

Waste Management Plan



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Waste Management Plan

Prepared by:

DEM (Aust) Pty Ltd

on behalf of:

Homes NSW

Project:

**35 Francis Street & 16-20 Sanita Street, Goulburn
General Housing Development**

Part 5 issue

Waste Management Plan



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Site Address:

35 Francis Street & 16-20 Sanita Street, Goulburn

Lots 15,16,17 and 18 in DP782

Building and other structures existing on site:

four (4) single storey weatherboard houses with associated metal roofs on concrete slabs

Description of Proposal:

Propose 29 general housing units over two (2) storey and consolidation into one single lot with on-grade car park. Associated landscape and civil works will also form part of the Part 5 application.

Applicant's Name:

Homes NSW – Rod Garrett

Address:

4 PSQ 12 Darcy Street, Parramatta NSW 2150

Tel No. 0407 526 921 **email.:** Rodney.Garrett@homes.nsw.gov.au

The details provided within this plan are indicative only and intended as a guide to managing waste related to this project.

Final waste management procedures will be subject to selected building/civil works contractor input/confirmation and final community housing provider requirements.

Issue	Date	Amendments	Prepared by	Checked by	signed
A01	14/06/2024	Draft Part 5 Submission	CW	WJ	WJ
A02	23/08/2024	Part 5 Submission	ML	WJ	WJ

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Materials On-site		Destination		
		Re-use and Recycling		Disposal
Type of Material	Estimated Volume (m³) TBC by builder	On-site Proposed Re-use of On-site Recycling Methods	Off-site Contractor and recycling outlet	Contractor and landfill site
Excavation Material	1650 m ³	Keep and re-use topsoil for landscaping. Store on-site. Use some behind retaining walls	Expressions of interest will be sought from contractors for acceptance of certified fill as recyclable material. Contractor and recycling outlet to be confirmed	Excess excavated material not recycled elsewhere will be transported by a certified contractor to an approved landfill site to be confirmed
Green Waste	30 m ³	All trees noted on the landscape drawing that to be removed will be mulched and removed from the site.	Expressions of interest will be sought from contractors, landscape suppliers for acceptance of mulch as recyclable material. Contractor and recycling outlet TBC	Nil
Bricks	25 m ³	Nil	To be transported to a suitable crushing plant. Contractor and recycling plant to be confirmed	Nil
Concrete	30 m ³	Crush concrete for temporary driveway	Remainder to be transported to a suitable crushing plant. Contractor and recycling plant to be confirmed	Nil
Timber	60 m ³	Re-use for formwork and studwork. Chip for use in landscaping	Remainder to be transported to suitable recycling yard for reprocessing. Contractor and recycling yard to be confirmed	Nil

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Materials On-site		Destination		
		Re-use and Recycling		Disposal
Type of Material	Estimated Volume (m³) TBC by builder	On-site Proposed Re-use of On-site Recycling Methods	Off-site Contractor and recycling outlet	Contractor and landfill site
Plasterboard	40 m ³	Nil	To be transported to suitable recycling yard for reprocessing. Contractor and recycling yard to be confirmed	Nil
Metals	100 m ³	Nil	To be transported to suitable recycling yard for reprocessing. Contractor and recycling yard to be confirmed	Nil
Asbestos / Hazardous /special waste	N/A	N/A	N/A	If found, asbestos to be transported to an approved landfill site by a certified contractor in accordance with EPA requirements and relevant Council and Australian Standards
Other waste	N/A	N/A	N/A	Excess material to be transported to an approved landfill site by a certified contractor

Note: Refer **Appendix 1** for on-site storage during demolition and construction

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Construction Stage

Materials On-site		Destination		
		Re-use and Recycling		Disposal
Type of Material	Estimated Volume (m³)	On-site Proposed Re-use of On-site Recycling Methods	Off-site Contractor and recycling outlet	Contractor and landfill site
Detailed Excavation Material	TBC by builder	Detailed excavated material to be re-used on site as fill and levelling materials under RC slabs and landscape areas.		Excess material to be transported to an approved landfill site by a certified contractor
Green Waste	0.5m ³		Expressions of interest will be sought from contractors, landscape suppliers for acceptance of mulch as recyclable material. Contractor and recycling outlet TBC	
Masonry	3m ³		To be transported to a suitable crushing plant. Contractor and recycling plant to be confirmed	
Concrete	2m ³		To be transported to a suitable crushing plant. Contractor and recycling plant to be confirmed	
Timber	0.5m ³		Timber used on site would be mainly for formwork. To be re-used on next project by building sub-contractor	Excess material to be transported to an approved landfill site by a certified contractor
Plasterboard / Fibre Cement	1m ³		To be transported to suitable recycling yard for reprocessing. Contractor and recycling yard to be confirmed	

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Construction Stage

Materials On-site		Destination		
		Re-use and Recycling		Disposal
Type of Material	Estimated Volume (m ³)	On-site Proposed Re-use of On-site Recycling Methods	Off-site Contractor and recycling outlet	Contractor and landfill site
Glass	Nil	Windows manufactured off site to predetermined openings – no wastage expected		Excess material to be transported to an approved landfill site by a certified contractor
Metals	1m ³		Metal off-cuts to be transported to suitable recycling yard for reprocessing. Contractor and recycling plant to be confirmed	
Paper and Cardboard	1m ³		Arrangements to be made by builder to transfer material to accredited recycling site	Arrangements to be made by builder to transfer material to accredited recycling site
Other Waste	0.5m ³			Excess material to be transported to an approved landfill site by a certified contractor
Hazardous /special waste	N/A			If found, to be transported to an approved landfill site by a certified contractor in accordance with EPA requirements and relevant Council and Australian Standards

Note: Refer **Appendix 1** for on-site storage during demolition and construction

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Construction Stage

Construction design

The following measures have been incorporated into the design to minimise construction waste.

Design and order only what you need

- Walls and openings setout to brick dimensions to avoid cutting and reduce construction time
- Walls to be face brick or compressed pre-finished FC cladding to minimise ongoing maintenance and to compliment adjacent buildings
- Standardise external door and window sizes (minimise the number of window and door types)
- Pre-finished feature facade cladding fabricated offsite with pre-cut profiled prefinished metal profile
- Steel framing/plasterboard lining proposed for internal wall partitions to units
- Negotiate with suppliers to take back unused materials, packaging or offcuts
- Provide separate waste containers for recycling if space permits on site.

Lifecycle

- Materials to be used in the project are ecological sustainable and exhibit good to excellent environmental qualities
- The chart below highlights the ecological sustainability of the materials chosen

Ecological sustainability of building materials							
Materials	Environmental factors						
	Raw material availability	Minimal environmental impact	Embodied energy efficiency	Product lifespan	Freedom from maintenance	Potential for product reuse	Material recyclability
Aluminium	Very good	Poor	Fair	Excellent	Very good	Very good	Excellent
Concrete and concrete products	Good	Good	Very good	Excellent	Excellent	Poor	Very good
Plasterboard	Very good	Fair	Very good	Good	Fair	Poor	Good
Steel	Very good	Fair	Fair	Very good	Fair	Fair	Very good
Glass	Good	Good	Good	Excellent	Very good	Good	Very good

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Construction Stage

Timber	Very good	Very good	Very good	Very good	Fair	Fair	Fair
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Design of Facilities

Type of Waste to be Generated	Expected volume per week, number and size of bins	Proposed on-site Storage and Waste Management Strategy	Destination and contractor
<p>Waste</p> <p>Generation rates for Residential Flat Buildings per week are:</p> <ul style="list-style-type: none"> 80 litres per 1 Bed unit 100 litres per 2 Bed unit <p>Collection: Weekly</p> <p>Waste includes soft plastics, nappies, hoses, takeaway coffee cups, drinkware and crockery.</p> <p>Items that cannot go into general waste bin:</p> <ul style="list-style-type: none"> - Food waste - Garden waste, recyclable items - Batteries, light globes, mobile phones - Hazardous material - Motor oil 	<p>Required No. of 240L Red Bins as per EPA:</p> <p>80 litres x 18 Units = 1440 litres / 240L = 6 Bins</p> <p>100 litres x 11 Units = 1100 litres / 240L = 5 Bins = 11 Bins</p> <p>Proposed/Total No. of 240L Red Bins in Garbage Room: = 12 Bins</p>	<p>Communal waste and recycling storage area will be located on the ground level and conveniently located in close proximity and easy access to the users, Signage will clearly define the recyclable areas within the storage facility.</p> <p>The area will be constructed in accordance with BCA and Council requirements. The floor waste will drain to the sewer. Bin washing facilities will also be provided.</p> <p>The waste generation rate is based on the NSW EPA “Better Practice Guide for Resource Recovery in Residential Developments”.</p> <p>The garbage rooms are located approximately 35/50m away from the kerb for pick up on collection days.</p> <p>Garbage chute is not provided as requested by Homes NSW due to past experience of on-going maintenance and management issues.</p> <p>On both Sanita St & Francis St, loading signs will be installed to allow kerb side pickup arrangement.</p>	<p>Bins to be placed out for kerbside collection on designated collection day.</p> <p>Refer Appendix 2 for communal storage locations and Appendix 3 for collection area.</p>

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Design of Facilities

Type of Waste to be Generated	Expected volume per week, number and size of bins	Proposed on-site Storage and Waste Management Strategy	Destination and contractor
<p>Recycling</p> <p>Generation rates for Residential Flat Buildings per week are:</p> <ul style="list-style-type: none"> 80 litres per 1 Bed unit 100 litres per 2 Bed unit <p>Collection: Fortnightly</p> <p>Recyclable bin can be used for the following recyclables:</p> <ul style="list-style-type: none"> Paper & cardboard Glass bottles & Cans Aluminium foil Milk & juice cartons Hard plastics marked 1 to 5 <p>Items that cannot go into recycling bin:</p> <ul style="list-style-type: none"> Plastic bags & soft plastics Polystyrene/ foam Takeaways coffee cups Crockery Broken glass Food Nappies Batteries, light globes, mobile phones Hazardous material Motor oil 	<p>Required No. of 240L Yellow Bins as per EPA:</p> <p>80 litres x 18 Units = 1440 litres / 240L = 6 Bins x 2 (Fortnightly)</p> <p>100 litres x 11 Units = 1100 litres / 240L = 5 Bins x 2 (Fortnightly)</p> <p>= 22 Bins</p> <p>Proposed/Total No. of 240L Yellow Bins in Garbage Room:</p> <p>= 22 Bins</p>	<p>Communal waste and recycling storage area will be located on the ground level and conveniently located in close proximity and easy access to the users, Signage will clearly define the recyclable areas within the storage facility.</p> <p>The area will be constructed in accordance with BCA and Council requirements. The floor waste will drain to the sewer. Bin washing facilities will also be provided.</p> <p>The waste generation rate is based on the NSW EPA “Better Practice Guide for Resource Recovery in Residential Developments”.</p> <p>The garbage rooms are located approximately 35/50m away from the kerb for pick up on collection days</p> <p>Garbage chute is not provided as requested by Homes NSW due to past experience of on-going maintenance and management issues.</p> <p>On both Sanita St & Francis St, loading signs will be installed to allow kerb side pickup arrangement.</p>	<p>Bins to be placed out for kerbside collection on designated collection day.</p> <p>Refer Appendix 2 for communal storage locations and Appendix 3 for collection area.</p>

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Design of Facilities

Type of Waste to be Generated	Expected volume per week, number and size of bins	Proposed on-site Storage and Waste Management Strategy	Destination and contractor
<p>Organics</p> <p>Generation rates for Residential Flat Buildings per week are:</p> <ul style="list-style-type: none"> 25 litres per 1 Bed unit 25 litres per 2 Bed unit <p>Collection: fortnightly</p> <p>Organic waste bin can be used for:</p> <ul style="list-style-type: none"> - Any raw or cooked food, leftover food (no containers) - Fruit & vegetables - Dairy & eggshells - Paper towels & used tissue - Leaves, weeds, prunings, flowers, twigs, small branches <p>Items that cannot go into organic waste bin:</p> <ul style="list-style-type: none"> - Garbage - Recyclables - Plastic bags & soft plastics 	<p>Required No. of 240L Green Bins as per EPA:</p> <p>25 litres x 29 Units</p> <p>= 725 litres / 240L</p> <p>= 4 Bins</p> <p>Proposed/Total No. of 240L Green Bins in Garbage Room:</p> <p>= 7 Bins</p>	<p>Communal waste and recycling storage area will be located on the ground level and conveniently located in close proximity and easy access to the users, Signage will clearly define the recyclable areas within the storage facility.</p> <p>The area will be constructed in accordance with BCA and Council requirements. The floor waste will drain to the sewer. Bin washing facilities will also be provided.</p> <p>The waste generation rate is based on the NSW EPA “Better Practice Guide for Resource Recovery in Residential Developments”.</p> <p>Garbage area is located approximate 35/50m away from the kerb for pick up on collection days.</p> <p>Garbage chute is not provided as requested by Homes NSW due to past experience of on-going maintenance and management issues.</p> <p>On both Sanita St & Francis St, loading signs will be installed to allow kerb side pickup arrangement.</p> <p>Homes NSW to engage private contractor to manage the landscaping of the development and removal of any green waste from the site after gardening/ landscape maintenance works.</p>	<p>Bins to be placed out for kerbside collection on designated collection day.</p> <p>Refer Appendix 2 for communal storage locations and Appendix 3 for collection area.</p>

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Design of Facilities

Type of Waste to be Generated	Expected volume per week, number and size of bins	Proposed on-site Storage and Waste Management Strategy	Destination and contractor
<ul style="list-style-type: none">- Plant pots- Hoses- Polystyrene/ foam- Takeaways coffee cups- Crockery- Broken glass- Nappies- Batteries, light globes, mobile phones- Hazardous material- Motor oil			
<p>Two additional spaces have been provisioned in each garbage room (total Four) as suggested by Goulburn Council.</p> <p>Note: The waste management strategy has been reviewed by Goulburn Mulwaree Council who provided comment on the 13th of March 2024. No objections were raised subject to the additional waste storage being considered to manage future demand. Additional bins have been provided accordingly.</p>			

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On-going Management

On-going Management of Waste On-site

Residents will be instructed by way of a Waste Management Information Pack provided by Homes NSW, outlining how to recycle and use the bins that are to be stored in the garbage areas located on ground level. The information pack will also inform residents of proposed collection days and alert them to the fact that the designated loading bay or kerb side loading will be occupied at certain time. In addition, Residents are to refer council webpage for information that related to bin collection day and requirement.

Refer **Appendix 2** for specification and proposed layout of the garbage area.

Refer **Appendix 3** for path to kerbside collection area.

Residents will be responsible for disposing of their daily waste and recycling by placing it in the clearly marked bins within the garbage areas located on ground level. The garbage areas are in close proximity to the units to provide ready and easy access for the residents. Signage will clearly define the waste areas and recyclable areas within the garbage room facility with clear instructions on how to use the facilities.

The bins in garbage area will be collected by a contractor through prior arrangement with Homes NSW before Council pickup on the designated collection days. The bins will be wheeled manually from the area to the kerb for pickup. The contractor will also be responsible for washing and returning the bins to garbage rooms immediately after collection. They will also be responsible for removing, emptying and replacing the garbage, recycling, and organics bins from garbage rooms.

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Appendices

Appendix 1 – On site waste management during demolition and construction phase

- Contractor to provide staff training.
- Signs are clearly labelled at the location where the waste is stored.
- For detailed sediment control plan refer to civil drawing number C300 & C310 prepared by ENTEC Consultants Pty Ltd.

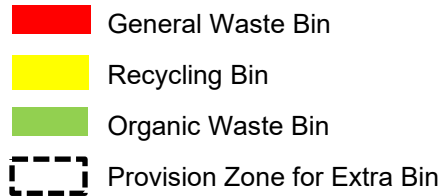


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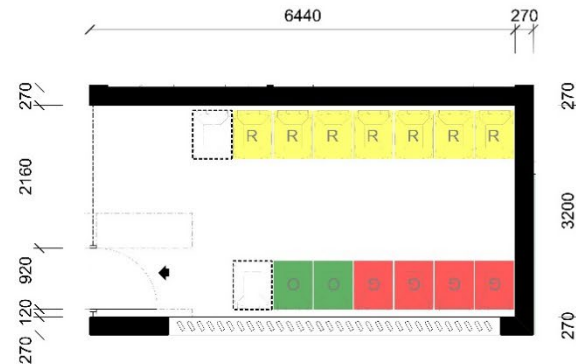
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Appendices

Appendix 2 – Common Waste Storage Area



Garbage Room 1
Service for Block A & Block B



Garbage Room 2
Service for Block C

Floor

- Concrete- towelled to a smooth and even surface with fall to waste connected to sewer.
- Waste to be fitted with an approved in-floor dry basket arrestor.

Walls

- Mix of full height brick wall and 1.2m high brick wall with Aluminium louvres on top.
- Natural ventilations are provided.

Roof/Ceiling

- Metal roof with 3 degree fall
- FC (Fibre Cement) ceiling with paint finish.

Services

- Cold and hot water mixed tap and hose connection.
- Artificial lighting with sensor controlled.

Sign

- Clear signage describing how to use the waste facilities correctly.

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Appendices

Appendix 3 – Collection Area



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