Operational Waste Management Plan

Bowen Centre – Proposed Commercial Development

At 8 – 18 Jamieson Street, Bowen Hills

On Behalf of Construction Forestry Mining & Energy Industrial Union of Employees QLD State Construction & General Division

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Revision Record

Issue No.	Author	Reviewed/Approved	Development Stage / Revision Description	Date
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1 Introduction

1.1. Background

Colliers International Engineering & Design (TTMC) has been engaged by Construction Forestry Mining & Energy Industrial Union of Employees QLD State Construction & General Division to prepare an Operational Waste Management Plan (OWMP) to support the proposed commercial development located at 8 – 18 Jamieson Street, Bowen Hills. It is understood that a development application will be lodged with Economic Development Queensland (EDQ).

1.2. Client Brief and Scope

The proposed development intends to deliver a commercial building that meets the clients specific operational need yet has utility to offer flexibility for the long term and potential change in tenants. This utility is to extend to the refuse management strategy with an inbuilt capacity to achieve client specific ESD targets.

The content of this OWMP is intended to provide information on the typical movement of waste streams from generation to collection. Information on the minimum standard of refuse management is provided as well as recommendations for better practice management to reduce the volume of waste to landfill.

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 Analysis

The site is located at 8 – 18 Jamieson Street, Bowen Hills and is formally described as Lots 36 and 38 on RP9895 and Lot 37 on RP115563 as depicted in Figure 1.1.

The site has dual frontages on Jamieson Street and Edgar Street with all vehicular access occurring via Edgar Street. Both frontages are recognised as neighbourhood roads on BCC's road hierarchy.

The site is located within the Bowen Hills Priority Development Area (PDA), with the overarching area defined as an Emerging Community. The site falls within the Mixed-Use Zone within the Bowen Hills PDA.

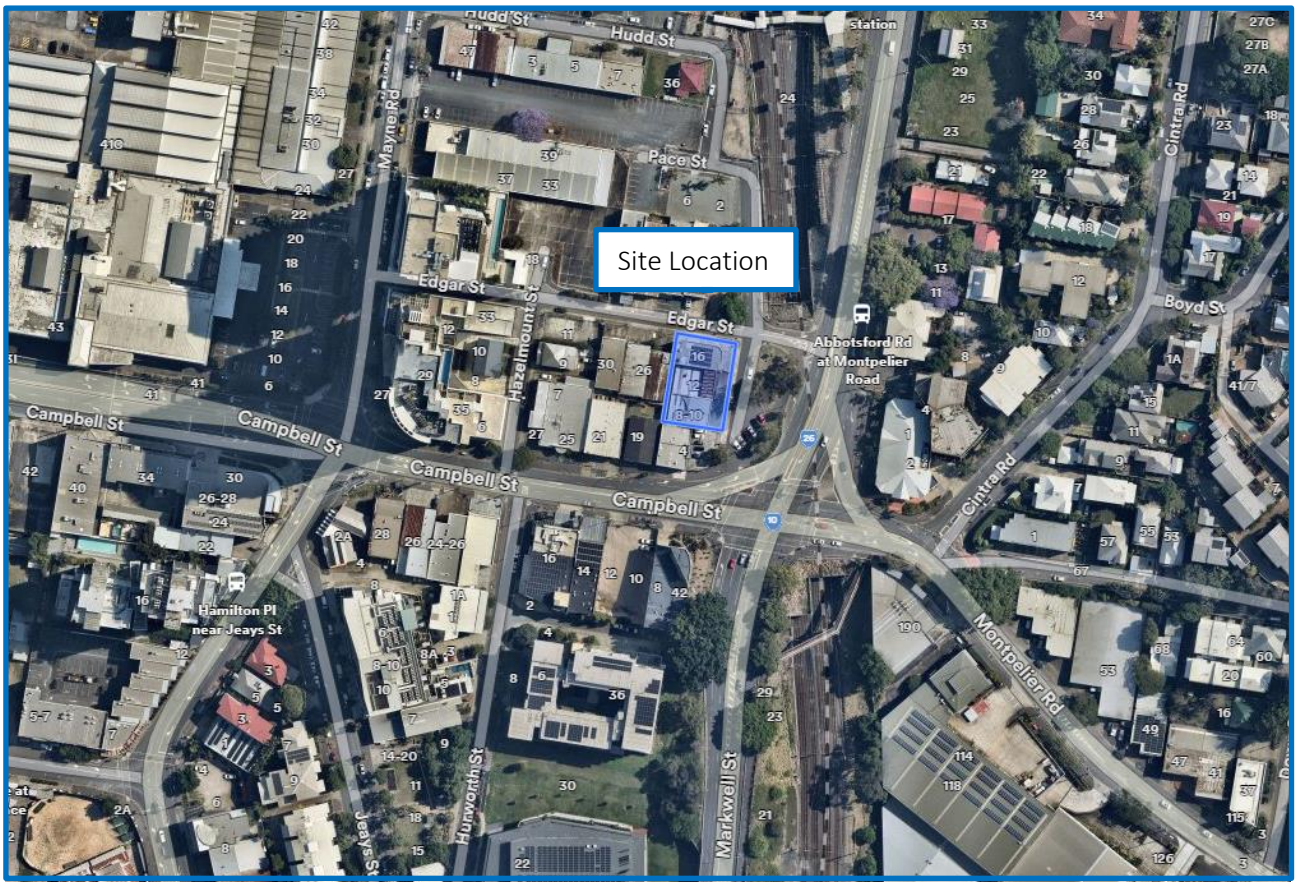


Figure 1.1: Site Location
Source: Nearmap, Image Dated 20/09/2024

1.4. Site Statistics

The proposed development consists of a 7-storey commercial office building with parking and servicing areas located on ground and 6 levels of office space above. Table 1.2 below provides a summary of the development as context for the volume information provided in Section 2.

Table 1.2: Development Summary

Level	Description	Measure *
Level 1	Office Space & Kitchen / Lunchroom	592.16m^2 NLA
Level 2	Office Space	707.78m^2 NLA
Level 3	Office Space	362.64m^2 NLA
Level 4	Office Space	427.81m^2 NLA
Level 5	Office Space	427.81m^2 GFA
Level 6	Office Space	427.81m^2 GFA
Total		**2,946.01m^2 GFA**

* Refuse generating areas only; areas such as carparking, lobbies, amenities, stair presses, storerooms or circulation space not included as not directly being a source of refuse generation

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

2.1.1. State Government Development Scheme

This plan has been prepared to align with the refuse requirements of the Bowen Hills PDA Development Scheme No.3. TTMC has referred to the requirements of Section 2.5.4.6 and Schedule 3 as these sections outline the waste management controls for all development within the PDA.

Whilst the application will be submitted to EDQ as a Development Application, it is noted that the site is located within the Brisbane City Council local government area. As such, where relevant this development has been designed to align with the respective provisions of the Brisbane City Council City Plan 2014 as outlined in Section 2.1.2.

Table 2.1 details the refuse management items addressed to align with the Bowen Hills PDA Development Scheme No.3.

Table 2.1: OWMP Development Scheme Checklist

Bowen Hills PDA Development Scheme No.3		
Item	Requirement	Compliance / Comment
Section 2.5.4.6 – Waste Management		
Development:		
(i)	provides facilities for recycling, composting and waste reduction, in addition to the provision of facilities for the removal of waste. Where possible, waste management facilities are centrally located on the site, and	Complies – Details throughout this OWMP.
(ii)	ensures that no liquid or solid wastes, other than stormwater, are discharged to neighbouring land or waters to prevent contamination of natural waterways.	Complies – Sewer connected drainage points in all refuse storage locations connected to sewer.

2.1.2. Council's Refuse Planning Scheme

As a referral agency for EDQ, this plan has been prepared to align with Brisbane City Council's (BCC) refuse requirements of SC6.26 Refuse Planning Scheme Policy (PSP) v30. Additionally, AO2 / PO2, AO63.1, AO63.2 / PO63 of the Centre or mixed use code and AO8.1, AO8.2 / PO8 of the Infrastructure design code.

As the development, subject to this application is a non-residential use site, TTMC has referred to BCC requirements as outlined in the Refuse PSP under section 2, 3 and 5. These sections relate to the general requirements for all uses and specific controls for non-residential uses. Specific design details addressed to achieve compliance with BCC's Refuse PSP requirements is located in *Appendix A.*

2.2. Prescribed Refuse Volumes

The generation rates and service frequency used for the calculation of refuse produced have been applied based on rates prescribed by Brisbane City Council to achieve compliance. It should be noted that these rates are standardised generation rates and not site specific however, give an estimation on the potential waste generation.

A collection frequency of 2 days per week for each stream has been established. The established frequency represents the maximum permissible service frequency for non-residential uses within an 'Emerging Community' Zone as specified in 'Table 2 – Non-residential service frequency requirement' of the Refuse PSP. However, as the site falls within a Mixed-Use zone of the Bowen Hills PDA, a service frequency of 3 times per week is considered appropriate, and should be considered by development operators during the operational phase for food waste collections.

Table 2.2: Refuse Generation Rates

Generation Rate	Applied To	Measure	General Waste	Recycling	Days of Operation
Office	Total Office GFA	L / 100m^2 / Day	10	20	5.5

Table 2.3 details the further separation of the recommended 'General Waste' and 'Recycling' generation rates into additional streams by percentage splits. The percentage splits have been applied in line with the expected refuse composition, for use in the refuse generation calculations in Table 2.4 and subsequent refuse spatial area requirements.

Table 2.3: Refuse Composition Splits

Area Description	General Waste		Recycling		
	General Waste	Food Waste	Commingle Recycling	Paper / Cardboard	Secure Destruct Paper
Office	95%	5%	50%	30%	20%

Table 2.4: Refuse Calculations

Area Description	Measure	Quantity	General Waste L/Week	Food Waste L/Week	Commingle Recycling L/Week	Paper / Cardboard L/Week	Secure Destruct Papers
Total Office GFA	GFA (m^2)	2,946	1,539	81	1,577	972	648
Volumes per Day (L / Day)			**280**	**15**	**295**	**177**	**118**
Volumes per Collection (L / Collection)			**770**	**41**	**1,620**	**972**	**648**
Collection and Equipment Details	Collections per Week		2	2	1	1	1
	Storage Capacity (Trading Days)		3 Days	3 Days	6 Days	6 Days	6 Days
	Equipment Size		1,100L	120L	1,100L	1,100L	120
	Equipment Quantity Required		0.70	0.34	1.47	0.88	5.40
	Equipment Quantity Provided		1	1	2	1	6

2.3. Refuse Bin, Equipment Requirements and Specification

Table 2.5 and Table 2.6 outline the number of bins and additional equipment required for the development based on the generation calculations above.

As waste volumes may vary over time according to evolving waste streams or operation of the site and operator preference, bin numbers and sizes may need to be altered to suit the building operation. The tables show the maximum number of bins and equipment expected.

Table 2.5: Bin Requirements

Refuse Stream	Bin / Storage – Size or Type	Number Required
General Waste	1,100L	1
Food Waste	120L	1
Commingled Recycling	1,100L	2
Paper / Cardboard	1,100L	1
Secure Destruct Papers	120L	6 (or 1 per level)

Table 2.6: Additional Equipment

Description	Quantity	Capability / Specification – See *Appendix C* for Detail
Individual Stream Receptacles	TBD	Receptacles for the immediate disposal of refuse into separate streams. Typically, bins typically up to 60L in volume placed BoH in central bin stations. Further details in Section 2.4.1.
Refuse / Cleaners Trolleys	TBD	Used to assist in the manual transfer of refuse to the bulk bins in the refuse room for final disposal.
Mixed Batteries Recycling Receptacle	1 (Optional and recommended)	Receptacle for the capture of mixed batteries recommended to ensure the separation of batteries from other refuse streams. At least 1 receptacle should be placed in accessible location. Further details in Section 2.4.1.
Refuse Weighing Scales – National Measurement Institute (NMI) Certified	TBD (Optional and recommended)	Recommended to assist in tracking of refuse weights prior to collection for improved data recording. Scales must maintain NMI certification. Either platform scales in loading dock or mobile scales for cleaners' trolleys. Used to assist in tracking of refuse weights prior to collection for improve data recording which supports NABERs data quality.

2.4. Refuse Disposal

The tables in this section summarise general recommended disposal arrangements for frequently generated and infrequently generated refuse for each development component. Section 2.4.1 describes the frequently generated refuse streams that are generated in high volumes for any given period and require significant capacity for storage prior to collections. Section 2.4.2 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 and ad hoc storage arrangements.

2.4.1. Frequently Generated Refuse

Building operators will ensure bins or receptacles are provided and accessible to occupants in the refuse generating areas of each level of the development. Bins will be positioned in bin stations; bins for multiple streams are required in each bin storage location. General waste bins are to be accompanied a commingled recycling, at a minimum, in general office related or administration areas. A food organics bins is recommended to be included within the kitchen and break or lunchroom bin stations. Under desk bins should not be provided.

Each bin station must have appropriate signage with each stream bin labelled and colour-coded in accordance with *AS 4123.7 – 2006 Mobile waste containers.* Signage must clearly illustrate the accepted materials for each stream. Uniform, informative and consistent signage is imperative in ensuring ease of use for building occupants.

The number of and location of bins provided will be determined during tenancy integrated fit out and careful consideration should be given to the placement and types of bins to optimise source separation as outlined in Table 2.7.

Table 2.7: Disposal of Frequently Generated Refuse

Refuse Stream	Disposal Details
WASTE	
General Waste	The site operator will be required to provide receptacles for each separate refuse stream in a sufficient quantity to temporarily store one days' worth of refuse on each level of the building. After each day of operation or between peak operating periods as required, refuse will be transferred by staff / cleaners to the refuse room via the goods lift and decanted into the appropriate bulk bins. Depending on the specific activities being undertaken in each area of the site, different wastes may be produced. Waste bins should always be lined with bags and the bags tied before removal. General waste bins will be included in bins stations as required. Office waste typically includes food related waste in kitchen / staff break areas (see below for food waste), general non-recyclable material from office activities as well as infrequent wastes such as bulky items, hazardous waste (e.g. printer cartridges) and electronic waste (e.g. computers and screens) (see respective sections for disposal of infrequent wastes).
Organic (Food) Waste	Storage for the separation of organic or food waste from general waste is recommended to reduce the total amount of general waste produced. Food waste will be generated within break areas / lunchroom or other staff-based areas from staff breaks or catered teambuilding events. Onsite composting may be considered where appropriate staff resources are available to manage the composting process. Caddy bins or bins no larger than 20L should be placed in bin stations for use in areas such as communal kitchens, for disposal of food waste. The caddies or bins are then transferred to the refuse storage area for final disposal and collection. The content is then manually decanted into bins or composting equipment provided within the refuse storage area.
RECYCLING	
Commingled, including • glass • aluminum • 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 bulk bins. Recycling from office related areas historically consists largely of clean paper (and cardboard) which can be collected separately from commingled recycling if large quantities are produced. In addition, commingled recycling may originate from pantries and meeting / conference rooms where food is consumed. Commingled recycling should be captured by bins up to 60L included within relevant bin stations.
	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. Storage space or dedicated bins within the units or refuse rooms can be provided.
Cardboard and Plastic (plastic film / low-density polyethylene / high density polyethylene)	Cardboard and plastics can be disposed separately from comingled recycling if large quantities are produced. Where separated, cardboard and plastics must not be mixed. They must be stored individually. Stream separated bins should be located within bin stations in relevant areas. Staff / cleaners will transfer materials captured throughout the site to the refuse room.
Secure Destruction Paper	Offices often produce an amount of secure destruction paper / confidential paper documents which need to be disposed separately from general recyclable cardboard / paper. Special bins up to 240L will be placed within the office areas in close proximity to a printer for disposal of secure destruction paper. Bins may be built into cabinetry with a 'disposal slot' or standalone lockable bins. The bins are collected from the internal storage point within the tenancy by the appropriate contractor and replaced by empty bins to ensure the security around the bin contents is maintained.

2.4.2. Infrequent Waste

Table 2.8: Disposal of Infrequently Generated Waste

Refuse Stream	Disposal Details
Electronic Waste	Electronic waste will be generated in limited quantities predominately through the replacement of IT equipment. Where equipment is not procured in return to supplier arrangement, consideration should be given to resale to prolong usable life. Where reuse is not possible storage may be provided in a storage room within a tenancy and removed from site when a sufficient quantity has accumulated. This includes batteries and electronic waste with inbuilt power supply, which are highly volatile in mixed loads and must be disposed of separately and never in standard waste streams. TTMC recommends a disposal point is provided for used batteries and located in the main lobby or alternate suitably accessible point.
Garden Organics refuse / Green Waste	Garden organic refuse also referred to as green waste will be produced from landscaped areas or potted plants around this development. The volume of green waste is produced on a largely weather or seasonal dependent basis and based on plant selections. Green waste is usually removed by the designated maintenance contractor. Interim storage is not provided. The engaged contractor will be required to send this material to a composting or resource recovery facility rather than to a landfill.
Hard Waste / Bulky Goods	The bulk bins provided will also be utilised for bulky waste disposal. Where items are unsuitable for bulk bin disposal or where significant volumes are generated, such as during refits, coordinated collection arrangements will be made and goods items moved to the loading dock for 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.
Hazardous Waste (paints, chemicals, oils etc)	Limited volumes of hazardous or regulated wastes may be generated on site such as chemicals, paints or oils. Hazardous waste must be handled with due care, separated and securely stored for collection by a specialist waste contractor in accordance with the requirements of the *Environmental Protection Regulation 2019*. Please refer to local and QLD government websites for disposal options.
Office Refits	While refits occur relatively infrequently, refits generate significant volumes of refuse. Prior to the commencement of any refit, site operators should question where a particular item or material *needs* to be replaced or whether it can be retained in the new fit out. Refits that retain components of the previous fitout produce substantially lower volumes of refuse than replacing everything. Where items are replaced, these items should be resold or returned to the supplier under a buy-back or extended producer responsibility (EPR) arrangement, where possible. Where refuse items cannot be retained in their highest value form, skip bins are typically used for waste removal and placed in close proximity to the area of generation.

2.5. Refuse Storage and Access Requirements

All refuse generated on each level of the building will be consolidated into a single storage point; all refuse will be stored within bins housed within the dedicated refuse room located on Ground Level.

The refuse room is located directly adjoining the RCV loading bay and conveniently accessible to the goods lift.

Access to the refuse room will be limited to building staff / cleaners and the collecting contractor.

Secure Destruct Papers bins will be housed in an operationally convenient location within office areas of each level, typically in close proximity to a printer. A minimum one bin per level is recommended.

The refuse room is sufficiently sized to accommodate all of the bins outlined in Table 2.5, excluding Secure Destruct Papers as outlined above. All equipment detailed in Table 2.6 is either stored within the refuse room or in back-of-house areas of relevant levels.

Figure 2.1 shows a potential configuration of the refuse room in context of the loading bay and goods lift.

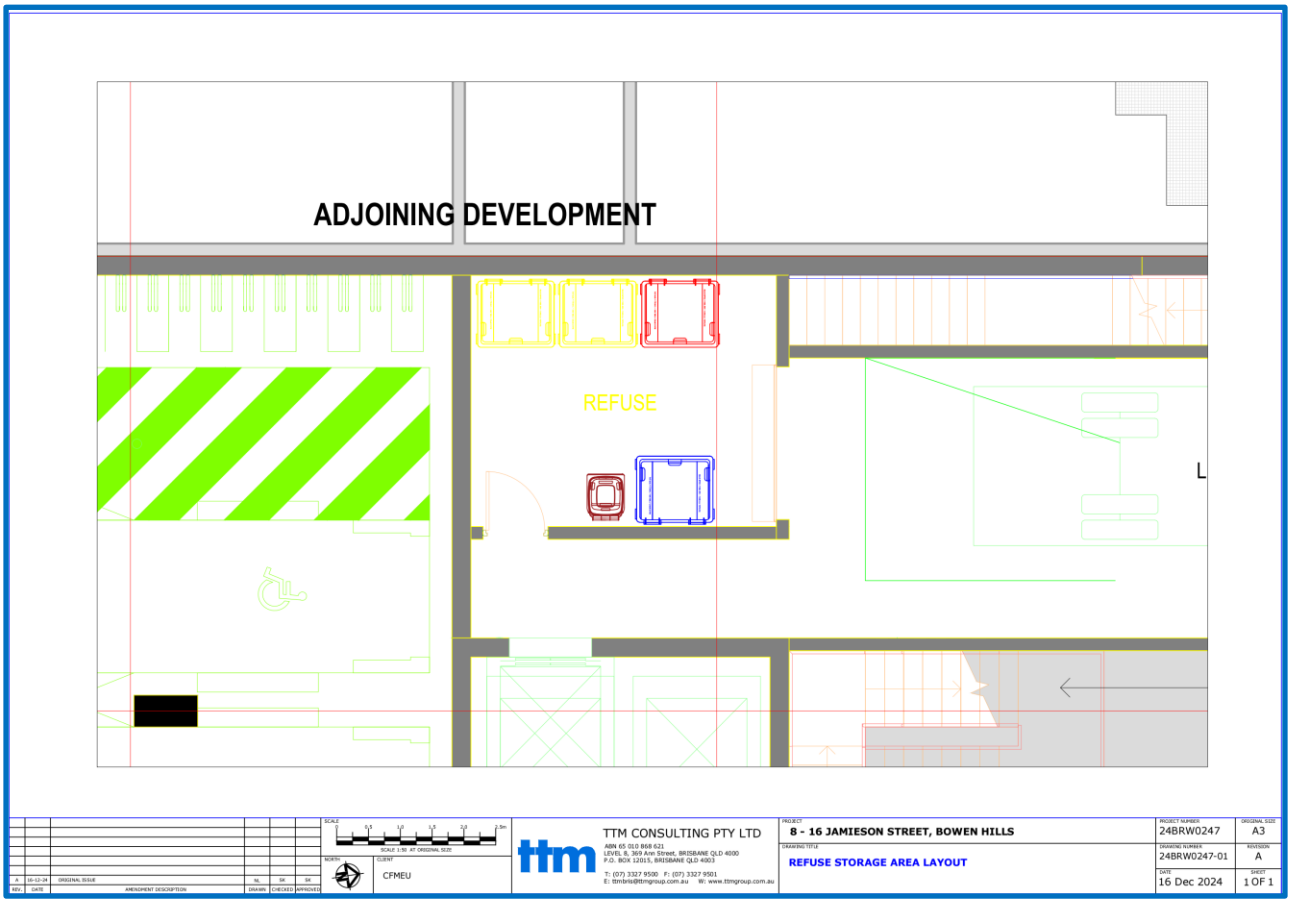


Figure 2.1:Refuse Storage Area Layout

Source: Nettletontribe, Project: Jamieson Street, Project Address: 8-16 Jamieson Street, Bowen Hills, Drawing: Ground Floor Floorplan, Drawing Number: 14217_DA01, Issue: 2_TTM Markup

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 area which is designed to be unattractive to vermin and used solely for the storage of refuse leaving the site.
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.
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.
Coved at the intersection with the walls with coving integral to the floor.
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.

2.6. Refuse Transfer

Building staff / cleaners will transfer all refuse generated from each level within the building to the refuse room for final disposal via the goods lift. Cleaners or refuse trolleys may be used to reduce manual handling input and increase volume of refuse transferred per trip.

TTMC recommend all refuse is weighed by staff or cleaners prior to final disposal into the bins within the bin store.

Minimal transfer is required for collection; bins will be manoeuvred a short distance from the bin store to the RCV lifting mechanism to service in the loading bay directly adjacent, by the collection's contractor. The contractor will return bins to the bin store after service.

Secure destruction papers bins will be replaced with empty bins and collected from directly within the office area by the collecting contractor to ensure security around the contents of the bins. The collection contractor will manually transfer bins between the storage point within the building and the RCV.

Table 2.10 demonstrates the criteria addressed in the design of the refuse transfer path.

Table 2.10: Refuse Transfer Path Design

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.

2.7. RCV and Bin Servicing Arrangements

All refuse will be collected by Private Contractor utilising Rear Loading RCV. All RCV's will perform a single reverse entry manoeuvre to enter the site via the driveway crossover on Edgar Street into the shared loading bay. Once the collections service is complete, RCV's will exit site onto Edgar Street in a forward gear.

All refuse will be collected directly from the refuse room directly adjacent the loading bay. Once the bins have been serviced, they will be returned to the refuse room where building staff / cleaners will clean the bins and general area as required.

All vehicular movements within the shared loading area will be managed by building management under an operational management plan to reduce instances of conflict in movements in the loading bay when vehicles are required to remain on site for periods greater than 15 minutes.

Figure 2.2 depicts the demonstrates the ingress and egress RCV swept path manoeuvres for a 10.24m rear loading RCV as specified in BSD 3008.

Further details on vehicle access and on-site manoeuvring can be found in the transport report submitted with the development application submission.

Table 2.11 demonstrates the features of the bin servicing area.

Table 2.11: Service Area Design

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.
Includes CCTV or other video monitoring designed to record RCV's collecting bins.

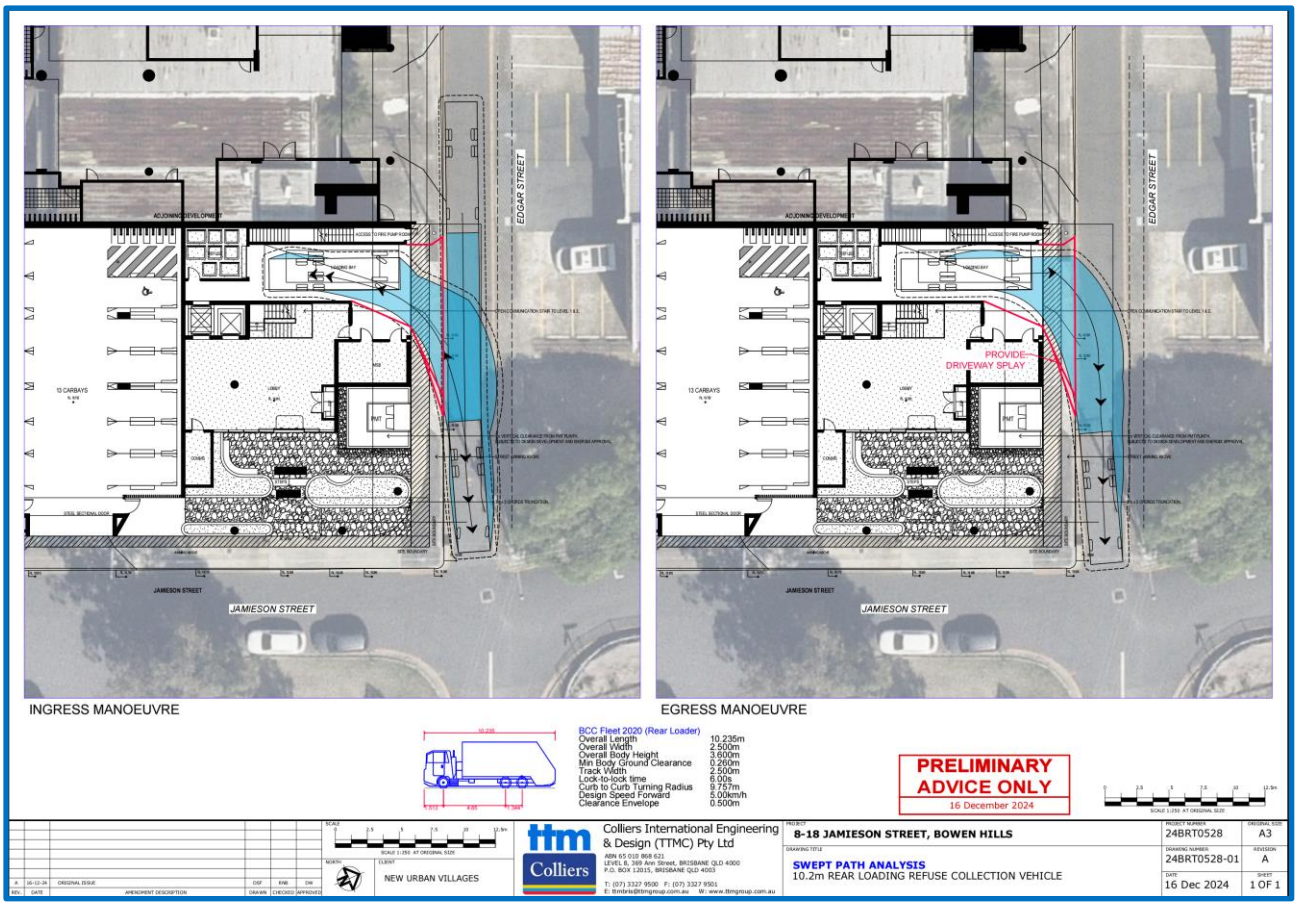


Figure 2.2: RCV Swept Path

3 Recommended Operational Refuse Management

This section does not contain information relevant for regulatory assessment.

This section relates to the outcomes and waste management practices of the development during the operational phase as recommended by TTMC. It is intended for use as a live document by the end user of the development to assist with the ongoing management of the development.

3.1. Anticipated Refuse Volumes and Refuse Profile

Office generation rates are based on traditional working models and not reflective of evolving work patterns such as flexible working arrangements. Offices are developed based on NCC spacing requirements per person that dictate the maximum number of staff expected within an office tenancy.

Rates of absenteeism either resultant of flexible working arrangements or use of leave entitlements are not captured in prescribed generation rates resulting in the potential for reduced refuse generation when equated to per person per day.

Paper has traditionally comprised over 40% of the total volume of refuse generated in commercial offices with cardboard comprising a further 17%. At least 80% of all refuse traditionally generated in commercial offices can be recycled through appropriate source separation of streams.

While improving recovery of refuse for recycling is an improvement over traditional refuse management strategies, initiatives that focus on reducing the generation or refuse in the first place are preferred. Sustainability initiatives such as paperless offices not only reduce the generation of wasted paper but also remove the need for printers and subsequently reduce electronic waste including toner cartridges.

3.2. Additional Refuse Management Considerations – Service Contracts

Contracts for cleaning services represent the greatest opportunity to influence a development's recycling rate; cleaners handle all refuse materials post disposal.

The scope of works for cleaning contracts should include tasks for the sorting of refuse materials prior to final disposal as well as reporting information on stream contamination back to the tenant. Contamination information should be captured on a per level or area basis to allow dedicated staff to facilitate tailored or targeted education programs.

Embedding the right clauses in refuse collection contracts upon commencement of services for the building will help ensure best practice right from the start of operation.

The following tasks are recommended to be included in refuse collection contractor scope of works:

- The contractor will be required to provide accurate waste collection and transportation data at all times.
- The contractor will need to have scales on all RCVs used to service the site to record the weights of all individual bins. Scales must be NMI certified and calibration certificates produced at least once a year.
- The contractor will need to provide weighbridge dockets for all services, when requested, to confirm processing facility.
- Tender selection criteria weighting should prioritise a GECA (Good Environmental Choice Australia) Certified contractor.

3.3. On-going Management

The tables below relate to a cycle of ongoing implementation, operation, review and amendment of the refuse strategy. These tables are intended to serve as a live document to be completed and updated during the operational phase of the development and therefore intentionally left blank.

Responsibilities have to be assigned for all on-going refuse management related activities during the operation of the development. TTMC recommend the appointment of dedicated personnel to champion refuse management and sustainability. The following lists (Table 3.1 to Table 3.3) are designed to help manage and assign responsibilities and monitor the refuse operations. On-going management of the refuse strategy will maintain efficient services, a safe environment and improve on sustainability outcomes.

3.3.1. Implementation Phase

Refuse management tasks during the implementation of the refuse strategy are required prior to and during the early stages of building occupancy. An opportunity to revisit these tasks is provided at routine intervals with the review of the refuse strategy.

Table 3.1: Implementation Checklist

Task	Assigned	Remarks
Verify the as-built form of all refuse related areas. This task does not refer to building certification but is typically undertaken by a specialist waste consultant prior to building certification. This provides an opportunity to identify variances in building form versus design and recommend alternate or mitigating refuse management strategies. This task may also be required during building refits and change of use in tenancies.		
Appoint personnel to oversee or undertake refuse management tasks. A facilities, operations or sustainability manager is typically appointed and oversees most refuse related operational tasks, engaging contractors for specialist tasks.		
Conduct internal safety review. An internal safety review is required to be undertaken to identify potential hazards in the implementation of the refuse strategy and risk mitigation opportunities. This includes the use of any refuse management equipment installed, as well as refuse transfer paths		
Development of policy and procedures Must be undertaken after safety review and abide by all relevant occupational health and safety legislation, regulations and guidelines to ensure site safety for visitors, staff and contractors. Also includes assessment of any manual handling risks and preparation of a manual handling control plan for waste and bin transfers.		

Task	Assigned	Remarks
Engage refuse collection contractors. Private contractor must conduct a site visit for the purposes of risk assessing the site prior to conducting services. Contractors must ensure that a full risk assessment of equipment, surfaces and related gradients is complete and procedural documentation is provided to the appropriate personnel. RCV manoeuvrability testing and the establishment of service frequency and timing is also undertaken at this time.		
Install signage in all refuse disposal and storage points. Signage is required to be installed to educate building occupants on location of disposal and refuse storage points. Additionally, to identify the accepted items disposed of in each refuse. The installed signage should be colour coded in accordance with AS 4123.7 – 2006 Mobile waste containers. Examples of signage are provided in the appendices.		
Leasing / Body Corporate Agreements Any body corporate, leasing or service contracts should contain clauses pertaining to waste management arrangements and use of any associated equipment. This should also extend to on charging of costs and concessions for waste reduction and recycling performance.		
Education and Training. Provision of equipment manuals, induction, training, health and safety procedures, risk assessments and personal protective equipment (PPE) to all staff / contractors associated with all waste management activities in order to control hazards. The step is repeated through the operational phase of the development as required due to changes is users or personnel.		
Consider fit out and move-in refuse. Higher volumes of waste are generated during the initial move-in or final fit out. This typically includes large volumes of cardboard. Additional bins or collections may be required.		
Baseline Refuse Auditing A baseline audit once the development reaches 80% occupancy undertaken by a specialist waste consultant is recommended to identify refuse volumes and stream composition. This information is then used to establish potential recoverable material percentage based on initial waste practices and set recycling rate targets.		
Establish Baseline Targets The baseline audit results should be used to establish baseline landfill reduction and recycling rate targets. Baseline targets should be achievable with a view to continual improvement to enable the celebration of success and promote buy-in by building occupants.		

3.3.2. Occupation / Operational Phase

Refuse management tasks during the occupation or operational phase of the development relate to the day to day and business as usual operational tasks that must be undertaken to execute the refuse strategy.

Table 3.2: Occupation / Operation Checklist

Task	Assigned	Remarks
Facilitate disposal from communal areas, public realm and tenancies. Appointed staff are required to transfer refuse generated in communal areas and the public realm to the refuse storage area for final disposal, this includes litter removal. Best practice operations include having dedicated cleaning staff assigned to handle all waste generated, rather than tenancy staff. This results in maximum recovery of available streams.		
Manage rotations of bins to ensure convenient access. Check bin fill levels and rotate / swap bins as required. Sufficient capacity must be provided for the disposal of all streams at all times including reduced personnel on site. Where equal access to a refuse stream is not maintained, other streams may be contaminated leading lost resources.		
Manage bin transfers or access to agreed servicing point. Bins are required to be presented to and access is available to the agreed servicing point prior to the scheduled service time and ensure the area is free from obstruction. Late bin placement or servicing obstruction may lead to missed bin services.		
General cleaning. Regular cleaning and maintenance of all refuse management facilities is important to maintain a safe and hygienic environment for visitors, staff and contractors. General cleaning is required for all refuse holding and transfer areas including • Refuse bins, rooms and storage areas • Refuse transfer areas including lifts and staircases • Any other refuse management equipment		
Perform spot checks on bin contents and refuse streams. Appointed staff regularly check for compliance and stream contamination. Early intervention prevents the development of poor practice and lost resources. Feedback and education is provided to the relevant parties (see below).		
Ongoing 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. Appointed personnel should be actively involved in education of occupants and encouraging participation in recycling activities. Widespread communication of the achievements of the refuse strategy and areas for improvement encourage participant buy-in.		

3.3.3. Review and Amendment Phase

The review and amendment refuse management tasks relate to tasks undertaken on a routine (e.g. quarterly, bi-annually or annually) or ad hoc basis. At the completion of the review and amendment phase, the cycle restarts with the implementation of the amended refuse strategy.

Table 3.3: Review and Amendment Checklist

Task	Assigned	Remarks
Coordination of specialised cleaning contractors as required. Typical specialised cleaning services may include cleaning internal areas of compaction equipment (if selected); this reduces risk of blockage, odour and risk of fire.		
Maintenance and servicing of refuse management equipment as per schedule. Frequency depends on equipment, building operation and manufacturer specification. Routine maintenance reduces downtime and detrimental impact of unscheduled equipment breakdown.		
Coordination of specialised equipment contractors as required. May extend to ad hoc services requiring specialist equipment such as bulky / hard waste removal.		
Internal safety review. Routine safety reviews are required to identify changes to the site, work practices or legislation that may impact existing policies and procedures. Reviews should include visual inspection of equipment and user PPE. Any policy or procedure updates arising from a safety review must be immediately communicated.		
Audit operational refuse volumes and composition. As similarly undertaken at the beginning of occupancy a review by a specialist waste consultant is recommended to identify refuse volumes and stream composition. This information is then used to establish potential recoverable material percentage and identify opportunities for improvement in refuse strategy. Alternatively, an internal audit may be undertaken by visual inspection during on-site waste management handling activities. For example, cleaners may observe contents of waste receptacles when decanting caddies in larger bins and recording results, this method is less accurate than a comprehensive audit, however, give immediate indicative results and may be undertaken on an ongoing basis.		
Review bin quantities and refuse management equipment. Reviewing bin quantities and equipment is required ensure operational sustainability of refuse volumes and equipment remains fit for purpose. Consideration should be given where alternate equipment may provide improved outcomes. This review may form part of the external audit process (above) as recommendations made.		

Task	Assigned	Remarks
Review service frequency and methodology on 6 monthly intervals with collecting contractor. The service frequency and service methodology should be reviewed to ensure the optimum cost efficiency in services provided and explore options for additional services. Any potential changes to the bin numbers or bin sizes should be made in liaison with the appointed contractor to confirm cost or contract implications.		
Review of recycling rate target to target continual improvement. Once benchmarked performance has been assessed against the existing targeted recycling rate a new target can be established that strives for continual improvement. Any changes in targeted recycling rates and the achievements of the refuse strategy should be widely communicated to all uses.		
Update and amend OWMP based on review outcomes. On completion of the refuse strategy review the OWMP should be updated to reflect refuse strategy amendments and to enable implantation of refuse strategy.		

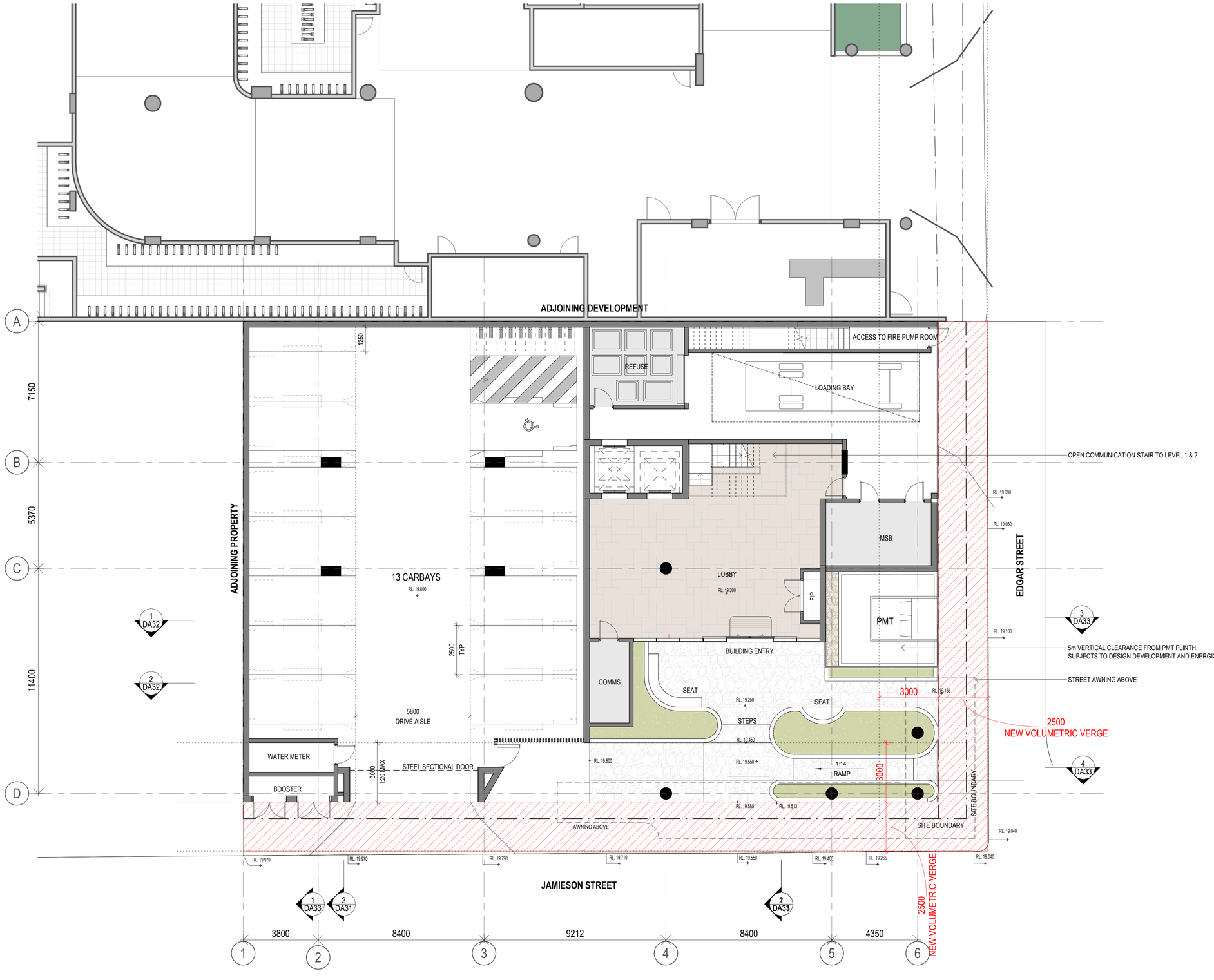
Appendix A OWMP Compliance Checklist

BCC SC6.26 Refuse Planning Scheme Policy		
Item	Requirement	Compliance / Comment
Section 2 – General Requirements		
(1)	A written design proposal for waste collection is to be provided giving full details of the proposed solution, bin sizes, number of bins and the storage and collection areas, frequency of collection and the refuse collection vehicle size. Table 1 provides the dimensions and types of bins. Table 3 provides the specifications and types of collection vehicles.	Details provided in this OWMP.
(2)	The collection of refuse is to be considered during the planning phase of development. This includes the physical manoeuvring area for the refuse collection vehicle and the bin storage areas and collection points. Access for other road users including pedestrians, cyclists, motorists and other service providers (e.g. postal) is to be maintained.	Considerations provided within this OWMP.
(3)	The type of refuse service that is to be used (domestic or commercial) is identified, including whether the refuse collection vehicle is to be front loading, side loading or rear loading (sufficient height must be available).	Commercial refuse collected by rear loading RCV. Greater than 3.6m provided
(4)	Uses with high trip-end densities provide a transport impact assessment report in accordance with the Transport, access, parking and servicing planning scheme policy with an assessment of refuse storage and collection included.	Refer to Transport engineering documentation for details.
(5)	Where a Refuse Collection Vehicle (RCV) is required to manoeuvre from an on-site position, allow an additional 500mm clearance for vehicle turning dimensions (swept paths) and servicing. Three clear swept path lines must be demonstrated for the RCV, namely wheel path, vehicle body path and 500mm clearance path.	Refer to Transport engineering documentation for details.
(6)	The waste collection system is to achieve the following outcomes: a. both the customer and service provider can access the bin storage area and collection point conveniently; b. the location, design and operation of the bin storage and collection system do not have unreasonable adverse acoustic, odour or visual impacts on the development, surrounding properties or the streetscape; c. the supply and servicing of either mobile garbage bins or bulk bins or refuse compactors complies with the requirements of this planning scheme policy. *Note— Where alternative waste servicing solutions are proposed, advice may be sought directly from Council's waste service area prior to lodgement of the development application.*	Complies Complies – Collection service will be undertaken wholly on site. Complies
Section 3 - Access and Manoeuvrability		
(1)	The manoeuvring of the refuse collection vehicle is undertaken in a safe and efficient manner, without detrimental impacts to pedestrian amenity or safety, Council or private infrastructure or the function of the road network.	Refer to Transport engineering documentation for details.
(2)	For multiple dwelling development accessed via a local, neighbourhood, district or suburban road, the refuse collection vehicle may enter the site in a reverse gear in a single movement.	Complies – Reverse entry proposed.
(3)	For multiple dwellings development accessed via an arterial road, or where the refuse collection vehicle cannot reverse onto the site in a single movement, the refuse collection vehicle must enter and leave the site in a forward gear.	N/A
(4)	For development (other than a multiple dwelling) accessed via an arterial, suburban, district or minor road adjacent to an intersection with a major road, the refuse collection vehicle must enter and leave the site in a forward gear.	N/A

Section 3 - Access and Manoeuvrability - Continued		
(5)	Where refuse collection is from an on-site position, the area trafficked by the refuse collection vehicle must comply with requirements under the Transport, access, parking and servicing planning scheme policy including a minimum aisle/carriageway width of 6.5m wide. *Note—Service area design standards, including maximum gradients, minimum aisle widths, minimum vertical clearance and bay design are contained in the Transport, access, parking and servicing planning scheme policy.*	Refer to Transport engineering documentation for details.
(6)	For detached dwellings on rear lots, pavements/carriageways trafficked by a refuse collection vehicle have a minimum width of 5.5m.	N/A
(7)	All entry and exit points are of a width and design that allows for sufficient ingress and egress for the refuse collection vehicle, including a minimum 6.5m crossover which is free from overhead projections inclusive of gardens or trees.	Refer to Transport engineering documentation for site access design details.
(8)	To maximise safety, the distance required for refuse collection vehicles to reverse on-site is minimised. Where on-site turnaround of the refuse vehicle cannot be achieved, the bin storage area and collection point is located within 20m of the street frontage.	Complies
(9)	Turnaround facilities for a refuse collection vehicle exist or are provided for where involving staged subdivision developments or where development is located on a no through road. Turning and manoeuvring facilities for refuse collection vehicles are provided to meet design requirements for the vehicles identified in Table 3.	N/A
(10)	Subdivision layouts are to provide for the safe and efficient operation and manoeuvring of a side-lift loading refuse collection vehicle. Layouts that require a refuse collection vehicle to reverse more than 20m are to be avoided. Where the provided transport network results in a stub road for a proposed future road connection, interim turnaround facilities must be provided in compliance with the Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy.	N/A
(11)	Adequate lift clearances are provided to overhanging trees and wires in accordance with Table 3.	Complies – Greater than 3.6m provided
(12)	The required vertical and horizontal clearances are provided for the service to operate safely and efficiently. Operational clearance dimensions are shown in Table 3 for various types of collection arrangements.	Complies
(13)	Access for a refuse collection vehicle to the collection point is maintained at all times.	Complies – Loading Bay access to be managed
(14)	Where non-residential development is proposing to use an alternative design vehicle other than those named in Table 3, written confirmation from the proposed licensed waste collection contractor giving full details of the bin size and the refuse collection vehicle size must be provided.	N/A
(15)	In instances where the gradient of the on-site manoeuvring area is greater than 5% (1:20), the pad that the collection vehicle will stand on while accessing refuse bins at the collection point, is to have a maximum gradient of 2% (1:50). *Note—Access arrangements, including maximum gradients are contained in the Transport, access and parking planning scheme policy*.	N/A
Section 4 - Residential Refuse Collection – N/A Non-residential site only		
Section 4.1 - Kerbside Collection (MGB's) – N/A Non-residential site only		
Section 4.2 – On-site Collection (Bulk Bins) – N/A Non-residential site only		

Section 5 – Non-Residential Refuse Collection		
(1)	Non-residential development is to provide sufficient capacity to achieve low-frequency servicing in line with Table 2.	Complies – Max. 2 services per week proposed.
(2)	Refuse generation rates for specific uses are provided in Table 4. These figures are to be used to calculate the refuse and recycling capacity required. *Note—Where a refuse generation rate is not defined in Table 4, the applicant is responsible for providing evidence in support of the refuse generation proposed.*	Complies
(3)	Sufficient information is provided to demonstrate that refuse collection can occur in an efficient and safe manner on site without adverse impact on amenity (acoustic, odour or visual impacts) and pedestrian and vehicular traffic.	Complies
(4)	This information may include evidence from a refuse collection contractor to demonstrate that collection will occur outside normal service/delivery or business times, where seeking permission to allow a refuse collection vehicle to use service bays or parking spaces on the site for access.	Details on servicing provided within this OWMP.
(5)	Bulk bins of 1.1m3 or less are positioned so that collection personnel do not have to move them more than 5m. If a gradient is evident, speed bumps are provided to stop bulk bins from rolling away from the collection point. *Note—Standard design arrangements, including gradients, are contained in the Transport, access, parking and servicing planning scheme policy.*	Complies
(6)	Bulk bins of 1.5m3 or more are positioned so that front-lift refuse collection vehicles can drive directly to the container without relocating the bulk bin. If this cannot be achieved due to physical constraints, then the bulk bins are not moved more than 3m from the storage area to the collection point.	N/A .12m^3 and 1.1m^3 bins proposed.
(7)	The storage area for refuse bins are: a. contained either within a building or a roofed and wholly screened enclosure of sufficient size for the bin quantity required. Table 1 provides the bin types and dimensions; *Note—Where screening is utilised to form part or all of a refuse storage area, the screening is to have a maximum of 25% openings, with a maximum opening dimension of 50mm, and are to be permanently fixed, durable and maintainable.* b. easily accessible for occupants and for the required servicing of bins; *Note—Allow for at least an additional 0.5m clearance surrounding each container, or for the storage of multiple bins, 1.5m clearance around the combined bin area (whichever is lesser).* c. screened from neighbouring properties to mitigate impacts from odour, amenity and noise; d. of a design to mitigate the harbourage of vermin or attraction of scavenging animals; e. provided with natural or temperature-controlled ventilation if in an enclosed room; f. of a design which maintains a minimum internal vertical clearance of 2.1m; g. kept clear of obstructions, such as fixed bay separators, that impede the ability to change from existing bin sizes or which otherwise limit future refuse collection options; h. are not to contain other amenities such as air-conditioning compressors, hot water systems or electrical hubs.	Complies
(8)	Best practice may include allowing additional space for the storage of extra containers to separately store either organic waste or other recyclables in the future.	Refuse area sufficiently sized.
(9)	Where disposal of industrial or commercial liquid waste by discharge to a road tanker, the road tanker is to be wholly on-site during collection.	Complies

Appendix B Site Plans and Swept Path Analysis



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Client

CFMEU CONSTRUCTION

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1	DRAFT DA	10.12.2024

DEVELOPMENT APPLICATION

Builder

Project Name
JAMIESON STREET

Project Address
8-16 JAMIESON STREET, BOWEN HILLS, QLD, 4006

Key Plan
0 2000 5000

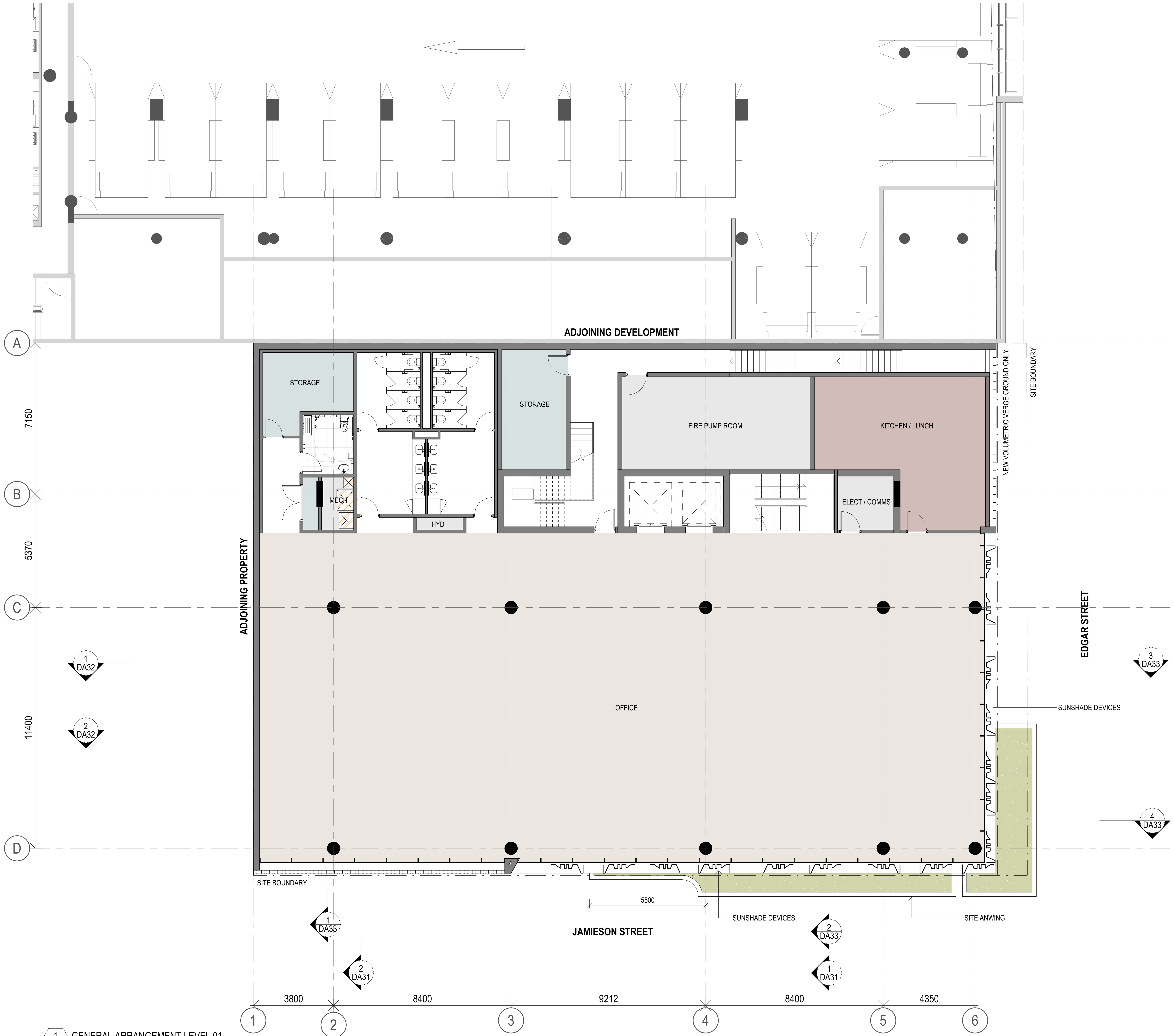
Drawing Title:
GROUND FLOOR FLOORPLAN

Checker:	Sheet Size:	Scale:
TT	A1	1:100

Drawing Number: **14217_DA01**
Issue: **2**

nettletontribe

nettleton tribe partnership pty ltd ABN 58 161 683 122
85 Bowen Street, Spring Hill, QLD 4000
t +61 7 3239 2444
e: brisbane@nettletontribe.com.au w: nettletontribe.com.au



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CFMEU CONSTRUCTION

Issue	Description	Date
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1	DRAFT DA	10.12.2024

DEVELOPMENT APPLICATION

Builder

Project Name
JAMIESON STREET

Project Address
8-16 JAMIESON STREET, BOWEN HILLS, QLD, 4006

Key Plan

0 2000 5000

Drawing Title:
LEVEL 01 FLOORPLAN

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Drawing Number: 14217_DA02
Issue: 2

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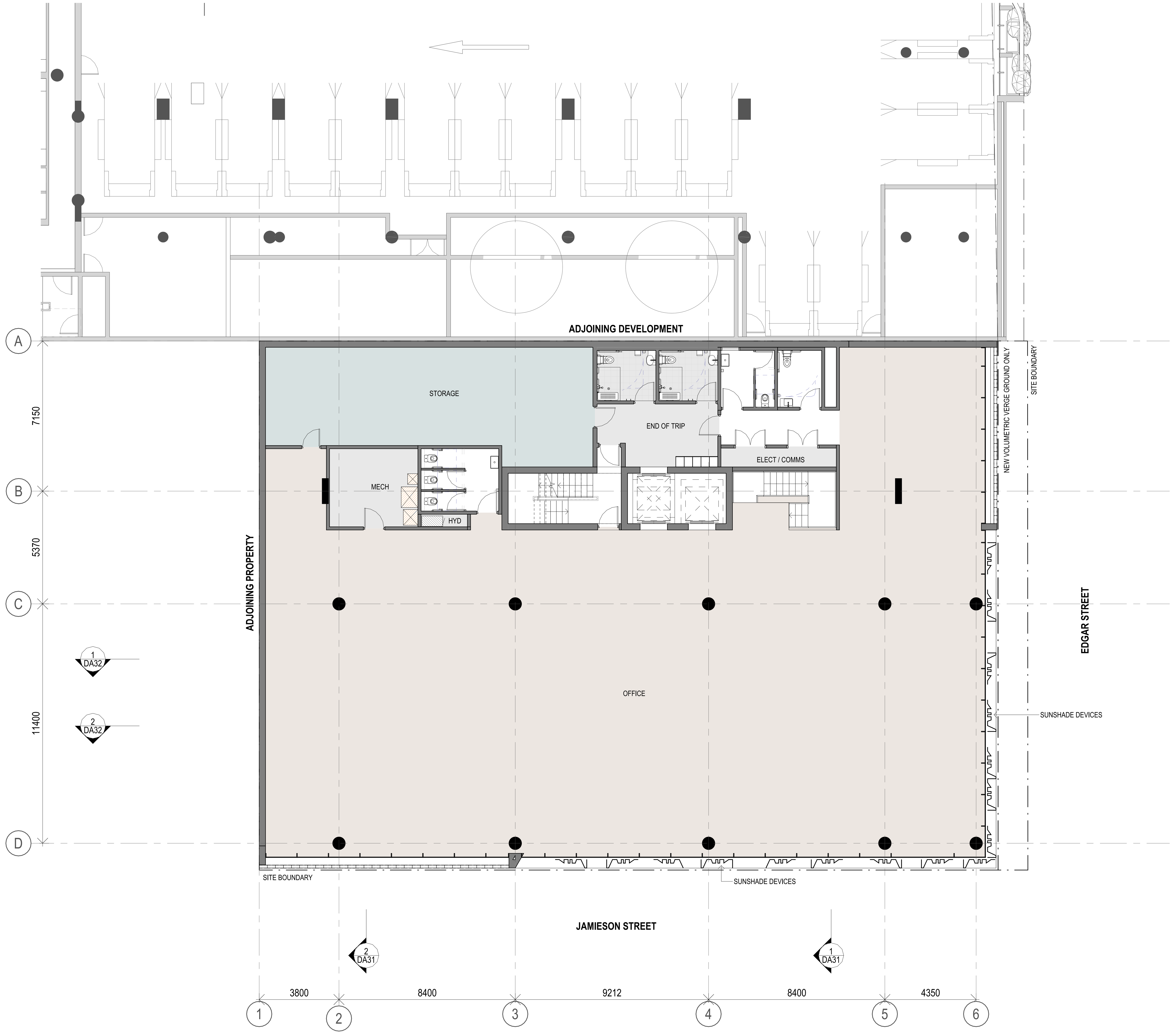

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1	DRAFT DA	10.12.2024

DEVELOPMENT APPLICATION

Builder

Project Name
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Project Address
8-16 JAMIESON STREET, BOWEN HILLS, QLD, 4006

Key Plan
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Drawing Title:
LEVEL 02 FLOORPLAN

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Issue: 2

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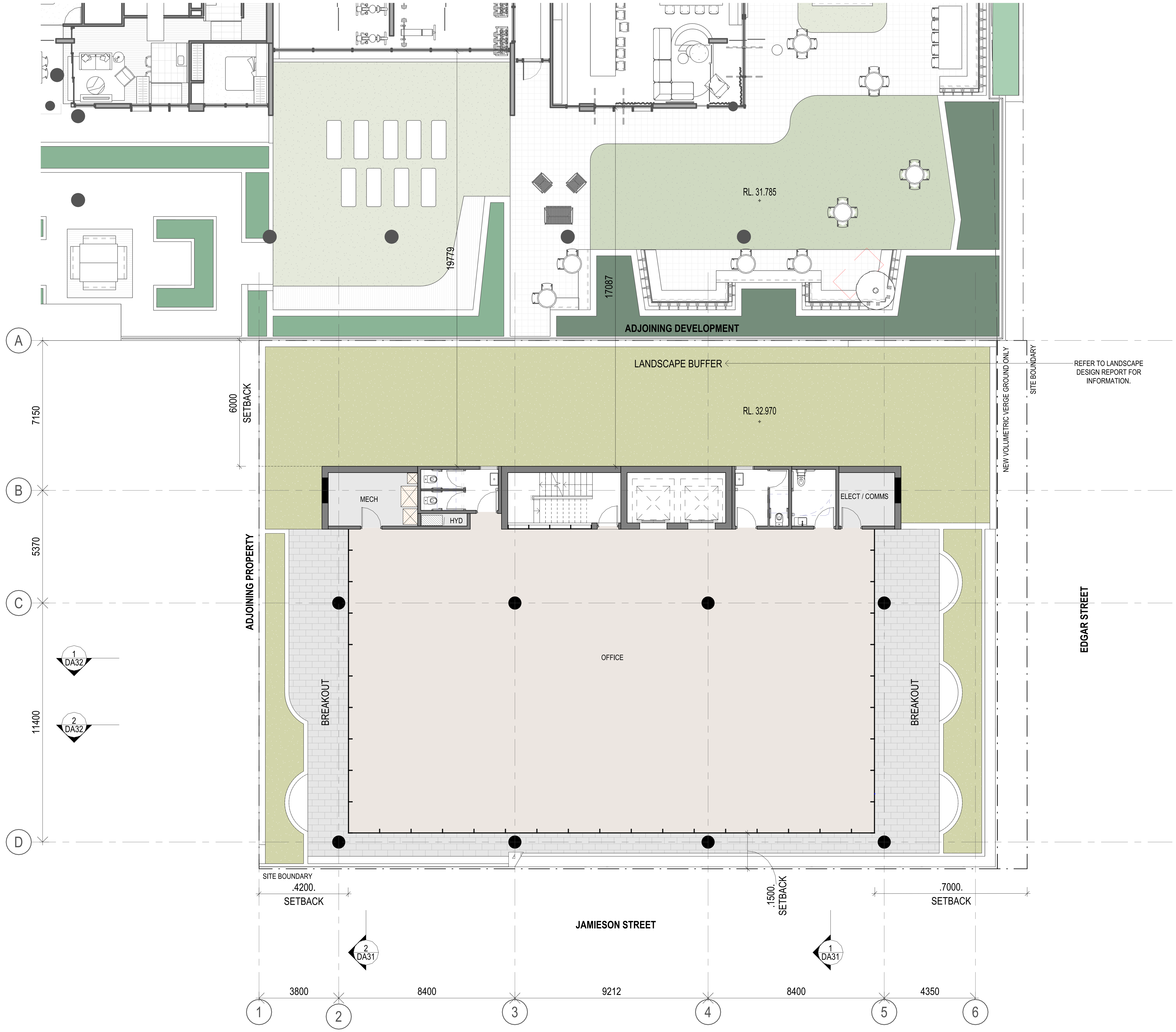

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DEVELOPMENT APPLICATION

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Project Address
8-16 JAMIESON STREET, BOWEN HILLS, QLD, 4006

Key Plan
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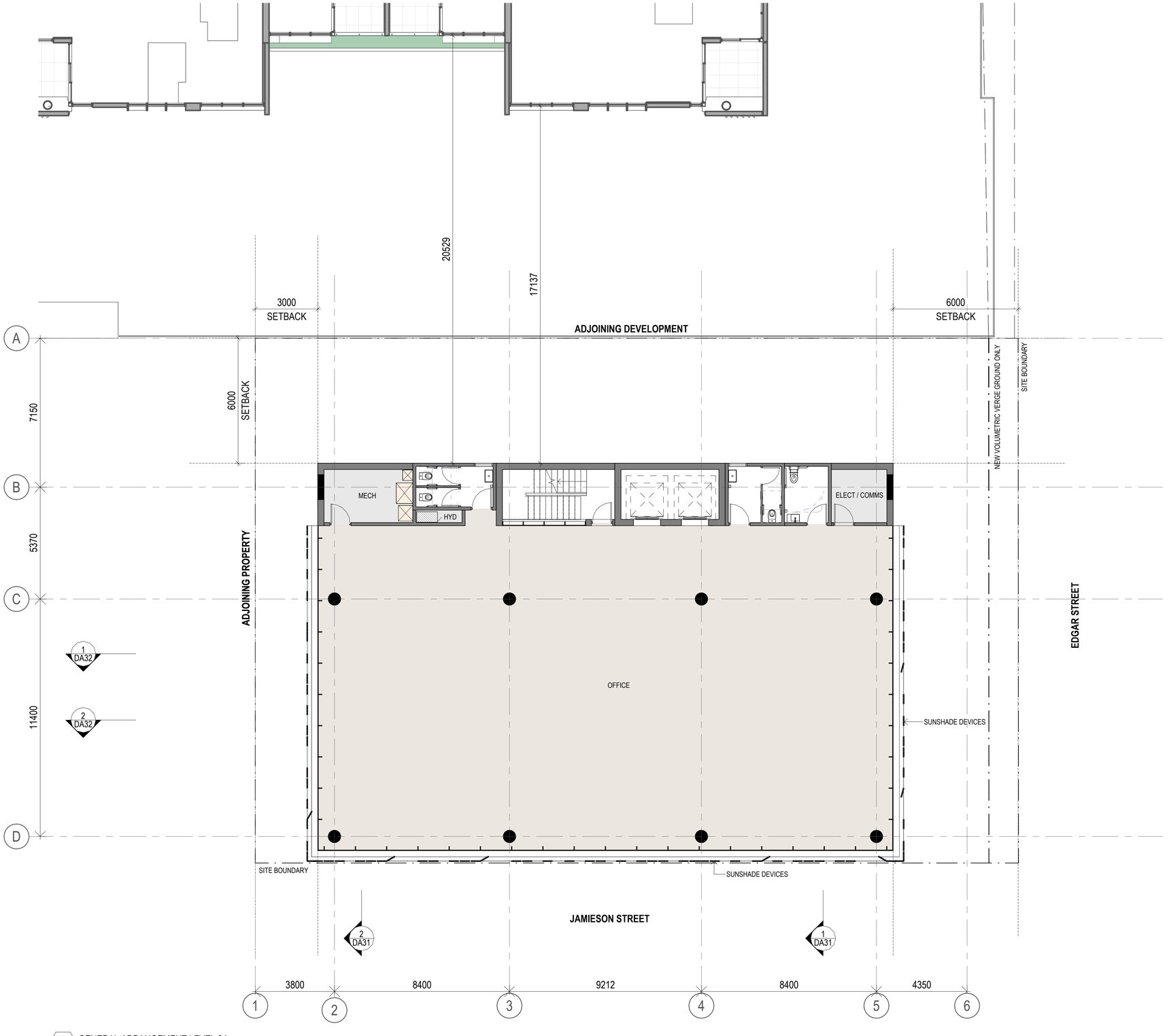

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1	DRAFT DA	10.12.2024

DEVELOPMENT APPLICATION

Builder

Project Name
JAMIESON STREET

Project Address
8-16 JAMIESON STREET, BOWEN HILLS, QLD, 4006

Key Plan
0 2000 5000

Drawing Title:
LEVEL 04 - 06 FLOORPLAN

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Issue: **2**

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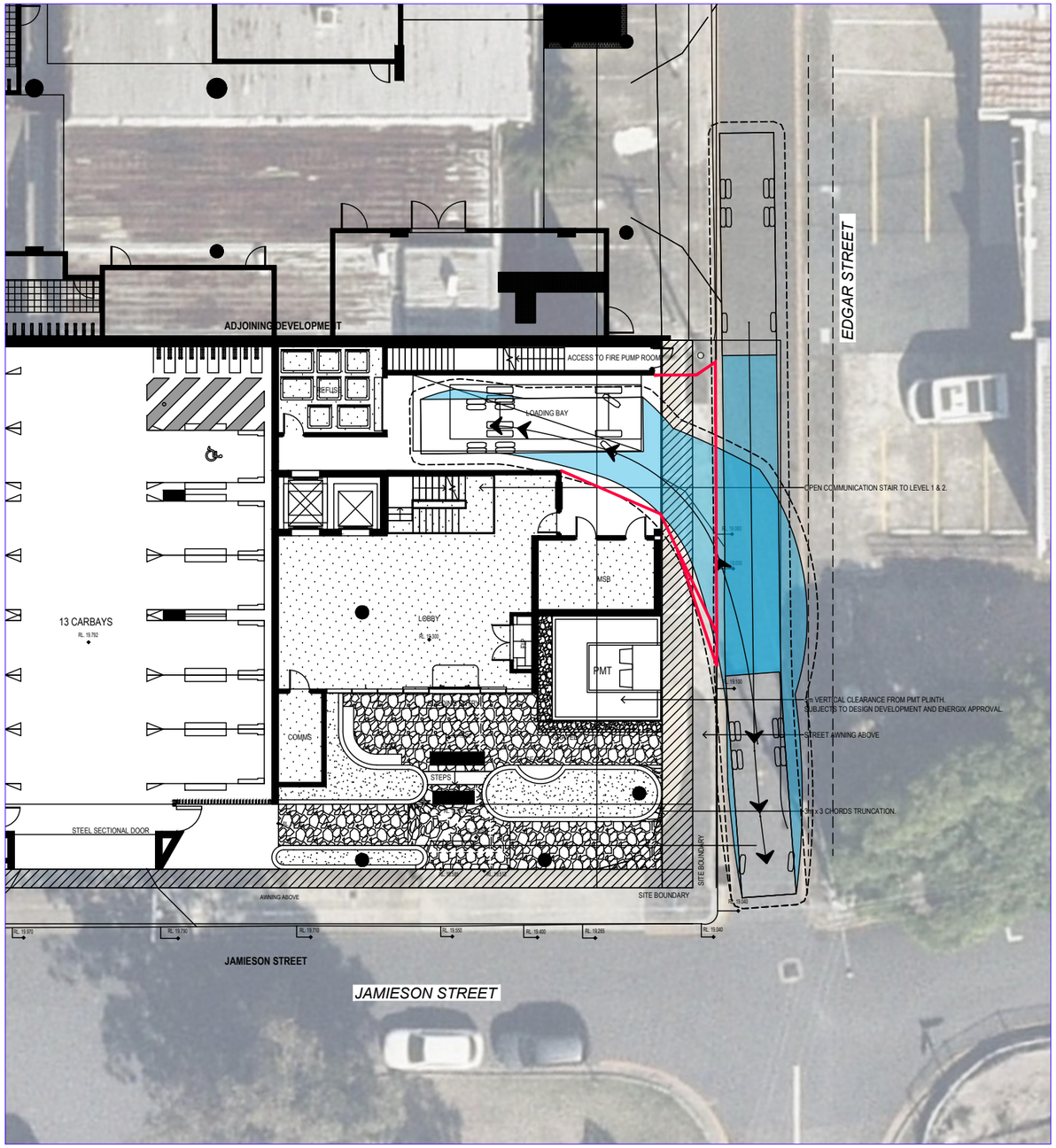

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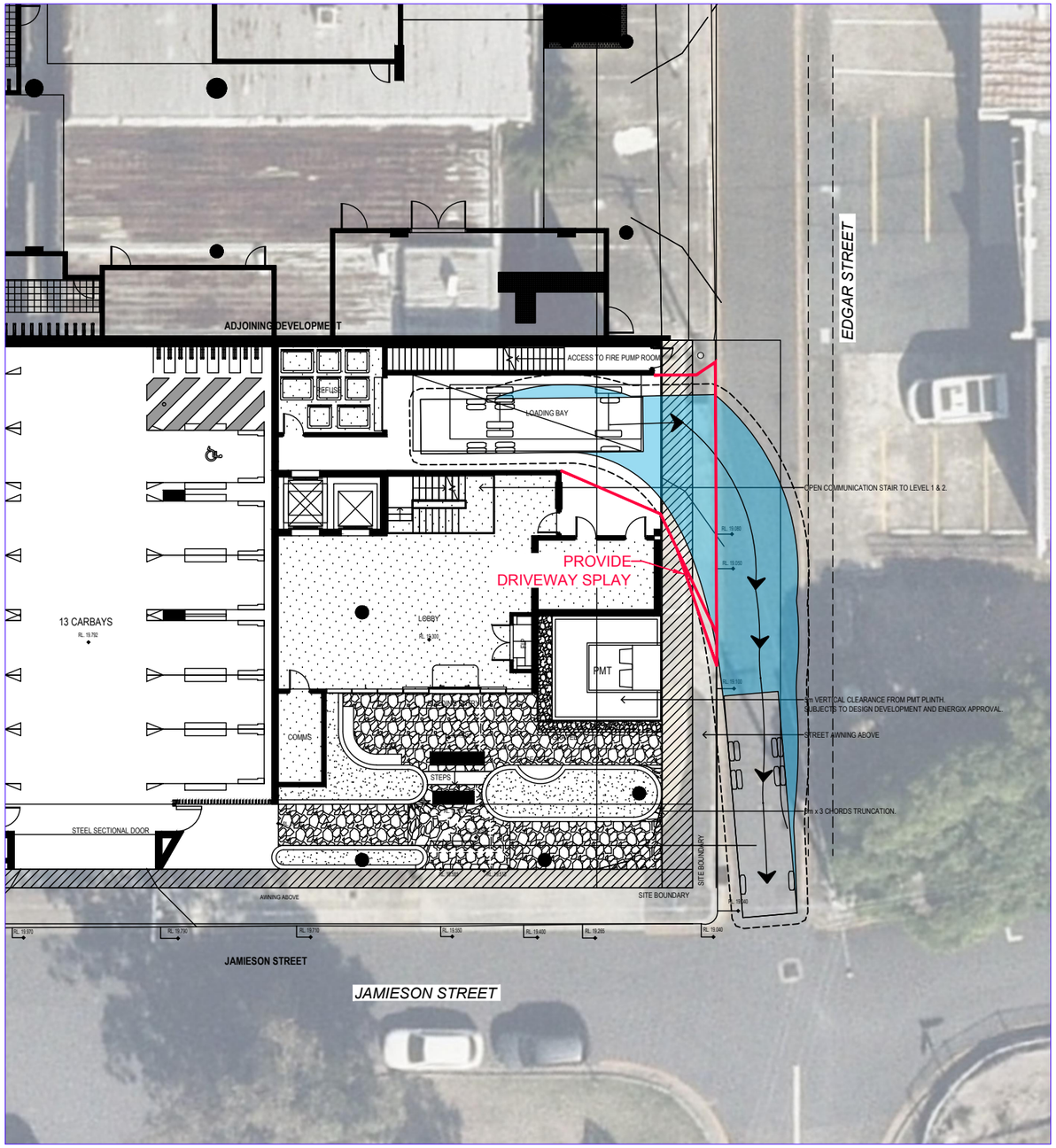

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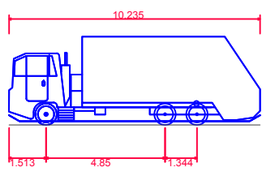

BCC Fleet 2020 (Rear Loader)

Overall Length	10.235m
Overall Width	2.500m
Overall Body Height	3.600m
Min Body Ground Clearance	0.260m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	9.757m
Design Speed Forward	5.00km/h
Clearance Envelope	0.500m

PRELIMINARY
ADVICE ONLY
16 December 2024

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

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	16-12-24	ORIGINAL ISSUE	DSF	RNB	DW

SCALE
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SCALE 1:250 AT ORIGINAL SIZE

NORTH

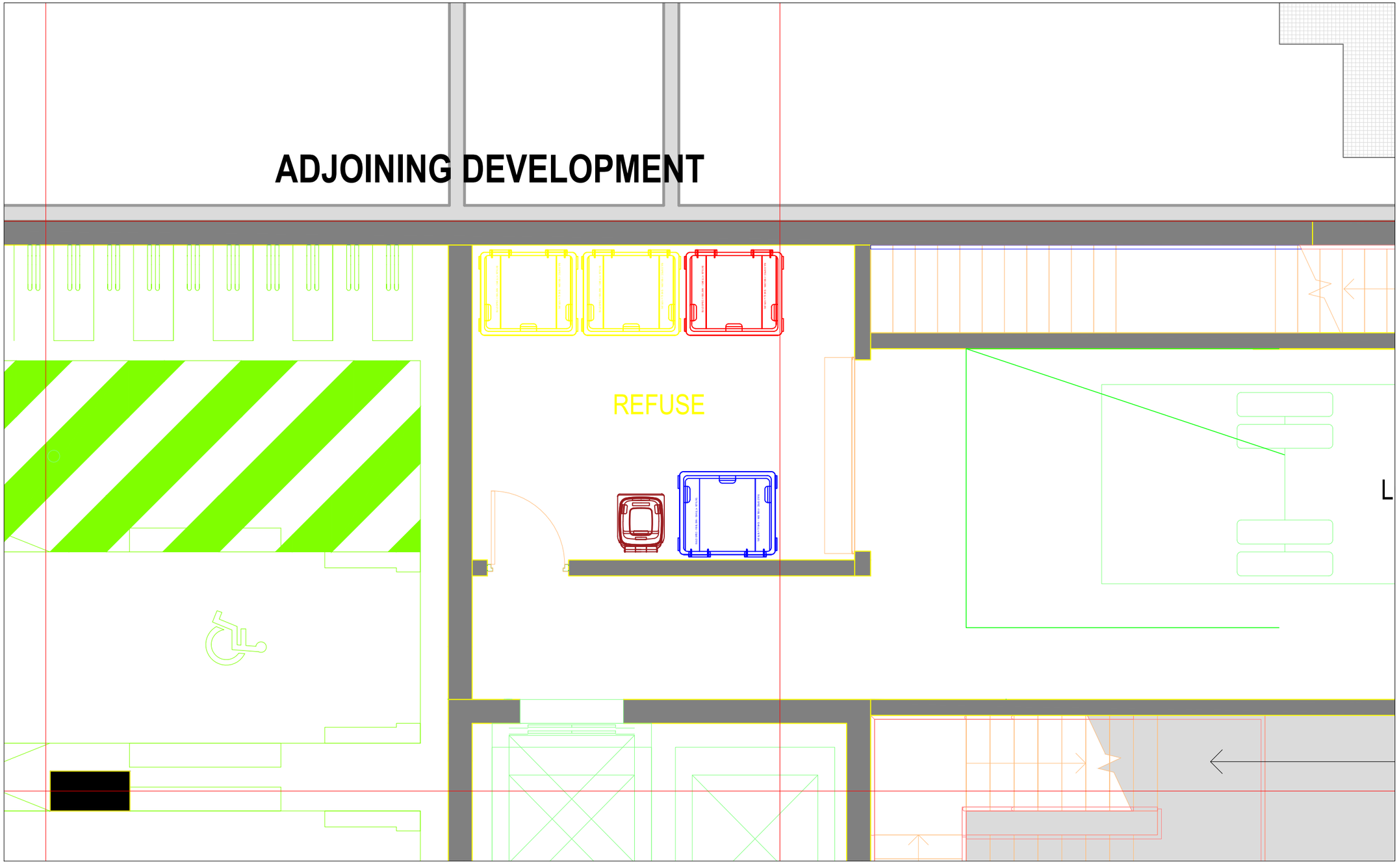
CLIENT
NEW URBAN VILLAGES

Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003
T: (07) 3327 9500 F: (07) 3327 9501
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT
8-18 JAMIESON STREET, BOWEN HILLS

DRAWING TITLE
SWEPT PATH ANALYSIS
10.2m REAR LOADING REFUSE COLLECTION VEHICLE

PROJECT NUMBER	24BRT0528
ORIGINAL SIZE	A3
DRAWING NUMBER	24BRT0528-01
REVISION	A
DATE	16 Dec 2024
SHEET	1 OF 1



REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
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SCALE 1:50 AT ORIGINAL SIZE

NORTH

CLIENT

CFMEU

TTM CONSULTING PTY LTD
ABN 65 010 868 621
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E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT
8 - 16 JAMIESON STREET, BOWEN HILLS

DRAWING TITLE
REFUSE STORAGE AREA LAYOUT

PROJECT NUMBER	24BRW0247
ORIGINAL SIZE	A3
DRAWING NUMBER	24BRW0247-01
REVISION	A
DATE	16 Dec 2024
SHEET	1 OF 1

Appendix C Systems and Specifications

C.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 Types	Waste Streams	Examples	Information
Individual Stream Bins	General waste, recycling, food waste, paper / cardboard		Various options and sizes available. To be supplied depending on preference and space available. Examples: https://www.sourceseparationsystems.com.au-/product/multisort https://methodrecycling.com/au/
Refuse / Cleaners Trolleys	All Streams		Assisted manual transfer of refuse Examples: https://rubbermaidcommercial.com.au/products/waste-management/mega-brute https://www.materialshandling.com.au/products/deluxe-compact-cleaning-carts
120L bins	General waste, paper, recycling, green waste		Dimensions approx. 545 x 480 x 930mm (L x W x H) (dimensions may depend on contractor) Examples: http://www.justwheeliebins.com.au, http://wheeliebinsonline.com.au
1100L bins	General waste, recycling, paper / cardboard		Dimensions approx. 1070 x 1240 x 1330mm (L x W x H) (dimensions depend on contractor) Examples: http://www.justwheeliebins.com.au, https://www.australianwastemanagement.com.au
Secure Destruction Papers Bin	Paper		Secure bins, sizes range up to 240L. Examples https://www.shred-x.com.au/document-destruction/document-shredding-destruction/ https://www.cleanaway.com.au/waste/secure-document-destruction/

Bin Types	Waste Streams	Examples	Information
Bin Weighing Scales (Optional)	All streams	 	Scales are used to capture all outgoing refuse weights for ongoing analysis of recycling rates. Examples https://www.osat.info/ https://gurru.com.au/bintracker/
Counter-top E-Waste Recycling (Optional)	Electronic Waste	 	Prepaid battery collection Example: https://envirostream.com.au/product/prepaid-countertop-battery-recycling-box/ https://www.ecoactiv.com.au/product/4l-battery-recycling-prepaid-service/ Toner cartridge collection https://zerowasteboxes.terracycle.com.au-/products/ink-and-toner-catridges-zero-waste-boxes

Appendix D Refuse Signage

D.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

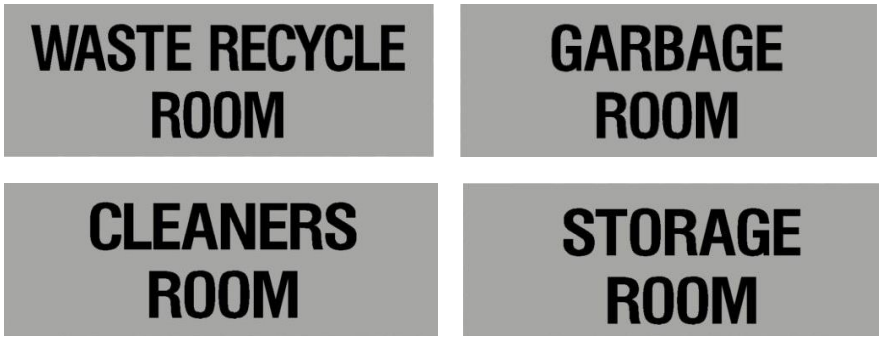
Colour coding as per AS 4123.7-2006

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*

D.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 E 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 1.00m³ to 4.50m³ 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 Tolley		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.