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Reference: 0025l01

18 February 2015

Landmark Group
Suite 2201, Level 22,
101 Grafton Street
Bondi Junction NSW 2022

Attention: Guy Brady – Development Manager

Re: Proposed Residential Development – 1-11 Neil Street, Merrylands Stage 1 DA

Dear Guy,

Ason Group has been commissioned to provide traffic, transport and parking advice in support of a Development Application (DA) relating to a new 123 unit residential development located within the overall development site being 1-11 Neil Street, Merrylands. The site is located within the Local Government Area of the Holroyd Council and has been assessed under that Council's controls.

It is noted that the Land and Environment Court of NSW is currently considering a Masterplan Application for the overall development site. This application has been prepared having consideration for the Masterplan and seeks approval for buildings 5 and 6 as identified within the Masterplan documentation. In this regard, should the Masterplan be approved prior to the determination of this application, this application will represent the Stage 1 works in accordance with Division 2A staged development provisions of the Environmental Planning and Assessment Act.

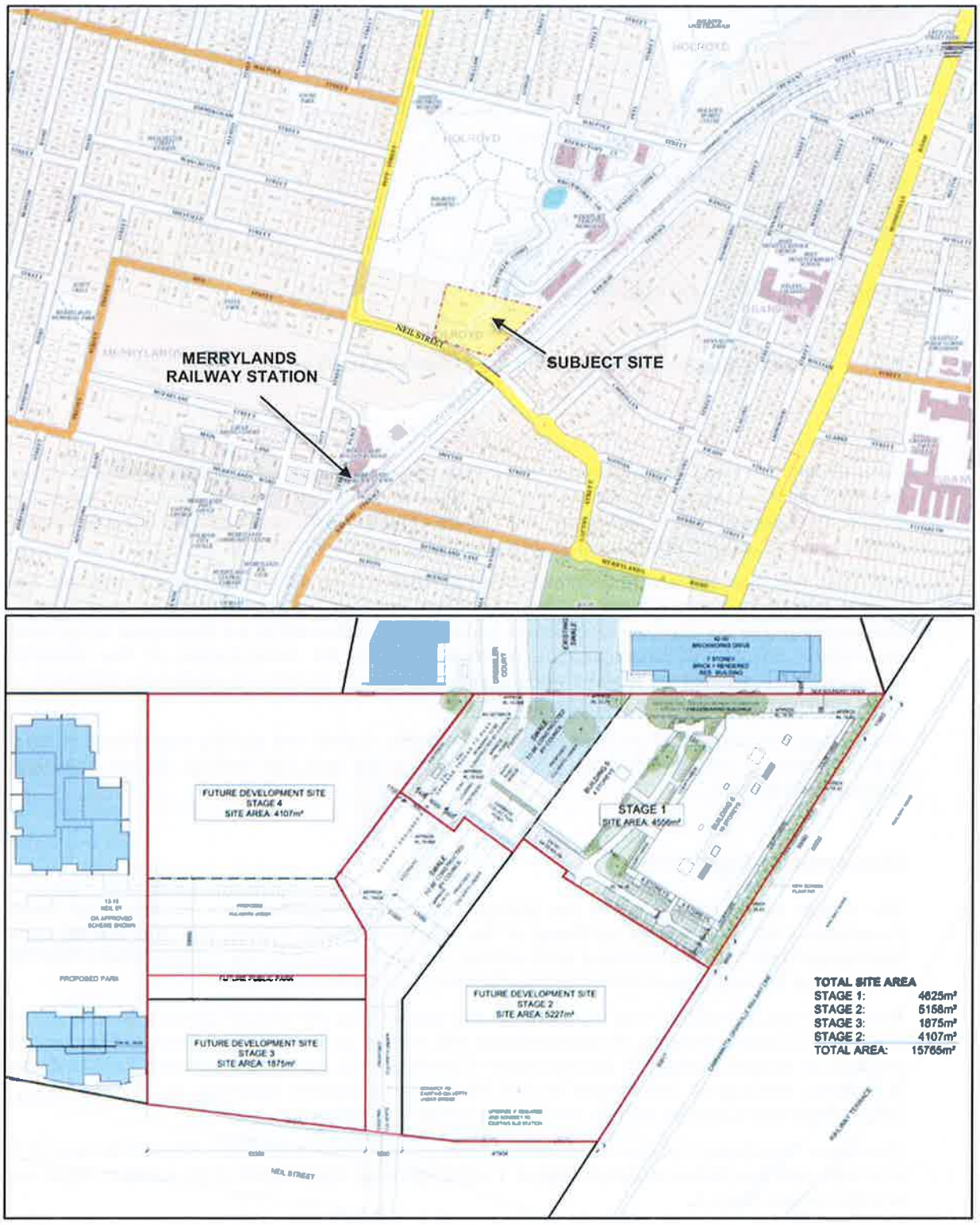
Ason Group has undertaken an assessment of the traffic, access and parking implications of the proposal and reviewed all relevant documentation available to us and the findings of our investigation are summarised herewith.

Site Location & Characteristics

The subject site is located within the Holroyd Council LGA approximately 2.5 kilometres south of the Parramatta CBD, 300 metres northeast of the Merrylands Town Centre and 400 metres north of the Merrylands Train Station. In a more local context, the site is located on the northern side of Neil Street and forms part of the Neil Street Precinct as identified in Council's adopted DCP.

The overall site is irregular in its configuration and has an total site area of approximately 15,700 m^2. The site has a northern boundary of approximately 180 metres to the existing Brickwork Gardens residential precinct, an eastern frontage of approximately 130 metres to a railway line servicing the Cumberland Line, a southern frontage of 110 metres to Neil Street and a western boundary of 100 metres to another development site approved for high density residential development.

The Stage 1 application relates to the north-eastern portion of the overall site only with an area of 4,556m^2. A location and site plan is shown in **Figure 1** which gives an appreciation of the location of the overall site and the subject Stage 1.



Source: SIX Viewer, 2015

Figure 1: Location Plan and Site Plan

Proposed Development

A detailed description of the proposed development is provided in the Statement of Environmental Effects prepared by Boston Blyth Fleming Town Planners. Reference should also be made to the architectural plans prepared by Mijollo International, of which, relevant plans are appended at a reduced scale to this statement at **Attachment 1**.

In summary, development for which approval is currently being sought consists of:

- Construction of 123 residential dwellings across two apartment buildings of four and ten storeys each, comprising:
  - 31 x one bedroom units,
  - 90 x two bedroom units, and
  - 2 x three bedroom units.
- Construction of a two level basement car park accessed via a new access road forming an extension of Brickworks Drive and providing 140 car parking spaces.
- Provision of 28 bicycle spaces located within the basement car park.
- An access arrangement that facilitates on-street garbage collection.

The parking and traffic implications of the subject Stage 1 proposal are discussed in the following sections.

Car Parking

Car parking for the proposed development has been assessed having regard for Holroyd Council's DCP 2013 – Part A, General Controls. In this regard, application of Council's DCP would result in the following parking provisions:

Table 1: Proposed Car Parking Provisions

Land Use	No.	Council DCP Parking Rate (Minimum)	Minimum Parking Requirement	Parking Proposed
One Bedroom	31	0.8 spaces / unit	25	30
Two Bedroom	90	1.0 spaces / unit	90	90
Three Bedroom	2	1.5 spaces / unit	3	3
Visitor	123	1 spaces / 5 units	25	17
Total Parking Provision			**144**	**140**

The development is required to provide a minimum provision of 118 parking spaces for residents under Council's DCP. In response, the development provides a total of 123 resident parking spaces, thereby complying with Council's controls.

Council's DCP also requires the provision of 25 visitor parking spaces. In response, the application proposes 17 spaces (14 within the basement car park and 3 on-street). This reflects a minor variation of 8

spaces from that required under Council's controls. This departure from Council's DCP requirement is considered acceptable for the following reasons:

- The proposed 17 visitor parking spaces reflect a provision of 1 space per 7.2 units. Whilst this does correspond to a minor non-compliance with Council's controls, consideration needs to be given to the location of the site with respect to public transport. In this regard, Council makes no allowance in its DCP for sites within close proximity to public transport and applies the above rate to all developments within its LGA. The subject site is located within 400 metres of both rail and bus services and as such this should be taken into consideration. Indeed, it is noted that Urban Activation Precincts (UAPs) in Epping and North Ryde were recently approved with a constrained visitor parking rate of 1 space per 10 units, due to the favourable location of both precincts to public transport, rail transport in particular.

- The Draft SEPP 65 (Design Quality of Residential Flat Development, which now includes parking rates) proposes a visitor parking rate for residential development of 1 space per 10 units. This is consistent with the approved UAP rates referred to above and reflects the objectives of both State and Local Government planning policies to encourage the use of alternative transport measures to reduce traffic demand on the road network.

- The development proposes to provide parking in excess of the minimum requirements of Council's DCP for the use by residents – generally at the rate of 1 space per unit. This is considered best practice design as it will ensure that the parking demands of all residents is met on-site with limited or no reliance on on-street parking. As the resident demands are constant compared to the variable demands of visitors, this approach is considered superior and supportable.

Accordingly, the proposed allocation is considered supportable on traffic planning grounds. The minor non-compliance with Council's DCP is also considered to be a superior outcome for the development, will ensure that the resident parking demands of the development are accommodated on-site with no reliance on on-street parking by residents and in accordance with current and future parking policy.

Bicycle Parking

Council's DCP requires all new developments to provide bicycle parking at the following rates:

- 1 space per 2 units for residents.
- 1 space per 10 units for visitors.

Application of the above rates to the proposed development yield would therefore result in a minimum requirement of 79 bicycle spaces.

In response, the development provides a storage cage for each unit, sufficient in size to accommodate a bicycle in accordance with the requirements of AS2890.3 (1993) *Part 3: Bicycle Parking*. In addition, 28 further spaces are also provided for use by visitors and residents with more than one bicycle.

Accordingly, the development exceeds the minimum requirements of Council's DCP and is therefore supportable.

Traffic Impacts

The peak hour traffic generation of the proposed development has been assessed having regard for the RMS *Guide to Traffic Generating Developments Updated Traffic Surveys – Technical Direction 04a* dated August 2013. The RMS Guide provides the following average trip rates for high-density residential development:

- Morning peak hour 0.19 peak hour vehicle trips per unit.
- Evening peak hour 0.15 peak hour vehicle trips per unit.

Application of the above rates to the proposed 123 units results in a peak hour traffic generation of 23 vehicles / hour during the morning peak and 19 vehicles / hour during the evening peak.

It is proposed that all access to the development be provided via Brickworks Drive until such time that the Neil Street Precinct DCP road network is delivered by Council, in particular New Road 1, New Road 2 and the signalised intersection of New Road 1 with Neil Street. Accordingly, surveys and subsequent Sidra intersection analysis has been undertaken at the key intersections of Walpole Street with Brickworks Drive and Walpole Street with Pitt Street to assess the "existing" and "existing + development" scenarios. The results of this analysis are summarised below and take into account the future operation of these intersections assuming full development of the overall site (Buildings 1-6 as shown in the Masterplan documentation), which includes approximately 430 residential units and a morning and evening peak hour traffic generation of 82 veh/hr and 65 veh/hr respectively.

Table 2: Intersection Operation – Existing & Existing + Development at Full Development

Intersection	Scenario	AM Peak		PM Peak	
		Average Delay (sec/veh)	LoS	Average Delay (sec/veh)	LoS
Pitt Street & Walpole St	Existing	16.1	B	16.3	B
	Existing + Development	16.3	B	16.5	B
Brickworks St & Walpole St	Existing	5.3	A	5.3	A
	Existing + Development	5.7	A	5.6	A

It is evident that the development of the overall site in accordance with the Masterplan will have no material impact on the operation of key interactions in the locality. Accordingly, the proposed application for 123 units will have no material impact and can be readily accommodated within the existing road network.

The proposed development is therefore supportable on traffic planning grounds and all intersections in the locality will continue to operate with similar delays and levels of service during the critical morning and evening peak periods.

Internal Design Aspects

Site Access

The proposed development requires a Category 2 Driveway under AS 2890.1 (2004), being a combined entry-exit driveway of width 6.0 to 9.0 metres. In response, the development proposes a combined entry-exit driveway of width 7.1 metres with access to the future New Road 2, thereby satisfying the minimum requirements of AS 2890.1 (2004).

Parking Module Design

- All parking spaces are to be designed in accordance with a Class 1 user and which requires a minimum space length of 5.4m a minimum width of 2.4m and a minimum aisle width of 5.8 m.
- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.

- Dead-end aisles are provided with the required 1.0m aisle extension in accordance with Figure 2.3 of AS2890.1.
- All disabled parking spaces are designed in accordance with AS2890.6. Spaces are provided with a clear width of 2.4m and located adjacent to a minimum shared area of 2.4m.

Head Heights

- A minimum clear head height of 2.2m is required for all areas within the basement car park as required by AS2890.1. A clear head height of 2.5m is provided above all disabled spaces as required by AS2890.6.

Ramps

- The main access ramp providing access to the basement car park has a maximum gradient of 25% (1 in 4) with transitions of 12.5% (1 in 8), designed in accordance with AS2890.1.
- The main access ramp provides a minimum of 6.0m at grade of 1 in 20 which complies with AS2890.1.

Other Design Considerations

- All columns are required to be located outside of the parking space design envelope shown in Figure 5.2 of AS2890.1 (2004).
- Appropriate visual splays are to be provided in accordance with the requirements of Figure 3.3 of AS2890.1 at all accesses.
- A swept path analysis of all critical movements has been undertaken to confirm geometry and compliance with the relevant standards (refer to Attachment 2).

The internal design aspects of the proposed development comply fully with Council's controls and relevant Australian Standards including AS2890.1 (2004). It is however envisaged that any minor non-compliances can be addressed prior to the issue of a Construction Certificate for the development in response to a condition of consent requiring compliance with AS2890.

Servicing

Garbage collection for the development is proposed to be undertaken on-street. It is proposed that all bins be brought to the kerb by the body corporate in accordance with Council's DCP 2013, Part A – Section 11.3 – "Residential Land Use Waste Management" – Control C8 which states *"At appropriate times, transport waste from the rooms to this area for collection. In each case the onus is upon the body corporate to ensure on-street placement"*

Consultation has also been undertaken with Council's Waste Management Team in accordance with Holroyd Council's DCP 2013, Part A – Section 11.3 – 'Residential Land Use Waste Management' – Control C12. Council's Waste Management team advised that its preference is to undertake garbage collection on-street.

Accordingly, a garbage collection area and dedicated loading / garbage space is provided on-street adjacent to the proposed garbage collection zone. This space has been designed to accommodate Council's garbage collection vehicle (10.0m rigid vehicle) and a swept path analysis has been provided demonstrating the interim access arrangements until such time that the full extent of New Road 2 is delivered by Council.

Conclusion

In summary, the application is supportable on traffic planning grounds. The development complies with Council's minimum car parking provisions for residents and visitor parking has been provided having consideration for currently parking policy that seeks to constrain visitor parking and in recognition of the site's favourable location with regard to public transport. Bicycle parking has been provided in excess of DCP's requirements. Furthermore, the application will not result in any material change in the performance of key intersections in the locality, which will continue to operate with similar levels of service and delays to that which currently occurs.

Should you have any questions or should you wish to discuss the application further please do not hesitate to contact the undersigned.

Kind regards

Andrew Johnson
Director – Ason Group
Email: andrew.johnson@asongroup.com.au

Attachment 1: Reduced Plans

Attachment 2: Swept Path Analysis

Attachment 1

IMPORTANT NOTES

REVISION	DATE	DESCRIPTION	BY
A	05.02.15	FIRST ISSUE	LP

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CLIENT
LANDMARK GROUP
SUITE 2201, LEVEL 22, TOWER TWO
WESTFIELD, BONDI JUNCTION

PROJECT
THE MILLS
1-11 NEIL STREET, MERRYLANDS

DRAWING TITLE
GROUND FLOOR PLAN

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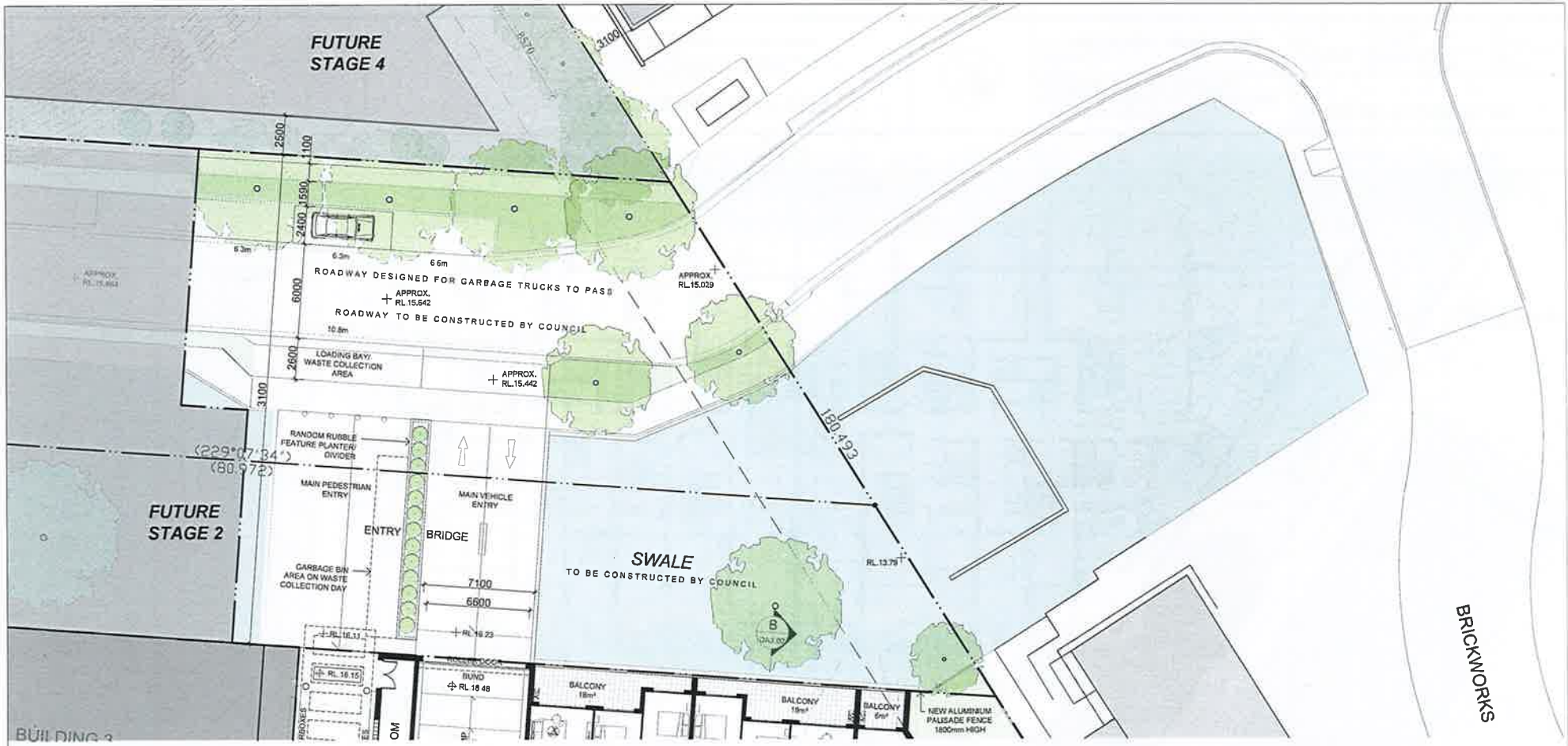

REFER TO DA 1.04 GROUND FLOOR PLAN - 2 OF 2

IMPORTANT NOTES:

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A	06.02.15	FIRST ISSUE	LP

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DRAWING TITLE
GROUND FLOOR PLAN
1 OF 2

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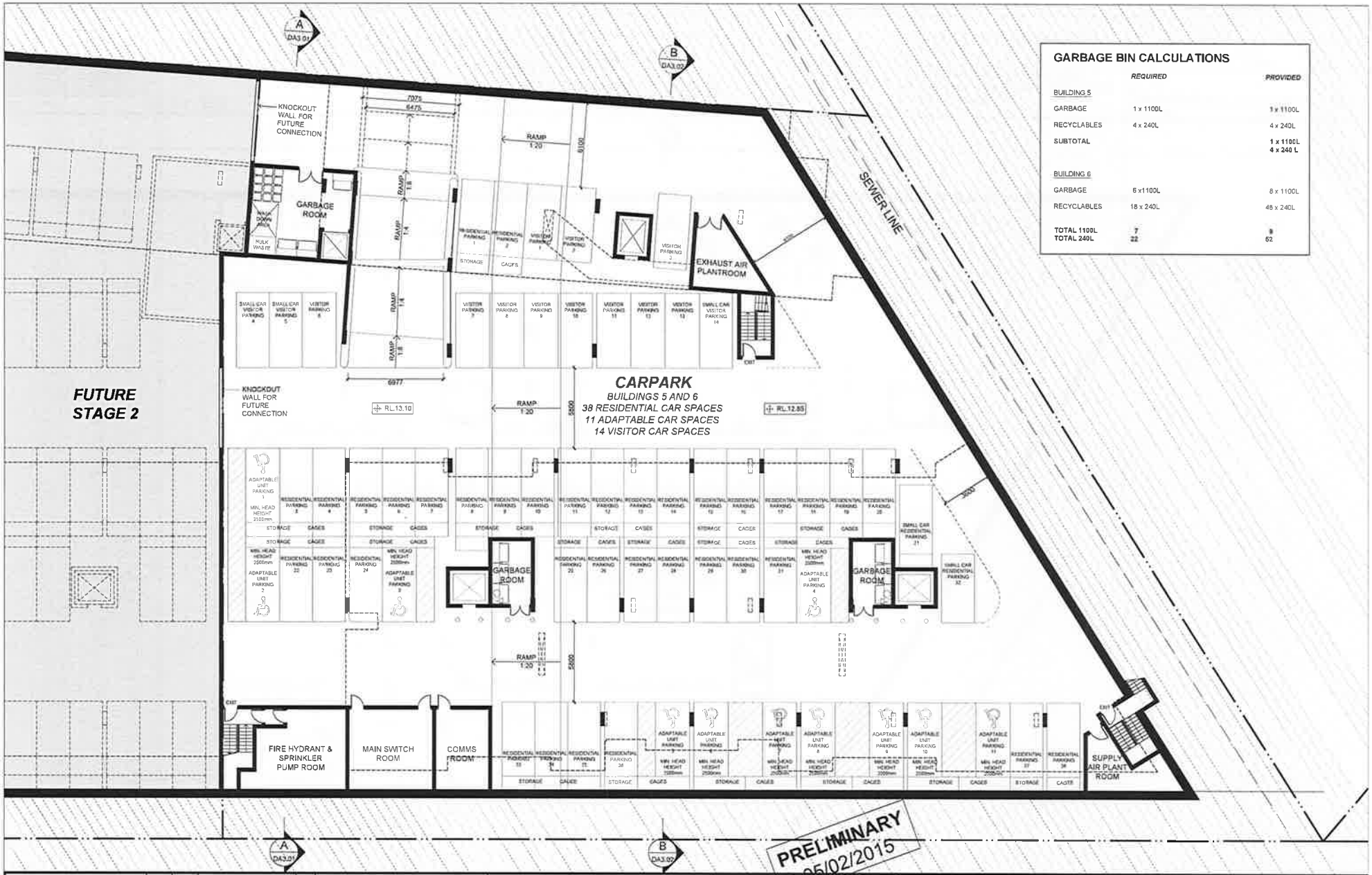

GARBAGE BIN CALCULATIONS

	REQUIRED	PROVIDED
BUILDING 5		
GARBAGE	1 x 1100L	1 x 1100L
RECYCLABLES	4 x 240L	4 x 240L
SUBTOTAL		1 x 1100L 4 x 240 L
BUILDING 6		
GARBAGE	6 x1100L	8 x 1100L
RECYCLABLES	18 x 240L	48 x 240L
TOTAL 1100L TOTAL 240L	7 22	9 52

PRELIMINARY 06/02/2015

IMPORTANT NOTES

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DRAWING TITLE
BASEMENT 1 FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
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JOB	DRAWING		REVISION
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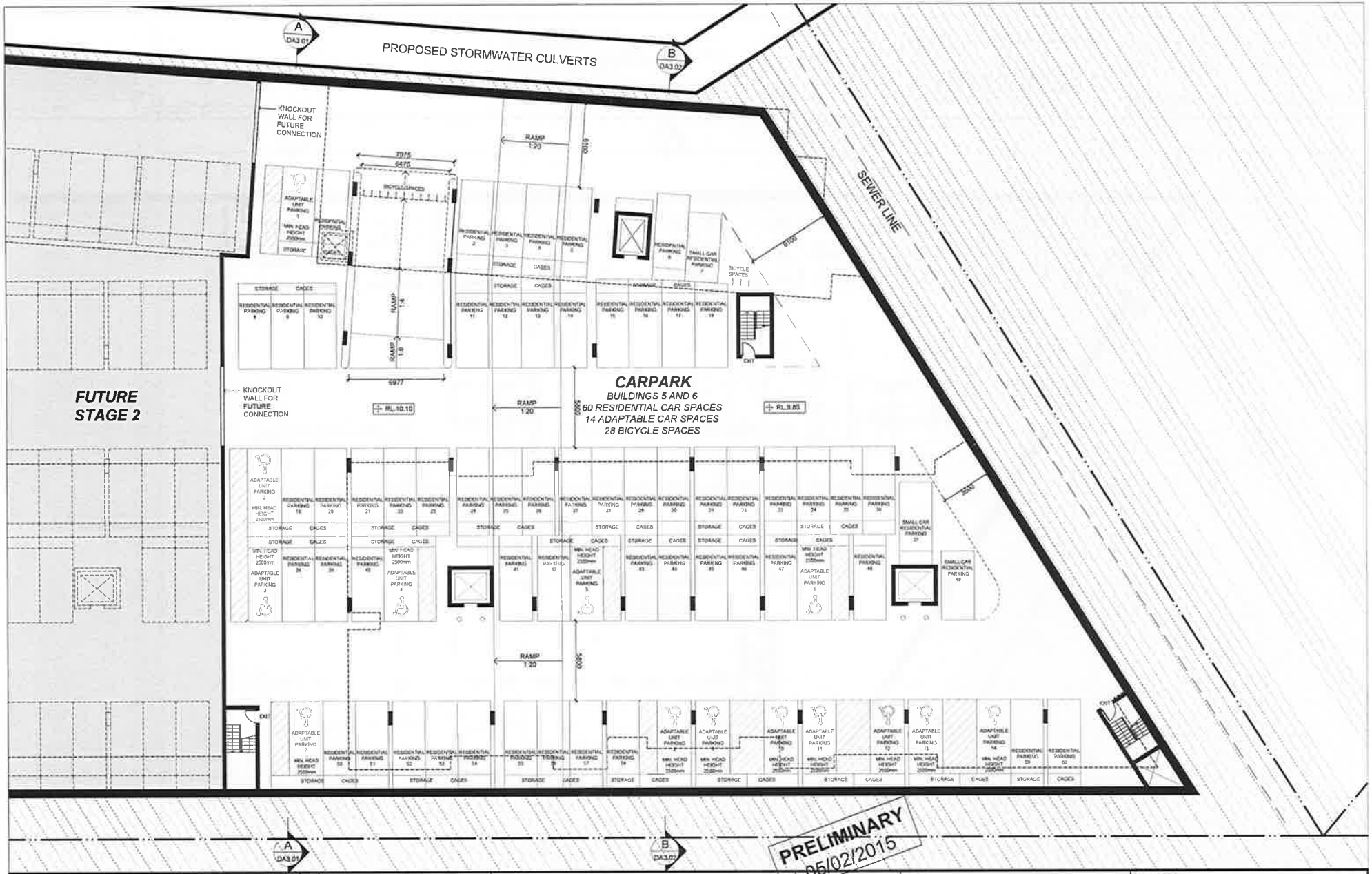

IMPORTANT NOTES

Do not scale from drawings. All dimensions to be checked on site before commencement of work. All discrepancies to be brought to the attention of the Architect. Larger scale drawings and written dimensions take preference. This drawing is copyright and the property of the author and must not be retained, copied or used without the express authority of MARCHESE + PARTNERS INTERNATIONAL PTY LTD

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marchesepartners

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BASEMENT 2 FLOOR PLAN

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JOB	DRAWING	REVISION
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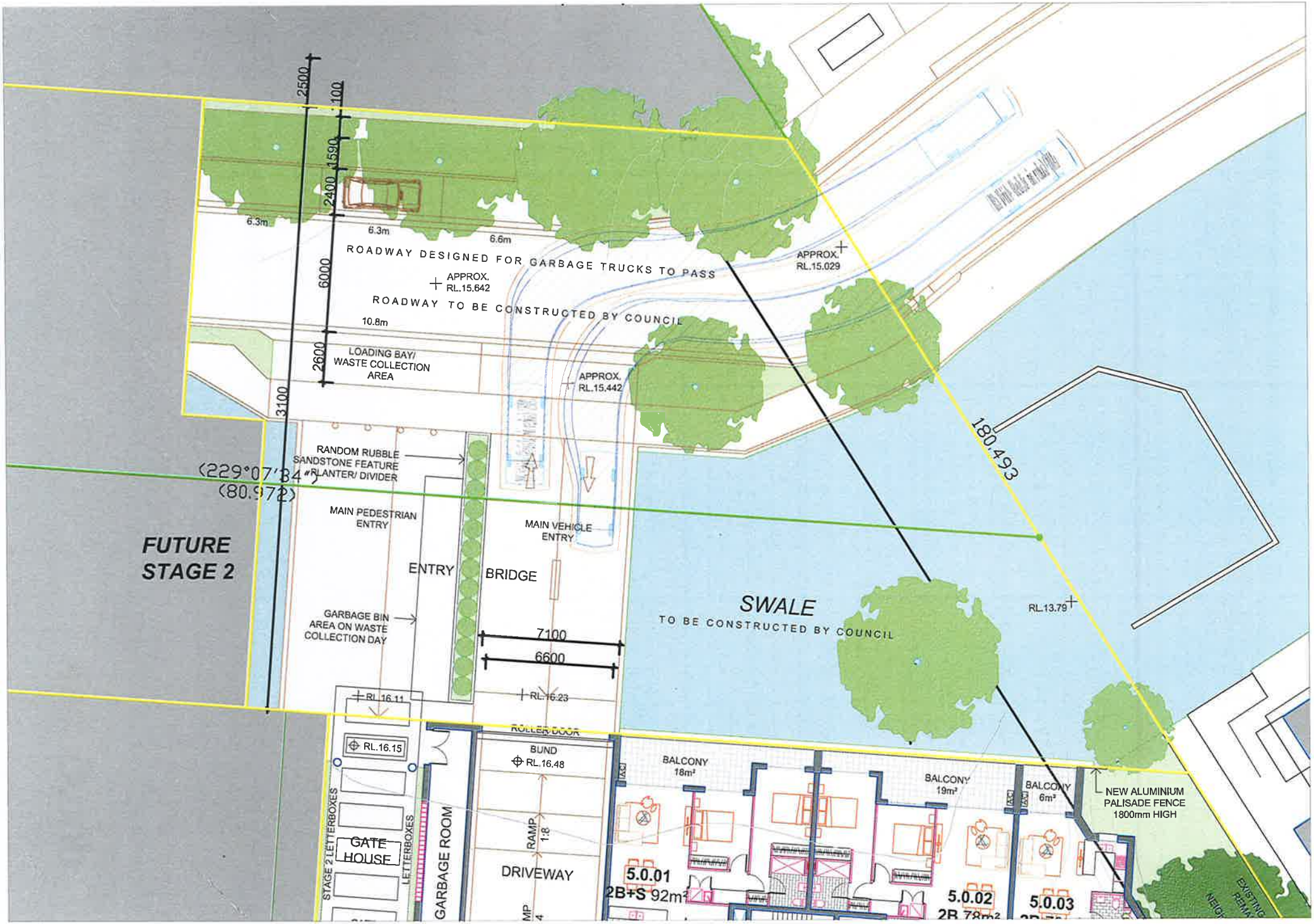
Attachment 2


2500
100
1590
2400
6000
2600
3100
6.3m
6.3m
6.6m
ROADWAY DESIGNED FOR GARBAGE TRUCKS TO PASS
APPROX. RL.15.642
ROADWAY TO BE CONSTRUCTED BY COUNCIL
10.8m
LOADING BAY/ WASTE COLLECTION AREA
APPROX. RL.15.442
APPROX. RL.15.029
180.493
(229°07'34")
(80.972)
RANDOM RUBBLE SANDSTONE FEATURE PLANTER/ DIVIDER
MAIN PEDESTRIAN ENTRY
MAIN VEHICLE ENTRY
FUTURE STAGE 2
ENTRY
BRIDGE
GARBAGE BIN AREA ON WASTE COLLECTION DAY
7100
6600
SWALE
TO BE CONSTRUCTED BY COUNCIL
RL.13.79
RL.16.11
RL.16.23
ROLLER DOOR
RL.16.15
BUND
RL.16.48
BALCONY 18m²
BALCONY 19m²
BALCONY 6m²
NEW ALUMINIUM PALISADE FENCE 1800mm HIGH
STAGE 2 LETTERBOXES
GATE HOUSE
LETTERBOXES
GARBAGE ROOM
RAMP 1:8
DRIVEWAY
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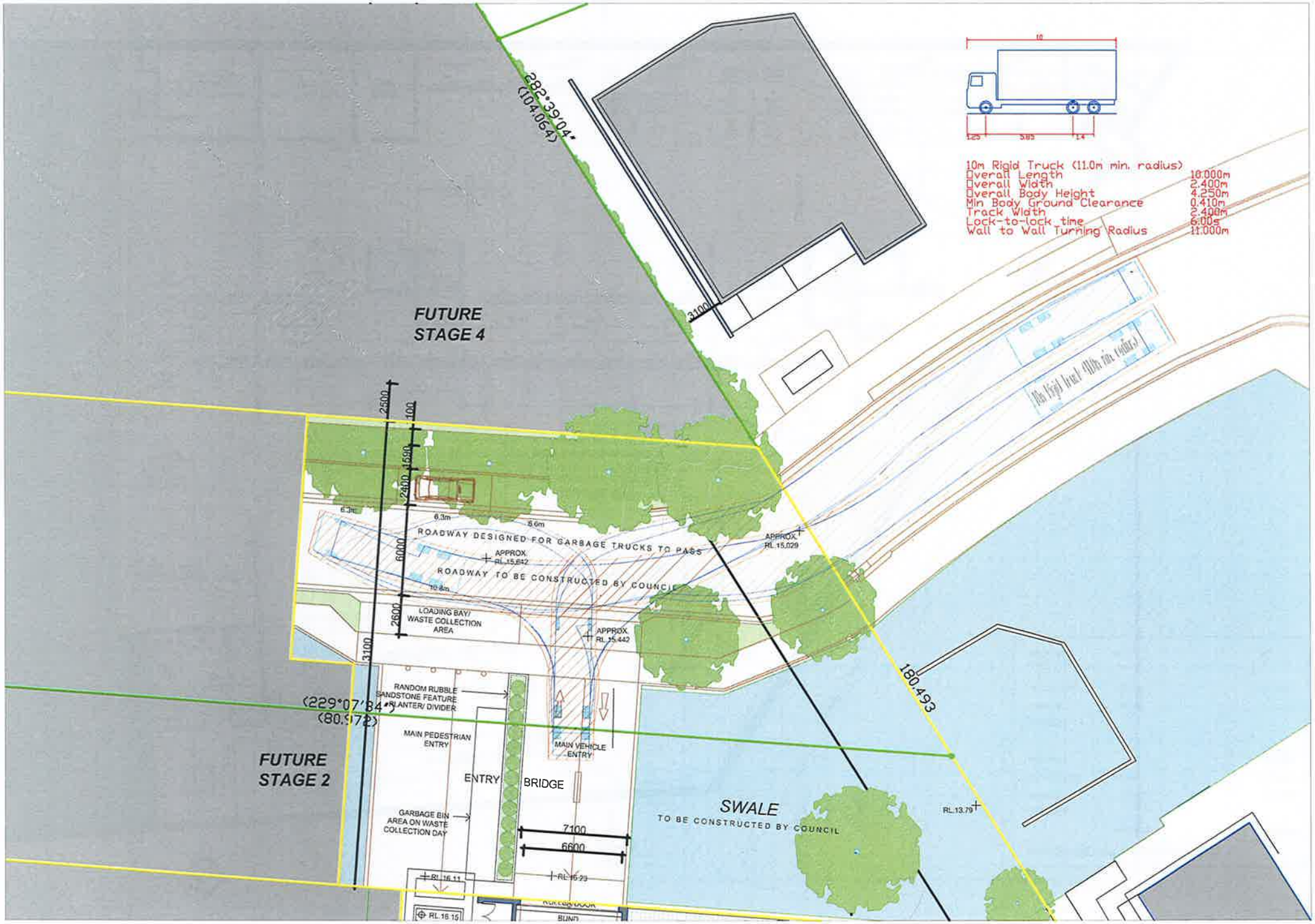
2B+S 92m²
5.0.02
2B 78m²
5.0.03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FUTURE STAGE 2
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3100
2600
100
1500
2400
6000
2600
3100
6.3m
5.6m
10.8m
ROADWAY DESIGNED FOR GARBAGE TRUCKS TO PASS
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APPROX. RL 15.642
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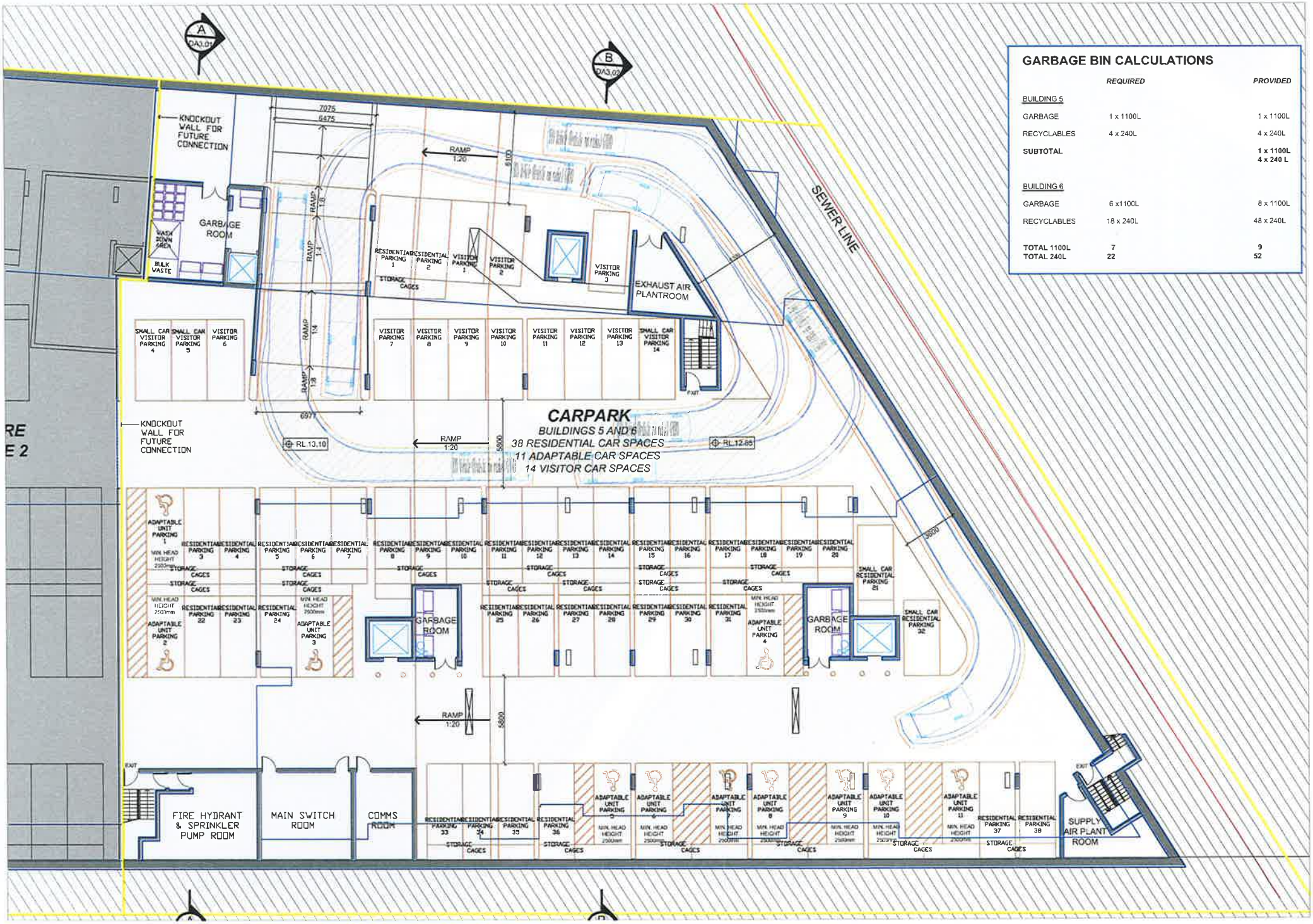
LOADING BAY/ WASTE COLLECTION AREA
RANDOM RUBBLE SANDSTONE FEATURE PLANTER/ DIVIDER
(229°07'34")
(80.172)
MAIN PEDESTRIAN ENTRY
MAIN VEHICLE ENTRY
ENTRY
BRIDGE
GARBAGE BIN AREA ON WASTE COLLECTION DAY
7100
6600
RL 16.11
RL 16.23
RL 16.15
ROLLER DOOR
BUND
180.493
SWALE
TO BE CONSTRUCTED BY COUNCIL
RL 13.79
10
1.25
5.85
1.4
10m Rigid Truck (11.0m min. radius)
Overall Length 10.000m
Overall Width 2.400m
Overall Body Height 4.250m
Min Body Ground Clearance 0.410m
Track Width 2.400m
Lock-to-lock time 6.00s
Wall to Wall Turning Radius 11.000m



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