
Traffic Committee: 30-Apr-2021 / Council Meeting: 24-May-2021	
https://www.northsydney.nsw.gov.au/Council_Meetings/Meetings/Committees/Traffic_Committee/2021/30_April_2021	
1. THAT the updates concerning Standing Item - Blues Point Road - Vehicle Noise & Traffic Issues be received. (5.4)	<i>For noting.</i>
2. THAT line marking be reinstated urgently to clearly delineate the 4 angle parking spots at the end of Blues Point Road. (5.4)	<i>Postponed due to Sydney Metro occupation of Blues Point Road. Review after November 2021.</i>
3. THAT urgent investigation be undertaken to improve the lighting in the same vicinity at the end of Blues Point Road. (5.4)	<i>A lighting consultant will be engaged to assess lighting levels at this location and advise Council on proposed lighting. This has been postponed due to Sydney Metro occupation of Blues Point Road. Review after November 2021.</i>
4. THAT signage at the end of Blues point Road be reviewed with the aim to make it clearer and more effective. (5.4)	<i>To be actioned</i>
5. THAT in response to residents concerns, Council fast-track the implementation of the 40KM/hr HPAAs initiatives to ensure traffic speed and calming on Blues Point Road can be addressed.	<i>Implications outlined in report to the Traffic Committee 23 July 2021.</i>
Traffic Committee: 11-Jun-2021 / Council Meeting: 28-Jun-2021	
https://www.northsydney.nsw.gov.au/Council_Meetings/Meetings/Committees/Traffic_Committee/2021/11_June_2021	
1. THAT the updates concerning Standing Item - Blues Point Road – Vehicle Noise & Traffic Issues be received.	<i>For noting.</i>
2. THAT a letter be sent to Felicity O’Brien giving her an update on Blues Point Road and thank her for her ongoing involvement and advocating on behalf of residents on Blues Point Road.	<i>Email sent 19/7/21</i>
Traffic Committee: 23-Jul -2021 / Council Meeting: 23-Aug-2021	
https://www.northsydney.nsw.gov.au/Council_Meetings/Meetings/Committees/Traffic_Committee/2021/11_June_2021	
5. THAT that Council apply to TfNSW for a 40km/h speed zone on Blues Point Road between Lavender Street and Blues Point Reserve. The scheme should incorporate the traffic and pedestrian upgrades identified in the McMahons Point (Blues Point Road) Public Domain Upgrade Masterplan, and as minimal use of raised flat top thresholds as possible between Princes	<i>To be actioned.</i>

<i>Traffic Committee Recommendation / Council Resolution</i>	<i>Status</i>
<p>Street and Blues Point Reserve to address the TfNSW criteria for the proposed 40km/h speed zone. (5.3)</p> <p>6. THAT the raised flat top threshold be used instead of speed cushions. (5.3)</p> <p>7. THAT if the scheme cannot be implemented with a maximum of two raised flat top thresholds, then the matter be brought back to the Committee. (5.3)</p> <p>8. THAT following discussions with TfNSW on the proposed scheme, a report be brought back to Council outlining the proposed scheme, the cost implications of the proposed scheme, potential funding, proposed schedule and details of further community engagement if required. (5.3)</p> <p>12. THAT the application for Blues Point Road 40km/h speed zone ensures that there is no loss of parking. (5.3)</p>	
<p>10. THAT Council be included in the consultation process for the beautification works in Blues Point Reserve following the completion of the Metro works. (5.3)</p>	<p><i>Referred to Council's Director Open Space and Environment.</i></p>
<p>11. THAT Council seeks clarification on the timeline and status of the Metro works in the North Sydney LGA. (5.3)</p>	<p><i>See Standing Item – Sydney Metro – Project Update</i></p>
<p>13. THAT the previous resolution of the 30th April Traffic Committee (Item 5.4) regarding line marking and signage on Blues Point Road be prioritised (subject to Public Health Orders). (5.3)</p>	<p><i>See Resolution No. 2 TC 30/4/21</i></p> <p><i>Postponed due to Sydney Metro occupation of Blues Point Road. Review after November 2021.</i></p>

6.3. Standing Item - Sydney Metro - Project Update

AUTHOR: Iman Mohammadi, Acting Manager, Traffic and Transport Operations

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS: Nil

PURPOSE:

The purpose of this report is to update the North Sydney Traffic Committee on the current status of the Metro City & South-West (Metro) project and upcoming works affecting local roads.

Updates are also provided on the Sydney Metro website at <https://www.sydneymetro.info/>

EXECUTIVE SUMMARY:

Consent for the Metro City & South-West (Metro) project was granted by the Department of Planning and Environment on 9 January 2017. The consent can be viewed in full at www.majorprojects.planning.nsw.gov.au.

The project will deliver new railway infrastructure for Sydney, including two new Metro stations within the North Sydney Local Government Area - at Crows Nest and Victoria Cross (North Sydney Centre). Construction commenced in early 2017, with train operations expected to be underway by 2024.

In accordance with the various conditions of consent, a Traffic and Transport Liaison Group (TTLG) has been established to inform traffic and transport measures during construction and operation of the project. The TTLG is chaired by the Sydney Coordination Office (SCO) and comprises representatives from the relevant Road Authorities, which includes North Sydney Council. The TTLG meets monthly and a smaller group of representatives known as the Traffic Control Group (TCG) meets weekly to discuss impending construction-related traffic management matters.

The Construction Traffic Management Plans (CTMPs) must be developed in consultation with the TTLG. TfNSW is the approval authority for the CTMPs, following endorsement by the SCO.

FINANCIAL IMPLICATIONS:

There are no direct financial implications arising from this report.

RECOMMENDATION:

1. THAT the information concerning Sydney Metro City & South-West Construction Update be received.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

2. Our Built Infrastructure

2.1 Infrastructure and assets meet community needs

2.4 Improved traffic and parking management

5. Our Civic Leadership

5.2 Council is well governed and customer focused

5.3 Community is informed and consulted

BACKGROUND

Consent for the Metro City & South-West (Metro) project was granted by the Department of Planning and Environment on 9 January 2017. The consent can be viewed in full at www.majorprojects.planning.nsw.gov.au.

The project will deliver new railway infrastructure for Sydney, including two new Metro stations within the North Sydney Local Government Area - at Crows Nest and Victoria Cross (North Sydney Centre). Construction commenced in early 2017, with train operations expected to be underway by 2024.

CONSULTATION REQUIREMENTS

As this is a state government project, Transport for NSW are responsible for all community engagement relating to the project.

DETAIL

Relates to ECM No: N/A

Standard or Guideline Used: N/A

Signs & Lines Priority: N/A

Precinct and Ward: Various precincts, St Leonards & Cammeraygal Wards

Impact on Bicycles: Local cycling access maintained and managed through traffic guidance schemes

Impact on Pedestrians: Local pedestrian access may be impacted adjacent to and around the Sydney Metro work sites and managed through traffic guidance schemes.

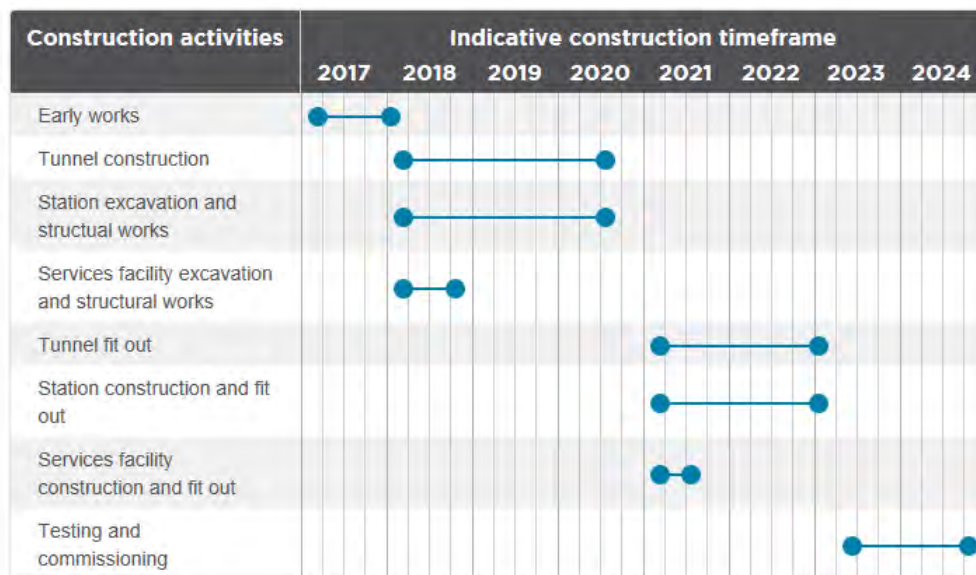
Impact on Parking: Parking adjacent to each construction site has been removed under applications throughout the project to facilitate construction.

There are four (4) construction sites within the North Sydney LGA associated with the Metro project.

1. **Victoria Cross Station (VC2)** – includes 155-189 Miller Street bounded by Miller Street, Berry Street and Denison Street.
2. **Victoria Cross North (VC1)** –site for the services building and additional access point at 52 McLaren Street (vacant site on northern corner of Miller Street and McLaren Street intersection).
3. **Crows Nest Station (CN)** – includes 497-521 Pacific Highway bounded by Pacific Highway, Oxley Street, Clarke Lane and Hume Street; 14 Clarke Street (Beaurepaires site); and 477-495 Pacific Highway bounded by Pacific Highway, Hume Street and Clarke Lane.
4. **Blues Point Reserve (BP)** – Temporary construction site, including creation of a shaft for the delivery and extraction of tunnel boring equipment.

The City & Southwest (Chatswood to Sydenham) project has been split into stages. Each stage is subject to separate contracts and may be undertaken by different contractors. An indicative timeline for the full City & Southwest portion is provided below.

Indicative timeline



Source: Sydney Metro website 26/5/17

Works at each site are currently at station construction/ fit out and linewise trackworks. The key activities are summarised below.

Update on sites within North Sydney Council area

Victoria Cross South

[Vic Cross – Construction Updates](#)

Excavation works, formwork steel fitting, deliveries, concrete pouring. Installation of hoardings, site accommodation and tower cranes on Miller Street frontage. Deliveries via Miller Street Work Zone.

Miller Street – major stormwater upgrade works located within southbound, establishment of one-way contra flow – staged night works from March 2022 until first week of May (approx. 4 weeks total). This works is now complete and it is anticipated that further Stormwater works to be undertaken in Denison Street in July 2022 with partial closure of Denison Street and conversion of street to one way traffic for approximately 6-8 weeks

Victoria Cross North

[Vic Cross – Construction Updates](#)

Temporary fencing for the McLaren St footpath closure and occupation of parking spaces for pedestrian access during installation of B-Class scaffold in McLaren Street, east of Miller Street.

Crows Nest Station

[Crows Nest – Construction Updates](#)

Deliveries occurring from Pacific Highway “logistics lane” – footpath occupation - pedestrians diverted to western side of Pacific Highway. Some concrete pours occurring from Clarke Lane.

Hume Street fully closed to traffic between Pacific Highway and Clarke Lane until 31 December.

Once Hume Street demolition works commence, 12m of footpath from the end of the site towards North will be closed to store construction materials and the remaining will be used for logistics deliveries as per approved ROL from TMC. This arrangement is proposed for 4 months with the provision of B-Class Hoarding to maintain safe pedestrian access.

Blues Point

[Blues Point – Construction Updates](#)

DPIE granted modification for continued use of Blues Point site for additional 12 months from December 2020 for linewide track fitout.

Existing parking spaces at Blues Point Road have been temporarily removed and Blues Point Road was closed to traffic at the reserve to enable commencement of the reconfiguration of Blues Point from Henry Lawson Avenue to the reserve. These works were expected to be carried out from 22 May till 30 Sep 2022 with some time extensions due to unexpected delays.



6.4. Standing Item - Western Harbour Tunnel & Warringah Freeway Upgrade

AUTHOR: Iman Mohammadi, Acting Manager Traffic and Transport Operations

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS: Nil

PURPOSE:

The purpose of this report is to provide an update on current works and impacts associated with the Transport for NSW Western Harbour Tunnel and Warringah Freeway Upgrade project (SSI 8863).

EXECUTIVE SUMMARY:

The Western Harbour Tunnel and Warringah Freeway Upgrade project SSI 8863 was approved by the Minister for Planning and Public Spaces on 21 January 2021. The project is being undertaken by Transport for NSW.

Warringah Freeway Upgrade Early Works commenced in April 2021 and impact on a number of Council roads adjacent to and alongside the Warringah Freeway. Transport for NSW has exercised functions of a roads authority under the Roads Act 1993 for those roads.

This report provides a high-level overview of the current work sites and summary of complaints received by Council.

FINANCIAL IMPLICATIONS:

There are no direct financial implications arising from this report.

RECOMMENDATION:

1. THAT the information concerning the Western Harbour Tunnel and Warringah Freeway Upgrade project be received.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

- 2. Our Built Infrastructure
 - 2.1 Infrastructure and assets meet community needs
 - 2.4 Improved traffic and parking management

- 5. Our Civic Leadership
- 5.2 Council is well governed and customer focused
- 5.3 Community is informed and consulted

BACKGROUND

The Western Harbour Tunnel and Warringah Freeway Upgrade project SSI 8863 was approved by the Minister for Planning and Public Spaces on 21 January 2021. The project is being undertaken by Transport for NSW.

Warringah Freeway Upgrade Early Works commenced in April 2021. The works impact on a number of Council roads adjacent to and alongside the Warringah Freeway. All community notifications are available on the Western Harbour Tunnel and Warringah Freeway Upgrade webpage at <https://caportal.com.au/rms/wht/documents-and-notifications>

CONSULTATION REQUIREMENTS

As this is a state government project, Transport for NSW are responsible for all community engagement relating to the project.

DETAIL

Relates to ECM No:

Standard or Guideline Used:

Signs & Lines Priority: N/A

Precinct and Ward: Hayberry/ Registry/ Stanton/ Neutral/ Anderson/ CBD; Tunks/ Victoria/ Wollstonecraft

Impact on Bicycles: Local cycling access may be impacted adjacent to and around the WHT/WFU work sites under traffic management

Impact on Pedestrians: Local pedestrian access may be impacted adjacent to and around the WHT/WFU work sites under traffic management

Impact on Parking: Approximately 75 parking spaces on Alfred Street North; 35 spaces on Cammeray Avenue and 10 spaces on Ridge Street have so far been removed by TfNSW to facilitate the works.

The Western Harbour Tunnel Project requires installation of electricity supply cables within various public roads to provide power to its various Project worksites. The works area is shown on the attached map. It is expected that works are completed by 31 March 2023.

The works on Active Transport Link (ATL) within the Cammeray Golf Course connecting Ernest Street to Warringah Road is complete. The Works on the Amherst Noise wall has also been commenced and almost Complete.

Council has received numerous notices from Transport for NSW under 64(1A) of the Roads Act 1993 of their intention to exercise functions of a road's authority. This means that TfNSW has the same powers under the Roads Act 1993 as Council for the roads listed in each notice.

6.5. Traffic Committee Meeting Dates for 2023

AUTHOR: Report of Acting Manager, Traffic and Transport Operations, Iman Mohammadi

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS: Nil

DESCRIPTION/SUBJECT MATTER:

The meetings of North Sydney Traffic Committee (NSTC) for 2023 are proposed to commence on 3 February 2023 and then to be held every sixth Friday after that. The scheduled NSTC meeting dates including the Agenda closing dates are shown on the table below. All Traffic Committee minutes/recommendations have to be approved by Council. At the time of writing this report the Council meeting dates for 2023 had not been set therefore the minutes/recommendation will be reported to the first available Council meeting after the Traffic Committee minutes have been finalised.

The Traffic Committee meetings will be held in the Council Chambers at 10.00am.

<u>NORTH SYDNEY TRAFFIC COMMITTEE 2023</u>	
Traffic Committee Agenda Closing Date	Traffic Committee Meeting Dates
9 January 2023	3 February 2023
20 February 2023	17 March 2023
3 April 2023	28 April 2023
15 May 2023	9 June 2023
26 June 2023	21 July 2023
7 August 2023	1 September 2023
18 September 2023	13 October 2023
23 October 2023	17 November 2023

FINANCIAL IMPLICATIONS:

Nil

RECOMMENDATION:

1. **THAT** the proposed North Sydney Traffic Committee meeting dates for 2023 be adopted.

7. Local Development Advisory Committee Items for Consideration

7.1. Matora Lane, Cremorne – Laneway Upgrade

AUTHOR: Report of Engineering Project Manager, Shahid Rehman

ENDORSED BY: Duncan Mitchell, Director Engineering and Property Services

ATTACHMENTS: {attachment-list-do-not-remove}

PURPOSE:

The purpose of this report is to address community concerns on the existing condition of Matorla Lane, Cremorne and discuss the proposed upgrading of the Laneway to improve safety for all road users.

EXECUTIVE SUMMARY:

A report concerning speeding and public safety issues at Matora Lane, Cremorne request to upgrade the laneway to address speeding issues and implement public road safety measures by reducing the speed limit from 50km/hr to 10km/hr and carry out the following upgrade works:

1. Introduce road widening at the entry to Matora lane from Young Street
2. Introducing bend widening and a passing bay where there is little to no forward visibility of on-coming traffic.
3. Safety barrier and retaining wall works at the steep embankment on the northern side of the lane and re-profiling parts of the embankment to meet Australian road design standards.
4. Kerb and Gutter and Drainage works to improve embankment stability due to soil erosion.
5. New road surfacing from Young Street to the Primrose Park carpark
6. New road signage
7. Road markings and reflective markings

FINANCIAL IMPLICATIONS:

Nil

RECOMMENDATION:

- 1. THAT** Traffic Committee endorse the proposal to reduce the speed limit at Matora Lane from 50km/hr to 10km/hr.
- 2. THAT** Traffic Committee endorse the Traffic aspect of the proposed works as identified in this report to address public safety concerns raised by the community about the current condition of Matora Lane.
- 3. THAT** Traffic Committee note that a Construction Traffic Management Plan (CTMP) will be produced to ensure that access to the Tennis Courts, Arts and Crafts centre and the adjoining Sports field carpark will be maintained during the construction period.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

2. Our Built Infrastructure

2.1 Infrastructure and assets meet diverse community needs

2.4 Efficient traffic mobility and parking

4. Our Social Vitality

4.1 North Sydney is connected, inclusive, healthy and safe

CONSULTATION REQUIREMENTS

Consultation will be undertaken with all key stakeholders who use Matora Lane on the development of a Construction Traffic Management Plan (CTMP)

DETAIL

Matora Lane is a narrow laneway (average 5.2m wide) located in Cremorne, off Young Street which is approximately 160m in length. It is used primarily by locals and visitors to access/egress Primrose Park car park for the sports field and community facilities at Primrose Park which include the newly upgraded Tennis Courts, Art & Craft Centre and Artist Studios.

Please refer to Attachment 1 for the location plan and photos showing the existing condition of the laneway.

The designated speed limit on Matora Lane is currently 50km/hr. Though it is not signposted this is the default road speed on all local roads in North Sydney – unless signposted otherwise.

The current road geometry of the laneway and its existing alignment and profile are not considered appropriate for a 50km/hr speed limit. The roadway is also used frequently by pedestrians to access the facilities as there is no dedicated footpath due to the narrowness of the lane and surrounding topography.

A recent speed and traffic survey undertaken (October 2022) highlighted the average weekly 85th percentile speed of the laneway was between 20 and 27 km/hr at the three locations tested. Refer to Attachment 2 for details.

Furthermore, local residents and users of the community facilities at Primrose Park have complained to Council about the condition of the Lane and Public Safety concerns around its narrowness and vehicle speeds. Upgrading of the Laneway has been identified by council in its delivery program for 2021-22 but was postponed until after the completion of the Primrose Park tennis courts upgrade which required heavy vehicles (Concrete Trucks, Tippers and the like) to use the Laneway on a daily basis.

The proposal to improve publicly safety in the laneway and also address its condition includes the following:

1. Reduce the speed limit to 10km/hr
2. Introduce road widening at the entry to Matora lane from Young Street
3. Introducing bend widening and a passing bay where there is little to no forward visibility of on-coming traffic.
4. Safety barrier and retaining wall works at the steep embankment on the northern side of the lane and re-profiling parts of the embankment to meet Australian road design standards.
5. Kerb and Gutter and Drainage works to improve embankment stability due to soil erosion.
6. New road surfacing from Young Street to the Primrose Park carpark
7. New road signage
8. Road markings and reflective markings

Additionally, Ausgrid have been contacted to improve the street lighting on the laneway.

Refer to Attachment 3 for further details of the design.

ATTACHMENT 1 - MATORA LANE UPGRADE – VISUAL CONDITION PHOTOGRAPHS



LOCATION PLAN

MATORA LANE RECONSTRUCTION



PLAN SHOWING IMAGE LOCATIONS FOR MATORA LANE

MATORA LANE - VISUAL CONDITION PHOTOGRAPHS



Image 1

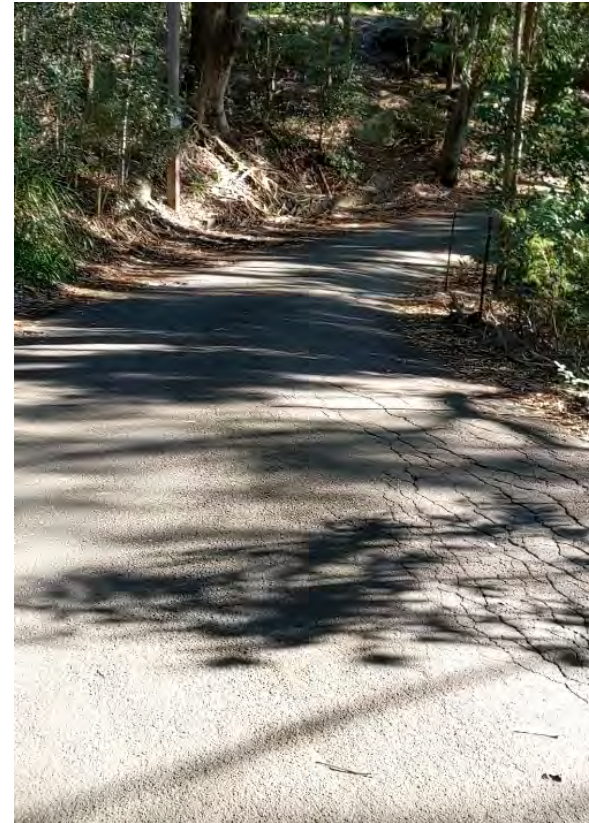


Image 2

MATORA LANE - VISUAL CONDITION PHOTOGRAPHS

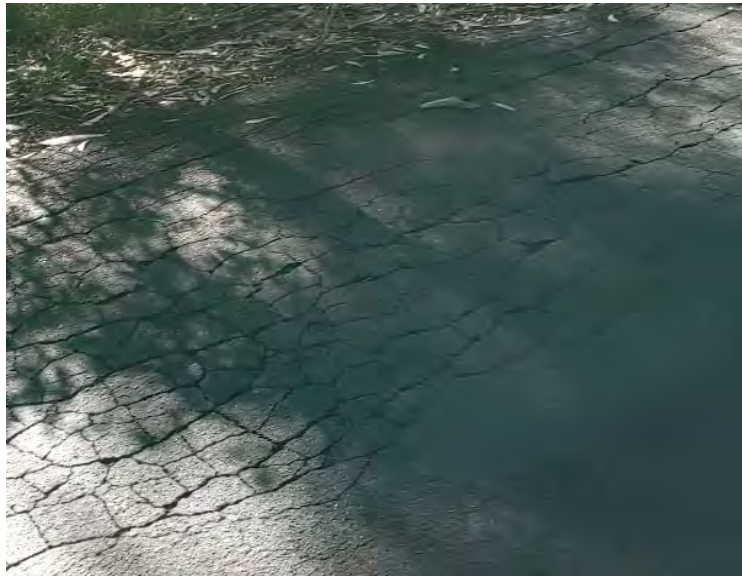


Image 3



Image 4



Image 5



Image 6



Image 7

Count Number 1187 Ref : OCT22
 Street MATORA LANE, CREMORNE : Between YOUNG STREET & CUL-DE-SACs (bidirectional) :
 Location On the first straight from Young St, on Tree Carriageway

TOTAL COUNT MATRIX	Start Date	26-OCT-22	Weekly 50th Percentile Speed	20
	Start Time	1900	Weekly 85th Percentile Speed	27
	Duration	7 DAYS	Five Day AADT	223
	Interval	1 HOUR	Seven Day AADT	211

	MON 31ST	TUE 1ST	WED 26TH / 2ND	THU 27TH	FRI 28TH	SAT 29TH	SUN 30TH	5 Day		7 Day	
								Total	Average	Total	Average
Midnight - 1am	0	0	0	0	0	0	0	0	0	0	0
1am - 2am	0	1	0	0	0	0	0	1	0	1	0
2am - 3am	0	0	0	0	0	0	0	0	0	0	0
3am - 4am	0	0	0	0	0	0	0	0	0	0	0
4am - 5am	0	0	0	2	0	0	0	2	0	2	0
5am - 6am	0	4	2	3	2	0	1	11	2	12	2
6am - 7am	3	32	4	11	5	4	1	55	11	60	9
7am - 8am	7	6	2	4	14	1	5	33	7	39	6
8am - 9am	10	7	4	10	28	17	9	59	12	85	12
9am - 10am	9	6	17	15	11	17	13	58	12	88	13
10am - 11am	19	17	7	30	15	18	16	88	18	122	17
11am - Midday	7	7	28	14	17	14	9	73	15	96	14
Midday - 1pm	11	9	10	16	12	15	12	58	12	85	12
1pm - 2pm	4	14	10	8	8	22	11	44	9	77	11
2pm - 3pm	7	7	13	8	8	20	13	43	9	76	11
3pm - 4pm	15	16	14	11	18	16	18	74	15	108	15
4pm - 5pm	11	15	43	22	21	15	15	112	22	142	20
5pm - 6pm	28	16	62	26	14	32	10	146	29	188	27
6pm - 7pm	18	15	25	19	18	7	6	95	19	108	15
7pm - 8pm	14	10	14	11	1	12	6	50	10	68	10
8pm - 9pm	13	16	19	12	3	0	0	63	13	63	9
9pm - 10pm	11	8	9	1	2	5	1	31	6	37	5
10pm - 11pm	3	9	1	6	0	0	1	19	4	20	3
11pm - Midnight	0	1	0	0	0	0	0	1	0	1	0
Total	190	216	284	229	197	215	147	1116	223	1478	211

Count Number 1188 Ref : OCT22
 Street MATORA LANE, CREMORNE : Between YOUNG STREET & CUL-DE-SACs (bidirectional) :
 Location On the second straight from Young St, on Tree Carriageway

TOTAL COUNT MATRIX

Start Date	17-OCT-22	Weekly 50th Percentile Speed	20
Start Time	1300	Weekly 85th Percentile Speed	27
Duration	7 DAYS	Five Day AADT	201
Interval	1 HOUR	Seven Day AADT	186

	MON 17TH / 24TH	TUE 18TH	WED 19TH	THU 20TH	FRI 21ST	SAT 22ND	SUN 23RD	5 Day		7 Day	
								Total	Average	Total	Average
Midnight - 1am	0	0	0	0	0	2	0	0	0	2	0
1am - 2am	0	0	0	0	0	0	0	0	0	0	0
2am - 3am	0	0	0	0	0	0	0	0	0	0	0
3am - 4am	0	0	0	0	0	0	0	0	0	0	0
4am - 5am	0	0	0	1	0	0	0	1	0	1	0
5am - 6am	3	3	3	1	3	0	0	13	3	13	2
6am - 7am	9	33	3	11	10	1	0	66	13	67	10
7am - 8am	4	6	5	3	6	3	1	24	5	28	4
8am - 9am	2	4	4	17	18	5	6	45	9	56	8
9am - 10am	9	15	17	20	8	11	8	69	14	88	13
10am - 11am	7	10	8	15	4	29	9	44	9	82	12
11am - Midday	8	5	21	9	15	15	5	58	12	78	11
Midday - 1pm	4	10	10	7	6	16	3	37	7	56	8
1pm - 2pm	6	20	9	11	9	19	11	55	11	85	12
2pm - 3pm	9	16	8	15	10	29	11	58	12	98	14
3pm - 4pm	10	16	20	17	19	14	10	82	16	106	15
4pm - 5pm	8	26	19	18	28	24	9	99	20	132	19
5pm - 6pm	13	17	27	17	11	19	10	85	17	114	16
6pm - 7pm	19	22	24	21	12	9	8	98	20	115	16
7pm - 8pm	8	13	17	5	3	6	4	46	9	56	8
8pm - 9pm	16	18	14	7	1	0	2	56	11	58	8
9pm - 10pm	13	16	12	3	2	0	0	46	9	46	7
10pm - 11pm	4	8	7	0	0	0	0	19	4	19	3
11pm - Midnight	0	2	0	0	0	0	0	2	0	2	0
Total	152	260	228	198	165	202	97	1003	200	1302	186

Count Number 1189 Ref : OCT22
 Street MATORA LANE, CREMORNE : Between YOUNG STREET & CUL-DE-SACs (bidirectional) :
 Location On the third straight from Young St, ELP MO14973 Carriageway

Start Date 17-OCT-22
 Start Time 1300
 Duration 7 DAYS
 Interval 1 HOUR

Weekly 50th Percentile Speed 16
 Weekly 85th Percentile Speed 20
 Five Day AADT 207
 Seven Day AADT 194

TOTAL COUNT MATRIX

	MON 17TH / 24TH	TUE 18TH	WED 19TH	THU 20TH	FRI 21ST	SAT 22ND	SUN 23RD	5 Day		7 Day	
								Total	Average	Total	Average
Midnight - 1am	0	0	0	0	0	2	0	0	0	2	0
1am - 2am	0	0	0	0	0	0	0	0	0	0	0
2am - 3am	0	0	0	0	0	0	0	0	0	0	0
3am - 4am	0	0	0	0	0	0	0	0	0	0	0
4am - 5am	0	0	0	1	0	0	0	1	0	1	0
5am - 6am	3	3	3	1	3	0	0	13	3	13	2
6am - 7am	10	35	1	11	11	0	0	68	14	68	10
7am - 8am	4	6	5	5	5	4	1	25	5	30	4
8am - 9am	2	4	3	16	19	6	7	44	9	57	8
9am - 10am	9	16	18	21	8	14	9	72	14	95	14
10am - 11am	8	9	12	17	6	32	12	52	10	96	14
11am - Midday	7	4	22	7	15	13	5	55	11	73	10
Midday - 1pm	5	10	10	8	6	15	3	39	8	57	8
1pm - 2pm	7	20	13	10	10	21	13	60	12	94	13
2pm - 3pm	10	14	10	17	10	29	12	61	12	102	15
3pm - 4pm	11	17	18	13	20	13	10	79	16	102	15
4pm - 5pm	8	29	21	19	25	29	11	102	20	142	20
5pm - 6pm	14	18	29	19	13	21	10	93	19	124	18
6pm - 7pm	19	22	23	24	14	11	9	102	20	122	17
7pm - 8pm	8	12	16	6	3	4	4	45	9	53	8
8pm - 9pm	17	20	14	8	1	1	2	60	12	63	9
9pm - 10pm	12	15	12	2	2	0	0	43	9	43	6
10pm - 11pm	4	6	7	0	0	0	0	17	3	17	2
11pm - Midnight	0	2	0	0	0	0	0	2	0	2	0
Total	158	262	237	205	171	215	108	1033	206	1356	193

MATORA LANE LANEWAY UPGRADE, CREMORNE POINT LANEWAY UPGRADE

ALL WORKS MUST BE IN ACCORDANCE WITH THE NORTH SYDNEY COUNCIL INFRASTRUCTURE SPECIFICATIONS.

GENERAL NOTES

- G1. ALL DIMENSIONS ARE IN MILLIMETERS
- G2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANTS AND ARCHITECTURAL DRAWINGS.
- G3. ALL EXCAVATIONS SHALL BE UNDERTAKEN UNDER SUPERVISION OF STRUCTURAL ENGINEER AND ANY EXCESSIVE MOVEMENT OF THE EMBANKMENTS AND EXCAVATION SHALL BE REPORTED IMMEDIATELY TO THE STRUCTURAL ENGINEER AND ADVICE SHALL BE SOUGHT.

CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND OTHER RELEVANT AUSTRALIAN CODES. C2. CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

ELEMENT	SLUMP	AGGREGATE	CEMENT	f _c
RETAINING WALL AND FOOTING	80	20	G.P.	32

NOTE: MAXIMUM DRYING SHRINKAGE STRAIN (TO AS 1012 PART 13) SHALL NOT EXCEED 650 MICROMETERS AT 56 DAYS.

- C3. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C4. NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- C5. CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE SHOWN OR SPECIFICALLY APPROVED BY THE ENGINEER.
- C6. CONDUITS, PIPES AND THE LIKE SHALL NOT BE PLACED WITHIN THE CONCRETE COVER.
- C7. CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH AS 3600 AND SHALL COMMENCE WITHIN 2 HOURS OF FINISHING OPERATIONS AND SHALL BE MAINTAINED FOR A MINIMUM OF 7 DAYS USING AN APPROVED PROPRIETARY CURING COMPOUND EXCEPT CHLORINATED RUBBER BASED TYPE) OR CONTINUOUS PONDING WITH POTABLE WATER.
- C8. ALPHATIC ALCOHOL: WHEN SHADE TEMPERATURE EXCEEDS 35 C SPRAY THE EXPOSED SURFACE OF CONCRETE SLAB DURING THE PLACING AND FINISHING OPERATION WITH FINE FILM OF APPROVED ALPHATIC ALCOHOL. REPEAT THE SPRAY IF THE SPRAYED SURFACE HAS BEEN RE-WORKED.
- C9. ENSURE ADEQUATE SUPPLY OF ALPHATIC ALCOHOL ON SITE BEFORE COMMENCING CONCRETE WORK. C10. CALCIUM CHLORIDE IS NOT PERMITTED TO BE USED.

STRUCTURAL STEEL

- S1. ALL MATERIALS AND WORKMANSHIP TO COMPLY WITH AS 4103.
- S2. ALL WELDS TO BE 6mm CONTINUOUS FILLET WELDS UNO.
- S3. ALL BOLTS, WASHERS & NUTS TO BE GRADE 8.8+ GALVANISED.
- S4. FINISH: HOT DIP GALVANISE 600 g/m² COATING MASS PLUS A HIGH BUILD EPOXY FIRST COAT EQUIVALENT TO SYSTEM DESIGNATION HDG 600 P3 IN TABLE 5.3 OF AS/NZS 2312. COLOUR OF FIRST COAT TO BE SELECTED BY THE SUPERINTENDENT.

MONITORING EXISTING RETAINING WALL AND ROCK FACES

- MER1. CONSIDERING PROXIMITY TO THE EXISTING RETAINING WALL, THE CONTRACTOR SHALL PREPARE DILATATION REPORTS FOR THE WORKS PRIOR TO COMMENCEMENT OF THE WORKS AND AFTER COMPLETION OF THE WORKS.
- MER2. THE CONTRACTOR SHALL MONITOR THE EXISTING RETAINING WALL DURING DEMOLITION WORKS, EXCAVATION WORKS AND PILING WORKS.
- MER3. IF THE PILING AND EXCAVATION WORKS ENCOUNTERED LARGE SANDSTONE BOLDERS WHICH COULD NOT BE REMOVED, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER TO REVIEW THE SITUATION AND PROVIDE ADVICE REGARDING THE IMPACT ON THE RETAINING WALL STABILITY.

TRAFFIC BARRIER DESIGN AND INSTALLATION

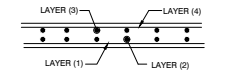
- TB1. THE TRAFFIC BARRIER DESIGN CRITERIA ARE SHOWN ON THE DRAWINGS.
- TB2. ALL TRAFFIC W/ BEAM BARRIERS, POSTS AND TERMINAL POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE RMS TECHNICAL SPECIFICATIONS AND MANUFACTURERS' MANUALS.

REINFORCEMENT

- R1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND OTHER RELEVANT AUSTRALIAN CODES. R2. REINFORCEMENT TYPE AND GRADE.

SYMBOL	TYPE	AUS STAN	GRADE
R1 & S1	HOT ROLLED DEFORMED BARS	1302	500
	WELDED WIRE REINFORCEMENT FABRIC	1304	500

- R3. BAR NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER: No. OF BARS, TYPE, BAR SIZE (mm), SPACING (mm), LAYER e.g. 20 (Y OR N)18-200 (1) U.N.O.



- R4. FABRIC NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER: 'RL' OR 'SL' SYMBOL, AS REFERENCE NUMBER, LOCATION, e.g. RL18 IS TOP.

- R5. REINFORCEMENT IS REPRESENTED DIAGMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- R6. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
- R7. ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS.
- R8. CLEAR COVER TO FACE OF ALL REINFORCEMENT SHALL CONFORM TO THE FOLLOWING TABLE U.N.O. ON THE DRAWINGS.

EXPOSURE CONDITION	COVER (mm)
SURFACES OF MEMBERS IN CONTACT WITH THE GROUND.	30 U.N.O.
(A) SURFACE PROTECTED BY DAMP PROOF MEMBRANE	75
(B) UNPROTECTED SURFACES	75

- R9. COVER SPECIFIED ALSO APPLIES LOCALLY AT RECESSES, DRIP GROOVES etc..
- R10. LAP REINFORCEMENT ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AS APPROVED, UNLESS OTHERWISE NOTED, LAP BARS AS TABULATED BELOW.

f _c	TENSION LAP SPlice LENGTH					
	COVER N12	N16	N20	N24	N28	N32
40	30	475	665	876	1200	1575

DEVELOPMENT SPlice LENGTH	
BAR SIZE	MIN. SPlice LENGTH (mm)
N12	375 (500)

LAP LENGTH SHOWN IN BRACKETS APPLY TO HORIZONTAL BARS WITH MORE THAN 300 MM OF CONCRETE CAST BELOW THE BAR.

- R11. FABRIC SHALL BE LAPPED SUCH THAT THE TWO OUTERMOST WIRES OF ONE SHEET OVERLAP THE TWO OUTERMOST WIRES OF THE OTHER SHEET BY 25 mm MINIMUM.

- R12. A MAXIMUM OF THREE SHEETS OF FABRIC SHALL BE LAPPED AT ANY POINT.

- R13. HOOKS, BENDS AND COGS TO BE IN ACCORDANCE WITH AS 3600 (500 Min) UNLESS NOTED OTHERWISE ON DRAWINGS.

GROUND WORKS

- GW1. SEPARATE AND REMOVE ALL TOP SOIL, NON SOIL MATERIAL, CONCRETE, VEGETATION, BRICKS/BATS, TIMBER, ROOT AFFECTED SOIL AND EXISTING FILL. STORE TOP SOIL IF REQUIRED.
- GW2. ALL EXCAVATIONS SHALL BE FINISHED CLEAN AND HORIZONTAL.
- GW3. THE FILL IS TO BE PLACED AND COMPACTED IN LAYERS OF MAXIMUM LOOSE THICKNESS 200mm.
- GW4. TOP LAYER OF PAVED AREAS TO BE COMPACTED TO MINIMUM 100% STANDARD MAXIMUM DRY DENSITY. LOWER LAYERS IN PAVED AREAS AND ALL LAYERS IN BUILDING AREA TO BE COMPACTED TO A MINIMUM 98% STANDARD DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% AS REQUIRED BY AS 1289 E1.1. GEOTECHNICAL ENGINEER TO VERIFY.
- GW5. ALL EMBANKMENTS TO BE COMPACTED IN 200 mm LAYERS AS PER NOTE GW6 AND AT A MAXIMUM SLOPE OF 1 VERTICAL TO 3 HORIZONTAL UNLESS NOTED OTHERWISE SHOULD DRAINAGE BE REQUIRED THEN SUBMIT DETAILS TO THE ENGINEER.
- GW6. ALL GROUND WORKS SHALL BE TESTED BY AN APPROVED GEOTECHNICAL ENGINEER TO A LEVEL 2 STANDARD IN ACCORDANCE WITH AS 3798.
- GW7. CONTRACTOR TO ADVISE OF GEOTECHNICAL CONSULTANT PRIOR TO COMMENCEMENT OF THE CONSTRUCTION WORKS.
- GW8. ALL FILL MATERIAL SHALL BE INSPECTED AND APPROVED PRIOR TO COMMENCEMENT OF WORKS BY ACCREDITED GEOTECHNICAL OR STRUCTURAL ENGINEER.

CHEMICALLY ANCHORED REINFORCEMENT

- CA1. WHERE SHOWN ON THE DRAWINGS REINFORCEMENT BARS SHALL BE CHEMICALLY ANCHORED INTO EXISTING CONCRETE AS DESCRIBED BELOW.

- CA2. PERCUSSION DRILL (CORING NOT PERMITTED) A HOLE TO THE CORRECT DIAMETER AND DEPTH FOR THE PARTICULAR SIZE REINFORCING BAR AS TABULATED BELOW, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

BAR SIZE (Y OR N)	HOLE DIA (mm)	HOLE DEPTH (mm)
12	16	260
16	22	350
20	28	450
24	32	550

- CA3. THOROUGHLY CLEAN THE HOLE USING A ROUND WIRE BRUSH AND BLOW OUT ALL DUST.

- CA4. ENSURE HOLE IS CLEAN AND DRY AND INSERT SUFFICIENT HILTI HY 150 RESIN INTO THE BASE OF THE HOLE TO ENSURE THAT WHEN THE BAR IS INSTALLED RESIN APPEARS AT THE FACE OF THE HOLE.

- CA5. IMMEDIATELY INSERT THE REINFORCING BAR INTO THE HOLE BY ROTATING SLOWLY TO FULLY COAT THE BAR WITH RESIN, AND PUSH FULLY INTO THE HOLE.

- CA6. ENSURE BAR IS NOT DISTURBED WHILST RESIN IS CURING. (APPROX. 2 HOURS).

TRAFFIC BARRIER DESIGN AND INSTALLATION

- TB1. THE TRAFFIC BARRIER DESIGN CRITERIA ARE SHOWN ON DRAWINGS.
- TB2. ALL TRAFFIC W/ BEAM BARRIERS, POSTS AND TERMINAL POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE RMS TECHNICAL SPECIFICATIONS AND MANUFACTURERS' MANUALS.



LOCATION PLAN OF MATORA LANE AND PRIMROSE PARK CAR PARK

DRAWING SCHEDULE

C001 GENERAL NOTES AND DRAWING SCH.	SHEET 1/9	REV 2
C100 ROAD DESIGN PLAN AND SECTION	SHEET 2/9	REV 2
C101 SETOUT PLAN	SHEET 3/9	REV 2
C102 CUT AND FILL PLAN	SHEET 4/9	REV 2
C103 CROSS SECTIONS SHEET 1	SHEET 5/9	REV 2
C104 CROSS SECTIONS SHEET 2	SHEET 6/9	REV 2
C200 SWEPT PATH ANALYSIS	SHEET 7/9	REV 2
C201 LINEMARKING AND SIGNAGE PLAN	SHEET 8/9	REV 2
C300 DETAILS	SHEET 9/9	REV 2

Date	No.	By	Amendments	Checked
20.11.2022	2	HN	ISSUED FOR TENDER	HN
04.10.2022	1	HN	ISSUED FOR REVIEW	HN

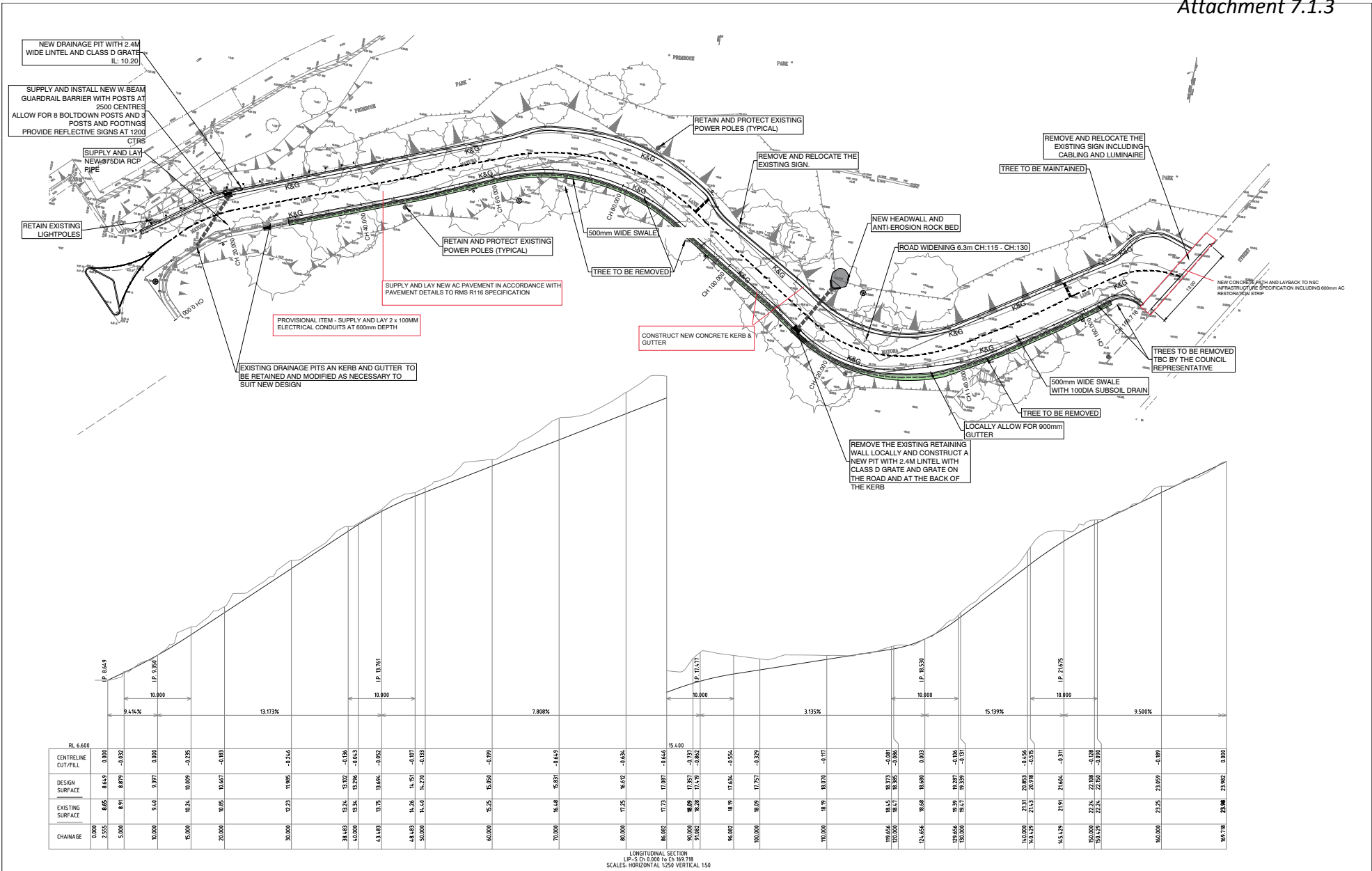


CLIENT:
NORTH SYDNEY COUNCIL

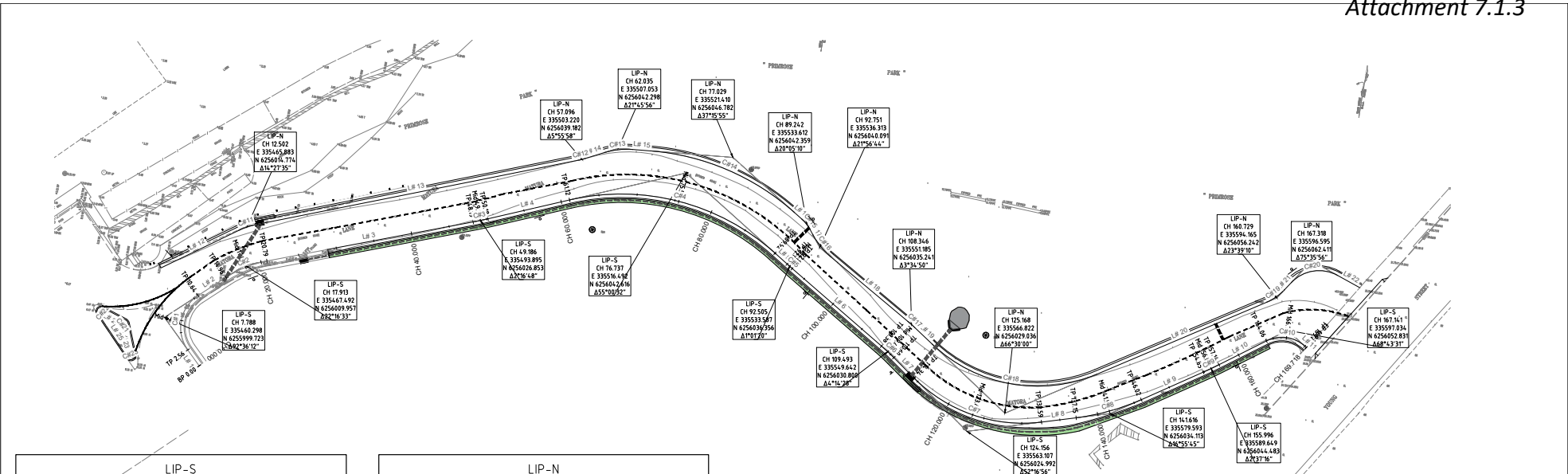
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MATORA LANE LANEWAY UPGRADE
CREMORNE POINT
LANEWAY UPGRADE
GENERAL NOTES AND DRAWING SCH.

Designd:	HN	Checked:	HN	SCALE:	PAPER:	ISSUED FOR REVIEW	Issue:
Drawn:	ZK	Approved:	HN	AS SHOWN	A1	2025.001	2
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LIP-S						
Number		Chainage	Easting	Northing	Radii/A Value	Bearing
LF1	Start	0.000	335466.865	6255995.538		302°30'13" Straight
	End	2.555	335464.710	6255996.911		
CR1	Start	2.555	335464.710	6255996.911	5.000	302°10'13" Arc
	End	10.836	335463.307	6256004.004		35°06'25" Arc
LF2	Start	10.836	335463.307	6256004.004		35°06'25" Straight
	End	14.960	335465.793	6256007.541		
CR2	Start	14.960	335465.793	6256007.541	15.000	35°06'25" Arc
	End	20.792	335469.979	6256015.548		57°22'58" Arc
LF3	Start	20.792	335469.979	6256015.548		57°22'58" Straight
	End	48.191	335493.057	6256026.317		
CR3	Start	48.191	335493.057	6256026.317	50.000	57°22'58" Arc
	End	50.880	335494.711	6256027.422		50°10'42" Arc
LF4	Start	50.880	335494.711	6256027.422		55°06'10" Straight
	End	61.171	335503.681	6256033.679		
CR4	Start	61.171	335503.681	6256033.679	30.000	50°06'10" Arc
	End	89.919	335513.160	6256037.245		100°10'42" Arc
LF5	Start	89.919	335513.160	6256037.245		100°10'42" Straight
	End	92.059	335533.587	6256036.356		
CR5	Start	92.059	335533.587	6256036.356	50.000	100°06'42" Arc
	End	92.951	335534.009	6256038.509		109°05'21" Arc
LF6	Start	92.951	335534.009	6256038.509		109°05'21" Straight
	End	108.382	335548.592	6256043.163		
CR6	Start	108.382	335548.592	6256043.163	30.000	109°05'21" Arc
	End	116.603	335556.662	6256043.163		113°19'49" Arc
LF7	Start	116.603	335556.662	6256043.163		113°19'49" Straight
	End	116.341	335554.094	6256028.880		
CR7	Start	116.341	335554.094	6256028.880	20.000	113°19'49" Arc
	End	132.591	335571.696	6256029.744		67°02'53" Arc
LF8	Start	132.591	335571.696	6256029.744		67°02'53" Straight
	End	137.151	335575.686	6256031.952		
CR8	Start	137.151	335575.686	6256031.952	30.000	47°02'53" Arc
	End	146.015	335582.701	6256037.318		44°07'08" Arc
LF9	Start	146.015	335582.701	6256037.318		44°07'08" Straight
	End	154.852	335588.853	6256043.662		
CR9	Start	154.852	335588.853	6256043.662	50.000	44°07'08" Arc
	End	157.139	335590.477	6256045.340		47°29'52" Arc
LF10	Start	157.139	335590.477	6256045.340		47°29'52" Straight
	End	164.064	335596.995	6256050.526		
CR10	Start	164.064	335596.995	6256050.526	4.500	47°29'52" Arc
	End	167.141	335599.031	6256052.831		110°13'23" Arc
LF11	Start	167.141	335599.031	6256052.831		110°13'23" Straight
	End	169.718	335600.161	6256051.679		

LIP-N						
Number		Chainage	Easting	Northing	Radii/A Value	Bearing
LF12	Start	0.000	335457.458	6256005.536		42°21'57" Straight
	End	11.234	335465.028	6256013.836		
CR11	Start	11.234	335465.028	6256013.836	10.000	42°21'57" Arc
	End	17.578	335464.965	6256015.448		56°49'32" Arc
LF13	Start	17.578	335464.965	6256015.448		56°49'32" Straight
	End	56.578	335502.786	6256038.899		
CR12	Start	56.578	335502.786	6256038.899	10.000	56°49'32" Arc
	End	57.613	335503.622	6256039.509		50°53'34" Arc
LF14	Start	57.613	335503.622	6256039.509		50°53'34" Straight
	End	60.113	335505.561	6256041.086		
CR13	Start	60.113	335505.561	6256041.086	10.000	50°53'34" Arc
	End	63.911	335508.888	6256042.872		72°39'30" Arc
LF15	Start	63.911	335508.888	6256042.872		72°39'30" Straight
	End	66.240	335511.151	6256043.566		
CR14	Start	66.240	335511.151	6256043.566	32.000	72°39'30" Arc
	End	87.053	335515.554	6256043.105		109°55'25" Arc
LF16	Start	87.053	335515.554	6256043.105		109°55'25" Straight
	End	88.356	335512.779	6256042.661		
CR15	Start	88.356	335512.779	6256042.661	5.000	109°55'25" Arc
	End	90.109	335513.612	6256042.359		130°00'35" Arc
LF17	Start	90.109	335513.612	6256042.359		130°00'35" Straight
	End	90.812	335534.290	6256044.138		
CR16	Start	90.812	335534.290	6256044.138	10.000	130°00'35" Arc
	End	94.642	335538.957	6256049.490		108°03'51" Arc
LF18	Start	94.642	335538.957	6256049.490		108°03'51" Straight
	End	107.721	335550.591	6256035.434		
CR17	Start	107.721	335550.591	6256035.434	20.000	108°03'51" Arc
	End	108.971	335551.766	6256035.010		111°38'47" Arc
LF19	Start	108.971	335551.766	6256035.010		111°38'47" Straight
	End	112.056	335554.633	6256033.872		
CR18	Start	112.056	335554.633	6256033.872	20.000	47°02'53" Arc
	End	122.056	335576.177	6256038.284		45°08'47" Arc
LF20	Start	122.056	335576.177	6256038.284		45°08'47" Straight
	End	159.263	335575.107	6256038.284		
CR19	Start	159.263	335575.107	6256038.284	7.000	45°08'47" Arc
	End	162.153	335594.702	6256055.208		21°29'31" Arc
LF21	Start	162.153	335594.702	6256055.208		21°29'31" Straight
	End	167.318	335595.595	6256061.932		
CR20	Start	167.318	335600.443	6256061.932	5.000	97°05'27" Arc
	End	173.377	335603.758	6256061.520		97°05'27" Straight

Island						
Number		Chainage	Easting	Northing	Radii/A Value	Bearing
LF23	Start	0.000	335456.540	6255993.707		326°25'24" Straight
	End	4.268	335456.179	6255997.263		
CR21	Start	4.268	335456.179	6255997.263	0.600	326°25'24" Arc
	End	4.796	335455.762	6255997.528		275°56'43" Arc
LF24	Start	4.796	335455.762	6255997.528		275°56'43" Straight
	End	8.214	335455.702	6255997.882		
CR22	Start	8.214	335455.702	6255997.882	0.500	275°56'43" Arc
	End	10.205	335450.362	6255998.088		124°08'02" Arc
LF25	Start	9.538	335452.010	6255996.911		124°08'02" Straight
	End	16.284	335457.862	6255999.071		
CR23	Start	16.284	335457.862	6255999.071	0.500	124°08'02" Arc
	End	19.122	335458.540	6255993.707		326°25'24" Arc

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Date	Nr	By	Amendments	Checked

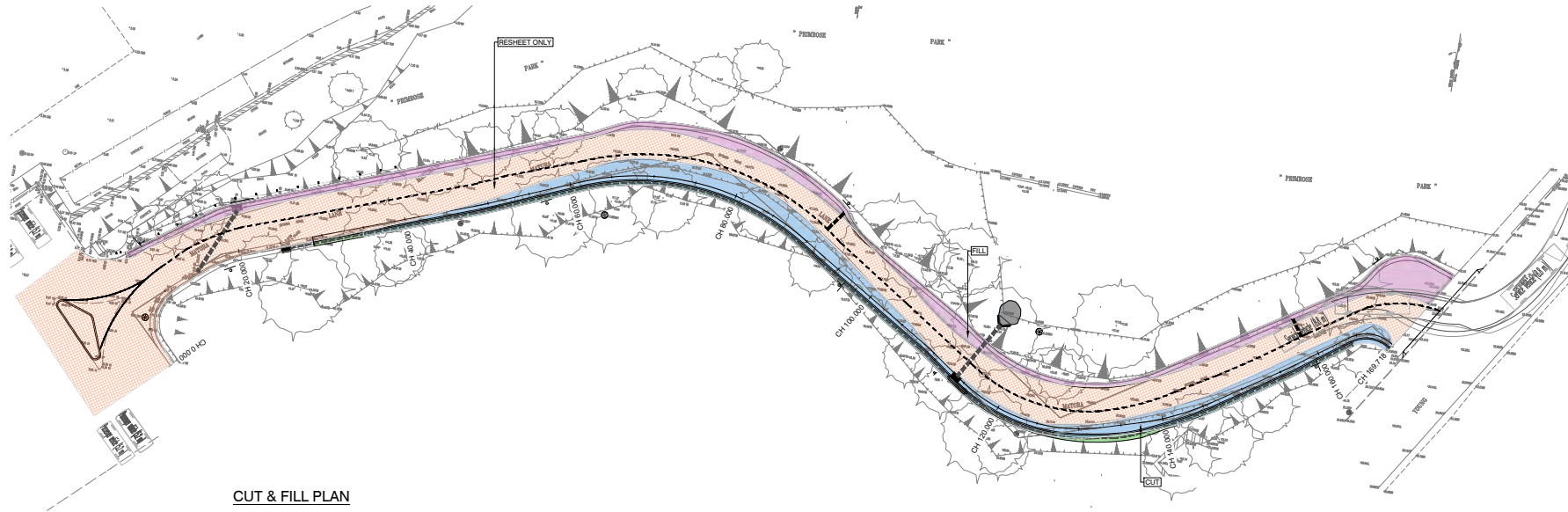


CLIENT:
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www.urbanspec.com.au

MATORA LANE LANEWAY UPGRADE CREMORNE POINT		LAWSON UPGRADE SETOUT	
Drawn: ZR	Checked: HN	SCALE: AS SHOWN	PAPER: A1
ISSUED FOR REVIEW		Sheet No: 2	Sheet 2



CUT & FILL PLAN

CUT: 261 m² (WEATHERED SANDSTONE : 80m³, TOP SOIL 160m³); REFER ASPHALTIC CONCRETE DETAIL 2 DRG# C300 FOR PAVEMENT DETAIL
 FILL: 217 m³ (DGS40: 35m³) : REFER ASPHALTIC CONCRETE DETAIL 1 DRG# C300 FOR PAVEMENT DETAIL
 RESHEETING AREA: 861 m² (50mm AC14)
 TOTAL ASPHALT AREA: 1300 M² : AVERAGE 50mm AC14

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03					
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06			Amendments	Checked	



CLIENT:
NORTH SYDNEY COUNCIL

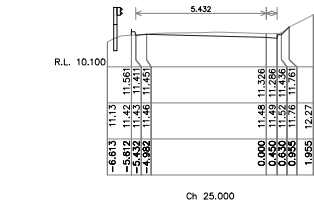


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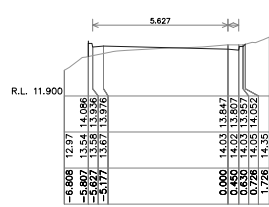
MATORA LANE LANEWAY UPGRADE
 CREMORNE POINT
 LANEWAY UPGRADE
 CUT AND FILL PLAN



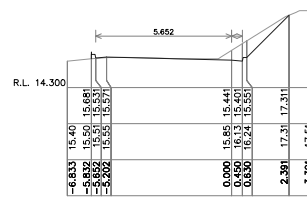
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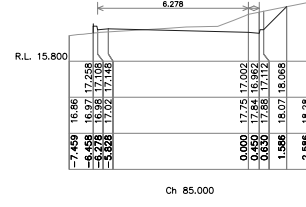
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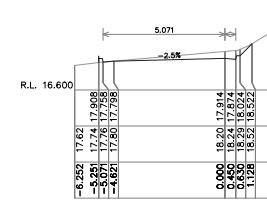
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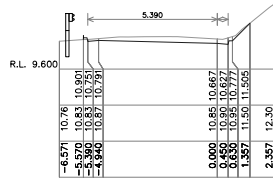
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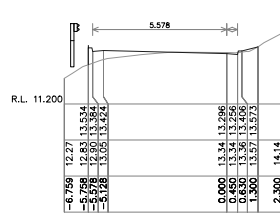
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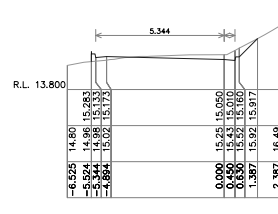
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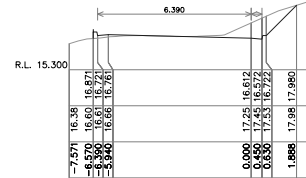
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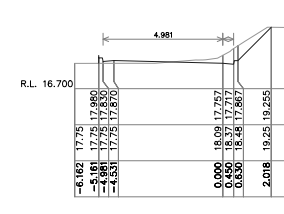
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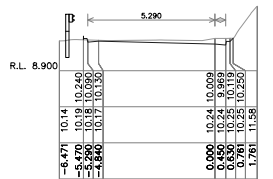
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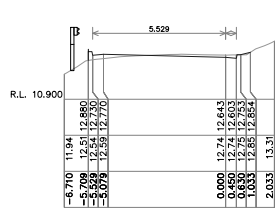
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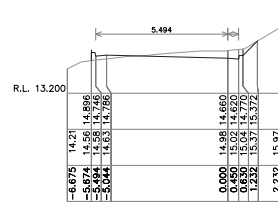
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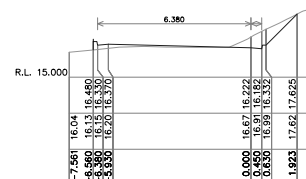
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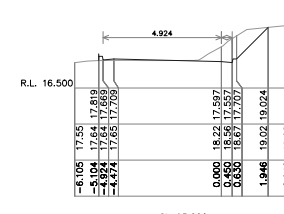
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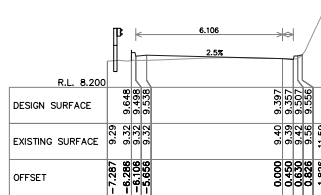
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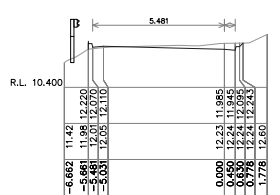
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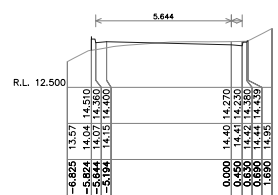
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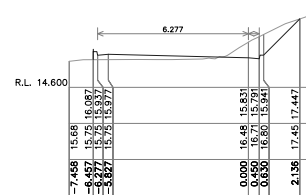
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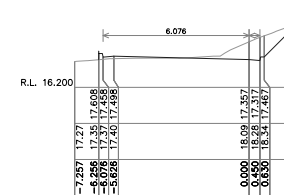
Ch 30.000



Ch 50.000



Ch 70.000



Ch 90.000

DESIGN SURFACE	EXISTING SURFACE	OFFSET
-7.287	9.23	-7.287
-6.286	9.32	-6.286
-5.656	9.32	-5.656
-5.656	9.32	-5.656
0.000	9.40	0.000
0.450	9.39	0.450
0.450	9.357	0.450
0.830	9.35	0.830
0.830	9.356	0.830
1.826	11.59	1.826

Date	No.	By	Amendments	Checked
01.11.2022	1	HN	ISSUED FOR TENDER	HN
04.10.2022	1	HN	ISSUED FOR REVIEW	HN



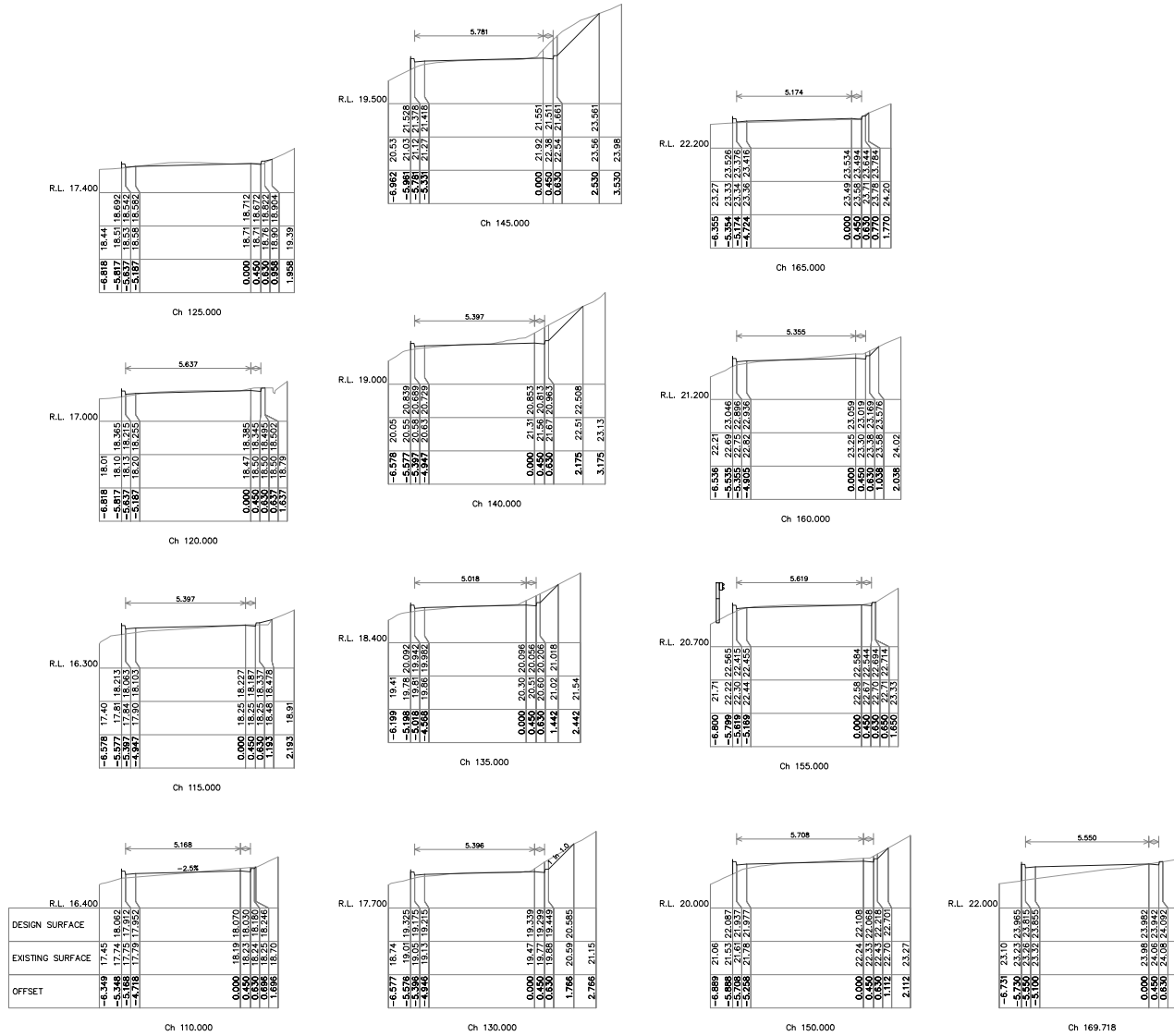
CLIENT:
NORTH SYDNEY COUNCIL

URBANSPEC ENGINEERING PTY LTD
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 M: 0411 352 614
 Email: hassan@urbanspec.com.au
 www.urbanspec.com.au

MATORA LANE LANEWAY UPGRADE
 CREMORNE POINT
 LANEWAY UPGRADE
 CROSS SECTIONS - SHEET 1

ISSUED FOR REVIEW

Design: HN
 Check: HN
 Scale: AS SHOWN
 Paper: A1
 Drawing No.: 10215-0103
 Sheet No.: 5 OF 9



	R.L.	17.40	18.01	18.10	18.365	18.44	18.51	18.692	18.712	18.72	18.939
DESIGN SURFACE		17.40	18.01	18.10	18.365	18.44	18.51	18.692	18.712	18.72	18.939
EXISTING SURFACE		17.45	17.81	17.90	18.23	18.31	18.49	18.57	18.65	18.73	18.954
OFFSET		-0.05	-0.20	-0.10	-0.13	-0.13	-0.18	-0.12	-0.14	-0.01	-0.015

	R.L.	17.40	18.01	18.10	18.365	18.44	18.51	18.692	18.712	18.72	18.939
DESIGN SURFACE		17.40	18.01	18.10	18.365	18.44	18.51	18.692	18.712	18.72	18.939
EXISTING SURFACE		17.45	17.81	17.90	18.23	18.31	18.49	18.57	18.65	18.73	18.954
OFFSET		-0.05	-0.20	-0.10	-0.13	-0.13	-0.18	-0.12	-0.14	-0.01	-0.015

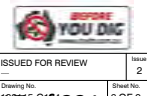
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04.10.2022	1	HN	ISSUED FOR REVIEW	HN



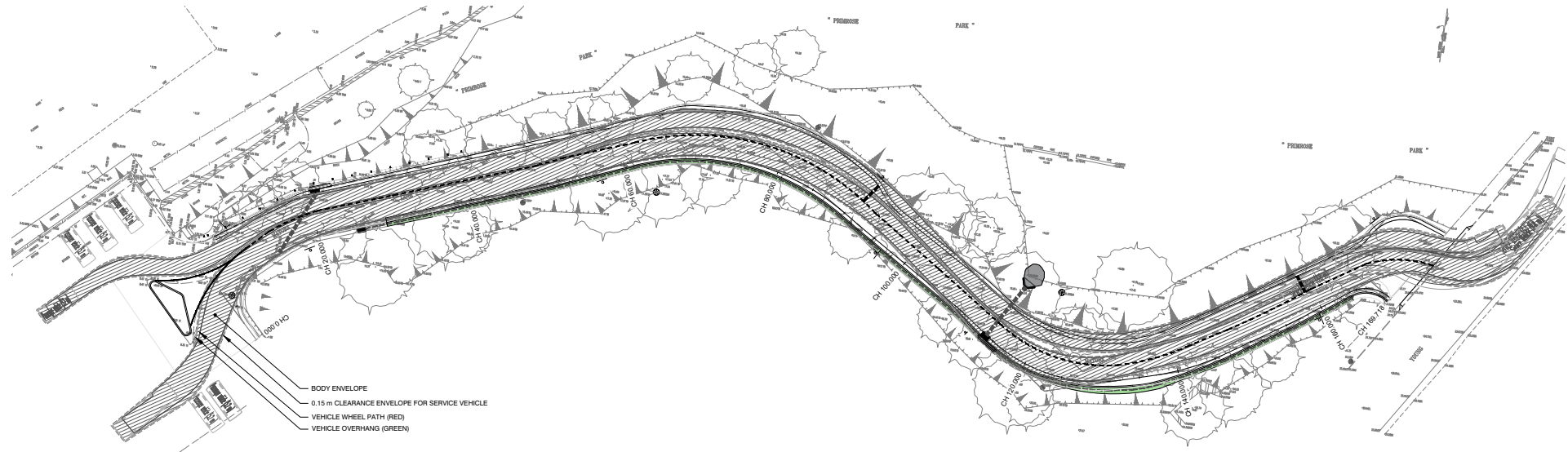
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MATORA LANE LANEWAY UPGRADE
CREMORNE POINT
LANEWAY UPGRADE
CROSS SECTIONS - SHEET 2

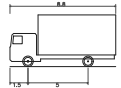


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Drawn:	ZR	Approved:	HN	AS SHOWN	A1	21775.01.04	6 OF 9



SWEPT PATH ANALYSIS
1:250

NOTES:
 1- TO MINIMISE THE COST THE CLEARANCES ARE SET TO MINIMUM 150mm FOR CARS AND SERVICES VEHICLE.
 2- THE ANALYSIS IS BASED ON THE FOLLOWING ASSUMPTIONS:
 - SPEED : 10KM/H
 - VEHICLE SIZES : STANDARDS RIGID SERVICE VEHICLE & STANDARDS B86 CAR



Service Vehicle (8.8 m)
 Overall length 8.800m
 Overall width 2.400m
 Overall Body Height 2.700m
 Min Body Ground Clearance 0.257m
 Track Width 2.500m
 Lock-to-lock time 4.50s
 Curb to Curb turning Radius 12.500m



Passenger vehicle (5.2 m)
 Overall length 5.200m
 Overall width 1.940m
 Overall Body Height 1.800m
 Min Body Ground Clearance 0.250m
 Track Width 1.840m
 Lock-to-lock time 4.10s
 Curb to Curb turning Radius 6.300m

01.11.2022	2	HN	ISSUED FOR TENDER	HN
04.10.2022	1	HN	ISSUED FOR REVIEW	HN
Date	Nr	By	Amendments	Checked



CLIENT:
NORTH SYDNEY COUNCIL



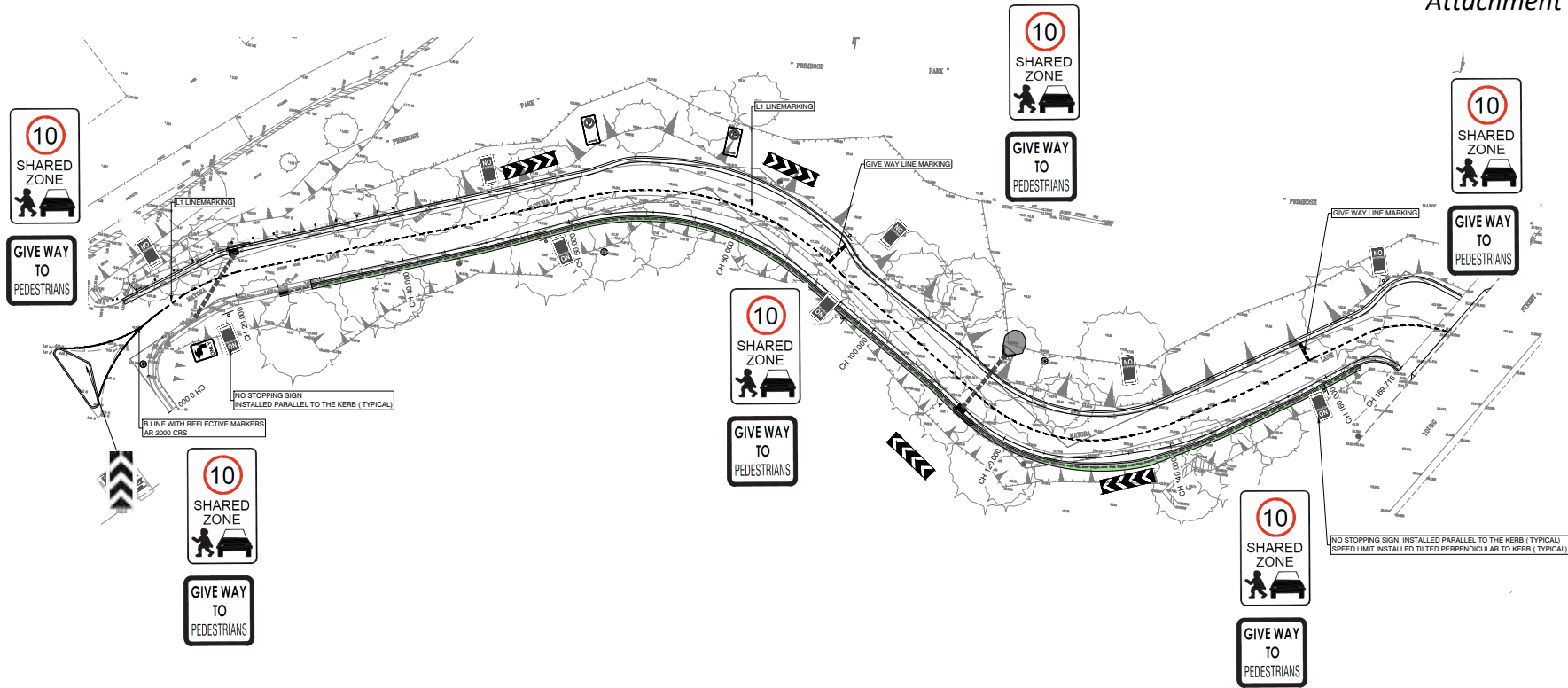
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**MATORA LANE LANEWAY UPGRADE
 CREMORNE POINT
 LANEWAY UPGRADE
 SWEPT PATH ANALYSIS**

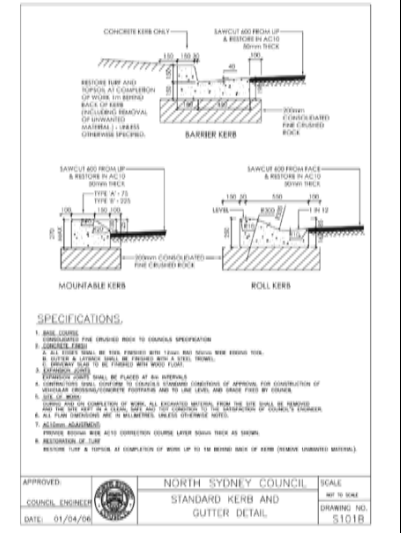
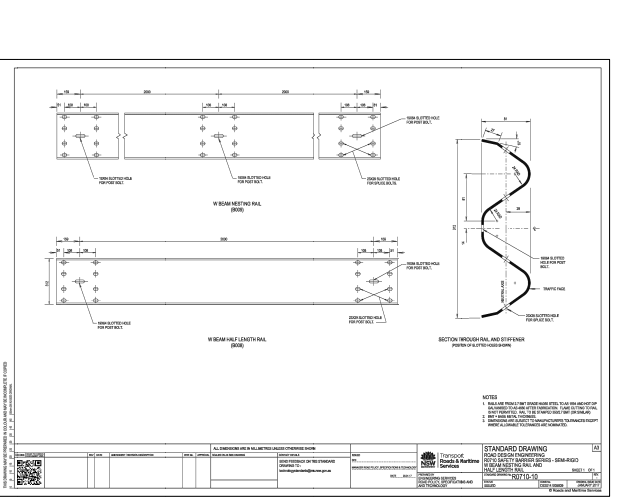
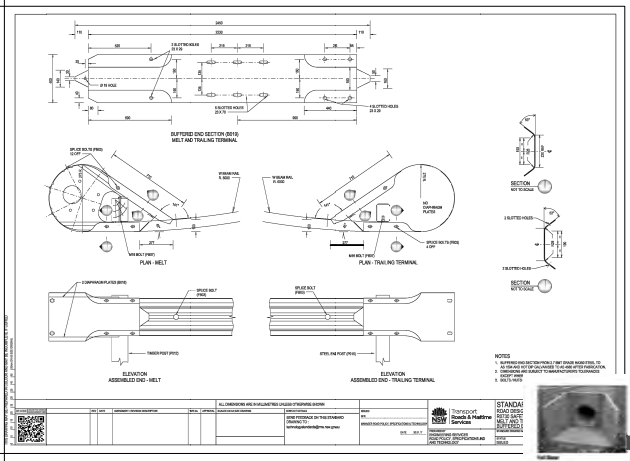
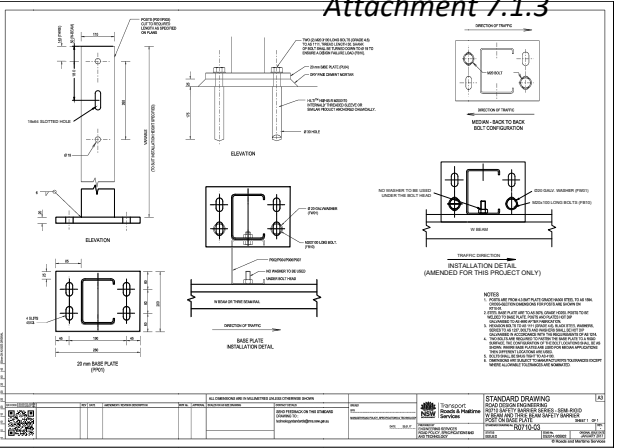
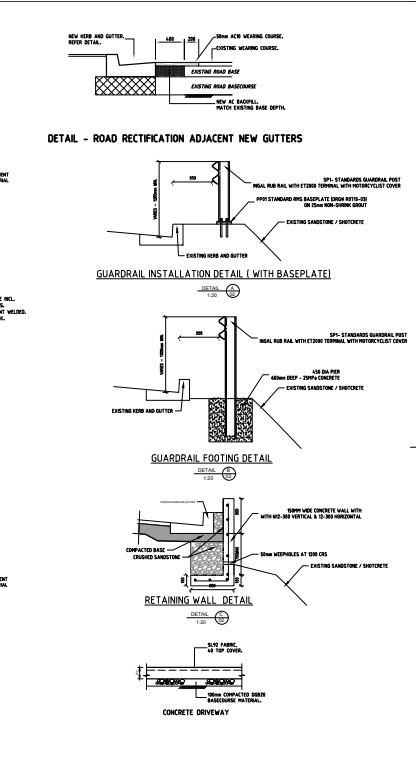
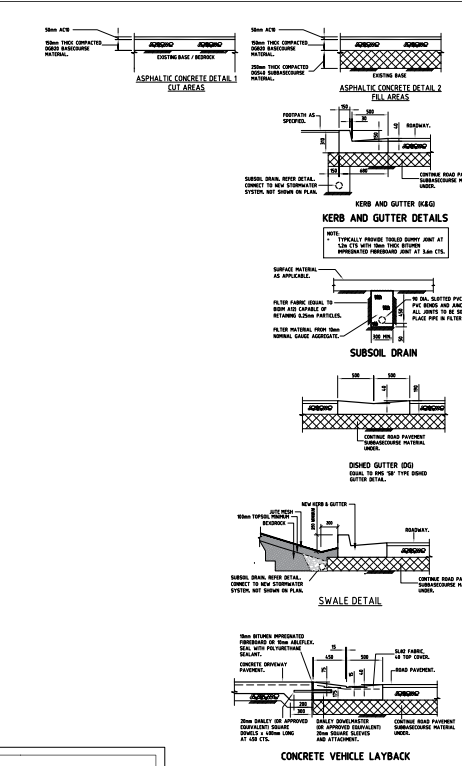
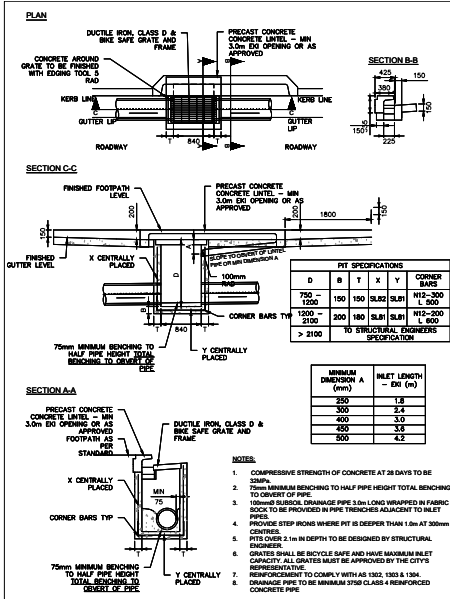
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 APPROVED: HN



ISSUED FOR REVIEW
 Drawing No: 2022-05-0020
 Sheet No: 7 OF 9



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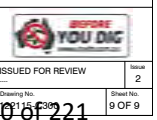
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 Email: hassan@urbanspec.com.au
 www.urbanspec.com.au

MATORA LANE LANEWAY UPGRADE
CREMORNE POINT

LANEWAY UPGRADE
DETAILS

ISSUED FOR REVIEW

Designed: HN
 Checked: HN
 Scale: AS SHOWN
 Paper: A
 Drawing No.: S101B
 Sheet No.: 2
 9 OF 9



- 8. General Business**
- 9. Closure**