

## Revised Site Waste Minimisation & Management Plan Proposed Townhouses

*Location:*

Lot 101 DP 839601  
103 Paterson Street  
Byron Bay NSW 2481

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*Prepared for:*

Hunter Hopkins on behalf of The Proponent

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*Report:*

HMC2020.086

September 2020  
As Revised March 2021



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**RE: Lot 101 DP 839601, 103 Paterson Street, Byron Bay, NSW, 2481.**

HMC Environmental Consulting Pty Ltd is pleased to present our Waste 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.

Yours sincerely



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## KEY CONTACTS

Company/Name	Contact Details	Phone Number/contacts	Available:
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Byron Resource Recovery Centre	115 Manse Road Myocum	02 66841870	Mon-Fri 8am-4pm Sat-Sun 8:30am-11:30pm

## 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
Byron Shire Council	Pollution	02 6626 7000 8.30am-4.30pm Monday-Friday 02 6622 7022 After Hours

## Abbreviations

A15	Section A15 <i>Tweed Development Control Plan 2008</i>
BSC	Byron Shire Council
EPA	NSW Environmental Protection Authority
SWMMP	Site Waste Minimisation & Management Plan
HMC	HMC Environmental Consulting Pty Ltd
OEHS	NSW Office of Environment & Heritage
Site	Lot 101 DP 839601, 103 Paterson Street, Byron Bay, NSW, 2481.
ACM	Asbestos containing material
MGB	Mobile Garbage Bin
Proponent	Hunter Hopkins on behalf of the Proponent
SMF	Synthetic Mineral Fibres
Guidelines:	Byron Shire Development Control Plan 2014 Chapter B8 Waste Minimisation and Management
DECC, 2008	Department of Environment and Climate Change, Better Practice Guidelines for Waste Management in Multi unit Dwellings June 2008

## 1 INTRODUCTION


HMC Environmental Consulting (HMC) has been engaged by Hunter Hopkins on behalf of The Proponent, to provide a Site Waste Minimisation & Management Plan (SWMMP) for proposed townhouses on an existing developed lot at Lot 101 DP 839601, 103 Paterson Street, Byron Bay, NSW, 2481.

Fourteen x 4-bedroom townhouses, nine swimming pools and associated driveways and landscaping would be constructed. An existing large split-level timber framed dwelling, consisting of 3 attached structures, would be demolished.

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**

<b>Address</b>	103 Paterson Street, Byron Bay, NSW, 2481
<b>Property Description</b>	Lot 101 DP 839601
<b>Existing buildings and other structures currently on the site</b>	Split level timber framed dwelling with metal cladding and metal roofing.
<b>Description of proposed development relevant to Waste Management</b>	<ul style="list-style-type: none"><li>• 3 x 2-bedroom units</li><li>• 1 x 3-bedroom unit</li><li>• 9 x 4-bedroom units</li><li>• Associated driveways &amp; landscaping</li></ul> <p>Waste would be generated during the demolition, construction and occupational stages of the development.</p> <p>The location of the site, its topographic features and relationship with adjoining development is shown on the map and aerial photograph in <b>Appendix 1</b>.</p>
<i>This development achieves the waste objectives set out in A15 Tweed DCP 2008. 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 TSC, NSW EPA or Safework NSW.</i>	
<b>Name</b>	Mark Tunks HMC Environmental Consulting
<b>Signature</b>	
<b>Date</b>	22 March 2021

## 1.2 Aim

The principal aim of managing this activity is to maximise resource recovery and minimise residual waste from demolition, construction and occupational activities associated with the proposed 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	

	<p>types of waste from these contributions; and allows deductions to be claimed in relation to certain types of waste. It sets out provisions covering:</p> <ul style="list-style-type: none"> <li>• record-keeping requirements, measurement of waste and monitoring for waste facilities</li> <li>• tracking of certain waste</li> <li>• reporting</li> <li>• transportation of waste</li> <li>• transportation and management of asbestos waste</li> <li>• recycling of consumer packaging</li> <li>• classification of waste containing immobilised contaminants</li> <li>• miscellaneous topics.</li> </ul>
<i>Byron Shire Council Development Control Plan 2010 Chapter 1 Part F Waste Minimisation and Management</i>	Identifies requirements 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 B within Part F describes waste generation rates. Appendix E within Part F provides requirements for the location, design and construction of Commercial/Industrial Waste and Recycling Storage areas. This SWMMP has been prepared to meet the objectives of this DCP.
<i>Byron Shire Council Waste Management Strategy 2012-2015</i>	The WMS describes strategies and measurable actions to be undertaken by the Council during the period 2012 – 2015 to guide the development and improvement of current waste and resource management practices
<i>NSW EPA Better Practice Guide for Waste Management and Recycling in Commercial and Industrial Facilities</i>	The purpose of this policy is to encourage efficient waste minimisation and resource recovery for demolition, construction and ongoing facility management. In addition, this policy seeks to facilitate the efficient and safe waste and recycling collection from all premises in the Council of the City of Sydney local government area (LGA).
<i>Council of City of Sydney Policy for Waste Minimisation in New Developments (2005)</i>	The purpose of this policy is to encourage efficient waste minimisation and resource recovery for demolition, construction and ongoing facility management. In addition, this policy seeks to facilitate the efficient and safe waste and recycling collection from all premises in the Council of the City of Sydney local government area (LGA).

### 3 HAZARDOUS MATERIALS – REMOVAL PRIOR TO GENERAL DEMOLITION

The proposed demolition would include an existing split-level timber framed dwelling with metal cladding & roofing. Due to the age of one of the timber framed structures, internal and external linings are likely to include asbestos containing material (ACM) and, if present, would require removal by a Safework NSW licensed contractor.

Management of hazardous material is to occur prior to general demolition and is to be in accordance with Safework NSW requirements, as detailed in Table 3. Demolition contractors have Safework NSW licensed personnel trained for the identification and removal of hazardous waste in demolition projects.

No opportunities for recycling and reuse are available for hazardous materials. Co-mingling of hazardous material is to be prevented. Separate receptacles to be provided and managed in accordance with Safework NSW and Safe Work Australia requirements.

**Table 3 Management of Hazardous Materials**

Type of Waste	Disposal at approved landfill facility Measures to include, but not limited to:
<b>Hazardous Material:</b>  <b>Asbestos</b> containing material (ACM) including fibro sheeting & vinyl tiles	<ul style="list-style-type: none"> <li>Identified or suspected (ACM) is to be removed, prepared &amp; disposed of by licensed asbestos handling contractor approved by Safework NSW. Asbestos material may be disposed at the Stotts Creek Resource Recovery Centre at Leddays Creek Road, Stotts Creek.</li> <li>A minimum of 24 hours notice must be given on 02 66707400, prior to the disposal of asbestos to allow Council's Landfill staff to manage the disposal of the asbestos at the facility via burial in a nominated cell.</li> </ul>
<b>Hazardous Material:</b>  <b>Lead</b> including lead flashing	<ul style="list-style-type: none"> <li>Use personal respirators according to AS/NZS 1715 and as per Synthetic Mineral Fibre removal in this table.</li> <li>Structures covered with lead-based paint should be removed intact, as far as possible.</li> <li>The safe work methods used in removal or demolition will determine how elaborate the containment system should be.</li> <li>Avoid power tools and any actions which create dust. However, if power tools need to be used, a higher level of containment must be used as opposed to when manual methods, such as scraping is used.</li> <li>All waste and debris collection and disposal procedures must be clearly stated in the Safe Work Methods Statement.</li> <li>Disposable suits and any vacuum bags/wet cloths to be appropriately bagged and disposed of as Hazardous Waste.</li> </ul>
<b>Hazardous Material:</b>  <b>Mercury</b> i.e. fluorescent lights	<ul style="list-style-type: none"> <li>Remove fluorescent lights in tact prior to mechanical demolition.</li> <li>Any removed lights to be appropriately bagged and disposed of as general waste in domestic quantities only.</li> <li>Personal Protective Equipment to be worn to minimise dust inhalation and eye/skin irritation</li> <li>More information, including how and where fluorescent lights can be recycled, can be found at <a href="http://www.fluorocycle.org.au/">http://www.fluorocycle.org.au/</a> or <a href="http://www.environment.gov.au/settlements/waste/lamp-mercury.html">http://www.environment.gov.au/settlements/waste/lamp-mercury.html</a>. FluoroCycle is a voluntary program established by the Commonwealth Government and the Australian Lighting Council to help reduce the amount of fluorescent lights going to landfill.</li> </ul>



	<ul style="list-style-type: none"><li>• SUEZ environment provide a national fluorescent light collection and recycling service to dispose of used fluorescent tubes, HID and CFL light globes.</li></ul>
<b>Hazardous Material:</b>  <b>Synthetic Mineral Fibre (SMF)</b> e.g. fibrewool insulation	<ul style="list-style-type: none"><li>• Filter mask, goggles, gloves and disposable coveralls.</li><li>• Dust control measure such as use of plastic screen &amp;/or exhaust fan to be used if significant contamination present.</li><li>• Disposable suits and any removed insulation to be appropriately bagged and disposed of as general waste.</li></ul>
<b>Hazardous Material:</b>  <b>Refrigerants</b> e.g. CFCs HFCs	<ul style="list-style-type: none"><li>• All refrigerants should be recovered and either recycled, reclaimed or returned to supplier, prior to disposal of unit.</li></ul>

#### 4 WASTE GENERATION & STORAGE REQUIREMENTS

Adequate space is available within the site for the storage of waste during the demolition, construction and occupation stages as summarised in Tables 4 – 6 below. Refer to Site Plans in Appendices 2 - 4.

**Table 4 Demolition Stage – Waste Generation/Recycling Potential**

Material Description	Estimated Volume (Tonnes)	Potential Method of Recycling / Reuse	Recommended Bin Sizing Onsite <sup>(2)</sup>
Fittings	2	<ul style="list-style-type: none"> <li>Byron Resource Recovery Centre</li> <li>Second-hand building material contractors</li> </ul> <b>Materials for reuse - sorted on site:</b> <ul style="list-style-type: none"> <li>Timber</li> <li>Roof sheeting</li> <li>Windows/doors</li> <li>Fittings/PC items</li> <li>Concrete/bricks/tiles - crushed/screened to produce aggregate &amp; road base material</li> <li>Metal – separated, melted down, sold to metal recyclers (Infrabuild, Lismore).</li> </ul>	<b>General Waste:</b> 1x 7m3 skip bin <b>Concrete/bricks/tiles:</b> 1x 7m3 skip bin <b>Timber:</b> 1x 7m3 skip bin, <b>Collection on demand</b>  N.B. Direct loading into vehicles for transport to landfill/resource recovery facility/recyclers would reduce required waste storage receptacles and servicing arrangements
Roof Tiles	10		
Plasterboard	4		
Timber	14.4		
Concrete, bricks, footings	100		

**Table 5 Construction Stage – Waste Generation/Recycling Potential**

Material Description	Volume/Area	Method of Recycling / Reuse	Recommended Bin Sizing Onsite
Excavated soil	Excavated Natural Material	100% reuse on site as landscaping	<b>General Waste:</b> 7m3 skip bin, collection on demand.  <b>Concrete/bricks/tiles:</b> 7m3 skip bin, collection on demand.  <b>Co-mingled:</b> 7m3 skip bin, collection on demand.
Concrete	30%	See table 4	
Timber	25%		
Metal	10%		
Cardboard	15%		
Gyprock & external cladding off-cuts	5%		
Plastic	10%	Landfill	
Other	5%	Landfill	

**Table 6 Occupational Stage – Waste Generation/Recycling Potential**

Material Description	Volume/unit/week <sup>(1)</sup>	Expected Volume/week	Recommended Bin Sizing <sup>(2)</sup>
General Waste	80L/unit/week	1040L/week	1 x 1100L MGB, serviced weekly
Recyclables	40L/unit/week	520L/week	1 x 1100L MGB, serviced weekly
Organic Waste - Optional	-	-	5 x 240L MGB, serviced weekly

(1) The typical volume of waste has been derived from *chapter B8 of the Byron Shire Development Control Plan* under Waste Recycling/Generation Rates (BSC 2014).

(2) Estimate Only - final bin configuration and servicing would depend on final tenancies.

#### 4.1 Demolition Stage

Waste generating activities during demolition of the following existing structures:

- existing dwelling, 3 structures, (approx. 348m<sup>2</sup>)
- existing pool and pool yard (approximately 98m<sup>2</sup>)

The waste generation volumes have been estimated based on approximate calculations and similar demolition sites, as recommended within the House Deconstruction Information Booklet (NSW Department of Environment Climate Change and Water, 2010).

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 licensed demolition contractor would inspect the structures for the presence of asbestos containing materials and other hazardous wastes. These would be removed prior to further demolition occurring.

Demolition would occur over a short period of time (1-2 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 dwelling following removal of any hazardous material.

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.

Significant cost savings may be achieved where waste is sorted prior to receipt at the Resource Recovery Centre. Proskips have facilities to sort co-mingled waste and provide a flat rate for co-mingled skip bins. Other resource recovery centres provide rates based on waste stream.

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 bricks and concrete waste on this site, loads of this heavy material would 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.

Hazardous waste to be separated and managed in accordance with Safework NSW requirements (eg wetting, wrapping ACM).

## 4.2 Construction Stage

Waste generating activities during the construction stage would comprise:

- Site stripping including removal of existing concrete driveway and slab.
- Earthworks including excavation for footings and services
- Construction of townhouses including building shells, fitouts, constructing driveways and landscaping.

## 4.3 Occupational Stage

It is recommended that the waste management system be monitored in the initial stages to ensure that sufficient bins and servicing have been provided to handle the waste generated. The estimated waste storage is based on ultimate capacity.

For the purposes of the proposed development, the waste will be sorted into general waste, recyclables and organic waste. Waste generating activities during occupation would comprise:

- Occupation of 13 x units (2-4 bedrooms)

### 4.3.1 Byron Shire Council

Following the Byron Shire Development Control Plan waste production rates (Table 6), a Council 3 bin system would provide the following waste storage be shared between two units within the multi-dwelling complex:

- 1 x 240 litre landfill bin (collected fortnightly)
- 1 x 240 litre recycling bin (collected weekly)
- 1 x 240 litre organics bin (collected weekly)

To achieve optimum access and serviceability for the proposed townhouses on this site, it is recommended to use a commercial waste service contract with Richmond Waste for the multi-unit dwelling waste storage, and to collect all bins on a weekly basis.

It is therefore recommended to use the following bin sizes and amounts:

- 1 x 1100litre general waste MGB (collected weekly)
- 1 x 1100 litre recycling MGB (collected weekly)
- 5 x 240 litre organic waste MGB (collected weekly).

### 4.3.2 Waste Storage & Bin Cleaning Areas

Construction of the waste storage area would be generally in accordance with chapter B8 (Waste Minimisation and Management) of the Byron Shire DCP 2014. The waste storage area is to be of weatherproof construction and easy to clean, with provision of cold-water supply for cleaning of bins and discharged to sewer.

A waste storage area has been provided for the proposed development and the location is detailed in Appendix 4.

### 4.3.3 Waste Collection

The waste contractor vehicle will enter the property for collection and nose into the driveway entrance. The waste contractor will remove the bins from the storage area and return the bins after servicing. The storage area is located at the front boundary enclosed by a barrier to maintain visual amenity. Tenants are responsible for transporting waste to the mobile garbage bins stored in the front of the property. Pedestrian access is provided by way of the driveway, pathway and ramp.

## 5 BIN IDENTIFICATION AND SIGNAGE

### 5.1 Signage

All bins and collection facilities will be clearly marked with labels, colour coding, symbols and words. Signs will be highly visible. Signage should be consistent with those used at garbage storage areas.

**Table 7 Typical Bulk Bin Dimensions - Demolition & Construction Stages**

Bin type	Volume Range	Description
Industrial Bins	0.75m <sup>3</sup> to 4.5m <sup>3</sup>	Bins with lids. Used for less volume and lighter waste that may be continuous over several weeks or months. The opening is at the top of the bin around chest height so these bins suit waste that is easily lifted. Generally economical if serviced with a larger truck run.
Merrell Skip Bins (Construction/ Demolition)	4.5m <sup>3</sup>	Used for renovations and medium size building jobs producing various waste types. The bin is designed for easy, no lid disposal over the waist high sides. Average economy with empty bins being stackable but full bins requiring a separate trip by the collection vehicle to the landfill.
Skip Bins (Construction/ Demolition)	2m <sup>3</sup> -25m <sup>3</sup> (2 m <sup>3</sup> , 4 m <sup>3</sup> , 7 m <sup>3</sup> , 10 m <sup>3</sup> , 16 m <sup>3</sup> , 25 m <sup>3</sup> )	Used for large waste amounts and heavy materials. Waste can be wheelbarrowed into the rear of the skip through a gate or dumped via excavator or backhoe into the skip. Able to take higher tonnes so suitable for concrete, bricks, timbers, metals, soils and other heavy items.

**Table 8 Typical Mobile Garbage Bin Dimensions - Occupation Stage**

Bin type	Volume Range	Description
Mobile Garbage Bin	240L	Plastic bin with lid on wheels. The opening is at the top of the bin around chest height so these bins suit waste that is easily lifted. Readily manoeuvrable.
Mobile Garbage Bin	1100L	Plastic bin with lid on wheels. The opening is at the top of the bin around chest height so these bins suit waste that is easily lifted. Readily manoeuvrable. Larger volume reduces the number of bins required.

## 6 EDUCATION & EVALUATION

### 6.1 Information & Awareness

It is good practice for all sub-contractors, project staff, residents 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.

Following occupation, owners/tenants would be provided with information on waste storage collection and recycling opportunities.

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)
- appointing a waste supervisor (generally, the groundsman/maintenance supervisor) to be responsible for the proper separation of waste, waste storage area and collection.

## 7 MONITORING

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

### 7.1.1 Demolition & Construction Stages

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 SWMMP.
- Waste volume monitoring carried out by the waste contractor during collection and servicing procedures.

### 7.1.2 Occupation Stage

Ongoing regular monitoring would be undertaken by each owner with input from, tenants, maintenance staff and waste contractors. Community feedback would also be assessed via complaints and other consultation.

Information and advice on the waste management operation would be distributed to each owner.

## 8 REVIEW

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. Byron Shire 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.

## 9 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
<b>Demolition</b> <sup>(1)</sup>	Hazardous waste assessment, removal, disposal. Stripping/sorting recycling building products.	<ul style="list-style-type: none"> <li>• Site fenced &amp; skip bins located for collection</li> <li>• 1 x 7m3 industrial bin or mobile garbage bin for general waste</li> <li>• 1 x 7m3 skip bin for concrete/heavy waste serviced on demand</li> <li>• 1 x 7m3 skip bin for timber, serviced on demand</li> </ul> <p>Servicing on demand</p>
<b>Construction</b>	Earthworks Building Servicing/trenching Waste offcuts, packaging, excess materials, Site office	<ul style="list-style-type: none"> <li>• 1 x 7m3 skip bin for general waste</li> <li>• 1 x 7m3 skip bin for concrete/heavy</li> <li>• 1 x 7m3 skip bin for co-mingled</li> </ul> <p>Servicing on demand</p>
<b>Occupation</b>	Residential – 13 x units-	<p>Waste sorting &amp; storage area located on site plan.</p> <p>Commercial Contract:</p> <p>General Waste</p> <ul style="list-style-type: none"> <li>• 1 x 1100L MGB (serviced weekly)</li> </ul> <p>Recyclable Waste</p> <ul style="list-style-type: none"> <li>• 1 x 1100L MGB (serviced weekly)</li> </ul> <p>Council Service or Commercial Contract</p> <p>Organic Waste</p> <ul style="list-style-type: none"> <li>• 5 x 240L MGB (serviced weekly or on demand)</li> </ul>

(1) Note the demolition waste storage requirements would be reduced with direct loading of both co-mingled and sorted demolition waste into approved transport vehicles.

## 10 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 demolition of the existing dwelling (3 structures) plus pool & pool yard, and the construction and occupation of the proposed townhouses.

Tables 6-9 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 *section B8 of the Byron Development Control Plan 2008* (BSC, 2014).

The proposed waste management arrangements within this report are considered adequate for the purposes of the demolition, construction and occupation associated with the proposed townhouse residential development to be located at Lot 101 DP 839601, 103 Paterson Street, Byron Bay, NSW, 2481.

## 11 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. The report and conclusions are based on the information obtained at the time of the assessment. Your report is based on the assumption that the site conditions as revealed through selective point sampling 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.

Because a report is based on conditions which existed at the time of the subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time, natural processes and the activities of man. Changes to the subsurface, site or adjacent site conditions may occur subsequent to the investigation described herein, through natural processes or through the intentional or accidental addition of imported material, and these conditions may change with space and time.

The findings of this report are based on the objectives and scope of work outlined within. HMC performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environment assessment profession. No warranties or guarantees, expressed or implied, are made. Subject to the scope of work, HMC's assessment is limited strictly to identifying typical environmental conditions associated with the subject property, and does not include evaluation of any other issues. This report does not comment on any regulatory obligations based on the findings, for which a legal opinion should be sought. This report relates only to the objectives and scope of the work stated, and does not relate to any other works undertaken for the Client. All conclusions regarding the property area are the professional opinions of the HMC personnel involved with the project, subject to the qualifications made above.

While normal assessments of data reliability have been made by HMC, HMC assume no responsibility or liability for errors in any data obtained from regulatory agencies, or information from sources outside HMC's control, or developments resulting from situations outside the scope of this project.



## 12 APPENDICES

### Appendix 1 Locality Map



Figure 1 - Surrounding Area (Source: Google Earth)

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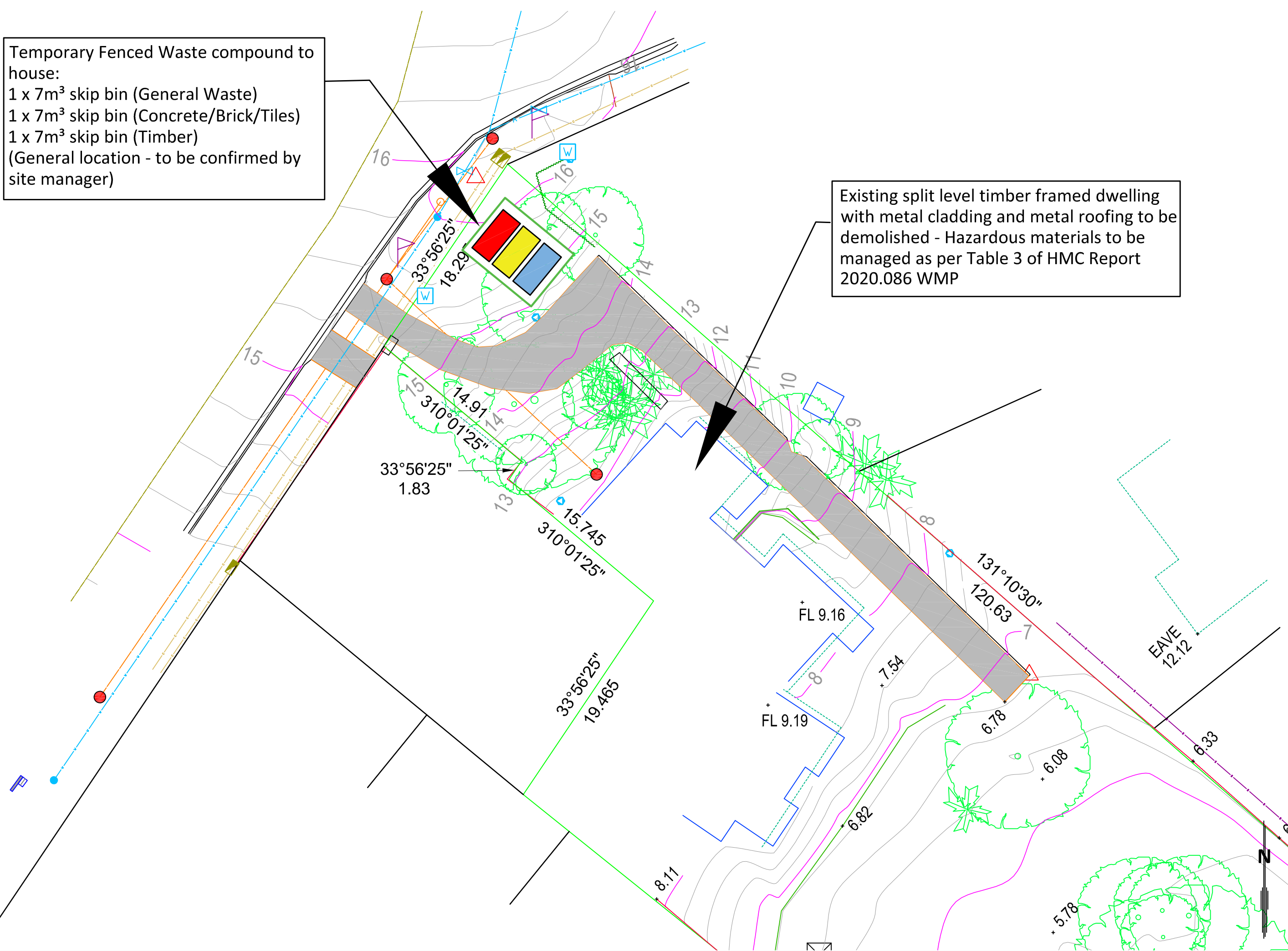
**Appendix 2      Waste Storage Area – Demolition Stage**

SEE NEXT PAGE



Temporary Fenced Waste compound to house:  
 1 x 7m<sup>3</sup> skip bin (General Waste)  
 1 x 7m<sup>3</sup> skip bin (Concrete/Brick/Tiles)  
 1 x 7m<sup>3</sup> skip bin (Timber)  
 (General location - to be confirmed by site manager)

Existing split level timber framed dwelling with metal cladding and metal roofing to be demolished - Hazardous materials to be managed as per Table 3 of HMC Report 2020.086 WMP



# WASTE MANAGEMENT PLAN - TEMPORARY WASTE STORAGE AREAS DURING DEMOLITION STAGE

Lot 101 DP 839601  
 103 Paterson Street, Byron Bay

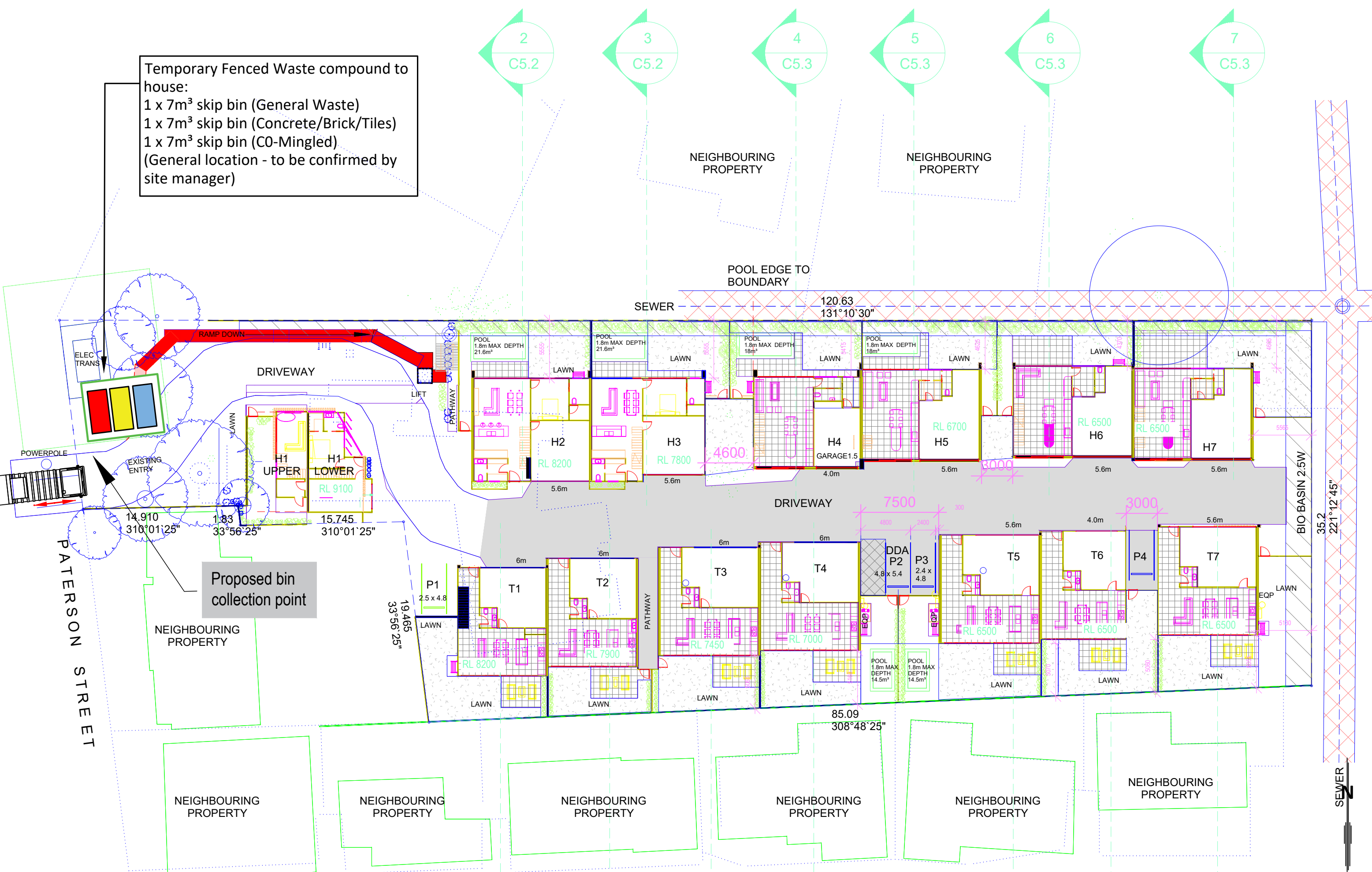
Base Drawing Source: Ardill & Payne Site Survey HMC Ref: HMCDWG2020.086

Job No: 2020.086  
 Date: April 2020  
 Revision Date:

### **Appendix 3      Waste Storage Area – Construction Stage**

SEE NEXT PAGE

Temporary Fenced Waste compound to house:  
 1 x 7m<sup>3</sup> skip bin (General Waste)  
 1 x 7m<sup>3</sup> skip bin (Concrete/Brick/Tiles)  
 1 x 7m<sup>3</sup> skip bin (C0-Mingled)  
 (General location - to be confirmed by site manager)



WASTE MANAGEMENT PLAN - TEMPORARY WASTE STORAGE AREAS DURING CONSTRUCTION STAGE

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**Appendix 4      Waste Storage Area – Occupation Stage**

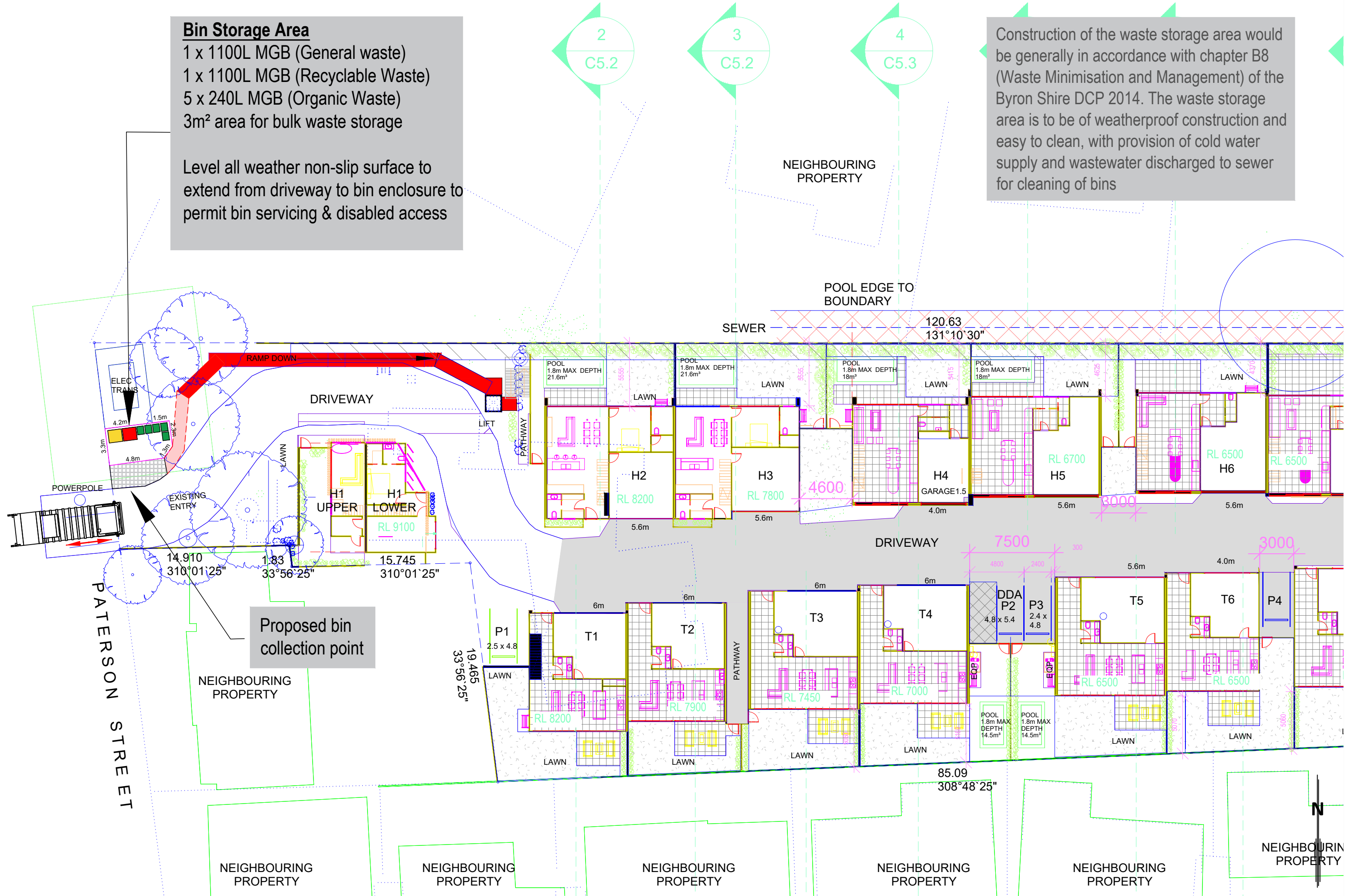
SEE NEXT PAGE

### Bin Storage Area

- 1 x 1100L MGB (General waste)
- 1 x 1100L MGB (Recyclable Waste)
- 5 x 240L MGB (Organic Waste)
- 3m<sup>2</sup> area for bulk waste storage

Level all weather non-slip surface to extend from driveway to bin enclosure to permit bin servicing & disabled access

Construction of the waste storage area would be generally in accordance with chapter B8 (Waste Minimisation and Management) of the Byron Shire DCP 2014. 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 for cleaning of bins



### WASTE MANAGEMENT PLAN - TEMPORARY WASTE STORAGE AREAS DURING OCCUPATION STAGE

Lot 101 DP 839601  
103 Paterson Street, Byron Bay

Base Drawing Source: Ardill & Payne Site Survey HMC Ref: HMC DWG2020.086.03

Job No: 2020.086  
Date: April 2020  
Revision Date: 4/3/2021



## Appendix 5 Bin Specifications – Demolition & Construction Skip Bins

### Skip Bins (ProSkips)

#### BIN SIZES

##### 2m<sup>3</sup> Skip Bin

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

Safe working load: 2 tonne



##### 4m<sup>3</sup> Skip Bin

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

Safe working load: 4 tonne

##### 7m<sup>3</sup> Skip Bin

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

Safe working load: 7 tonne



##### 10m<sup>3</sup> Skip Bin

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

Safe working load: 10 tonne

##### 16m Hook Lift

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

Safe working load: 13 tonne



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