



TRAFFIC IMPACT AND PARKING ASSESSMENT

**PROPOSED RESIDENTIAL DEVELOPMENT
16-18 STAPLETON PARADE
ST MARYS**

**PREPARED FOR
HOMES NSW**

**IN-COORDINATION WITH
DKT STUDIO**

DATE: 4TH OCTOBER 2024

OUR REFERENCE: 230391

BY: JESSE WILSON





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REVISION	DATE	DESCRIPTION
A	4 th October 2024	Report Complete
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1 INTRODUCTION

1.1 GENERAL

Greenview Consulting has been engaged by the client to undertake a review of traffic and parking at the subject site. This report must be read in conjunction with the other Part 5 Application documents and other relevant information, including:

- DKT Studio design drawings (September 2024)
- Penrith City Council Development Control Plan 2014
- RTA Guide to Traffic Generating Developments Version 2.2 (October 2002) and more recent supplements, as adopted by Transport for New South Wales (TfNSW)
- State Environmental Planning Policy (Housing) 2021

This purpose of this report is to:

- Describe the site and the proposed development scheme;
- Describe the road network serving the site and the prevailing traffic conditions;
- Assess the adequacy of the proposed parking provision;
- Assess the potential traffic implications;
- Assess the suitability of the proposed vehicles access, internal circulation and servicing arrangements.

2 EXISTING CONDITIONS

2.1 SITE DESCRIPTION

The subject site is located on the northern side of Stapleton Parade and eastern side of Lethbridge Street, refer **Figure 2.1**. The site is currently zoned R3 – Medium Density Residential under the Penrith City Council Local Environmental Plan 2010 and is currently vacant.

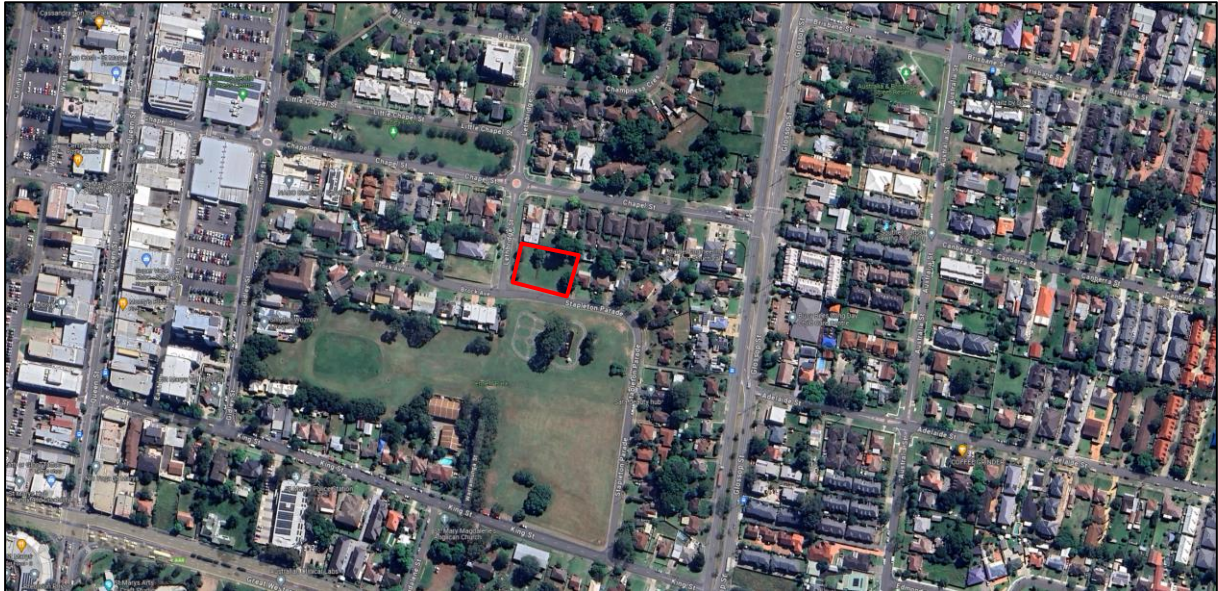


Figure 2.1 Site Location

The development as proposed consists of the construction of a three-storey residential building for seniors living, containing 18 units and a lower ground parking area containing eight car parking spaces, including four accessible spaces. Vehicular access is provided via a two-way driveway from Lethbridge Street.

2.2 EXISTING ROAD CONDITIONS

The Roads & Maritime Services (RMS, now TfNSW) broadly classifies all roads into three administrative classes: state, regional and local. A detailed description of each administrative class is provided in “NSW Road Management Arrangements” (December 2008), however in general:

State Roads are the major arterial links throughout NSW and within major urban areas. They are the principle traffic carrying and linking routes for the movement of people and goods within the Sydney, Newcastle, Wollongong and Central Coast urban areas and which connect between these urban centres, the major regional towns, the major regions of the State and the major connections interstate.

Regional Roads are routes of secondary importance between State Roads and Local Roads which together with the State Roads, provide the main connections to and between smaller towns and districts and perform a sub arterial function in major urban areas.

Local Roads comprise the remaining Council controlled roads which provide for local circulation and access.

Stapleton Parade is a local road of approximately 7m in width, accommodating two way traffic flow and kerbside parking on both sides of the road. Kerbside parking is unrestricted, typical of a residential setting. The default 50km/h speed limit applies. Stapleton Parade become Brock Avenue on the western side of Lethbridge Street which has similar conditions.

Lethbridge Street is a local road of approximately 7m in width, accommodating two way traffic flow and kerbside parking on both sides of the road. Kerbside parking is unrestricted, typical of a residential setting. The default 50km/h speed limit applies.

Chapel Street is a local collector road of approximately 8m in width, accommodating two way traffic flow and kerbside parking on both sides of the road. Kerbside parking is unrestricted, typical of a residential setting. A signposted 50km/h speed limit applies.

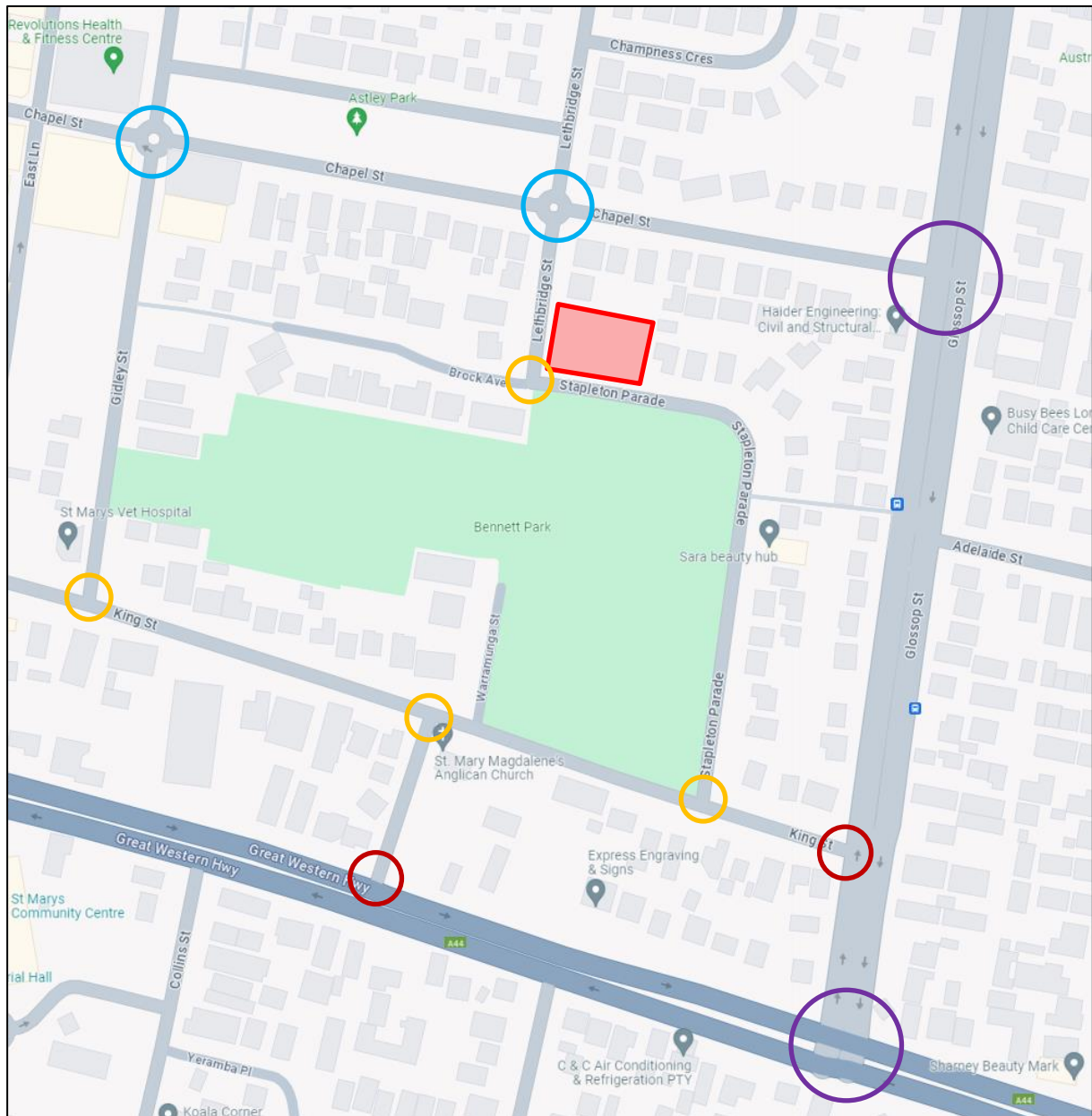
King Street is a local collector road of approximately 10m in width, accommodating two way traffic flow and kerbside parking on both sides of the road. Kerbside parking is unrestricted, typical of a residential setting. A signposted 50km/h speed limit applies.

Glassop Street is a classified regional road (No. 7167) of approximately 20m width, accommodating two lanes in each direction and a central landscaped median. “No Stopping” signage is present along both sides of the road, restricting kerbside parking. A signposted 60km/h speed limit applies.

Great Western Highway is a classified state road (No. 5) of approximately 26m width, accommodating three lanes in each direction (eastbound and westbound) and a central median. “No Parking” and “No Stopping” signage are present on both sides of the road, restricting kerbside parking. A signposted 60km/h speed limit applies.

2.3 EXISTING ROAD FEATURES

The existing road features which apply to the road network in the vicinity of the site are illustrated in **Figure 2.2**.



Key	
	Site
	Priority controlled intersection
	Signalised intersection
	School Zone Left only priority controlled intersection
	Roundabout controlled intersection

Figure 2.2 Existing Road Features

2.4 TRAFFIC DATA

As far as we are aware, there are no readily available traffic counts in the local vicinity.

2.5 PUBLIC TRANSPORT

The closest bus stop to the subject site is located on Glassop Street, approximately 250m walking distance to the east. The bus stop services routes 774 (Mount Druitt to Penrith via Nepean Hospital) and 835 (WSU Penrith to Prairiewood).

The subject site is not within walking distance of a train station, with St Marys Train Station located approximately 1km to the north.

3 PROPOSED DEVELOPMENT

3.1 PROPOSED DEVELOPMENT DESCRIPTION

The proposed development comprises of 18 units and a lower ground level car parking area. The scale of the proposed relevant to traffic and parking impacts is as follows:

- 18 units comprising of:
 - 10 one-bedroom units;
 - Eight (8) two-bedroom units.
- Eight (8) car parking spaces including four (4) accessible spaces.

3.2 ONSITE PARKING PROVISIONS

The proposed is a project of the NSW Department of Planning and Environment and therefore, reference is made to the *State Environmental Planning Policy (Housing) 2021 – Part 5 Housing for Seniors and People with a Disability – Division 7 Non-discretionary development standards* which states the following car parking requirements:

108 Non-discretionary development standards for independent living units—the Act, s 4.15

(2) *The following are non-discretionary development standards in relation to development for the purposes of independent living units—*

- (j) *for a development application made by, or made by a person jointly with, a social housing provider or Landcom—at least 1 parking space for every 5 dwellings,*
- (k) *if paragraph (j) does not apply—at least 0.5 parking spaces for each bedroom.*

The parking requirements of the proposal are summarised in **Table 3.1**, noting that the development is being made by a social housing provider.

Table 3.1 Car Parking Requirements

Land Use	Scale	Authority	Rate	Spaces Required
Residential	18 dwellings	SEPP Housing 2021	1 per 5 dwellings	4 (3.6)

The proposal requires the provision of four (4, rounded up from 3.6) car parking spaces to satisfy the requirements of the Housing SEPP 2021. The proposed car parking layout includes the provision of four (8) car parking spaces, satisfying and exceeding the requirements of the Housing SEPP 2021.

Accessible Parking

No accessible parking is required by the *State Environmental Planning Policy (Housing) 2021*. However, the car parking area details the provision of four (4) accessible car parking spaces. This provision allows parking for development users that may require accessible facilities. Reference should be made to the relevant accessibility consultant as to whether this provision is satisfactory.

3.3 SITE ACCESS & SERVICING

It is currently proposed that the car parking area will be accessed via the road frontage of Lethbridge Street, refer **Figure 3.1**.

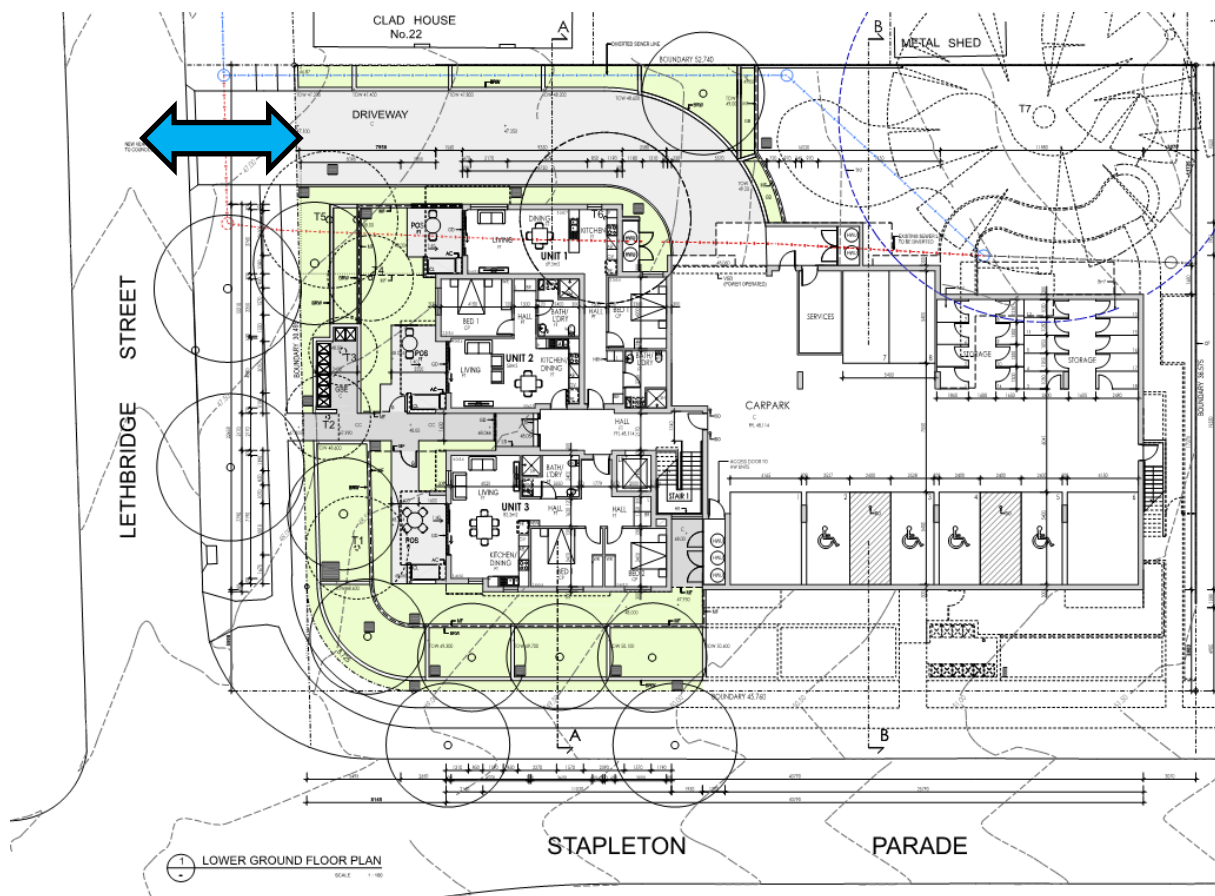


Figure 3.1 Proposed Entry / Exit Point

Swept Paths Analysis

We have undertaken swept-path analysis using Autotrack (refer attached turning plans), this analysis indicates that:

- A B99 vehicle can access and egress from the proposed driveway to Lethbridge Street;
- A B85 vehicle can access and egress from all proposed car parking spaces in an adequate number of manoeuvres.

Garbage Collection

It is expected that the garbage will be conducted by Council kerbside waste collection service, as the surrounding dwellings.

3.4 PEDESTRIAN CONSIDERATIONS

There is a formal pedestrian footpath along both the Stapleton parade and Lethbridge site frontages, which are expected to be maintained under proposed conditions. When any work is performed in the frontage area, pedestrian access along the road frontage is to be maintained. Any road frontage works may need to be completed in two stages to ensure a safe path of travel for pedestrians.

3.5 DESIGN COMPLIANCE

The proposed car parking and vehicular access design has been assessed to achieve the relevant requirements of AS2890.1:2004, including:

- Adequate dimensions of car parking spaces of minimum 2.4m by 5.4m;
- Adequate circulation roadway widths;
- Vehicular access driveway of 5.5m width at the property boundary allow for access and egress for vehicles sized up to an Australian Standard B99 vehicle.
- Adequate clearance of at least 300mm to high objects from trafficable areas.

It is recommended to provide convex mirrors around the curved section of the driveway to assist drivers vision into and out of the car parking area.

The locations of wheel stops, bollards, signage and other traffic furniture are to be confirmed during the Construction Certificate stage of the development and are to satisfy the relevant Australian Standard requirements.

4 TRAFFIC GENERATION

4.1 TRAFFIC GENERATION

The *RTA Guide to Traffic Generating Developments October 2002* as adopted by TfNSW and more recent supplements provide estimated traffic generation rates for various development types, which have been applied accordingly to the proposal.

RMS TDT 2013/04a

Housing for seniors

Weekday peak hour vehicle trips = 0.4 per dwelling.

(Note that morning site peak hour does not generally coincide with the network peak hour).

The expected traffic generation as a result of the scale of the proposed development is calculated in **Table 4.1**.

Table 4.1 Traffic Generated Under Proposed Conditions

Land Use	Scale	Peak Period	Rate	Trips	Split ⁽¹⁾
Housing for Seniors	18 units	AM ⁽²⁾	0.4 per unit	7	2 in, 5 out
		PM	0.4 per unit	7	5 in, 2 out

Note (1) Assumes 20% inbound, 80% outbound in the AM peak and 80% inbound, 20% outbound in the PM peak.

(2) As stated in the RMS TDT 2013/04a, the morning site peak hour does not generally coincide with the network peak hour.

The proposed development is expected to generate in the order of two (**7**) vehicle trips in both the AM peak hour period (2 in, 5 out) and PM peak hour period (5 in, 2 out). This scale of traffic generation is relatively minor and as such, no noticeable impacts to the surrounding traffic environment are expected as a result of the proposed.

5 CONCLUSIONS

We conclude that:

- We believe that the proposed development will not have a significant impact on the traffic in the local network.
- We believe the development will not have a significant impact on the locale in terms of the traffic efficiency, amenity, safety, and/or road pavement life.
- The car parking design achieves the relevant requirements of AS2890.1:2004
- The proposed development achieves the minimum required number of parking spaces as per the parking requirements outlined in **Table 3.1**.

Yours faithfully,
For & on behalf of Greenview,



Jesse Wilson
Traffic Designer

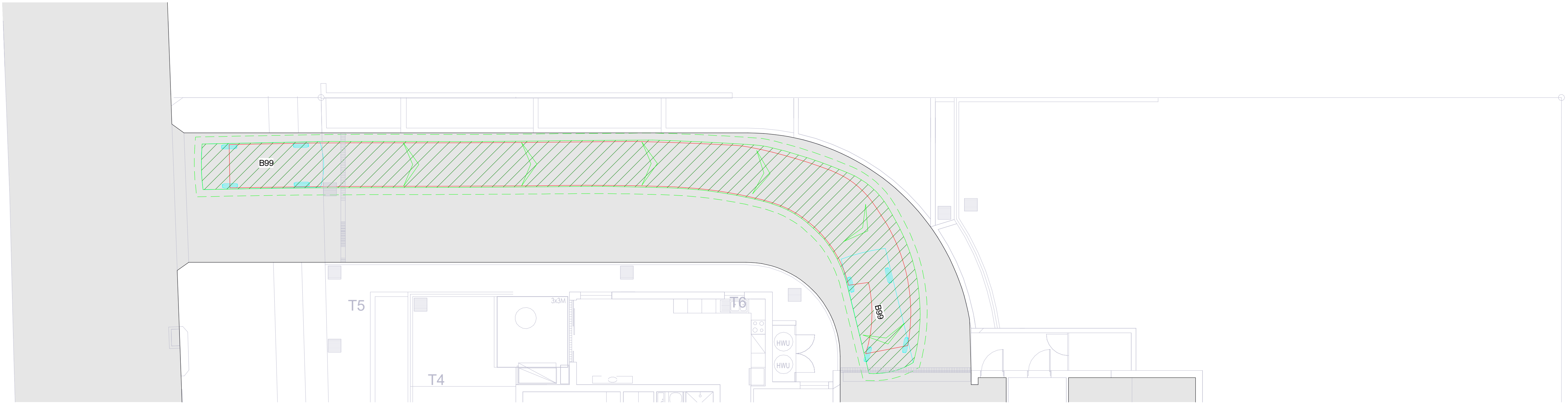


Alistair McKerron B.E., M.I.E.(Aust), CP Eng,
NPER No. 2220277
Senior Project Engineer

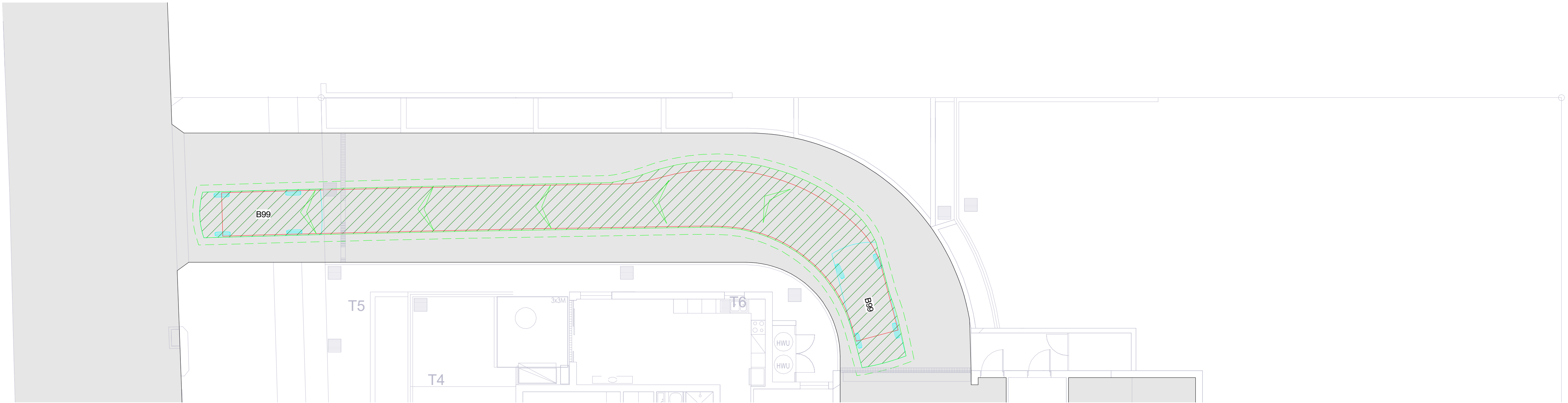


APPENDICES



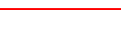


SWEPT PATH ANALYSIS – GREENVIEW CONSULTING

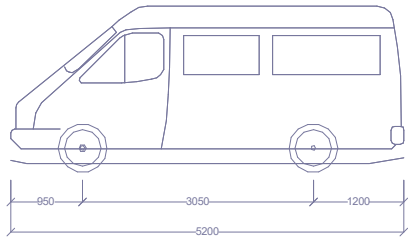


BASEMENT - CIRCULATION TURN 1
Scale: 1 : 100



BASEMENT - CIRCULATION TURN 2
Scale: 1 : 100

- LEGEND
-  PATH OF VEHICLE BODY FORWARDS
 -  PATH OF VEHICLE BODY BACKWARDS
 -  PATH OF VEHICLE WHEELS
 -  BODY OF VEHICLE
 -  CLEARANCE ENVELOPE



B99 VEHICLE	
OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.606m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	8.000m

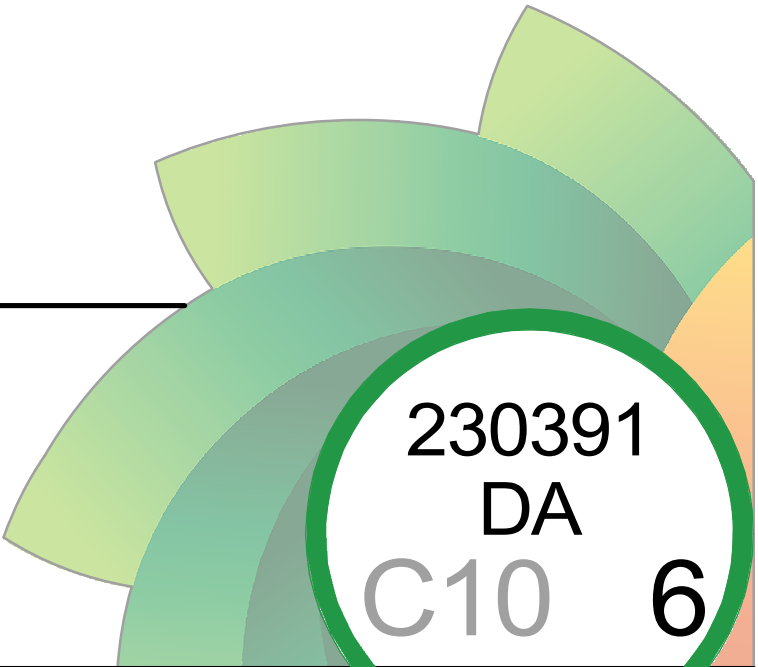
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	2	11.06.2024	JC	PRELIMINARY
	1	31.05.2024	JC	PRELIMINARY
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PROPOSED DEVELOPMENT
16,17 & 18 Stapleton Avenue, St Marys, NSW
DKT Studio



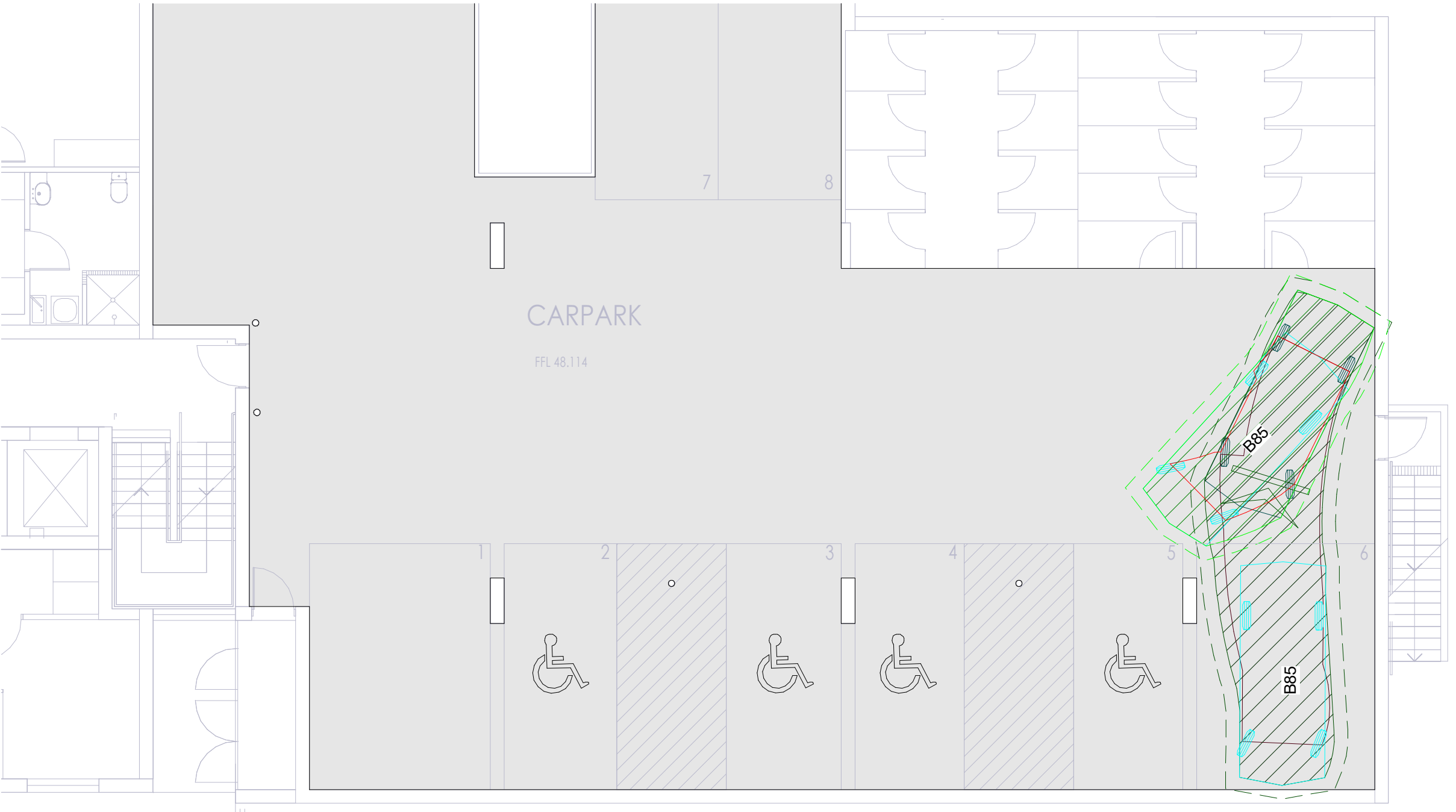
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CIVIL DESIGN
BASEMENT CIRCULATION TURN SHEET 1





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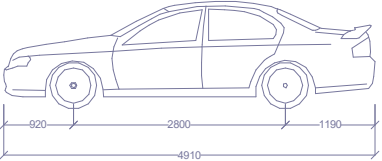
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BASEMENT - B85 EXIT 1b
Scale: 1 : 100

LEGEND

- PATH OF VEHICLE BODY FORWARDS
- PATH OF VEHICLE BODY BACKWARDS
- PATH OF VEHICLE WHEELS
- BODY OF VEHICLE
- CLEARANCE ENVELOPE



B85 VEHICLE	
OVERALL LENGTH	4.910m
OVERALL WIDTH	1.870m
OVERALL BODY HEIGHT	1.260m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.770m
LOOK-TO-LOOK TIME	4.00s
KERB TO KERB TURNING RADIUS	5.750m

REV.	DATE	BY	DESCRIPTION
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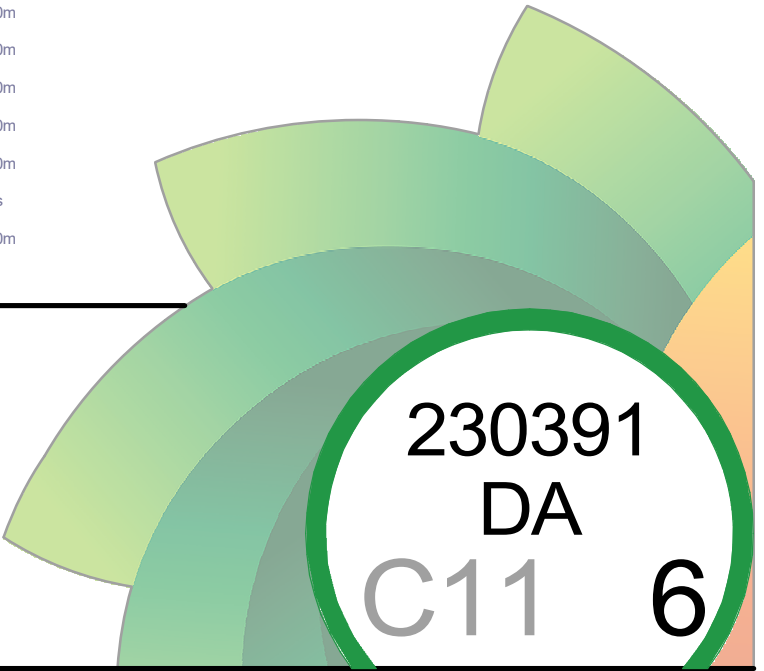
PROPOSED DEVELOPMENT
16,17 & 18 Stapleton Avenue, St Marys, NSW
DKT Studio

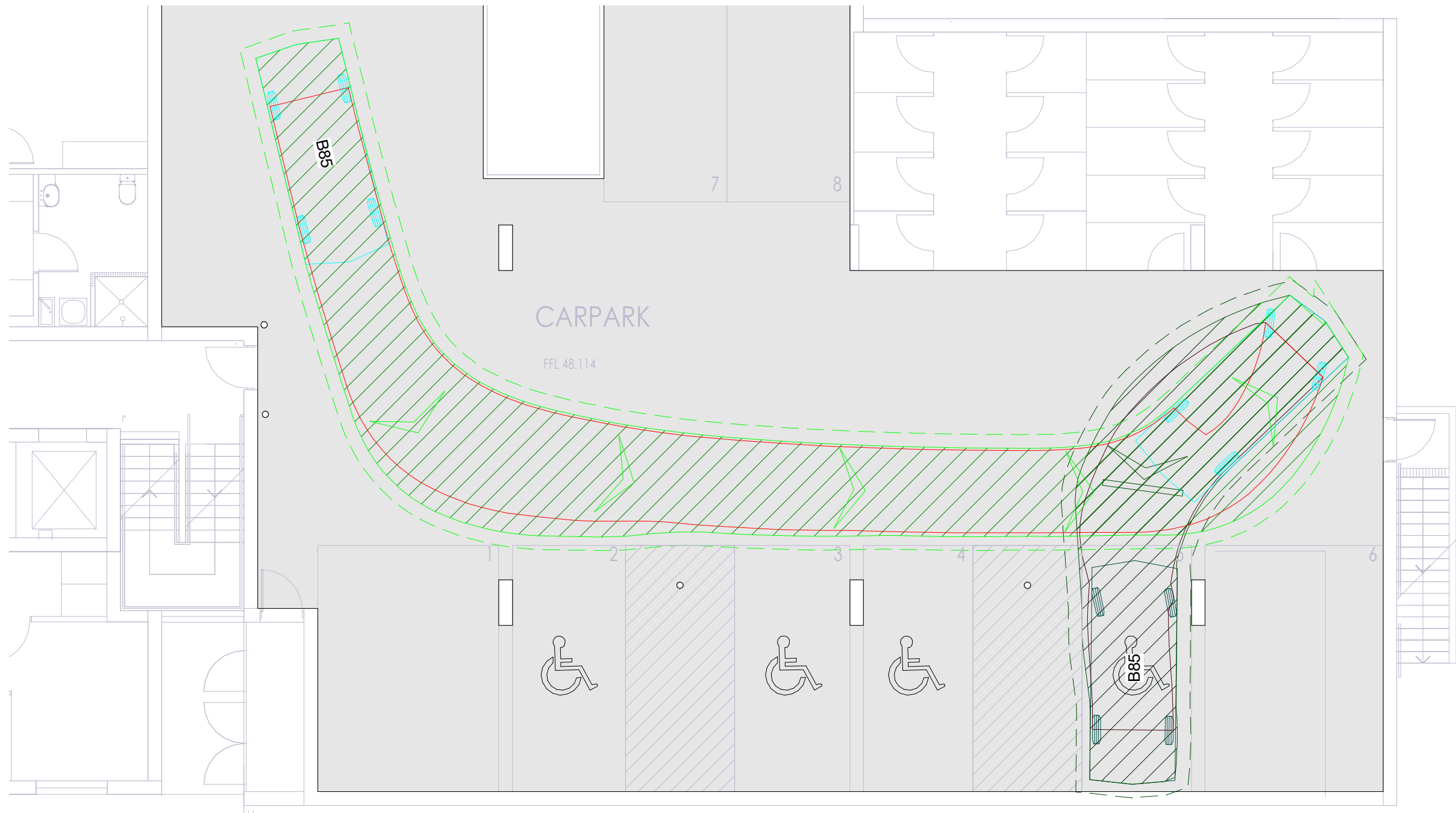


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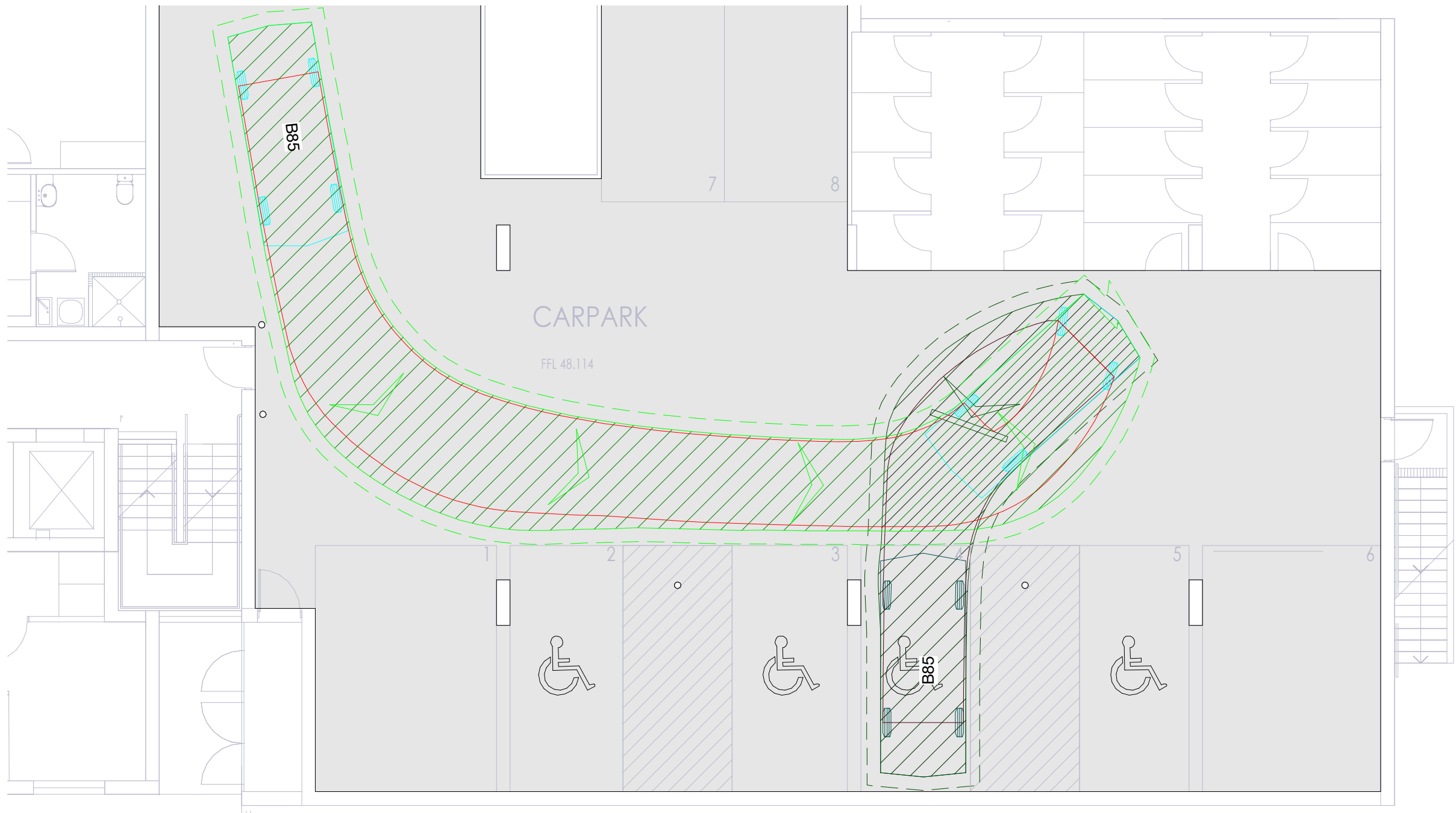
CIVIL DESIGN

BASEMENT TURNING PATHS SHEET 1

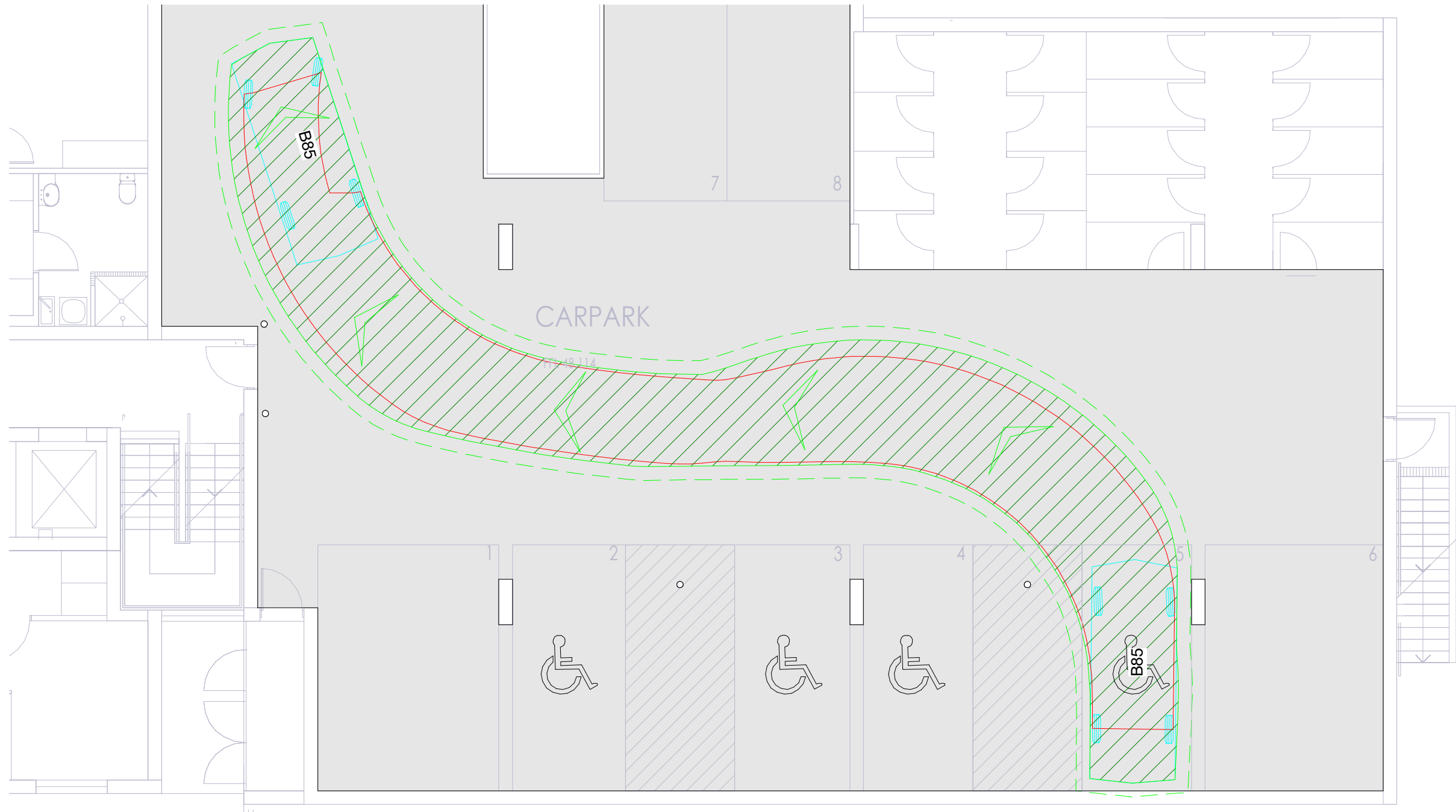




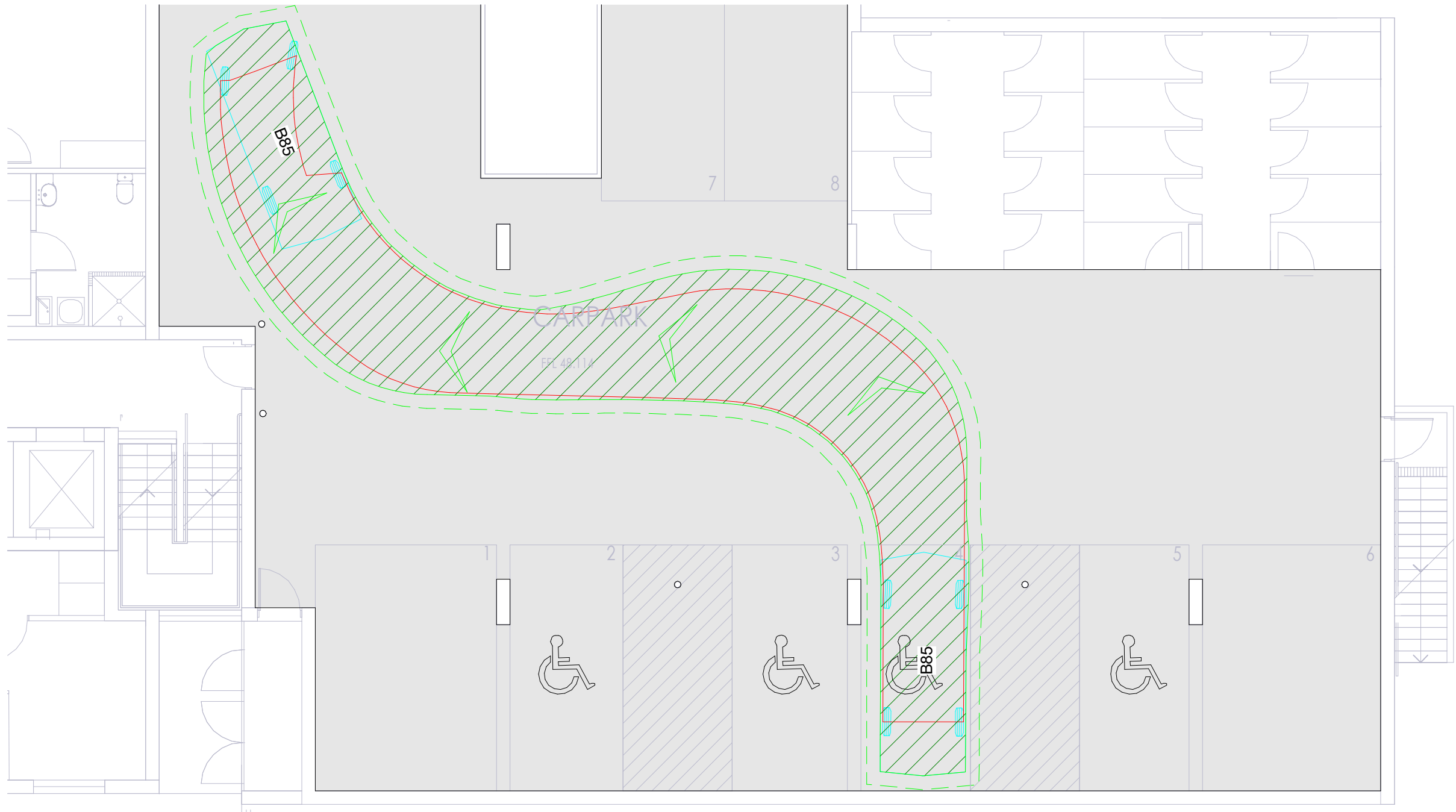
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BASEMENT - B85 ENTRY 3
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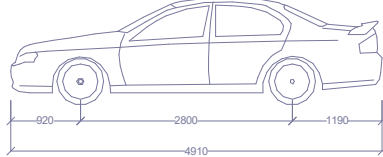
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BASEMENT - B85 EXIT 3
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LEGEND

- PATH OF VEHICLE BODY FORWARDS
- PATH OF VEHICLE BODY BACKWARDS
- PATH OF VEHICLE WHEELS
- BODY OF VEHICLE
- CLEARANCE ENVELOPE



B85 VEHICLE	
OVERALL LENGTH	4.910m
OVERALL WIDTH	1.870m
OVERALL BODY HEIGHT	1.200m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.770m
LOOK-TO-LOOK TIME	4.00s
KERB TO KERB TURNING RADIUS	5.750m

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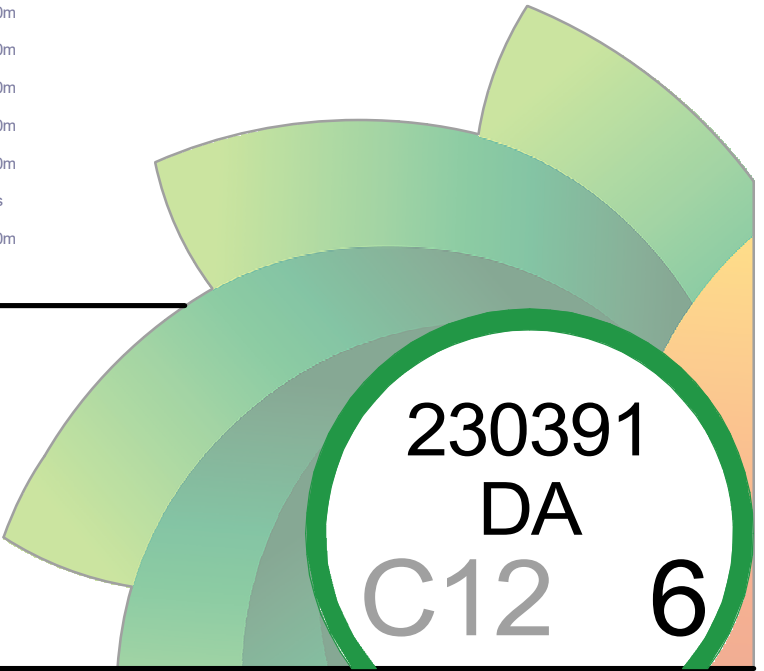
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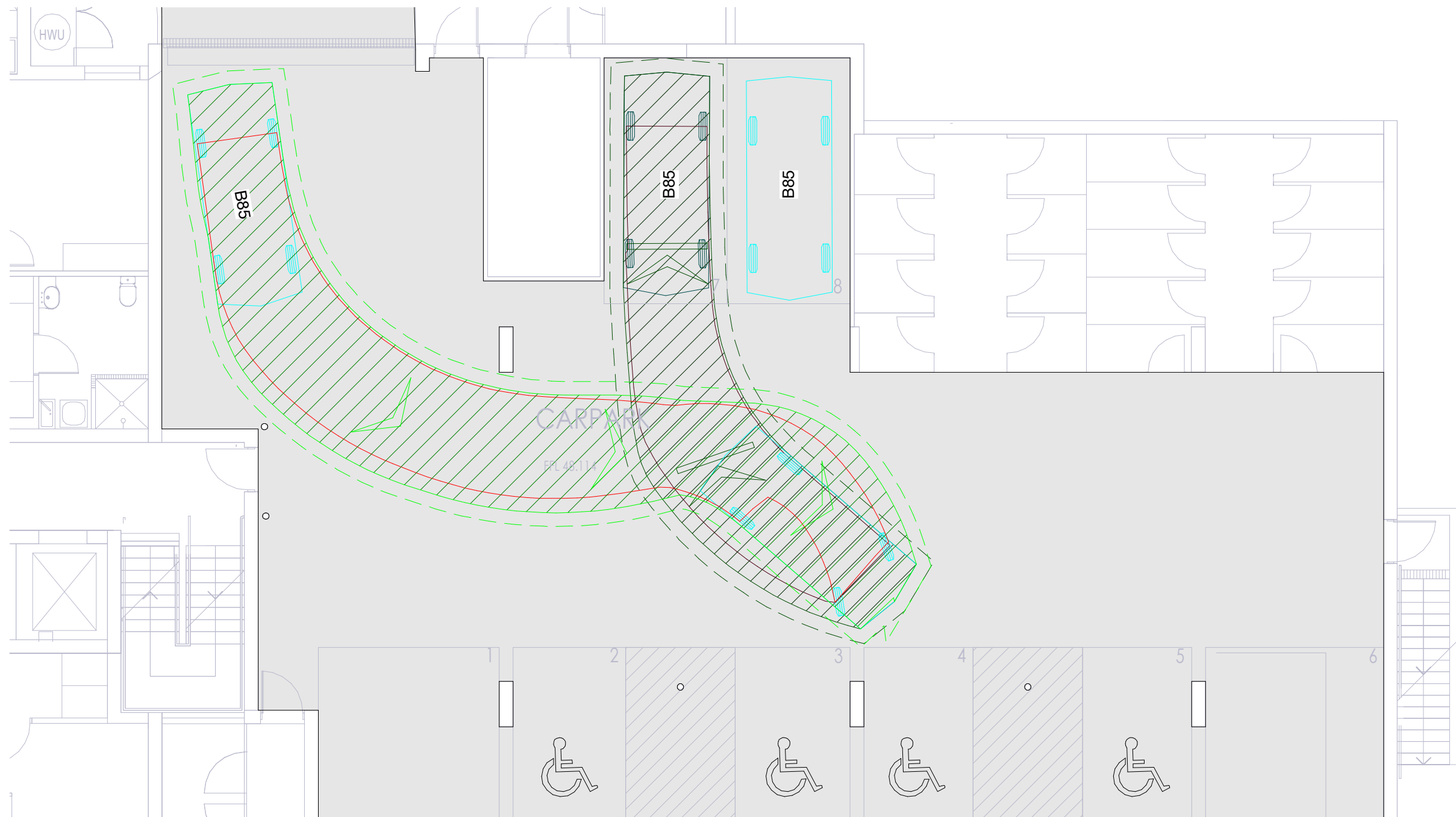


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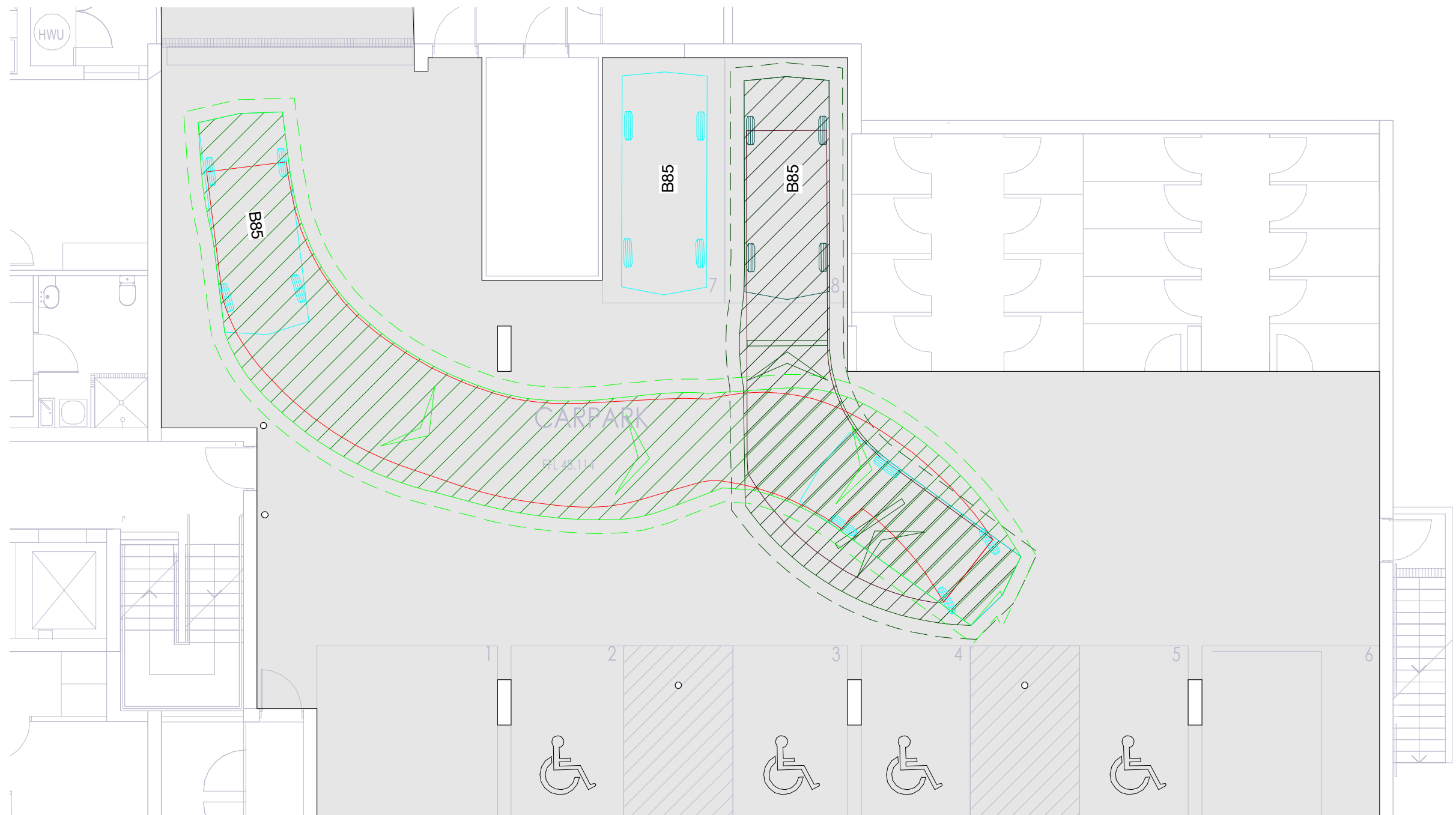
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BASEMENT TURNING PATHS SHEET 2

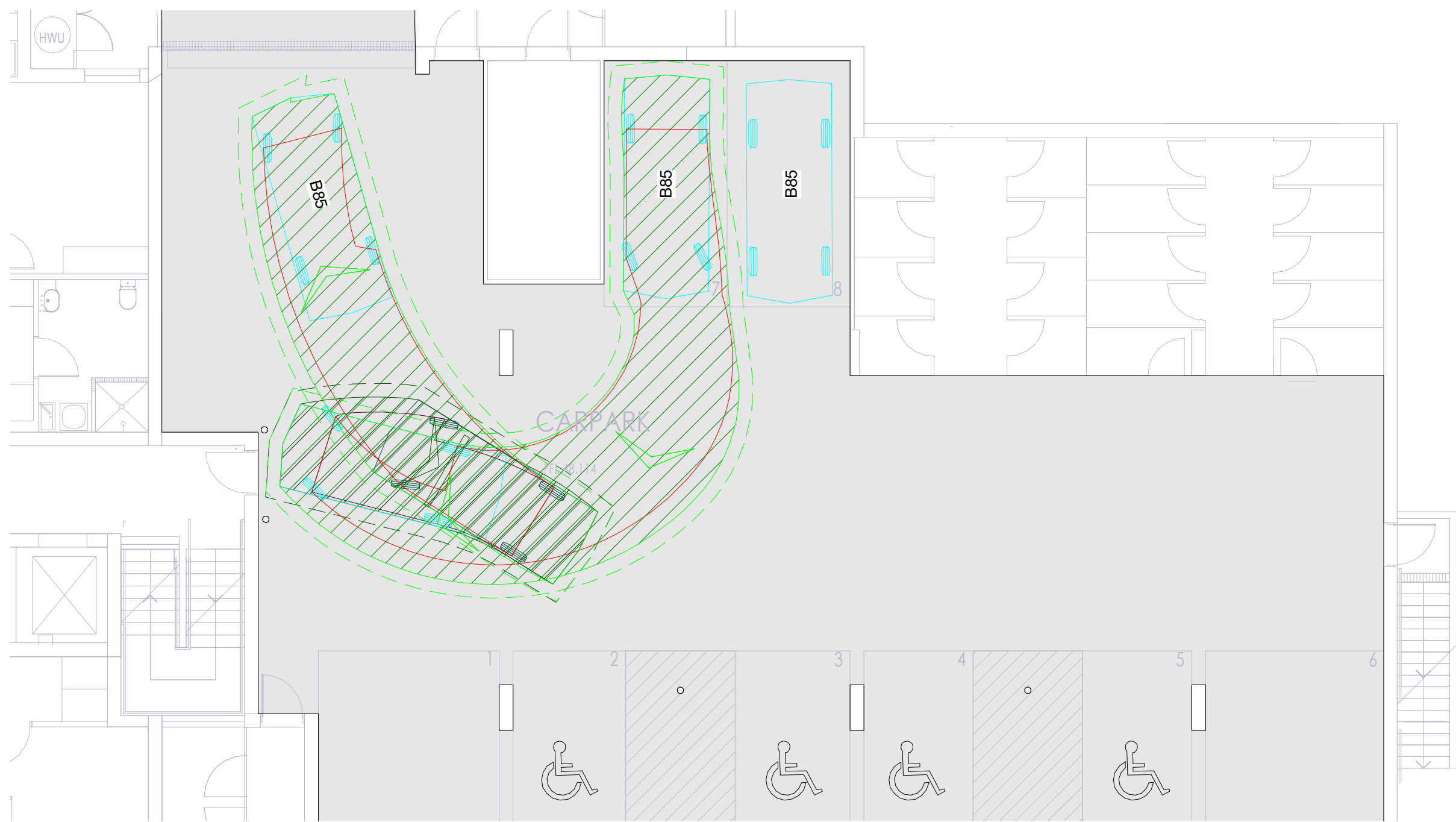




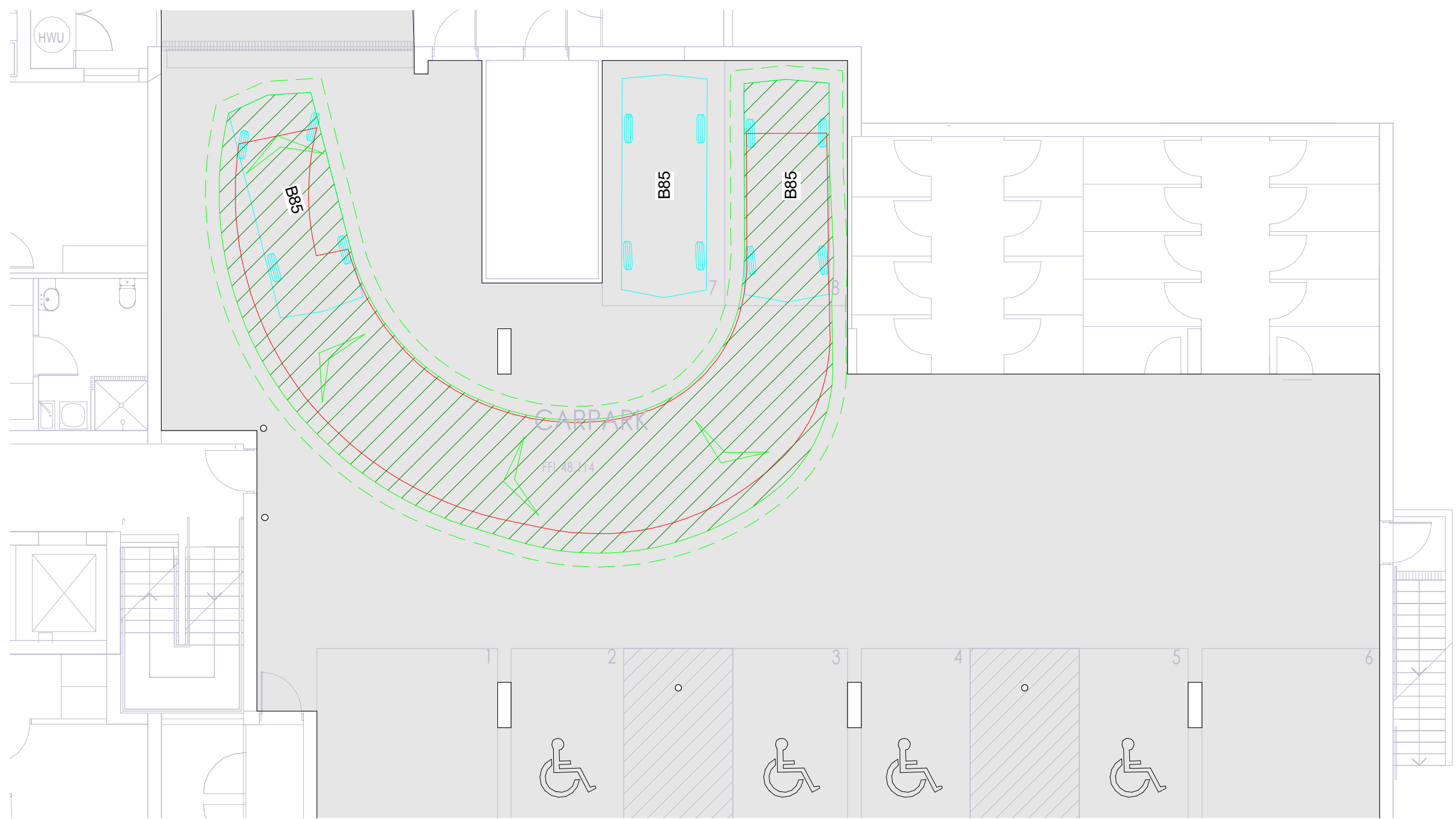
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BASEMENT - B85 ENTRY 5
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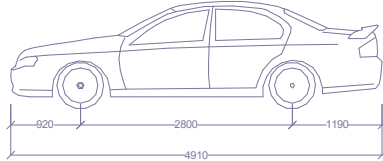
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BASEMENT - B85 EXIT 5
Scale: 1:100

LEGEND

- PATH OF VEHICLE BODY FORWARDS
- PATH OF VEHICLE BODY BACKWARDS
- PATH OF VEHICLE WHEELS
- BODY OF VEHICLE
- CLEARANCE ENVELOPE



B85 VEHICLE	
OVERALL LENGTH	4.91m
OVERALL WIDTH	1.87m
OVERALL BODY HEIGHT	1.26m
MIN BODY GROUND CLEARANCE	0.12m
TRACK WIDTH	1.77m
LOOK-TO-LOOK TIME	4.00s
KERB TO KERB TURNING RADIUS	5.75m

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16,17 & 18 Stapleton Avenue, St Marys, NSW
DKT Studio



DESIGN: JC DRAWN: JC CHECKED: AMcK SIZE: A1 SCALE: 1:100

CIVIL DESIGN

BASEMENT TURNING PATHS SHEET 3

