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104-116 Regent Street Redfern

Construction Waste Management Plan

December 2021

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1 Introduction

This Construction Waste Management Plan has been prepared by Waste Audit & Consultancy Services (Aust) Pty Ltd for Wee Hur Redfern Trust for the development of the site at 104-116 Regent Street, Redfern. The aim of this Plan is to ensure that all waste resulting from construction activities is managed in an effective and environmentally aware manner, specifically:

- To minimise the generation of waste to landfill
- To maximise waste avoidance and reuse of materials on site
- To ensure that an efficient recycling procedure is applied to waste materials
- To make employees and subcontractors aware of their waste management responsibilities

Section 143 of the *Protection of the Environment Operations Act 1997* requires waste to be transported to a place that can lawfully accept it. It will be the responsibility of the site's developer to ensure that all contractors:

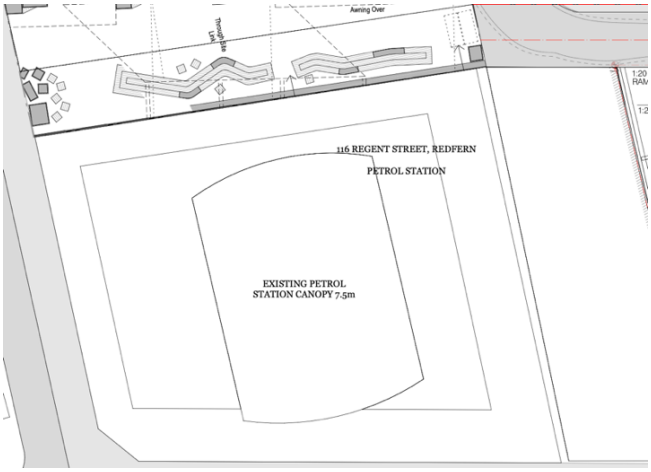
- Provide details of their operating licence to transport waste
- Clearly specify where all wastes are to be transported
- Confirm the capacity of the nominated facilities to receive/manage the waste
- Retain construction waste/recycling dockets on site
- Provide reports on waste types, quantities and disposal pathways

2 Development Description

The proposal comprises the redevelopment of the site as summarised below:

- Construction of an 18-storey building comprising a total of 9,562m² gross floor area with a mix of land use activities including:
  - Level 1: 72 m² of retail floorspace, 490 m² of communal area for student accommodation, 102 bicycle parking spaces, loading and waste management facilities and ancillary services and facilities.
  - Upper levels: student accommodation providing a total of 411 beds, including ensuite rooms, studios and two-bedroom configurations, with indoor and outdoor communal spaces on Levels 2, 4 and 16 and additional indoor communal areas on Levels 2 and 4.
- Hard and soft landscaping within the outdoor communal terraces on the roof-top of the podium level and Levels 4 and 16.
- Public domain improvements including provision of a landscaped through-site link connecting William Lane to Margaret Street and associated improvements to the Regent Street and Margaret Street frontages, including awnings and footpath upgrades.

The proposed development is classified as a State Significant Development. The site is located at Lot 10 in DP 1026349, zoned E – Business Zone – Commercial Core under SEPP (State Significant Sites) 2005, and is shown below:



3 SEARs Requirements

The development is a State Significant Development (SSD), application number SSD-12618001, and is subject to the Secretary's Environmental Assessment Requirements (SEARs) dated 8/2/21, which requires assessment of potential waste impacts, specifically:

- Identify, quantify and classify the likely waste to be generated during construction and operation
- Describe measures to be implemented to minimise, reuse, recycle and safely dispose of waste
- Identify appropriate servicing arrangements
- Address the City of Sydney *Guidelines for Waste Management in New Developments*

4 Applicable Legislation, Standards & Guidelines

In addition to the SEARs requirements, the following have been referred to in compiling this report:

- NSW *Protection of the Environment Operations Act 1997*
- NSW *Protection of the Environment Operations (Waste) Regulation 2014, Part 11*
- NSW *Protection of the Environment (General) Operations Act 1998*
- NSW *Waste Avoidance and Resource Recovery Act 2001*
- NSW EPA *Waste Classification Guidelines* 2014

5 Construction Waste Management Principles

5.1 General Principles

Avoid: Use practices that avoid the creation of waste products in the first place (e.g., the Design for Manufacture and Assembly (DfMA) process that combines the manufacture of building components, such as wall systems and facades, in an efficient factory environment, with on-site construction assembly. For details of this process please go to:

https://architectus.com.au/insight/design-for-manufacture-and-assembly-dfma/

Reuse: Ensure that wherever possible, materials are reused either on site or offsite:

- Identify and put systems in place to separate and store materials for onsite reuse
- Identify the potential applications for reuse offsite and facilitate this process

Recycle/Recover: Identify all recyclable waste products to be produced on site:

- Provide systems, bins, and signage for separating and stockpiling of recyclables
- Process the material for recycling either onsite or offsite

Treat/Dispose: Wastes that cannot be reused/recycled will be removed and treated/disposed of at appropriately licensed facilities. To reduce vehicle movements and transportation costs, bins should be monitored for fullness and collected on an efficient schedule.

5.2 Liquid Waste Management

- Ensure water is used in moderation and no taps are left continuously running
- Use any grey water produced on site for irrigation or for dust suppression
- Only discharge clean water into storm water
- Manage all wastewater and runoff in accordance with Sydney Water requirements

6 Risk Management & Reporting

Current legislation determines that the generator of waste is the owner of the material until it crosses a weighbridge into a licensed processing or disposal facility. Waste contractors including construction contractors will be the primary transporters of waste off-site;

accordingly, contractors will be required to provide monthly reports to the Project Managers on waste reused, reprocessed or recycled, and waste sent to landfill.

All reports will include the following information:

- Date and time material removed
- Material type & amount (in kg and/or cubic metres)
- Processing facility material taken to, & facility licensing information
- Vehicle registration and waste contractor's company details

This information will be available for inspection to authorised council officers at any time during site works. At the conclusion of site works, the construction contractor will retain all documentation and make this documentation available for inspection.

7 Waste Management Objectives & Strategies

The project's waste management objectives include:

- Minimising waste to landfill through reuse, recycling and reprocessing
- Disposal of no more than 20% of residual waste materials to a licensed landfill in accordance with both regulatory and legal requirements
- The diversion from landfill of 80% of construction waste by weight, to meet the criteria of the NSW State Government's waste legislation, policy settings and regulatory regime

The following waste management strategies for the project will operate over the design, procurement, and construction (including fitout) stages of the project:

Management Strategies	Responsibilities
Design:	
Use of modular components in design	Architect & Engineer
Use of prefabricated components in design	Architect, Builder, Subcontractors
Design for materials to standard sizes	Architect, Subcontractors
Design for operational waste minimisation	Architect & Builder
Procurement:	
Select recycled and reprocessed materials	Architect, Engineer, Builder, Subcontractors
Select components that are reusable after deconstruction	Architect, Engineer & Builder
Pre-Demolition:	
Waste management plan to be reviewed and amended as required to address any changes in project scope	Project Manager, Builder
Hazardous materials survey to be undertaken prior to commencement	
Construction On-Site:	
Use the waste hierarchy principles of avoidance, reuse, reduction, and recycling	Builder & Waste Contractor
Minimisation of recurring packaging materials	Subcontractors
Returning packaging to the supplier	Builder & Subcontractors
Separation and recycling of materials off site	Waste Contractor
Monitor and audit correct usage of bins	Builder & Waste Contractor
Monitor and audit waste contractor(s)	Builder

8 Materials Volumes

The following table details the estimated composition by m^3 of construction waste to be generated, and the recommended management strategy for each type of material. Specific disposal/recycling facilities have not been shown, as a waste contractor has not yet been appointed for the project.

All waste contractors and sub-contractors will be required to detail all intended and actual disposal facilities used, in order to maximise diversion of waste from landfill.

Materials on Site		Destination		
Type of Material	**Estimated Volume (m^3)**	**Onsite (Reuse/Recycle)**	**Offsite (Reuse/Recycle)**	**Disposal (Landfill)**
Concrete (Excess)	**47**	Separated on site and crushed for use in temporary access road construction	Collected by contractor and taken to concrete recycling facility	No disposal to landfill
Floor Coverings	**35**	No on-site reuse	Collected in designated bin and sent for recycling if of required quality; otherwise sent to landfill	Non-recyclable materials will be disposed of at landfill facility
Misc. General Waste	**24**	No on-site reuse or recycling	Separated onsite into dedicated receptacles and collected by the waste contractor for disposal	Disposal to landfill
Metal Offcuts, Roof Sheeting, Wiring, etc.	**24**	No on-site reuse	Collected by specialist metal subcontractor for separation into different metal types for recycling	No disposal to landfill
Used Pallets	**24**	Reused on site for storage where possible	Collected by contractor and disposed of at recycling facility	No disposal to landfill
Paper/Cardboard Recycling	**24**	Reuse cardboard boxes for storage where possible	Separated onsite into dedicated receptacles and collected by the waste contractor for recycling	No disposal to landfill
Plasterboard Offcuts	**24**	No on-site reuse	Material to be separated and stockpiled onsite and collected by the waste contractor for recycling for use as soil improver	Non-recyclable materials will be disposed of at landfill facility
Timber Offcuts	**24**	Reuse for formwork where possible	Untreated recyclable timber will be collected and recycled at appropriate timber yard. Unrecyclable (treated) timber will be disposed of at landfill	Non-recyclable materials will be disposed of at landfill facility
Mixed Recyclables	**12**	No on-site reuse or recycling	Separated onsite into dedicated receptacles and collected by the waste contractor for recycling	No disposal to landfill
Glass (Excess)	**12**	No on-site reuse	Recyclers consulted as to potential for recycling	No disposal to landfill
TOTAL VOLUME OF MATERIALS	**248 m^3**	The development's construction phase will produce around **248 cubic metres** of waste materials, of which **90.5%** by volume can potentially be diverted from landfill, either by being reused on or off site, or recycled off-site at a specialised facility.		
POTENTIAL RECOVERY	**90.5%**			

9 Contractor Management

Each subcontractor working on the site will be required to adhere to this Waste Management Plan.

The Head Contractor will ensure each subcontractor:

- Takes practical measures to prevent waste being generated from their work

- Implements procedures to ensure any waste that is created will be actively managed and where possible recycled, as part of the overall site recycling strategy or separately
- Ensures that the right quantities of materials are ordered, minimally packaged and where practical pre-fabricated, and any oversupplied materials are returned to the supplier
- Implements source separation of off-cuts to facilitate reuse, resale or recycling

The Site Manager will be responsible for:

- Ensuring there is a secure location for on-site storage of materials to be reused on site, and for separated materials for recycling off site
- Engaging qualified contractors to remove waste and recycling materials from the site
- Coordinating subcontractors to maximise on site reuse of materials
- Regular monitoring of bins by site supervisors to detect any contamination or leakage
- Ensuring the site has clear signs directing staff to the correct location for recycling and stockpiling, and that each bin/skip/stockpile is clearly signposted
- Providing training to all site employees and subcontractors in regard to the WMP as detailed in Section 9 below

Should a subcontractor cause a bin to be significantly contaminated, the Site Manager will be advised through a non-conformance report and the offending subcontractor will then be required to take corrective action, at their own cost. The non-conformance process would be managed by the Head Contractor's Quality Management System.

10 Training and Education

All site employees and sub-contractors will be required to attend an induction that will outline the components of the WMP and explain the site-specific practicalities of the waste reduction and recycling strategies outlined in the WMP.

All employees are to have a clear understanding of which products are being reused/recycled on site, and where they are stockpiled, and are also to be made aware of waste reduction efforts in regard to packaging.

This report has been prepared by:

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December 9, 2021