

SEPTEMBER 2024

KURRABA: 100 BOTANY ROAD, ALEXANDRIA

WASTE MANAGEMENT PLAN

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KURRABA: 100 Botany ROAD, ALEXANDRIA

Waste Management Plan

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Management Plan-RevE



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EXECUTIVE SUMMARY

This Waste Management Plan (WMP) has been prepared on behalf of the Kurraba Group (the Proponent) by WSP.

The site is located at 100 Botany Road and 86-100 Wyndham Street, Alexandria (commonly referred to as 100 Botany Road). The site is made up of six (6) different allotments has a total approximate area of 5,350.6m². The following lots make up the site:

- Lot 2 DP 136012
- Lot 11 DP 219505
- Lot 11 DP 135914
- Lot 2 DP 659166
- Lot 1 DP 510091
- Lot 3 DP 1146614

All waste will be collected via a private contractor as outlined in Table 1.

Table 1 Waste Collection Summary

Waste Stream	Waste Equipment	Collection Frequency	Collection Operator
Garbage	1 x 15m ³ Compactor	1 x per week	Private Operator
Commingled Recycling	1 x 15m ³ Compactor	1 x per week	Private Operator
Organics	8 x 240L Bins	3 x per week	Private Operator
Clinical Waste	45 x 240L Bins	As required	Private Operator
Pallets/Crates	Line Marked Area	As required	Private Operator
Bulky Waste	8 m ² Storage Area	As required	Private Operator

All waste collections will occur on-site directly from the loading dock located on Basement 01 via a private collection contractor, with collection vehicles accessing the loading bays via Botany Road (refer swept path analysis showing sufficient access in Appendix B).

Depending on the item of equipment being collected, waste will generally be collected as follows:

- **Hooklift Vehicles (Compactors):** Hooklift vehicle to reverse directly adjacent to the compactor to perform lifting manoeuvre.
- **Rear Lift Vehicles (Organics Bins):** Vehicles to prop within loading zone, with the waste collection operator will collect (and subsequently return) bins directly from the loading dock.
- **Flat-Bed Vehicles (Clinical Waste Bins, Pallets, Bulky Waste):** Vehicles to prop within loading zone, with the waste collection operator will collect equipment directly from the waste storage areas.
 - Clinical waste bins will be collected from the raised dock via a vehicle tailgate. This is standard practice amongst clinical waste collection contractors.
 - Pallets and bulky waste will be collected from the loading level, with volumes lifted into the vehicle body via a tail lift vehicle fitting. This is standard practice amongst bulky waste / pallets collection contractors.

Building management will ensure sufficient access is provided for operators during collection times. Typically, operators are provided with keypad/swipe card access to the service doors.

Bins will not be stored outside of the title boundary or presented to kerb for collection at any time.

1 INTRODUCTION

This Waste Management Plan (WMP) has been prepared on behalf of the Kurraba Group (the Proponent) by WSP. It is submitted to the Department of Planning, Housing and Infrastructure (DPHI) in support of a State Significant Development Application (SSDA) SSD-63067458 for the construction of a new health research facility located at 74-108 Botany Road and 86-100 Wyndham Street, Alexandria (herein referred to as 100 Botany Road or the site).

This Waste Management Plan (WMP) and the waste generation rates therein has been prepared based on *City of Sydney, Guidelines for Waste Management in New Developments* (2018) and best practice waste management methodology and technologies commonly available in Australia.

The purpose of this Waste Management Plan is to document waste strategy (i.e. waste separation, handling, storage, collection, etc.) prior to building occupation, as to ensure waste is properly considered throughout design.

1.1 ABOUT KURRABA GROUP

Kurraba Group (Kurraba) is the Proponent of the SSDA for the proposed new health research facility. Kurraba's sole aim is to be Australia's leading and trusted life science focussed developer. Kurraba's investment portfolio focuses on innovation, future focused real estate, as demanded by the health science sector.

1.2 SITE DESCRIPTION

The site is located at 74-108 Botany Road and 86-100 Wyndham Street, Alexandria (commonly referred to as 100 Botany Road). The site is made up of six (6) different allotments and has a total approximate area of 5,350.6m². The following lots make up the site:

- Lot 2 DP 136012
- Lot 11 DP 219505
- Lot 11 DP 135914
- Lot 2 DP 659166
- Lot 1 DP 510091
- Lot 3 DP 1146614

The site has a frontage to Botany Road to the east and Wyndham Street to the west. Part of Wyndham Lane runs through the middle of the site.

The site forms part of the recently rezoned Botany Road Precinct, which will be transformed into a vibrant mixed-use precinct that will accommodate employment growth in the Redfern-Waterloo area. The site is opposite the Waterloo Metro Station and its future over station development which is currently under construction.

Figure 1 Aerial Photograph of Site



 Site Boundaries



Source: Nearmap, Ethos Urban

1.3 PROPOSED DEVELOPMENT

The proposed development will seek consent for the redevelopment of 100 Botany Road for a new health research facility. Specifically, the SSDA seek approval for:

- Demolition of all existing buildings, site preparation and remediation works.
- Bulk excavation to create two (2) levels of basement with access from Wyndham Street, including allowance for a below ground Proton Therapy Cancer Treatment Centre, car parking, loading and services.
- Construction and use of two (2) new health research buildings. One (1) building is proposed along Botany Road which has a stepped built form between seven (7) storeys to the south and eleven (11) storeys to the north. One (1) building is proposed along Wyndham Street which is five (5) storeys. The two (2) buildings will include the following:
 - Ground floor lobby and retail uses fronting Botany Road and Wyndham Street.
 - Proton Therapy patient lobby from Wyndham Street.
 - Various laboratories, write up areas and office spaces.
 - A series of outdoor landscaped terraces within the Botany Road building.
 - One (1) rooftop plant level on each building.
- Landscaping and public domain works including:
 - Construction and extension of Wyndham Lane as a shared laneway.
 - Construction of a pedestrian network including two (2) pathways from Botany Road and an east-west through-site link.
- Extension and augmentation of services and utilities to the development, as required.

Refer to the Environmental Impact Statement for a detailed description of the proposed development.

1.4 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

In accordance with section 4.39 of the *Environmental Planning & Assessment Act 1979* (EP&A Act), Secretary's Environmental Assessment Requirements (SEARs) for SSD-63067458 were issued on 16 January 2024. This report has been prepared to respond to the relevant issued SEARs, as set out in the table below.

Table 2 Secretary's Environmental Assessment Requirements

SEAR	Response / Location in Report
<i>Identify, quantify and classify the likely waste streams to be generated during construction and operation.</i>	Waste streams separation and classification is detailed in Section 2.2.
<i>Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.</i>	Waste management procedures are detailed in Sections 2.2.2 through 2.2.6
<i>Identify appropriate servicing arrangements for the site.</i>	Waste collection (servicing) arrangement of the site is detailed in Section 2.6.
<i>If buildings are proposed to be demolished or altered, provide a hazardous material survey.</i>	A hazardous material survey has been prepared as a separate document by Prensa Pty Ltd.

1.5 SUMMARY OF MITIGATION MEASURES

Table 3 below outlines a high-level list of risk mitigation measures for the site, outlining user responsibilities and key points of contact. A 'Risk Register' document (or equivalent) prepared by facilities management will further detail contact details and specific reporting procedures.

Table 3 Mitigation Measures

Waste Stream	Item	Mitigation Measure(s)
All streams	Vehicle collision	Safety considerations outlined in a loading management plan will be observed to reduce risk and impact of collision.
	Slips and Trips	Transfer path is free of stairs and gradients that exceed 1:14. Waste transfer path can be accessed by waste trolley if required. Correct waste disposal practices onsite will be provided by facilities management as part of standard commercial induction. Facilities management will ensure communal waste rooms, bins and equipment are appropriately signed at all times. Facilities management will contact cleaning staff directly in reporting major waste spillages.
Clinical waste	Infection Transmission/ Contamination	All clinical waste will be stored in a dedicated and enclosed waste room as shown in Appendix A minimizing spillage and contamination risks.
	Spillage of Waste	All clinical waste will be disposed of bagged as per section 2.2.5 to avoid spillage and contamination risks.
	Incorrect Disposal of Clinical Waste Stream	The clinical waste storage room has been placed in a separate location from all other waste streams to avoid incorrect disposal risks as shown in Appendix A. Only people who are trained to handle clinical waste will have access to the clinical waste room. Facilities management will ensure communal waste rooms, bins and equipment are appropriately signed at all times.
General Waste and Co-mingled	Incorrect Bin Lifting Technique for Disposal.	A pneumatic and caged bin lifter is to be used to load all waste into compactors as shown in Appendix A. Only trained staff will operate compactors as per section 2.2.2.
	Limb Entanglement	Compactors will only operate under a key/swipe card system to prevent untrained use as per section 2.2.2.
	Accessing Compactor Cavity	

2 WASTE MANAGEMENT PLAN

2.1 WASTE GENERATION

Waste generation rates per week are shown in Table 4 and a weekly waste generation assessment for the development in Table 5. Calculations are based on a 7 day per week operation for all uses.

To provide a conservative waste volume estimate, retail tenancy areas have been divided evenly between food and non-food functions. Food retail tenancies have been assumed to operate as a restaurant (see Table 4).

Note that the waste generation rates adopted within this report for the laboratories and medical rooms reflect existing case study values held by WSP. Shared Space waste generation rates represent that of an office.

Any areas considered ancillary to the active uses of the site (patio, BoH, Services rooms, corridors) are not considered to generate additional waste and are as such are not included in the below. Waste generated by these areas is created in service of the active uses of the site and is therefore incorporated into the rates shown below.

Table 4 Weekly Waste Generation Rates

Use	Metric	Waste Generation Rates		
		Garbage	Recycling	Organics
Health Services	L/100m ² /week	215	90	-
Industrial	L/100m ² /week	215	90	-
Office	L/100m ² /week	105	175	35
Retail (Non-Food)	L/100m ² /week	175	1,400	35
Retail (Food)	L/100m ² /week	700	3,500	700

Table 5 Weekly Waste Generation Assessment

Use	NLA	Waste Generation Assessment		
		Garbage (L/week)	Recycling (L/week)	Organics (L/week)
Healthcare	1,370 m ²	2,946	1,233	0
Industrial	12,824 m ²	27,572	11,542	0
Office	10,291 m ²	10,806	18,009	3,602
Retail (Non-Food)	350.5 m ²	613	4,907	123
Retail (Food)	350.5 m ²	2,454	12,268	2,454
TOTAL		44,391	47,959	6,179

2.2 WASTE SYSTEMS

Waste shall be sorted on-site by tenants as appropriate into the following streams:

- Garbage
- Commingled Recycling
- Organics
- Clinical Waste
- Pallets/Crates
- Bulky Waste

In accordance with the NSW EPA document Waste Classification Guidelines (2014), garbage and food organics volumes will generally be treated as **general solid waste (putrescible)**, Clinical waste will be treated as **special waste** and all other volumes (commingled recycling, bulky waste, etc.) as **general solid waste (non-putrescible)**.

Each waste category will be managed, stored, and collected in accordance with appropriate standards. Storage areas will only be accessible by authorised personnel.

2.2.1 DISPOSAL FACILITIES

Throughout the facility it will be ensured that it is as easy to dispose of recyclable waste as it is garbage. This will be achieved by ensuring the development is appropriately furnished with bin stations throughout ancillary spaces and communal areas. Clear signage is to be appropriately displayed in combination with the bin stations to identify the segregation of waste streams and correct use of the bins.

The use of bin stations (see Figure 2) within communal areas, are highly recommended to encourage separation of recyclables. This system incorporates the provision of multiple bins for different waste streams at central locations and common areas for ease of disposal. This system is beneficial as users are required to make a conscious decision as to which bin they place their items in. This typically results in an increase in diversion from landfill.

The use of bin stations also reduces the amount of locations cleaners are required to service throughout the development.

Figure 2 Example Bin Station Application



Brand: Ecobins



Brand: Method Bins

2.2.2 GARBAGE & COMMINGLED RECYCLING

Each space of the development shall have provision for plastic lined garbage and commingled recycling bins for the temporary holding of waste, to have minimum cumulative holding capacities as noted in Table 4 below.

The “Transfer Rate” refers to the frequency at which waste should be transferred by cleaners/staff from the temporary holding bins to loading dock for disposal per day.

Table 6 Tenancy Bin Capacity Rates & Disposal Frequency

Tenancy Use	Transfer Frequency	Bin Capacity by Stream		
		Garbage	Commingled Recycling	Organics
Healthcare	1 x per day	40 L/100m ²	15 L/100m ²	-
Industrial	1 x per day	40 L/100m ²	15 L/100m ²	-
Office	1 x per day	15 L/100m ²	25 L/100m ²	5 L/100m ²
Retail (Non-Food)	1 x per day	20 L/100m ²	20 L/100m ²	5 L/100m ²
Retail (Food)	3 x per day	35 L/100m ²	170 L/100m ²	35 L/100m ²

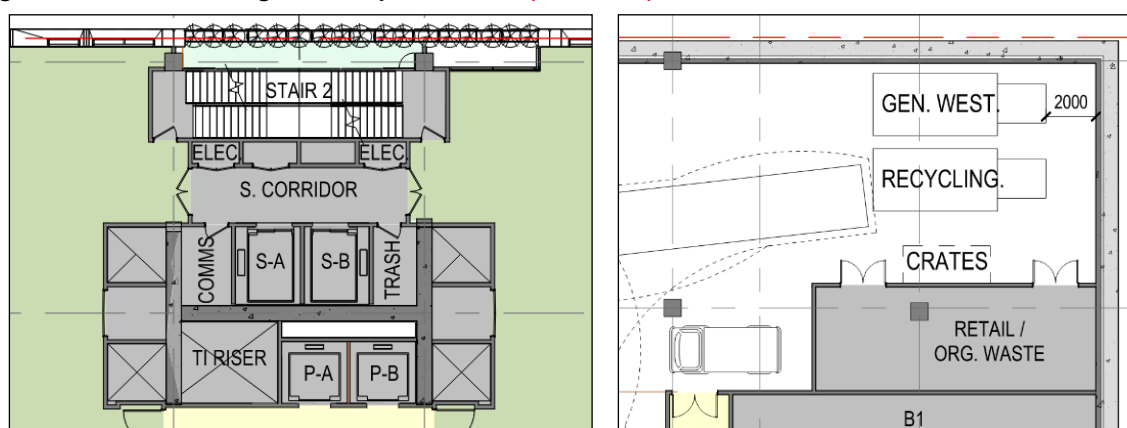
Waste from these temporary holding bins will be transferred to the basement waste storage area at basement 01 for disposal through any of the following means:

- **Healthcare, Industrial, Office:** A waste store will be provided within the core of each healthcare / industrial / office level, featuring a number of 240L bins for cleaning purposes. Cleaning staff will circulate throughout the floorplates and decant waste from any small fitout bins into the 240L bins at a nominated service time each day, and will then transfer these 240L bins to the compactors within the loading dock for end disposal.
- **Retail Spaces:** Staff/cleaners will utilise the goods lift(s) and back of house circulation corridors to access the loading dock and decant waste from temporary holding bins into the compactors within the loading dock for end disposal.
 - Separate 1100L garbage and recycling bins will be provided within the retail / organics waste store at basement level. Pending operational preference, retail tenants may first dispose of waste within the 1100L bins (rather than directly within the compactors), with facilities management then emptying the 1100L bins in the compactor as required.

Each compactor will be fitted with a bin lifter, sized to empty 240L / 1100L bins into the compactor body. Bin lifters will be fitted with smart card technology, as to track individual waste volumes disposed of by each tenancy.

Garbage is to be disposed of bagged. Commingled recycling is to be disposed of loosely, with any bin liners disposed of within the garbage bins.

Figure 3 Waste Storage and Disposal Points (Indicative)



Waste Store (“Trash”) at Office Level

Waste Storage within Loading Dock

2.2.3 FOOD ORGANICS

Retail and commercial spaces of the site shall be further furnished with small organics bins for the temporary holding of organic waste as appropriate, often provided as plastic tubs for ease of handling (up to 20L in size) and stored within the kitchen / back of house areas. Tubs can be stacked and transferred via trolleys if desired.

Waste from these caddies will be transferred to the retail / organics waste store at basement 01 for disposal. Staff/cleaners will utilise the goods lift(s) and back of house circulation corridors to access the basement waste room and decant waste from the temporary holding bins into the 240L bins provided.

2.2.4 BULKY WASTE

A bulky waste room of at least 8m² has been allocated within the retail / organics waste store at basement 01 for the temporary storage of bulky waste (broken furniture, fittings, etc.).

Bulky waste collections will be arranged by building management (or equivalent) via a private contractor as required.

2.2.5 CLINICAL WASTE

Industrial / healthcare spaces shall have provision for plastic lined clinical waste bins throughout their respective floorplates for the temporary holding of waste, to have minimum cumulative holding capacities per operational demand.

Staff / cleaners will transfer waste from these bins to the dedicated clinical waste room at basement 01, to be disposed of within the 240L clinical waste bins therein. The clinical waste room will feature a minimum 2x 240L clinical waste bin per industrial / healthcare tenant, with each bin secured with a locking mechanism to limit use.

Clinical waste is to be disposed of bagged.

2.2.6 PALLET/CRATES

All pallets/crates will be stored within the dedicated pallet/crate storage area on basement 01 and will be managed separately from the above listed waste streams.

Staff/cleaners will utilise the goods lift(s) and back of house circulation corridors to access the basement waste area. They will stack all crates/pallets in the dedicated floor area for collection on as required basis.

2.3 WASTE EQUIPMENT REQUIRED

Table 6 through Table 8 contain information regarding bin quantity, size, and frequency of collection required for the development.

As per industry standard, compaction rates of 3:1 have been adopted for the garbage and commingled recycling compactors. WSP understand greater compaction rates can be achieved under certain conditions.

It is noted that the anticipated commingled recycling and organics volumes exceeds the capacity volume by 6.2% and 6.8% respectively. Due to the conservative nature of the waste generation estimates, this minor exceedance of bin capacity is considered negligible, and such the system specified is considered appropriate.

Otherwise, due to variance between capacity and actual volumes, from time-to-time fewer bins than those specified may be required to be collected. Only full bins will be presented for collection.

Table 7 Waste Equipment: Information and Capacity

Waste Equipment Detail					
Waste Stream	Equipment	Compaction	Collections Frequency	Weekly Capacity	Weekly Volume
Garbage	1 x 15m ³ Compactor	3:1	1 x per week	45,000L	44,391L
Commingled Recycling	1 x 15m ³ Compactor	3:1	1 x per week	45,000L	47,959L*

Waste Equipment Detail					
Waste Stream	Equipment	Compaction	Collections Frequency	Weekly Capacity	Weekly Volume
Organics	8 x 240L Bins	NA	3 x per week	5,760L	6,179L*
Clinical Waste	45 x 240L Bins	NA	As required	Variable	Variable
Pallets/Crates	Line Marked Area	NA	As required	Variable	Variable
Bulky Waste	8 m ² Storage Area	NA	As required	Variable	Variable

Table 8 Typical Equipment Dimensions

Typical Equipment Dimensions (mm)			
Equipment	Width	Depth	Height
15m ³ Compactor	480	520	600
Bin Lifter	1600	2050	3190
240L Bin	585	730	1,060
1100L Bin	1240	1070	1330

2.4 WASTE STORAGE AREA & LOCATION

Table 9 demonstrates the cumulative area requirements (excluding circulation) and provision of commercial waste areas.

Table 9 Waste Storage Area Requirements

Waste Store	Level	Waste Equipment	Area Required	Total Area Required	Total Area Provided
Loading Dock	Basement 01	2 x 15m ³ Compactors	24.70m ²	31.26m ²	49.00m ²
		2 x Bin Lifters	6.56m ²		
Retail / Organic Waste Store	Basement 01	8 x 240L Bins	3.44 m ²	16.76m ²	46.00m ²
		4 x 1100L Bins	5.32 m ²		
		Bulky Waste	8.00m ²		
Clinical Waste Room	Basement 01	45 x 240L Clinical Waste Bins	19.35m ²	19.35m ²	41.00m ²
Pallet/Crate Area	Basement 01	Pallet / Crates Area	5.25m ²	5.25m ²	5.25m ²
TOTAL			72.62m²	72.62m²	141.25m²

2.5 BIN COLOUR AND SUPPLIER

All bins will be provided by private supplier. The below bin colours are specified by Australian Standard AS4123.7 2006, however due the private nature of the collection, these are only recommendations and are not mandatory:

- Garbage (general waste) bins shall have red lids with dark green or black bodies.
- Recycle bins shall have yellow lids with dark green or black bodies.
- Cardboard bins shall have blue lids with blue bodies.
- Organics bins shall have burgundy lids with dark green or black bodies.
- Clinical waste bins shall have yellow lids with yellow body.

Private collection contractors often supply their own bins for collection.

2.6 WASTE COLLECTION METHODOLOGY

All waste will be collected via a private contractor as outlined in Table 10.

Table 10 Waste Collection Summary

Waste Stream	Waste Equipment	Collection Frequency	Vehicle Type	Collection Operator
Garbage	1 x 15m ³ Compactor	1 x per week	Hooklift	Private Operator
Commingled Recycling	1 x 15m ³ Compactor	1 x per week	Hooklift	Private Operator
Organics	8 x 240L Bins	3 x per week	Rear Lift	Private Operator
Clinical Waste	45 x 240L Bins	As required	Flat Bed	Private Operator
Pallets/Crates	Line Marked Area	As required	Flat Bed	Private Operator
Bulky Waste	8 m ² Storage Area	As required	Flat Bed	Private Operator

All waste collections will occur on-site directly from the loading dock located on Basement 01 via a private collection contractor, with collection vehicles accessing the loading bays via Botany Road (refer swept path analysis showing sufficient access in Appendix B).

Depending on the item of equipment being collected, waste will generally be collected as follows:

- **Hooklift Vehicles (Compactors):** Hooklift vehicle to reverse directly adjacent to the compactor to perform lifting manoeuvre.
- **Rear Lift Vehicles (Organics Bins):** Vehicles to prop within loading zone, with the waste collection operator will collect (and subsequently return) bins directly from the loading dock.
- **Flat-Bed Vehicles (Clinical Waste Bins, Pallets, Bulky Waste):** Vehicles to prop within loading zone, with the waste collection operator will collect equipment directly from the waste storage areas.
 - Clinical waste bins will be collected from the raised dock via a vehicle tailgate. This is standard practice amongst clinical waste collection contractors.
 - Pallets and bulky waste will be collected from the loading level, with volumes lifted into the vehicle body via a tail lift vehicle fitting. This is standard practice amongst bulky waste / pallets collection contractors.

Building management will ensure sufficient access is provided for operators during collection times. Typically, operators are provided with keypad/swipe card access to the service doors.

Bins will not be stored outside of the title boundary or presented to kerb for collection at any time.

3 CONSTRUCTION AND DEMOLITION WASTE

A detailed Construction and Demolition (C&D) waste strategy will be incorporated into the site's Construction Management Plan (CMP), to be prepared as a separate document by the principal construction contractor prior to the commencement of construction works.

The CMP should include detail of:

- The type of waste to be generated during demolition and construction and respective recycling, reuse and disposal methods;
- Location and space allocated for the storage of demolition and construction waste or materials; and
- Waste collection point(s) for the site.

Maximised diversion of C&D waste from landfill should be targeted for this development, to be achieved through appropriate material separation practices. The specific re-use, removal or treatment of C&D waste will be undertaken by a third party as appropriate.

The following is provided as a high-level summary of C&D requirements for ease of reference. Information as shown is not intended to form the basis of any construction and/or demolition works, and will be superseded in full by the C&D strategy as nominated in the CMP.

3.1 DEMOLITION PHASE

Demolition and associated activities across the site will generate a range of waste streams. Materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling processes.

Waste storage throughout works will generally involve the stockpiling of excavated and reusable material and the placement of skip bins throughout the site. Skip bins should be positioned in readily accessible points for collection, should facilitate the safe and efficient storage of materials, and should be retained within property boundaries to avoid illegal dumping. Waste storage area shall be designated by the demolition contractor and shall be sufficient to store the various waste streams expected during operations.

Waste storage areas will be kept clear to maintain vehicular access and shall also be kept tidy to encourage separation of waste materials and for work & health safety (WHS) reasons. Waste management principles, management measures and facilities in use on the site shall be included as part of the site induction for all personnel working on the site.

3.2 CONSTRUCTION PHASE

Construction works will generally generate waste through the erection and finishing of the development (i.e. construction waste). The CMP should include a detailed C&D waste strategy in line with the head contractor's program and trades scheduling.

Most waste products generated throughout construction works can be readily recycled or reused, and include steel framing, damaged glazing, cladding and roof sheeting, plasterboard linings, timber features and framing, metals, concrete and rubble. Metal and plastic piping and conduits, cabling and floor finishes such as carpet and tiling should also be recovered.

Accurate materials estimation and ordering, offsite prefabrication of framing modules and fitout components, and monitoring and review of specifications and onsite construction and fitout operations will minimise the potential volume of construction waste to be generated in the first instance.

Wherever possible, construction waste will be stored and sorted on-site, including on-site collection zones for each waste stream. Any waste skips be stored in public places will be done so in accordance with Council policy.

Subcontractors and other site personnel should be educated regarding requirements for recovery of waste. This will assist in maximising recovery of resources from C&D waste on-site, and minimise the cost and environmental impacts of waste being disposed to landfill.

3.3 WASTE SYSTEMS

A detailed waste strategy should form part of the CMP to be provided by the principal construction contractor prior to commencement. As per standard industry practice, a minimum 80% diversion rate from landfill for waste generated from construction activities should be targeted across the subject site.

A high level overview of reuse, recycle and disposal opportunities for likely construction and demolition waste streams is provided in Table 11 below. Information as shown is provided for discussion only and should not be used as the basis of any construction works or waste reporting.

As per the CMP, C&D waste will be predominately disposed of within general construction waste bins, to be sorted at a resource recovery facility using mechanical and manual sorting techniques.

Table 11 C&D Waste – Aspirational Stream Separation

Waste Stream	Typical Receptacle	Note
Excavation Material	Skips	Re-Use (Offsite): Re-apply as fill.
Brick	Skips	Recycle: Transported to a C&D waste recycler for recovery.
Concrete	Skips	Recycle: Transported to a C&D waste recycler for recovery.
Timber (untreated)	Skips	Recycle: Transported to a C&D waste recycler for recovery.
Plasterboard	Skips	Recycle: Transported to a C&D waste recycler for recovery.
Metals	Skips	Recycle: Transported to a C&D waste recycler for recovery.
Other Waste	Skips	Recycle: Transported to a C&D waste recycler for the recovery of any additional, minor streams (i.e. glass, plastics, tiles, etc.). Dispose: Residual volumes sent to landfill.
Domestic General Waste	Bins	Dispose: Volumes sent to landfill.
Domestic Recyclables	Bins	Recycle: Volumes transported to a recycling / cardboard plant for recycling into recovered products.
Cardboard		

3.4 WASTE GENERATION

A high-level estimate of construction and demolition waste volumes generated throughout proposed works is provided in Table 12 and Table 13 below.

Estimated volumes of construction and demolition waste materials have been undertaken as a desktop review, calculated based on *Handbook of Recycled Concrete and Demolition Waste* (Pacheco-Torgal et al., 2013).

It is acknowledged that the estimated C&D waste volumes have been reviewed by our client and may be updated when more accurate estimates are received by the relevant personnel (e.g., head contractor or quantity surveyor). Values as shown are provided as estimates only and should not be used as the basis of any C&D works or waste reporting. Detailed material estimates and strategies for on-site material reuse should be provided as part of the CMP.

Note that any waste generated from additional activities (i.e. excavation, paving, landscaping, etc.) are not included in the above, nor are domestic garbage / recyclables volumes.

Note that a minimum 80% diversion from landfill will be targeted for both construction and demolition waste, as per City of Sydney requirements and aspirational targets nominated in the CMP. WSP note that these represent indicative figures only, and that greater diversion rates can be achieved under high performing conditions.

Table 12 Demolition Waste Generation Estimate

Waste Stream	Nearby Resource Recovery Facility	% Diversion Target	Total Estimated Volume (m³)	Estimated Diversion from Landfill (m³)
Brick	Cleanaway Artarmon Resource Recovery Centre	90%	775	697
Concrete		90%	8,262	7,436
Timber (untreated)		80%	21	17
Metals	Cleanaway Auburn Resource Recovery Centre	100%	310	310
Other Waste	NA - landfilled	0%	1,250	0
TOTAL DEMOLITION WASTE GENERATED			10,617	8,459
TYPICAL % DEMOLITION OF WASTE RECYCLED				80%

Table 13 Construction Waste Generation Estimate

Waste Stream	Nearby Resource Recovery Facility	% Diversion Target	Total Estimated Volume (m³)	Estimated Diversion from Landfill (m³)
Brick	Cleanaway Artarmon Resource Recovery Centre	90%	344.4	310.0
Concrete		90%	599.0	539.1
Timber (untreated)		80%	1,572.4	1,257.9
Metals	Cleanaway Auburn Resource Recovery Centre	100%	74.9	74.9
Other Waste	NA - landfilled	0%	104.8	0.0
TOTAL CONSTRUCTION WASTE GENERATED			2,695.5	2,181.8
TYPICAL % OF CONSTRUCTION WASTE RECYCLED				81%

4 ADDITIONAL INFORMATION

4.1 STANDARDS & COMPLIANCE

4.1.1 VENTILATION

Ventilation will be provided in accordance with Australian Standard AS1668.

4.1.2 WASHING & VERMIN PREVENTION

A third party bin washing service will be engaged to perform regular washing of bins. Bin washing suppliers must retain all waste water to within their washing apparatus and not impact on the drainage provisions of the site.

4.1.3 NOISE REDUCTION

All waste areas shall meet BCA and AS2107 acoustic requirements as appropriate with operational hours and collection times assigned to minimise acoustic impact on surrounding premises.

4.2 SIGNAGE

Waste drop-off areas and bins will be clearly marked and signed with the approved City of Sydney waste disposal signage, or equivalent, as illustrated below. Commercial tenants will be instructed by building management to adhere to these requirements.

Figure 4 City of Sydney Signage



Figure 5 Example Clinical Waste Signage



4.3 HIGH LEVEL PURCHASING SCHEDULE

Table 14 lists the waste equipment required for the development under the conditions proposed within this report.

Table 14 Equipment Supply Schedule

Item	Supplier	Typical Services Requirements (per unit)*	Quantity / Notes
15m ³ Compactor	Private Supplier* (Wastech or equivalent)	Power: 3-Phase, 415V 20A Water: ½" cold water connection Communications: 20mm PVC	1 No. Garbage 1 No. Recycling
Bin Lifter	Private Supplier* (Wastech or equivalent)	Power: 240V 10A Power	1 No. Garbage 1 No. Recycling
1100L Bins	Private Supplier* (SULO or equivalent)	nil	2 No. Garbage 2 No. Recycling
240L Bins	Private Supplier* (SULO or equivalent))	nil	8 No. Organics 45 No. Clinical
* Services requirements are indicative only and must be confirmed with the manufacture prior to commencement of construction			

4.4 SUPPLIER CONTACT INFORMATION

A complimentary listing of contractors and equipment suppliers is provided in Table 15 below for your reference. You are not obligated to procure goods/services from these companies. This is not, nor is it intended to be, a complete list of available suppliers. WSP does not warrant (or make representations for) the goods/services provided by these suppliers.

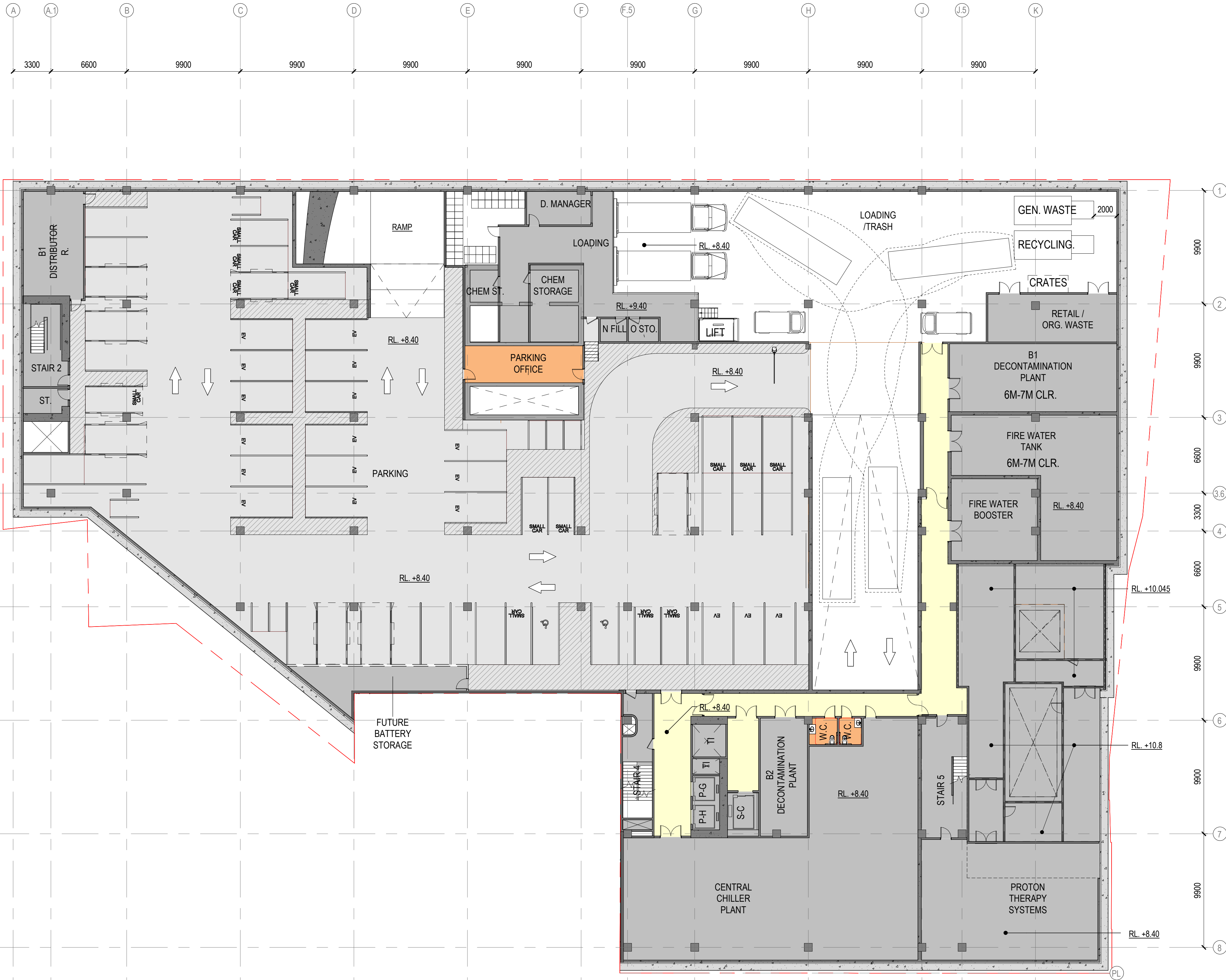
Table 15 Supplier Contact List

Service Type	Contractor / Supplier Name	Phone	Website
Private Waste Collectors	SUEZ Environment	13 13 35	www.sita.com.au
	Cleanaway	13 13 39	www.cleanaway.com.au
	Veolia	132 955	www.veolia.com
Private Waste Collectors (C&D Waste)	Bingo Bins	1300 424 646	www.bingoindustries.com.au
	Transwaste Skips	(02) 9746 8333	www.transwaste.com.au
	Brown Brothers Skip Bins	(02) 9999 6466	www.brownbrosbins.com.au
	Cobra Waste Solutions	1300 484 448	www.cobrawaste.com.au
Equipment Suppliers	Wastech Engineering (Balers)	(03) 8787 1600	www.wastech.com.au
	Sulo Australia (Bins)	1300 364 388	www.sulo.com.au
	Pulpmaster (Macerators, Sludge Tanks)	(07) 3488 9600	www.pulpmaster.com.au
	Bottlecycler (Glass Crusher)	1300 306 039	www.bottlecycler.com
Bin Washing Services	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	Kerbside Clean-A-Bin	(03) 9830 7381	www.kerbsidecleanabin-srp.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
E-waste Collection Services	TechCollect	1300 229 837	www.techcollect.com.au
	Mobile Muster	1800 249 113	www.mobilemuster.com.au
	ToxFree	1300 869 373	www.toxfree.com.au

Service Type	Contractor / Supplier Name	Phone	Website
Off-Site C&D Recycling Facilities	Benedict Recycling Unanderra	(02) 4274 1322	www.benedict.com.au/
	Patons Lane RRC, Orchard Hills	1300 424 646	www.patonslane.com.au/
	Bingo Eastern Creek Recycling Ecology Park (& Landfill)	1300 424 646	www.bingoindustries.com.au/
	SUEZ Resource Recovery Centre, Auburn	13 13 35	www.suez.com.au

APPENDIX A

ARCHITECTURAL DRAWINGS



SHEET NOTES

PARKING TYPE	COUNT
--------------	-------

BASEMENT 01	
ACCESSIBLE	2
EV	18
MOTORCYCLE	7
SMALL CAR	13
STANDARD	18
	58

BASEMENT 01M	
ACCESSIBLE	3
MOTORCYCLE	7
SMALL CAR	9
STANDARD	32
	51
	109

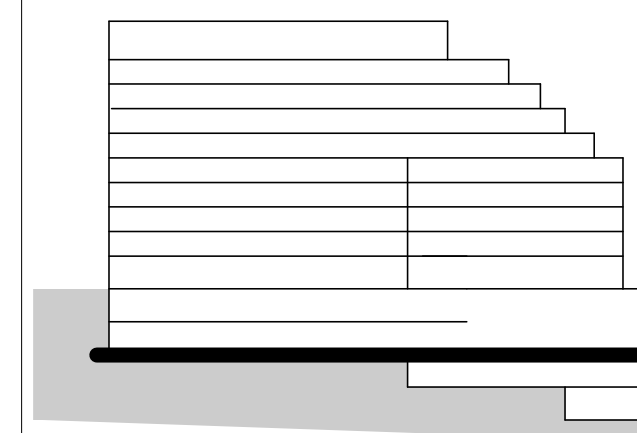
TOTAL PARKING COUNT

LOADING BAYS:	2 SPACES
WASTE COMPACTOR:	2 SPACES
VISITOR / STAFF PARKING:	95 SPACES
EV READY :	5 SPACES
FUTURE EV:	13 SPACES
ACCESSIBLE:	5 SPACES
STANDARD:	50 SPACES
SMALL CAR:	22 SPACES
MOTORCYCLE SPACES:	14 SPACES

LEGENDS

	CORRIDOR
	PROTON THERAPY
	RETAIL
	SHARED SPACES
	PARKING
	SYSTEMS / BUILDING SPACES
	CORE

KEY SECTION



KURRABA

74-108 Botany Road and 86-100 Wyndham Street, Alexandria, NSW 2015

Gensler

6 O'CONNELL STREET
SYDNEY, NSW 2000
AUSTRALIA
NOMINATED ARCHITECT - TOM OWENS

NOMINATED ARCHITECT - TOM OWENS
NSW REGISTRATION NO. 9877

Date	Description
1 19/07/2024	SSDA
2 13/09/2024	SSDA

Seal / Signature

NOT FOR CONSTRUCTION

Project Name

Kurraba

Project Number

05.4858.000

Description

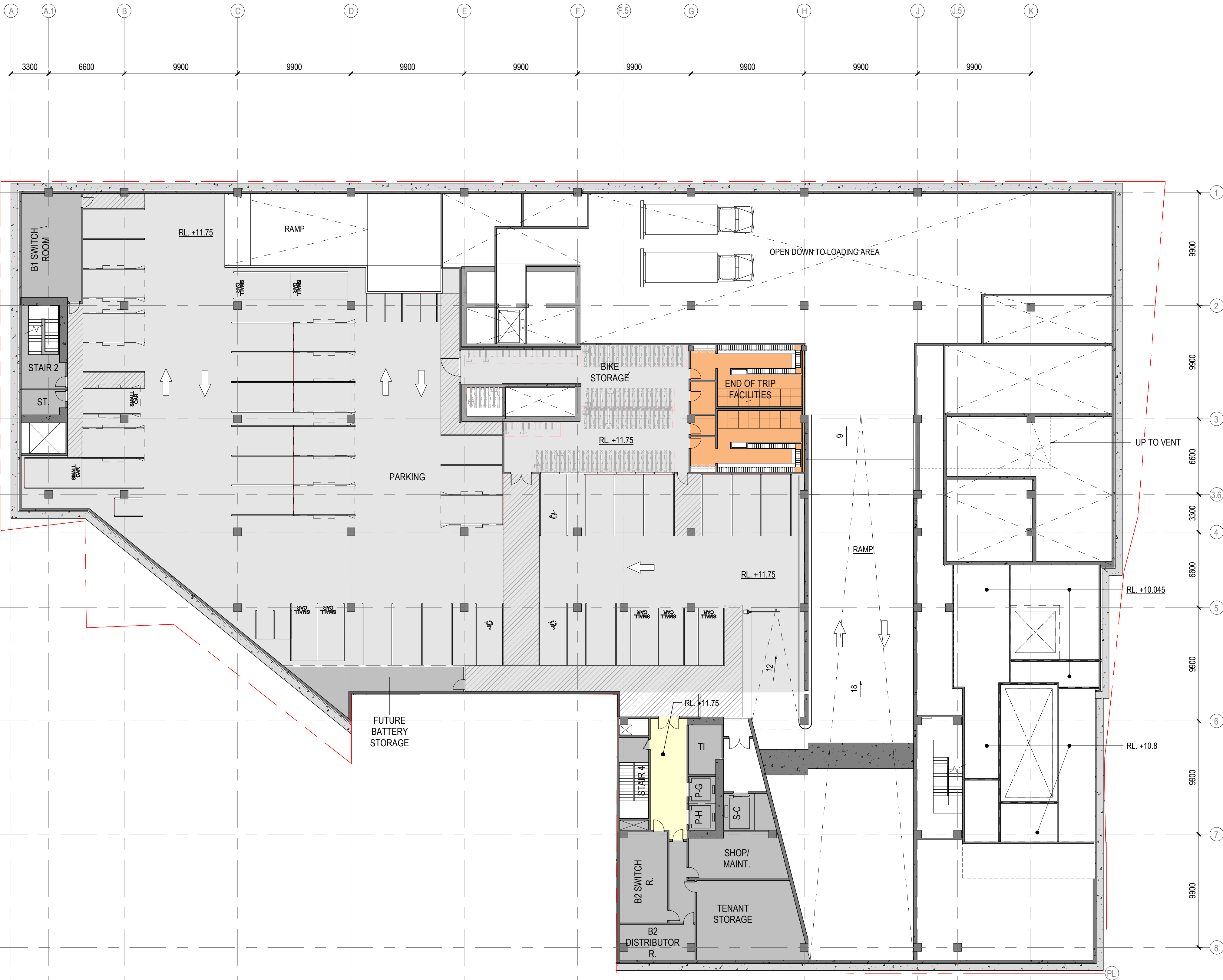
GENERAL ARRANGEMENT PLAN - BASEMENT 01

Scale

As indicated

0m 4m 8m 12m

GEN-BO-B1-D-A-1209



SHEET NOTES

PARKING TYPE	COUNT
--------------	-------

BASEMENT 01	
ACCESSIBLE	2
EV	18
MOTORCYCLE	7
SMALL CAR	13
STANDARD	18
	58

BASEMENT 01M	
ACCESSIBLE	3
MOTORCYCLE	7
SMALL CAR	9
STANDARD	32
	51
	109

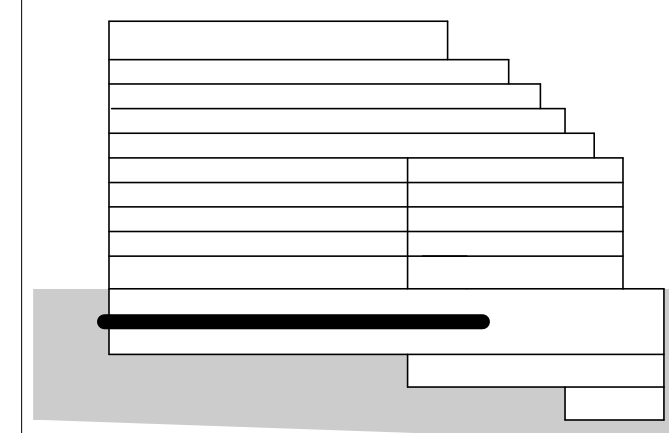
TOTAL PARKING COUNT

LOADING BAYS:	2 SPACES
WASTE COMPACTOR:	2 SPACES
VISITOR / STAFF PARKING:	95 SPACES
EV READY :	5 SPACES
FUTURE EV:	13 SPACES
ACCESSIBLE:	5 SPACES
STANDARD:	50 SPACES
SMALL CAR:	22 SPACES
MOTORCYCLE SPACES:	14 SPACES

LEGENDS

	CORRIDOR
	SHARED SPACES
	PARKING
	SYSTEMS / BUILDING SPACES
	CORE

KEY SECTION



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Tel (02) 9009 2700
NOMINATED ARCHITECT - TOM OWENS

NOMINATED ARCHITECT - TOM OWENS
NSW REGISTRATION NO. 9877

△ Date	Description
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Seal / Signature

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Project Name

Kurraba

Project Number

05.4858.000

Description

GENERAL ARRANGEMENT PLAN - BASEMENT 01M

Scale

As indicated

0m 4m 8m 12m

GEN-BO-B1-D-A-1209M



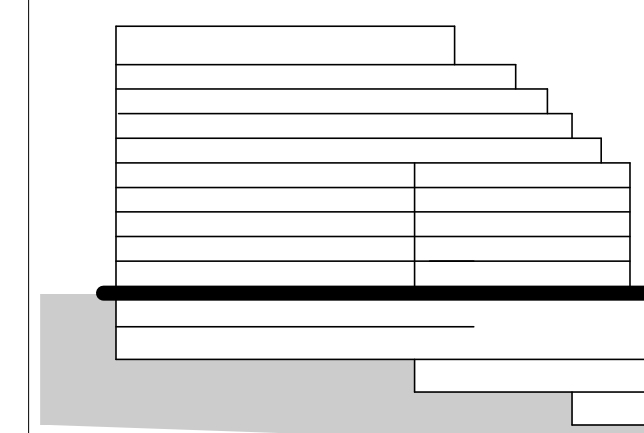
SHEET NOTES

- 01 LAYOUT TO BE CONFIRMED BY MEP. DOOR SIZE AND LOCATION TO BE COORDINATED WITH LAYOUT
- 02 PROJECTION OVER BOUNDARY FOR BUILDING ELEMENTS DESIGNED FOR DECORATION AND SUN SHADOWING. ALL PROJECTIONS ARE NO MORE THAN 450MM AS PER SYDNEY DCP 2012 SCHEDULE 4
- 03 SETBACK DISTANCE BETWEEN FACE OF MECHANICAL SCREEN AND PROPERTY LINE
- 04 SETBACK DISTANCE BETWEEN MECHANICAL SCREEN AND FACE OF FACADE
- 05 SETBACK DISTANCE BETWEEN FACE OF FACADE AND PROPERTY LINE
- 06 AWNING
- 07 PLANTER WITH A GARDRAIL
- 08 PLANTED ROOF

LEGENDS

- CORRIDOR
- LAB
- RETAIL
- SHARED SPACES
- PARKING
- PLANT
- SYSTEMS / BUILDING SPACES
- CORE

KEY SECTION



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Seal / Signature

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Project Name

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Project Number

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Description

GENERAL ARRANGEMENT PLAN - GROUND LEVEL

Scale

As indicated

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GEN-BO-00-D-A-1210



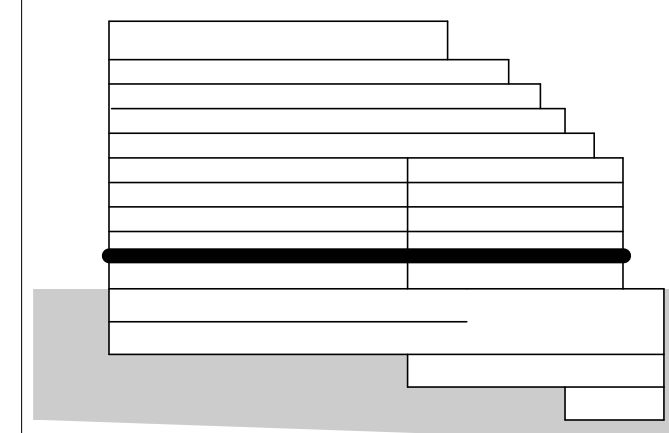
SHEET NOTES

- 01 LAYOUT TO BE CONFIRMED BY MEP. DOOR SIZE AND LOCATION TO BE COORDINATED WITH LAYOUT
- 02 PROJECTION OVER BOUNDARY FOR BUILDING ELEMENTS DESIGNED FOR DECORATION AND SUN SHADOWING. ALL PROJECTIONS ARE NO MORE THAN 450MM AS PER SYDNEY DCP 2012 SCHEDULE 4
- 03 SETBACK DISTANCE BETWEEN FACE OF MECHANICAL SCREEN AND PROPERTY LINE
- 04 SETBACK DISTANCE BETWEEN MECHANICAL SCREEN AND FACE OF FACADE
- 05 SETBACK DISTANCE BETWEEN FACE OF FACADE AND PROPERTY LINE
- 06 AWNING
- 07 PLANTER WITH A GARDRAIL
- 08 PLANTED ROOF

LEGENDS

- CORRIDOR
- LAB
- OUTDOOR
- SHARED SPACES
- CORE

KEY SECTION



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Seal / Signature

NOT FOR CONSTRUCTION

Project Name

Kurraba

Project Number

05.4858.000

Description

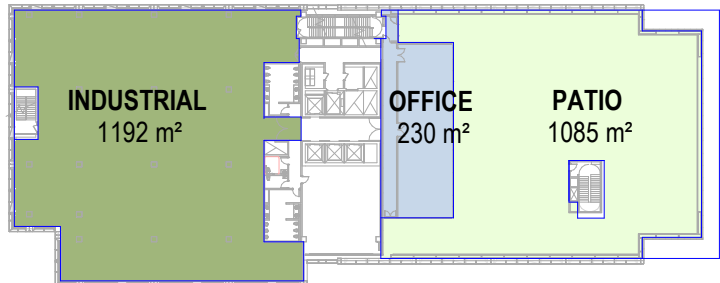
GENERAL ARRANGEMENT PLAN - LEVEL 01

Scale

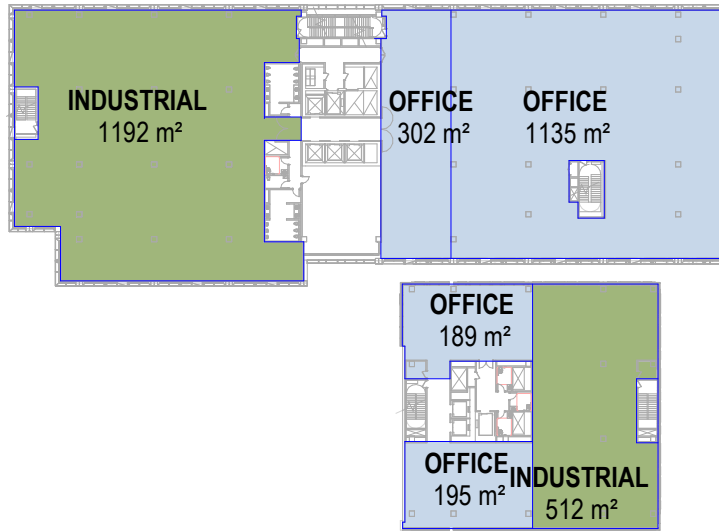
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GEN-BO-01-D-A-1211

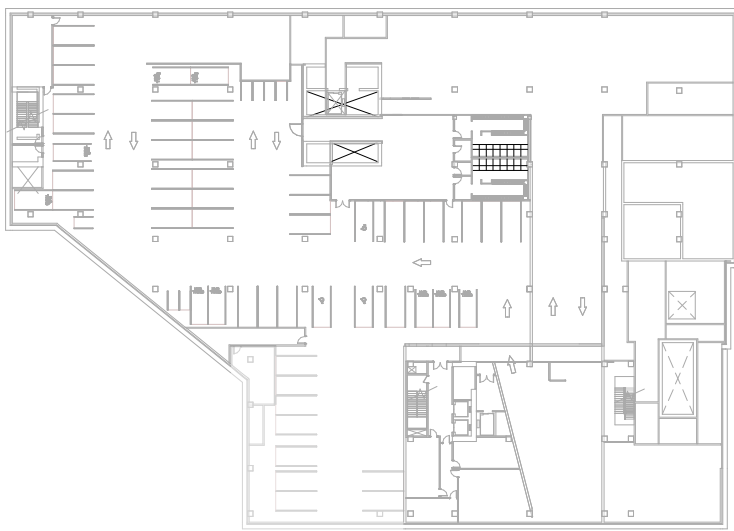
Area Schedule (Net Lettable Area (NLA))		
Name	Area	%
PATIO	1,581 m²	100%
Exterior Area	1,581 m²	
HEALTHCARE	1,370 m²	5%
INDUSTRIAL	12,824 m²	51%
OFFICE	10,291 m²	41%
RETAIL	701 m²	3%
Floor Area	25,186 m²	
TOTAL	26,767 m²	



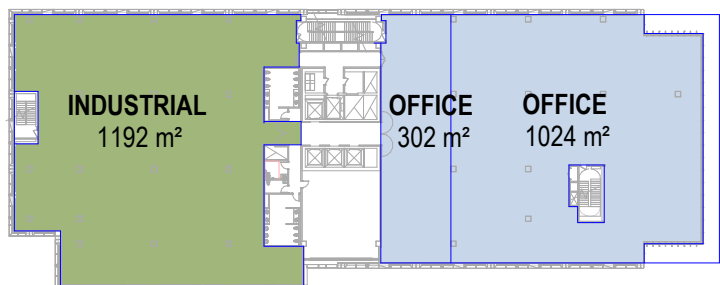
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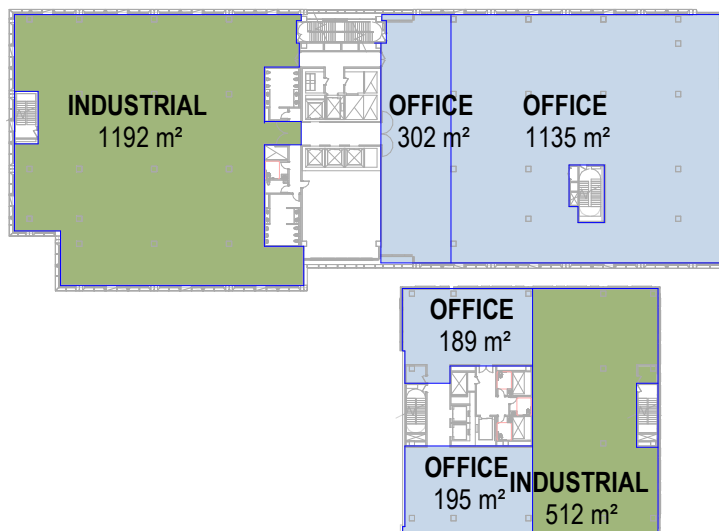
8 LEVEL 03
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4 BASEMENT 01M
SCALE: 1 : 1000



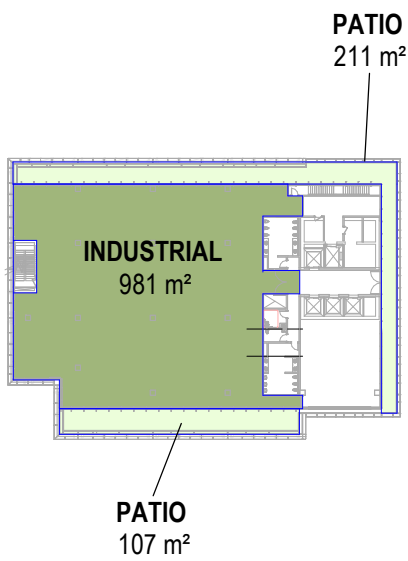
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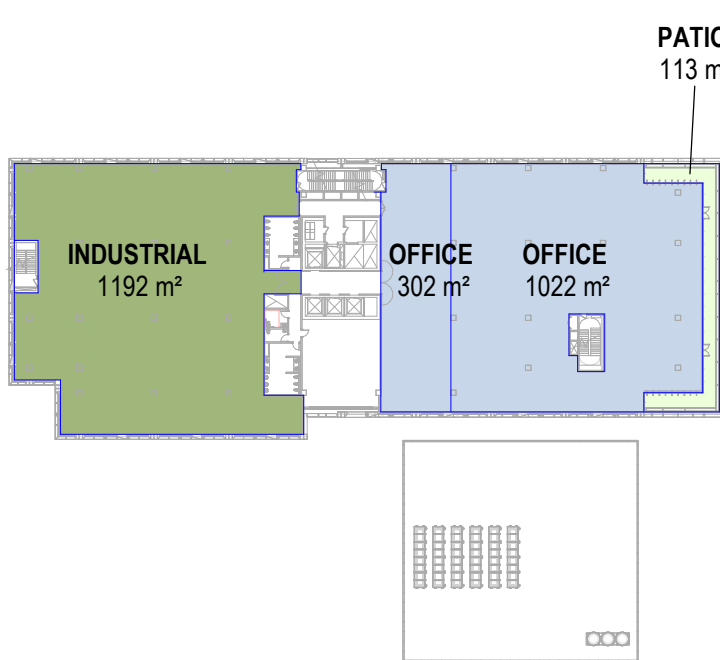
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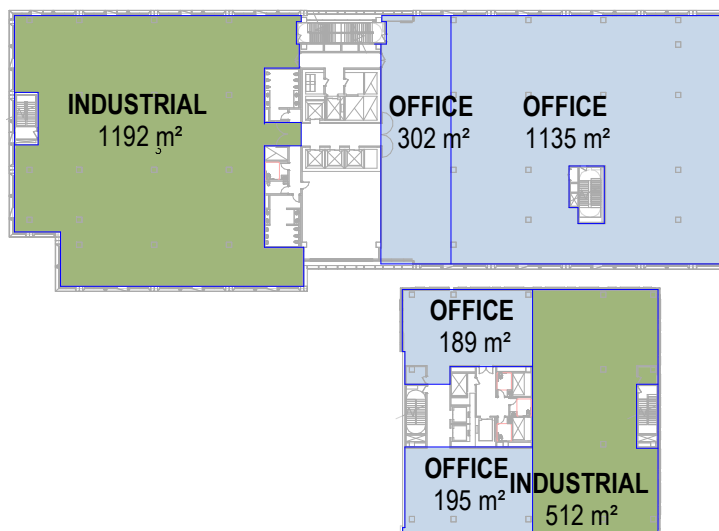
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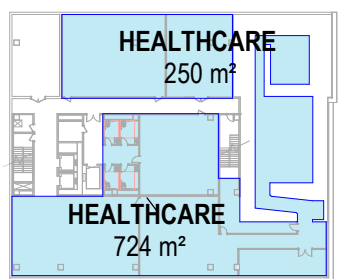
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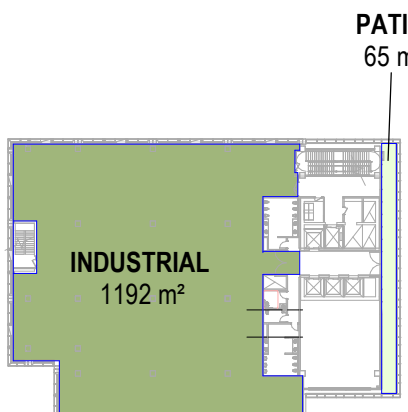
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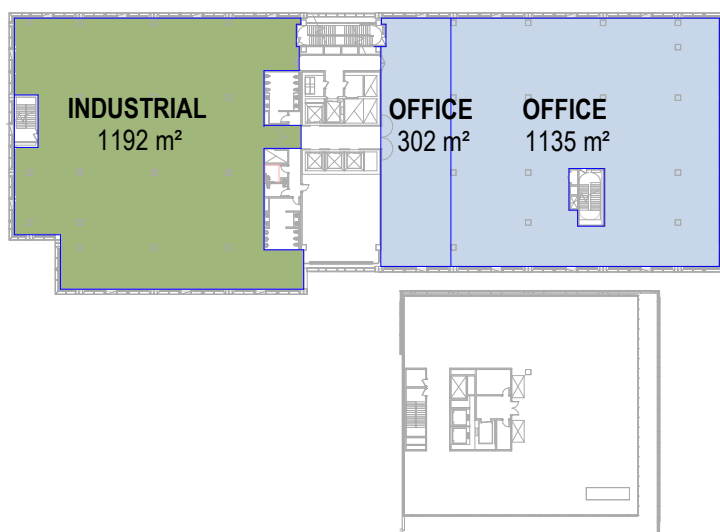
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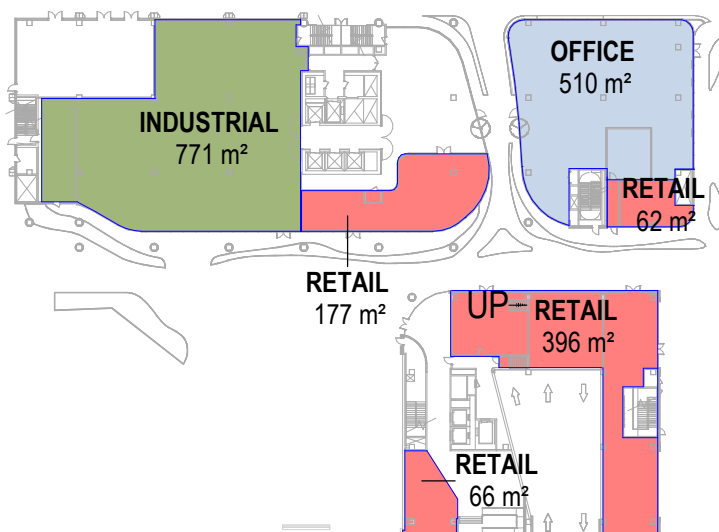
2 BASEMENT 02
SCALE: 1 : 1000



13 LEVEL 08
SCALE: 1 : 1000



9 LEVEL 04
SCALE: 1 : 1000



5 GROUND LEVEL
SCALE: 1 : 1000



1 LOWER LEVEL 03
SCALE: 1 : 1000

SHEET NOTES

NLA (measured in square metres) is the floor space between the internal finished surfaces of permanent internal walls and the internal finished surfaces of dominant portions of the permanent outer building walls.

It generally includes:

- window frames
 - structural columns
- excludes:
- toilets
 - cupboards
 - plant/motor rooms
 - tea rooms where they are provided as standard facilities in the building
 - areas dedicated as public spaces or thoroughfares such as foyers, atrium and building service areas.

KURRABA

74-108 Botany Road and 86-100 Wyndham Street, Alexandria, NSW 2015

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NOMINATED ARCHITECT - TOM OWENS
NSW REGISTRATION NO. 9877

△ Date Description

LEGENDS

- HEALTHCARE
- INDUSTRIAL
- OFFICE
- PATIO
- RETAIL

Seal / Signature

**NOT FOR
CONSTRUCTION**

Project Name

Kurraba

Project Number

05.4858.000

Description

NLA CALCULATION

Scale

1 : 1000

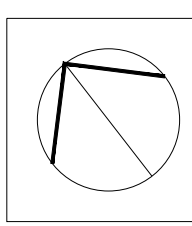
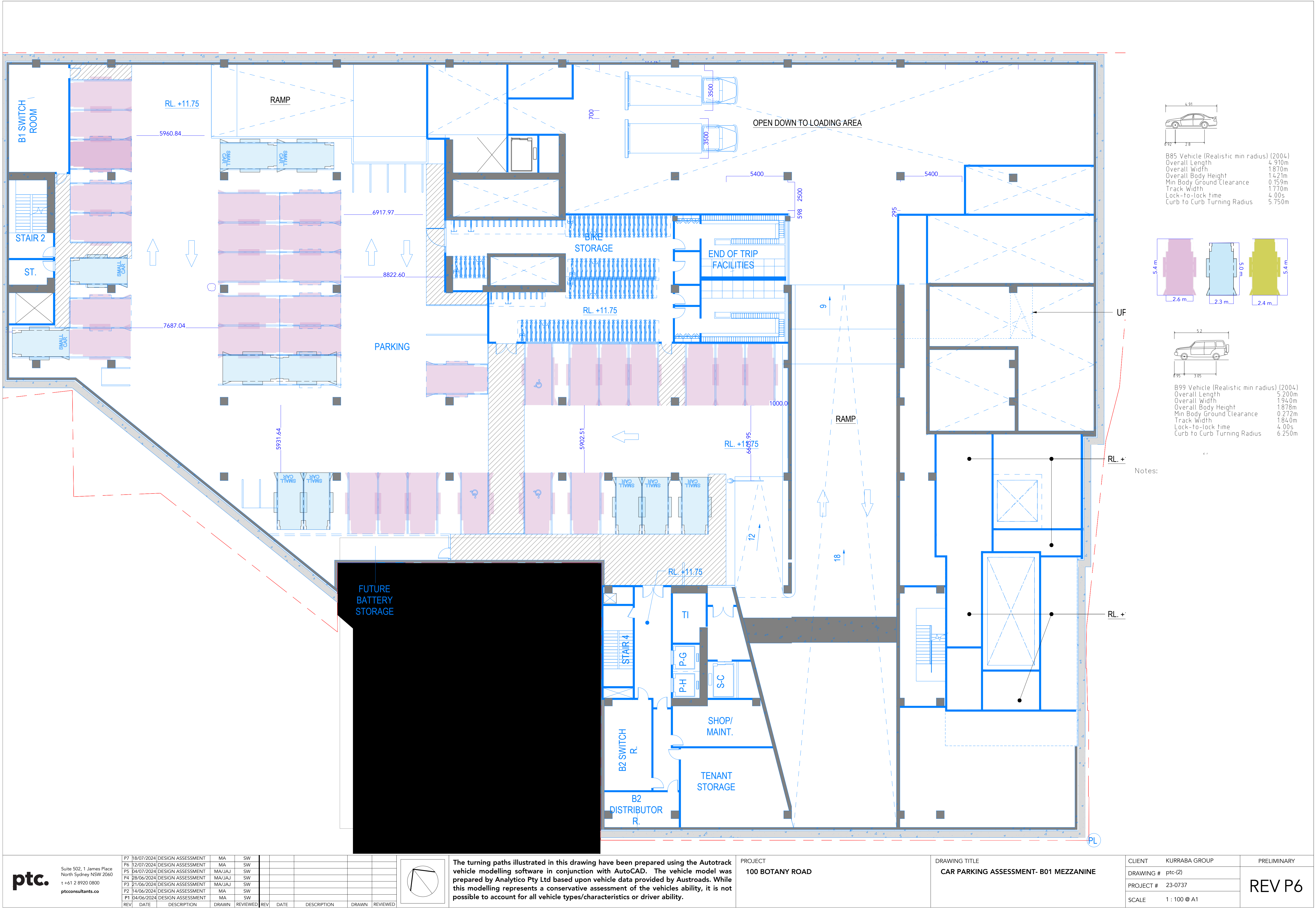
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GEN-BO-ZZ-D-A-0502

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APPENDIX B

SWEPT PATH DIAGRAMS



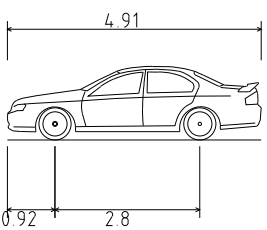
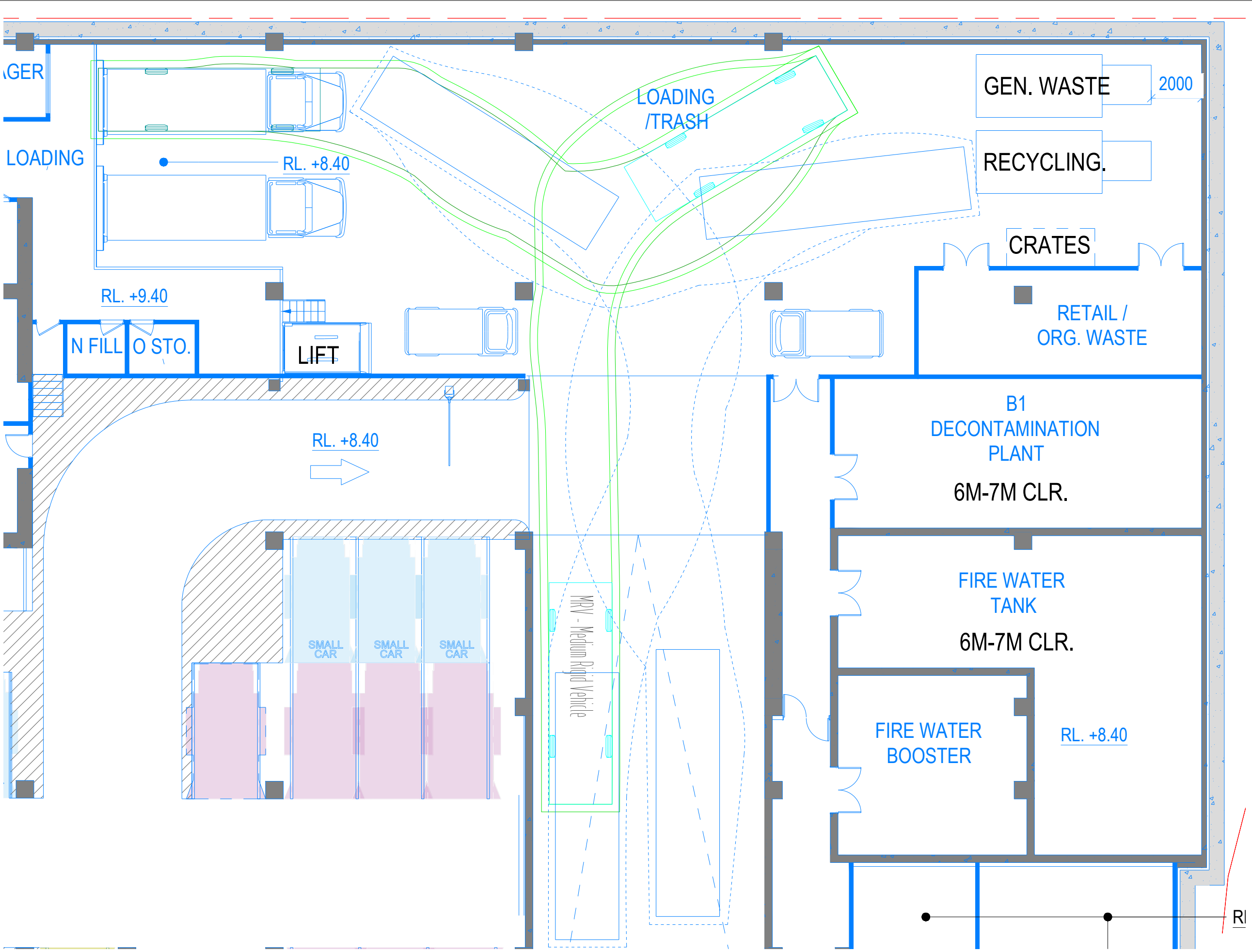
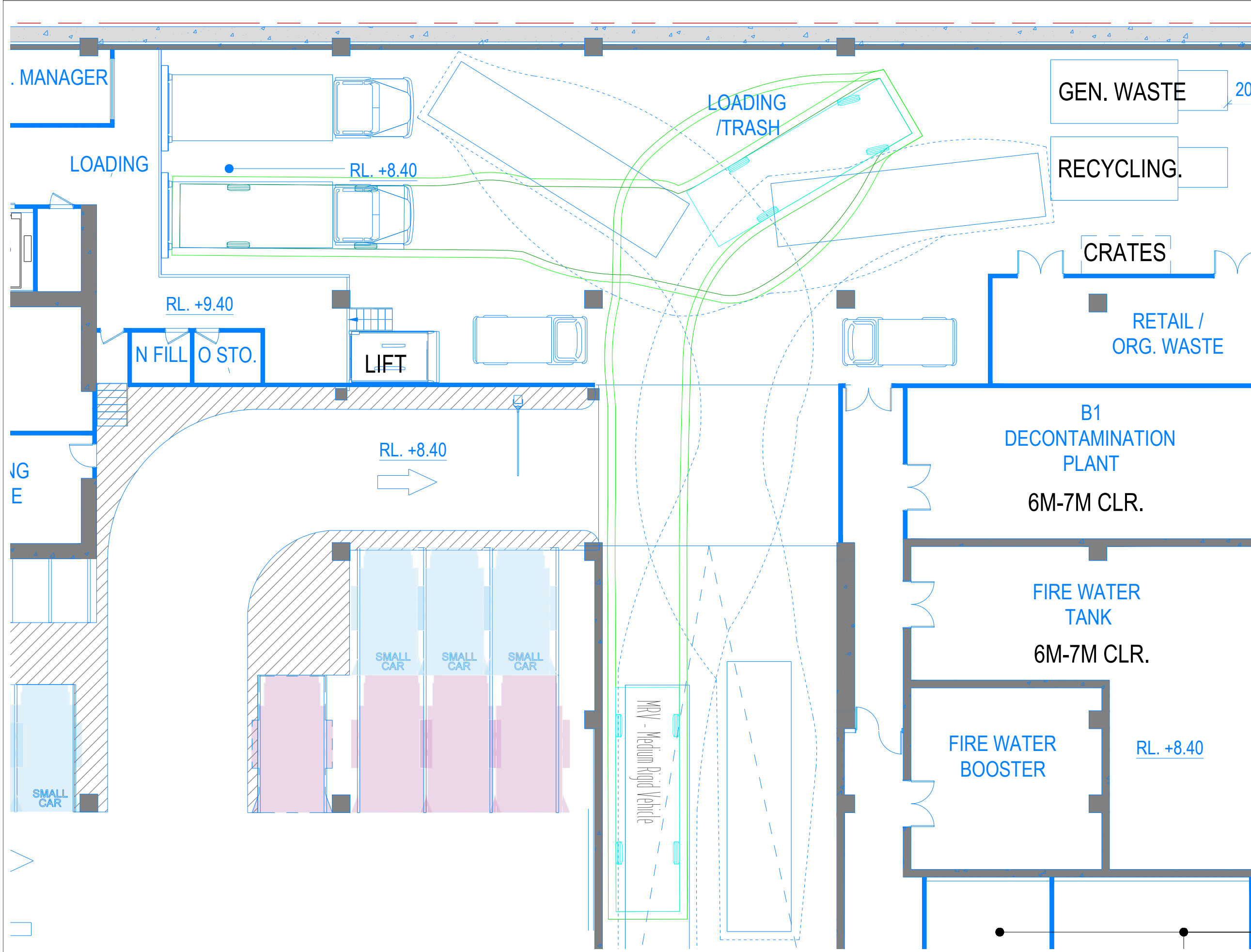
The turning paths illustrated in this drawing have been prepared using the Autotrack vehicle modelling software in conjunction with AutoCAD. The vehicle model was prepared by Analytico Pty Ltd based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.

PROJECT
100 BOTANY ROAD

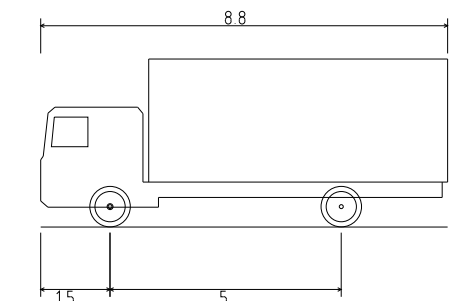
DRAWING TITLE
CAR PARKING ASSESSMENT- B01 MEZZANINE

CLIENT KURRABA GROUP
DRAWING # ptc-(2)
PROJECT # 23-0737
SCALE 1 : 100 @ A1

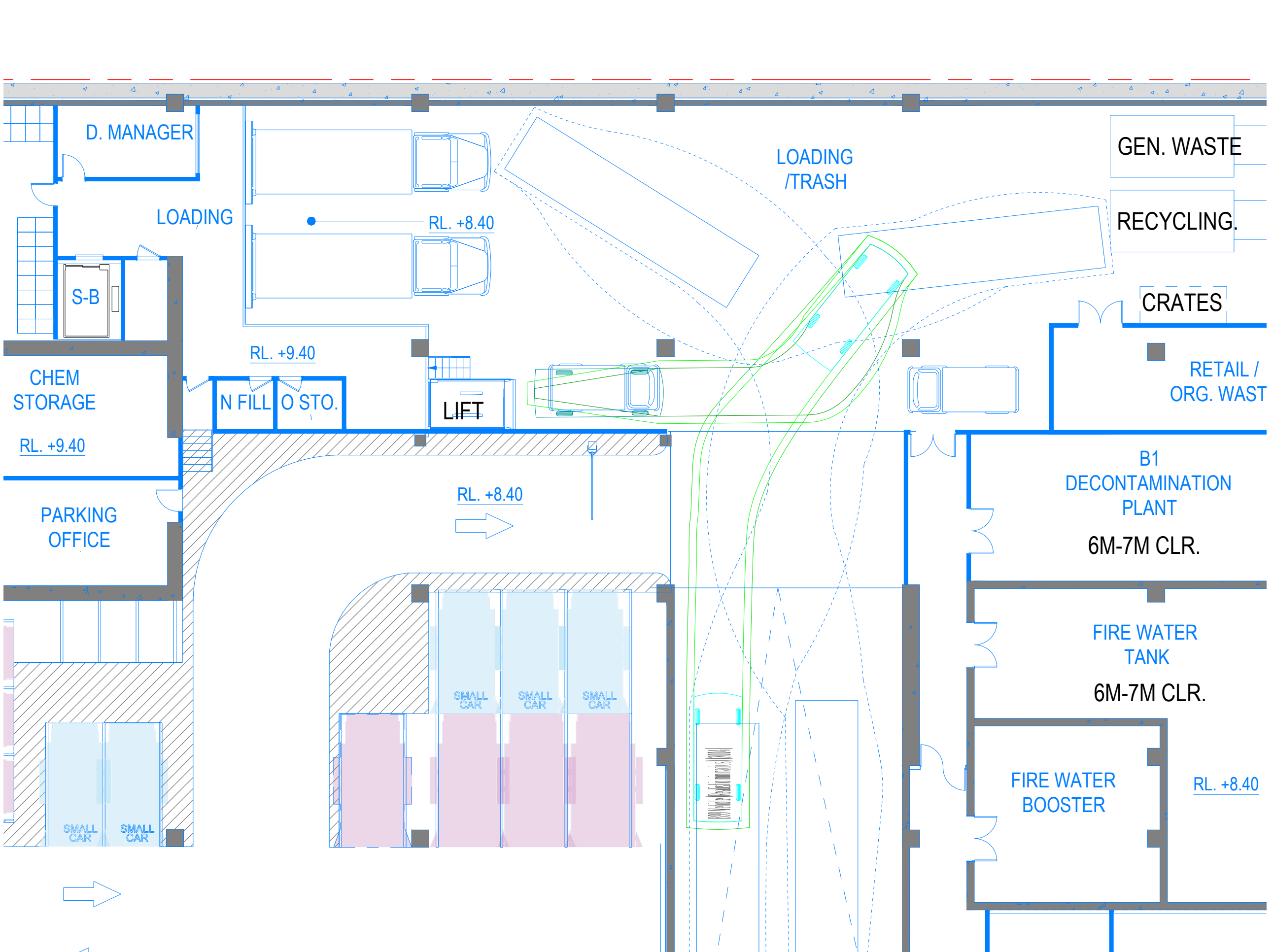
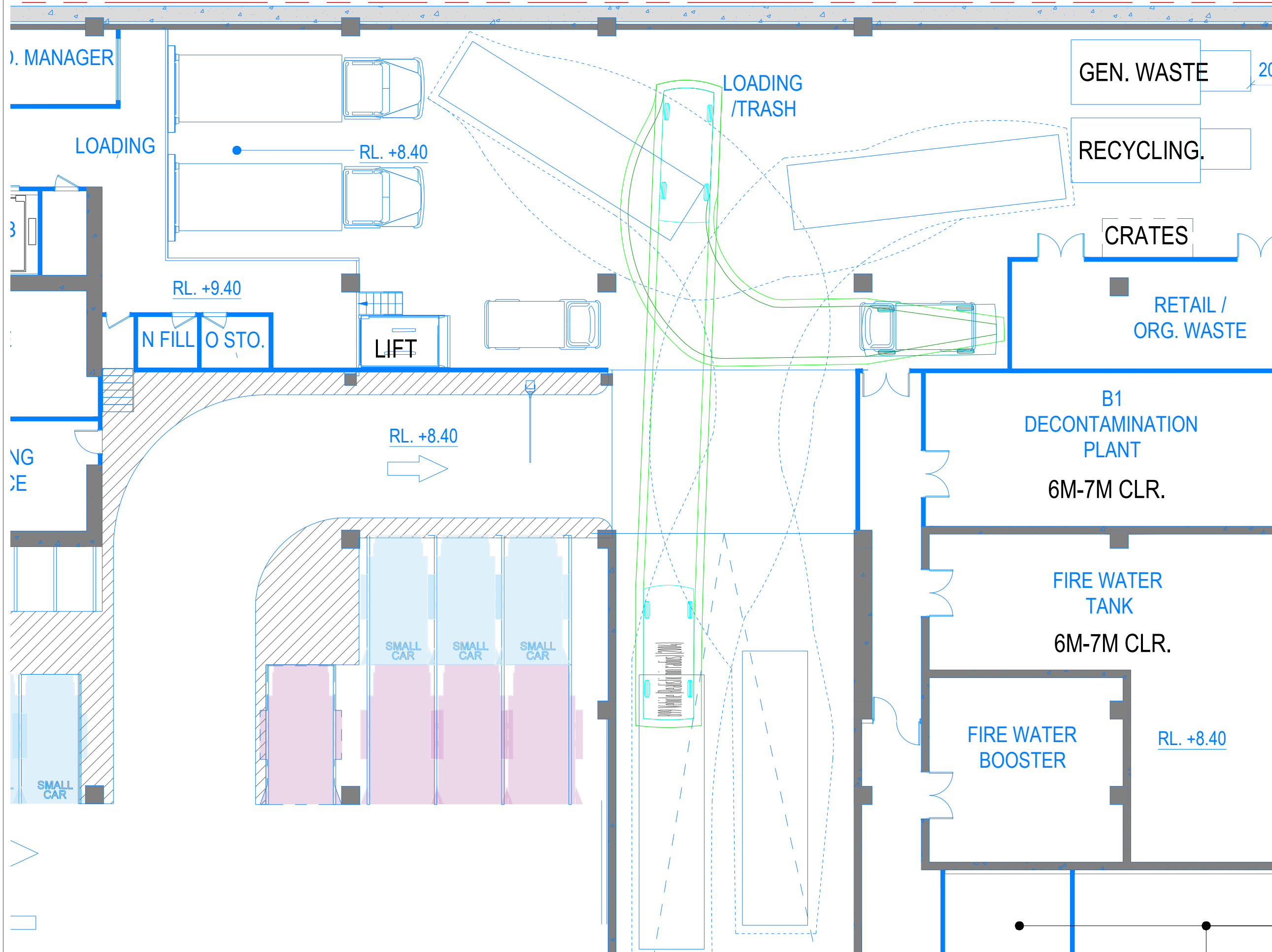
PRELIMINARY
REV P6



B85 Vehicle (Realistic min radius) (2004)
Overall Length 4.910m
Overall Width 1.870m
Overall Body Height 1.421m
Min Body Ground Clearance 0.159m
Track Width 1.770m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 5.750m

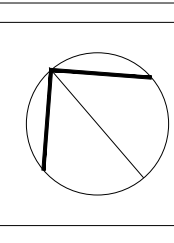


MRV - Medium Rigid Vehicle
Overall Length 8.800m
Overall Width 2.500m
Overall Body Height 3.633m
Min Body Ground Clearance 0.428m
Track Width 2.500m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 10.000m



Notes:

ptc.	Suite 502, 1 James Place North Sydney NSW 2060 t +61 2 8920 0800 ptcconsultants.co									
	P7	18/07/2024	DESIGN ASSESSMENT	MA	SW					
	P6	12/07/2024	DESIGN ASSESSMENT	MA	SW					
	P5	04/07/2024	DESIGN ASSESSMENT	MA/JAJ	SW					
	P4	28/06/2024	DESIGN ASSESSMENT	MA/JAJ	SW					
	P3	21/06/2024	DESIGN ASSESSMENT	MA/JAJ	SW					
	P2	14/06/2024	DESIGN ASSESSMENT	MA	SW					
	P1	04/06/2024	DESIGN ASSESSMENT	MA	SW					
REV	DATE	DESCRIPTION	DRAWN	REVIEWED	REV	DATE	DESCRIPTION	DRAWN	REVIEWED	



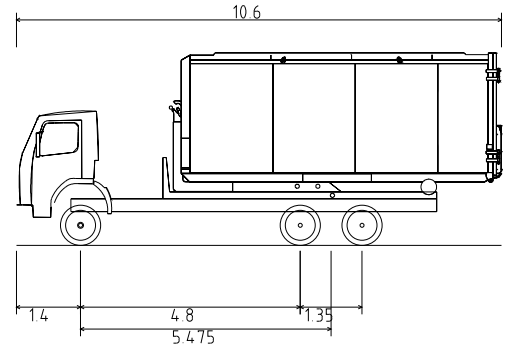
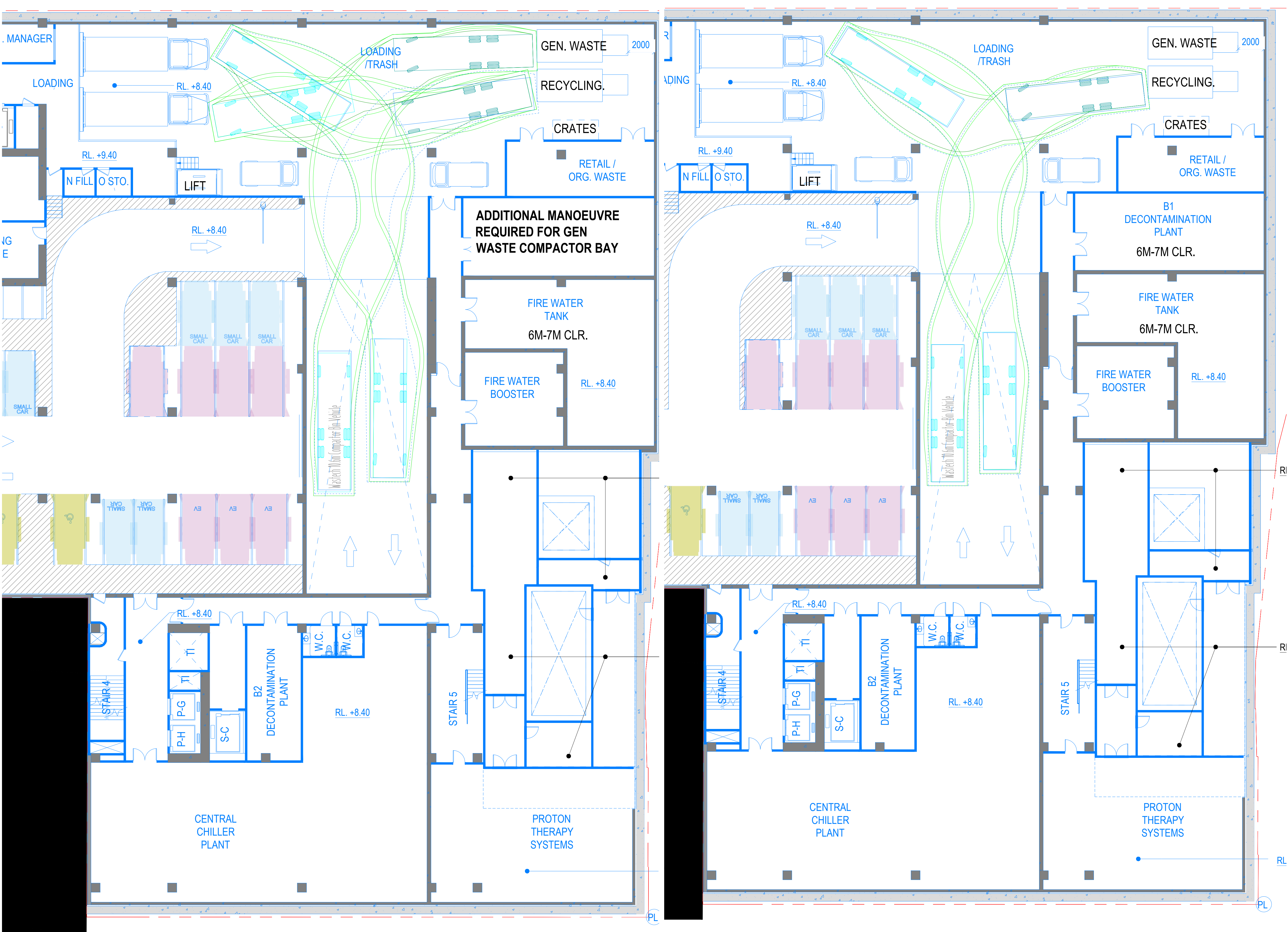
The turning paths illustrated in this drawing have been prepared using the Autotrack vehicle modelling software in conjunction with AutoCAD. The vehicle model was prepared by Analytico Pty Ltd based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.

PROJECT	100 BOTANY ROAD
---------	-----------------

DRAWING TITLE	LOADING DOCKS ASSESSMENT - B01
---------------	--------------------------------

CLIENT	KURRABA GROUP
DRAWING #	ptc-(7)
PROJECT #	23-0737
SCALE	1 : 100 @ A1

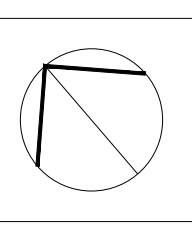
PRELIMINARY
REV P6



Wastech 10.6m Compactor Bin Vehicle
Overall Length 10.600m
Overall Width 2.500m
Overall Body Height 4.207m
Min Body Ground Clearance 0.613m
Track Width 2.500m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 12.500m

Notes:
this vehicle has been used as representative of the intended waste compactor vehicle. Minor variation to the size of this vehicle may occur. All swept paths are indicative.
The provision of convex mirrors is recommended to assist with visibility in the loading dock areas.

ptc.	Suite 502, 1 James Place North Sydney NSW 2060 t +61 2 8920 0800 ptcconsultants.co									
	P7	18/07/2024	DESIGN ASSESSMENT	MA	SW					
	P6	12/07/2024	DESIGN ASSESSMENT	MA	SW					
	P5	04/07/2024	DESIGN ASSESSMENT	MA/JAJ	SW					
	P4	28/06/2024	DESIGN ASSESSMENT	MA/JAJ	SW					
	P3	21/06/2024	DESIGN ASSESSMENT	MA/JAJ	SW					
	P2	14/06/2024	DESIGN ASSESSMENT	MA	SW					
	P1	04/06/2024	DESIGN ASSESSMENT	MA	SW					
	REV	DATE	DESCRIPTION	DRAWN	REVIEWED	REV	DATE	DESCRIPTION	DRAWN	REVIEWED



The turning paths illustrated in this drawing have been prepared using the Autotrack vehicle modelling software in conjunction with AutoCAD. The vehicle model was prepared by Analytico Pty Ltd based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.

PROJECT
100 BOTANY ROAD

DRAWING TITLE
LOADING DOCKS ASSESSMENT - B01
Waste Compactor Vehicle

CLIENT	KURRABA GROUP
DRAWING #	ptc-(5.1)
PROJECT #	23-0737
SCALE	1 : 100 @ A1

PRELIMINARY

REV P6

APPENDIX C

CITY OF SYDNEY WASTE TEMPLATE

Appendix

Waste and Recycling Management Plan forms

- A Construction Waste and Recycling Management Plan A-2**
- B Demolition Waste and Recycling Management Plan A-4**
- C Operational Waste and Recycling Management Plan A-6**

A. Construction Waste and Recycling Management Plan

Refer to the Construction and Demolition Waste Requirements.



Site Address:		DA Number:	
Will you use Site Cleaners?		☐ Yes, for some work ☐ Yes, for all work ☐ No	Estimated total volume or weight
Please supply details of site cleaners used		ABN Number Name Phone Mobile	
All Excavation Material (including from Swimming Pool excavations)		☐ Less than 10 m ³ ☐ More than 10 m ³ (if more than 10 m ³ , specify estimated volume below) 	☐ Re-use on-site ☐ Re-use off site ☐ Landfill Disposal
Address if re-used off site			
Name and Address of licensed landfill			

			How will you manage this waste?				
Type of Material	Less than 10 m ³	Please specify estimated volumes if more than 10 m ³	Re-use on-site	Recycle (separate collection from site)	Recycle (off-site separation)	Landfill	% of material diverted from landfill
Bricks	☐		☐	☐	☐	☐	%
Concrete	☐		☐	☐	☐	☐	%
Tiles	☐		☐	☐	☐	☐	%
Timber (clean)	☐		☐	☐	☐	☐	%
Timber (treated)	☐		☐	☐	☐	☐	%
Plasterboard	☐		☐	☐	☐	☐	%
Glass	☐		☐	☐	☐	☐	%
Ceiling tiles	☐		☐	☐	☐	☐	%
Metals (ferrous)	☐		☐	☐	☐	☐	%
Metals (non-ferrous)	☐		☐	☐	☐	☐	%
Carpet	☐		☐	☐	☐	☐	%
Electronic waste	☐		☐	☐	☐	☐	%
Total diversion of waste from landfill (needs to be minimum 80% diversion):							%

NOTE: REFER TO SECTION 3.4 FOR DETAILED ESTIMATES.

Principal Off-Site Recycler/s	Off-Site Recycler's Primary Markets for Materials (for residential developments over three storeys and all non-residential developments)	Principal Licensed Landfill Site
Cleanaway Artarmon Resource Recovery Centre Cleanaway Auburn Resource Recovery Centre	Transfer Station. Separated materials re-distributed to individual material processors. Likely reuse in new plaster-board manufacture, concrete aggregates, recycled into equivalent product.	Cleanaway Lucas Heights Resource Recovery Park

Declaration

Name of applicant (please print):

Signature of applicant:

Date:

NOTE: REFER TO SECTION 3.4 FOR DETAILED ESTIMATES

B. Demolition Waste and Recycling Management Plan

Refer to the Construction and Demolition Waste Requirements.

Site Address:		DA Number:	
Does demolition contain asbestos?		☐ Yes ☐ No	
All asbestos waste is to be managed in accordance with provisions of the NSW <i>Work Health and Safety Regulation 2011</i> and the <i>City of Sydney Asbestos Policy</i> .		☐ Tick ☒ if under 10 m ² ☐ Tick ☒ if over 10 m ²	
WorkCover Licence No. and Class			
Demolition contractor details			
Licensed landfill			



General demolition waste

Type of Material	Less than 10 m ³	Please specify estimated volumes if more than 10 m ³	How will you manage this waste?				% of material diverted from landfill
			Re-use on-site	Recycle (separate collection from site)	Recycle (off-site separation)	Landfill	
Bricks	☐		☐	☐	☐	☐	%
Concrete	☐		☐	☐	☐	☐	%
Tiles	☐		☐	☐	☐	☐	%
Timber (clean)	☐		☐	☐	☐	☐	%
Timber (treated)	☐		☐	☐	☐	☐	%
Plasterboard	☐		☐	☐	☐	☐	%
Metals (ferrous)	☐		☐	☐	☐	☐	%
Metals (non-ferrous)	☐		☐	☐	☐	☐	%
Mixed recycling	☐		☐	☐	☐	☐	%
Total diversion of waste from landfill (needs to be minimum 80% diversion):							%

NOTE: REFER TO SECTION 3.4 FOR DETAILED ESTIMATES

Principal Off-Site Recycler/s	Off-Site Recycler's Primary Markets for Materials (for residential developments over three storeys and all non-residential developments)	Principal Licensed Landfill Site
Cleanaway Artarmon Resource Recovery Centre Cleanaway Auburn Resource Recovery Centre	Transfer Station. Separated materials re-distributed to individual material processors. Likely reuse in new plaster-board manufacture, concrete aggregates, recycled into equivalent product.	Cleanaway Lucas Heights Resource Recovery Park

Declaration

Name of applicant (please print):

Signature of applicant:

Date:

NOTE: REFER TO SECTION 3.4 FOR DETAILED ESTIMATES.

C. Operational Waste and Recycling Management Plan

Site Address: DA Number:

- ☐ Residential Only Development
☐ Mixed Residential/Non-Residential Development

Generation of waste **NOTE: NO RESIDENTIAL USE ON SITE.**

Refer to the Waste Generation rates in Guidelines.

RESIDENTIAL MULTI-UNIT Number of dwellings	Waste generation/ week (100L/dwelling)	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ week (120L/dwelling)	Nominated recycling bin size (L)	Total number of bins estimated
e.g. 6	600	240	3	720	240	3
e.g. 20	2000	660	3	2400	660	4

RESIDENTIAL SINGLE DWELLINGS Number of dwellings	Waste generation/ week (100L/dwelling)	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ week (120L/dwelling)	Nominated recycling bin size (L)	Total number of bins estimated	Food waste generation/ week (for single unit dwellings only)	Nominated food waste bin size (L) (for single unit dwellings only)	Total number of bins estimated
e.g. 1	100	120	1	120	120	1	40	60	1

REFER TO SECTION 2 of WMP

NON-RESIDENTIAL Calculate generation based on premises type and area

	Waste generation/ L/day	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ L/day	Nominated recycling storage bin size (L)	Total number of bins estimated	Food waste generation/ L/day	Nominated food waste bin size (L)	Total number of bins estimated
e.g Hotel (11,000 m ²)	2200	660	4	2750	660	5	1650	660	3
e.g Restaurant (200 m ²)	200	240	1	1000	660	1	200	240	1

General requirements

All multi-unit residential and non-residential development is to address the following.

Refer to the [General Requirements](#) section in [Guidelines](#).

1	Have the Guidelines been considered in conjunction with the City's <i>Waste Management Local Approvals Policy</i> (found at www.cityofsydney.nsw.gov.au)?		☐ Yes	☐ No
	Is there a waste and recycling storage area provided?		☐ Yes	☐ No
	Is the waste and recycling areas located in a position that is convenient for both users and waste collection staff?		☐ Yes	☐ No
	Location of waste and recycling storage areas: (e.g. level 2)	Distance (m) from the waste and recycling storage area to the collection point	Size of waste and recycling storage areas (m ²)	
	What is the total area of bin storage provided?			(m ²)
	Is the layout of the waste and recycling storage area designed to encourage easy recycling and separation of different waste types by all users?		☐ Yes	☐ No
	What is the ceiling height of the waste and recycling storage area?			m
Have you submitted a detailed plan of the waste and recycling storage area, together with the nominated collection point and access pathway marked?		☐ Yes	☐ No	
Please include name and location of relevant drawings:				
Is there sufficient space provided for the estimated general waste and recycling bins PLUS handling?		☐ Yes	☐ No	
2	How much separate space is dedicated for storing bulky waste and problem waste?			m ²
	What type of storage space for bulky and problem waste has been allocated? (e.g. designated area, lockable cage, within waste and recycling storage room or other)			
	Is food waste or compostable material managed in any way? (tick the applicable management system/s below)		☐ Yes	☐ No
	• Suitable space available for composting and worm farming		☐	
	• On-site food waste processing system		☐ System type:	
• Other (please specify)				

3	Is the collection point sufficiently accessible by collection operators?	☐ Yes ☐ No
	What is the maximum manual handling distance between the storage point and the collection point for bins?	m
	Are any collection and vehicle access points located adjacent to a habitable room?	☐ Yes ☐ No
	What is the maximum grade of the path for wheeling bins between a storage point and the collection point?	:
	Are all externally located on-site collection points constructed within 15 metres from the property boundary?	☐ Yes ☐ No
	What is the clearance height allowed for collection vehicles to enter the site for collection?	m
	Is entry and exit of a collection vehicle from the site in a forward direction?	☐ Yes ☐ No
4	Can collection vehicles service the development with minimal reversing?	☐ Yes ☐ No
	Have the following allowances been made for all collection points?	☐ Yes ☐ No
	- Vehicle access for collection and loading will provide for a maximum grade of 1:20 for the first 6 metres from the street, then a maximum of 1:8 with a transition of 1:12 for 4 metres at the lower - A minimum width of driveway of 3.6 metres - A minimum radius turning circle of 10.5 metres or provision for changing the facing direction	
	Who will be responsible for waste management (waste storage area management, cleaning, bin transfer, educating occupants etc) for the development?	
4	Will appropriate signage for waste storage areas and equipment (including bins) for effective waste management and safe handling be implemented where necessary?	☐ Yes ☐ No
	Please provide an overview summary of the development's waste management system and arrangements, including a description of how occupants, cleaners and/or building management will use the waste management facilities and how waste will be stored, transported and collected. (This is to be consistent with the drawings attached. Please attach additional pages if more space required)	

REFER TO SECTION 2 OF WMP

Multi-unit residential developments dwellings

All residential developments which shared waste and recycling bins are to address the following.

Refer to Multi-Unit Residential Developments Dwellings section in Guidelines.

1	Has space for at least two day's generation of waste and recycling been provided per unit?	☐ Yes ☐ No
	Is the waste and recycling storage area(s) easily accessible by all residents of the development?	☐ Yes ☐ No
	How far is the waste and recycling storage area from the farthest residential dwelling?	m
	Are you requesting any additional infrastructure in the waste and recycling storage room (carousel, optic sensors, number of bins, automatic bin exchange, size)? <i>If yes, fill in the section below</i>	☐ Yes ☐ No
2	Please detail the type of additional infrastructure:	
	If a compactor is included, what is the proposed compaction ratio (it is not to exceed 2:1)?	
	Will the development elect to have kerbside collection? (only applies to developments with less than 6 units that satisfy the requirements outlined in the General Requirements section)	☐ Yes ☐ No
	What type of problem waste will be dealt with in this development? (e.g. electronic waste, batteries, fluorescent tubes and mobile phones)	
3	How much space in the waste and recycling storage area has been allocated for textile waste?	m ²
	Will a chute system be utilised in the new development? If yes, will the chute system be a single (general waste) or dual system (two separate chutes for waste and recycling)? <i>If no, move onto question 5.</i>	☐ Yes ☐ single or ☐ dual ☐ No
	Has the chute system been designed according to the relevant minimum manufacturing standard?	☐ Yes ☐ No
	What is the total maximum travel distance from any residential dwelling entry to a chute system on any given storey? (It is not to exceed 30 metres)	m
	Has the chute system been designed and certified according to the relevant acoustic standards?	☐ Yes ☐ No

NOTE: NO RESIDENTIAL USES ON SITE

4	Is there a chute room on each habitable floor of a development with a chute system?	☐ Yes	☐ No
	Does the chute room include space for: - recycling MGBs (if a single chute system is used) - the chute inlet hopper - spare MGBs - large cardboard and/or bulky items to reduce the likelihood of blockages in chutes.	☐ Yes	☐ No
5	In which of the following ways will on-site collection of waste, recycling , textile waste and bulky items take place?		
	1 In the building's basement	☐ Yes	☐ No
	2 At grade within the building in a dedicated collection or loading bay	☐ Yes	☐ No
	3 At grade and off-street within a safe vehicular circulation system where, in all cases, vehicles will enter and exit the premises in a forward direction	☐ Yes	☐ No

Residential single dwellings

All single-dwelling houses, small-scale villas or townhouse-type developments with bins allocated to and managed at each individual dwelling is to address the following.

[Refer to Residential Single Dwellings section in Guidelines.](#)

1	Has space for at least two day's generation of waste, recycling and food waste been provided per dwelling?	☐ Yes	☐ No
	Has storage area for one each of council's specified waste bins been allocated per unit? (including general waste, recycling, food waste and garden organics)	☐ Yes	☐ No
	Has appropriate access between the waste and recycling storage area and kerbside collection point been allocated?	☐ Yes	☐ No
	Has sufficient space for the storage of bulky waste, textile waste and problem waste been allocated?	☐ Yes	☐ No

NOTE: NO RESIDENTIAL USES ON SITE

Non-residential developments

All new non-residential developments are to address the following.

[Refer to Non-Residential Developments section in Guidelines.](#)

1	How much space is dedicated for storing bulky waste and problem waste for recycling?	m ²
2	Dedicated space (in or attached to the waste and recycling storage area) is provided for the storage and recycling of food waste for collection	☐ Yes ☐ No
	How much space has been allocated for management of re-usable items (such as crates, pallets, kegs and fit-out waste)?	m
3	Have kitchens, office tearooms, service and food preparation areas been designed with dedicated space to collect and recycle food waste?	☐ Yes ☐ No
	Has secure space for the storage of liquid wastes been provided (such as chemicals, paints, solvents, and motor and cooking oil)?	☐ Yes ☐ No
4	Will collection of non-residential waste take place inside the new development?	☐ Yes ☐ No
5	Will the site employ the use of a waste caretaker or cleaner for managing non-residential waste?	☐ Yes ☐ No
	Will the development employ on-site washing of waste materials?	☐ Yes ☐ No
6	Has the 'Non-Residential Developments' section of the Guidelines been consulted for specific requirements of different non-residential occupancies at the site?	☐ Yes ☐ No

Mixed use developments

All developments containing both residential and non-residential units are to address the following.

[Refer to Mixed Use Developments section in Guidelines.](#)

1	Has separate waste and recycling storage been allocated for residential and non-residential aspects of the site?	☐ Yes ☐ No
	Will the collection point be shared for residential and non-residential waste?	☐ Yes ☐ No
	Have relevant site plans identified the storage areas, collection points and management systems for both residential and non-residential waste streams?	☐ Yes ☐ No

Declaration

Name of applicant (please print):

Signature of applicant:

Date:





Sydney2030/Green/Global/Connected



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