Colliers

Operational Waste Management Plan

Proposed Childcare Centre

At 241-249 Bridge Street, Newtown

On Behalf of Development Holdings Pty Ltd

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Revision record

Issue no.	Author	Approved	Development stage/ Revision description	Date
1.	N. Lee	N. Lee	Schematic Design – Draft	28/05/2026
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Contents

Table Index

Figure Index

1 Introduction

1.1. Background

Colliers International Engineering & Design (TTMC) has been engaged by Development Holdings Pty Ltd to prepare an Operational Waste Management Plan (OWMP) to support the proposed childcare centre located at 241-249 Bridge Street, Newtown. It is understood this OWMP will accompany a Development Application submitted to Toowoomba Regional Council (TRC).

1.2. Scope

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	Explanation
Regulatory requirements	Identification of relevant legislative and regulatory controls.
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 management equipment	Identification of recommended and optional refuse management systems and equipment.
Refuse disposal	Recommendations for refuse disposal within the development.
Refuse storage	Detailed analysis of refuse storage facilities and design.
Building design	Recommendations for design of refuse management facilities.
Refuse transfer	Assessment of refuse transfer between refuse storage and collections areas.
Refuse collections	Assessment of refuse collection vehicle (RCV) access and manoeuvring.
Refuse management operations	Recommendations for operational efficiency and ongoing management, including refuse minimisation, tenant education and safety.

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 241-249 Bridge Street, Newtown and is formally described as Lot 1 on Plan RP51161, Lot 2 on Plan RP60061 and Lot 1 on Plan RP17060 as depicted in Figure 1.1.

The site subject has road frontages to Bridge Street, Hillview Avenue and Brim Street. Bridge Street is recognised as a Connector road with Hillview Avenue and Brim Street recognised as Local roads on TRC's road hierarchy. All vehicular access will occur via Hillview Avenue only.

Figure 1.1: Site location
Source: Nearmap, image dated 6/04/2026

1.4. Site statistics

The proposed development consists of a single storey building for childcare centre use only, featuring indoor and outdoor play areas, kitchen facilities, ancillary staff areas with staff and visitor parking of a sufficient quantity to support 123 child places.

Table 1.2 provides a summary of the development as context for the volume information provided in Section 2.

Table 1.2: Development summary

Description	Measure
Childcare centre	805m^2 GFA
	123 Places

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. Council's Planning Scheme

This plan has been prepared to align with TRC's refuse requirements of development codes 9.4.2 Environmental Standards Code, 9.4.6 Transport, Access and Parking code as well as the *Technical Guideline for New Developments general waste and recyclable waste storage and collections* (technical guideline).

As the development, subject to this application is a non-residential use site, Colliers has referred to TRC's requirements as outlined in the technical guideline under section 4, 8 and 12.3. These sections relate to the general requirements for all uses and specific controls for non-residential uses utilising a non-standard bulk bin service. See Sections 2.5 to 2.7 for further details on the proposed bulk bin service arrangements.

A code response detailing the specific design details addressed to achieve compliance with TRC's Environmental Standards Code and Transport, Access and Parking code requirements is located in *Appendix A.*

2.2. Anticipated refuse volumes

Toowoomba Regional Council does not recommend refuse generation rates for childcare uses. Given statutory spatial clearances required for each placement, a direct correlation can be established between refuse generated by GFA or per placement. Colliers audit data of operational early learning and childcare centres finds that the average centre generates refuse at a placement level in quantities consistent with the refuse generation rate for childcare uses recommended in City of Sydney Council's Guidelines for Waste Management in New Developments. Additionally, the City of Sydney Council's guidelines are considered best practice by the Green Building Council of Australia when assessing submissions for Green Star Building certification. Therefore, the generation rates recommended by City of Sydney Council have been applied to the refuse generation calculations of the proposed development.

The calculations overleaf are considered to be the maximum refuse generation applicable for this site when 100% occupancy is achieved and maintained on a daily basis. It should be noted that while the rates contained in City of Sydney's guideline are considered best practice, they are not site nor operator specific instead, give an estimation of potential waste generation. Site specific auditing once the centre is operational is recommended to establish actual refuse generation of this site and enable refinement of waste strategy and refuse equipment employed.

It is important to note that the overwhelming majority of waste generated within childcare centres occurs as a result of kitchen activities (if included) and from consumables, predominantly nappies. Kitchen refuse consists largely of food organics (from food scraps) and food packaging, the volume of refuse generated from consumables is variable in nature dependant on the age composition of childcare places.

A collection frequency of once per week is proposed for general waste and commingled recycling. The proposed frequency is intended to limit the instances of an RCV needing to reverse on site and will be required to occur on a weekend when the centre is closed. Additionally, to manage the odour amenity concerns nappy waste will be separated and collected as a separate hygienic service. Colliers consider a minimum twice-weekly collection frequency of separated nappy waste to be mandatory in preventing detrimental effects to the amenity of the development.

Table 2.1 overleaf details the refuse generation rates applied to refuse calculations in Table 2.3 which form the basis of storage area sizing. Table 2.2 outlines the percentage split of nappy waste separated from the general waste stream.

Table 2.1: Refuse generation rate

Generation rate	Measure	General waste	Food waste*	Recycling	Days of operation
Childcare centre with kitchen	L / 100m^2 / Day	50	15	50	5
		65			

* Given the limited food collection services currently available in the Toowoomba region, food waste volumes have been combined with general waste for the purposes of refuse calculations. Food waste may be separated during operation, refer to Section 2.4 for details.

Table 2.2: General waste stream splits

Generation rate	Percentage split
Combined general waste and food waste	75%
Nappy waste	25%

Table 2.3: Refuse calculations

Description		Measure	Quantity	General waste L/Week	Nappy waste L/Week	Recycling L/Week
Childcare centre		GFA (m^2)	805	2,113	51	2,013
Volumes per Day (L / Day)				423	101	403
Volumes per Collection (L / Collection)				2,113	302	2,013
Collection and equipment details	Collections per Week			1	2	1
	Storage capacity			5 Days	3 Days	5 Days
	Equipment size			3,000L	55L	2,000L
	Equipment quantity required			0.7	5.49	1.01
	Equipment quantity provided			1	6	1

2.3. Refuse bin, equipment requirements and specification

Table 2.4 and Table 2.5 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 2.4: Bin requirements

Refuse stream	Bin/storage – Size or type	Number required
General waste	3,000L Steel bulk bin	1
Nappy waste (hygiene service)	55L Hands-free Hygiene Bin	6
Recycling	2,000L Steel bulk bin	1

Table 2.5: Additional equipment

Description	Quantity	Capability/specification – See *Appendix D* for Details.
Individual stream receptacles	TBD	Provides immediate disposal point within refuse-generating areas. To be provided by building operator in staff only areas. Further details in Section 2.4.1.
Refuse/cleaners trolleys	TBD (Optional)	Used to assist in the manual transfer of refuse to the bulk bins in the refuse room for final disposal.
Compost bin or worm farm	1 (Optional)	Dependent on operator preference, may be used to facilitate the separation of food organic material from general waste.

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

Table 2.6: Disposal of frequently generated waste

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 throughout the building, typically in staff accessible rooms only. Staff/cleaners will transfer material to the refuse enclosure, generally outside normal operating hours. Staffrooms and other refuse-generating areas will utilise small receptacles placed near kitchens, activity/multi-purpose areas, washrooms etc. from where staff or cleaners will transfer material to the refuse enclosure. Placement of bins can be identified during detailed design of the facilities and with input from the operating entity. However, bins will not be positioned in areas accessible by children. Kitchen waste will be captured by bins typically ranging in size from 30 L to 90 L and will be placed within the kitchen or back-of-house area to meet the design or layout criteria of the kitchen. Waste bins should always be lined with bags and the bags tied before removal.
Nappy waste	The volume of nappy waste generated varies based on the age composition of the centre's placements. A higher proportion of younger placements will result in higher volumes of nappy waste. Nappies will be separated as a separate hygiene service. Bins will be required in nappy changing facilities within the centre. Placement of bins can be identified during detailed design of the facilities and with input from the operating entity. However, bins will not be positioned in areas accessible by children. Bins will be serviced as a bin-to truck service where the contractor enters the development and replaces the full bins for empty bins.
Organic (food) waste	Separating organic or food waste from general waste is recommended for to reduce the total amount of general waste produced. Separation may be considered and begin at any stage during the operational phase of the development and commercial collections instigated where deemed suitable and commercial collections instigated as required however, it is noted that limited options currently exist within the TRC area. Alternatively, residential style equipment such as organic household composters or worm farms are available for use where practical and space allows. Composting may form educational activities undertaken within the development. Where food waste is separated, caddy bins or bins no larger than 20L should be used in the kitchen for disposal of food waste. The content is then decanted into composting equipment provided.

Table 2.7: Disposal of frequently generated recyclable materials

RECYCLING	
Commingled, including • glass • aluminum • steel cans • tins • cardboard • semi rigid plastics	Recycling should be collected in dedicated receptacles to ensure separation from general waste material. Where applicable, different recyclable materials such as cardboard/paper, plastics and glass should be separated, especially if large quantities are produced. Dedicated receptacles should be available in kitchens and staff areas. Recycling bins are to be positioned next to general waste bins, bin quantities will be determined during the operational phase. Items for recycling must not be bagged and disposed in loose form. Recyclable materials should be carried/transported from the individual receptacles within the premises to the bins in the refuse enclosure by staff/cleaners. This can be done by decanting the materials from the individual receptacles into a larger container/bin on a trolley for transport to the refuse enclosure for final disposal. Staff/cleaners will transfer material to the refuse enclosure, generally outside normal operating hours.
	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 building or refuse enclosure can be provided.

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 very limited quantities predominately through the replacement of IT equipment. Where equipment is not procured in a '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. Colliers recommend a disposal point is provided for used batteries and located in the reception or alternate staff-only area.
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 a designated loading position 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.

2.5. Refuse storage and access requirements

General waste and recycling will be stored within stream separated bulk bins in the dedicated refuse storage enclosure located at grade towards the northern boundary between the carpark and outdoor play area 03. The location of the refuse enclosure is provided to facilitate efficient RCV servicing while maintaining accessibility for the disposal of refuse by site staff.

The refuse storage enclosure is sufficiently sized to accommodate the steel bulk bins required as outlined in Table 2.4.

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

Nappy bins will be located internally to the tenancy as required based on the placement demographic and restricted from child access. Nappy bins will be serviced as a walk-in bin exchange service with full bins replaced with empty bins from their location within the tenancy; additional or separate storage is not required.

Figure 2.1 illustrates the layout of the refuse storage enclosure.

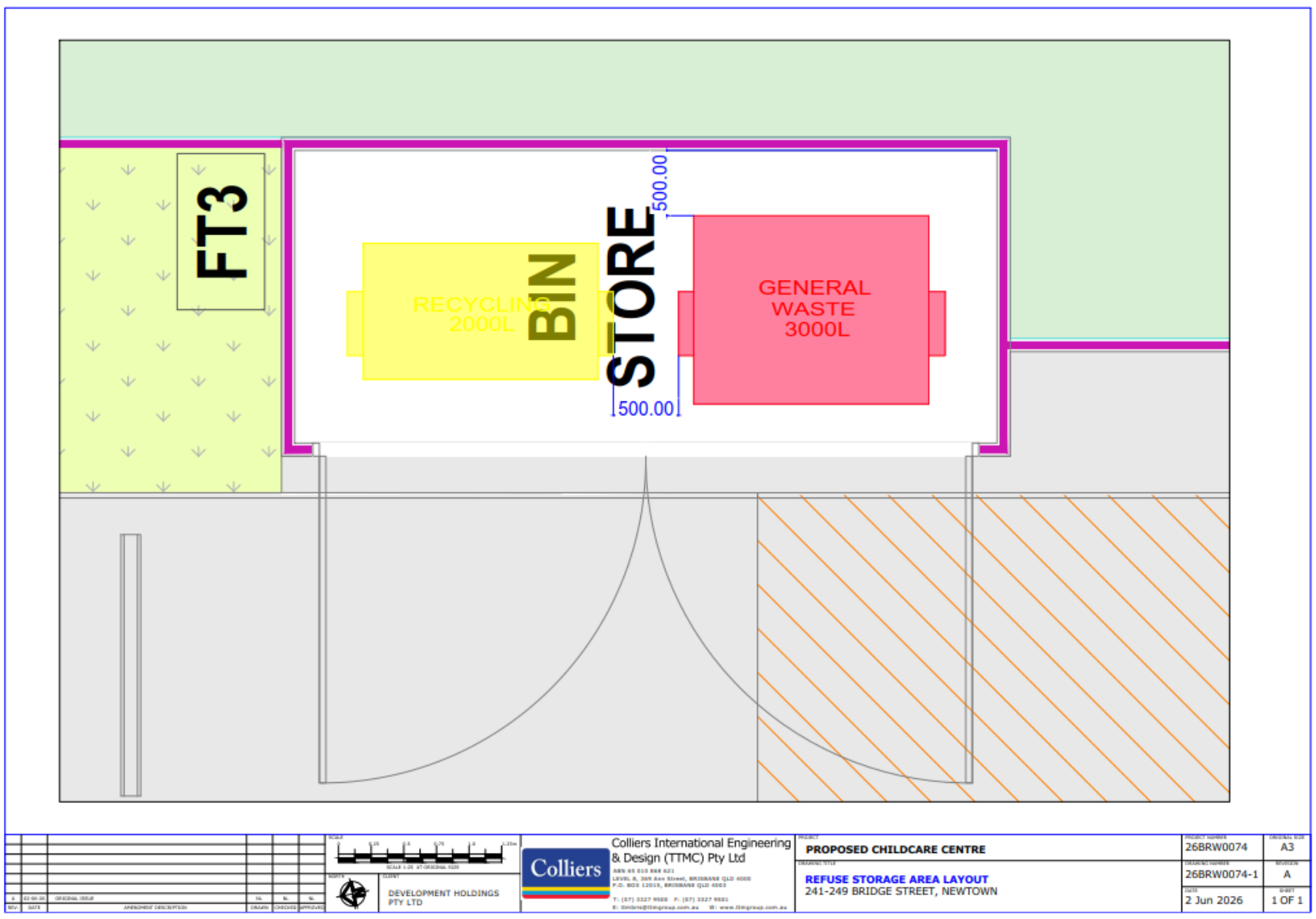


Figure 2.1: Refuse storage area layout

Table 2.9 outlines the refuse storage enclosure 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 enclosure 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 area cleaning considerations
A hose cock provided inside the enclosure for cleaning bins and the enclosure.
The walls, ceilings, floors and equipment are to be designed and constructed of impervious material with a smooth finish to allow for easy cleaning.
The floors to be graded to fall to a drainage point.
Drainage points connected to sewer in accordance with trade waste requirements.
Roofed and designed to prevent entry by rainwater.

2.6. Refuse transfer

Building staff/cleaners will transfer all general waste and recycling generated within the centre to the refuse enclosure for disposal into the appropriate bulk bin, either manually or assisted with trolleys as part of business-as-usual operation.

The collecting contractor will service bulk bins in-situ with drive-on servicing provided to both bins, no movement of bins is required in the servicing of the developments bulk bins.

Nappy waste bins will be replaced with empty bins and collected from directly within the centre by the collecting contractor. The collection contractor will manually transfer bins between the storage point within the building and the RCV.

Appointed tenancy or cleaning staff will be responsible for the cleaning of bins and the enclosure after service as required.

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

In recognition of council's concerns around RCV reversing on site (considering the proposed development use) raised in prelodgement meeting minutes, servicing where a truck is required to reverse will be restricted to occur once per week on a weekend. The RCV will enter and exit the site in a forward gear with reversing required to back away from the bins after collection and to turn around to facilitate an exit in a forward gear.

All bulk bin servicing will occur front loading RCV. It will be at the operator's discretion as to whether a private contractor or council's elected contractor are engaged to undertake collections.

Hygiene/nappy services will be performed utilising either a van or SRV sized collection vehicle. Visitor parking will be used for the manoeuvring of the collection vehicle. The management and reserving of visitor parking spaces to enable the collection vehicle to enter the site will be a responsibility of site staff.

Note, hygiene/nappy services will be restricted to occurring outside of peak child drop-off or pick up times where the van or SRV will have a capacity to utilise visitor carparking spaces for manoeuvring; low volumes of vehicular movements in and out of the site occur outside of standard drop-off or pick-up times resulting in significant capacity available in the visitor parking provided. Staff and visitor parking will be allocated and managed on days of collection by the centre operator in a manner that accommodates vehicle manoeuvring in a forward gear only.

Figure 2.2, Figure 2.3 and Figure 2.4 and depicts the demonstrates the ingress and egress RCV swept path manoeuvres for both a 10.19m front lading RCV and SRV respectively.

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 within the servicing area.
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 positioned away from entrances to shops or residential premises.
Best practice includes CCTV or other video monitoring designed to record RCV's collecting bins.

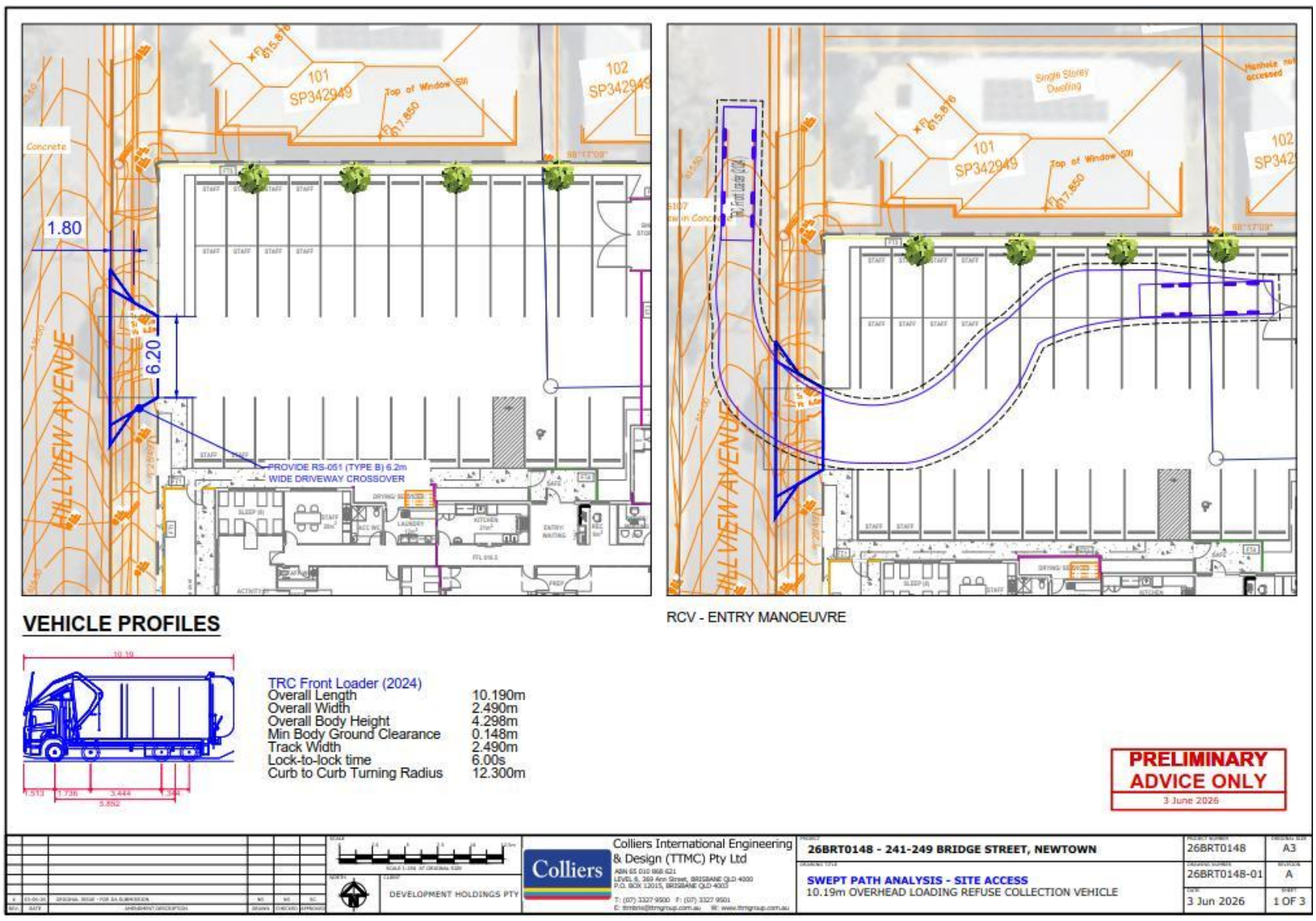


Figure 2.2: RCV ingress swept paths

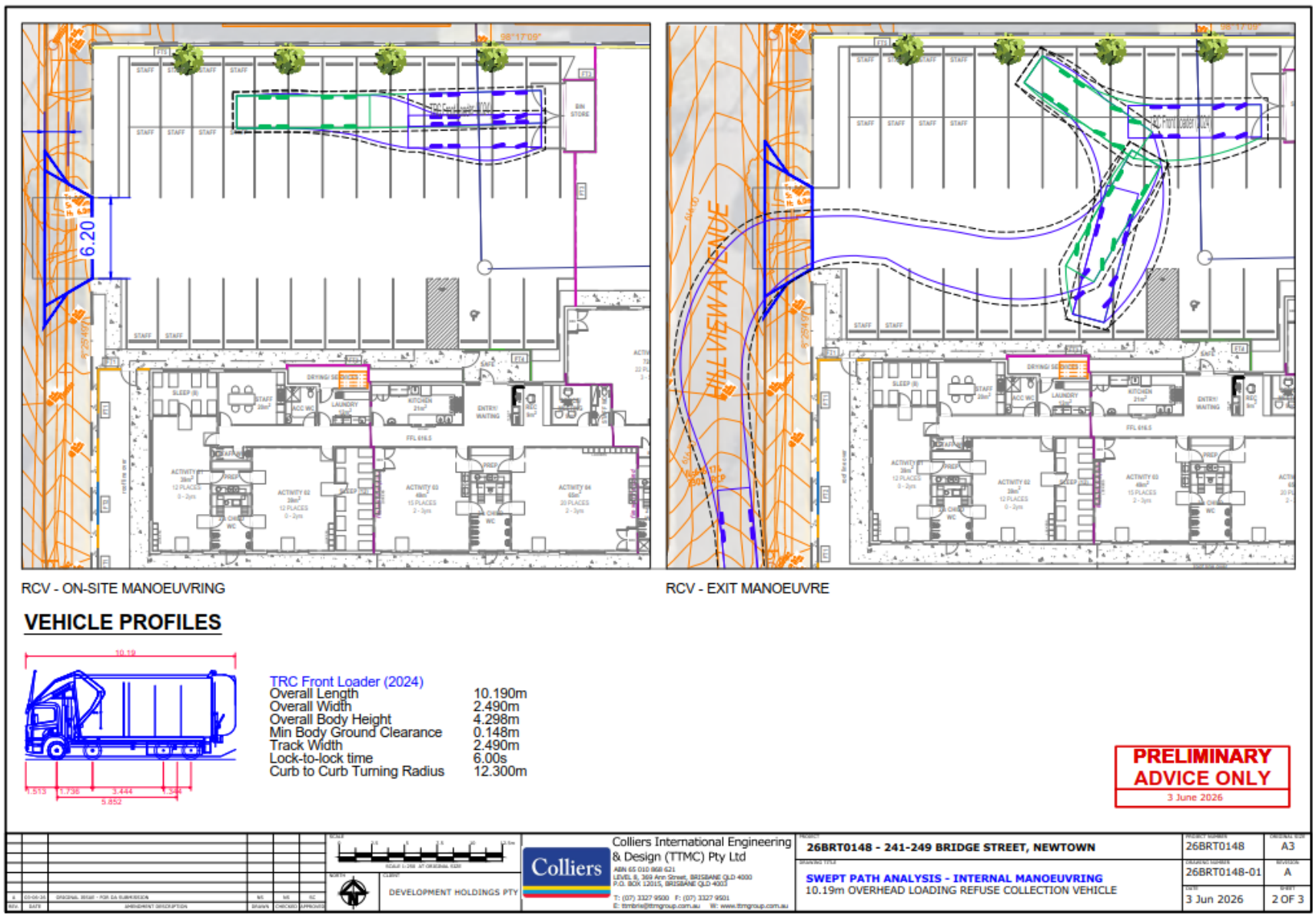


Figure 2.3: RCV egress swept paths

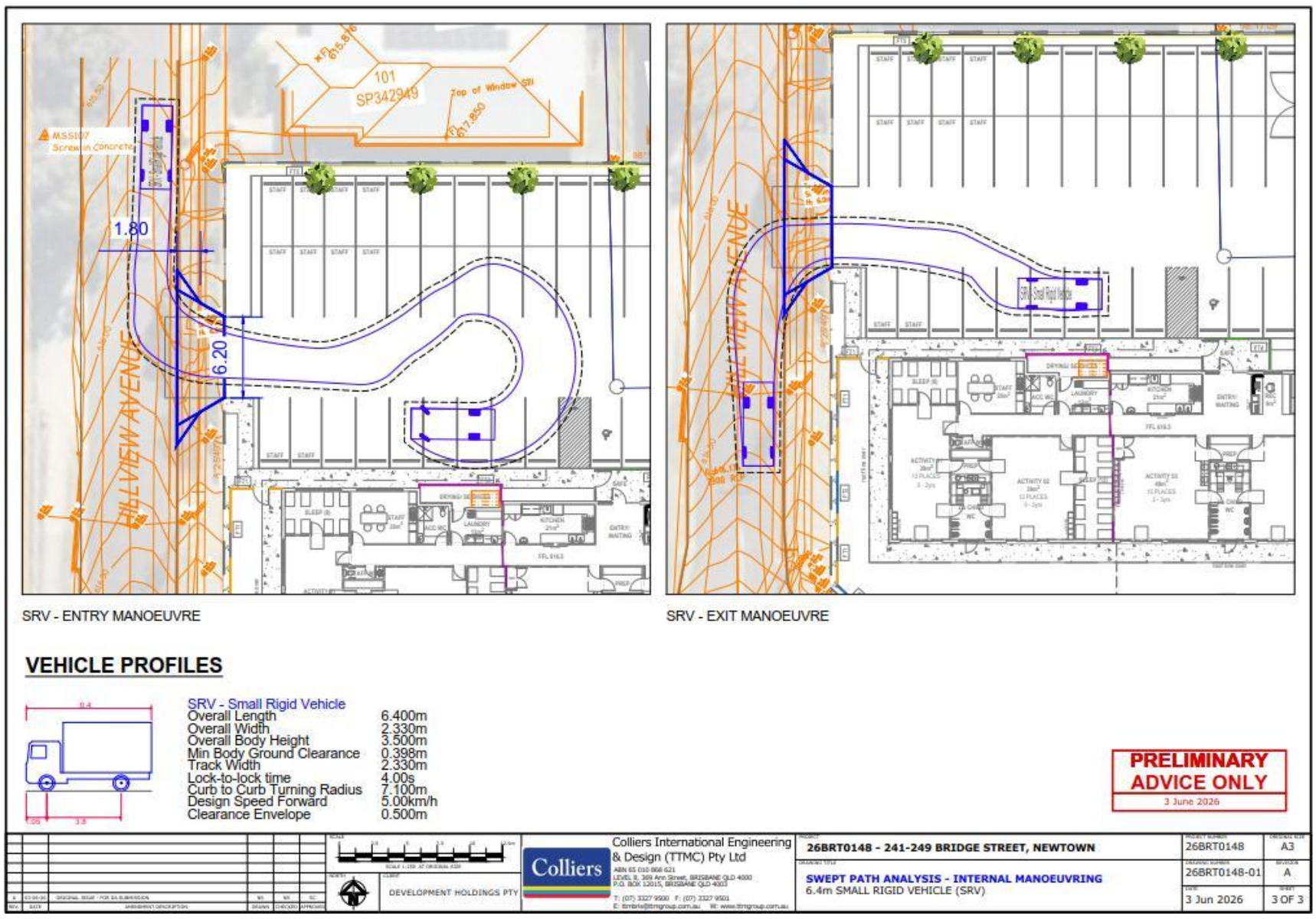


Figure 2.4: SRV swept paths

3 Recommended operational refuse management

This section does not contain information relevant for the assessment of building design.

This section relates to the outcomes and waste management practices of the development during the operational phase as recommended by Colliers. 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. 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. Colliers 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.

3.1.1. 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.		
Appoint personnel to oversee or undertake refuse management tasks. A facility or operations manager is typically appointed and oversees most refuse-related operational tasks, engaging contractors for specialist tasks.		

Task	Assigned	Remarks
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.		
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 stream. 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/operator agreements Any site operator, 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.		

Task	Assigned	Remarks
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.		

3.1.2. 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 throughout the development. Appointed staff are required to transfer refuse generated in relevant areas and the public realm to the refuse storage area for final disposal, this includes litter removal.		
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 to lost resources.		
Manage bin transfers or access to agreed servicing point, if required. Bins are required to be presented to and access available to the agreed servicing point prior to the scheduled service time. 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 staff and encouraging participation in recycling activities. Widespread communication of the achievements of the refuse strategy and areas for improvement encourage participant buy-in.		

3.1.3. 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 to 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 code response

Table 9.4.2:1 – Environmental Standards Code – Assessment benchmarks for assessable development		
Waste Management		
Performance outcome	Acceptable Outcome	Comment
PO28 The development (excluding high rise buildings in excess of three (3) stories) is designed to ensure that waste storage and collection can be undertaken in a manner that complies with Council's Waste Storage and Collection requirements (see appendix B) and the requirements of the Environmental Protection (Waste) Regulations 2000.	**A028.1** For commercial premises and industrial activities (other than those premises utilising Council's wheelie bin waste collection program): a) General waste and recycling containers are located within the curtilage of the property in an area that enables the waste collection truck to pick up the containers while entering and leaving the premises in a forward gear; b) A container storage area is dedicated that is large enough to cater for the expected volume of general waste and recycling; c) Storage areas are screened either behind a building or using screening materials or landscaping to a minimum height of 1.5m; d) Where bulk bins (or alternative combined waste and recycling containers exceeding 2 cubic metres) are proposed the bin storage area is roofed and bunded, contains an impervious surface, is in close proximity to a hose cock and is graded and drained to either a wastewater system connection (requiring a trade waste approval) where sewer is available or in sewered areas, storage areas are drained to an area of significant landscaping, waste water treatment device or water quality improvement system e.g. Bioretention. e) Where bulk bins (or alternative combine waste and recycling containers exceeding 2 cubic metres) are proposed the bin storage area is designed to enable bins to be washed out within the storage area and drained to a sewer system (requiring a trade waste approval) within sewered areas or area of significant landscaping, water treatment device or water quality improvement system e.g. Bioretention in non-sewered areas; and f) Bin storage areas do not pose amenity issues for surrounding sensitive receivers, including odour during storage periods or noise issues resulting from collection programs.	Complies with PO28 and AO28.1a-f. Details throughout this OWMP.
	A028.2 Not Applicable	N/A

Table 9.4.2:1 – Environmental Standards Code – Assessment benchmarks for assessable development		
Waste Management		
Performance outcome	Acceptable Outcome	Comment
	AO28.3 Not Applicable	Complies with PO28 and AO28.3c. Details throughout this OWMP.
	A028.4 Commercial premises utilising Council's wheelie bin waste collection service to dispose of commercial waste: a) utilise a maximum of four (4) wheelie bins i.e. less than 1 cubic metre; b) store bins within the curtilage of the property in a designated area in close proximity to a hose cock, whereby any adjoining sensitive land uses will not experience amenity issues i.e. odour; c) store bins on an impervious surface; d) place bins on the road reserve for a maximum period of 24 hours during collection programs; and e) store bins in an area that is screened from public view either in a building, behind a building or within a purpose built screened storage area within a 1.5m minimum height.	N/A
PO29 Not Applicable	**A029.1** Not Applicable	N/A
P030 Not Applicable	**A030.1** Not Applicable	N/A

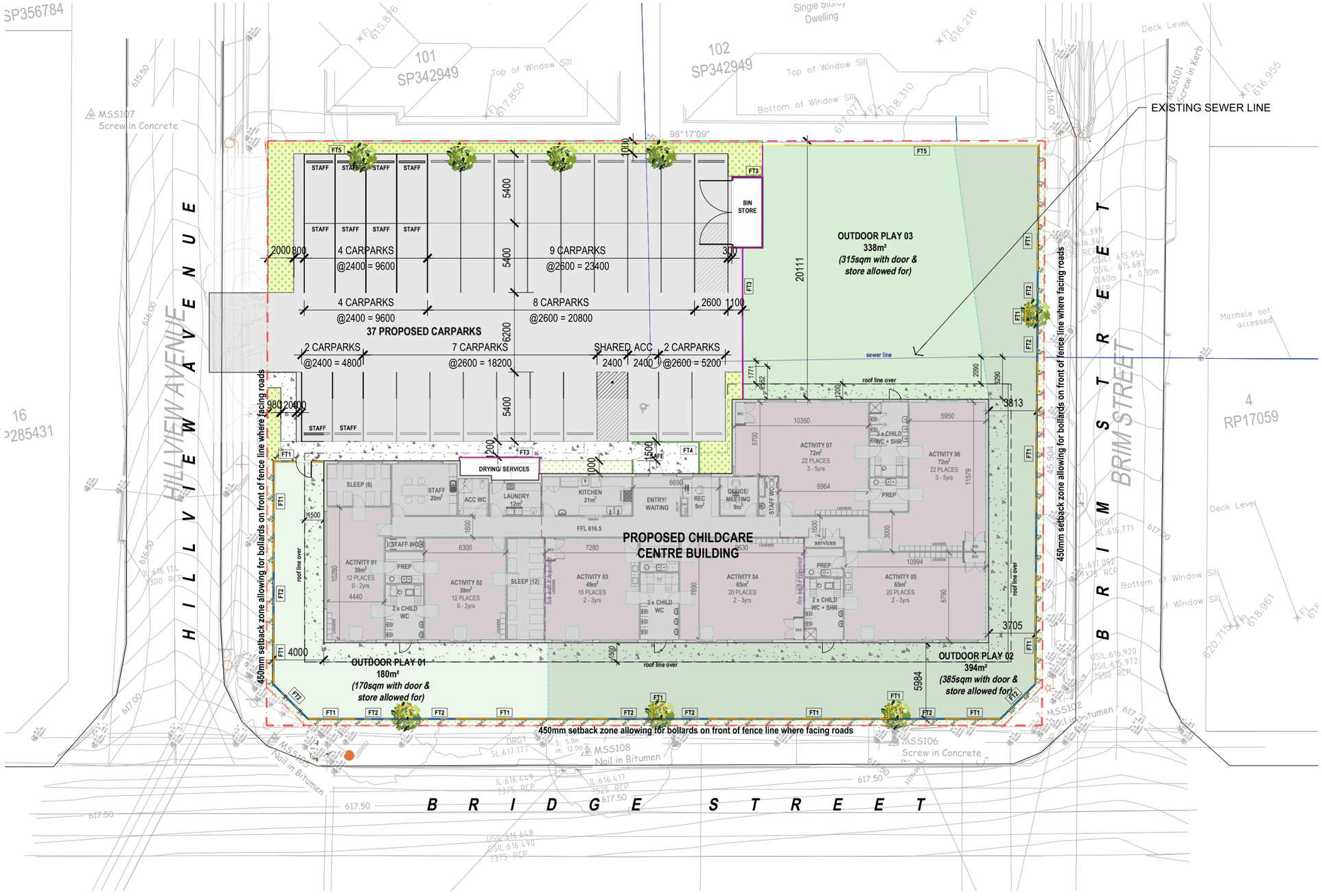
Table 9.4.2:1 – Environmental Standards Code – Assessment benchmarks for assessable development		
Waste Management		
Performance outcome	Acceptable outcome	Compliance/comment
PO31 Demolition and building activities actively involve waste minimisation and waste avoidance principles including the promotion of recycling and re-use.	**AO31.1** The development will be carried out in accordance with the waste management hierarchy outlined in the Technical Guideline for New Developments Waste Storage and Collection Requirements and the applicant has nominated the quantity and type of materials that will be disposed of to landfill.	Not within the scope of this OWMP. This plan addresses the waste management arrangements during the operational phase of the development.
PO32 Not Applicable.	**AO32.1** Not Applicable.	N/A
	AO32.2 Not Applicable.	N/A
	AO32.3 Not Applicable.	N/A
PO33 Not Applicable.	**A033.1** Not Applicable.	N/A
P034 Development involving refuse storage and collection external to Council's waste contract utilise waste containers and hygiene practises that prevent odour issues and remove harbourage opportunities for vermin and mosquitoes.	**A034.1** The applicant will utilise the following control measures: a) Putrescible waste will be removed from the property at intervals not exceeding seven (7) day (putrescibles will be refrigerated where possible and appropriate) b) Tight fitting lid assemblies will be utilised on all waste containers to prevent the pooling of rainwater thus, minimising mosquito breeding opportunities; and c) Bins will be secured to ensure that vermin and pest animals do not have access to a potential food source; and d) Bins will be cleared on an 'as needed' basis if odour is identified as an issue.	Complies with PO34 and AO34.1. Appendix B1 demonstrates typical bins specified for the project.

Table 9.4.6:2 – Transport, Access and Parking code – Assessment benchmarks for assessable development		
Servicing		
Performance outcome	Acceptable outcome	Compliance/comment
PO22 Where relevant, the development is capable of providing for storage, collection, treatment, and disposal of trade waste such that: a) Off-site releases of contaminants do not occur; b) The health and safety of people and the environment are protected; and c) The performance of the wastewater system is not put at risk.	No acceptable outcome is nominated.	N/A
PO23 Appropriate refuse container storage areas are provided which are: a) In a building or enclosing structure or screened from public view; b) Of adequate size to accommodate the expected amount of refuse to be generated by the use; c) In a position that is conveniently accessible for collection; and d) Able to be kept in a clean state at all times.	**AO23.1** Container storage areas are provided which: a) Are in a building, outbuilding, or other enclosed structure, or otherwise screened from public view, by a minimum 1.5m high solid fence or wall or dense vegetation; b) Are provided with an imperviously sealed pad, on which to stand the bin(s), that is drained to an approved waste disposal system; c) Are within normal hose length of a hose cock; d) Are large enough to accommodate at least one (1) standard size container per dwelling and, in commercial and industrial premises, one (1) or more industrial bins of a size appropriate to the nature and scale of use; and e) Are situated not closer than 6m to a road or 2m to any site boundary.	Complies with PO23, AO23.1, AO23.2 and AO23.3. Details on refuse storage detailed in section 2.3.
	AO23.2 On sites greater than 2,000m^2 in area, provision is made for refuse collection vehicles to access the collection area and to enter and leave the site in a forward direction without having to make more than a 3-point turn.	
	AO23.3 For multiple dwelling and retirement facility, container storage areas are located not more than 50m from any dwelling.	
PO23 Where the use is non-residential and generates recyclable waste, provision is made for conveniently located recycling bins on the premises, including in the container storage area.	No acceptable outcome is nominated.	Complies, storage for central facility in close proximity to kitchen. Where majority of waste will originate.

Appendix B Relevant site plans and supporting drawings

PLANNING

Rev	Amendment	Date



FENCE TYPE KEY

- FT1 — 2000h TIMBER BATTEN FENCE ON TOP OF RETAINING WALL
- FT2 — 2000h CONCRETE BLOCK FENCE ON TOP OF RETAINING WALL
- FT3 — 1800h COLORBOND FENCE
- FT4 — 1500h ALUMINIUM BATT FENCE
- FT5 — 2200h COLORBOND FENCE ON TOP OF RETAINING WALL

SITE PLAN
1:300

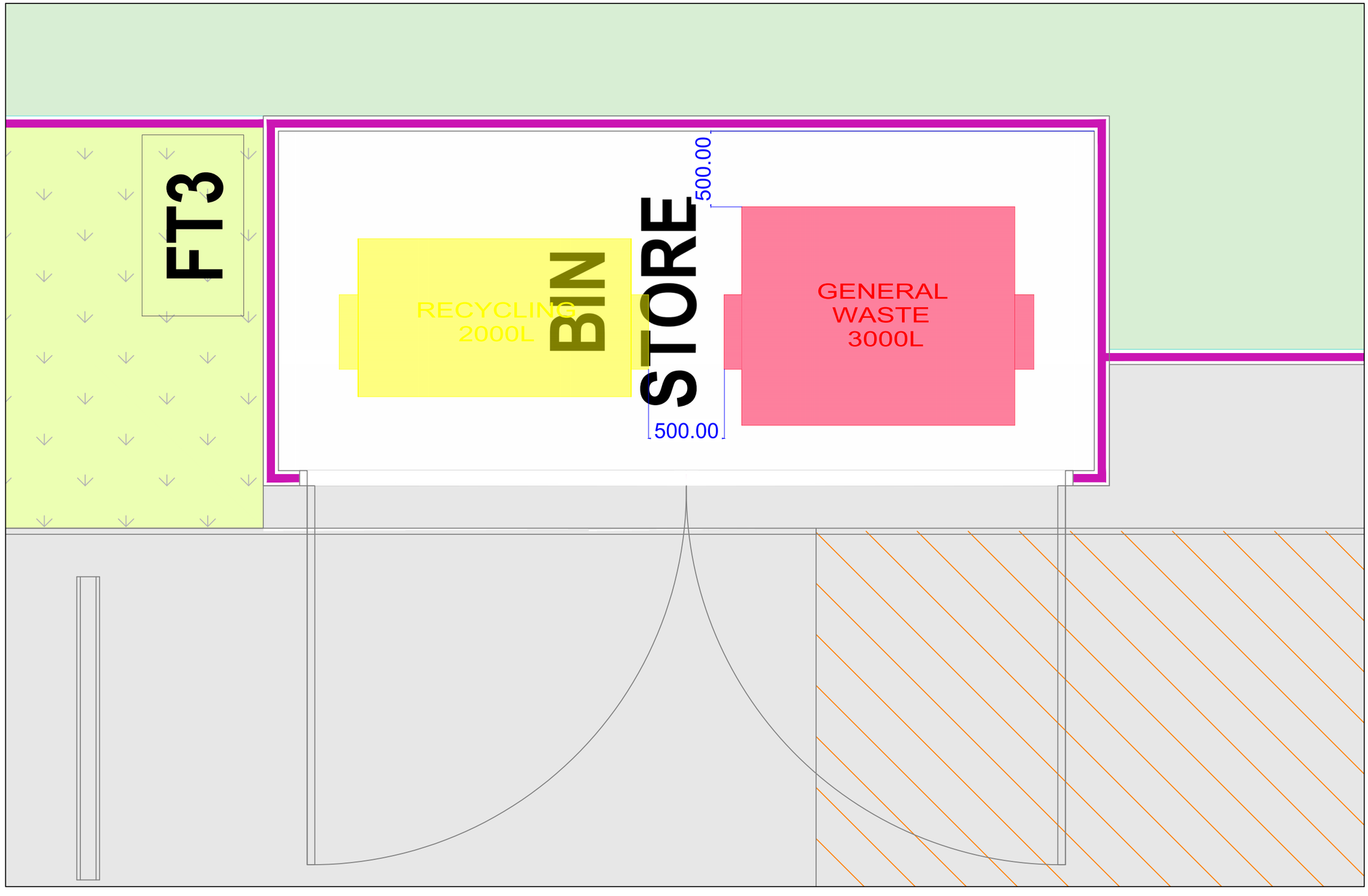
SITE DATA	
SITE AREA	2750sqm
BUILDING AREAS (GFA)	805sqm = 6.54sqm PER CHILD
PROPOSED CHILD CARE PLACES	123 Places
SITE COVER	805sqm = 29.2% OF SITE
REQUIRED CARPARKING	1 Carpark per 3.4 Places = 36.2
PROPOSED CARPARKING	37 Carparks

ON ARCHITECTURE

Project
123 PLACE CHILD CARE
241-249 Bridge Street, Newtown, Queensland

Drawing
SITE PLAN

Scale	As indicated	Drawn	LO	
Client	-			
Date	29/05/2026			
Job No.	202600022			
Dwg No.	**DA02**	Rev:	-	A3 SHEET



REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	02-06-26	ORIGINAL ISSUE	NL	NL	NL

SCALE
0 0.25 0.5 0.75 1.0 1.25m
SCALE 1:25 AT ORIGINAL SIZE

NORTH

CLIENT
DEVELOPMENT HOLDINGS PTY LTD

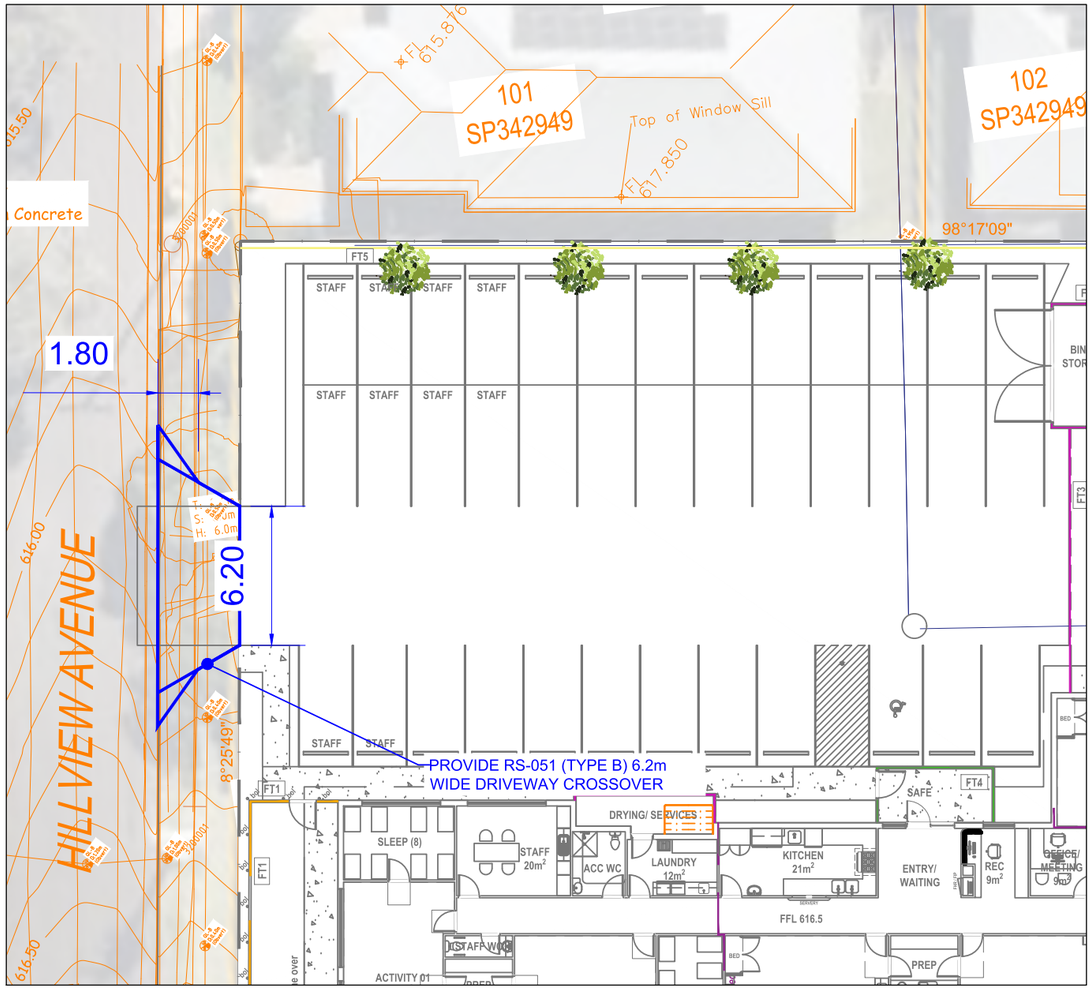
Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003
T: (07) 3327 9500 F: (07) 3327 9501
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

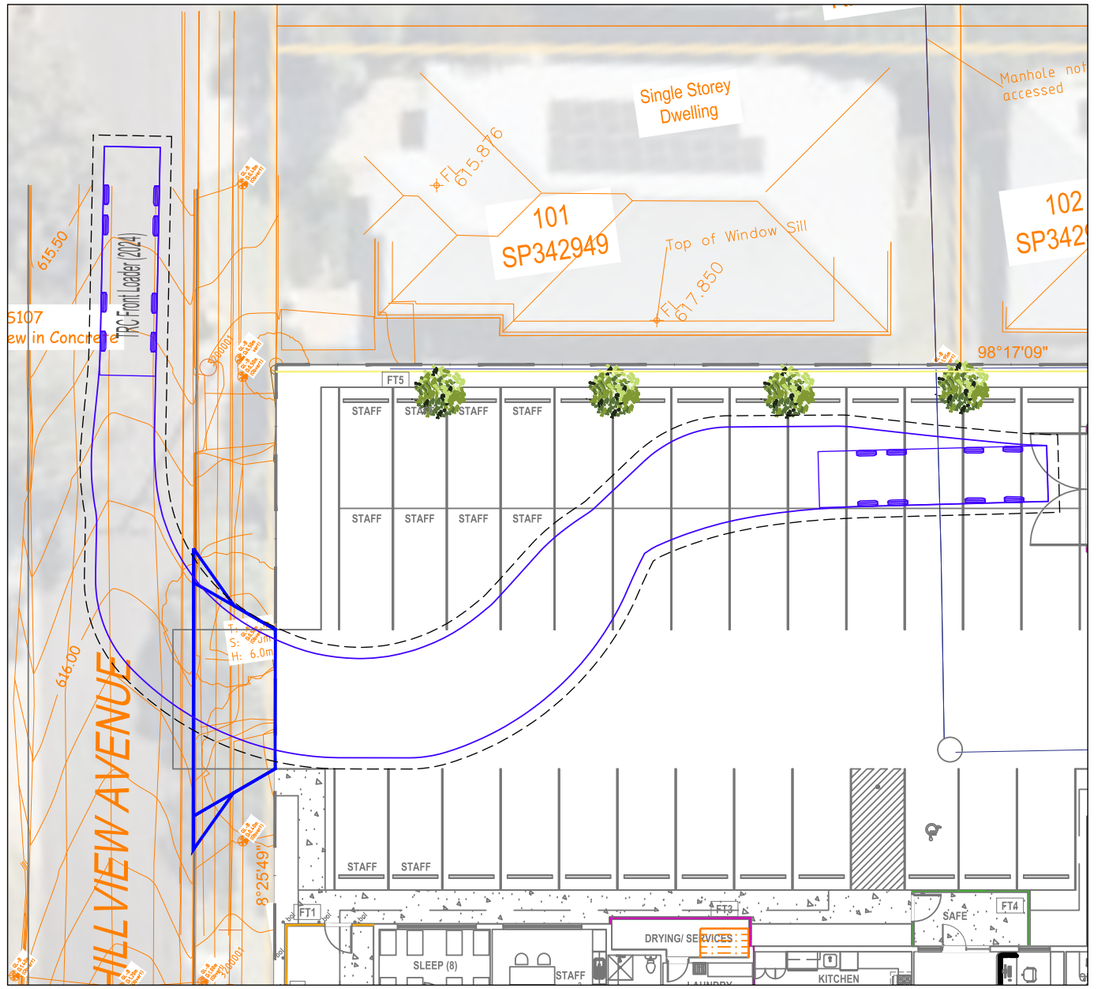
PROJECT
PROPOSED CHILDCARE CENTRE

DRAWING TITLE
REFUSE STORAGE AREA LAYOUT
241-249 BRIDGE STREET, NEWTOWN

PROJECT NUMBER	26BRW0074
ORIGINAL SIZE	A3
DRAWING NUMBER	26BRW0074-1
REVISION	A
DATE	2 Jun 2026
SHEET	1 OF 1

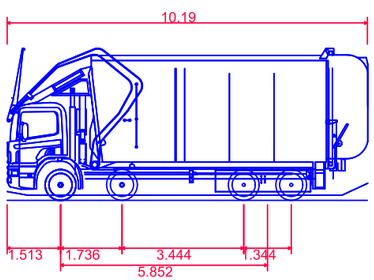
Appendix C RCV swept path analysis





RCV - ENTRY MANOEUVRE

VEHICLE PROFILES



TRC Front Loader (2024)	
Overall Length	10.190m
Overall Width	2.490m
Overall Body Height	4.298m
Min Body Ground Clearance	0.148m
Track Width	2.490m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.300m

PRELIMINARY ADVICE ONLY
3 June 2026

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	03-06-26	ORIGINAL ISSUE - FOR DA SUBMISSION	NS	NS	SC

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

NORTH

CLIENT
DEVELOPMENT HOLDINGS PTY

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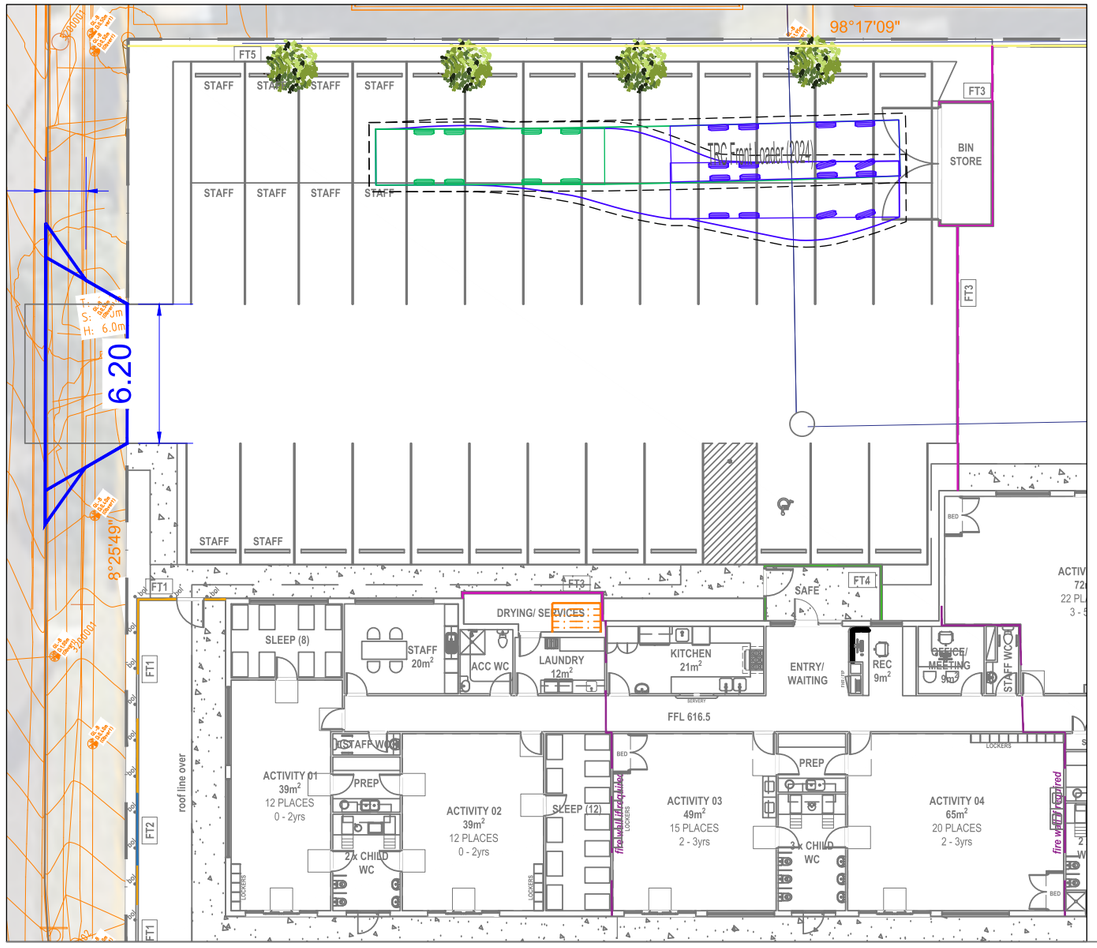
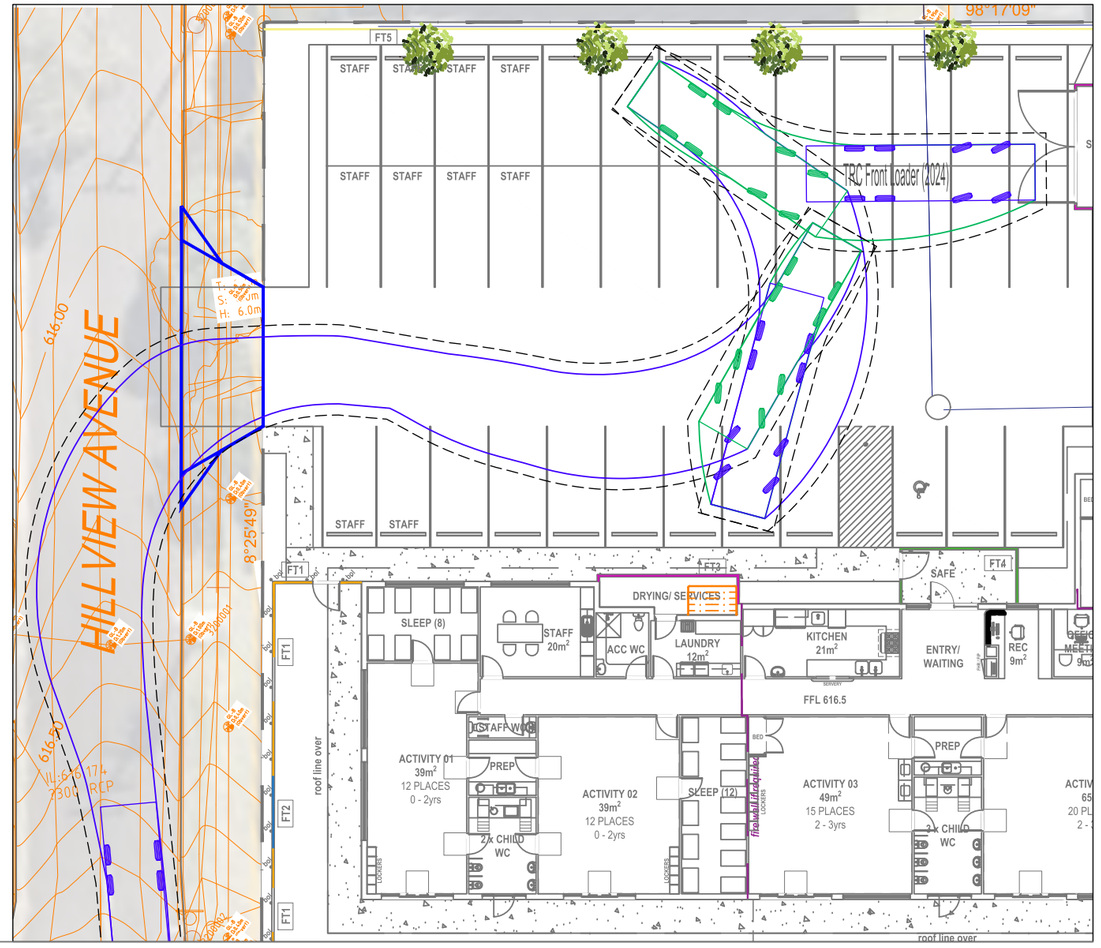
PROJECT
26BRT0148 - 241-249 BRIDGE STREET, NEWTOWN

DRAWING TITLE
SWEPT PATH ANALYSIS - SITE ACCESS
10.19m OVERHEAD LOADING REFUSE COLLECTION VEHICLE

PROJECT NUMBER	ORIGINAL SIZE
26BRT0148	A3
DRAWING NUMBER	REVISION
26BRT0148-01	A
DATE	SHEET
3 Jun 2026	1 OF 3

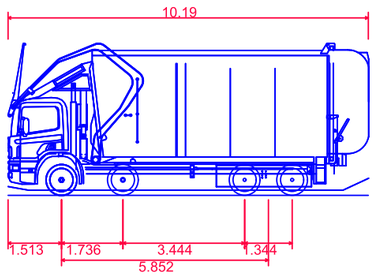


RCV - ON-SITE MANOEUVRING



RCV - EXIT MANOEUVRE

VEHICLE PROFILES



TRC Front Loader (2024)

Overall Length	10.190m
Overall Width	2.490m
Overall Body Height	4.298m
Min Body Ground Clearance	0.148m
Track Width	2.490m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.300m

PRELIMINARY ADVICE ONLY
3 June 2026

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	03-06-26	ORIGINAL ISSUE - FOR DA SUBMISSION	NS	NS	SC

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

NORTH

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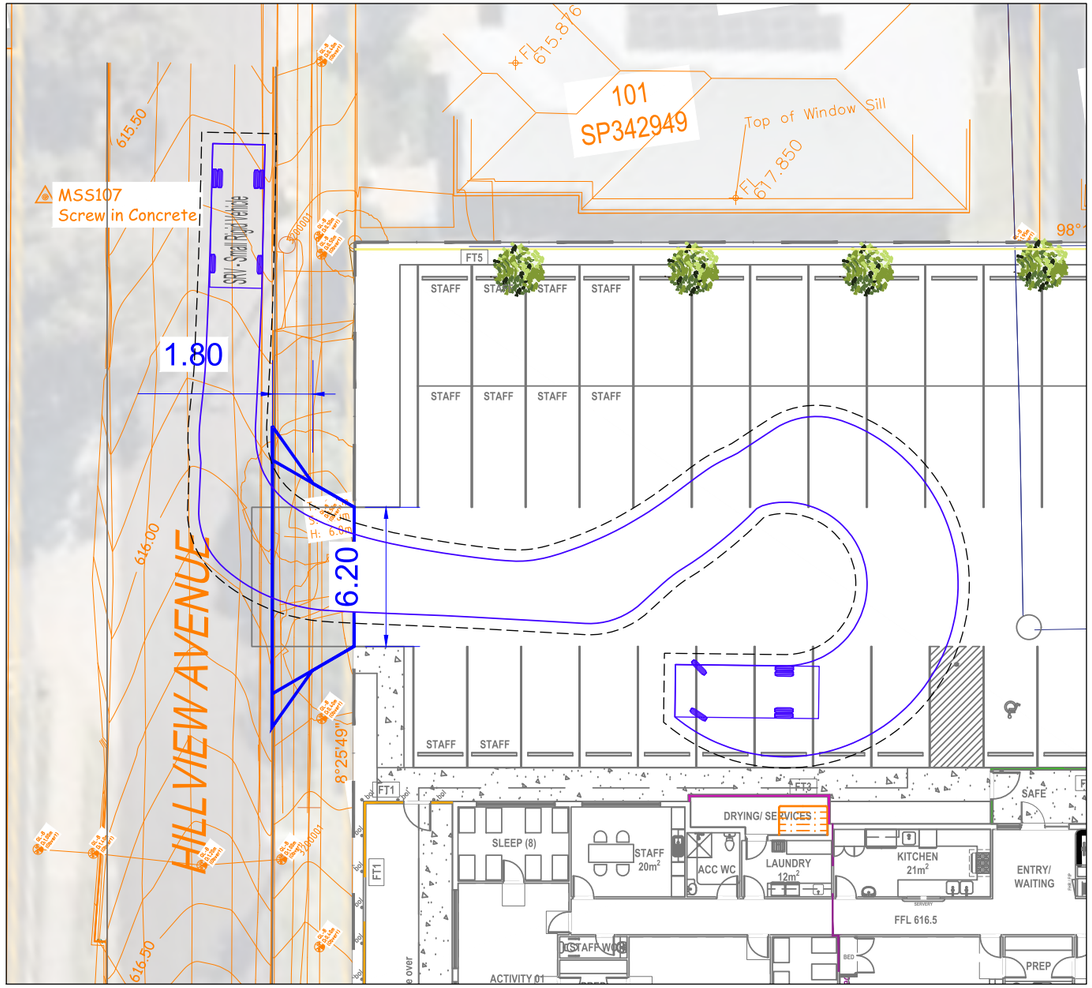
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

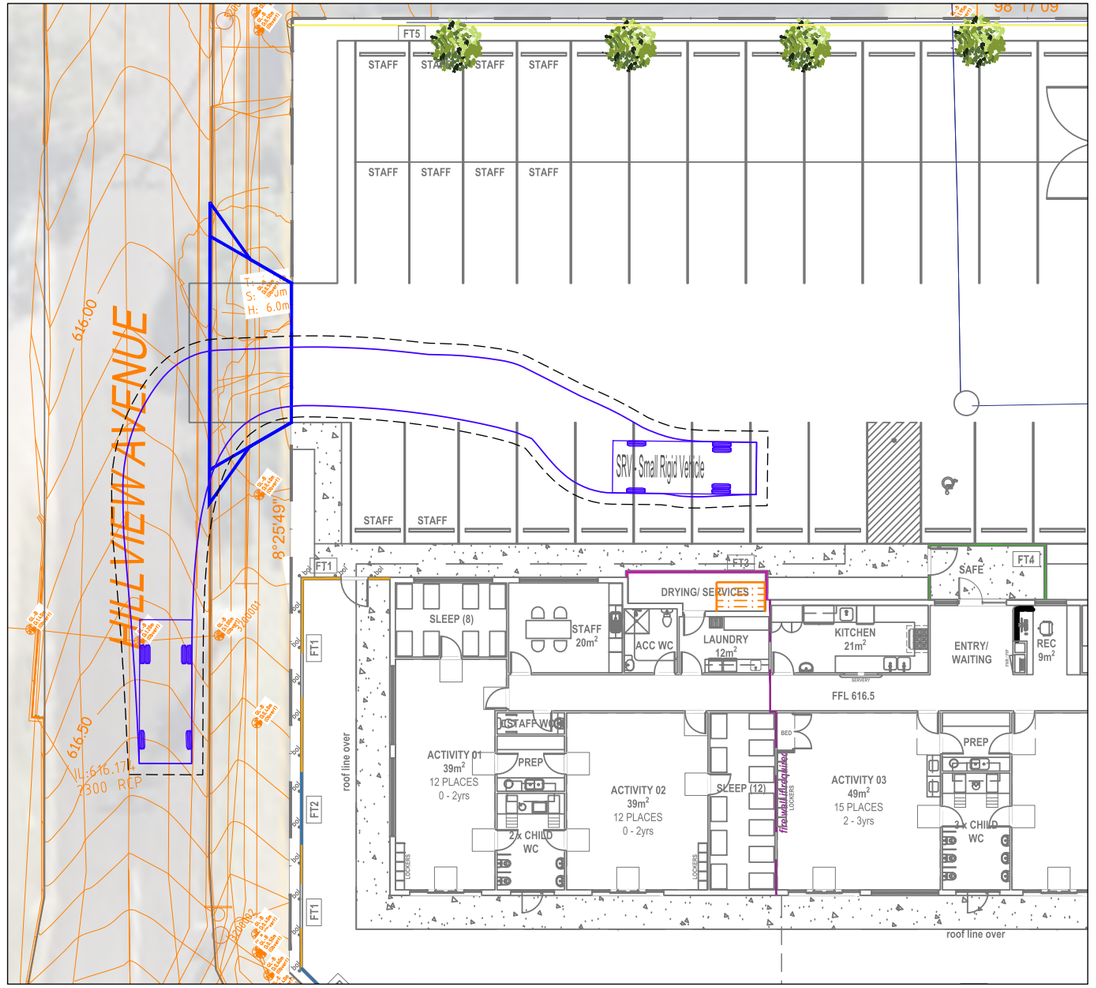
PROJECT
26BRT0148 - 241-249 BRIDGE STREET, NEWTOWN

DRAWING TITLE
SWEPT PATH ANALYSIS - INTERNAL MANOEUVRING
10.19m OVERHEAD LOADING REFUSE COLLECTION VEHICLE

PROJECT NUMBER	26BRT0148
ORIGINAL SIZE	A3
DRAWING NUMBER	26BRT0148-01
REVISION	A
DATE	3 Jun 2026
SHEET	2 OF 3

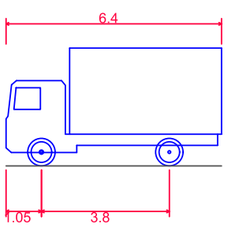


SRV - ENTRY MANOEUVRE



SRV - EXIT MANOEUVRE

VEHICLE PROFILES



SRV - Small Rigid Vehicle

Overall Length	6.400m
Overall Width	2.330m
Overall Body Height	3.500m
Min Body Ground Clearance	0.398m
Track Width	2.330m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.100m
Design Speed Forward	5.00km/h
Clearance Envelope	0.500m

PRELIMINARY ADVICE ONLY
3 June 2026

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	03-06-26	ORIGINAL ISSUE - FOR DA SUBMISSION	NS	NS	SC

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

NORTH

CLIENT
DEVELOPMENT HOLDINGS PTY

Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
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P.O. BOX 12015, BRISBANE QLD 4003
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E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT
26BRT0148 - 241-249 BRIDGE STREET, NEWTOWN

DRAWING TITLE
SWEPT PATH ANALYSIS - INTERNAL MANOEUVRING
6.4m SMALL RIGID VEHICLE (SRV)

PROJECT NUMBER	26BRT0148
ORIGINAL SIZE	A3
DRAWING NUMBER	26BRT0148-01
REVISION	A
DATE	3 Jun 2026
SHEET	3 OF 3

Appendix D Systems and specifications

D.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/ https://www.materialshandling.com.au/products/deluxe-compact-cleaning-carts
Bulk bins	General waste, cardboard		Dimensions depend on contractor Example: https://www.jjrichards.com.au/service/industrial-bin-services
Organics household composting, worm farm, digesters (optional)	Food waste /organics		Organics/food waste separation, composting and digesting; household-type and commercial grade equipment available. Examples: Ecoguardians Soilfood https://www.ecoguardians.com.au/soilfood-/soilfood Urban composter https://www.urbancomposter.com.au Worm farm https://wormsdownunder.com.au/-products/wormmod

Appendix E Refuse signage

E.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*

E.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 F 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 1,100L used for the storage of refuse.
Collection point		An identified position where refuse bins are stored for collection and emptying. The collection point can also be the bin storage area.
Compactor		A receptacle that provides for the mechanical compaction and temporary storage of refuse. It allows to reduce bin numbers and collection frequency.
Composter		A container or machine used for composting specific food scraps and/or organic materials.
Food waste recycling system		Defined as a vacuum or pump-based system for shredding, macerating or pulping of food waste. The food waste is transferred through pressure (service) pipes to sealed liquid storage tanks.
Green waste		All vegetated organic material such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers.
Liquid waste		Non-hazardous liquid waste generated by commercial premises should be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste).
Mobile garbage bin	MGB	A plastic (polypropylene) bin or bins used for the temporary storage of refuse that is up to 360L in capacity and may be used in kerbside refuse collection or on-site collection.
Putrescible waste		Putrescible waste is the component of the waste stream liable to become putrid and usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal and organic products.
Recycling		Recycling contains all material suitable for re-manufacture or re-use, e.g. glass bottles and jars; plastics such as PET, HDPE and PVC; aluminium aerosol and steel cans and lids; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines.
Refuse		Refuse is material generated and discarded from residential and commercial buildings including general waste, recyclables, green waste and bulky items.
Refuse storage room		An area identified for storing on-site MGBs or Bulk Bins within the property.
Refuse trolley		A cart on wheels that can be used to collect smaller quantities of refuse from different areas or rooms of a building or site, and wheel the collected refuse to a (bulk) bin storage area where it is disposed. Refuse trolleys are commonly used in hotels or offices.
Regulated waste		Regulated waste is waste prescribed under legislation as regulated waste.

TERM	ABBREVIATION	DEFINITION
Transfer (manual transfer)		Manual transfer means physical transfer of refuse material and associated bulk bins or trolleys without assistance.
Waste		Waste is referred to as refuse material with the exclusion of recycling, green waste, hazardous waste, special waste, liquid waste and restricted solid waste.
Waste (general waste)		General waste is generally referred to as material free of any actual or apparent contamination such as pathological/infectious, radioactive materials and/or hazardous chemical. Reporting use is for material considered to be free of food waste.
Wheelie bin		A MGB of up to 360L, usually with 2 wheels for easy transfer. A common type is a 240L wheelie bin used for kerbside collection in many residential areas.
Measures		
Cubic metre	m^3	Volume in cubic metre(s) related to refuse management equipment.
Ground floor area	GFA	The GFA of all storeys of a building is measured from the outside of the external walls or the centre of a common wall. It is commonly measured in square metres.
Kilogram	kg	Kilogram(s) related to refuse weight.
Litre	L	Litre(s) related to refuse volumes.
Square metre	m^2	Square metre(s) related to refuse areas.
Ton	T	Ton(s) related to refuse weight.
Collection vehicles		
Body truck		A conventional heavy vehicle with a covered loading area. It is generally not specifically designed for emptying the content of bins into the truck during refuse collections, but can be used to carry entire (full) bins for servicing by bin swap-over.
Refuse collection vehicle	RCV	A vehicle specifically designed for collecting and emptying refuse bins and refuse compactors.
Rear loading refuse collection vehicle	RL RCV	A truck specially designed to collect municipal solid waste and recycling, typically 240L wheelie bins to 1,100L 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.