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WASTE MANAGEMENT PLAN

Lot 50/2 Peony Boulevard, Yanchep WA 6035

*Proposed Commercial Development
(Stage 1)*

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Introduction

AusWide Consulting was commissioned by CBRE Project Management to prepare a Waste Management Plan (WMP) for approval of a proposed commercial development at Lot 50/2 Peony Boulevard, Yanchep WA.

The proposed commercial development consists of;

PROPOSED DEVELOPMENT DETAILS	
Supermarket – Coles (3,600m ²) & Supermarket Liquor – Coles (200m ²).	
Fuel Service – (217m ²).	
Fast Food 1 – (285m ²).	
Fast Food 2 – (265m ²).	
Retail / F&B (740m ²), Commercial / Other (345m ²).	
Medical/Health Suites (680m ²).	
Childcare Centre (80 Children - 565m ²).	

In the course of preparing this WMP, the subject site and its environs have been inspected, plans of the development examined, and all relevant council requirements and documentation collected and analysed.

This WMP has been prepared based on the following information:

- Architectural Plans provided by Taylor, Robinson, Chaney & Broderick.
- WALGA Commercial and Industrial Waste Management Plan Guidelines & EPA Better Practice Guide for Resource Recovery in Residential Developments (2012-2019 Editions).



Background and Existing Conditions

The subject site is located at Lot 50/2 Peony Boulevard, Yanchep WA, on south side of Peony Boulevard, and the nearby land uses are mainly commercial with residential to the west.

Figure 1 provides an overview of the area and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surround the subject site.

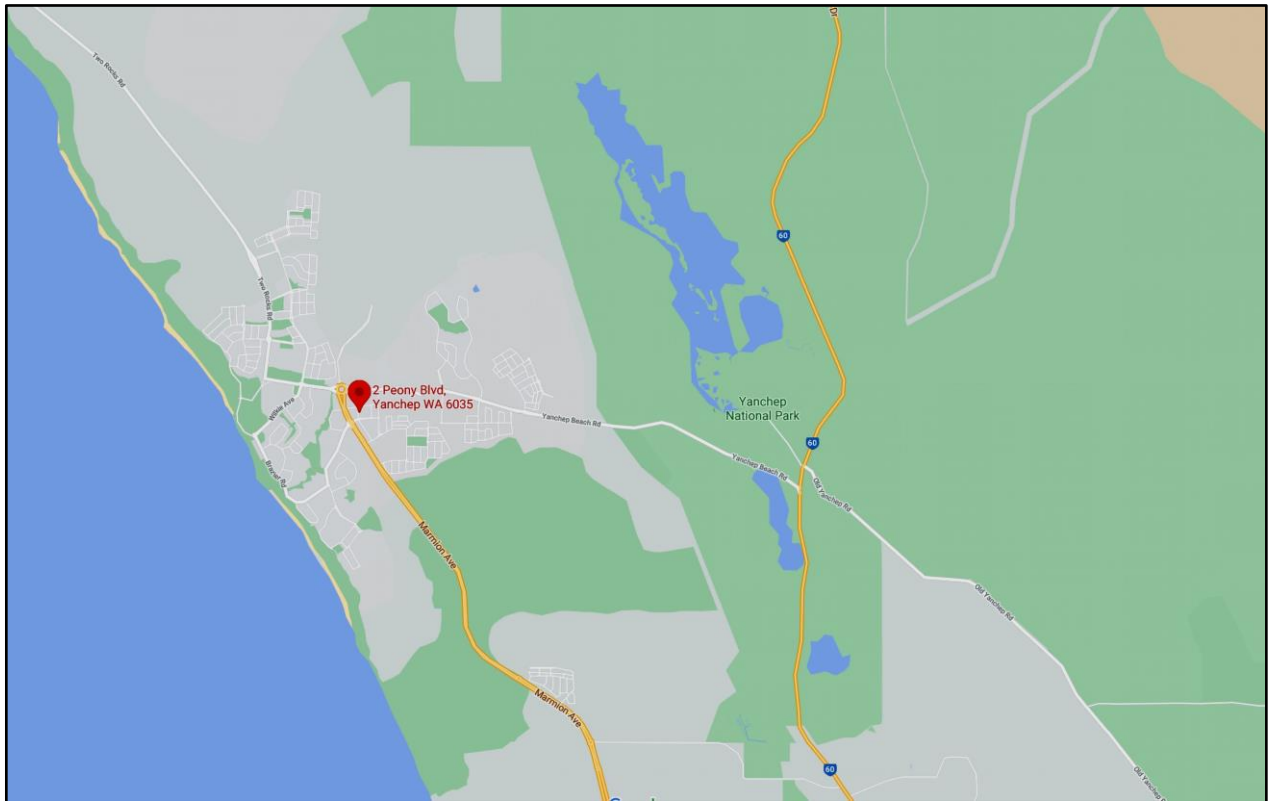


Figure 1: Location of the Subject Site



Figure 2: Aerial View of the Subject Site

Proposed Development

The proposed development consists of commercial businesses. The access to the proposed development will be provided via walkways and driveways off Peony Boulevard, Kakadu Road and Morwell Street. The waste storage rooms are accessible within the allocated areas on the ground level (**Refer Appendix A**).

Anticipated Waste Generation, Storage and Collection

Waste collection will be provided by a private contractor.

Waste Generation

As per the WALGA Commercial and Industrial Waste Management Plan Guidelines & EPA Better Practice Guide for Resource Recovery in Residential Developments (2012-2019 Editions),

The general & recycling waste entitlement for; (a) Supermarkets is 660L/100m² of floor area per day general waste and 240L/100m² of floor area per day recycling waste. (b) Fuel Service – 7 Eleven Retail (over 100m²) is 50L/100m² of floor area per day general waste and 50L/100m² of floor area per day recycling waste. (c) Takeaway Fast Food (with sit-down area) is 500L/100m² floor area/day of general waste and 240L/100m² floor area/day of recycling waste. (d) Retail (under 100m²) is 50L/100m² of floor area per day general waste and 25L/100m² of floor area per day recycling waste. (e) Retail (over 100m²) is 50L/100m² of floor area per day general waste and 50L/100m² of floor area per day recycling waste. (f) Childcare is 5L/per child/day general waste and 5L/per child/day recycling waste. (g) Medical Centre (consulting rooms) is 20L/per room/doctors/day of general waste and 10L/per room/doctors/day of recycling waste. (h) Medical / Health is 10L/100m² floor area/day of general waste and 15L/100m² floor area/day of recycling waste (inclusive of paper and cardboard waste).

NOTE: Generation rates are based on generation rates within the WALGA Commercial and Industrial Waste Management Plan Guidelines & EPA Better Practice Guide for Resource Recovery in Residential Developments (2012-2019 Editions). Actual usage can vary and may be generated at a reduced rate. Management will monitor all waste requirements and handling due to the on-going operations of business. Accessing any needs for waste management plan revisions.

The following table illustrates the typical garbage and recycling generation rates.

Table 1: Typical Garbage and Recycling Generation Rates for Commercial Developments

Type of Premises	General Landfill Waste	Commingle Recycling Waste
Supermarkets	660L/100m ² floor area/day	240L/100m ² floor area/day
Fuel – Retail (over 100m ²)	50L/100m ² floor area/day	50L/100m ² floor area/day
Takeaway Fast Food (with sit-down area)	500L/100m ² floor area/day	240L/100m ² floor area/day
Retail (under 100m ²)	50L/100m ² floor area/day	25L/100m ² floor area/day
Retail (over 100m ²)	50L/100m ² floor area/day	50L/100m ² floor area/day
Medical Centre (consulting rooms)	20L/per room/doctors/day	10L/per room/doctors/day
Per number of doctors' consulting rooms. Note that other waste such as clinical waste will be generated.		
Medical / Health	10L/100m ² floor area/day	10L/100m ² floor area/day
Childcare	5L/per child/day	5L/per child/day

Waste within Overall Development

Using the garbage and recycling generation rates above, the following can be calculated;

Supermarket – Coles (3,600m²) (7-Day Week)

- 660L/100m² of floor area per day general waste = 166,320L per week (83,160L compacted)
- 240L/100m² of floor area per day recycling waste = 60,480L per week (uncompacted)

Supermarket Liquor – Coles (200m²) (7-Day Week) (Retail Generation Rates Recommended)

- 50L/100m² of floor area per day general waste = 700L per week (350L compacted)
- 50L/100m² of floor area per day recycling waste = 700L per week (uncompacted)

Fuel Service – Retail (230m²) (7-Day Week)

- 50L/100m² of floor area per day general waste = 805L per week (uncompacted)
- 50L/100m² of floor area per day recycling waste = 805L per week (uncompacted)

Fast Food 1 (with sit-down area) (285m²) (7-Day Week)

- 500L/100m² of floor area per day general waste = 9,975L per week (uncompacted)
- 240L/100m² of floor area per day recycling waste = 4,788L per week (uncompacted)

Fast Food 2 (with sit-down area) (265m²) (7-Day Week)

- 500L/100m² of floor area per day general waste = 9,275L per week (uncompacted)
- 240L/100m² of floor area per day recycling waste = 4,452L per week (uncompacted)

Retail / F&B = (740m²) (7-Day Week)

- 50L/100m² of floor area per day general waste = 2,590L per week (uncompacted)
- 50L/100m² of floor area per day recycling waste = 2,590L per week (uncompacted)

Commercial / Other = (345m²) (7-Day Week)

- 50L/100m² of floor area per day general waste = 927.5L per week (uncompacted)
- 50L/100m² of floor area per day recycling waste = 927.5L per week (uncompacted)

Childcare (Total 80 Children) (565m²) (6-Day Week)

- 5L/per child/day general waste = 2,400L per week (uncompacted)
- 5L/per child/day recycling waste = 2,400L per week (uncompacted)

Medical Centre Consulting room/practitioner calculated waste that would be minimal, is to be determined on confirmation of occupancy of the medical centre and the number of practitioners and opening hours are known.

- 20L/per room/per practitioner/day general waste = 0.0L per week (uncompacted)
- 10L/per room/per practitioner/day recycling waste = 0.0L per week (uncompacted)

Medical / Health (680m²) (7-Day Week)

- 10L/100m² of floor area per day general waste = 476L per week (uncompacted)
- 10L/100m² of floor area per day recycling waste = 476L per week (uncompacted)

Waste Storage Areas

Based on the total waste generated by the development, the following Mobile Garbage Bins (MGBs) should be provided:

Supermarket & Liquor Shop Waste Area

- 11 x 1,100L General Waste MGB's – collected and emptied 7 times a week (compacted).
- 8 x 1,100L Recycling Waste MGB's – collected and emptied 7 times a week (uncompacted).
- **NOTE:** Cardboard compactor with specialized waste service is recommended.

Fuel Service – Retail Waste Area

- 4 x 240L General Waste MGB's – collected and emptied once a week.
- 3 x 360L Recycling Waste MGB's – collected and emptied once a week.

Retail / F&B / Commercial / Other Waste Area

Buildings west/east total general 3,832.5L & recycling waste 3,832.5L.

- 2 x 1,100L General Waste MGB's – collected and emptied 2 times a week.
- 2 x 1,100L Recycling Waste MGB's – collected and emptied 2 times a week.

Childcare Waste Area

- 1 x 1,100L & 1 x 240L General Waste MGB's – collected and emptied 2 times a week.
- 1 x 1,100L & 1 x 240L Recycling Waste MGB's – collected and emptied 2 times a week.

Medical / Health Waste Area

- 2 x 240L General Waste MGB's – collected and emptied once a week.
- 3 x 360L Recycling Waste MGB's – collected and emptied once a fortnight.

NOTE: Medical Consulting & Treatment Rooms may be provided with its own Stainless Hands-Free Hygiene Automatic Sensor Bin (30L/20L) for general and recycled waste (sufficient daily storage of waste). These bins are chosen for hygiene and due to the strict cleaning and infection control measures of the clinic, these bins will be emptied by the cleaners into the general and recycling waste MGB's provided for collection by a private waste services contractor.

Medical/Clinical Waste is placed in smaller sterile containers within the required treatment and consulting rooms. Once full and at the end of each day the containers will be transferred to the secure clinical waste storage cupboard for collection by a Clinical Regulated Waste Services contractor. Waste guidelines and calculations are provided within the medical waste section below.

Based on the total waste generated by the **Fast-Food** developments, the following Mobile Garbage Bins (MGBs) & SKIPS should be provided: **NOTE:** Veolia Environmental Services P/L are contracted to service many Fast Food Restaurants. Therefore, Veolia Environmental Services P/L is used in reference only.

Waste Storage Room (Fast Food 1):

1 x 1.5m³ SKIP General Waste Collection
Mon Wed Fri Sat Sun (GW1500FL; Veolia Environmental Services P/L)
1 x 3m³ SKIP Cardboard Waste Collection
Mon (CB3000FL; Veolia Environmental Services P/L)
3 x 240L MGB's Recycling Waste Collection
Wed (CM0240RL; Veolia Environmental Services P/L)

Waste Storage Room (Fast Food 2):

1 x 1.5m³ SKIP General Waste Collection
Mon Wed Fri Sat Sun (GW1500FL; Veolia Environmental Services P/L)
1 x 3m³ SKIP Cardboard Waste Collection
Mon (CB3000FL; Veolia Environmental Services P/L)
3 x 240L MGB's Recycling Waste Collection
Wed (CM0240RL; Veolia Environmental Services P/L)

Fast Food Management will be responsible for organising either staff or a contractor for the collection and upkeep of any waste within a 50m radius of the premises entries and exits, including all footpaths, street gutters and nature strips. This should be performed at least 3 times a day to avoid any build-up of waste. Waste bins should be provided within the carparking area and near the entries and exists to further assist in the reduction of littering within and near the premises. Management will regularly reassess collection procedures to ensure that the waste management is effective.

The following table illustrates the typical dimensions of the 50L Dual Bins, 240L, 360L, 660L, 1,100L MGB's, 1.5m³ & 3m³ SKIP's mentioned above.

Table 2: Typical Measurements for WALGA MGB's & Internal Hygienic Dual Bins.

Size	Height (mm)	Width (mm)	Depth (mm)
Dual Bin 30L/20L	920	419	292
240L	1,060	580	735
360L	1,100	600	885
660L	1,250	1,370	850
1,100L	1,470	1,240	1,245

Table 3: Typical Bulk Bin (SKIP) Measurements for Fast Food Restaurants.

Size	Height (mm)	Width (mm)	Depth (mm)
1.5m ³ SKIP	1,000	1,900	1,100
3m ³ SKIP	1,225	1,805	1,505



Figure 3: Typical 30L/20L General & Recycling Waste Infra-Red Sensor Bin

Food & Garden	Recycling	Garbage
<ul style="list-style-type: none"> ✓ All food waste and scraps. ✓ Meat, chicken, fish scraps and bones. ✓ Tea bags, coffee grounds. ✓ Fruit, vegetable scraps. ✓ Cake, bread, rice, pasta. ✓ lawn clippings, leaves, prunings, small sticks, flowers. ✓ Weeds (except Tropical Soda Apple). ✓ Small non-treated timber offcuts. ✓ Shredded paper, paper towel, serviettes. ✓ Council provided compostable caddy liner. ✗ Plastic bags, food packaging, cling wrap, or recyclables. 	<ul style="list-style-type: none"> ✓ All recycling. ✓ Steel, tin, aluminium cans, empty aerosols. ✓ Clear, brown, green glass bottles / jars (rinsed, no lids). ✓ Plastic bottles, soft drink bottles, containers (rinsed, no lids). ✓ Carboard boxes, milk, juice cartons. ✓ Newspapers, magazines, office paper, junk mail, window envelopes. ✓ Council provided compostable caddy liner. ✗ Plastic bags, light bulbs, mirrors, drinking glasses, general and food waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes. 	<ul style="list-style-type: none"> ✓ General waste. ✓ Plastic bags. ✓ Packets, wrappers, cling wrap, bubble wrap. ✓ Nappies, sanitary waste, (wrapped tightly, stored in a well-sealed bag). ✓ Animal faeces, bedding, and kitty litter. ✓ Foam, polythene, and polystyrene. ✓ Light bulbs, mirrors, ceramics, cookware, drinking glasses. ✓ Contents of your vacuum cleaner, cotton wool, buds and cigarette ends. ✗ Building materials, syringes, oil or paint, gas bottles, hazardous or chemical waste. ✗ Medical waste: (speak to your doctor / pharmacy).

Figure 4: Waste Disposal Guidelines for the General, Recycling & Organic Waste MGB's

The following figures illustrates the scaled diagrams of the MGB's within the waste storage areas.

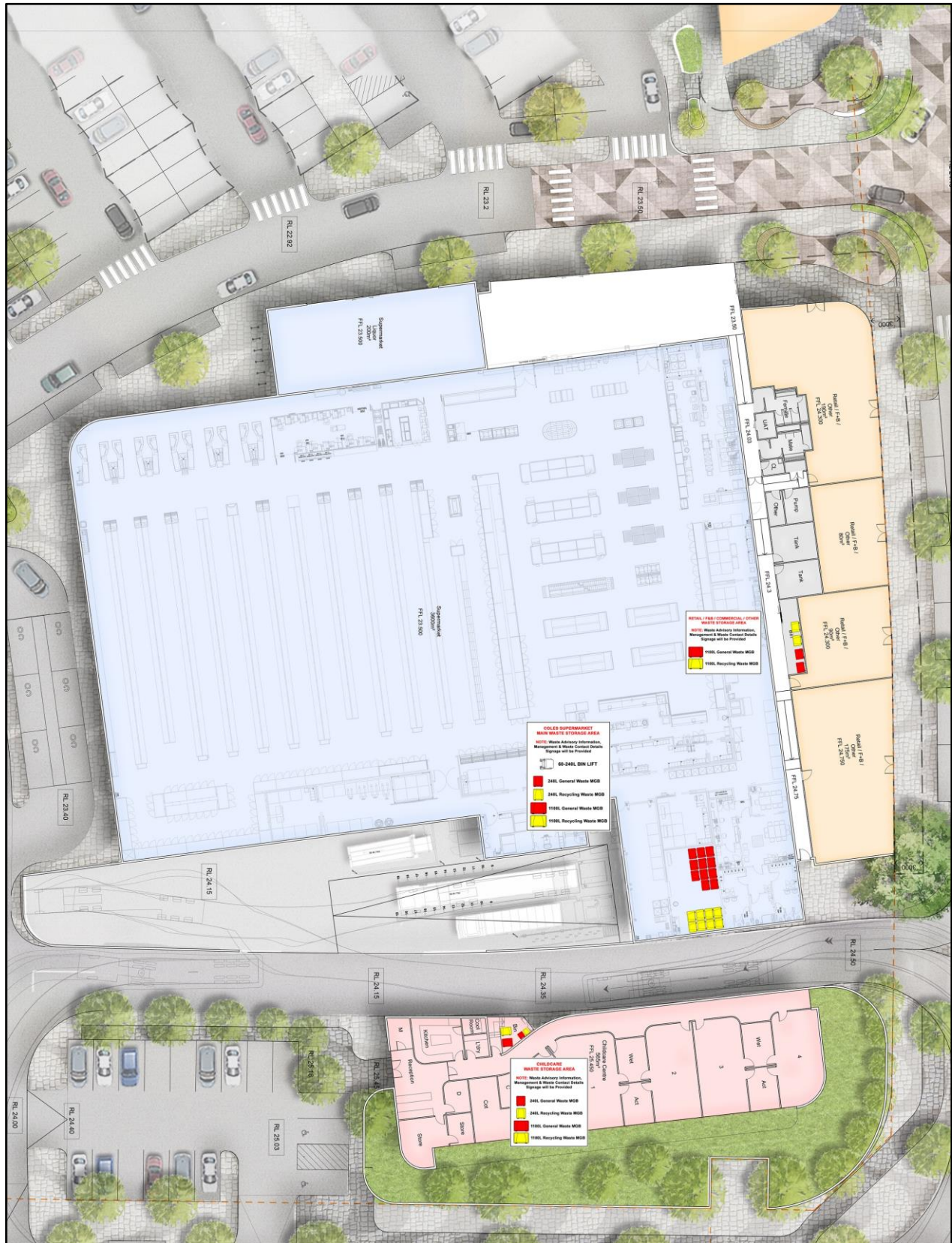


Figure 5: Scaled Diagram of the Coles, Retail / Commercial & Childcare Waste Storage Areas

by AusWide Consulting

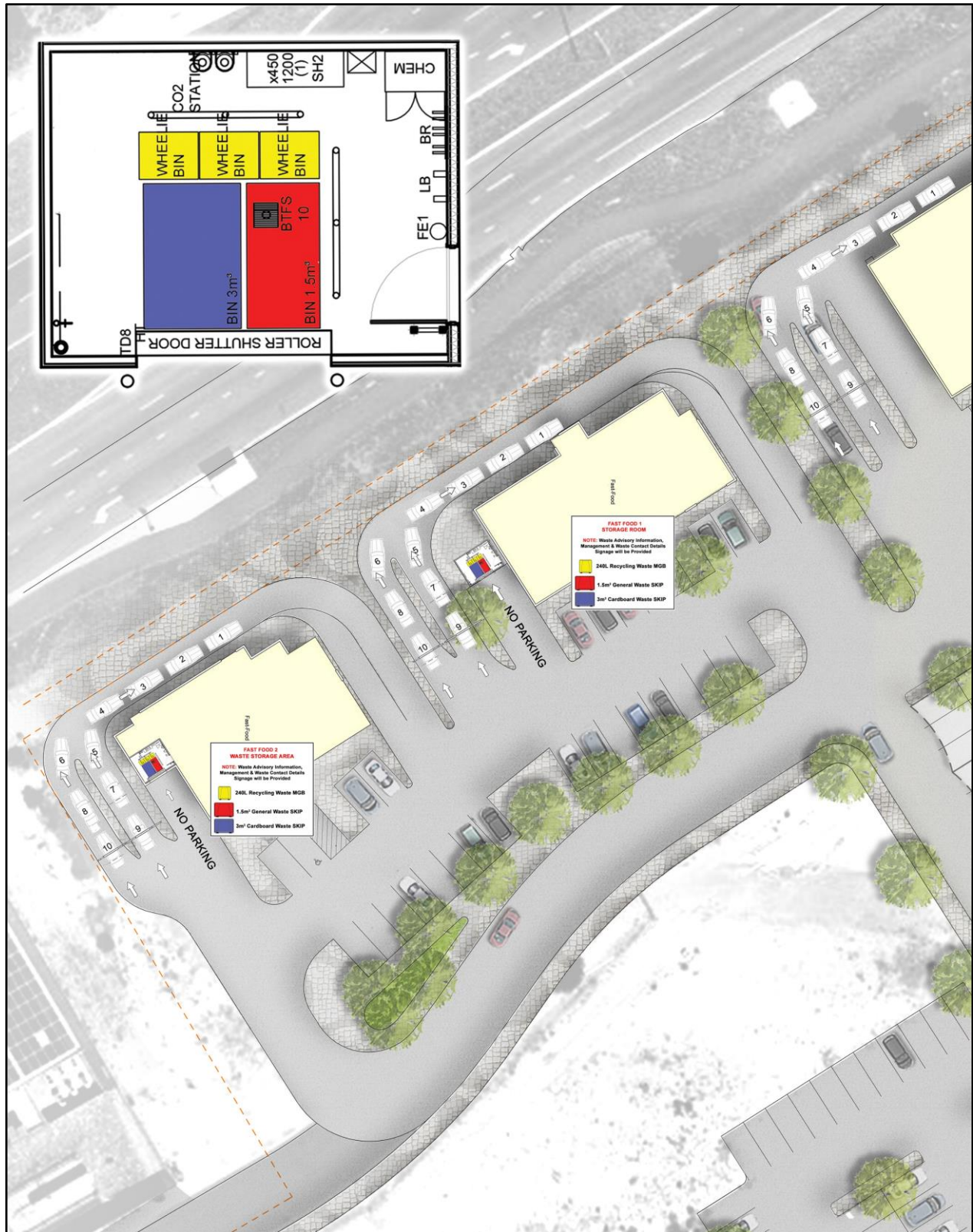


Figure 7: Scaled Diagram of the Fast-Food Waste Storage Areas



Figure 8: Scaled Diagram of Medical/Health Suites or Pharmacy Waste Storage Areas

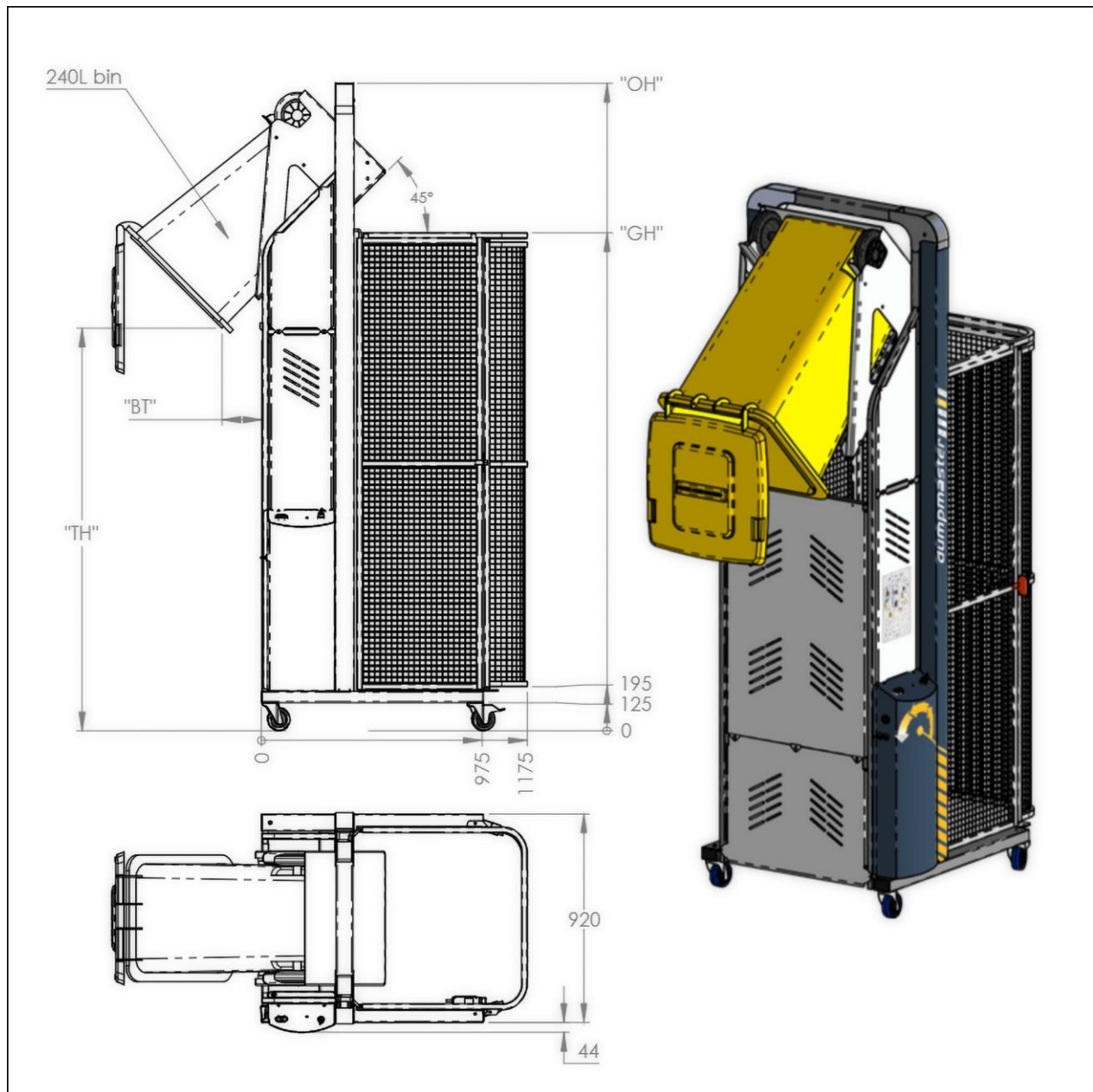


Figure 9: Typical 60L to 240L MGB Lift



Figure 10: Typical (Optional) Bin Tugs

Waste Collection

The waste collection service for the proposed development will be provided a private contractor.

The waste collection vehicle will enter **(to be determined and finalized on completion of the plans)** the waste collection area, wheel the MGB's to/from the waste vehicle. Once the MGB's have been emptied, the waste vehicle will exit in a forward motion.

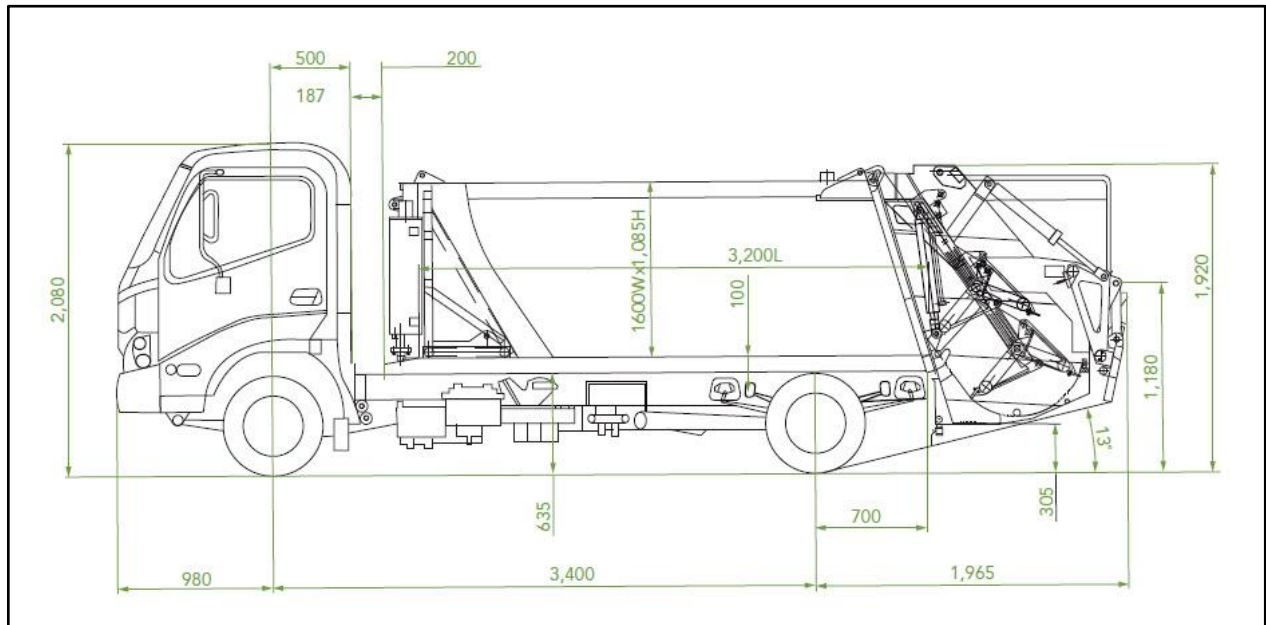


Figure 11: Template of a Typical 6.4m SRV Waste Collection Vehicle

Proposed On-Going Medical Care Centre

NOTE: All medical waste information within this section to be completed and finalized on confirmation of occupancy of the medical centre:

Below includes medical related information typical to that of what would be included once the number of practitioners and opening hours are known.

Ground Level:

- Physical Therapy Treatment.
- 16 Consulting Rooms.

Number of Practitioners, Patients and Operating Hours

The Medical Centre will operate from 24Hrs (7-Days a Week). The following is an estimate including staff numbers. Staff number are still yet to be determined.

The operation of the centre is proposed to:

- Consists of 16 practitioners (inclusive of nurses): and
- Average consultation time of 45 minutes per patient (Based on 12Hr Day for Outpatients)

Based on the above assumptions, there will be 1,792 patients visiting the medical centre per week. **Refer to the calculation below:**

12- hours days = 16 patients per day and 112 patients per week.

Therefore, each practitioner will provide service to 112 patients per week and 16 practitioners will provide service to 1,792 patients per week.

Medical Centre Floor Areas

- General consulting rooms.

Medical Centre Trading Hours: 24Hrs - 7 Days a Week

- Monday – Sunday (8:00am-8:00pm)

Anticipated Types of Medical Centre Waste

The definitions adopted in this section of the report are those described in the Australian/New Zealand Standard AS/NZS 3816:1998 Management of clinical and related wastes and any subsequent revisions. The following types of waste are generated in typical medical centres;

- 1) Clinical Waste
- 2) Related Waste
- 3) General Waste
- 4) Recyclable Waste

The following section outlines the forementioned types of waste in detail.

Clinical Waste

These are wastes that have the potential to cause disease, sharps injury or public offence including sharps, human tissue waste, laboratory waste and animal waste resulting from medical or veterinary research or treatment or any other waste. Clinical waste is further categorised into:

- Animal waste: waste arising from the whole or any part of an animal, or excreta.
- Sharps waste: objects or devices having sharp points or protuberances or cutting edges capable of causing a penetrating injury to humans.
- Human tissue waste: body tissue, organs, limbs and any free-flowing liquid body substance e.g. blood; Excludes teeth, hair and nails.
- Laboratory waste: a specimen or culture discarded in the course of medical, dental or veterinary practice or research, including genetically manipulated material and imported biological material or any material grossly contaminated thereby.

Related Waste

Other wastes generated within health care settings which are contaminated with cytotoxic drugs or other pharmaceuticals, chemicals and radioactive materials and can be further categorised into:

Chemical waste: waste material generated from the use of chemicals in medical, dental, veterinary, laboratory, ancillary and disposal procedures

Cytotoxic waste: waste material, including sharps, contaminated with a cytotoxic drug.

Pharmaceutical waste: may be generated by various means including, but not limited to:

- a) Expired pharmaceutical products
- b) Pharmaceutical products discarded due to being in a substandard state (e.g., non-compliant storage, damaged or contaminated packaging, failed quality control specifications during manufacture)
- c) Pharmaceutical products returned by patients, discarded by the public, no longer required by the public or no longer required by a healthcare facility
- d) Waste generated by the manufacture or via the administration of pharmaceutical products
- e) Preparations of drugs added to an intravenous solution
- f) Other waste contaminated with pharmaceuticals.

Pharmaceutical wastes exclude:

- Pharmaceutical drugs and their metabolic by-products excreted by patients undergoing therapy.
- Empty bottles (containing no liquid), empty pill bottles or strip packages where all tablets/capsules have been removed or other similar uncontaminated packaging.
- Materials with trace quantities of pharmaceutical products (with the exception of cytotoxic drugs) such as used syringes and used intravenous sets (although they may be classed as clinical waste including sharps). Empty glass ampoules are classed as sharps and should be disposed of accordingly.
- Simple intravenous solutions such as saline or dextrose, liquid nutrient preparations and electrolyte solutions. These may be disposed of as normal liquids through the sewage system.

Radioactive waste:

Waste material, including sharps, contaminated with a radioisotope which arises from the medical or research use of radionuclide, e.g. during nuclear medicine, radioimmunoassay and bacteriological procedures, which may be of solid, liquid or gaseous form, and which emit a level of radiation above the level set by regulatory authorities as exempt.

It must be noted that specific health legislation applies to the management of radiological and pharmaceutical wastes: The Radiation Safety Act 1975 and Poisons Act 1964 respectively.

General Waste

This waste stream comprises any waste material which is not otherwise specified in the above definitions.

Recyclable Waste

Are those products, packages or element thereof that can be diverted from the waste stream and through existing processes, be collected, processed and returned to use in the form of raw materials or products.

The majority of waste generated from a typical health facility can be classified as general or recyclable waste. Classification of commonly produced healthcare waste and possible disposal methods is described in **Appendix B**.

Anticipated Medical Waste Generation & Disposal

Clinical and Related Waste

In addition to general wastes, the medical centre has unique wastes generated from its operation, i.e.: Clinical and related waste. Special care needs to be provided to ensure the waste is disposed in a sustainable manner.

The overall objective of any waste treatment process is to render the waste non-hazardous and inoffensive, so that it can be disposed of safely. The treatment process itself must also be controlled so that it does not lead to other environmental problems.

Methods other than incineration are only suitable for treating some of the wastes, so it is essential that wastes are segregated at their source and waste is not sent to be treated by a process that is unsuitable.

It is the responsibility of the waste generator to ensure that all waste types are only sent to treatment facilities that are licenced for those specific waste types. The following table summarises the possible disposal options for different types of waste.

Table 4: Disposal Options for Different Types of Medical Waste

Waste Description	Incineration	Autoclave w/o Shredding	Autoclave & Shredding	Hypochlorite & Shredding	Peroxide, Lime & Shredding	Microwave /Shredding
Sharps	Y	N	Y	Y	Y	Y
Clinical	Y	Y	Y	Y	Y	Y
Human tissue	Y	N	N	N	N	N
Recognisable anatomical body parts	Y	N	N	N	N	N
Cytotoxic	Y	N	N	N	N	N
Pharmaceutical	Y	N	N	N	N	N
Chemical	N	N	N	N	N	N

All clinical and related waste shall be collected by a transporter licensed by the Environment Protection Authority (EPA) to collect and transport such waste. A licensee wishing to transport its own waste is required to be licensed to transport medical waste. The proposed medical centre could occupy a professional clinical waste company such as SteriHealth Clinical Waste Pty Ltd (see: <http://www.sterihealth.com.au/>). Refer to **Appendix D** for more information.

As it is assumed that there will be 4,000 patients per week at the hospital, and an estimated 1,792 patients per week at the proposed Medical Centre. Cytotoxic waste generation can be estimated as outlined in the table below;

Table 5: Anticipated Cytotoxic Generated Waste a Week

Item	% of Patients	No of items
Needles	50	2,896
Plasters	50	2,896
Grease	20	1,158.4
Syringes	50	2,896
Dripsets	5	289.6
Gowns	1 per practitioner per day	191
Gloves	100	5,792

Medical Waste Storage Area: A caged area next to the maintenance building on the ground level, marked as “Open Plant” will be used for medical waste.

It is clear the cytotoxic generated wastes are high in nature. Therefore, the proposed hospital can utilise the smaller waste containers for clinical and related waste storage for daily collection from within the hospital rooms that medical waste is generated. The medical waste will be securely collected from all rooms and ferried (using 240L Medical & Clinical Waste Bins) to the locked clinical waste storage area nearby for collected by the clinical waste contractor JJR Clinical & Regulated Waste Services.

However, the management of the centre are advised to monitor the typical usage of these bins and adjust the sizes and collection frequencies accordingly.

A 20L Clinical Waste Pail can also be provided as a precautionary measure in key areas for unforeseen circumstances (see **Appendix D**).

It is noted that the purple bin will not be placed out for collection. The cytotoxic waste collection can be carried out on site by a medium rigid truck (8.4 metres long) during non-peak periods.

Medical Waste Storage and Collection

Requirements for Storage of Medical Waste

It is recommended to follow the general practices outlined below when storing medical related wastes at the subject site.

- Contain medical waste in a manner that is not offensive and that minimises the threat to health, safety or the environment.
- Store all containers of medical waste in a secure location – medical waste bins shall be sufficiently screened from vermin. Bins which have been specifically designed to store medical waste are available for purchase through medical waste collection companies such as SITA (**Appendix D, E & F**).
- Ensure all necessary equipment required to clean and disinfect the area in case of accidental spillage is easily available and accessible.
- Treat any waste mixed with medical waste, as medical waste.
- Sharps such as needles, syringes with needles and surgical instruments are to be handled as follows:
 - 1) The disposal of sharps should not incorporate cutting, bending or any other manipulation that could generate aerosols or splatter contaminated fluids.
 - 2) Place sharps into a suitable container that:
 - a) Is puncture-resistant, leak-proof, shatter-proof and able to withstand heavy handling
 - b) Displays the universal biohazard label and has a label clearly indicating the nature of the contents
 - c) Has an opening which is accessible, safe to use, and designed so that it is obvious when the container is full
 - d) Is sealed when full or ready for disposal
 - e) Can be handled without danger of the contents spilling or falling out.
 - f) Place all medical waste other than sharps in clearly labelled heavy duty yellow plastic bags or wet strength paper bags. Bags intended for domestic use are unsuitable for this waste.
 - g) Tie the bags so as to prevent leakage or expulsion of solid or liquid wastes during storage, handling or transport and ensure they will not be subject to compaction by any compacting device.

Collection and Transport of Medical Waste

Medical waste shall be collected by a transporter licensed by the Environment Protection Authority (EPA) to collect and transport such waste (such as SteriHealth Clinical Waste Pty Ltd). A licensee wishing to transport its own waste is required to be licensed to transport medical waste.

Medical waste shall be collected for disposal by:

- A person licensed by the EPA for the collection and transport of medical waste.
- A council.

Or transported by a person employed or engaged in the business producing the waste directly to:

- A waste depot licensed by the EPA to receive medical waste.
- A hospital.
- A number of contractors provide services dedicated to the collection and transport of medical waste. Advantages of the use of their services include:
 - An assurance that all medical waste is destroyed by incineration.
 - The use of personnel who are familiar with handling medical waste and who are equipped with appropriate safety clothing, etc. .
 - A reduced risk to health and safety because the transporter is knowingly handling medical waste the use of containers which can be returned clean and disinfected.
 - The use of containers which remain intact until final disposal.

The medical waste collection can be undertaken on-site, within the car parking area at non-peak times. The medical waste collection will be undertaken by a private contractor, such as J.J.Richards, SITA and Veolia. The following figure illustrates typical medical waste collection vehicles used by SITA. They can be in the form of small to medium rigid vehicles (up to 8.4m long).

The applicant has advised that the frequency of waste collection can be made flexible so that collection is demand dependant. However, in a typical week, up to 2 collection runs can be expected from the medical centre.



SITA-MediCollect Truck

SITA-MediCollect Trucks are used for the collection of:

- Medical/Clinical Waste
- Quarantine Waste
- Sanitary Waste
- Waste for Specialised Treatment i.e. Sterilisation or Incineration

These vehicles are fitted with scales, a tailgate lifter and are also refigerated.



SITA-MediCollect Van

The SITA-MediCollect Vans are used for the collection of smaller quantities of:

- Medical/Clinical Waste
- Quarantine Waste
- Sanitary Waste
- Waste for Specialised Treatment i.e. Sterilisation or Incineration

These vehicles are ideal and efficient in the collection of waste requiring specialised treatment from local surgeries, medical clinics and dental practices.

Figure 12: Typical Medical Waste Collection Vehicles

Disposal of Medical Waste

Medical waste must be destroyed in an incinerator licensed by the regulatory authority in the state or territory in which the incinerator is located.

- Where an incinerator is not available, such as in remote areas, medical waste may be disposed of at solid waste landfill depots licensed to receive the waste under the following conditions:
- Medical waste must be placed at the foot of the operating face or into a hole excavated at the depot in such a manner as to prevent contact with the public.
- Medical wastes must be covered with other wastes or clean fill while the waste transporter is present.

The medical waste transporter should give sufficient notice to the depot operator to allow these arrangements to be carried out.

Amenity

Noise

The only noise generated from the waste management at the property will be that of the waste management truck, wheeling the MGBs to/from the waste vehicle and emptying the MGB's. Any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste bin enclosure will need to be ventilated.

Security/Communication Strategy

All MGB's will be secured within the ground level waste storage enclosures.

All management & staff will receive detailed documentation detailing all necessary requirements for safe waste management and handling including all relevant contact information.

Cleaning Facilities

Management is responsible for keeping the MGB's clean.

NOTE: Waste enclosures are recommended with the enclosures consisting of; **(1)** Impervious coated/treated walls and ground surface, ensuring the ground is graded to the sewer (100 mm diameter) floor drain outlet within the enclosure/room. **(2)** With a tap and hose (hose cock must be protected from the waste containers) for use of cleaning the MGBs and waste area. **(3)** The enclosure/room should also be wet sealed to the ground surface (with a grated drain spanning the width of the entry) preventing any water leakage beyond the waste enclosure/room. **(4)** Self closing lockable double doors/electric roller door allowing easy removal of the MGBs.

Prevention of Vermin

The occupiers will be advised to not overfill the bins so that the lids are closed at all times. It is suggested to place rat traps in the corners of the waste storage areas.

Miscellaneous

Childcare & Educational Institutions (Composting Facility)

Regarding **Food Waste**, most education and childcare centres operate a compost bin and/or worm farm (often together with a veggie patch) as part of an education program, so space for a compost bin in the Landscape Plan is all that is required for FOGO.

Cooking Oil/Grease Traps

Secure space is allocated within the services / refuse area for separate storage of each waste stream including liquid wastes and cooking oil. The areas for liquid waste storage are to be bunded, and drained to a grease trap, in accordance with legislation and the requirements of state government authorities and agencies. **NOTE:** The grease trap will be serviced from within the site boundary due to safe access impacts from the pump out hose.

Interim Internal Waste Storage

60L or 240L waste bins will be provided for interim storage of garbage and recyclables. Space should allow for separate storage of recyclables from the garbage stream and, ideally, for the segregation of food organics in a separate waste bin if using an Organics Waste MGB.

Green Waste/Food Waste

It is expected that green waste will be handled by the gardening contractor. Food waste should be placed in the General Waste MGB's unless an Organic Waste MGB's are in use, or a Composting Facility is being used as stated above.

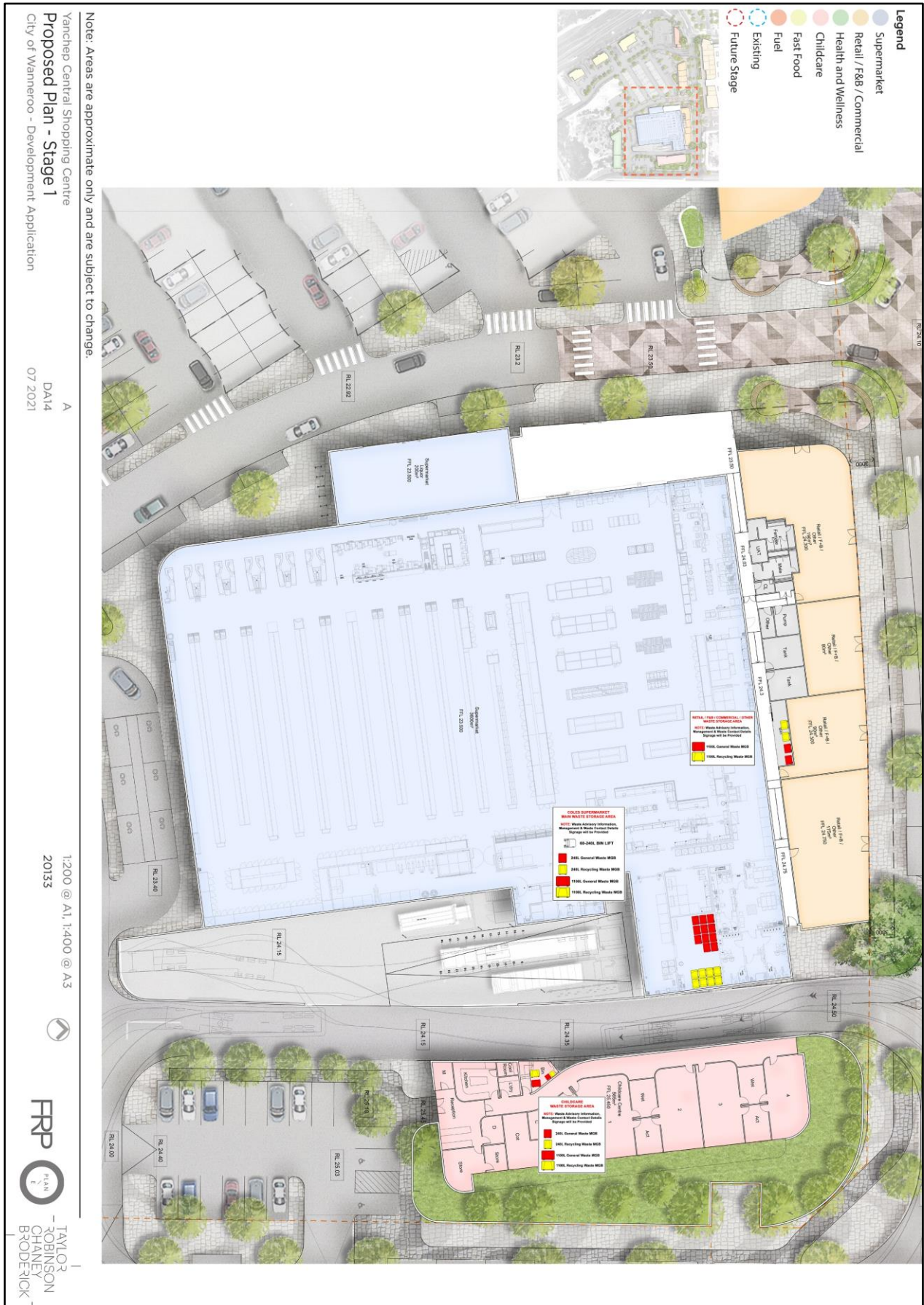
Bulky Hard Waste

If hard waste collection is required, management should call a private contractor directly.

E-Waste

Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors. E-Waste will be placed in impermeable surface containers and collected by a registered E-Waste Re-Processor as required.

Appendix A – Site Plans





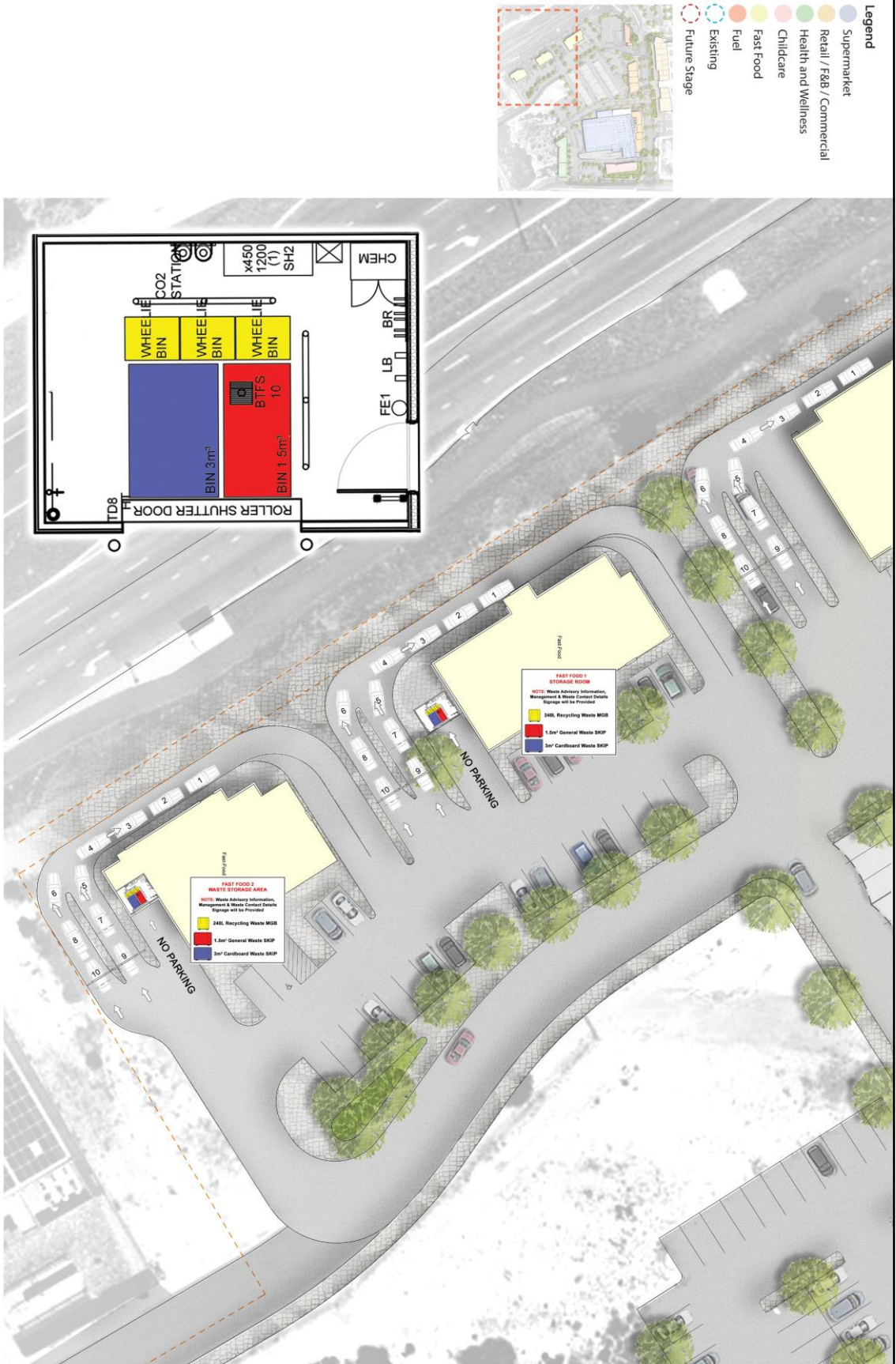
Note: Areas are approximate only and are subject to change.

Yanchep Central Shopping Centre
Proposed Plan - Stage 1
 City of Wanneroo - Development Application

A
 DALS
 07/2021

1:200 @ A1, 1:400 @ A3
 20133

FRP
 PLAN
 TAYLOR
 ROBINSON
 CHANEY
 BRODEUR





Appendix B – Waste Descriptors

Classification	Examples	On-Site Management	Disposal Option
General Waste that is not capable of being recycled, processed, or reused.	General waste will Include: <ul style="list-style-type: none"> ✓ Dressings not saturated with blood or body fluids. ✓ Sanitary napkins. ✓ Disposable nappies. ✓ Incontinence pads. ✓ Colostomy bags. ✓ Drained urine bags. ✓ Drained dialysis waste (including tubing, bags, dialyser). ✓ Gowns, gloves, masks. ✓ IV flasks and tubing without sharps. ✓ Oxygen tubing / masks / nebulizers. ✓ Suction tubing. ✓ Disposable kidney dishes / bowls / receptacles. ✓ Emesis bags. ✓ Enteral feeding bags and tubing. 	General waste can be disposed of into clear / opaque or black plastic bags. No regulated labelling however the bins should clearly state they are for general waste.	Landfill
Clinical	Clinical waste includes: <ul style="list-style-type: none"> ✓ Human tissue. ✓ Placenta. ✓ Liquid blood / body fluid. ✓ Dressings saturated with blood / body fluids. ✓ Any tubing containing blood. ✓ Anatomical waste (body parts). ✓ Sealed suction canisters containing blood / body fluids. 	All clinical waste is to be disposed of into clinical waste bins that meet the labelling and colour coding requirements AS / NZ 3816. Plastic liners are to conform to colour coding.	Refer OD clinical wastes.
Sharps	Any object or device that has sharp points or protuberances or cutting edges capable causing a penetrating injury to humans.	The users of any sharps are responsible for the immediate and safe disposal into a sharps container that meets Australian standards.	Refer OD clinical wastes.
Laboratory	Microbiological cultures.	Bag and place in yellow bins for incineration.	Incineration.
	For remote areas only, where autoclaves are not available.	Autoclave prior to disposal in yellow bins for incineration. Microwave prior to removal off site.	Incineration. Incineration (preferred) or supervised landfill as available.
	Tissue samples.	As per clinical waste.	

Appendix C - Cytotoxic Waste Management



What is Cytotoxic Waste? Cytotoxics are the most hazardous of the pharmaceutical wastes. They are capable of impairing, injuring or killing cells and many have a direct irritant effect upon skin, eyes, mucous membranes and other tissue. They can cause local toxic and/or allergic reactions. They need to be handled very carefully as even very small quantities can be hazardous. These wastes have special handling, packaging and disposal requirements. Cytotoxic waste must be packaged inside, puncture resistant, leak proof purple containers. All cytotoxic waste, including contaminated sharps, must be segregated and identified by colour. All Medical waste offers a large range of cytotoxic containers and waste bins specifically designed for the purpose of collecting needles, syringes and other sharps objects during Cytotoxic drug administration therapy.

Our friendly, informed sales consultants would be happy to supply you with further information and/or a prompt obligation-free survey and quote at your convenience.



1.4 Litre Cytotoxic Container

– is practical for smaller facilities.



5 Litre Cytotoxic Container

– practical for smaller facilities.



12 Litre Cytotoxic Container



19 Litre Cytotoxic Container

– is a economical container for all types of bulky Cytotoxic waste.

Appendix D - Clinical Waste Management



Biohazard/Clinical and related waste are classed as waste which has the potential to cause injury, infection and offence to the general population. Sharps, human tissue waste, laboratory waste, animal waste resulting from medical, dental or veterinary research or treatment has the potential to cause disease. Other related waste arising from sources specified by a health facility falls within this category. Related waste is defined as waste within the biohazard/clinical waste stream which constitute, or are contaminated with, cytotoxic drugs, chemicals and pharmaceuticals. Definitions include all waste contaminated with human or animal matter originating from any patient care area, surgery, health or transport facility and any autopsy, surgical, pathological, dental and veterinary or laboratory procedure. It includes bone and other tissue, swabs, bandages, blood samples and disposable surgical hardware.

All Medical Waste Australia provides health care professional with a complete, cost-effective, environmentally sound contaminated medical waste disposal service. We provide a range of clinical waste bins and sharps disposal containers for the safe collection of Clinical Waste at the client's location.

All our waste bins are sturdy with a safety locking lid to prevent removal or spillage of contents. Waste bins are delivered clean, fully lined and are designed to meet all safety requirements. Our waste bins are treated according to the standards set by E.P.A. Once collected they are transported using specially designed vehicles to an approved E.P.A. facility and are disposed of. The frequency of medical waste collection can be daily, weekly, fortnightly, monthly or at a frequency to suit every client's requirements. We have been particularly successful at tailoring medical waste removal from a dentist and medical clinics generating smaller volumes of hazardous medical waste and where a more customised service is needed for the medical waste disposal and medical waste management.



Cylindrical 50 Litre Clinical Waste Bins

- Heavy Duty Construction
- With Lockable Lids via a bar which "clicks" into place over the top of the lid for transportation and carrying.



36 Litre Clinical Waste Bin

- If space is an issue our 36 Litre bins will fit snug into tight corners.



Hands Free Clinical Waste Bins (Reduces risk of pathogen transfer)

- Using a foot-pedal opening bin now means hand contact with the bin is no longer required. This results in a dramatic reduction in the pathogen transfer risk that currently exists with standard clinical waste bins. Our foot pedal bin range consist of 4 sizes 30Lt, 45Lt, 70Lt & 85Lt.



Clinical Waste – Wheelie Bins

- Available in lockable 120 , 240, 660 & 1100 Litre sizes. The 120 Litre waste bin is suitable for outside storage for medium sized surgeries or clinics. Our 240, 660 & 1100 Litre waste bins are recommended for outside storage, large surgeries, nursing homes, hospitals and clinics. All our waste bins are delivered clean, fully lined and are designed to meet all safety requirements.

Appendix E – Sharps Waste Management

DISPOSABLE SHARPS CONTAINERS

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Our Disposable Sharps Containers are a well established, safe, efficient and economical means by which needles and syringes can be collected for sterilisation and destruction. They are robust, pre-assembled and stocked items. They are manufactured locally in Australia to comply with Australian Standards AS4031-1992. All containers are rigorously tested for non-penetrability.

The BIO-CAN is a single piece unit (not a nested container) nor does it require any assembly by your staff. This ensures you have great piece of mind when it comes to safety, with no chance of containers falling apart when full if accidentally knocked over.

The range includes a variety of containers for various applications, as well as Cytotoxic container options. They can be safely autoclaved and incinerated as part of the controlled destruction process. A special fitting is also offered for the removal of needles from various syringes.

Please note that correct procedures need to be in place whenever sharps containers are used and the OH & S Officer should be consulted.

Openings

We offer the option of a screw top or funnel top on almost every size of BIO-CAN. That way you can choose the container to suit your preference or application. Either option are secured to the container by a plastic strap.

Screw top



Open



Closed

Funnel Top/Push Cap



Open



Closed

SHARPS DISPOSAL

Sharps are defined as discarded objects or devices capable of cutting or penetrating the skin, eg hypodermic needles, Pasteur pipettes, contaminated broken glass, diabetic needle disposal units, razors and scalpel blades. Various hard plastic items, such as broken plastic pipettes, are also classified as sharps.

All sharps have the potential to cause injury through cuts or puncture wounds. In addition, many sharps are contaminated with blood or body fluids, microbiological materials, toxic chemicals or radioactive substances, posing a risk of infection or illness if they penetrate the skin. It is, therefore, essential to follow safe procedures when using and disposing of sharps.

When dealing with the hazards of used injecting equipment, it is essential that safety is not compromised in any way and that's why we only supply the best quality sharps containers which meet with the AUSTRALIAN STANDARDS ACCREDITATION – AS4031:1992.

Sharps must be placed into a sharps container as soon as possible after use. To avoid needlestick injuries, needles/syringes must not be re-capped. Sharps containers must not be filled above the marked fill line.

All Medical Waste can provide you with a large range of Australian-approved sharps disposal containers ranging from 1.4 litre up to 60-litre capacity. These sharps disposal containers can have lockable wall mounted storage units, mounting frames, brackets, trolleys or free-standing baskets.

Sharps Disposal

All Medical Waste Australia will deliver and pick-up your sharps container with one phone call.

- One stop deliver and pick-up
- Cost effective
- No large volume re-ordering
- Reliable service
- Choice of sizes
- Metal wall mounted Sharp Safe option
- Scheduled "no ring" service available
- No storage headaches

