

# Preliminary Construction Traffic Management Plan

**Edinglassie Village, Emu Plains**

Prepared for Uniting / 27th March 2018

141456 TAAB

**Structural  
Civil  
Traffic  
Facade**

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### Revision Register

Rev	Date	Prepared By	Approved By	Remarks
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## Preliminary Information

This Preliminary Construction Traffic Management Plan (CTMP) addresses the proposed redevelopment of the Edinglassie Village aged care site in Emu Plains. It discusses the management of local traffic and construction vehicles related to the project.

The purpose of a Preliminary CTMP is to demonstrate appropriate considerations has been given to construction management and access as part of a Development Application approval. The document provides a framework within which a future CTMP can be developed and implemented, and provides only a low level of detail.

A detailed CTMP cannot be developed without the involvement of a builder and consideration of all final design selections. A design methodology, project phasing, site access, proposed signage, and other relevant site details can only be provided by or in coordination with the selected builder. A CTMP will be required to be approved by Council's Traffic Committee prior to Council issuing the relevant Construction Certificate for the proposed works. This may involve detailed consultation with Council, emergency services, and other relevant local stakeholders.

A CTMP is developed to satisfy the duties of various work health and safety legislation, regulations, and codes of practice. Traffic Control Plans (TCPs) will also need to be developed for the site to demonstrate the traffic control procedures to be implemented, and these must also be in accordance with RMS and Australian Standards requirements.

In addition to development of a detailed CTMP, the builder shall be responsible for acquiring the necessary certificates, licences, consents, permits, and approvals relevant to the construction on this site.



## 1 Introduction

### 1.1 Site Location

Edinglassie Village is located along Emerald Street, Emu Plains. Overall the site is bound by Emerald Street to the east, Emu Plains Primary School to the south, Troy Street to the west, and the Great Western Highway to the north. The new Residential Aged Care (RAC) facility is proposed to be located in the northeast corner of the site as shown in Figure 1.1.



Figure 1.1: Site location

The site is within the Penrith City Council local government area. The site is also located close to the NSW state road network, bound by the Great Western Highway to the north.

Figure 1.2 illustrates the state roads in the vicinity of the site.

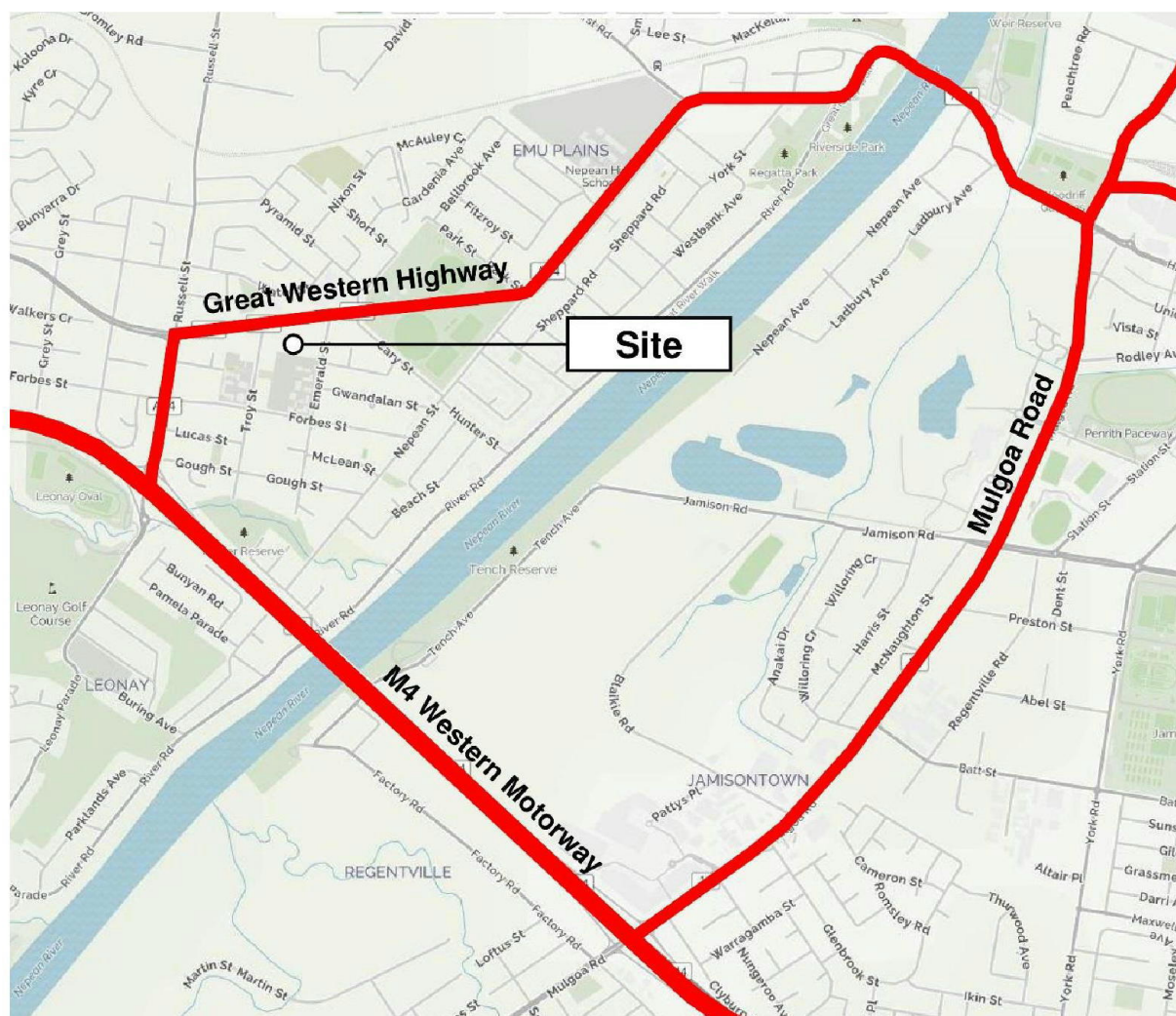


Figure 1.2: State roads

## 1.2 Scope of Works

The proposed development includes demolition of some existing buildings in the northeast portion of the site, and construction of a new 100-bed Residential Aged Care facility.

The proposed works also include construction of a car parking area, modified vehicle crossovers, and associated landscaping.

## 1.3 Construction Activities

It is anticipated that access for all construction activities take place via Emerald Street. This shall include demolition and removal of spoil, delivery of new materials, and all provision of equipment and machinery.

Access to adjacent properties including Emu Plains Primary School and all residential properties, shall be maintained throughout the construction period. Remaining areas of the Edinglassie Village shall remain operational through the construction phases and access will remain from both Emerald Street and Troy Street.



## 2 Traffic Environment

### 2.1 Road Network

**Emerald Street** is a local road providing the main frontage to the site. The road connects to the Great Western Highway in the north and residential areas in the south. The road is a two-way road with a single lane in each direction. Parking is provided on both sides of the street with no parking restrictions in place. The speed limit is 50 km/hr, and entries to the subject site are located within a 40 km/hr School Zone area.

The **Great Western Highway** is a state road managed by Roads and Maritime Services (RMS) and is the nearest major road to the site. The highway connects to Emerald Street at an unsignalised intersection with left-in left-out access only. The highway provides connection to other state roads such as the M4 Motorway via Russell Street. Near to the site, the road contains two lanes in each direction (generally one lane in nearby areas) and has a speed limit of 60 km/hr.

### 2.2 Transport Facilities

#### 2.2.1 Public Transport

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Bus stops are situated along the Great Western Highway and Emerald Street. The stops along both approaches are located approximately 150 metres from the site entrance.

The nearest train station to the site is Emu Plains Station. The stations are serviced by the T1 (Western) and Blue Mountains lines. Station is located approximately 2 kilometres or 20-25 minutes' walk from the site, and buses along Emerald Street and the Great Western Highway also provide a connection to Station.

#### 2.2.2 Pedestrian Movements

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The area can experience high volumes of pedestrian movements during peak school periods, with students travelling to bus services, Lennox Village shopping centre, and residential areas.

Pedestrian footpaths are provided along all frontages of the site and both sides of Emerald Street.

A Children's Crossing is located near the school entry approximately 100 metres south of the site, and a signalised pedestrian crossing is located on the Great Western Highway approximately 30 metres west of Emerald Street.

## 3 Construction Requirements

### 3.1 Works Staging

Site works are expected to be undertaken in 2 major works phases.

- The initial phase of works will involve demolition of the nursing home, the Fellowship Centre and Block D of the hostel, and construction of the new RAC building.
- The second phase of works will involve demolition of the remainder of the hostel building and provision of the new site car park. The part of the former hostel footprint no used to accommodate car parking will be landscaped with turf.

### 3.2 Site Layout and Access

The majority of site access is anticipated to occur via Emerald Street which is a local road. Existing and proposed driveways front onto this road which would be utilised by construction vehicles.

#### 3.2.1 Staging

During the preliminary phase of demolition, site access shall likely be via the existing driveways north of the Chapel building. Access to these driveways may be dependent on the size of the vehicle to be used and will be confirmed by the builder as part of the final CTMP.

During the construction of the new RAC building, the site of the current Fellowship Centre will be used as a material storage, accessed via the southern driveway. The new driveway and car park area north of the Chapel may also be suitable for smaller vehicle access.

Demolition of the remainder of the hostel will also occur via the southern driveway, in addition to final construction of the site car park.

#### 3.2.2 Constraints

Any proposed access from the Great Western Highway would require consultation with RMS as the managing authority for this road. The Highway frontage of the site provides a wide verge area which may be suitable and useful for some construction activities without impact to traffic flows along the road. Alternatively, this area may be suitable as a parking area for contractors, providing that all other parking restrictions and road rules are met.

All access occurring via Emerald Street will need to ensure protection of the existing church facility prevent damage to the heritage facility.

### 3.3 Vehicles

Anticipated truck types to be used during the construction works include various small delivery trucks, concrete trucks, spoil and excavation removal trucks, and semi-trailers for large deliveries or equipment.

Deliveries and removal of materials to and from the site should be staggered where possible to avoid the queuing of vehicles within the site.

Based on past experience in developing CTMPs, total construction traffic generation is estimated at no more than 20-30 vehicles per day during concrete pour periods, and 5-10 vehicles per day during other periods.



## 4 Management of Construction Vehicles

### 4.1 Construction Vehicles

Truck loading and unloading is expected to occur wholly within the site accessed via Emerald Street, or in a Works Zone on Emerald Street.

All deliveries are to be made within work hours as approved by Council. Truck movements to and from the site will also be scheduled outside peak hours where possible, to reduce impacts to the local road network including major highway routes.

During days of high anticipated vehicle movements, communication between the site and vehicles will be maintained to stagger the arrival of vehicles, in order for them to be accommodated at the site and to minimise traffic disruptions.

### 4.2 Truck Routes to/from Site

As the Great Western Highway is separated by a concrete median, vehicles accessing the site will be required to turn left in and out of Emerald Street. Indicative access routes are described below and illustrated in Figure 4.1.

#### Approach

- Approach via M4 Western Motorway from east or west
- Exit onto Mulgoa Road toward Penrith
- Left onto Great Western Highway (High Street)
- Turn left onto Emerald Street
- Turn right into site.

#### Departure

- Turn left out of site.
- Turn left onto Great Western Highway
- Continue left on Great Western Highway (Russell Street)
- Enter M4 Western Motorway toward east or west

As the site may require a Works Zone to facilitate construction activities, vehicles using this area will be required to approach from the south. Optimum access to the site is likely from the Great Western Highway via Nepean Street and Forbes Street.

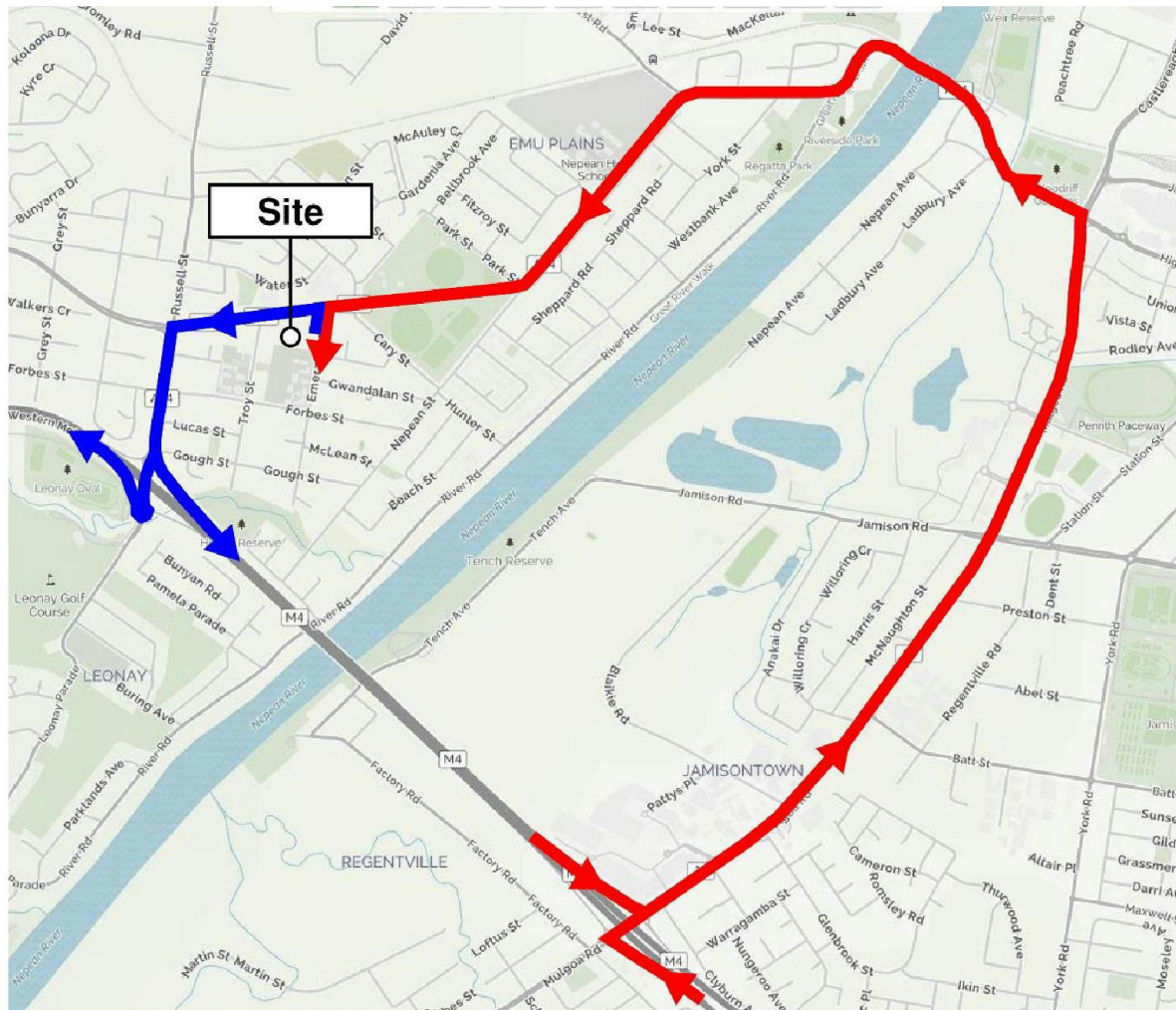


Figure 4.1: Indicative construction vehicle routes



## 5 Impact of Project

### 5.1 Traffic Flow

Traffic impacts from the construction works are expected to be limited to the truck routes detailed in this report. These routes are likely to experience only minor impacts due to the presence of additional vehicle movements, estimated at up to 30 vehicles per day during peak periods. Relative to other local traffic particularly on the Great Western Highway (11,000 vehicles per day in each direction<sup>1</sup>), these volumes are considered negligible and are unlikely to create impact to the local network. The appointed builder shall confirm anticipated construction vehicle volumes as part of a final CTMP.

Any proposed lane closures (if required) would be operated under full traffic control and would form part of the final Construction Traffic Management Plan to be approved by Council.

Access to all adjoining properties shall be maintained through the works.

### 5.2 Parking Impacts

#### 5.2.1 Operational Parking

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Following completion of the RAC building and northern car park, the main southern car park will be constructed and will be unavailable. Parking capacity in the northern car park shall be 5 spaces which is equivalent to the existing capacity, despite the overall bed capacity being reduced (from 126 rooms to 100 rooms). Given this reduction in demand, there are not considered to be any parking impacts to the operational usage of the site during construction.

#### 5.2.2 Construction Parking

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A Works Zone may be required for this site along the Emerald Street frontage. Approximately 20 metres of kerb or around 3-4 parking spaces (currently unrestricted) would be lost along Emerald Street. The parking area does not currently provide marked bays and capacity is approximate only. The requirements for a Works Zone will be finalised once a builder has been appointed to the project.

Parking for construction workers may be made available on-site where possible to reduce impacts to on-street parking, however this is expected to be limited. Site constraints are unlikely to allow provision of on-site parking. Alternatively, the grass verge adjacent to the Great Western Highway may be suitable as a parking area for contractors, providing that all other parking restrictions and road rules are met.

There may be an increase in local parking congestion during construction as a result of workers accessing the site. Contractors should be encouraged to make use of public transport options or carpooling initiatives as part of site induction to minimise the impact to residents.

### 5.3 Emergency Access

During the construction of the new RAC building, emergency access to the hostel will be via the Troy Street driveway. Emergency access to the two groups of ILUs will be via their existing driveways.

Ambulance parking during the final stages of the work prior to opening of the main southern car park shall be via the northern car park as required. Signposting of a temporary dedicated ambulance parking space is to be investigated.

Emergency access to the construction site will be coordinated as necessary.

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<sup>1</sup> RMS Traffic Count Station ID 87001 (110m West of High Street, Penrith)



## 6 Further Information

### 6.1 Construction Traffic Management

A detailed Construction Traffic Management Plan and Site Plan will be developed and submitted to the appropriate approval authorities prior to any works commencing on-site. A final CTMP requires detailed information from the builder regarding construction methodologies, works phasing, proposed access arrangements, signage, timing, and other works details which cannot be provided at the Development Application Stage.

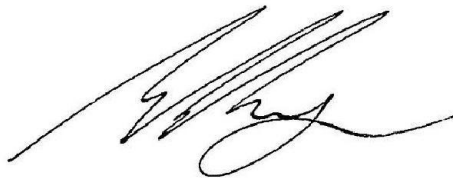
Additional application may be required where Works Zone restrictions are proposed, and these would also require lodgement through the appropriate pathways.

### 6.2 Overall Impacts

The construction traffic impacts and requirements of this project are deemed to be manageable within the site constraints. Impact is expected to remain limited to the site frontage, with limited vehicle access and loading areas to be in place as necessary.

Full access will be retained for all vehicles to all adjacent properties. Appropriate hoarding and protection measures will be implemented to ensure the safety of all users of the area at all times.

Prepared by  
**TAYLOR THOMSON WHITTING  
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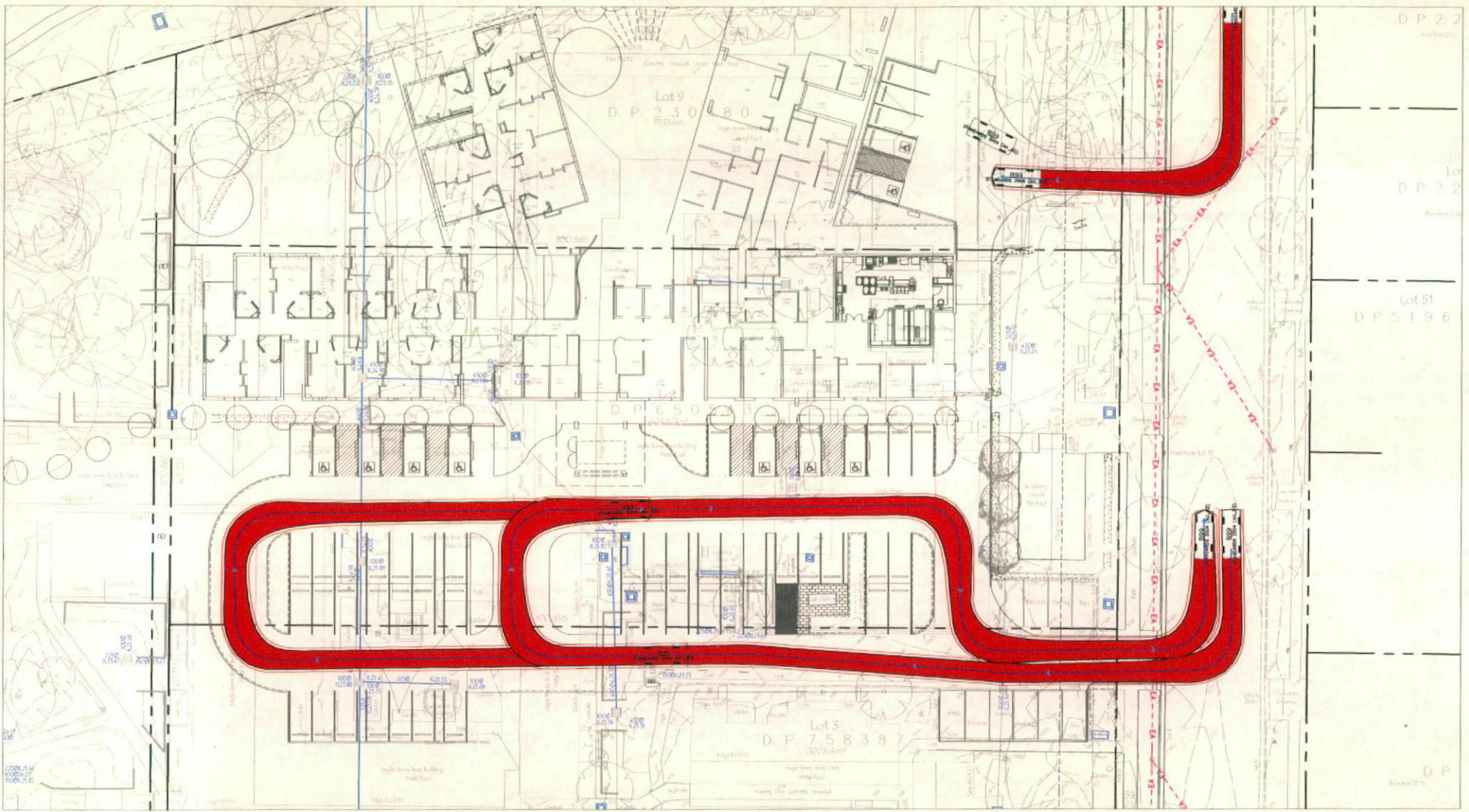
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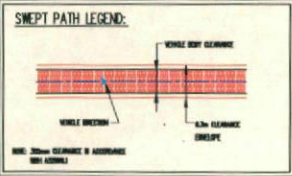




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ES90	Height	1.80
Wheel	Track	1.80
Lowest Clearance	Turning Angle	30°



**BASE FILES**

The vehicle turning paths shown on Taylor Thomson Whitting's drawings are based on information contained in:

Drawing Number	Revision	Date
DA00	A	27.03.2018

Vehicle turning paths may vary in later revisions of the above drawings and should not be relied on in any future design changes.

A1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Rev.	Date	Description	Eng.	Draft.	Date	Description	Eng.	Draft.	Date
1	27/03/18	ISSUE FOR PERMIT	MH	MH	27/03/18				

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Project  
**EDINGGLASSIE VILLAGE**  
 EMERALD STREET, EMU PLAINS

Sheet Subject  
**TURNING PATH ANALYSIS**  
 CAR PARK ACCESS  
 B99 PASSENGER VEHICLE

Scale	Drawn	Authorised
1:200	MH	MH

Job No.	Drawing No.	Revision
141456	T01	1

File Created: 20 July 2018 - 4:19pm

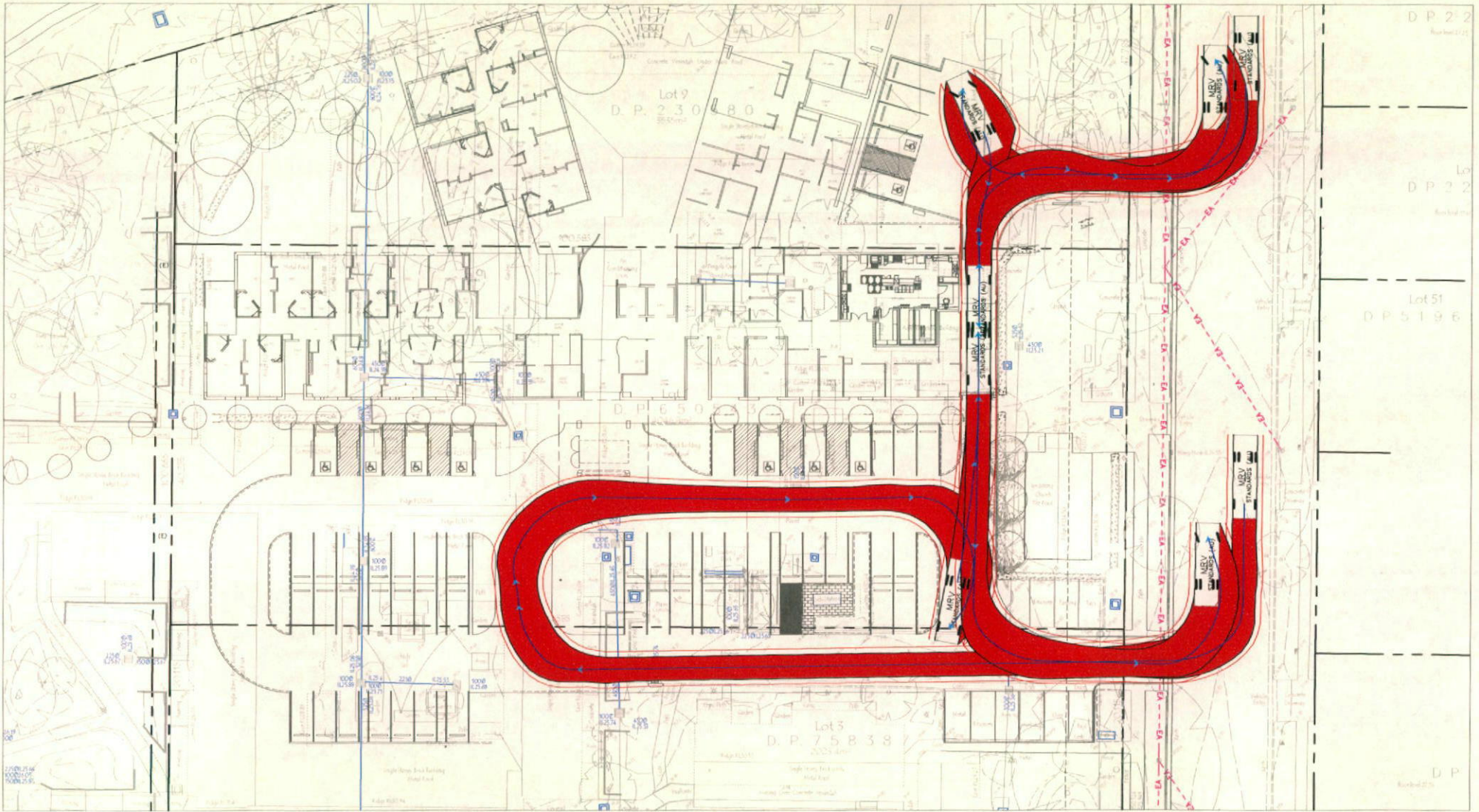












DP 2/2  
 Booked 2/11

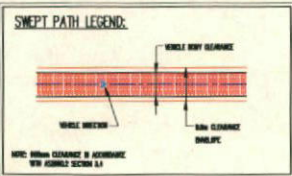
Lot  
 DP 2/2  
 Booked 2/11

Lot 51  
 DP 518/6

DP  
 Booked 2/11



MRV  
 meters  
 10000  
 2500  
 4000  
 Lock to lock Turn  
 Steering angle  
 14.0



**BASE FILES**

The vehicle turning paths shown on Taylor Thomson Whitting's drawings are based on information contained in:

Drawing Number	Revision	Date
DA100	A	27.03.2009

Vehicle turning paths may vary in later revisions of the above drawings and should not be relied on in any future design changes.

Morrison Design Partnership - 700 St Leonards Road - St Leonards NSW 2065 - Australia  
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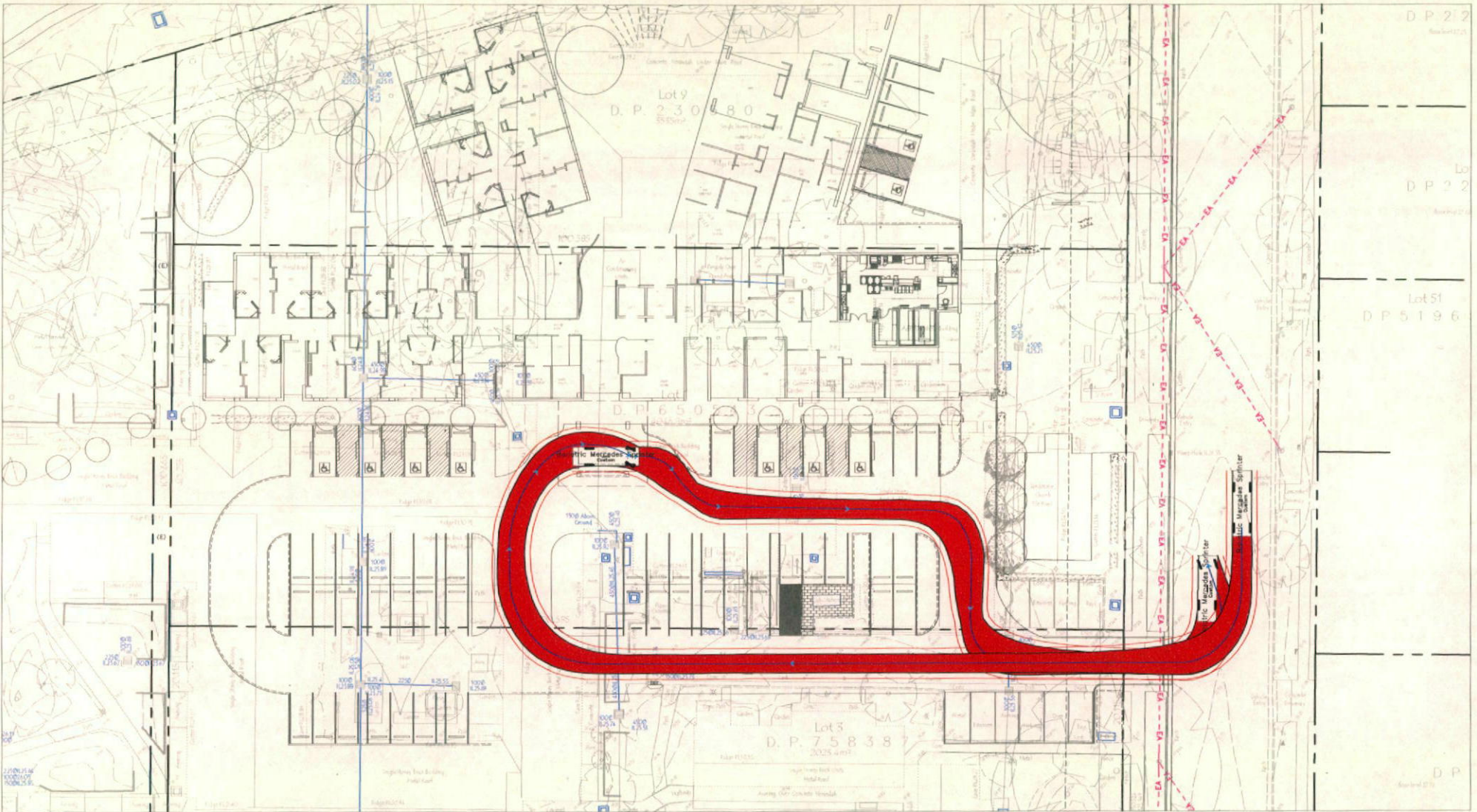
A1 1 2 3 4 5 6 7 8 9 10

1 FOR ISSUE MB MB 27/01/18 Date Rev. Description Eng. Draft Date Rev. Description Eng. Draft Date		Architect <b>MORRISON DESIGN PARTNERSHIP</b> SUITE 302, 60 CHRISTIE STREET ST LEONARDS NSW 2065 T +61 2 9896 5566	Traffic Engineer <b>TTW Taylor Thomson Whitting</b> 612 9436 7266 / 46 Chandos Street St Leonards NSW 2065	Project <b>EDINGGLASSIE VILLAGE</b> <b>EMERALD STREET, EMU PLAINS</b>	Street Subject <b>TURNING PATH ANALYSIS</b> <b>SERVICE VEHICLE ACCESS</b> <b>MEDIUM RIGID VEHICLE (2/2)</b>	Scale: A1 1:200 Drawn: MB Checked: MB Date: 27.03.2009 Job No: 141456 Drawing No: T13 Revision: 1 Plot File Created: Mar 27, 2018 - 4:34pm
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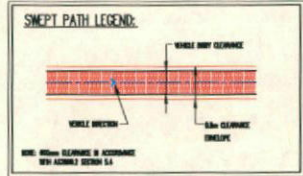




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**Bariatric Mercedes Sprinter**  
 Wheel: 1.90  
 Track: 1.90  
 Load Wt (kg): 1000  
 Grounding Air Gap: 40.4



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 The vehicle turning paths shown in Taylor Thomson Whitting's drawings are based on information contained in:  
 Drawing Number: Revision: Date:  
 (N/A) A 27.03.2018  
 Vehicle turning paths may vary in later revisions of the above drawings and should not be relied on in any future design changes.

1 TSP 2018 MB MB 27.03.18		Architect <b>MORRISON DESIGN PARTNERSHIP</b> SUITE 302, 69 CHRISTIE STREET ST LEONARD'S NSW 2065 T +61 2 9965 5566	Traffic Engineer <b>TTW Taylor Thomson Whitting</b> 612 9439 7288   48 Chandos Street St Leonards NSW 2065	Project <b>EDINGGLASSIE VILLAGE</b> EMERALD STREET, EMU PLAINS	Street Subject <b>TURNING PATH ANALYSIS</b> AMBULANCE ACCESS BARIATRIC AMBULANCE	Scale: A1 1:200 Drawn: MB Authorised: MB	Job No: <b>141456</b>	Drawing No: <b>T21</b>	Revision: <b>1</b>
File File Created: Mar 27, 2018 - 4:46pm									