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SITE WASTE MINIMISATION AND MANAGEMENT PLAN

20 Heradale Parade, Batemans Bay NSW 2536

Proposed Apartment Complex

Prepared for:	Place Studio Pty Ltd
Date Prepared:	September 2024
Revision:	1.2
Eurobodalla Shire Council Application #:	TBA

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Introduction

AusWide Consulting was commissioned by Place Studio to prepare a Site Waste Minimisation and Management Plan (SWMMP) for approval of a 60-apartment development at 20 Heradale Parade, Batemans Bay NSW 2536. The development has one common level of basement parking and four floors of apartments in three blocks.

In the course of preparing this SWMMP, 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 SWMMP has been prepared based on the following information:

- Architectural Plans provided by Place Studio Pty Ltd.
- NSW EPA *Better practice guide for resource recovery in residential developments* (April 2019).
- Eurobodalla Shire Council *Site Waste Minimisation and Management Code* (November 2011).

It is noted that the Council Site Waste Minimisation and Management Code is dated 2011 and refers to the NSW EPA *Better Practice Guide for Waste Management in Multi-Unit Dwellings* from 2008. This 2008 guideline has now been superseded by the NSW EPA *Better practice guide for resource recovery in residential developments* (April 2019), so the 2019 guidelines have been adopted in this plan.

Background and Existing Conditions

The subject site is located at 20 Heradale Parade, Batemans Bay NSW 2536, on the northwest side of Bavarde Avenue and running behind houses on Heradale Parade and backing on to the Batemans Bay Hospital. The nearby land uses are the hospital to the west and houses to the other sides.

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

Figure 1: Location of the Subject Site (Google)

Figure 2: Aerial View of the Subject Site (Google)

Waste Management Principles

When dealing with waste, the following hierarchy has been adopted, prioritising from left to right:

Avoid/Reduce

Particularly during the construction phase, avoidance of waste will be achieved through:

- Selecting design options with the most efficient use of materials;
- Selecting materials with minimal wastage, such as pre-fabricated materials.

Reuse

Some of the materials encountered in the demolition stage can be recovered and reused both on-site and off-site. This will be practised wherever possible. Reusable materials shall be appropriately stored to avoid damage from weather or machinery.

Recycle

Similarly, many materials from the demolition stage will be recyclable. These materials will be identified prior to demolition, and a system incorporated to efficiently separate reusable materials, recyclable materials, and disposable materials. Recyclable materials shall be appropriately stored to avoid damage from weather or machinery. Details and receipts verifying the recycling of these materials shall be kept present on site at all times.

Disposal

The waste disposal contractor chosen for the job will comply with Council's DCP. Details and receipts verifying the disposal of these materials shall be kept present on site at all times.

Handling

When handling waste on-site, the system (including bin placement, volumes, and access) shall be designed with the following factors in mind:

- Safety (highest priority);
- Ease of use; and
- Aesthetics.

Stockpiling

Waste sorting areas and vehicular access on-site during demolition and construction shall be adequately maintained. The material (demolition material, excavation material, construction

material and waste) stockpiling area shall always remain within the site boundary and relocate during different demolition and construction stages as necessary. The waste area shall be largely located at the front of the site. This is to maintain easy access and removal of waste. The stockpiling area shall not infringe on access to the site however, hoardings shall bind the site perimeter; therefore, the waste shall not be visible from the street.

Demolition & Construction Stage

The proposal involves the demolition of the existing two dwellings and associated small sheds and fences.

The estimated waste volumes produced by excavation, demolition and construction stages is shown below, but these may change based on site conditions and construction methodology. Waste volumes may be reduced through reducing strip out where possible (for example, retaining floor coverings if suitable), or through increased prefabrication of elements off-site. Where possible, materials shall be reused or recycled, with disposal being the last resort. The destination of all recycled and disposed material shall be announced upon the selecting the waste collectors and recyclers.

The arrangements for all reused, recycled and disposed waste shall be tracked and recorded, and all receipts shall be held on-site.

Demolition Phase

It should be noted that the demolition stage has the greatest potential for waste minimisation, particularly in regional areas where there is limited off-site recover options.

The contractor should consider whether it is possible to re-use existing buildings, or parts thereof, for the proposed use. With careful onsite sorting and storage and by staging work programs it is possible to re-use many materials, either on-site or off-site.

Councils are typically seeking to move from the attitude of straight demolition to a process of selected deconstruction, i.e., total reuse and recycling both off-site and on-site. This could require a number of colour-coded or clearly labelled bins onsite (rather than one size fits all).

Site contractors should demonstrate project management which seeks to:

- Re-use of excavated material on-site and disposal of any excess to an approved site;
- Re-use green waste mulch in landscaping either on-site or off-site;
- Re-use bricks, tiles and concrete on-site as appropriate, or recycle off-site;
- Re-use plasterboard in landscaping on-site, or return to supplier for recycling;
- Re-use framing timber on-site or recycle elsewhere;
- Recycle windows, doors and joinery off-site;
- Recycle plumbing, fittings and metal elements off-site;
- Dispose of all asbestos, hazardous and/or intractable wastes in accordance with Workcover Authority and EPA requirements;
- Define locations of on-site storage facilities for material to be reused on-site, or separated for recycling off-site; and

- Define destination and transportation routes of all materials to be either recycled or disposed of off-site.

The main elements of the demolition phase at the site are:

- Demolition of two dwellings (weatherboard, brick piers and footings, iron roof);
- Demolition of garden shed and weatherboard fence;
- Clearing of trees and other vegetation from new building footprint.

The estimated waste volumes are contained in **Table 3** below.

Table 1: Estimated Demolition Waste Volumes

Waste Type	Estimated Amount (m3 or t)	Reuse Onsite	Recycling or Disposal Off-Site
Green Waste	20t	Mulch retained for reuse	Recycling as mulch or compost
Bricks	3t	Full bricks retained for reuse	Sorting off-site for recovery
Concrete	3t	nil	Sorting off-site for recovery
Timber	20m^3	Solid sound framing timber retained for reuse	Sorting off-site for recovery
Asbestos	To be confirmed	nil	Disposal by Workcover licenced asbestos removal contractor
Plasterboard	5t	nil	Sorting off-site for recovery
Insulation	2t	nil	Sorting off-site for recovery
Metal	5t	nil	Sorting off-site for recovery
Ceramics	2t	nil	Sorting off-site for recovery
Glass	2t	nil	Sorting off-site for recovery
Plastics	1t	nil	Sorting off-site for recovery
Other Mixed	5t	nil	Sorting off-site for recovery

Construction Phase (including excavation)

The following measures shall be considered during the construction stage in order to save resources and minimise waste:

- Purchasing Policy – i.e., ordering the right quantities of materials and prefabrication of materials where possible;
- Reusing formwork;
- Minimising site disturbance, limiting unnecessary excavation;
- Careful source separation of off-cuts to facilitate re-use, resale, or efficient recycling; and
- Co-ordination/sequencing of various trades.

The estimated waste volumes arising from the excavation and construction phase is shown in **Table 4** below.

Table 2: Estimated Construction Waste Volumes

Waste Type	Estimated Amount (m3 or t)	Reuse Onsite	Recycling or Disposal Off-Site
Virgin Excavated Natural Material (VENM)	7,350m^3	Temporarily stored onsite for backfill and landscaping (2,450m^3)	Reuse as fill at approved site
Green Waste	nil	Mulch retained for reuse	Recycling as mulch or compost
Bricks	1t	Full bricks retained for reuse	Sorting off-site for recovery
Concrete	10t	nil	Sorting off-site for recovery
Timber	2m^3	Solid sound framing timber retained for reuse	Sorting off-site for recovery
Plasterboard	3t	nil	Sorting off-site for recovery
Insulation	2t	nil	Sorting off-site for recovery
Metal	1t	nil	Sorting off-site for recovery
Ceramics	4t	nil	Sorting off-site for recovery
Glass	1t	nil	Sorting off-site for recovery
Plastics	3t	nil	Sorting off-site for recovery
Other Mixed	25t	nil	Sorting off-site for recovery

On-Going Waste Management, Storage and Collection

The proposed redevelopment is a sixty (50) apartment development with one common level of basement parking and four floors of apartments in three blocks. There are 2 x 1-bedroom, 12 x 2-bedroom, 42 x 3-bedroom, and 4 x 4-bedroom apartments.

Waste Generation

As per the Eurobodalla *Site Waste Minimisation and Management Code, Appendix B* the following table illustrates the applicable general waste and recycling generation rates for multi-unit developments.

Table 3: Waste Generation Rate, Eurobodalla SWMM Code

Unit Dwelling	General Landfill Waste	Recyclable Materials	Organics
Per Unit	80L/week	40L/week	Nil

However, the volumes in Appendix B of the Code are based on the NSW EPA *Better Practice Guide for Waste Management in Multi-Unit Dwellings* from 2007, and these guidelines are now superseded by the NSW EPA *Better practice guide for resource recovery in residential developments* (April 2019). The 2019 guideline includes an allowance for organic waste or FOGO (food organics/garden organics), which is consistent with the EPA requirement for all Councils to collect FOGO waste by 2030. The volumes in the EPA guidelines are as follows (**Table 2**).

Table 4: Waste Generation Rates, EPA 2019 Guidelines

Unit Dwelling	General Landfill Waste	Recyclable Materials	Organics
1 bedroom or studio	80L/week	80L/week	25L/week
2 bedrooms	100L/week	100L/week	25L/week
3 or more bedrooms	120L/week	120L/week	25L/week

It is considered more defensible to apply the 2019 guideline as it supersedes the 2007 guideline and is consistent with the three-bin collection that the Council currently provides residents. The estimated waste generation would therefore be:

- General Waste = 6,880L/week
- Recyclables = 6,880L/week
- Organics = 1,500L/week

When food organics and garden organics (FOGO) waste collection is mandated the organics portion could increase, but there would be a proportional decrease in the general waste, so the number of bins should remain unchanged.

In relation to bulky waste, the building management will need to organise for the private waste collection service to collect bulky waste.

It is proposed that the grounds will be managed by a contractor, and they will remove garden waste from the grounds and/or mulch them for reuse on site.

The waste and recycling collection service for the future redevelopment is proposed to be provided by private waste contractor.

Waste Storage Areas

For the estimated volumes of waste, the following mobile garbage bins (MGBs) are to be provided:

- General Waste = 7 x 1,100L bins collected weekly
- Recyclables = 7 x 1,100L bins collected weekly
- Organics = 2 x 1,100L bins collected weekly

The MGBs will be stored in the waste room (**Figure 3** on the next page) located on the ground floor of unit Block B (**Figure 5**). To access the waste room, residents from unit Building A will have to walk across a pathway while the residents from unit Building C will have to walk across the central courtyard. The typical guidelines for the different waste streams are shown in **Figure 5** on page 15, but these will need to be confirmed with the commercial waste collection service and signs posted in the waste room and brochures or posters given to residents.

The waste storage area must have impervious floors and walls, have a sealed door and be actively ventilated. Bins will have to circulated mid-week to ensure all bins are accessible to residents.

The following table illustrates the typical dimensions of the MGBs mentioned above.

Table 5: Measurements for Typical 1,100L MGB

Size	Height (mm)	Width (mm)	Depth (mm)
1,100L	1,250	1,370	1,470

Figure 3: Waste Bin Room

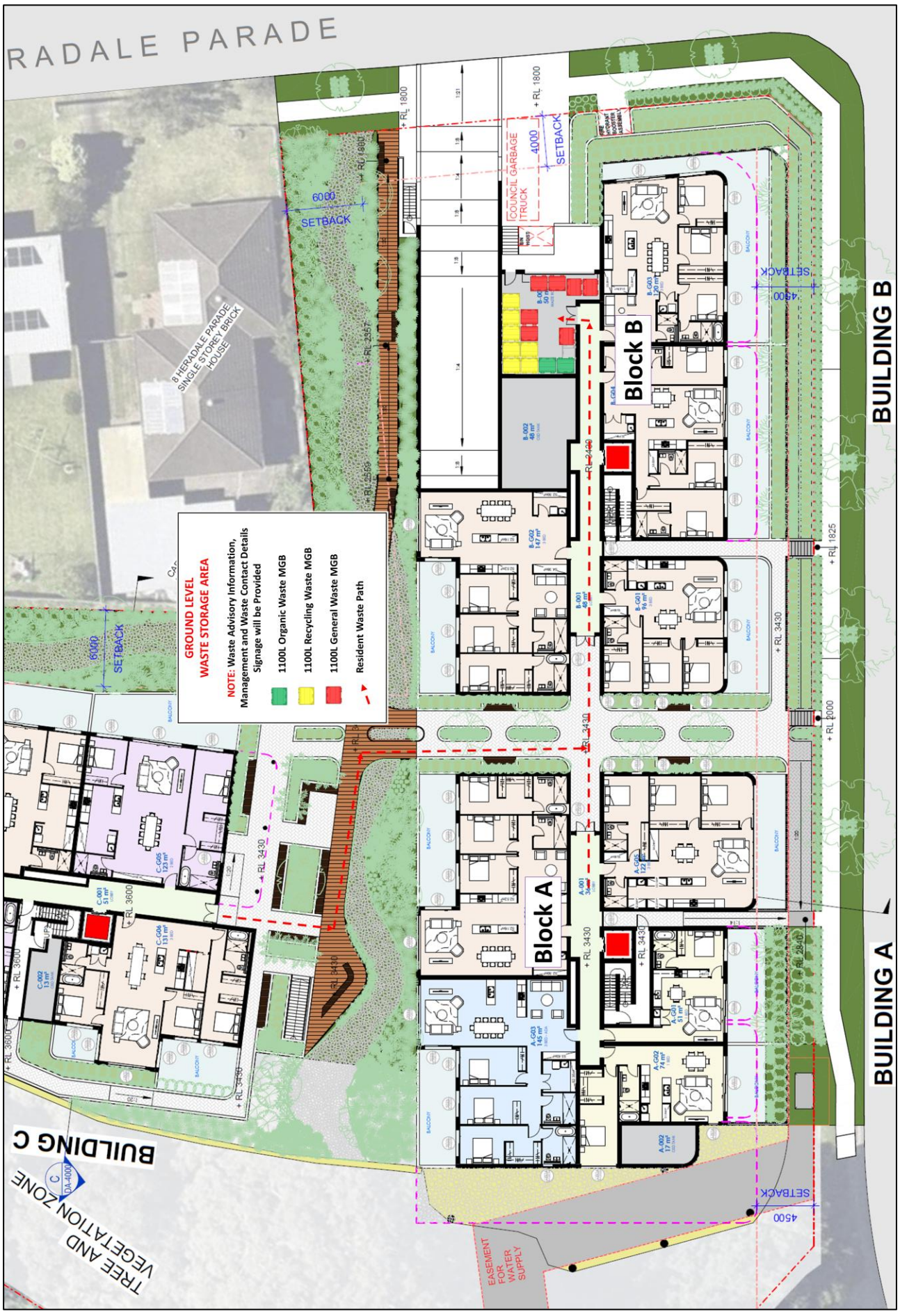


Figure 4: Waste Collection at the Site

Garden	Recycling	Garbage
✓ Tea bags, coffee grounds. ✓ Fruit, vegetable peels and scraps. ✓ Garden waste: 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.	✓ 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.	✓ 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.
✘ Plastic bags, food packaging, cling wrap, cigarette butts, nappies or wipes, kitty litter, glass, metal, hair, dog-cat droppings, dish clothes, or recyclables.	✘ Plastic bags, light bulbs, mirrors, drinking glasses, general and food waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes.	✘ Building materials, syringes, oil or paint, gas bottles, hazardous or chemical waste. ✘ Medical waste: (speak to your doctor / pharmacy).

Figure 5: Typical Guidelines for Waste in MGBs

Waste Handling and Collection

The waste room is on the ground floor of Building B. Residents from Building A will have to walk directly down the corridor and across a pathway to access the bin room, while the residents from Building C will have to walk approximately 50 metres across the central courtyard and down the corridor of Building B (**Figure 4**).

The waste and recycling collection service for the proposed redevelopment is proposed to be provided by private waste contractor.

On the day of collection, the Council waste collection truck will reverse into the loading dock off Heradale Parade (**Figure 4**) just south of the complex car park ramp. The waste collector will access the bin room through double doors and wheel the 1,100L bins onto a bin hoist, lower the bins and move them to the back of the truck for emptying.

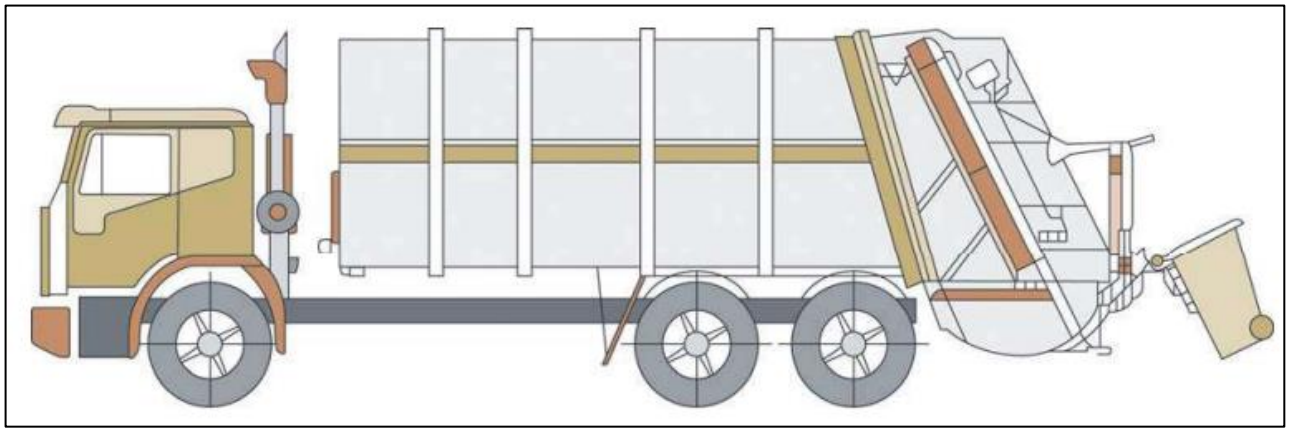


Figure 6: Typical MRV (8.8m) Rear Loading Waste Truck

Amenity

Noise

The only noise generated from the waste management at the property will be that of the waste being collected, any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste storage areas will need to be ventilated.

Security/Communication Strategy

All MGBs will be secured within the waste storage areas.

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

Cleaning Facilities

The caretaker is responsible for keeping the MGBs clean.

NOTE: It is recommended that waste bin storage areas consist of: **(1)** Impervious coated/treated ground surface, ensuring the ground is graded to the sewer (100 mm diameter) floor drain. **(2)** Tap and hose (hose cock must be protected from the waste containers) for use of cleaning the MGBs and waste area. **(3)** Self closing doors also allowing for easy removal and cleaning of the MGBs.

Prevention of Vermin

The occupants 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

Communal Composting Facility

No consideration is given to composting, but bins have been allocated for organic waste collection.

Dwelling (Internal) Waste Storage

Sufficient space within the kitchen, or other convenient location, should be provided in each dwelling for interim storage of two days' worth of garbage and recyclables. The cupboard space should allow for separate storage of recyclables from the garbage stream.

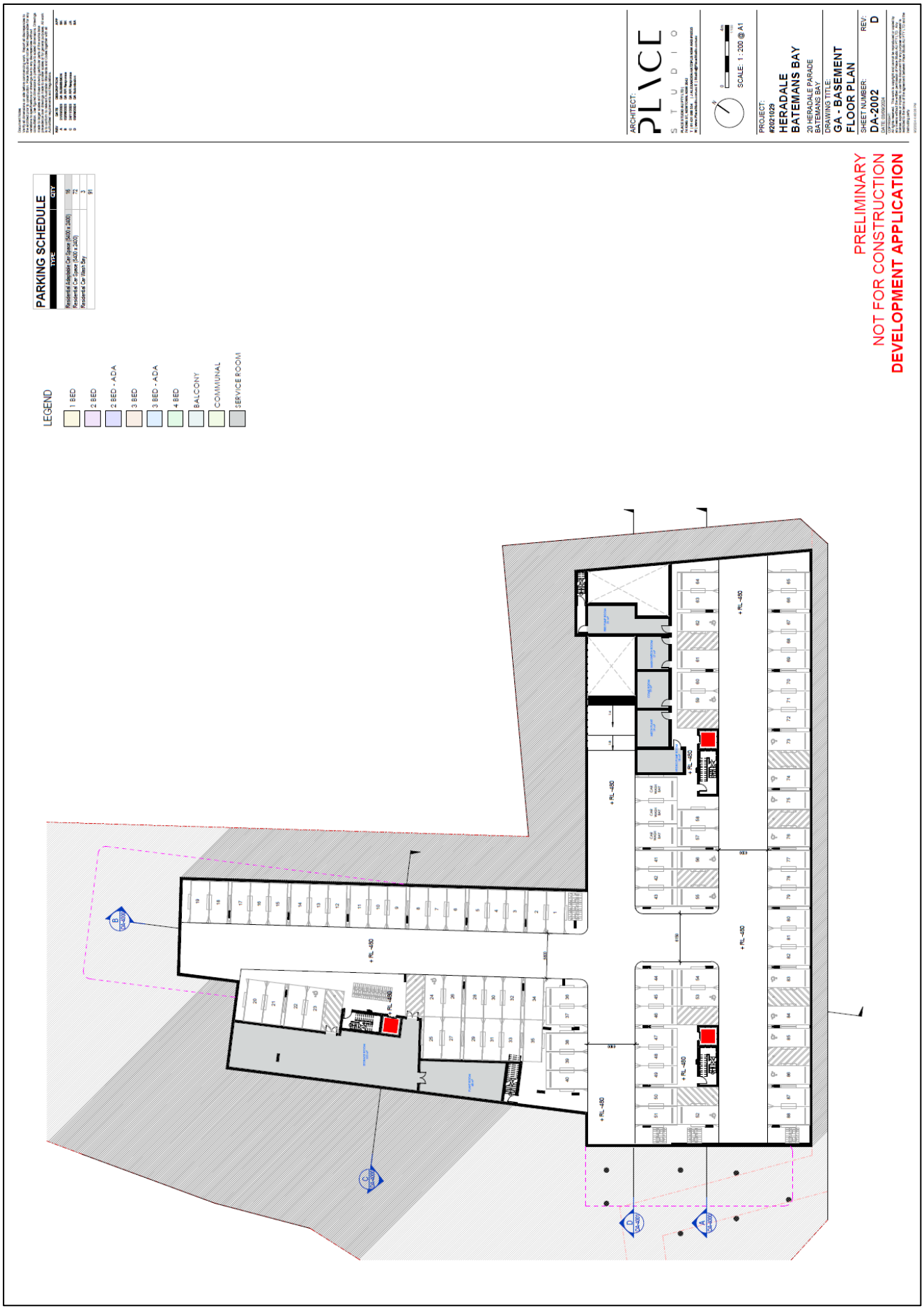
Bulky Hard Waste

If Bulky Hard Waste needs collecting, the caretaker will organise to have it collected from the bulky waste room.

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



LEGEND

- 1 BED
- 2 BED
- 2 BED - ADA
- 3 BED
- 3 BED - ADA
- 4 BED
- BALCONY
- COMMUNAL
- SERVICE ROOM

PRELIMINARY
NOT FOR CONSTRUCTION
DEVELOPMENT APPLICATION

ARCHITECT:
PLACE STUDIO

SCALE: 1 : 200 @ A1

PROJECT:
#2021029
HERADALE BATEMANS BAY
20 HERADALE PARADE BATEMANS BAY

DRAWING TITLE:
GA - GROUND FLOOR PLAN

SHEET NUMBER: DA-2004
REV: D
DATE: 03/09/2024

LEGEND

- 1 BED
- 2 BED
- 2 BED - ADA
- 3 BED
- 3 BED - ADA
- 4 BED
- BALCONY
- COMMUNAL
- SERVICE ROOM

PRELIMINARY
NOT FOR CONSTRUCTION
DEVELOPMENT APPLICATION

ARCHITECT:
PLACE STUDIO

SCALE: 1 : 200 @ A1

PROJECT:
#2021029
HERADALE
BATEMANS BAY
20 HERADALE PARADE
BATEMANS BAY

DRAWING TITLE:
GA - LEVEL 01 PLAN

SHEET NUMBER: DA-3000
REV: C
DATE: 03/09/2024

LEGEND

- 1 BED
- 2 BED
- 2 BED - ADA
- 3 BED
- 3 BED - ADA
- 4 BED
- BALCONY
- COMMUNAL
- SERVICE ROOM

PRELIMINARY
NOT FOR CONSTRUCTION
DEVELOPMENT APPLICATION

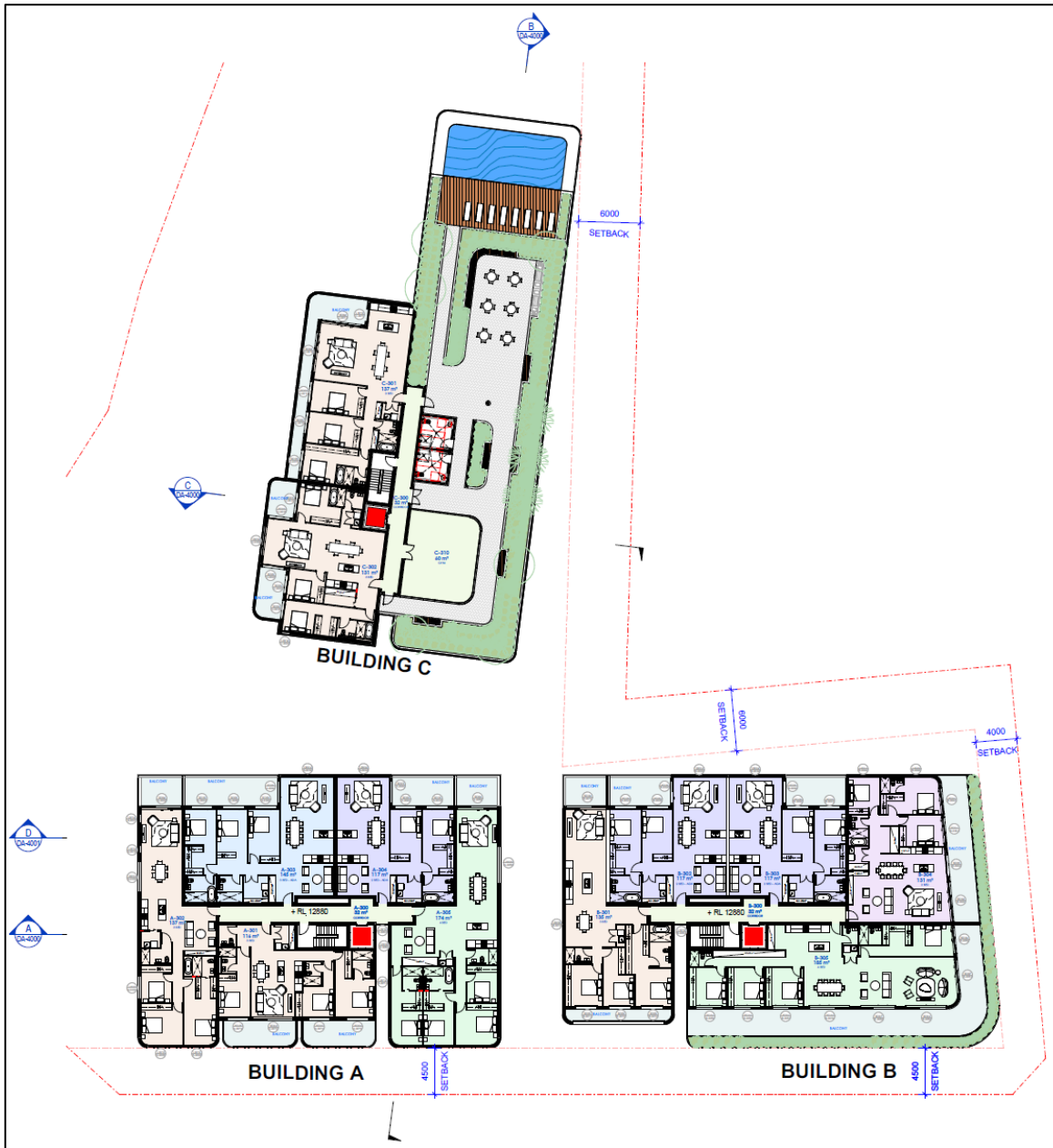
ARCHITECT:
PLACE STUDIO

SCALE: 1 : 200 @ A1

PROJECT:
#2021029
HERADALE
BATEMANS BAY
20 HERADALE PARADE
BATEMANS BAY

DRAWING TITLE:
GA - LEVEL 02 PLAN

SHEET NUMBER: **DA-3001**
REV: **C**
DATE: 03/09/2024



LEGEND

- 1 BED
- 2 BED
- 2 BED - ADA
- 3 BED
- 3 BED - ADA
- 4 BED
- BALCONY
- COMMUNAL
- SERVICE ROOM

PRELIMINARY
NOT FOR CONSTRUCTION
DEVELOPMENT APPLICATION

ARCHITECT:
PLACE STUDIO

SCALE: 1 : 200 @ A1

PROJECT:
#2021029
HERADALE
BATEMANS BAY
20 HERADALE PARADE
BATEMANS BAY

DRAWING TITLE:
GA - LEVEL 03 PLAN

SHEET NUMBER: **DA-3002** REV: **C**
DATE: 03/09/2024