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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

27 March 2025 Reference: 220040.10FA

Autobiography
Attention: Jawad Samrani

S4.55 TRAFFIC AND PARKING LETTER FOR THE MIXED USE DEVELOPMENT AT 28 LOCKWOOD AVENUE, BELROSE

Dear Jawad,

Reference is made to your request to provide traffic and parking advice for the approved mixed use development at 28 Lockwood Avenue, Belrose. The S4.55 plans are provided in **Annexure A**.

1 Proposed Changes

The proposed S4.55 plans will maintain the same number of car parking spaces, but it separates retail areas and provides slightly more retail space. Specifically, the changes relevant to traffic and parking are listed below:

- Adjustment in car parking to provide 237 car parking spaces to comply with the minimum car parking requirement.
- Addition of a retail escalator between B2, B3 and B4

2 Road Hierarchy.

The road network servicing the site has the following characteristics:

2.1.1 Lockwood Avenue

- Unclassified LOCAL Road;
- Approximately 13m in width facilitating two traffic flow lanes (one in each direction) and kerbside parking;
- No speed limit signposted, default 50km/h applies;
- Unrestricted kerbside parking permitted on both sides of the road with areas of “No-Stopping” along the site frontage.

2.1.2 Glen Street

- Unclassified LOCAL Road;

- Approximately 11m in width facilitating two traffic flow lanes (one in each direction) and kerbside parking;
- Signposted 50km/h speed limit;
- “No-Stopping” restriction throughout the street;
- Unrestricted kerbside parking permitted along both sides of the street to the north of Glenrose Village.

2.1.3 Glenrose Place

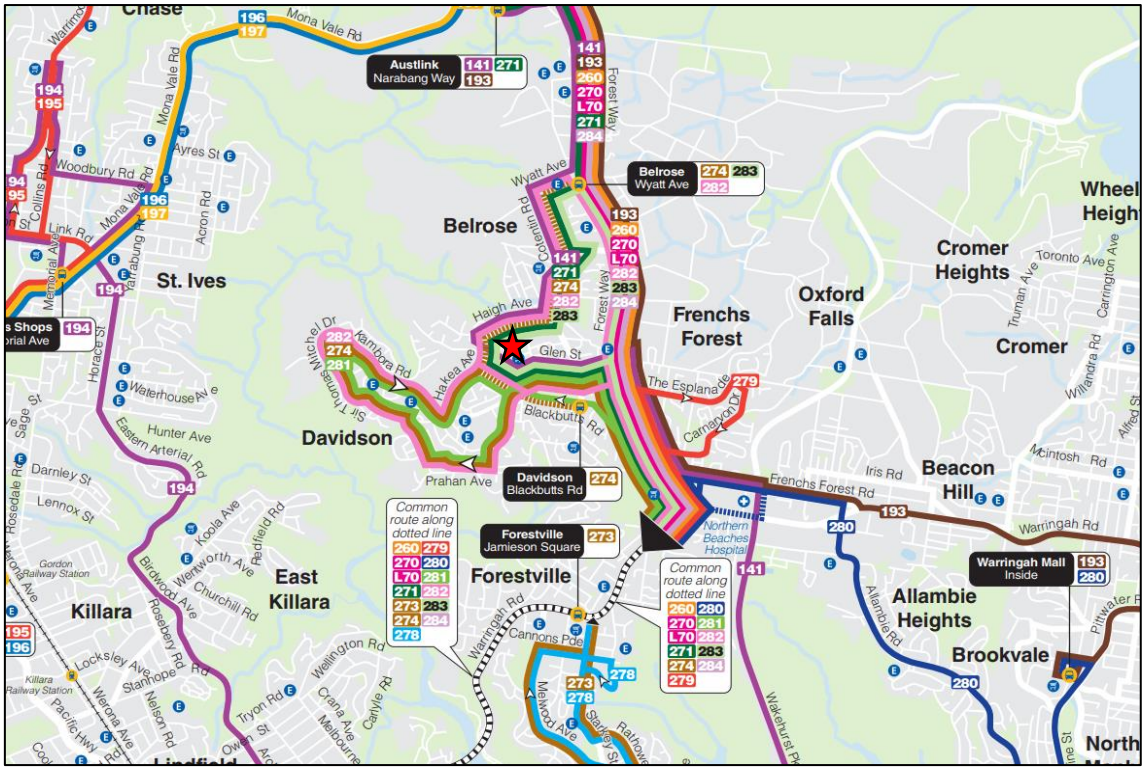
- Unclassified LOCAL Road;
- Approximately 12m in width facilitating three traffic flow lanes (one northbound; 2 southbound);
- No speed limit signposted, default 50km/h applies;
- Two (2) disabled kerbside parking spaces available at the end of the street;
- No other kerbside parking permitted along both sides of the street.

3 Existing Traffic Management

- Priority controlled intersection of Glen Street / Glenrose Place;
- ‘GIVE-WAY’ sign-controlled intersection of Lockwood Avenue / Glen Street;
- Pedestrian crossing across Lockwood Avenue adjacent to the intersection of Lockwood Avenue / Glen Street;
- Pedestrian crossing across Glen Street adjacent to the intersection of Glen Street / Glenrose Place.

4 Public Transport

The subject site is within 200m walking distance of existing bus stops (ID: 208668, ID:2086104, ID:208687, ID:208558, ID 208668, ID: 2086104, ID 208687, ID: 208558) servicing bus routes 141 (Austlink to Manly via Frenchs Forest & Seaforth), 271 (Belrose to City QVB), 274 (City QVB to Davidson via Frenchs Forest), 281 (Davidson to Chatswood), 282 (Davidson & Belrose to Chatswood) and 283 (Belrose to Chatswood) provided by Forest Coach Lines. The location of the site is shown on a local public transport network map in **Figure 1** below, indicating that the site is very well located with respect to public bus services.



Site Location

FIGURE 1: PUBLIC TRANSPORT MAP

5 Parking Assessment

5.1 Car Parking Provision

The Council approved the original development application (DA 2020/0393) which included 228 car parking spaces spread between two (2) basement car parks. Of these 228 car parking spaces, 163 are for commercial use, 65 for residents and 10 for residential visitors. The car parking requirements are shown in **Table 1**.

TABLE 1: COUNCIL DCP CAR PARKING REQUIREMENTS

Land Use	Type	Scale[(1)]	Rate	Spaces Required
Residential	One-bedroom	1	1 per dwelling	1
	Two-bedroom	22	1.2 per dwelling	26.4
	Three-bedroom	24	1.5 per dwelling	36
	Visitor	47	1 per 5 dwellings	10
Residential Subtotal				73
Retail	0-10,000m^2 GLFA	3,351m^2 GLFA	6.1 per 100m^2 GLFA	204
(dual use reduction)[(1)]		-20%		-40
Retail Subtotal				164
Total				**237**

As shown, the car parking requirement based on the Council DCP is **237** spaces. The proposal provides **237** spaces including 163 for commercial uses and 74 for residential uses. This satisfies the Council's car parking requirement.

5.1.1 Shared Use of Retail and Residential Visitors

Typically retail and residential visitor parking usage does not peak at the same time. Residential visitors are often utilised in the evenings whilst retail uses are typically open during business hours. Therefore, it is likely that residential visitors would utilise vacant retail visitor car parking outside of peak periods. The proposal includes 31 retail visitors on the Basement 03 plan, this being the most convenient parking for visitors to the site (whether retail or residential).

During peak residential visitor visitation, the two (2) residential visitor spaces positioned outside of the security gate can be utilised by retail visitors during peak retail visitation to increase the provision of retail during peak times to 165 spaces. This will operate seamlessly without any enforcement.

5.2 Bicycle Storage Requirements

Warringah DCP 2011 outlines the following bicycle parking requirement for the proposed development:

> ***Residential Accommodation containing 3 or more dwellings (excluding group homes; boarding houses; hostels; seniors housing):***
>
> *Column 1 (High-Medium Security Level*)*
>
> *1 per dwelling*
>
> *Column 2 (High-Low Security Level**)*
>
> *Visitor: 1 per 12 dwellings*
>
> ***Business and Retail Premises:***
>
> *Column 1 (High-Medium Security Level*)*
>
> *1 per 200m^2 GFA*
>
> *Column 2 (High-Low Security Level**)*
>
> *Visitors: 1 per 600m^2 GFA*
>
> ***Recreation Facility (indoor, outdoor, or major):***
>
> *Column 1 (High-Medium Security Level*)*
>
> *1 per 4 employees PLUS*
>
> *1 per 1500 spectator places*
>
> *Column 2 (High-Low Security Level**)*
>
> *1 per 200m^2 GFA*
>
> *1 per 250 spectator places*
>
> **Bicycles are stored in individual or locked to rails within a secure room / enclosure (Refer to Part 7.6 of the NSW Planning Guidelines to Walking and Cycling for more detail.)*
>
> ***Bicycle frames and wheel are locked to high quality rails. (Refer to Part 7.6 of the NSW Planning Guidelines to Walking and Cycling for more detail.)*

The resulting bicycle parking requirements for the subject mixed-use development are summarised in **Table 2** below.

TABLE 2: BICYCLE PARKING REQUIREMENTS

Land Use	Type	Scale[(1)]	Rate	Spaces Required
Residential	Column 1	47	1 per dwelling	47
	Column 2		1 per 12 dwelling	4
Business and Retail	Column 1	3,351m^2 GFA	1 per 200m^2 GFA	17
	Column 2		1 per 600m^2 GFA	6
Total	**-**	**-**	**-**	**74 (64 tenant; 10 visitors)**

The development therefore requires the provision of **74** bicycle spaces. This includes **64** for tenants and **10** for visitors. The proposal includes **64** tenant bicycle spaces and **12** for visitors, which complies with this requirement.

6 Car Park Design & Compliance

The proposed car parking layout has been assessed to generally achieve the relevant objectives and requirements of AS2890.1, AS2890.2 and AS2890.6. The carpark has the following features relevant to traffic and parking impact:

- 5.8m wide parking aisles;
- 0.3m clearance provided to all high obstruction such as walls and stairwells;
- 1.2m wide x 2.5m length motorcycle spaces;
- 2.5m wide x 5.4m length visitor car parking spaces;
- Two (2) Loading Bays suitable for 12.5m length HRVs;
- Maximum ramp grade of 20%, with no instantaneous transitions over 12.5%;
- Minimum 5.5m kerb-to-kerb and 6.1 wall-to-wall ramp widths on ramps;

Swept path analysis has been completed showing adequate circulation for the HRVs. The swept path analysis is provided in **Annexure B**.

6.1 Parking Recommendations

6.1.1 Bicycle Parking

Bicycle parking shall be provided in compliance with AS2890.3:2015 and Council's DCP. The site is not restricted by its ability to provide adequate bicycle parking. Details of bicycle parking can be required as a condition of consent for CC.

7 Traffic Assessment

The S4.55 proposal does not significantly change the floor area or the quantity of residential units and therefore does not change the traffic generation potential. Therefore, it is reasonably expected that the scale and traffic generation of the proposed development is accounted for within the completed assessment by *McLaren Traffic Engineering.*

8 Conclusion

In view of the foregoing, the proposed changes to the development is fully supported in terms of its traffic and parking impacts. The following are relevant to note:

- The proposal will not change the residential unit quantity or car parking provision compliance with the Council's DCP.
- There will be no net change in traffic generation compared to the traffic generation assessed within the approved development application.
- The proposed S4.55 plans are compliant with *AS2890.1:2004*, *AS2890.2:2018* and *AS2890.6:2009*.

Please contact Mr Daniel Fonken or the undersigned should you require further information or assistance.

Yours faithfully
McLaren Traffic Engineering

Craig McLaren
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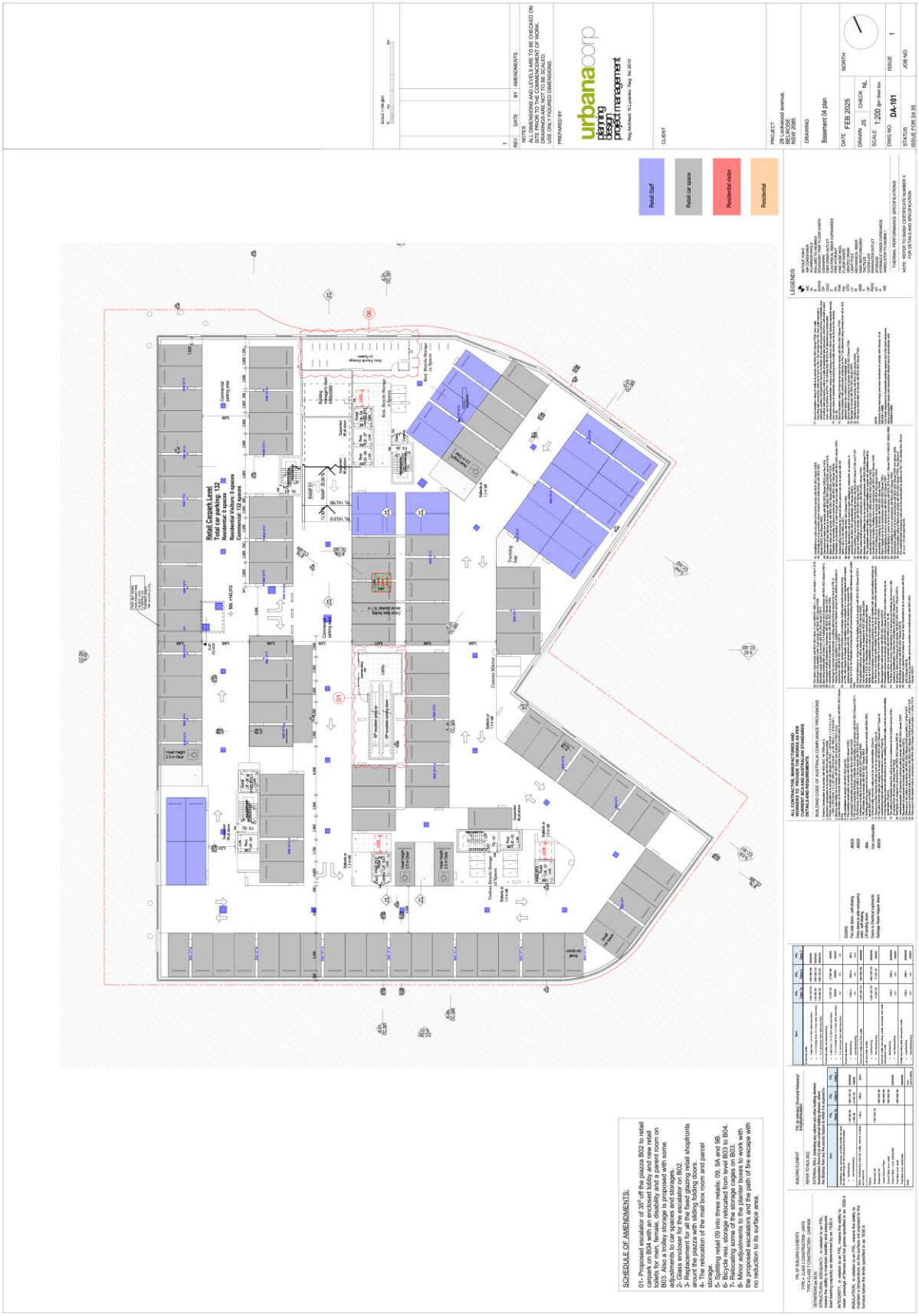
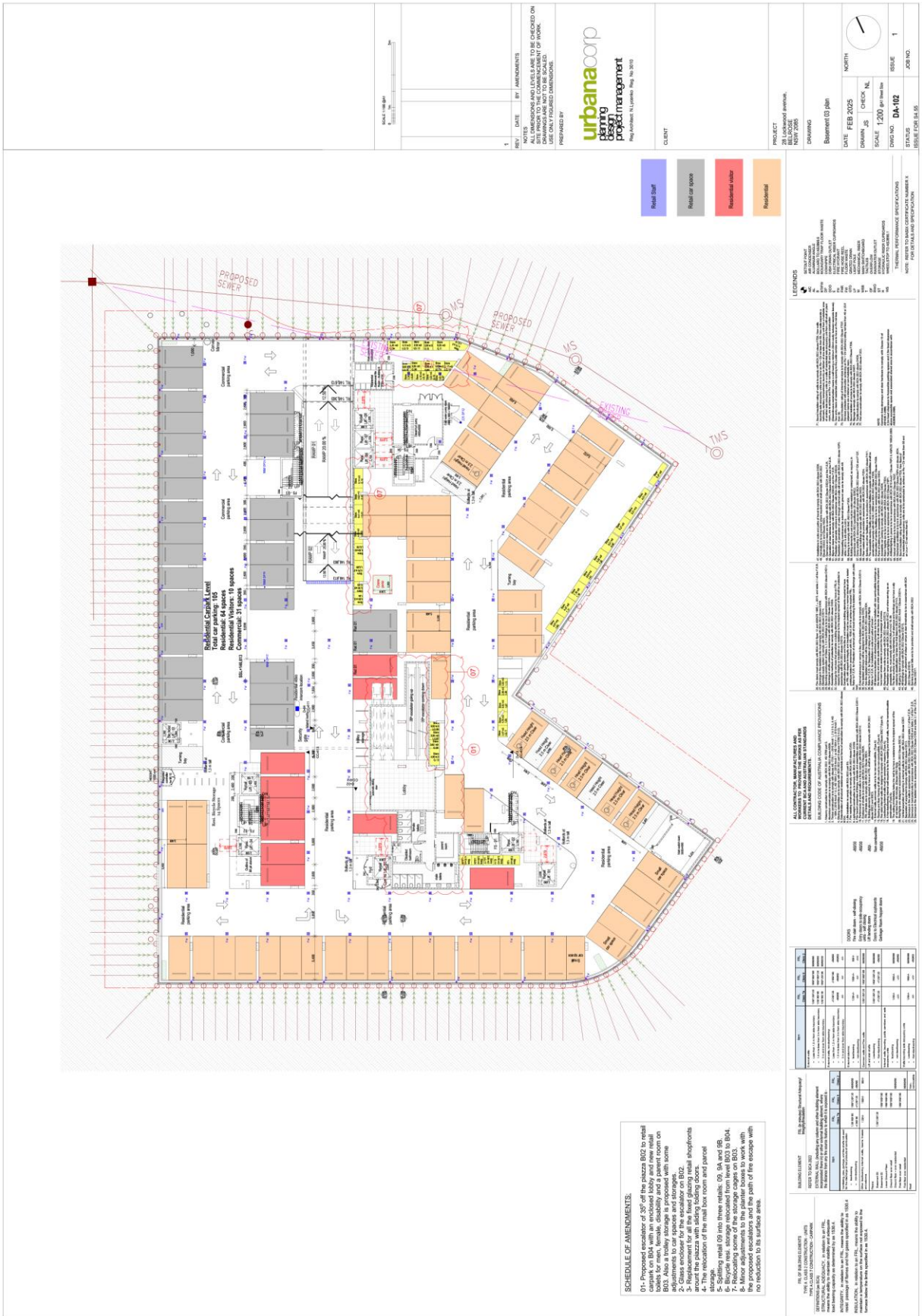
ANNEXURE A: SITE PLAN

(Sheet 1 of 3)



ANNEXURE A: SITE PLAN
(Sheet 2 of 3)



ANNEXURE A: SITE PLAN
(Sheet 3 of 3)