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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

9th October 2019 Reference: 190473.01FA

Turnbull Town Planners
Suite 2301, Level 2
Quattro Building
4 Daydream Street
Warriewood NSW 2102
Attention: Ishara Warakagoda

CONSTRUCTION TRAFFIC MANAGEMENT PLAN OF REHABILITATION GYMNASIUM AT 39 CABBAGE TREE ROAD, BAYVIEW

Dear Ishara,

Reference is made to your request to provide a Construction Traffic Management Plan (CTMP) for the proposed Rehabilitation Gymnasium at 39 Cabbage Tree Road, Bayview, as depicted in **Annexure A**. This CTMP is to address Northern Beaches Council Notes provided within a document following a Development Application Prelodgement Meeting on 28th May 2019 for Application number PLM2019/0097. Within these Notes, Northern Beaches Council requested a CTMP be provided during the D.A. stage under "*Documentation to accompany the Development Application".*

This CTMP is to accompany the development application, with the intent being to provide a preliminary analysis of the necessary construction traffic management. A more detailed plan should be prepared post-approval when detailed construction staging has been completed

1 Site Location

The subject site is currently unoccupied with several trees on the property. The site is surrounded by a golf course operated by Bayview Golf Club to the south and by low to medium density residential buildings to the north.

The public roads surrounding the site have the following characteristics:

1.1 Cabbage Tree Road

- Unclassified LOCAL Road;
- Approximately 7m in width facilitating one lane in each direction;
- Signposted 50km/h speed limit;
- No parking permitted on either side of the road.

1.2 Annam Road

- Unclassified LOCAL road;
- Approximately 7.5m in width facilitating one traffic flow lane in each direction and kerbside parking;
- No speed limit signposted - 50km/h applies;
- Unrestricted kerbside parking permitted along both sides of the road.

2 Proposed Development

The proposed indoor recreation facility, as depicted in **Annexure A**, has the following scale relevant to this CTMP:

- Rehabilitation Gymnasium with a total of 371m^2 Gross Floor Area;
- Maximum patronage of up to 30 patrons;
- Operation hours of 8:00 am to 6:30 pm from Monday to Saturday (inclusive);
- Ten (**10**) car parking spaces, including one (1) disabled;
- Vehicular access to the car park is provided via a proposed two-way driveway from Cabbage Tree Road, with entry and exit from the northern boundary of the site.

3 Public Transport

The subject site is located within approximately 250m walking distance of a bus stop (ID: 210431) which provides access to existing bus route 155 provided by Transport NSW. Whilst this bus stop is located on the opposite side of Cabbage Tree Road, it should be noted that a pedestrian refuge is located approximately 50m west of the site, facilitating safe crossing of the road.

4 Duration of Construction

Detailed staging has not yet been prepared for the construction of the subject development. It is expected that construction will take between 8 to 10 months and will include three typical stages as outlined below.

Activity	Duration
Excavation and Tree Clearing	8 weeks
Construction Excluding Finishes	25 weeks
Finishes and Landscaping	4 weeks

This timeframe is indicative only and will change after approval when detailed construction staging is undertaken.

5 Construction Hours of Work

It is expected that Northern Beaches Council will specify the desired hours of construction by consent condition. All construction and associated activities will be undertaken within the hours specified by Council unless otherwise specifically approved by a representative of Northern Beaches Council.

6 Construction Site Access

All vehicular access to the site will be made via Cabbage Tree Road, using the location of the proposed driveway on the northern frontage of the site, for access. The vehicular crossing shall be able to accommodate the swept paths of a 12.5m Heavy Rigid Vehicle (HRV) for the purpose of deliveries etc.

Any damage done to Council property including the existing road, verge or street trees along Cabbage Tree Road by construction traffic related to the subject site is to be a repaired as part of the dilapidation survey and bond.

7 Work Zones

It is expected that all loading / unloading of deliveries / materials will be undertaken wholly on-site and that a construction work zone along the site road frontage will not be required. If a construction work zone is required along these roadways, this is subject to a separate application and approval by Council and appropriate amendment of this CTMP.

8 Construction Staff & Parking Requirements

The number of staff required at each stage of the development will be clarified as part of the detailed construction staging completed post-approval. It is expected that a peak of ten (10) construction staff will be on-site at any one time. All construction staff will be encouraged to utilise public transport or car-pooling to travel to and from the site where possible.

Assuming car occupancy of 1.5 workers per vehicle (car pool and public transport use) would equate to seven (7) parked vehicles. When the on-site carpark is constructed and certified (if necessary), it may be feasible for staff to park within the on-site car park, alleviating overflow parking during the internal finish / fitout period which is likely to generate the highest parking demand.

In any case, the generation of some seven (7) staff vehicles is relatively low and workers are encouraged to utilise public transport and / or carpooling. The site is located within 250m walking distance to a bus stop on Annam Road (Stop ID 210431) which provides access to the site from Narrabeen and Mona Vale.

9 Construction Traffic

Construction traffic generated by the development will be low, with five (5) weekly deliveries by trucks (up to and including 12.5m HRV) expected, whilst staff traffic will generally occur early in the morning (7am) and finish in the afternoon from 3-5pm. Given the expected peak of ten (10) staff to be on-site at any one time, it is likely less than 10 movements will occur during either the peak hourly morning or afternoon period.

10 Construction Vehicle Haulage

All construction vehicles required to access the site will utilise the existing road network. The largest construction vehicle required to access the site on Cabbage Tree Road will be a 12.5m long Heavy Rigid Vehicle (HRV) in accordance with *AS2890.2:2018*.

Cabbage Tree Road is part of an existing Bus Route (Route 155 as described in **Section 3**) serviced by State Transit, with their smallest vehicle being a 12.5m length heavy vehicle in accordance with Austroads requirements, which is equivalent to a 12.5m length HRV. Buses servicing Bus Route 155 travel to and from the west of the site along Cabbage Tree Road, along Samuel Road, then Parkland Road, Maxwell Street, Waratah Street, Bungan Street and Pittwater Road which then connects to Barrenjoey Road / Pittwater Road which is part of the RMS approved 19m length Heavy Vehicle road network illustrated in **Figure 1** . This bus route is reproduced in **Annexure B** for reference.

As such, construction vehicles travelling to or from the site will be able to use this existing bus route successfully.

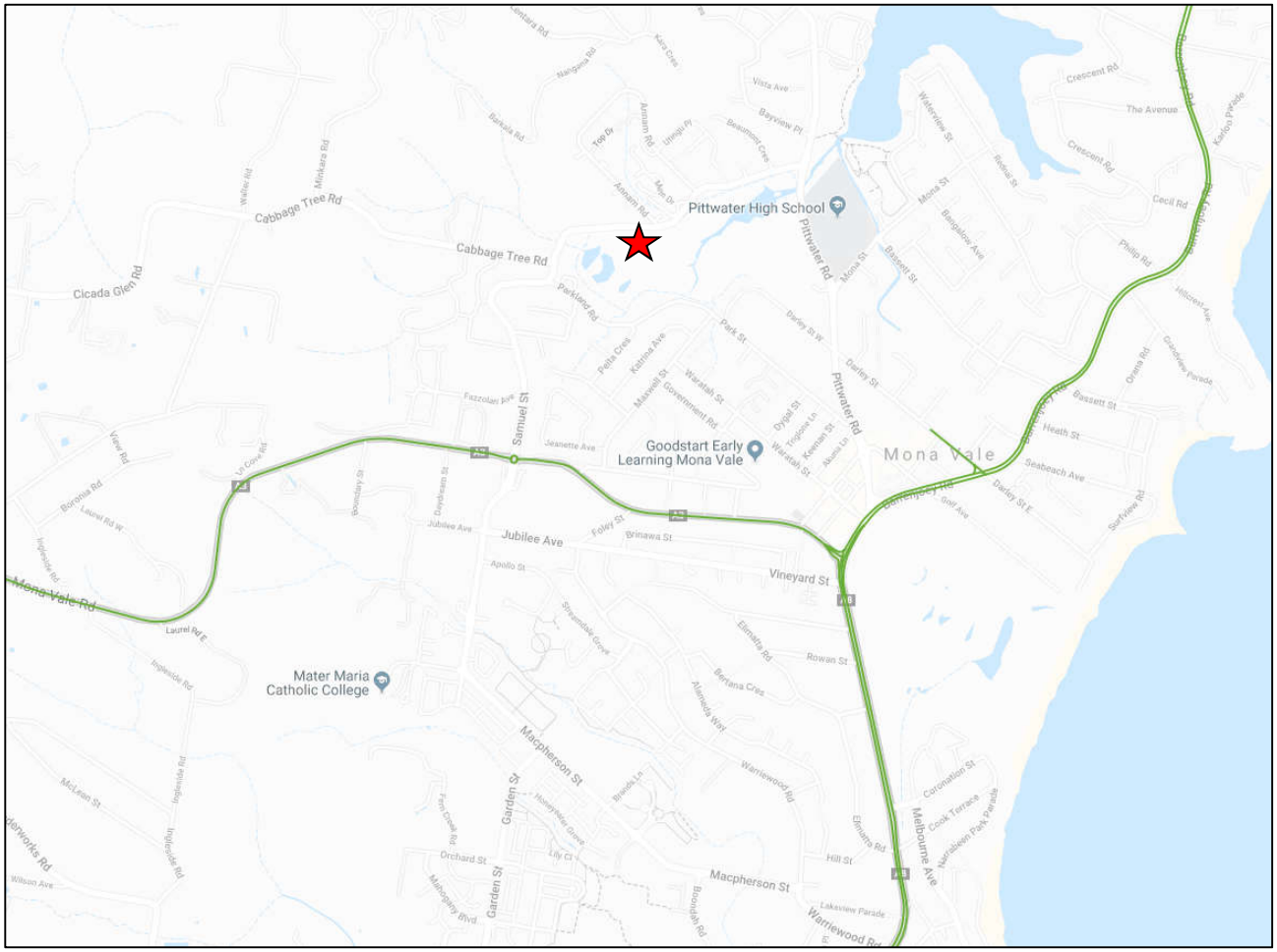


FIGURE 1: RMS APPROVED 19M B-DOUBLE ROADS

11 Pedestrian Management

The site frontages contain no existing pedestrian footpaths, however the verge along the site's frontage, outside of the construction fencing is to be free of any waste, construction material or trip hazards associated with the development. Only authorised personnel are permitted on-site and must be inducted by the site manager/OH&S officer. Site fencing along the frontages should be regularly inspected for potential trip hazards or encroachment onto the verge where pedestrians will walk.

If a construction work zone is required along any of the frontages, it may be necessary to implement a traffic controller to monitor pedestrian traffic across the temporary construction driveway and through the work zone, particularly if on-street loading is to be undertaken, although this is unlikely and not currently part of this CTMP.

If necessary during construction, the site foreman/manager must install appropriate type A or type B hoarding to allow free access to pedestrians at all times.

12 Traffic Control Plan

A Traffic Control Plan (TCP) for the subject construction is shown in **Annexure D** with the truck loading swept paths shown in **Annexure C**. Some modifications to the on-site layout are required depending on the size of vehicle for deliveries. The TCP is based on Roads & Maritime Services (RMS) Traffic Control at Worksites.

For the duration of demolition, excavation and construction, the TCP shown in **Annexure D** shall be implemented and erected by a suitably qualified contractor.

Any proposed additional signage and road closures are to be approved by Council's Local Traffic Committee. Residents and businesses in the area are to be formally informed of the traffic changes via letterbox drop prior to the commencement of any construction activities.

13 Traffic Management Plan Checklist

Reference is made to the RMS (previously RTA) *Procedures for Use in the Preparation of a Traffic Management Plan*, version 2.0 December 2001. The following list addresses the required CTMP details.

A. Description or detailed plan of proposed measures
   Is the detailed plan of the proposed measures necessary?
   Yes - This preliminary plan should be extended post-approval to address the detailed construction staging.

B. Identification and assessment of impact of proposed measures
   Is a detailed assessment required?
   No – The expected generated construction traffic is relatively low and is not expected to measurably increase prevailing delays or adversely impact the surrounding road network performance.

C. Measures to ameliorate the impact of re-assigned traffic
   Is an assessment required?
   No – The expected generated construction traffic is relatively low and is not expected to measurably increase prevailing delays or adversely impact the surrounding road network performance. All trucks associated with construction activity on the site will travel on the surrounding road network as per the haulage routes detailed in **Section 10** above. These routes have been proposed to maximise the use of existing arterial and collector roads and are deemed appropriate.

D. Assessment of public transport services affected
   Is an assessment required?
   No – there are no existing bus stops which will be affected by the proposed works. The required staff levels are also not expected to add loading above what the surrounding public transport network can currently accommodate with its current services and frequency. As such, existing public transport services will not be affected

E. Details of provision made for emergency vehicles, heavy vehicles, cyclists and pedestrians
   Are these details required?
   No – the proposed works will not adversely impact the current on-street conditions for emergency or heavy vehicles travelling along Cabbage Tree Road. Access around the site for pedestrians will also be maintained at all times.

F. Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures
Is an assessment required?
No – There are no known existing or future developments with transport implications in the vicinity of the site that will be affected as no external measures are proposed.

G. Assessment of effect of proposed measures on traffic movements in adjoining Council areas
Is an assessment required?
No – The expected generated construction traffic is relatively low and is not expected to measurably increase prevailing delays or adversely impact the surrounding road network performance. There are no external measures proposed that will create traffic movement changes in adjoining council areas.

H. Public consultation process
Is a public consultation process required?
No – The current traffic flow conditions will remain unaltered and therefore no impact on existing traffic flows along local and arterial roads will be evident.

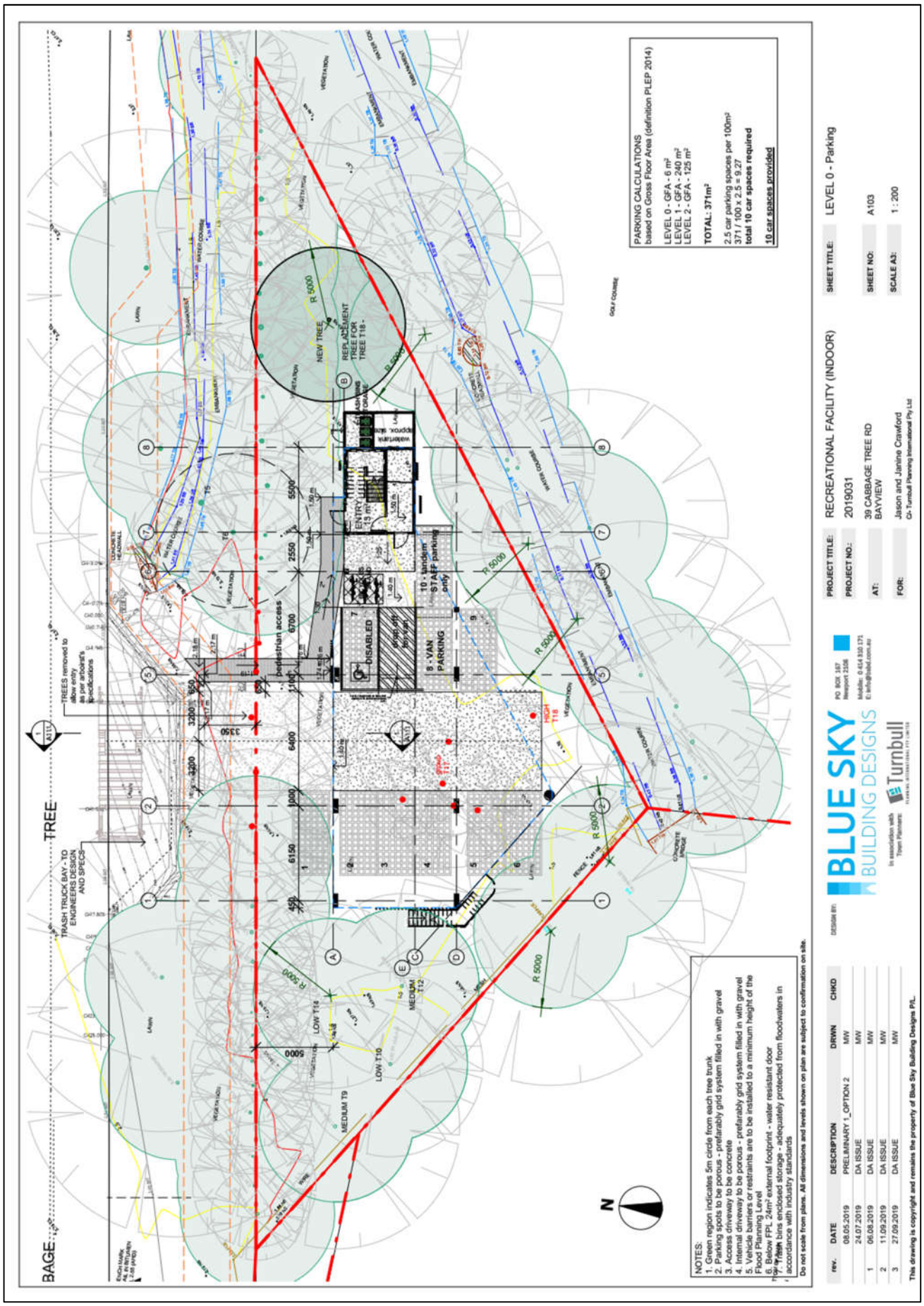
Construction vehicle traffic is minimal such that no adverse impacts to residential amenity will occur during construction. Additionally, no long-term signage or changes to existing on-street conditions will occur as part of the construction. Hence, Council can determine this construction proposal accordingly without referral to the public.

Please contact the undersigned should you require further information or assistance.

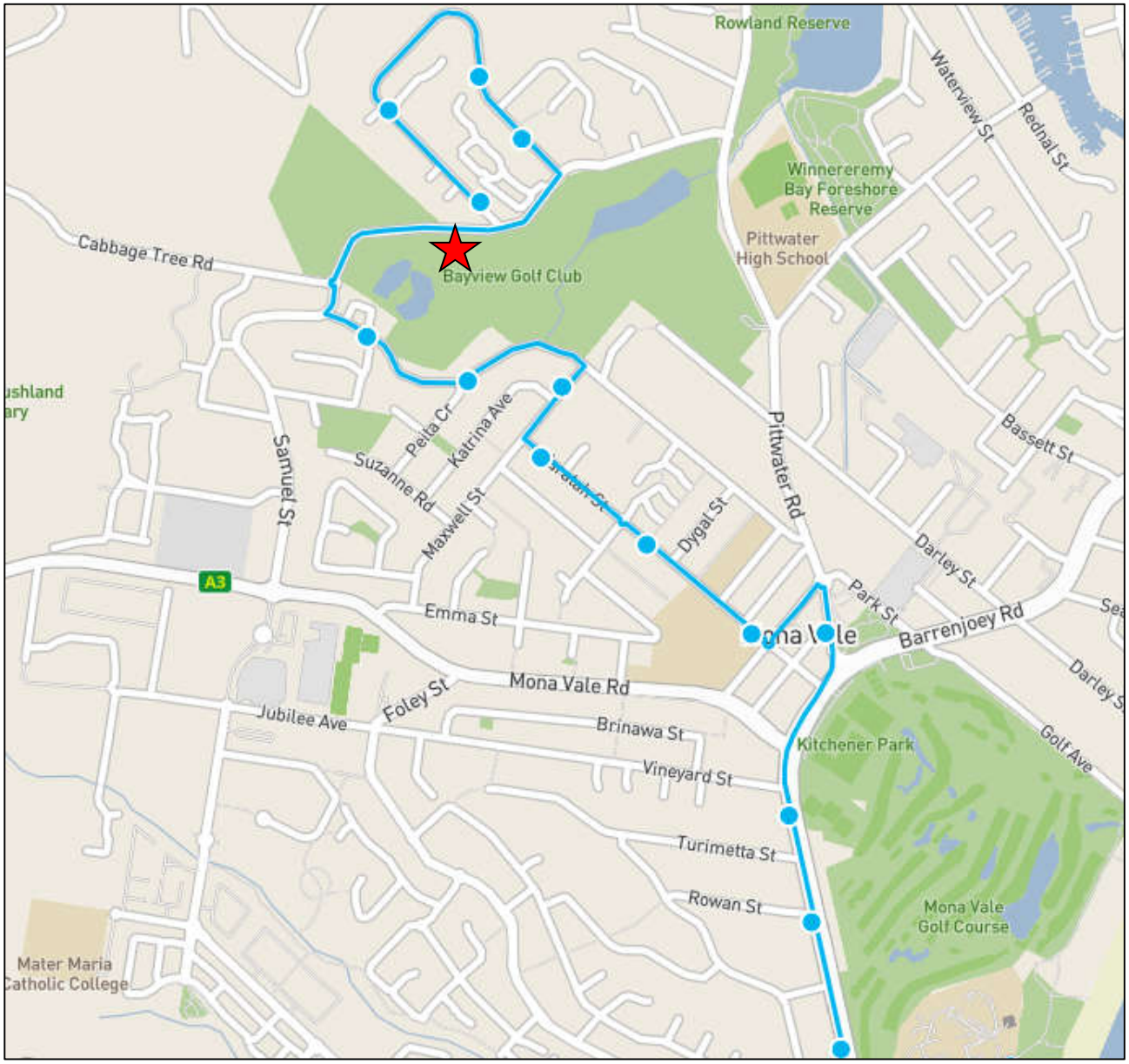
Yours faithfully
McLaren Traffic Engineering

Tom Steal
Senior Traffic Engineer
BE Civil AMAITPM GradIEAust
RMS Accredited Level 1 Road Safety Auditor
RMS Accredited Work Zone Traffic Management Plan Designer and Inspector

ANNEXURE A: CONCEPT SITE PLAN



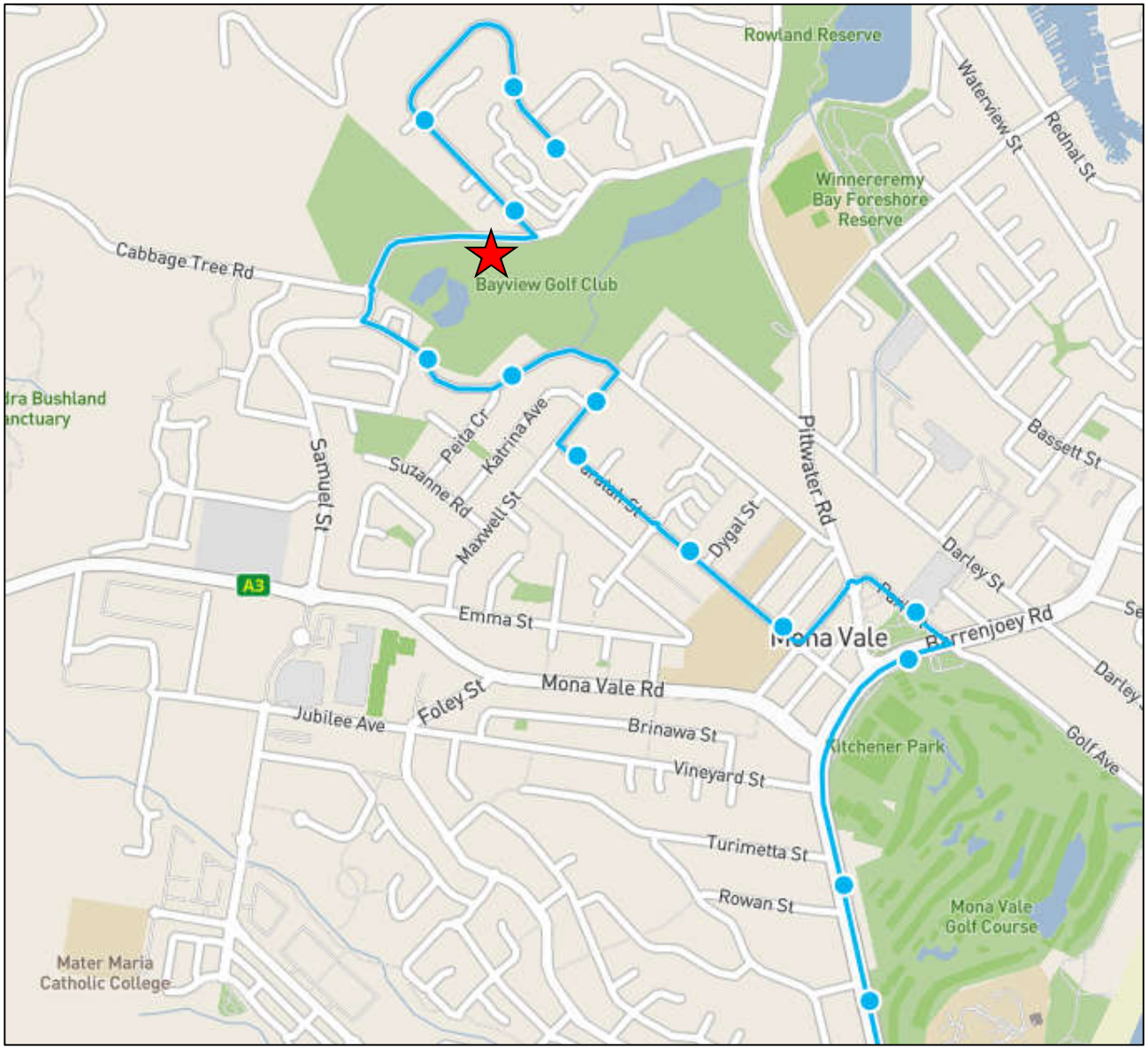
ANNEXURE B: BUS ROUTE 155
(SHEET 1 OF 2)



Site Location

BUS ROUTE 155 – NARRABEEN TO BAYVIEW

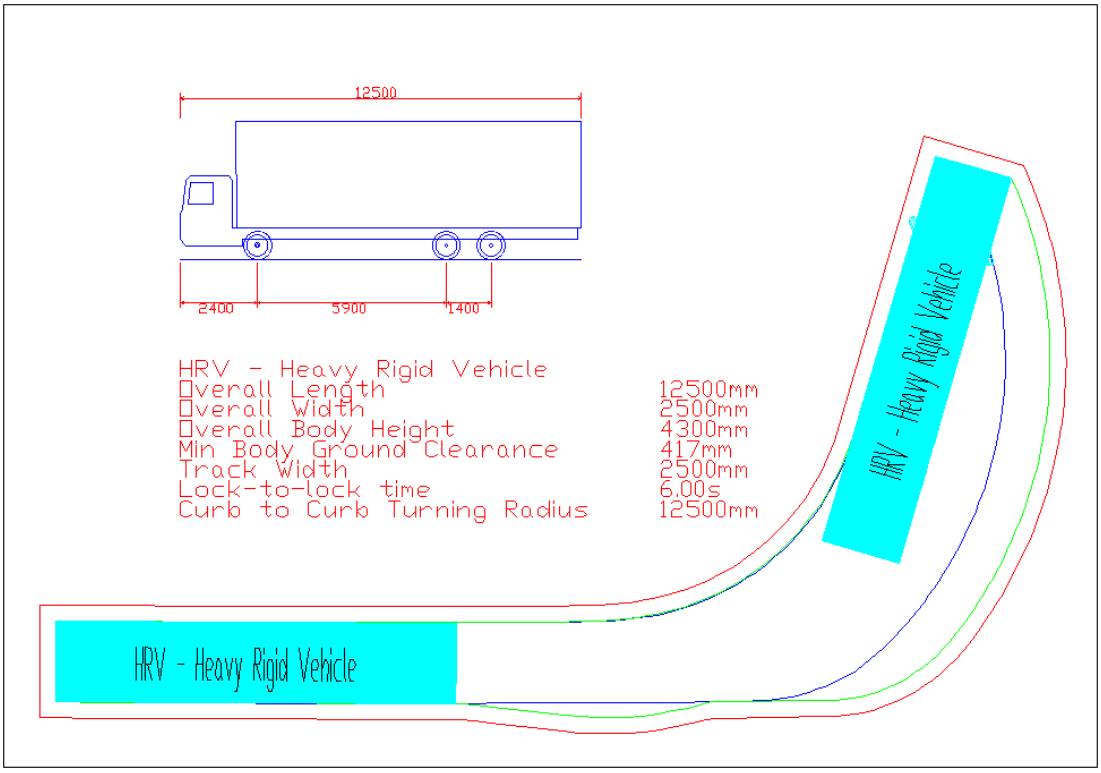
ANNEXURE B: BUS ROUTE 155
(SHEET 2 OF 2)



Site Location

BUS ROUTE 155 – BAYVIEW TO NARRABEEN

ANNEXURE C: SWEPT PATH TESTING
(SHEET 1 OF 2)



AUSTRALIAN STANDARD HEAVY RIGID VEHICLE (HRV)

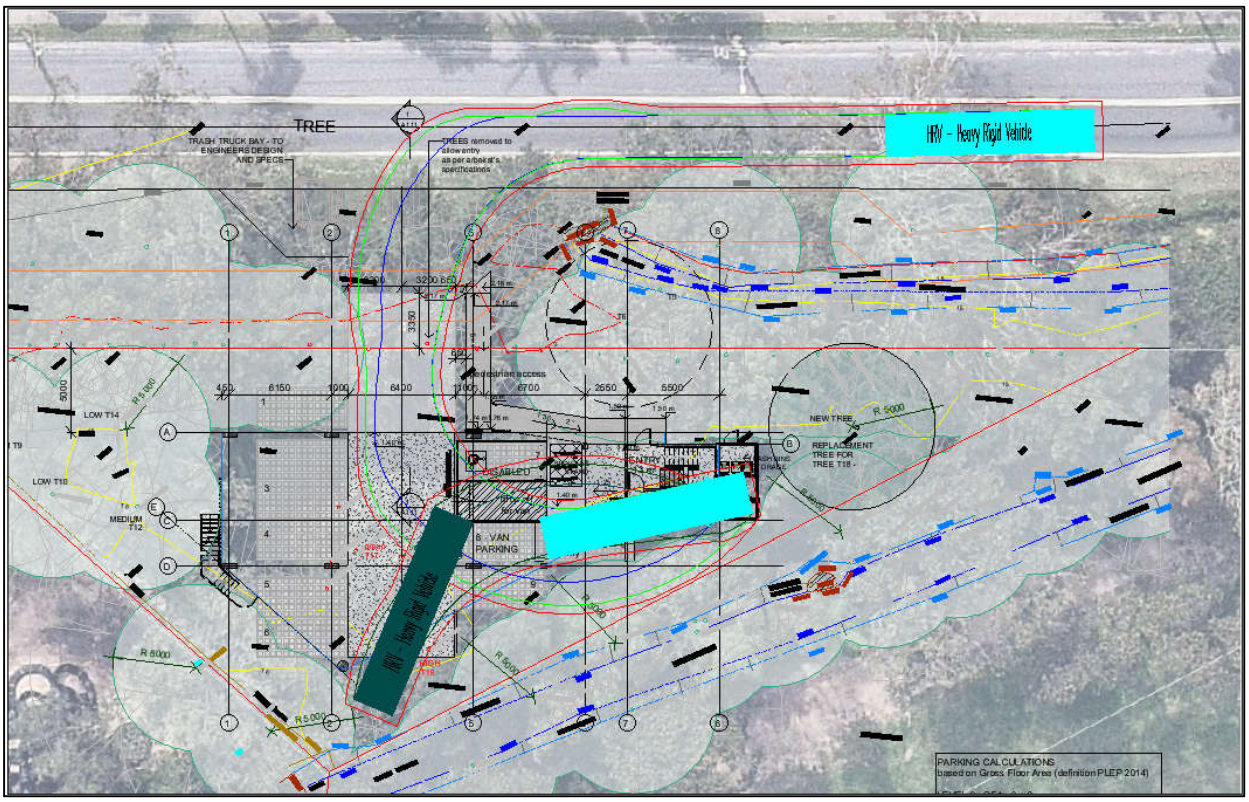
Blue – Tyre Path

Green – Vehicle Body

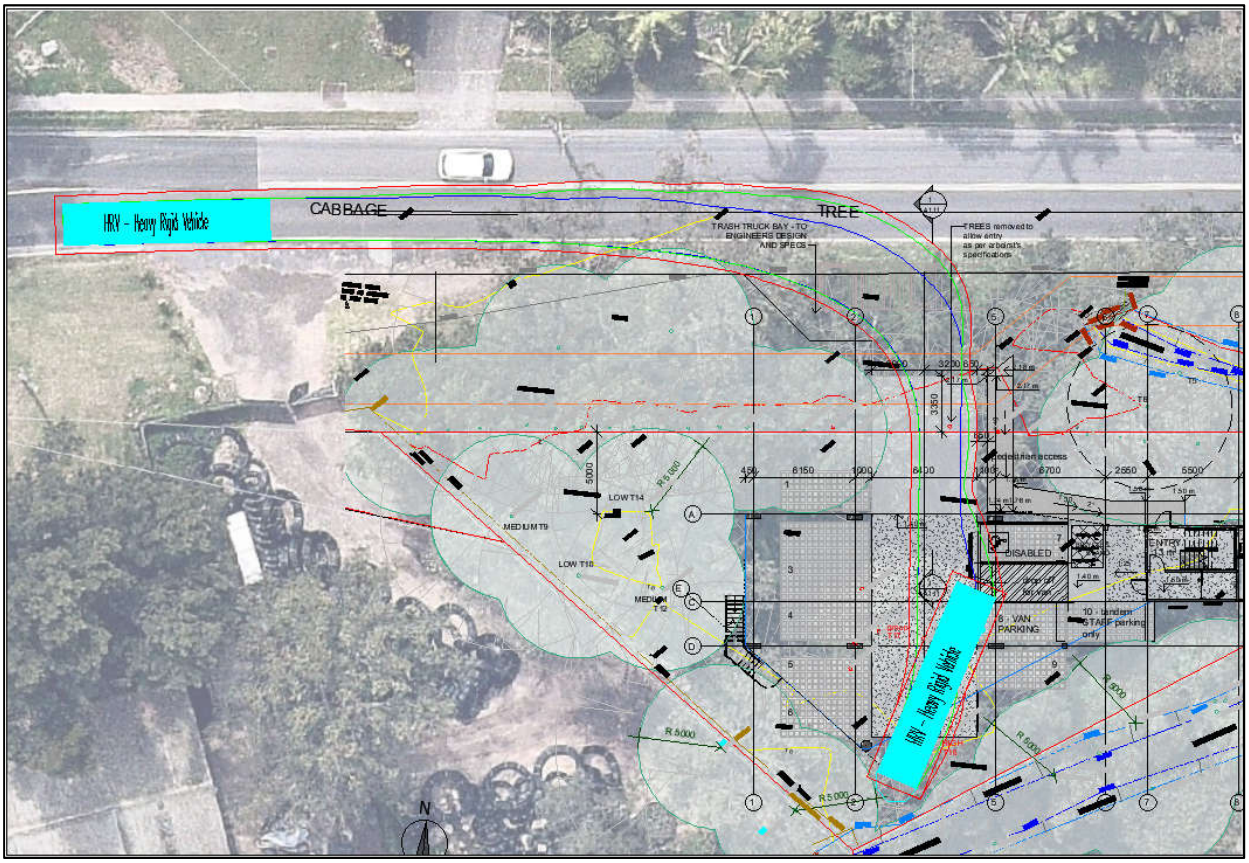
Red – 500mm Clearance

All tests performed at 10km/h forwards on roads, 5km/h forwards internally and 2.5km/h reverse

ANNEXURE C: SWEPT PATH TESTING
(SHEET 2 OF 2)



HRV RIGHT TURN SITE ENTRY AND TURNING AROUND ON-SITE
Successful

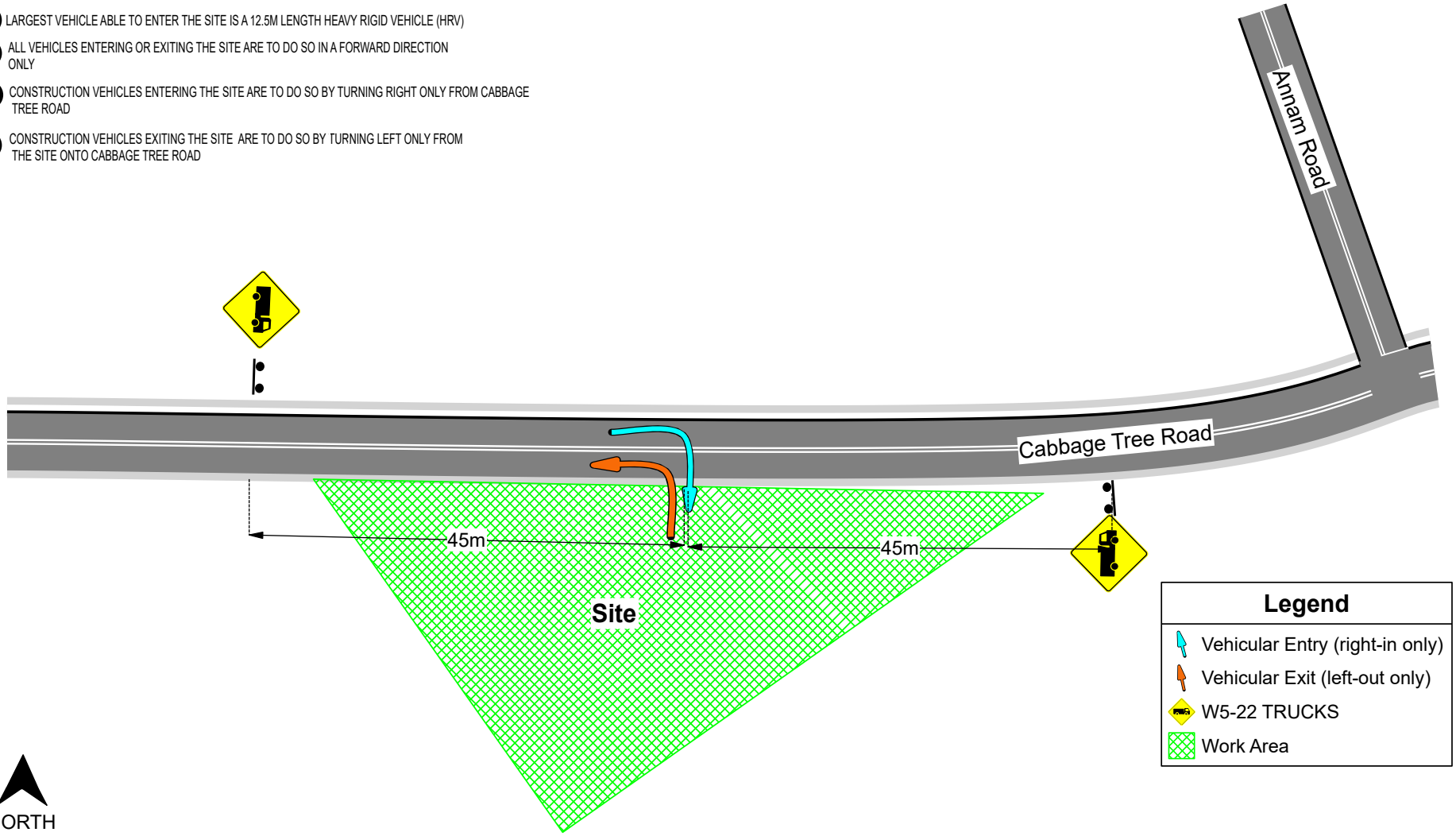


HRV LEFT TURN SITE EXIT
Successful

ANNEXURE D: TRAFFIC CONTROL PLAN

(1 SHEET)

1. TRAFFIC CONTROL PLAN TO BE REVIEWED REGULARLY.
2. LARGEST VEHICLE ABLE TO ENTER THE SITE IS A 12.5M LENGTH HEAVY RIGID VEHICLE (HRV)
3. ALL VEHICLES ENTERING OR EXITING THE SITE ARE TO DO SO IN A FORWARD DIRECTION ONLY
4. CONSTRUCTION VEHICLES ENTERING THE SITE ARE TO DO SO BY TURNING RIGHT ONLY FROM CABBAGE TREE ROAD
5. CONSTRUCTION VEHICLES EXITING THE SITE ARE TO DO SO BY TURNING LEFT ONLY FROM THE SITE ONTO CABBAGE TREE ROAD



Date: 02/09/2019 **Job Number:** 2019/0473

Address: 39 CABBAGE TREE ROAD, BAYVIEW

TRAFFIC CONTROL PLAN

Author: Laen Stewart

Certification No: 004 910 0443

All signage to be removed at completion of work

NOT TO SCALE