

ratio:waste

Site Waste Minimisation and Management Plan (SWMMP)

9 Marvell Street, Byron Bay

December 2023

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1 Introduction

1.1 Project Details

Site Address

9 Marvell Street, Byron Bay

Local Council

Byron Shire Council (Phone: 1300 811 942)

Development Summary

Residential

Waste Source	Qty
3-Bedroom Apartment	8
Total	8

Commercial

Level	Waste Source	Operational Days (per week)	Net Lettable Area (m ²)
Ground	Café (assessed as café)	7	139.94
Ground	Retail (assessed as Shop less than 100m ² floor area)	7	16.77
Ground	Retail (assessed as Shop less than 100m ² floor area)	7	33.51
Total			190.22

1.2 Purpose

This Site Waste Minimisation and Management Plan (SWMMP) has been prepared to accompany the Development Application.

Waste management arrangements during the demolition, construction, and operational phases of the development are all included within this SWMMP.

1.3 Relevant Guidelines and Policies

Relevant policies and guidelines considered as part of the preparation of this SWMMP include:

- Australian Government – National Waste Policy: Less Waste, More Resources (2018).
- Byron Shire – Development Control Plan: Chapter B8 Waste Minimisation and Management (2014).
- NSW EPA – Better Practice Guide for Waste Management in Multi-Unit Dwellings (2008).
- NSW EPA – Noise Control Guidelines (2021).

2 Demolition and Construction Waste Management

The Byron Shire Development Control Plan 2014 requires demolition and construction waste management details to be provided within the Waste Management Plan submitted with the Development Application. This includes volume of waste materials expected to be generated during the demolition and construction phases of the project and how these materials will be re-used, recycled, and/or disposed of.

The demolition and construction waste management arrangements for the site are outlined in Sections 2.1. and 2.2 below.

2.1 Demolition Waste Management

- Demolition waste shall be disposed into dedicated demolition waste skips. A 16m³ concrete waste skip, 16m³ blockwork waste skip, and a 4m³ miscellaneous waste skip shall be provided on-site during the demolition phase of the project. The location and dimensions of the skips are provided in Appendix C.
- The demolition waste skips shall be provided with clear signage informing staff what items are to be placed within each skip. Examples of appropriate signage for the demolition waste skips can be downloaded at the following link: <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/business-government-recycling/standard-recycling-signs>.
- Cobild (the Applicant) has meticulously outlined waste generation estimates for the demolition phase of the project in Appendix B, based on experience with similar projects.
- The waste depot for each type of generated demolition waste is outlined in Appendix B. Records demonstrating lawful disposal of demolition waste shall be retained and kept accessible for inspection.
- The entry and exit points for waste collection vehicles during the demolition phase of the project, as well as a swept path assessment demonstrating that the vehicles can enter/exit the site in a forward direction, are provided in Appendix C.

2.2 Construction Waste Management

- Construction waste shall be disposed into dedicated construction waste skips. A 4m³ recycling skip (type dependent on the stage of the construction process) and a 4m³ miscellaneous reuse skip shall be provided on-site during the construction phase of the project. The location and dimensions of the skips are provided in Appendix C.
- The construction waste skips shall be provided with clear signage informing staff what items are to be placed within each skip. Examples of appropriate signage for the construction waste skips can be downloaded at the following link: <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/business-government-recycling/standard-recycling-signs>.
- Cobild (the Applicant) has meticulously outlined waste generation estimates for the construction phase of the project in Appendix B, based on experience with similar projects.
- The waste depot for each type of generated construction waste is outlined in Appendix B. Records demonstrating lawful disposal of construction waste shall be retained and kept accessible for inspection.
- The generation, storage, treatment, and disposal of hazardous waste and special waste during the construction phase of the project (as outlined in Appendix B) shall be conducted in accordance with the relevant waste legislation.
- The entry and exit points for waste collection vehicles during the demolition phase of the project, as well as a swept path assessment demonstrating that the vehicles can enter/exit the site in a forward direction, are provided in Appendix D.

2.3 Sediment Control Management

EPA Guidelines as to minimise the impact of sediment runoff will be adopted as set out below:

- Install erosion and sediment control measures, if possible before construction commences.
- Identify drainage lines and install control measures to handle predicted Stormwater and sediment loads generated in the mini catchment.
- Establish an adequate inspection, maintenance, and cleaning program for sediment run-off control structures.
- Ensure that contingency plans are in place for unusual storm events.
- Continually assess the effectiveness of sediment control measures and make necessary improvements.
- Ensure that the level of suspended solids in waters pumped into natural waterways never exceeds the regulatory water quality standard.
- Where possible, water from de-watering should be used for dust suppression.
- Floats or other devices should be used on the pump inlet to ensure that the inlet does not come into contact with sediment settled at the bottom of the basin or pond.

2.4 Dust Control Management

EPA Guidelines as to minimise the impact of dust will be adopted as set out below:

- Implement a dust prevention strategy, developed at the project planning stage Identify drainage lines and install control measures to handle predicted Stormwater and sediment loads generated in the mini catchment.
- Take dust suppression measures, such as promptly watering exposed areas when visible dust is observed.

2.5 Noise Control Management

EPA Guidelines as to minimise the impact of noise pollution will be adopted as set out below:

- Fit and maintain appropriate mufflers on earth-moving and other vehicles on the site.
- Enclose noisy equipment.
- Provide noise attenuation screens, where appropriate.
- Where an activity is likely to cause a noise nuisance to nearby residents, restrict operating hours to between 7am and 6pm weekdays and 8am to 3pm Saturday, except where, for practical reasons, the activity is unavoidable.
- Advise local residents when unavoidable out-of-hours work will occur (permit will be obtained from the Byron Shire Council if this is required). Noise should not be above background levels inside any adjacent residence between 6pm and 7am.
- Schedule deliveries to the site so that disruption to local amenity and traffic are minimised.
- Minimise air vibrations.

2.6 Protection of Council Infrastructure

A dilapidation survey will be undertaken for all council assets including and not limited to 9 Marvell St and surrounding footpaths that will be made available to council upon request, in addition an asset protection application will be made and paid for all assets surrounding the project. Furthermore, a dilapidation report of the adjacent properties will also be completed.

Builder to reinstate any damaged footpath as a result of the development in full paving panels as required. The footpath reinstatement and design/material is to be approved by Council prior to commencement of reinstatement works. All works to be completed in accordance with Council standards.

2.7 Odour Management

Odours will be managed through adequate labelling of waste bins in line with EPA guidelines. All bins will be readily available throughout demolition and construction to ensure litter and construction/demolition waste will go into bins. This will ensure unwanted odours are not permeating from the Site. Regular waste collection will facilitate regular waste removals from the Site.

2.8 Windblown Litter Management

Site Fencing will be erected throughout demolition and hoarding through construction to ensure all construction activities and subsequent waste are contained within the site in the event of windy events and strong winds. This will prevent generation of windblown litter off site and contain it within the site boundaries for ease of cleaning and proper disposal. Additionally, the adequate arrangement of waste bins across the site and regular waste pickups prevent rubbish being blown off site.

2.9 Stakeholder Consultation

The Head Contractor will undertake consultation with various stakeholders at different times during the works. This will include:

- Neighbours and residents in the vicinity of the works with relation to road closures and any impact on public thoroughfares. This will be done by letter drops to homes and businesses in the area.
- City of Yarra council with regards to all permits and works required out of the site and in the vicinity of council assets. This communication will be in person, or via email and phone.
- Utility companies will be consulted with regards to any works required in their reserves, as well as initially to ascertain location of services and infrastructure prior to commencement on site. When working in the vicinity of their assets, they will be consulted accordingly. This communication will be via email and phone.
- Other public authorities will also be consulted for general advice, such as VicRoads to ensure all their requirements are adhered to. This communication will be in person, or via email and phone.

The Head Contractor will also liaise with the local businesses and residents in the area prior to commencement of construction. This will be done via a “door knock”. This will be used to explain what the works are, how long they will be required, as well as who to contact with any issues, questions or queries. Any issues or complaints will be recorded and kept on site, together with a record of how the complaint/issue was dealt with. The Head Contractor will also aim to issue newsletters to all the surrounding homes and businesses to keep the stakeholders up to date with progress.

The Head Contractor is to work with others as required to manage any interface issues associated with other construction works, including but not limited to its traffic management.

3 Operational Waste Management Guide

3.1 Guide for Residents

Residents shall be responsible for the following:

General Waste Disposal

- Residents shall place general waste into dedicated general waste receptacles (to be provided by the residents).
- Residents shall empty full general waste receptacles into the general waste collection bins provided within the ground floor communal bin room.
- General waste must be placed within tied bags (biodegradable material recommended) prior to being placed into the general waste collection bins.

Organics Disposal

- Residents shall place food scraps into dedicated organics caddies (to be provided by the residents).
- Residents shall empty full organics caddies into the organics collection bins provided within the ground floor communal bin room.
- Organics must be unbagged or placed within approved compostable bags (subject to contractor approval) prior to being placed into the organics collection bins.

Note: single use packaging, including biodegradable and compostable plastics, PLA lined containers, and all coffee cups are to be disposed into the general waste collection bins, as no packaging will be accepted in the organics collection bins.

For more information, visit: <https://www.byron.nsw.gov.au/Services/Waste-and-recycling/Bin-collection-services/Waste-and-recycling-list>.

Recycling Disposal

- Residents shall place recycling into dedicated recycling receptacles (to be provided by the residents).
- Residents shall empty full recycling receptacles into the recycling collection bins provided within the ground floor communal bin room.
- Bottles, cans, and containers must be rinsed, cardboard flattened, and lids/packaging separated as per the Australasian Recycling Label instructions (visit: <https://recyclingnearyou.com.au/arl/>) prior to being placed into the recycling collection bins.
- Recycling must be unbagged.

Disposal of Other Waste Streams

- **Bulky Waste and E-waste:** residents shall transfer bulky waste and e-waste items to the designated storage area provided within the communal bin room.

3.2 Guide for Commercial Tenants

Commercial tenants shall be responsible for the following:

General Waste Disposal

- Tenants shall place general waste into dedicated general waste receptacles (to be provided by the tenant).
- Tenants shall take full general waste receptacles to the commercial general waste collection bins within the communal bin room.
- General waste must be placed within tied bags (biodegradable material recommended) prior to being placed into the general waste collection bins.

Organics Disposal

- Tenants shall place food scraps into dedicated 60 litre organics receptacles stored within the tenancies.
- Tenants shall take full organics receptacles to the bin room and empty them into the commercial organics bin within the communal bin room.
- Organics must be unbagged or placed within approved compostable bags prior to being placed into the organics bin.

Note: single use packaging, including biodegradable and compostable plastics, PLA lined containers, and all coffee cups are to be disposed into the general waste collection bins, as no packaging will be accepted in the organics collection bins.

For more information, visit: <https://www.byron.nsw.gov.au/Services/Waste-and-recycling/Bin-collection-services/Waste-and-recycling-list>.

Recycling Disposal

- Tenants shall place recycling into dedicated recycling receptacles (to be provided by the tenant).
- Tenants shall take full recycling receptacles to the commercial recycling collection bins within the communal bin room.
- Bottles, cans, and containers must be rinsed, cardboard flattened, and lids/packaging separated as per the Australasian Recycling Label instructions (visit: <https://recyclingnearyou.com.au/arl/>) prior to being placed into the recycling collection bins.

3.3 Guide for the Building Manager

The building manager shall be responsible for the following:

- Ongoing management of the waste management system and equipment to the satisfaction of all relevant authorities, and in accordance with the manufacturer's specifications.
- Engaging an appropriate contractor to conduct services, replacements, or upgrades, as required.
- Engaging and managing the waste collection contractor.
- Ensuring the waste collection contractor has access to the bin room and collection point on collection days.
- Informing all waste system users that bagged recycling is not permitted.
- Securing all bins and labelling/numbering the bins according to the property address to protect the equipment from theft and vandalism.
- Servicing all public areas through sweeping and removal of litter on a regular basis to prevent stormwater pollution.
- Preventing overfilled bins by keeping lids closed.
- Ensuring that bins are not removed from the site.
- Ensuring that the bins are provided as per the design requirements outlined in Section 6.

3.4 Ongoing SWMMP Communication Strategy

The Building Manager shall ensure that all waste system users are informed about the development's waste management system, including where and how to correctly dispose of each waste stream. It is highly recommended that this SWMMP is electronically provided to all residents and commercial tenants.

The Building Manager shall provide educational material to inform all waste system users about the development's waste management system and advise all waste system users how to correctly separate and dispose of each waste stream with care, to minimise waste sent to landfill and reduce the contamination of recyclables.

3.5 Ongoing SWMMP Revisions

From time to time, due to changes in legislative requirements, changes in the development's needs and/or waste patterns (such as waste composition, volume, or distribution), or to address unforeseen operational issues, the Building Manager shall be responsible for coordinating the necessary SWMMP revisions, including (on an as-required basis):

- A waste audit and new waste management strategy.
- Revision of the waste system (bin size / quantity / waste streams / collection frequency / update of equipment).
- Revision of the services provided by the waste collection contractor.
- Re-education of users.
- Any necessary statutory / regulatory requirements / approvals.

4 Waste Volume Assessment

4.1 Residential Waste Volume Assessment

Byron Shire's 'Development Control Plan: Chapter B8 Waste Minimisation and Management' specifies the following general waste and recycling generation rates relevant to the residential component of the development:

Residential Flat Buildings

Adopted for the residential apartments.

- General Waste: 80 L/unit/week
- Recycling: 40 L/unit/week

Applying the above, the waste generation estimates are outlined in Tables 4.1 and 4.2 below.

Table 4.1: Residential General Waste Volume Estimates

Waste Source	Qty	General Waste Generation Rate (L/Occupant space/Week)	General Waste Volume (L/Week)
3-Bedroom Apartment	8	80	640
Total	8	-	640

Table 4.2: Residential Recycling Volume Estimates

Waste Source	Qty	Recycling Generation Rate (L/Occupant space/Week)	Recycling Volume (L/Week)
3-Bedroom Apartment	8	40	320
Total	8	-	320

NSW's 'Better Practice Guide for Waste Management in Multi-Unit Dwellings, 2019' specifies the following organics generation rates relevant to the residential component of the development:

3-bedroom apartment or greater

Adopted for the apartments.

- Organics: 50 L/unit/week

Applying the above, the waste generation estimates are outlined in Tables 4.3 below.

Table 4.3: Residential Organics Volume Estimates

Waste Source	Qty	Organics Generation Rate (L/Occupant space/Week)	Organics Volume (L/Week)
3-Bedroom Apartment	8	50	400
Total	8	-	400

4.2 Commercial Waste Volume Assessment

Byron Shire's "Development Control Plan: Chapter B8 Waste Minimisation and Management" specifies the following waste generation rates relevant to the commercial component of the development:

Cafe

Adopted for the café tenancy on ground level

- General Waste: 10 L/1.5m² floor area/day
- Recycling: 2 L/1.5m² floor area/day

Shop less than 100m² floor area

Adopted for the retail tenancies on ground level

- General Waste: 50 (L/100m²/day)
- Recycling: 25 (L/100m²/day)

To allow for the separation of organics from the general waste associated with the **café**, the above waste generation rates have been modified to allow for a **70 : 30** split for **general waste : organics**, as outlined below:

Cafe

Adopted for the café tenancy on ground level

- General Waste: 7 L/1.5m² floor area/day
- Organics: 3 L/1.5m² floor area/day
- Recycling: 2 L/1.5m² floor area/day

It has been assumed that the café and retail tenancies will be in operation for seven days per week.

Applying the above waste generation rates, the commercial waste generation estimates are outlined in Table 4.4, 4.5 and 4.6 below.

Table 4.4: Commercial General Waste Volume Estimates

Waste Source	Net Lettable Area (m ²)	No. of Days of operation/Week	General Waste Generation Rate	General Waste Volume (L/Week)
Café (assessed as a café)	139.94	7	7 (L/1.5m ² /day)	4,571
Retail (assessed as shop less than 100m ² floor area)	16.77	7	50 (L/100m ² /day)	59
Retail (assessed as shop less than 100m ² floor area)	33.51	7	50 (L/100m ² /day)	117
Total	190.22	-	-	4,747

Table 4.5: Commercial Organics Volume Estimates

Waste Source	Net Lettable Area (m ²)	No. of Days of operation/Week	Organics Generation Rate	Organics Volume (L/Week)
Café (assessed as a café)	139.94	7	3 (L/1.5m ² /day)	1,959
Retail (assessed as shop less than 100m ² floor area)	16.77	7	-	-
Retail (assessed as shop less than 100m ² floor area)	33.51	7	-	-
Total	190.22	-	-	1,959

Table 4.6: Commercial Recycling Volume Estimates

Waste Source	Net Lettable Area (m ²)	No. of Days of operation/Week	Recycling Generation Rate	Recycling Volume (L/Week)
Café (assessed as a café)	139.94	7	2 (L/1.5m ² /day)	1306
Retail (assessed as shop less than 100m ² floor area)	16.77	7	25 (L/100m ² /day)	29
Retail (assessed as shop less than 100m ² floor area)	33.51	7	25 (L/100m ² /day)	59
Total	190.22	-	-	1,394

4.3 Combined (Residential and Commercial) Waste Volume Assessment

The combined (residential and commercial) waste volume estimates are outlined in Table 4.7 below.

Table 4.7: Combined (Residential and Commercial) Waste Volume Estimates

Waste Source	General Waste Volume (L/Week)	Organics Volume (L/Week)	Recycling Volume (L/Week)
Residential	640	400	320
Commercial	4,747	1,959	1,394
Total	5,387	2,359	1,714

5 Waste Storage Details

5.1 Waste Storage Requirements

The waste storage requirements for the development are outlined in Table 5.1 below.

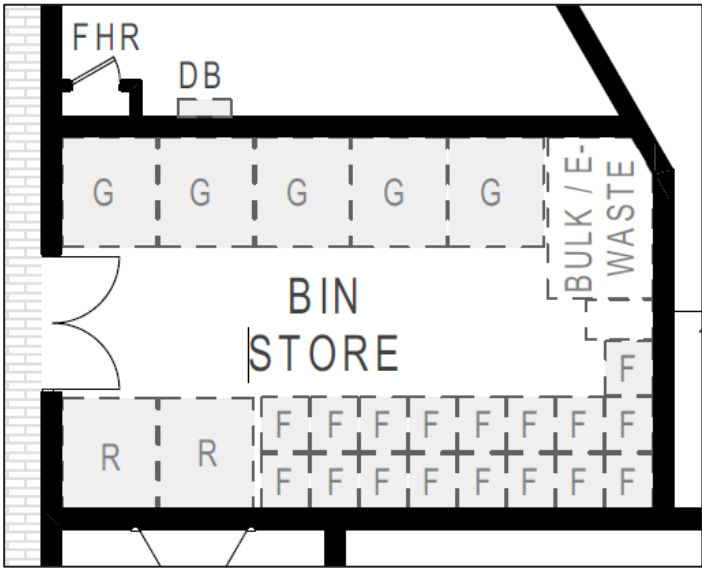
Table 5.1: Communal Waste Storage Requirements

Waste Stream	Bin Size (L) / Item	Quantity	Height per bin (mm)	Width per bin (mm)	Depth per bin (mm)	Footprint (m²)
General waste	1100	5	1330	1240	1070	6.63
Organics	140	17	915	535	615	5.59
Recycling	1100	2	1330	1240	1070	2.65
-	Bin Tug	1	1056	440	756	0.33
Bulky Waste/ E-waste	Drop-Off Area	1	2000	1000	1000	2.00
Total Footprint Required Excluding Circulation (m²):						17.21

5.2 Waste Storage Layout

The proposed waste storage layout is shown in Figure 5.1 below.

Figure 5.1: Communal Bin Room Layout



6 Waste Collection Details

6.1 Waste Collection Requirements

The waste collection requirements for the development are outlined in Table 6.1 below.

Table 6.1: Waste Collection Requirements

Waste Stream	Volumes (L/week)	Bin Size (L) / Item	Quantity	Collection Frequency	Capacity (L/week)
General waste	5,387	1100	5	Weekly	5,500
Organics	2,359	140	17	Weekly	2,380
Recycling	1,714	1100	2	Weekly	2,200
Bulky Waste/ E-waste	-	Drop-Off Area	1	On-call	-

6.2 Waste Collection Methodology

The proposed waste collection methodology is outlined below:

- Waste shall be collected from the Fletcher Lane by a private waste contractor.
- Waste collection is expected to be undertaken by rear-lift trucks up to 8.8-metres in length.
- The Building Manager shall provide the waste contractor with access to the bin room. The waste contractor shall be responsible for transferring bins from the bin room to the waste truck for collection and returning the emptied bins to the bin room once collection is complete (with the use of the bin tug provided within the bin room, if required).
- The Building Manager shall be responsible for arranging the transfer of bulky waste to Bryon Resource Recovery Centre (BRRRC). For further information, visit this link: <https://www.byron.nsw.gov.au/Council/Media-centre/Media-releases/Free-trailer-available-to-Byron-Shire-residents-for-bulky-waste-drop-off>.
- The Building Manager shall be responsible for arranging the transfer of e-waste to Bryon Resource Recovery Centre (BRRRC). For further information visit this link: <https://www.byron.nsw.gov.au/Services/Waste-and-recycling/What-to-do-with-e-Waste>.
- The waste contractor shall be responsible for the development of a Safe Work Method Statement (SWMS) to ensure safety is considered for every aspect of the collection process.

6.3 Waste Collection Time

Waste collection shall be undertaken in accordance with *Environment Protection (Residential Noise) Regulations 2021*, as outlined below:

- Collections occurring once a week should be restricted to the hours 6am — 6 pm Monday to Saturday.

7 Design Standards

7.1 Design Requirements

The bin room shall be provided in accordance with the following requirements:

General Requirements

- The bin room should comply with Building Code of Australia (BCA) and all relevant Australian Standards:
- The bin room should allow storage of all waste bins on site at all times.
- The bin room should allow easy access for users of the bins.
- The bin room should allow easy, direct, and convenient transfer of bins to the collection point.
- Artificial light should be provided where necessary outside the bin room to enable occupiers of the site to always dispose of waste safely and appropriately.
- The path for transferring the bins between the bin room and the collection point should be of adequate width, free of lips and other obstacles, smooth and without steps.

Space and Facilities Requirements

- The bin room should be appropriately sized to accommodate all waste arising on the premises together with any associated equipment for handling the generated waste.
- The bin room should be maintained to ensure that the aesthetics of the development are not compromised.

Ventilation and Bin Washing Requirements

- The bin room should be ventilated in accordance with the requirements of the Building Code of Australia and AS 1668.2.
- Ventilation openings should be protected against flies and vermin.
- Doors should be tight fitting.
- The floor of the bin room should be graded to a drain (connected to the sewer) and provided with a hosecock and hose for washing bins. Alternatively, a private contractor can be engaged to wash bins on a regular basis, transporting all wastewater off-site.

7.2 Bin Colour and Signage Requirements

Collection bins should be provided in the following colours:

- Garbage: dark green or black body and red lid.
- Recycling: dark green or black body and yellow lid.
- Organics: dark green or black body and light green lid.

The bin room and collection bins shall be provided with clear signage informing users what items are to be placed within each collection bin. Examples of appropriate signage can be downloaded from the following link: <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/business-government-recycling/standard-recycling-signs>.

7.3 Residential Internal Waste Receptacle Requirements

Residential internal waste receptacles should meet the following requirements:

- **General waste:** large enough to hold at least 2 days' worth of waste, but no larger than 25 litres to ensure ease of manual handling and prevent chute blockages (if applicable).
- **Recycling:** large enough to hold at least 2 days' worth of recycling, but no larger than 25 litres to ensure ease of manual handling and prevent chute blockages (if applicable).
- **Organics:** large enough to hold at least 1 days' worth of organics, but no larger than 10 litres.

7.4 Commercial Internal Waste Receptacle Requirements

Commercial internal waste receptacles should meet the following requirements:

- Suitably sized receptacles no larger than 60 litres for general waste and recycling to ensure ease of manual handling. Note: If receptacles are larger than 60 litres, a bin lifter will be required in the bin room.

8 Contact Information

Table 8.1 below includes a complimentary listing of contractors and equipment suppliers. The Project Principal shall not be obligated to procure goods / services from these companies. Ratio Consultants does not warrant or make representations for the goods / services provided by these contractors and suppliers.

Table 8.1: Contractors and Supplier Details

Service	Contractor/ Supplier	Phone	Website
Private Waste Collection Contractor and/or Bin Supplier	Richmond Waste	(02) 6621 7431	https://richmondwaste.com.au/
Bin Washing	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	Calcorp Services	1800 225 267	www.calcorpservices.com.au
	Kerbside Clean-A-Bin	03 9830 7381	www.kerbsidecleanabin-srp.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
Odour Control	Eco-Safe Technologies	1300 135 039	www.eco-safe.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au

Appendix A **Plans Assessed**





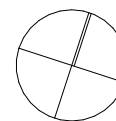
HARLEY GRAHAM ARCHITECTS

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5/12/22	DA1	DA ISSUE
13/11/23	DA3	DA RFI
4/12/23	DA4	DA RFI

MARVELL STREET

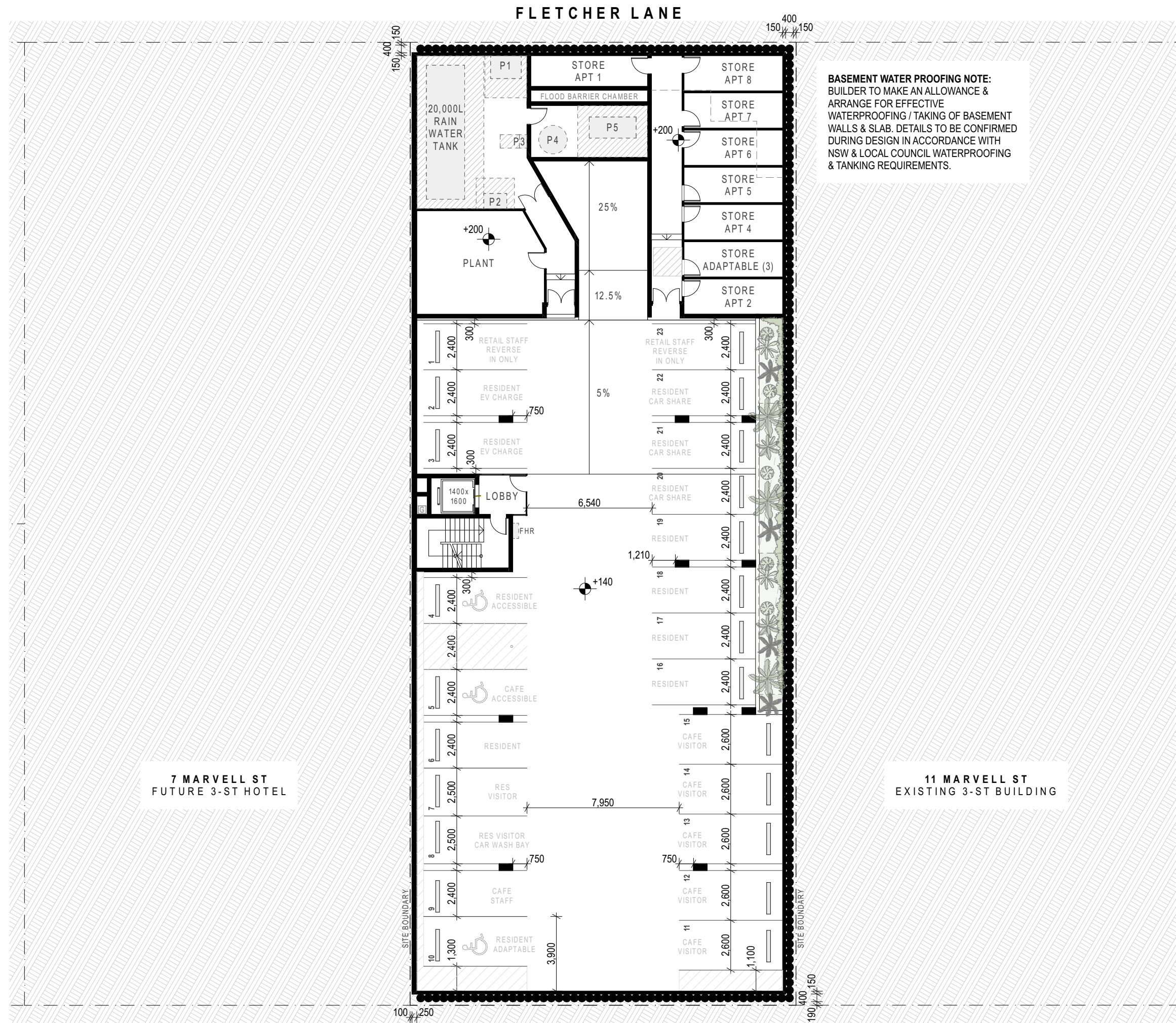


Project
9 MARVELL ST
Client
COBILD

Drawing Name
FLOOR PLAN - BASEMENT
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

Drawing No.
DA.04
Scale
1:200
Revision
Concept





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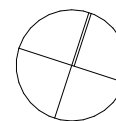
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T: 02 66809690 | E: office@harleygraham.com | ABN: 85158246003 | NSW 7892

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5/12/22	DA1	DA ISSUE
13/11/23	DA3	DA RFI
4/12/23	DA4	DA RFI

AWNING LINE ABOVE

MARVELL STREET

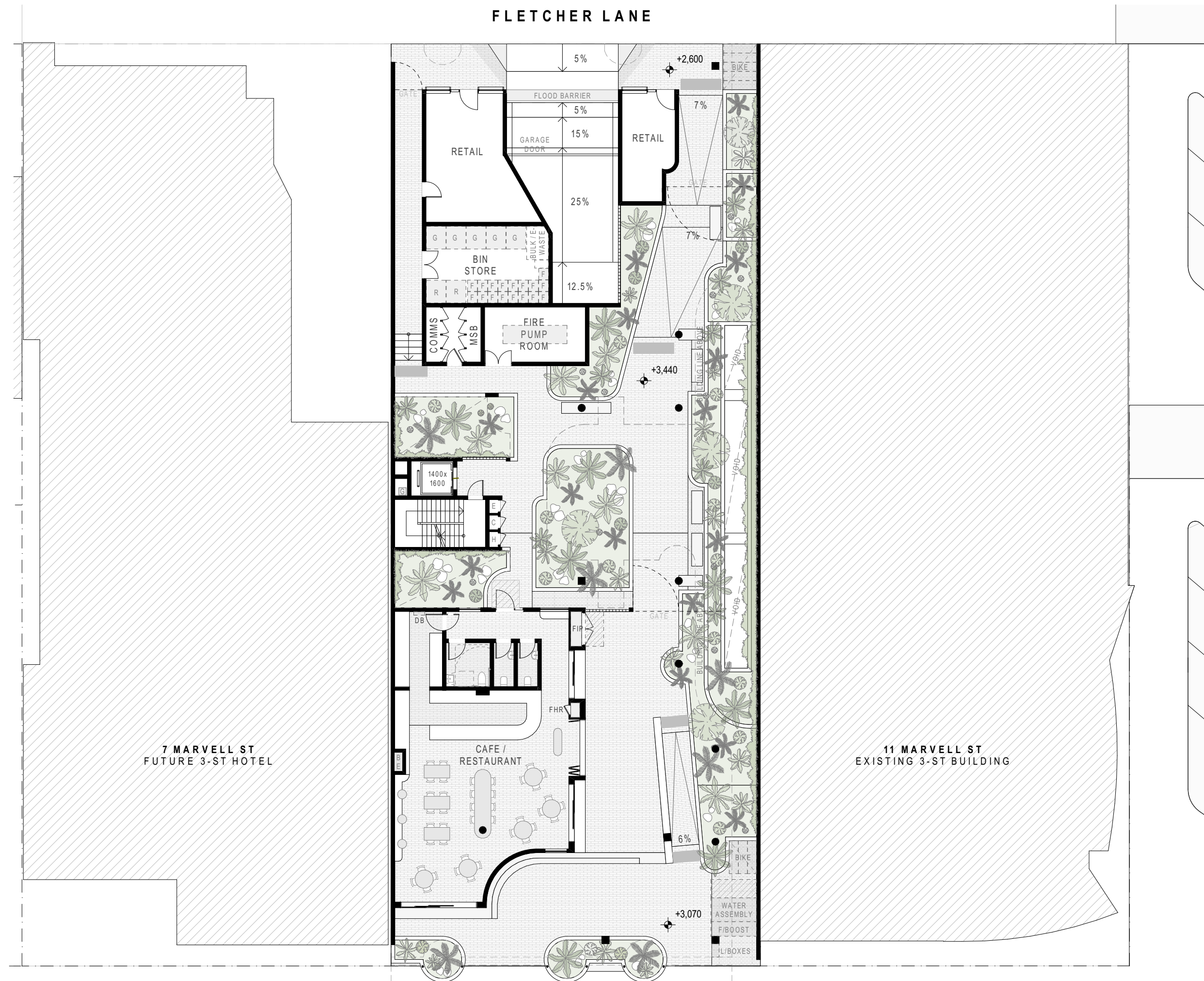


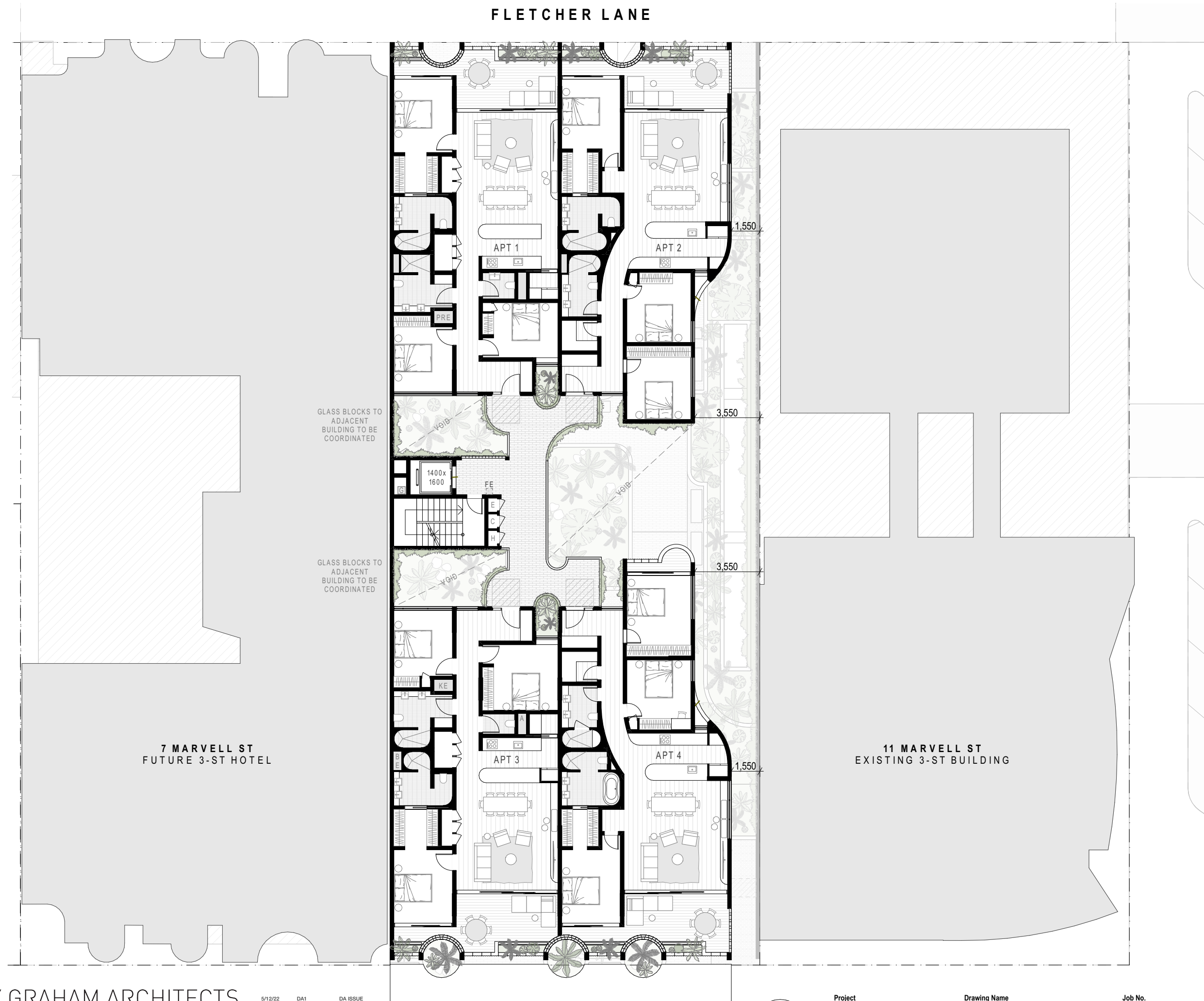
Project
9 MARVELL ST
Client
COBILD

Drawing Name
FLOOR PLAN - GROUND FLOOR
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

Drawing No.
DA.05
Scale
1:200
Revision
Concept





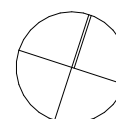
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6/3/23	DA2	DA ISSUE
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MARVELL STREET



Project
9 MARVELL ST
Client
COBILD

Drawing Name
FLOOR PLAN - FIRST FLOOR
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

Drawing No.
DA.06
Scale
1:200
Revision
Concept

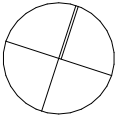


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MARVELL STREET



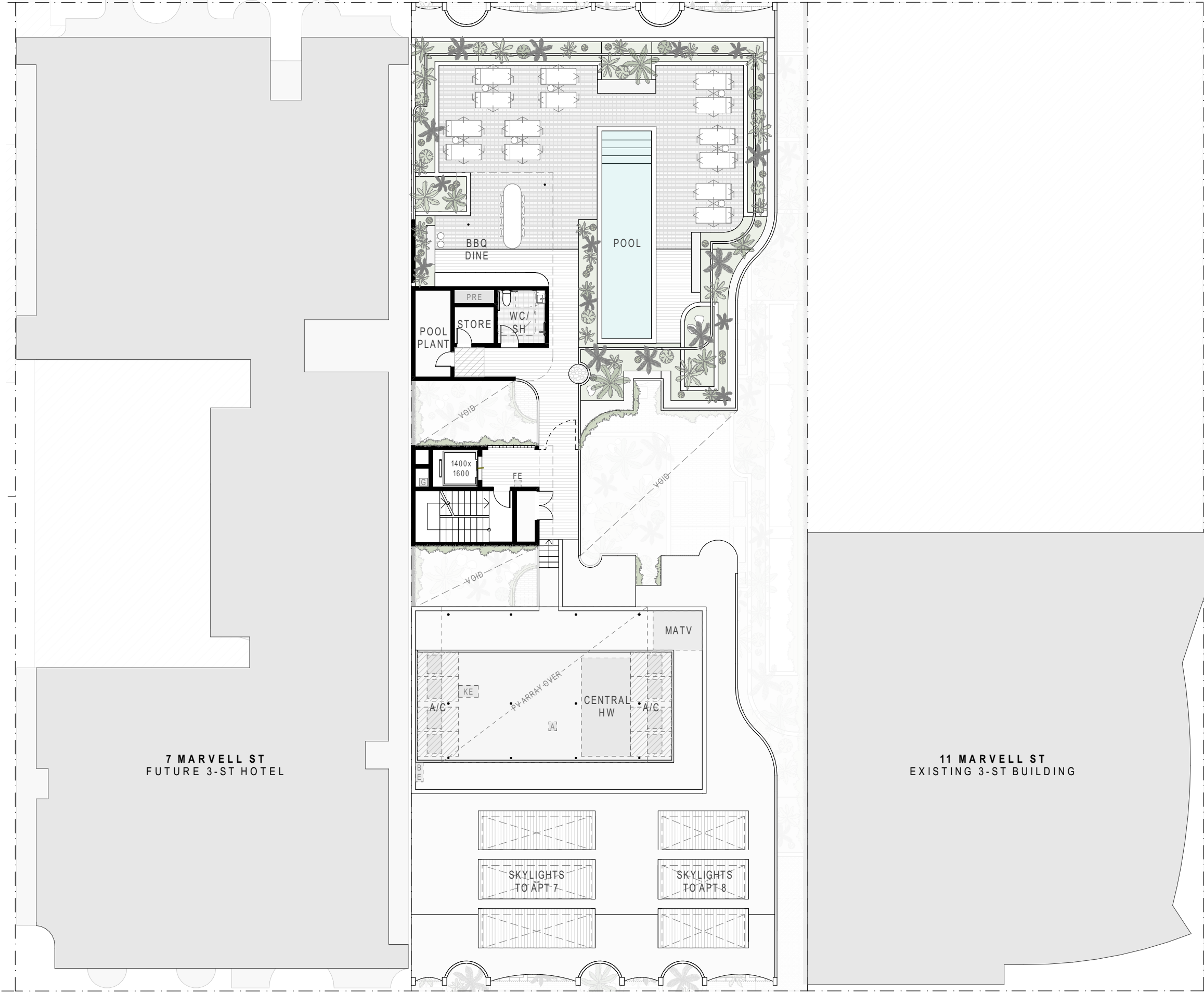
Project
9 MARVELL ST
Client
COBILD

Drawing Name
FLOOR PLAN - SECOND FLOOR
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

Drawing No.
DA.07
Scale
1:200
Revision
Concept

FLETCHER LANE



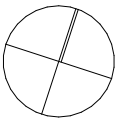
MARVELL STREET



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4/12/23	DA4	DA RFI



Project
9 MARVELL ST
Client
COBILD

Drawing Name
FLOOR PLAN - ROOF TERRACE
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

Drawing No.
DA.08
Revision
Concept
Scale
1:200

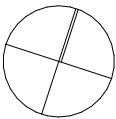


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5/12/22	DA1	DA ISSUE
4/12/23	DA4	DA RFI

MARVELL STREET

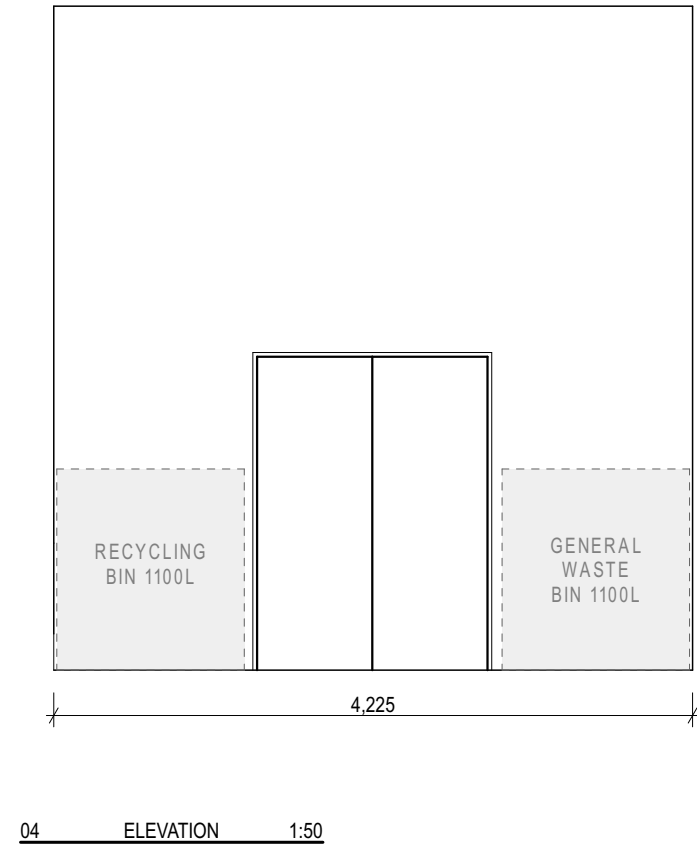
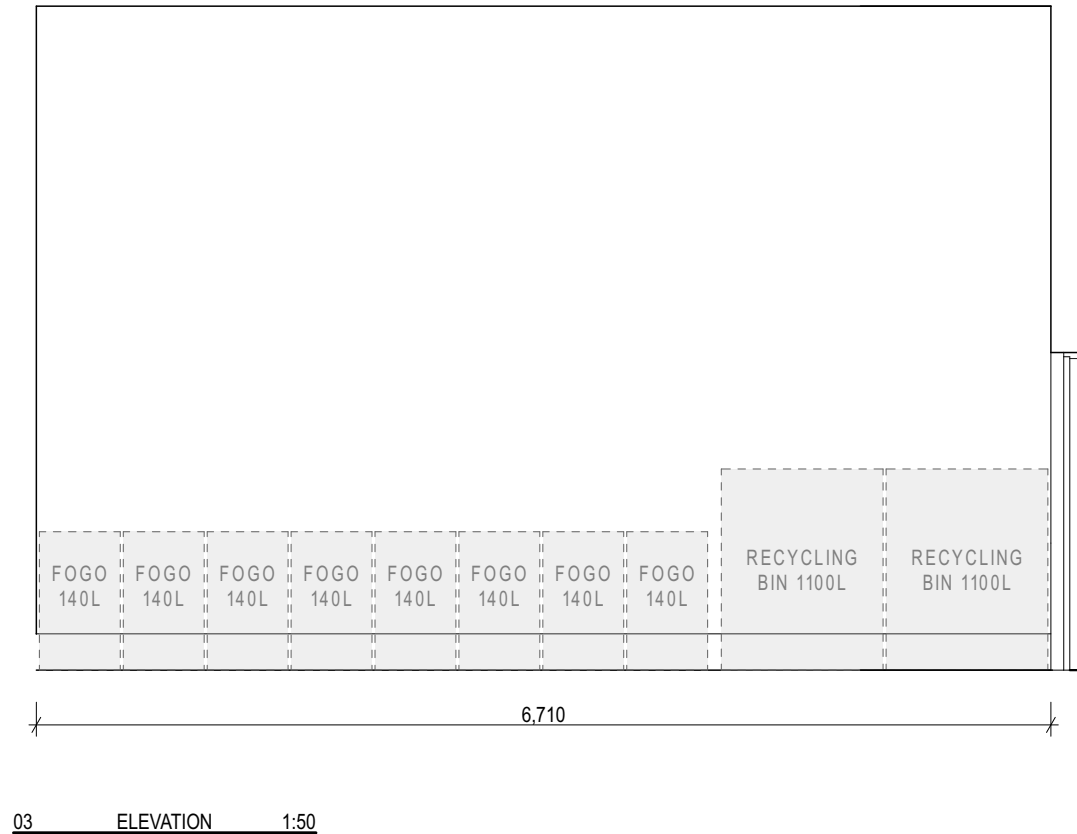
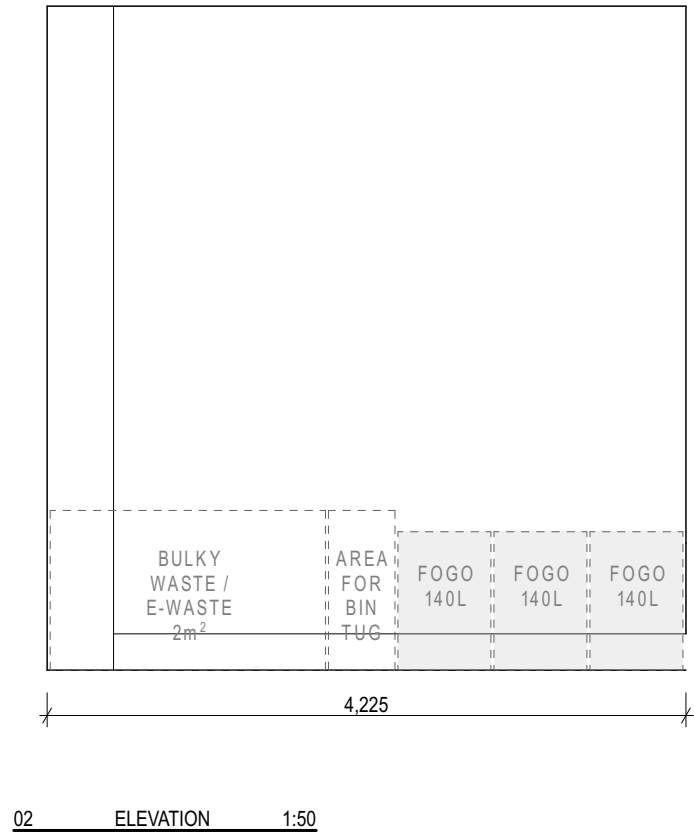
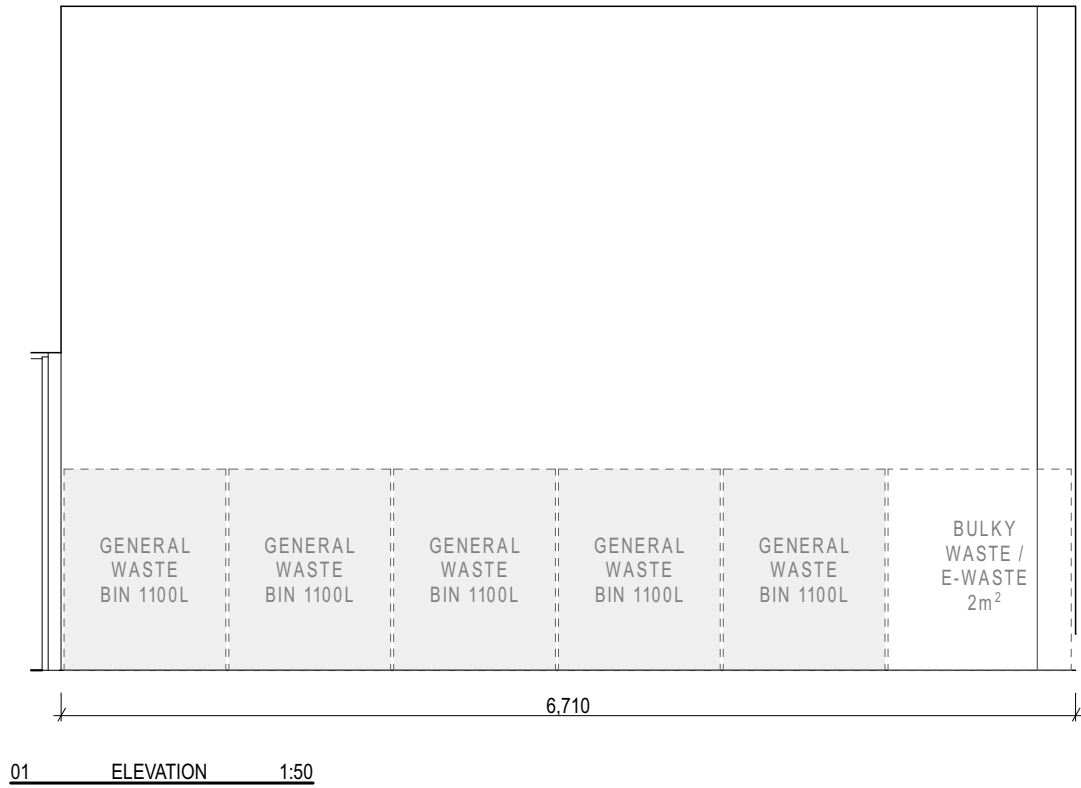
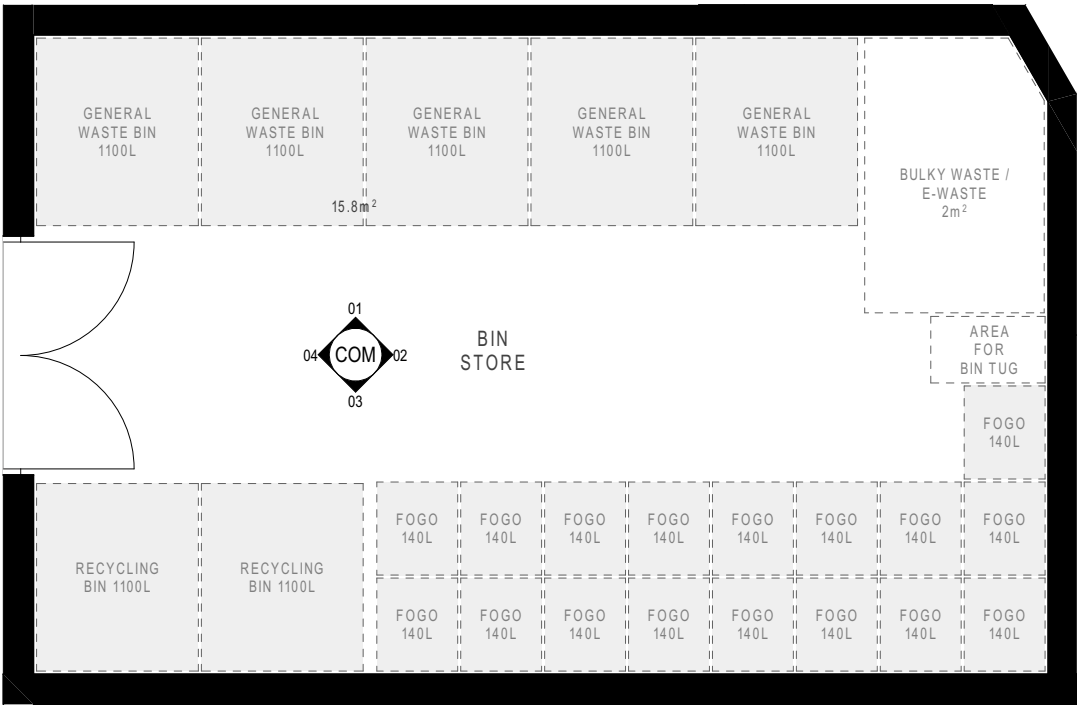


Project
9 MARVELL ST
Client
COBILD

Drawing Name
FLOOR PLAN - ROOF
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

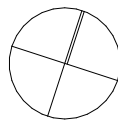
Drawing No.
DA.09
Scale
1:200
Revision
Concept



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Project
9 MARVELL ST
Client
COBILD

Drawing Name
DETAIL - BIN ROOM
Location
9 MARVELL ST BYRON BAY
NSW 2481

Job No.
HGA344
Date
6/12/23

Drawing No.
DA.16
Revision
Concept
Scale

Appendix B **SWMMP Checklist**





Site Waste Minimisation and Management Plan (SWMMP)

NOTE: The level of detail required for the Site Waste Minimisation and Management Plan (SWMMP) will vary with the size and complexity of the proposed development. For example, a DA seeking consent for a single dwelling house would normally require a very simple SWMMP, while a DA seeking consent for a large commercial or industrial complex is likely to require an extensive SWMMP that documents full details of proposed waste generation, management, recycling, storage and disposal measures.

Applicant and Project Details (All Developments)

Applicant Details

Application No.	TBC
Name	CH MARVELL STREET PTY LTD & CR MARVELL STREET PTY LTD & RR MARVEL STREET PTY LTD & TH MARVEL STREET PTY LTD
Address	8/9-11 Cremorne Street, Cremorne VIC 3145
Phone number(s)	0421 841 929
Email	chris@cobild.com.au

Project Details

Address of development	9 Marvel Street, Byron Bay
Existing buildings and other structures currently on the site	One existing commercial building facing and an existing shed to the rear of the property. The commercial building is a double storey brick buildings (frontage on Marvel St); There is also a single storey tin shed which is locate on the Fletchers Lane side of the site.
Description of proposed development	Three-storey development including retail shops, serviced apartments and a single level underground car parking.

This development achieves the waste objectives set out in the DCP. 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 council, DECC or WorkCover NSW.

Name	Chris Coyle
Signature	
Date	13/07/2022

Demolition (All Types of Developments)

Address of development: 9 Marvel Street, Byron Bay

Refer to Section F3.1 of the DCP for objectives regarding demolition waste.

Most favourable



Least favourable

	<i>Reuse</i>	<i>Recycling</i>	<i>Disposal</i>	
Type of waste generated	Estimate Volume (m³) or Weight (t)	Estimate Volume (m³) or Weight (t)	Estimate Volume (m³) or Weight (t)	Specify method of on site reuse, contractor and recycling outlet and /or waste depot to be used
Excavation material	4t			Reuse onsite as construction fill
Timber (specify)		10t		Reuse as formwork during construction. Recycle (North Coast Recycled Materials, Mullumbimby).
Concrete		85t		North Coast Recycling Wollongbar
Bricks/pavers/tiles		18t		North Coast Recycling Wollongbar
Metal (specify)		8t		Recycle (Richmond Waste)
Glass	1.5t	0.6t		Recycle (Richmond Waste) Demolition Contractor to resell windows
Furniture				N/A
Fixtures and fittings	0.2t		0.2t	Recycle (North Coast recycled materials, Mullumbimby) Dispose (Council Res. Rec. Centre)
Floor coverings	0.8t	0.5t		Send carpet to recyclers or reuse in landscaping
Packaging (used pallets, pallet wrap)				N/A
Garden organics	2m3			Mulch trees for reuse in landscaping.
Containers (cans, plastic, glass)				N/A
Paper/cardboard				N/A
Residual waste			0.3t	Dispose (Council Res. Rec. Centre)
Hazardous/asbestos waste (specify)				N/A
Other (specify)	1t			Pool shell to be resold

Construction (All Types of Developments)

Address of development: 9 Marvel Street, Byron Bay

Refer to Section F3.2 of the DCP for objectives regarding construction

Most favourable



Least favourable

	<i>Reuse</i>	<i>Recycling</i>	<i>Disposal</i>	
Type of waste generated	Estimate Volume (m3) or Weight (t)	Estimate Volume (m3) or Weight (t)	Estimate Volume (m3) or Weight (t)	Specify method of on site reuse, contractor and recycling outlet and/or waste depot to be used
Excavation material		4,580m3		Transport to Smith Drive, Ballina for re-use.
Timber (specify)	3t	2t		Reuse of formwork. Recycle (North Coast Recycled Materials, Mullumbimby).
Concrete	3.1t			Reuse onsite for driveways / ramps when broken up. Also use as drainage material.
Bricks	1.8t			Reuse onsite for driveways / ramps when broken up. Also use as drainage material.
Tiles			1.2t	Dispose (Council Res. Rec. Centre)
Metal (specify)		0.6t		Metal Roof Offcuts / Structural Steel misc. Recycled (Richmond Waste)
Glass		0.4t		Recycle (Richmond Waste)
Plasterboard (offcuts)		3t		Recycle (Richmond Waste)
Fixtures and fittings		0.2t		Recycle (Richmond Waste)
Floor coverings		0.3t		Recycle (Richmond Waste)
Packaging (used pallets, pallet wrap)	1.4t	1.1t	0.4t	Reuse (return to supplier) Recycle (Richmond Waste) Dispose (Council Res. Rec. Centre)
Garden organics				N/A
Containers (cans, plastic, glass)		0.4t		Recycle (Richmond Waste)
Paper/cardboard		0.5t		Recycle (Richmond Waste)
Residual waste		1.1t		Recycle (Richmond Waste)
Hazardous/special waste (specify)				N/A

Ongoing Operation (Residential, Multi Unit, Commercial, Mixed Use and Industrial)

Address of development: 9 Marvel Street, Byron Bay

Show the total volume of waste expected to be generated by the development and the associated waste storage requirements.

Paper, cardboard, metals, plastics and glass will all be placed in the commingled recycling bins

	<i>Recyclables</i>		<i>Compostables</i>	<i>Residual waste</i> *	<i>Other</i>
	<i>Paper/ cardboard</i>	<i>Metals/ plastics/glass</i>			
Amount generated (L per unit per day)	N/A	245	337	770	
Amount generated (L per development per week)	N/A	1714 (Commingled Recycling)	2359	5387	
Any reduction due to compacting equipment	N/A	N/A	N/A	N/A	
Frequency of collections (per week)	N/A	Weekly	Weekly	Weekly	
Number and size of storage bins required	N/A	1100L - 2 Bins	140L - 17 Bins	1100L - 5 Bins	
Floor area required for storage bins (m ²)	N/A	2.65	5.59	6.63	
Floor area required for manoeuvrability (m ²)	N/A	1.33	0.33	1.33	
Height required for manoeuvrability (m)	N/A	1.50	1.20	1.50	

* Current “non-recyclables” waste generation rates typically include food waste that might be further separated for composting.

Outline how measures for waste avoidance have been incorporated into the design, material purchasing and construction techniques of the development (refer to Section B8.3.2 of the DCP):

Materials

Harley Graham & Associates to incorporate the use of recycled & prefabricated components into the design.

The builder will be contracted to include the below provisions:

Estimate material volumes: to be carefully controlled to ensure correct quantities are purchased in line with schedules.

Concrete / Bricks / Pavers: Reuse for access into and out of the site. Also to be used by being broken up & used for Drainage.

Recycled water in concrete mix: higher level of recycled water to be used in the concrete mix.

Timber: Used as formwork, bridging, blocking & propping.

Plasterboard: Removal for recycling, return to supplier.

Material deliveries: to be 'as needed' to prevent the degradation of materials due to weathering & moisture damage, or stored undercover when there is availability.

Designated compound: for office location meetings & storage of containers.

Retain all records: demonstrating lawful disposal of waste & keep them readily accessible for inspection by regulatory authorities such as Council and SafeWork NSW.

Selections of general Materials: in the construction of the development are to be of an appropriate durability to ensure a long use life.

Lifecycle

Decisions relating to lifecycle impact of construction waste, material selection and operational waste to be made based on the following hierarchies.

Construction Waste

Minimise material environmental impact through:

1. Avoid - Avoid using any unnecessary materials
2. Demolition Reuse - Reuse materials from demolition where possible
3. Material Efficiency - Minimise waste through design, efficiency in construction and prefabrication
4. Recycle - Recycle any unavoidable waste produced in demolition or construction

Low Impact Materials

Minimise material environmental impact through:

1. Dematerialise - Avoid any unnecessary materials - reuse existing structures where possible and avoid finishes
2. Nothing New - Specify reused materials, either from on-site demolition or from local sources
3. Circular Materials - Materials with recycled content, and materials that can be used again. Recycled bricks and cladding materials will be investigated and used where possible.
4. Virgin Materials - Favour low embodied carbon and carbon sequestering materials. For this project we will be looking into ways to minimise the embodied carbon of the concrete mixture eg. investigating options such as Geopolymer concrete to reduce impact.

Operational waste

Minimise waste to landfill through the following process:

1. Avoid - Avoid consumption of any products inevitably destined for landfill. This will be done through the selection of tenants based on waste philosophies for commercial spaces.
2. Reuse - Reuse waste products on-site where possible. Eg. Potential for worm farms and composting to treat and reuse 100% of organic waste on site, to be managed by cafe operator. Residential design of kitchens and bins will make it easy for residents to separate waste.
3. Recover - Recovery resources from organic waste through compost to grow food
4. Recycle - Recycle any products that cannot be used on-site as a last resort

Residential Waste

Harley Graham & Associates will consider kitchen design and specifically bin designs that make it easy for residents to separate waste effectively - eg. providing the right amount of containers integrated as part of the fit-out, to separate organics, glass, paper, and landfill. Kitchens to provide containers for refill as part of fitout, to avoid single-use plastics.

Commercial Waste

Developer will be particular in tenant selection to ensure alignment with the environmental ambitions of the project. The tenants will need to agree to pursue zero waste operations. The tenancy agreements will be setup to ensure Commercial tenants are responsible for management of waste minimisation initiatives such as composting and e-water systems.

Plans and Drawings (All Developments)

The following checklists are designed to help ensure SWMMPs are accompanied by sufficient information to allow assessment of the application. Drawings are to be submitted to scale, clearly indicating the location of and provisions for the storage and collection of waste and recyclables during:

- demolition
- construction
- ongoing operation.

Demolition <i>Refer to Section F3.1 of the DCP for specific objectives and measures. Do the site plans detail/indicate:</i>		<i>Select Yes or No</i>	
Size and location(s) of waste storage area(s)	☒ Yes	☐ No	
Access for waste collection vehicles	☒ Yes	☐ No	
Areas to be excavated	☒ Yes	☐ No	
Types and numbers of storage bins likely to be required	☒ Yes	☐ No	
Signage required to facilitate correct use of storage facilities	☒ Yes	☐ No	
Construction <i>Refer to Section F3.2 of the DCP for specific objectives and measures. Do the site plans detail/indicate:</i>		<i>Select Yes or No</i>	
Size and location(s) of waste storage area(s)	☒ Yes	☐ No	
Access for waste collection vehicles	☒ Yes	☐ No	
Areas to be excavated	☒ Yes	☐ No	
Types and numbers of storage bins likely to be required	☒ Yes	☐ No	
Signage required to facilitate correct use of storage facilities	☒ Yes	☐ No	
Ongoing Operation <i>Refer to Section F4 of the DCP for specific objectives and measures. Do the site plans detail/indicate:</i>		<i>Select Yes or No</i>	
Space			
Size and location(s) of waste storage areas	☒ Yes	☐ No	
Recycling bins placed next to residual waste bins	☒ Yes	☐ No	
Space provided for access to and the manoeuvring of bins/equipment	☒ Yes	☐ No	
Any additional facilities	☒ Yes	☐ No	
Access			
Access route(s) to deposit waste in storage room/area	☒ Yes	☐ No	
Access route(s) to collect waste from storage room/area	☒ Yes	☐ No	
Bin carting grade	☐ Yes	☒ No	
Location of final collection point	☒ Yes	☐ No	
Clearance, geometric design and strength of internal access driveways and roads	☒ Yes	☐ No	
Direction of traffic flow for internal access driveways and roads	☒ Yes	☐ No	
Amenity			
Aesthetic design of waste storage areas	☒ Yes	☐ No	
Signage – type and location	☒ Yes	☐ No	
Construction details of storage rooms/areas (including floor, walls, doors, ceiling design, sewer connection, lighting, ventilation, security, wash down provisions etc)	☒ Yes	☐ No	

Appendix C Demolition Waste Plan & Swept Path Assessment



7 MARVELL ST

11 MARVELL ST

ENTRY & EXIT POINT

6.215m

20.15m

50.345m

4m³ MISCELLANEOUS WASTE BIN

16m³ BLOCKWORK BIN

16m³ CONCRETE WASTE

EXTENT OF SITE

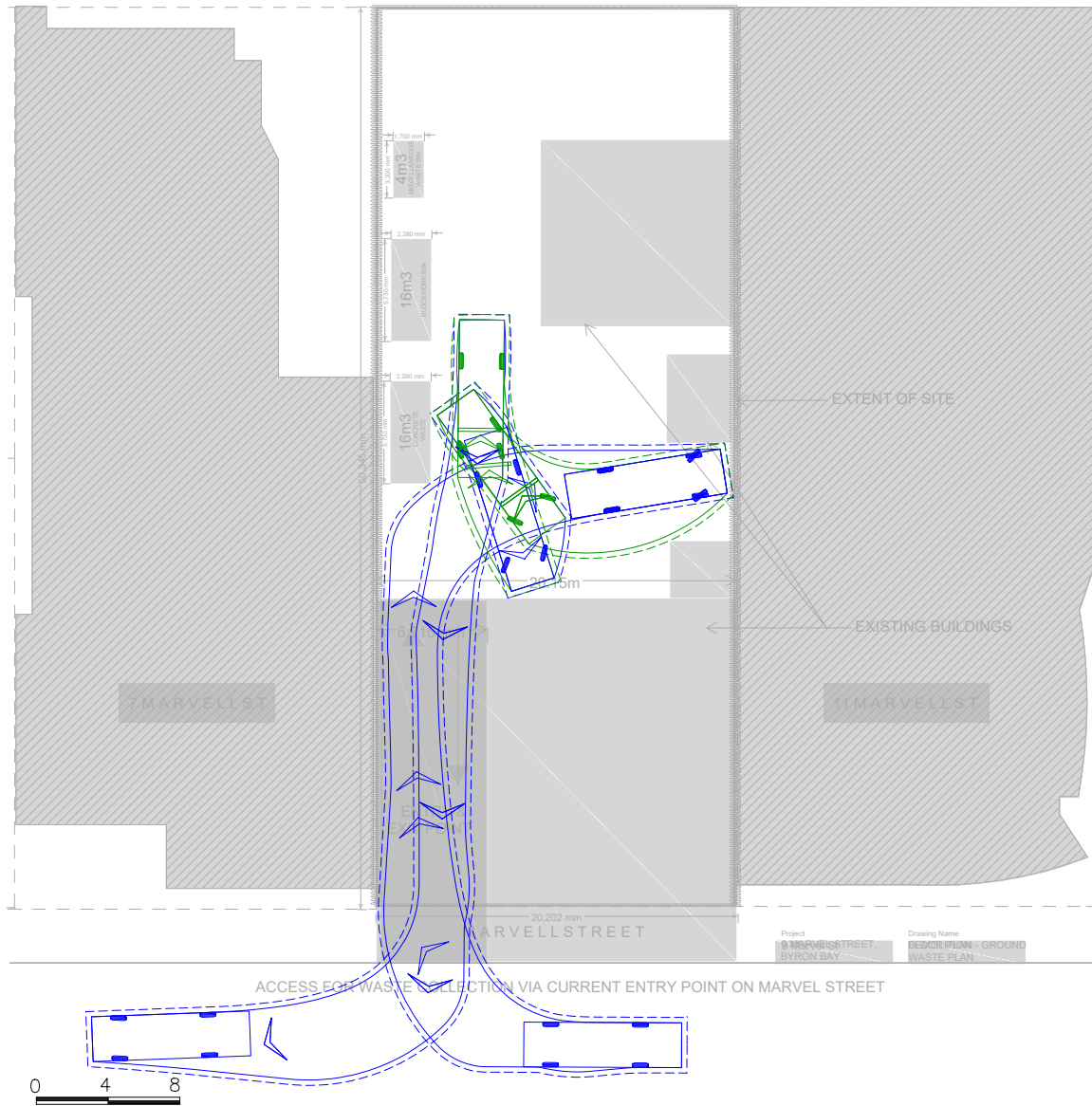
EXISTING BUILDINGS

Drawing Name
DEMOLITION
WASTE PLAN

scale
:200

ACCESS FOR WASTE COLLECTION VIA CURRENT ENTRY POINT ON MARVEL STREET

Y:\19001-19500\19282W - 9 MARVELL STREET, BYRON BAY\7. WASTE TRUCK SWEEP PATHS\SP01 - [2023.12.20]\19282W-SP01.DWG 20/12/2023 4:28:42 PM



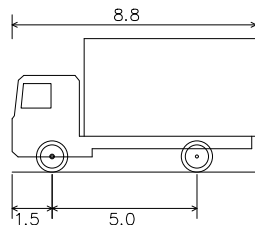
NOTE:

- 1) Base Plan Supplied by Cobild on 20/12/2023
- 2) Maximum Design Speed 10km/h

ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

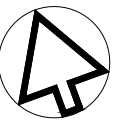
MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length 8.800m
Overall Width 2.500m
Track Width 1.500m
Lock to Lock Time 4.00 sec
Curb to Curb Turning Radius 10.000m

Proposed Mixed Use Development
9 Marvell Street, Byron Bay
Swept Path Assessment - Demolition Phase



RATIO REFERENCE
19282W-SP01/MF

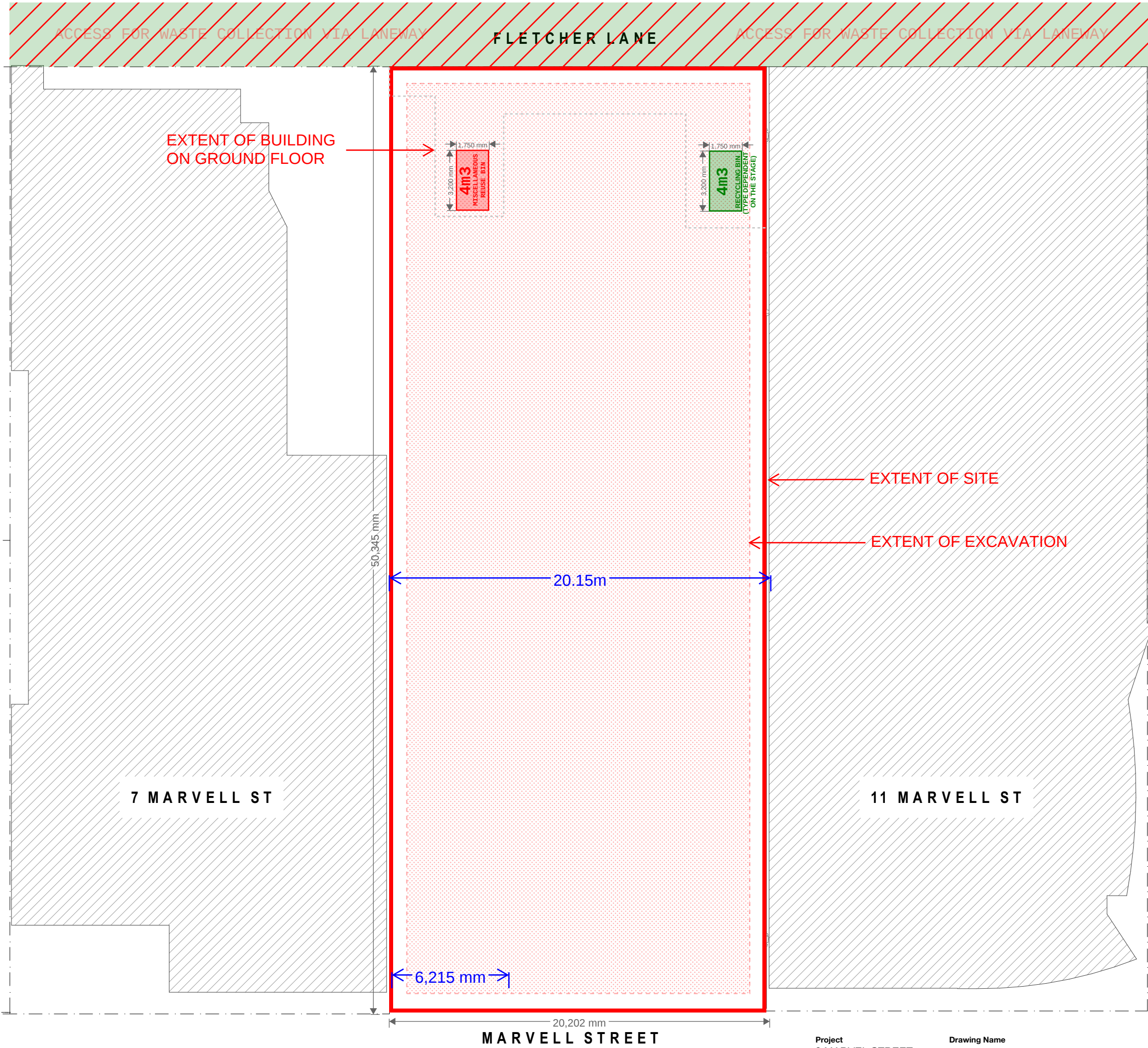
SHEET No.
1 of 2

SCALE
1:400@A4

DATE
20/12/2023

Appendix D Construction Waste Plan & Swept Path Assessment





Project
9 MARVEL STREET,
BYRON BAY

Drawing Name
CONSTRUCTION
WASTE PLAN

Scale
1:200

