

To: Emma Moller (Development Manager) From: Trent Williams
Brisbane Housing Company Senior Principal Transportation
c/- EDQ Urban Development Engineer
Project/File: 301050151 Date: 8 May 2022

REFERENCE: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING**PREAMBLE**

A Development Application (DA) was lodged, and subsequently approved on 3 May 2022, with Economic Development Queensland – Development Assessment (EDQ – DA) for the development of a site located at 70 Park Road, Yeronga. This land is described as Lot 11 on SP300888 and is located within the Yeronga Priority Development Area (PDA).

The application was granted a PDA Preliminary Approval for a material change of use and a PDA Development Permit for a Reconfiguration of Lot (1 into 14 lots, easements and road). The Parkside Yeronga Master Plan was prepared as a design response to the Yeronga PDA Development Scheme (August 2019) to identify the potential form, function and layout of future development of the Yeronga PDA. The Master Plan provided a possible outcome for the development of the individual Lots and includes residential, community, commercial and open space land uses.

EDQ – Urban Development (EDQ-UD) commissioned Stantec in November 2020 to undertake the Transport Impact Assessment for the Master Plan Preliminary Approval and Reconfiguration of a Lot (ROL) approval (reference DEV2021/1221, dated 3 May 2022).

BHC DA AND EDQ-DA FURTHER ISSUES LETTER

A subsequent DA (DEV2023/1367) was submitted to EDQ-DA for a residential development (Proposed Lot 3). EDQ-DA has reviewed the submission and issued a Further Issues letter (via email, dated 16 March 2023) which included a number of traffic and transport related items.

For reference, EDQ-DA's Further Issues item has been reproduced in italics, with Stantec's response following each item.

Item T1 – General

“The report appears to have been signed-off by Andrew Tierney, who is not listed as being an RPEQ, and the report also references queries to be directed to Trent Williams (RPEQ). Confirm who is certifying the TIA and ensure it is clearly identified on the Technical Note.”

The professional engineering services for this project have been completed by Andrew (and others) under the direct supervision of Trent, a practising professional engineer, as per requirements of the Professional Engineers Act 2002. This is reflected in the sign-off of the original Technical Note prepared as part of the BHC submission (dated 17 January 2023).

Reference: PARKSIDE YERONGA – SOCIAL AND AFFORDABLE HOUSING PROPOSAL (FURTHER ISSUES LETTER RESPONSE)

It is noted that this approach is standards industry practice, adopted for a wide range and number of submissions to local and State Government authorities. It is also consistent with the submitted and approved Technical Notes prepared for other DA's within the Yeronga PDA.

Nevertheless, for clarity this technical note has been updated to include sign-off by both Andrew Tierney and Trent Williams (RPEQ).

Item T2 – Access

“More information is needed regarding the operations of the security gate. Provide further details around the proposed operations of the security gate, including proposed location for a swipe access point if applicable.”

Based on information provided by BHC, the proposed operations of the security gate include remote control access. Such an arrangement is standard practice for residential developments to minimise infrastructure and spatial requirements of swipe card access. It is understood that a secondary card reader or keypad access point is to be provided on the wall near the roller shutter as a back-up access for residents should there be an issue with a residents remote control (i.e. flat batteries). These arrangements are considered to be acceptable.

Item T3 – Car Parking Supply

“Sufficient information has not been provided for EDQ to accept the proposed carparking reduction. The TIA is to be amended to address the following:

- *Although the time of day when occupancy surveys were conducted is identified as being at 1pm and 8pm on a weekday and a weekend (which are likely to be appropriate survey times), the table only presents a single value for “Observed Demand”, and does not specify if this is a maximum, average or otherwise. The Applicant should ideally provide the demand at each of the four observation times.*
- *At minimum, the Applicant should list the maximum observed demand across any of the four observation times.*
- *The information presented does not identify the parking supply at the surveyed locations, or the occupancy of parking expressed as a percentage of total supply (only as a percentage of the Statutory Requirement). Ideally, the Applicant should present the total supply for each building, or at minimum express the maximum observed demand as a percentage of the parking supply. If the parking supply at each site has been provided in accordance with the Statutory Parking Requirement listed in the table, clearly identify this.*
- *BHC's policy that accommodation will not be provided to tenants with a vehicle unless there is a parking space available does not strongly support the proposed reduction. Rejecting tenants based on their car ownership may not support the intent of the development and may mean that social housing cannot be made available to those who are in-need due to a lack of available parking. Additionally, if tenants are aware of the requirement, or are required to pay more to access a parking space, they may elect not to disclose their car ownership, and park on surrounding residential streets.”*

Further detail has been provided within the Social and Affordable housing parking demand assessment. It is noted that BHC's policy for allocating car parking spaces based on car ownership is established across many of BHCs existing sites and does not result in any issues in tenanting units.

Observed Car Parking Demand

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For the purpose of a highly-conservative car parking demand assessment, if a vehicle was identified in a resident car park at any time during the 4 spot counts, these spaces were noted as being ‘occupied’. As such, the car parking demands presented within the original Technical Note prepared as part of the BHC submission (dated 17 January 2023) represent the absolute worst-case scenario.

Table 1: Conservative Nature of Adopted Car Parking Demands

Location	Car Parking Demands (rounded up to nearest whole number)		
	Average	Maximum	Adopted
Chermside	8	9	10
Nundah	10	11	11
Mitchelton	5	6	6

The adopted approach and identified demands are considered to be acceptable and appropriate for application to the BHC proposal in this instance.

Car Parking Supply and Total Occupancy at Surveyed Locations

As requested, Table 2 is provided to identify the actual car parking supply at the surveyed locations and the occupancy of car parking expressed as a percentage of total supply.

Table 2: Comparison of Car Parking Demand vs. Car Parking Supply

Location	Statutory Car Parking Requirement	Actual Car Parking Supply	Provision (% Stat. Car Parking Req.)	Observed Car Parking Demand	Occupancy (% of total supply)
Chermside	52 spaces	11 spaces	21%	10 vehicles	91%
Nundah	81 spaces	12 spaces	15%	11 vehicles	92%
Mitchelton	18 spaces	8 spaces	44%	6 vehicles	75%

This demonstrates the precedence of the car parking dispensation against the statutory car parking requirements and also the suitability with respect to the observed car parking demands, particularly considering the worst-case scenario method to identifying demands as identified above.

Car Parking Management

As per the responses above, we have clearly demonstrated the suitability of the proposed residential carparking dispensation.

The needs of prospective tenants are considered by BHC as early as the site selection phase of any project. BHC deliberately identify and develop sites close to services, amenities and public transport where residents can realistically live without a car. This approach is aimed at reducing the burden of car ownership for future residents.

BHC representatives have provided the following specific response with regards to the evaluation of tenants, allocation of units and holistic tenant management:

“BHC are a provider of social and affordable housing and this approach to decoupling units and carparking spaces already occurs in our portfolio and is an existing workable policy. BHC have their own allocations team who allocate units to those in need. This team does not have issues in the existing

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portfolio in tenanting units without carparking spaces. Residents living in social and affordable housing are on low and limited incomes and many do not own cars.

In addition, BHC aim to provide affordable living outcomes for residents. Not owning a car or paying additional rent for a carpark is a significant cost saving. BHC deliberately look for sites close to services, amenities and public transports where residents can realistically live without a car. BHC provide a holistic management approach, with each building having a dedicated housing manager and caretaker, and in the case of Yeronga this will be a live in caretaker."

It is noted that this holistic management approach is in place at the majority of BHC's 42 existing facilities. From a transport engineering perspective, this approach is considered both acceptable and appropriate to manage the car parking demands of residents, provide lower cost living solutions and achieve greater sustainability outcomes. On this basis, the management arrangements are considered to be acceptable.

Item T4 – Car Parking Layout

"Sufficient information has not been provided for EDQ to assess the standards for the car parking proposed. Provide dimensioned plans which demonstrate:

- *that sufficient vertical clearance is achieved for all parking spaces in the basement (include PWD spaces);*
- *structural elements are within the parking spaces envelopes, and all walls are greater than 0.3m from the edge of parking spaces in accordance with BCC TAPS PSP; and*
- *compliance with BCC TAPS PSP as much as practicable."*

The architectural package has been revised to provide a detailed basement level layout drawing (drawing SK 202 revision B, dated 17 April 2023, provided in Attachment A) which includes dimensions and vertical clearances throughout the basement.

The proposed development layout is provided generally in accordance with Council's TAPS PSP where practicable, with Performance Solutions adopted and clearly identified in accordance with relevant Australian Standards. An updated car parking layout review (including vertical clearances) has been undertaken against the requirements of Council's TAPS PSP, relevant Australian Standards (AS2890.1 and AS2890.6) and good transport engineering practice. Details of this review are provided below in Table 3.

Table 3: Adequacy of Car Park Layout

Design Aspect	Design Element	Council Requirement (TAPS PSP)	Australian Standard Requirement (AS2890.1)	Proposed Design	Compliance
Car Parking Bays & Aisles	Resident Parking (User class 1A)				
	Bay width	2.6m	2.4m	2.5m	✓ (AS2890.1)
	Bay length	5.4m	5.4m	5.4m	✓
	Aisle width	6.2m	5.8m	6.2m	✓
	Bay vertical clearance	2.3m	2.2m	3.1m minimum	✓

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Design Aspect	Design Element	Council Requirement (TAPS PSP)	Australian Standard Requirement (AS2890.1)	Proposed Design	Compliance
	Visitor Parking (User class 3)				
	Bay width	2.6m	2.6m	2.6m	✓
	Bay length	5.4m	5.4m	5.4m	✓
	Aisle width	6.2m	5.8m	6.2m	✓
	Bay vertical clearance	2.3m	2.2m	2.4m minimum	✓
Adjacent Structures	Walls	0.3m clearance	0.3m clearance	0.3m min.	✓
	Columns	Outside of parking envelope	Outside of parking envelope	Outside of parking envelope	✓
Access & Turnaround Facilities	Terminating aisles	Turnaround bays provided for publicly accessible carpark	Turnaround bays provided for publicly accessible carpark greater than 6 bays	Capacity for turnaround provided	✓
	Aisle extensions	2.0m aisle extension	1.0m aisle extension	0.9m aisle extension	Performance Solution
Parking for Persons with Disabilities	PWD bay / adjacent shared bay width	2.4m	2.4m	2.4m min.	✓
	PWD bay / adjacent shared bay length	5.4m	5.4m	5.4m	✓
	PWD bay / adjacent shared bay vertical clearance	2.5m	2.5m	3.0m minimum	✓
Gradients	Maximum Gradient – Car parking space	1 in 20 (5%)	1 in 20 (5%)	1 in 20 (5%)	✓
	Maximum Gradient – Domestic Driveway	1 in 6 (16.7%)	1 in 5 (20%) for ramps less than 20m	1 in 8 (12.5%)	✓
	Maximum Gradient – Required Transitions	Change in grade exceeding 1 in 20 (5%) over 2m	Change in grade exceeding 1 in 8 (12.5%) over 2m	Maximum change in grade of 7.5%	✓ (AS2890.1, AS2890.2)
Vertical clearance	Circulation vertical clearance	2.3m	2.2m	3.0m minimum	✓
	RCV bay vertical clearance	4.0m (RCV)	4.5m (MRV)	5.0m minimum	✓

Terminating Aisles

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The provision of the security gate creates a dead-end aisle within the visitor car parking area. A swept path assessment has been undertaken to demonstrate that a B99 passenger vehicle can successfully turnaround within the visitor parking area and exit the site in a forward direction. This swept path assessment is provided in Attachment B. These arrangements are considered to be acceptable.

Performance Solution – Aisle Extension

Based on the relevant Australian Standards (AS2890.1), an aisle extension of at least 1.0m is required beyond the final bay in a terminating aisle to allow for access to the adjacent car parking bay. Adoption of the relevant Australian Standards requirements for end of aisle extensions is standard industry practice, as the Council's TAPS PSP requirements are onerous (double the length) without providing any additional benefit to users.

Adjacent to resident car parking bay 29, an aisle extension of 0.9m has been provided for 3.2m of aisle width nearest to the bay, expanding to beyond the 1.0m minimum requirements for the remaining 3.0m of aisle width. Access to resident car parking bay 29 has been confirmed via swept path assessment demonstrating that a B99 passenger vehicle can successfully enter and exit the parking bay without conflicting with adjacent features. The swept path assessment is provided in Attachment B. These arrangements are considered to be acceptable.

Item E2 – Waste Management Policy

Submit plans that demonstrate:

- *that the refuse collection vehicles can be performed with the forward gearing into the site from the Maidenhair Place Cul-de-sac when collecting the waste from the temporary storage area;*

The proposed refuse collection arrangements include a Refuse Collection Vehicle (RCV) performing a reverse manoeuvre from the Maidenhair Place cul-de-sac into the vehicle access and standing on the northern side of the driveway. There is insufficient height clearance beneath the building to accommodate forward entry and turnaround provisions for an RCV on-site. Doing so would potentially require reduction to car parking numbers (or an additional car parking level) and an increased building height, both outcomes being cost prohibitive.

The proposed single reverse manoeuvre is consistent with the Council's Refuse PSP requirements for the Multiple Dwelling land use. The additional driveway width, allowing for simultaneous two-way vehicle movements to the car parking area to be maintained during refuse collection activity, is provided in excess of the BCC TAPS PSP requirements. The proposed arrangement also positions the vehicle clear of the pedestrian path during refuse collection activity.

These arrangements were presented at the pre-lodgement meeting, with the advice requiring compliance with Council's Refuse PSP and TAPS PSP. These arrangements have also since been discussed and agreed EDQ's Transport Engineering advisor, representative Mark Plattz (Point8)

Having regard for the above, the proposed single RCV reverse manoeuvre and standing location for refuse collection activity are considered to be acceptable.

Further details regarding refuse collection arrangements are provided within relevant sections of this technical note. It is understood that details regarding the suitability of refuse collections are provided within the Waste Management Plan (prepared by others).

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CONCLUSION

The traffic and transport provisions and arrangements of the BHC development proposal are provided in line with relevant standards, guidelines and good transport engineering practice and are therefore considered acceptable. Where details of the proposed development layout are not finalised, or cannot yet be finalised, it is expected that resolution of these items will be addressed by way of a suitably worded Approval Condition.

Having regard for the original Technical Note and subsequent information and assessment provided within this letter, we see no reason as to why a Development Approval could not be granted based on traffic and transport grounds.

Naturally, should you have any questions or require any further information, please do not hesitate to contact me or Andrew Tierney at (07) 3113 5015.

Sincerely,

<p>Stantec Australia Pty Ltd.</p>  <p>Andrew Tierney Senior Transportation Engineer Phone: +61 7 3113 5019 Andrew.Tierney@stantec.com</p>	 <p>Trent Williams Senior Principal Transportation Engineer (RPEQ #20703) Phone: +61 7 3113 5015 Trent.Williams@stantec.com</p>
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Attachments:

Attachment A – Proposed Development Layout

Attachment B – Swept Path Assessment

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ATTACHMENT A – PROPOSED DEVELOPMENT LAYOUTS



rev	date	description
C	2/05/23	IR RESPONSE - PARKING
B	17/04/23	INFORMATION REQUEST
A	22/12/22	DA ISSUE

CLIENT
BRISBANE HOUSING COMPANY

PROJECT
AFFORDABLE HOUSING DEVELOPMENT
 MAIDENHAIR PLACE
 YERONGA, QLD

DRAWING
PLANS BASEMENT PLAN

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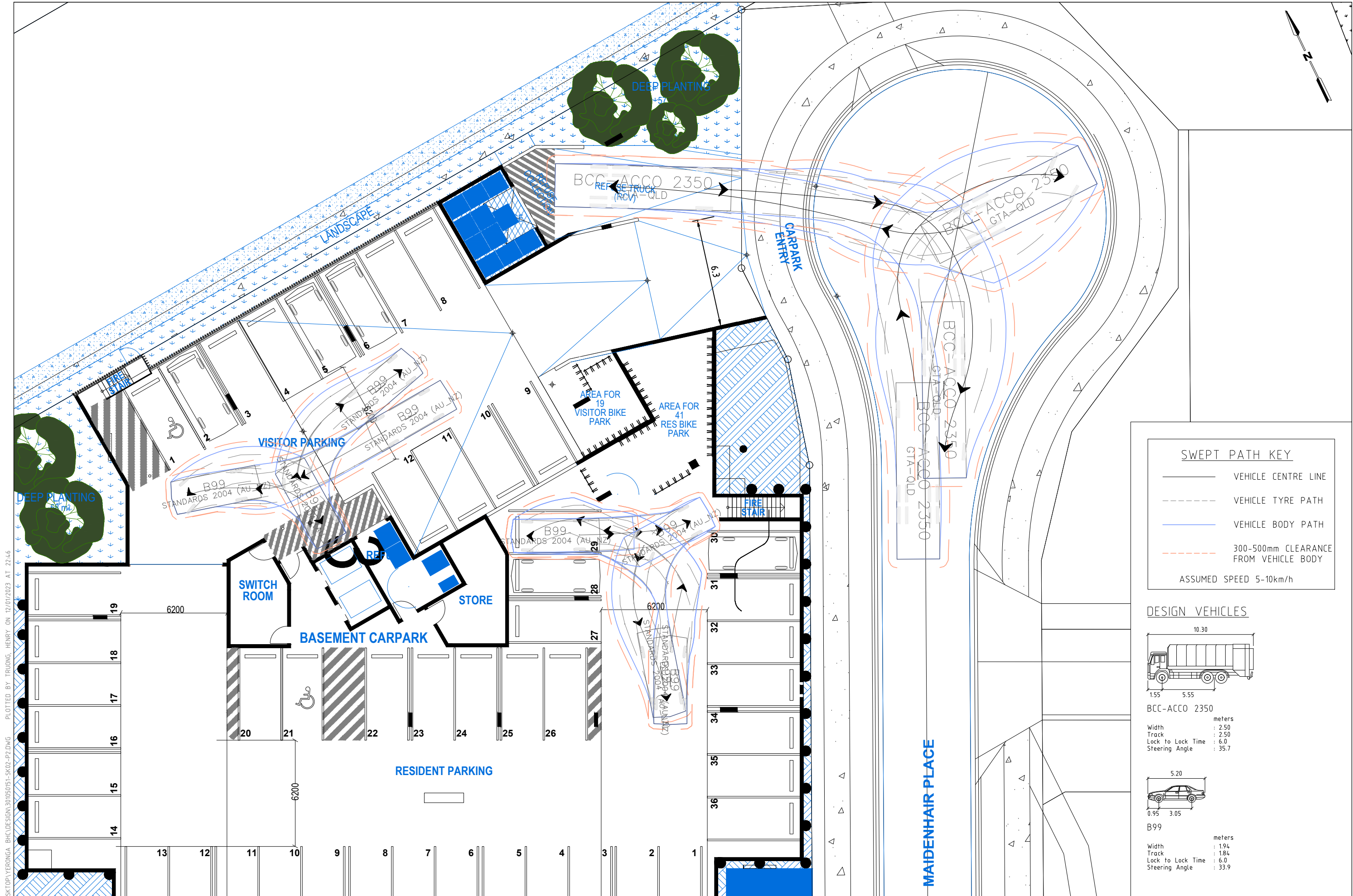


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SCALE	DRAWN	PRINTED DATE
	MS	2/05/23
JOB No	DWG No	REV
2017	SK 202	C

**PRELIMINARY
 NOT FOR TENDER
 NOT FOR CONSTRUCTION**

ATTACHMENT B – SWEEP PATH ASSESSMENT

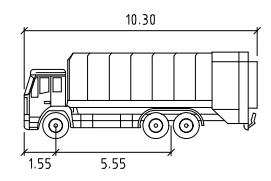


SWEPT PATH KEY

- VEHICLE CENTRE LINE
- - - VEHICLE TYRE PATH
- VEHICLE BODY PATH
- - - 300-500mm CLEARANCE FROM VEHICLE BODY

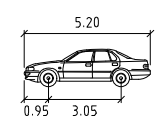
ASSUMED SPEED 5-10km/h

DESIGN VEHICLES



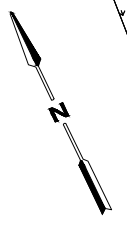
BCC-ACCO 2350

Width	: 2.50	meters
Track	: 2.50	
Lock to Lock Time	: 6.0	
Steering Angle	: 35.7	



B99

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



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PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT
NOTIFICATION

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE
APPROXIMATE ONLY AND THEIR EXACT POSITION
SHOULD BE PROVEN ON SITE. NO GUARANTEE IS
GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED
H.TRUONG

APPROVED BY
A.TIERNEY

DESIGN CHECK
A.TIERNEY

DATE ISSUED
12 JANUARY 2023

SCALE
A3 0 1 2 3 4 1:200

CAD FILE NO.
301050151-SK02-P2.DWG

YERONGA - BHC
SWEPT PATH ASSESSMENT
BASEMENT LEVEL - END AISLE &
REFUSE COLLECTION MANOEUVRING

DRAWING NO. 301050151-SK02 SHEET 1 OF 1 ISSUE P2