19-23, 25, 27-29 The Corso, Manly, NSW 2095

Demolition & Construction Waste Management Plan

February 2022

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1. Introduction

This Demolition and Construction Waste Management Plan has been prepared by Waste Audit & Consultancy Services (Aust) Pty Ltd for Iris Capital to provide guidance on sound management of waste materials during the demolition and construction phases of the proposed refurbishment of a food and beverage commercial tenancy on 19-23, 25, 27-29, The Corso, Manly, NSW.

This report supports a Development Application (DA) submitted to the Northern Beaches Council pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The DA seeks approval for alterations to the existing building as per the Planning application:

Change of use to a pub, alteration and additions to the premises, fitout and signage., and alterations and additions to the Ivanhoe Hotel and extend to adjoining premises, including new façade, coffee shop, poker machine area, bottle shop and TAB.

The aim of this Plan is to ensure that all waste resulting from construction and demolition 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

Preparation of this Demolition and Construction Waste Management Plan has been undertaken with reference to industry best practices. In particular, compliance with *Australian Standard AS2601: The Demolition of Structures* is required under the Environmental Planning and Assessment Regulation 2000, which:

- Sets out requirements for the planned demolition of buildings and certain other structures so that the risk of injury to workers, other site personnel and the public, and the risk of damage to adjacent property and the immediate environment, is minimised;
- Covers the methods and safety procedures applicable to demolition work in general as well as procedures for some types of structures;
- Deals with manual and mechanical demolition techniques including those employing specialised earth-moving type machinery;
- Includes appendices covering the demolition of pre-stressed concrete structures, some contractual considerations, a checklist for contractors and qualifications for site personnel;
- Addresses safety and health issues under the headings of:
  - Health and safety of the public - covering general requirements, lighting, falling materials, fencing, hoardings and warning notices, scaffolding, overhead protection for footpaths, and hazardous materials and conditions;
  - Health and safety of site personnel - covering general safety, personal protective clothing and equipment, cutting and welding, fire protection, first aid, amenities, removal of hazardous material and electrical safety;
  - Protection of adjoining buildings and protection of immediate environment - covering requirements relating to access and egress, damage and structural integrity, vibration and concussion, weatherproofing, burning, dust control, noise control, protection of public roads and protection of sewers and water courses; and
  - General protection of the site.

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:

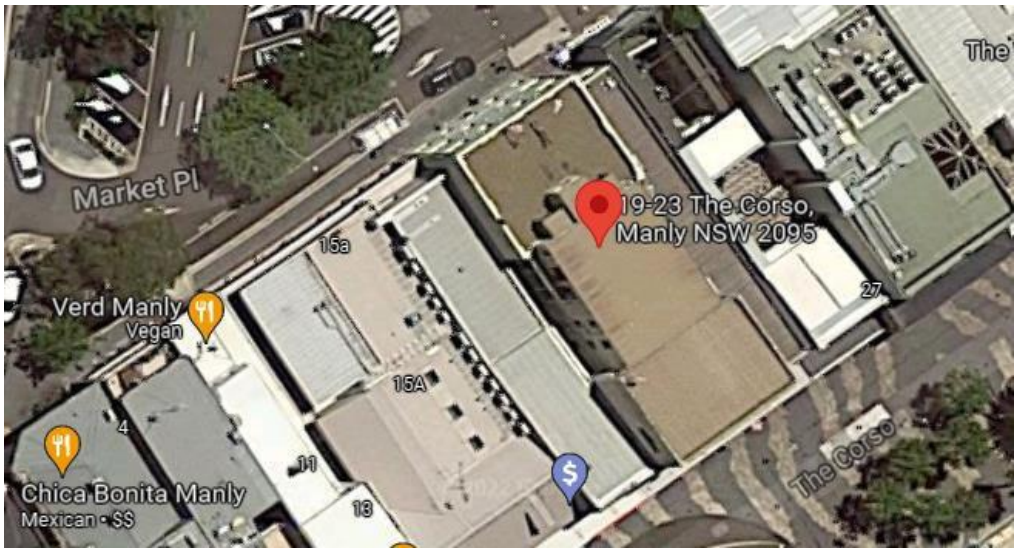
- Provide details of their operating license to transport waste.
- Clearly specify where all wastes are to be transported.
- Confirm the capacity of the nominated facilities to receive/manage the waste.
- Retain demolition, excavation, and construction waste/recycling dockets on site to confirm which authorised waste/recycling facilities received the material for recycling and disposal
- Provide reports on management aspects (types, quantities and disposal pathways).

2. Proposed Redevelopment

2.1 Existing Structures on Site

The site of the proposed development is occupied by an existing commercial food and beverage tenancy. Estimates of the volumes of waste expected to be produced by demolition of parts of the internal areas of the existing building is based on these parameters.

Figure 1: Existing Structure, sourced from Google Maps.



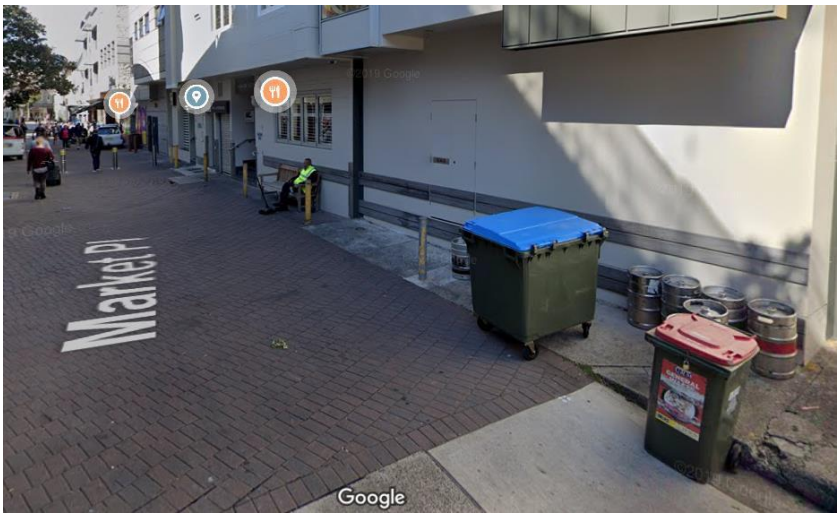


Figure 2. Street view of the existing back of the site facing Market Place, where the waste will be collected.

Figure 3. Frontage of the tenancy facing The Corso.

2.2 Proposed Redevelopment

The proposed modifications are as indicated on the application plans and include reconfiguration of the approved internal layout of the premises, as set out below:

- Demolition of existing improvements within 23, 25 and 27 The Corso including removal of the ground floor kitchen of 25 The Corso
- Relocation of the bottle shop from within No. 25 The Corso, to the south-western side of the site, at No. 23, facing the Corso and thus improving street activation
- Relocation of Sports Bar from 29 The Corso to 25 The Corso
- Reconfiguration to the approved layout of the gaming area to the rear of the bottle shop at No. 23 The Corso and part of the internal area contained within No. 25 The Corso
- Removal of the approved voids contained within No. 23 The Corso
- Creation of new voids within No 25 The Corso
- Modified internal seating area on the eastern side of the internal gaming area within No. 25 The Corso
- Change of the ancillary use of Level 1 of 23 The Corso from storage to ancillary office area, consistent with the approved use as a pub
- Reconfiguration of approved improvements to Level 1 of 23 The Corso
- Reconfiguration of existing layout to Level 1, 25 The Corso
- Miscellaneous structural modifications
- Additional signage to the Corso and Market Lane
- Amendments to building access and services, including stairs and floor finishes

The modifications also seek to alter the approved facades as follows:

- Modification to the approved front façade, facing The Corso, across No. 23, with two additional glazed openings to match the existing treatment to improve the active frontage facing the street
- Modification to the approved rear façade of No. 23 The Corso, facing Market Lane, with new metal louvre panels and an entry door, along with a new fire escape door.

3. Waste Management Strategy

3.1 Waste Management Principles

The waste management hierarchy below has been used to guide the waste management plan:

Avoid
Adopt sound work practices during the demolition and construction processes that avoid the creation of waste products in the first place

Reduce
Reduce the use of materials during the demolition process that require treatment or disposal

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

- Implement systems to separate and store materials that can be reused onsite
- 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 for separating and stockpiling of recyclables
- Provide clear signage to ensure recyclable materials are separated
- Process the material for recycling either onsite or offsite

Note: In some cases it may be more economical to send the unsorted waste to specialised waste contractors who will separate and recycle materials at an offsite location

Treat/Dispose
Waste products which cannot be reused or recycled will be removed and treated/disposed of at appropriately licensed facilities, ensuring the following:

- Chosen waste disposal contractor complies with OEH requirements
- Bins to be monitored for fullness and collected on an efficient schedule.

3.2 Record Keeping

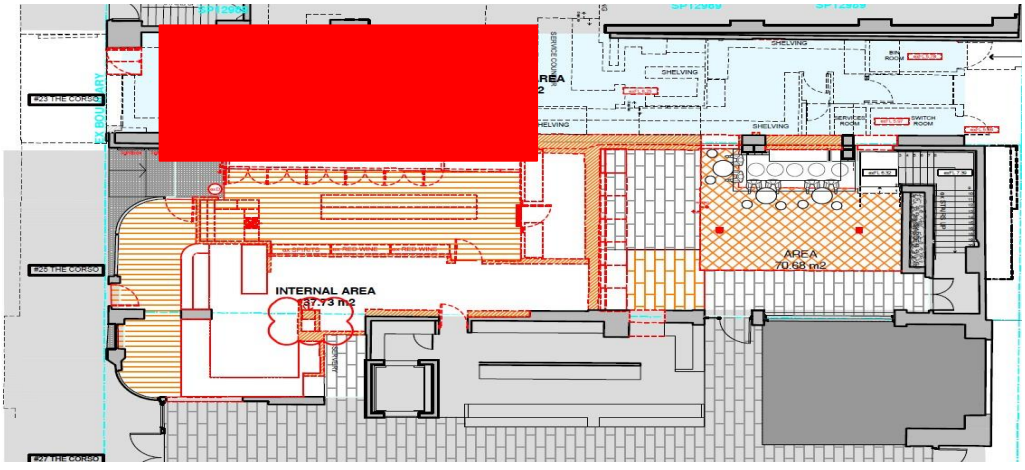
Records will be required to be kept of all wastes and recyclables generated and either re-used on site or transported off-site. It will be a condition of appointment that all contractors provide these records and that they also contain details of the facilities that the materials are transported to. These records will be made available to relevant authorities on request.

3.3 Materials Storage

All waste and recycling materials will be stored in bins provided by the appointed contractor(s). These bins will be appropriately coloured and signed to indicate what materials are to be deposited into them and located to maximise recovery of reusable/recyclable materials.

The storage space identified is within the redevelopment site and away from public space. The construction material collection space is highlighted in figure 3 below with a red box.
Considering this space will see development of only food and beverage tenancy, it will provide a useful area to store waste items throughout the demolition and construction phases of the project and will be easily removable from site on an as required basis. The area of works is also closed off from the public, thereby reducing any occupational health and safety risk.

Figure 3. The highlighted space shown will be utilised as an internal materials storage space.



3.4 Liquid Waste

- 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

3.5 Asbestos

The general management process for materials suspected of containing asbestos is[1]:

i. Treat the material as asbestos unless proven otherwise
ii. Do not disturb the material (i.e., shift or place into a container)
iii. Seek advice from a suitably qualified laboratory to test the material(s) to determine if it is or is not asbestos
iv. If determined not to be asbestos, then it can be managed as an inert waste
v. If determined to be asbestos then it must be managed by a licenced contractor for packaging, removal and disposal
vi. If the material has accidently been uncovered, then the area should be cleared, barriers erected to prevent access, NSW WorkCover and EPA notified, and if the material is broken, it should be covered with a fine spray/mist of water.

For what has been conclusively identified as asbestos-containing materials (including soils), a licensed contractor will be used to manage the removal of any asbestos-contaminated soil and other material contained in the buildings.

There are strict regulatory requirements under Clause 42 of the *Protection of the Environment Operations (Waste) Regulation 2005* that apply to management of asbestos waste, including:

- Waste must be stored on the premises in an environmentally safe manner.
- Non-friable asbestos material must be securely packaged at all times.
- Friable asbestos material must be kept in a sealed container.
- Asbestos-contaminated soil must be wetted down.
- All asbestos waste must be transported in a covered, leak-proof vehicle.
- It is illegal to re-use, recycle or dump asbestos waste.

4. Demolition Phase

Table 1 shows estimated quantities in m^3 of demolition waste to be generated, and the recommended management strategy for each type of material.

It is recommended that opportunities for reusing this material either on site or at an off-site location, or locations, be further investigated.

Specific disposal/recycling facilities have not been shown, as a waste contractor has not yet been appointed for the project. All contractors and sub-contractors, once appointed, will be required to detail all intended and actual disposal facilities used, in order to ensure the guiding principles of the waste hierarchy are upheld and maximum diversion from landfill is achieved.

Table 1: Demolition Waste - Expected Materials Streams

Materials te		Destination/Treatment		
Type of Material	Estimated Volume (m^3)	Onsite (Reuse/Recycle)	Offsite (Reuse/Recycle)	Disposal (Landfill)
Structural Concrete	10 m^3	Separated onsite and crushed for use in pavement and/or temporary access road construction	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Metals (Structural steel)	8 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Ceiling Tiles	8 m^3	No onsite reuse or recycling	Removed if still serviceable and sold for reuse to an appropriate contractor, or collected by specialist contractor for recycling	Minimal disposal to landfill
Timber (off-cuts, plasterboard, wood)	7 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Carpet	5 m^3	No onsite reuse or recycling	Disposed of into a designated bin and collected for recycling if of the required quality, or disposal to landfill if not	Material that cannot be recycled will be disposed of at landfill facility
Window Glass	2 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Metal Ductwork, Lighting Fixtures	2 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Cabinetry	2 m^3	No onsite reuse or recycling	Removed if still serviceable and sold for reuse to an appropriate contractor, or collected by specialist contractor for recycling	Minimal disposal to landfill
Residual Waste	2 m^3	No onsite reuse or recycling	Separated onsite into dedicated receptacles and collected by the waste contractor for disposal	Disposal to landfill
Electrical Wiring	1.5 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill

Materials on Site		Destination/Treatment		
Type of Material	Estimated Volume (m^3)	Onsite (Reuse/Recycle)	Offsite (Reuse/Recycle)	Disposal (Landfill)
Electrical Pipework, Fixtures	1 m^3	No onsite reuse or recycling	Removed if still serviceable and sold for reuse to an appropriate contractor, or collected by specialist contractor for recycling	Minimal disposal to landfill
Plumbing Pipework, Fixtures	1 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Bathroom Tiles	1 m^3	No onsite reuse or recycling	Removed if still serviceable and sold for reuse to an appropriate contractor, or collected by specialist contractor for recycling	Minimal disposal to landfill
Garden Organics	0 m^3	No onsite reuse or recycling	Collected by contractor and taken to recycling facility	Minimal disposal to landfill
Bricks/Pavers	0 m^3	No onsite reuse or recycling	Removed if still serviceable and sold for reuse to an appropriate contractor, or collected by specialist contractor for recycling	Minimal disposal to landfill
TOTAL VOLUME OF MATERIALS	51 m^3			
POTENTIAL RECOVERY	>96.04%			

In total, the development's demolition phase will produce around 51 cubic meters of waste materials, of which over 96.04% by volume can potentially be diverted from landfill if the demolition process is properly managed.

5. Construction Phase

Table 2 shows estimated quantities in volume (m^3) of construction waste to be generated, and the recommended management strategy for each type of material.

All contractors and sub-contractors, once appointed, will be required to detail disposal facilities used, in order to ensure the guiding principles of the waste hierarchy are upheld and maximum diversion from landfill is achieved.

Table 2: Construction Waste - Expected Materials Streams

Materials on Site		Destination		
Type of Material	Estimated Volume (m^3)	Onsite (Reuse or Recycle)	Offsite (Reuse or Recycle)	Disposal (Landfill)

Materials on Site		Destination		
Used Pallets	5 m^3	Reused on site for storage where possible	Collected by contractor and disposed of at recycling facility	No disposal to landfill
Floor Coverings	5 m^3	No on-site reuse	Collected in designated bin and sent for recycling if of required quality; otherwise sent to landfill	Material that cannot be recycled will be
Glass (Excess)	5 m^3	No on-site reuse	Recyclers consulted as to potential for recycling	Minimal disposal to landfill
Metal Offcuts, Sheeting, Wiring, etc.	5 m^3	No on-site reuse	Collected by specialist metal subcontractor for separation into different metal types for recycling	No disposal to landfill
General Waste (All Other Materials)	3 m^3	No on-site reuse or recycling	Separated onsite into dedicated receptacles and collected by contractor for disposal	Minimal disposal to
Concrete (Excess)	3 m^3	Separated on site and crushed for use in temporary access road construction	Collected by contractor and taken to concrete recycling facility	Minimal disposal to landfill
Timber Offcuts	3 m^3	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	Material that cannot be recycled will be disposed of at landfill facility
Plasterboard Offcuts	3 m^3	No on-site reuse	Separated and stockpiled onsite and collected by contractor for recycling. Possible use as soil improver with gypsum removed by recycler	Material that cannot be recycled will be disposed of at landfill facility
Mixed Recyclables	3 m^3	No on-site reuse or recycling	Separated onsite into dedicated receptacles and collected by contractor for recycling	Minimal disposal to landfill
TOTAL VOLUME OF MATERIALS	35m^3			
POTENTIAL RECOVERY	>91.43%			

In total, the development's construction phase will produce around 35 cubic metres of waste materials, of which over 91.43% by volume should be able to be diverted from landfill disposal, either by being reused on or off site, or recycled off-site at a specialised facility.

[1] Alternatively, any material suspected of being asbestos can simply be classified as such, without testing, and then managed accordingly.

6. 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 7 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.

7. 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.

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