

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

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Attachment D

Amended Geleon Waste Management Plan: 50589-RP02-B

Waste Management Plan

Proposed Mixed-Use Development

16 Nexus Way (Lot 3A-2 Corner of Knowledge Street and Bonner Street)
Southport



20 December 2022

Prepared for:
Gold Coast 888 Pty Ltd
Report: 50589-RP02-B

GELEON

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1.0 Introduction

1.1 Project Background

Geleon has been engaged by Gold Coast 888 Pty Ltd (the **Applicant**) to prepare a Waste Management Plan (**WMP**) to accompany a Development Application (**DA**) for the purpose of establishing a mixed-use development known as 'North Star' at 16 Nexus Way, Southport (Lot 3A-2 on Lot 9 on SP275512) (**Figure 1.1**). The existing 2,414m² site is currently vacant and forms part of the Gold Coast Health and Knowledge Precinct (**GCHKP**).

The purpose of this WMP is to ensure that the waste storage and collection activities for the operational phase of the development are in accordance with the Parklands PDA Development Scheme and that waste management aligns with City of Gold Coast (**Council**) *City Plan Policy – Solid Waste Management (SC6.15) and Solid Waste Management Code (V8)*.



Figure 1.1 Locality Plan

1.2 Context

The subject site is situated within the Parklands Priority Development Area (**PDA**) that covers 29 hectares and is located approximately three kilometres from the Southport CBD and 3.6km east of the Pacific Motorway. The development site is subject to the Parklands Priority Development Area Development Scheme (December 2013).

1.3 Applicable Planning Scheme and Documents

The proposed development site falls under the jurisdiction of Economic Development Queensland (**EDQ**) and is governed by the *Parklands Priority Development Area Development Scheme (December 2013)*.

Other applicable documents include:

- Environmental Protection Regulation 2019
- Waste Reduction and Recycling Act 2011
- Waste Reduction and Recycling Regulation 2011

1.4 Purpose and Scope

The purpose of this WMP is to outline the waste management provisions for the proposed development to demonstrate the efficient, safe, and sustainable management of waste during the operational phase of the development. A review of the *Parklands PDA Development Scheme* has not identified specific waste management requirements for the proposed development. In lieu of PDA specific waste management requirements, this report has been prepared to address the requirements of the City of Gold Coast *City Plan Policy – Solid Waste Management (SC6.15)*.

The scope of works for this WMP includes:

- detailing the anticipated type and quantity of waste to be generated by the development
- detailing the waste storage room, waste chutes and waste storage bin requirements
- detailing the proposed waste collection arrangements for the proposed development, and
- addressing Council's *Solid Waste Management Code (V8)*.

1.5 Definitions and Abbreviations

Table 1.5 Definitions and Abbreviations

Term	Definition
Bin carting route	the proposed route to move bins between the storage point and the servicing point.
Bulk bins	bins fitted with lids and side pockets to allow them to be serviced by a front-lift truck.
Clinical Waste	waste that has the potential to cause disease, including, for example, the following: - Discarded sharps; - Human tissue waste; or - Laboratory waste.
Common servicing point	a common area where more than two dwellings/tenancies store their bins. A hardstand area, for example a concrete pad.
Constructed hardstand area	hardstand area, for example a concrete pad, which has been constructed for bin storage.
General waste	waste, other than domestic clean-up waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use or occupation of domestic or commercial premises.
Recyclable waste	A clean and inoffensive waste that is declared by the local government to be recyclable waste for the area. In the City of Gold Coast, the following wastes are deemed recyclable: - all household plastics, bottles and containers; - aluminium and steel cans and aerosols; - bottles and jars made only of glass; - clean cardboard, newspaper, loose paper, junk mail, magazines and cartons.
Recycling chute	a duct in which recycling descends from one point to another.
Related Waste	waste that constitutes, or is contaminated with, chemicals, cytotoxic drugs, human body parts, pharmaceutical products or radioactive substances.
Servicing point	the designated area allocated to the temporary storage of waste bins.
Storage point	the area allocated to the permanent storage of waste bins. This is the normal location of the waste bins and excludes the period where the bin is serviced.
Waste chute	a duct in which waste descends from one point / level to a collection bin.
Waste disposal point	the point where waste is disposed of into the chute, also known as a waste hopper. It consists of a fixed frame and hood unit, covered with a hinged or pivoted door.
Waste storage room	the room at the base of the chute used for the storage of waste bins.
Waste carting distance	the distance required for a person to transport their waste from the nearest point of exit of their dwelling / tenancy to a storage point (or in the case of a multilevel building, to the nearest waste disposal point).
Wheelie bin	two wheeled mobile garbage bins, made from high density polyethylene (HDPE).

2.0 Proposed Development

2.1 Development Details

The development proposes a mixed-use medical precinct establishment on the subject site comprising multiple land uses including Health Care Service, Research Technology, Food and Drink Outlet, Indoor Sport and Recreation, Office, Hotel and Function Facility.

Details of the proposed development are provided in **Table 2.1** with the site plan shown in **Figure 2.1**.

Relevant plans of development have been provided in **Appendix A**.

Table 2.1 Proposed Development Details

Level	Land Use	GFA (m ²)	TUA (m ²)
Ground Floor	Health Care Services / Research and Technology / Office / Food and Drink Outlet	1,935	1,589
Podium (Level 1 – Level 3)	Health Care Services / Research and Technology / Indoor Sport and Recreation / Office	1,172	1,004
Tower (Level 4)	Health Care Services / Function Facility / Food and Drink Outlet (Café) / Hotel (Bar)	1,139	931
Tower (Level 5 – Level 10)	Health Care Services / Research Technology / Office	5,324	4,780
Grand-Total		9,570	8,304

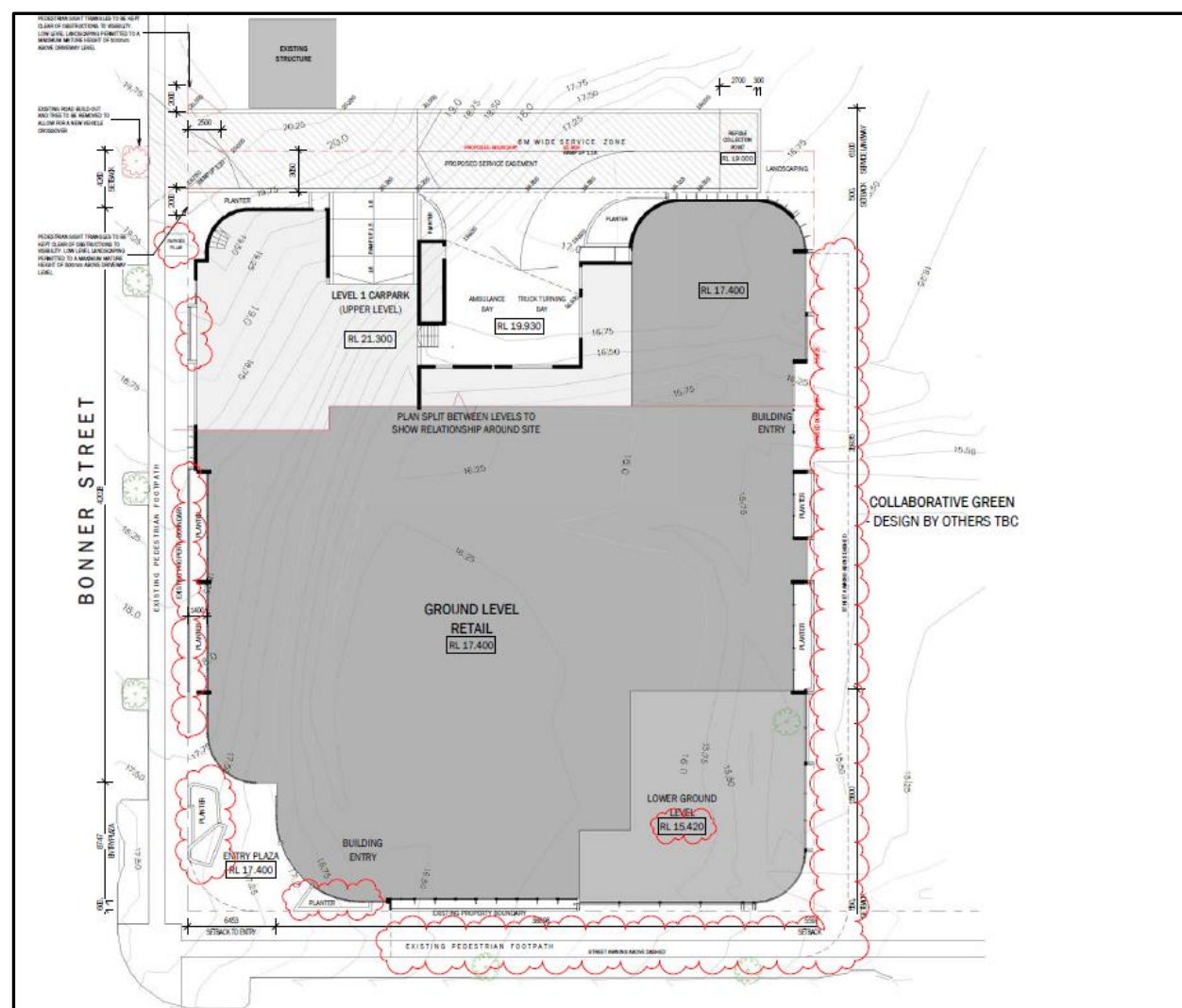


Figure 2.1 Development Plan – Site Plan

3.0 Development Waste

Details of waste generation, storage, and collection for the proposed development are provided in the following sections.

3.1 Types of Waste Streams

The anticipated types of waste that will be generated by the development are shown in **Table 3.1**.

Table 3.1 Predicted Waste Types

Land Use	Anticipated Waste Types
Office / Indoor Sport and Recreation / Function Facility	General and recycling waste
Health Care Services / Research and Technology	General, recycling, clinical and related waste
Food and Drink Outlet / Hotel (Bar / Restaurant)	General, recycling and cooking oil waste

3.2 Waste Generation

Waste quantities for the development site have been calculated in accordance with typical waste generation rates stipulated in Council's *SC6.15 City Plan Policy: Solid Waste Management*. In the absence of waste generation rates for some of the proposed land uses, it is proposed to adopt alternative rates for the purpose of waste generation analysis as shown in **Table 3.2.1**.

Table 3.2.1 Adopted Typical Land Uses

Proposed Land Use	Adopted Typical Council Use Description
Health Care Services / Research and Technology / Indoor Sport and Recreation	Office
Hotel (Bar / Restaurant)	Licensed bar area
Food and Drink Outlet (Ground Floor Level and Level 4)	Cafe

It should be noted that waste cooking oil storage facilities will be provided for the food and drink outlet land use. However, the quantity of waste cooking oil generated can vary greatly depending on type of food and drink outlet land uses. Therefore, no estimates for waste cooking oil have been provided. However, for the purpose of this waste management plan, two 250L waste oil drums are shown within the main refuse collection storage point located on the ground floor level. Determination of the volume of clinical and related waste has been based on the operation of other facilities which have typically generated 34L per 100m² of floor area per week.

A summary of the general, recycling, clinical and related waste generating characteristics is provided in **Table 3.2.2** and **Table 3.2.3**. To calculate a realistic quantity of waste generated by the proposed development, **Table 3.2.2** assumes the likely land use floor areas throughout the different levels.

Table 3.2.2 General and Recycling Waste Generating Characteristics

Land Use	GFA (m ²)	General Waste Rate	Total (L/week)	Recycling Waste Rate	Total (L/week)
Ground Floor Tenancies					
Health Care Services / Research and Technology / Office	1,723	30L / 100m ² / day	3,619	30L / 100m ² / day	3,619
Food and Drink Outlet (Café)	212	300L / 100m ² / day	4,452	200L / 100m ² / day	2,968
<i>Sub-Total</i>	1,935		8,071		6,587
Podium Tenancies					
Health Care Services / Research and Technology / Indoor Sport and Recreation / Office	1,172	30L / 100m ² / day	2,462	30L / 100m ² / day	2,462
Level 4 Tenancies					
Health Care Services	588	30L / 100m ² / day	1,235	30L / 100m ² / day	1,235
Function Facility	121	80L / 100m ² / day	678	50L / 100m ² / day	424
Food and Drink Outlet	233	300L / 100m ² / day	4,893	200L / 100m ² / day	3,262
Common (excluding terrace)	197		N/A		
<i>Sub-Total</i>	1,139		6,806		4,921
Tower Tenancies					
Health Care Services / Research and Technology / Office	5,324	30L / 100m ² / day	11,181	30L / 100m ² / day	11,181
Total	9,570m²	General Waste	28,520L	Recycling Waste	25,151L

Table 3.2.3 Clinical and Related Waste Generating Characteristics

Land Use	GFA (m ²)	Clinical Waste Rate	Total (L/week)
Health Care Services / Research and Technology	8,807	34L / 100m ² / week	2,995L

3.3 Proposed Waste Bin Provisions

To accommodate the waste generating characteristics of the proposed development site, a combination of bulk bins, four wheelie bins and two waste oil drums will be utilised to store site waste as detailed in **Table 3.3**.

Table 3.3 Refuse Bin Requirements

Waste Stream	Anticipated Waste Quantity (L/week)	Waste Bin Provision	Collection Frequency	Total Waste Provision
General	28,520 L / week	6 x 2,000 L bulk bin	Three times per week	6 x 2,000L x 3 collections = 36,000L
Recycling	25,151 L / week	5 x 2,000 L bulk bin	Three times per week	5 x 2,000L x 3 collections = 30,000L
Clinical and Related	2,995 L / week	5 x 360L	Twice per week	5 x 360L x 2 collection = 3,600L
Cooking Oil	-	2 x 250L	As required	2 x 250L (x 1 collection) = 500L

3.4 Dimensions of Waste Containers

Table 3.4 provides the dimensions of the waste containers to be used on-site.

Table 3.4 Dimensions of Waste Containers

Bin Type	Volume (L)	Length (mm)	Width (mm)	Height (mm)	Collection Vehicle Type
Bulk Bin	2,000	2,050	965	1,553	Front load collection vehicle
Wheelie Bin	360	865	650	1,000	Private waste collection (clinical waste contractor)
Waste Oil Drum	250	N/A	600	900	Tandem waste oil collection tanker

3.5 Waste Storage Rooms

Waste generated by the development will be stored in two separate waste storage rooms for the purpose of storing general and recycling waste, and clinical waste separately (**Figure 3.5.1**). The general and recycling waste storage room is located on podium level one situated adjacent to the service area and truck turning bay (**Figure 3.5.1**). The storage room is positioned directly beneath the outlet for the waste and recycling chutes servicing levels 2-10. The general and recycling waste storage room has been designed to generally achieve a 500mm clearance around each container (**Figure 3.5.2**). In some locations, two sides of the waste container are provided with a 500mm clearance, and the other two sides are provided with a 375mm clearance, however this is considered sufficient to maintain practical access to the individual containers and to manoeuvre the containers for collection.

Access to the waste storage room will be limited to site management / authorised persons to remove any potential health and safety implications. General and recycling waste from the individual tenancies will be manually carted by staff to the waste chute on each level, or directly to the waste storage room for the ground floor tenancies. The waste carting route from each level does not exceed 60m to either the chute or to the waste storage room on level one via the pedestrian lift.

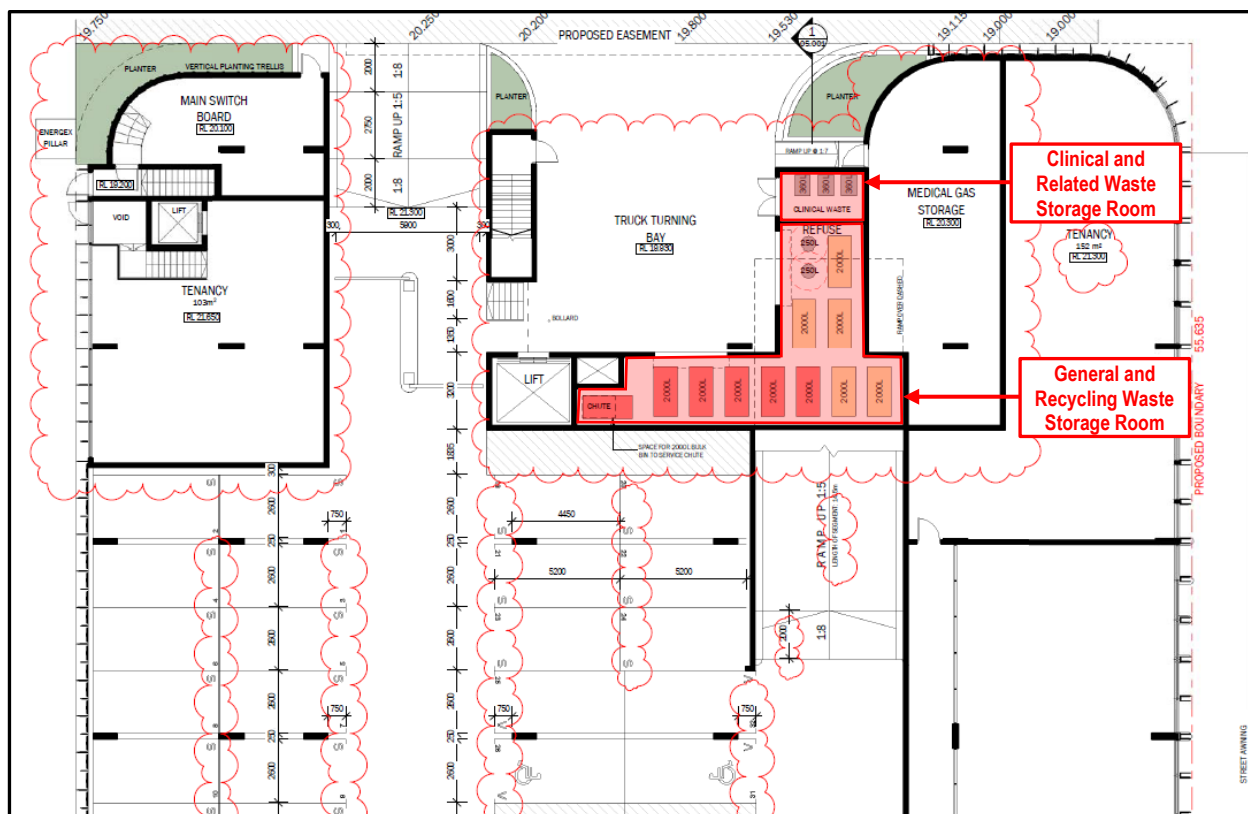


Figure 3.5.1 Waste Storage Room Locations (Level 1)

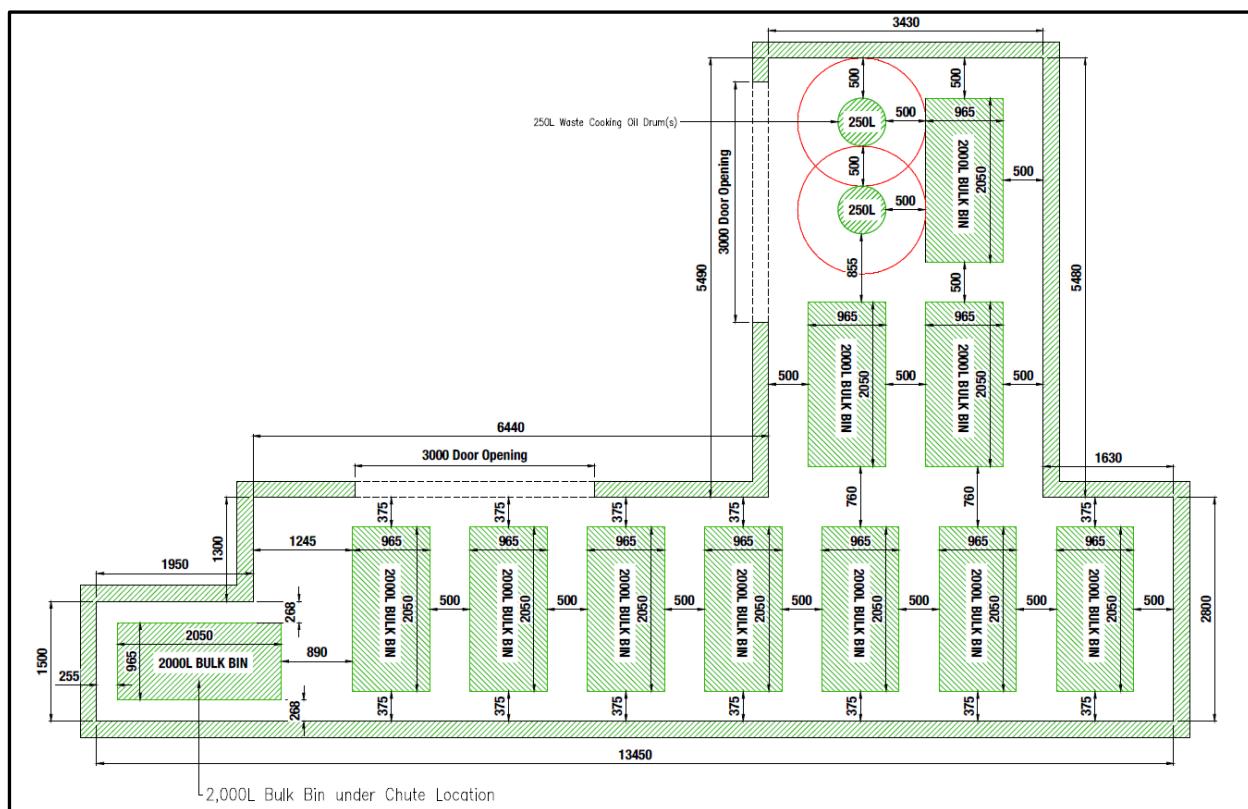


Figure 3.5.2 Main Waste Storage Room Dimensions

In accordance with the *Environmental Protection Regulation 2008*, any clinical or related waste generated by the health care services / research and technology land uses must be stored in an area that is not accessible to animals or persons, other than those persons who are authorised. As such, clinical and related waste will be stored in the clinical waste storage room and will be accessed by approved personnel only. The clinical and related waste storage room is located directly adjacent to the main waste storage room on podium level one. Access to the clinical and related waste storage room should be prohibited to the other land uses and should only be accessed by authorised staff and specialist clinical waste collection service providers.

Maintaining a 1.0m² clearance around each wheelie bin, the dimensions for the proposed clinical and related waste storage room comprises an internal length of 3.43m and a width of 2.0m and therefore provides sufficient clearance around each bin to allow for ease of access and servicing (**Figure 3.5.3**). Clinical waste generation is subject to vary dependant on the specific operational use and type of health care service / research and technology land use. The waste storage room has the capacity to store six 360L wheelie bins and therefore has excess capacity to accommodate the anticipated waste generated by the associated land uses.

Clinical and related waste from the individual tenancies will be manually carted by authorised staff to the clinical waste storage room on level one via the pedestrian lift. Typical waste carting routes for each level generally do not exceed 50m from the furthest point of each level to the waste storage room on level one (**Figure 3.5.4** and **Figure 3.5.5**).

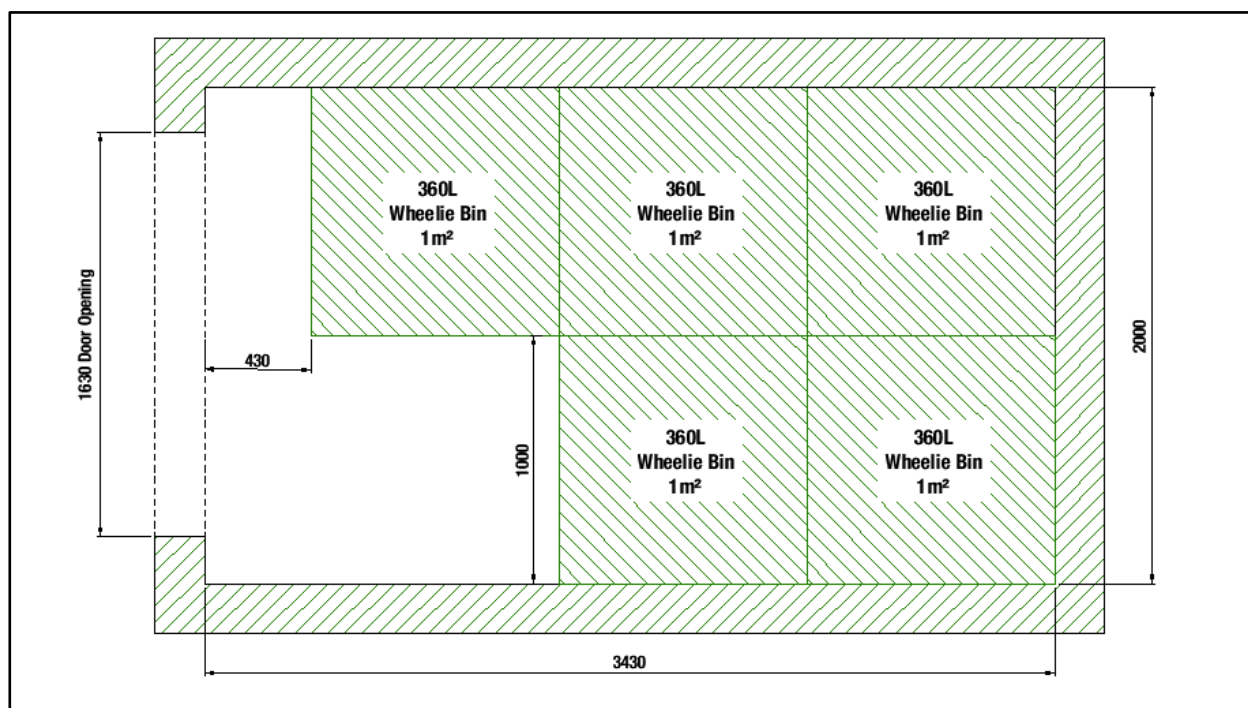


Figure 3.5.3 Clinical and Related Waste Storage Room Dimensions

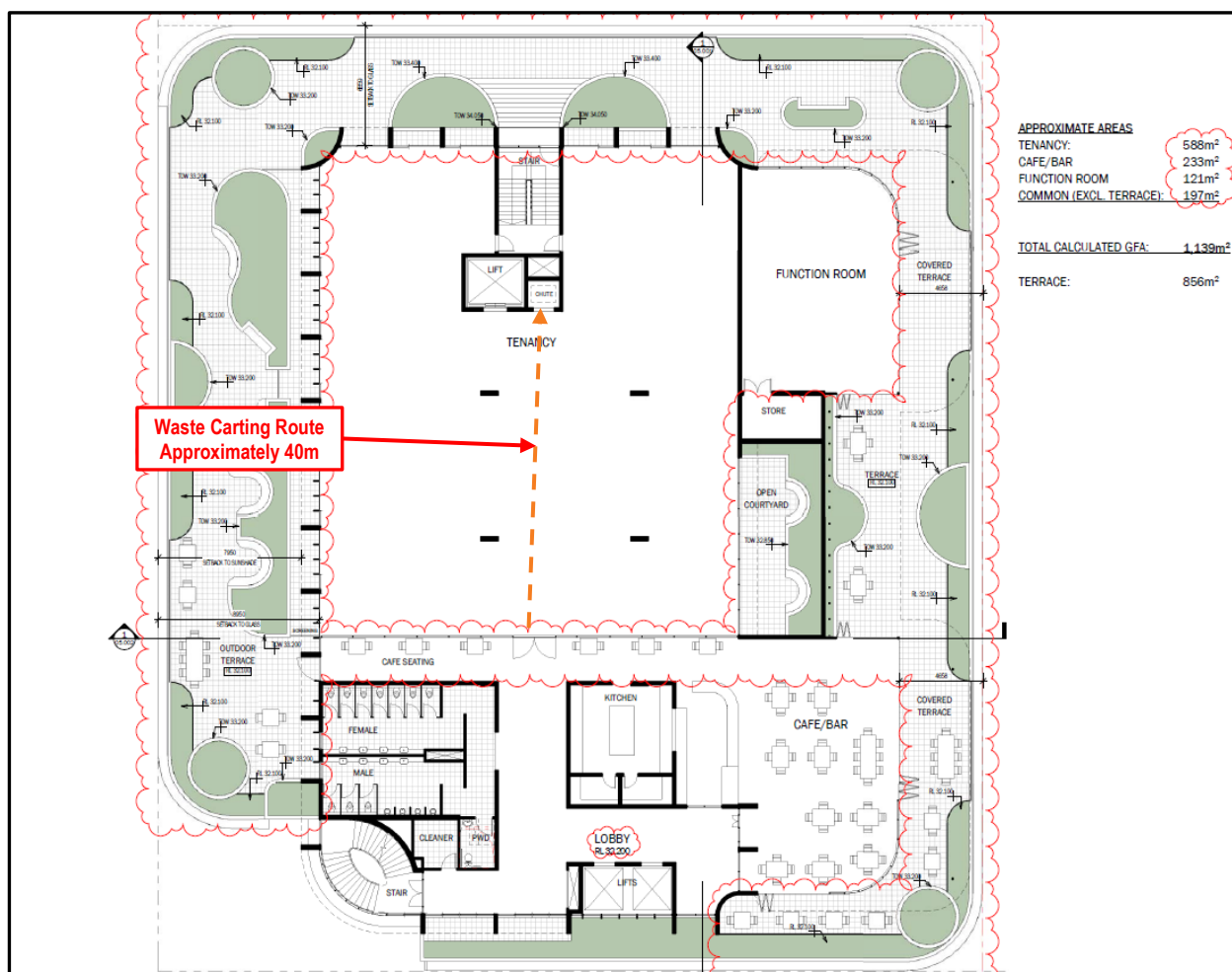


Figure 3.5.4 Typical Waste Carting Route (Level 4 Shown)



Figure 3.5.5 Typical Waste Carting Route (Level 1 Shown)

The waste storage rooms will be designed and constructed to meet the following requirements:

- located in a purpose-built storage area, which is air locked, fly and vermin proof and used solely for the storage of waste
- located five metres from any door, window or fresh air intake within the development or any adjoining site
- inclusive of clear and safe access to the disposal area for all users of the storage point
- screened to ensure bins are not visible from passing vehicles and pedestrian traffic external to the site, or inhabitants of adjoining properties
- mechanically ventilated in accordance with the National Construction Code (NCC)
- designed with sufficient dimensions to house the required bins with necessary clearance provided for the positioning, removal and replacement of the waste containers
- designed to allow for sufficient clearance surrounding each bin / container (500mm clearance)
- comprise of a hard stand area with solid concrete base, graded to fall to a drainage point within the room. The drainage point is to be connected into the sewer in accordance with trade waste requirements
- provided with a hose cock near the storage room for cleaning of bins and the room
- signed, well-lit and easily accessible from within the development
- fire rated in accordance with NCC
- not be located adjacent to or within any habitable portion of a building or place used in connection with food preparation (including food storage)
- designed to ensure doors are wide enough to allow for the easy removal of the largest bulk bin to be stored, and
- designed to ensure the walls, ceiling, floor, and equipment of waste storage room are constructed of impervious material with a smooth finish to allow for easy cleaning.

3.6 Waste Chutes

Both general and recycling waste will be transferred to the waste storage room on level one via a waste chute accessible from every floor (level two to the top floor), as shown in **Figure 3.6**. A waste and recycling diversion system will be utilised, providing a single chute with diversion system in the waste storage room to allow for disposal of either general waste or recycling waste into the appropriate bulk bin via the chute. Control panels for this system are to be installed on each level where access (a waste hopper) to the waste chute is provided. The waste chute will be constructed to meet the following minimum requirements:

- be adequate in strength for its purpose, including additional reinforcing where necessary at joins, bends and hopper intersections
- be insect and vermin proof
- constructed and installed to prevent the following during use and operation of the system:
 - transmission of vibration to the structure of the premises
 - excessive odour – there must not be a noticeable odour beyond the waste disposal and storage points
 - excessive noise to the occupants of the development
- installed in a 'fire rated' duct and ventilated in compliance with building requirements of the National Construction Code (NCC)
- comply with the waste chute manufacturer's technical specifications and / or operational limitations, including installation design features and ancillary equipment required to prevent blockages and noise disturbances, to achieve compliance with the section, and
- fitted with a shutter at the base of the chute for closing the chute manually during bin exchange and automatically in the case of fire.

Waste disposal points or waste hoppers on each floor will be constructed to meet the following requirements:

- be housed in a dedicated room / compartment as illustrated on the development plans
- located to ensure the handle of the hopper is at least 1200mm above finished floor level
- hopper door automatically returns to the closed position after use
- designed to permit free flow of waste into the chute
- constructed so that the diameter or largest dimension of the service opening (the diagonal or a rectangle opening) does not exceed three-quarters (3/4) of the diameter of the chute with which the hopper is connected, and
- the floor adjacent to the hopper is to be constructed of a durable impervious material with a smooth finished surface.

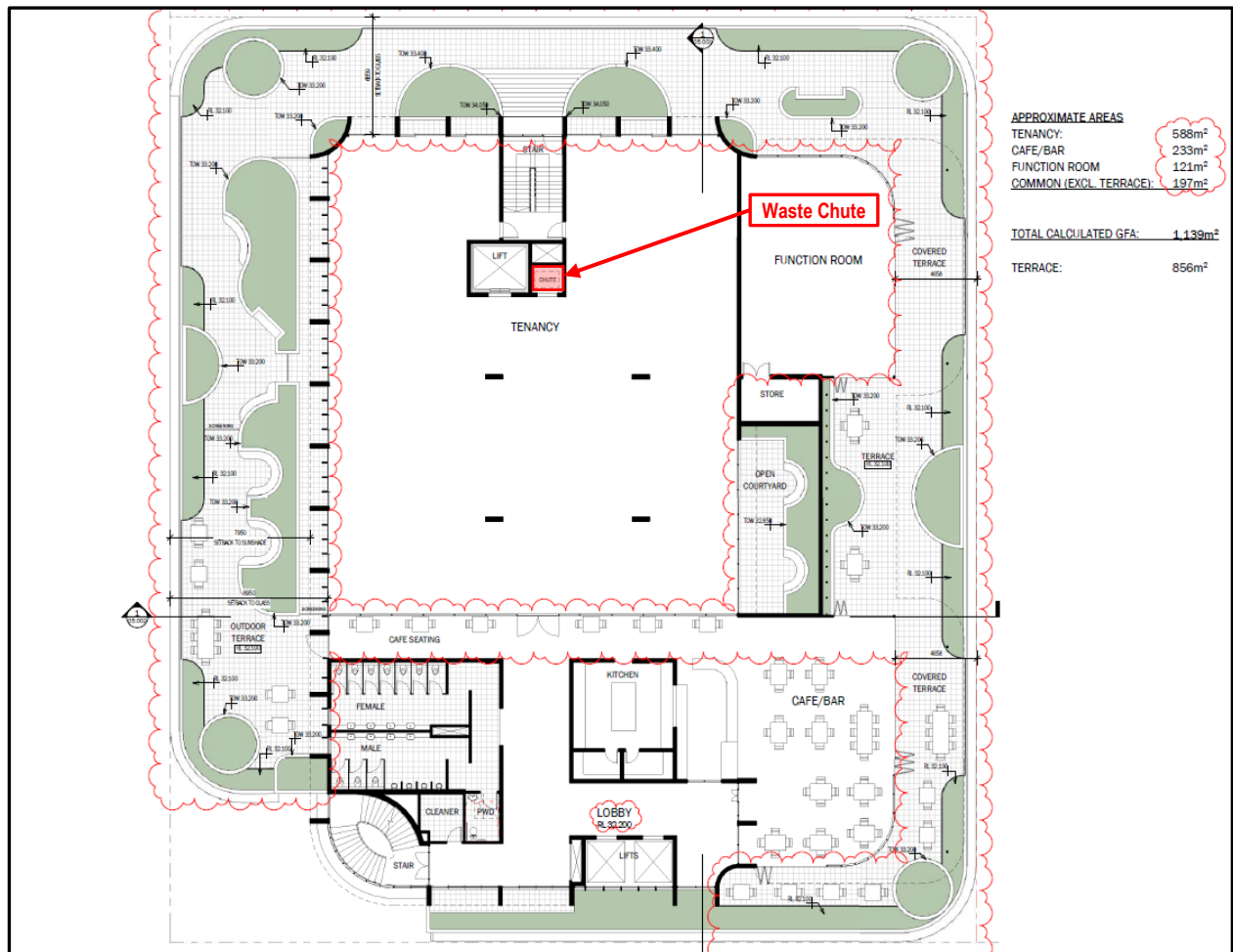


Figure 3.6 Typical Waste Chute Location (Level 4 Shown)

4.0 Waste Collection Requirements

4.1 Collection Arrangement

The following section provides an overview of the refuse bin collection and servicing details for the proposed development.

Based on the calculations detailed in **Section 3.2** and the waste bin provisions determined in **Section 3.3** of this report, general and recycling waste will require servicing up to three times per week, and two collections per week for clinical and related waste. The food and drink outlet land uses waste cooking oil will be collected when required. Once the development is operational, the collection frequency will be reviewed to ensure that it is sufficient, however not excessive for the development. It is proposed that all waste collection is undertaken outside of normal business hours to limit the operational impacts to the general public and exposure impacts in the case of clinical and related waste.

4.2 Refuse Collection Point

A refuse collection point has been provided within the six-metre service easement located along the northern property boundary of the subject site and is connected to the internal driveway near the Bonner Street vehicle crossing (**Figure 4.2.1**). The refuse collection point has been provided via a marked chevron area comprising a width of 5.4m and length of 3.3m. On collection day, the refuse bins to be serviced that day will be transferred from the waste storage room to the refuse collection point by the site caretaker / management via the bin carting route, which is less than 30m walking distance as illustrated in **Figure 4.2.1**. Once servicing of the bin has been completed, the bin will be returned to the waste storage room.

The refuse collection point will be constructed to meet the following requirements:

- comprise a hardstand with a solid concrete base or acceptable equivalent
- positioned on a level pad within the site with the entire pad located not more than five metres from the property boundary, level with the kerbside and adjacent to the driveway
- connected to the crossover by a paved path so that the bin can be manoeuvred for servicing without lifting the bin over raised surfaces i.e. pram ramp
- allow for bin carting via hard stand pathways or internal roads allowing for bins to be easily moved to the temporary storage area either side of the property entry point and not stored on a section of the driveway that falls away, and
- positioned away from entrances to residential and or sensitive premises.

While Council's *Solid Waste Management Policy (SC6.15)* requires the temporary bin storage point for multiple bulk bins to be sized to achieve a 300mm clearance around the bin, as a consequence of the constrained site and the need to achieve a balance between other development outcomes (i.e. traffic and landscaping), this requirement cannot be achieved. The temporary bin store dimensions are shown in **Figure 4.2.2**.

On the basis of the above, the proposed temporary bin storage point is subject to compliance with PO4 of Council's *Solid Waste Management Code*, which states:

"Waste and recycling servicing points are appropriately located and designed to facilitate safe, unobstructed and efficient servicing of waste containers."

The temporary bin storage point has been designed to cater for up to six bulk bins and achieves a minimum 300mm clearance on both sides of each 2,000L bulk bin and a 150mm clearance at the front and back. Given the positioning of the bulk bins at the temporary bin store, the proposed arrangement is considered to facilitate safe, unobstructed, and efficient servicing of waste containers during waste collection operation.

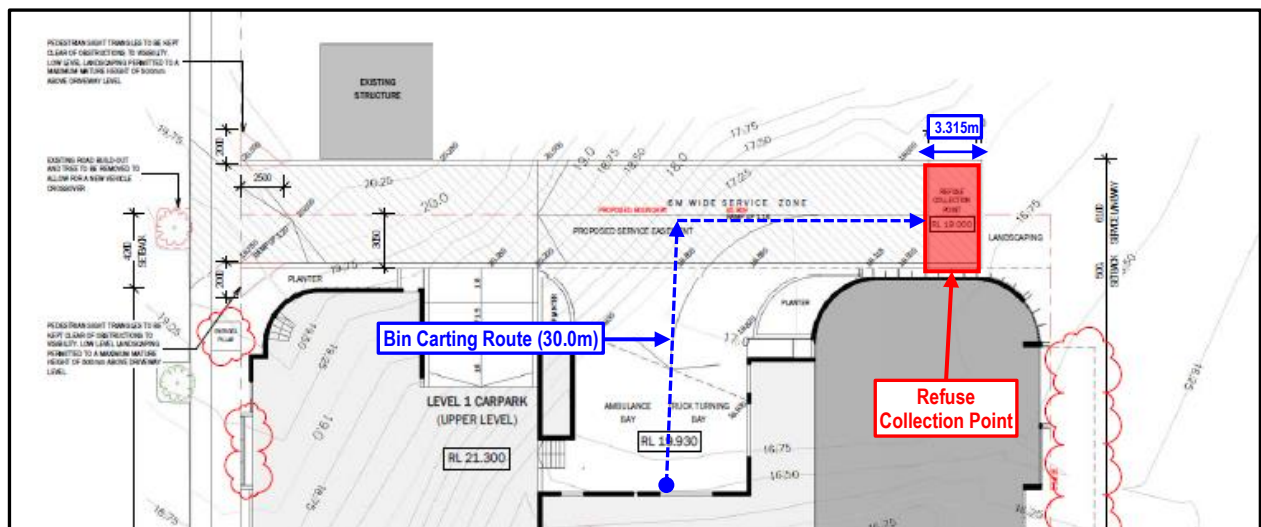


Figure 4.2.1 Refuse Collection Point and Bin Carting Route

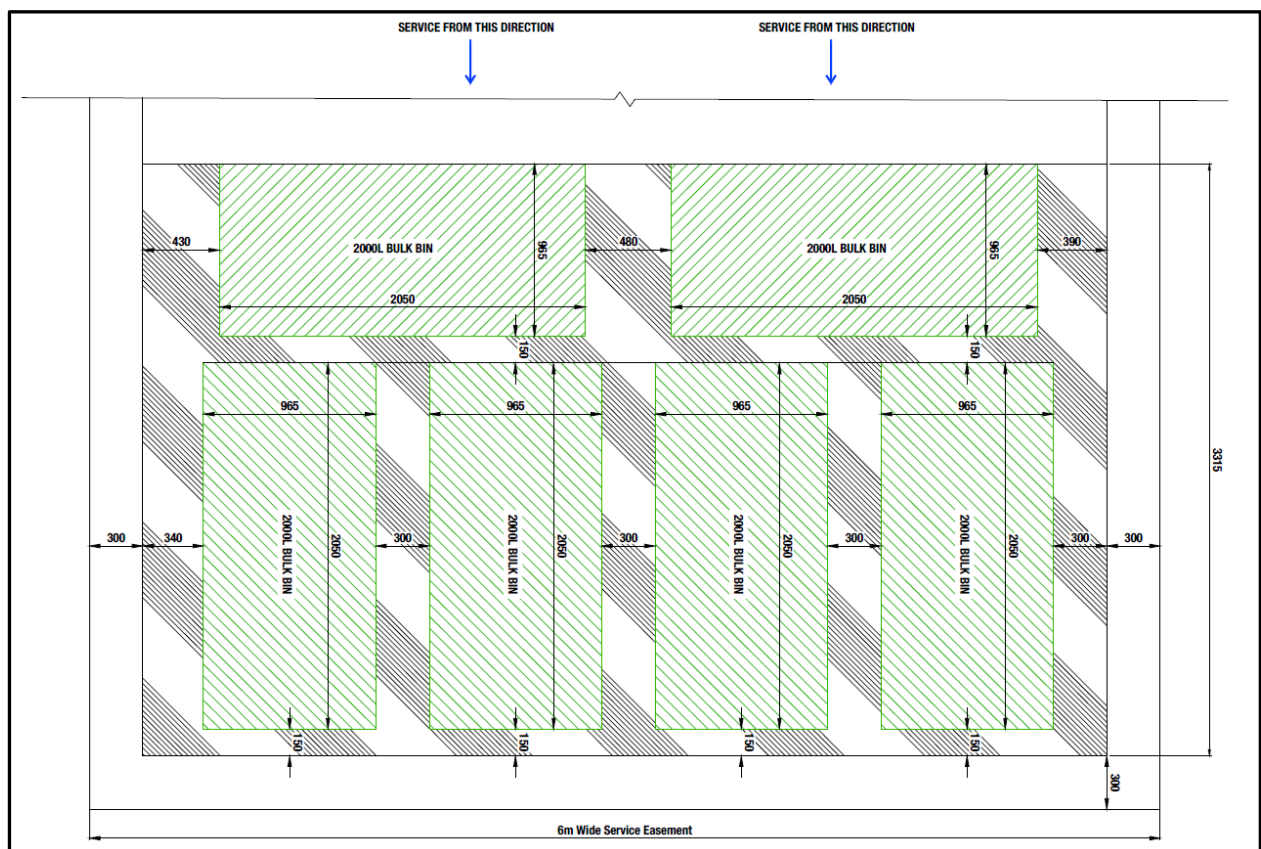


Figure 4.2.2 Refuse Collection Point Dimensions

4.3 Frequency and Timing

Given the nature of the development, refuse bins are required to be serviced as detailed in **Table 4.3**.

Table 4.3 Refuse Bin Collection Frequency

Waste Stream	Refuse Bin Requirement	Collection Frequency
General	6 x 2,000L bulk bin	Three times per week
Recycling	5 x 2,000L bulk bin	Three times per week
Clinical and Related	5 x 360L	Twice per week
Cooking Oil	2 x 250L	As required

4.4 Collection Vehicle Access

Refuse collection for the general and recycling waste generated by the proposed development will require servicing by a 10.2m front-loading refuse collection vehicle (RCV). Refuse collection will be conducted within the 6m wide service easement provided on the northern boundary of the subject site which provides sufficient area and no vertical obstructions for full on-site servicing and manoeuvring. Access to and from the site will be provided via the single vehicle crossing located at the Bonner Street frontage.

On pre-arranged collection days, the site manager will transport the refuse bins from the waste storage room to the temporary bin storage point (**Figure 4.2.1**). Upon completion of servicing, the site manager will return the bins to the waste storage room.

A swept path assessment has been undertaken to demonstrate that an RCV can satisfactorily enter the development site in a forward gear via the Bonner Street vehicle crossing, service the bins at the refuse collection point before performing a turnaround manoeuvre in the designated service turnaround bay and exiting the development site in a forward gear (refer **Appendix B**).

It is proposed that for the clinical waste generated by the health care services and research and technology land uses, that servicing is conducted within the loading bay / truck turnaround bay provided adjacent to the waste storage rooms. Servicing will be provided by a private specialist contractor. Arrangements will be made with the clinical waste contractor prior to collection to ensure unobstructed and safe access to the clinical and related waste storage room is achieved upon service.

The vehicles used to service the waste cooking oil and clinical waste are smaller than the standard front-loading RCV, therefore any clearances provided for the front-loading RCV will be sufficient for a tandem waste oil collection tanker and Small Rigid Vehicle (SRV). All service arrangements will be reviewed and organised prior to the commencement of use.

Details of the waste collection vehicle dimensions are provided in **Table 4.4** for reference.

Table 4.4 Service Vehicle Dimensions

Vehicle	10.2m Front-Loading RCV	SRV
Width	2.5m	2.3m
Length	10.2m	6.4m
Travelling Height	4.3m	2.3m
Servicing Height	6.5m	2.3m
Minimum Turning Circle	25.0m	14.2m
Minimum Turning Radius	13.2m (wall to wall), 12.3 (kerb to kerb)	7.1m

5.0 Conclusions

5.1 Summary

This report presents the findings related to assessment of waste management related matters for a proposed development located at 16 Nexus Way, Southport (Lot 3A-2 on Lot 9 on SP275512).

5.2 Findings

The following conclusions can be reached from the findings of this assessment:

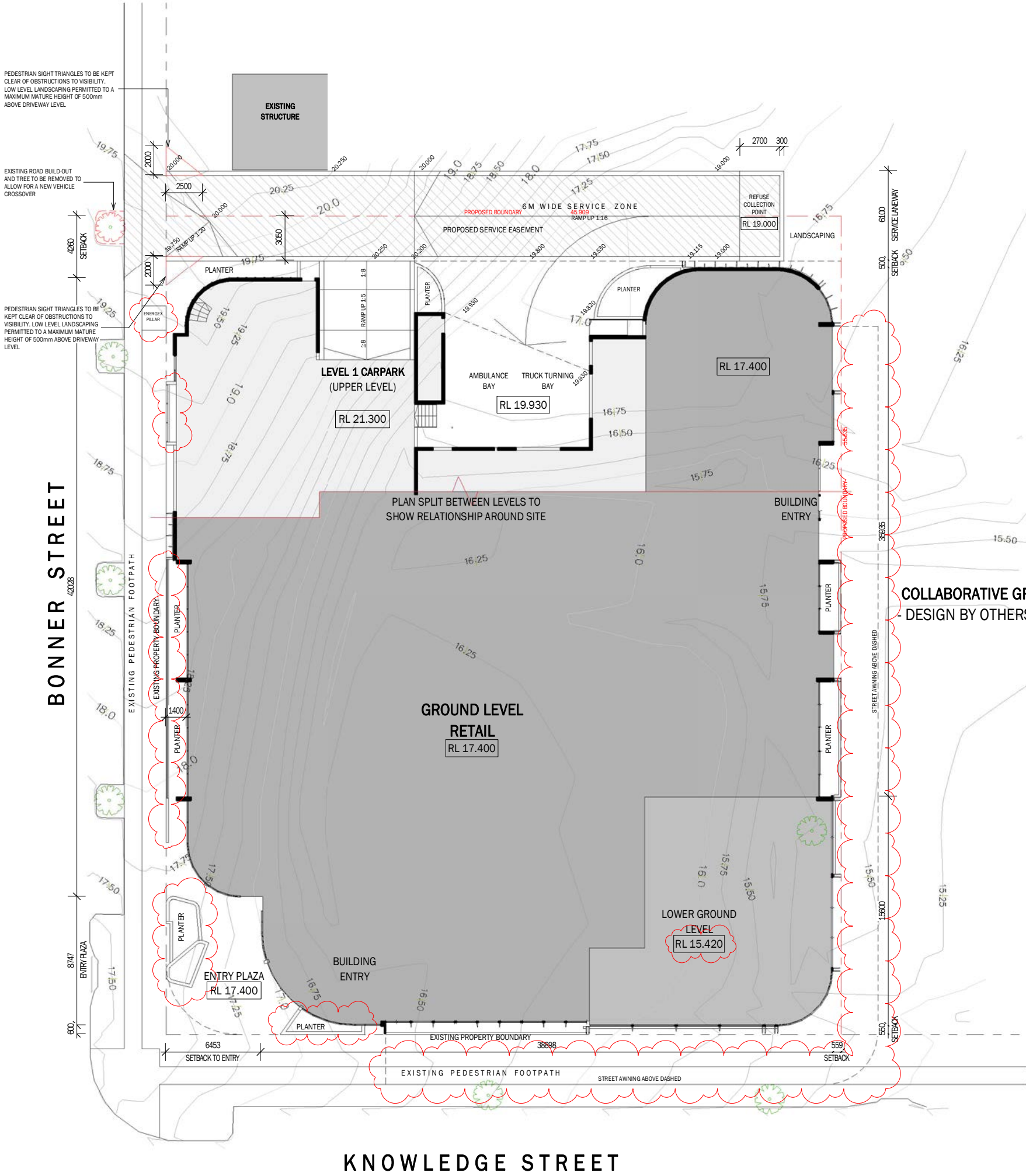
- waste generated by the proposed development is anticipated to consist of general and recycling waste, waste cooking oil, and clinical (and related) waste streams
- upon completion, the development is anticipated to generate 28,520L of general waste per week and 25,151L of recycling waste per week
- with respect to clinical and related waste generated by the health care services / research and technology land uses, determination of the volume of clinical and related waste has been based on the operation of other facilities that indicate waste generation of the proposed development is anticipated to be 2,995L per week
- the quantity of waste cooking oil generated can vary greatly, depending on type of food and drink outlet land uses. Therefore, no estimates for waste cooking oil have been provided
- the development will provide six 2,000L bulk bins to manage general waste and five 2,000L bulk bin to manage recycling waste. A total of five 360L wheelie bins are provided to cater for clinical and related waste generated by the development. Two 250L waste oil drums are shown within the main refuse collection storage point located on the ground floor level to accommodate the waste cooking oil generated by the food and drink outlet
- two waste storage rooms are provided, comprising a main waste storage room to accommodate the general and recycling waste, and one clinical and related waste storage room
- refuse collection will be conducted at the refuse collection point on pre-arranged collection days with a frequency of three times per week for general waste and recycling waste, and twice per week for clinical and related waste. Waste cooking oil will be collected on an ad-hoc basis when required
- once the development is operational, the collection frequency will be reviewed to ensure that it is sufficient, however not excessive for the development
- general and recycling waste from levels two to ten will be disposed of via waste chutes (incorporating a waste and recycling diversion system), with a waste disposal point located on each associated floor connected to the refuse bins located in the waste storage room on level one
- on collection days, the refuse bin to be serviced that day will be transferred from the waste storage room to the temporary storage point by the site manager, and then returned to the waste storage room when servicing of the bin is complete, and
- servicing for separate waste streams will not be undertaken at the same time.

Based on the information presented within this report, it has been demonstrated that the development proposes a waste management solution aligning with Council's requirements.

6.0 References

- 1) State of Queensland, *Parklands Priority Development Area Development Scheme (December 2013)*, Brisbane.
- 2) City of Gold Coast, *City Plan – Version 8 (December 2020)*, Gold Coast.
- 3) City of Gold Coast, *City Plan – Version 8– SC6.15 Solid Waste Management Code (December 2020)*, Gold Coast.
- 4) State of Queensland, *Environmental Protection Regulation 2019 (2019)*, Brisbane.
- 5) State of Queensland, *Waste Reduction and Recycling Act 2011 (2011)*, Brisbane.
- 6) State of Queensland, *Waste Reduction and Recycling Regulation 2011 (2017)*, Brisbane.

Appendix A Plans of Development



SITE PLAN

Scale @ A1 1:150

KNOWLEDGE STREET

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LEGEND

N	Further Issues Response	16-12-22	CZ
M	Preliminary FI Response	07-12-22	CZ
L	Development Application	03-08-22	CZ
K	Prelodgement Updates	19-07-22	CZ
J	Amended Site Boundaries	28-03-22	CZ
I	General Amendments	14-12-21	CZ
H	Preliminary DA Set	30-11-21	CZ
G	Preliminary DA Set	28-10-21	CZ
F	Concept Design	11-10-21	CZ
E	Concept Design	06-10-21	CZ
D	Concept Design	30-09-21	CZ
C	Concept Design	23-09-21	CZ
B	General Amendments	02-08-21	CZ

Revision	Description	Date	Initials
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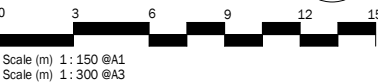
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PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

CLIENT
GOLD COAST 888 TRUST

DRAWING TITLE
SITE PLAN

Project Architect/Designer	Drawn By	Date Drawn
MK	CZ	
Checked	Date Checked	Scale @ A1
-		1:150
Drawing No.	Revision	
6140.1S.01.001	N	



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APPROXIMATE AREAS

TENANCIES: 1,590m²
COMMON (Excl Entry Foyer): 363m²
TOTAL CALCULATED GFA: 1,953m²

LEGEND

Revision	Description	Date	Initials
P	Further Issues Response	16-12-22	CZ
O	Preliminary FI Response	07-12-22	CZ
N	Preliminary FI Response	08-11-22	CZ
M	Development Application	03-08-22	CZ
L	Prelodgement Updates	19-07-22	CZ
K	Amended Site Boundaries	28-07-22	CZ
J	General Amendments	14-12-21	CZ
I	Preliminary DA Set	30-11-21	CZ
H	Preliminary DA Set	28-10-21	CZ
G	Concept Design	11-10-21	CZ
F	Concept Design	06-10-21	CZ
E	Concept Design	28-09-21	CZ
D	Concept Design	23-09-21	CZ

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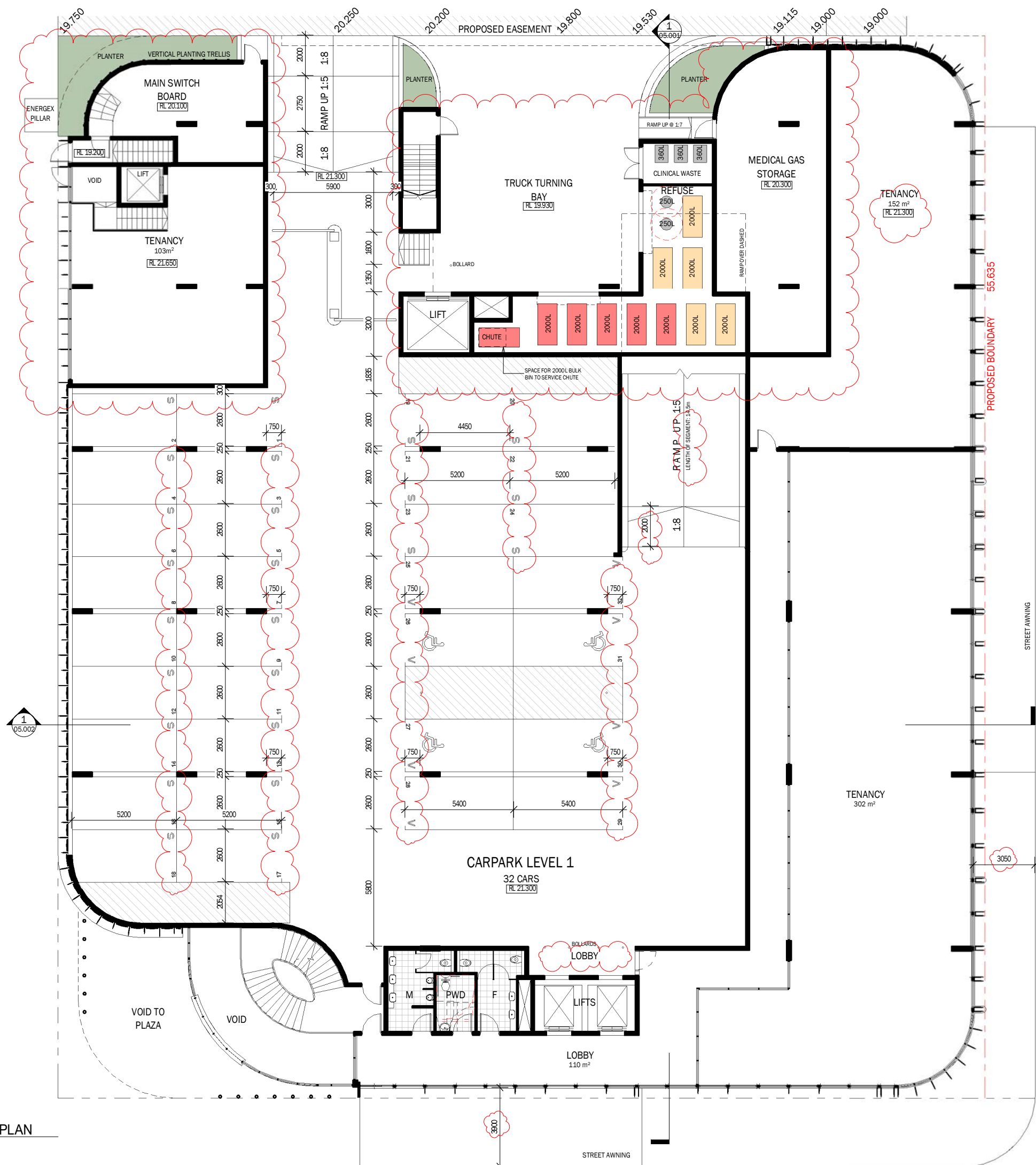
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PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

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DRAWING TITLE
GROUND FLOOR PLAN

Project Architect/Designer	Drawn By	Date Drawn
MK	CZ	
Checked	Date Checked	Scale @ A1
-		1 : 100
Drawing No.	Revision	
6140.1S.02.001	P	



LEVEL 1 FLOOR PLAN
Scale @ A1 1:100

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APPROXIMATE AREAS	
TENANCY:	557m ²
COMMON:	143m ²
TOTAL CALCULATED GFA:	700m ²
CARPARK:	1,063m ²

LEGEND

P	Further Issues Response	16-12-22	CZ
O	Preliminary FI Response	07-12-22	CZ
N	Preliminary FI Response	28-11-22	CZ
M	Development Application	03-08-22	CZ
L	Prelodgement Updates	26-07-22	CZ
K	Prelodgement Updates	15-07-22	CZ
J	Amended Site Boundaries	28-03-22	CZ
I	General Amendments	14-12-21	CZ
H	Preliminary DA Set	28-11-21	CZ
G	Preliminary DA Set	28-10-21	CZ
F	Concept Design	11-10-21	CZ
E	Concept Design	02-10-21	CZ
D	Concept Design	28-09-21	CZ

Revision	Description	Date	Initials
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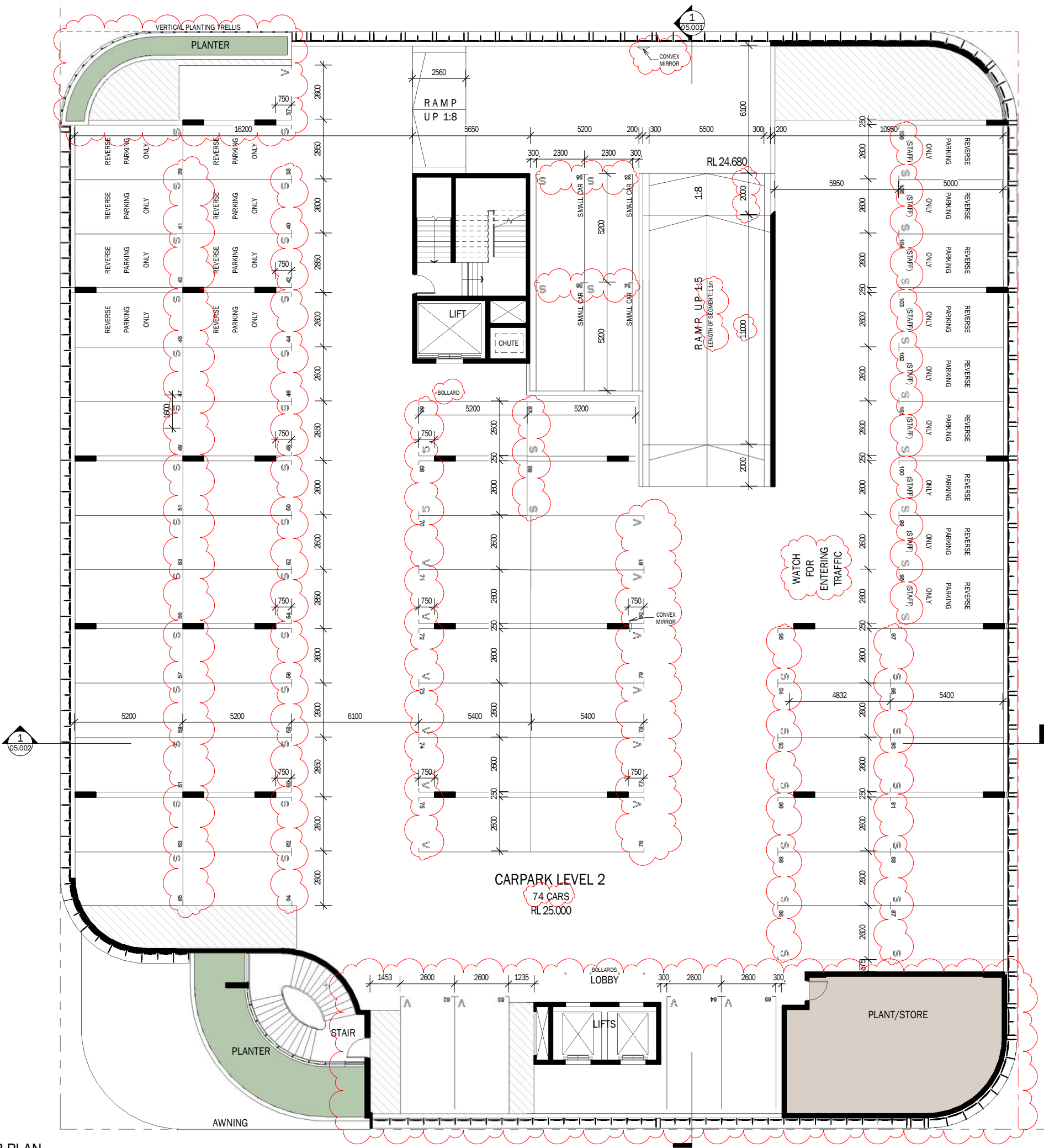
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PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

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GOLD COAST 888 TRUST

DRAWING TITLE
LEVEL 1 FLOOR PLAN

Project Architect/Designer	Drawn By	Date Drawn
MK	CZ	
Checked	Date Checked	Scale @ A1
-		1:100
Drawing No.	Revision	
6140.1S.02.002	P	



LEVEL 2 - FLOOR PLAN

Scale @ A1 1:100

APPROXIMATE AREAS

CARPARK:

2,024m²

LEGEND

Revision	Description	Date	Initials
N	Further Issues Response	16-12-22	CZ
M	Preliminary FI Response	07-12-22	CZ
L	Preliminary FI Response	08-11-22	CZ
K	Development Application	03-08-22	CZ
J	Prelodgement Updates	26-07-22	CZ
I	Prelodgement Updates	15-07-22	CZ
H	Amended Site Boundaries	28-03-22	CZ
G	General Amendments	14-12-21	CZ
F	Preliminary DA Set	08-11-21	CZ
E	Preliminary DA Set	28-10-21	CZ
D	Concept Design	30-09-21	CZ
C	Concept Design	23-07-21	CZ
B	Prelodgement Issue	29-06-21	CZ

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Scale (m) 1 : 200 @A3

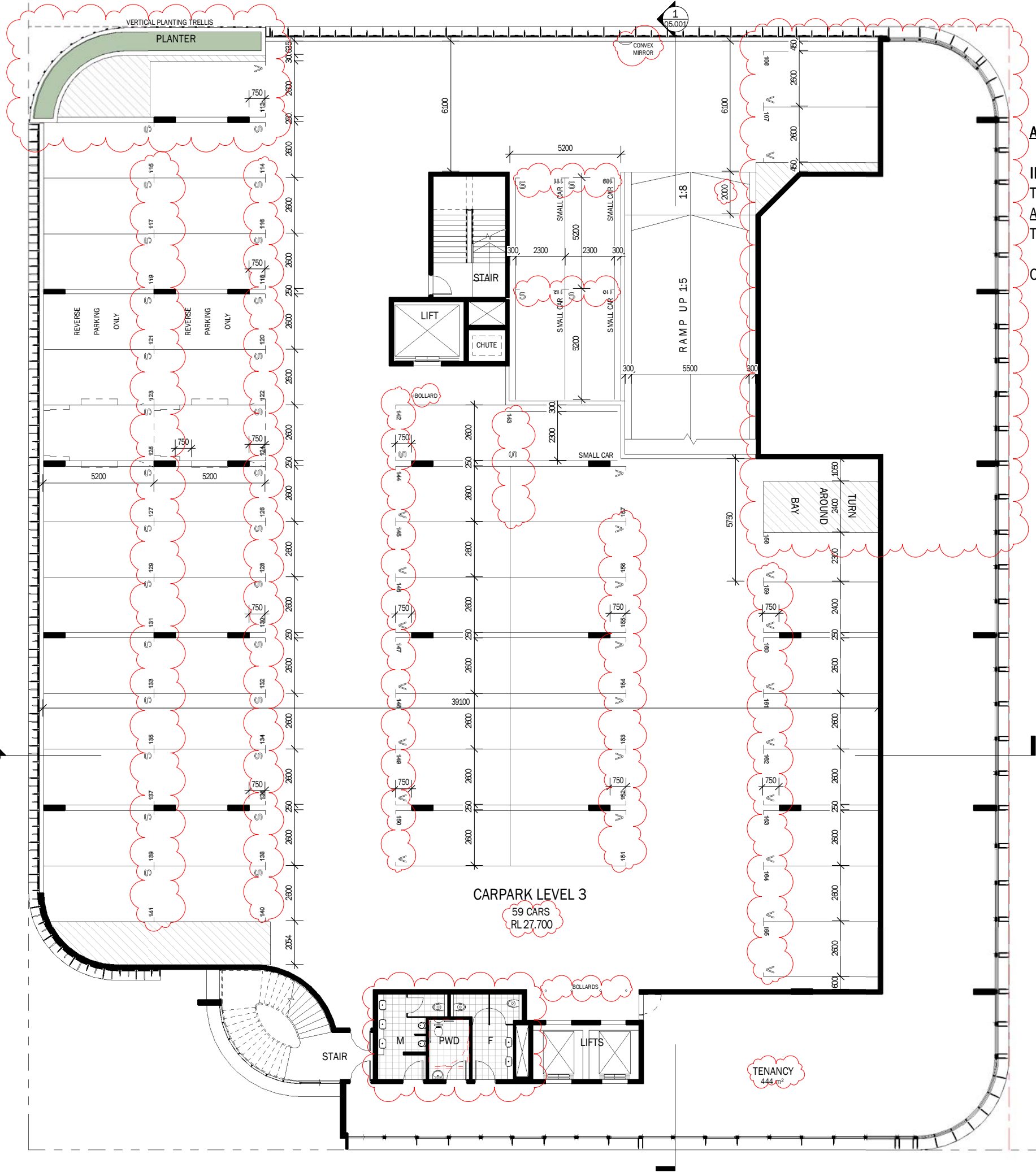
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PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

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DRAWING TITLE
LEVEL 2 FLOOR PLAN

Project Architect/Designer	Drawn By	Date Drawn
MK	CZ	
Checked	Date Checked	Scale @ A1
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Drawing No.	Revision	
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LEVEL 3 - FLOOR PLAN
Scale @ A1 1:100

APPROXIMATE AREAS

INTERNAL

TENANCY:

AMENITIES:

TOTAL CALCULATED GFA:

CARPARK:

444m²

28m²

472m²

1,612m²

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LEGEND

O	Further Issues Response	16-12-22	CZ
N	Preliminary FI Response	07-12-22	CZ
M	Preliminary FI Response	30-11-22	CZ
L	Development Application	03-08-22	CZ
K	Prelodgement Updates	26-07-22	CZ
J	Prelodgement Updates	19-07-22	CZ
I	Amended Site Boundaries	28-03-22	CZ
H	General Amendments	14-12-21	CZ
G	Preliminary DA Set	30-11-21	CZ
F	Preliminary DA Set	28-10-21	CZ
E	Concept Design	30-09-21	CZ
D	Concept Design	23-09-21	CZ
C	General Amendments	02-08-21	CZ

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PROJECT
NORTH STAR
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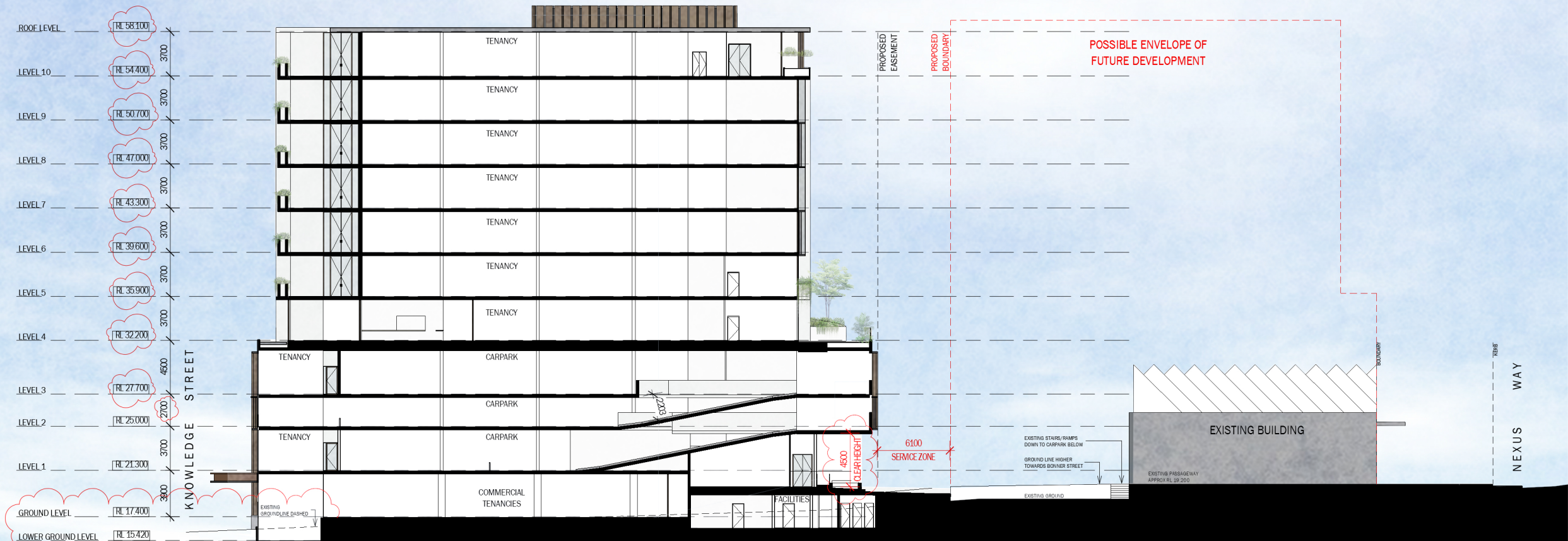
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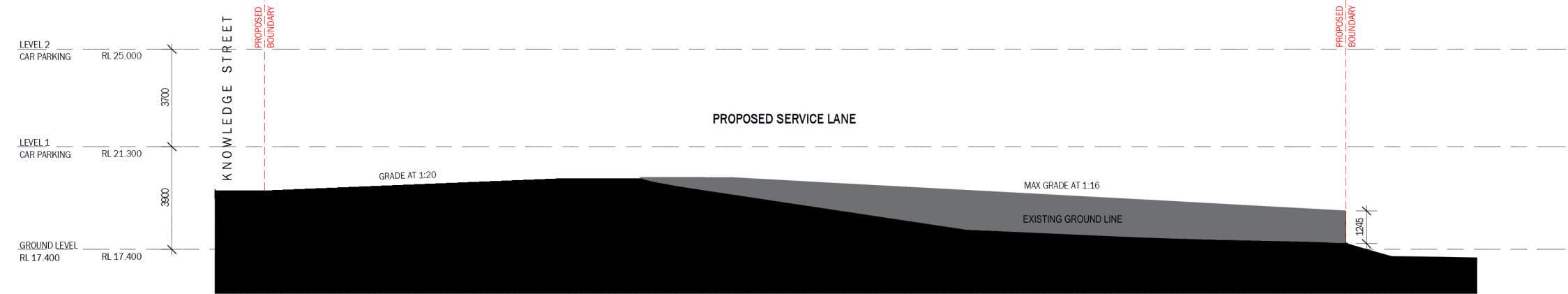
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SERVICE LANE LONG SECTION
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LEGEND

Revision	Description	Date	Initials
I	Further Issues Response	16-12-22	CZ
H	Preliminary IT Response	07-12-22	CZ
G	Development Application	03-08-22	CZ
F	Prelodgement Updates	26-07-22	CZ
E	Amended Site Boundaries	28-03-22	CZ
D	Preliminary DA Set	30-11-21	CZ
C	Preliminary DA Set	28-10-21	CZ
B	Concept Design	23-09-21	CZ
A	General Amendments	02-08-21	CZ

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Scale (m) 1:200 @A3

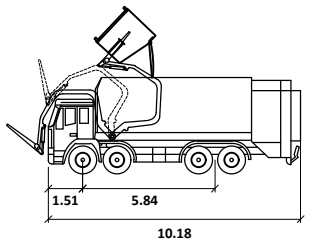
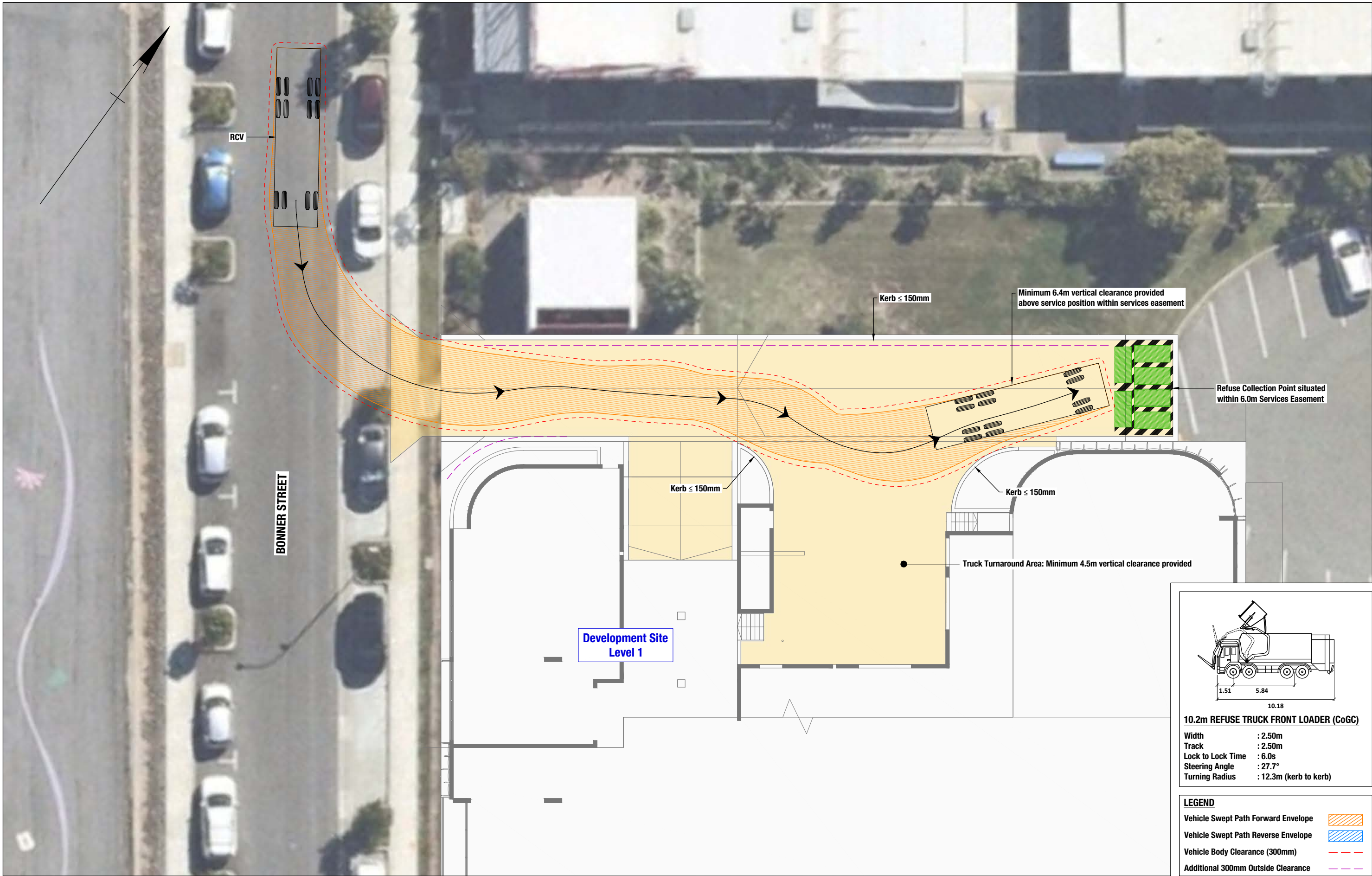
PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

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GOLD COAST 888 TRUST

DRAWING TITLE
BUILDING SECTIONS

Project Architect/Designer	Drawn By	Date Drawn
MK	CZ	
Checked	Date Checked	Scale @ A1
-		As indicated
Drawing No	Revision	

Appendix B Swept Path Assessment



10.2m REFUSE TRUCK FRONT LOADER (CoGC)

Width	: 2.50m
Track	: 2.50m
Lock to Lock Time	: 6.0s
Steering Angle	: 27.7°
Turning Radius	: 12.3m (kerb to kerb)

LEGEND

Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

GELEON

ABN 53 143 670 071
Suite 12, Level 1, 3029 The Boulevard
Emerald Lakes, Carrara
PO Box 454 Nerang Qld 4211
tel +61 7 5594 4473

0 1 2 3 4m

Engineering Certification

RPEQ Name Greg Lerch
RPEQ No. 07382
Date 20/12/2022

16 NEXUS WAY - SOUTHPORT
PROPOSED MIXED-USE DEVELOPMENT

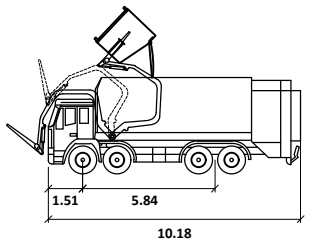
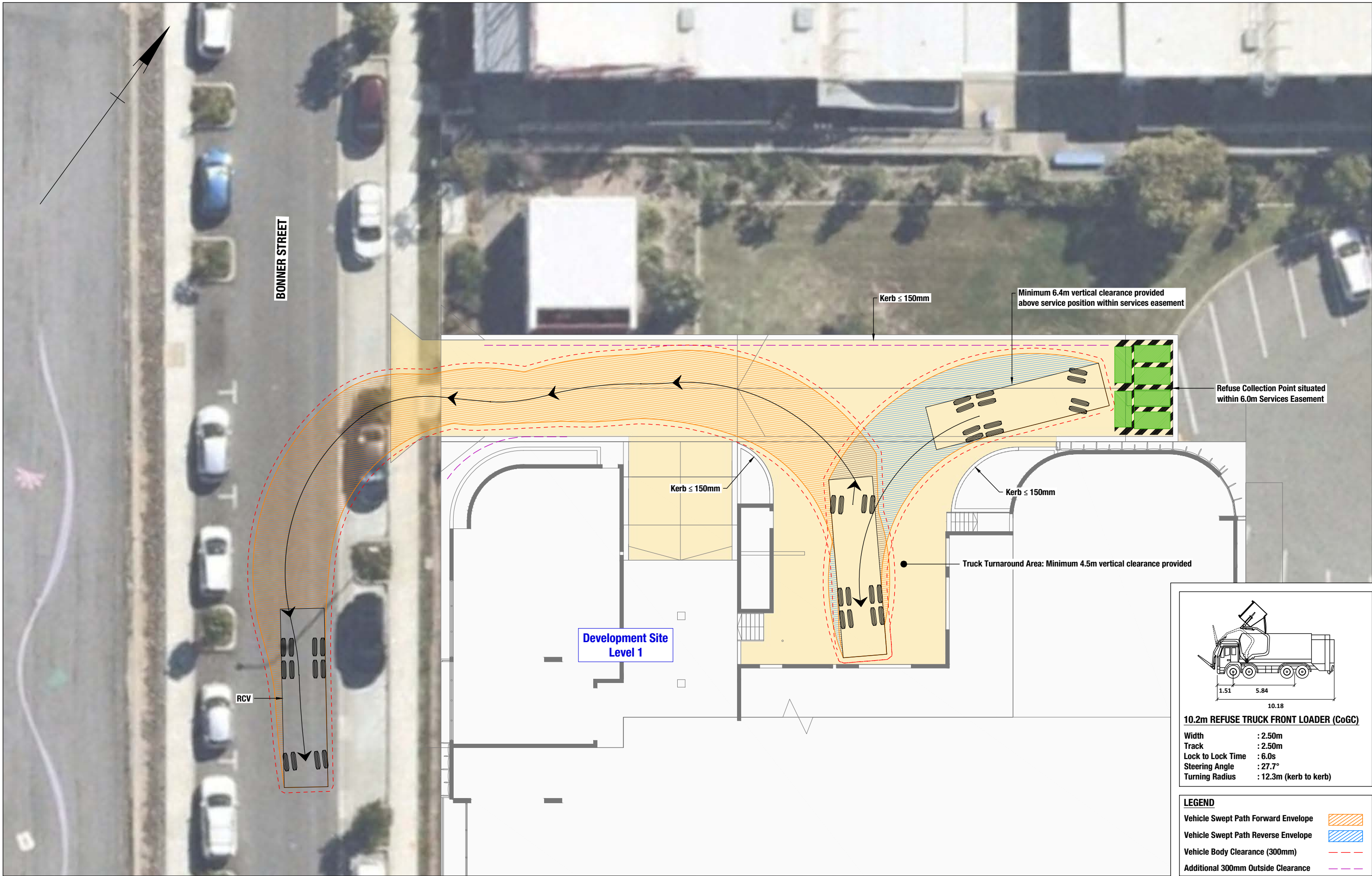
SWEPT PATH ASSESSMENT
10.2m FRONT LOADER REFUSE COLLECTION VEHICLE (RCV)
ENTRY MANOEUVRE TO REFUSE COLLECTION POINT

Project No.
50589

Issue Date
20/12/22

Drawing No.
50589-SP001-B

Series No. 1 of 2



10.2m REFUSE TRUCK FRONT LOADER (CoGC)

Width	: 2.50m
Track	: 2.50m
Lock to Lock Time	: 6.0s
Steering Angle	: 27.7°
Turning Radius	: 12.3m (kerb to kerb)

LEGEND

Vehicle Sweep Path Forward Envelope	
Vehicle Sweep Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

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tel +61 7 5594 4473

0 1 2 3 4m

Engineering Certification

RPEQ Name Greg Lerch
RPEQ No. 07382
Date 20/12/2022

16 NEXUS WAY - SOUTHPORT
PROPOSED MIXED-USE DEVELOPMENT

SWEPT PATH ASSESSMENT
10.2m FRONT LOADER REFUSE COLLECTION VEHICLE (RCV)
EXIT MANOEUVRE FROM REFUSE COLLECTION POINT

Project No.
50589

Issue Date
20/12/22

Drawing No.

50589-SP002-B

Series No. 2 of 2

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