CONSTRUCTION TRAFFIC MANAGEMENT PLAN

HI-PAC CONSTRUCTION PTY LTD

40 SUNRISE ROAD, PALM BEACH NSW 2108
Version 1

Nov 25, 2023

NOLA N. RURA- SYDNEY TRAFFIC
Unit 50, 45-51 Huntley Street, ALEXANDRIA NSW 2015

1 Table of Contents

2 ABOUT THE PROJECT.

2.1 Background

The project undertaken by Hi-Pac Constructions Pty Ltd consists of the Excavation and Construction of a Residential Dwelling at property, 40 Sunrise Road, Palm Beach NSW 2108.

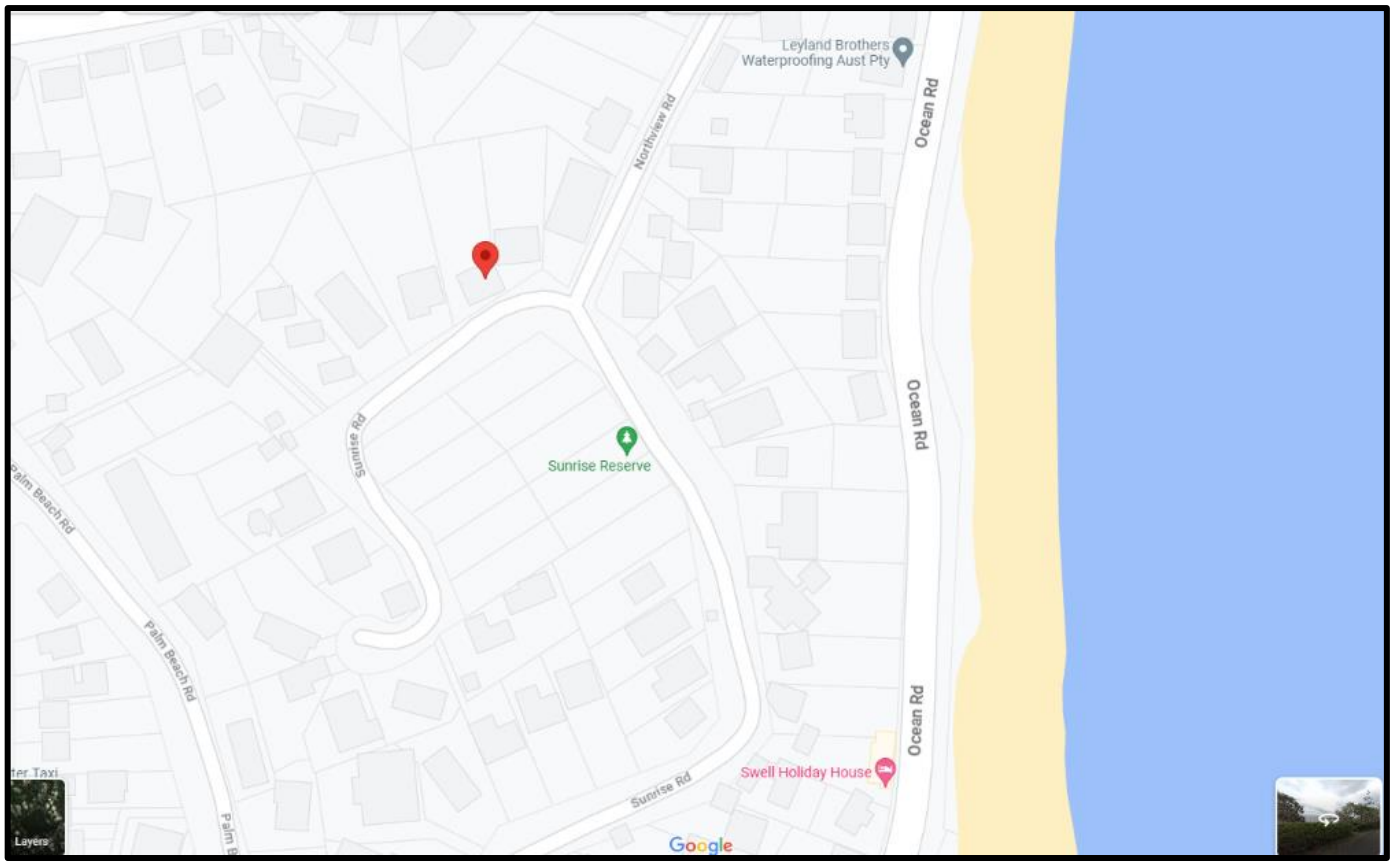
Company Responsible for the Construction:	Hi-Pac Constructions Pty Ltd
Company address:	1/1051 Pacific Highway Pymble NSW 2073
Email:	charlie@hipacgroup.com.au
Construction Manager:	Charlie Kellaway 0427 433 357
DA/CDC Approval:	DA2021/0900

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

Nola Ngatuaine Rura

TCTPWZ#:
1010014

2.2 Location



(Image 1, Google Image)

40 Sunrise Road, Palm Beach NSW 2108 is located on a Local Council Road.
There are no public transport routes along Sunrise Road.

(Image 2, Google Images)

2.3 Purpose

The purpose of this Construction Traffic Management Plan (CTMP) is to satisfy Northern Beaches Council requirements and describes how Hi-Pac Constructions Pty Ltd propose to manage traffic and pedestrian movement safely whilst carrying out their respective activities. It is also to ensure public safety and minimize any impact to the adjoining pedestrian and vehicular traffic systems. Confirming appropriate measures have been considered for site access, storage, and the operation of the site during all phases of the construction process in a manner that respects adjoining owner's property rights and projects amenity in the locality, without unreasonable inconvenience to the community. The CTMP is intended to minimize the impact ofconstruction activities on the surrounding community, in terms of vehicle traffic (including traffic flow and parking) and pedestrian amenity adjacent to the site.

2.4 Objectives

The key objectives of this CTMP are:
To satisfy the key legal requirements related to Traffic, Transport and Access;

- To ensure no one is injured on the project and there is no property damage;
- To maximise the value and outcomes of traffic monitoring activities;
- To minimise delays to traffic and consider the needs of all road users; and
- To ensure compliance with relevant specifications and the RMS's – 'Traffic Control at Work Sites' Handbook Version 6

2.5 Responsibilities

The development requires highly coordinated efforts from several agencies:

2.5.1 Enhance Building & Developments:

- Co-ordinates the logistics for holding the works, Marshalling/ Programming,
- Arranges advertising for road closure locations, times, other traffic disruptions / delays and alternative route information via letterbox drop.
- Provides traffic information signposting as identified in the CTMP and associated Traffic Guidance Scheme(s) (TGSs).
- Provides resources and traffic management infrastructure for traffic control and road closuresas identified in the CTMP.

2.5.2 Sydney Traffic:

- Prepares the Construction Traffic Management Plan and Traffic Guidance Schemes
- Monitor traffic and pedestrians on all roads and footpath(s) approaching the work location to minimize pedestrian/traffic congestion on the day.
- Provides traffic information signposting as identified in the TMP and associated Traffic Guidance Scheme(s) (TGSs).
- Provides resources and traffic management infrastructure for traffic control and road closuresas identified in the CTMP.

3 CONSTRUCTION

3.1 Construction Activities

STAGE	***ESTIMATED DURATION***
Site Establishment	1 week
Piling Works and Excavation	12 weeks
Structure	20 weeks
Finishes	16 weeks

This project has an overall proposed timeframe of 50 weeks.
The estimated completion date is November 2024.

3.2 Working Hours

Monday – Friday: 7:00am – 6:00pm

Saturday: 8:00am – 1:00pm (no demolition work on Saturdays)

No works permitted on Sundays or Public Holidays

All work, including demolition, excavation and building work must comply with the Northern Beaches Council Code of Practice for Construction Hours/Noise 1992 and Australian Standard 2436-2010Guide to Noise Control on Construction, Maintenance and Demolition Sites.

Works May be undertaken outside these hours where*;*

- It is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm;
- A variation is approved in advance in writing by Council.

3.3 Work Zones

The work area is approximately 10M adjacent to the site boundary of the property, 40 Sunrise Road, Palm Beach NSW 2108.

A secondary work area of approximately 10M will be in place, in front of 1176 Barrenjoey Road, Palm Beach NSW 2108, for the duration of Stormwater Connection works for property, 40 Sunrise Road, Palm Beach NSW 2108.

3.4 Ingress/Egress of Vehicles

Adequate advanced warning and directional signage will be placed upon entry and exit of the site.

All loading/unloading will take place in the work area in front of the property on the temporary platform, 40 Sunrise Road, Palm Beach NSW 2108, as per the Loading/Unloading Plan.

All concrete pours will take place in the work area at the front of the property on the temporary platform, 40 Sunrise Road, Palm Beach NSW 2108.

No construction vehicles should obstruct any pedestrian crossings or footpaths.
No construction vehicles should queue/layover on Sunrise Road.

All exiting trucks will be loaded to their prescribed weight limits. All trucks will be covered by tarpaulin or like prior to exiting as required.

All trucks leaving the site shall be monitored, having had access to unpaved or contaminated areas shall deposit via a wheel wash facility to prevent mud, dust, or debris from being deposited on Council Roads. The wheel wash facility shall be constructed prior to any truck movements occurring. Water from the wheel wash facility must not cause pollution. Any direction of council with regards to cleaning trucks or the clean-up of Road Pavements adjoining the site shall be complied with immediately.

Traffic control must always be on-site to monitor the ingress/egress of vehicles to site and ensure the safety of pedestrians for the duration of the project.

Traffic control WILL NOT stop any traffic along Sunrise Road to allow construction vehicles to ingress or egress outside approved times set by the Council.

This CTMP and all plans associated with it should be given to all drivers visiting the site prior to arrival.

Given the low levels of work, frequency and more specifically the size of vehicles, unrestricted movements to and from site will apply. The routes outlined below serve as a guideline rather than a necessity.

3.4.1 Ingress Route

Barrenjoey Rd
Palm Beach NSW 2108

↑ Head north-west on Barrenjoey Rd

1.6 km

↱ Turn right onto Palm Beach Rd

350 m

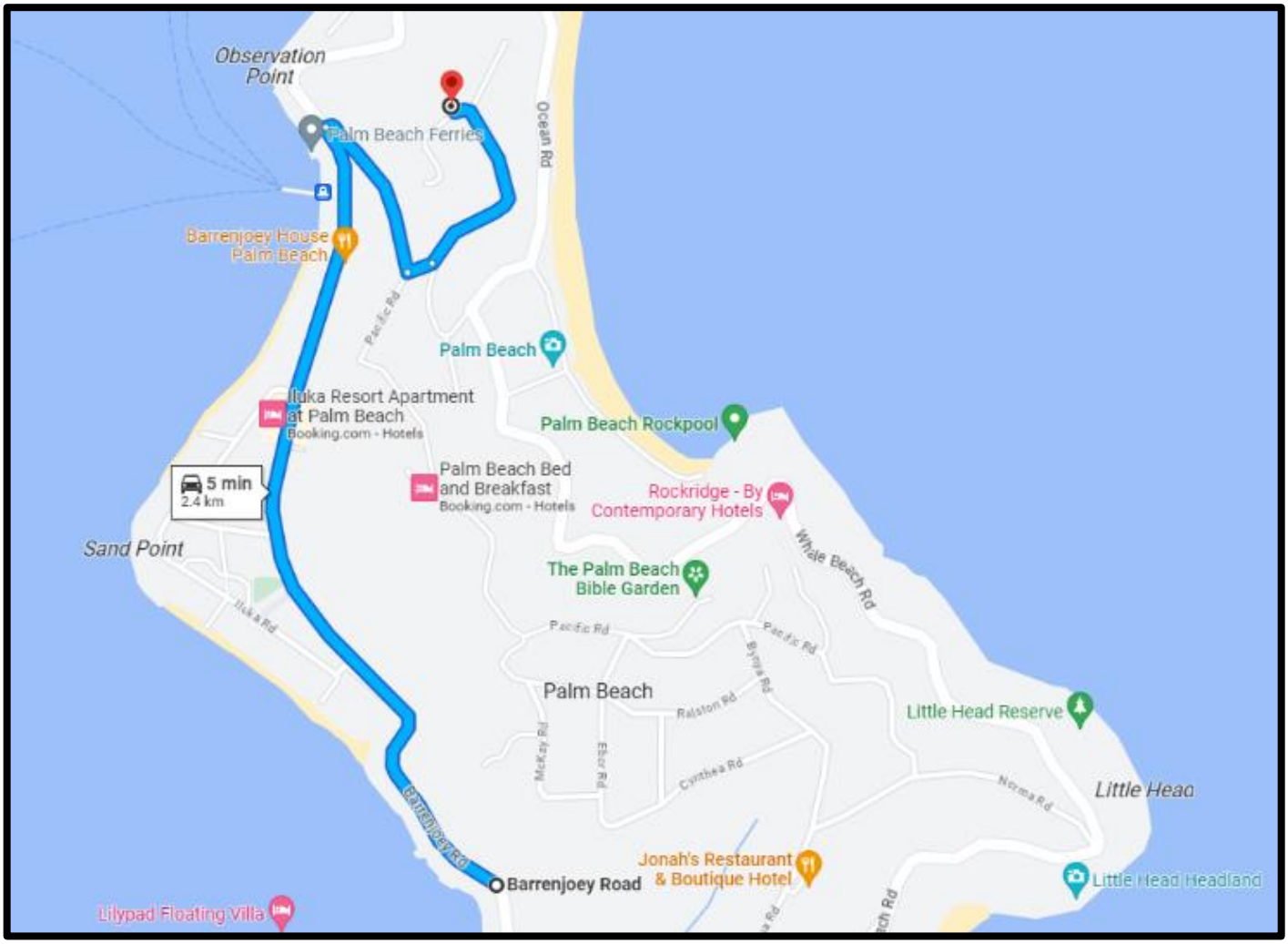
↰ Turn left to stay on Palm Beach Rd

50 m

↰ Turn left onto Sunrise Rd
ⓘ Destination will be on the right

400 m

40 Sunrise Rd
Palm Beach NSW 2108



3.4.3 Egress Route

40 Sunrise Rd
Palm Beach NSW 2108

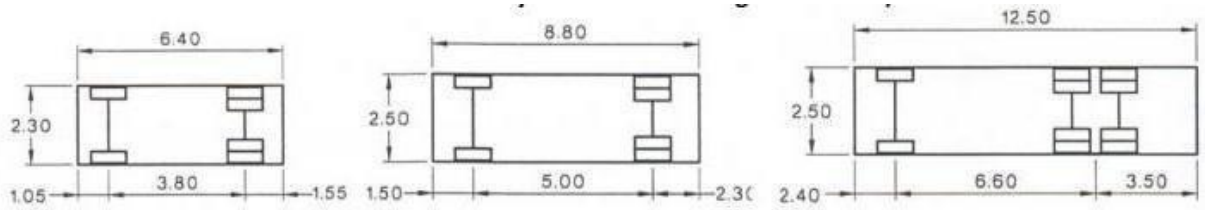
- Head east on Sunrise Rd towards Northview Rd
  400 m
- Turn right onto Palm Beach Rd
  50 m

- Turn right to stay on Palm Beach Rd
  350 m
- Turn left onto Barrenjoey Rd
  1.6 km

Barrenjoey Rd
Palm Beach NSW 2108

3.5 Transport Vehicles

Hi-Pac Constructions Pty Ltd will have an active and ongoing involvement in the management and monitoring of works during the construction phase. They will ensure, as previously mentioned, that no vehicle will make deliveries outside the Council's approved DA times, as well as that all delivery vehicles will arrive at pre-arranged times on site. All vehicles approaching the work site will adhere to the road rules and observe any signage in place.



(a) Small rigid vehicle
Clearance height 3.50
Design turning radius 7.1

(b) Medium rigid vehicle
Clearance height 4.50
Design turning radius 10.0

(c) Heavy rigid vehicle
Clearance height 4.50
Design turning radius 12.5

STAGE	MOVEMENTSAT PEAK	RANGE OF VEHICLES DURING STAGE	LARGEST VEHICLES
Site Establishment	1/day	SRV, MRV	MRV
Site Clearing	10-12/day	SRV, MRV, HRV	HRV
Piling	1-5/day	SRV, MRV, HRV	HRV
Excavation	10-12/day	SRV, MRV, HRV	HRV
Structure	10-12/day	SRV, MRV, HRV	HRV
Fit out/Finishes	2-4/day	SRV, MRV	MRV

The largest vehicle expected to be on-site is a Heavy Rigid Vehicle (HRV).

Local Council approval must be obtained for any haulage routes proposed on Council Roads.

3.6 Hoisting Devices

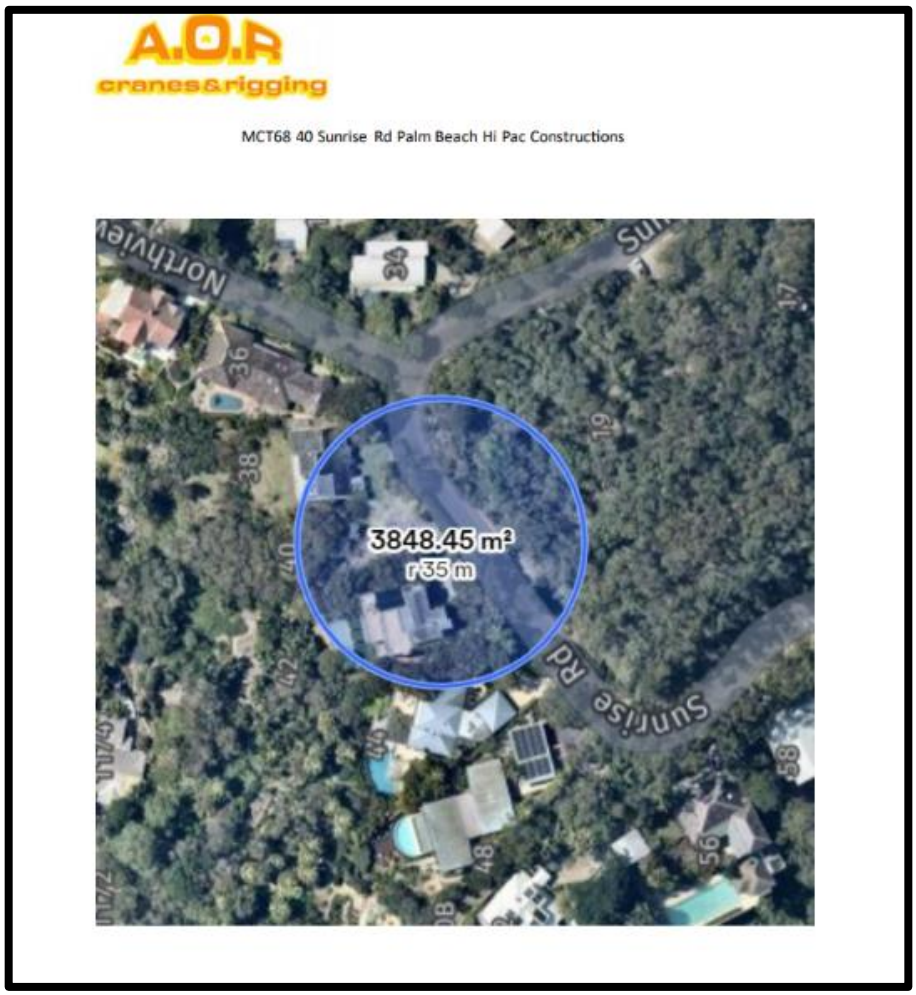
There will be a tower crane installed at the property, 40 Sunrise Road, Palm Beach NSW 2108 for the duration of 11-12 months.

Tower Crane Operation:

- The crane will **ONLY** slew over the roadway, council land, and neighboring properties (agreements in place) to maneuver the crane into position. The installation and dismantling of the crane will only take place with prior approval from the Northern Beaches Council.
- All crane lifts will be within the site boundary, which is barricaded off with temporary hoarding.
- The static load from the crane will be unloaded within the fenced site, and crane base will be barricaded off within the site.

Authorized Traffic Controllers will always be on-site for the duration of the work to control pedestrian and vehicle traffic at all times for the duration of the works.

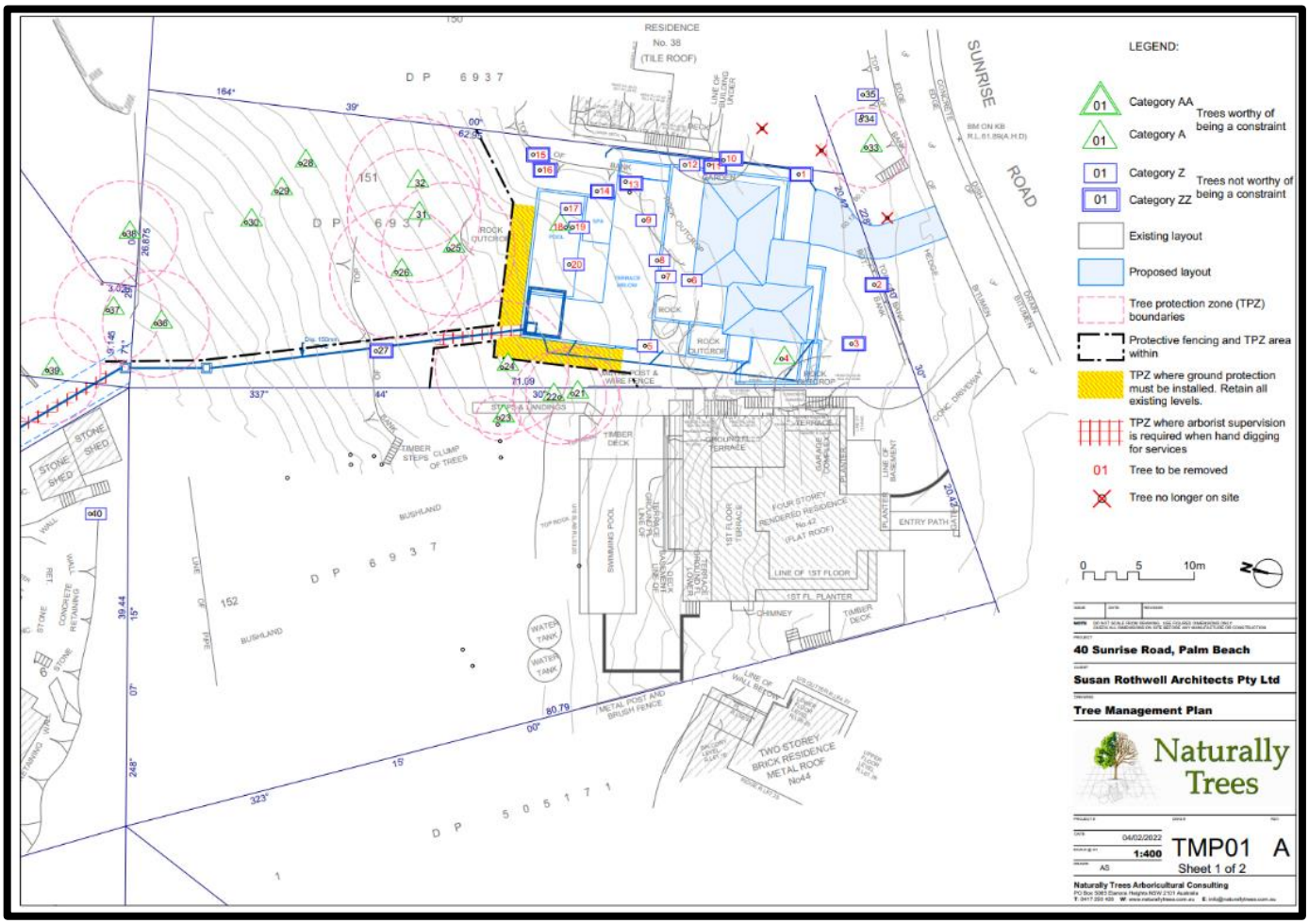
*See Appendix D. for Tower Crane Specifications.

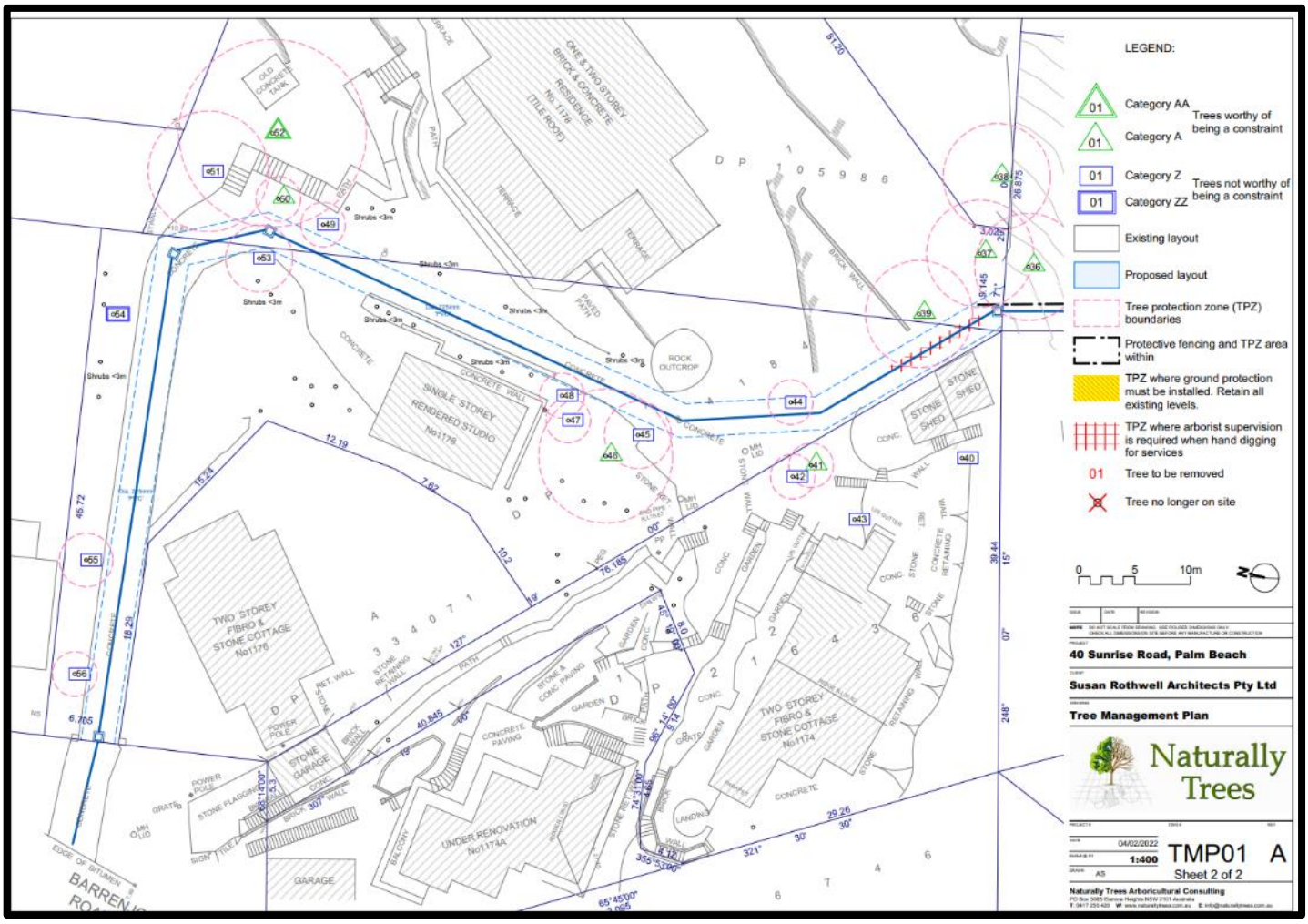


3.7 Tree Protection

There are multiple tree protection areas for this project.

See below for the Tree Management Plan.





3.8 Removal and Storage of Rubbish or Spoil

All waste/spoil material will be stored at the front of property within the site boundary.

All waste/spoil material will be removed from the property via trucks at planned intervals and/or when required.

4 IMPACTS AND MANAGEMENT

4.0 Road/Lane Closures

A 10M metre lane take-out is proposed for the duration of Concrete Pours and deliveries at property, 40 Sunrise Road, Palm Beach NSW 2108.

15M to allow for the Taper Zone to allow adamant space for vehicles to merge into trafficable lane.

Authorized Traffic Controllers will always be on-site to impose stop/slow conditions along Sunrise Road, Palm Beach NSW 2108.

4.1 Pedestrians and Cyclists

Pedestrian access will be maintained up to the property boundary and public walkway throughout the duration of the works. Pedestrians will only be held momentarily, during ingress/egress of vehicles and re-directed across the road.

Authorized traffic controllers will always be on site to control the safety of pedestrians and vehicles around the work site.

All works, specifically during ingress/egress of construction will take into consideration pedestrians, vehicles, and cyclists.

Advanced warning/directional signage will be installed according to approved TCP to warn pedestrians, vehicles, and cyclists of the works.

Only authorized personnel will be permitted within the building site unless accompanied by site management, if not inducted to the site.

Whist within the confines of the building site, all personnel will attire in correct PPE to ensure that they are visible to moving traffic.

4.2 Public Transport

No impact on the public transport network is anticipated throughout the duration of this project.

4.3 Parking

There are no parking spaces on-site for contractor vehicles.

All staff associated with the site will be encouraged to carpool or use public transport, whenever possible to travel to and from the site.

No contractor or site-related vehicles will be parked on any part of the surrounding streets, unless paid for using parking meters (if present), at their own expense.

Parking spaces, or access thereto will not be constrained or enclosed by any form of structure such as fencing, cages, walls, storage space, or the like, without prior consent from Council.

4.4 Emergency Vehicles

Emergency services will not be affected by the proposed works.

In the event where emergency vehicles are required to the site or surrounding properties, unimpeded access along the surrounding road network will be maintained and priority to emergency services will be given.

4.5 Access to Surrounding Properties and Noise

The works will not affect access to surrounding properties, including residents, and surrounding businesses.

Regarding noise impacts, Hi-Pac Constructions Pty Ltd will strive to keep all noise associated with the works kept to a minimum. Likewise, no noise will be made outside the approved hours for site.

All reasonable and feasible steps must be undertaken to ensure that the work, including demolition,excavation and building complies with the Protection of the Environmental Operations (Noise Control) Regulation 2000.

4.6 Notice for Surrounding Properties

Letters will be distributed to residents and surrounding businesses will be kept advised of the timeframes for completion of each phase of the development/construction process. A minimum of 14 days notification will be provided prior to the implementation of any temporary traffic control measures.

4.7 Environmental

A range of measures will be in place to manage and minimize any possible impact on the environment regarding dust control and air emissions. Such measures will include, but not limited to:

- Containment and removal of any hazardous materials in accordance with EPA regulations;
- **Roadway (and nature strip and/or footpath) must be kept in a serviceable condition for the duration of construction. At the direction of Council, undertake remedial treatments such as patching at no costs to Council**.
- Noise pollution will be minimized through a range of measures such as:
    - Control of noise at source where practicable (e.g., using screenings, shielding);
    - Use of noise suppression covers when plant and machinery is operational;
    - Use of electrically powered plant where possible;
    - Where possible, noisy plant equipment will be kept away from sensitive noise boundaries or alternatively within enclosures.

4.8 Consideration of the Combined Construction Activities of Other Developments

A notification letter will be distributed to Development Sites in close proximity to Site Location, 14 days prior to each stage of works to ensure there is no disruption to nearby Construction Activities.

5 TRAFFIC GUIDANCE SCHEME (TGS)

A TCP is defined in the RMS's TCWS Manual as a diagram showing signs and devices arranged to warn traffic and guide it around, past or, if necessary, through a work site or temporary hazard. The proposed TCP is located in Appendix B.

5.1 Objectives

The provision of a safe environment for road users and works staff is a key objective of Hi-Pac Constructions Pty Ltd The TCP was developed with the aim to:

- Warn drivers of changes to the usual road conditions;
- Inform drivers about changed conditions;
- Guide drivers through the work site, and
- Ensure the safety for workers, motorists, pedestrians, and cyclists

5.2 Context

The TCP's prepared were based on the principles and measures outlined in this CTMP, which details the road safety and traffic principles, strategies and measures that will be applied to enable Hi-Pac Constructions Pty Ltd to fulfil its obligations and the requirements of relevant authorities.

The TCPs were designed to address the following issues where applicable:

- Use of traffic control devices;
- Speed limit requirements;
- Provision for pedestrian traffic and their safety.
- Provision for cyclists and their safety;
- Provision for vehicle and plant movements
- Parking restrictions and parking facilities
- Provision for trade vehicles and plant movements
- Informing all site personnel of any high-risk areas; and
- Providing adequate signage within the Construction Site for access and egress

5.3 Traffic Controllers

Certified Traffic controllers will attend site where activity that disrupts the flow of vehicular and pedestrian traffic is in effect. The placement of signs will be done so by a qualified holder of the Traffic Control Plan Implementer Ticket as per the Australian Standards 1742.3.

5.4 TGS Monitoring and Reporting

Specific measures for TCP reporting will be taken. These will include, but not be limited to the following:

- The traffic control plan will be numbered, and a register maintained as a part of the CTMP;
- All traffic control devices and traffic control arrangements will be inspected daily to ensure the adequacy of such devices and arrangements as per the TCWS Manual issue 6;
- Traffic Management records and plans will be maintained as well as record/log;
- Hi-Pac Constructions Pty Ltd may be required to provide records in the following eventinstances:
    - That a breach imposed by the NSW Police Service, on a motorist who does not comply with a regulatory sign is challenged in courts; or
    - In the event of an accident is alleged to have occurred when temporary traffic control is in place.

5.5 Credentials

The CTMP was prepared by Nola Ngatuaine Rura, RMS Prepare a Work Zone Traffic Management Plan Number 1010014.

5.6 Traffic Control signs & devices

Traffic control devices are an important tool for influencing safety for road users, where temporary traffic controls are implemented at work sites. During the construction of this project an RMS accredited traffic controller will assess the warrant for traffic control devices in accordance with the relevant guides/standards such as: RMS's – TCWS Manual issue 6, Australian Standard – AS1742 Manual of uniform traffic control devices, and any relevant documents listed on the 'RMS Guide to Signs and Marketing reference list' to make sure that all the traffic control devices are installed and maintained correctly.

The provision of timely, clear and consistent messages to road users is essential. An RMS accredited traffic controller will ensure all signs and devices installed during the construction of this project are:

- Assessed for use in accordance with the appropriate warrants
- Manufactured in accordance with the requirements of the Australian Standards;
- Installed in accordance with the relevant guides and standards;
- Not contradictory to existing signs or markings;
- When unwarranted, covered or removed; and
- Regularly maintained and repaired / replaced when damaged.

All signposting installed throughout the project will comply with the requirements outlined in the RMS's TCWS Manual issue 6, AUSTROADS Guide to Traffic Engineering Practice, Part 8 – Traffic Control Devices and the relevant parts of Australian Standard 1742.3

6 APPENDICES

- Appendix A- Route to nearest Medical Centre
  Route to nearest Medical Centre
- Appendix B- Traffic Control Plan

Appendix C- Site Plan: Proposed Loading/Unloading Platform
Site Images
Swept Path Analysis

Appendix D- Tower Crane Specifications

Appendix A

Nearest Medical Centre

40 Sunrise Rd
Palm Beach NSW 2108

↑ Head east on Sunrise Rd towards Northview Rd
400 m

↱ Turn right onto Palm Beach Rd
50 m

↱ Turn right to stay on Palm Beach Rd
350 m

↰ Turn left onto Barrenjoey Rd
5.5 km

↱ Turn right onto Avalon Parade
56 m

↑ Continue straight to stay on Avalon Parade
ⓘ Destination will be on the right
300 m

Avalon Family Medical Practice
54 Avalon Parade, Avalon Beach NSW 2107

Nearest Hospital

40 Sunrise Rd
Palm Beach NSW 2108

Follow Sunrise Rd and Palm Beach Rd to Barrenjoey Rd

2 min (750 m)

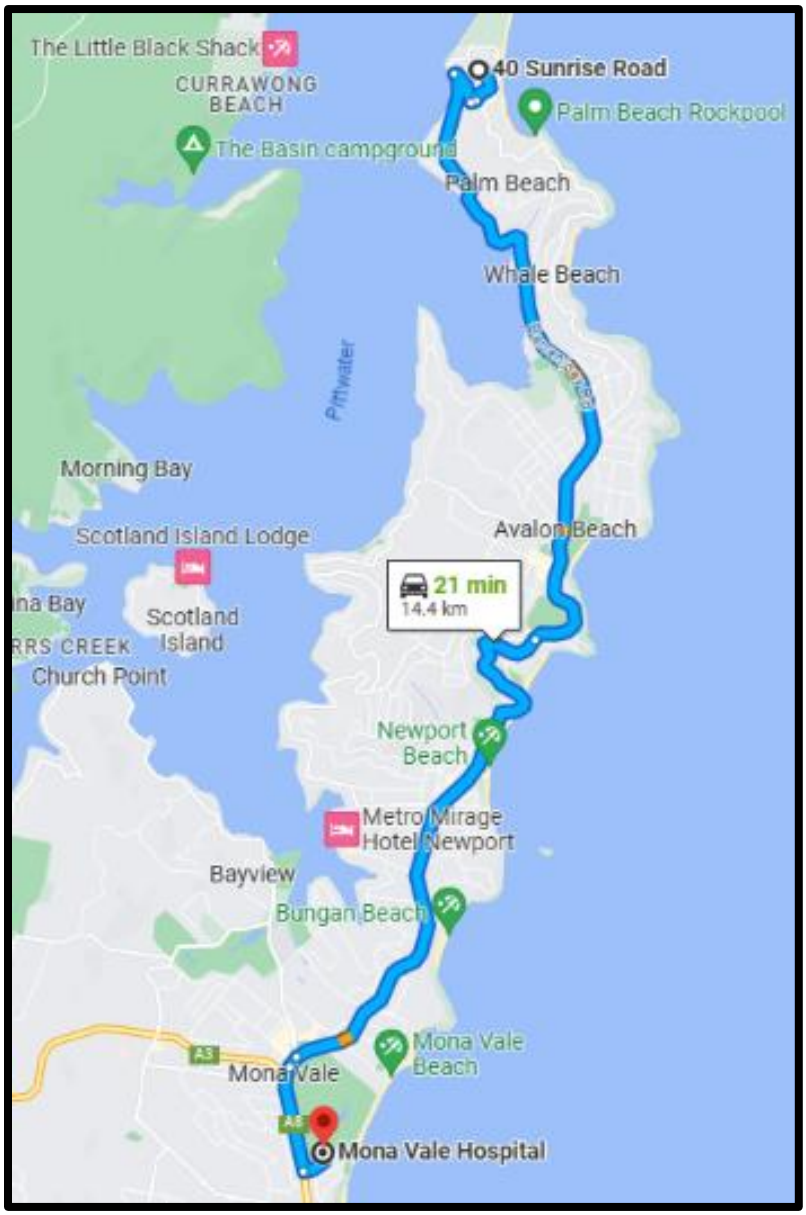
Follow Barrenjoey Rd to Coronation St in Mona Vale

19 min (13.4 km)

Turn left onto Coronation St

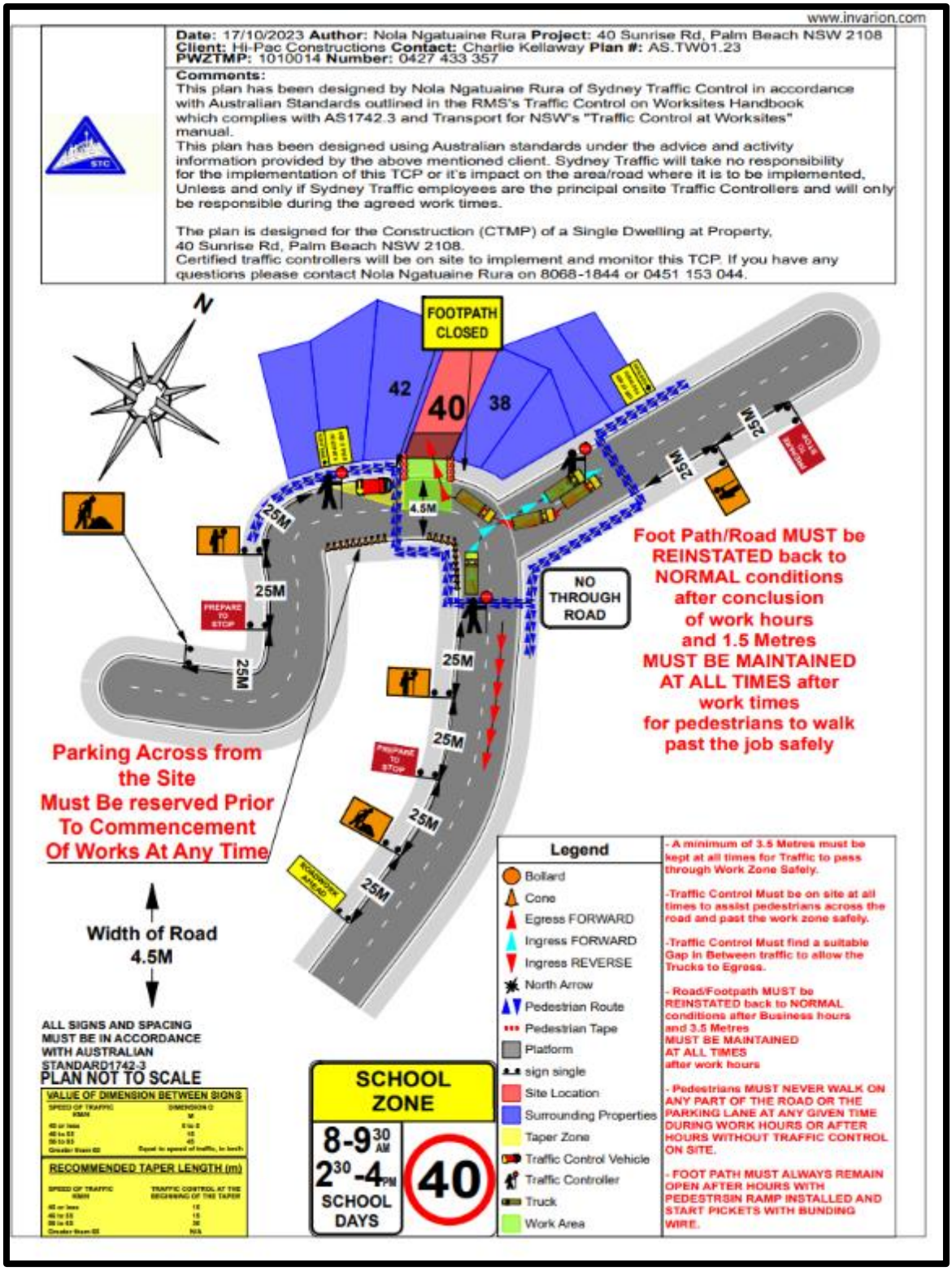
25 sec (210 m)

Mona Vale Hospital
Coronation St, Mona Vale NSW 2103

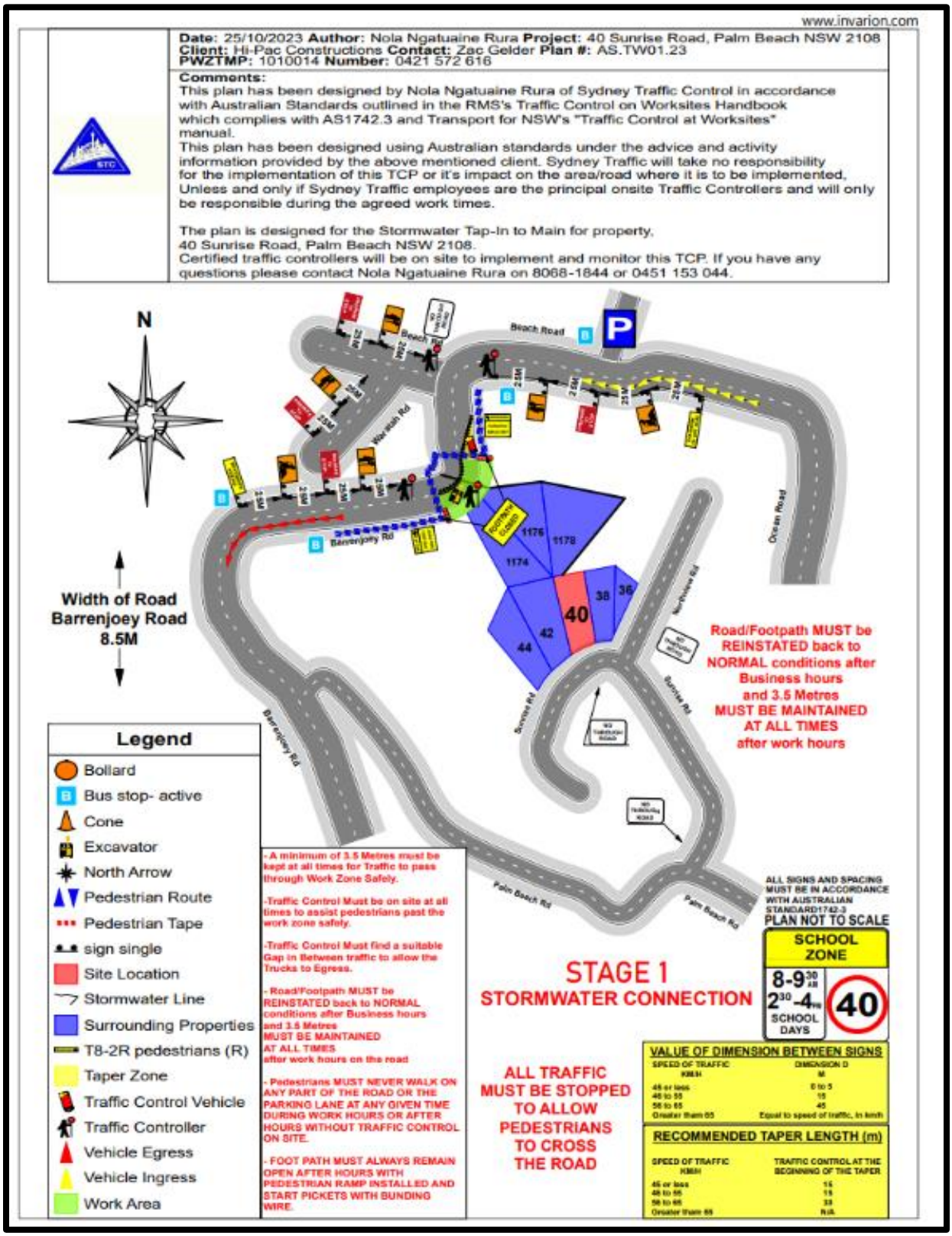


Appendix B

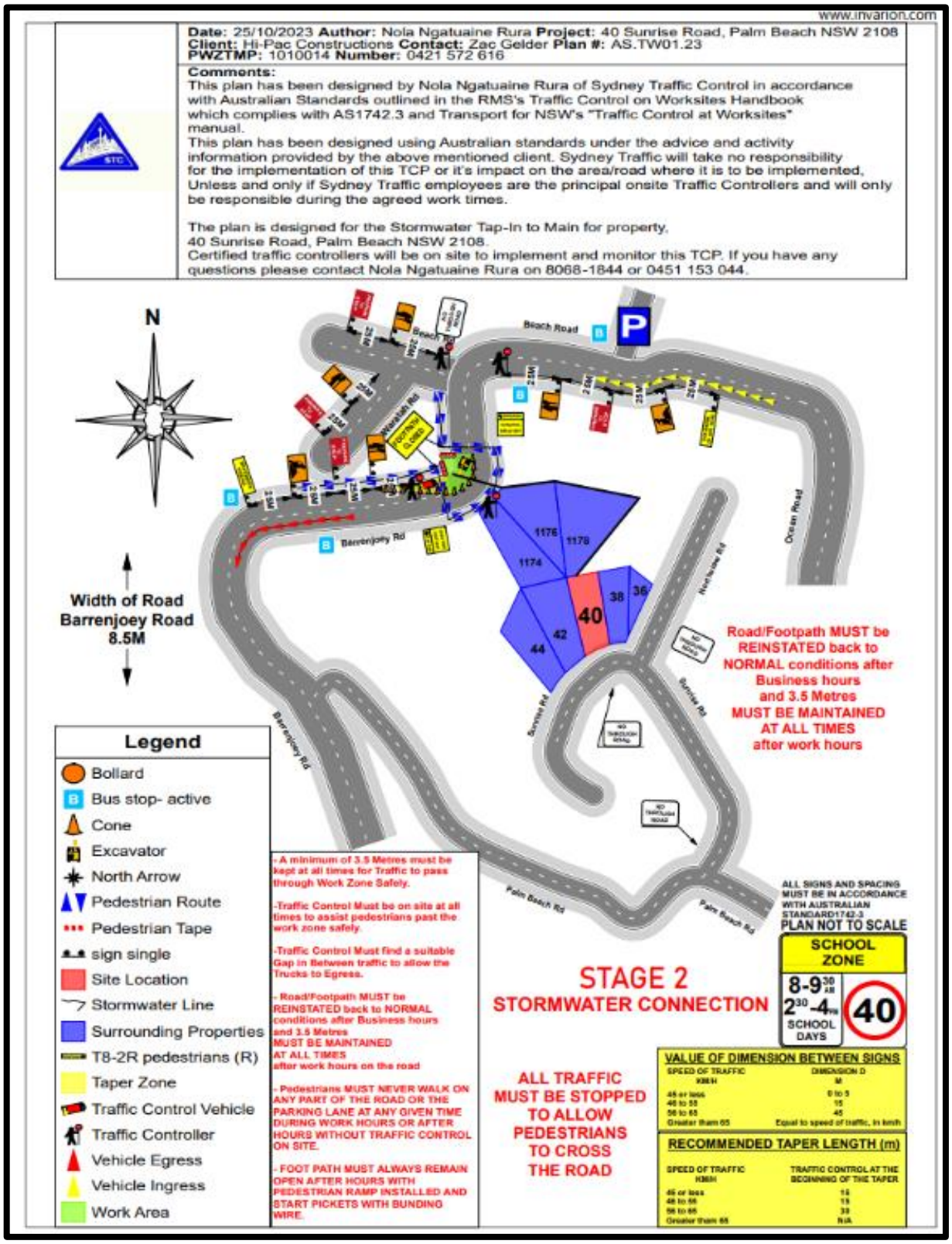
Traffic Control Plan: Construction



Traffic Control Plan: Stage 1 Stormwater Connection



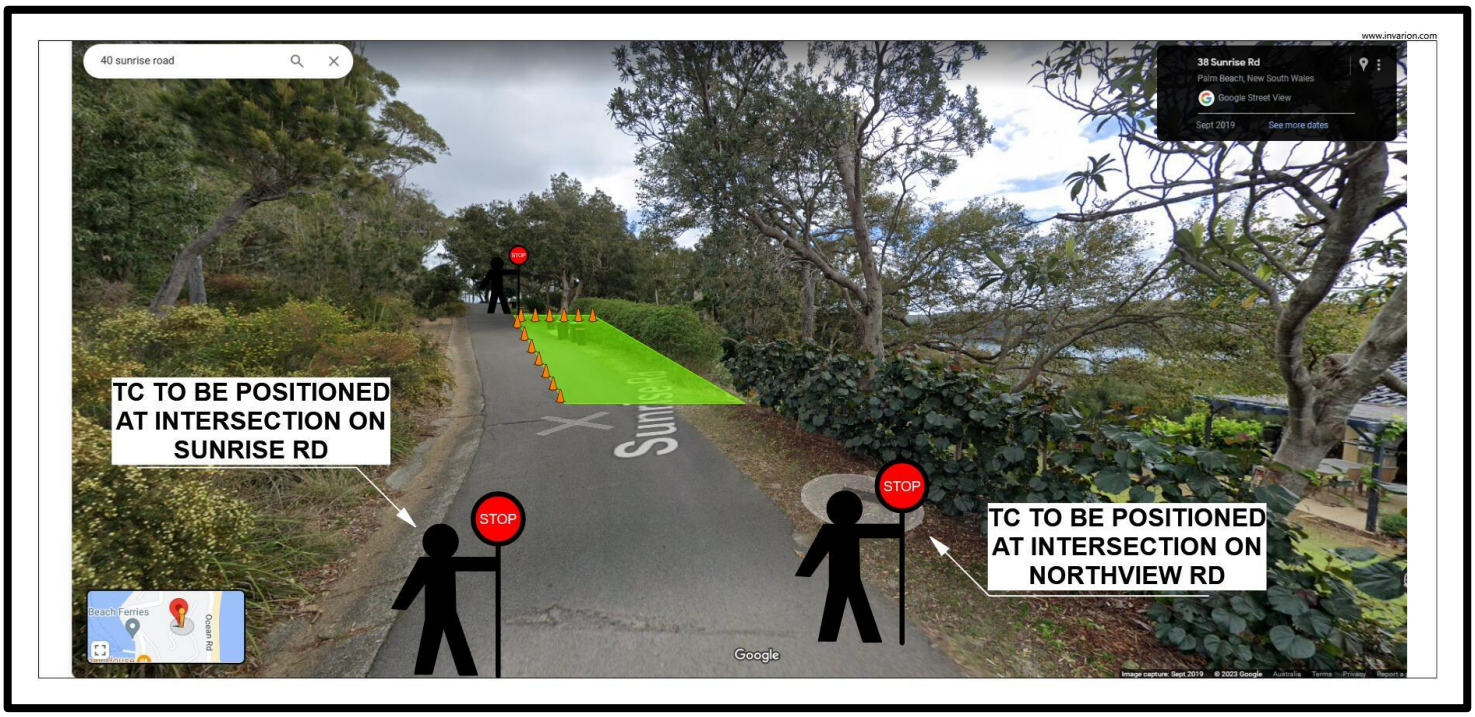
Traffic Control Plan: Stage 2 Stormwater Connection



Appendix C

Site Plan: Proposed Loading/Unloading Platform

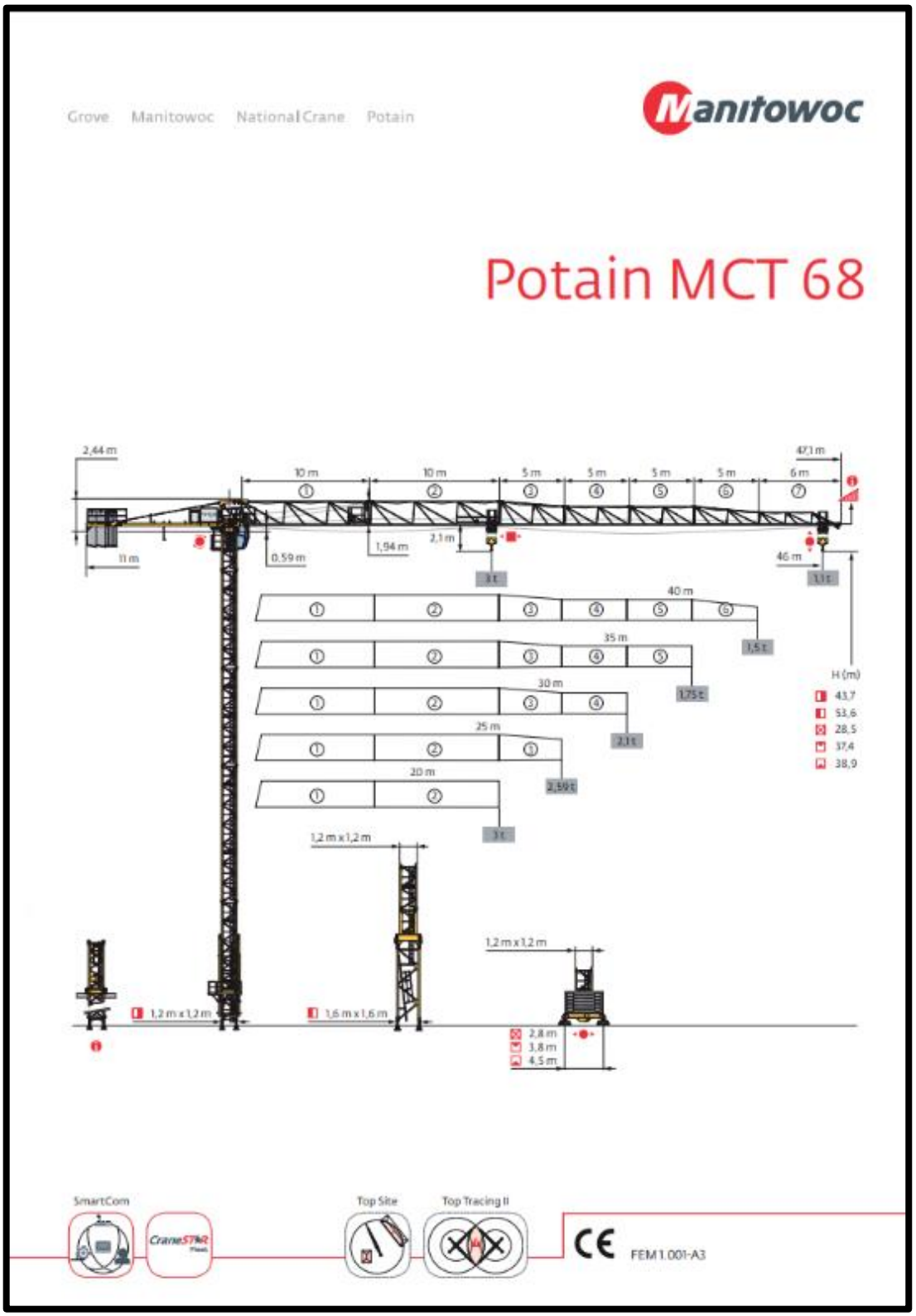
Site Images:


www.invarion.com
40 sunrise road
38 Sunrise Rd
Palm Beach, New South Wales
Google Street View
Sept 2019
See more dates
TC TO BE POSITIONED AT INTERSECTION ON SUNRISE RD
STOP
STOP
TC TO BE POSITIONED AT INTERSECTION ON NORTHVIEW RD
Beach Ferries
Ocean Rd
Google

Swept Path Analysis
to be attached at the end of document

Appendix D

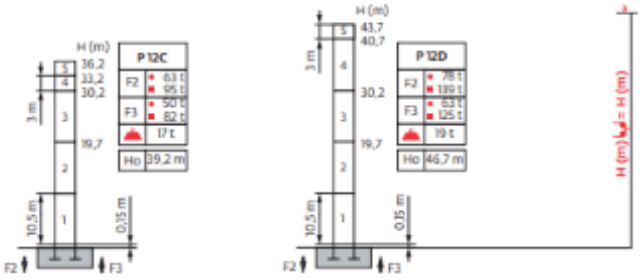
Tower Crane Specifications

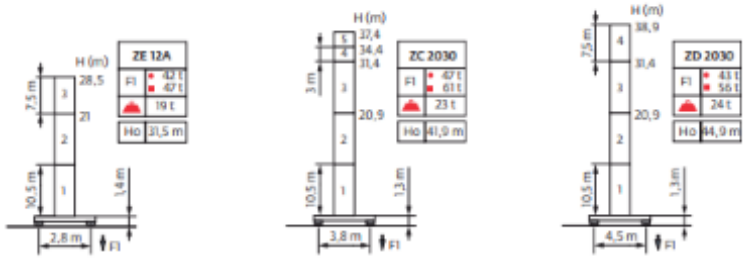


FEM 1.001-A3

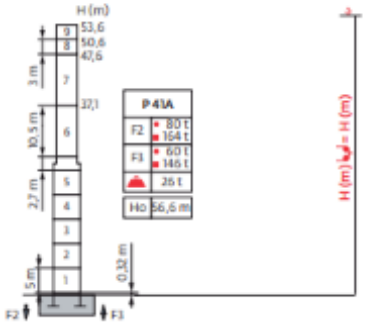
Mât - Réactions / Mast - Reaktionskräfte / Mast - Reactions / Mástil - Reacciones / Torre - Reazioni
Tramo - Reacções / Реакция опор мачты

1,2 m
20 m → 46 m





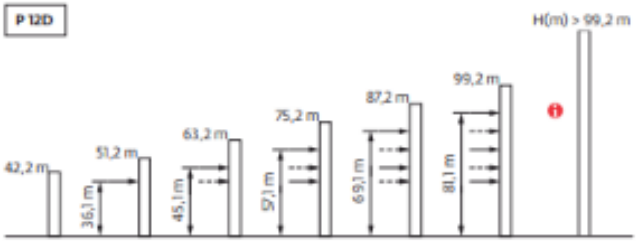
1,6 m/1,2 m
20 m → 46 m



MCT 68

Ancrages / Verankerungen / Anchorages / Anclajes / Ancoraggi
Ancoragem / Анкера

P 12D



Courbes de charges / Lastkurven / Load curves / Curvas de cargas / Curve di carico
Curvas de carga / Кривые нагрузок

46 m		2,05 ►	19,7	20	22	23,1	25	27	30	32	35	37	40	42	45	46	m
		3	2,95	2,65	-	2,3	2,1	1,85	1,7	1,55	1,45	1,3	1,25	1,15	1,1		t
		2,5	2,3	2,1	1,85	1,7	1,55	1,45	1,3	1,25	1,15	1,1		t			
40 m		2,05 ►	22	25	25,8	27	30	32	35	37	40	m					
		3	2,6	-	2,35	2,1	1,95	1,75	1,65	1,5	t						
		2,5	2,35	2,1	1,95	1,75	1,65	1,5	t								
35 m		2,05 ►	22	25	25,8	27	30	32	35	m							
		3	2,6	-	2,35	2,1	1,95	1,75	t								
		2,5	2,35	2,1	1,95	1,75	t										
30 m		2,05 ►	22	25	25,8	27	30	m									
		3	2,6	-	2,35	2,1	t										
		2,5	2,35	2,1	t												
25 m		2,05 ►	22	25	m												
		3	2,59	t													
		2,5	t														
20 m		2,05 ►	20	m													
		3	t														
		2,5	t														

FEM 1.001-A3

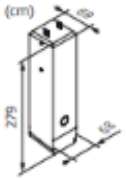
Lest de base / Grundballast / Base ballast / Lastre de base / Zavorra di base
Lastro da base / Базовый балласт

1,2 m	ZE 12A	H (m)	28,5	21		
		(t)	60	50		
	ZC 2030	H (m)	37,4	34,4	31,4	20,9
		(t)	75	60	45	30
	ZD 2030	H (m)	38,9	33,4	20,9	
		(t)	70	35	25	

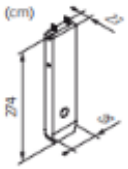
Poids de flèche & lest de contre-flèche / Auslegergewicht & Gegenauslegerballast / jib weight & counter-jib ballast / Peso de flecha y lastre de contra-flecha / Peso del braccio & zavorra di contro-braccio / Peso da lança & lastro da contra lança
Вес стрелы и балласт контр-стрелы

	(kg) - 25 LVF (+/- 5%)			
		3000 kg	1000 kg	(kg)
46 m	4855	2	4	10000
40 m	4685	2	3	9000
35 m	4495	2	2	8000
30 m	4215	2	1	7000
25 m	3930	1	3	6000
20 m	3625	1	2	5000

CBP - 3000 kg



CBQ - 1000 kg



MCT 68

FEM 1.001-A3

Encombrement et poids / Abmessungen und Gewicht / Dimensions and weight / Dimensiones y peso / Ingombro e peso
dimensões e pesos / габаритные размеры и вес

Partie tournante / Drehender Kranteil / Slewing crane part / Parte giratoria
Parte rotante / Parte rotativa / Поворотная часть : 46 m - 25 LVF

x 2
x 2

Partie tournante / Drehender Kranteil / Slewing crane part Parte giratoria / Parte rotante / Parte rotativa Поворотная часть		L (m)	l (m)	h (m)	kg (+/- 5%)
Contre-flèche / Gegenausleger Counter-jib / Contra-flecha Controbraccio / Contra-lança Контр-стрела		11,88	1,74	2,44	3640
Cabine / Kabine Cab / Cabina Cabina / Cabina Кабина	Ultra View	2,9	2,38	3,03	1100
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы	① 25 LVF 2 DVF	10,73	1,8	2,2	2375
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы	②	10,17	0,8	1,92	895
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы	④ ⑤	5,14 5,13	0,8 0,8	1,5 1,48	290 285
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы	③ ⑥	5,15 5,11	0,8 0,8	1,9 1,47	325 195
Elément de flèche / Auslegerelement Jib section / Elemento de flecha Elemento di braccio / Elemento de lança Секция стрелы	⑦	6,04	0,8	1	175
Chariot / Laufkatze Trolley / Carrello Carro / Carro-distribuidor Тележка	2,5 t/3 t	0,89	0,95	0,7	120
Moufle / Hubflasche Pulley block / Aparejo Bozzello / Cadernal Полиспаст	2,5 t/3 t	0,72	0,16	0,99	110

MCT 68

FEM 1.001-A3

Pylône / Kranturm / Crane tower Mástil / Torre / Torre Башня крана			L (m)	l (m)	h (m)	kg (+/- 5%)
Cage de télescopage / Teleskopwagen Telescopic cage / Jaula de telescopaje Gabbia di telescopaggio / Gaiola de telescopagem для телескопирования крана		⊠1,2 m	6,26	2,8	2,41	1325
S20/S20-2 Mât de télescopage / Teleskopiermast Telescoping mast / Tramo de telescopaje Elemento di telescopaggio / Tramo de Telescopagem Мачта для телескопирования		⊠1,2 m	1,7	1,55	1,6	605
SR 24ES-2 SR 26E-2 S 23B-2		⊠1,2 m	10,7 10,75 10,7	1,26 1,27 1,3	1,26 1,27 1,28	2215 2875 1975
S 23F-2		⊠1,2 m	7,7	1,28	1,28	1450
S 23A-2		⊠1,2 m	3,2	1,3	1,28	620
K 439A K 437A		⊠1,6 m	5,21 5,21	1,67 1,67	1,62 1,62	2230 1850
K40/L20-2 Mât raccord / Verbindungsmast Connecting mast / Tramo unión Elemento raccordo / Tramo raccord Переходная мачта		⊠ 1,6/1,2 m	2,94	2,06	2,1	2100
Pied de scellement / Verankerungsfuss Fixing angles / Pie de empotramiento Montante da annegare / Angulos fixadores анкера		P 12C P 12D P 41A	0,49 0,49 0,37	0,49 0,49 0,37	1,12 1,12 1,14	110 165 135
Bras de croix / Fundamentkreuzträger Cross girder / Brazo en cruz Braccio croce / Braço da cruz Поперечная балка		ZC 2030 ZD 2030	5,63 6,62	0,47 0,47	1,45 1,45	1735 1930
Bras de croix / Fundamentkreuzträger Cross girder / Brazo en cruz Braccio croce / Braço da cruz Поперечная балка		ZC 2030 ZD 2030	5,63 6,62	0,82 0,82	1,16 1,16	1500 1690
Bras de croix / Fundamentkreuzträger Cross girder / Brazo en cruz Braccio croce / Braço da cruz Поперечная балка		ZE 12A	4,22	0,63	1,27	1170
1/2 Bras de croix / 1/2 Fundamentkreuzträger 1/2 Cross girder / 1/2 Brazo en cruz 1/2 Braccio croce / 1/2 Braço da cruz 1/2 Поперечная балка		ZE 12A	2,25	0,44	1,27	725
1/2 Bras de croix / 1/2 Fundamentkreuzträger 1/2 Cross girder / 1/2 Brazo en cruz 1/2 Braccio croce / 1/2 Braço da cruz 1/2 Поперечная балка		ZE 12A	2,25	0,39	1,27	730

MCT 68

FEM 1.001-A3

Mécanismes / Triebwerke / Mechanisms / Mecanismos / Meccanismi
Mecanismos / Механизмы

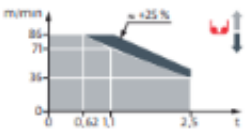
400 V - 50 Hz							ch - PS hp	kW	
	25 LVF 13 Optima	m/min	36	57	71	86	25	18	225 m
		t	2,5	1,45	1,1	0,62			
	25 LVF 15 Optima	m/min	30	48	60	72	25	18	228 m
		t	3	1,7	1,3	0,75			
	2 DVF 2	m/min	0 → 51				2	1,5	
	RVF 51 Optima+	tr/min U/min rpm	0 → 0,8				5,5	4	
ZE 12A	TVD 324	m/min	26				2 x 4	2 x 2,9	
ZC 2030	RT 224	m/min	25				2 x 4	2 x 2,9	
ZD 2030	RT 324	m/min	12,5 - 25				2 x 7	2 x 5,2	

IEC 60204-32	kVA
400 V (+10% -10%) 50 Hz	25 LVF : 26 kVA

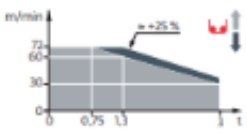
480 V - 60 Hz							ch - PS hp	kW	
	25 LVF 13 Optima	m/min	36	57	71	86	25	18	225 m
		t	2,5	1,45	1,1	0,62			
	25 LVF 15 Optima	m/min	30	48	60	72	25	18	228 m
		t	3	1,7	1,3	0,75			
	2 DVF 2	m/min	0 → 51				2	1,5	
	RVF 51 Optima+	tr/min U/min rpm	0 → 0,8				5,5	4	
ZE 12A	TVD 324	m/min	31				2 x 4,8	2 x 3,5	
ZC 2030	RT 224	m/min	30				2 x 4,8	2 x 3,5	
ZD 2030	RT 324	m/min	15 - 30				2 x 8,4	2 x 6,2	

IEC 60204-32	kVA
480 V (+6% -10%) 60 Hz	25 LVF : 26 kVA

25 LVF 13 Optima



25 LVF 15 Optima



MCT 68