



Operational Waste Management Plan

Proposed Residential Development

Located at 54 George Alexander Way, Coomera

On Behalf of Coomera GA Pty Ltd ATF The Coomera GA Unit Trust



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Data Acoustics Transport Waste Design

Revision Record

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1 Introduction

1.1. Background

Colliers International Engineering and Design (TTMC) has been engaged by Keylin Property Group on behalf of Coomera GA Pty Ltd ATF The Coomera GA Unit Trust to prepare an Operational Waste Management Plan (OWMP) to support a proposed residential development located at 54 George Alexander Way, Coomera.

It is understood that a previous development application was submitted to CoGC, and a council information request (IR) was provided in response, application reference number: COM/2025/236. The overall site design was subsequently revised in relation to the IR request. This report has been updated to reflect the revised scheme for re-submission to council.

1.2. Scope and Client Brief

The content of this OWMP is intended to provide information on the typical movement of waste streams from generation to collection. Information on refuse management is given for each use within the development.

The items covered within the OWMP are described in Table 1.1.

Table 1.1: Scope Items

Item	Description
Refuse streams	Identification of refuse streams & anticipated development refuse volumes likely to be produced
Refuse separation	Recommendations for appropriate segregation methods for each refuse stream
Refuse collections	Assessment of refuse collection vehicle (RCV) access and manoeuvring
Refuse storage	Detailed analysis of refuse storage facilities and design
Refuse transfer	Assessment of refuse transfer between refuse storage and collections areas
Refuse disposal	Recommendations for refuse disposal within the development
Refuse management equipment	Identification of recommended and optional refuse management systems and equipment
Refuse management operations	Recommendations for operational efficiency and ongoing management, including refuse minimisation, tenant education and safety
Building design	Recommendations for design of refuse management facilities

Detailed information including site plans and drawings, recommended refuse management equipment and system specifications, common refuse signage as well as a list of terms and abbreviations are provided in the appendices.

The recommendations in this report relate to the operational phase of the development only. Additional requirements for refuse management during or after demolition or construction phases are not included and require a dedicated plan.

1.3. Site Location

The formal application address for the site is 54 George Alexander Way, Coomera.

The development footprint is depicted in Figure 1.1. and will have dual frontages on George Alexander Way and a newly constructed street adjoining Talpa Street. A future road will also be built to allow for complete circulation of the development onto Seashell Avenue.

A newly proposed driveway adjoining George Alexander Way (GAW) is proposed. All RCV and vehicle access to Buildings 1, 2 & 3 occur via this proposed driveway adjoining GAW. Access to the townhouse portion of the development will occur via Talpa Street.

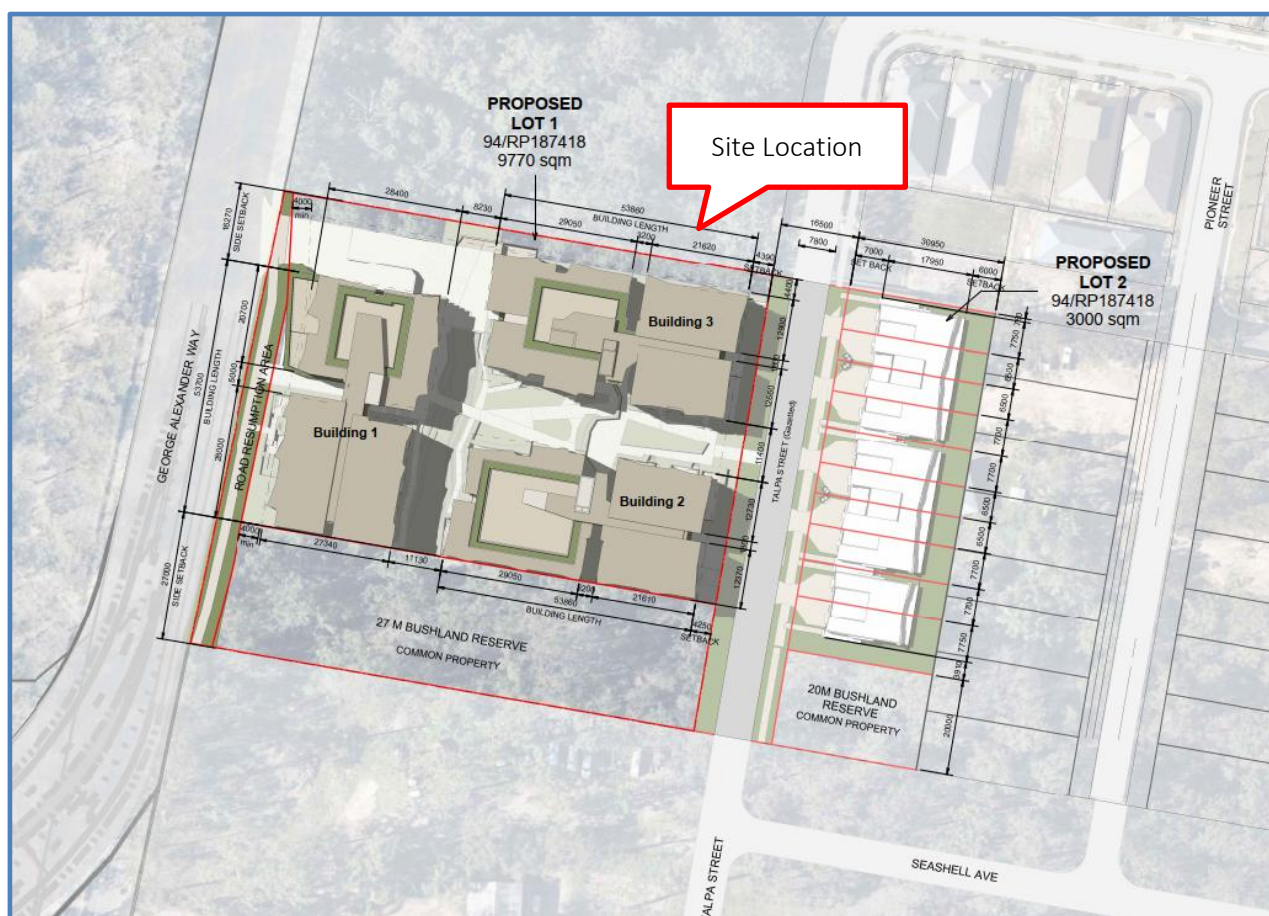


Figure 1.1: Site Location

Source: Archipelago, Project: 24013 53 George Alexander Way, Coomera, Drawing Title: Proposed Stage 2 Site Plan 1-500, DWG No: AR-DA-007, Rev E.

1.4. Development Summary

The proposed development consists of three (3) buildings containing multi-unit dwellings (MUDs) over basement parking, and 10 individual townhouse lots.

Table 1.2 provides a summary of the development with regard to the residential towers, providing context for the volume information provided in Section 2. Table 1.3 provides a summary of the townhouse portion of the development.

Table 1.2: MUD Development Summary

Building	Description	Measure (Dwellings)
Building 1	1 Bedroom	13
	2 Bedrooms	38
	3+ Bedrooms	5
Building 1 - Total		56 Dwellings
Building 2	1 Bedroom	15
	2 Bedrooms	46
	3+ Bedrooms	7
Building 2 - Total		68 Dwellings
Building 3	1 Bedroom	7
	2 Bedrooms	45
	3+ Bedrooms	7
Building 3 - Total		59 Dwellings
All Buildings - Total		183 Dwellings

Table 1.3: Townhouse Development Summary

Description	Measure (Dwellings)
Residential Townhouses	10

2 Regulatory Refuse Management Requirements

This section provides the detailed refuse calculations and describes the arrangements for the collection, storage, transfer and disposal of refuse within the development as deemed to satisfy council's current assessment benchmarks. This includes associated bin quantities, storage capacities, equipment details, collection frequencies and site access details.

2.1. Regulatory and Governance Considerations

The plan satisfies City of Gold Coast's requirements by providing the following information:

- Type and quantity of refuse materials to be generated during the occupancy of the proposed site.
- Refuse collection, storage, transfer and disposal arrangements during occupancy of the completed development.
- Recommended operational requirements for the operational phase of the development, and design requirements for the building and refuse management facilities.

As this development is a residential site, Colliers has referred to the requirements relating to residential uses as outlined in Schedule 6.15 of the City of Gold Coast's City Plan Policy – Solid Waste Management Code, as shown in Table 1.2.

Table 2.1: Planning Scheme Compliance Checklist

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome?
Waste and recycling storage and bin wash-down facilities		
PO1 Development provides waste and recycling storage and servicing facilities that are safe, convenient, efficient, appropriately sized for the type and volume of waste generated.	AO1.1 Development includes waste storage points of sufficient size to accommodate the required number of waste and recyclable bins consistent with SC6.15 City Plan policy –Solid waste management.	Complies with AO1.1 and PO1 Bin servicing point is provided for storage of all refuse and is appropriately sized in accordance with SC6.15 City Plan policy –Solid waste management.
	AO1.2 Waste and recycling storage points are located, designed and sized consistent with SC6.15 City Plan policy – Solid waste management.	Complies with AO1.2 and PO1 The refuse rooms have been designed in accordance with SC6.15 City Plan policy – Solid waste management. Which includes adequate clearances around combined bin area.
	AO1.3 Development with a dwelling above the third story include appropriate waste removal systems which incorporate: (a) waste chutes; (b) hoppers; and (c) separate waste storage rooms.	Complies with PO1 Dual refuse chute provided. Designed in accordance with SC6.15 City Plan policy – Solid waste management.

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome?
Waste and recycling storage and bin wash-down facilities		
	Note: Waste removal system design is to be consistent with SC6.15 City Plan policy – Solid waste management.	

Waste and recycling storage and bin wash-down facilities - Continued		
	AO1.4 Development that includes a commercial kitchen or generates clinical or related waste incorporate additional waste facilities consistent with SC6.15 City Plan policy –Solid waste management.	N/A – Residential site only
PO2 Development provides a bin wash-down facility that maintains appropriate environmental health and amenity standards.	AO2 Development includes appropriately sized and located bin wash-down facilities consistent with SC6.13 City Plan policy –Solid waste management.	Complies with AO2 and PO2 Bin wash-down facilities will be provided in the refuse presentation point and refuse rooms. Will be designed in accordance with SC6.15 City Plan policy – Solid waste management.
Amenity		
PO3 Waste and recycling storage and servicing points are appropriately located and designed for convenient and safe access by all users and to minimise the potential for nuisance to occupants of the development or adjoining properties.	AO3.1 Direct unobstructed paths exist between waste and recycling storage and servicing points and road frontages.	Complies with AO3.1 and PO3 All disposal and transfer paths between the disposal points, bin storage room and servicing area are as direct as feasible.
	AO3.2 Waste and recycle storage points are screened by solid fencing or vegetation to ensure they are not visible from a public place or sensitive land use.	Complies with AO3.2 and PO3 Refuse storage is provided within dedicated rooms and screened from the public realm.
Waste servicing		
PO4 Waste and recycling servicing points are appropriately located and designed to facilitate safe, unobstructed and efficient servicing of waste containers.	AO4 Waste and recycling servicing points are located, designed and sufficiently sized consistent with SC6.15 City Plan policy –Solid waste management. Note: Regulation of the access, stopping and maneuvering of refuse collection vehicles are subject to meeting, Part 9.4.13 Transport code and associated City Plan guidelines.	Complies with AO4 and PO4 The refuse rooms have been designed to accommodate the required number of bins as calculated in Section 2 of this OWMP.

Non-serviced areas		
P05 Developments in non-serviced areas have appropriate solid waste management measures to adequately service the development. Note: For Commercial developments a WMP, prepared in accordance with SC6.15 City Plan policy – Solid waste management, is Council’s preferred method of addressing the above outcome.	A05 No acceptable outcome provided.	Complies with A05 and P05 The OWMP has been prepared in accordance with SC6.15 City Plan policy – Solid waste management.

2.1. Multi-Unit Dwelling Refuse Calculations

The refuse volumes utilised for the calculation of residential refuse storage are based on rates recommended by City of Gold Coast for multi-unit dwellings.

A residential collection frequency of 3 times per week has been established for both general waste and commingled recycling, in line with CoGC Councils maximum frequency for multi-unit developments.

Table 2.2 demonstrates the refuse generation rates prescribed by the CoGC.

Table 2.3, 2.4 and 2.5 illustrate the calculations estimated for the individual buildings.

Table 2.2: CoGC Refuse Generation Rates

Generation Rate	Measure	General Waste	Combined Recycling
1 Bedroom Dwelling	L / Dwelling / Week	80	50
2 Bedroom Dwelling		100	60
3+ Bedroom Dwelling		120	80

Table 2.3: Building 1 Calculations

Building	Type	Quantity	General Waste L/Week	Commingle Recycling L/Week
Building 1	1 Bedroom Dwelling	13	1,040	650
	2 Bedroom Dwelling	38	3,800	2,280
	3+ Bedroom Dwelling	5	600	400
Total Weekly Volumes (L / Week)			5,440	3,330
Volumes per Day (L / Day)			777	496
Volumes per Collection (L / Collection)			2,331	1,427
Collection and Equipment Details	Collections per Week		3	3
	Storage Capacity		3 Days	3 Days
	Equipment Size		2,000L	2,000L
	Equipment Quantity Required		2	1

Table 2.4: Building 2 Calculations

Building	Type	Quantity	General Waste L/Week	Commingle Recycling L/Week
Building 2	1 Bedroom Dwelling	7	1,200	750
	2 Bedroom Dwelling	62	4,600	2,760
	3+ Bedroom Dwelling	7	840	560
Total Weekly Volumes Compacted (L / Week)			6,640	4,070
Volumes per Day (L / Day)			949	581
Volumes per Collection (L / Collection)			2,846	1,744
Collection and Equipment Details	Collections per Week		3	3
	Storage Capacity		3 Days	3 Days
	Equipment Size		2,000L	2,000L
	Equipment Quantity Required		2	1

Table 2.5: Building 3 Calculations

Building	Type	Quantity	General Waste L/Week	Commingle Recycling L/Week
Building 3	1 Bedroom Dwelling	8	560	350
	2 Bedroom Dwelling	52	4,500	2,700
	3+ Bedroom Dwelling	7	840	560
Total Weekly Volumes Compacted (L / Week)			5,900	3,610
Volumes per Day (L / Day)			843	516
Volumes per Collection (L / Collection)			2,529	1,547
Collection and Equipment Details	Collections per Week		3	3
	Storage Capacity		3 Days	3 Days
	Equipment Size		2,000L	2,000L
	Equipment Quantity Required		2	1

2.2. Standard Rate Entitlement (Townhouses)

Individual wheelie bins will be provided for each townhouse per the existing rate entitlement for townhouse dwellings. 240L mobile garbage bins (MGB's) will be provided in line with council's standard waste collection. All townhouses will be provided with 1 x 240L MGB for general waste and 1 x 240L MGB for commingled recycling.

2.3. Refuse Bin, Equipment Requirements and Specification

Table 2.6 outlines the total bin quantities required for the multi-unit dwelling portion of the development.

Table 2.7 outlines the required bin quantities for each townhouse.

Table 2.8 outlines the additional equipment required for the development based on the volume calculations above.

As refuse volumes may vary from assessment benchmarks, bin numbers and sizes may need to be altered to suit the building operation. The tables show the maximum volume of storage and equipment expected for the development.

Table 2.6: Bins Combined (Storage and Presentation)

Refuse Storage Point	Refuse Stream	Bin / Storage – Size or Type	Number Required*
Building 1	General Waste	2,000L	2 (+1 spare)
	Commingled Recycling		1 (+1 spare)
Building 2	General Waste	2,000L	2 (+1 spare)
	Commingled Recycling		1 (+1 spare)
Building 3	General Waste	2,000L	2 (+1 spare)
	Commingled Recycling		1 (+1 spare)
Total (Holding Point)	General Waste	2,000L	6
	Commingled Recycling		3

*Note: (+1 spare) represent additional bins to remain underneath the chute during servicing. These bins are not included in the total quantity to be held at the waste holding room for servicing, as they will always remain in their corresponding waste room in each building.

Table 2.7: Townhouse Rate Entitlement

Refuse Storage Point	Refuse Stream	Bin / Storage – Size or Type	Number Required*
Townhouses	General Waste	240L	10 (1 per townhouse)
	Commingled Recycling		10 (1 per townhouse)

Table 2.8: Additional Equipment

Description	Quantity	Capability / Specification - See Appendix C for details
Dual Chute System	3	A dual chute system will be required for each residential tower, totalling 6 chutes in total. Allows for stream separation between general waste and comingled recycling.
Bin tug	1	A single bin tug will assist building management in transferring refuse from each of the buildings. Bins can be daisy chained to transport multiple bins at a time. The bin tug will also allow for bins to be manoeuvred up any gradients above 1:4.
Chain-Mesh Partition / Dividers	TBA	Chain-mesh fence used to partition each of the chutes to ensure the safety of entrants from falling items.

2.4. Residential Refuse Storage

2.4.1. Residential Refuse Rooms (Buildings 1 – 3)

A centralised bin holding point is provided within the first floor of building 1, appropriately sized to accommodate the total amount of bins specified in Table 2.6.

Dedicated chute discharge rooms and spare bin storage rooms are located on ground level in each building for the temporary storage of refuse. Access to each chute discharge room will be restricted to building management only. Residents may access the spare bin storage room adjacent to the chute room in each building to dispose of bulk waste unsuitable for chute disposal.

Dual chutes are incorporated into the design of each building for the stream separation general refuse and commingled recycling generated by the development.

Each discharge room and spare bin storage room is appropriately sized to accommodate 1 x 1,100L general waste and 1 x 1,100L comingled recycling bin. Building management will be required to rotate these bins underneath chute discharge on a regular basis.

Figure 2.1 depicts an overview of the development, with regard to all refuse storage areas.

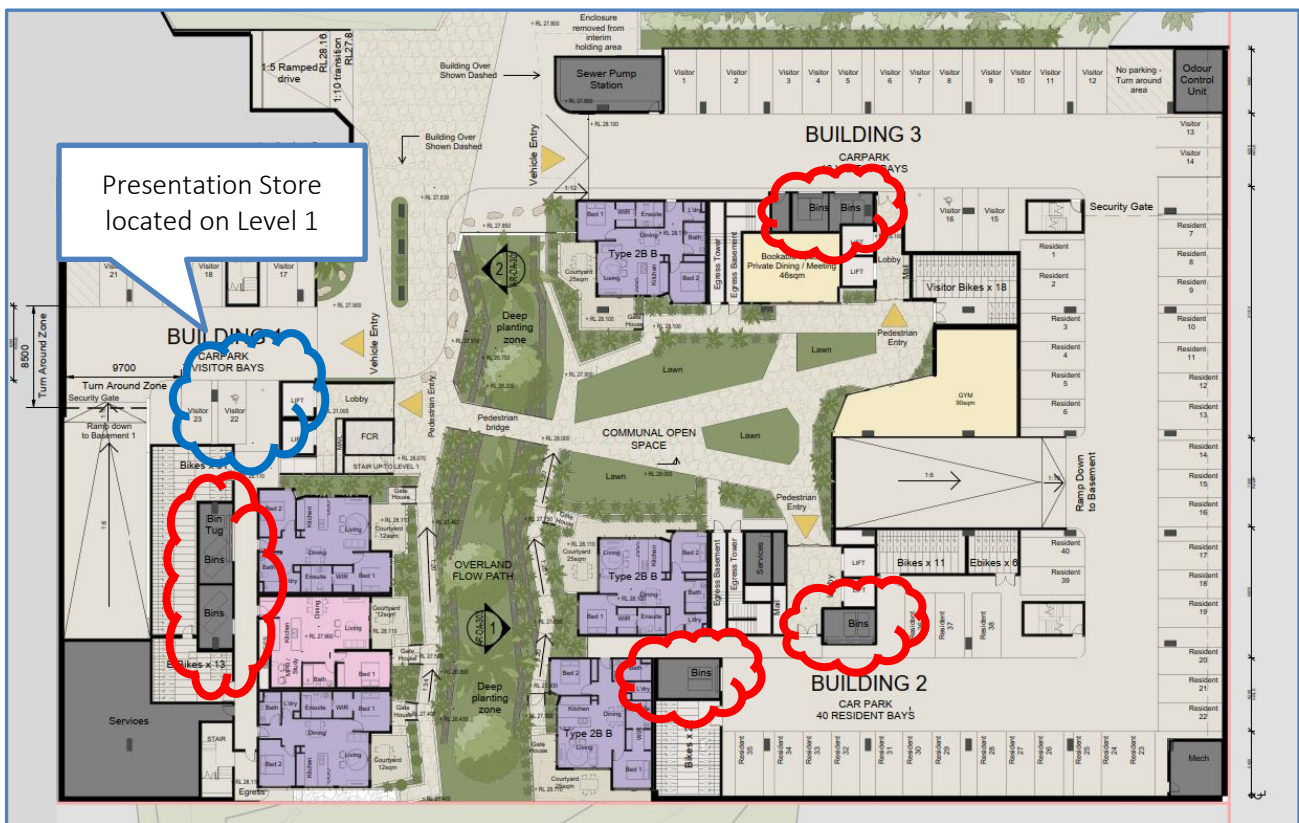


Figure 2.1: Refuse Storage Overview

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 0, AR-DA-200, Revision D, Date: 10.04.2025.

Figure 2.2, 2.3 and 2.4 each illustrate the recommended layout of each residential refuse room and spare bin room for each of the three (3) buildings throughout the development.

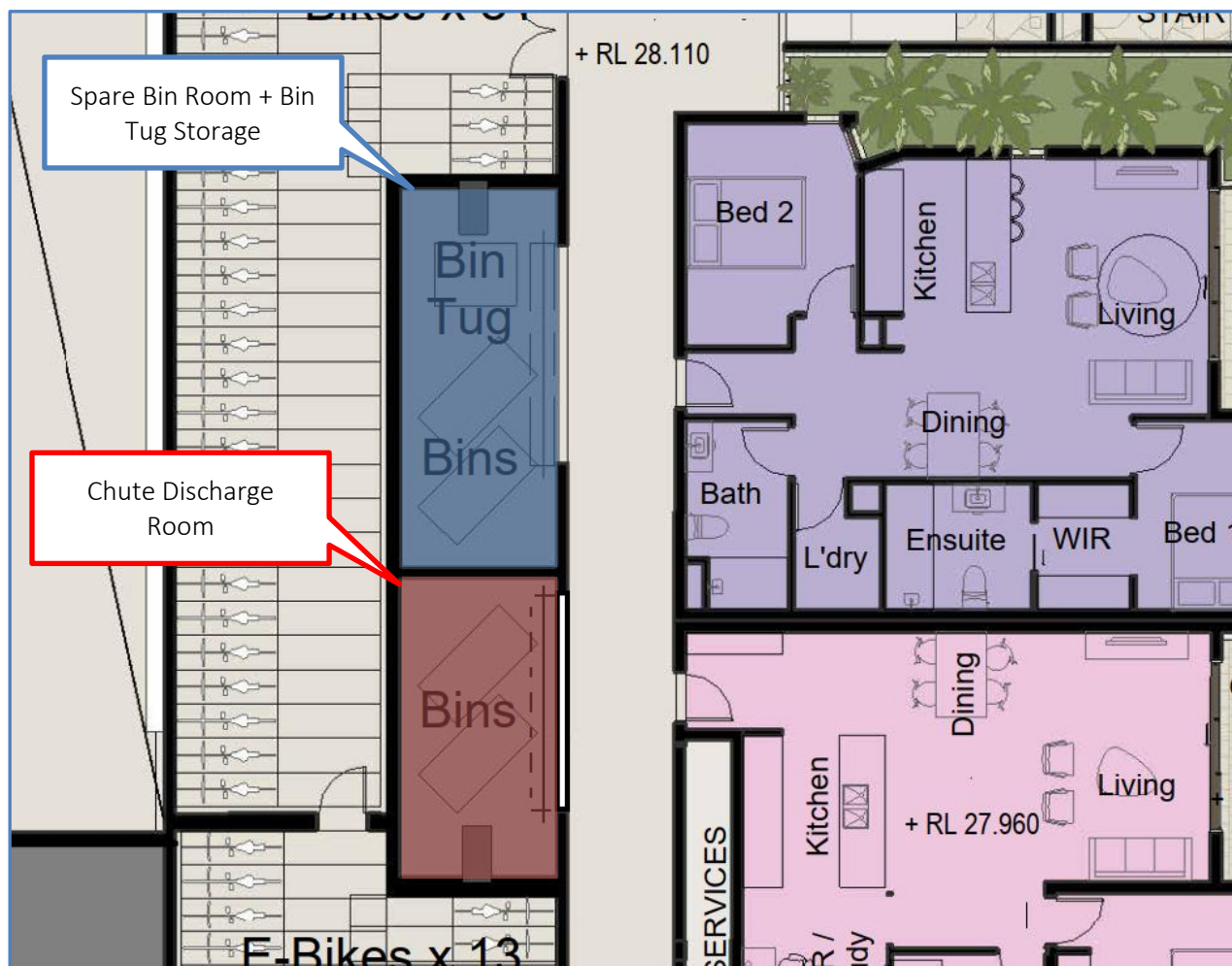


Figure 2.2: Chute Discharge Room & Spare Bin Room (Building 1) *

Source: TTMC Markup

*Note: Roller door for chute discharge room to be widened in Developed Design stages to facilitate improved manoeuvring and bin rotation (as depicted in the TTMC markup provided).

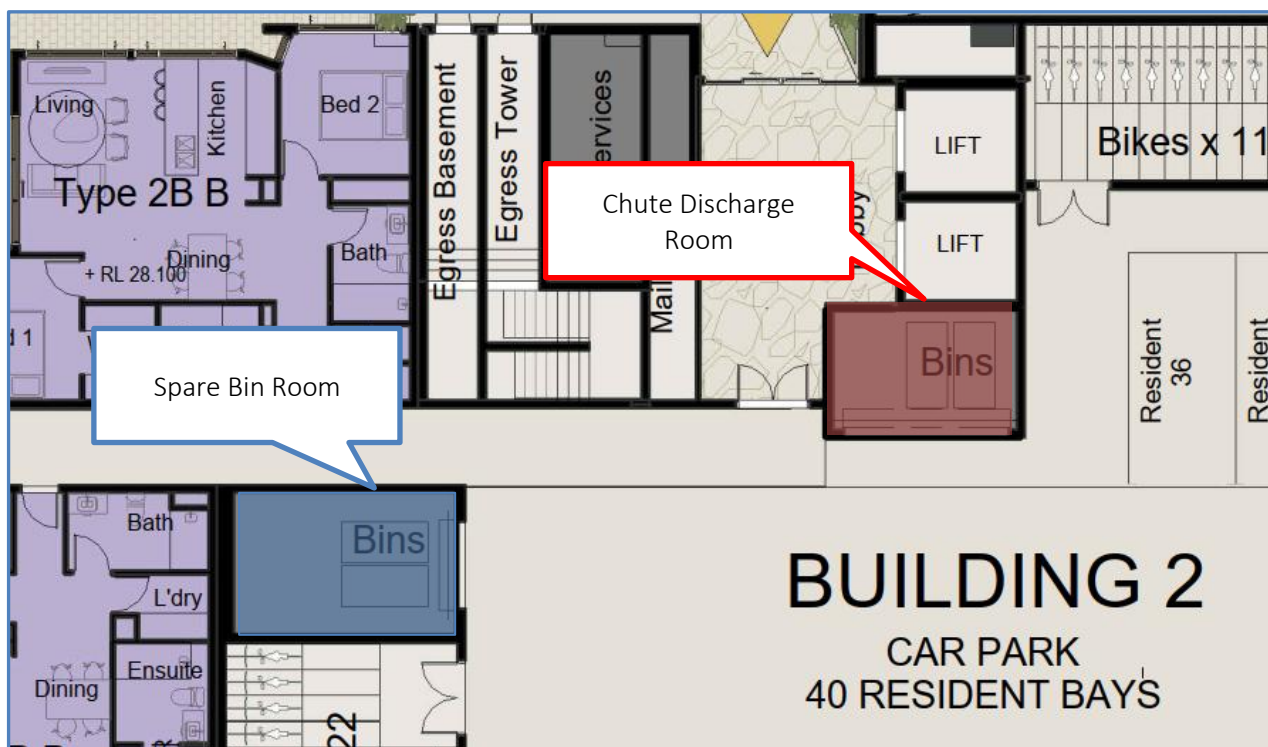


Figure 2.3: Chute Discharge Room & Spare Bin Room (Building 2)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 0, AR-DA-200, Revision D, Date: 10.04.2025.

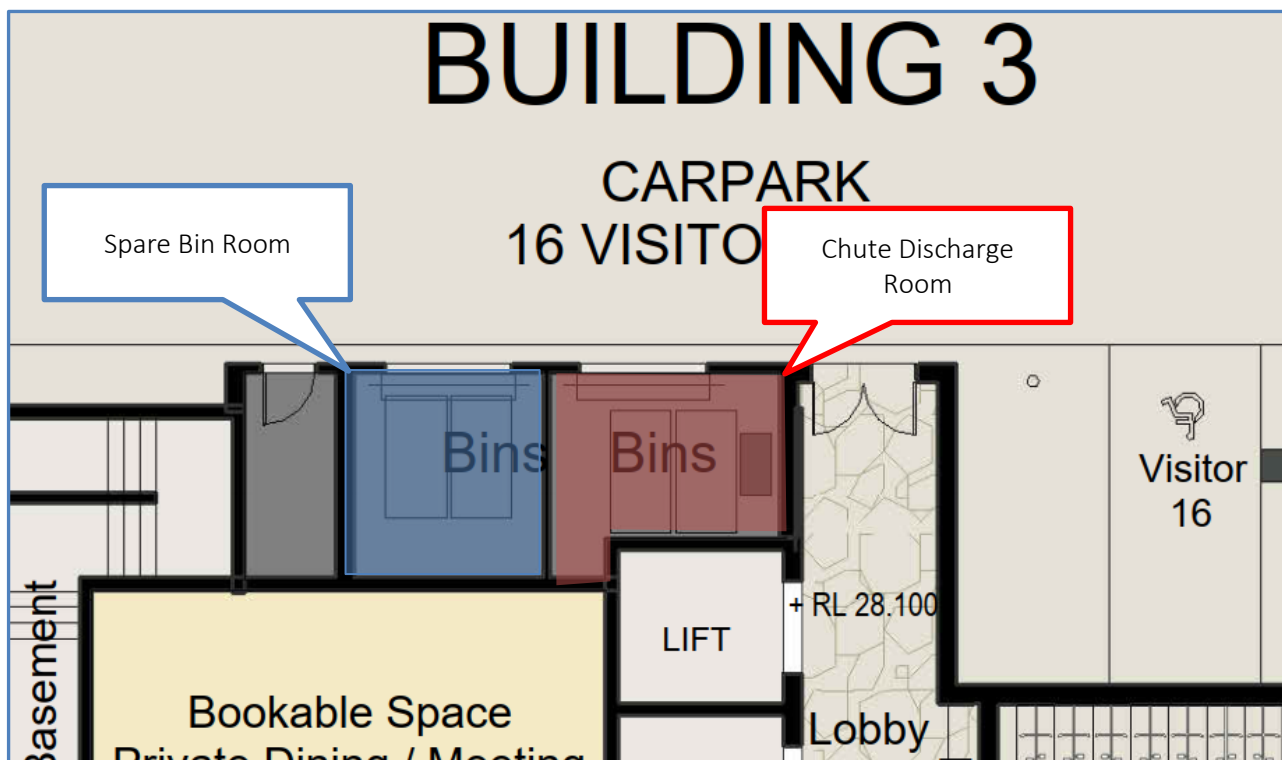


Figure 2.4: Chute Discharge Room & Spare Bin Room (Building 3)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 0, AR-DA-200, Revision D, Date: 10.04.2025.

Figure 2.5 depicts the combined waste holding room for the development.

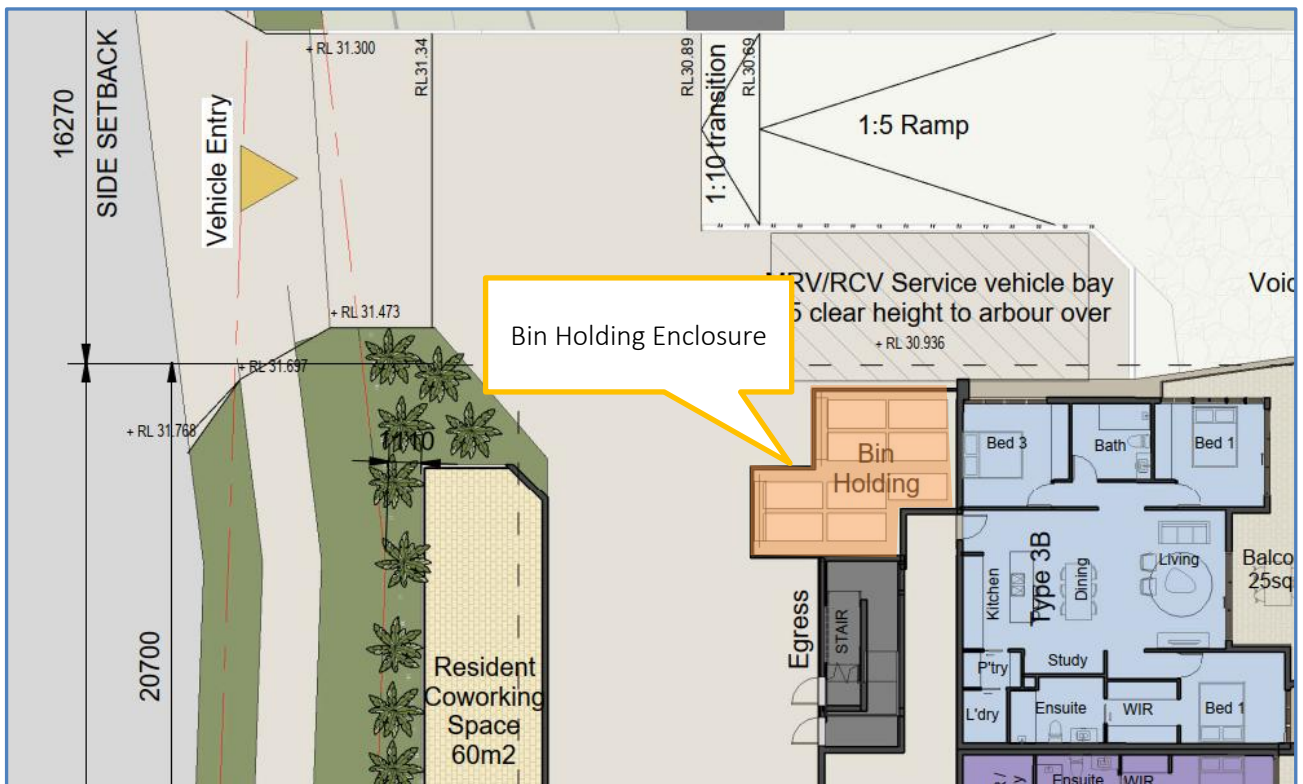


Figure 2.5: Waste Holding Enclosure (Servicing Point)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 0, AR-DA-200, Revision D, Date: 10.04.2025.

It is noted that the later staging of the development will require a road and driveway regrade that will impact RCV accessibility. The holding enclosure specified in Figure 2.5 will serve as the final presentation point for bins, post-driveway regrade.

During the early stages of the development, an interim bin enclosure will be provided for building management and contractors to access.

Figure 2.6 depicts the interim bin holding area.

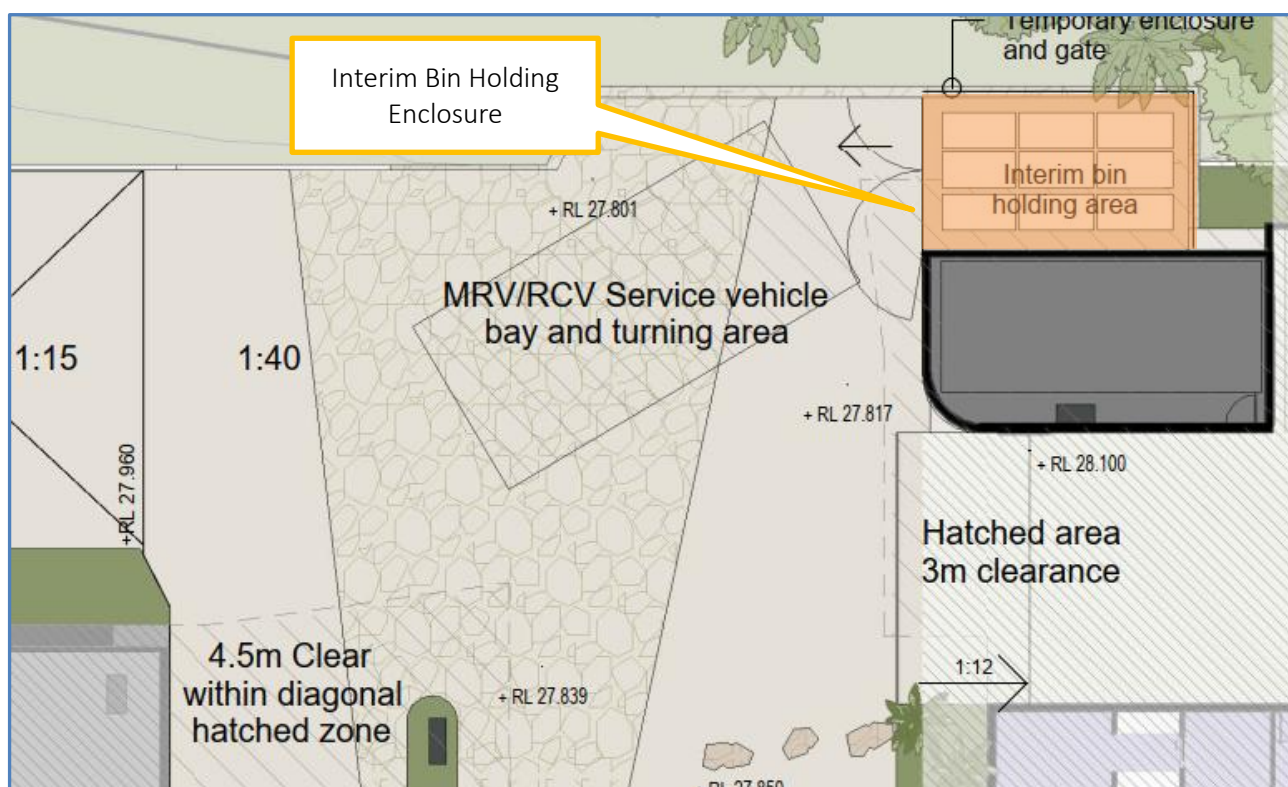


Figure 2.6: Interim Waste Holding Enclosure (Servicing Point)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Level 0 & Level 1 GAW Interim Road Level Plan, AR-DA-110, Revision C, Date: 27.05.2025.

Table 2.9 outlines the refuse storage area design criteria addressed in order to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area.

Table 2.9 Refuse Storage Area Design Requirements

Positioning Considerations
Positioned in immediate proximity of the designated loading point
Is in a purpose-built storage room which is vermin proofed and used solely for the storage of refuse leaving the site only.
Not located adjacent to or within any habitable portion of a building or place used in connection with food preparation (including food storage).
Is positioned away from entrances to shops or residential premises
Is over 5m from any door, window or fresh air intake within the development or any adjoining site.
Visual Amenity Considerations
Is enclosed on all sides except for the access points to ensure bins are not visible from a public place, neighbouring properties, passing vehicles or pedestrian traffic external to the site.
Is designed to minimise their visual impact on the surrounding areas.
Functional Design Considerations
Is of sufficient size to accommodate the bins with sufficient clearance around the combined bin area
Doors / shutters wide enough to allow for the easy removal of the largest container to be stored.
Permits unobstructed access for removal of the containers to the service point.
The height of the bin storage area allows for waste bins to be opened and closed.
Does not have any steps or lips where bins are required to be moved.
Adequate artificial lighting.
Bin Washing and Room Cleaning Considerations
A hose cock provided inside the room for cleaning bins and the enclosures.
The walls, ceilings, floors and equipment are to be designed and constructed of impervious material with a smooth finish to allow for easy cleaning.
The floors to be graded to fall to a drainage point.
Drainage points connected to sewer in accordance with trade waste requirements.
Roofed and designed to prevent entry by rainwater.
The walls and floors to be sealed with waterproof sealant to a minimum height of 1m.

2.4.2. Refuse Storage (Townhouses)

All refuse will be stored within stream separated 240L MGB's located externally at grade of each townhouse site for everyday use. The residents of each townhouse will be required to store all bins within the dwelling boundary and behind a side access gate to ensure bins are screened from public view.

Bins will be stored in the front yard behind a partition for townhouses where side access is not retained. Bins will be stored to ensure they are not viewable from the public realm, to retain the visual amenity of the development.

Figure 2.7 depicts the refuse storage area for each townhouse.

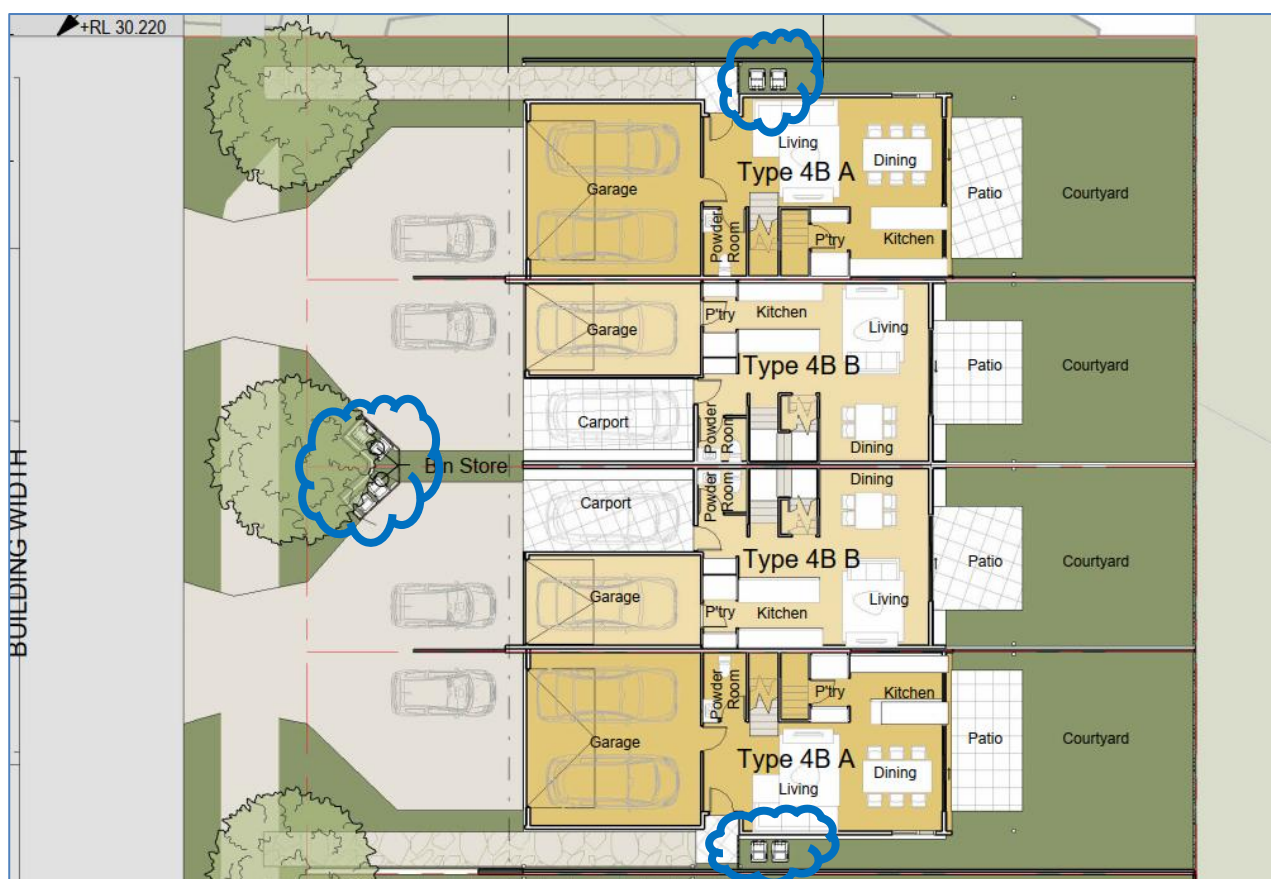


Figure 2.7: Refuse Storage Areas (Townhouses)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 0, AR-DA-200, Revision D, Date: 10.04.2025.

2.5. Refuse Transfer

2.5.1. Refuse Transfer (Buildings 1 – 3)

Residents will dispose of refuse using the dual chute hoppers accessible from each level of the development. Access to each waste room will be maintained to allow for residents to dispose of bulk waste unfit for the chutes.

Staff and building management will be responsible for manoeuvring bulk bins at capacity to the refuse holding room prior to servicing. They will utilise the traffic aisles where possible to minimise impact on amenity for the residents. To prevent any conflicts with traffic and ensure the safety of operators undertaking transferal duties, building staff will be required to transport all bins during low traffic periods.

An electric bin tug must be used to assist building management for all bulk bin transfers from each refuse room to the bin holding room at level 1.

The refuse holding room is adequately sized to accommodate the required bins outlined in Table 2.6.

Figures 2.8 and 2.9 depict the transfer pathway from each refuse room to the refuse holding room for servicing.

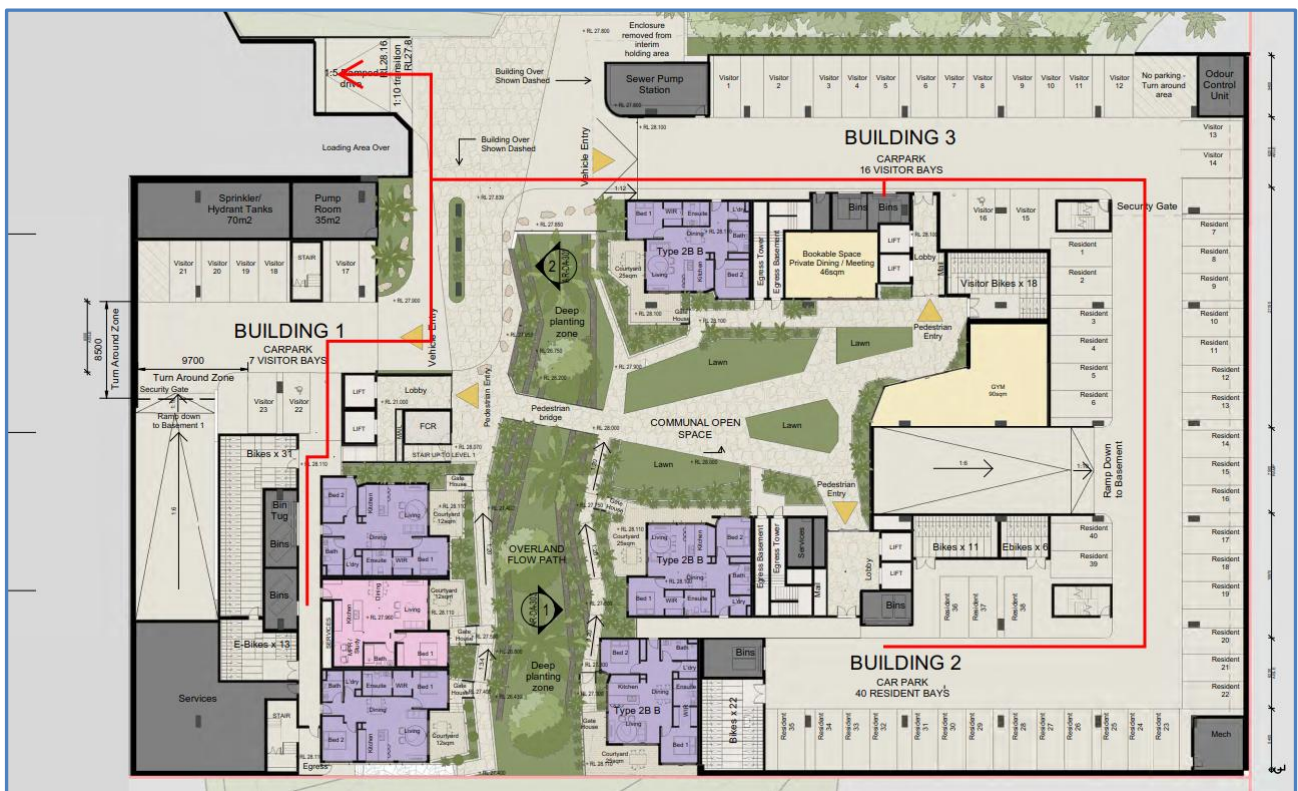


Figure 2.8: Refuse Transfer (Buildings 1 – 3)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 0, AR-DA-200, Revision A, Date: 10.04.2025.



Figure 2.9: Refuse Transfer (Buildings 1 – 3)

Source: Archipelago Architects, 54 George Alexander Way, Coomera, Overall Floor Plan – Level 1, AR-DA-201, Revision D, Date: 06.08.2024.

The refuse transfer path has been designed to allow for:

The bins to be transferred via hard stand pathway.
Allows bins to be easily manoeuvred.
Does not impede traffic flow.
Does not extend through any habitable parts of a building or food premise
Does not have any lips, stairs or steps for bins to be manoeuvred easily.

2.5.2. Refuse Transfer (Townhouses)

The collecting contractor will collect all correctly presented bins directly from the designated collection point on the kerbside for each townhouse. No transfer is required by the collecting contractor to service bins under the proposed kerbside arrangement.

Residents will be required to transfer bins a short distance from the storage point on each property to the kerbside frontage on servicing days.

Adequate kerbside frontage is provided for the presentation of all townhouses lots. Each bin will have a minimum of 1m worth of kerbside frontage, as depicted in Figure 2.10.



Figure 2.10: Townhouse Kerbside Presentation

Source: TTMC Markup

The refuse transfer pathways for all sites utilising kerbside collection have been designed to allow for:

The bins to be transferred via hard stand pathway.
Allows bins to be easily manoeuvred.
Does not impede traffic flow.
Does not extend through any habitable parts of a building or food premise
Does not have any lips, stairs or steps for bins to be manoeuvred easily.

2.6. RCV and Bin Servicing Arrangements

2.6.1. Servicing (Buildings 1 – 3)

Refuse generated by the multi-unit dwellings will be collected by a front loader RCV. The site has been designed to be serviceable by Council's appointed collections contractor.

The RCV will enter development via George Alexander Way in a forward gear, driving into the specified loading bay adjacent to Building 1. The contractor will then exit the vehicle and access the waste holding room. The contractor will be required to manoeuvre bulk bins a short distance to the front loader mechanism and return bins back to the waste holding room.

Once servicing has taken place, the contractor will re-enter the vehicle and perform a reverse manoeuvre out of the loading bay. The RCV will then turn in a forward gear and exit the driveway back onto George Alexander Way.

Further details on RCV access and on-site manoeuvring can be found in the traffic report.

Figure 2.11 depicts the swept paths for a front loader RCV.

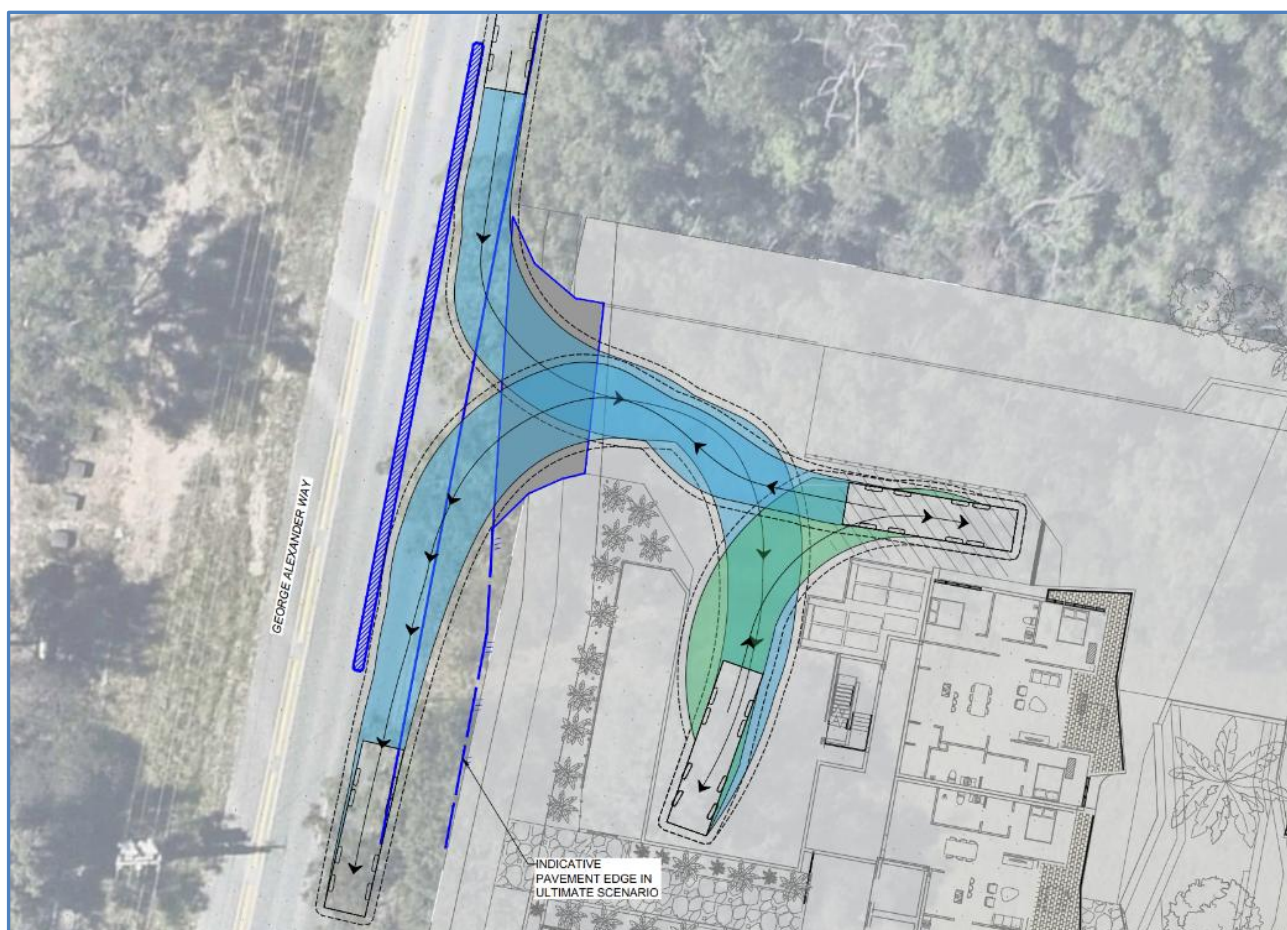


Figure 2.11: Front Loader RCV Swept Path

Source: TTMC Traffic Report

Bins stored within the interim bin holding enclosure will be serviced in a similar fashion during the interim design.

A front loading RCV will enter the development via the driveway adjoining George Alexander Way and will come to a standing position adjacent to the interim enclosure.

The contractor will exit the vehicle and service all bins via the front-loading mechanism. The area is designed to ensure bins can be manoeuvred to the loading mechanism within 5m of the enclosure.

Figure 2.12 depicts the swept paths of an RCV entering and exiting the development in the interim design.

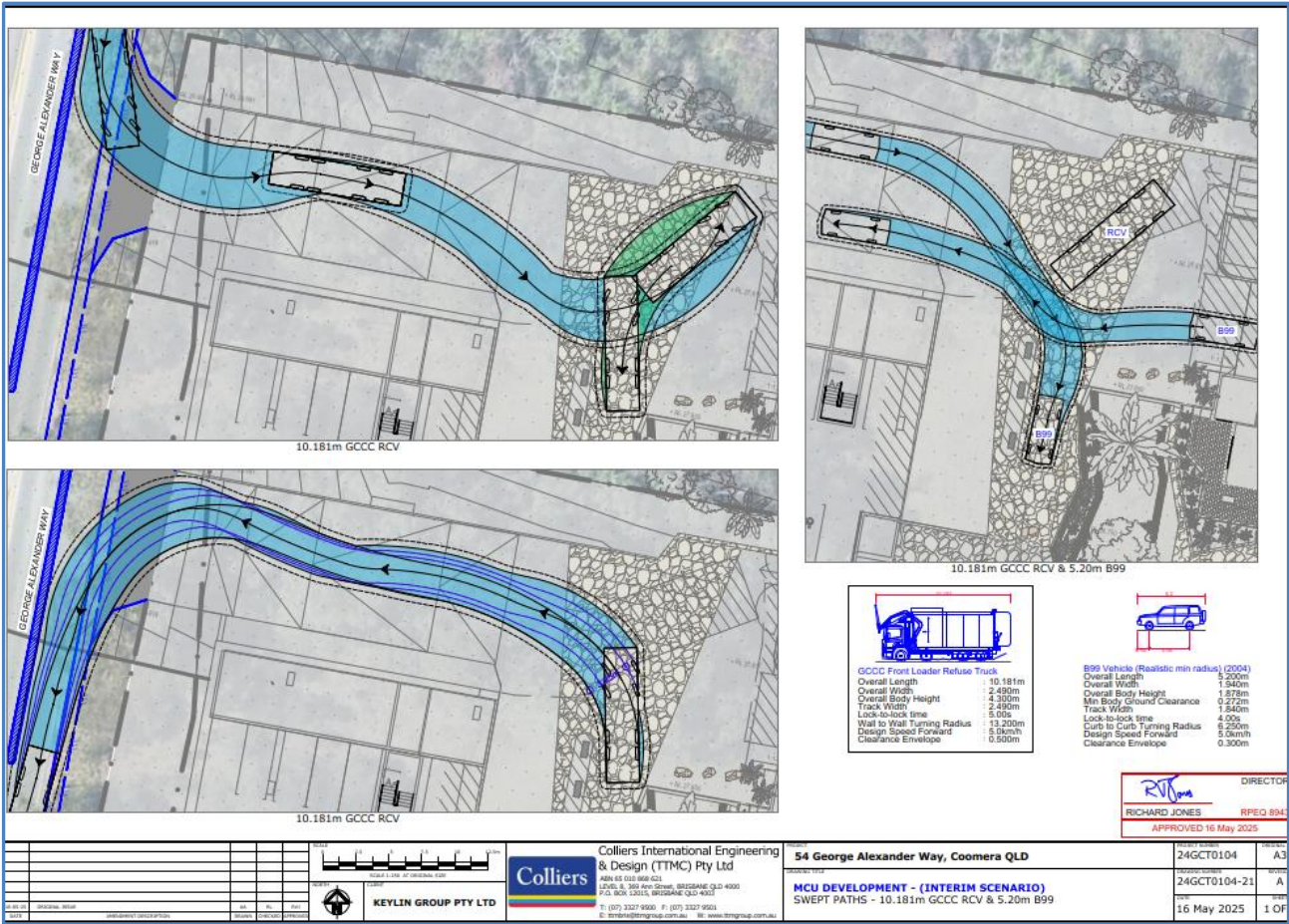


Figure 2.12: Front Loader RCV Swept Path (Interim)
Source: TTMC Traffic Report

2.6.2. Servicing (Townhouses)

Townhouses will be serviced by a council compliant side loader RCV. Each 240L MGB will be serviced kerbside by the side loader mechanism. The contractor will not be required to exit the vehicle during the servicing process.

A turning head will be implemented into the design of the street prior to the construction of all future roads. The turning head will allow for the RCV to perform a turn-around manoeuvre, allowing for complete circulation of the townhouse by an RCV.

Figure 2.13 depicts the swept paths for a council compliant side loader RCV servicing the townhouse portion of the development.



Figure 2.13: Side Loader RCV Swept Path
Source: TTMC Traffic Report

The bin servicing area has been designed with the following features:

Has sufficient access and clearance for the waste and recycling collection vehicles to service the bins, including no overhead obstructions.
Allows bins to be serviced safely while minimising the impediment to vehicle movements during servicing.
Is clearly separated from car parking bays, footpaths and pedestrian access.
Is devoid of stairs, lips or ramps and allows bins to be manoeuvred easily.
Does not block the entry and exit to the property.
Is not adjacent to a kitchen or eating area for public use.
Is over 5m from any door, window or fresh air intake within the development or any adjoining site.
Is screened sufficiently to minimise the view of bins from neighbouring properties or passing vehicles and pedestrian traffic external to the site.
Is positioned away from entrances to shops or residential premises.

3 Recommended Operational Requirements

3.1 Refuse Disposal

The tables in this section summarise general recommended disposal arrangements for frequently generated and infrequently generated refuse for each use within the development. Section 3.1.1 describes the frequently generated refuse streams that are generated in high volumes for any given period and require capacity for storage prior to collections. Section 3.1.2 describes the infrequently generated refuse streams that are generated in relatively low volumes, and where minimal provision for storage can be easily managed by collection frequency.

3.1.1 Frequently Generated Refuse

Occupants will provision bins of a sufficient quantity for each residential dwelling to store at least one days' worth of generated refuse within the dwelling. Each day or as required, all refuse will be transferred by residents to the MGB's provided for that dwelling. Further details are provided in Table 3.1.

Table 3-1: Disposal of Frequently Generated Waste

Refuse Stream	Disposal Details
WASTE	
General Waste	Residential Waste Waste bins should always be lined with bags and the bags tied before removal. Operationally, general waste should weigh approximately 3 kg or less to reduce manual handling load when transferring refuse for disposal. Residents will have receptacles within their individual dwelling for collection and storage of at least one day of general waste. Bins are typically placed under the kitchen sink and accompanied by a commingled recycling bin in order to facilitate separation of general waste and recycling.
Organic (Food) Waste	CoGC offers an opt-in food organics and garden organics collections service at an additional waste charge. Additionally, domestic style equipment such as organic household composter or worm farms are available for use where practical and space allows. Any composting activities should be organized and managed by the Community Manager or caretaker.

RECYCLING	
Comingled, including. • glass • aluminium • steel cans • tins • cardboard • semi rigid plastics	Items for recycling must not be bagged and disposed in loose form. This can be done by decanting the materials from the individual receptacles into the MGB. Residents will be responsible for organising disposal of bulky recyclables too large for MGB disposal. Residents will have receptacles within their individual dwelling for collection and storage of at least one day of recycling. Recycling bins are typically placed under the kitchen sink next to the general waste bin. Recycling bins will usually be used for all recycling materials (commingled recycling). However, residents are encouraged to make use of the container refund scheme and separate eligible containers from the commingled recycling material. Container deposit / refund schemes are currently in place in Queensland. Various models exist including bottle return facilities and (automated) reverse vending machines. Occupants should be encouraged to separate containers that qualify for the schemes from the waste or recycling streams and send back to a return point.

3.1.2 Infrequent Waste

Table 3-2: Disposal of Infrequently Generated Waste

Refuse Stream	Disposal Details
Hard Waste / Bulky Goods	Hard waste collections will be coordinated by the building manager, and hard waste / bulky goods moved to a designated area for removal prior to collection. When storing bulky goods in a loading area, it is recommended that items are placed on a pallet for efficient loading via a pallet jack or forklift onto the RCV. Alternatively, skip bins may be placed around the development site on a routine basis to enable the disposal of bulky goods.
Green Waste	Green waste will be produced from surrounding landscaped areas or potted plants on an ad-hoc and largely weather dependent basis. Green waste will be removed by residents or the building manager or designated landscape maintenance contractor when generated, interim storage has not been provided. The engaged contractor will be required to send this material to a composting or resource recovery facility rather than to a landfill.
Hazardous Waste (paints, batteries and cartridges) Electronic Waste	Where applicable, occupants usually make their own arrangements for the disposal of specialised or hazardous waste and electronic waste such as recycling of toner cartridges and batteries. Please refer to Council and QLD government websites for disposal options. It is an expectation that the Building Manager assist with disposal of hazardous, electronic or liquid waste and any paint or chemicals as required and requested. Hazardous waste must be handled with due care, separated and securely stored for collection by a specialist waste contractor. Please refer to local and QLD government websites for further information.

3.2 On-going Management

The tables below are provided for the demonstration of required tasks during the operational phase of the development and therefore intentionally left blank.

Responsibilities have to be assigned for all on-going refuse management operations. This is generally done by a Community Manager or caretaker. The following lists (Table 3-3 to Table 3-9) are designed to help managing responsibilities and monitor the refuse operations in order to maintain efficient services and a safe environment.

Table 3-3: General Refuse Management Checklist

Objectives	Checked	Remarks
Consider temporary additional bulk bins or collections to cater for additional waste generated during initial tenant move in.		May also be required for high resident turnover events.
Organising of weekly pick-ups for all refuse streams.		Liaise with Council and private contractors as required.
Monitor bin transfers between refuse storage / collection areas if required.		
Monitor bin presentation of residents to ensure compliance with council requirements.		

3.2.1 Safety

Transferring refuse bins and using refuse management equipment are considered hazardous tasks. Therefore, contractors must ensure that a full risk assessment of equipment, surfaces and related gradients is complete. The contractor must provide procedural documentation to appropriate personnel prior to delivery of equipment and occupancy of the development.

Table 3-4: Safety Checklist

Objectives	Checked	Remarks
Abiding by all relevant occupational health and safety legislation, regulations, and guidelines to ensure site safety for residents, visitors, staff and contractors.		
Assessment of any manual handling risks and preparation of a manual handling control plan for waste and bin transfers.		
Provision of equipment manuals, training, health and safety procedures, risk assessments and personal protective equipment to staff / contractors in order to control hazards associated with all waste management activities.		

3.2.2 Signage

All receptacles, bins and other refuse management equipment will have adequate signage. Standard signage will be provided in and around waste collection and storage areas and should be colour coded in accordance with AS 4123.7 – 2006 Mobile waste containers (see *Appendix C*).

Table 3-5: Signage Checklist

Objectives	Checked	Remarks
Ensuring compliance of signage with government local council regulations.		Use signage provided by collections contractor if available
Ensuring that labelling on bins, refuse room etc. is appropriate and clear and easy to read and updated if required.		

3.2.3 Cleaning and Maintenance

Regular cleaning and maintenance of all refuse management facilities is important to maintain a safe and hygienic environment for visitors, staff, and contractors.

Table 3-6: Cleaning and Maintenance Checklist

Objectives	Checked	Remarks
General cleaning of all waste holding and transfer areas including - Refuse bins and storage areas, - Refuse transfer areas including paths and driveways, - Any other refuse management equipment.		Frequency depends on refuse generation and building operation.
Maintenance and servicing of refuse management equipment as per schedule.		Frequency as per manufacturers recommendation and warranty requirements.

3.2.4 Refuse Minimisation

Refuse minimisation is an important part of any site operation, it is strongly recommended that the Community Manager is actively involved in encouraging and assisting residents to follow the refuse hierarchy. At a minimum, the following should be implemented. Guidance on additional refuse minimisation options can be provided during the operational phase of the development by external review.

Refuse minimisation requires regular reviewing to ensure operational sustainability of refuse volumes, equipment, and economic feasibility.

Table 3-7: Refuse Minimisation Checklist

Objectives	Checked	Remarks
Encourage regular review of grocery quantities to avoid over-ordering and food waste.		
Consideration of secondary and recycled materials where possible.		
Encouraging refuse minimisation through education and signage (see below).		
Reduce refuse through continuous monitoring and review (see below).		

3.2.5 Education and Communication

On-going education is important to ensure people continue to use the facilities as originally intended and to avoid ongoing contamination of recoverable refuse streams. Community Manager should be involved in the education of residents and encouraging participation in recycling activities. All leasing contracts should contain clauses pertaining to waste management arrangements and use of any associated equipment.

Table 3-8: Education and Communication Checklist

Objectives	Checked	Remarks
Communication of refuse management arrangements to residents, staff and contractors as required.		
Consideration of promotional opportunities for any successes e.g. local shopping partnerships / discounts.		

3.2.6 Monitoring and Review

Regular monitoring and inspections of waste and related equipment and facilities from the development should be conducted by Community Manager.

Table 3-9: Monitoring and Review Checklist

Objectives	Checked	Remarks
Continual monitoring of equipment uses and scheduling to ensure best operational outcomes.		
Regular review of refuse management equipment and facilities such as bin volumes, refuse storage capacities and stormwater management arrangements.		

Appendix A Site Plans and Swept Paths



2 Level 0 Interim Road Level Plan
AR-DA-300 1:250



1 Level 1 Interim Road Level Plan
AR-DA-302 1:250



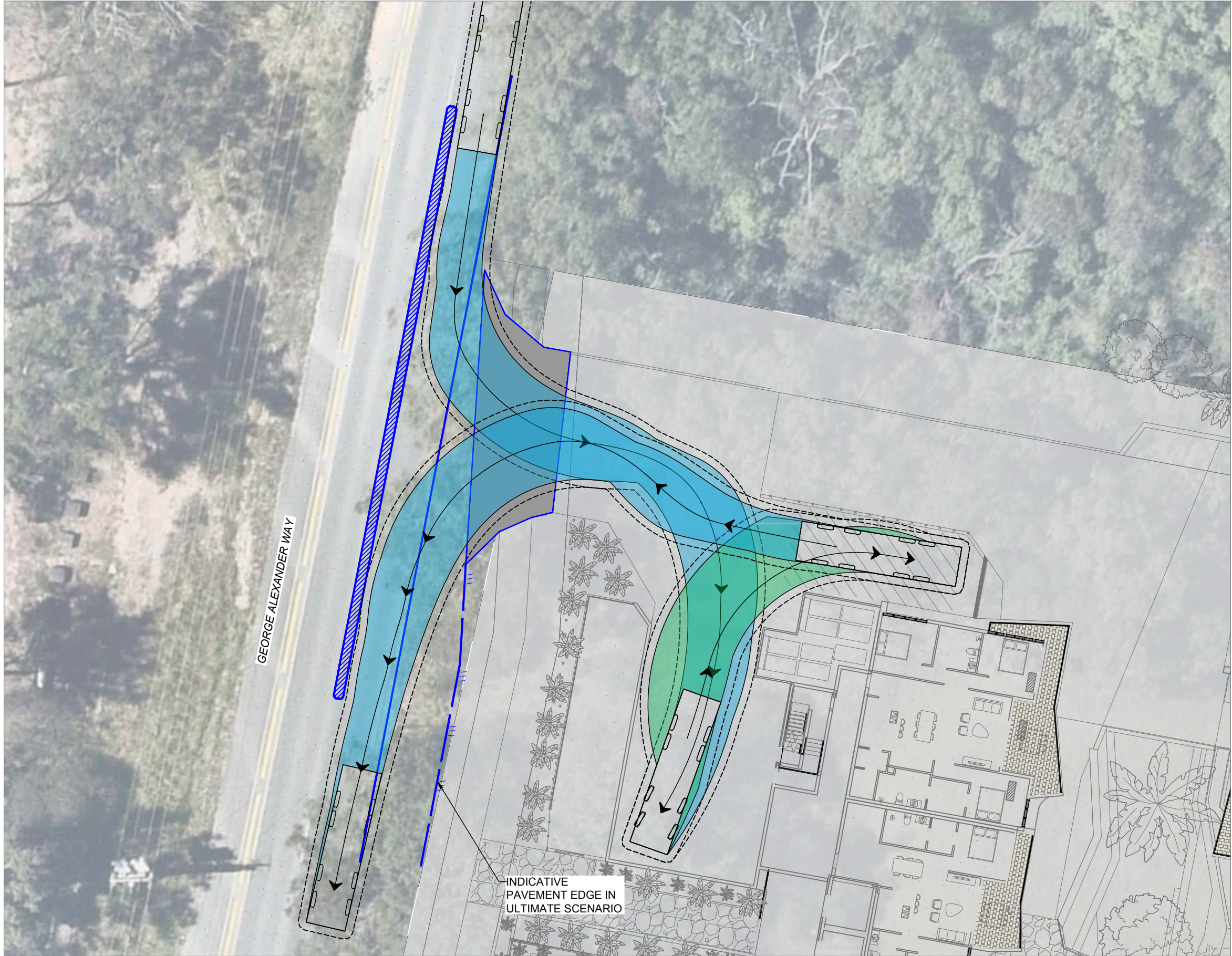






Level 2





GCCC Front Loader Refuse Truck

Overall Length	: 10.181m
Overall Width	: 2.490m
Overall Body Height	: 4.300m
Track Width	: 2.490m
Lock-to-lock time	: 5.00s
Wall to Wall Turning Radius	: 13.200m
Design Speed Forward	: 5.0km/h
Clearance Envelope	: 0.500m

DIRECTOR

RICHARD JONES **RPEQ 8943**

APPROVED 16 May 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	16-05-25	ORIGINAL ISSUE	AA	RL	RVJ

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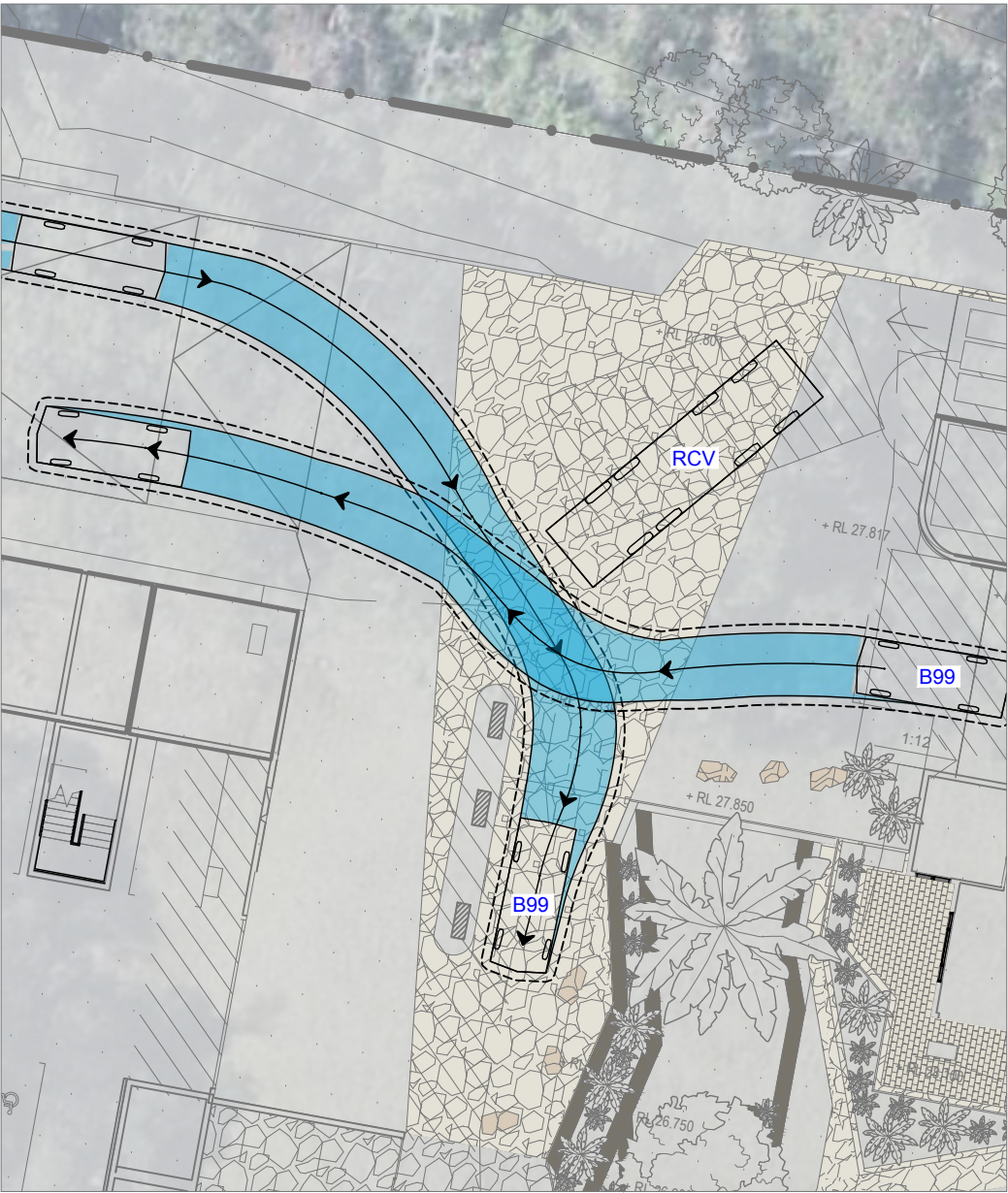
PROJECT
54 George Alexander Way, Coomera QLD

DRAWING TITLE
MCU DEVELOPMENT - SITE ACCESS (ULTIMATE SCENARIO)
CONCEPT & SWEEP PATHS - 10.181m GCCC RCV

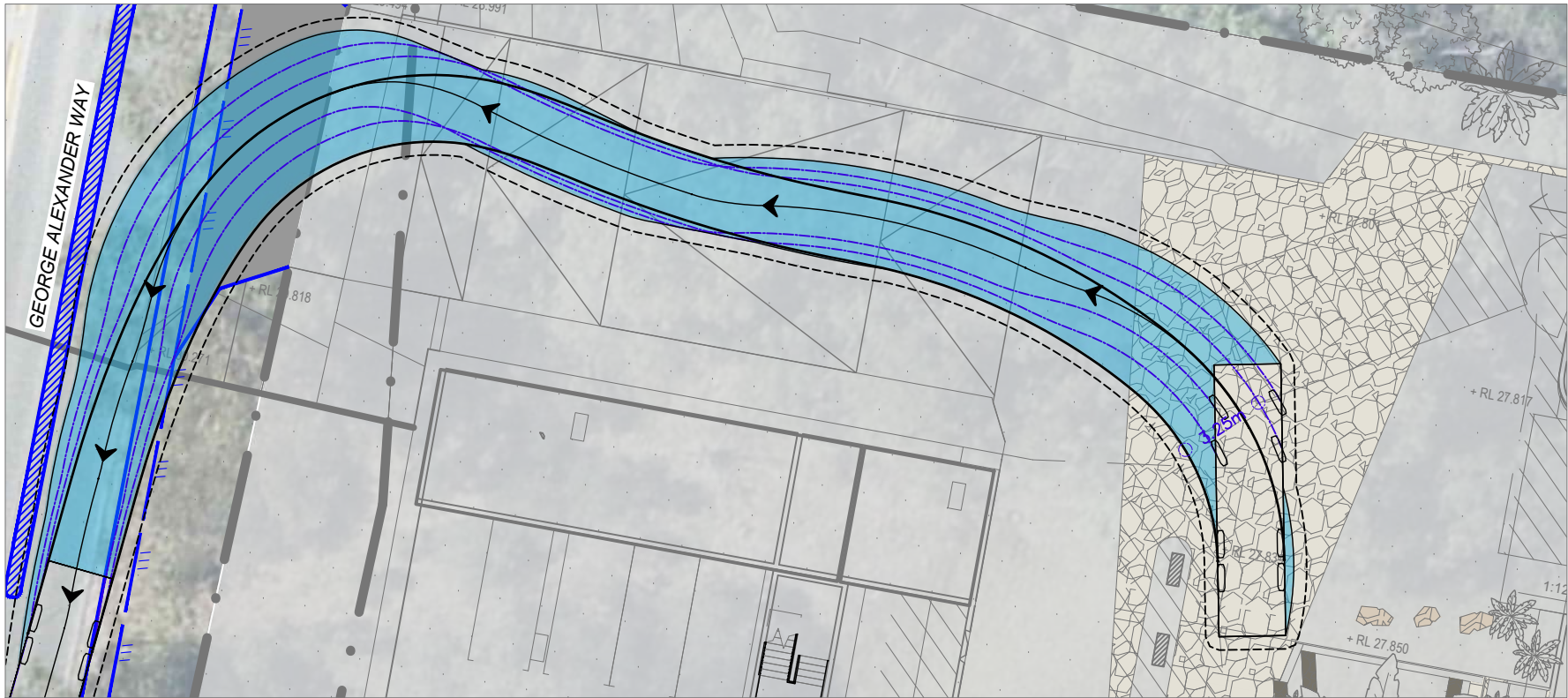
PROJECT NUMBER 24GCT0104	ORIGINAL SIZE A3
DRAWING NUMBER 24GCT0104-22	REVISION A
DATE 16 May 2025	SHEET 1 OF 1



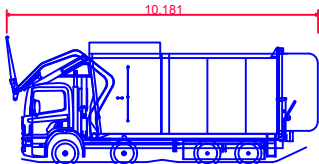
10.181m GCCC RCV



10.181m GCCC RCV & 5.20m B99

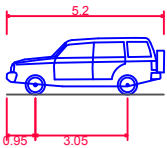


10.181m GCCC RCV



GCCC Front Loader Refuse Truck

Overall Length	: 10.181m
Overall Width	: 2.490m
Overall Body Height	: 4.300m
Track Width	: 2.490m
Lock-to-lock time	: 5.00s
Wall to Wall Turning Radius	: 13.200m
Design Speed Forward	: 5.0km/h
Clearance Envelope	: 0.500m



B99 Vehicle (Realistic min radius) (2004)

Overall Length	: 5.200m
Overall Width	: 1.940m
Overall Body Height	: 1.878m
Min Body Ground Clearance	: 0.272m
Track Width	: 1.840m
Lock-to-lock time	: 4.00s
Curb to Curb Turning Radius	: 6.250m
Design Speed Forward	: 5.0km/h
Clearance Envelope	: 0.300m



DIRECTOR

RICHARD JONES

RPEQ 8943

APPROVED 16 May 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	16-05-25	ORIGINAL ISSUE	AA	RL	RVJ

SCALE



SCALE 1:250 AT ORIGINAL SIZE

NORTH



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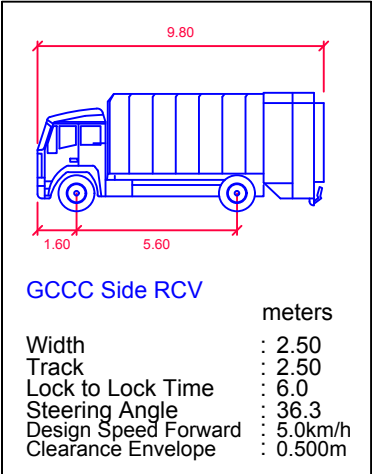
PROJECT

54 George Alexander Way, Coomera QLD

DRAWING TITLE

MCU DEVELOPMENT - (INTERIM SCENARIO)
SWEPT PATHS - 10.181m GCCC RCV & 5.20m B99

PROJECT NUMBER	24GCT0104	ORIGINAL SIZE	A3
DRAWING NUMBER	24GCT0104-21	REVISION	A
DATE	16 May 2025	SHEET	1 OF 1



RT Jones DIRECTOR
RICHARD JONES RPEQ 8943
APPROVED 16 May 2025

A	16-05-25	ORIGINAL ISSUE	AA	RL	RVJ
REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED

SCALE
0 2.5 5 7.5 10 12.5m
SCALE 1:250 AT ORIGINAL SIZE

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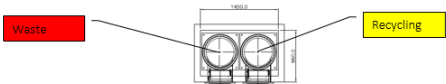
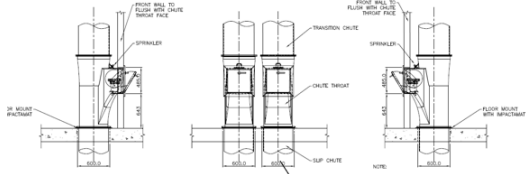
PROJECT 54 George Alexander Way, Coomera QLD	PROJECT NUMBER 24GCT0104	ORIGINAL SIZE A3
DRAWING TITLE MCU DEVELOPMENT - TEMPORARY TURNAROUND SWEPT PATHS - 9.80m GCCC RCV SIDE LOAD	DRAWING NUMBER 24GCT0104-27	REVISION A
	DATE 16 May 2025	SHEET 1 OF 1

Appendix B Systems and Specifications

B.1 Specified Refuse Management Equipment

The table below provides contextual examples of the specific equipment types specified in this OWMP and is not intended to provide an exhaustive list of all potential options of the required equipment.

Bin / Equipment Types	Waste Streams	Examples	Information
Residential unit bins	General waste and recycling		Various options and sizes. Built and standalone bin available. Examples: https://www.bunnings.com.au
Communal area bins	General waste, recycling, food waste, paper / cardboard		Various options and sizes available. Tenant to supply depending on preference and space available. Example: 60L multisort bins https://www.sourceseparationsystems.com.au/product/multisort
2000L bins	General waste, recycling, paper / cardboard		Dimensions approx. 2050 x 965 x 1553mm (L x W x H) (dimensions depend on contractor) Examples: http://www.justwheeliebins.com.au , https://www.australianwastemanagement.com.au
240L MGB's	General waste, paper, recycling, green waste		Dimensions approx. 740 x 580 x 1080mm (L x W x H) (dimensions may depend on contractor) Examples: http://www.justwheeliebins.com.au , http://wheeliebinonline.com.au
Bin tugs / trailers	-		Assisted transfer of refuse Examples: http://ev.spacepac.com.au/categories/tugger , https://www.spacepac.com.au/product/wheelie-bin-aluminum-steel-trailers

Bin / Equipment Types	Waste Streams	Examples	Information
			
Chute systems	General waste, recycling, food waste	   	Refuse disposal in multi-storey buildings through refuse chutes: single chute for waste only, or single chute with diverter system or dual chute for disposal of waste and recycling Examples: https://www.wastech.com.au/products/chutes https://www.elephantsfoot.com.au/products/chutes

Appendix C Refuse Signage

C.1 Refuse Signage

Waste signage guideline are provided by the Queensland government:

<https://www.qld.gov.au/environment/pollution/management/waste/recovery/recycling/signage>.

General Refuse Signage



Other Refuse Signage



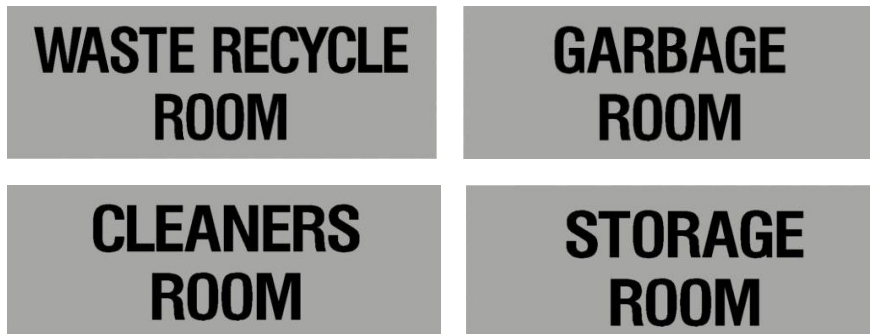
Colour coding as per AS 4123.7-2006

Mixed (Commingled) Recycling	PMS 108
General waste (landfill)	PMS 032C
Organics	PMS 15-0343
Paper and cardboard recycling	PMS Process Blue C
Soft Plastics	PMS 1655
Used Cooking Oil	Grey

C.2 Other Refuse, Facility and Safety Signage

Various signage including refuse area, safety and facility signage should be arranged through certified signage providers. Example signs can be found at <http://www.signblitz.com.au>, <https://www.wayout.com.au> or <https://www.smartsign.com>.

Example Refuse Room Signage



Example Facility Signage



Example Safety Signage



Appendix D Terms and Abbreviations

In this OWMP, a term or abbreviation has the following meaning unless indicated otherwise:

TERM	ABBREVIATION	DEFINITION
Equipment		
Bin (Refuse Bin)		A plastic or steel container for disposal and temporary storage of waste or recycling items. Various types and sizes exist for different items and purposes. Examples include residential unit bins, bulk bins, MGB, steely bins and specialised for medical waste or cigarette butts.
Bin Storage Area		An enclosed area designated for storing on-site refuse bins or a refuse compactor within the property.
Bulk Bin		A galvanized or steel bin receptacle that is greater than 360L in capacity generally ranging from 1.00m ³ to 4.50m ³ used for the storage of refuse that is used for on-site refuse collection.
Bulk Mobile Garbage Bin	Bulk MGB	A plastic (polypropylene) receptacle that is greater than 360L in capacity generally ranging from 660L to 1100L used for the storage of refuse.
Collection Point		An identified position where refuse bins are stored for collection and emptying. The collection point can also be the bin storage area.
Compactor		A receptacle that provides for the mechanical compaction and temporary storage of refuse. It allows to reduce bin numbers and collection frequency.
Composter		A container or machine used for composting specific food scraps and/or organic materials.
Food Waste Recycling System		Defined as a vacuum or pump-based system for shredding, macerating or pulping of food waste. The food waste is transferred through pressure (service) pipes to sealed liquid storage tanks.
Green Waste		All vegetated organic material such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers.
Liquid Waste		Non-hazardous liquid waste generated by commercial premises should be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste).
Mobile Garbage Bin	MGB	A plastic (polypropylene) bin or bins used for the temporary storage of refuse that is up to 360L in capacity and may be used in kerbside refuse collection or on-site collection.
Putrescible Waste		Putrescible waste is the component of the waste stream liable to become putrid and usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal and organic products.
Recycling		Recycling contains all material suitable for re-manufacture or re-use, e.g. glass bottles and jars; plastics such as PET, HDPE and PVC; aluminium aerosol and steel cans and lids; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines.
Refuse		Refuse is material generated and discarded from residential and commercial buildings including general waste, recyclables, green waste and bulky items.
Refuse Storage Room		An area identified for storing on-site MGBs or Bulk Bins within the property.
Refuse Trolley		A cart on wheels that can be used to collect smaller quantities of refuse from different areas or rooms of a building or site, and wheel the collected refuse to a (bulk) bin storage area where it is disposed. Refuse trolleys are commonly used in hotels or offices.
Regulated Waste		Regulated waste is waste prescribed under legislation as regulated waste.

TERM	ABBREVIATION	DEFINITION
Transfer (Manual Transfer)		Manual transfer means physical transfer of refuse material and associated bulk bins or trolleys without assistance.
Waste		Waste is referred to as refuse material with the exclusion of recycling, green waste, hazardous waste, special waste, liquid waste and restricted solid waste.
Waste (General Waste)		General waste is generally referred to as material free of any actual or apparent contamination such as pathological / infectious, radioactive materials and / or hazardous chemical. Reporting use is for material considered to be free of food waste.
Wheelie Bin		A MGB of up to 360L, usually with 2 wheels for easy transfer. A common type is a 240L wheelie bin used for kerbside collection in many residential areas.
Measures		
Cubic Metre	m ³	Volume in cubic metre(s) related to refuse management equipment.
Ground Floor Area	GFA	The GFA of all storeys of a building is measured from the outside of the external walls or the centre of a common wall. It is commonly measured in square metres.
Kilogram	kg	Kilogram(s) related to refuse weight.
Litre	L	Litre(s) related to refuse volumes.
Square Metre	m ²	Square metre(s) related to refuse areas.
Ton	T	Ton(s) related to refuse weight.
Collection Vehicles		
Body Truck		A conventional heavy vehicle with a covered loading area. It is generally not specifically designed for emptying the content of bins into the truck during refuse collections, but can be used to carry entire (full) bins for servicing by bin swap-over.
Refuse Collection Vehicle	RCV	A vehicle specifically designed for collecting and emptying refuse bins and refuse compactors.
Rear-End-Loading Refuse Collection Vehicle	REL RCV	A truck specially designed to collect municipal solid waste and recycling, typically 240L wheelie bins to 1100L bulk bins, from rear loading mechanism and haul the collected waste to a solid waste treatment facility.
Tank Truck		An RCV that is specifically designed to collect liquid wastes such as waste cooking oil and food waste pulp. The waste is typically pumped from a waste storage tank into the truck via a hose. Liquid waste management equipment is often provided by the contractor who collects the waste and operates the truck.