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15 March 2023

Nick Hunter
Open Space Project Officer
Glen Eira City Council

Dear Nick,

PORTER ROAD OPEN SPACE – TRAFFIC IMPACT ASSESSMENT

I refer to your request for a traffic impact assessment for the proposed development of Porter Road Park in Bentleigh. In the course of preparing this letter:

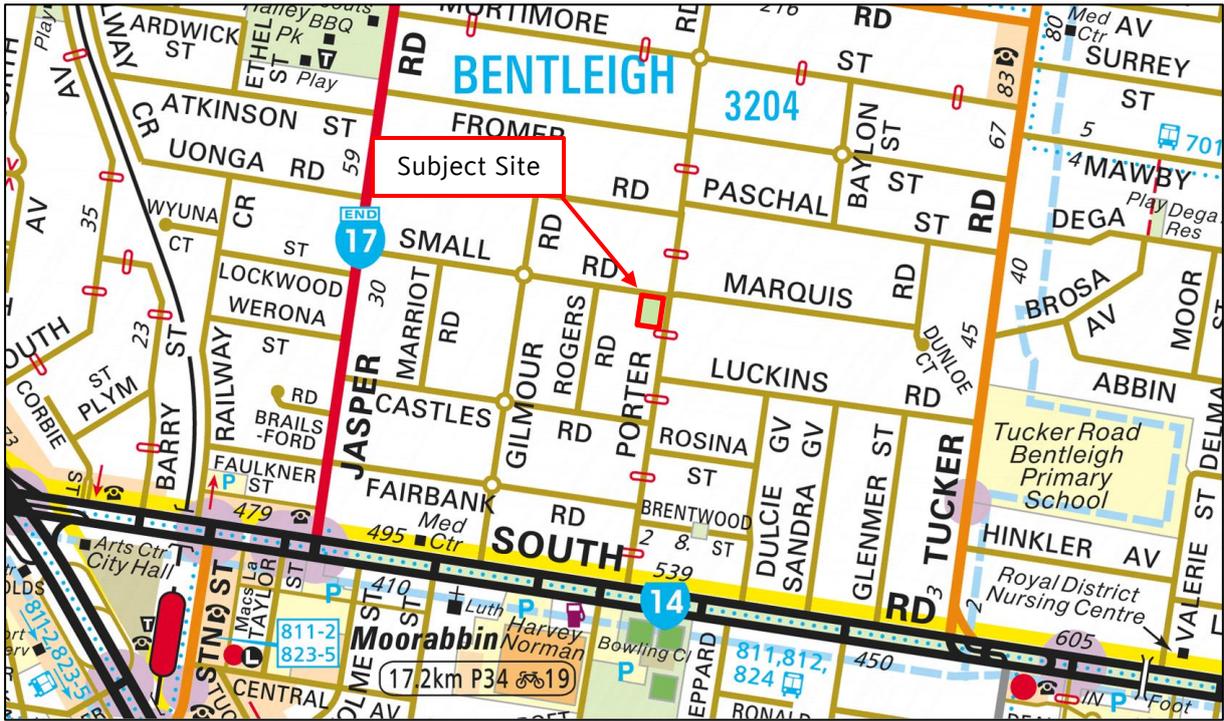
- Concept plans and traffic count data have been examined;
- The subject site and surrounding area have been inspected in the AM and PM peak periods; and
- The traffic and parking implications of the proposal have been assessed.

EXISTING CONDITIONS

Location

Porter Road Park is located on the south-western corner of the Porter Road / Small Road intersection in Bentleigh.

The location of the subject site and surrounding area is shown in **Figure 1**. A recent aerial photograph is shown in **Figure 2**.



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FIGURE 1: LOCATION OF SUBJECT SITE



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FIGURE 2: AERIAL PHOTO OF SUBJECT SITE

Road Network

Porter Road is classified as a collector road under the Glen Eira Register of Public Roads (5 October 2020) and falls under the management of Council. It runs in a north-south orientation between South Road and Patterson Road. In the vicinity of the subject site it provides a carriageway width of approximately 7.3 m. Unrestricted kerbside parking is permitted on both sides of the road. A raised pavement style speed hump is located on Porter Road adjacent to the subject site, approximately 20 m south of Small Road. Additional raised pavements are located along Porter Road to the south at approximately 100 m intervals.

Council has supplied tube count data on Porter Road between Small Road and Luckins Road undertaken between Saturday 4 February 2023 to Saturday 11 February 2023. This revealed a 7-day average two-way traffic volume of 1,006 vehicles per day (464 vpd northbound and 542 vpd southbound). An average two-way weekday AM peak volume of 139 vehicles per hour was measured, with the AM peak period occurring between 8am to 9am. An average two-way weekday PM peak volume of 114 vehicles per hour was measured, with the PM peak period typically occurring between 3pm to 4pm across the survey period.

An 85th percentile speed of 38km/h was measured on Porter Road across the survey period.

Porter Road is subject to the default urban speed limit of 50km/h.

Views of Porter Road in the vicinity of the subject site are provided in **Figure 3** and **Figure 4**.



FIGURE 3: PORTER ROAD (FACING NORTH)



FIGURE 4: PORTER ROAD (FACING SOUTH)

Small Road is classified as an access road under the Glen Eira Register of Public Roads (5 October 2020) and falls under the management of Council. It runs in an east-west orientation between Porter Road and Jasper Road. In the vicinity of the subject site it provides a carriageway width of approximately 7.3 m. Unrestricted kerbside parking is permitted on both sides of the road.

Council has supplied tube count data on Small Road between Porter Road and Rodgers Road undertaken between Saturday 4 February 2023 to Saturday 11 February 2023. This revealed a 7-day average two-way traffic volume of 497 vehicles per day (221 vpd eastbound and 276 vpd westbound). An average two-way weekday AM peak volume of 56 vehicles per hour was measured, with the AM peak period occurring between 8am to 9am. An average two-way weekday PM peak volume of 53 vehicles per hour was measured, with the PM peak period typically occurring between 5pm to 6pm across the survey period.

An 85th percentile speed of 44.5km/h was measured on Small Road across the survey period.

Small Road is subject to the default urban speed limit of 50km/h.

Views of Small Road in the vicinity of the subject site are provided in **Figure 5** and **Figure 6**.



FIGURE 5: SMALL ROAD (FACING EAST)



FIGURE 6: SMALL ROAD (FACING WEST)

Porter Road / Small Road / Marquis Road form a cross intersection at the north-eastern corner of the subject site. The intersection provides priority for through traffic on Porter Road, with the Small Road and Marquis Road legs of the intersection controlled by Give Way signage and linemarking. All roads are straight and relatively flat in the vicinity of the intersection and sight lines are appropriate. Pram ramps are provided at each corner of the intersection facilitating convenient pedestrian crossing opportunities in all directions.

Availability of On-Street Car Parking

Spot parking occupancy surveys were undertaken on Tuesday 14 March 2023 in the AM and PM peak periods to ascertain the existing availability of on-street car parking within 50-100m of the subject site.

The results of these surveys are provided in **Figure 7**.



FIGURE 7: CAR PARKING OCCUPANCY SURVEY RESULTS

As indicated, occupancies of 22% and 16% were observed in the AM and PM surveys respectively highlighting a minimum of 53 vacant spaces in the morning and 57 vacant spaces in the evening.

A review of Nearmap aerial imagery was also undertaken across a range of weekday and weekend periods during 2022 and 2023. This imagery indicated similar or lesser levels of car parking occupancy to the spot parking surveys completed above.

Site Observations

The subject site and surrounding road network were observed at 8:15am and 5:30pm on Tuesday 14 March 2023. Existing traffic conditions were observed to be consistent with the volumes and speeds measured in the traffic counts discussed above.

Vehicles passing on Porter Road were observed to be able to comfortably negotiate parked vehicles within the gaps formed by existing crossovers with minimal delay or disruption.

Pedestrian volumes were low across the observation periods, however some were observed crossing both the Porter Road / Small Road intersection and Porter Road mid-block with no inherent safety issues. No other vulnerable road users were observed.

THE PROPOSAL

It is proposed to construct a new open space park on the subject site. As part of the works, a 2.5m wide footpath is proposed along the western side of Porter Road and a portion of the southern side of Small Road near the Porter Road / Small Road intersection. As a result of these changes, the carriageway widths in these areas are typically reduced to approximately 5.4m wide.

A concept plan of the proposed open space layout is provided in **Attachment A**.

ACCESS

Swept path analysis has been undertaken to ascertain any impact to waste collection vehicle access at the intersection as a result of the road narrowing. As indicated in **Attachment B**, a 10m long garbage truck can readily navigate the Porter Road / Small Road intersection following the proposed narrowing.

Swept path analysis (provided in **Attachment B**) has also been undertaken for resident driveways adjacent to the proposed narrowing, specifically at the crossovers of No. 35 Small Road and No. 16 Porter Road.

At No. 16 Porter Road, an Australian Standard B99 car is able to readily access and egress the crossover with minimal impact as a result of the narrowing.

At No. 35 Small Road, an Australian Standard B85 car is able to readily access the crossover with minimal impact. The swept path analysis indicates that a B99 car may not be able to access the property without slightly encroaching on the extents of the existing crossover. However, noting that on-street car parking is currently permitted on Small Road opposite the crossover and that it will be removed following the carriageway narrowing, the proposed arrangement has less of an impact to access than the current arrangement if a

vehicle is parked opposite the crossover. A B99 car is able to conveniently reverse out of the crossover.

ON-STREET CAR PARKING IMPACT

On-street car parking will be removed adjacent to the road narrowing on Porter Road and Small Road. It is recommended that this be implemented via the provision of No Stopping signage and/or solid yellow kerbside linemarking.

A total of 8 on-street spaces are proposed to be removed.

Based on the spot parking occupancy surveys and review of Nearmap aerial imagery, demand for these spaces typically comprises less than 4 vehicles, which could readily park in the existing spaces on the eastern side of Porter Road opposite the narrowing or along Small Road (which are typically vacant).

It is expected that the park would generally cater to local residents whom would walk to and from the area, however the existing availability of car parking in the locality (including the retention of approximately 2 spaces adjacent to the subject site frontage on the southern side of Small Road) would readily cater to any visitors who drove to the park.

No parking will be removed along residential frontages.

It is recommended that the retained parking space in front of No. 13 Porter Road provides a minimum length of 6.6m from the vehicle crossing to ensure access for this property is not unduly impacted.

TRAFFIC IMPACT

Traffic conditions along Porter Road would remain largely as per existing conditions.

Whilst vehicular traffic would not be able to pass if parking along the eastern side of Porter Road adjacent to the park was occupied, vehicles would readily be able to utilise gaps in on-street car parking adjacent to crossovers to allow each other to pass.

Traffic speeds along Porter Road and at the Porter Road / Small Road intersection are envisaged to be slightly reduced due to edge friction as a result of the carriageway narrowing. This reduction in traffic speed is appropriate given the adjacent use as a park/open space and will have a negligible impact on travel time for through traffic.

CONCLUSION

Based on the above considerations, there are no foreseeable parking or traffic impacts as a result of the proposed carriageway narrowing associated with the proposal.

Should you have any queries, please do not hesitate to contact me on 0409 969 853.

Yours sincerely

O'BRIEN TRAFFIC

A handwritten signature in black ink, appearing to read 'M. Harridge'.

Matt Harridge
Director

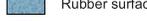
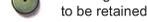
OPEN SPACE CONCEPT PLAN

Overall Design Intent

Porter Road Park will become a key community meeting place with a combination of social spaces and a range of informal recreational facilities to encourage exercise. This design expands the park out into parts of the road reserves to increase its size by utilising the parallel parking space. The footpath will be widened where it is directly adjacent to the road to provide direct north south connectivity along Porter Road.

The open grassed area in the north is large enough for informal ball games while south of the path a range of unstructured recreational facilities that suit all ages are proposed. This includes fitness equipment, outdoor table tennis and a large birds nest swing. A range of seating including overlooking the grassed area, some that are adjacent to the footpaths and others near the recreational facilities will encourage people to rest, relax and socialise. A shelter with two picnic tables encourage social activities in the park. Low grass mounds are proposed adjacent to the recreational facilities to provide informal seating facing north. The design incorporates the existing trees that Council has identified are safe to retain and proposes additional trees to provide excellent shade and canopy cover, while retaining the open grassed area for informal games. Garden beds will contribute to the greening and the landscape character of the park. Dense screen perimeter planting to the adjoining properties will retain privacy and strengthen the greening of the new open space. Proposed planting will be predominantly native and indigenous as per the attached planting palette. This is to recognise and celebrate the changing of this site back to public land and reference some of its original character before settlement.

Drawing key

 Mown grass	 Proposed trees
 Garden bed	 Grass mound
 Concrete path	 Picnic table
 Rubber surface	 Seats
 Existing trees to be retained	



10 Screen planting between adjoining residential and the park

Minor realignment of intersection to transition back to parallel parking north of Small Road. Space to plant an additional street tree in the outstand



1 Widen 2.5m footpath to the perimeter of the open space to maximise the use of the open grassed area, utilising the parallel parking area



2 30x20m open grassed area for informal games framed by shade trees



3 Shaded seats to relax and unwind with garden bed.



4 Picnic tables and shelter overlooking open grassed area and playspace



5 Bird Nest Swing



6 Bench seat adjoining garden bed planting overlooking swings and fitness equipment



7 Fitness equipment to encourage informal active use of open space by a diversity of age groups



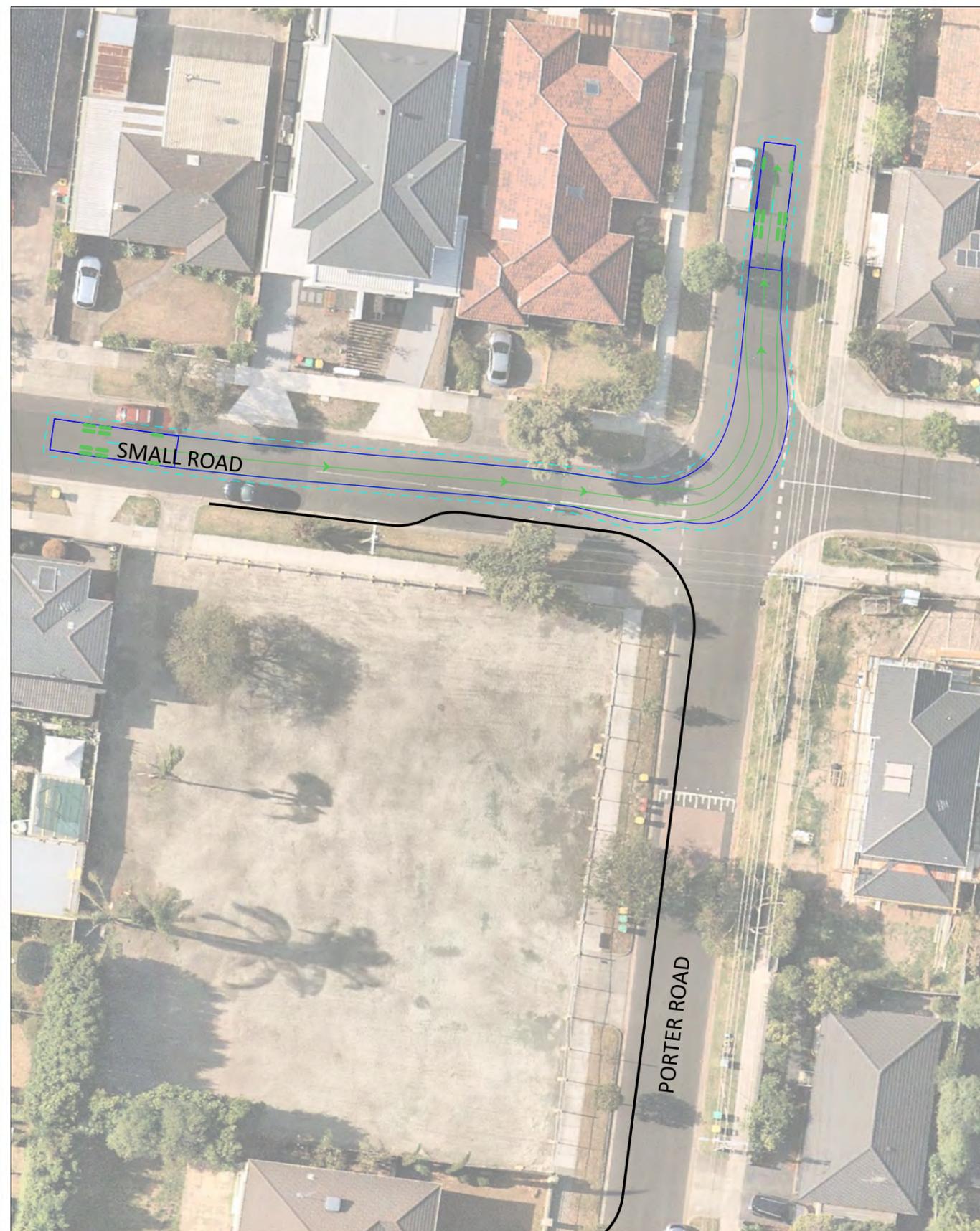
8 Outdoor table tennis with seating



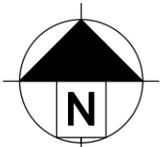
9 Low grassed mounds for informal seating overlooking the fitness and swing area



SWEPT PATH ANALYSIS



NOT FOR CONSTRUCTION



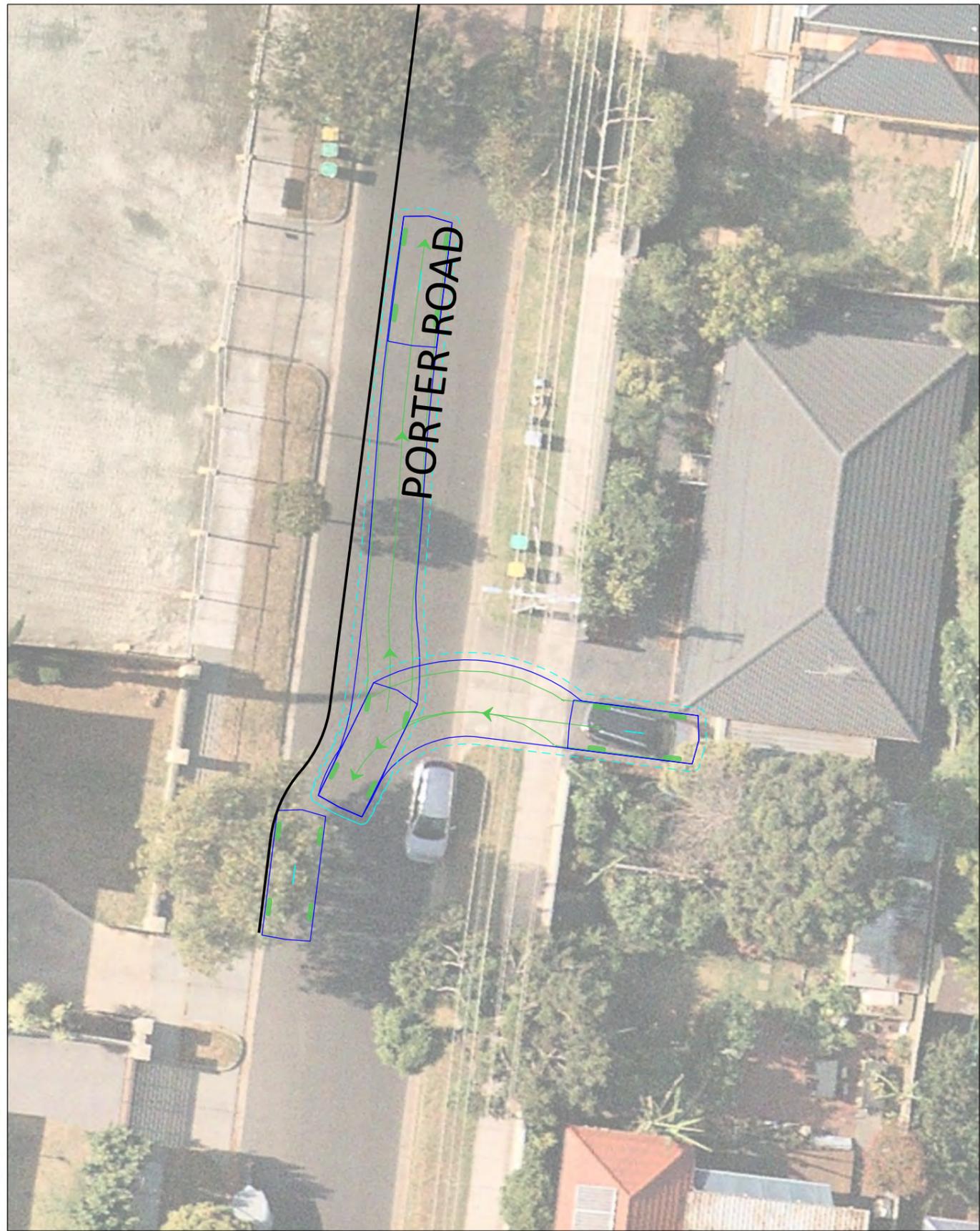
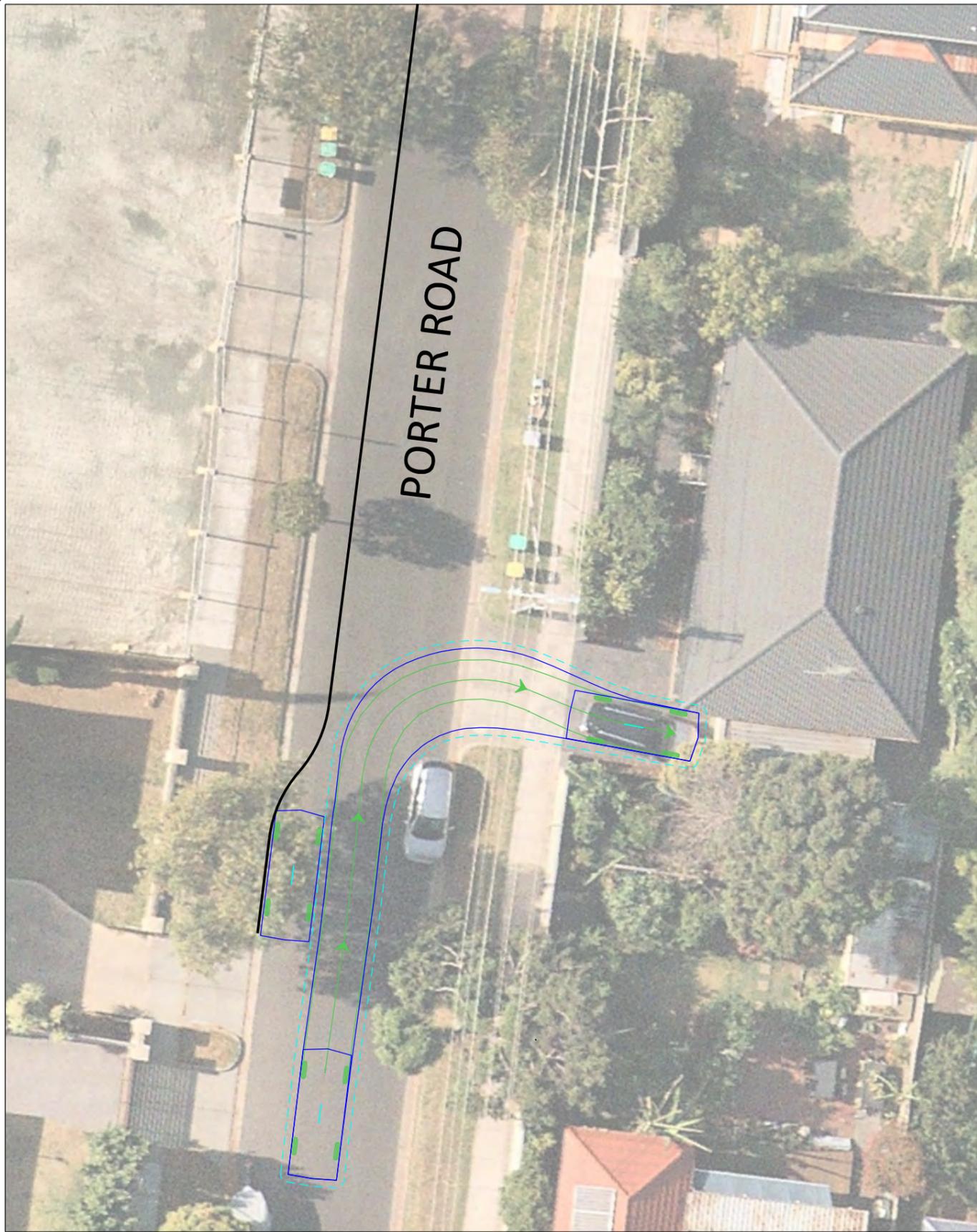
**10m Garbage Truck
ENTRY/EXIT**
 PORTER ROAD OPEN SPACE, BENTLEIGH
 1:400 @ A3 14/03/2023
 DWG NO: 23881001

KEY

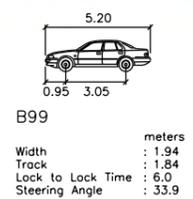
	CENTRE LINE OF FRONT WHEELS
	WHEEL PATH
	VEHICLE BODY
	VEHICLE CLEARANCE LINE (500mm FROM VEHICLE BODY)

• Traffic Planning • Transport Planning
 • Traffic Engineering • Road Safety

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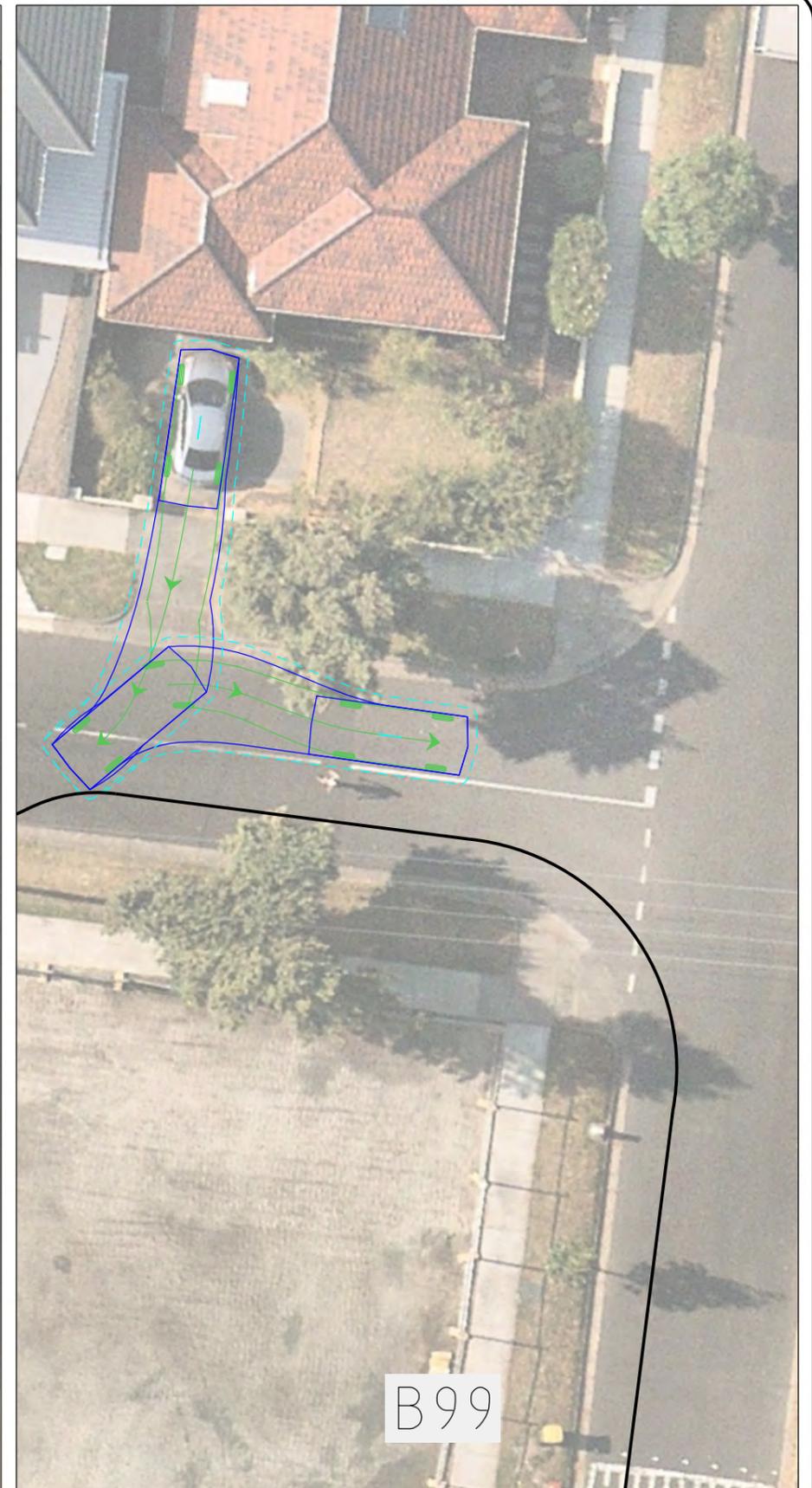
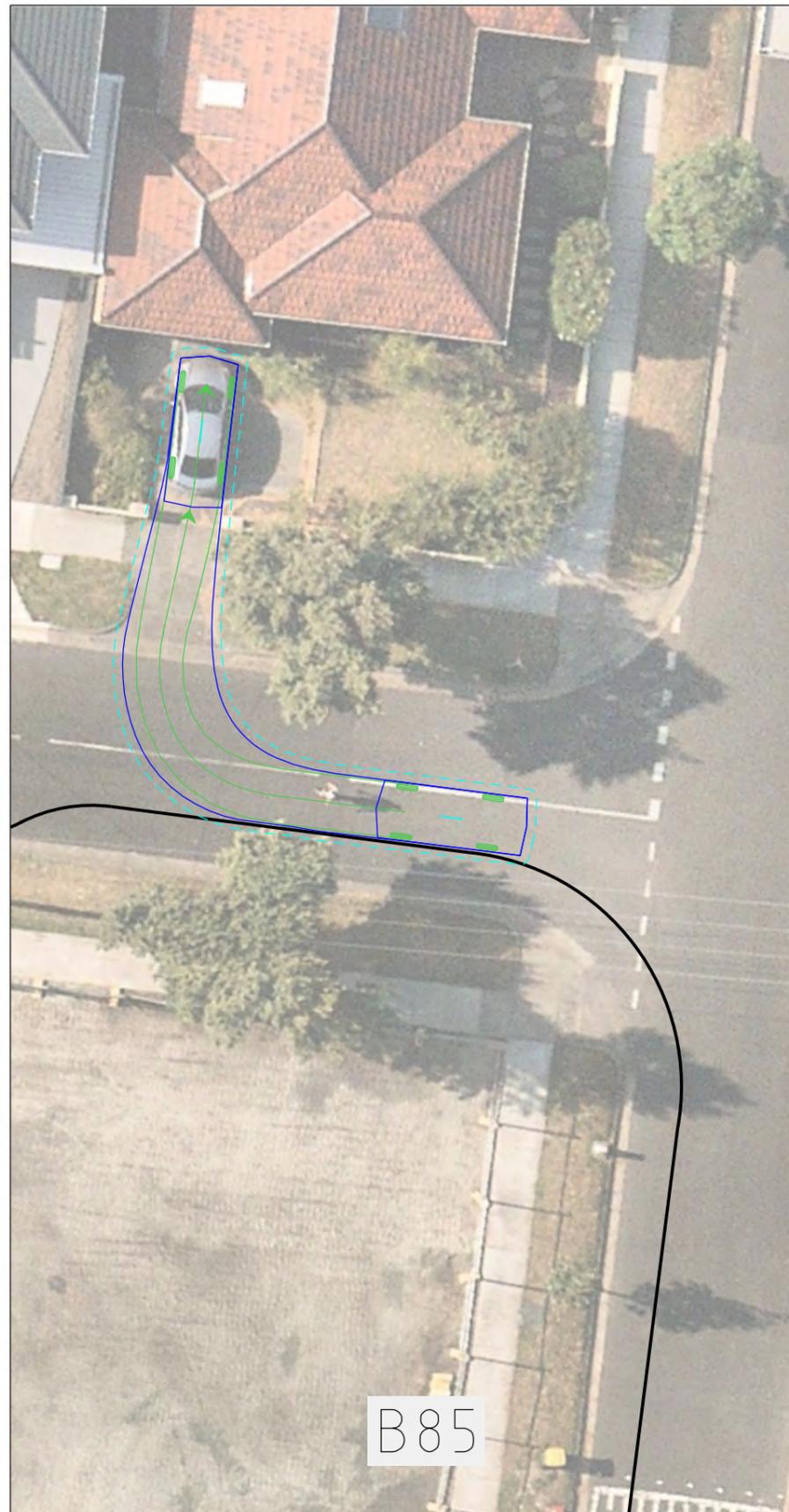
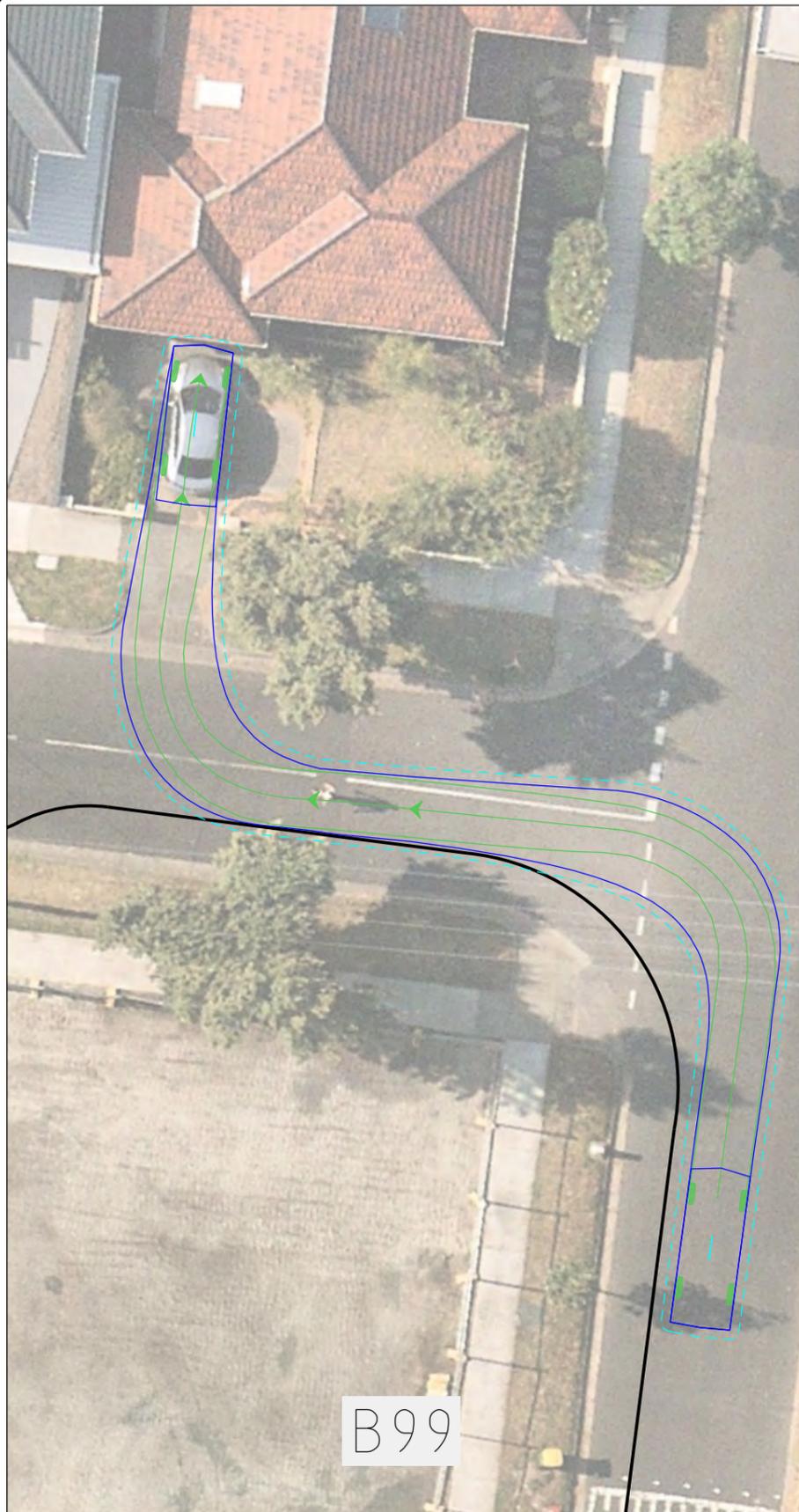


B99
ENTRY/EXIT
PORTER ROAD OPEN SPACE, BENTLEIGH
1:200 @ A3 14/03/2023
DWG NO: 23881001

KEY	
	CENTRE LINE OF FRONT WHEELS
	WHEEL PATH
	VEHICLE BODY
	VEHICLE CLEARANCE LINE (300mm FROM VEHICLE BODY)

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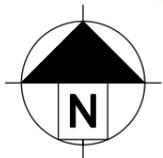


B99

B85

B99

NOT FOR CONSTRUCTION



	B99		B85	
Width	1.94	3.05	1.87	2.80
Track	1.84		1.77	
Lock to Lock Time	6.0		6.0	
Steering Angle	33.9		34.1	

**B99/B85
ENTRY/EXIT**
PORTER ROAD OPEN SPACE, BENTLEIGH
1:200 @ A3 14/03/2023
DWG NO: 23881001

KEY	
	CENTRE LINE OF FRONT WHEELS
	WHEEL PATH
	VEHICLE BODY
	VEHICLE CLEARANCE LINE (300mm FROM VEHICLE BODY)

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