



19 January, 2019

The General Manager
Wollondilly Shire Council
PO Box 21
Picton
NSW 2571

Attention: The General Manager

Dear Sir / Madam,

PASSENGER VEHICLE MANOEUVRING WITHIN PROPOSED RESIDENTIAL DEVELOPMENT
42 CARLTON ROAD, THIRLMERE

This Practice has been engaged by Kevin Long & Sally Pi to undertake an assessment of the ability or otherwise of passenger vehicles to access and vacate internal vehicle parking spaces within the proposed residential development at 42 Carlton Road, Thirlmere.

The Development Application seeks consent for the construction of a multi-dwelling residential development comprising seven dwellings and the retention of the existing detached residential dwelling.

Two of the new dwellings are proposed to be serviced by single vehicle garages, connecting with Carlton Road via a single combined driveway. The remaining new five dwellings are proposed to be serviced single garages accessed via an internal service road, separately accessed via Carlton Road. A single open parking space to service the existing dwelling in conjunction with three open visitor parking spaces are also proposed to be accessed via the internal service road.

In order to demonstrate the internal passenger vehicle manoeuvrability to and from the development parking spaces, this Practice has prepared a number of swept path plans which are included as **Appendix 1**. The turning paths provided on the plans have been generated using the abovementioned amended architectural plan as a base, Autoturn software and B99 and B85 vehicle specifications provided within AS2890.1:2004.

Section B4.4 of AS2890.1:2004 states the following with respect to the use of swept path templates to assess vehicle manoeuvring:

'Constant radius swept turning paths, based on the design vehicle's minimum turning circle are not suitable for determining the aisle width needed for manoeuvring into and out of parking spaces. Drivers can manoeuvre vehicles within smaller spaces than swept turning paths would suggest.'

It would therefore appear that whilst the turning paths provided within AS2890.1:2004 can be utilised to provide a 'general indication' of the suitability or otherwise of internal parking and manoeuvring areas, vehicles can generally manoeuvre more efficiently than the paths indicate. Notwithstanding this, the swept path plans illustrate the following:

- A B99 passenger vehicle is capable of entering the site via the internal roadway running along the southern boundary and thence undertaking a three point turn in the south-eastern corner of the site in the event that all internal spaces are occupied, prior to exiting the site in a forward direction with appropriate manoeuvring clearances;
- B85 vehicles are capable of entering the site in a forward direction via the internal roadway running along the southern site boundary, accessing and exiting all internal vehicular parking spaces and thence exiting the site in a forward direction; and
- B85 vehicles are capable of reversing into the garages servicing the two dwellings fronting Carlton Avenue and thence exiting in a forward direction.

The abovementioned manoeuvring is capable of being undertaken without any unreasonable encroachment on opposing public road travel lanes, public road driveways and street furniture or internal physical obstructions. Passenger vehicles are therefore concluded to be capable of accessing and vacating internal vehicle parking spaces within the proposed residential development with a reasonable level of safety and efficiency.

It would be appreciated if the information contained within and appended to this correspondence could be incorporated within Council's assessment of the subject application.

Submitted for your consideration.

Yours sincerely,



Morgan Stanbury
Director
Traffic Engineer

APPENDIX 1

CARLTON
ROAD

existing kerb

B99
STANDARDS 2004 (AU_MZ)

B99
STANDARDS 2004 (AU_MZ)



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NOTES:
1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY COBLE STEPHENS ARCHITECTS.
2. THE SWEEP PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 10 IN CONJUNCTION WITH B99 PASSENGER VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD FOR PARKING FACILITIES PART 1: OFF-STREET CAR PARKING (AS2890.1:2004).

STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
SITE ACCESS AND INTERNAL PASSING
PROPOSED RESIDENTIAL DEVELOPMENT
42 CARLTON ROAD, THIRLMERE

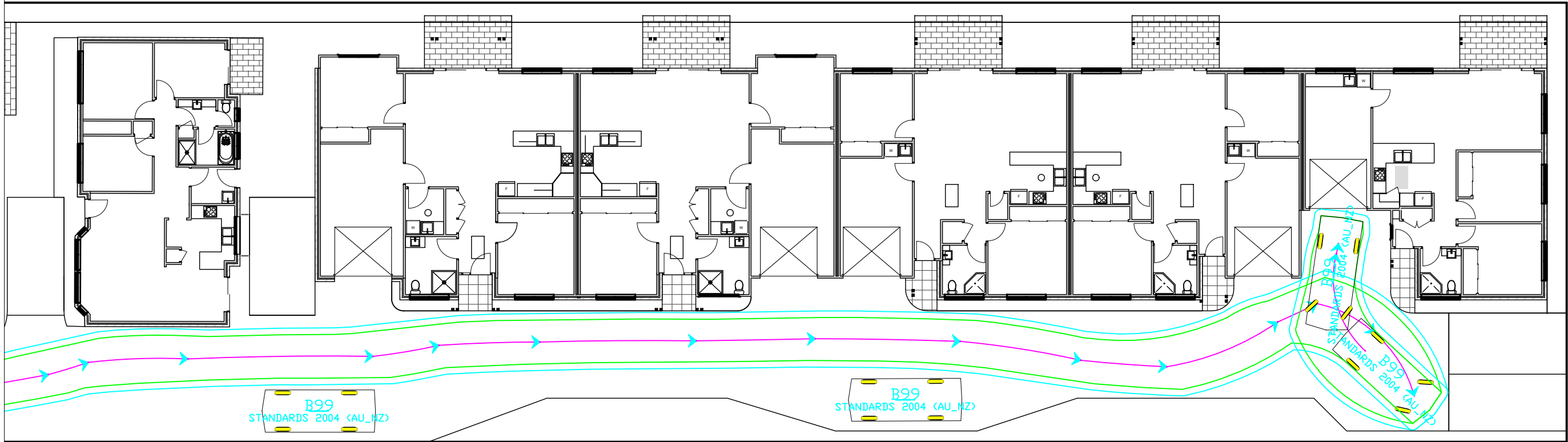
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PASSENGER VEHICLE SWEEP PATHS
INTERNAL PASSING AND TURNAROUND
PROPOSED RESIDENTIAL DEVELOPMENT
42 CARLTON ROAD, THIRLMERE

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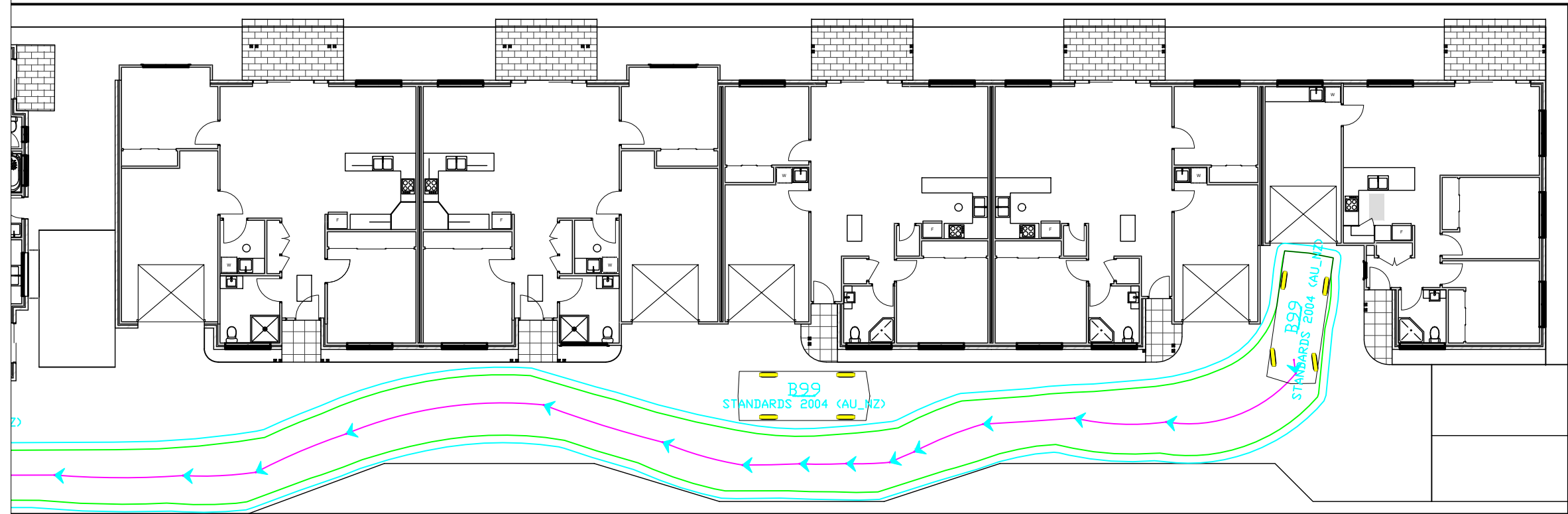
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STANBURY TRAFFIC PLANNING

PASSENGER VEHICLE SWEEP PATHS
INTERNAL TURNAROUND AND PASSING
PROPOSED RESIDENTIAL DEVELOPMENT
42 CARLTON ROAD, THIRLMERE

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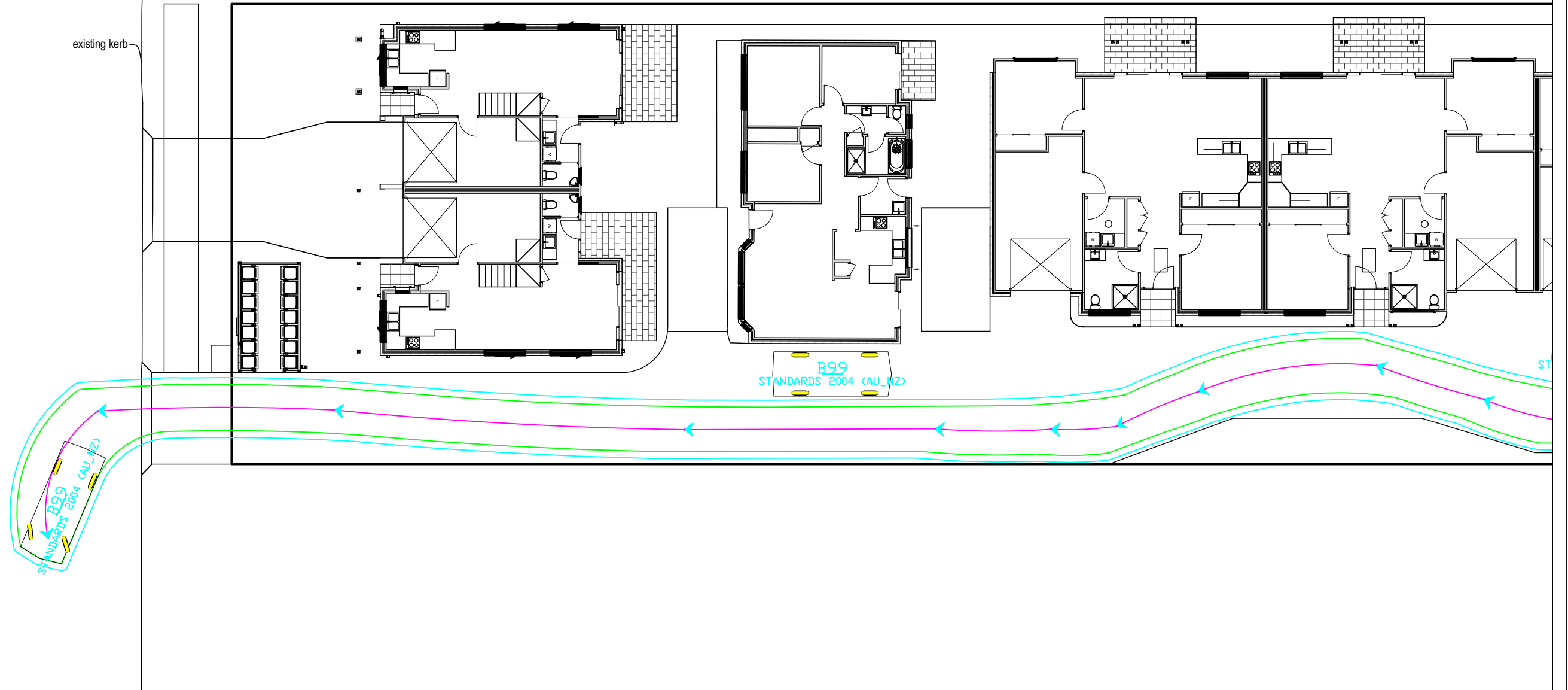
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CARLTON
ROAD

existing kerb



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STANBURY TRAFFIC PLANNING

PASSENGER VEHICLE SWEEP PATHS
INTERNAL PASSING AND EGRESS
PROPOSED RESIDENTIAL DEVELOPMENT
42 CARLTON ROAD, THIRLMERE

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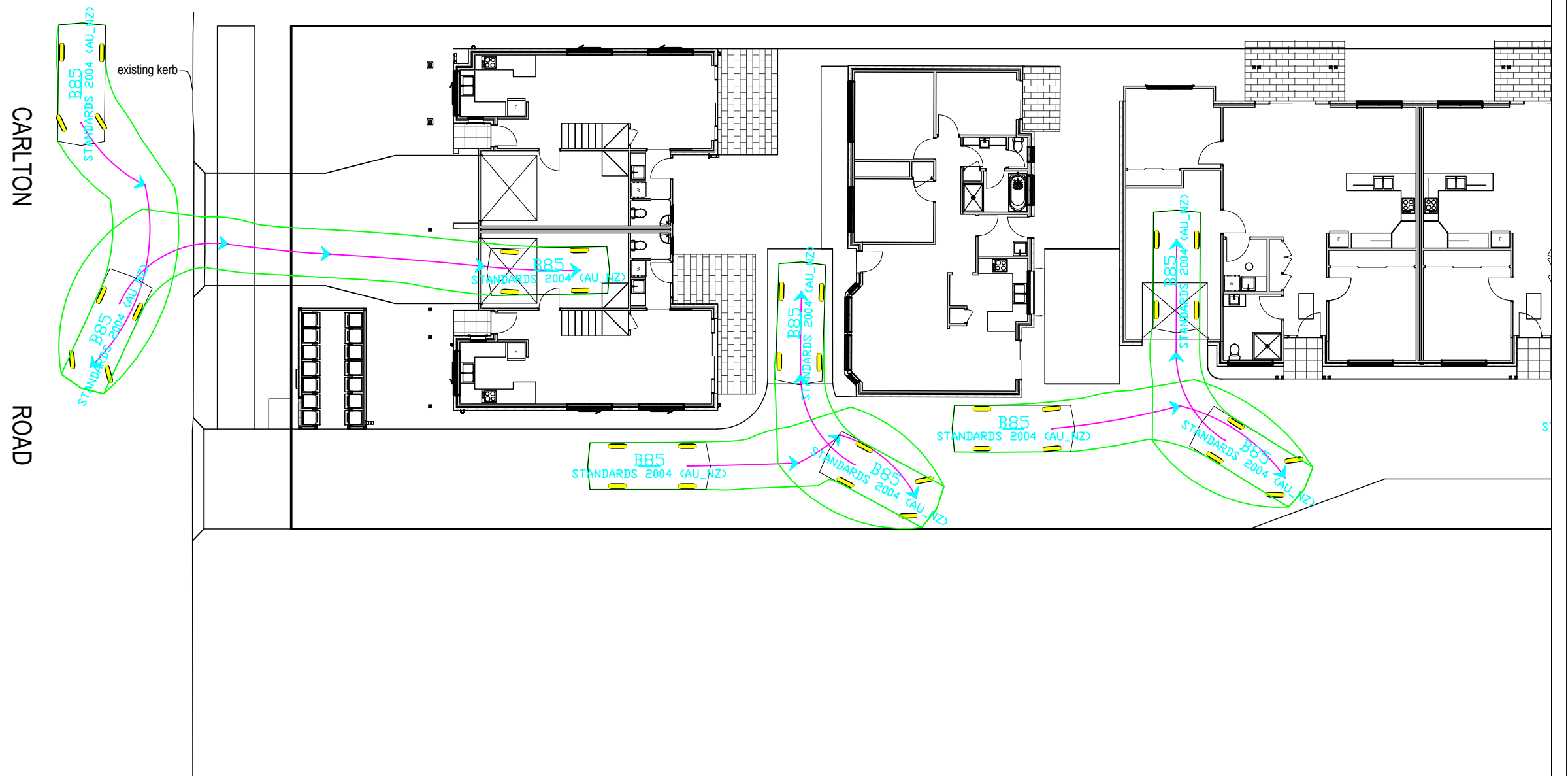
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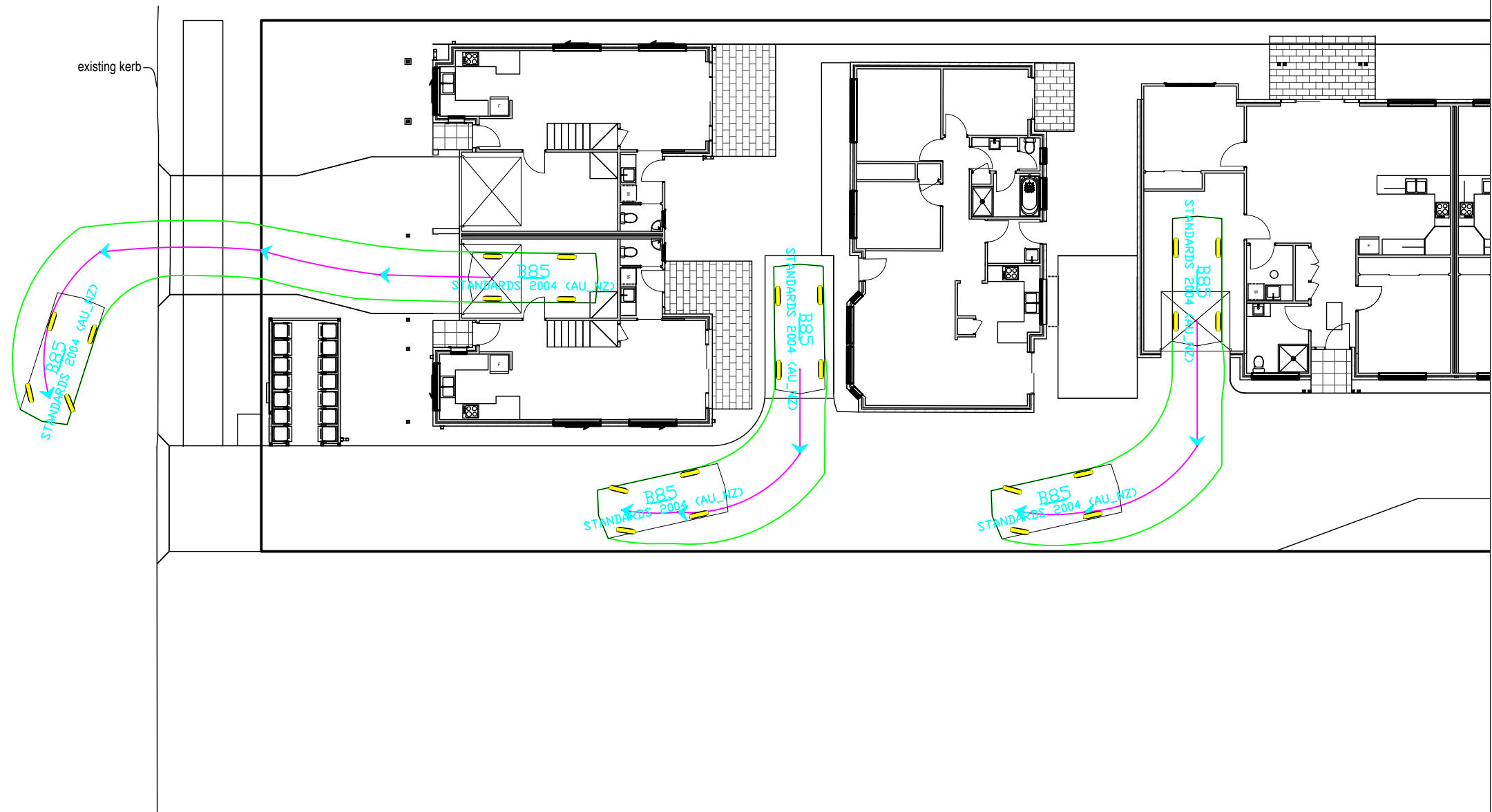
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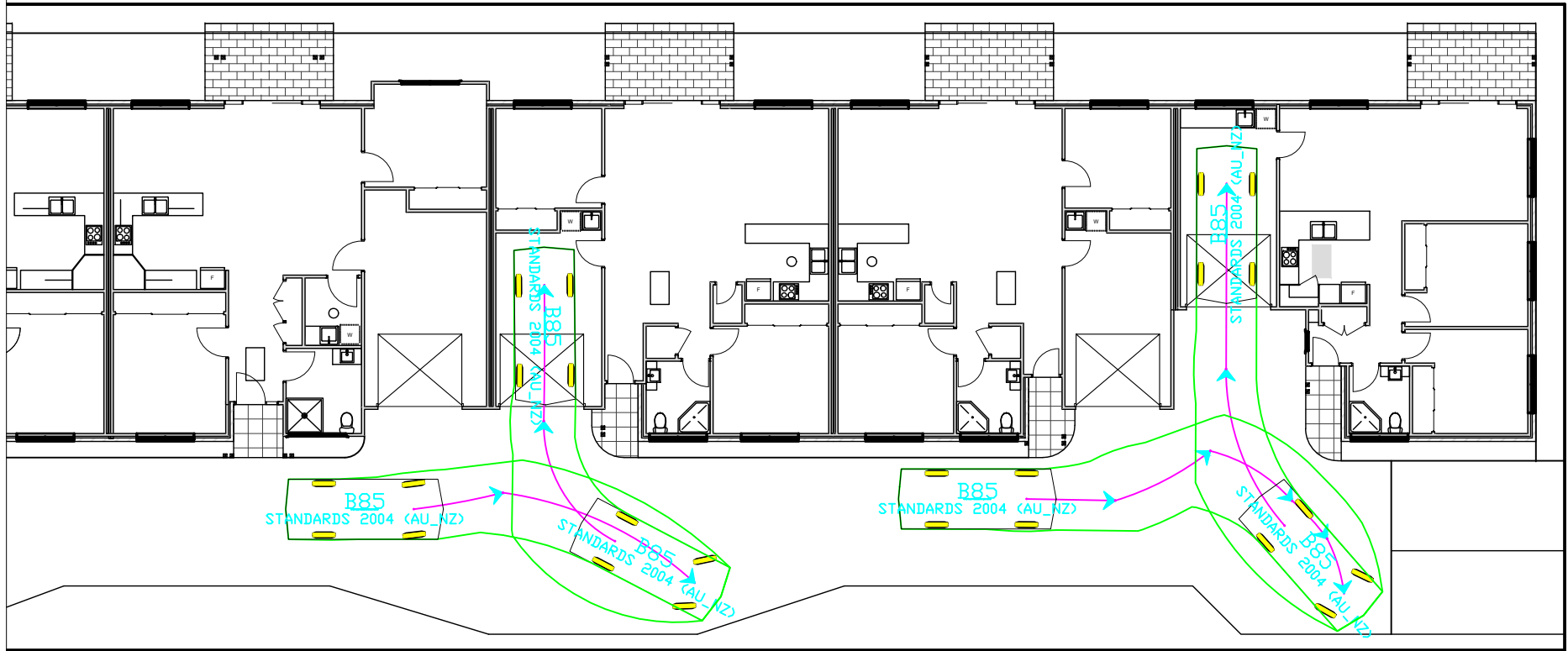
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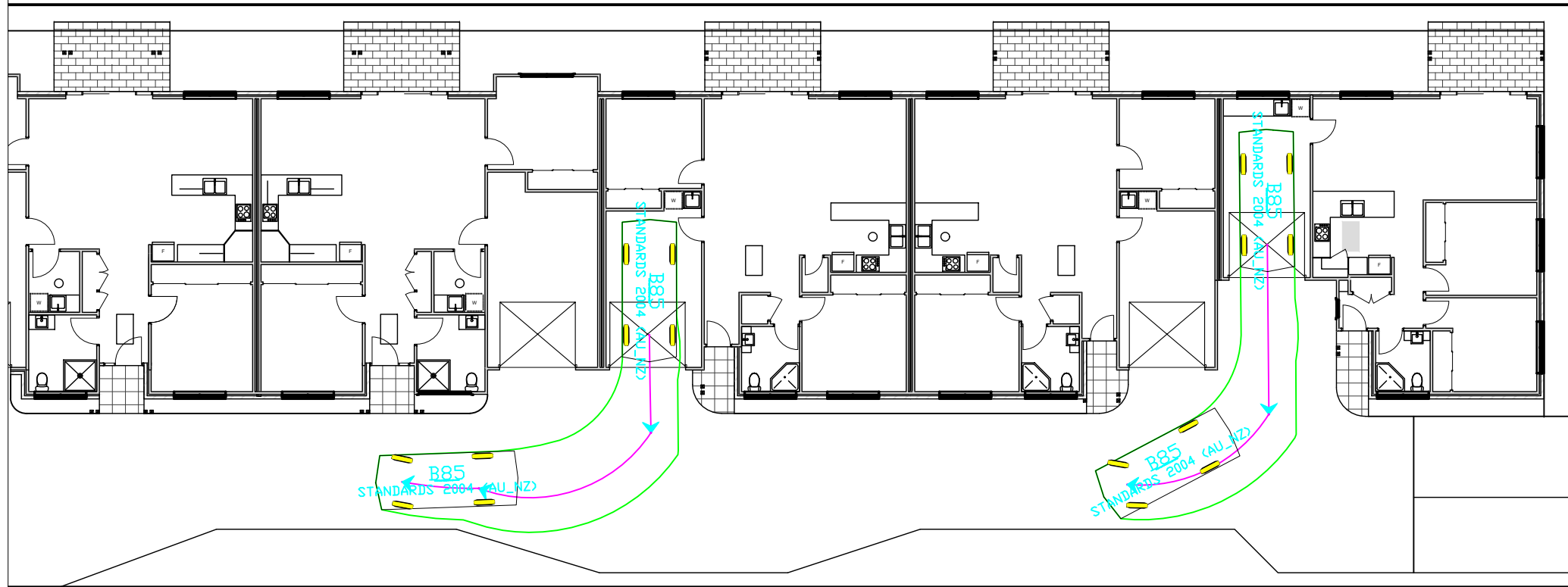
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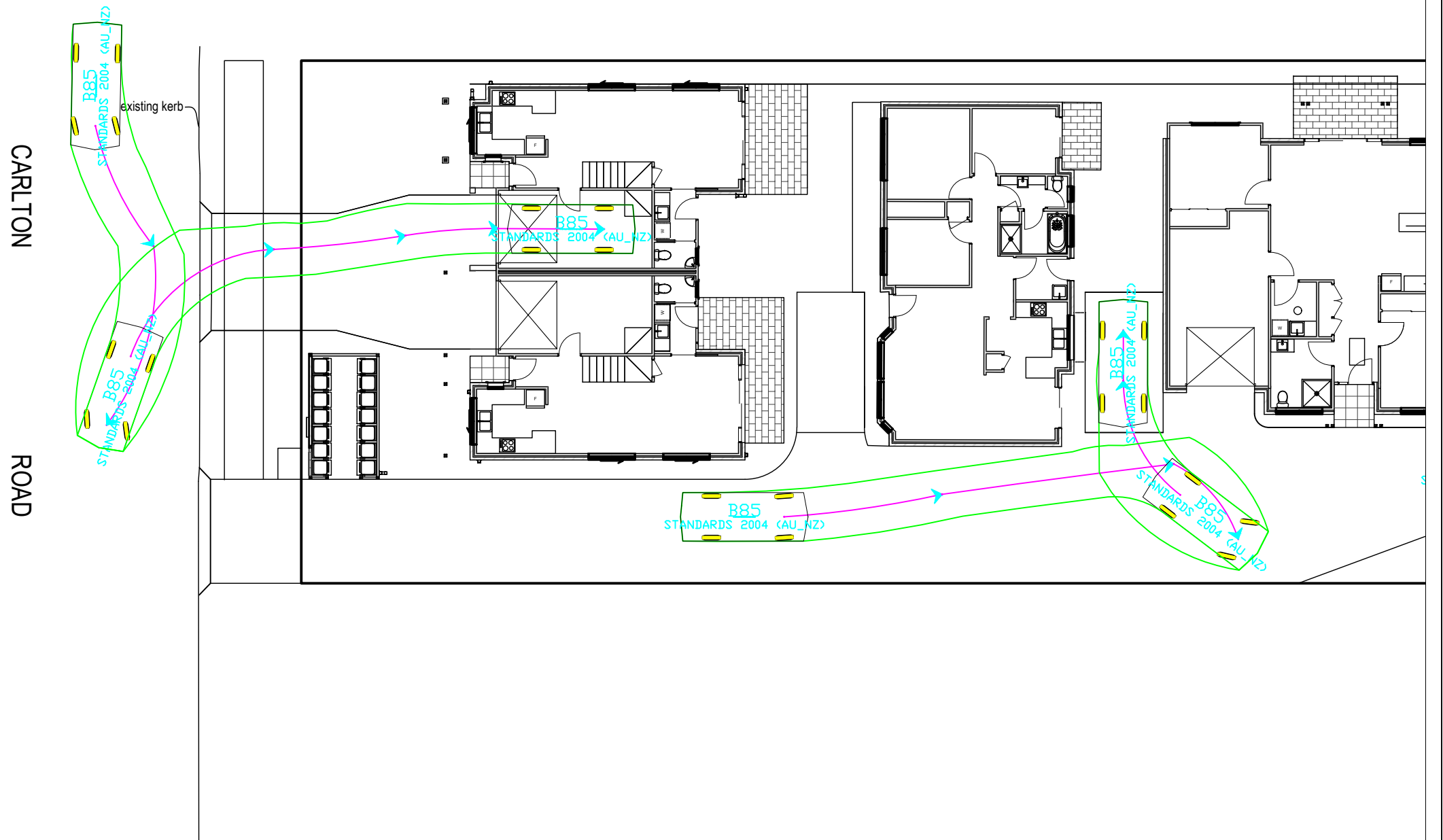


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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
PARKING SPACE INGRESS MOVEMENTS - WESTERN PORTION OF SITE
PROPOSED RESIDENTIAL DEVELOPMENT
42 CARLTON ROAD, THIRLMERE

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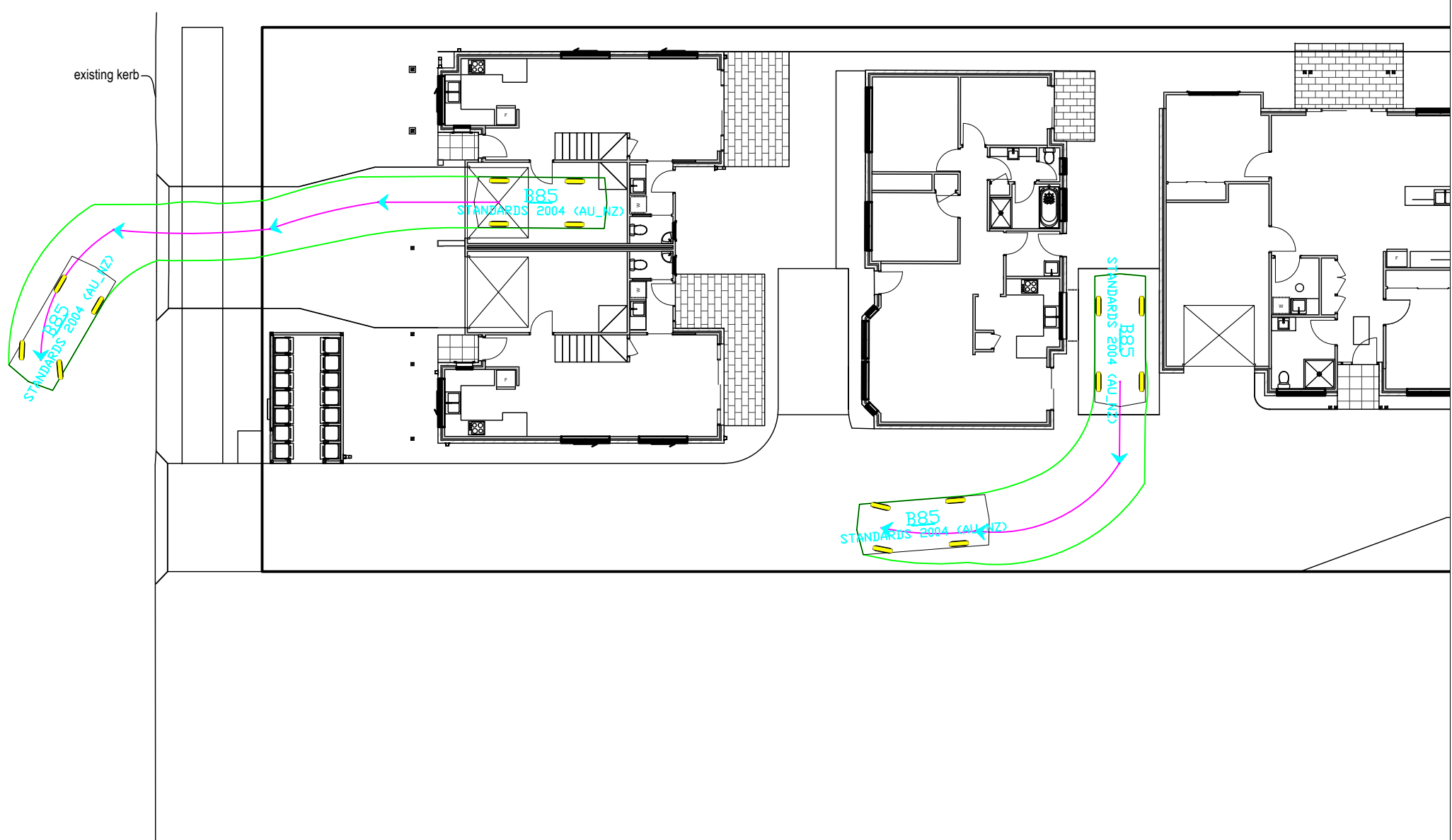
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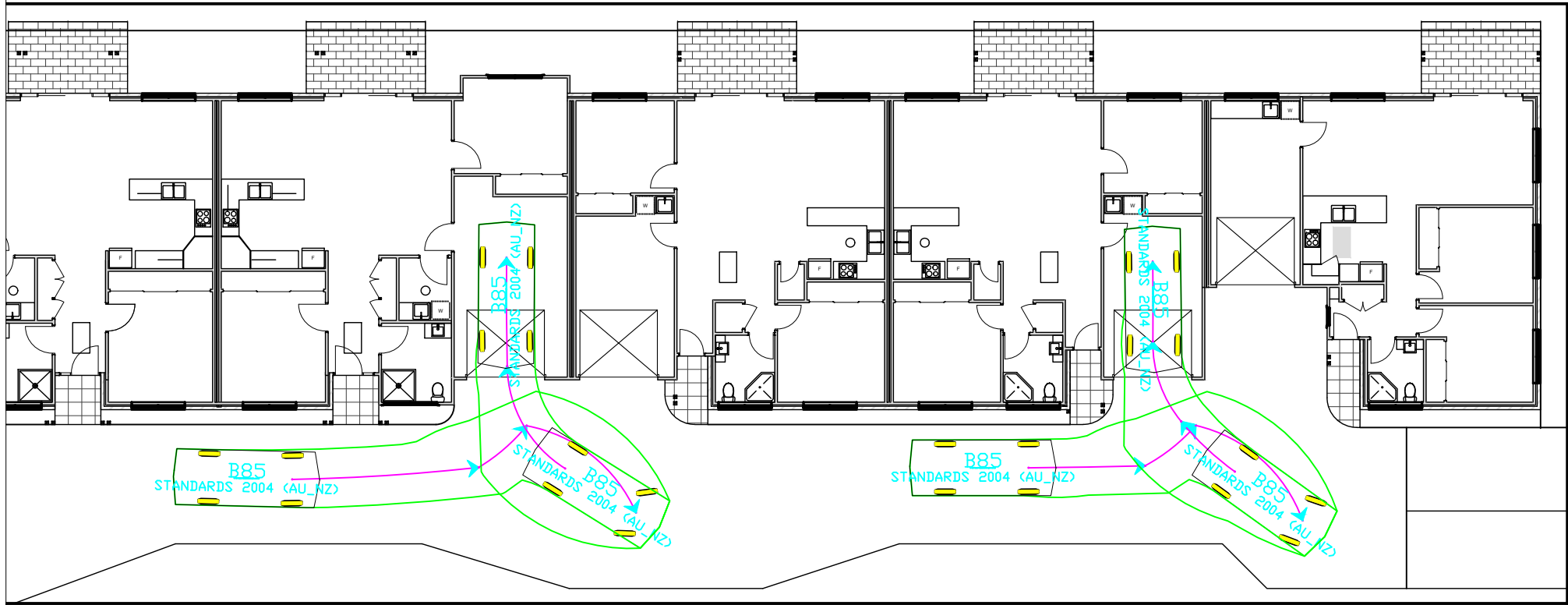
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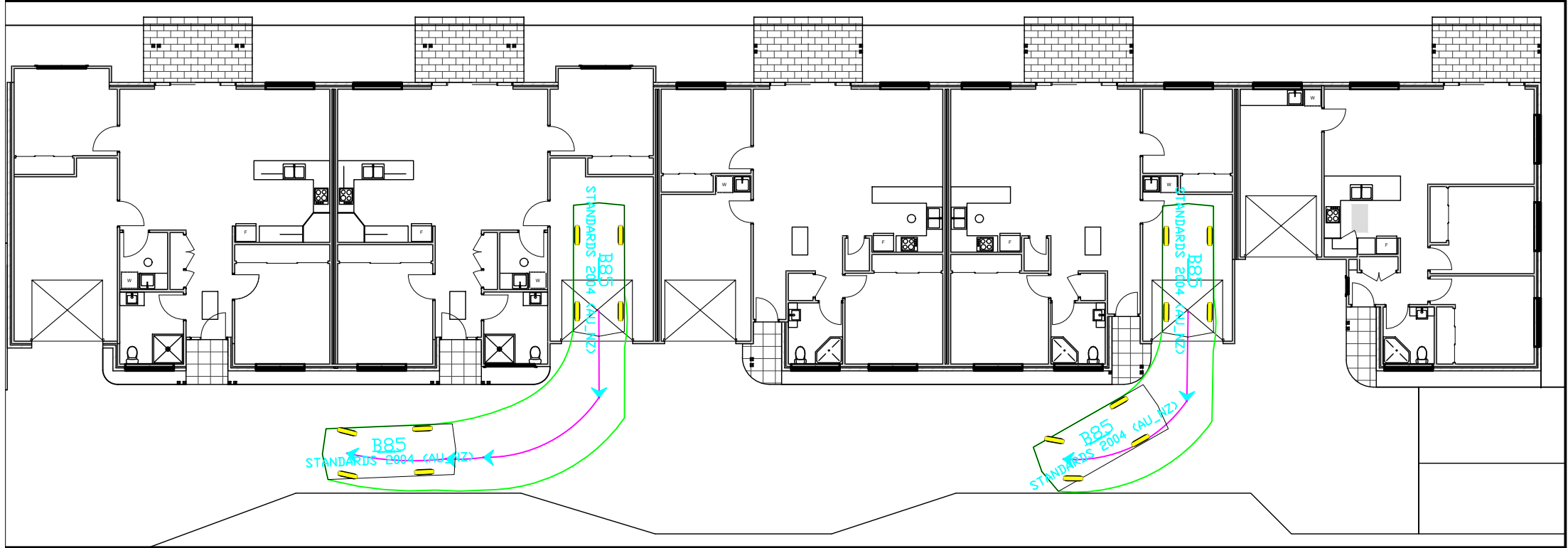
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PARKING SPACE EGRESS MOVEMENTS - EASTERN PORTION OF SITE
PROPOSED RESIDENTIAL DEVELOPMENT
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