

Terraflow Pty Ltd

Traffic and Parking Consultants

ABN 83 078 415 871

15th January 2020

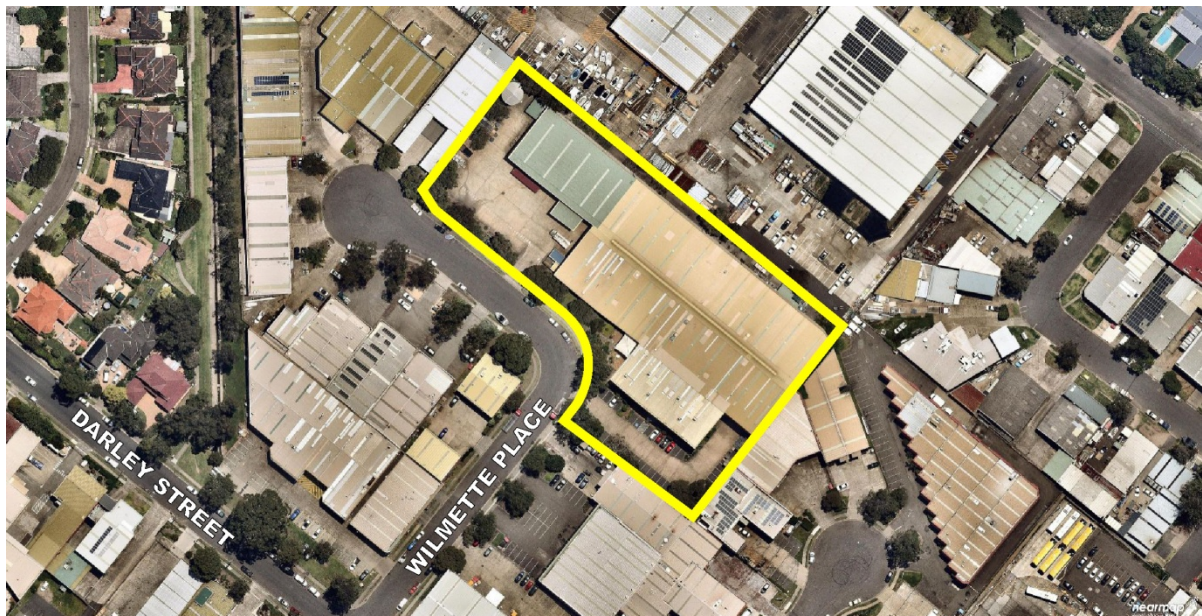
Andrew Macpherson
Macpherson Property & Management
PO Box 380
Newport NSW 2106

Dear Andrew,

**ALTERATIONS TO EXISTING WAREHOUSE
11-17 WILMETTE PLACE, MONA VALE
PARKING AND SERVICING ASSESSMENT**

This assessment has been prepared to accompany a Development Application (DA) to Northern Beaches Council for proposed alterations to the existing Warehouse development at 11-17 Wilmette Place, Mona Vale.

The development site is located on the northern side of the Wilmette Place approximately 140m north of Darley Street. It has a site area of 11,453m² with a frontage of 104.88m to Wilmette Place.



Existing Site Development

The existing site development comprises an industrial warehouse building with a total floor area of 6,608m² comprising 5,320m² of warehouse floor space and 1,288m² of office floor

space. The site is currently served by 106 off-street car parking spaces that gain vehicular access to Wilmette Place via 2 x 8m wide combined entry/exit driveways.

The existing warehouse development is served by 3 loading bays of which 2 bays can be accessed by 19.0m long articulated vehicles (semi-trailers) and 1 bay by 12.5m long Heavy Rigid Vehicles (HRV's). It should be noted that several existing parking spaces will need to be vacated to accommodate these vehicles and maintain compliance with the Australian Standards.

Proposed Development

The development proposal involves alterations to the existing development to create 3 separate warehouse units with a combined floor area of 6,432m² as follows:

Use	Warehouse 1	Warehouse 2	Warehouse 3	Total
Warehouse	1,118m ²	1,963m ²	1,753m ²	4,834m ²
Office	322m ²	671m ²	515m ²	1,508m ²
Total	1,440m²	2,634m²	2,268m²	6,342m²

The proposal will be served by a total of 98 off-street car parking spaces including 4 disabled spaces. The proposal will also be served by 2 motorcycle parking spaces and parking for 6 bicycles.

The development proposal will be served by 4 loading bays as follows:

Warehouse 1	1 x loading bay capable of accommodating 12.5m Heavy Rigid Vehicles
Warehouse 2	1 x loading bay capable of accommodating 12.5m Heavy Rigid Vehicles
Warehouse 3	2 x loading bays capable of accommodating 19.0m Articulated Vehicles

The proposal will also retain the existing access arrangements off Wilmette Place.

Parking Requirements

Table 1 in Section B6.3 of the Pittwater 21 Development Control Plan does not specify any parking rates for warehouse developments. On this basis the DCP states:

Development not included in the above table

The minimum number of vehicle parking requirements must be determined using the appropriate guidelines for parking generation and servicing facilities based on development type comparison based on the Roads and Maritime Services Guide to Traffic Generating Development or analysis drawn from surveyed data for similar development uses. Provision must be made within the development site for access and parking of all service vehicles servicing the site, visitor parking and parking for people with disabilities.

The RMS publication “Guide to Traffic Generating Developments” (October 2002) specifies the following parking rates for industrial uses:

Warehouse developments	1 space per 300m ² (includes ancillary office space)
Factory developments	1.3 spaces per 100m ² (ancillary office space >20% of the total GFA to be assessed at 1 space per 40m ²)

Application of the **RMS warehouse requirement** to the proposed development yields a parking requirement of 21 spaces calculated as follows:

6,342m ² warehouse @ 1 space per 300m ²	21.1 spaces
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The proposed development clearly satisfies the RMS warehouse parking requirement with the provision of 98 off-street parking spaces.

As noted above, the RMS requirement for factories includes up to 20% of office floor space. Any office floor space that exceeds this limit is subject to the RMS parking rate of 1 space per 40m² for commercial offices.

With a total combined floor area of 6,342m², the RMS factory parking requirement includes 1,268.4m² of office floor space. To that end the proposal exceeds the 20% allowance by 239.6m² calculated as follows:

Proposed Office Floorspace	1,508.0m ²
Allowable Office Floorspace	1,268.4m ²
Additional Office Floorspace	239.6m²

Application of the **RMS factory requirement** to the proposed development yields a parking requirement of 86 spaces calculated as follows:

6,102.4m ² factory @ 1.3 spaces per 100m ²	79.3 spaces
239.6m ² additional office @ 1 spaces per 40m ²	6.0 spaces
Total Requirement	85.3 spaces

The proposed development also satisfies the RMS factory parking requirement with the provision of 98 off-street parking spaces.

Carpark Compliance

The off-street carparking arrangements have been designed to satisfy the following requirements of the Australian Standard AS/NZS2890.1-2004 – “Off-Street Car Parking”:

- Parking spaces have a minimum length of 5.4m and width of 2.4m
- An additional 0.3m has been provided for spaces adjacent to a wall or obstruction
- The access/manoeuvring aisles satisfies the minimum width requirement of 5.8m
- Blind aisle extensions have been provided where necessary
- Pavement cross-falls at parking spaces do not exceed 5% (1 in 20) in any direction

Servicing Assessment

As noted in the foregoing, the units will contain a dedicated loading bay capable of the following:

Warehouse 1	1 x loading bay capable of accommodating 12.5m Heavy Rigid Vehicles
Warehouse 2	1 x loading bay capable of accommodating 12.5m Heavy Rigid Vehicles
Warehouse 3	2 x loading bays capable of accommodating 19.0m Articulated Vehicles

The swept path of these vehicles accessing each loading bay is reproduced in Annexure A. As can be seen, this vehicle can adequately enter and exit the site in a forward direction.

In the circumstances, it can be concluded that the proposed development has no unacceptable parking or servicing implications.

Should you wish to discuss this matter further, please do not hesitate in contacting Michael Logan on 0411 129 346 during normal business hours.

Yours faithfully

A handwritten signature in black ink, appearing to read 'ML', with a horizontal line extending to the right.

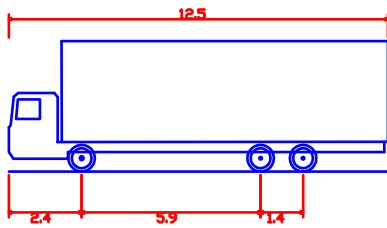
Michael Logan *MTraff* (*Monash University*)
Director
Terraffic Pty Ltd

ANNEXURE A

SWEPT PATH ANALYSIS

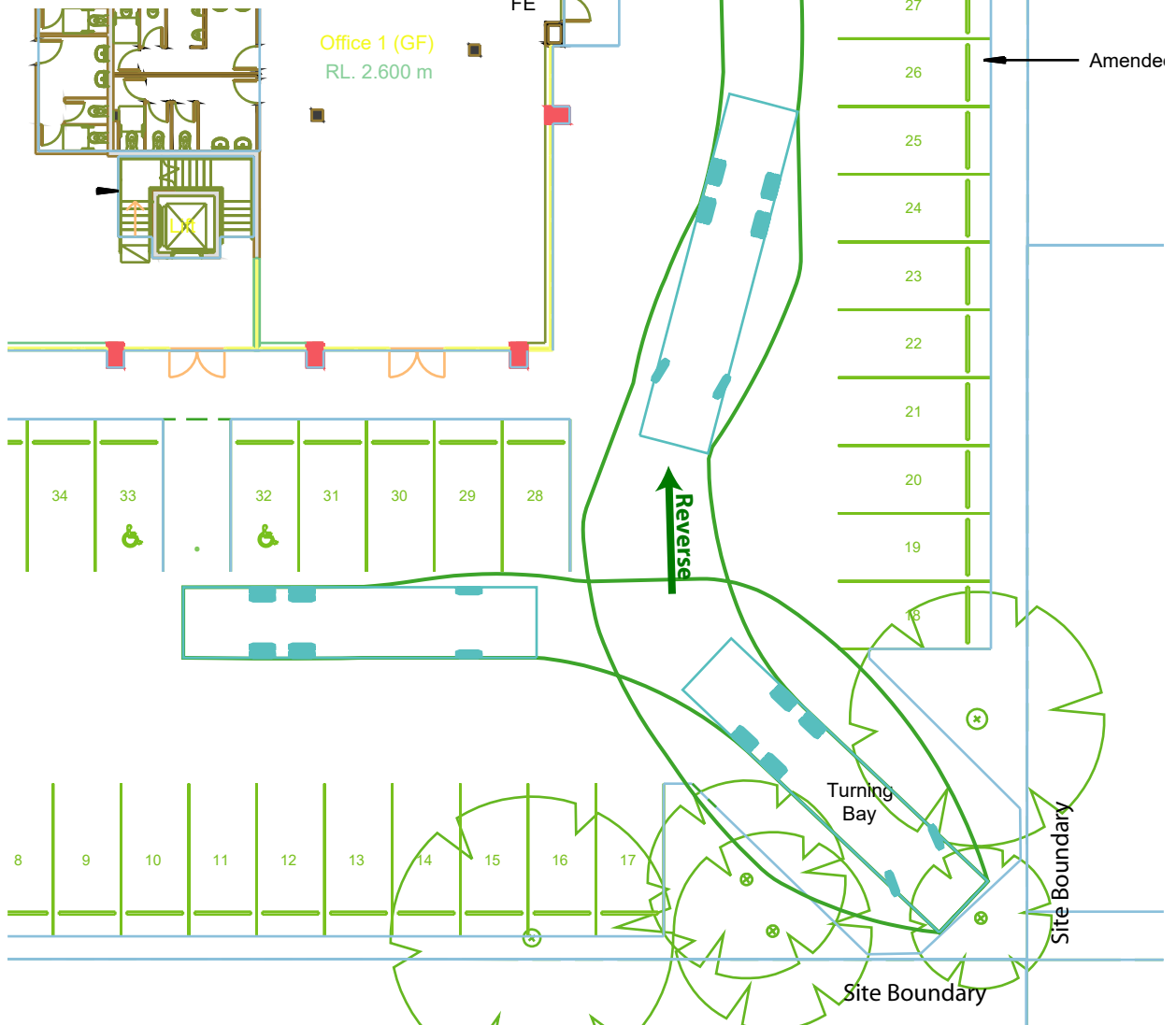
**Path prepared using
Autodesk Vehicle Tracking**

0 2 4 6 8 10 20
METRES
SCALE 1:250



HRV - Heavy Rigid Vehicle
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

12.500m
2.500m
4.300m
0.417m
2.500m
6.00s
12.500m



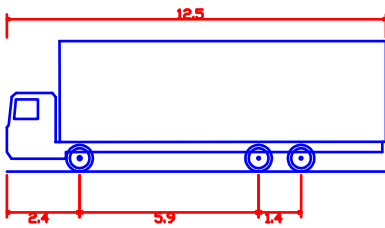
**Manoeuvring Path of Australian
Standard AS2890.2:2002
12.5m Heavy Rigid Vehicle (HRV)
Accessing WH1 Loading Bay**



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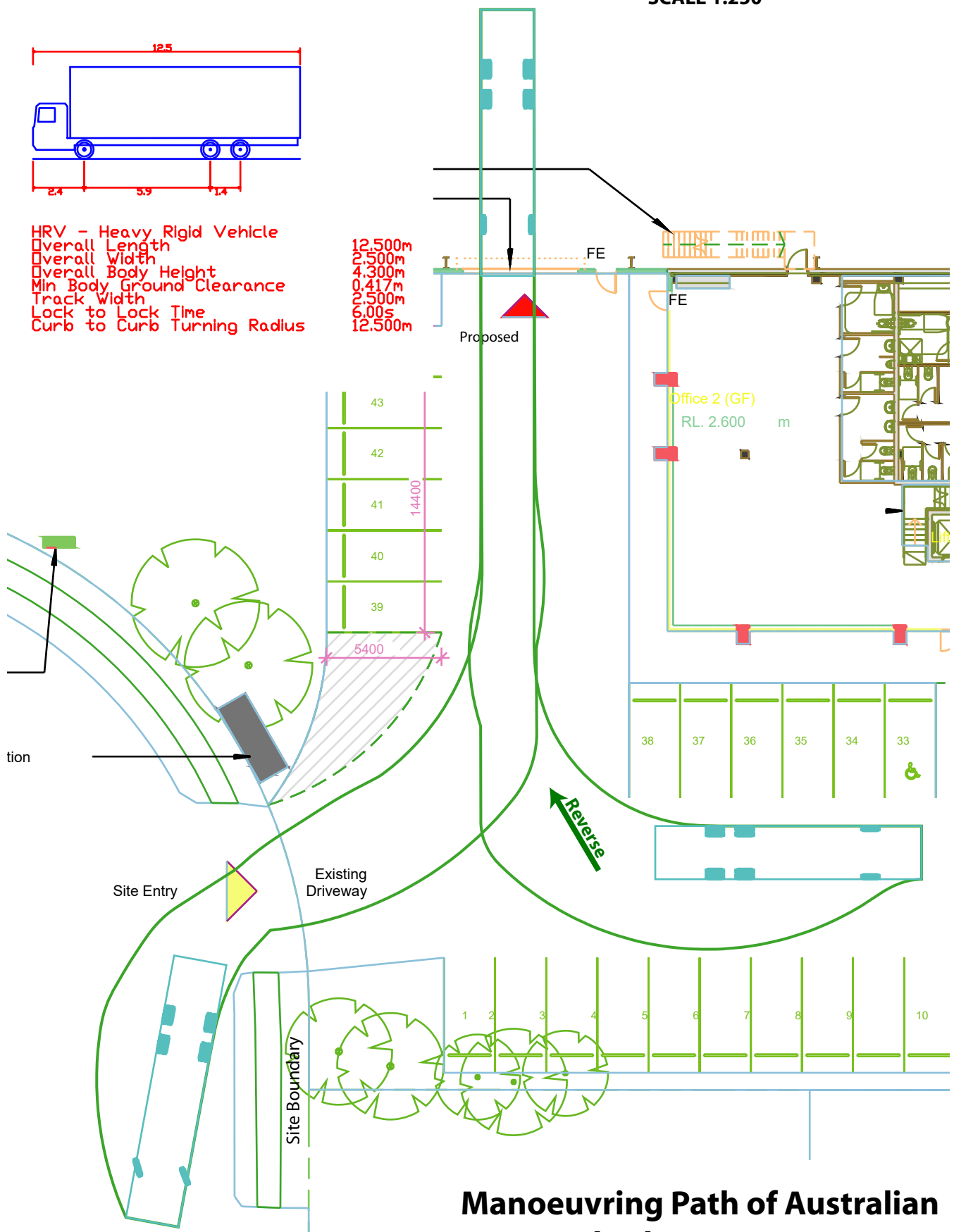
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HRV - Heavy Rigid Vehicle
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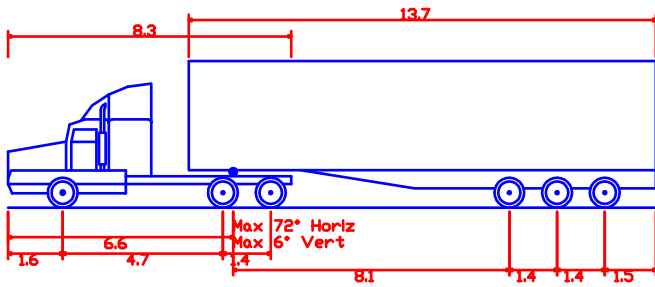
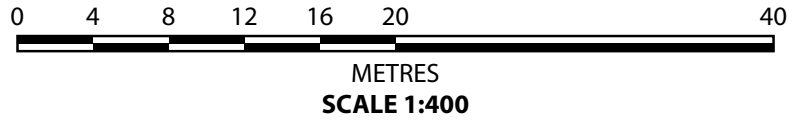


**Manoeuvring Path of Australian
Standard AS2890.2:2002
12.5m Heavy Rigid Vehicle (HRV)
Accessing WH2 Loading Bay**

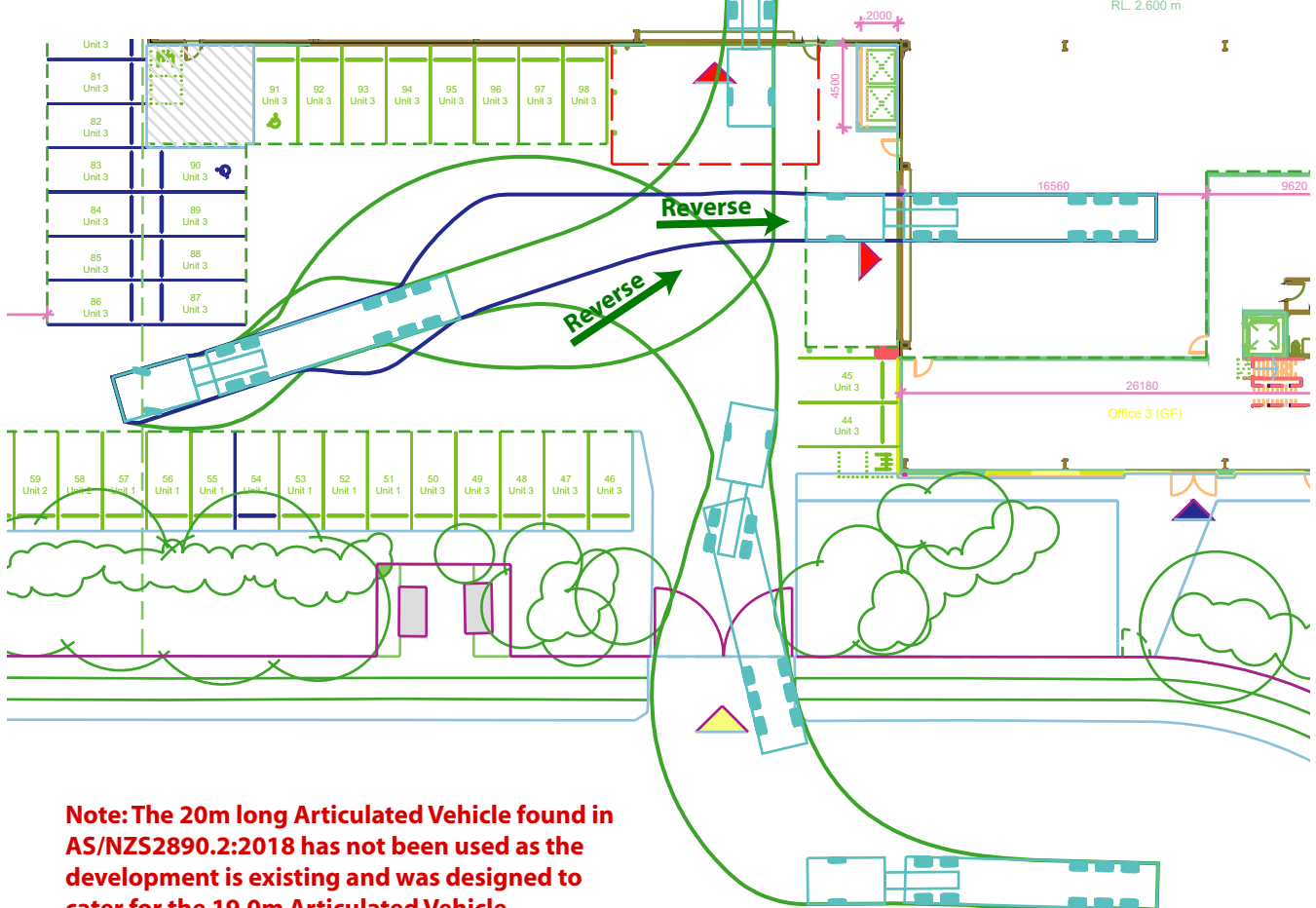


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**Path prepared using
Autodesk Vehicle Tracking**



AV - Articulated Vehicle
Overall Length 19.000m
Overall Width 2.500m
Overall Body Height 4.301m
Min Body Ground Clearance 0.418m
Track Width 2.500m
Lock to Lock Time 6.00s
Curb to Curb Turning Radius 12.500m



Note: The 20m long Articulated Vehicle found in AS/NZS2890.2:2018 has not been used as the development is existing and was designed to cater for the 19.0m Articulated Vehicle

**Manoeuvring Path of Australian
Standard AS2890.2:2002
19.0m Articulated Vehicle (AV)
Accessing WH3 Loading Bays**



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