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COMBINED DEMOLITION/CONSTRUCTION

&

OPERATIONAL (ON-GOING) WASTE MANAGEMENT PLAN

141 Meehan Street, Yass NSW 2582

Proposed Multi-Dwelling Housing Development

Prepared for:	John McGrath
Date Prepared	October 2024
Revision:	1.3
Yass Valley Council Application #:	TBA

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Introduction

BRP Consulting was commissioned by John McGrath to prepare a Waste Management Plan (WMP) for approval of a proposed residential development at 141 Meehan Street, Yass NSW.

The proposed development consists of;

DEVELOPMENT DETAILS
4 Multi-Dwellings (Residence A/2BR), (Residence B/1BR), (Residence C/2BR), (Residence D/2BR).

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 Linea Verde Design.
- Yass Valley Council Waste Guidelines & (EPA) Better Practice Guide for Resource Recovery in Residential Developments (2019).

Background and Existing Conditions

The subject site is located at 141 Meehan Street, Yass NSW, is on the northwest side of Meehan Street. All the nearby land uses are residential and commercial.

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.

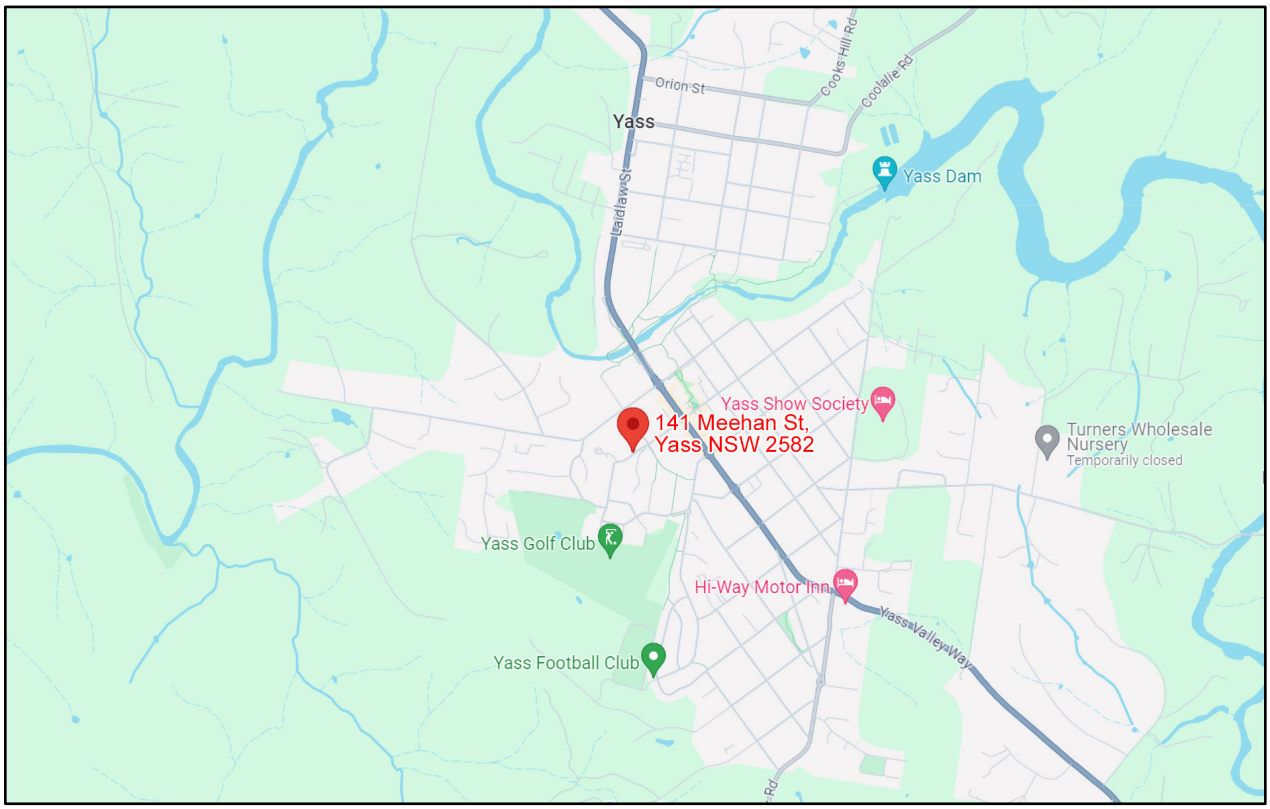


Figure 1: Location of the Subject Site

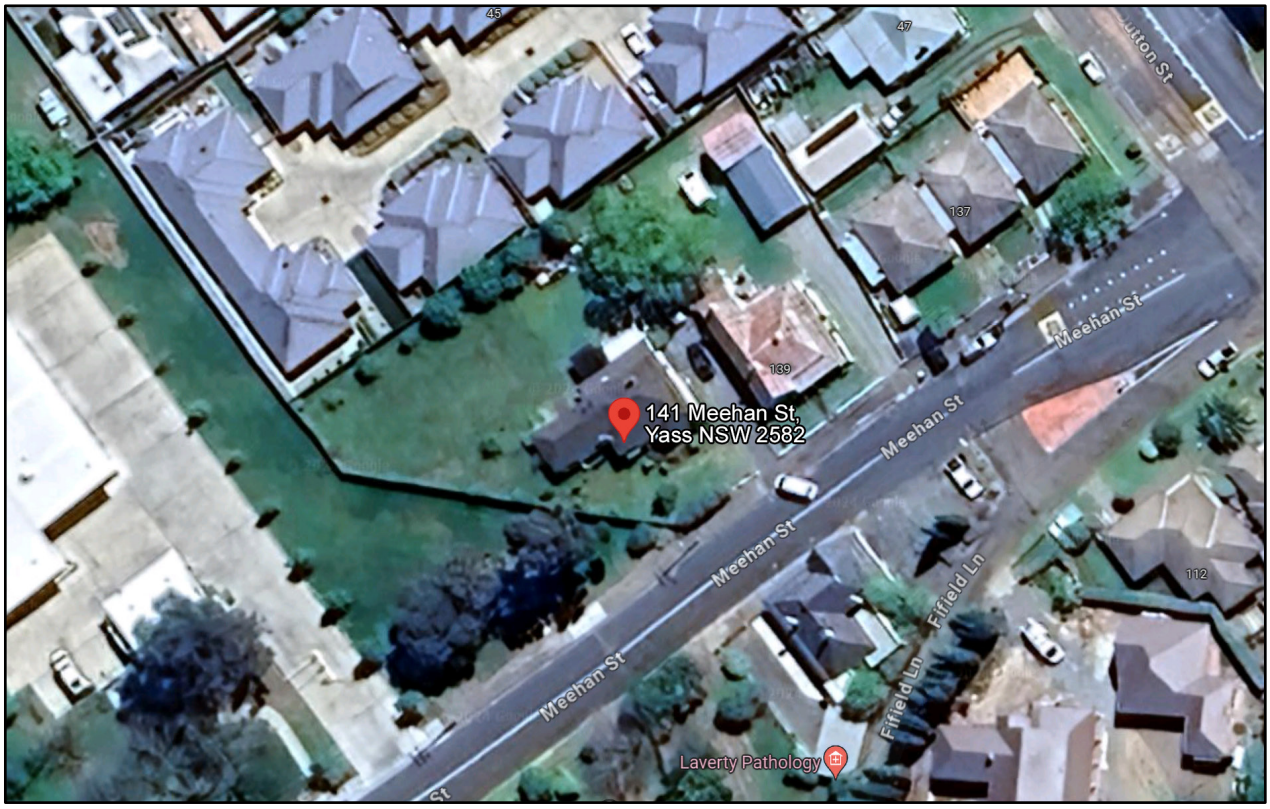


Figure 2: Aerial View of the Subject Site

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 prefabricated 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 practiced wherever possible. Reusable materials shall be appropriately stored to avoid damage from weather or machinery.

Recycle

Similarly, many materials form 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 shed and partial demolition of the existing dwelling (Refer: Figure 5), with the alterations & additions of the existing dwelling (2 residential dwellings) and the construction of 2 residential dwellings.

Demolition Works

It should be noted that the demolition stage has the greatest potential for waste minimisation, particularly in Sydney where there are high levels of development, relatively high tipping charges and where alternative quarry materials are located on the outskirts.

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;
- Green waste mulched and re-used in landscaping either on-site or off-site;
- Bricks, tiles and concrete re-used on-site as appropriate, or recycled off-site;
- Plasterboard re-used in landscaping on-site, or returned to supplier for recycling;
- Framing timber re-used on-site or recycled elsewhere;
- Windows, doors and joinery recycled off-site;
- Plumbing, fittings and metal elements recycled off-site;
- All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with Workcover Authority and EPA requirements.
  NOTE: Disposal of hazardous chemicals is regulated and must be tracked (Certified Trackable Waste Transporter) under the chain of custody and chain of responsibilities, philosophies with the site manager ultimately responsible for logistics and all waste generated on site;
- Locations of on-site storage facilities for material to be reused on-site, or separated for recycling off-site; and
- Destination and transportation routes of all materials to be either recycled or disposed of off-site.

Construction Works

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.

Estimating Waste Quantities

There are many simple techniques to estimate volumes of construction and demolition waste. The sequence of steps provided below can be used as a guide;

1) Quantify materials for the project
2) Use margin normally allowed in ordering
3) Copy these amounts of waste into your waste management plan

When estimating waste generation, the following percentages can be used as a "rule of thumb" practice;

Table 1: Estimating Waste Levels

Materials	Percentage of Waste / Total Materials Ordered
Timber	5-7%
Plasterboard	5-20%
Concrete	3-5%
Bricks	5-10%
Tiles	2-5%

Subsequently, the following table illustrates how to convert volumes of material to their respective weights. This information is particularly important during material storage and transportation stages.

Table 2: Converting Volume into Weight

Materials
Timber = 0.5 tonnes per m^3
Concrete = 2.4 tonnes per m^3
Bricks = 1.5 tonnes per m^3
Tiles = 0.75 tonnes per m^3
Steel = 2.4 tonnes per m^3

Wastage Types and Handling

Waste volumes produced by excavation, demolition and construction stages shall be estimated by the contractor at the construction certificate stage. 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.

NOTE: The arrangements for all reused, recycled and disposed waste shall be tracked and recorded providing an auditable database, with all receipts to be held on-site.

Refer to Appendix A – Waste Management Contacts for waste contractor details.

Tables 3: Waste Types and Handling

Demolition Phase

Materials on Site	Waste Estimate Volume (m^3), Area (m^2) or Weight (T)	On-Site Reuse Specify how materials will be reused or recycled on-site	Off-Site Recycling Specify the contractors and recycling outlet	Off-Site Disposal Accordance with DECCW
Excavation Material	NIL			
Green Waste	NIL			
Bricks	$0.4m^3$	Re-use on-site	Remainder to Canberra Construction Recyclers	
Ceramic Tiles	NIL			
Concrete	$0.8m^3$	NIL	Bungendore Community Recycling Centre	
Plasterboard	0.1^T	NIL	Mugga Lane Resource Management Centre	
Timber	$14m^2$	Re-use for formwork and studwork. Chip remainder for use in landscaping	Remainder to Mugga Lane Resource Management Centre	
Timber	$0.3m^3$	NIL	Mugga Lane Resource Management Centre	
Metal Roofing	$20m^2$	NIL	Bungendore Community Recycling Centre	
Other Waste	0.1^T	NIL	Mugga Lane Resource Management Centre	
Asbestos	N/A	NIL		
Hazardous	N/A	NIL		

The Construction reuse/recycling/disposal information will be advised at CC Stage.

Construction Phase

Materials on Site	Waste Estimate Volume (m^3), Area (m^2) or Weight (T)	On-Site Reuse Specify how materials will be reused or recycled on-site	Off-Site Recycling Specify the contractors and recycling outlet	Off-Site Disposal Accordance with DECCW
Soil, Sand & Rubble	TBA			
Bricks	TBA			
Ceramic Tiles	TBA			
Concrete	TBA			
Plasterboard	TBA			
Timber	TBA			
Metal (Ferrous, Iron, Steel and Black Iron)	TBA			
Metal (Non-Ferrous, Aluminium, Copper, stainless Steel and Wire)	TBA			
Cardboard & Paper	TBA			
Plastic	TBA			
Other Waste	TBA			
General Waste (Landfill)	TBA			

Waste Collection (Demolition & Construction Stage)

The waste collection service for the proposed demolition and construction stage of the development will be provided by a private waste contractor.

NOTE: All vehicle movements and strategic placement of the bins on site, ensuring the bins are relocated when needed during the works to maintain safe access and use at all times, will be provided by the site manager. Supporting documentation/receipts to be retained in order to verify the disposal of materials in accordance with the approved plan.

Demolition & Construction Waste Security/Communication Strategy

All demolition and construction bins will be secured on site with all site workers receiving documentation detailing all necessary requirements for safe waste management and handling whilst attending the site health and safety induction course.

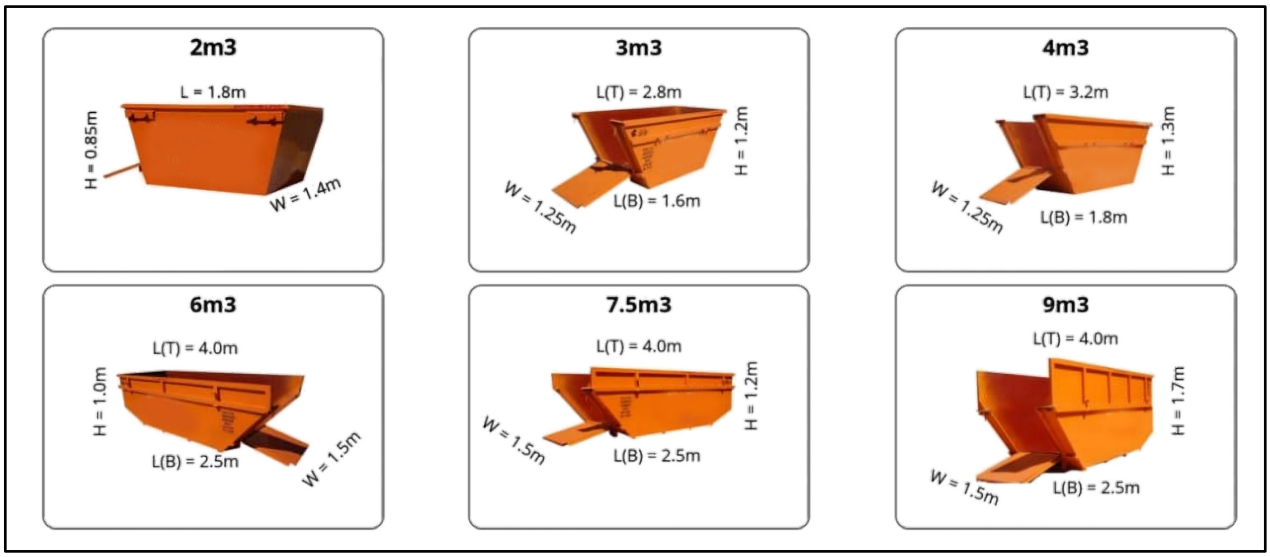


Figure 3: Typical Waste Skips for Demolition & Construction Site Waste Management

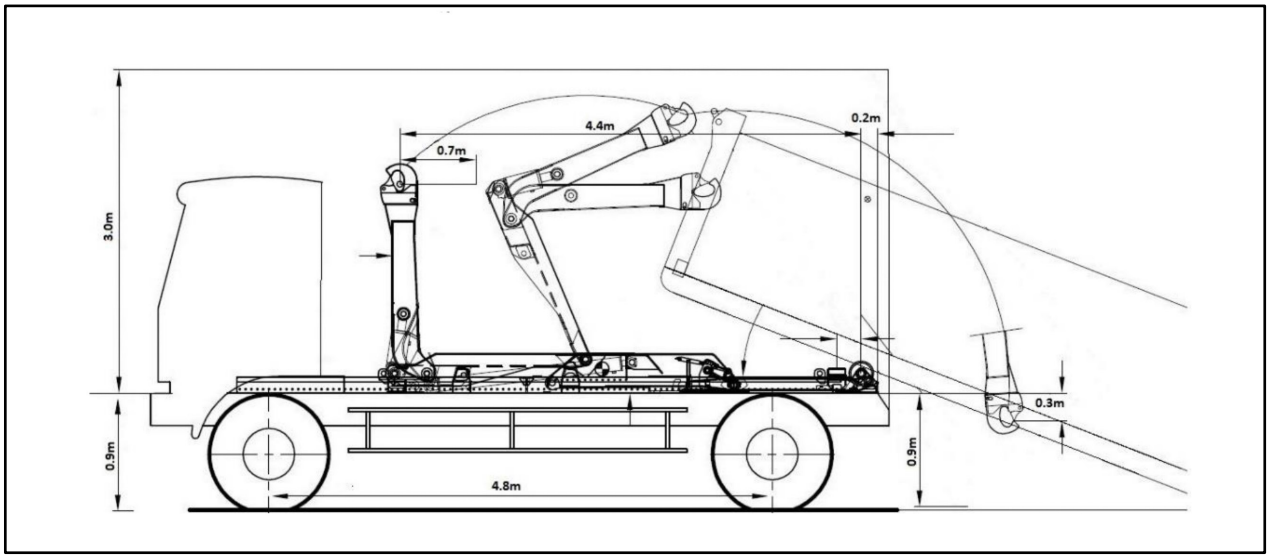


Figure 4: Typical Hook Lift Waste Collection Vehicle Configuration

The following figures illustrates a scaled diagram of the demolition and construction waste sorting & SKIP area.

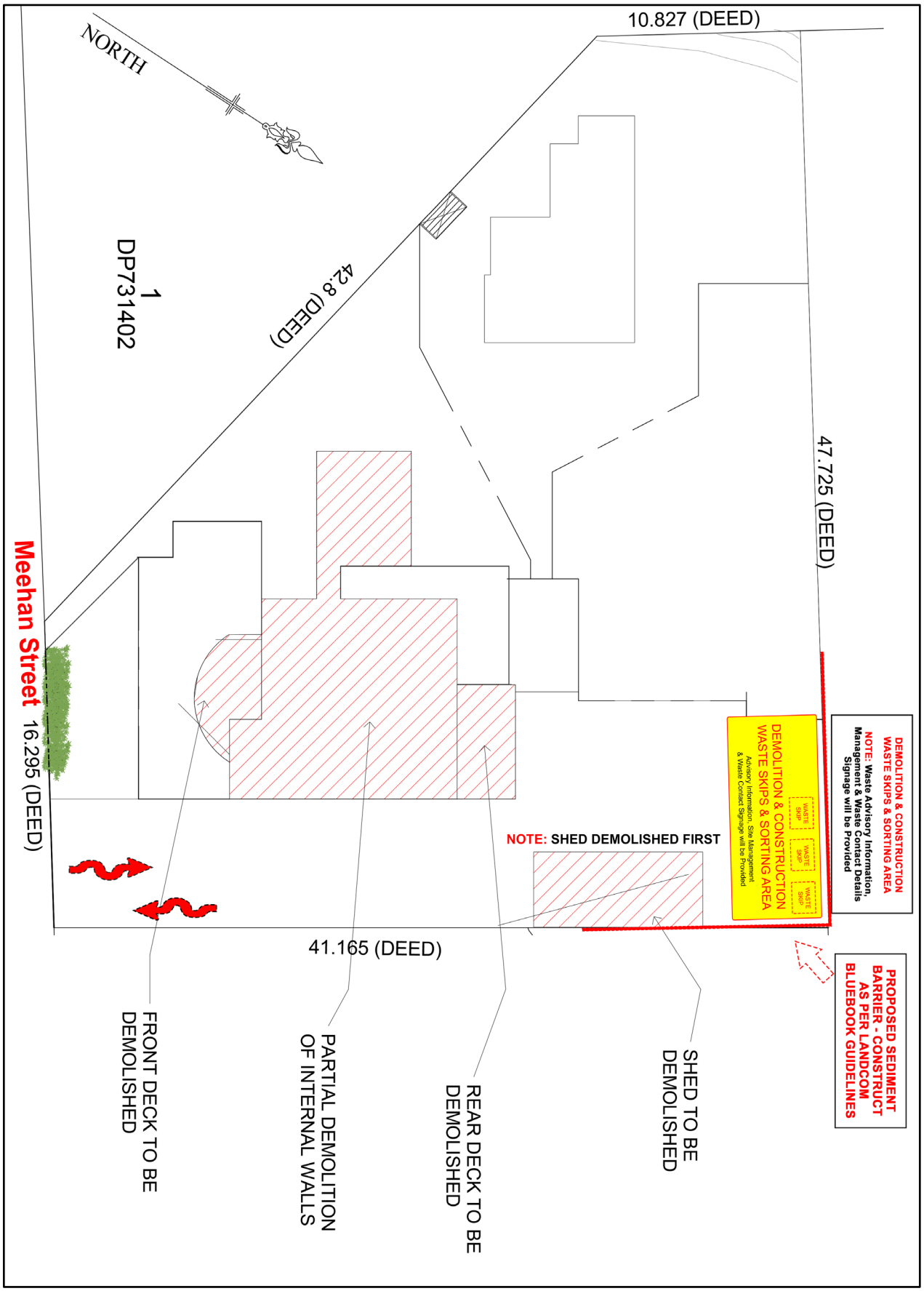


Figure 5: Scaled Diagram of the Demolition/Construction Waste Sorting & SKIP Area

Operational (On-Going) Waste Management, Storage and Collection

The proposed development includes (4) residential dwellings. Access to the development will be via a walkway and driveway off Meehan Street. The residential waste areas can be accessed within the yard of each dwelling **(Ref: Appendix B).**

Anticipated Waste Generation, Storage and Collection

Waste collection will be provided by council kerbside waste services.

Waste Generation

As per the Yass Valley Council Waste Guidelines & (EPA) Better Practice Guide for Resource Recovery in Residential Developments (2019),

The waste entitlement for Residential Dwelling is 120L per week of general waste plus 120L per week of recycling waste (inclusive of paper & containers waste).

The following table illustrates the typical general, recycling and organic generation rates.

Table 4: Typical Garbage and Recycling Generation Rates for Residential Dwellings.

Type of Premises	General Landfill Waste	Commingled Recycling Waste	Organic FOGO Waste
Residential Dwelling	120L/per/week	120L/per/week	N/A

NOTE: Generation rates based on weekly rates within the Yass Valley Council Waste Guidelines. Actual usage can vary and may be generated at a reduced rate. The Body Corporate will monitor all waste requirements and handling. Accessing any needs for waste management plan revisions.

Waste within Overall Development

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

Residential Dwellings (A, B, C D)

- 4 x 120L of general waste per week = 480L (uncompacted)
- 4 x 120L of recycling waste per week = 480L (uncompacted)

Waste Storage and Handling of Waste Streams

Residential Dwelling (A)

- 1 x 140L General Waste MGB – collected and emptied once a week.
- 1 x 240L Recycling Waste MGB – collected and emptied once a fortnight.

Residential Dwelling (B)

- 1 x 140L General Waste MGB – collected and emptied once a week.
- 1 x 240L Recycling Waste MGB – collected and emptied once a fortnight.

Residential Dwelling (C)

- 1 x 140L General Waste MGB – collected and emptied once a week.
- 1 x 240L Recycling Waste MGB – collected and emptied once a fortnight.

Residential Dwelling (D)

- 1 x 140L General Waste MGB – collected and emptied once a week.
- 1 x 240L Recycling Waste MGB – collected and emptied once a fortnight.

NOTE: The MGB's for each dwelling will be stored within the rear courtyards.

The following table illustrates the typical dimensions of the MGB's mentioned above.

Table 5: Typical Mobile Garbage Bin Measurements for Operational Waste.

Size	Height (mm)	Width (mm)	Depth (mm)
140L	915	505	615
240L	1,100	580	735

Recycling	Garbage
✓ 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.	✓ General waste. ✓ Plastic bags. ✓ Packets, wrappers, cling wrap, bubble wrap. ✓ Nappies, sanitary waste, (wrapped tightly and stored in a well-sealed bag). ✓ Animal faeces, bedding, and kitty litter. ✓ Foam, polystyrene, and polystyrene. ✓ Light bulbs, mirrors, ceramics, cookware, and 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 6: Waste Placement Guidelines for the General & Recycling MGB's

The following figures illustrates a scaled diagram of the MGB's within the waste storage areas and kerbside placement for council collection.

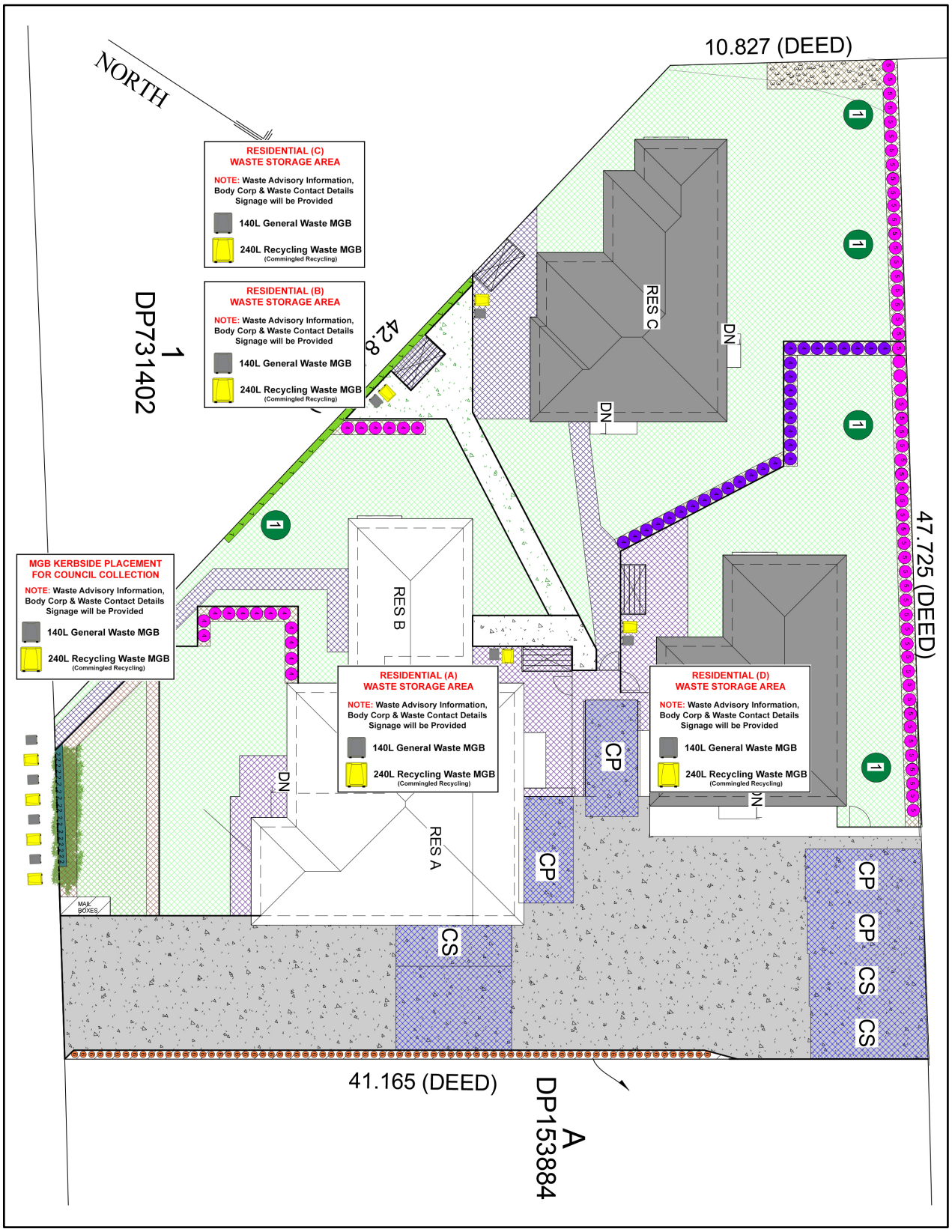


Figure 7: Scaled Diagram of the Waste Storage Areas & Kerbside Collection Area

Waste Collection (Operational Waste)

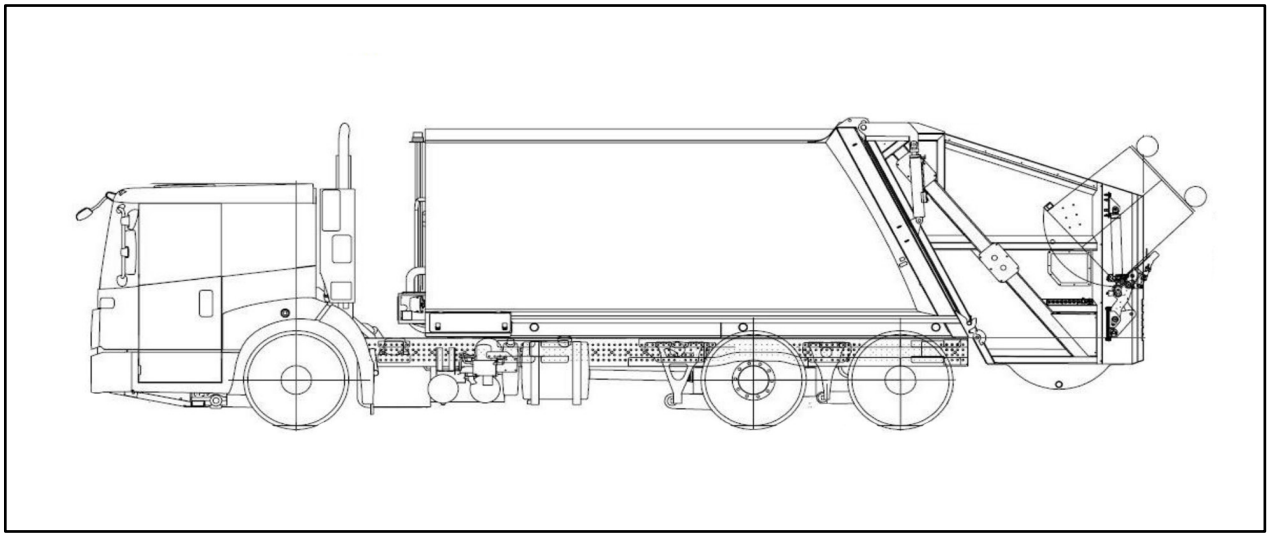
The waste collection service for the proposed development will be provided by council kerbside waste services.

To help ensure bin collection runs smoothly and enables drivers to pick up, empty and replace the bins safely, it's important to:

- Residents will ferry their MGB's to the street kerbside on the night before or day of collection before 5am.
- Leave at least one metre between bins and any obstructions (such as trees, cars or poles).
- Ensure the bin are not overfilled with the lids are shut to avoid spills and to protect it from bugs and animals.

The waste collection vehicle will pull up on Meehan Street and wheel the MGB's to/from the waste vehicle, emptying the MGB's. Once all the MGB's have been emptied and returned to the street kerbside the waste vehicle will leave in a forward motion.

NOTE: Residents will then return their MGB's to their waste storage areas at the earliest convenience.



Vehicle Type	Length	Design Width	Actual Height	Operational & Travel Clearance Height	Maximum Capacity
HRV (Rear Lift)	12.5m	2.8m	3.7m	4.5m	$24m^3$

Figure 8: Diagram of a Typical HRV Waste Collection Vehicle

Amenity

Noise

The only noise generated from the waste management at the property will be that of the MGB's being collected by the waste collection truck and emptied. Any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste storage areas have ample ventilation.

Security/Communication Strategy

All MGB's will be secured within the waste storage areas.

Residents will receive detailed documentation detailing all necessary requirements for safe waste management and handling, including all relevant contact information. NOTE: It is recommended that all bins should have appropriate signage showing acceptable and non-acceptable items for each bin.

Waste Storage & Cleaning Facilities

Residents will be responsible for keeping the MGB's clean.

NOTE: It is recommended that the waste storage areas should consist of; **(1)** Smooth impervious coated/treated ground surface, ensuring the ground is graded to the sewer (100 mm diameter) floor drain outlet within the the MGB area, as per Sydney Water specifications. **(2)** Tap and hose (hose cock must be protected from the waste containers) for use of cleaning the MGB's and waste area.

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

Composting Facility

NOTE: Organic waste is a problem in landfill as it produces methane, a harmful greenhouse gas that is 25 times more potent than carbon dioxide. Turning it into compost reduces the impact on the environment and allows waste to become a usable product. Existing landfill sites are also nearing capacity, and the creation of new sites can cause significant detrimental effects through land clearing, loss of habitat for local wildlife, and potential groundwater and soil contamination from the leaching of heavy metals and chemicals.

Residents can decide to commit to improving waste management methods by composting in support of social and environmental commitments at the local level by using compositing bins/worm farms or **Bokashi Anaerobic Composting** bins that can be stored indoors or outdoors. It's a great way to turn your kitchen scraps into rich liquid and semi-solid fertiliser.
Also visit council waste reduction initiatives website: https://www.yassvalley.nsw.gov.au/Our-Services/Waste-and-Recycling/Waste-reduction-initiatives

Dwelling (Internal) Waste Storage

It is suggested that sufficient space within the kitchen, should be provided in each dwelling for interim storage of at least one to two days' worth of garbage and recyclables. Space should allow for separate storage of recyclables from the garbage stream.

Green/Food Waste

Food waste should be placed in the general waste MGB's. All other green waste within the property will be handled by the gardening contractor. *Please refer to Communal Composting Facilities above.*

Bulky Waste

If bulky hard waste disposal is required, Annual Waste Vouchers are available from council each year Council provides two domestic waste vouchers per rates notice for use at Council's waste and recycling facilities. Each voucher entitles the property owner to dispose of one cubic metre of domestic waste, subject to restrictions on particular waste at no charge. Vouchers are not transferable and are not redeemable for cash. The waste vouchers are provided to rateable properties to assist in disposing of domestic waste. It is hoped the issuing of domestic waste vouchers will assist in reducing the number of illegal waste dumping incidents. NOTE: Closest location Faulder Ave - Open daily 8.00am until 4.30pm.

E-Waste

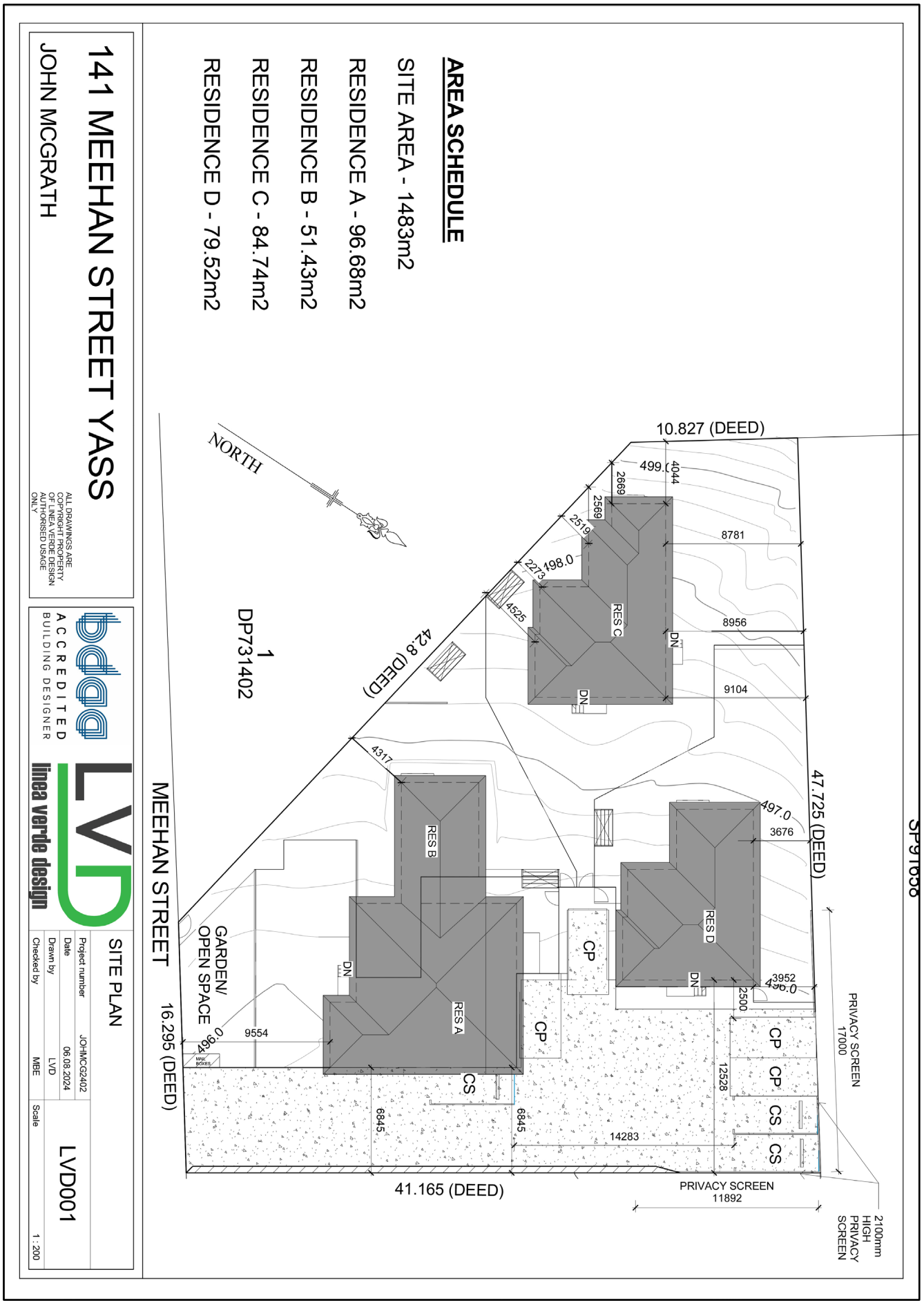
Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors. E-Waste will be placed in impermeable surface containers and collected by a registered E-Waste Re-Processor as required.

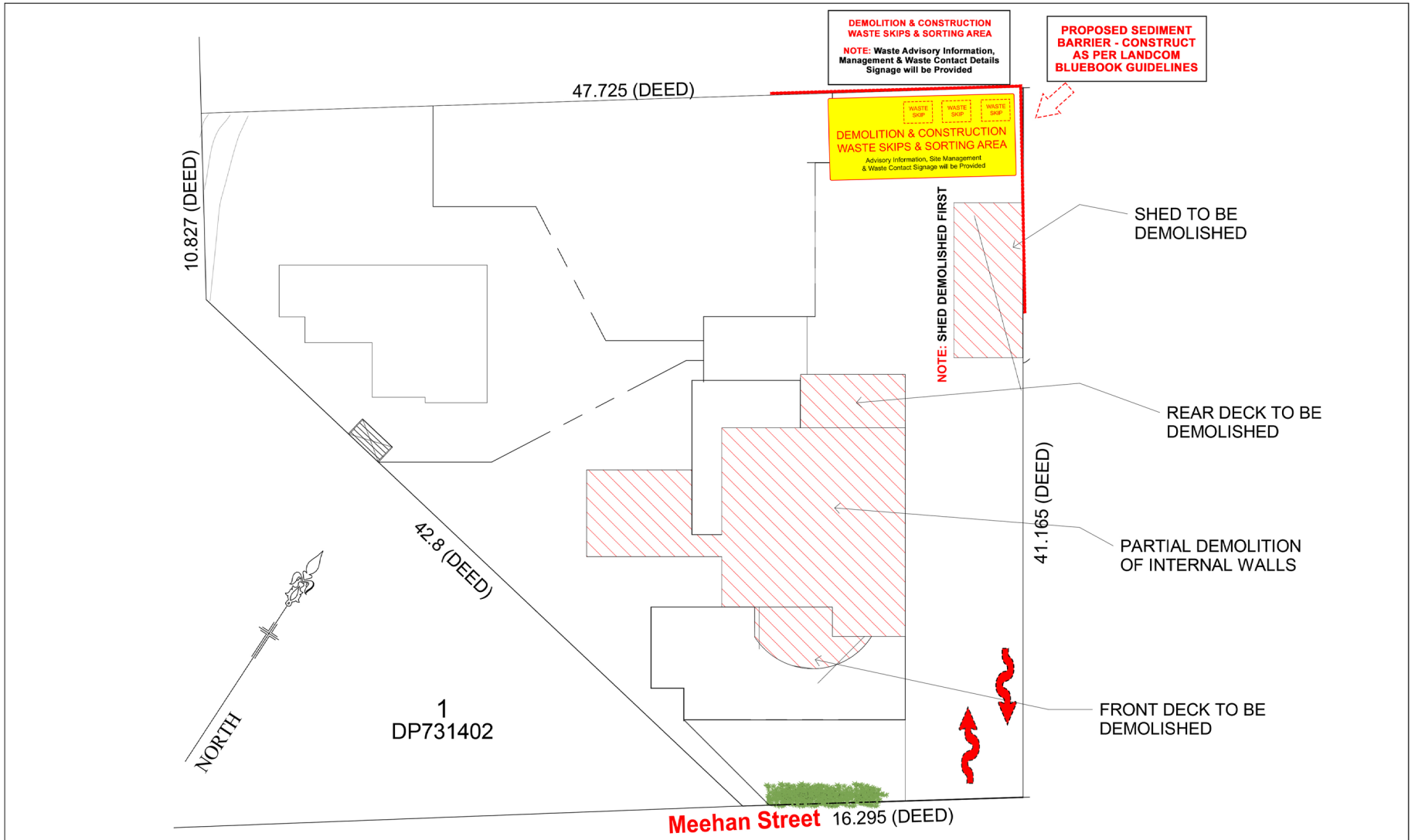
Appendix A – Waste Management Contacts

Materials	Company Name	Company Address	Contact Details
Evacuation Material/Soil Waste	Canberra Construction Recyclers	Pialligo Avenue, Pialligo	6249 7427
Green Waste	Bungendore Community Recycling Centre	Tarago Road, Bungendore	1300 735 025
Bricks	Canberra Construction Recyclers	Pialligo Avenue, Pialligo	6249 7427
Concrete	Bungendore Community Recycling Centre	Tarago Road, Bungendore	1300 735 025
Timber	Mugga Lane Resource Management Centre	Mugga Lane, Symonston	132 281
Metals	Bungendore Community Recycling Centre	Tarago Road, Bungendore	1300 735 025
Roof Tiles	Canberra Construction Recyclers	Pialligo Avenue, Pialligo	6249 7427
Door Fittings	Bungendore Community Recycling Centre	Tarago Road, Bungendore	1300 735 025
Plastics	Mugga Lane Resource Management Centre	Mugga Lane, Symonston	132 281
Plasterboard	Mugga Lane Resource Management Centre	Mugga Lane, Symonston	132 281
Fibro Containing Asbestos	Mugga Lane Resource Management Centre	Mugga Lane, Symonston	132 281

NOTE: Disposal of hazardous chemicals is regulated and must be tracked (Certified Trackable Waste Transporter) under the chain of custody and chain of responsibilities, philosophies with the site manager ultimately responsible for logistics and all waste generated on site.

Appendix B – Demolition & Site Plans





141 MEEHAN STREET YASS

JOHN MCGRATH

bdaa ACCREDITED BUILDING DESIGNER

LVD linea verde design

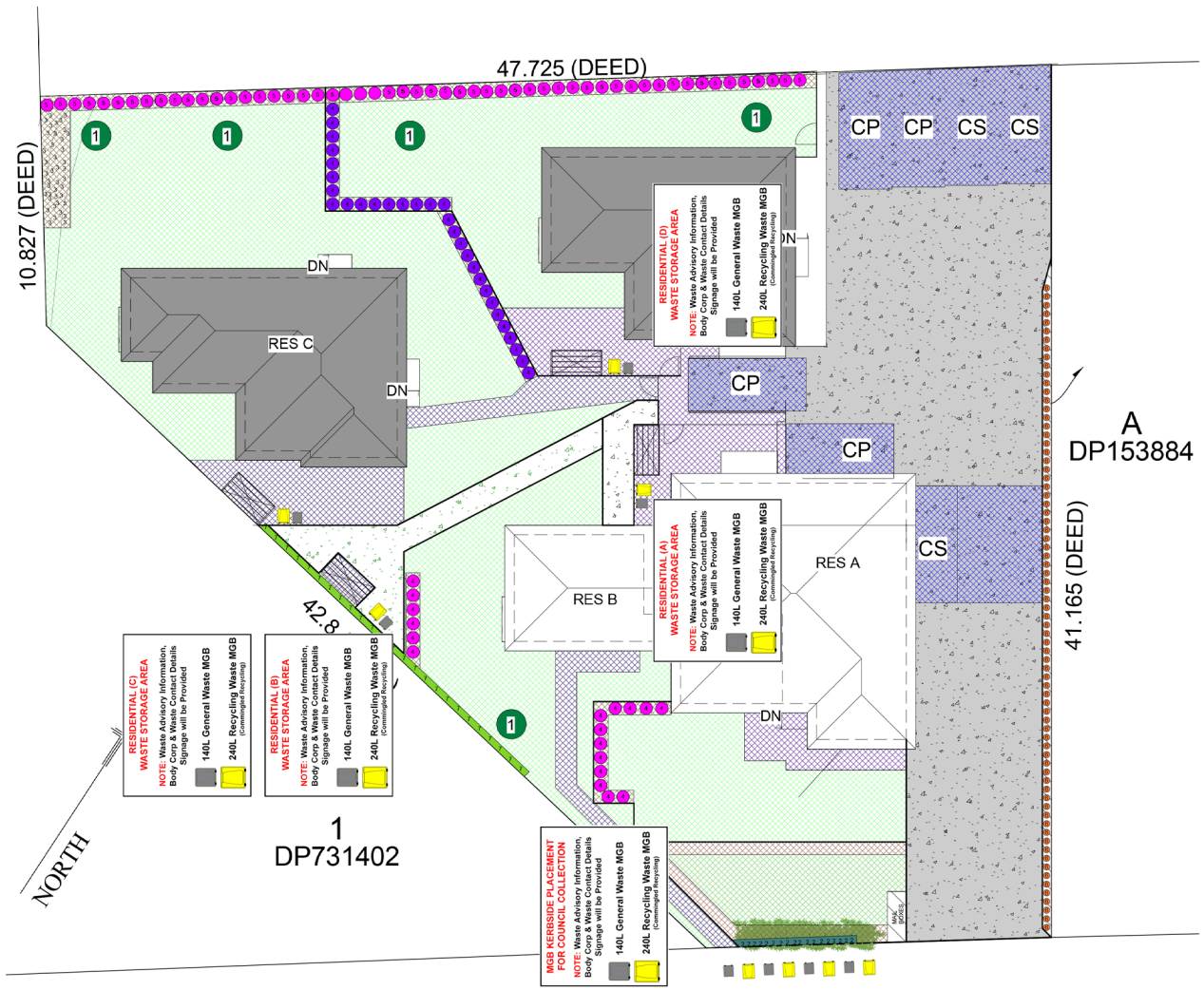
DEMOLITION PLAN

Project number	JOHMCG2402
Date	20.09.2024
Drawn by	LVD
Checked by	MBE

LVD020

Scale 1 : 200

BRP CONSULTING



LEGEND

GROUND COVER

- TAN BARK
- CANBERRA TURF BLEND
- DARK GREY COLOURED CONCRETE
- BIRCH GRAVEL
- PAVERS

PLANTING

1. 1 - MANCHURAN PEAR
2. 2 - PITTOSTRUM HEDGE
3. 3 - MIX OF AUSTRALIAN GRASSES
4. 4 - MYOPORRUM PARVI FOLIUM
5. 5 - GOLDEN LAUREL
6. 6 - JASMINE TRELLIS
7. 7 - PHOTINIA SUPER HEDGE

141 MEEHAN STREET YASS

JOHN MCGRATH

bdaa ACCREDITED BUILDING DESIGNER

LVD linea verde design

LANDSCAPE PLAN

Project number	JOHMCG2402	LVD016	
Date	27.09.2024		
Drawn by	LVD		
Checked by	MBE	Scale	1 : 200