



WASTE MANAGEMENT PLAN

MACQUARIE PARK VILLAGE

MIXED USE DEVELOPMENT
110 -114 HERRING ROAD
MACQUARIE PARK NSW 2122

AMENDED APRIL 2015

Eddy Saidi
1800 025 073

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ABOUT ELEPHANTS FOOT

Elephants Foot Recycling Solutions is a family owned Australian company whose philosophy is providing quality recycling and waste solutions through product innovation. We are Australia's leading supplier of garbage, recycling and laundry chute systems.

Our team of experts has been proudly assisting architects, builders and developers with advice on how best to solve waste management and odour issues in dwellings since 1976. We have a long history of completed projects within the Australian building environment.

If you require any further information please do not hesitate to call me on 02 9780 3500.

Regards



Eddy Saidi
Director
Elephants Foot Recycling Solutions

REVISIONS

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Date:



08 April 2015

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Recipient Name	Company	Revision	Copy No.
Eddy Saidi	Elephants Foot Recycling Solutions	E	1
Pip Bowling	Allen Jack + Cottier	E	2
Ron Keir	Stamford	E	3

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EXECUTIVE SUMMARY

This waste management plan covers the ongoing management of waste generated by the mixed use development located at 110-114 Herring Road, Macquarie Park NSW.

Waste audit and management strategies are recommended for new developments to provide support for the building design and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any statutory requirements. The waste management plan has three key objectives:

- i. **Ensure waste is managed to reduce the amount of waste and recyclables to land fill** by assisting residents to segregate appropriate materials that can be recycled; displaying signage to remind and encouraging recycling practices; and through placement of recycling and waste bins in the retail precinct to reinforce these messages.
- ii. **Recover, reuse and recycle** generated waste wherever possible.
- iii. **Compliance** with all relevant codes and policies.

The residential waste and recycling will be guided by the services and acceptance criteria of the City of Ryde Council. The residential waste and recycling will be collected by council.

To assist in clean and well-segregated material, building management can work proactively with residents in the following way:

- Building management should ensure their communications achieve a regular and consistent message.
- By-laws: the resident's by-laws should include a requirement to actively participate in recycling/ diversion initiatives implemented within the residential buildings.

INTRODUCTION

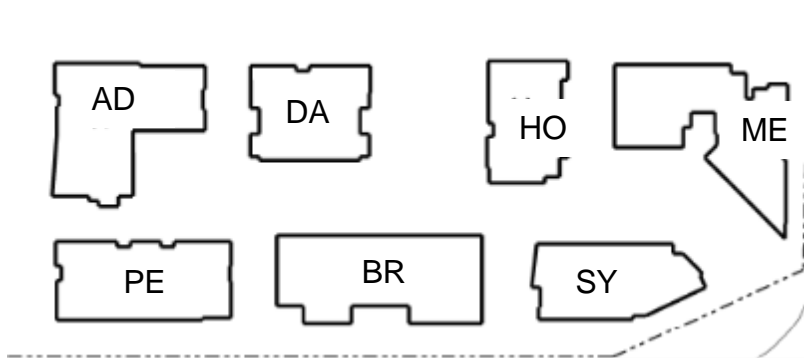
The following waste management plan pertains to the proposed mixed development located at Macquarie Park Village, 110-114 Herring Road, Macquarie Park NSW. This waste management plan is an operational waste management plan and will address the phases of the completed development.

The plan outlines measures to achieve the following objectives:

- avoid the generation of unnecessary waste;
- minimise the quantities of wastes generated ending up as landfill;
- recover, reuse and recycle waste generated onsite where possible; and
- aim to achieve Federal and State Government waste minimisation targets in accordance with regional waste plans.

For the purpose of this report the proposed development will consist of:

- seven buildings within the village precinct known as Adelaide (AD), Perth (PE), Darwin (DA), Brisbane (BR), Hobart (HO), Melbourne (ME) and Sydney (SY)



- Total of 640 units: Stage 1 – 343 units and Stage 2 – 297 units (unit mix below)
- Commercial areas totalling approximately 1329sqm

UNIT MIX – STAGE 1 AND 2

Building – Stage 1	1 Bed	2 Bed	3 Bed	Total
Adelaide	39	35	-	74
Perth	34	44	-	78
Darwin	30	31	-	61
Brisbane	60	70	-	130
Total Stage 1	163	180	0	343
Building Stage 2	1 Bed	2 Bed	3 Bed	Total
Hobart	14	22	3	39
Melbourne	58	38	6	102
Sydney	106	42	8	156
Total Stage 2	178	102	17	297



Each section of this development has been examined individually within this report however; the waste management process must be effectively coordinated between all sections for the system to work.

All figures and calculations are based on area schedules as advised by our client and shown on architectural drawings.

All waste facilities and equipment are to be designed and constructed to be in compliance with the City of Ryde Council, Australian Standards and statutory requirements.

CITY OF RYDE COUNCIL

The assessment of waste volumes is an estimate only and will be influenced by the development's management and occupant's attitude to waste disposal and recycling.

The residential waste and recycling will be guided by the services and acceptance criteria of the City of Ryde Council. The residential waste and recycling will be collected by council. The retail and/or commercial waste will be collected by private contractor.

All waste facilities and equipment are to be designed and constructed to be in compliance with the City of Ryde Council's DCP and *Waste Management Strategy*, Australian Standards and statutory requirements.

OBJECTIVES

- ensure new developments and changes to existing developments are designed to maximise resource recovery (through waste avoidance, source separation and recycling);
- encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities;
- ensure appropriate, well-designed waste storage and collection facilities are provided and are accessible to occupants and service providers
- ensure wastes are handled and stored appropriately in order to minimise risk to health and safety associated with handling and disposing of waste and recycled material, and ensure optimum hygiene;
- minimise adverse environmental and amenity impacts associated with waste management (including odour from waste and noise from collection activity);
- discourage illegal dumping by providing on-site storage for waste awaiting collection by removal services;
- ensure waste and recycling storage areas and handling systems for residential properties are designed to meet minimum requirements for Council's domestic waste collection services;
- assist in achieving Federal and State Government waste minimisation targets in accordance with regional waste plans; and
- minimise the overall environmental impacts of waste and foster the principles of ecologically sustainable development (ESD).

GENERATED WASTE VOLUMES

This assessment of waste volumes is an estimate only and will be influenced by the development's management and occupants' attitude to waste disposal and recycling.

CONSTRUCTION AND DEVELOPMENT WASTE

The head contractor will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements. Please refer to the separate waste management plan submitted for construction waste as part of the Development Application.

WASTE DEFINITION

Garbage:	all domestic waste (except recyclables and green waste)
Recycling:	glass bottles and jars – PET, HDPE and PVC plastics; aluminium, aerosol and steel cans; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines.
Green:	garden organics such as small branches, leaves and grass clippings, tree and shrub prunings, plants and flowers, and weeds.
L:	Litre/s
MGB:	Mobile Garbage Bin/s

BUILDING MANAGER/ WASTE CARETAKER

All waste equipment movements managed by the building manager/ cleaners at all times. No tenants will be allowed to transport waste or recyclables from the waste room; tenants will only transport their waste to the room allocated. The building manager/ cleaner duties include, but are not limited to, the following:

- General maintenance and cleaning of the chute doors on each level (Frequency will depend on waste generation and will be determined based upon building operation)
- Organising, maintaining and cleaning the general and recycled waste holding areas (Frequency will depend on waste generation and will be determined based upon building operation)
- Transporting of bins as required
- Organising both garbage and recycled waste pick-ups as required
- Cleaning and exchanging all bins
- Ensure site safety for residents, children, visitors, staff and contractors
- Abide by all relevant OH&S legislation, regulations, and guidelines
- Assess any manual handling risks and prepare a manual handling control plan for waste and bin transfers
- Provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management activities.

NOTE: It is the responsibility of the building manager to monitor the number of bins required for the development. As waste volumes may change according to the development's management and occupants' attitudes to waste disposal and recycling, bin numbers and sizes may need to be altered to suit the building operation.

REPORTING

It is recommended that building management ensure that all waste service providers submit monthly reports on all equipment movements and weights of any waste and recycling products removed from the development. Regular reviews of servicing should take place to ensure operational and economic best practise and to assist with sustainability reporting.

EDUCATION

Educational material encouraging correct separation of garbage and recycling items must be provided to each resident to ensure correct use of the waste chute and to ensure an understanding of the chute's use. This should include the correct disposal process for bulky goods (old furniture, large discarded items etc.). It is recommended that information is provided in multiple languages to support correct practises and minimise contamination in the collection MGB as well as chute blockages.

Building management is responsible for creating and managing the waste management education process.

It is also recommended that the owners' corporation website contain information for residents to refer to regarding use of the chute. Information should include:

- directions on using the chute doors;
- recycling and garbage descriptions (Council provides comprehensive information);
- how to dispose of bulky goods and any other items that are not garbage or recycling;
- residents' obligations to WHS and building management; and
- how to prevent damage or blockages to the chute (example below).

TO PREVENT DAMAGE OR BLOCKAGE TO RUBBISH CHUTE DO NOT place newspapers, umbrellas, bedding, cigarettes, cartons, coat hangers, brooms, mops, large plastic wrappings from furniture, white goods, any sharp objects, hot liquid or ashes, oil, unwrapped vacuum dust, syringes, paint and solvents, car parts, bike parts, chemicals, corrosive and flammable items, soil, timber, bricks or other building materials, furniture, etc. down the chute.

It is expected that leasing arrangements with retail/commercial operations contain direction on waste management services and expectations.

RESIDENTIAL

This assessment of waste volumes is an estimate only and will be influenced by the development's management and occupants' attitude to waste disposal and recycling.

RESIDENTIAL UNITS WASTE

Using council's waste generation rates, the total waste generated by the development can be calculated as follows:

Waste: 80 litres (L) per unit/week
Recycling: 80 litres (L) per unit/week

STAGE 1

Waste

Adelaide: 74 units @ 80L/unit = 5,920L with a compaction ratio of 2:1 = 2,960L requires 3 x 1100L MGB
Perth: 78 units @ 80L/unit = 6,240L with a compaction ratio of 2:1 = 3,120L requires 3 x 1100L MGB
Darwin: 61 units @ 80L/unit = 4,880L with a compaction ratio of 2:1 = 2,440L requires 3 x 1100L MGB
Brisbane: 130 units @ 80L/unit = 10,400L with a compaction ratio of 2:1 = 5,200L requires 5 x 1100L MGB

Recycling

Adelaide: 74 units @ 80L/unit = 5,920L requires 25 x 240L MGB
Perth: 78 units @ 80L/unit = 6,240L requires 26 x 240L MGB
Darwin: 61 units @ 80L/unit = 4,880L requires 21 x 240L MGB
Brisbane: 130 units @ 80L/unit = 10,400L requires 44 x 240L MGB

STAGE 2

Waste

Hobart: 39 units @ 80L/unit = 3,120L with compaction ratio of 2:1 = 1,560L requires 2 x 1100L MGB
Melbourne: 102 units @ 80L/unit = 8,160L with compaction ratio of 2:1 = 4,080L requires 4 x 1100L MGB
Sydney: 156 units @ 80L/unit = 12,480L with compaction ratio of 2:1 = 6,240L requires 6 x 1100L MGB

Recycling

Hobart: 39 units @ 80L/unit = 3120L requires 13 x 240L MGB
Melbourne: 102 units @ 80L/unit = 8160L requires 34 x 240L MGB
Sydney: 156 units @ 80L/unit = 12,480L requires 52 x 240L MGB

RESIDENTIAL BIN SUMMARY

Garbage: 26 x 1100L MGB collected weekly
Recycling: 24 x 240L MGB decanted into
40 x 660L MGB and collected twice weekly

2 x 240L MGB will be allocated in each waste compartment on each residential level of each building. The 240L bins will be parked temporarily whilst waste bins are transferred to 660L MGB.

The decanting process will be carried out using a mechanical bin lifter suitable for 240L MGB. This process will allow for one building to be cleared at a time. *(See Appendix 7 – Typical Bin Lifter)*

RETAIL & COMMERCIAL WASTE

Waste, paper, comingled and secure recycling requirements for commercial areas will be organised by the Development Manager. Council and/or private recycling waste contractors will be contracted by the Development Manager.

Waste: Dedicated waste bins are to be allocated for sorting and storage of general waste. All retail/commercial tenants will be responsible for transporting waste and recyclables to the garbage room on Level 0 in their building.

Paper: It is recommended that work stations and copy areas are allocated with dedicated paper and cardboard collection bins which can be emptied into MGB. Secure destruction bins will be operated on a wheel in/wheel out basis by the appointed contractor.

Comingled (glass/plastic): Staff tea and lunch points will be supplied with a dedicated comingled MGB for the collection of all recyclable glass and plastic items. Staff will be responsible for sorting this material and allocating recyclables into the correct collection facility.

Other waste: washroom facilities should be supplied with collection bins for paper towels (if used).

All bins will be sorted in the designated commercial bin storage rooms. Retail/commercial tenants are not to use the garbage chute to deposit waste. Bins will be moved to the loading bay when full with collections by council or private waste and recycling contractors.

Building/Type	Total net lettable area	Waste generation rates 5 day cycle	Non-recyclable	Recyclable
Hobart 4 retail units + gym	323m ² (NSA)	10ltrs/100m ² /day – waste 10ltrs/100m ² /day – recycle	161.5L	161.5L
Melbourne 5 retail units	627m ² (NSA)	10ltrs/100m ² /day 10ltrs/100m ² /day – recycle	313.5L	313.5L
Sydney 4 retail/commercial	254m ² (NSA)	10ltrs/100m ² /day 10ltrs/100m ² /day – recycle	127.0L	127.0L
Perth Community room	125 m ²	10ltrs/100m ² /day 10ltrs/100m ² /day – recycle	62.5L	62.5L
Total	1,329m²		664.5L	664.5L

Note: commercial waste generation rates above have been sourced from the Better Practice Guide for Waste Management in Multi-unit Dwellings, 2008

COMMERCIAL BIN SUMMARY

- Waste: 3 x 240L MGB collected once weekly
- Recycling: 3 x 240L MGB collected once weekly

WASTE MANAGEMENT SYSTEM

As per the drawings, there is a single waste chute servicing each level for Buildings AD, DA, HO, ME, PE and SY. Two separate chutes service building BR with waste discharging into the carousel systems located in the waste rooms as detailed in below table. Bins will be rotated and compacted on a 2:1 ratio and full bins will be transferred to the designated collection rooms. Two recycling bins (240L MGB) will be situated in the waste compartment on each residential level for collection of recyclable items.

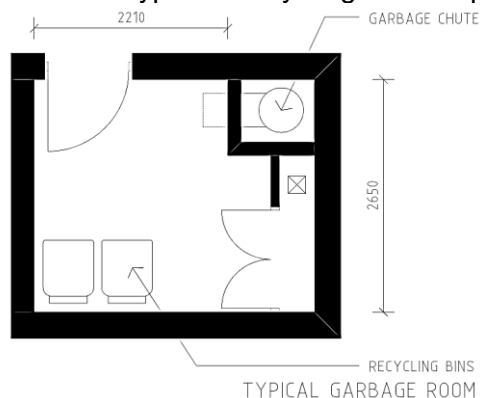
Building – Stage 1	Waste room location	Collection
Adelaide	Basement 1	1 x carousel compactor
Perth	Basement 1	1 x carousel compactors
Darwin	Basement 1	1 x carousel compactor
Brisbane	Basement 1 – Lift 1 & 2	2 x carousel compactors
Total Stage 1		5 x compactor systems
Building – Stage 2		
Hobart	Basement 1	1 x carousel compactor
Melbourne	Basement 1	1 x carousel compactor
Sydney	Basement 1	1 x carousel compactor
Total Stage 2		3 x compactor systems

WASTE HANDLING

All residents will be supplied with a collection area in each unit (generally in the kitchen, under bench or similar alternate area) to deposit waste and collect recyclable material suitable for one day's storage. Residents should wrap or bag their waste before depositing into the waste chute. Bagged waste should not exceed 3kg in weight or 35cm x 35cm x 35cm in dimension.

Recycling must be sorted prior to being emptied into the recycling bins located in the waste compartment on each residential level. Recycling must not be bagged. It is expected that residents will place clean recyclables in the recycling bins.

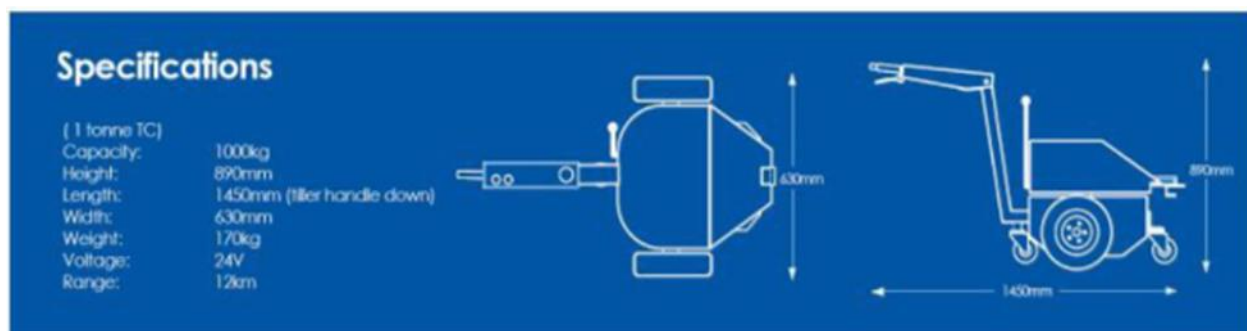
Each residential waste compartment must be finished in impervious material for ease of cleaning and contain signage describing suitable waste material for depositing in the waste chute and types of recycling to be deposited into the comingled recycling bins.



Typical waste compartment containing chute door and 2 x 240L MGB for recycling

Part of the caretaker/cleaner's duty will be to exchange or empty recyclable bins and store them in the Stage 1 main bin storage room located on basement level one, ready for collection. The caretaker/cleaner will also be required to check the 1100L MGB collecting waste from each chute, rotate full bins to the storage and collection area, and replace empty 1100L MGB under each chute operation.

Bins from each building may be transported by a bin tug to the storage and collection room situated on level lower ground. An area to house the bin tug should be accommodated in the bin storage and collection area. Specifications for a one tonne Tug Classic as supplied by Electrodrive (or similar) are detailed below to provide guidance on required storage.



WASTE CHUTES

The waste and recycling chute for the residential areas are supplied in either 510mm galvanised steel or 510mm recycled LLDPE polyethylene plastic with 2-hour fire rated doors.

Galvanised steel chutes are wrapped with 50mm poly-wool R1.3 noise insulation foil to assist in noise reduction.

Penetrations on each building level at vertically perpendicular points with minimum penetration dimensions 600mm x 600mm (square or round) are required to accommodate the chute installation.

30mm Embleton Neoprene rubber isolation mounts under brackets on all levels with a washing spray at the top of the chute with access hatch for servicing.

Each chute is supplied with a vent exiting at the top of each chute, openings for placement of fire sprinklers on every second level and wash down system.

Council and supplier require all chutes be installed without offsets to achieve best operational outcome for all buildings.

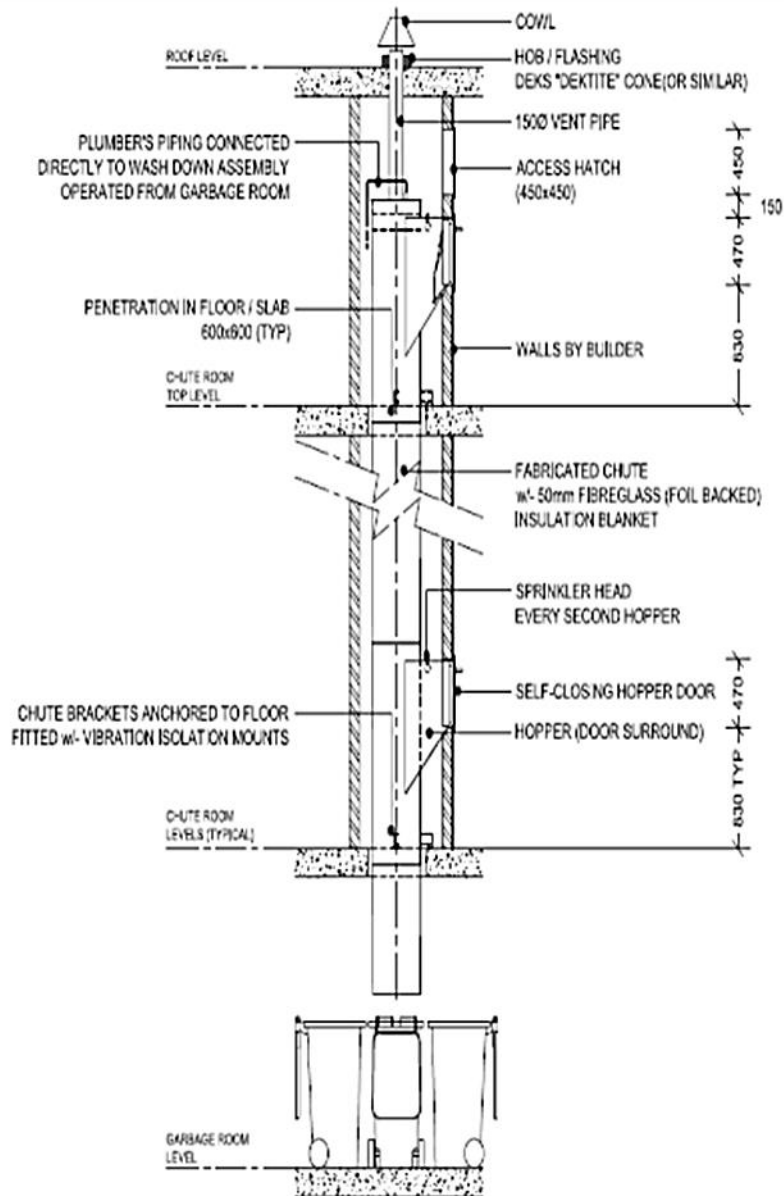
Stainless steel, two-hour fire-rated (AS1530.4-2005) refuse chute doors to be installed at each service level. All doors are to be fitted with a soft, self-closing mechanism to meet BSA fire standards. Information stickers are to be placed on each chute door at each residential level.

Each chute system will be fitted with a carousel track suitable for four 1100L MGBs to rotate full bins and place an empty bin under the chute outlet. A compacting device will also be attached to reduce waste volume and bin numbers (2:1 ratio).

CHUTE SUMMARY

Eight (8) Galvanised steel or recycled LLDPE plastic chutes systems required fitted with eight (8) 4-bin carousel compactors suitable for 1100L MGBs.

Figure 1 - Typical chute operation



Source: Elephants Foot

GREEN WASTE

There will be minimal green waste generated by the building. Any green waste will be collected and removed from site by the maintenance contractor.

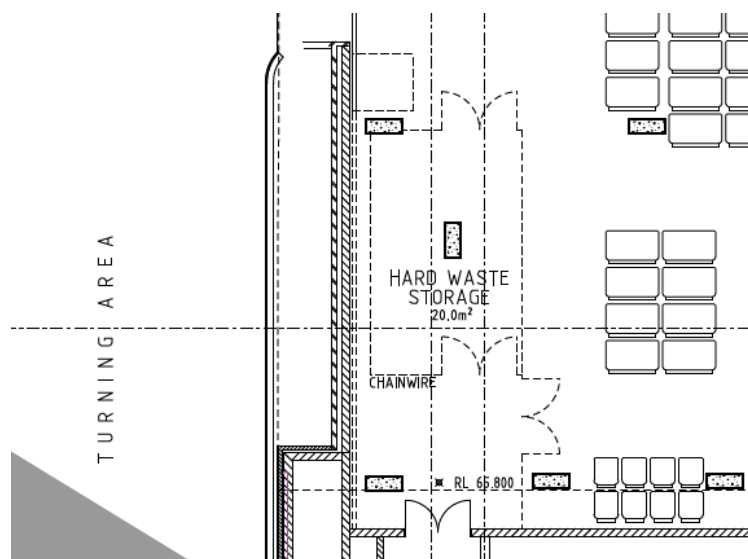
COMPOSTING

Consideration should be given to providing space for individual home unit worm farms or small compost bins on the balconies. City of Ryde Council provides at cost worm farms to residents which suit almost any household, take only a small area and can be placed inside or outside the residence in a cool, shaded area.

BULKY/SOLID WASTE AREA

A solid Waste collection area (20 sqm) is located at *B1* (See Appendix 6, also Figure 2 below) - accessible to all residents without entering the main garbage collection area.

Figure 2 – Hard waste storage area



Excerpt: AJC Drawing No DA 2011 Issue B – Level B1 Bin store

OTHER WASTE STREAMS

Residents should be directed to Councils website to arrange disposal of eWaste and any hazardous waste as these items may not be placed in garbage or recycling bins due to environmental and safety reasons:

<http://www.ryde.nsw.gov.au/Environment/Waste+and+Recycling/Other+Waste+Services/Television+and+Computer+Collection+Service>

<http://www.ryde.nsw.gov.au/Environment/Waste+and+Recycling/Other+Waste+Services/Household+Chemical+CleanOut>

Disposal of bulky goods, hard, electronic, liquid waste and home detox (paint/chemicals) etc. shall be organised with the assistance of the building caretaker. City of Ryde Council operates the Ryde Resource Recovery Centre at Wicks Road, North Ryde which accepts small amounts of material unable to be placed out for collection in Council's waste and recycling services.

Separate space must be provided for the storage of liquid wastes and oils. This area must be under cover and bunded to prevent any spills or leaks.

WASTE ROOM AREAS

Each garbage room will need to hold all the waste 1100L MGB generated weekly, and allow enough room to clean and manoeuvre bins.

A mechanical "Bin Lifter" will be installed in the main garbage collection area to permit 240 litre recycling bins to be decanted by the building manager into 660 litre bins for collection. (See *Appendix 7 – Typical Bin Lifter*)

See Appendix 4, 5 and 6 for garbage room and main bin collection room plans.

WASTE MANAGEMENT

GARBAGE WASTE & RECYCLABLE

Bins will have to be managed by the caretaker by rotating the waste 1100L MGBs around and ensuring empty ones are readily available to replace under the chute.

All recycling 240L MGBs will need to be transported to the Stage 1 bin storage and collection area when full and empty bins replaced in each waste compartment on the residential levels.

A mechanical “Bin Lifter” will be installed in the main garbage collection area to permit 240 litre recycling bins to be decanted by the building manager into 660 litre bins for collection. (See *Appendix 7 – Typical Bin Lifter*)

COLLECTION OF WASTE

Full waste 1100L MGBs and recycling 660L MGBs will be collected by Council’s contractors from the Stage 1 main storage and collection room according to Councils collection schedule (weekly for waste and twice weekly for recycling). Stage 2 will also use the Stage 1 main storage and collection bin area until Stage 2 development is completed and the proposed ‘new road’ is finalised. Stage 1 collection room will need to hold all the waste and recycling bins generated weekly from Stage 1 and Stage 2, as well as areas to manoeuvre and clean bins and the waste room designated is suitable for this purpose. The Stage 1 main collection waste room should be a minimum of 130sqm.

Please note that collection vehicles are required to enter and exit the ‘Village’ precinct in a forward direction with minimal requirement for reversing. All basement level collection areas must meet Council’s clearance requirements for pavement strength, spatial design, and width and height access clearances. It is noted that the main bin collection room has a minimum height of 4.5metres.

GARBAGE ROOMS CONSTRUCTION REQUIREMENTS

The garbage room will be required to contain the following facilities to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- Waste room floor to be sealed with a two pack epoxy
- Waste room walls and floor surface is flat and even
- All corners coved and sealed 100mm up, this is to eliminate build-up of dirt
- For residential: a hot and cold water facility with mixing facility and hose cock must be provided for washing the bins
- For retail/commercial: a cold water facility with hose cock must be provided for washing the bins
- Any waste water discharge from bin washing must be drained to sewer in accordance with the relevant water board. (Sydney Water)
- Tap height of 1.6m
- Storm water access preventatives (grate)
- All walls painted with light colour and washable paint
- Equipment electric outlets to be installed 1700mm above floor levels
- The room must be mechanically ventilated
- Light switch installed at height of 1.6m
- Waste rooms must be well lit (sensor lighting recommended)
- Optional automatic odour and pest control system installed to eliminate all pest types. This process generally takes place at building handover – building management make the decision to install.
- All personnel doors are hinged and self-closing
- Waste collection area must hold all bins – bin movements should be with ease of access
- Conform to the Building Code of Australia, Australian Standards and local laws
- Childproofing and public/operator safety shall be assessed and ensured

SIGNAGE

The building manager/caretaker is responsible for waste room signage including safety signage. Appropriate signage must be prominently displayed on walls and above all bins, clearly stating what type of waste or recyclables is to be placed in the bin underneath. All chute doors on all levels will be labelled with a sign stating '*GARBAGE ONLY IN THE CHUTE*'. Separate signage will direct chute operations and encouraging occupants to recycle and minimise their waste.

VENTILATION

Waste and recycling rooms must have their own exhaust ventilation system either;

- Mechanically - exhausting at a rate of 5L/m² floor area, with a minimum rate of 100L/s minimum, or
- Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area.

Mechanical exhaust systems shall comply with AS1668 and not cause any inconvenience, noise or odour problem.

STORM WATER PREVENTION & LITTER REDUCTION

Building management shall be responsible for the following to minimise dispersion of site litter and prevent stormwater pollution to avoid impact to the environment and local amenity:

- promote adequate waste disposal into the bins
- secure all bin rooms (whilst affording access to staff/contractors)
- prevent overfilling of bins, keep all bin lids closed and bungs leak-free
- take action to prevent dumping or unauthorised use of waste areas
- ensure collection contractors clean-up any spillage that may occur when clearing bins

ADDITIONAL INFORMATION

Transfer of waste and all bin movements require minimal manual handling therefore the operator must assess manual handling risks and provide any relevant documentation to building management. If required, a bin-tug, trailer or tractor consultant should be contacted to provide equipment recommendations. Hitches may require installation to move multiple bins to the collection area. Council must be informed of any hitch attachments required to be installed on bins.

LIMITATIONS

The purpose of this report is to document a Waste Management Plan as part of a development application and is supplied with the following conditions:

- Drawings and information supplied by the project architect
- The figures presented in the report are an estimate only. The actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building managements approach to waste management.
- The building manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly.
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures.
- Any manual handling equipment should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply.

USEFUL CONTACTS

City of Ryde Council
Civic Centre
1 Devlin Street
Ryde NSW 2112
Customer Service and after hours: 02 9952 8222

Elephants Foot Recycling Solutions (Chutes, compactor and eDiverter systems)
Natalie Beattie
44 – 46 Gibson Avenue
Padstow NSW 2211
Free call: 1800 025 073
Email: natalie@elephantsfoot.com.au

Electrodrive (Bin tug)
1/14 Holbeche Road
Arndell Park, NSW 2148
Freecall: 1800 333 002
Fax: 1800 031 057
Email: nsw@electrodrive.com.au

APPENDIX 1 – STANDARD SIGNAGE FOR WASTE AND RECYCLING BINS

WASTE SIGNS

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the DECC.

Example wall posters



Example bin lid stickers



SAFETY SIGNS

The design and use of safety signs for waste rooms and enclosures should comply with AS 1319 Safety Signs for the Occupational Environment. Safety signs should be used to regulate and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Each development will need to decide which signs are relevant for its set of circumstances and services provided.

Examples of Australian Standards:



Australian Standards are available from the SAI Global Limited website (www.saiglobal.com).

Source: Department of Environment and Heritage NSW 2008, *Better Practice Guide for Waste Management in Multi-Unit Dwellings*

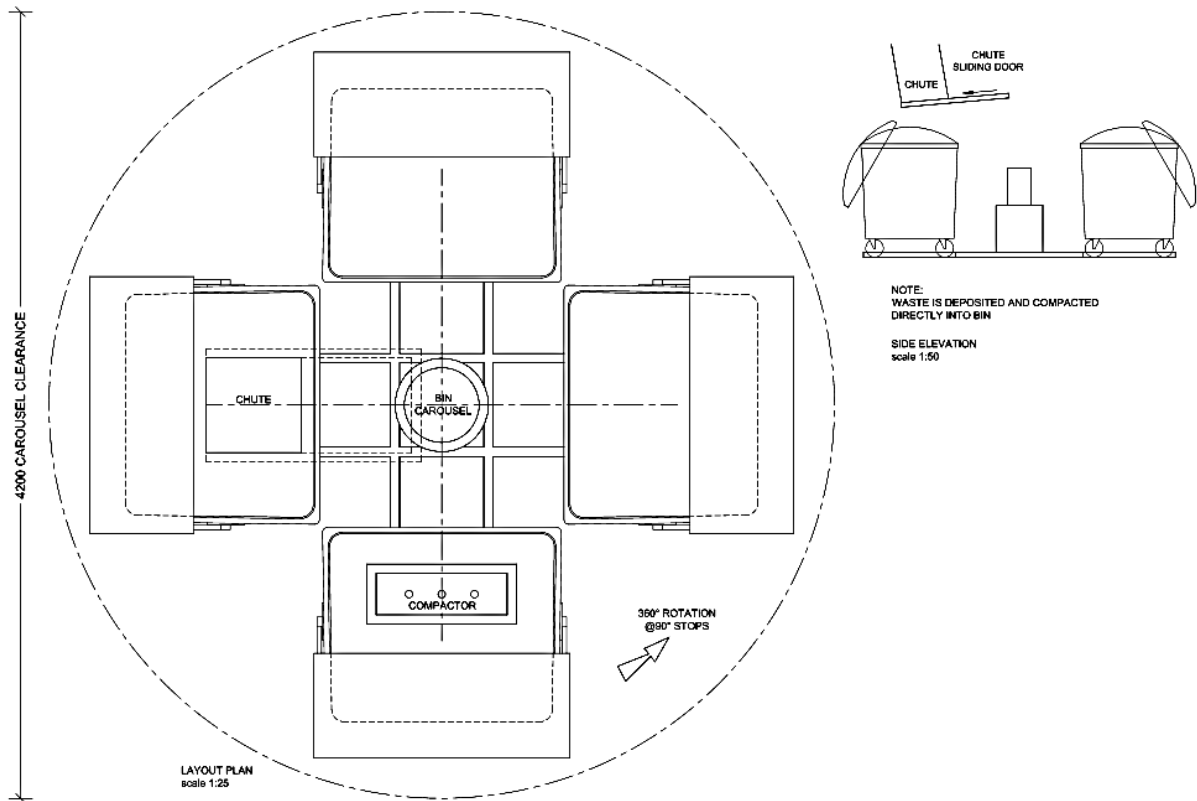
APPENDIX 2 – WASTE MANAGEMENT EQUIPMENT

COUNCIL'S INDICATIVE BIN SIZES AND DIMENSIONS

Bin type	Height	Depth	Width
80 Litre Bin	870mm	530mm	450mm
120 Litre Bin	940mm	560mm	485mm
140 Litre Bin	930mm	615mm	535mm
240 Litre Bin	1080mm	735mm	580mm
660 Litre Bin	1180mm	770mm	1360mm
1100 Litre Bin	1460mm	1230mm	1370mm
3000 Litre Bin	1450mm	1842mm	1995mm

Note: These dimensions are only a guide. Dimensions can vary according to manufacturer, i.e. if bins have flat or dome lids and are used with different lifting devices.

APPENDIX 3 – CAROUSEL COMPACTOR SUITABLE FOR 1100L BINS

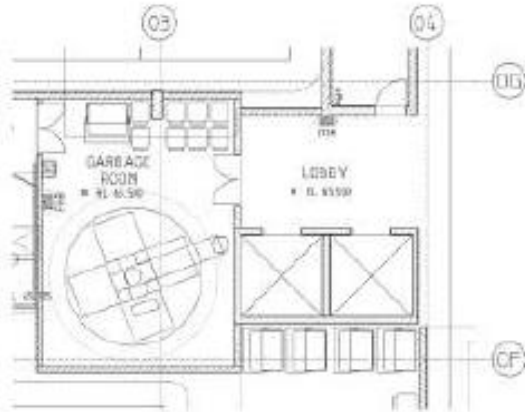


BENEFITS

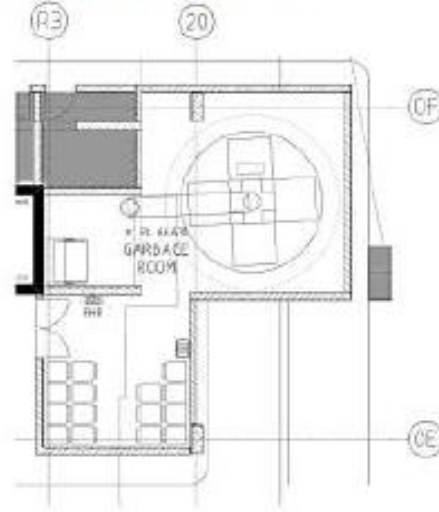
- Built for under chute systems in high rise buildings
- Waste falls directly into bins
- Fits over carousel or linear system
- Fully automatic compaction (ratio 2:1)
- Minimise strata cost
- Low cost maintenance

APPENDIX 4 – B1 LEVEL GARBAGE ROOMS

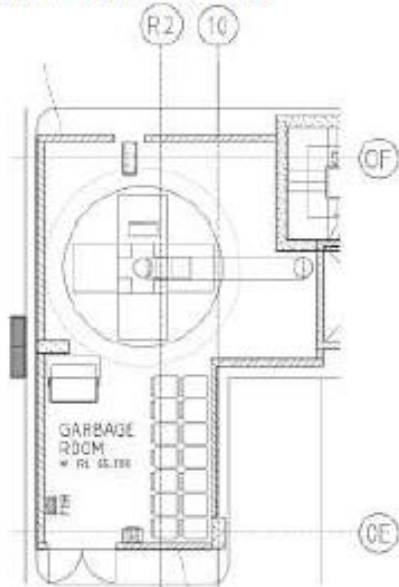
AD GARBAGE ROOM



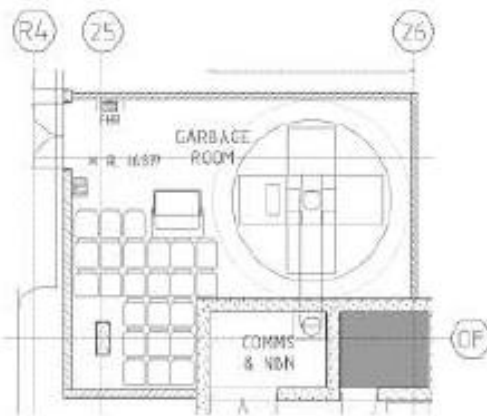
HO GARBAGE ROOM



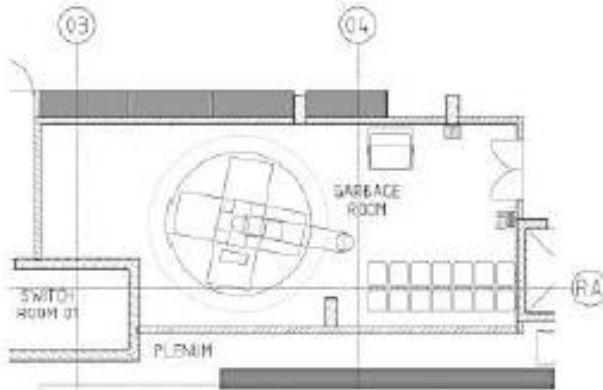
DA GARBAGE ROOM



ME GARBAGE ROOM



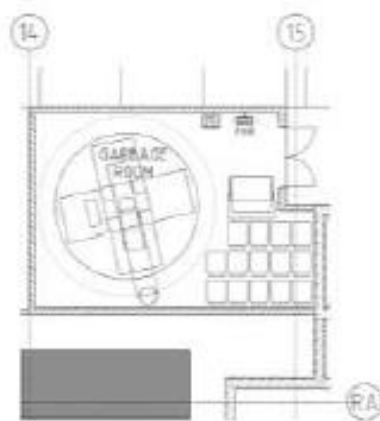
PE GARBAGE ROOM



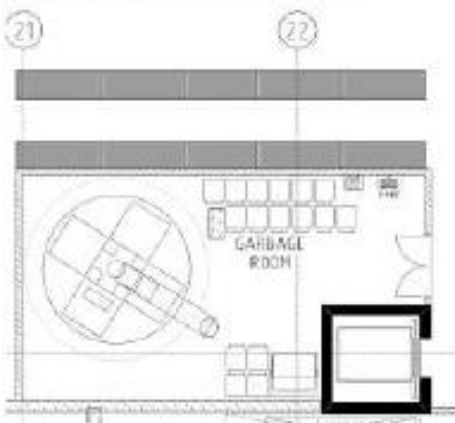
BR WEST GARBAGE ROOM



BR EAST GARBAGE ROOM



SY WEST GARBAGE ROOM

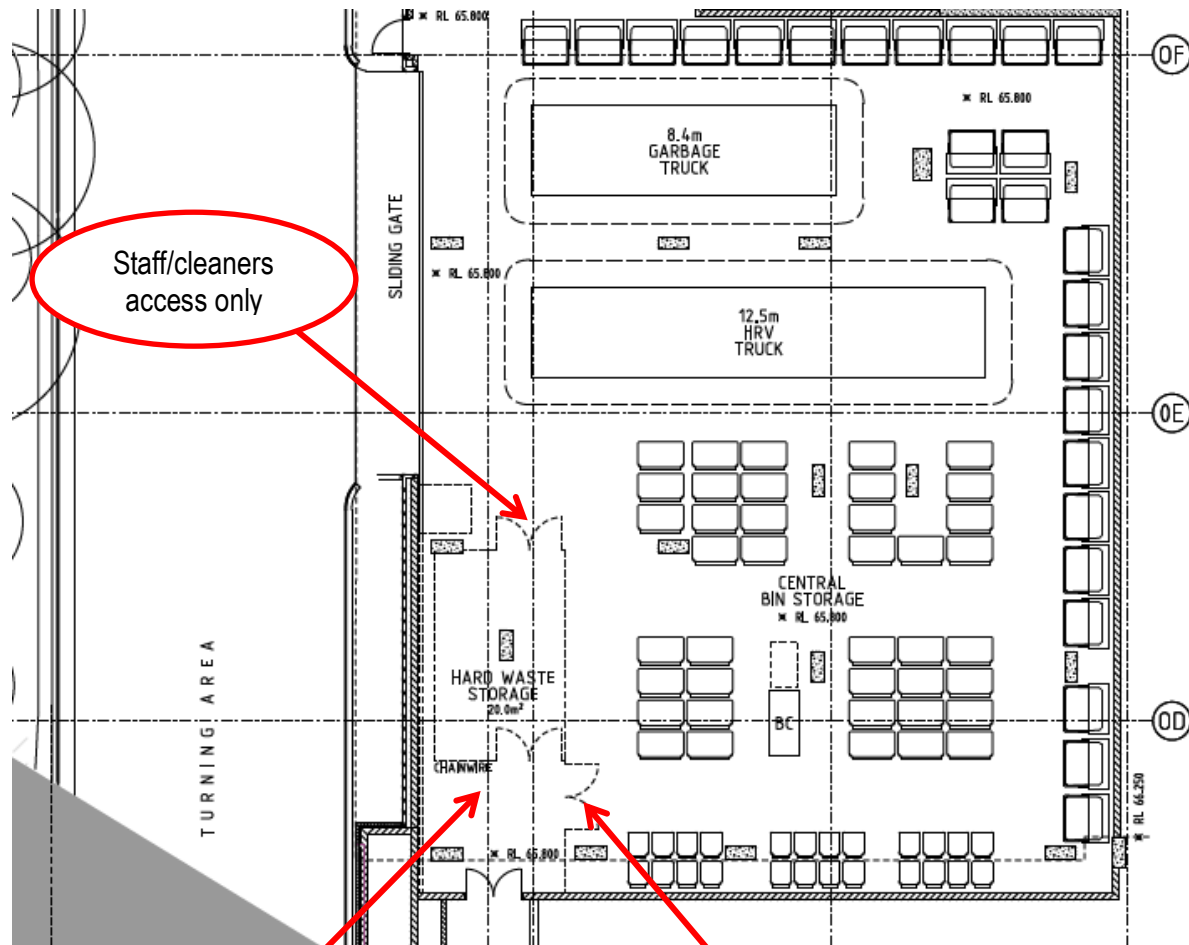


SY EAST GARBAGE ROOM



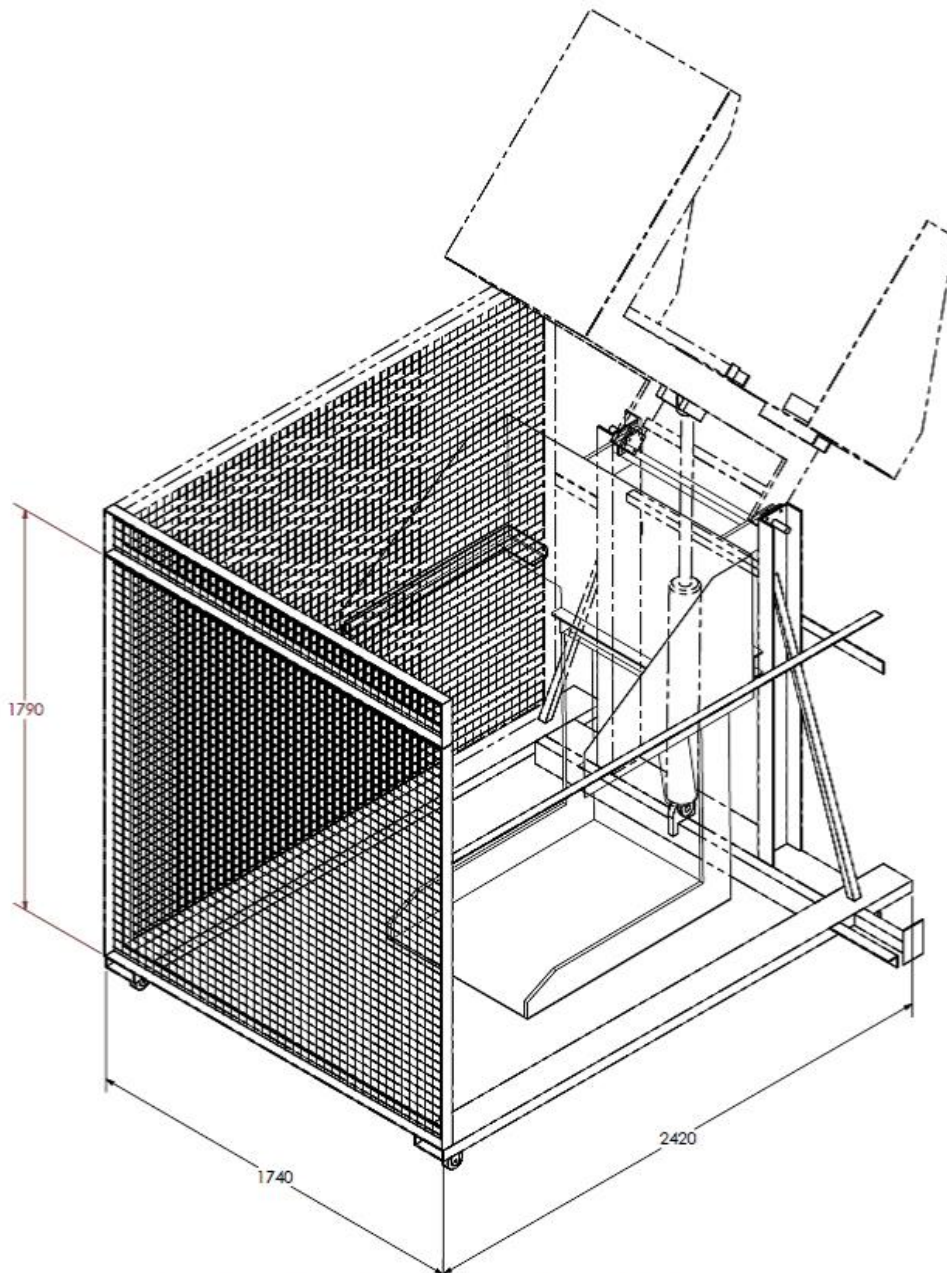
APPENDIX 6 – CENTRAL BIN STORE, BULKY WASTE & LOADING AREA

Level B1



Excerpt: AJC Drawing No DA 2011 Issue B – Level B1 Bin store

APPENDIX 7 – TYPICAL BIN LIFTER



This bin lifter has the ability to tip 1100L, 660L or 240L bins all in one unit. Tipping point is at 2750mm. height clearance for the unit is 3700mm. The unit is fully enclosed for maximum safety and can lift up to a massive 500kg per lift.