Proposed Seniors Housing Development

15-17 Cecily Street, Belfield

TRAFFIC AND PARKING ASSESSMENT REPORT

4 July 2022

Ref 21252

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089, Ph: 9904 3224

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1. INTRODUCTION

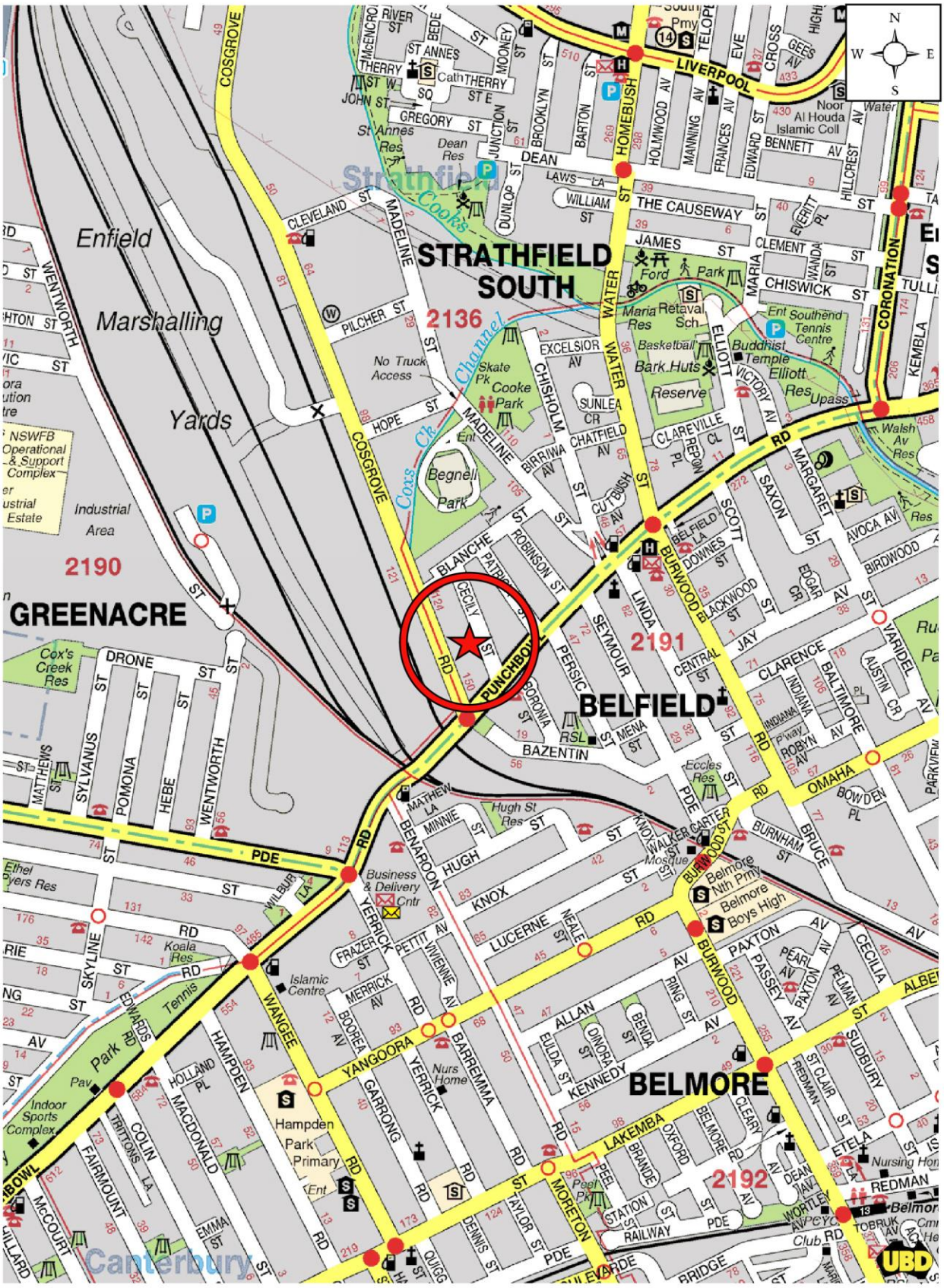
This report has been prepared on behalf of *Land & Housing Corporation* (LAHC) to accompany a development application for a *seniors housing* development proposal to be located at 15-17 Cecily Street, Belfield (Figures 1 and 2).

The proposed development involves the demolition of the existing structures on the site to facilitate the construction of a residential flat building comprised of seniors Independent Living Units (ILUs).

Off-street parking is to be provided in an at-grade, open-air car parking area at the rear of the site, with vehicular access to be provided via a driveway off Cecily Street.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.



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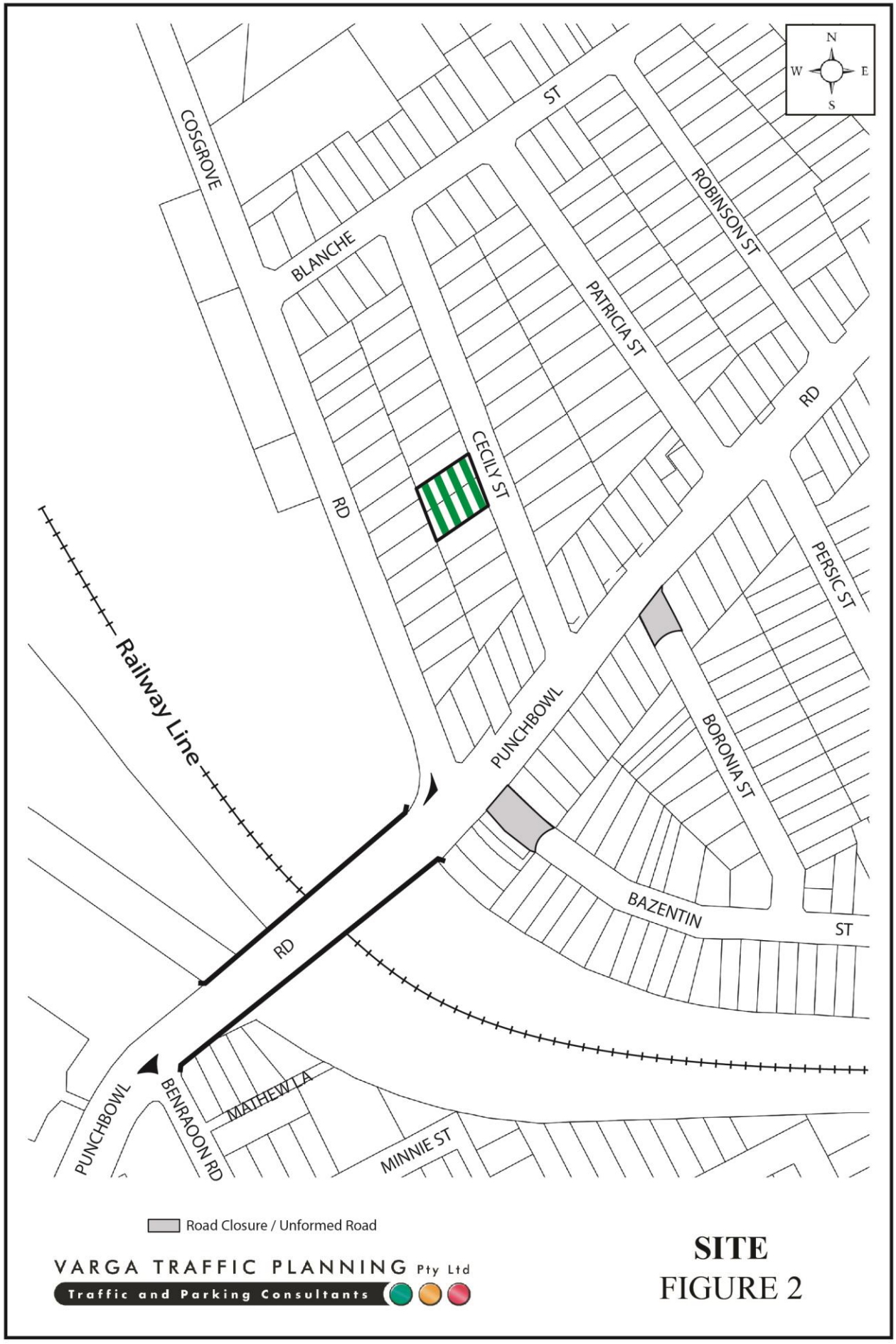
LOCATION
FIGURE 1


N
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E
S
COSGROVE
ST
BLANCHE
ROBINSON ST
PATRICIA ST
RD
CECILY ST
RD
PERSIC ST
Railway Line
PUNCHBOWL
BORONIA ST
BAZENTIN
ST
RD
PUNCHBOWL
BENRAOON RD
MATHEW LA
MINNIE ST
Road Closure / Unformed Road
VARGA TRAFFIC PLANNING Pty Ltd
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SITE
FIGURE 2

2. PROPOSED DEVELOPMENT

Site

The subject site is located on the western side of Cecily Street, approximately 120 metres north of Punchbowl Road. The site has street frontages approximately 34.5 metres, and occupies an area of approximately 1,348.1m^2.

The subject is currently occupied by 2 residential dwellings, each with a separate vehicular entry / exit driveway off Cecily Street.

A recent aerial image of the site and the surrounding area is reproduced below.

Source: NSW Government Spatial Services, SIX Maps

Proposed Development

The proposed development involves the demolition of the existing structures on the site to facilitate the construction of 8 seniors housing units as follows:

1 bedroom seniors housing units:	4 units
2 bedroom seniors housing units:	4 units
TOTAL:	**8 units**

Off-street parking is proposed for a total of 4 cars with vehicular access to the car parking facilities is to be provided via a new combined entry / exit driveway located at the northern end of the Cecily Street site frontage.

Plans of the proposed development have been prepared by *DKT Studio* and are reproduced in the following pages.


SITE FLOOR PLAN
SCALE 1:100
CECILY STREET
DRIVEWAY
NO. 13 BRICK HOUSE
NO. 19 BRICK HOUSE
UNIT 1&5
UNIT 2&6
UNIT 3&7
UNIT 4&8
CAR PARKING
DEEP SOIL
STAIR
LIFT
POS
T1
T2
T3
T4
T5
T6
SENIORS LIVING
at 15-17 Cecily Street, Bellfield
LOTS 17 & 18 DP 35173
PART 5 ACTIVITY SUBMISSION
SITE FLOOR PLAN
Planning & Environment

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Punchbowl Road is classified by the RMS as a *State Road* and provides the key east-west road link in the area, connecting Croydon Park and Punchbowl. It typically carries two traffic lanes in each direction in the vicinity of the site. Clearway restrictions apply on both sides of the road during commuter peak periods.

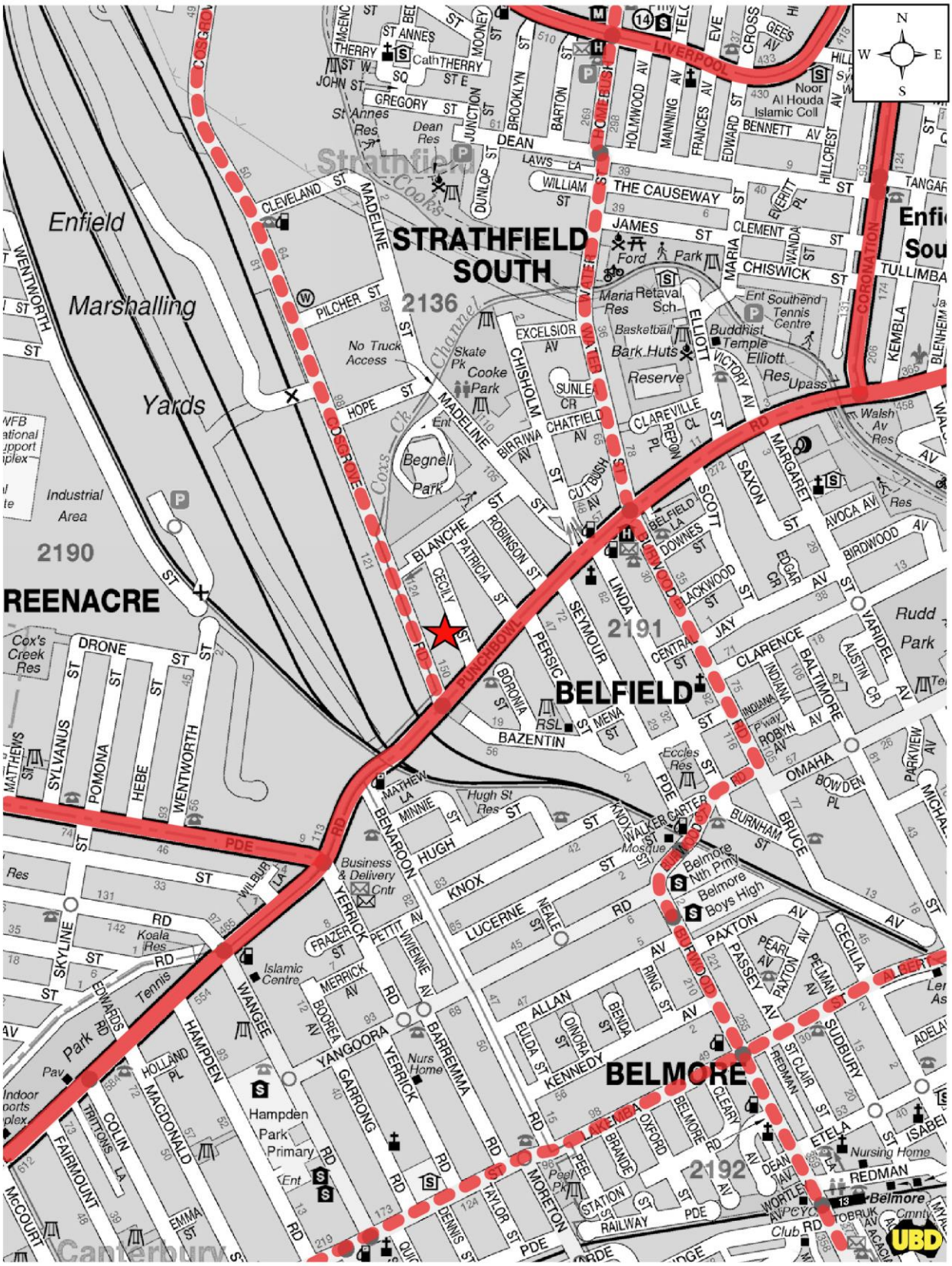
Cosgrove Road is classified by the RMS as a *Regional Road* and provides the key north-south road link in the area, connecting South Strathfield and Belfield. It typically carries one traffic lane in each direction in the vicinity of the site. Kerbside parking is generally permitted on both sides of the road.

Cecily Street is a local, unclassified road which is primarily used to provided vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 60km/h SPEED LIMIT which applies to Punchbowl Road
- a 50 km/h SPEED LIMIT which applies to Cecily Street and all other local roads in the area
- TRAFFIC SIGNALS in Punchbowl Road where it intersects with Cosgrove Road
- a LEFT-TURN ONLY restriction in Cecily Street onto Punchbowl Road.



Key: State Road

Regional Road

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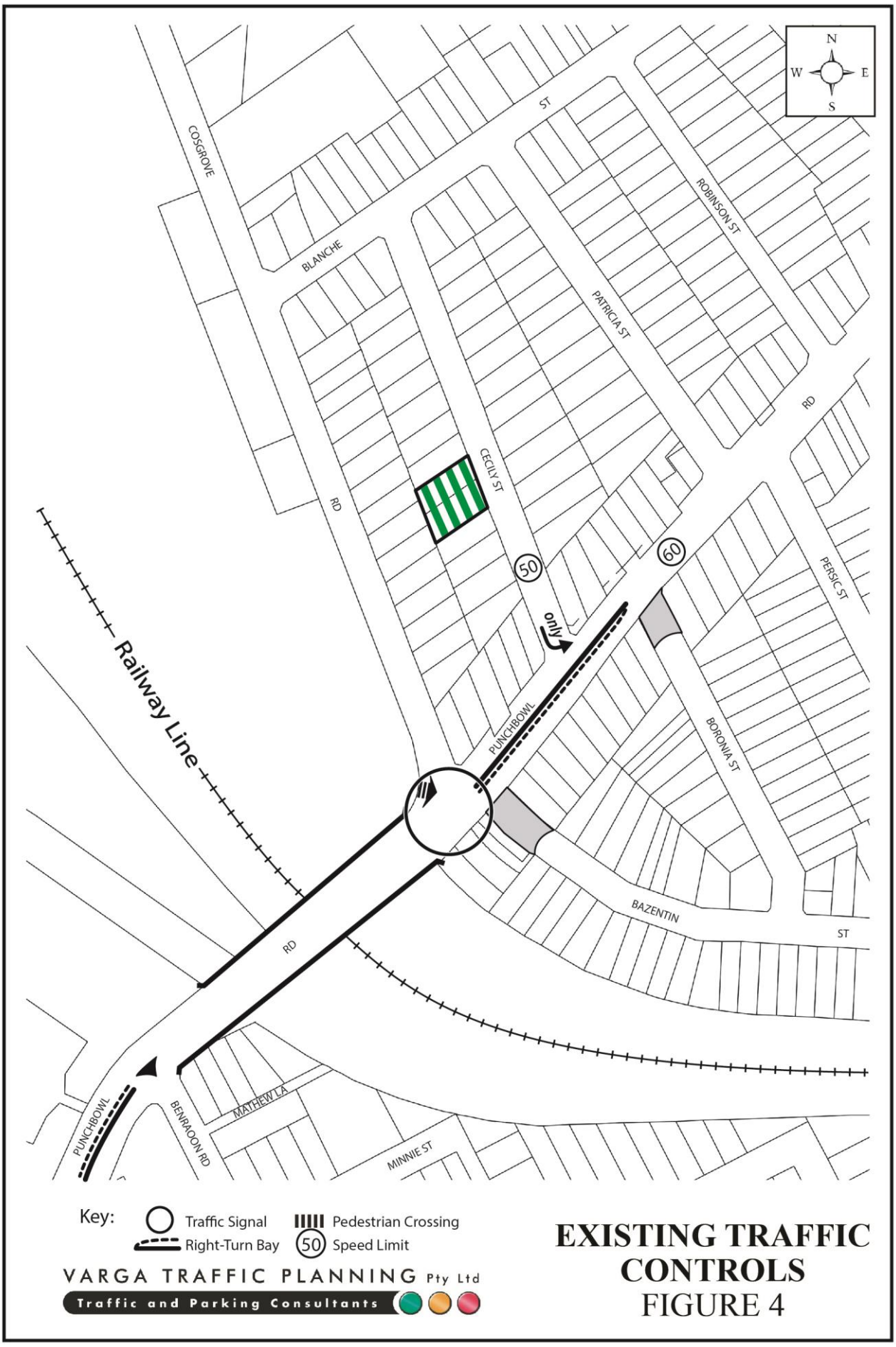
ROAD HIERARCHY

FIGURE 3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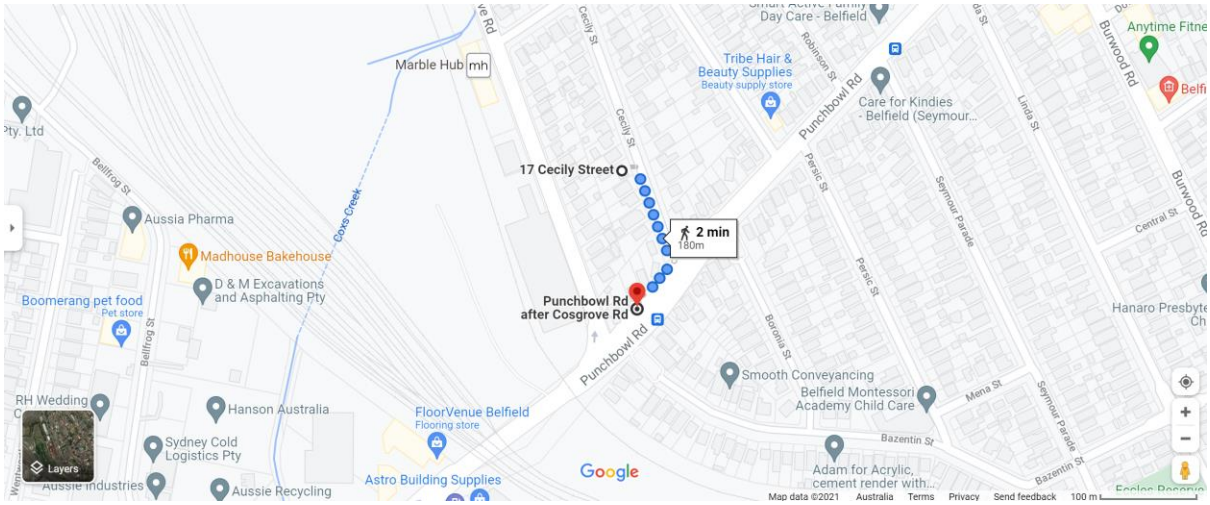
BLANCHE
ROBINSON ST
PATRICIA ST
RD
CECILY ST
RD
50
60
PERSIC ST
only
Railway Line
PUNCHBOWL
BORONIA ST
BAZENTIN
ST
RD
PUNCHBOWL
BENRAOON RD
MATHEW LA
MINNIE ST
Key:
Traffic Signal
Pedestrian Crossing
Right-Turn Bay
50 Speed Limit
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING TRAFFIC CONTROLS
FIGURE 4

Existing Public Transport Services

The subject site is located within a convenient walking distance of approximately 270 metres to bi-directional bus stops (Stop ID: 219129 and 219128) on Punchbowl Road when measured along a longitudinal service, providing access to bus route 450.



Source: Google Maps

The service frequency of bus route 450 is summarised below:

Monday to Friday			
Route	**First Service**	**Last Service**	**Frequency**
450	5:56am	11:16am	30-60 minutes
Saturday			
Route	**First Service**	**Last Service**	**Frequency**
450	6:26am	11:16pm	30-60 minutes
Sunday			
Route	**First Service**	**Last Service**	**Frequency**
908	7:39am	8:15pm	60 minutes

Accordingly, bus route 450 has *at least* one bus service between 8am and 12pm, and one bus service between 12pm and 6pm each day from Monday to Friday (both days inclusive) providing access to key centres including Westfield Hurstville, Roselands Shopping Centre and Strathfield Town Centre with full range of essential services, shops and facilities.

The site is therefore considered to be highly accessible to essential services and public transport options and is located within an *accessible area* as defined by the *SEPP (Housing) 2021*.

Projected Traffic Generation

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network during the morning and afternoon commuter peak periods.

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services' publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the recently published RMS *Technical Direction (TDT 2013/04a)* document.

The *Technical Direction* document specifies that it replaces those sections of the RMS *Guidelines* indicated and must be followed when RMS is undertaken trip generation and/or parking demand assessments.

The RMS *Guidelines* and the *Technical Direction* are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the development proposal:

> **Housing for Seniors**
> 0.4 peak hour vehicle trips per dwelling*
> **Note that morning site peak hour does not generally coincide with the network peak hour*.

Application of the above traffic generation rate to the 8 seniors housing units outlined in the development proposal yields a traffic generation potential of approximately 3 vehicle trips per hour (vph) during the PM peak hour.

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by

the existing uses of the site, in order to determine the *nett increase* in traffic generation potential of the site.

The *Technical Direction* nominates the following traffic generation rates which are applicable to the existing residential dwellings on the site:

Low Density Residential Dwellings

AM: 0.95 peak hour vehicle trips per dwelling

PM: 0.99 peak hour vehicle trips per dwelling

Application of the above traffic generation rates to the 2 existing dwellings on the site yields a traffic generation potential of approximately 2 vph during both the AM and PM peak hour.

Accordingly, it is likely that the proposed development will result in a *nett reduction* the traffic generation potential of the site of 2 vph in the AM peak hour, and a *nett increase* in the traffic generation potential of the site of 1 vph in the PM peak hour, as set out below:

Projected Nett Change in Peak Hour Traffic Generation Potential of the site as a consequence of the development proposal

	AM	**PM**
Projected Future Traffic Generation Potential:	0.0 vph	3.2 vph
Less Existing Traffic Generation Potential:	-1.9 vph	-2.0 vph
NETT CHANGE IN TRAFFIC GENERATION POTENTIAL:	**-1.9 vph**	**1.2 vph**

In any event, that projected traffic activity as a consequence of the development proposal is *negligible*, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

Unrestricted kerbside parking is generally permitted on both sides of Cecily Street in the vicinity of the site, including along the site frontage.

Off-Street Parking Provisions

The proposed *seniors housing* development is undertaken by LAHC in accordance *with SEPP (Housing) 2021,* however the *SEPP* does not nominate an off-street parking requirement for LAHC seniors housing developments.

Where possible, LAHC seeks to provide parking in accordance with the accessible area rates for LAHC residential developments to ensure that the development minimises any parking impacts on nearby properties, and provides maximum amenity for residents. As a *guide* therefore, the following parking rates have been adopted in this instance.

> **Division 6 Residential Development – Land and Housing Corporation**
>
> **42 Development may be carried out without consent**
>
> (1) This Division applies to residential development if–
>
> (d) for development on land in an accessible area – the development will result in at least the following parking spaces–
>
> (i) for each dwelling containing 1 bedroom – 0.4 parking spaces
>
> (ii) for each dwelling containing 2 bedrooms – 0.5 parking spaces
>
> (iii) for each dwelling containing at least 3 bedrooms – 1 parking space

Application of the above car parking rates to the 8 *seniors housing units* outlined in the development proposal yields an off-street car parking requirement of 4 car spaces.

The proposed development makes provision for 4 car parking spaces, thereby satisfying the above requirements, noting that it is used as a *guide* only.

The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication

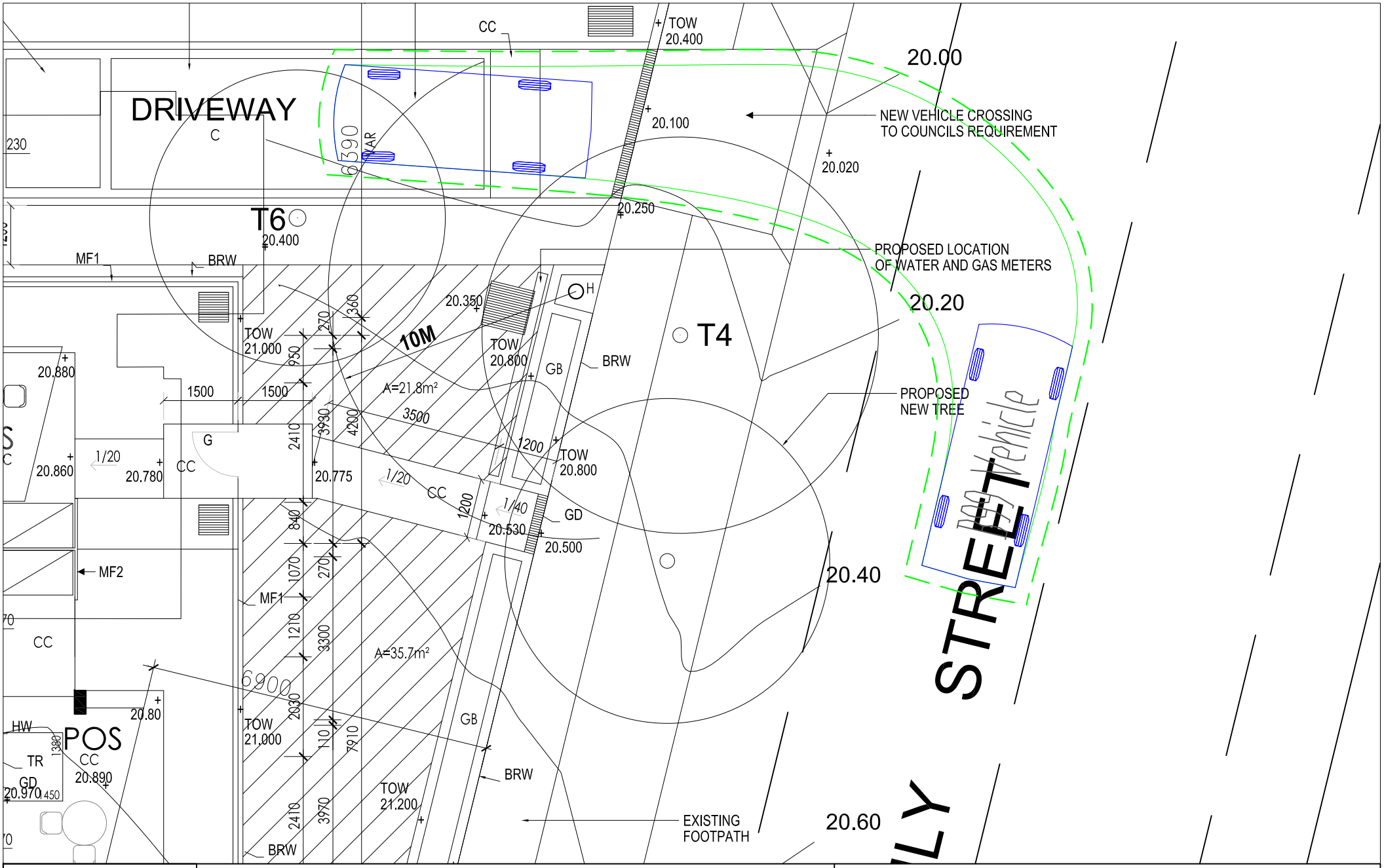
Parking Facilities Part 1 - Off-Street Car Parking AS2890.1 and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6* in respect of parking bay dimensions and manoeuvring requirements.

It is noted in this regard that *AS2890.1* specifies a peak hour threshold of 30 vph which would require the provision of a two-way passing bay on the driveway for the first 6m from the property boundary. In this instance however, the proposed development is expected to generate only 3.2 vph during peak periods, and a passing bay on the driveway is therefore not required.

A series of *swept turning path* diagrams have also been prepared to demonstrate a B85 design vehicle can satisfactorily enter and exit each car space, and are attached in the following pages.

Conclusion

In summary, the proposed parking facilities have been provided using the parking rates for LAHC residential developments in accessible areas as a *guide*, and the parking layout complies with the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.



VARGA TRAFFIC PLANNING Pty Ltd
ABN 88 071 762 537
Suite 6, Level 1
20 Young Street
Neutral Bay, NSW 2089

Phone +61 2 9904 3224
PO Box 1968
Neutral Bay, NSW 2089
www.vargatraffic.com.au
Sydney, Australia

PROJECT
SENIORS HOUSING DEVELOPMENT

N

DRAWING TITLE
B99 Vehicle Site Entry
Swept Turning Path

1:100 @ A4

ADDRESS
15-17 Cecily Street,
Belfield

PROJECT NO.
21252

DATE DRAWN
2022-7-1

REVIEWED
RV

PREPARED
TN

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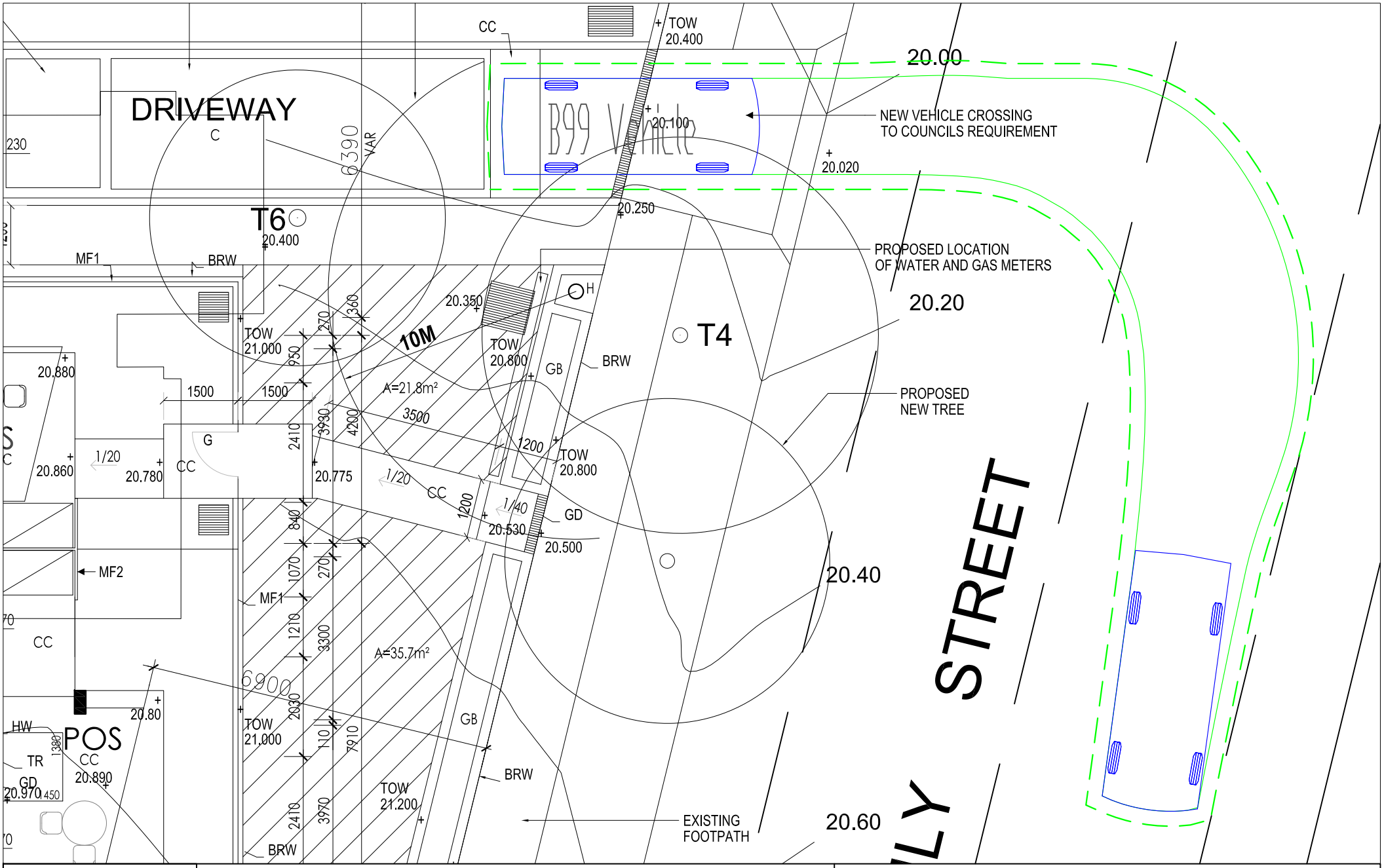

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ABN 86 071 762 537
Suite 6, Level 1
20 Young Street
Neutral Bay, NSW 2089

Phone +61 2 9904 3224
PO Box 1868
Neutral Bay, NSW 2089
www.vargatraffic.com.au
Sydney, Australia

PROJECT
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DRAWING TITLE
B99 Vehicle Site Exit
Swept Turning Path

1:100 @ A4

ADDRESS
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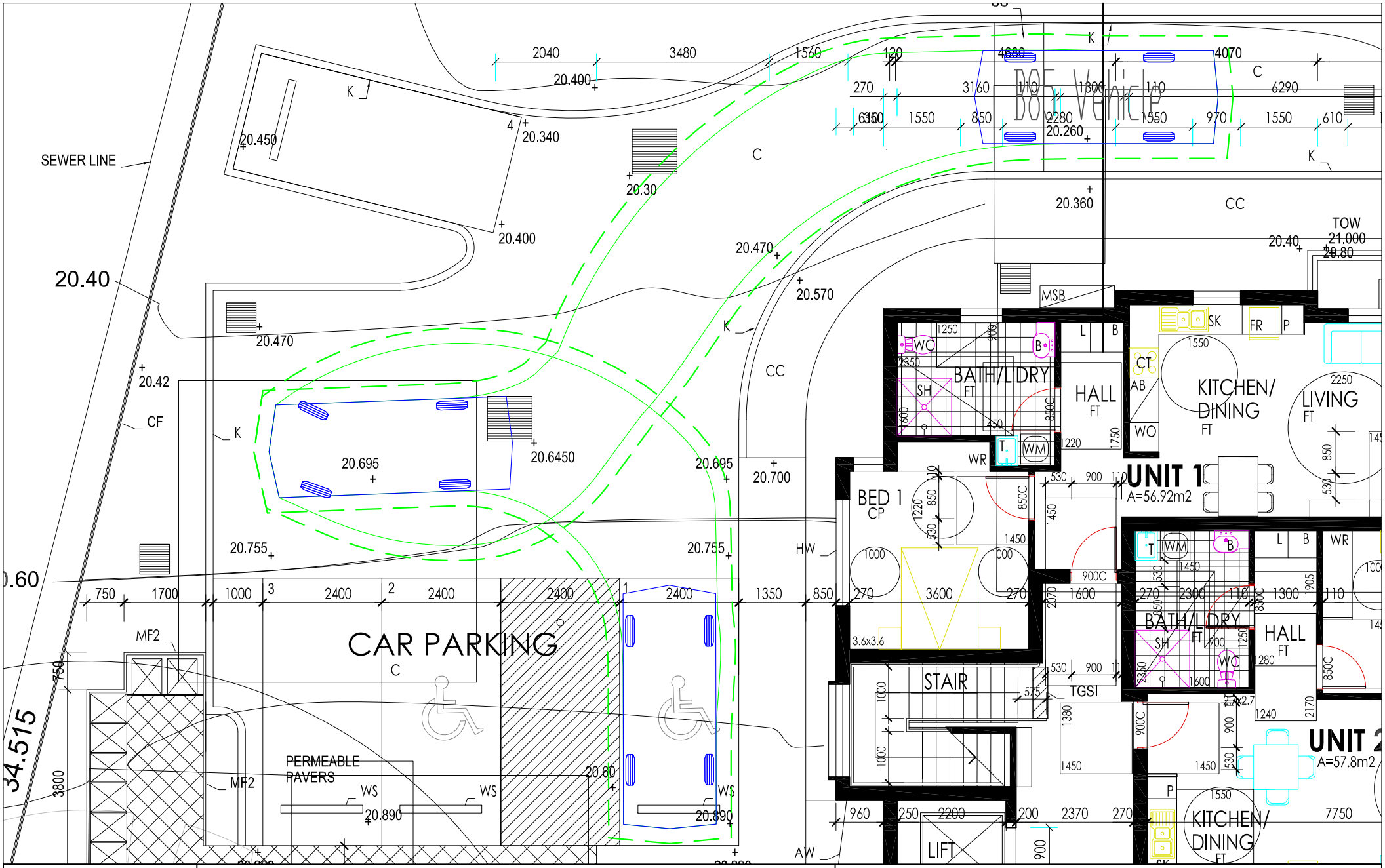

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Sydney, Australia

PROJECT
SENIORS HOUSING DEVELOPMENT

DRAWING TITLE
B85 Vehicle Space 1 Entry
Swept Turning Path

1:100 @ A4

ADDRESS
15-17 Cecily Street,
Belfield

PROJECT NO.
21252

DATE DRAWN
2022-7-1

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RV

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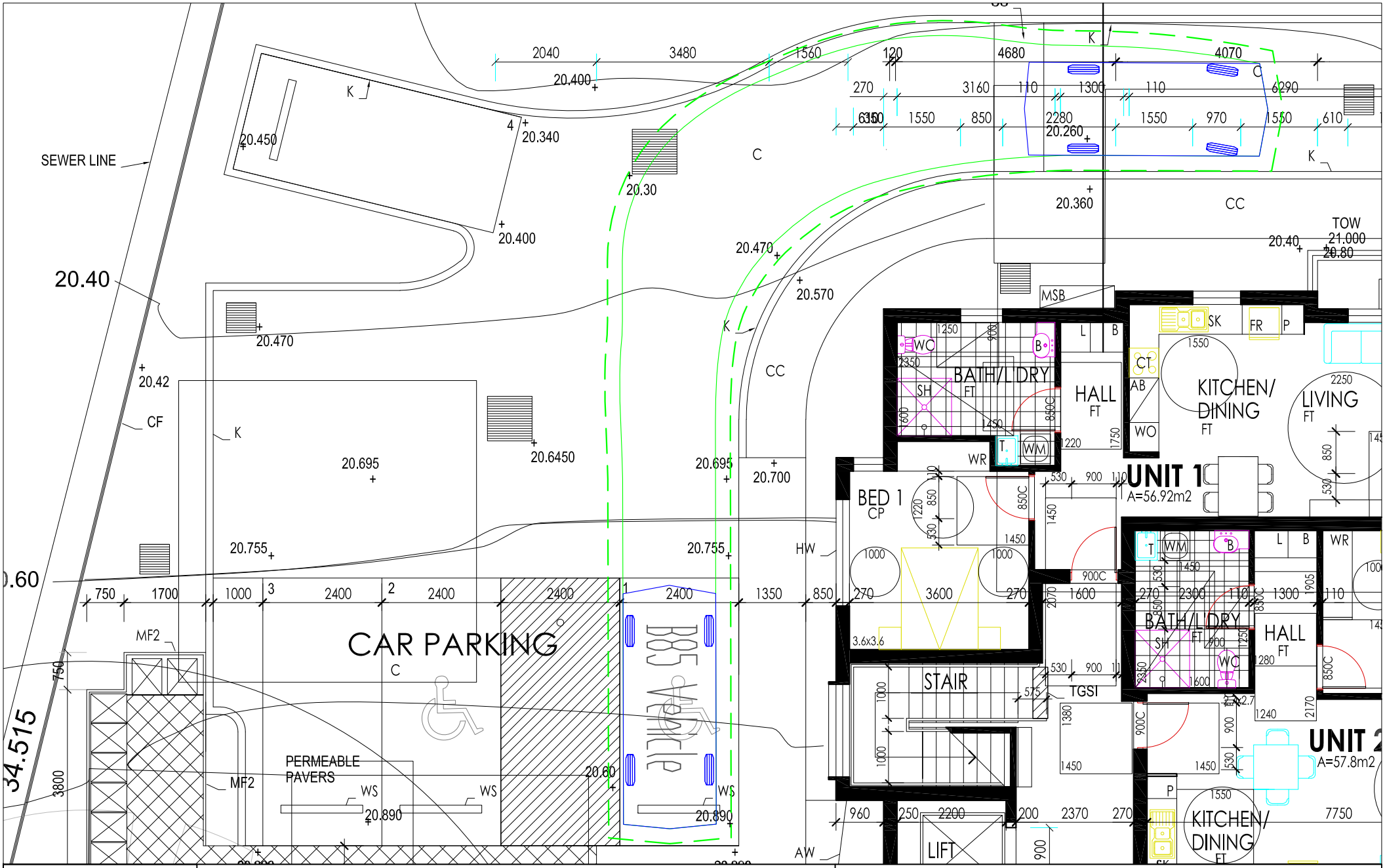

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ABN 88 071 762 537
Suite 6, Level 1
20 Young Street
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Sydney, Australia

PROJECT
SENIORS HOUSING DEVELOPMENT

DRAWING TITLE
B85 Vehicle Space 1 Exit
Swept Turning Path

1:100 @ A4

ADDRESS
15-17 Cecily Street,
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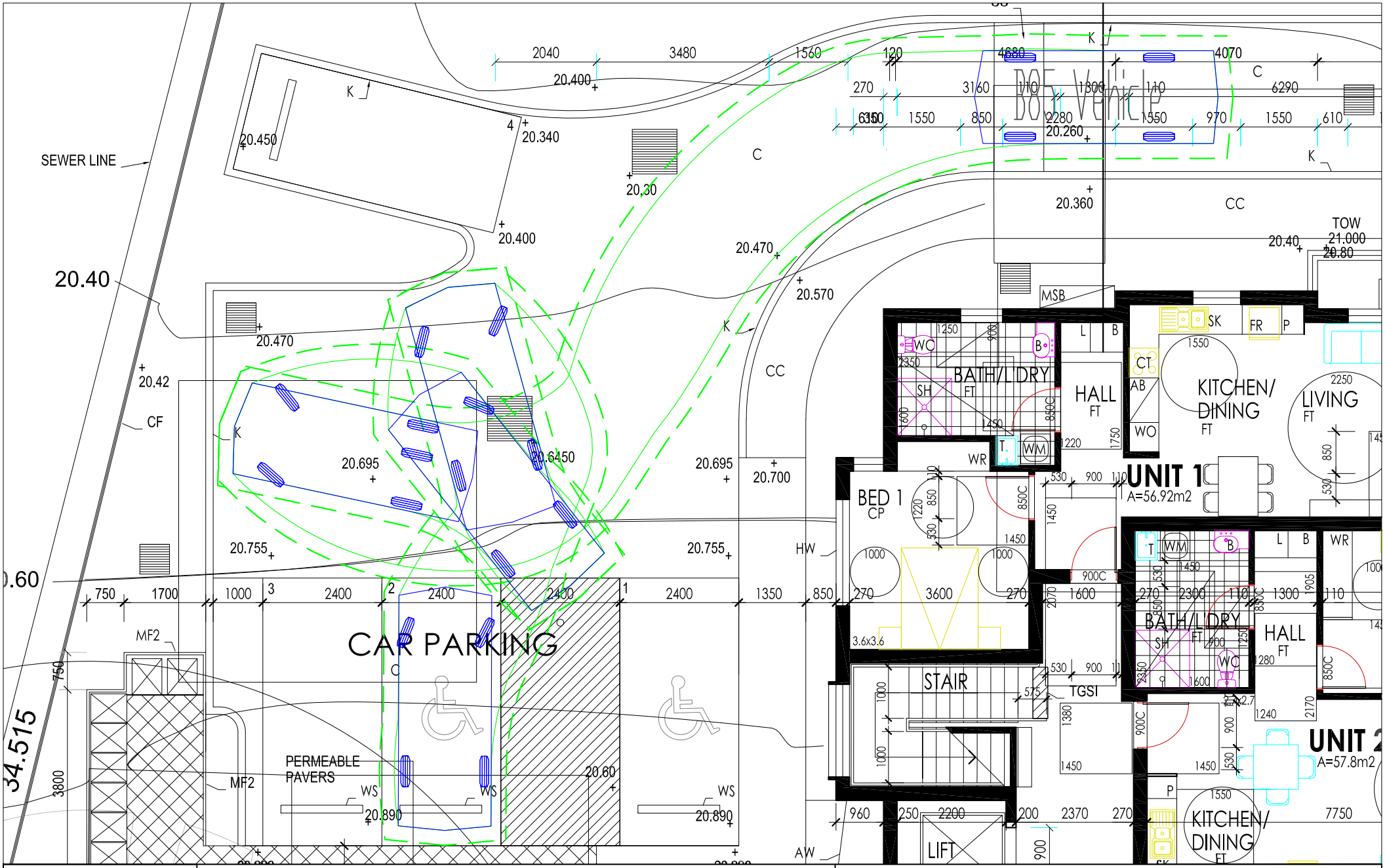

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PROJECT
SENIORS HOUSING DEVELOPMENT

DRAWING TITLE
B85 Vehicle Space 2 Entry
Swept Turning Path

1:100 @ A4

ADDRESS
15-17 Cecily Street,
Belfield

PROJECT NO.
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DATE DRAWN
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RV

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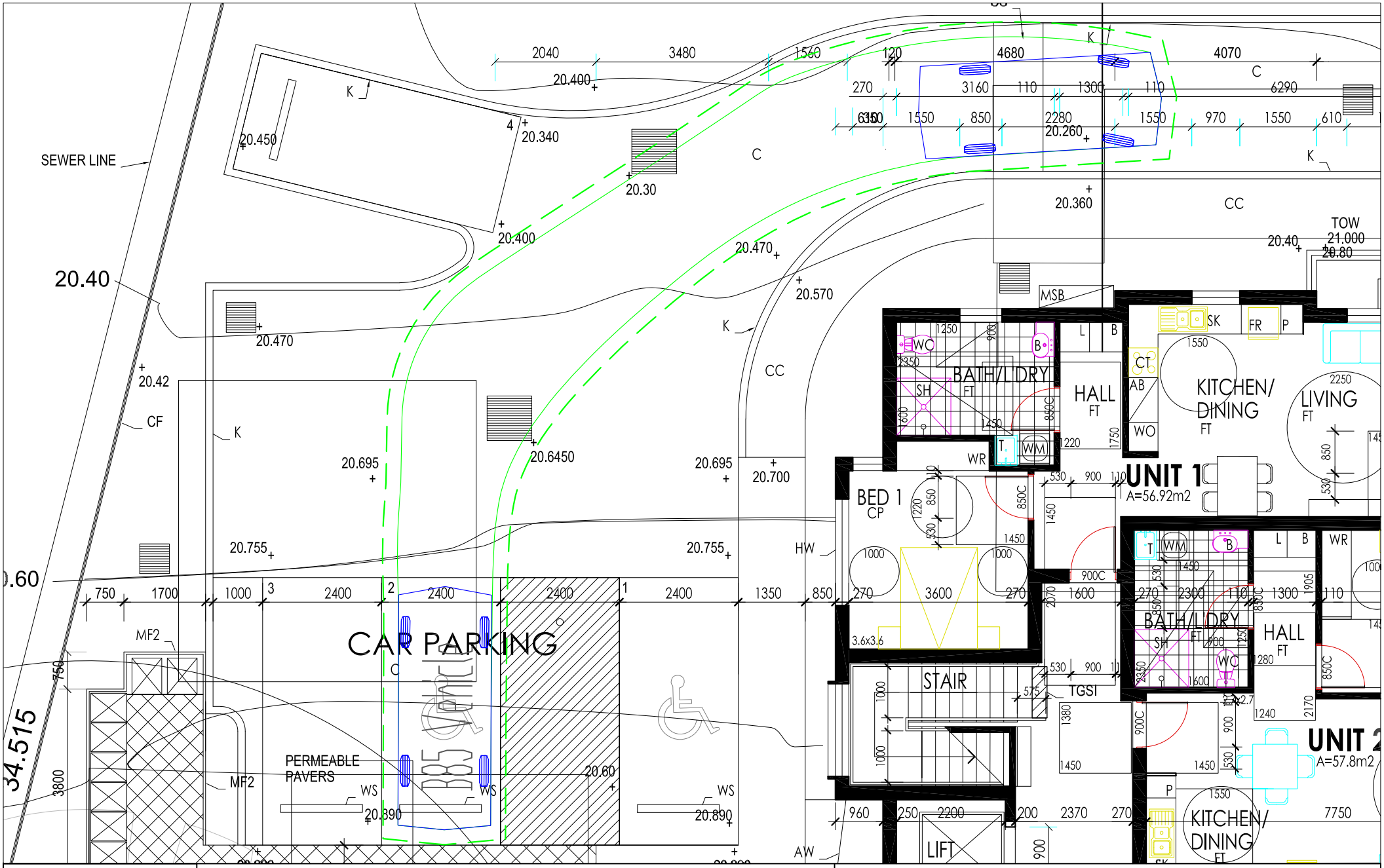

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PROJECT
SENIORS HOUSING DEVELOPMENT

DRAWING TITLE
B85 Vehicle Space 2 Exit
Swept Turning Path

ADDRESS
15-17 Cecily Street,
Belfield

PROJECT NO.
21252

REVIEWED
RV

1:100 @ A4

DATE DRAWN
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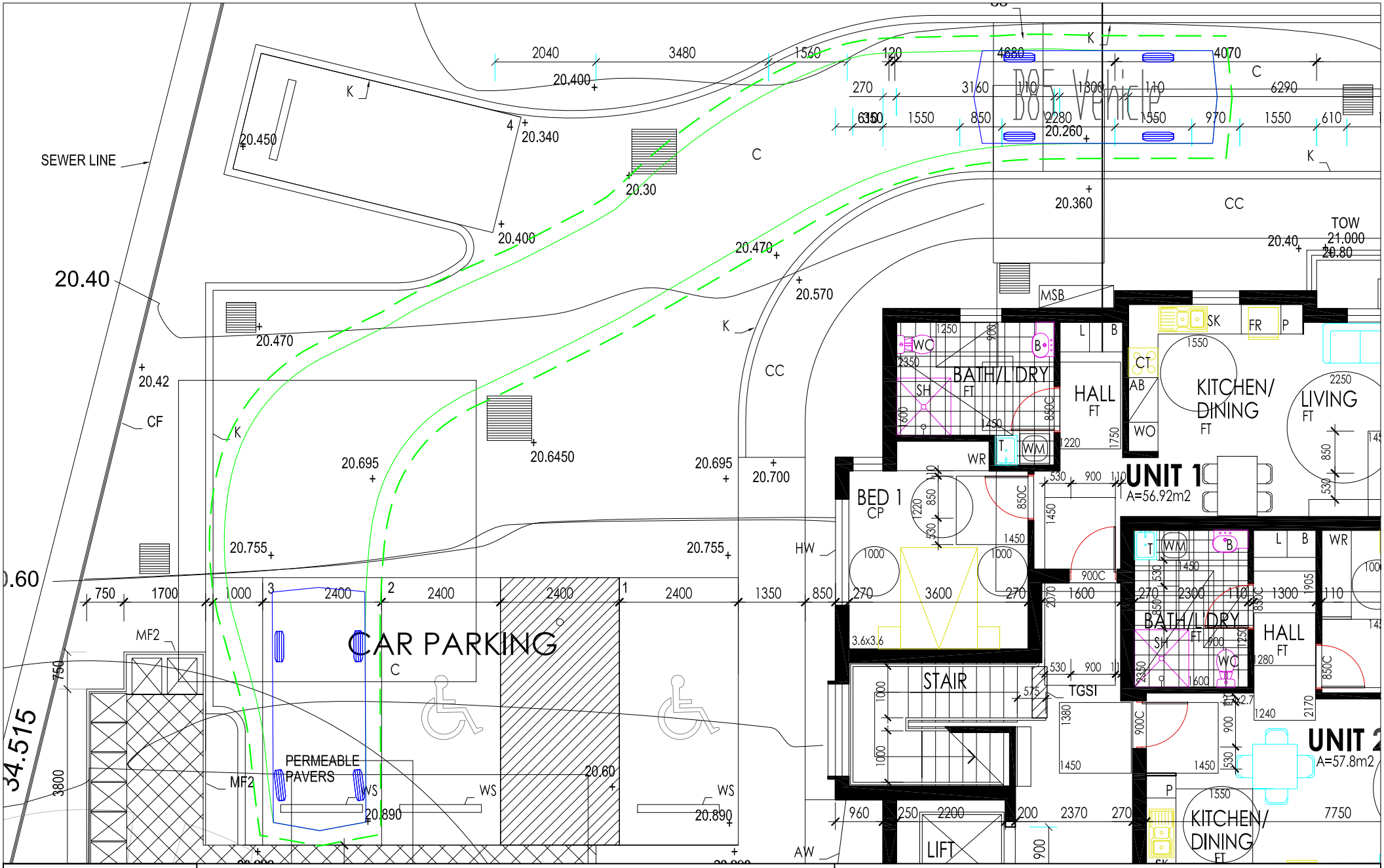

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PROJECT
SENIORS HOUSING DEVELOPMENT

N

DRAWING TITLE
B85 Vehicle Space 1 Entry
Swept Turning Path

1:100 @ A4

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15-17 Cecily Street,
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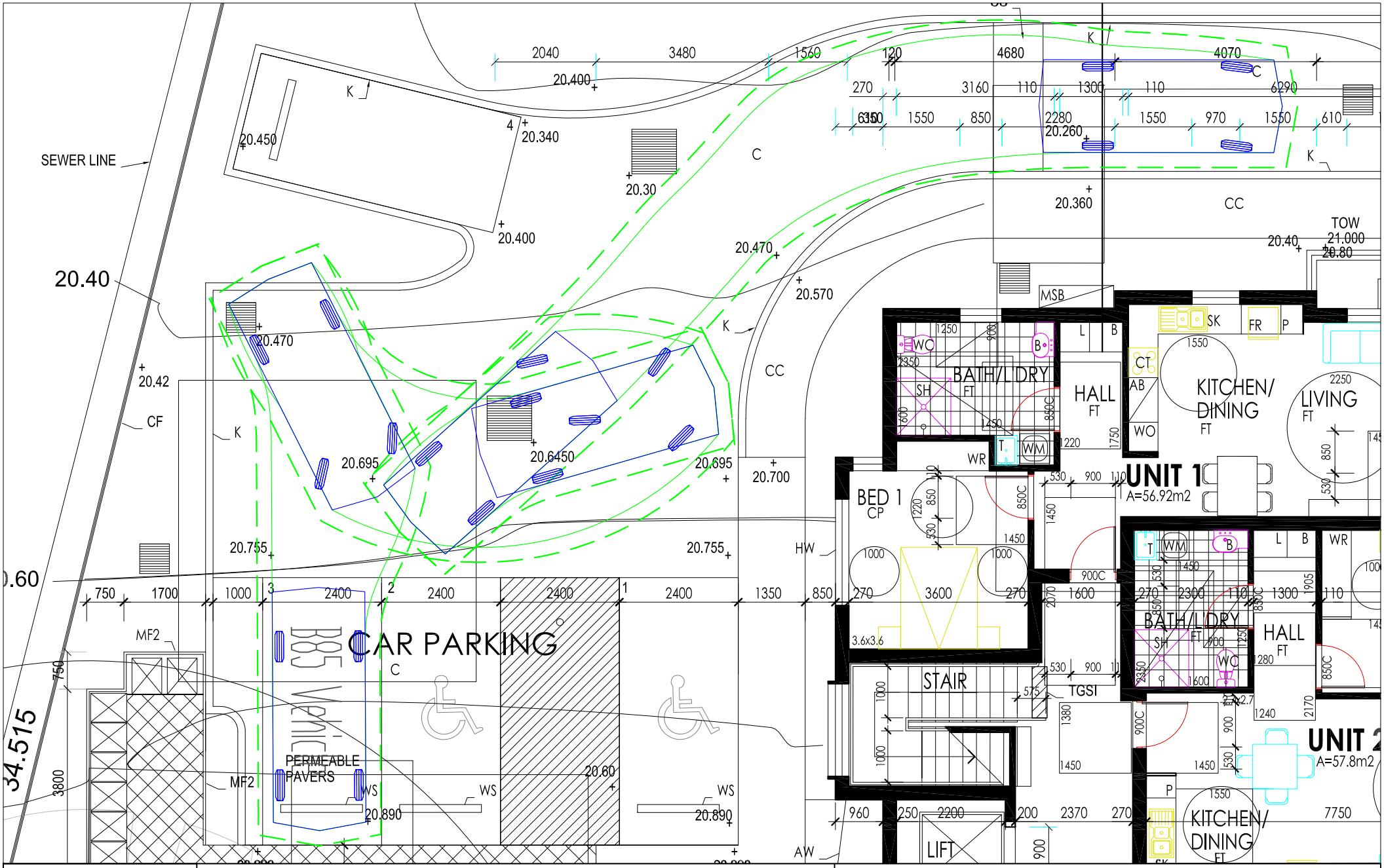

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PROJECT
SENIORS HOUSING DEVELOPMENT

N

DRAWING TITLE
B85 Vehicle Space 3 Exit
Swept Turning Path

1:100 @ A4

ADDRESS
15-17 Cecily Street,
Belfield

PROJECT NO.
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2022-7-1

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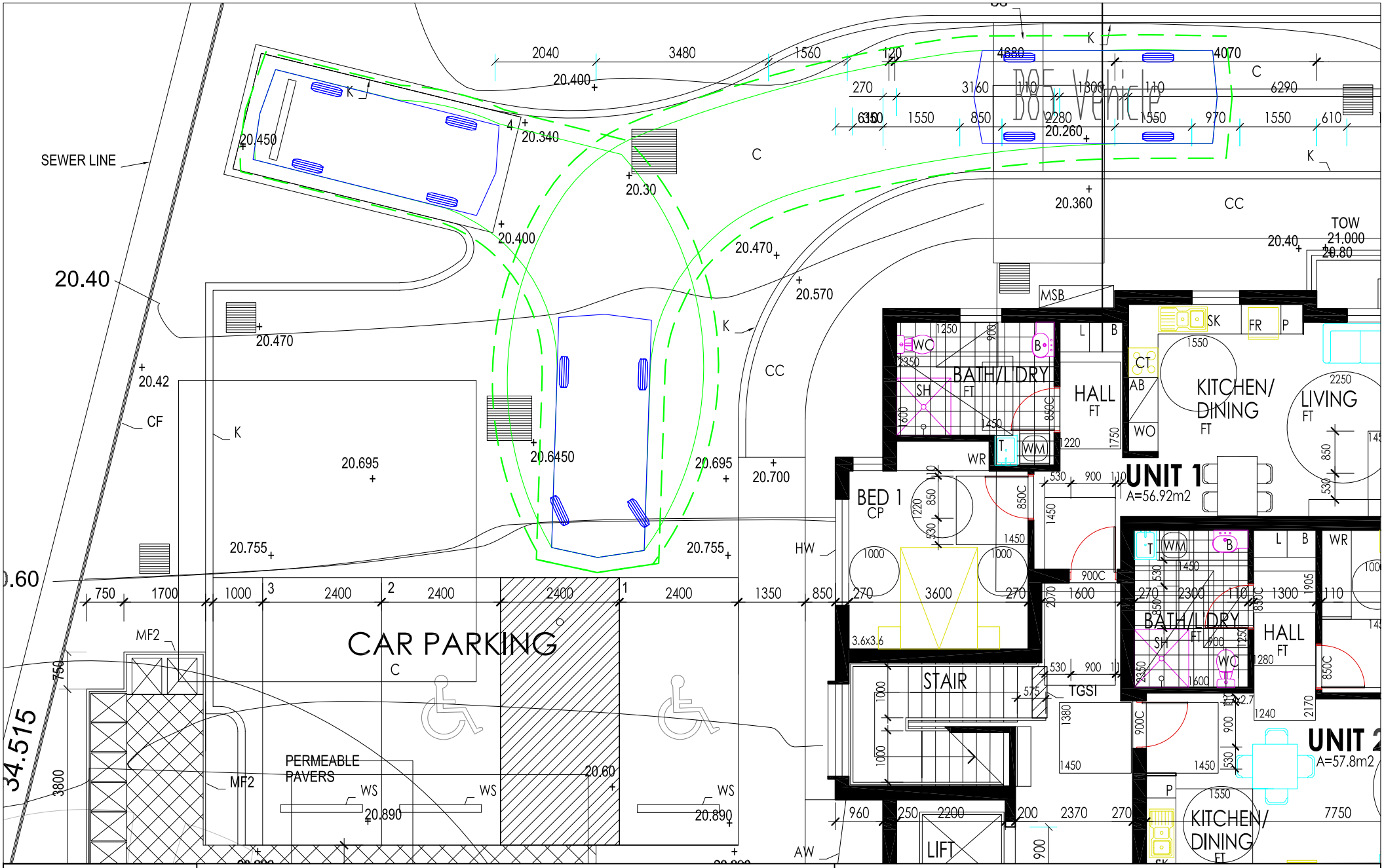

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DRAWING TITLE
B85 Vehicle Space 4 Entry
Swept Turning Path

1:100 @ A4

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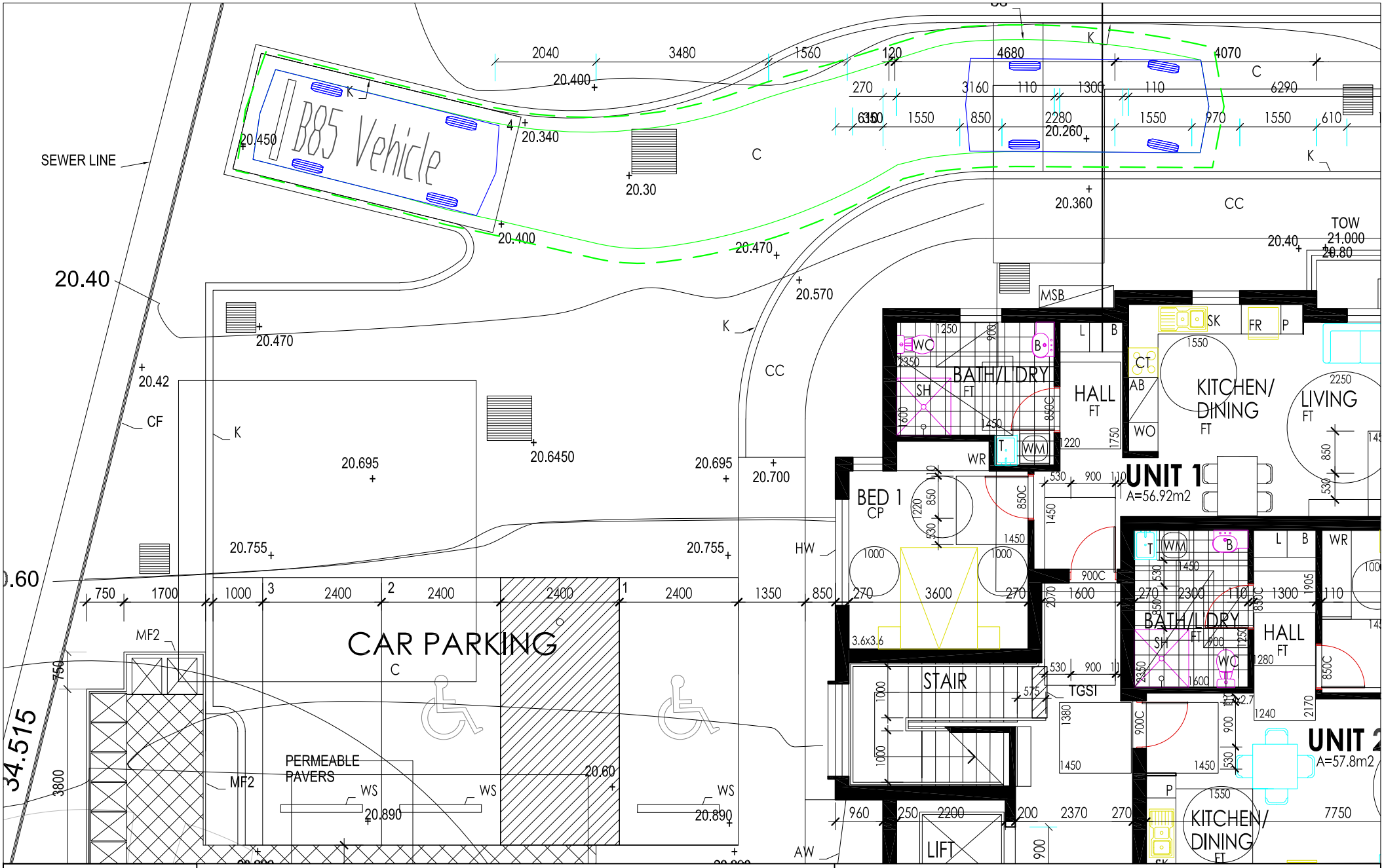

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PROJECT SENIORS HOUSING DEVELOPMENT	DRAWING TITLE B85 Vehicle Space 4 Exit Swept Turning Path	1:100 @ A4
	ADDRESS 15-17 Cecily Street, Belfield	PROJECT NO. 21252
	REVIEWED RV	DATE DRAWN 2022-7-1
	PREPARED TN	

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