TRANSPORT IMPACT STATEMENT

55 Kishorn Road

Mount Pleasant

July 2024

Rev A

kctt

PART OF Premise

HISTORY AND STATUS OF THE DOCUMENT

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1. Executive Summary

Site Context

- The subject site is currently occupied by a family office building within the Mixed-Use Zone (Q2 - Ogilvie Quarter) of the Canning Bridge Activity Centre. The proposed land use is a six-storey residential development comprising 21 units.

Technical Findings

- The proposed development is likely to generate 137 vehicular trips per day and 14 vehicular trips in the peak hour.
  Taking into account the current traffic generation of the site the total additional traffic on the road network would be 117 vehicular trips per day and 10 vehicular trips in the peak hour.
- According to WAPC guidelines, all developments generating 10-100 VPH can be deemed to have a moderate impact on the network.
  In context of the surrounding road network the additional traffic from the proposed development can be considered negligible.

Relationship with Policies

- The proposed development offers a total of 24 car parking bays, which is within the range recommended in the Canning Bridge Activity Centre Plan Design Guidelines. There are 10 standard bays, 2 small car parking bays and 12 stacker bays. As the building does not contain accessible dwelling units no ACROD car bays are required.
- Proposed development requires 21 bicycle parking spaces, which can be split between storage areas and shared parking. Current plans show 9 shared bicycle parking spaces, and each unit has a designated storage area. However, storage units do not seem to be of adequate size for bicycle storage. Therefore, storage units are to be amended or an additional 12 public bicycle spaces provided.
- No service or delivery entrance is expected to the site. Waste collection would be arranged from the street.
- The proposed parking area has been checked with a standard B99 Passenger Vehicle 5.2m and a B85 Passenger Vehicle 4.91m.
  Please refer to the swept path analysis plans provided in Appendix 3.

Conclusion

- As stated above the additional traffic attracted to the subject site is expected to increase by 117 vehicular trips per day and 10 vehicular trips in the peak hour.
- Kishorn Road is classified as Access Street as per MRWA classification with the maximum desirable volume of 3,000 vehicles per day. Currently it is assumed that Kishorn Road carries around 1,000 vehicles per day. Therefore, with the added traffic from the subject site the street would remain well under the maximum desirable traffic volume for access streets.
- Other surrounding roads would absorb significantly less traffic than Kishorn Road, moreover, the traffic would be dispersed so that the impact can be considered negligible.
- In summary KCTT believe that the proposed development will not have a negative impact on the surrounding road network.

2. Transport Impact Statement

2.1 Proposal

Gary Batt Associates Architects engaged KCTT to prepare a Transport Impact Statement (TIS) for the proposed six storey residential apartments building at 55 Kishorn Road, Mount Pleasant.

This report will primarily address the level of impact of the proposed development and the requirements for integration of the proposed development with the surroundings, namely the existing and planned immediate road network.

2.2 Location

Lot Number	3
Street Number	55
Road Name	Kishorn Road
Suburb	Mount Pleasant
Description of Site	The subject site is currently occupied by a family office building within the Mixed-Use Zone (Q2 - Ogilvie Quarter) of the Canning Bridge Activity Centre. The proposed land use is a six-storey residential development containing 21 units.

2.3 Technical Literature Used

Local Government Authority	City of Melville
Type of Development	Residential
Are the R-Codes referenced?	YES
If YES, nominate which:	State Planning Policy 7.3 Residential Design Codes Volume 2 - Apartments (Gazetted on 24 May 2019)
Is the NSW RTA Guide to Traffic Generating Developments Version 2.2 October 2002 (referenced to determine trip generation / attraction rates for various land uses) referenced?	YES
Which WAPC Transport Impact Assessment Guideline should be referenced?	Volume 4 - Individual Developments
Are there applicable LGA schemes for this type of development?	YES
If YES, Nominate:	
Name and Number of Scheme	Local Planning Scheme No.6
Are Austroads documents referenced?	YES
Is the Perth Transport Plan for 3.5 million and Beyond referenced?	NO

2.4 Land Uses

Are there any existing Land Uses	YES
If YES, Nominate:	Financial adviser office – assumed 200m^2

Proposed Land Uses	
How many types of land uses are proposed?	One
Nominate land use type and yield	Residential – 21 apartments: • 17 x 2-bedroom units • 3 x 1-bedroom units • 1 x 3-bedroom unit
Are the proposed land uses complementary with the surrounding land-uses?	YES

2.5 Local Road Network Information

How many roads front the subject site?	1

Name of Roads Fronting Subject Site / Road Classification and Description:

Road Name	**Kishorn Road**
Number of Lanes	two way, one lane (no linemarking), undivided
Road Reservation Width	20.0m
Road Pavement Width	6.0m inclusive of on street parking
Classification	Access Road
Speed Limit	50kph
Bus Route	NO
On-street parking	YES
Traffic volumes	No available traffic counts – assumed <1,000 VPD

Name of Other Roads within 400m radius of site, or roads likely to take increased traffic due to the development:

Road Name	**Canning Highway**
Number of Lanes	two way, two lanes per direction, divided
Road Reservation Width	33.5m (varies)
Road Pavement Width	23m inclusive of a 3m median
Classification	Primary Distributor
Speed Limit	60kph
Bus Route	YES
If YES Nominate Bus Routes	111, 114, 115, 148, 158, 160, 910
On-street parking	NO

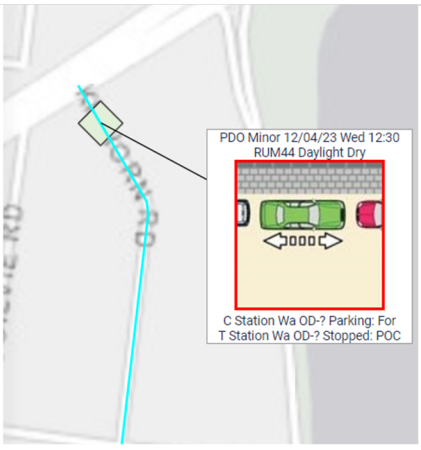
2.6 Traffic Volumes

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)				Heavy Vehicle %	Date of Traffic Count	*If older than 3 years multiply with a growth rate*
			AM Peak Time	AM Peak VPH	PM Peak Time	PM Peak VPH	*If HV count is Not Available, are HV likely to be in higher volumes than generally expected?*		
Canning Highway	East of Sleat Road	49,388	07:30	4,175	16:30	3,722	6.3%	20/21	
	At Canning Bridge	62,520	07:45	5,246	16:30	4,921	6.3%	22/23	
Kintail Road	East of Armstrong Road	5,508	07:30	605	17:30	419	5.8%	19/20	
Reynolds Road	South of Canning Highway	7,071	07:45	781	16:45	569	4.7%	21/22	
Sleat Road	South of Canning Highway	3,435	07:30	349	17:00	291	4.2%	18/19	

2.7 Vehicular Crash Information

Is Crash Data Available on Main Roads WA website? YES

Road Details	1190031 (Kishorn Rd) (0.98 to 1.24)					
Date Range	01/01/19 to 31/12/23					
	Severity	Date	Time	Nature	RUM Code	Crash Number
1190031 - KISHORN RD						
zoom	PDO Minor	2023-04-12	12:30		44	2023158351
Total:1						



The following tables shows crash rates and crash densities in Perth Metropolitan area on local roads and state roads for the period from 2017 to 2022, as obtained from Main Roads WA on the 31st May 2022 by email request:

Crash Density and Crash Rate on Metropolitan Local Roads Network only

	All Crashes		Serious Injury Crashes (Fatal+Hospital)	
	Average Annual Crash Density (All Crashes/KM)	Average Annual Crash Rate (All Crashes/MVKT)	Average Annual Crash Density (Ser. Inj. Crashes/KM)	Average Annual Crash Rate (Ser. Inj. Crashes/MVKT)
Metro Local Roads - Midblock	2.51	0.95	0.12	0.05
Metro Local Roads - All	5.23	1.98	0.24	0.09

Note: Based on 5-years data for the period 2017 to 2021.

Definitions of acronyms and terms used in this analyse can be found below:

- PDO Crash - a crash that results in property damage only (major or minor) and does not require hospitalisation or medical treatment, as listed in Main Roads WA's Crash Analysis Reporting System (CARS).
- KSI Crashes - Killed and serious injury crash
- MVKT - Million Vehicle Kilometres Travelled.

Road Name	SLK	Road Hierarchy	Speed Limit	Crash Statistics			
				No of KSI Crashes	No of Medical Attention Crashes	No of PDO Major Crashes	No of PDO Minor Crashes
Kishorn Road	0.98-1.24	Access Road	50kph	0	0	0	1
No of MVKT Travelled at Location			App. 1,000 VPD * 365 * 5 years * 0.26 km = 0.47 MVKT				
KSI Crash Rate			0 KSI crashes / 0.47 MVKT = 0 KSI crashes/MVKT				
All Crash Rate			1 crashes / 0.47 MVKT = 2.21 crashes/MVKT				
Comparison with Crash Density and Crash Rate Statistics			All crashes rate of 2.21 is higher than the network average of 0.95 Crashes per MVKT for Local Roads Network				

Of the above recorded incidents, there does not appear to be any pattern or re-occurring similar incidents that would highlight sections of the road being excessively unsafe. The number and type of incidents recorded are consistent with similar access roads in the area.
Given the class of road and crash types, it is concluded that the road network is operating in a manner consistent with local access road network. The proposed development is not expected to have an adverse impact on road safety at this location.

2.8 Vehicular Parking

Local Government	City of Melville
Local Government Document Utilised	Canning Bridge Activity Centre Plan Design Guidelines
Description of Parking Requirements in accordance with Scheme:	

"18.3 Car parking and motorcycle/scooter parking for residential development shall be provided as follows - Dwelling type Q1 & Q2:

- *Studio or single bedroom dwellings: Min: 0.75/ Max: 1.0*
- *Two or three-bedroom dwellings: Min: 1.0/ Max: 1.5*
- *Residential visitor: N/A*
- *Motorcycle/Scooter parking: N/A"*

Calculation of Parking

Land Use	Requirements	Yield	Total Parking
Residential Apartments	*1 bedroom – 0.75/unit*	3 x 1-bedroom units	2.25
	2+ bedrooms – 1/unit	17 x 2-bedroom units	17
		1 x 3-bedroom units	1
		Total Car Parking Requirement	**21**
		Total Volume of Parking Provided by Proponent	**24**

Justification

The proposed development offers a total of 24 car parking bays, which is within the range recommended in the Canning Bridge Activity Centre Plan Design Guidelines. There are 10 standard bays, 2 small car parking bays and 12 stacker bays.

2.9 Compliance with AS2890 Parking facilities

Which Austroads documents are referenced?	• Australian/New Zealand Standard, Parking facilities, Part 1: Off-street car parking - AS 2890.01
Number of Parking Bays on-site	• 24 bays
Proposed development User Class	• 1A - Residential, domestic and employee parking
Driveway category and dimensions	• Category 1 access driveway • 3.5 m driveway width

2.9.1 Compliance Overview

FULL COMPLIANCE | PARTIAL DEPARTURE | FULL DEPARTURE | NOT APPLICABLE

Element	Compliance	Comment
Car Bay Class 1A		
Aisle width		
Blind Aisle Extension		800mm provided instead of 1m, however as the end bays are for small cars there are no navigability issues.
Single-sided aisle width		
Columns location		
Location of driveway		
Sight distance requirements at access driveways		
Minimum sight lines for pedestrian safety		

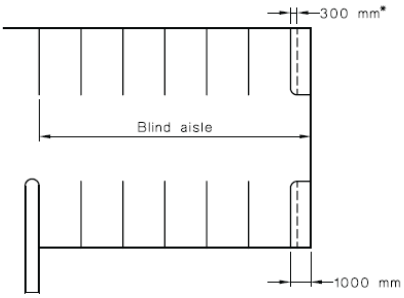
2.9.2 Comparison of proposed layout to AS2890.01 requirements

Parking Bay Type	AS2890.1:2004 Off-street car parking AS2890.6 Off-street parking for people with disabilities					
	Parking Bay Length		Parking Bay Width		Aisle Width	
	Required	Proposed	Required	Proposed	Required	Proposed
All bays at 90° (User Class 1A)	5.4m	5.4m 5.1m small bay	2.4m	2.4m 2.3m small bay	5.8m	6.1m

Name other requirements in the AS2890.1:2004 document.

*"**Blind aisles***
At blind aisles, the aisle shall be extended a minimum of 1 m beyond the last parking space, as shown in Figure 2.3, and the last parking space widened by at least 300 mm if it is bounded by a wall or fence.
In car parks open to the public, the maximum length of a blind aisle shall be equal to the width of six 90 degree spaces plus 1 m, unless provision is made for cars to turn around at the end and drive out forwards.

Single-sided aisles
Where there is angle parking on one side of an aisle only and the other side is confined by a wall or other high vertical obstruction closer than 300 mm to the nominal edge of the aisle, to provide maneuvering clearance, the aisle width shall be increased by 300 mm, measured to the vertical obstruction."



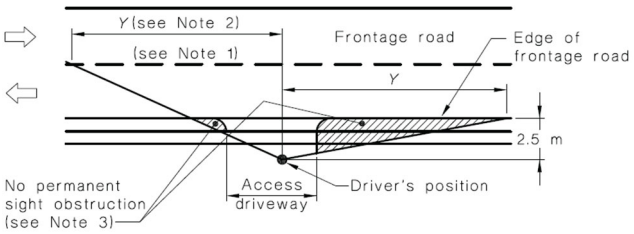
*Additional widening required if there is a wall or fence at the side of the last space, see Clause 2.4.1(b)(ii).

DIMENSIONS IN MILLIMETRES

FIGURE 2.3 BLIND AISLE EXTENSION

Blind aisle	800mm provided instead of 1m, however as the end bays are for small cars there are no navigability issues.
Single sided aisles	300mm provided as required

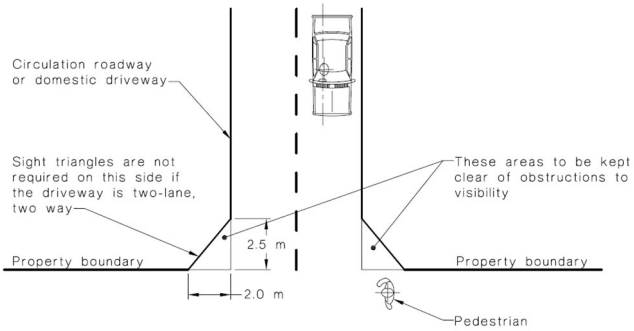
"Entering sight distance
Unsignalized access driveways shall be located so that the intersection sight distance along the frontage road available to drivers leaving the car park or domestic driveway is at least that shown in Figure 3.2."



Frontage road speed (Note 4) km/h	Distance (Y) along frontage road m		
	Access driveways other than domestic (Note 5)		Domestic property access (Note 6)
	Desirable 5 s gap	Minimum SSD	
40	55	35	30
50	69	45	40

Sight distance requirements at access driveways	40m sight distance achievable as required.

"Sight distance to pedestrians
Clear sight lines as shown in Figure 3.3 shall be provided at the property line to ensure adequate visibility between vehicles leaving the car park or domestic driveway and pedestrians on the frontage road footpath."

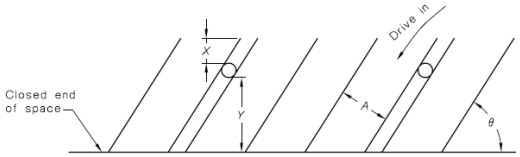


Minimum sight lines for pedestrian safety	Clear pedestrian sightlines provided.

"Column Location and Spacing

The dimensions for locating columns in a short span structure shall be as given in Figure 5.1. The design envelope around a parked vehicle which is to be kept clear of columns, walls or other obstructions, is shown in Figure 5.2. If this requirement is met, the dimensions in Figure 5.1 will also be achieved.

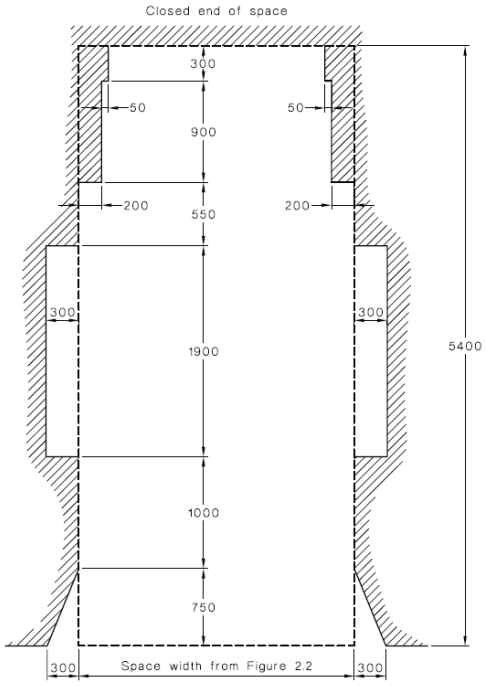
NOTE: Columns should not be located at the edge of a parking aisle. The difficulty of manoeuvring into a parking space is increased by such a location. It is also desirable to avoid locating a column directly opposite a car door."



A = parking space width (see Figure 2.2)

Parking angle, θ, degrees	Dimensions, mm	
	X, min.	Y, min.
30	375	1825
45	530	2581
60	650	3161
75	724	3526
90	750	3650

FIGURE 5.1 COLUMN LOCATION



NOTE: The design envelope provides for structural elements to be clear of all four side doors.

DIMENSIONS IN MILLIMETRES

FIGURE 5.2 DESIGN ENVELOPE AROUND PARKED VEHICLE TO BE KEPT CLEAR OF COLUMNS, WALLS AND OBSTRUCTIONS

Column position	All proposed columns, as shown on plans in Appendix 1 are positioned at appropriate locations and in accordance with the AS2890.01 requirement.

City of Melville Guidelines and Specifications for Crossovers states:

"3.1.1 Width

Residential crossover width is defined as follows:

- *A minimum of 3.0m for all developments.*
- *A maximum of 4.5m for lots with a frontage of 12.5m or less.*
- *A maximum of 6m for lots with a frontage in excess of 12.5m.*

Commercial crossover width – 4.5m minimum to 10m maximum."

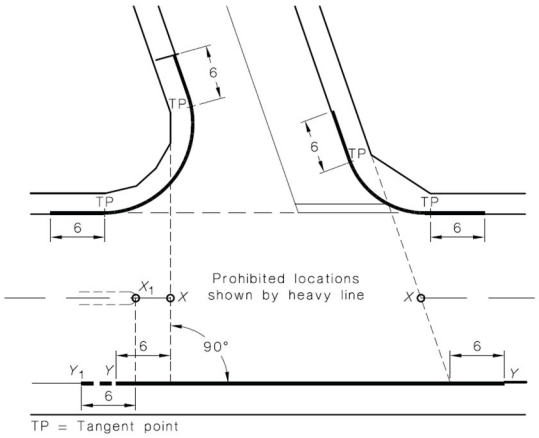
AS 2890.01 Parking facilities Part 1: Off-street car parking states:

"3.2.2 Width requirements at low volume (Category 1) access driveways and connecting roadways

Subject to consideration of traffic volumes on a case-by-case basis, lesser widths, down to a minimum of 3.0 m at a domestic property, may be provided. As a guide, 30 or more movements in a peak hour (in and out combined) would usually require provision for two vehicles to pass on the driveway, i.e. a minimum width of 5.5 m."

Access driveway width	Having in mind that the proposed development is a residential property which would not generate 30 or more movements in a peak hour a 3.5m crossover is proposed.

"Access driveway location
Driveway Categories 1 and 2 At unsignalized intersections of sub-arterial, collector or local streets with each other or with an arterial road, access driveways in Categories 1 and 2 (see Table 3.1) shall not be located in the sections of kerb shown by heavy lines in Figure 3.1. This requirement shall not apply to accesses to domestic driveways in the kerb section opposite the entering road at any intersection including signalized intersections. Furthermore, it shall not apply to any access driveway serving a property which would otherwise be denied access due to the physical impossibility of meeting the requirement."



Access driveway location	The proposed crossover will be located more than 6m from any intersection tangent point.

2.9.3 Vehicle Swept Paths

Have Vehicle Swept Paths been checked for Parking?	YES

If YES, provide description of performance:

The proposed parking area has been checked with a standard B99 Passenger Vehicle 5.2m and a B85 Passenger Vehicle 4.91m.

The designated vehicles can easily navigate through the entire parking area.

Having in mind that the proposed development is a residential property which would not generate 30 or more movements in a peak hour a 3.5m crossover is proposed. This option prioritises entering vehicles to avoid queuing on the street. Exiting vehicles would have enough space to queue within the development site.

Please refer to the swept path analysis plans provided in Appendix 3.

2.10 Bicycle Parking

Local Government	City of Melville
Reference Document Utilised	Canning Bridge Activity Centre Plan Design Guidelines

Description of Parking Requirements in accordance with Scheme:

"18.8 Bicycle storage/parking shall be provided for all residential development at a ratio of one bay for every dwelling within a development site and can be comprised within storage areas required as per Clause 19.5 or in shared parking areas or both.

19.5 In Q1 and Q2, all residential developments shall comprise an enclosed, lockable storage area, with a minimum dimension of 1.5m with an internal area of at least 4m2, for each grouped or multiple dwelling(s)."

Parking Requirement in accordance with regulatory documents

Land Use	Requirements	Yield	Total Parking
Residential Apartments	*1 / dwelling*	21 dwellings	21
	Total Volume of Bicycle Parking Required		**21**

Total Volume of Bicycle Parking Provided by Proponent	9 bike racks

Justification

Proposed development requires 21 bicycle parking spaces, which can be split between storage areas and shared parking. Current plans show 9 shared bicycle parking spaces, and each unit has a designated storage area. However, storage units do not seem to be adequate in dimension for bicycle storage. Therefore, storage units are to be amended or an additional 12 public bicycle spaces provided.

2.11 ACROD Parking

Class of Building	Class 2
Does this building class require specific provision of ACROD Parking?	NO
Reference Document Utilised	Building Code of Australia

Justification

As the building does not contain accessible dwelling units no ACROD car bays are required.

2.12 Delivery and Service Vehicles

Local Government	City of Melville
Local Government Document Utilised	Canning Bridge Activity Centre Plan Design Guidelines

Requirements

"19.1 The design of service entrances and delivery docks shall be undertaken in conjunction with adjoining properties where possible. Loading areas at grade which are visible from public areas are not permitted."

Justification

No service or delivery entrance is expected to the site. Waste collection would be arranged from the street.

2.13 Calculation of Development Generated / Attracted Trips

What are the likely hours of operation?	Not applicable for residential developments
What are the likely peak hours of operation?	08:00 – 09:00 / 17:00 – 18:00
Do the development generated peaks coincide with existing road network peaks?	YES – partially both peaks
Guideline Document Used	**NSW RTA Guide to Traffic Generating Developments**
Rates from above document:	
3.3.2 Medium density residential flat building.	
Daily vehicle trips = 5.0-6.5 per dwelling	
Weekday peak hour vehicle trips = 0.5-0.65 per dwelling.	
3.5 Office and commercial.	
Daily vehicle trips = 10 per 100 m2 gross floor area	
Evening peak hour vehicle trips = 2 per 100 m2 gross floor area.	

Land Use Type	Rate above	Yield	Daily Traffic Generation	Peak Hour Traffic Generation
Existing				
Financial adviser office	*10 VPD /100m^2 GFA* *2 VPH / 100m^2 GFA*	assumed 200m^2	20	4
Proposed				
Residential Apartments	*6.5 VPD / dwelling* *0.65 VPH / dwelling*	21 units	137	14
Total traffic from the proposed development (A)			**137**	**14**
Total Existing Traffic from the subject site (A^0)			**20**	**4**
Total Additional traffic from the proposed development ($A-A^0$)			**117**	**10**

What is the total impact of the new proposed development?	According to WAPC guidelines, all developments generating 10-100 VPH can be deemed to have a **moderate** impact on the network. In context of the surrounding road network the additional traffic from the proposed development can be considered negligible.

2.14 Traffic Flow Distribution

How many routes are available for access / egress to the site?	Two routes
Route 1 / Movement 1	
Provide details for Route No 1	To/from the north via Kishorn Road and Canning Highway
Percentage of Vehicular Movements via Route No 1	60%
Route 2 / Movement 2	
Provide details for Route No 2	To/from the south via Kishorn Road and Helm Street
Percentage of Vehicular Movements via Route No 2	40%

Note - For a more detailed plans of the estimated vehicular traffic volumes and distribution please refer to the plans provided in Appendix 2.

2.15 Public Transport Accessibility

How many bus routes are within 400 metres of the subject site?			6 routes
How many rail routes are within 800 metres of the subject site?			1 route
Bus Route	**Description**	**Peak Frequency**	**Off-Peak Frequency**
111	Fremantle Station - East Perth via Canning Highway & Kwinana Highway	10 minutes	No off-peak service
114	Perth - Lake Coogee via Canning Bridge Station and Booragoon Bus Station	15 minutes	1 hour
115	Perth - Hamilton Hill via Booragoon Bus Station	20 minutes	1 hour
148	Fremantle Station – Como via Bicton & Attadale	1 hour	No off-peak service
158	Fremantle Station – Perth via Bicton & Attadale	20 minutes	No off-peak service
160	East Perth - Fremantle Station via Willagee & Booragoon	15 minutes	1 hour
910	Perth - Fremantle Station via Canning Highway	15 minutes	30 minutes
Rail Route	**Description**	**Peak Frequency**	**Off-Peak Frequency**
Mandurah Line	Perth Underground - Elizabeth Quay - Canning Bridge - Bull Creek - Murdoch - Cockburn Central - Aubin Grove - Kwinana - Wellard - Rockingham - Warnbro - Lakelands - Mandurah	5 minutes	10 minutes

Walk Score Rating for Accessibility to Public Transport
62 Good Transit. Many nearby public transportation options.

Significant projects in the area

Canning Bridge Bus Interchange

The Canning Bridge projects include:

- *The relocation and construction of the Canning Bridge Bus Interchange in an area located east of the Canning River in the City of South Perth*
- *The construction of the Manning Road southbound On Ramp onto Kwinana Freeway*
- *The duplication of Canning Bridge to four lanes in both directions*

The City of Melville has been working with the City of South Perth and the State Government to progress the proposed works associated with the Canning Bridge area over many years and in accordance with the approved structure plans.

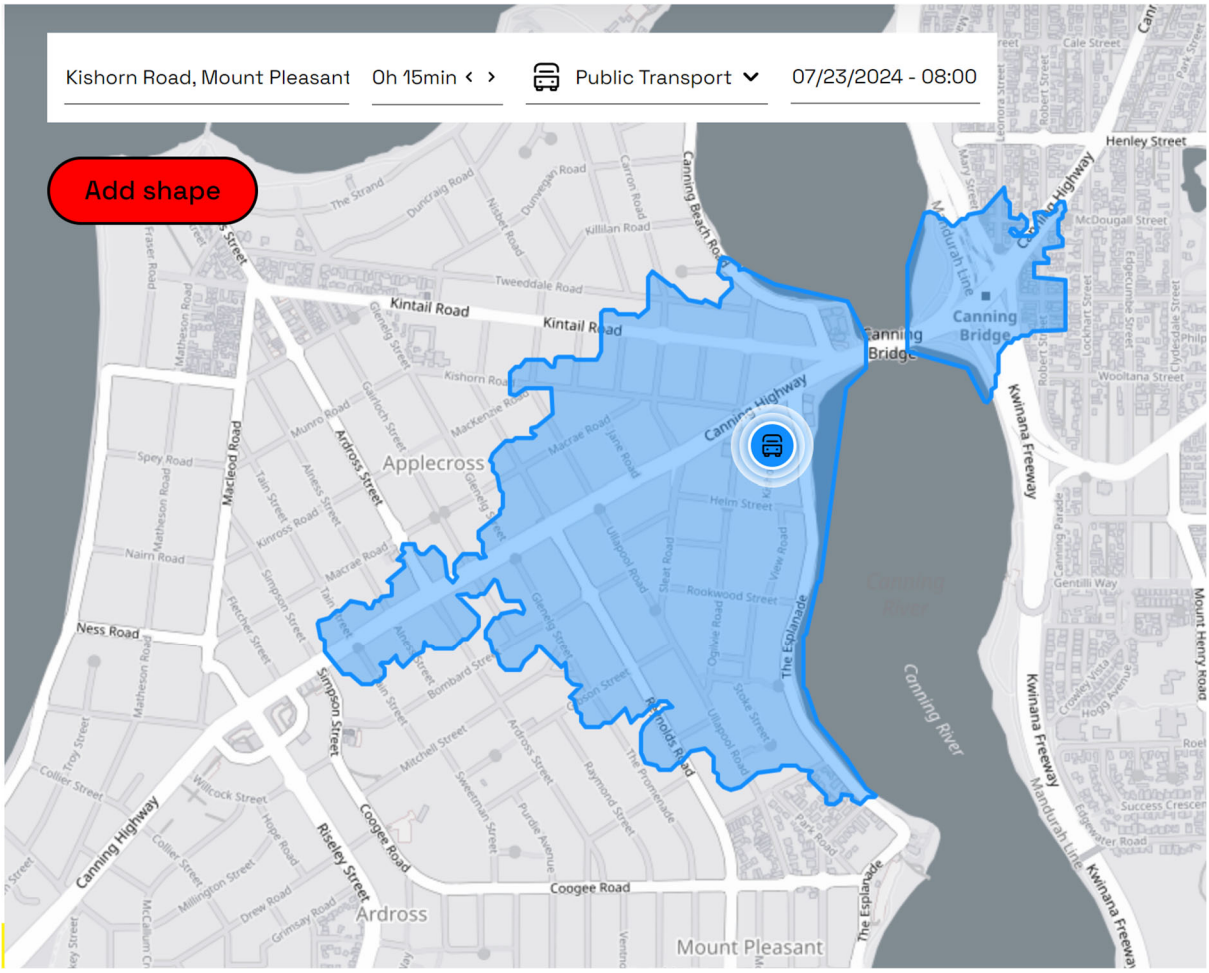


Figure 1 - Current Public Transport Travel Catchment (15 minutes)

2.16 Pedestrian Infrastructure

Describe existing local pedestrian infrastructure within a 400m radius of the site:	
Classification	**Road Name**
"Other Shared Path (Shared by Pedestrians and Cyclists)"	The Esplanade

Most streets within 400m radius have a pedestrian path on at least one side of the road.

Facilitation of pedestrian and cyclist movement is a fundamental strategy for the Canning Bridge Activity Centre Plan. A number of structural, land use, and other strategies are included to encourage walking and cycling as a mode of choice.

It should be noted that Kishorn Road is envisioned as a Low-Speed Pedestrian Environment with On Road Bicycle Network as per Canning Bridge Activity Centre.

Does the site have existing pedestrian facilities	YES
Does the site propose to improve pedestrian facilities?	NO
What is the Walk Score Rating?	
78	Very Walkable. Most errands can be accomplished on foot.

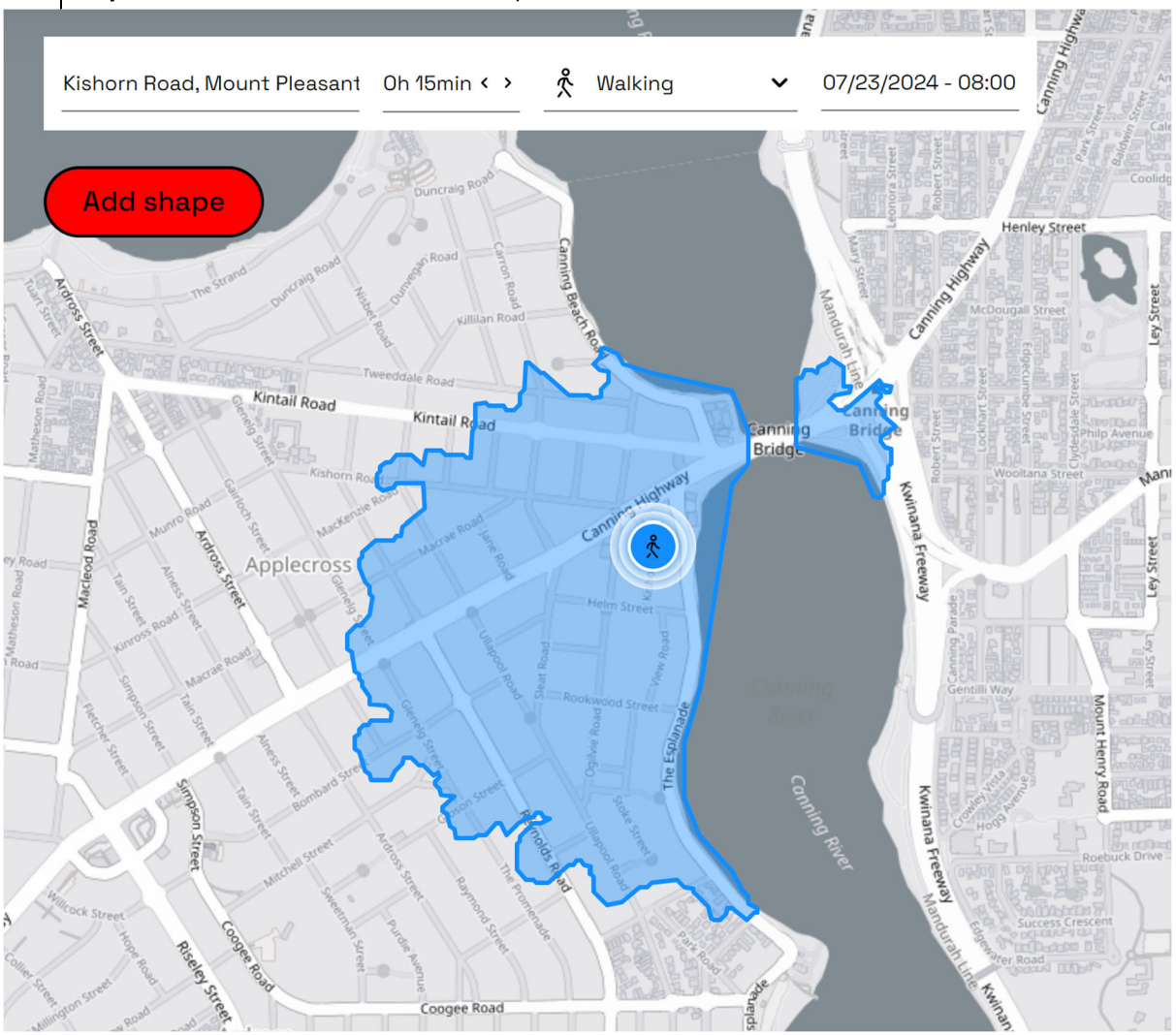


Figure 2 - Walking Catchment (15 minutes)

2.17 Cyclist Infrastructure

Are there any PBN Routes within an 800m radius of the subject site?	YES

If YES, describe:

Classification	Road Name
"Principal Shared Path"	Kwinana Freeway
"Other Shared Path (Shared by Pedestrians and Cyclists)"	The Esplanade
"Good Road Riding Environment"	Helm Street, Wren Street, Ogilvie Street, Forbes Road, Kintail Road, Bombard Street, Tweedale Road
"Bicycle Lanes or Sealed Shoulder Either Side"	Canning Beach Road, Reynolds Road

Are there any PBN Routes within a 400m radius of the subject site?	YES

If YES, describe:

Classification	Road Name
"Other Shared Path (Shared by Pedestrians and Cyclists)"	The Esplanade
"Good Road Riding Environment"	Helm Street, Wren Street, Ogilvie Street, Forbes Road, Kintail Road
"Bicycle Lanes or Sealed Shoulder Either Side"	Canning Beach Road

Does the site have existing cyclist facilities?	NO
Does the site propose to improve cyclist facilities?	YES – bicycle parking provided

Facilitation of pedestrian and cyclist movement is a fundamental strategy for the Canning Bridge Activity Centre Plan. A number of structural, land use, and other strategies are included to encourage walking and cycling as a mode of choice.

It should be noted that Kishorn Road is envisioned as a Low Speed Pedestrian Environment with On Road Bicycle Network as per Canning Bridge Activity Centre.

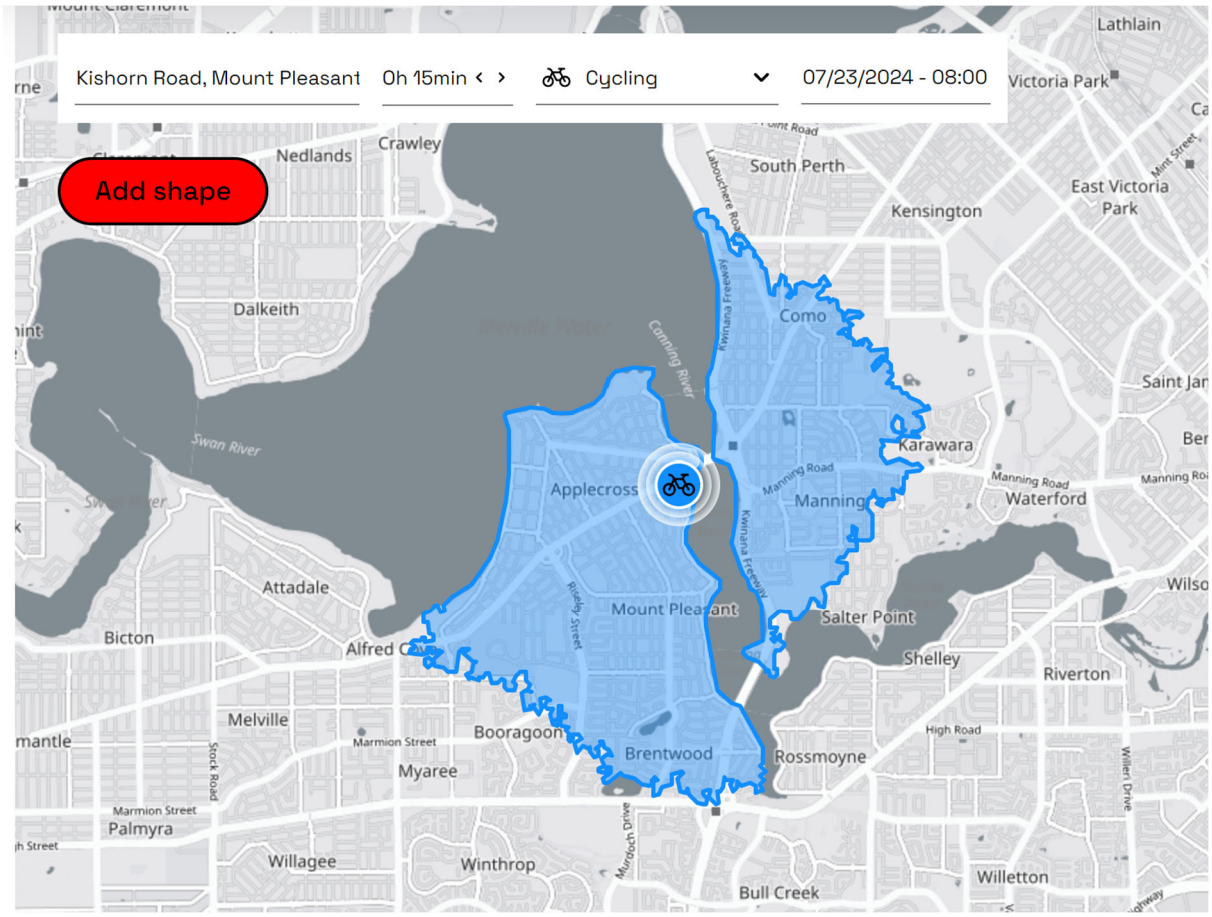


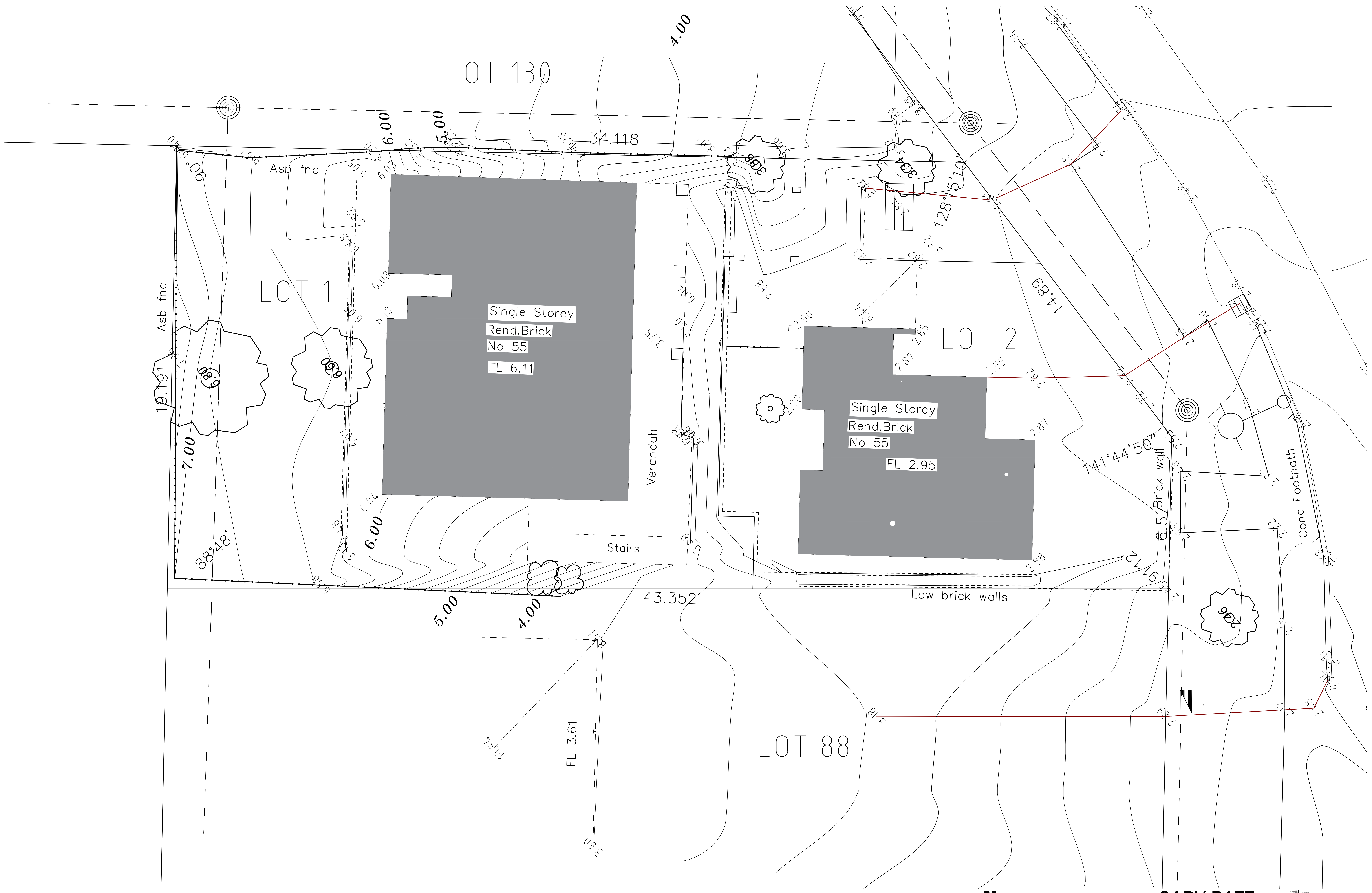
Figure 3 - Cycling Catchment (15 minutes)

2.18 Site-Specific Issues and Proposed Remedial Measures

How many site-specific issues need to be discussed?	One
Site-Specific Issue No 1	**Traffic impact**
Remedial Measure / Response	The subject site is likely to generate 137 vehicular trips per day and 14 vehicular trips in the peak hour. According to WAPC guidelines, all developments generating 10-100 VPH can be deemed to have a **moderate** impact on the network. In context of the surrounding road network the additional traffic from the proposed development can be considered negligible.

Appendix 1

The Layout of the Proposed Development



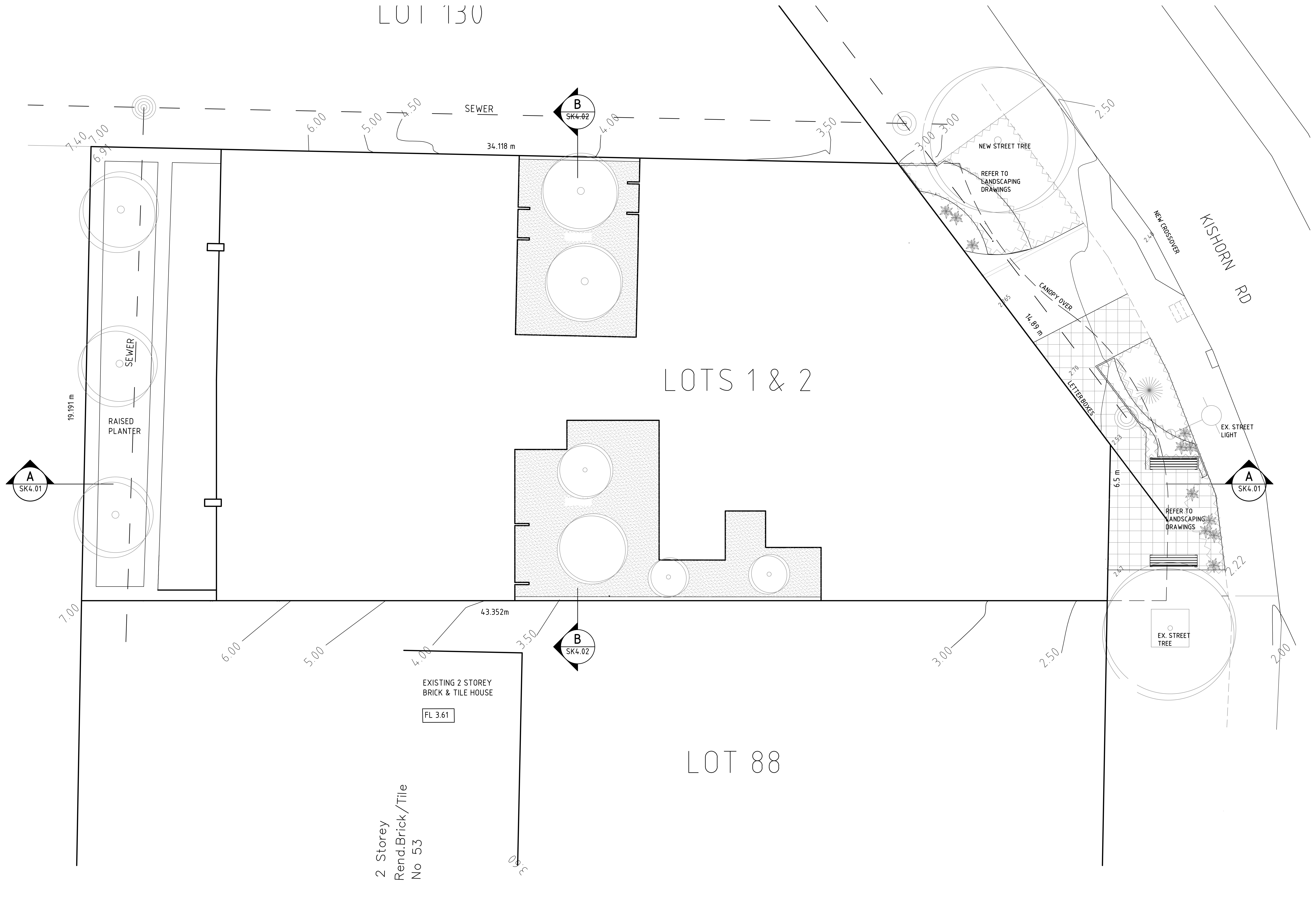
APARTMENTS - 55 KISHORN RD, MT. PLEASANT

EXISTING SITE

N

SK1.1
1:100 @ A2
21 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS



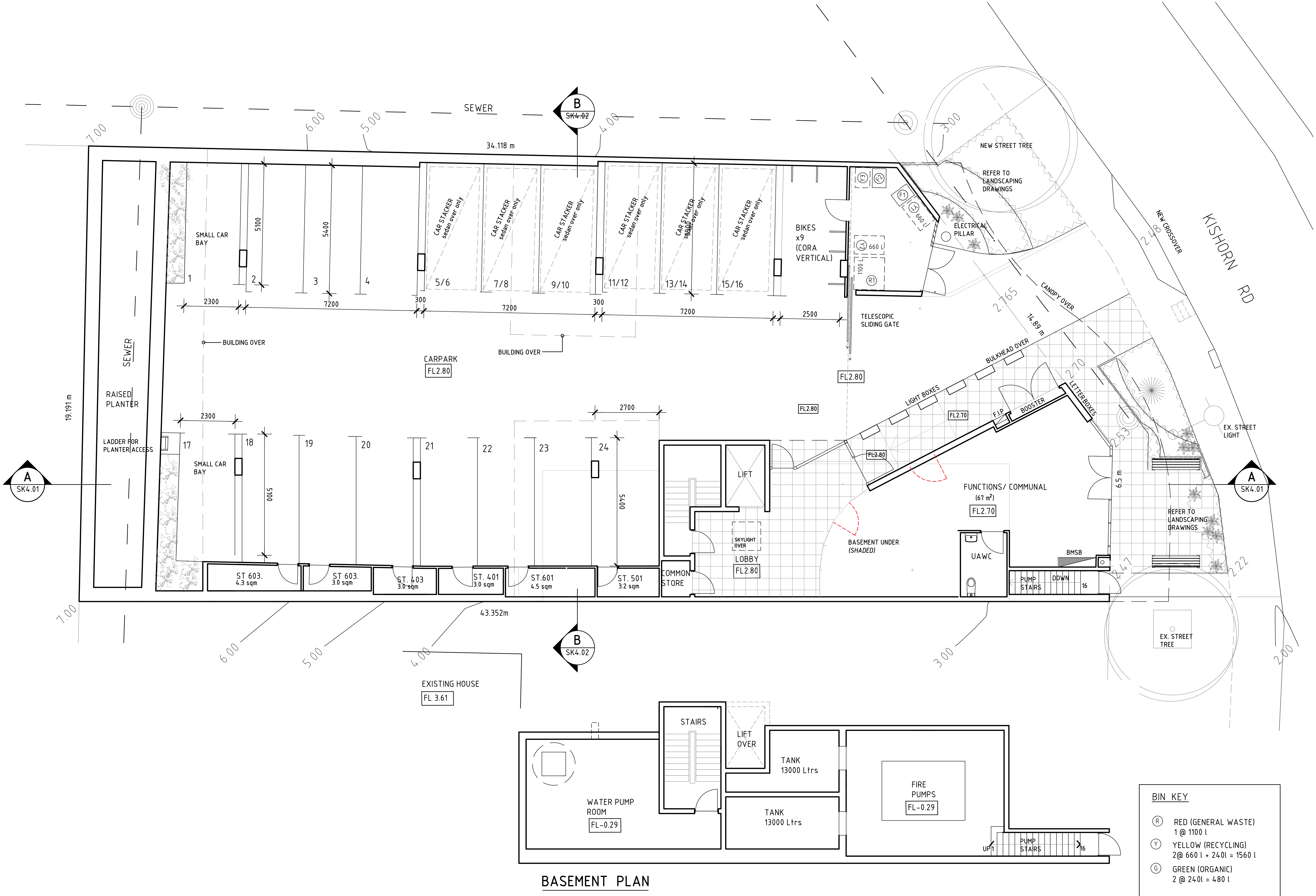
APARTMENTS - 55 KISHORN RD, MT. PLEASANT

SITE PLAN

N

SK1.1
1:100 @ A2
21 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS



BIN KEY

Ⓡ RED (GENERAL WASTE)
1 @ 1100 l

Ⓨ YELLOW (RECYCLING)
2@ 660 l + 240l = 1560 l

Ⓖ GREEN (ORGANIC)
2 @ 240l = 480 l

APARTMENTS - 55 KISHORN RD, MT. PLEASANT

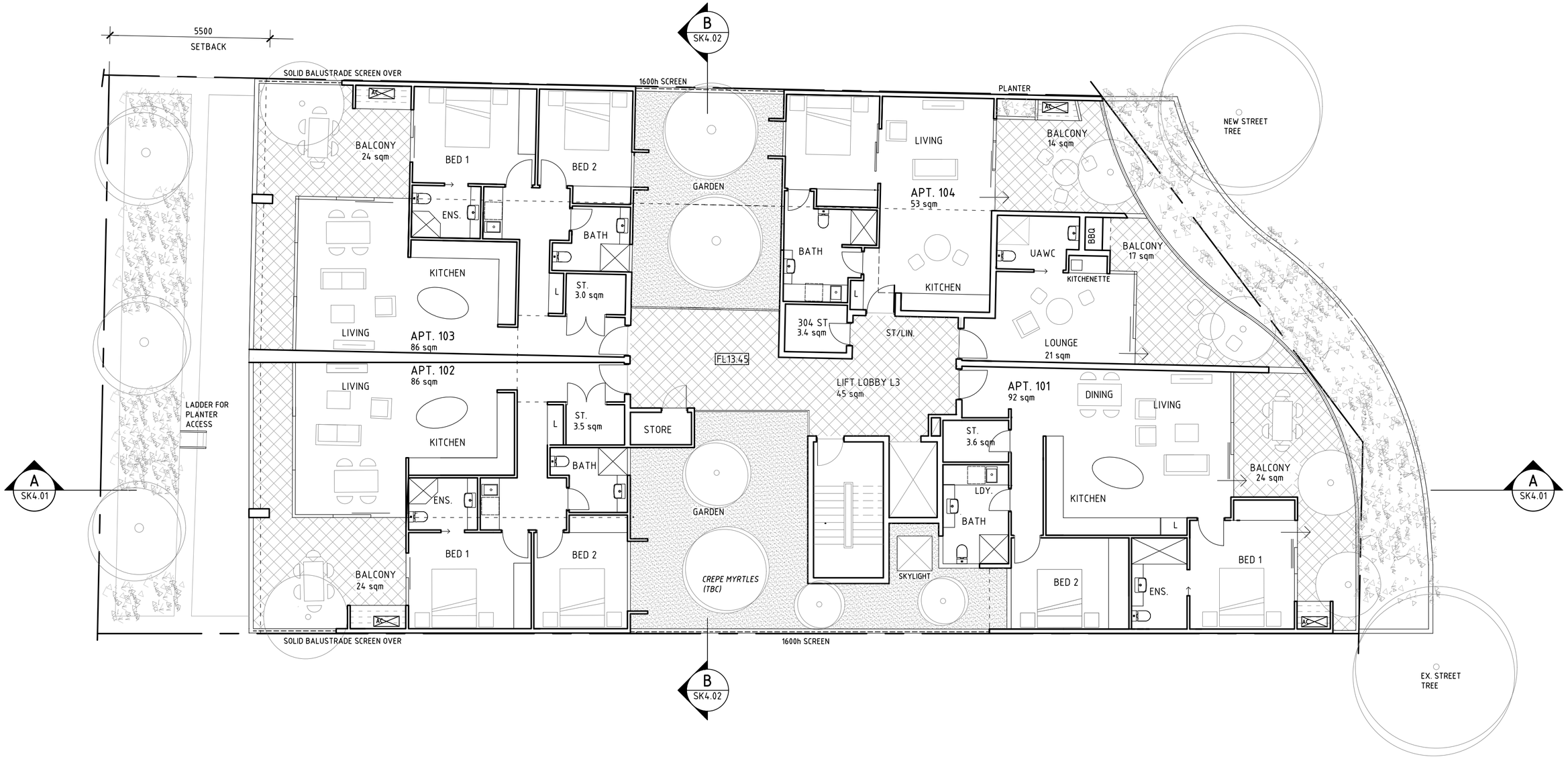
SITE & GROUND FLOOR PLAN

N

SK2.00
1:100 @ A2
21 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS

Document Set ID: 6927388
Version: 1, Version Date: 28/11/2024

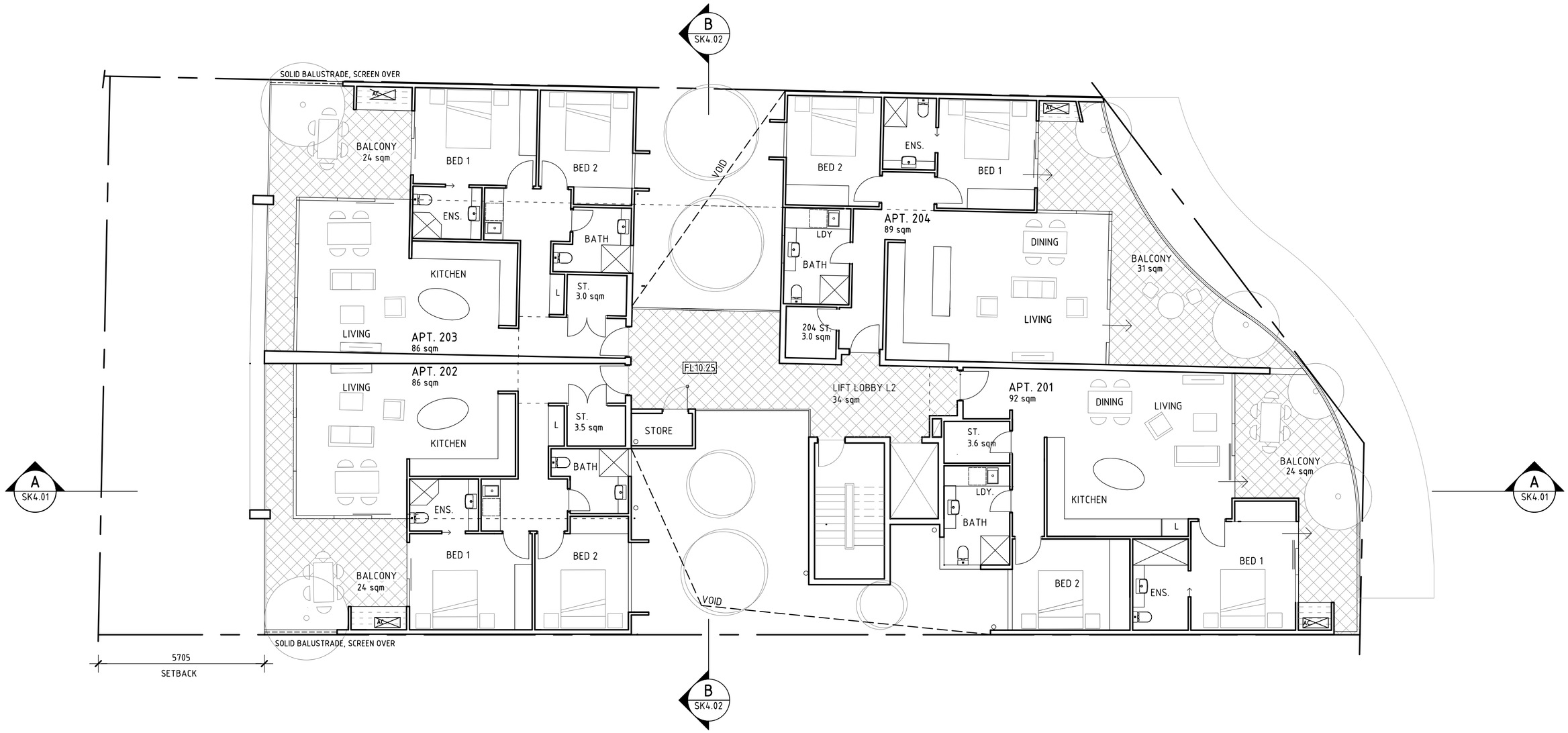


APARTMENTS - 55 KISHORN RD, MT. PLEASANT

FIRST FLOOR PLAN

SK2.01
1:100 @ A2
04 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS

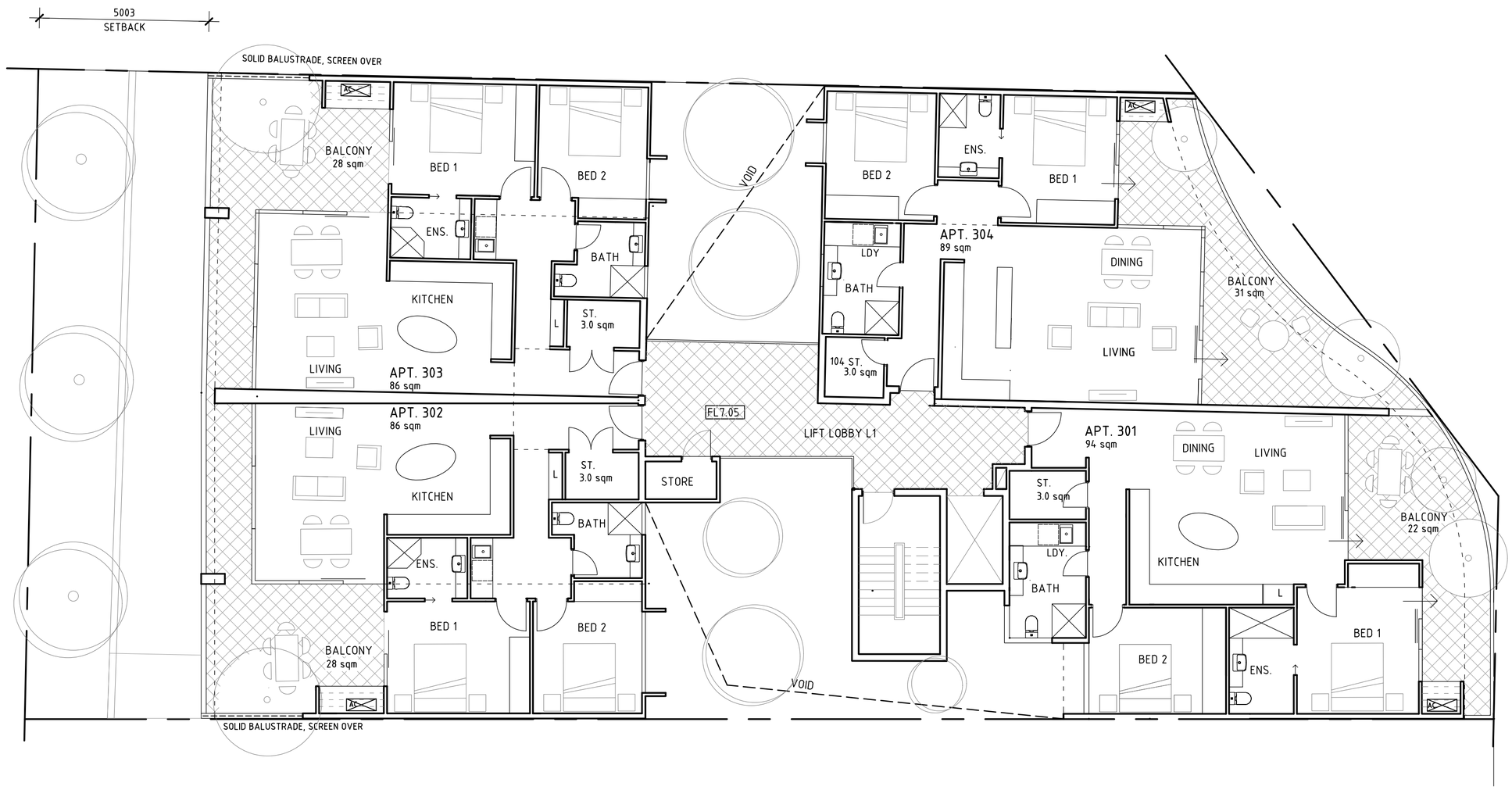


APARTMENTS - 55 KISHORN RD, MT. PLEASANT

SECOND FLOOR PLAN

SK2.02
1:100 @ A2
04 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS

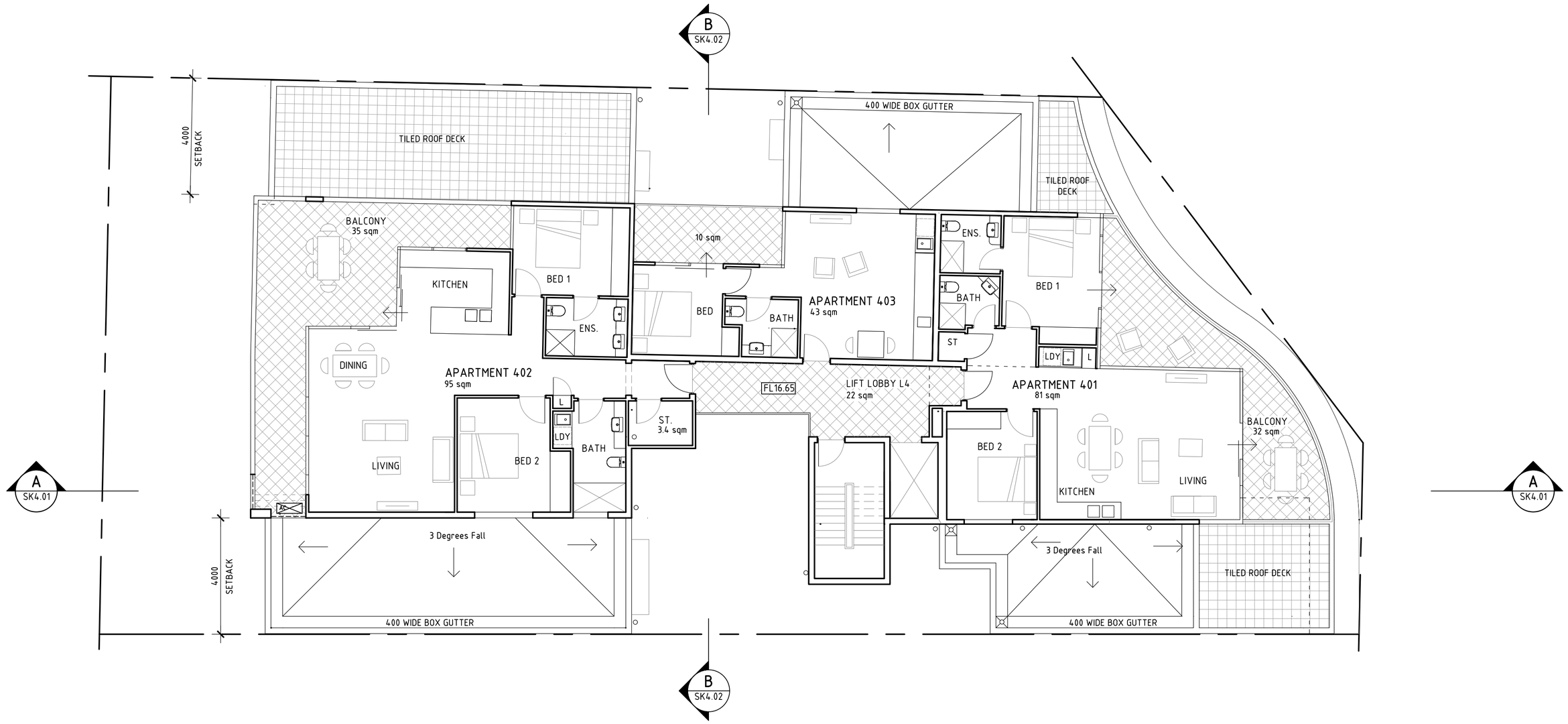


APARTMENTS - 55 KISHORN RD, MT. PLEASANT

THIRD FLOOR PLAN

SK2.03
1:100 @ A2
04 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS



APARTMENTS - 55 KISHORN RD, MT. PLEASANT

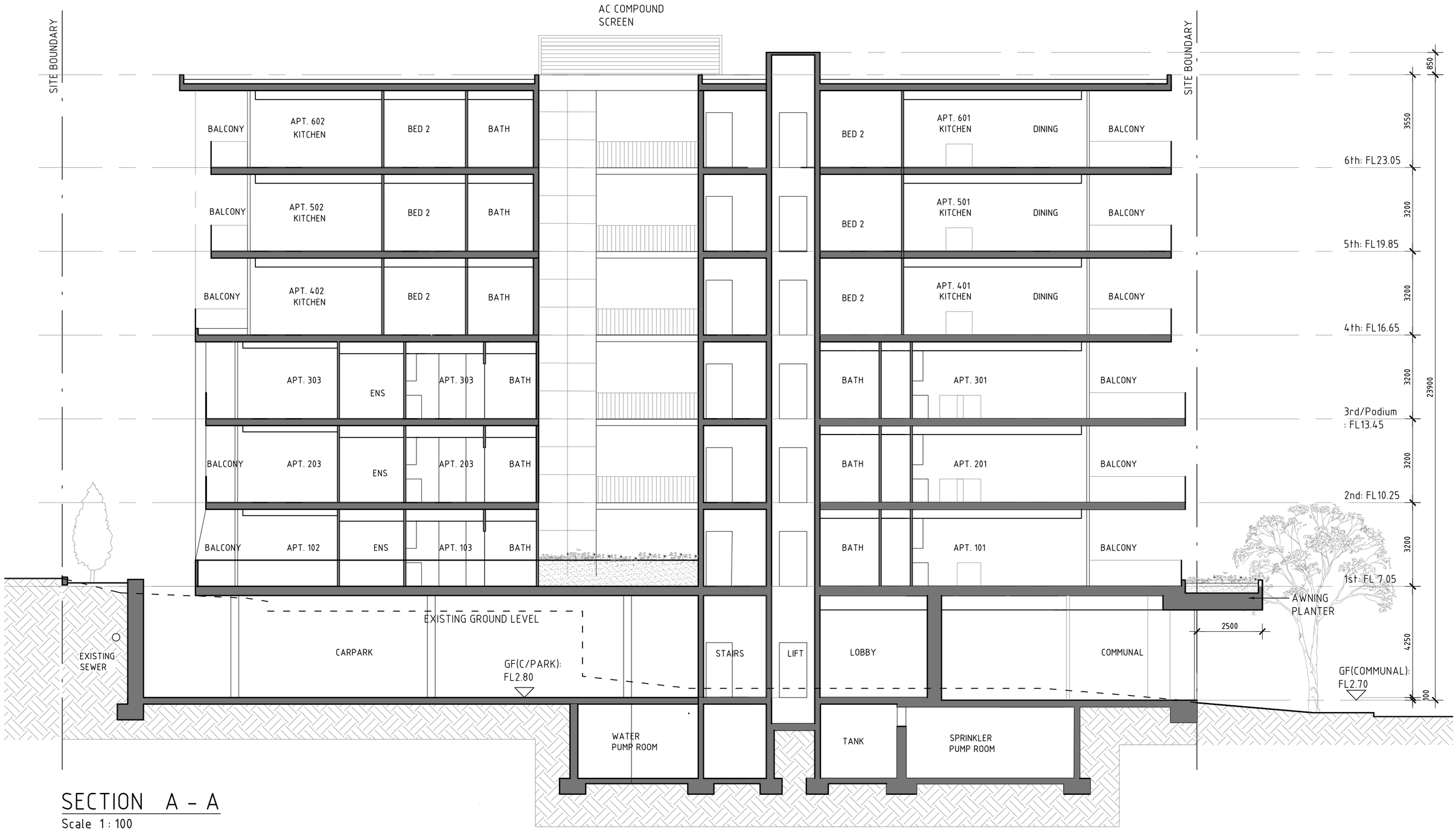
FOURTH FLOOR PLAN

N

SK2.04
1:100 @ A2
04 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS

G
B
A



SECTION A - A

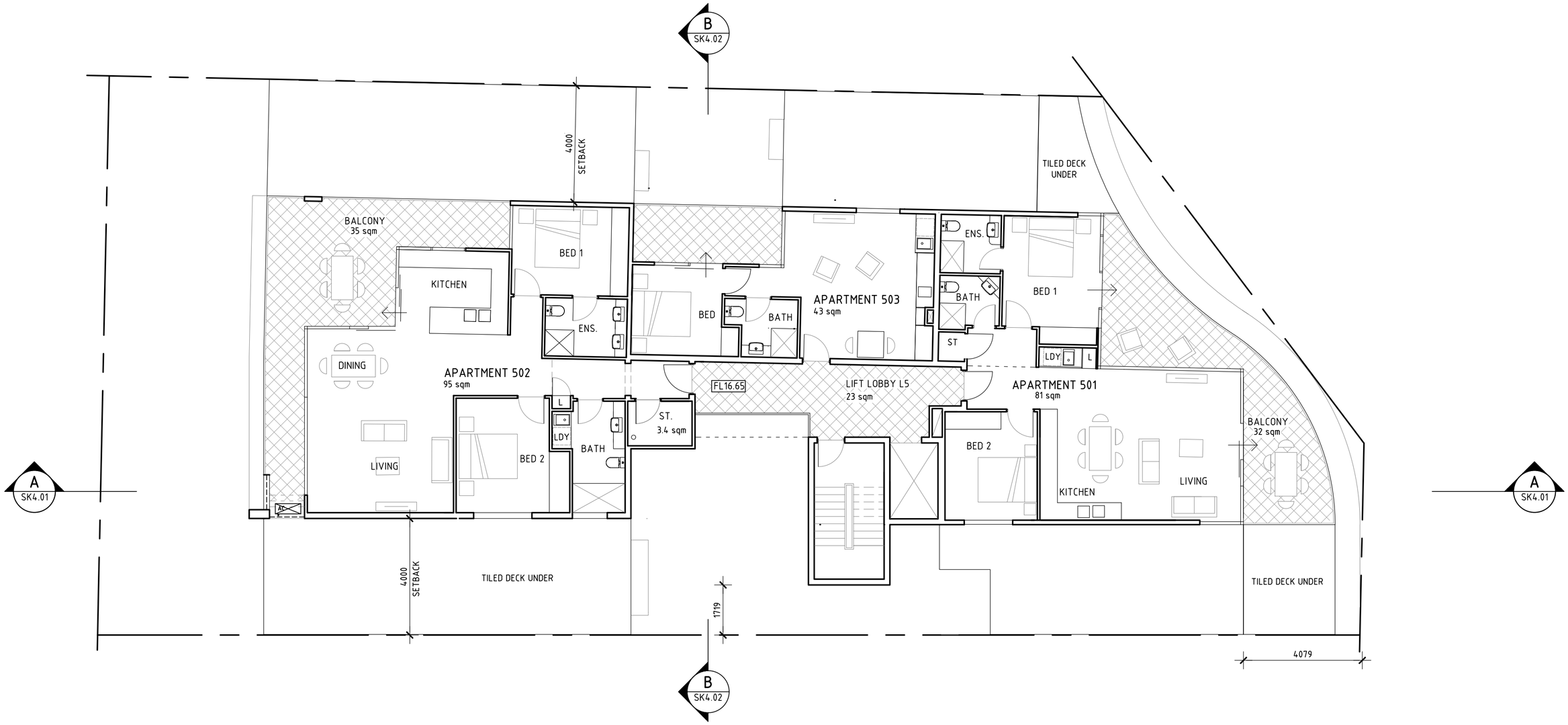
Scale 1 : 100

APARTMENTS - 55 KISHORN RD, MT. PLEASANT

SECTION A - A

SK4.0
1:100 @ A2
24 JUNE 2024

GARY BATT ASSOCIATES ARCHITECTS

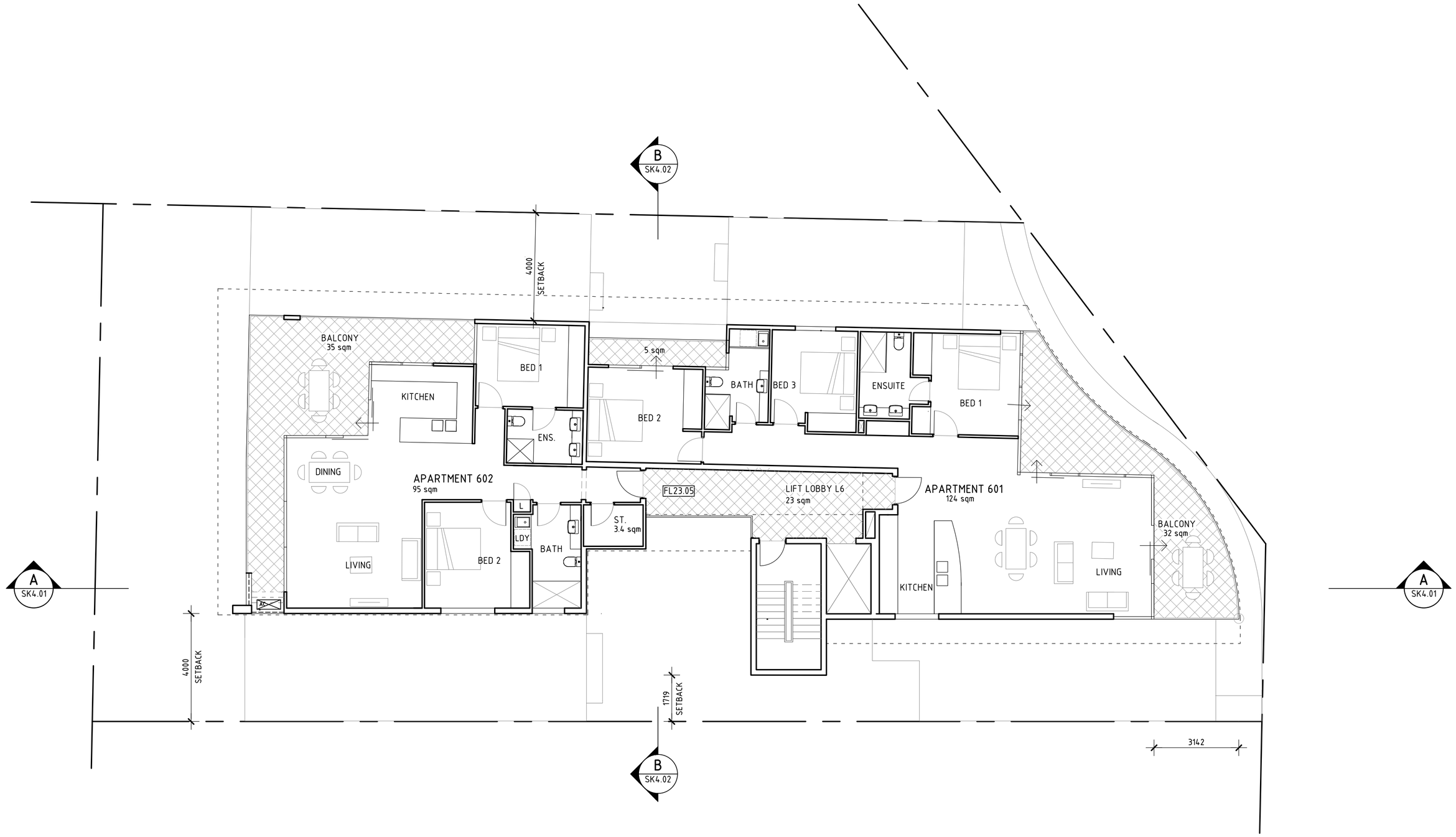


APARTMENTS - 55 KISHORN RD, MT. PLEASANT

FIFTH FLOOR PLAN

SK2.05
1:100 @ A2
04 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS



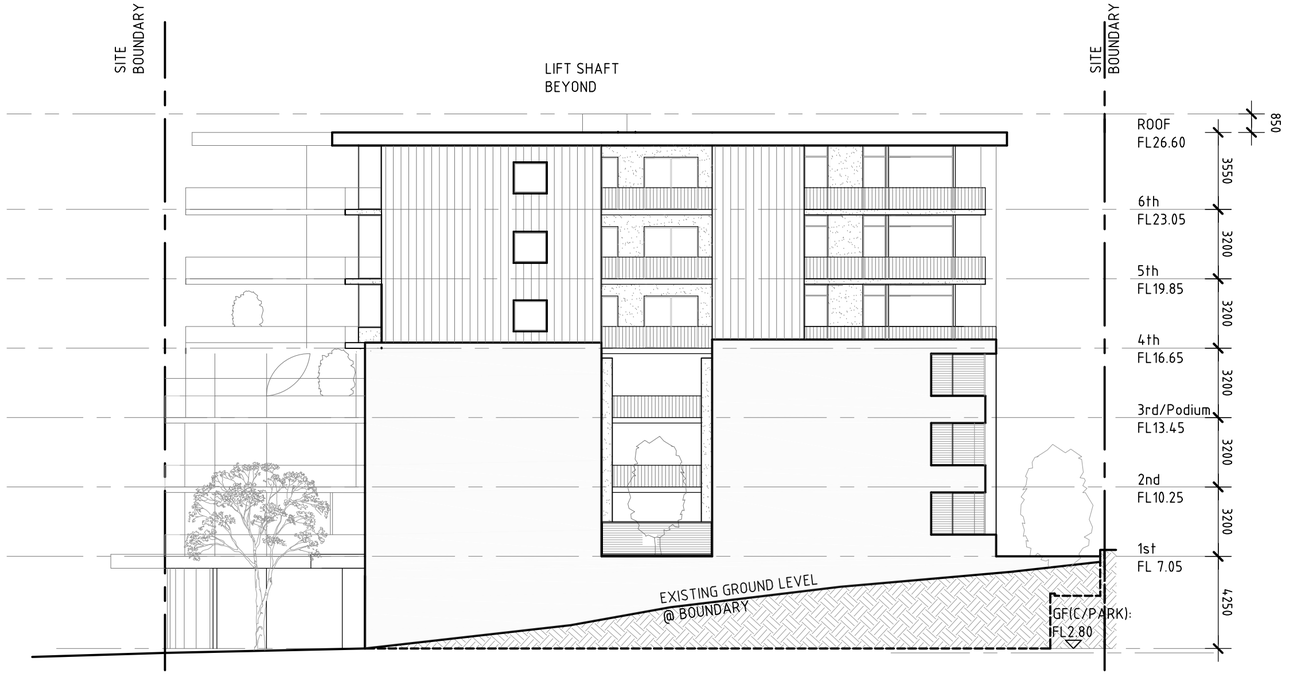
APARTMENTS - 55 KISHORN RD, MT. PLEASANT

SIXTH FLOOR PLAN

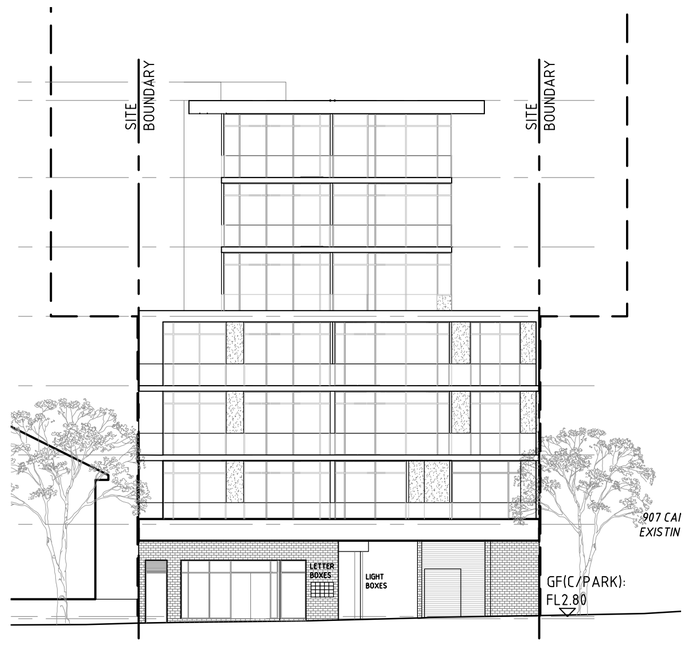
N

SK2.06
1:100 @ A2
04 June 2024

GARY BATT
ASSOCIATES
ARCHITECTS



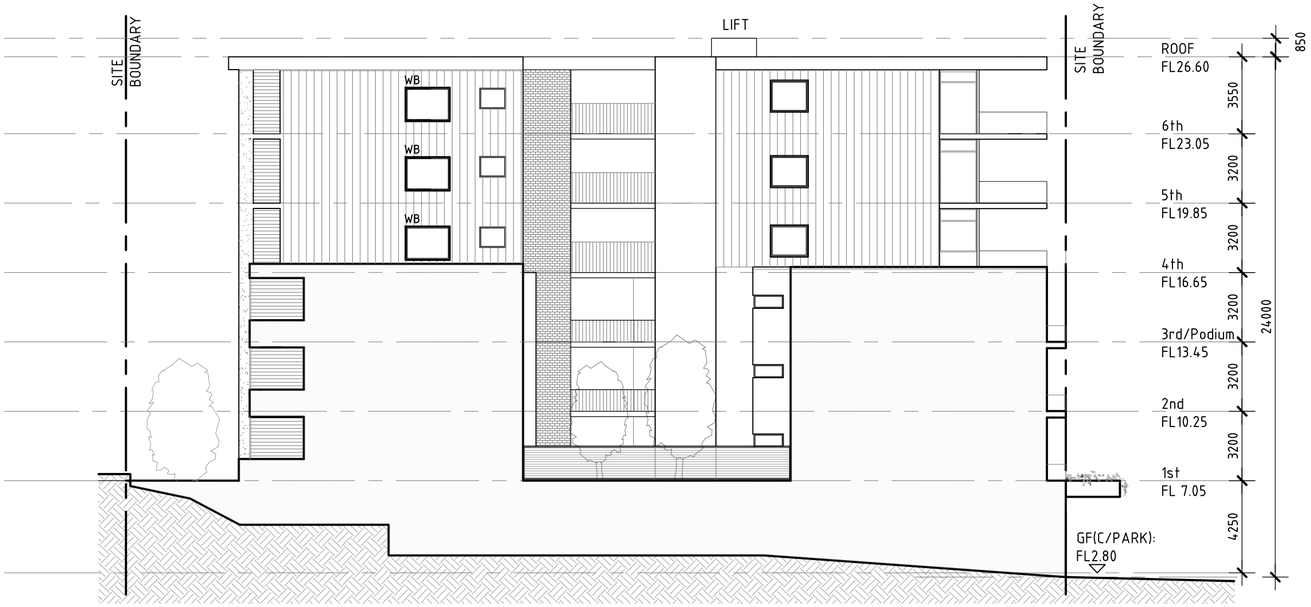
NORTH ELEVATION
Scale 1 : 200



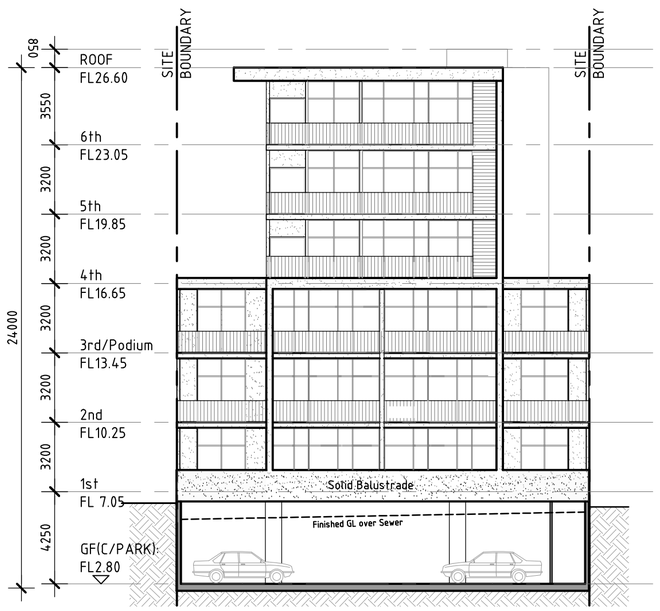
EAST ELEVATION (STREET)
Scale 1 : 200

NOTES

1. SEE SK3.02 FOR EXTERNAL MATERIALS



SOUTH ELEVATION
Scale 1 : 200



WEST ELEVATION
Scale 1 : 200

APARTMENTS - 55 KISHORN RD, MT. PLEASANT

ELEVATIONS

SK3.0
1:200 @ A2
28 June 2024

GARY BATT ASSOCIATES ARCHITECTS

Appendix 2

Transport Planning and Traffic Plans

PARKS AND RECREATION
WATERWAYS
SHOPPING AREA
TRAIN AND BUS TRANSFER
ROAD
Hay Street — STREET NAME
RAILWAY
ROAD BRIDGE, OVERPASS
LOCATION BOUNDARY
DISTANCE FROM LOCATION
CITY OF MELVILLE — LOCAL GOVERNMENT NAME
MOUNT PLEASANT — SUBURB NAME
LOCAL AUTHORITY BOUNDARY

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: LOCALITY PLAN - 800M RADIUS

DRAWING NUMBER: KC01900.000_ S01

DRAWN BY: A.M.

Civil & Traffic Engineering Consultants
KCTT (Trading as KC Traffic and Transport Pty Ltd)
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au
kctt PART OF Premise

PARKS AND RECREATION
WATERWAYS
SHOPPING AREA
TRAIN AND BUS TRANSFER
ROAD
Hay Street STREET NAME
RAILWAY
ROAD BRIDGE, OVERPASS
LOCATION BOUNDARY
DISTANCE FROM LOCATION
CITY OF MELVILLE LOCAL GOVERNMENT NAME
MOUNT PLEASANT SUBURB NAME
LOCAL AUTHORITY BOUNDARY
PSP PRINCIPAL SHARED PATH (PSP)
OTHER SHARED PATH (SHARED BY PEDESTRIANS & CYCLISTS)
GOOD ROAD RIDING ENVIRONMENT
BICYCLE LANES OR SEALED SHOULDER EITHER SIDE
WALKING TRAIL
BIKE LOCKER
BIKE SHELTER
BIKE SHOP
BIKE PARKING

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: BICYCLE NETWORK PLAN - 800M RADIUS

DRAWING NUMBER: KC01900.000_ S02

DRAWN BY: A.M.

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PARKS AND RECREATION
WATERWAYS
SHOPPING AREA
TRAIN AND BUS TRANSFER
ROAD
Hay Street STREET NAME
RAILWAY
ROAD BRIDGE, OVERPASS
LOCATION BOUNDARY
DISTANCE FROM LOCATION
CITY OF MELVILLE LOCAL GOVERNMENT NAME
MOUNT PLEASANT SUBURB NAME
LOCAL AUTHORITY BOUNDARY
BUS ROUTES
HIGH FREQUENCY BUS ROUTE
103 BUS ROUTE NUMBER
990 HIGH FREQUENCY BUS ROUTE NUMBER

NOTE : FOR MORE INFORMATION REGARDING THE DESCRIPTION OF BUS ROUTES AND THEIR INDICATIVE PEAK AND OFF-PEAK FREQUENCIES REFER TO THE REPORT.

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: PUBLIC TRANSPORT PLAN - 800M RADIUS

DRAWING NUMBER: KC01900.000_ S03

DRAWN BY: A.M.

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PARKS AND RECREATION
WATERWAYS
SHOPPING AREA
TRAIN AND BUS TRANSFER
ROAD
Hay Street STREET NAME
RAILWAY
ROAD BRIDGE, OVERPASS
LOCATION BOUNDARY
DISTANCE FROM LOCATION
CITY OF MELVILLE LOCAL GOVERNMENT NAME
MOUNT PLEASANT SUBURB NAME
LOCAL AUTHORITY BOUNDARY
PSP PRINCIPAL SHARED PATH (PSP)
OTHER SHARED PATH (SHARED BY PEDESTRIANS & CYCLISTS)
PEDESTRIAN PATH (WITHIN 400M)

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: PEDESTRIAN PATHS PLAN - 800M RADIUS

DRAWING NUMBER: KC01900.000_ S04

DRAWN BY: A.M.

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PARKS AND RECREATION
WATERWAYS
SHOPPING AREA
TRAIN AND BUS TRANSFER
ROAD
Hay Street — STREET NAME
RAILWAY
ROAD BRIDGE, OVERPASS
LOCATION BOUNDARY
DISTANCE FROM LOCATION
CITY OF MELVILLE — LOCAL GOVERNMENT NAME
MOUNT PLEASANT — SUBURB NAME
LOCAL AUTHORITY BOUNDARY
5,512 — NUMBER OF VEHICLES PER DAY
AM 1145 – 381 / PM 1630 – 480 — NUMBER OF VEHICLES PER AM PEAK HOUR / NUMBER OF VEHICLES PER PM PEAK HOUR
2014 — YEAR
EAST OF HARLOW ROAD — LOCATION

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: EXISTING TRAFFIC COUNTS - 800M RADIUS

DRAWING NUMBER: KC01900.000_ S05

DRAWN BY: A.M.

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CITY OF MELVILLE

LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

1,389 Total Expected Traffic Generation from the proposed development

503 Total Expected Traffic Generation from Subject Site on the specific section of road - **IN and OUT direction**

Traffic Flow IN Direction

Traffic Flow OUT Direction

NOTE: THE PLAN IS COURTEOUSY OF GARY BATT ASSOCIATES ARCHITECTS

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: TRAFFIC FLOW DIAGRAM

DRAWING NUMBER: KC01900.000_ S06

DRAWN BY: A.M.

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PH: 08 9441 2700
WEB: www.kctt.com.au

CITY OF MELVILLE

LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

000 Traffic Flow IN Direction

000 Traffic Flow OUT Direction

1,389 Total Expected Traffic Generation from the proposed development - AM peak

NOTE: THE PLAN IS COURTEOUSY OF GARY BATT ASSOCIATES ARCHITECTS

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: TRAFFIC FLOW DIAGRAM - AM PEAK

DRAWING NUMBER: KC01900.000_ S07

DRAWN BY: A.M.

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KCTT (Trading as KC Traffic and Transport Pty Ltd)
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PH: 08 9441 2700
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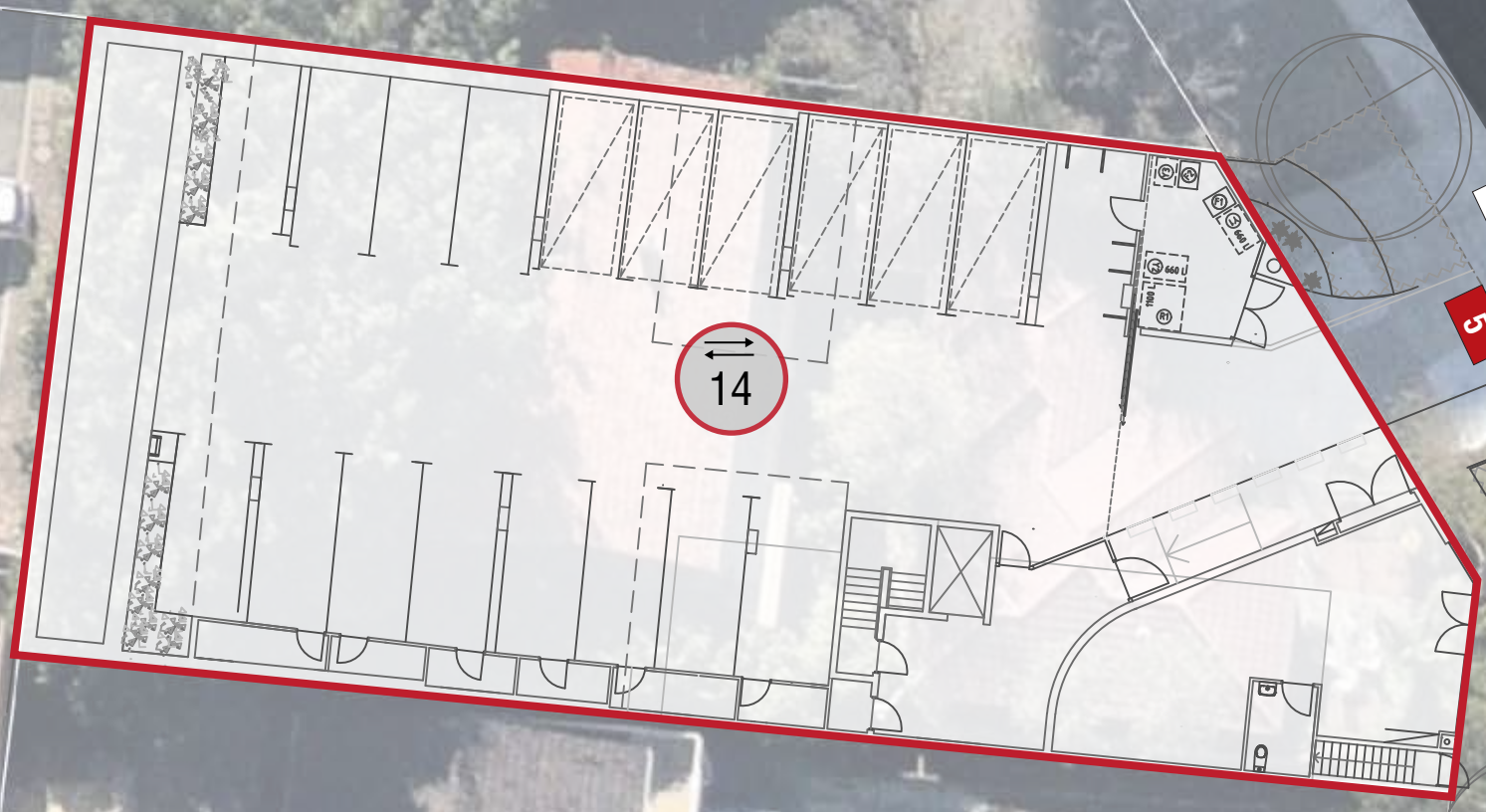
CITY OF MELVILLE



6
3
5
2
3

Kishorn Road

LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

000 Traffic Flow IN Direction

000 Traffic Flow OUT Direction

1,389 Total Expected Traffic Generation from the proposed development - PM peak

NOTE: THE PLAN IS COURTEOUSY OF GARY BATT ASSOCIATES ARCHITECTS

LEGEND

No	DATE	AMENDMENT
A	09-07-2024	ISSUED FOR REVIEW

PROJECT: 55 KISHORN ROAD, MOUNT PLEASANT

TITLE: TRAFFIC FLOW DIAGRAM - PM PEAK

DRAWING NUMBER: KC01900.000_ S08

DRAWN BY: A.M.

Civil & Traffic Engineering Consultants
KCTT (Trading as KC Traffic and Transport Pty Ltd)
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PH: 08 9441 2700
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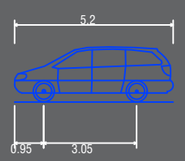
Appendix 3

Vehicle Turning Circle Plan



Passenger vehicle (5.2 m)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

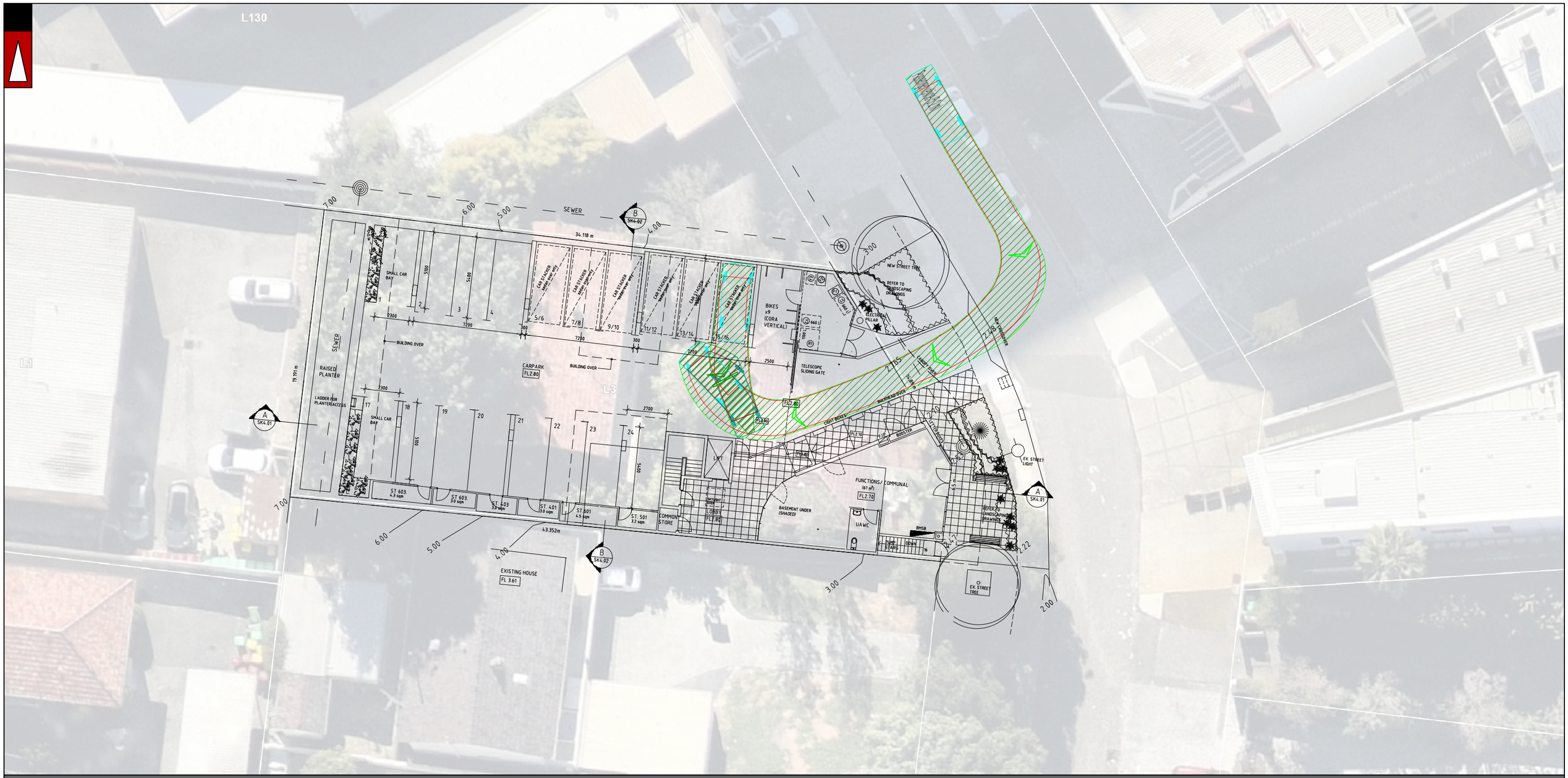
PROJECT:
55 Kishorn Road, Mount Pleasant

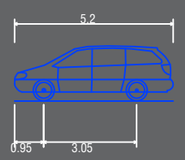
TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m) - Option 1

DRAWING NUMBER:
KC01900.000_S20

DRAWN BY:
A.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au
kctt
PART OF





Passenger vehicle (5.2 m)

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Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

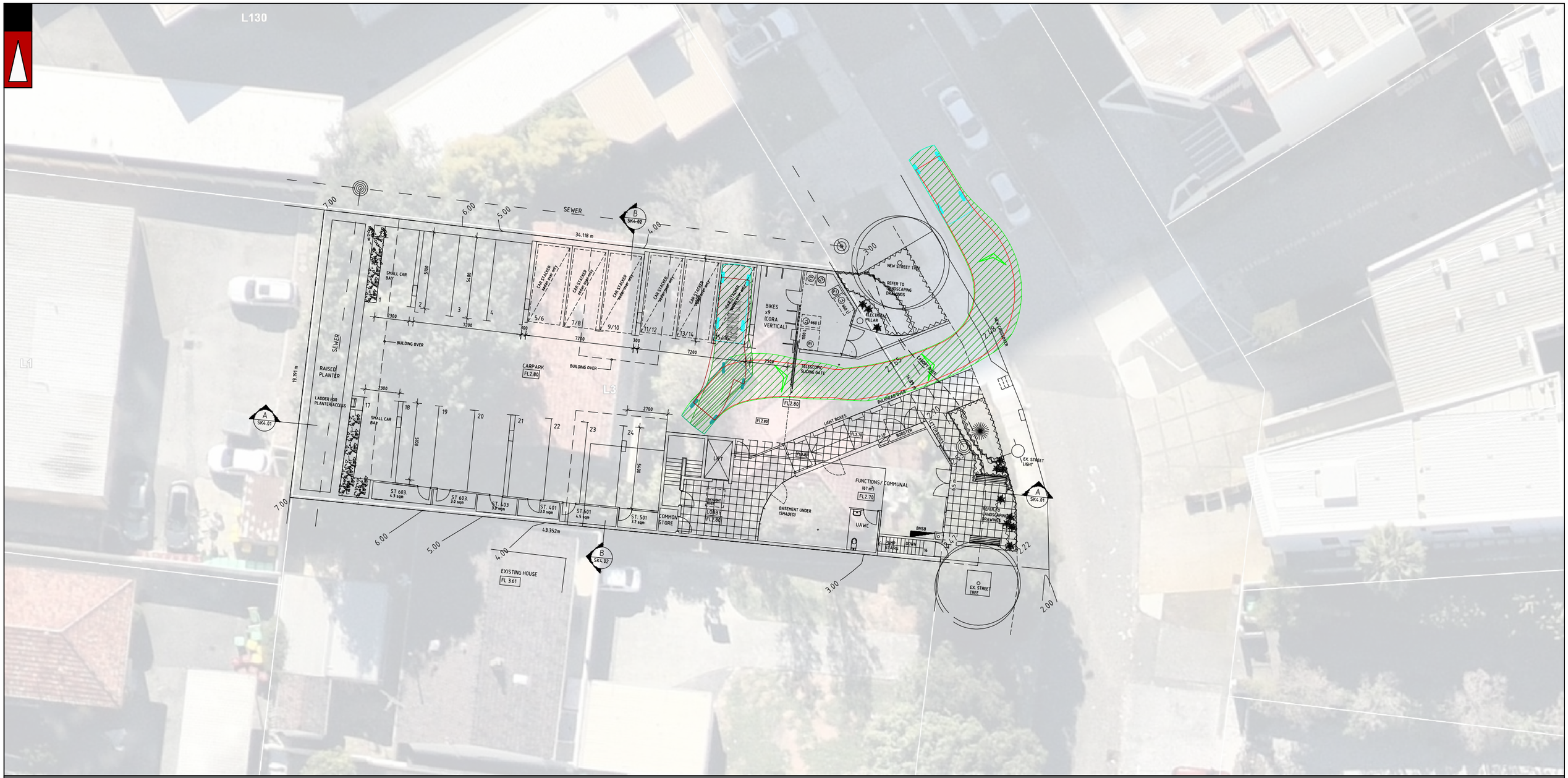
PROJECT:
55 Kishorn Road, Mount Pleasant

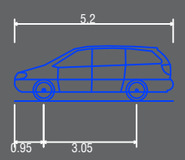
TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

DRAWING NUMBER:
KC01900.000_S21a

DRAWN BY:
A.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au
kctt PART OF





Passenger vehicle (5.2 m)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

PROJECT:
55 Kishorn Road, Mount Pleasant

TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

DRAWING NUMBER:
KC01900.000_S21b

DRAWN BY:
A.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au
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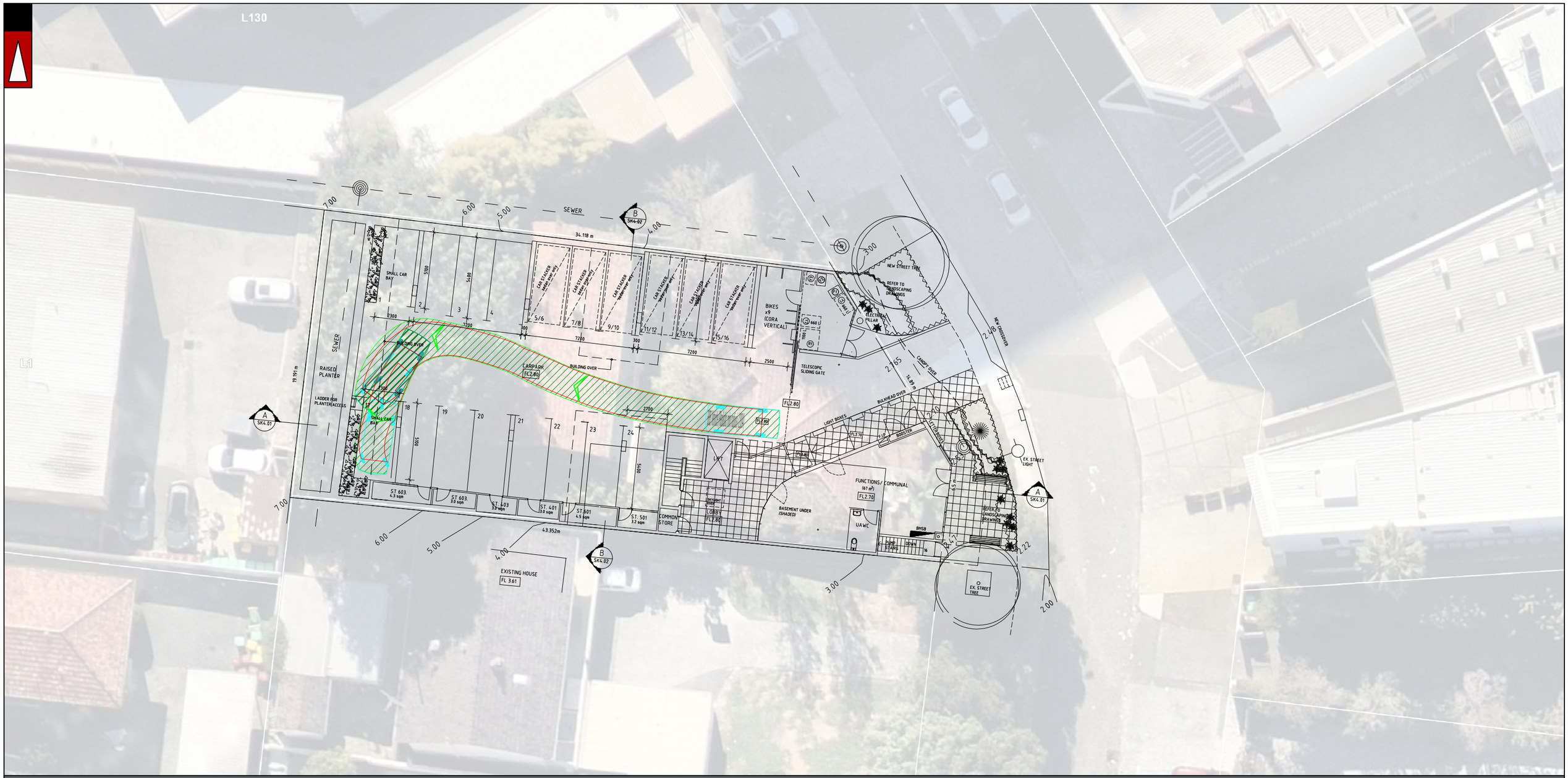
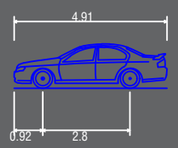




B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

Lot boundary

Wheel Path (Forward Vehicle Motion)

Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

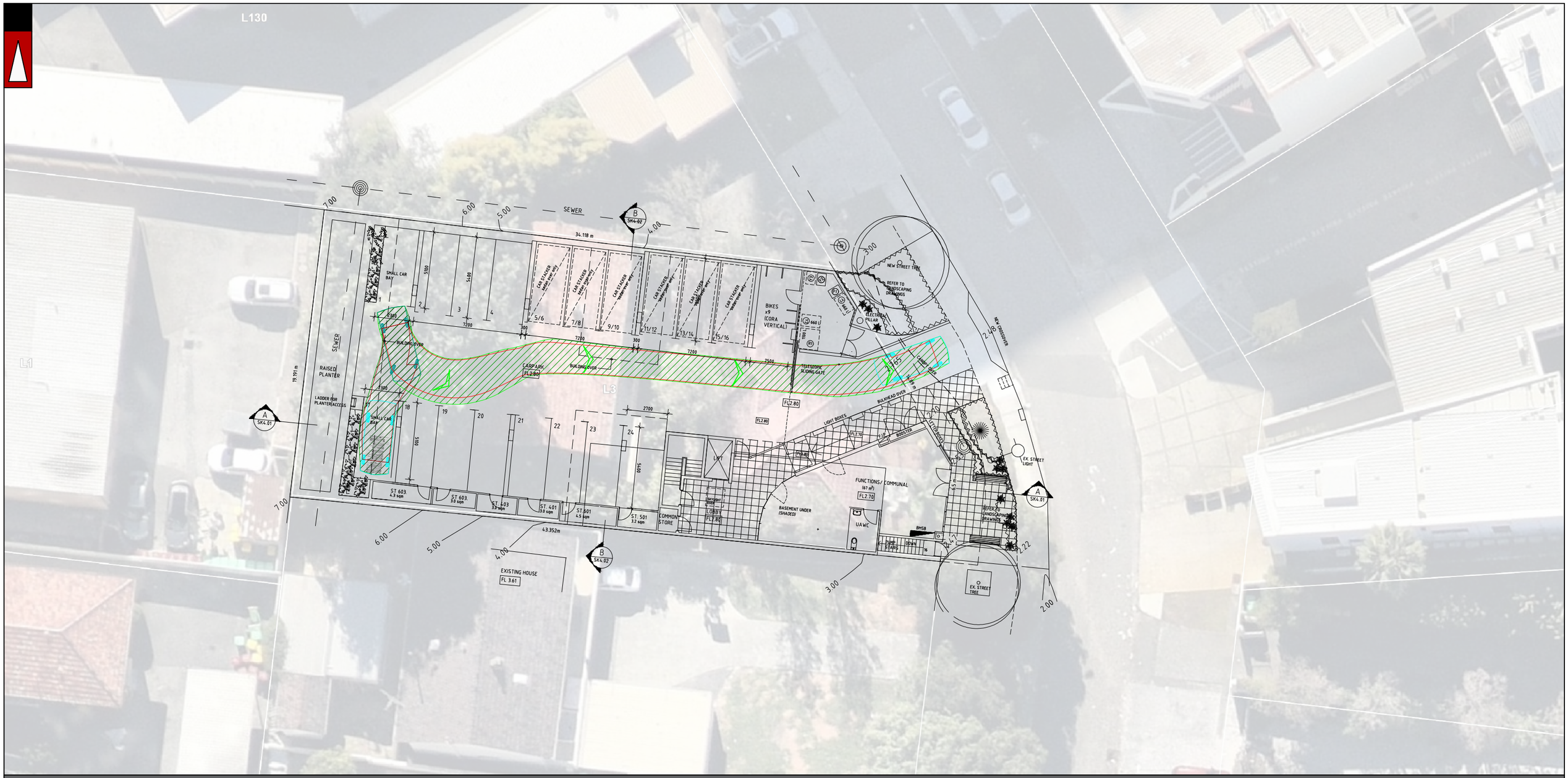
PROJECT:
55 Kishorn Road, Mount Pleasant

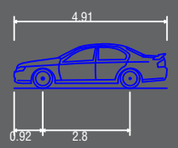
TITLE:
Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)

DRAWING NUMBER:
KC01900.000_S22a

DRAWN BY:
A.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au
kctt PART OF





B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

Lot boundary

Wheel Path (Forward Vehicle Motion)

Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

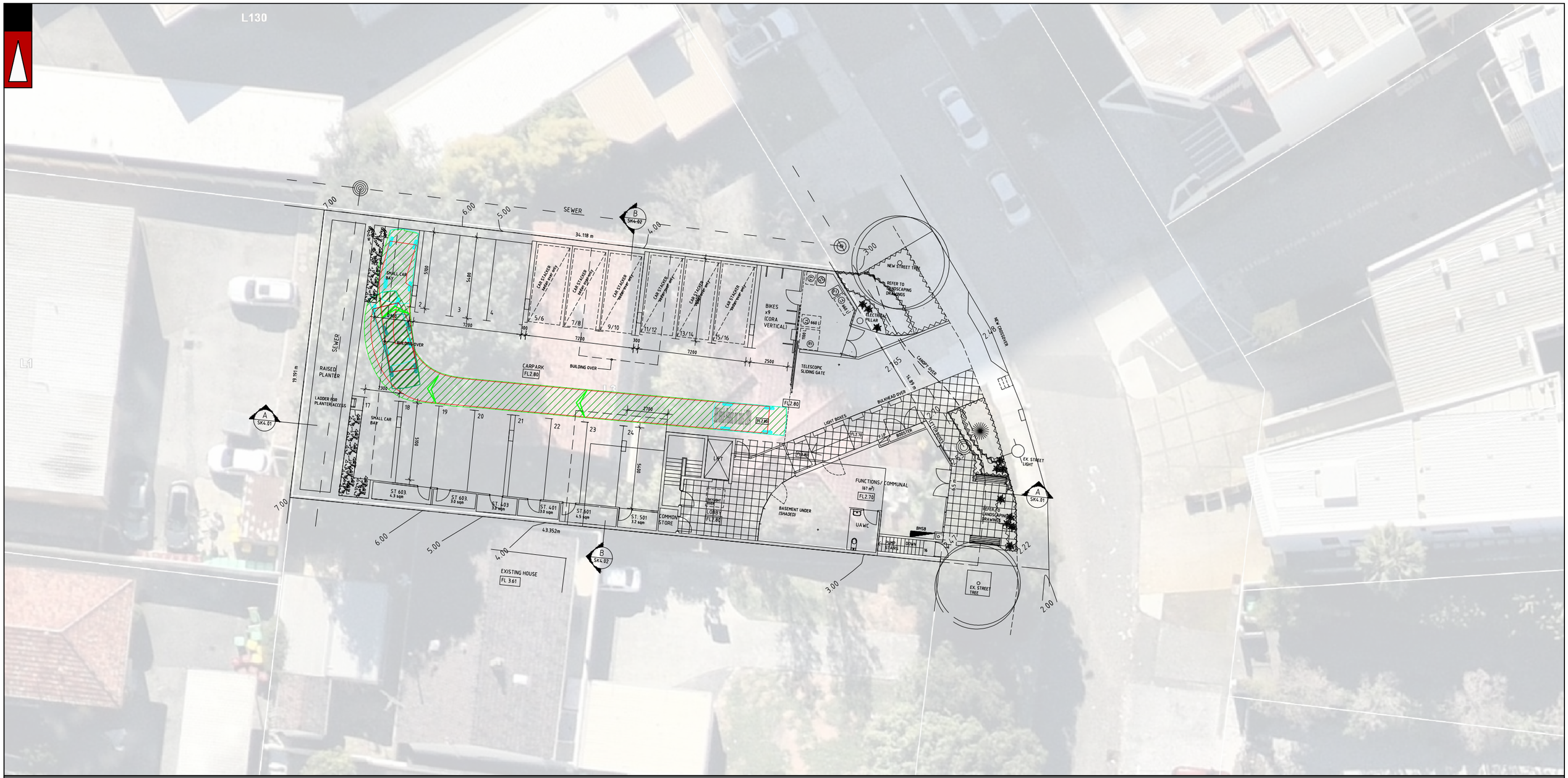
PROJECT:
55 Kishorn Road, Mount Pleasant

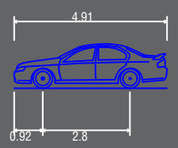
TITLE:
Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)

DRAWING NUMBER:
KC01900.000_S22b

DRAWN BY:
A.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au
kctt PART OF





B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

Lot boundary

Wheel Path (Forward Vehicle Motion)

Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

PROJECT:
55 Kishorn Road, Mount Pleasant

TITLE:
Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)

DRAWING NUMBER:
KC01900.000_S23a

DRAWN BY:
A.M.

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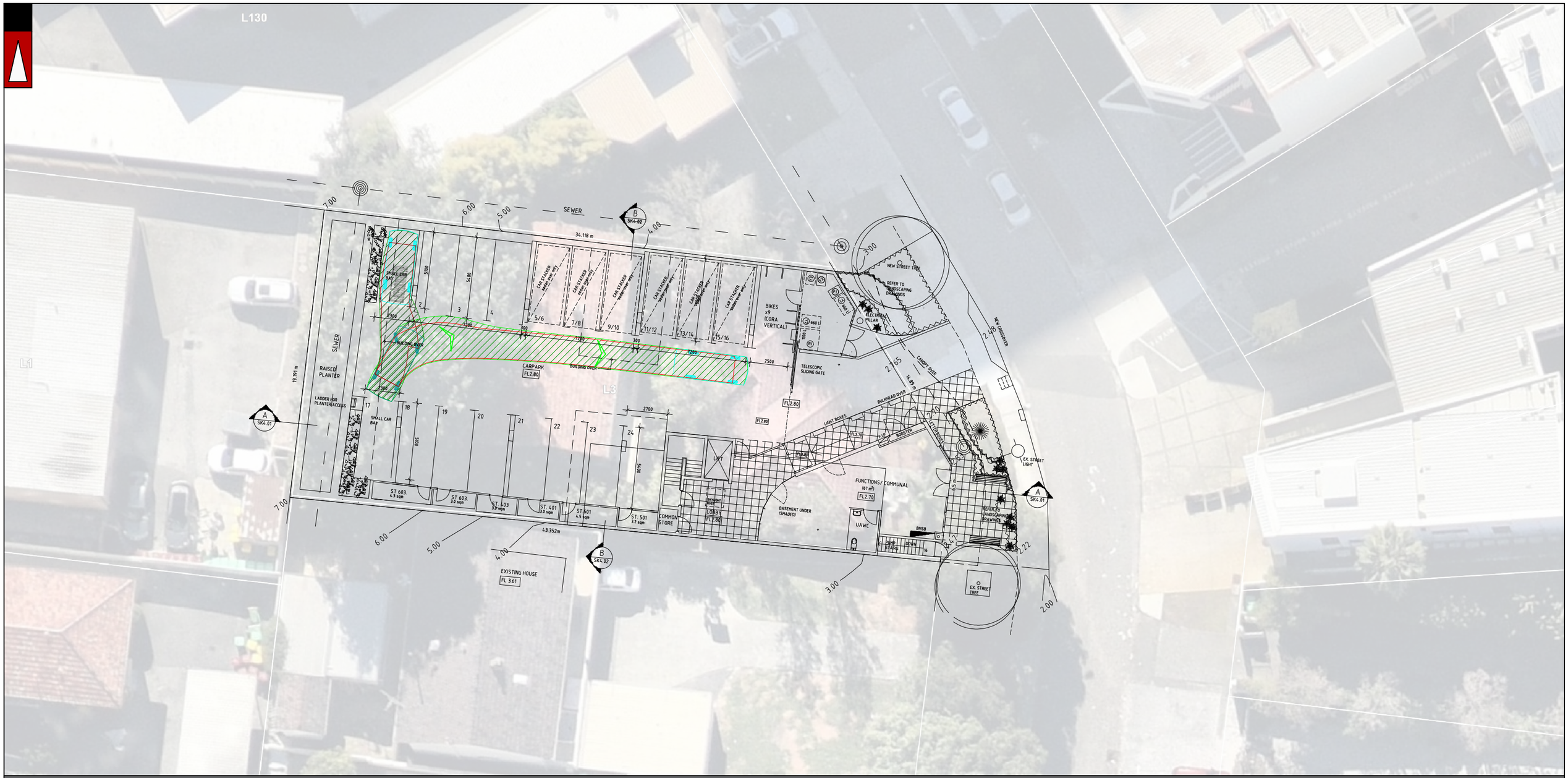

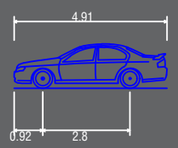

B85 Vehicle (Realistic min radius) (2004)
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Wheel Path (Forward Vehicle Motion)

Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
A	08-07-2024	ISSUED FOR REVIEW

PROJECT:
55 Kishorn Road, Mount Pleasant

TITLE:
Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)

DRAWING NUMBER:
KC01900.000_S23b

DRAWN BY:
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