



SITE WASTE MINIMISATION AND MANAGEMENT PLAN

PROPOSED RESIDENTIAL DEVELOPMENT

January 2024

Prepared For: Social Futures

**Lot 69 DP 230448, Lot 70 DP 230448 &
Lot 71 DP 230448
5-7 McDermott Avenue & 1 Phillip Street
Goonellabah NSW**

HMC2023.567

RE: Lot 69 DP 230448, Lot 70 DP 230448 & Lot 71 DP 230448, 5-7 McDermott Avenue & 1 Phillip Street, Goonellabah NSW.

HMC Environmental Consulting Pty Ltd is pleased to present our Site Waste Minimisation and Management Plan for the abovementioned development. We trust this report meets with your requirements. If you require further information, please contact HMC Environmental Consulting directly on the numbers provided.

HMC Environmental Consulting Suite 29, Level 2, 75-77 Wharf Street PO Box 311 Tweed Heads NSW 2485	PH: 0755368863 Email: admin@hmcenvironment.com.au Web: www.hmcenvironment.com.au ABN: 60 108 085 614
Title:	Site Waste Minimisation and Management Plan
Job No:	2023.567
Client:	Social Futures

Document Record:				
Version	Date	Prepared by	Checked by	Approved for issue by
Draft Issue A	28.09.2023	MF		SV
Final Issue A	4.12.2023	KH		
Final Issue B	15.12.2023	KH		
Final Issue C	11.01.2024	KH		

Distribution List	Date	Version	Comments
Davcam Pty Ltd	28.09.2023	Draft Issue A	For review
Davcam Pty Ltd	4.12.2023	Final Issue A	For lodgement
Davcam Pty Ltd	15.12.2023	Final Issue B	Revised Plan for lodgement
Davcam Pty Ltd	11.01.2024	Final Issue C	Updated Plans for lodgement

This report should be cited as '*HMC Environmental Consulting (2023). Site Waste Minimisation and Management Plan, Proposed Residential Development, Lot 69 DP 230448, Lot 70 DP 230448 & Lot 71 DP 230448, 5-7 McDermott Avenue & 1 Phillip Street, Goonellabah NSW. Report No. HMC2023.567.*'

COPYRIGHT

© HMC Environmental Consulting Pty Ltd, 2023

All intellectual property and copyright reserved.

Apart from any fair dealing for the purpose of private study, research, criticism, or review, as permitted under the Copyright Act, 1968, no part of this report may be reproduced, transmitted, stored in a retrieval system, or adapted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without written permission. Enquiries should be addressed to HMC Environmental Consulting Pty Ltd.

TABLE OF CONTENTS

1	INTRODUCTION	5
1.1	Project Description	5
1.2	Aim.....	5
1.3	Objectives	6
2	STATUTES AND POLICY	6
2.1	Relevant Legislation & Guidelines	6
3	WASTE GENERATION	7
3.1	Demolition Stage	7
3.2	Construction Stage	9
3.3	Occupation Stage	9
4	WASTE STORAGE REQUIREMENTS	10
4.1	Demolition Stage	10
4.2	Construction Stage	11
4.3	Occupation Stage	11
5	BIN IDENTIFICATION AND SIGNAGE	12
5.1	Signage	12
6	EDUCATION & EVALUATION	12
6.1	Information & Awareness	12
7	REVIEW & MONITORING	12
7.1	Monitoring of Waste Management	12
7.1.1	Construction.....	12
7.1.2	Occupation.....	13
7.2	Review of SWMMP	13
8	RECOMMENDATIONS.....	13
9	CONCLUSION.....	14
10	LIMITATIONS.....	14
11	SIGNATURE.....	14
12	APPENDICES.....	14
	APPENDIX 1 - LOCATION MAPS	15
	APPENDIX 2 - SITE PLAN PROPOSED DEVELOPMENT	18
	APPENDIX 3 - TEMPORARY WASTE STORAGE AREA - DEMOLITION.....	19
	APPENDIX 4 - TEMPORARY WASTE STORAGE AREA - CONSTRUCTION	20
	APPENDIX 5 - WASTE STORAGE AREA - OCCUPATION	21
	APPENDIX 6 - TYPICAL BIN SIZES.....	22
	APPENDIX 7 - PROSKIPS CONSTRUCTION RESOURCE RECOVERY	25

LIST OF TABLES

Table 1	Project Summary	5
Table 2	Environmental Legislation and Policy Specific to Waste Management	6
Table 3	Demolition Stage – Waste Generation/Recycling Potential.....	8
Table 4	Estimated Waste Generation – Construction	9
Table 5	Estimated Waste Generation – Occupation	10
Table 6	Recommended Waste Storage Receptacles –Demolition Stage	10
Table 7	Recommended Waste Storage Bins - Construction.....	11
Table 8	Recommended Waste Storage/Servicing - Occupation	11
Table 9	Summary of Waste Management Recommendations.....	13

KEY CONTACTS

Company/Name	Contact Details	Phone Number/contacts	Available:
HMC Environmental Consulting	Mark Tunks	0408 279212	Business Hours
Lismore City Council		(02) 6625 0500 council@lismore.nsw.gov.au	Business Hours
Lismore Recycling and Recovery Centre	313 Wyrallah Road East Lismore NSW 2480	(02) 6625 0500	Monday to Friday: 7.30am to 3.30pm Weekends: 9.00 am to 4.00pm
Richmond Waste		(02) 6625 0500	Monday to Friday 7.30am-3.30pm
Project Manager	TBA	TBA	TBA
Maintenance Manager	TBA	TBA	TBA

ENVIRONMENTAL EMERGENCY RESPONSE CONTACTS

Organisation	Incident	Contact
Ambulance	Injury/Illness	000 land line 112 mobile
Fire Brigade – Emergencies	Fire Chemical/hazardous waste spill	000
NSW Environment Protection Agency	Pollution	1300 130 372
Lismore City Council	Pollution (Environmental Health)	(02) 6625 0500 council@lismore.nsw.gov.au

Abbreviations

ACM	Asbestos containing material
EPA	NSW Environmental Protection Authority
HMC	HMC Environmental Consulting Pty Ltd
LCC	Lismore City Council
MGB	Mobile Garbage Bin
OEH	NSW Office of Environment & Heritage
Site	Lot 69 DP 230448, Lot 70 DP 230448 & Lot 71 DP 230448, 5-7 McDermott Avenue & 1 Phillip Street, Goonellabah NSW
SMF	Synthetic Mineral Fibres
SWMMP	Site Waste Minimisation and Management Plan
TBA	To be advised
Proponent	Social Futures
Guidelines:	<i>Part A Chapter 15 Waste Minimisation Lismore Development Control Plan 2012</i>
A15 LDCP	
NSW EPA, 2012	<i>Better Practice Guidelines for Waste Management in Commercial and Industrial Facilities</i>

1 INTRODUCTION

HMC Environmental Consulting (HMC) has been engaged by Davcam Pty Ltd on behalf of the proponent, Social Futures, to provide a Site Waste Minimisation and Management Plan (SWMMP) for a development application for the proposed redevelopment of the existing residential landholding located at Lot 69 DP 230448, Lot 70 DP 230448 & Lot 71 DP 230448, 5-7 McDermott Avenue & 1 Phillip Street, Goonellabah NSW. The development includes the demolition of the existing brick veneer unit structures for the construction of a three-story affordable housing multi-unit development (18 units).

The SWMMP is to be used to assist in the management of waste storage and collection for the purpose of maximising reuse/recycling, improving the services and safety of the contractors, improving the amenity of the area, and to reduce costs of waste management.

1.1 PROJECT DESCRIPTION

Table 1 Project Summary

Address	5-7 McDermott Avenue & 1 Phillip Street Goonellabah NSW
Property Description	Lot 69 DP 230448, Lot 70 DP 230448 & Lot 71 DP 230448
Existing buildings and other structures currently on the site	Existing residential units – 2 x brick veneer unit blocks, along with a large carport.
Description of proposed development	Residential redevelopment including the construction of a three-storey affordable housing development with ground floor carparking and two levels of residential units (18). Waste would be generated during the demolition, construction, and operational stages of the development. The location of the site, its topographic features and relationship with adjoining development is shown on the map and aerial photograph in Appendix 1.
This development achieves the waste objectives set out in <i>A15 Lismore City DCP 2012</i> . The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as LCC, NSW EPA or Safework NSW.	

1.2 AIM

The principal aim of managing this activity is to maximise resource recovery and minimise residual waste from demolition, construction and operation activities associated with the proposed residential development and facilitate effective ongoing waste management practices consistent with the principles of Ecologically Sustainable Development (ESD).

1.3 OBJECTIVES

1. To maximise resource recovery and minimise residual waste
2. To optimise adaptive reuse opportunities of existing structures during demolition
3. To maximise reuse and recycling of materials
4. To minimise waste generation
5. To ensure appropriate storage and collection of waste
6. To minimise the environmental impacts associated with waste management
7. To avoid illegal dumping
8. To promote improved project management.

2 STATUTES AND POLICY

2.1 RELEVANT LEGISLATION & GUIDELINES

Table 2 Environmental Legislation and Policy Specific to Waste Management

Legislation	Details	Approvals/Permits Required
<i>Waste Avoidance and Resource Recovery Act 2001</i>	Repeals the Waste Minimisation and Management Act and replaces a target of 60% reduction in waste to landfill with a process for the preparation of waste strategies which identify more specific targets and objectives for waste reduction.	Compliance must be achieved in relation to waste management during construction. Permits may be required for offsite disposal of hazardous or contaminated material.
<i>Contaminated Land Management Act 1997</i>	Provides for the investigation and remediation of contaminated land.	Specific approvals are not required however, construction works must comply.
<i>Environmentally Hazardous Chemicals Act 1985</i>	Provides for the control of the effect on the environment of chemicals and chemical waste. Scheduled chemicals would not be used in the proposed development.	
<i>Protection of the Environment Operations Act 1997</i>	This Act is the primary NSW environment protection legislation that covers air, noise, water, land, and waste management. It provides a framework to regulate and enforce pollution control in NSW. The Act identifies mechanisms for preventing environmental degradation including, pollution prevention, cleaner production, reduction in discharge levels likely to cause harm to the environment, recycling, and progressive environmental improvement. The proposed development would adhere to the requirements of this legislation.	
<i>Protection of the Environment Operations (Waste) Regulation 2014</i>	The Waste Regulation 2014 provides for contributions to be paid by occupiers of scheduled waste facilities for each tonne of waste received at the facility or generated in a particular area; exempts certain occupiers or types of waste from these contributions; and allows deductions to be claimed in relation to certain types of waste. It sets out provisions covering: ● record-keeping requirements, measurement of waste and monitoring for waste facilities ● tracking of certain waste ● reporting ● transportation of waste	

	● transportation and management of asbestos waste ● recycling of consumer packaging ● classification of waste containing immobilised contaminants ● miscellaneous topics.
<i>Part A Chapter 15 Waste Minimisation Lismore Development Control Plan 2012</i>	Identifies requirement for Site Waste Minimisation and Management Plan and the information to be provided within the SWMMP regarding waste storage and collection facilities and controls. Appendix C within Chapter 15 describes waste generation rates. Appendix G within Chapter 15 provides requirements for location, design, and construction of waste storage rooms. This SWMMP has been prepared to meet the objectives of this DCP.
<i>NSW Environment Protection Authority Better Practice Guide for Waste Management and Recycling in Commercial and Industrial Facilities 2012</i>	Identifies installation and maintenance practices for services and infrastructure for waste handling and collection systems. The systems are aiming to achieve the best possible waste minimisation and resource recovery outcome. The waste management systems identified include effective, efficient, and safe systems for both their ease of use by residents and their ability to be serviced by collection crews.
<i>Construction and Demolition Waste Guide – Recycling and Reuse Across the Supply Chain Department of Sustainability, Environment, Water Population and Communities 2011</i>	The aim of this guide is to help develop effective markets for materials diverted or derived from the construction and demolition waste stream.

3 WASTE GENERATION

3.1 DEMOLITION STAGE

The existing brick veneer unit blocks (~174m² & 138m²) are the major structures to be demolished. The large carport structure (~108m²) along with the existing paving and fencing would also be removed.

Any services would be disconnected including power, gas and town water supply, and the connection point to the Council sewer would be cut and sealed to prevent groundwater, debris or other material entering Council sewer system.

Initially the Safework NSW licensed demolition contractor would inspect the structure for the presence of asbestos containing materials and other hazardous wastes. Given the age of the structures ACM may be located external eaves and perhaps internal linings/floor coverings. These would be removed prior to further demolition occurring.

Demolition would occur over a short period of time (approx. 2-3 weeks) to allow subsequent installation of erosion and sediment control prior to site stripping and earthworks for the proposed development. Waste generation and management activities during the demolition stage would comprise:

- An initial inspection of the structures subject to demolition by a suitably qualified Occupational Hygienist, Safework NSW licenced contractor, or similar to assess hazardous materials including asbestos containing material, lead flashing and paint, synthetic mineral fibres, and refrigerants.
- Any identified hazardous materials to be removed by a Safework NSW licensed contractor prior to demolition to avoid co-mingling with general waste.
- Removal of existing dwellings and other structures following removal of any hazardous material.

Note: Discussions with resource recovery facilities indicate that a minimum 80% resource recovery is provided and may be up to 95% with significant heavy concrete and bricks. The Stotts Creek Resource Recovery Centre also accepts co-mingled demolition waste with significant resource recovery and recycling rates achieved.

Separation of masonry, brick, concrete from other recyclables is encouraged, with significant savings on resource recovery costs.

Metal, including copper pipe, is also a profitable waste stream with recyclers providing significant returns. The following waste generation volumes have been estimated based on approximate calculations using floor areas and similar demolition sites.

Table 3 Demolition Stage – Waste Generation/Recycling Potential

Material Description	Estimated Volume/Area ⁽¹⁾	Potential Method of Recycling / Reuse
Asbestos Containing Material (bonded fibro)	To be determined on site by Safework NSW licensed contractor	Nil (Stotts Creek Resource Recovery Centre or Lismore Recycling & Recovery Centre)
Electrical Lighting	<5m ³	Preliminary discussions have confirmed that various resource recovery and recycling facilities are available from contractors operating in the LCC area including. ● Lismore Recycling and Recovery Centre ● Richmond Waste ● Second-hand building material contractors Other demolition contractors would also have preferred resource recovery and recycling options.
Electrical Cable		
Distribution Boards		
Switchboards		
Pipework PVC HPDE Pipe	<100 lineal m	
Tap ware	<2m ³	
Gutters	<180 lineal m	
Roof metal sheeting	<185m ²	
Roofing Tiles	<320m ²	
Timber Trusses & Roof Timber	<50m ³	
Brick Veneer Walls	<450m ²	
Timber (floor)	NA	
Concrete Slab Flooring	<200m ²	
Plasterboard/ Other	<50m ³	
Windows/ Doors	Doors 10-20 Windows 20-30	
Copper	<100 lineal m	
Floor coverings (carpet and tiles)	<200m ² (Assumes carpet or vinyl across dwelling footprint)	
Fittings/fixtures/PC items	<10 WC pans <10 basins <10 kitchen sinks <10 baths <10 showers	

⁽¹⁾ Note: Volumes/areas are indicative only and are subject to change

3.2 CONSTRUCTION STAGE

The proposed development would include the construction of a three-storey residential development.

- Site stripping including removal of vegetative material and topsoil.
- Earthworks including excavation for lift well, footings and services.
- Construction of the three storey multi-unit development, including building shells, fitouts, and landscaping.

The following typical waste generation figures have been provided based on similar construction sites. As discussed in the previous section, resource recovery centres indicate that 80-90% by volume (95% by weight) of construction waste is able to be recycled (see Table 3).

Table 4 Estimated Waste Generation – Construction

Type of Waste	Reuse	Recycling	Disposal	Method of Reuse/Recycling or Waste Depot
	<i>Estimated Volume or Weight</i>	<i>Estimated Volume or Weight</i>	<i>Estimated Volume or Weight</i>	
Excavated Material	<100m ³	-	<200m ³	Waste classification of excavated material in accordance with the NSW EPA Waste Classification Guidelines would be required prior to removal off-site.
Timber Concrete Bricks/pavers Tiles Metal Glass Furniture Fixtures/fittings Floor coverings	Limited on construction sites.	80-90% construction and demolition waste recycled by resource recovery centres	10-20% Including site office general waste and packaging & debris/offcuts that cannot be recycled	● Lismore Recycling and Recovery Centre ● Richmond Waste ● Second-hand building material contractors
Packaging Green waste organics Containers (cans/glass/plastic) Paper/cardboard Residual waste		<100m ³	<40m ³	80-90% recycled/reused: Lismore Recycling and Recovery Centre

3.3 OCCUPATION STAGE

Waste generating activities during operation would comprise:

- Occupation of proposed 18 residential units.

For the purposes of the proposed development, the waste will be sorted into general waste, recyclables and organics. The estimated waste generation for the residential units has been based on the generic rate in A15 Lismore City DCP 2012 for multi-unit complex as shown in Table 4.

Table 5 Estimated Waste Generation – Occupation

Location	Waste Generation Rates		Waste Generation Volume	
Residential Units (18 Units)	A15 Lismore City DCP 2012			
	General (L/Unit/Week)	Recycling (L/Unit/Week)	General (L/Week)	Recycling (L/Week)
	80	40	1440	720

For the purposes of the proposed development, the waste will be sorted into general waste, organic waste, and co-recyclables. There are opportunities to capture the organics/green waste stream. The provision of organic waste collection reduces the general waste to landfill. It is noted the State Government is currently implementing a future zero organic waste to landfill policy.

4 WASTE STORAGE REQUIREMENTS

The following design storage volume recommendations have been based on the waste generation rates as detailed in the previous section and are provided to establish site suitability.

Adequate space is available within the site for the storage of waste during the construction, and operation stages. Refer to site plans in Appendices 3, 4 & 5.

4.1 DEMOLITION STAGE

Adequate space is available onsite to provide temporary waste storage and recyclable building waste storage during demolition stage of the development. Refer to site plans in Appendix 3.

During demolition, the site would be secured with safety fencing and demolition waste would be initially placed in waste streams in designated skip bins for transport to the resource recovery centre. Skip bins would be provided for:

- Co-mingled waste
- General waste
- Heavy recyclables (concrete, masonry, tiles)

Discussions with demolition contractors indicates that direct loading into transport vehicles does occur for both co-mingled demolition waste and waste is also sorted on site. With the volumes of bricks, roof tiles, and concrete waste on this site, loads of this heavy material may be transported directly to resource recovery facilities for recycling.

Direct loading of co-mingled building waste into transport trucks for delivery to the approved resource recovery and recycling centre would reduce the site waste storage and servicing requirements during demolition. Hazardous waste to be separated and managed in accordance with Safework NSW requirements (e.g., no co-mingling, wetting, wrapping ACM).

Table 6 Recommended Waste Storage Receptacles –Demolition Stage

Waste Type	Required Service	Proposed Industrial Bin Size at Collection Point ⁽¹⁾
Recycling & General Waste Service	● 1 x 6m³ skip bin for general waste (includes site office) ● 1 x 6m³ skip bin for co-mingled building waste to be sorted at facility	● 1 x 6m³ skip bin serviced on demand for general waste ● 1 x 6m³ skip bin serviced on demand for co-mingled building waste ● Optional 1 x 6m³ skip bin for heavy recyclables (concrete, masonry, tiles)

⁽¹⁾ Direct loading into transport vehicles for transport to landfill/resource recovery facility/recyclers would reduce required waste storage receptacles and servicing arrangements.

4.2 CONSTRUCTION STAGE

Adequate space is available onsite to provide temporary waste storage and recyclable building waste storage during construction stage of the development. Refer to site plan in Appendix 3.

Table 7 Recommended Waste Storage Bins - Construction

Waste Type	Required Service	Proposed Industrial Bin Size at Collection Point
Recycling & General Waste Service	1 x 6m³ skip bin for general waste (includes site office) 1 x 6m³ skip bin for co-mingled building waste to be sorted at facility	1 x 6m³ skip bin serviced on demand for general waste. 1 x 6m³ skip bin serviced on demand for co-mingled building waste

4.3 OCCUPATION STAGE

Dedicated waste receptacles would be located in each unit, with all waste sorted within units and transported to the waste storage areas located on the ground floor by the residents, or via the provided garbage chutes on each level.

For multi-storey developments that include ten or more dwellings, area must be provided for the temporary storage of discarded bulky items which are awaiting removal. The proposed bin storage area has been sufficiently sized to accommodate this requirement.

Both State and Lismore City Council policies are encouraging separation of organics from the general waste stream with a future requirement of no food or other organic waste to landfill. Increased focus on separating the recyclables has been encouraged, with organic storage/collection recommended. The general waste estimated generation rate has been adjusted for the inclusion of an organic waste service. The provision of organic waste collection reduces the general waste to landfill. It is noted the State Government is currently implementing a zero organic waste to landfill policy. In 2020, an audit conducted by the NSW Government found that 24.6% of landfill bins comprised of food organics and 19.9% comprised of garden and other organic matter, which is an average of 44.5% of waste disposed by urban residents that can be diverted. The inclusion of an organic bin would capture a portion of this waste stream and therefore reduce the amount of general waste. It is also noted that additional recyclable waste will be serviced within the proposed arrangement, with the same waste audit finding up to 22% of the general waste bin comprised of recyclable waste.

It is further recommended that the waste management system be monitored in the initial stages to ensure that sufficient storage and servicing have been provided to manage the waste generated. The estimated waste storage is based on ultimate capacity. Depending on occupancy, ultimate capacity may not be achieved for a period of time. Should waste generation in any waste stream exceed estimates, increased servicing above proposed weekly frequency is able to be provided.

Table 8 Recommended Waste Storage/Servicing - Occupation

Waste Type	Estimated waste generation (L/week)	Proposed Receptacle Size at Collection Point*
General Waste	1400	1 x 1.5m ³ bulk bin serviced weekly
Co-Mingled Recyclables	720	1 x 1100L MGB serviced weekly
Organic Waste	300	2 x 240L MGBs serviced weekly

* Estimate Only - final bin configuration and servicing would depend on final occupancy.

Construction of the waste storage area would be generally in accordance with A15 Lismore City DCP 2012.

Waste storage areas have been provided on the plans for the building on the ground floor. The bins would be transported to the nominated temporary collection area on service days by the maintenance/cleaner or other person coordinated by the Body Corporate. As garbage chutes have been provided, it has been recommended to provide temporary collection bins to be placed under the chutes on the servicing days of the bulk bins as the bins may be out for collection for some time. Tenants would also be informed of the collection days to minimise the use of the garbage chutes while the bins are out for collection.

5 BIN IDENTIFICATION AND SIGNAGE

5.1 SIGNAGE

All bins, collection facilities will be clearly marked with labels, colour coding, symbols, and words. Signs will be highly visible. Sufficient signage should be provided at the garbage chutes to ensure they are used correctly by tenants.

Signage should be consistent with those used at garbage storage areas.

6 EDUCATION & EVALUATION

6.1 INFORMATION & AWARENESS

It is good practice for all sub-contractors, project staff, residents, patrons, and visitors to be made aware of the aims and benefits of the waste minimisation program to encourage maximum participation.

During construction, the induction would include information on waste streams, waste storage receptacles and recycling.

Several strategies can be used to avoid mistakes when separating waste and recyclables and make sure bins and equipment are used correctly. These include:

- using clear signage with consistent design and colours in waste storage rooms and on bins (standard signage)
- ensuring the appointment of a waste supervisor responsible for the proper separation of waste, waste storage area and collection. The waste supervisor is to be also responsible for having the receptacles out for collection at the nominated collection point.

7 REVIEW & MONITORING

7.1 MONITORING OF WASTE MANAGEMENT

Waste monitoring is necessary to assess whether the strategies implemented have been effective in achieving the SWMMMP's aims.

7.1.1 Construction

Monitoring would be carried out on a weekly basis by the project Site Manager during demolition and construction.

The monitoring process would include:

- Site Manager to oversee waste collection activities to assess compliance with SWMMMP.
- Waste volume monitoring carried out by the waste contractor during collection and servicing procedures.

7.1.2 Occupation

Ongoing regular monitoring would be undertaken by the waste supervisor, occupiers, and waste contractors.

7.2 REVIEW OF SWMMP

This SWMMP will be reviewed and updated, if necessary, using the results of monitoring of the waste volume and type being generated during the development stages.

The review will also address and reflect:

- changes in the development management process.
- changes in design or sequence of development staging.
- changes in access to the Project Site.
- changes or requests directed by local or state authorities i.e., Lismore City Council, State Government Departments.
- changes in the environment.
- changes in generally accepted environmental management practices.
- changes in legislation.
- new risks to the environment or public health.
- any pollution or contamination events.

8 RECOMMENDATIONS

The waste storage and servicing recommendations, as detailed in this report, are summarised below:

Table 9 Summary of Waste Management Recommendations

Project Stage	Activity	Waste Storage/Servicing
Demolition	Stripping recycling building products Skip bins for: ● General waste ● Co-mingled demolition waste ● Heavy recyclables Recycling of building materials where possible	Site fenced & skip bins located for collection. ● 1 x 6m³ skip bin serviced on demand for general waste. ● 1 x 6m³ skip bin serviced on demand for co-mingled building waste. ● Optional 1 x 6m³ skip bin for heavy recyclables (concrete, masonry, tiles)
Construction	Building Servicing/trenching Waste offcuts, packaging, excess materials, Site office	● 1 x 6m³ skip bin serviced on demand for general waste. ● 1 x 6m³ skip bin serviced on demand for co-mingled building waste.
Occupation	Proposed affordable housing (18 units)	Existing Waste Storage: ● 1 x 1.5m³ bulk bin serviced weekly for general waste. ● 1 x 1100L MGB serviced weekly for co-mingled recyclables. ● 2 x 240L MGBs for organic waste.

9 CONCLUSION

A review of the plans shows there is adequate area available on the site to provide suitable storage facilities for waste generated during the proposed partial demolition activities, and the construction and occupation of the proposed residential development.

Tables 3-7 in Section 5 of this report demonstrate that the expected waste storage and collection service is generally compliant with the waste storage volumes estimates within the *Part A Chapter 15 Waste Minimisation Lismore Development Control Plan 2012* (LCC, 2012). Close monitoring of the waste levels are required to ensure that the servicing is adequate, with ample opportunities to increase the bin sizes and servicing frequency available via Richmond Waste.

The proposed waste management arrangements within this report are considered adequate for the purposes of the partial demolition, construction and occupation associated with the proposed residential development to be located at Lot 69 DP 230448, Lot 70 DP 230448 & Lot 71 DP 230448, 5-7 McDermott Avenue & 1 Phillip Street, Goonellabah NSW.

10 LIMITATIONS

The information within this document is and shall remain the property of HMC Environmental Consulting Pty Ltd.

This document was prepared for the sole use of client and the regulatory agencies that are directly involved in this project, the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of HMC Environmental Pty Ltd and client.

Your report is based on the assumption that the site conditions as revealed are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary.

11 SIGNATURE

This report has been prepared by Mark Tunks, Principal of HMC Environmental Consulting Pty. Ltd. Note that HMC Environmental Consulting holds current Professional Indemnity Insurance to 4th August 2024.



Mark Tunks
Principal

4 December 2023
Completion Date

12 APPENDICES

See following pages.

APPENDIX 1 - LOCATION MAPS





Figure 1 - Surrounding Area (Source: Nearmap 2023)



Figure 2 - Site Boundary (Source: Nearmap 2023)

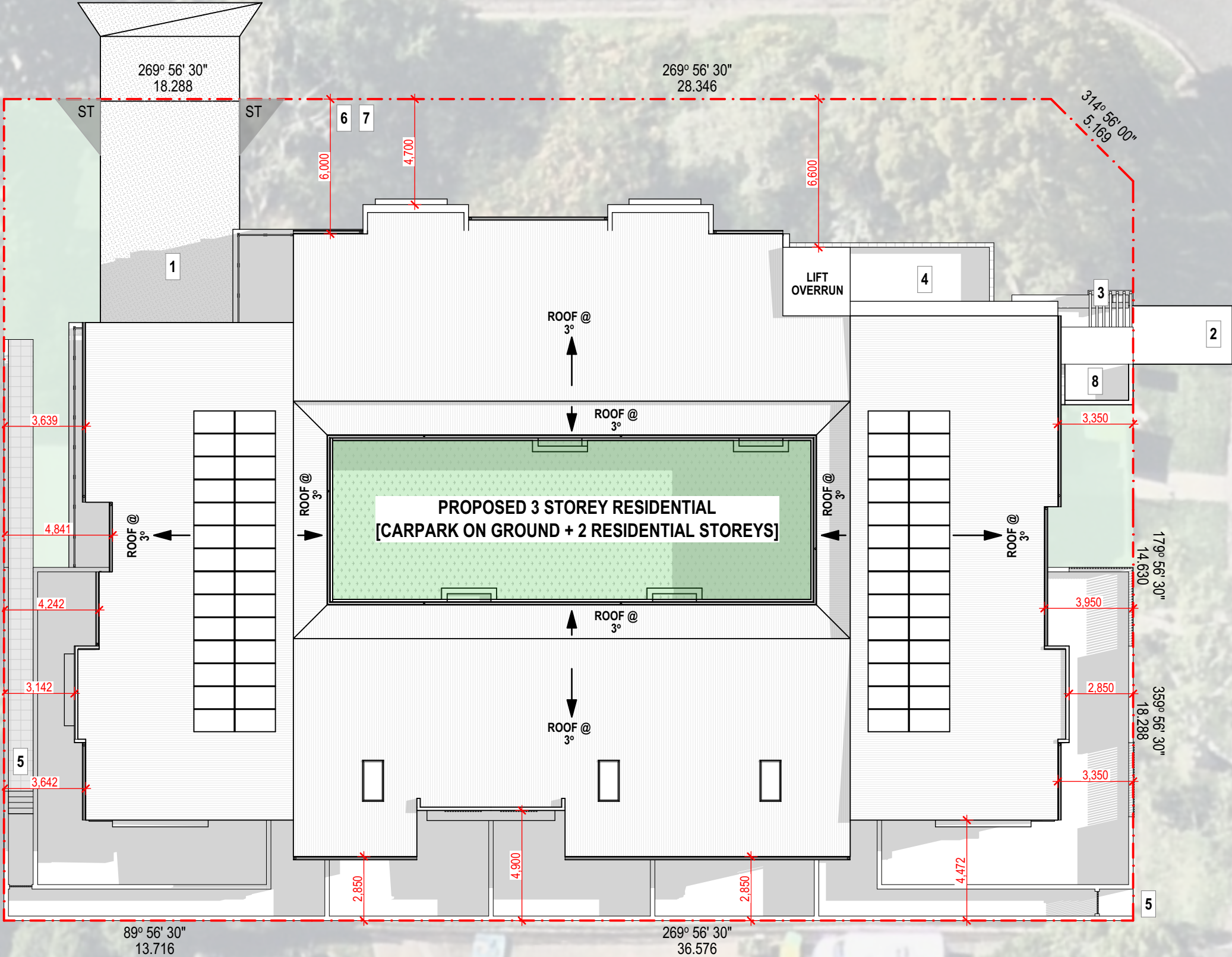
APPENDIX 2 - SITE PLAN PROPOSED DEVELOPMENT

5-7 McDERMOTT AVE +
1 PHILLIP STREET,
GOONELLABAH NSW 2480

SITE AREA. 1,821m²
FSR. 0.62:1

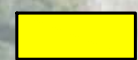
SITE PLAN LEGEND

- 1 VEHICULAR ENTRY
- 2 PEDESTRIAN ENTRY
- 3 MAILBOXES
- 4 BIKE PARKING
- 5 FIRE EGRESS
- 6 WATER METER
- 7 BOOSTER
- 8 TEMP. BIN STORE

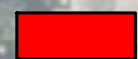


APPENDIX 3 - TEMPORARY WASTE STORAGE AREA - DEMOLITION

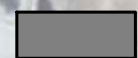
Waste Storage Area:



1 x 6m³ Skip bin
(Co-mingled recyclables)



1 x 6m³ Skip bin
(General waste)



1 x 6m³ Skip bin
(Heavy recyclables)

MCDERMOTT AVENUE

PHILLIP STREET

**SITE WASTE
MINIMISATION AND
MANAGEMENT
PLAN**

**TEMPORARY WASTE
STORAGE AREA
DURING DEMOLITION**

 Proposed
Demolition Area



Lot 69 DP 230448, Lot 70 DP 230448 &
Lot 71 DP 230448
5-7 McDermott Avenue & 1 Phillip Street
Goonellabah NSW

HMC2023.567
Date: September 2023
VERSION: 28/09/2023
DRAWN: MF
BASE: Nearmap 2023

**PROPOSED LAYOUT
OF WASTE STORAGE
AREA IS GENERAL
ONLY AND IS TO BE
CONFIRMED ON SITE
BY SITE MANAGER**



ENVIRONMENTAL CONSULTING Pty Ltd
HMC Environmental Consulting Pty Ltd
Tweed Heads NSW
0755368863
www.hmcenvironment.com.au
admin@hmcenvironment.com.au

Scale:

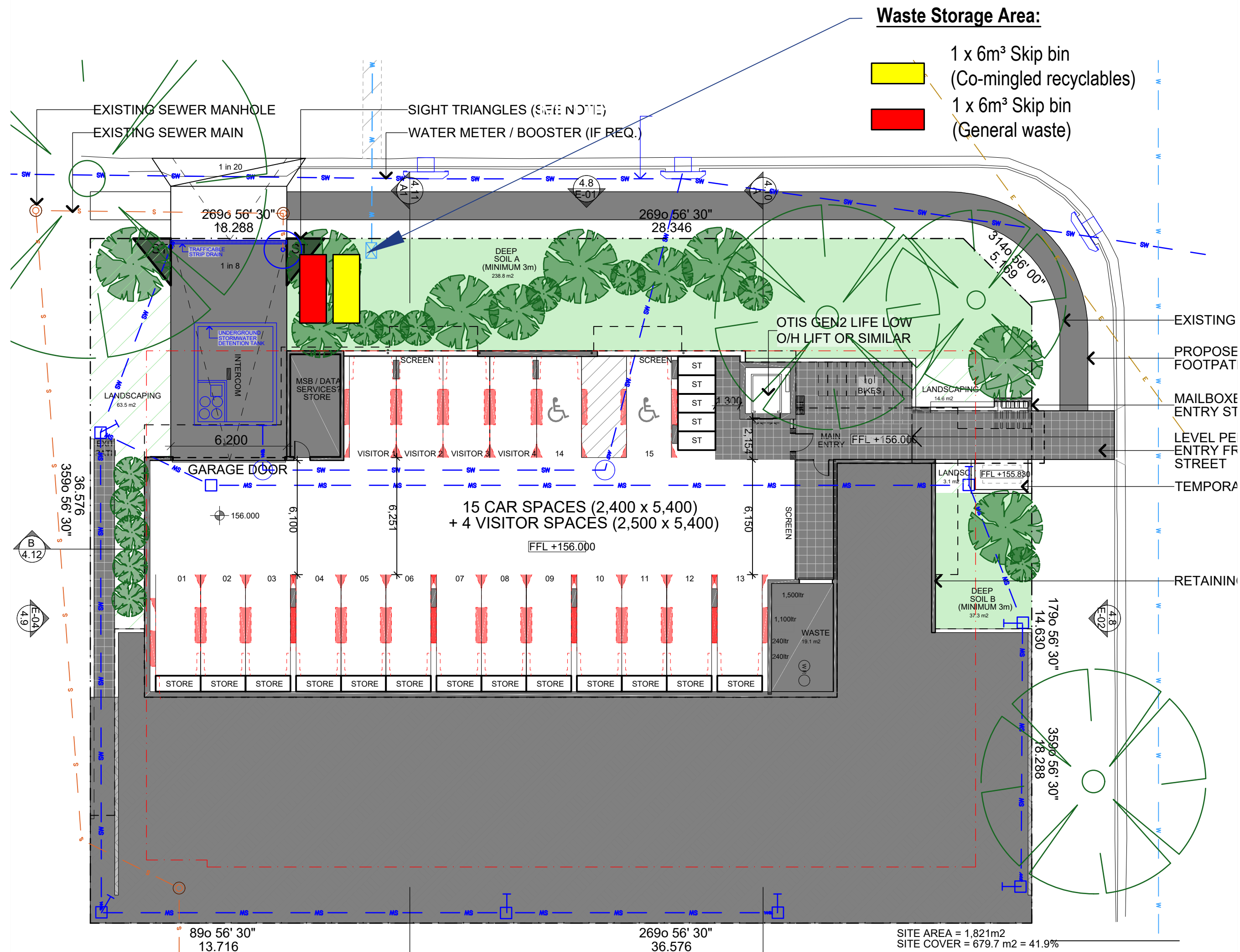
0 10 20m

APPENDIX 4 - TEMPORARY WASTE STORAGE AREA - CONSTRUCTION

TEMPORARY WASTE STORAGE AREA DURING CONSTRUCTION

Job: HMC2023.567
Date: **Jan** 2024
VERSION: 10/01/24
DRAWN: MF
BASE: Raunik Level 1
4.2-D 10/01/24

**PROPOSED LAYOUT
OF WASTE STORAGE
AREA IS GENERAL
ONLY AND IS TO BE
CONFIRMED ON SITE
BY SITE MANAGER**



APPENDIX 5 - WASTE STORAGE AREA - OCCUPATION

**SITE WASTE
MINIMISATION AND
MANAGEMENT
PLAN**

**WASTE STORAGE
AREA DURING
OCCUPATION**

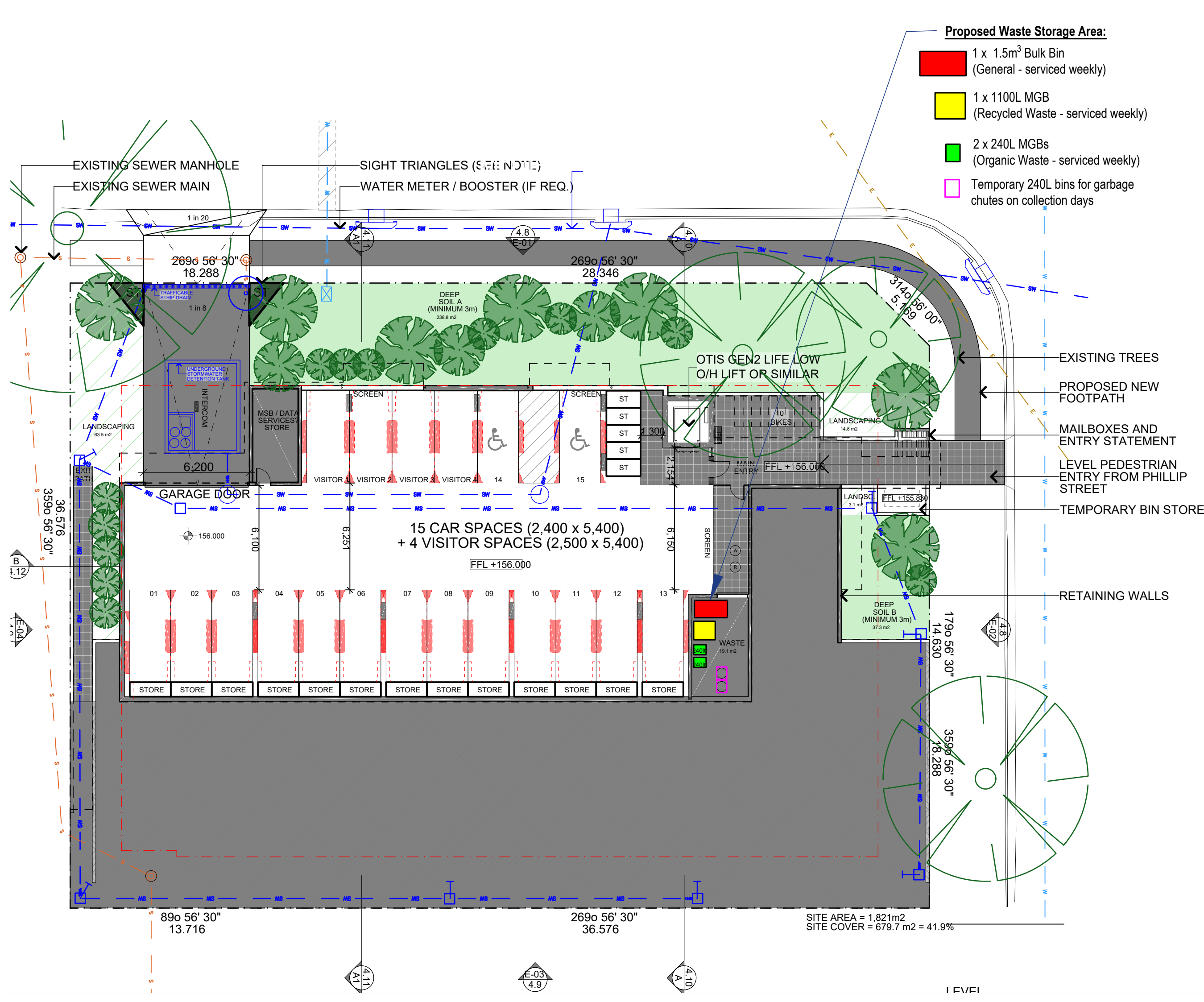
Construction of the waste storage area would be generally in accordance with the Lismore City DCP. The waste storage area is to be of weatherproof construction and easy to clean, with provision of cold water supply and wastewater discharged to sewer.

Lot 69 DP 230448, Lot 70 DP 230448 &
Lot 71 DP 230448
5-7 McDermott Avenue & 1 Phillip Street
Goonellabah NSW

Job: HMC2023.567
Date: September 2023
Version: 10/01/24
Drawn: MF
Base: Raunik - Level 1 Ground 4.2
Rev D 10/01/24

**PROPOSED LAYOUT
OF WASTE STORAGE
AREA IS GENERAL
ONLY AND IS TO BE
CONFIRMED ON SITE
BY SITE MANAGER**

HMC
ENVIRONMENTAL CONSULTING Pty Ltd
HMC Environmental Consulting Pty Ltd
Tweed Heads NSW
0755368863
www.hmcenvironment.com.au
admin@hmcenvironment.com.au



APPENDIX 6 - TYPICAL BIN SIZES



CONTAINER SPECIFICATIONS

Plastic (polyethelene)

Capacity	120L	240L	660L	1100L
Height	0.92m	1.075m	1.235m	1.485m
Width	0.54m	0.58m	1.36m	1.36m
Length	0.62m	0.715m	0.765m	1.07m
Weight	9.5kg	13.5kg	45kg	65kg

**Availability of the complete suite of bin sizes varies across states. Sizes are approximate measurements and may vary by location.*



Figure 3 Typical Rear Lift Collection Receptacle Sizes (SUEZ Environment)

BIN SIZES

2m³ Skip Bin

Height: 0.86m
Length: 1.8m
Width: 1.4m

4m³ Skip Bin

Height: 1m
Length: 3.1m
Width: 1.75m

7m³ Skip Bin

Height: 1.2m
Length: 4.1m
Width: 1.85m

Safe working load: 2 tonne Safe working load: 4 tonne Safe working load: 7 tonne



10m³ Skip Bin

Height: 1.6m
Length: 4.5m
Width: 1.85m

16m Hook Lift

Height: 1.2m
Length: 6m
Width: 2m

Safe working load: 10 tonne Safe working load: 13 tonne



*16m bins have an opening at one end of the skip for easy access
e.g. wheelbarrows, labourers etc.

Figure 4 Typical Skip Bin Sizes (ProSkips)

APPENDIX 7 - PROSKIPS CONSTRUCTION RESOURCE RECOVERY

Environmental Policy

Proskips is one of the Gold Coasts leading waste management and recycling companies. We specialise in construction and demolition waste. The company is locally owned and operates it's own waste transfer station. As a responsible corporate citizen we have chosen to work closely with the Environmental protection agency to adopt it's best business practice methods of dealing with all our C&D waste.

The EPA classify all waste transfer stations with a capacity of 20,000t or more a year to be an ERA-82 (environmentally relevant activity) and as such are required to be licensed by the EPA. Proskips engaged a national environmental planning agency "Planit Consulting" to lodge both the development application to the Gold Coast City Council and the ERA-82 (waste transfer station) to the EPA

The reason we have chosen to go to the expense and time of operating our own waste transfer station is one of economics, which at the same time is good for the environment. We have taken what we believe are the best methods from both European and Australia companies to develop our methods of dealing with C&D waste.

Our goal is to recycle 95% of all waste that comes into the transfer station, with only 5% going to landfill. The break up of our waste is as follows:-

20%	Concrete and Hardcore
20%	Wood
20%	Soil
10%	Green waste
10%	Metal
10%	Plastic
4%	Cardboard & Paper
3%	Gyprock
3%	Other

Recycling Methods

Concrete: All concrete and hardcore is crushed through an impact crusher and screened to several small aggregates and roadbase and is sold back to the building industry for drainage, walls, under slabs etc.

Wood/Green waste: The wood is transported to Rocky Point power station which is then used to generate power for the sugar mill with the excess power being sold to the national grid.

Soil: The soil is screen through a 10mm trommel and sold to landscape gardeners and builders.



PO Box 957
Nerang
Qld 4211

Phone:
(07) 5533 2547

Fax:
(07) 5533 2537

Email:
info@proskips.com.au

ABN:
89 114 580 308

Metal: The metal is separated into copper, aluminium, heavy gauge steel and pig metal then sold to One Steel to be melted down.

Cardboard: All cardboard is transported to Amcor recycling at Molendinar.

Gyprock: The gyprock is transported to Marlyn Compost at Jacobs Well where it is grinded down and added to garden soil and mulches.

Plastic: Landfill

Other: Landfill

This has been a brief outline of our recycling practices, as you can see when using the services of Pro Skips you can be confident of an environmentally conscious business.

These methods of collecting and recycling C&D waste will be adopted for all Constructions jobs on the Gold Coast. I have read through all the criteria for the Green Star rating system, where they are looking for 80% recycling by weight. We can easily achieve this for you as we currently recycle 80-90% by volume – in real terms this would amount to 95% recycling by weight as the only waste we send to landfill is very light after we have taken sand, soil, metal & concrete out of the equation.

To comply with the green star rating system we can give you a monthly environmental report to show the breakdown of waste generated from each job and percentage of waste recycled.

I trust this meets with your approval and assuring you of our best attention at all times

Yours sincerely

John Sheerin
Director