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TECHNICAL NOTE #1 – 16 NOVEMBER 2023
MAROOCHY PDA PRIVATE HOSPITAL

INTRODUCTION

This technical note has been prepared by Pekol Traffic and Transport (PTT), as requested by McNab, to review revised access and parking arrangements for the recently approved Maroochy PDA Private Hospital (application number DEV2021/1251).

The subject site is formally identified as Lots J1 and J2, Maroochydore City Centre and is located within Precinct 3 of the Maroochydore City Centre priority development area (PDA).

PROPOSED DEVELOPMENT

The proposal seeks approval for a revised parking layout for the Maroochy PDA Private Hospital. The following amendments are proposed:

- a service vehicle exit driveway to Market Lane
- the relocation of the loading area to the east of the driveway on Future Way
- the relocation of the ground floor ramp to align with the ramps on Levels 1 to 4
- the provision of a one-way aisle on Level 1 to remove a blind aisle

The proposed ground floor layout is shown in Figure 1 and attached.

ACCESS

LOCATION

As shown in Figure 1, access to the site is proposed via an all-movements crossover on Future Way and a service vehicle exit to Market Lane.

Council's Planning Scheme requires that access driveways be designed and located in accordance with the requirements of Australian Standards AS2890.1:2004 for Off-street Car Parking (AS2890.1). AS2890.1 requires that accesses be located minimum of 6.0m from nearby intersections (measured from the intersection tangent point). The proposed accesses are located sufficiently far from the adjacent intersections, consistent with AS2890.1 requirements.

DESIGN

AS2890.1 requires a Category 3 driveway (ie separate entry and exit lanes) based on the number of parking spaces (ie 101 to 300 spaces), the user class (ie Class 3) and the frontage road type (ie local).

Australian Standards AS2890.2:2018 for Off-street Commercial Vehicle Facilities requires a minimum exit driveway width of 7.0m to accommodate medium rigid vehicle (MRV), the largest expected service vehicle.

The proposed accesses have been designed as a 7.5m wide all movements crossover on Future Way and a 7.0m wide service vehicle exit crossover to Market Lane. The proposed accesses are expected to operate safely and efficiently on the basis that:

- the Future Way access is sufficiently wide to facilitate simultaneous operations for vehicles (ie a car would be able to enter the site with a car exiting at the same time), as demonstrated in Figure 2 and attached
- narrower crossovers enhance streetscape and reduce pedestrian crossing distance for enhanced safety
- the proposed accesses can accommodate a MRV entering the site from Future Way, parking in the loading area and exiting the site to Market Lane while an SRV is parked in the adjacent bay, as shown in Figure 3 and attached
- the proposed accesses can accommodate a 10.7m long fuel truck entering the site from Future Way, parking in the loading area and exiting the site to Market Lane, as shown in Figure 4 and attached

Figure 1: PROPOSED LAYOUT

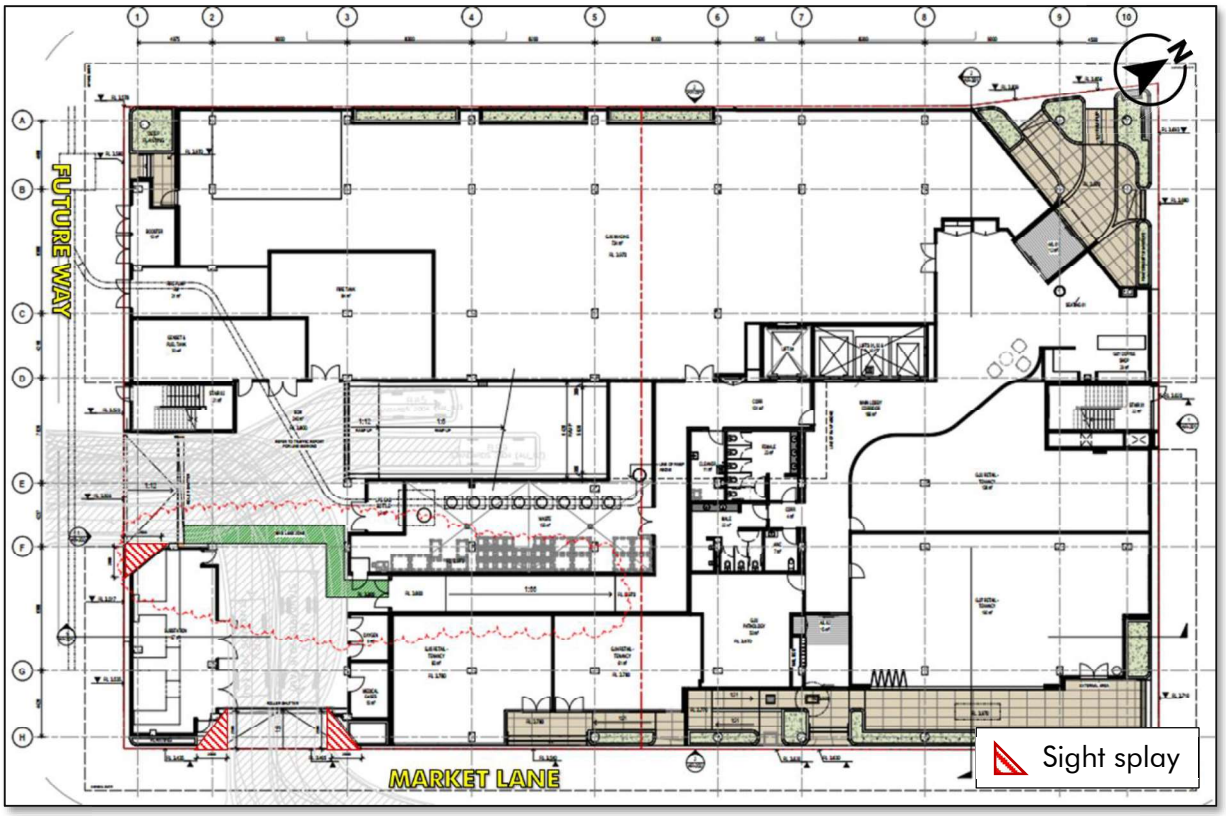


Figure 2: ACCESS OPERATIONS

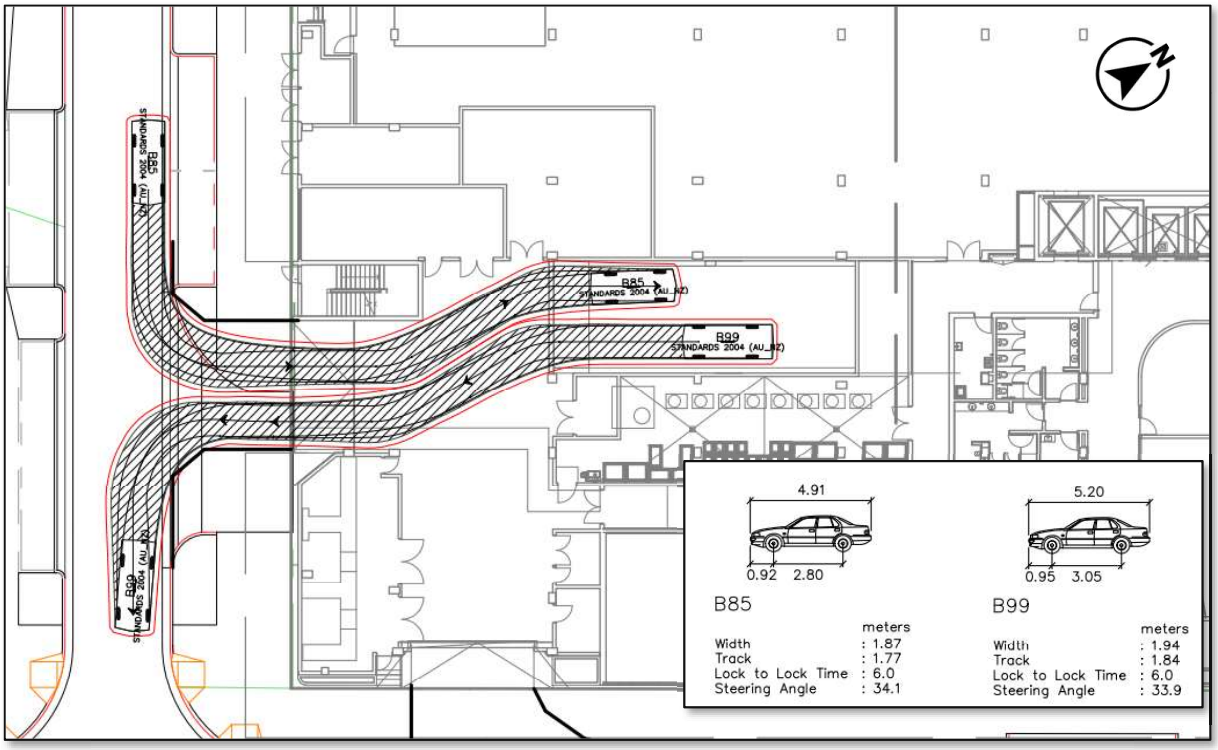


Figure 3: MRV ACCESS AND MANOEUVRING

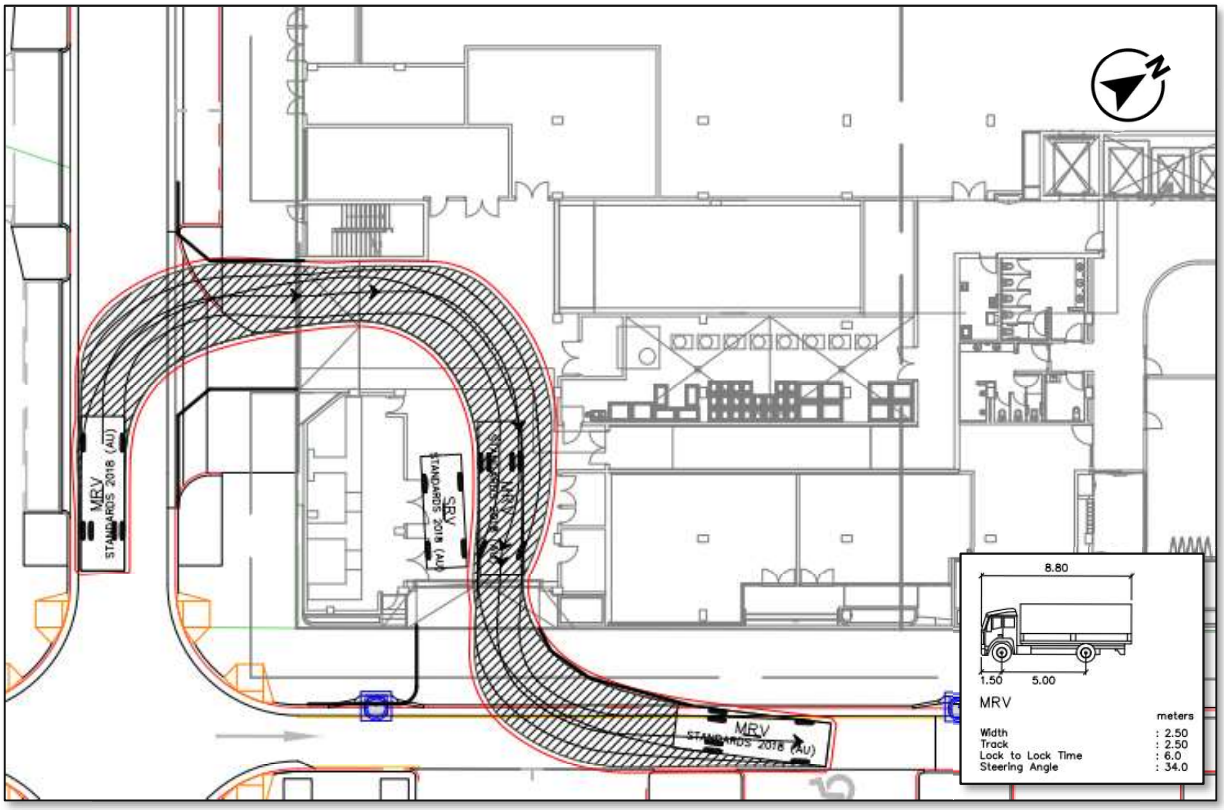
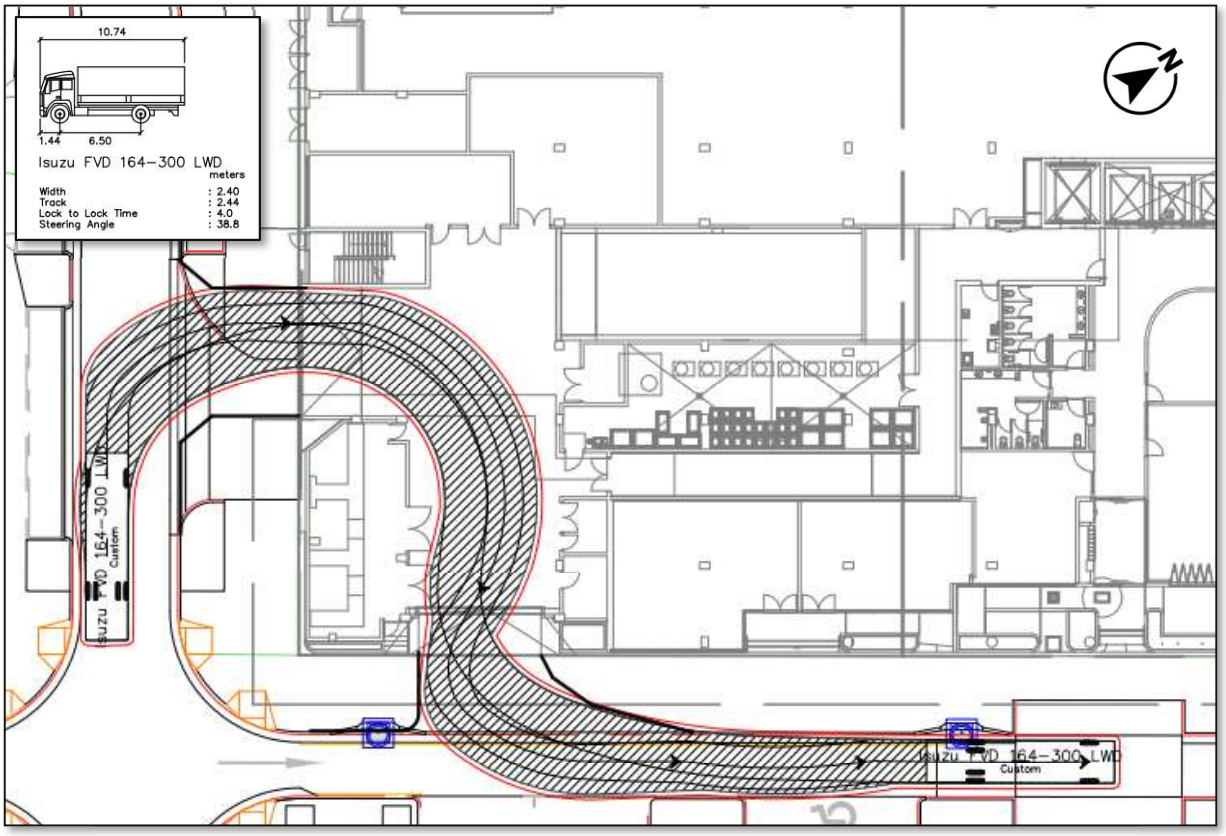


Figure 4: FUEL TRUCK ACCESS AND MANOEUVRING



It is recommended that the access on Future Way be designed as a general wide flared driveway, in accordance with the Institute of Public Works Engineers Australasia (IPWEA) Standard Drawing RS-051.

Market Lane is a narrow, one way road facilitating northbound travel. As such, modified flares are required on the northern side of the exit driveway to facilitate a MRV and fuel truck manoeuvring from the site. No flares are required on the southern side of the access.

SIGHT DISTANCE

AS2890.1 requires a desirable sight distance of 69m for 50km/h frontage road speed (ie Market Lane). A desktop assessment of the proposal indicate that the desirable sight distance can be achieved to the south of the proposed access on Market Lane, consistent with AS2890.1 requirements.

AS2890.1 requires that 2.0m wide by 2.5m long pedestrian sight splays be provided adjacent to the exit driveways to ensure adequate visibility between drivers exiting the site and pedestrians on the footpath. The proposed accesses are consistent with this requirement, as indicated in Figure 1. It is recommended that vegetation within pedestrian sight splays be maintained to be low-lying, below 1.0m high.

PARKING

ALLOCATION

The proposed allocation of the parking provision by floor level is provided in Table 1.

Table 1: PARKING ALLOCATION

USE	ALLOCATION	GROUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	TOTAL
USC Education and Research	Long Term		24				**24**
Retail / Food & Drink Visitor	Short Term		4				**4**
Retail Food & Drink Staff	Long Term				4		**4**
Hospital and Day Surgery Staff	Long Term				62	72	**134**
Hospital Visitor	Short / Medium Term		17	26			**43**
Day Surgery Patient	Medium / Long Term				4		**4**
Health Care Consulting Staff	Long Term		18		5		**23**
Health Care Consulting Patient	Short Term			47			**47**
Service Vehicle Bays		2		1			**3**
TOTAL		**2**	**63**	**73**	**75**	**72**	**283 + 3**

DESIGN

The following user classes are applicable to the proposed development:

- User Class 1: Employee parking (ie all day parking)
- User Class 3: Short-term parking

The car parking areas have been designed generally in accordance with AS2890.1. This is typified by:

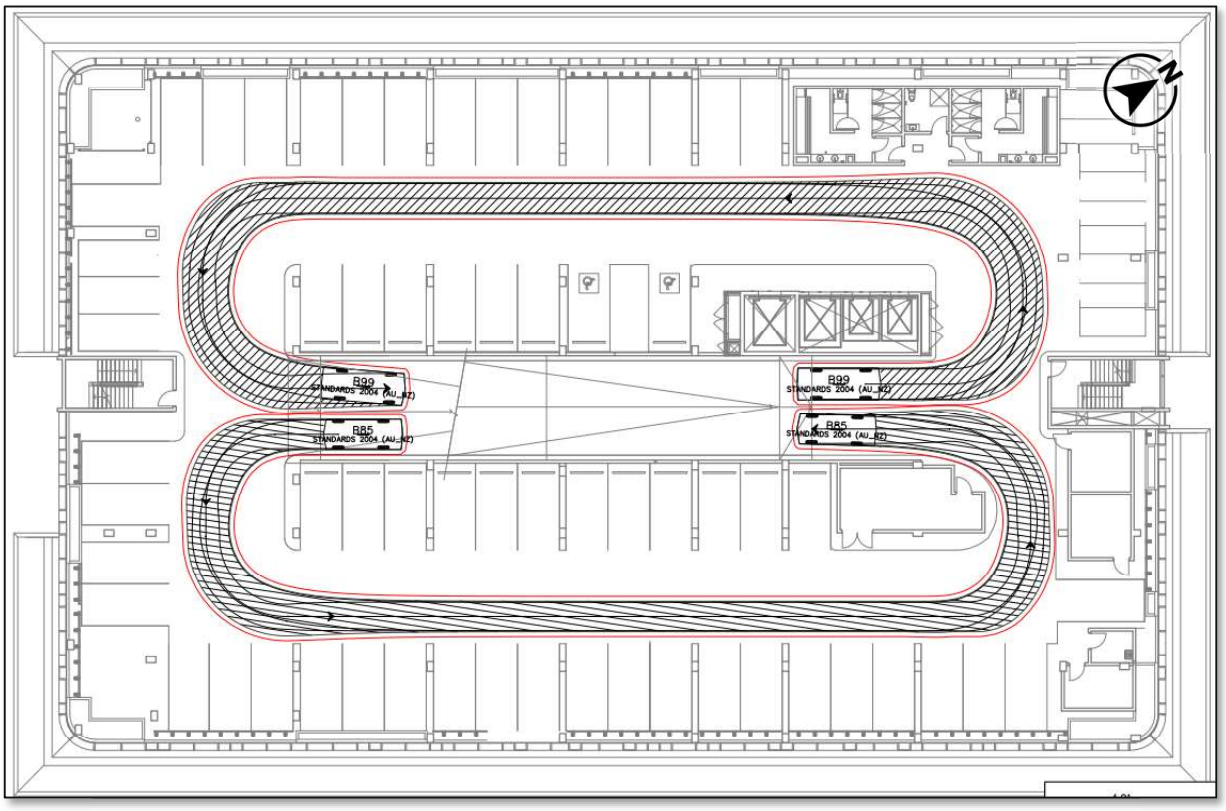
- parking spaces dimensioned 2.6m wide by 5.4m long
- small car bays dimensioned 2.3 m wide by 5.0m long
- motorcycle spaces dimensioned 1.2m wide by 2.5m long
- PWD spaces dimensioned 2.4m wide by 5.4m long with a shared area dimensioned 2.4m wide
- MRV bay dimensioned 3.5m wide by 8.8m long
- SRV bay dimensioned 3.5m wide by 6.4m long
- VAN bay dimensioned 3.0m wide by 5.4m long
- parking aisles dimensioned a minimum 5.8m wide
- one way circulation aisles dimensioned a minimum 3.6m wide
- maximum ramp grades of 1:5
- maximum grade transitions of 1:8 dimensioned 2.0m long
- a minimum height clearance of 2.5m in the parking areas
- a minimum height clearance of 4.5m in the servicing area

- additional clearance (0.3m) provided to parking bays adjacent to walls

Ramp Operations

One way operations are proposed on Level 1 to facilitate simultaneous operations at ramps to the ground level and to Level 2, as shown in Figure 5 and attached.

Figure 5: LEVEL 1 LAYOUT

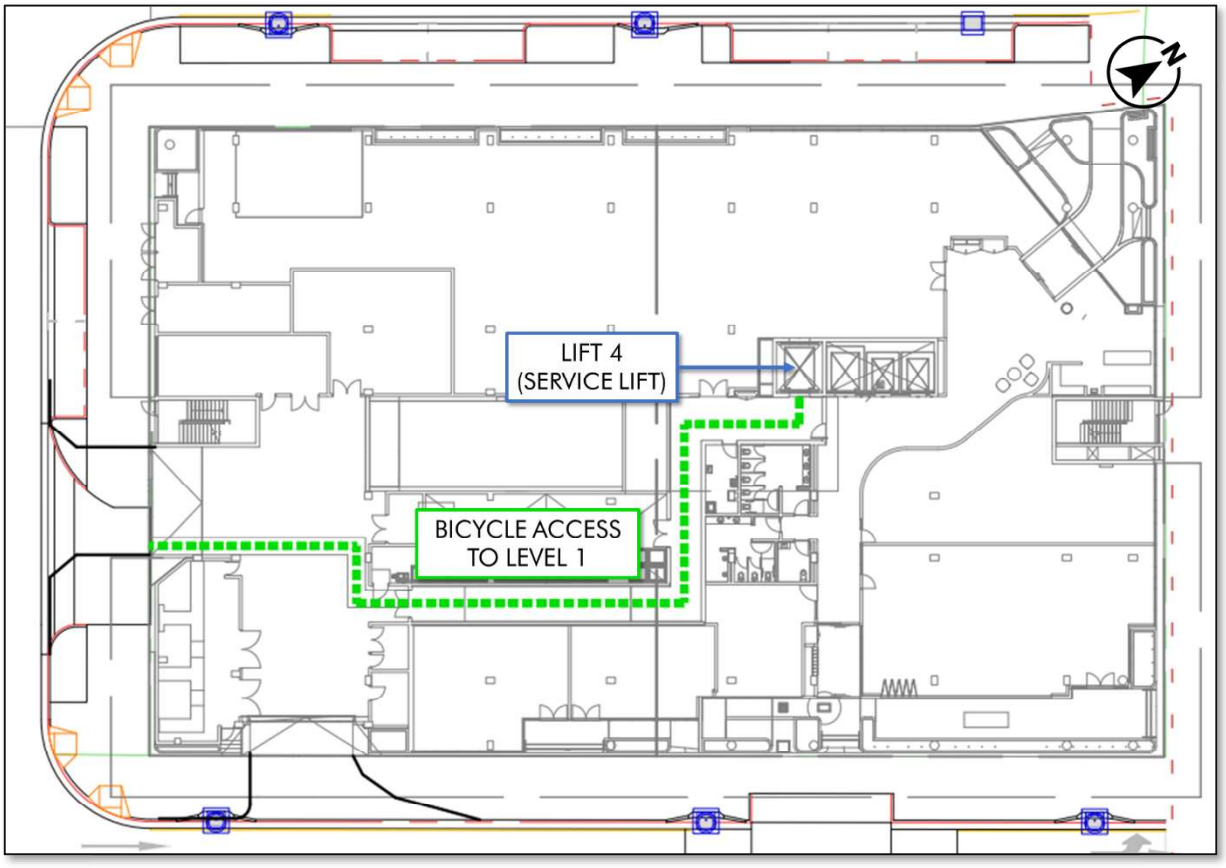


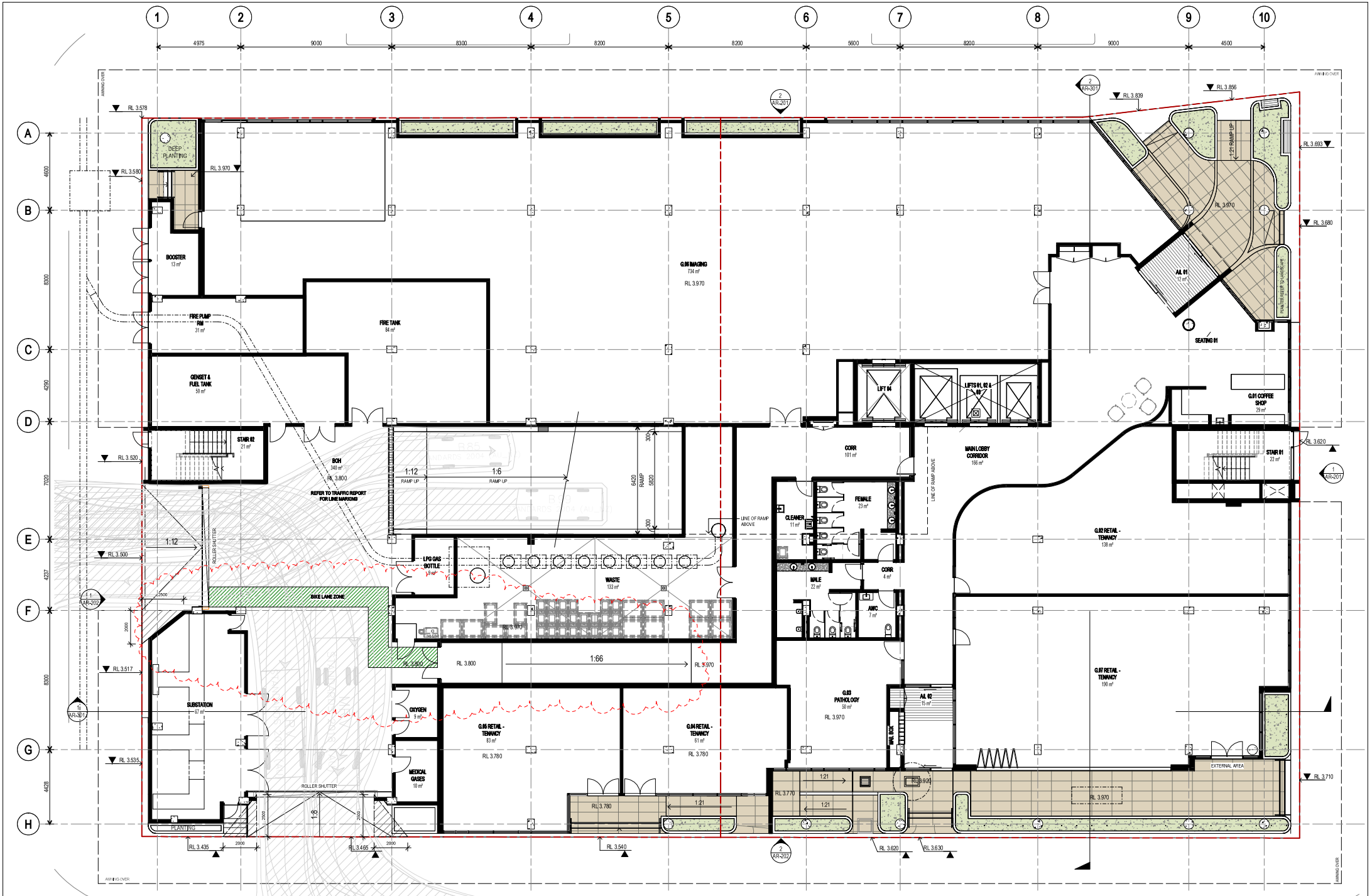
BICYCLE ACCESS

The proposed ramp between the ground level and Level 1 has a gradient of 1:6 and 2.0m long grade transitions at 1:12. According to Australian Standards AS2890.3:2015 for Bicycle Parking, the ramp gradients should be limited to 1:12. As such, the ramp is not appropriate to accommodate bicycle access to the bicycle parking area on Level 1.

Instead, bicycle access to Level 1 is proposed via Lift 4 (ie the service lift). As shown in Figure 6, cyclists can access the service lift via a service access ramp via a line marked pathway in the loading area.

Figure 6: BICYCLE ACCESS





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G	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	20.01.23
H	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	22.09.23
J	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	28.09.23
K	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	13.11.23

STATUS: DEVELOPMENT APPROVAL

0m 1 2 3 4 5

NORTH

CLIENT: BARWON INVESTMENT PARTNERS

BARWON

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HSPC HEALTH ARCHITECTS

PROJECT: MAROOCHY PRIVATE HOSPITAL

DRAWING TITLE: FLOOR PLAN - GROUND LEVEL

DRAWN	PM
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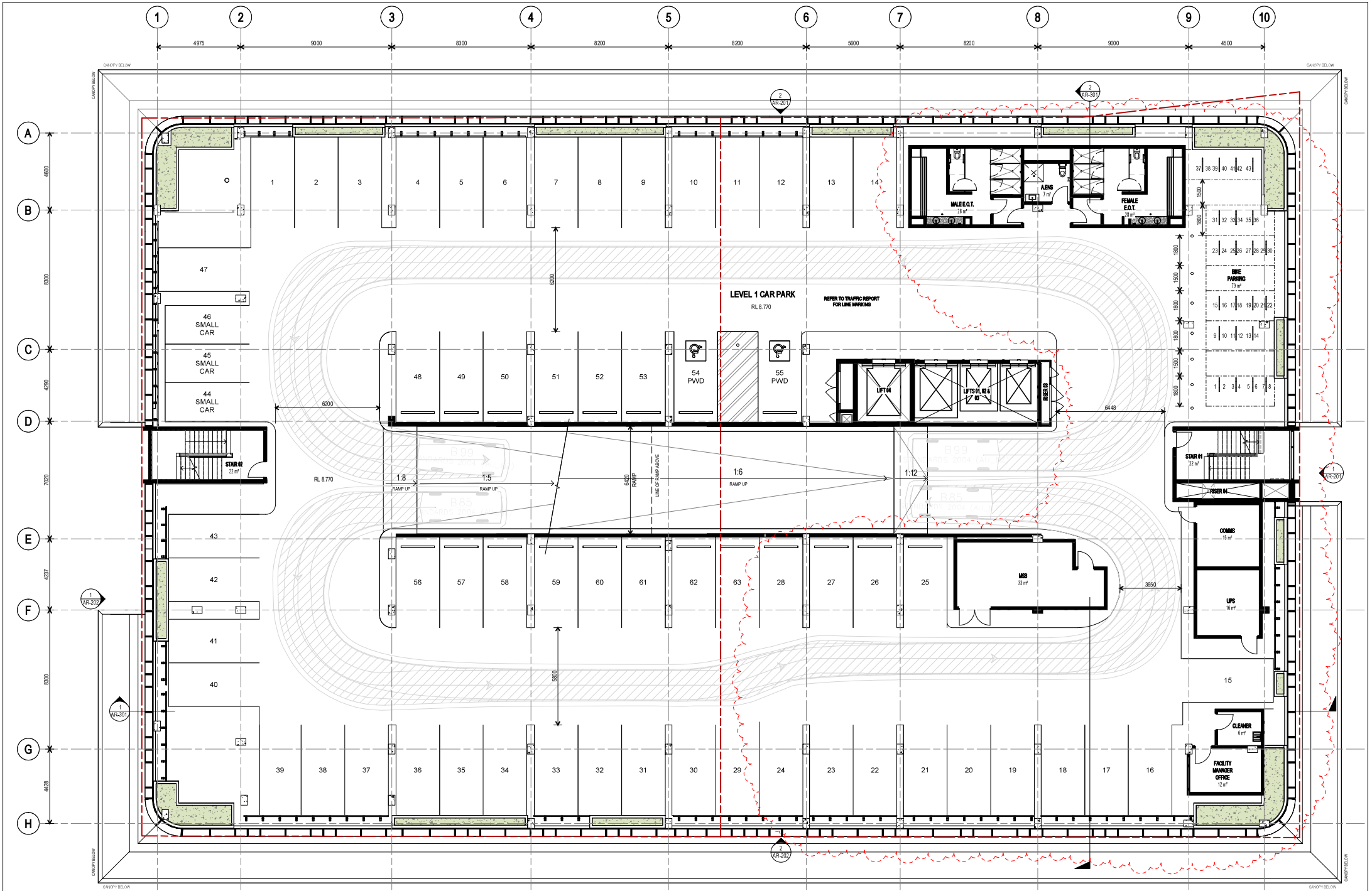

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K	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	13.11.23

STATUS: DEVELOPMENT APPROVAL

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HSPC HEALTH ARCHITECTS

PROJECT: MAROOCHY PRIVATE HOSPITAL

DRAWING TITLE: FLOOR PLAN - LEVEL 01

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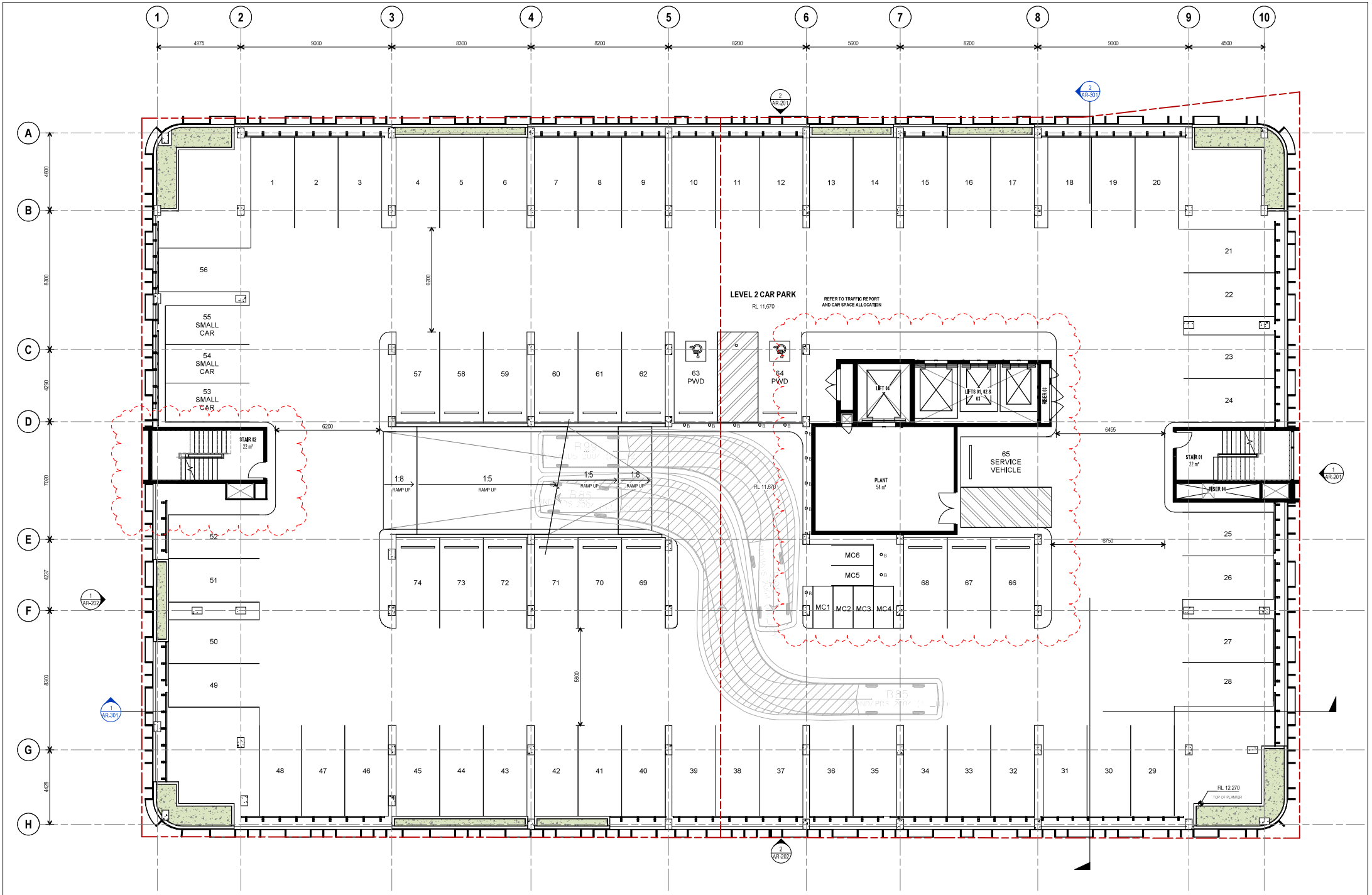

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G	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	30.11.22
H	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	22.09.23

STATUS: DEVELOPMENT APPROVAL

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PROJECT: MAROOCHY PRIVATE HOSPITAL

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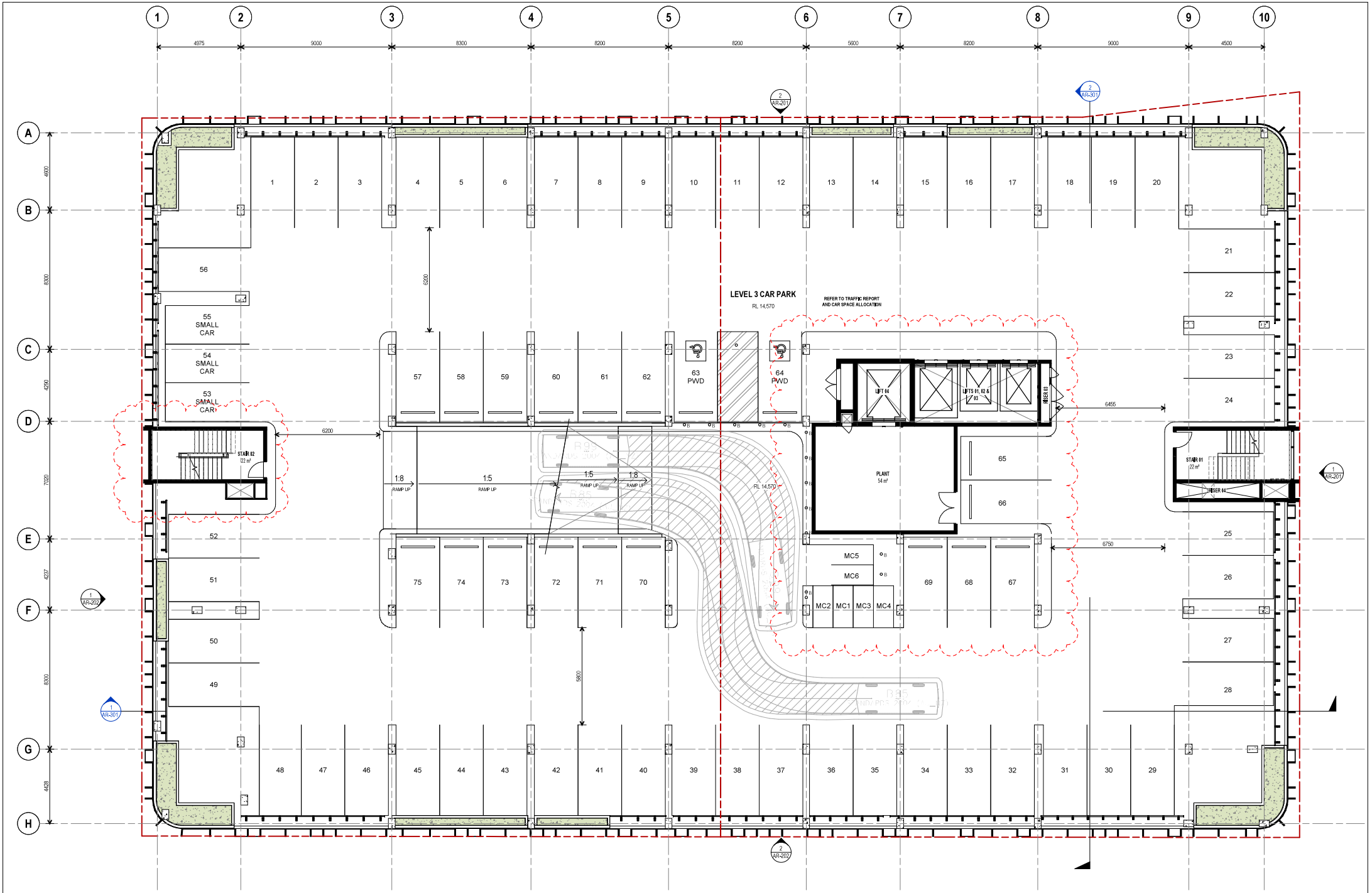

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STATUS: DEVELOPMENT APPROVAL

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PROJECT: MAROOCHY PRIVATE HOSPITAL

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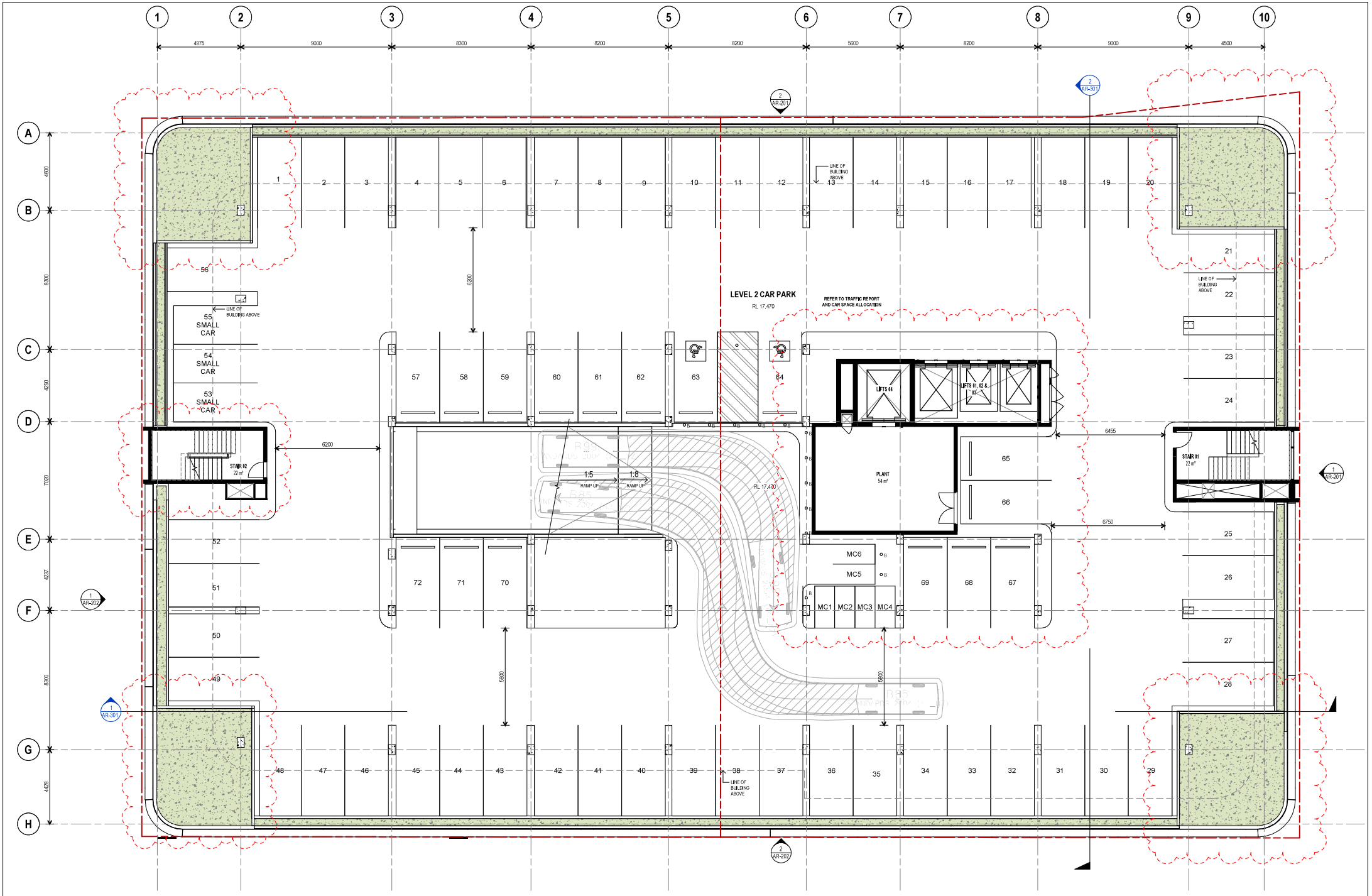

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G	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	30.11.22
H	DEVELOPMENT APPROVAL AMENDMENT	PM	MS	22.09.23

STATUS: DEVELOPMENT APPROVAL

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PROJECT: MAROOCHY PRIVATE HOSPITAL

DRAWING TITLE: FLOOR PLAN - LEVEL 04

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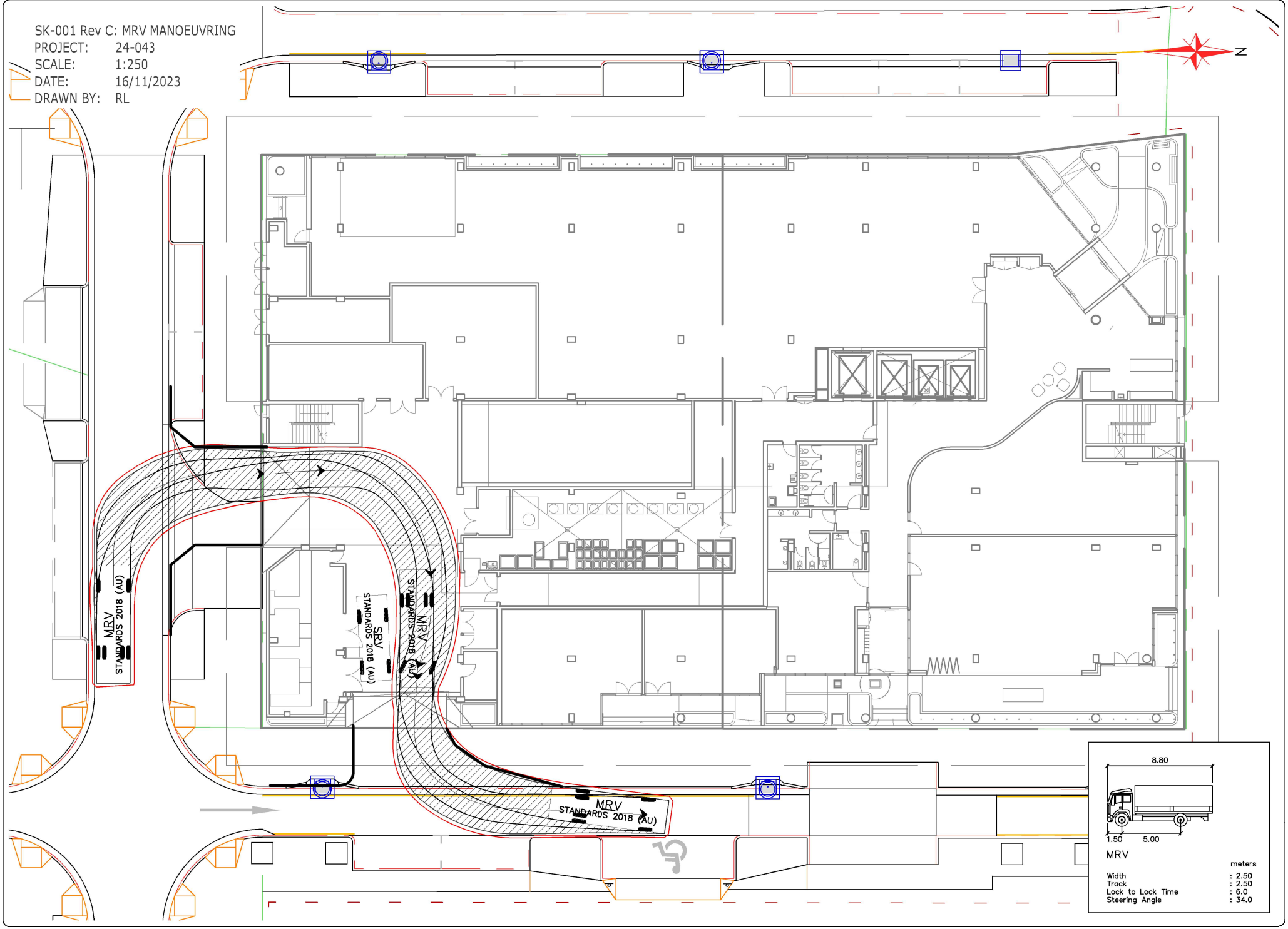

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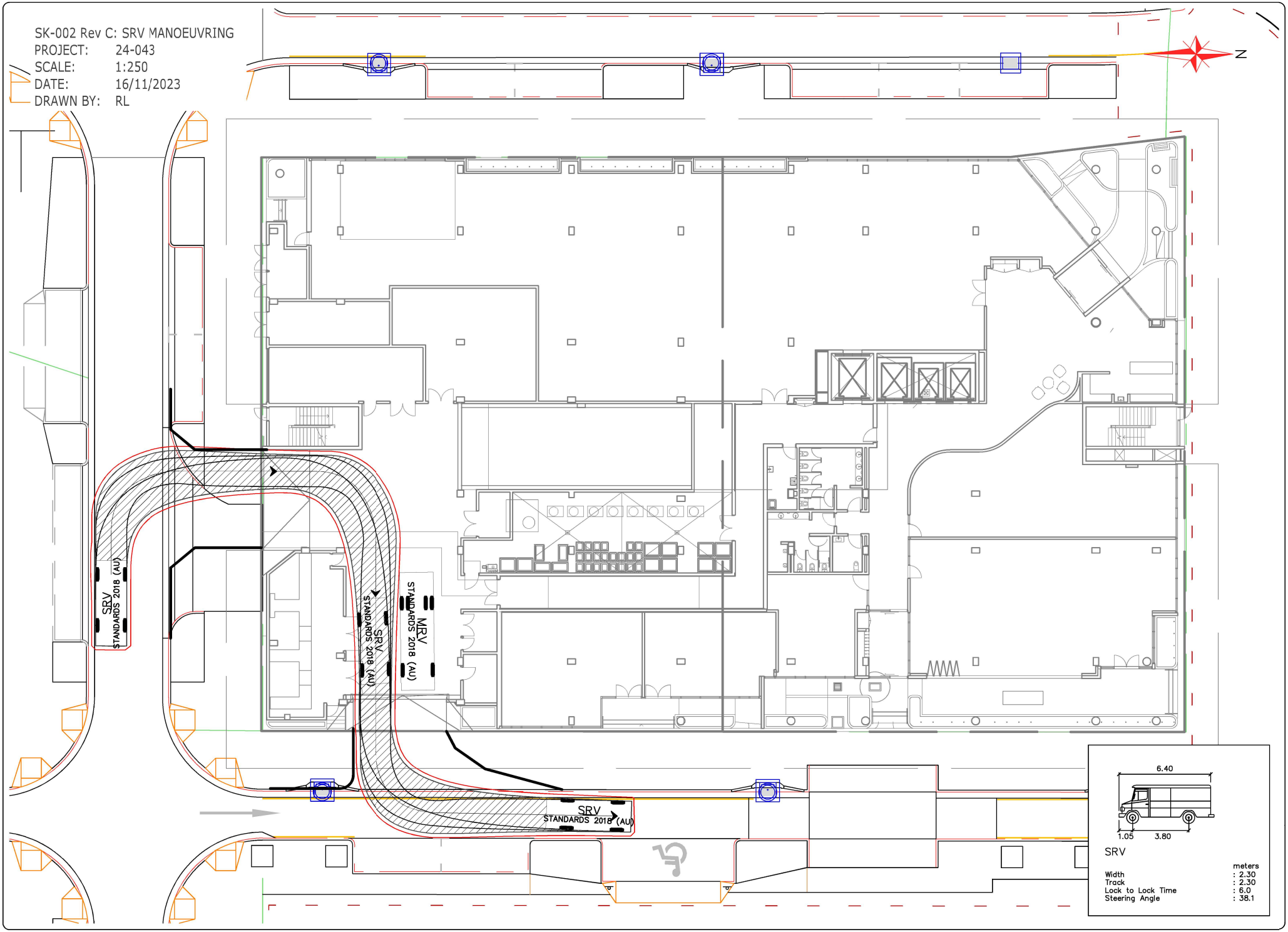

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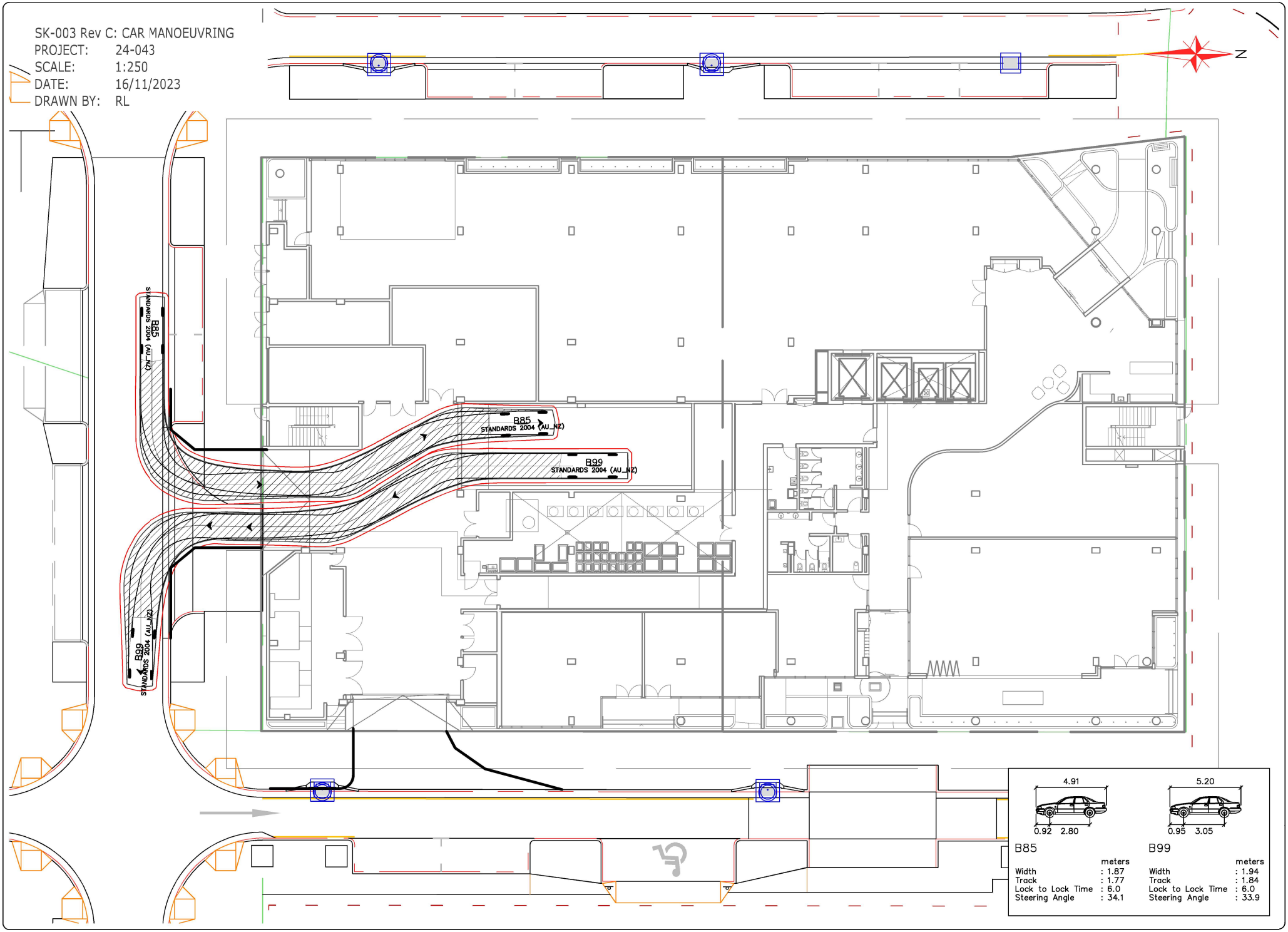

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Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

B99

	meters
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Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

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PROJECT: 24-043
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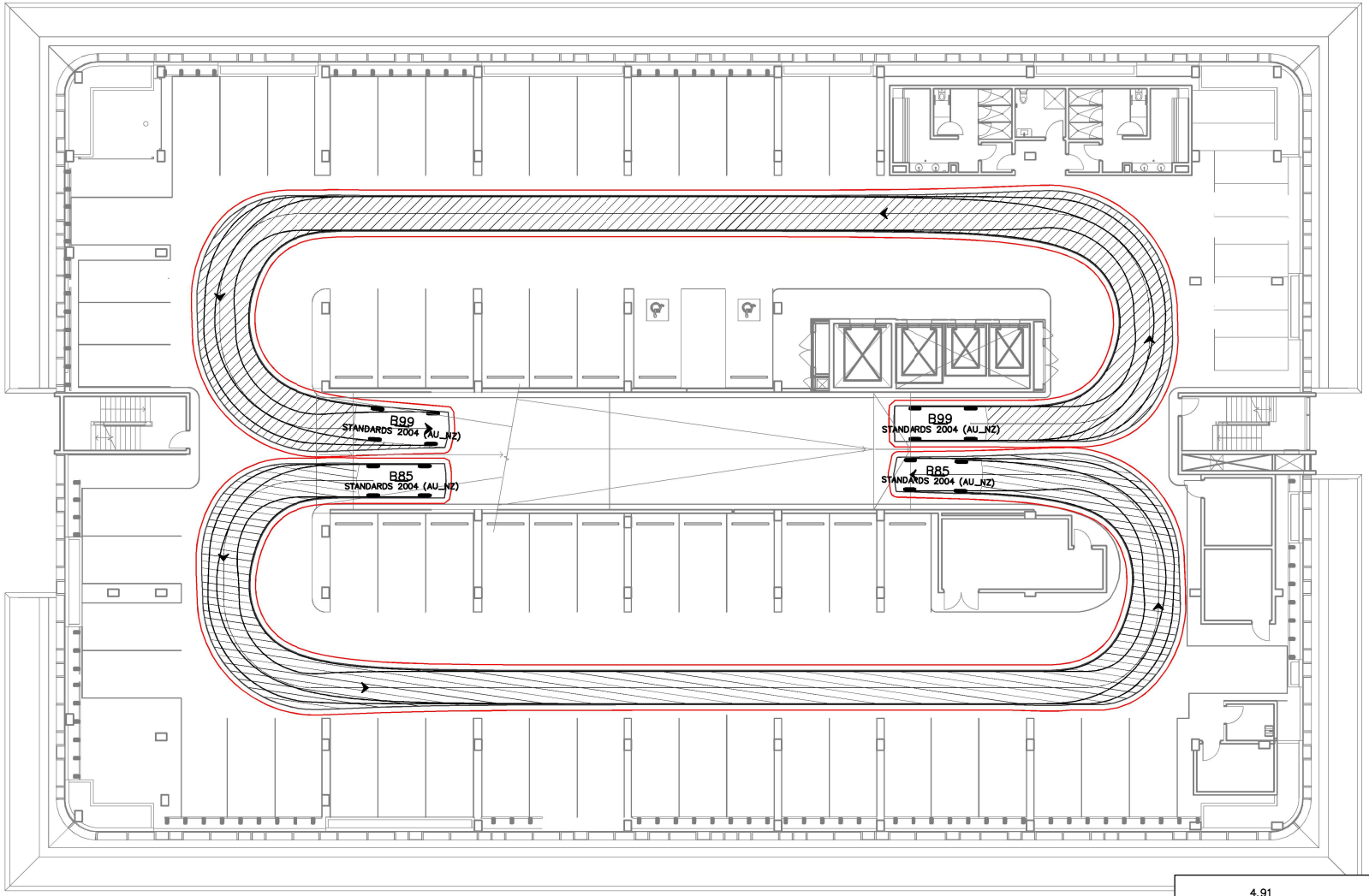

B85

	meters
Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SK-005: FUEL TRUCK MANOEUVRING
PROJECT: 24-043
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