ENVIRONMENTAL EARTH SCIENCES
CONTAMINATION RESOLVED

WASTE MANAGEMENT PLAN – 505 WILSON STREET, EVELEIGH, NSW

TRANSPORT FOR NSW

18 AUGUST 2022
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ENVIRONMENTAL EARTH SCIENCES
CONTAMINATION RESOLVED

29 July 2022

Transport For NSW
680 George Street
Sydney NSW 2000

Attention: **Demos Avramidis**
Development Manager

Waste Management Plan, 505 Wilson Street, Eveleigh, NSW

Please find enclosed a copy of our report entitled as above. Thank you for the opportunity to undertake this work.

Should you have any queries, please do not hesitate to contact us on (02) 9922 1777.

For and on behalf of
Environmental Earth Sciences NSW

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ENVIRONMENTAL EARTH SCIENCES
CONTAMINATION RESOLVED

TABLE OF CONTENTS

Table of Figures

Tables

Appendices

1 INTRODUCTION

Environmental Earth Sciences NSW have been requested by Transport for NSW (TfNSW) to prepare a Waste Management Plan (WMP) to describe the streams, procedures and management of the waste generated from the renovation of the chief mechanical engineers building at 505 Wilson Street, Eveleigh, NSW (the 'site')

The purpose of the WMP is to describe the management procedures and processes of waste streams generated during construction works, to ensure wastes are reduced, reused, and recycled wherever possible, and to ensure any hazardous materials are safely disposed of.

The WMP will also serve as a framework for ongoing waste generation management and mitigation during operation under commercial land use, to fulfill the Critical State Significant Infrastructure Standard Secretary's Environmental Assessment Requirements (SEARs) as part of the State Significant Development Application (SSDA) for the site. Site locality has been included in **Figure 1** with proposed site plans located in **Appendix A**.

2 LEGISLATIVE FRAMEWORK

This WMP is based upon legislation outlined below to ensure that environmental quality impacts of activities associated with the construction and operation of state-controlled roads are within appropriate criteria at all nearby sensitive receptors. The latest version/updates/amendments of the legislation/subordinate legislation shall always be applicable.

- Work Health and Safety legislation:
    - Work Health and Safety Act 2011 (State).
    - Work Health and Safety Regulation 2017 (State).
    - Dangerous Goods (Road and Rail Transport) Act 2008 (State).
    - Dangerous Goods (Road and Rail Transport) Regulation 2014 (State).
- Public health legislation:
    - Public Health Act 2010 (NSW).
    - Public Health Regulation 2012 (State).
- Environmental protection and waste legislation:
    - Protection of the Environment Operations (POEO) Act 1997 (State).
    - POEO (General) Regulation 2009 (State).
    - POEO (Waste) Regulation 2014 (State).

- Waste Avoidance and Resource Recovery Act 2001 (State)
- Waste Recycling and Processing Corporation Act 2001 (State)
- National Environment Protection Council Act 1994 (Commonwealth).

- General subordinate legislation applying to the project:
  - Environmental Planning and Assessment Act 1979 (State).
- City of Sydney guidelines
  - Guidelines for Waste Management in New developments 2018
  - Waste strategy and action plan 2017
  - Waste policy 2017

Under *Section 7* of the Waste Reduction and Recycling Regulation 2011, the project will be specifically regulated by The City of Sydney (2018) - G*uidelines for Waste Management in New Developments* (August 2018) to protect the public health, safety and amenity related to waste management and prevent and combat the spread of pests and disease within its jurisdiction by:

(a) Regulating the storage, servicing, collection and removal of waste; and

(b) Regulating the disposal of waste at waste facilities; and

(c) Ensuring that an act or omission does not result in:

(i) Harm to human health or safety or personal injury; or

(ii) Property damage or loss of amenity; or

iii) Environmental harm or environmental nuisance; and

(d) Enabling Council to take enforcement action for contraventions of this Local Law.

2.1 Development application requirements

Transport for NSW are managing the contract to redevelop the site, in line with the NSW Environmental Planning and Assessment Act 1979 (EP&A Act), and in accordance with Application for Development set by Council which requires an Environmental Management Plan for all new buildings, major alterations/additions and other developments.

3 OBJECTIVES

The objective of this waste management plan (WMP) is to provide a framework for the appropriate management of waste streams associated with the site's lifespan including the following distinct phases.

- Hazardous Materials Removal
- Demolition
- Construction
- Ongoing operation

Transport for NSW and subcontractors will be responsible for managing all waste streams generated from work activities with the overarching goal of minimising waste and negative impacts to onsite and offsite receptors as a result of the project.

This WMP will document performance requirements with reasonable and practicable management measures in accordance with the Environmental Protection Act 1994. The project will employ the waste management hierarchy for construction activities:

- Avoid.
- Reduce.
- Reuse.
- Recycle.
- Dispose.

The requirements outlined in this WMP must be implemented during all the above-mentioned phases of the site lifespan and may be subject to review upon further expansion for, and/or changes to the development. Typically, the head contractor of the site will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements.

3.1 Hazardous material removal

Key requirements of WMP regarding hazardous materials removal phase of developments:

- Removal all hazardous materials identified onsite in a safe manner.
- Removal hazardous materials in a manner that does not generate additional hazardous waste through contamination or pollution.
- Sign off by an Occupational Hygienist that all hazardous materials have been removed from the building in an appropriate manner.

Additional information regarding hazardous materials type, quantity and condition can be found in the following report:

> ADE consulting group (2022) – *Re-Refurbishment Hazardous Materials Survey Report*

3.2 Demolition and Construction

Following completion of the hazardous material removal and sign off by an occupational hygienist, the key requirements of WMP regarding demolition and construction phase of developments:

- Minimise the volume of waste sent for offsite disposal;
- Minimise the impact of construction and demolition on the surrounding residents, public amenity, the natural environment, and surrounding infrastructure;
- Adhere to relevant legislation surrounding classification of hazardous waste, the storage of hazardous waste and the transport and disposal of hazardous waste;
- The disposal of waste to a licenced facility;
- Suitable areas onsite to sort and store material to be re-used onsite; and
- Suitable record keeping for all material disposed of including tipping dockets and receipts.

3.3 Ongoing operation

Key requirements of WMP regarding the ongoing operation of the site:

- Waste storage area designs;
- Waste storage area location; and
- Provide estimates of the sites waste generation rate.\

4 SITE SETTING

4.1 Site identification

Information has been provided in **Table 1** regarding site identification.

Table 1: Site identification

Address	**505 Wilson Street, Eveleigh, NSW - chief mechanical engineers building**
Current owners	Transport Asset Holding Entity of New South Wales
Lot & Plan numbers	A portion of lot 5 in Deposited Plan (DP) 1175706 identified in **Figure 1**
Site Area	0.25 ha
Current land use/ zoning	D – Business Zone – mixed use (Precincts – Eastern Harbour City) 2021
Proposed land use/ zoning	D – Business Zone – mixed use (Precincts – Eastern Harbour City) 2021
Local Government Authority	Sydney local government area
Site Location and Layout	**Figure 1** (site location)

4.2 Surrounding features

The site is in a high density residential area with the Redfern train lines to the south of the site. Features of surrounding land uses identified near the site are summarised in **Table 2**.

Table 2: Surrounding site uses

Direction	Description
North	Residential terrace properties. Redfern Community Centre Playground (north-east 165.9m)
East	Residential terrace properties. Little Eveleigh Street Reserve (85m)
South	Redfern trainline.
West	High density residential properties. Charles Keenan Reserve (111.8m)

4.3 Soil and geology

The underlying geology consists of Ashfield shale of the Wianamatta group. Ashfield shale is described as black to light grey shale and laminate.

The Blacktown soil landscape dominates the site. It is characterised by shallow to moderately deep hard setting mottled texture contrast soils with yellow podzolic soils on lower slopes and in drainage lines with slow water infiltration.

4.4 Topography and surface water

The topography of Eveleigh can generally be described as broad rounded crests and ridges with gently included slope with local relief to 30m slopes usually greater than 5%.

The site is located at an elevation of 26 – 28 metres Australian Heigh Datum (m AHD) along a slight ridge running east to west along the centre line of the site. Rainwater at the site would infiltrate the ground to the point of saturation and then flow north towards Wilson Street or south towards the train tracks.

4.5 Hydrogeology

Groundwater within Ashfield unit is unconfined along structures (bedding, joints, faults) in the fractured bedrock. Lateral flow occurs through alluvial sediments on slopes and plains. The aquifer is described as porous and highly productive.

Groundwater systems are local with short flow lengths and are loosely defined by topographic catchments. Water quality within these systems is brackish to saline. Water table depths are intermediate.

4.6 Heritage

The Eveleigh Chief Mechanical Engineers office and movable relics has been registered as a heritage site from April 1999. As such, items found within the building should be re used where appropriate in order to the building's heritage significance.

4.7 Sensitive receptors and impacts

The primary receptors and examples of their potential waste management related impacts associated with the site are as follows.

4.7.1 Environmental

- Flora and fauna:
    - Plants onsite are dependent on the soil quality.
- Soil:
    - Onsite and offsite soil conditions can potentially be impacted by onsite activities such as the generation of dust or release of contaminated waters.
- Water (groundwater and surface):
    - Onsite and offsite surface and subsurface water bodies are liable to be impacted by inappropriate onsite water and soil management.

4.7.2 Human

- Occupants of nearby/neighbouring properties:

    - Human receptors within nearby properties can potentially be impacted by noise, vibration, dust, debris and surface water originating from the site.

- Site workers:
    - Site workers both current and future could potentially be affected by impacted media (water and soil) as well as general site waste.
- Offsite waste management facility workers:
    - Workers at offsite material management facilities could be affected by inappropriately managed site materials exported to their workplace if material categorisation does not adequately reflect the true nature of the material.
- Visual amenity:
    - Inappropriate waste storage and management practices could result in a loss of site visual amenity which could be associated with complaints or fines under some circumstances.

5 WASTE STREAMS

Waste streams generated as a result of operations during each phase will fall into the following categories:

- Removal of hazardous materials phase:
    - Hazardous materials which must be disposed of offsite by a licenced sub-contractor at a suitable licenced facility.
- Demolition phase:
    - Recyclable materials for onsite re-use.
    - Material for offsite recycling such as surplus materials like timber, concrete, brick, metal, glass, plasterboard, cardboard, recyclable plastics etc which can be disposed of at a resource recovery centre.
    - General waste and non-recyclable materials for offsite disposal at a landfill.
    - Items for heritage consideration
- Construction phase:
    - Material for offsite recycling such as surplus materials including concrete, brick, metal, cardboard, recyclable plastics etc which can be disposed of at a resource recovery centre.
    - General waste for offsite disposal at a landfill.
    - Surplus soil material that is either classified as unsuitable for onsite reuse or is soil other than excavated natural soil requiring disposal offsite at a licensed waste facility.

- Ongoing operations:
    - General waste for offsite disposal at a landfill.
    - Recyclable material for recycling on or offsite.

Each of these waste streams will require appropriate management to ensure the sites total exported waste is minimised as much as possible across the site's lifespan in accordance with local, state and national regulations.

Waste materials fall into four categories for management, which include:

- Re use;
- Recycle;
- Residual wastes; and
- Landfill.

Environmental Earth Sciences notes that where specific wastes are produced in the operational phase of works, the WMP can be updated to address this where further information is provided.

Estimate volumes of material to be managed during each phase have been provided in **Table 3**. These estimates are conservative and may not be realised during the life cycle of the building. WMPs are subject to change across the project as more information is made available and utilisation of the building evolves. City of Sydney (2018) waste management plan provides estimates on potential volumes of waste which will be generated during construction.

Table 3: Potential wastes produced

Waste type	Waste stream	Waste destination	Estimated maximum amount
Removal of hazardous materials phase			
Asbestos containing materials (ACM)[1]	Hazardous waste	Landfill licenced to accept asbestos waste	120 m^2
Lead based paints[1]	Hazardous waste	Landfill licenced to accept lead waste	4250 m^2
Synthetic mineral fibre products[1]	Hazardous waste	Landfill licenced to accept synthetic mineral fibres waste	10 m^3
Capacitors with polychlorinated biphenyls (PCBs) [1]	Hazardous waste	Landfill licenced to accept PCBs waste	25 m^3
Demolition phase			
Tiles	Recycling	Recycling depot / recycled building materials retailer / re-used onsite	20m^2
Glass	Recycling	Recycling depot	15m^2
Plaster[2]	Recycling	Recycling depot	1,650m^2
General domestic refuse	Landfill / recycling	Landfill and/or Recycling depot where applicable	10m^3
Timber floorboards[3]	Recycling	Recycling depot / recycled wood wholesale business / re-used onsite	1,500m^2
Timber untreated	Recycling	Recycling depot / recycled wood wholesale business / re-used onsite	100m^3
Bricks[4]	Recycling	Recycling depot / recycled brick retailer / re-used onsite	<10 m^3
Concrete	Recycling	Recycling depot	<10 m^3
Porcelain	Recycling	Recycling depot	10m^3
Corrugated iron roofing	Recycling	Recycling depot / recycled building materials retailer / re-used onsite	300 m^2

Waste type	Waste stream	Waste destination	Estimated maximum amount
Wiring and switch boards	Recycling	Recycling depot / scrap metal recyclers	30 m^3
Retainable heritage items[5]	Reuse	re-used onsite	10 items
Construction phase			
Concrete	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Tiles	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Timber (treated)	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Plasterboard	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Carpet	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Ceiling tiles	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Soil	Recycling and/or landfill pending appropriate classification	Recycling depot / landfill licenced to accept the specific waste / beneficial reuse offsite	<10 m^3
Brick	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Metal including wiring	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Cardboard	Recycling	Recycling depot	50 m^3
Glass	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3
Asphalt	Recycling / Reuse	Recycling depot / repurposed for other use onsite / recycled building materials retailer	<10 m^3

Waste type	Waste stream	Waste destination	Estimated maximum amount
Plastic from construction and material packaging	Recycling	Recycling depot	50 m^3
Operational phase			
Food waste[6]	Landfill / recycling	Donated to charity if appropriate / composted onsite through garden or composed via a commercial facility / landfill where other options aren't achieved	25L / day
eWaste[7]	Landfill / recycling	Commercial facility specialised in taking electronic waste / landfill where other options aren't achieved	144L / day
Other mixed waste[7]	Landfill / recycling	Landfill and/or Recycling depot where applicable	
Paper and cardboard[7]	Recycling	disposed of via specialist paper / cardboard waste stream	108L / day
Glass and plastic containers[7]	Recycling	Disposed of via specific glass and plastic waste stream / disposed of via a container deposit scheme	
Soft plastic[7]	Recycling	Separated from recycling waste stream and diverted to specific soft plastic recycling system.	
Textiles and carpet[7, 8]	Recycling	Donated to recycled textile retailer / recycled into new fibres	

Notes:

1. Refer to Appendix I of ADE consulting group (2022) – Pre-Refurbishment Hazardous Materials Survey Report for specific volumes of material to be managed.
2. Plaster board area assumes all internal surfaces need to be stripped of plaster
3. If timber floorboards are restored appropriately and confirmed to be free of lead contamination, then reuse is possible.
4. Assumes no internal brick walls need to be removed
5. Ornamental heritage items including but not limited to door handles, lights, sconces, etc. This is a conservative estimate not based on any assessment undertaken by a heritage consultant. If a heritage report is undertaken onsite, their estimates are to supersede this estimate.
6. Generation of food waste has been based of conservative estimate taken from hotels and restaurants from the city of Sydney (2018) management plan
7. Sydney of Sydney (2018) does not provide specific estimates for operation waste generation, Environmental Earth Sciences has used the total values for recyclable and non-recyclable waste as an upper limit of a waste steam to be generated which has then been divided into different recyclable categories.
8. Textiles and carpet are likely to be a small fraction of total waste generated from the building.

6 WASTE MANAGEMENT PROCEDURES

Prior to the initiation of works a City of Sydney waste management form should be completed to document project details as well as details on the expected waste quantities, disposal methodologies and receiving facilities including onsite re-use applications. A template for the City of Sydney (2018) waste management plan forms is provided in **Appendix B**.

6.1 Demolition waste management requirements

6.1.1 Management of hazardous wastes

Based on the site inspection and intrusive investigation, the primary sources of contamination are the hazardous wastes of lead based paints and asbestos containing material. The age of the lead based paint and the poor condition of the building has resulting in the decay and spread of lead based paint onto floors and surfaces. ADE consulting (2022) hazmat report details all the identified areas of hazardous waste material and provides estimated volumes of material which need to be managed. The following considerations should be made when remediated hazardous waste from the site:

- Removal of hazardous materials should be done in a manner which ensures the safety of all works, site visitors and members of the surrounding community. The surrounding environment should also be protected from all levels of damage.
- The removal of hazardous materials also requires a large amount of plastic and PPE equipment which need to be managed as a hazardous waste stream as well.
- Hazardous building materials cannot be reused or recycled due to the risks surrounding human health.

The best method to reduce the need for disposal of hazardous materials is to ensure that material is removed without spreading contaminates throughout the building and generating more hazardous material which requires management. Methods to reduce the spread of hazardous materials are as follows:

- Remediating the building in a methodical manner (starting with ceilings and finishing with floors)
- Appropriately isolating hazardous waste through bagging and storage of locked bins.
- Using appropriate tools to avoid generating dust or run off which will impact other areas.
- Only remediating what is required to me removed under the ADE consulting (2022) hazardous materials investigation.

6.1.2 Management of demolition debris

Management of materials recovered during internal renovation works are recommended to be undertaken in accordance with this waste management plan and any specific internal renovation/demolition management plan to be developed and refined once design plans are finalised. Management of demolition waste should achieve an 80% diversion from landfill across all waste streams. Key components of waste management and waste mitigation practices are outlined below which should be implement:

- Identify items within the building which are earmarked for onsite reuse or on selling.
- Provide clear storage areas for items which are being reused onsite or are scheduled for disposal offsite to a recycling facility.
- Clearly identify areas to undergo demolition which will avoid any areas being incorrectly removed.

Should unexpected hazardous materials be identified onsite pre or during demolition, an unexpected finds protocol (UFP) can be utilised to manage the occurrence. An example proforma has been provided in **Appendix C**.

6.2 Construction waste management requirements

6.2.1 Construction materials

Key waste streams generated during construction are outlined below with control measures which will assist in minimising waste and ensuring 80% of material is diverted from landfill.

- Building materials
    - During the construction and fit out phase of works waste streams are easily minimised through appropriate organisation of materials purchasing to avoid surpluses.
    - The virgin nature of construction materials also makes recycling or reusing easier as materials can be retained unaltered for other purposes.
    - The appropriate management of scrap materials can be facilitated through clearly signed storage areas which allow scrap materials to be centralised and reuses were necessary.
- Packaging material
    - Material packaging which is used to protect and contain building materials during transport, storage and delivery can contribute a significant portion of waste.
    - Packaging waste from construction materials can be managed through recycling bins onsite or opting for materials which come with less packaging or have more recyclable packaging materials.

- Cultural attitude towards waste management
    - Allowing works time to appropriately dispose of waste and promoting a tidy site through communication and clear signage to encourage proper recycling and waste disposal.
    - Providing a work sit which as a clear culture towards reducing waste, reusing materials and appropriate disposal of materials is key to delivering a sustainable project

6.2.2 Classification of soil

The generation of soil waste during this renovation is expected to be minimal. Before the removal of soil material from the site it should be considered if the material can be better utilised onsite or used to substitute material which is intended to be imported onto site.

In the scenario where surplus soil material is intended for offsite export a waste classification report should be commissioned for the material to determine its waste management requirements in accordance with the *NSW EPA Waste classification guidelines – Part 1: Classifying Waste*.

Any such classifications must be conducted by a certified environmental practitioner for the full volume of soil material requiring excavation prior to its export from site and should accompany any portion of the material when it's transported to the licensed waste facility.

6.3 Whole-project and ongoing operation waste management requirements

6.3.1 Bin requirements

During the development phase of the commercial office buildings considerations must be made for the waste management facilities which are provided. **Table 4** outlines the minimum requirements of bins for the current development plan. A dedicated area must be outlined in the development plans as a bin room or bin storage area which must meet requirements for storage and access set out by the City of Sydney (2017b). A professional waste removal contractor should be engaged to remove all waste from stie and managed the bins. Consultation with the contractor will determine if onsite or offsite collection of the bins is more appropriate.

Table 4: Bin requirements

Non-residential development	Building footprint is 900m^2 over two stories equating to 1800m^2 utilised as office space
Waste generation (L/day)	144
Nominated waste bin size (L)	240L
Total number of bins	3
Collection period	Weekly
Recycling generation	108
Nominated waste bin size (L)	660L
Total number of bins	4[1]
Collection period	Fortnightly
Food waste generation (L/day)	25
Nominated waste bin size (L)	240L
Total number of bins	1
Collection period	Weekly

Notes
1. Additional bins have been allocated to recycling due to the need for segregation of waste streams to reduce waste and in correct classification.

6.3.2 Management of recyclable wastes

An anticipated type and quantity of recyclable materials has been outlined in **Table 2** should be refined in the pre-work waste plan (provided in **Appendix B**) as well as the individual work method statements produced during each phase of the site's lifespan. From these expected quantities appropriate provisions for the recovery, sorting, storage and removal of the materials from site should be allocated to ensure that the recycling of materials is maximised and that recyclable materials are not contaminated in the course of being recovered.

Recycling streams should be broken into the following bins, all bins should be clearly labelled and examples of suitable items to be disposed within the should be provided:

- Paper cardboard (660L bin)
- General recycling (660L bin)

- Plastic, metal, and aluminium containers suitable for container deposit scheme (660L bin)
- Soft plastic recycling (660L bin)
- Specialist items e-waste, batteries, and printer cartridges (small, specialised crate or container should be outlined as the specific e-waste bin)

Contamination of recyclable materials can occur in a number of ways and specific details on the appropriate storage of a given material should be sourced from the chosen resource recovery specialist. A number of generalised practices that could result in the contamination of recyclable materials is provided below.

- Inappropriate mixing of materials.
- Exposure of materials to unsuitable weather conditions.
- Poor storage resulting in dispersal of materials and subsequent contamination.
- Poor labelling of storage areas resulting in unintentional mixing of materials.

Building wide education should be provided to better inform individuals and companies to ensure items are correctly sorted and provide in the appropriate manner.

6.3.3 Management of food waste and compostable materials

Compost bins, worm farms, and onsite waste processing systems are suitable ways of managing and utilising the food, organic, and compostable wastes that will be generated across the lifespan of the site. during operation phase a 240L bin should be utilised for specific garden and food waste bin. These options require special and setting specific conditions and should consider the following accordingly:

- Size of development and quantities of waste
- Types of waste generated for most inclusive alternative
- Space availability, including access to earth surface or bunded and drained area (for composting)
- Ability to utilise or provide nutrient rich outputs
- Collection arrangements for food waste
- Purchasing of system and ongoing management

6.3.4 Management of general wastes

General wastes will be produced throughout the sites lifespan and will require management through the provision of general waste disposal bins.

The size, number and location of these bins should be specified in the work method statements of individual contracted works and should consider the following key aspects:

- Expected waste volume.
- Expected work duration.

- Accessibility to site staff.
- Accessibility to waste removal contractors.
- Visual amenity.

6.4 Waste minimisation

Wastes from the development and ongoing operation have the potential to impact on the environment. The WMP has been developed to manage the risk associated with the potential impacts including minimising waste generation.

Possible waste minimisation strategies should be reviewed regularly to reduce the amount of waste to be removed from the site. Management, staff, design teams, contractors and suppliers should all be encouraged to look at ways to minimise the amount of waste generated at the work sites.

The Operations Manager or appointed delegate will be responsible for ensuring the instruction of workers and contractors, implementation and overseeing of the WMP during induction processes.

The onsite induction relating to waste management will include advice on appropriate separation, handling, recycling, reuse methods to be used by all parties conducting operations onsite were applicable.

Regular toolbox meetings will include discussion of waste management issues and updates on how to minimise wastes.

The monitoring of wastes generated will provide an opportunity to review the wastes being generated and ways in which they can be reduced (See Section 6.5).

6.5 Monitoring

The monitoring, communication and engagement are key components of an active waste management plan. The following are key considerations to be made:

- Record keeping / inspection
    - The quantity and types of wastes being generated at the site are to be recorded in the wastes logbook and always kept on site so that regular reviews can be undertaken. Weighing waste as it is generated and moved offsite is also and effective means to categorise waste and assess recycling and landfill targets for a give project.
    - All waste storage containers will be inspected weekly to ensure that they are maintained in a condition appropriate for their use and containment of the specific waste. Skips and/or bins will need to be monitored regularly to ensure that cross contamination doesn't occur. All waste removed from site including products for reuse will also be monitored to ensure no cross contamination.
- Waste audits

- Waste stream audits are an effective tool in assessing the quality of waste steams being derived from a project and allows for areas of waste which aren't being handled well to be identified and better managed. Waste audits involved taking a subsection of waste moving offsite and methodically going through all the waste to categorise it and measure it. This process provides meaningful information of the proportions of waste steams being generated and the accuracy of recycling / disposal at a given point in time.

- All products that are of a concern in relation to the waste being generated will be replaced were possible for products that are less wasteful and/or considered to be environmentally friendly.

- Updating the WMP

    - Continual review should be undertaken of the type of surplus materials produced and where possible changes to the site design and operation can be implemented to minimise products that go to landfill. Recycling or reuse of wastes are a priority.

    - The WMP and its importance will be communicated to the whole team regularly. Business wide updates including improved recycling amounts will be communicated and discussed at management and toolbox meetings.

6.6 Implementation

The WMP provided in **Table 5** below should be applied through all site work phases. This plan is a working document and should be reviewed and superseded based on specific work method statements (such as a Construction Environmental Management Plan) produced throughout the various stages of the site's life span.

Table 5: Waste management plan

Aspect	Responsible	Timing
General control measures		
Location of all key environmental controls, including waste management controls (e.g. location of skip bins, sediment control measures) included in site induction.	Construction project Manager (CPM) Site workers	Throughout
All waste streams to be routinely removed from site, with appropriate documentation noted by the CPM.	CPM Site workers	Throughout
All waste materials must be disposed of at an appropriately licensed facility in accordance with State requirements, accounting for the type of waste (such as whether it is regulated or not).	CPM Site workers	Throughout
Separate material generated by waste streams into their designated waste area/receptacle. General, and hazardous waste materials are contained and separated to prevent the migration of contaminants to surrounding areas or downstream environments.	CPM Site workers	Throughout
Waste generation that cannot be avoided, recycled or reused onsite are collected by a licensed waste transporter and disposed of in an appropriately licensed facility. Transportation of this waste is documented in accordance with the EPA waste tracking requirements	CPM Site workers	Throughout
Waste bins should be properly sealed to secure food wastes and keep them inaccessible to vermin / wind.	CPM Site workers	Throughout
All waste bin lids, and other waste objects shall be secured or weighted down to ensure that waste objects do not become windblown.	CPM Site workers	Throughout
No waste is to be burned or buried on site.	CPM Site workers	Throughout
Site and the surrounds are to be kept free of litter. (i.e. no litter is left onsite).	CPM Site workers	Throughout
Waste transport is to be undertaken be a licensed contractor.	CPM Subcontractor	Throughout
Only the minimum essential stocks of items such as chemicals, fuels and paints are to be stored on site at any one time.	CPM	Throughout
Before hazardous waste is removed from site, the site project manager must be informed of the: • Type and quantity of waste to be disposed • The name of the licenced transport contractor; and • The landfill operator that is accepting the waste.	CPM	Throughout
At the completion of each work stage the Managing contractor shall ensure that all wastes have been removed from the project site or otherwise lawfully disposed. No wastes shall be buried onsite.	CPM	Throughout
Vegetation Waste from clearing and grubbing may be used in conjunction with soil erosion and sediment measures such as brush matting.	CPM Site workers	Throughout
Mulch stockpiles shall be separated from drainage lines and waterways by distance or management measure to inhibit discharge. Mulch stockpiles shall	CPM	Throughout

Aspect	Responsible	Timing
be a maximum of 2.5 m in height where air temperature is < 30° and humidity < 70%.	Site workers	
Hazardous materials / product control measures		
If asbestos containing materials are identified at any point during the projects a site-specific Hazardous materials management Plan which covers lead paint and asbestos should be developed for the site and referred to for specific asbestos management controls.	CPM	Throughout
All staff should be trained in the appropriate storage and handling of chemicals and fuels, the identification of a spill hazard and spill procedures. Spill kits must be readily available on site in the vicinity of storage areas and all workers trained in their implementation.	CPM Site workers	Throughout
Regulated dangerous / hazardous goods, and waste materials to be listed on a manifest register maintained by CPM.	CPM	Throughout
Appropriate signage shall be placed at the storage area for products and associated wastes providing warning/instructions as per respective MSDS.	CPM	Throughout
Storage areas for hazardous substances and waste are to be sited no closer than 50 m from the nearest watercourse, drainage channel or diversion channel in an impermeable / bunded area.	CPM Site workers	Throughout
Fuels and chemical products stored onsite are to be kept within bunded area(s), containing space for 110% of stored volume.	CPM Site workers	Throughout
All drums which are kept in a horizontal position for the purpose of filling other containers will have a drop pan or bucket placed under the discharge point in order to catch small leaks. All faulty valves used on dispensing drums will be replaced immediately and all valves will have automatic shut-off capabilities.	CPM Site workers	Throughout
Recyclable material management		
Recyclable materials and products shall be proposed for works wherever these can be utilised. i.e. reuse of mulch onsite from vegetation clearing	CPM Site workers	Throughout
Site to include separate covered bins for the disposal of recyclables and general waste	CPM Site workers	Throughout
Recyclable waste streams should be stored separately according to the specific type, with routine removal from site. Appropriate documentation should be noted by the CPM.	CPM Site workers	Throughout
Pollution control incidents		
All staff should be trained in the appropriate storage and handling of chemicals and fuels, the identification of a spill hazard and spill procedures. Spill kits must be readily available on site in the vicinity of storage areas and all workers trained in their implementation.	CPM Site workers	Throughout
Daily inspections of the site shall be undertaken by the site CPM to identify any spillage. Should spillage be identified, the transport for NSW project manager should be informed as soon as practicable and details of the spill (volume, chemical, location etc) reported on an incident reporting form.	CPM Site workers	Throughout
Any spills identified should be cleaned up and remediated. Absorbent materials used in spill clean-up should be placed and sealed in an appropriate container marked “regulated waste” and disposed offsite by a suitably licenced waste contractor.	CPM Site workers	Throughout

Aspect	Responsible	Timing
Separation of Hazardous and Industrial waste from any incompatible materials. Any Hazardous or industrial waste shall be stored in an environmentally safe manner by being properly bunded and >50m from drainage lines or water courses.	CPM Site workers	Throughout
General litter is to be disposed of in bins at site common area, fitted with lids and serviced regularly	CPM Site workers	Throughout
Provision of portable self-contained toilets onsite. Toilets are to be kept clean and contents are collected regularly.	CPM	Throughout
Provision of Spill kits. Spill kits shall be located with close proximity to designated waste areas.	CPM	Throughout
Monitoring		
Regular site inspections are undertaken and documented to monitor waste handling process, and pollution incidents (e.g. product spills) and validate that appropriate waste handling procedures are being followed. This should include a weekly inspection of spill kits (stock levels and placement with respect to ongoing high-risk site activities) should be undertaken to ensure the spill kit inventory does not run low and kits are positioned within the site area, appropriately.	CPM Site workers	Throughout
Waste tracking provisions, including record keeping, are completed to ensure the correct disposal methods of waste are undertaken.	CPM	Throughout
Routine daily site inspections are to include monitoring capacity of waste storage facilities and arranging collections as required, monitoring for the presence of vermin or odours in association with waste storage or handling and monitoring for the presence of litter and general worksite tidiness.	CPM	Throughout
Reporting		
The CPM should record any incidents in a logbook or form and report on corrective actions taken before the recommencement of site work.	CPM	Throughout

A registry of wastes will be kept onsite and will identify:
• Type of waste/material.
• Amount (volume).
• How identification of waste has taken place (estimation or based on dockets/records).
• Amount (volume) of waste sent to landfill.
  • Date taken to landfill.
  • Contractor used.
  • Type of material sent to landfill.
	CPM	Throughout

Details of any complaints should be recorded in a site register.	CPM	Throughout
Corrective Actions		
If any complaints are received regarding excessive dust the incident will be reported in accordance with an Incident and Complaint Form. The issue will be investigated, and steps taken to prevent reoccurrence, including additional training and/or update of procedures if required.	CPM Site workers	Throughout

7 LIMITATIONS

This report has been prepared by Environmental Earth Sciences NSW ACN 109 404 006 in response to and subject to the following limitations:

1. The specific instructions received from Transport for New South Wales;

2. The specific scope of works set out in PO122040_VAR3 issued by Environmental Earth Sciences for and on behalf of TfNSW, is included in Section 3 (Scope of Work) of this report;

3. May not be relied upon by any third party not named in this report for any purpose except with the prior written consent of Environmental Earth Sciences NSW (which consent may or may not be given at the discretion of Environmental Earth Sciences NSW);

4. This report comprises the formal report, documentation sections, tables, figures and appendices as referred to in the index to this report and must not be released to any third party or copied in part without all the material included in this report for any reason;

5. The report only relates to the site referred to in the scope of works being located at 505 Wilson Street, Eveleigh, NSW (“the site”);

6. The report relates to the site as at the date of the report as conditions may change thereafter due to natural processes and/or site activities;

7. No warranty or guarantee is made in regard to any other use than as specified in the scope of works and only applies to the depth tested and reported in this report;

8. Fill, soil, groundwater and rock to the depth tested on the site may be fit for the use specified in this report. Unless it is expressly stated in this report, the fill, soil and/or rock may not be suitable for classification as clean fill, excavated natural material (ENM) or virgin excavated natural material (VENM) if deposited off site;

9. This report is not a geotechnical or planning report suitable for planning or zoning purposes; and

10. Our General Limitations set out at the back of the body of this report.

8 REFERENCES

City of Sydney (2018) - Guidelines for Waste Management in New Developments (August 2018)

City of Sydney (2017a) - Waste strategy and action plan 2017-2030

City of Sydney (2017b - Waste policy Local approvals policy for managing waste in public places

ADE consulting group (2022) – Re-Refurbishment Hazardous Materials Survey Report – 505 Wilson Street, North Eveleigh, NSW (Ref: 22.0684.00 / HMS1) (date: 26/07/2022)

Dangerous Goods (Road and Rail Transport) Act 2008 (State).

Dangerous Goods (Road and Rail Transport) Regulation 2014 (State).

Environmental Planning and Assessment Act 1979 (State).

National Environment Protection Council Act 1994 (Commonwealth).

Public Health Act 2010 (NSW).

Public Health Regulation 2012 (State).

Protection of the Environment Operations (POEO) Act 1997 (State).

POEO (General) Regulation 2009 (State).

POEO (Waste) Regulation 2014 (State).

Waste Avoidance and Resource Recovery Act 2001 (State)

Waste Recycling and Processing Corporation Act 2001 (State)

Work Health and Safety Act 2011 (State).

Work Health and Safety Regulation 2017 (State). Dangerous Goods (Road and Rail Transport) Act 2008 (State).

NSW EPA Waste classification guidelines – Part 1: Classifying Waste.

POEO (General) Regulation 2009 (State).

POEO (Waste) Regulation 2014 (State).

Protection of the Environment Operations (POEO) Act 1997 (State).

Public Health Act 2010 (NSW).

Public Health Regulation 2012 (State).

Waste Avoidance and Resource Recovery Act 2001 (State)

Waste Recycling and Processing Corporation Act 2001 (State)

Work Health and Safety Act 2011 (State).

Work Health and Safety Regulation 2017 (State).

ENVIRONMENTAL EARTH SCIENCES GENERAL LIMITATIONS

Scope of services
The work presented in this report is Environmental Earth Sciences response to the specific scope of works requested by, planned with and approved by the client. It cannot be relied on by any other third party for any purpose except with our prior written consent. Client may distribute this report to other parties and in doing so warrants that the report is suitable for the purpose it was intended for. However, any party wishing to rely on this report should contact us to determine the suitability of this report for their specific purpose.

Data should not be separated from the report
A report is provided inclusive of all documentation sections, limitations, tables, figures and appendices and should not be provided or copied in part without all supporting documentation for any reason, because misinterpretation may occur.

Subsurface conditions change
Understanding an environmental study will reduce exposure to the risk of the presence of contaminated soil and or groundwater. However, contaminants may be present in areas that were not investigated, or may migrate to other areas. Analysis cannot cover every type of contaminant that could possibly be present. When combined with field observations, field measurements and professional judgement, this approach increases the probability of identifying contaminated soil and or groundwater. Under no circumstances can it be considered that these findings represent the actual condition of the site at all points.

Environmental studies identify actual sub-surface conditions only at those points where samples are taken, when they are taken. Actual conditions between sampling locations differ from those inferred because no professional, no matter how qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden below the ground surface. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from that predicted. Nothing can be done to prevent the unanticipated. However, steps can be taken to help minimize the impact. For this reason, site owners should retain our services.

Problems with interpretation by others
Advice and interpretation is provided on the basis that subsequent work will be undertaken by Environmental Earth Sciences NSW. This will identify variances, maintain consistency in how data is interpreted, conduct additional tests that may be necessary and recommend solutions to problems encountered on site. Other parties may misinterpret our work and we cannot be responsible for how the information in this report is used. If further data is collected or comes to light we reserve the right to alter their conclusions.

Obtain regulatory approval
The investigation and remediation of contaminated sites is a field in which legislation and interpretation of legislation is changing rapidly. Our interpretation of the investigation findings should not be taken to be that of any other party. When approval from a statutory authority is required for a project, that approval should be directly sought by the client.

Limit of liability
This study has been carried out to a particular scope of works at a specified site and should not be used for any other purpose. This report is provided on the condition that Environmental Earth Sciences NSW disclaims all liability to any person or entity other than the client in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by any such person in reliance, whether in whole or in part, on the contents of this report. Furthermore, Environmental Earth Sciences NSW disclaims all liability in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by the client, or any such person in reliance, whether in whole or any part of the contents of this report of all matters not stated in the brief outlined in Environmental Earth Sciences NSW's proposal number and according to Environmental Earth Sciences general terms and conditions and special terms and conditions for contaminated sites.

To the maximum extent permitted by law, we exclude all liability of whatever nature, whether in contract, tort or otherwise, for the acts, omissions or default, whether negligent or otherwise for any loss or damage whatsoever that may arise in any way in connection with the supply of services. Under circumstances where liability cannot be excluded, such liability is limited to the value of the purchased service.

FIGURES -SITE LOCALITY MAP

Ref. NSW Spatial Information Exchange SIX. website image. 20122

Scale (approximate) 0 10 20 30metres

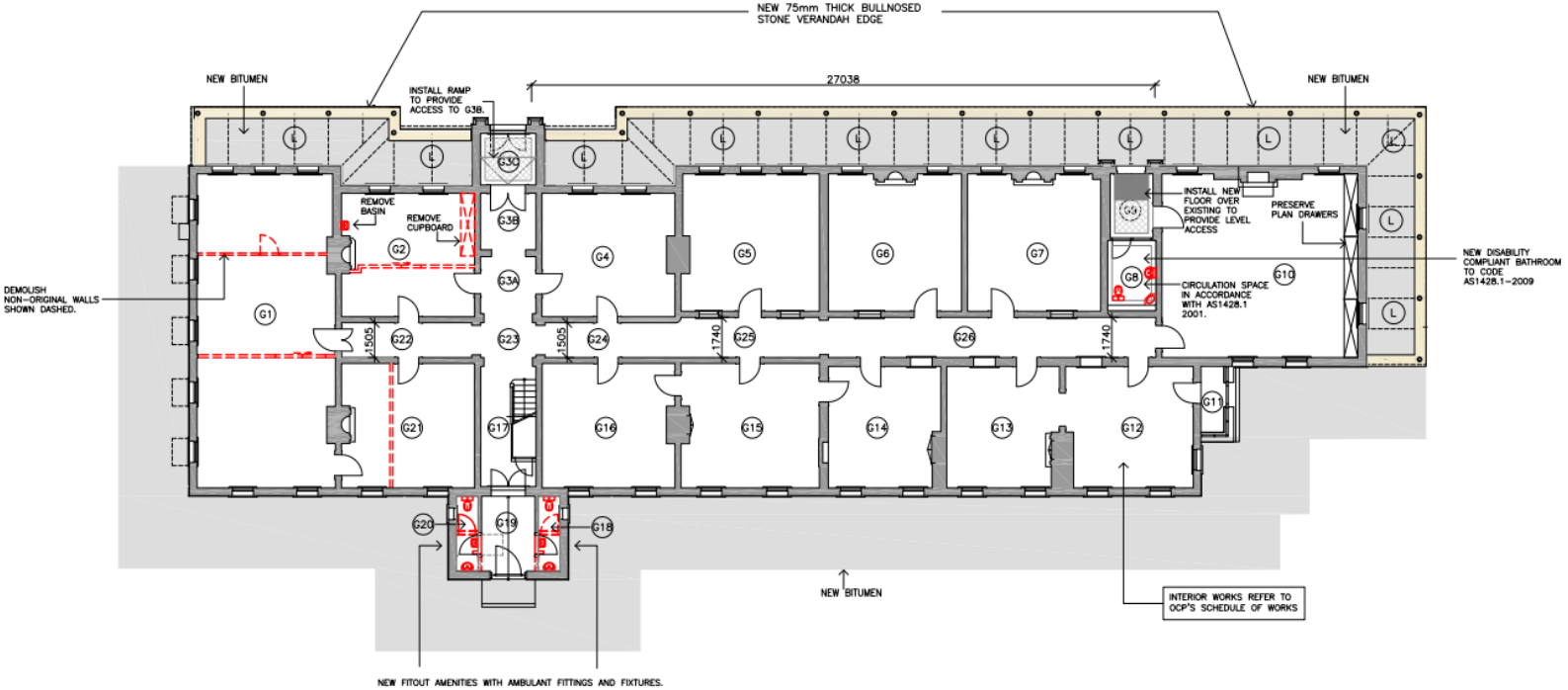
ENVIRONMENTAL EARTH SCIENCES
CONTAMINATION RESOLVED

Client:	Transport for NSW	Title:	Site Locality Plan
		Location:	505 Wilson Street. Eveleigh, NSW
		Job No. 122040	Date: 26 June 2022
		Drawn by: TRJ / Proj. Man. CP / Scale: As shown	Figure 1

APPENDIX A: PROPOSED SITE PLAN

CME Ground Floor Plan

Draft Indicative Floor Plan – Subject to Final Heritage NSW & Planning Approval

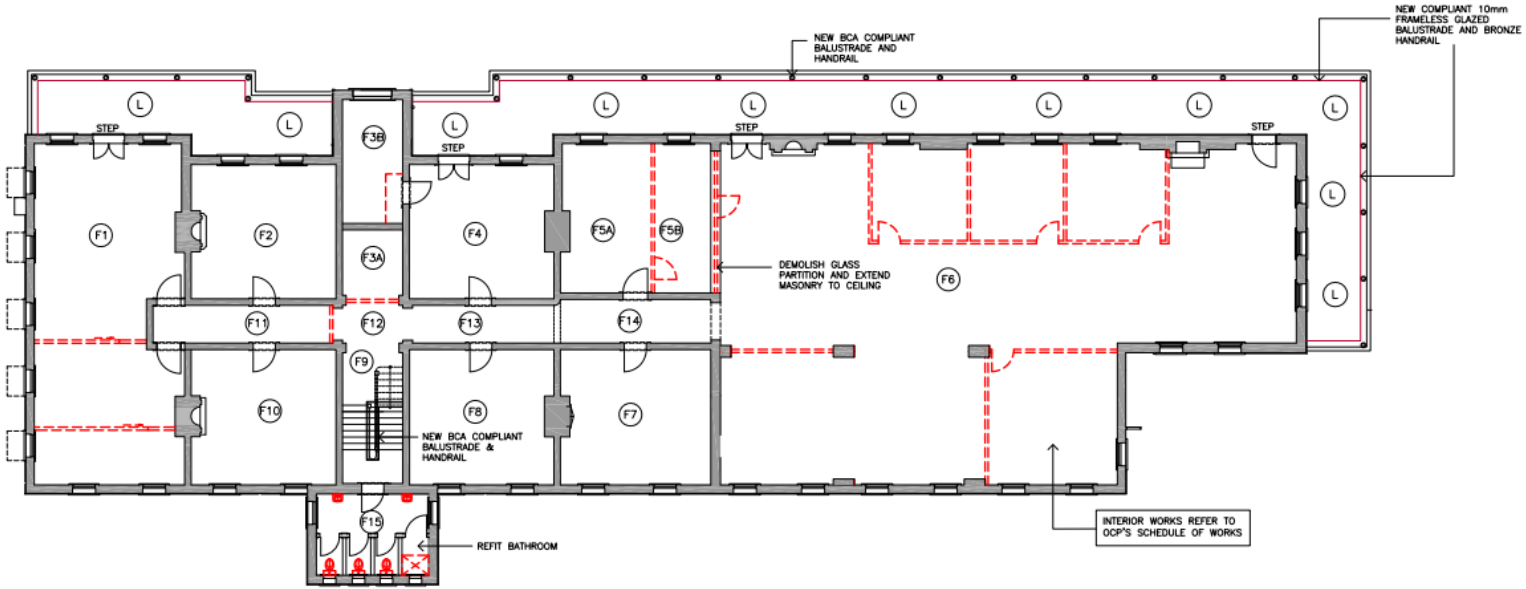


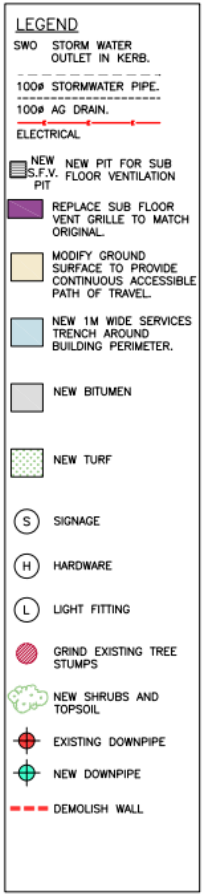
LEGEND

- SWO STORM WATER OUTLET IN KERB.
- 100ø STORMWATER PIPE.
- 100ø AG DRAIN.
- ELECTRICAL
- NEW S.F.V. PIT NEW PIT FOR SUB FLOOR VENTILATION
- REPLACE SUB FLOOR VENT GRILLE TO MATCH ORIGINAL.
- MODIFY GROUND SURFACE TO PROVIDE CONTINUOUS ACCESSIBLE PATH OF TRAVEL.
- NEW 1M WIDE SERVICES TRENCH AROUND BUILDING PERIMETER.
- NEW BITUMEN
- NEW TURF
- S SIGNAGE
- H HARDWARE
- L LIGHT FITTING
- GRIND EXISTING TREE STUMPS
- NEW SHRUBS AND TOPSOIL
- EXISTING DOWNPIPE
- NEW DOWNPIPE
- DEMOLISH WALL

CME Level One Floor Plan

Draft Indicative Floor Plan – Subject to Final Heritage NSW & Planning Approval





APPENDIX B: SYDNEY CITY COUNCIL WASTE MANAGEMENT FORM

A. Construction Waste and Recycling Management Plan

Refer to the Construction and Demolition Waste Requirements.

Site Address:		**DA Number:**	
Will you use Site Cleaners?	☐ Yes, for some work ☐ Yes, for all work ☐ No	Estimated total volume or weight	
Please supply details of site cleaners used	ABN Number Name Phone	Mobile	
All Excavation Material (including from Swimming Pool excavations)	☐ Less than 10 m³ ☐ More than 10 m³ (if more than 10 m³, specify estimated volume below)	☐ Re-use on-site ☐ Re-use off site ☐ Landfill Disposal	
Address if re-used off site			
Name and Address of licensed landfill			

			How will you manage this waste?				
Type of Material	**Less than 10 m³**	**Please specify estimated volumes if more than 10 m³**	**Re-use on-site**	**Recycle** (separate collection from site)	**Recycle** (off-site separation)	**Landfill**	**% of material diverted from landfill**
Bricks	☐		☐	☐	☐	☐	%
Concrete	☐		☐	☐	☐	☐	%
Tiles	☐		☐	☐	☐	☐	%
Timber (clean)	☐		☐	☐	☐	☐	%
Timber (treated)							%
Plasterboard	☐		☐	☐	☐	☐	%
Glass	☐		☐	☐	☐	☐	%
Ceiling tiles	☐		☐	☐	☐	☐	%
Metals (ferrous)	☐		☐	☐	☐	☐	%
Metals (non-ferrous)							%
Carpet	☐		☐	☐	☐	☐	%
Electronic waste	☐		☐	☐	☐	☐	%
		Total diversion of waste from landfill (needs to be minimum 80% diversion):					%

Principal Off-Site Recycler/s	Off-Site Recycler's Primary Markets for Materials (for residential developments over three storeys and all non-residential developments)	Principal Licensed Landfill Site

Declaration

Name of applicant (please print):

Signature of applicant: Date:

B. Demolition Waste and Recycling Management Plan

Refer to the Construction and Demolition Waste Requirements.

Site Address:		**DA Number:**	
Does demolition contain asbestos?		☐ Yes ☐ No	
All asbestos waste is to be managed in accordance with provisions of the NSW *Work Health and Safety Regulation* 2011 and the City of Sydney *Asbestos Policy*.		☐ Tick ☑ if under 10 m² ☐ Tick ☑ if over 10 m²	
WorkCover Licence No. and Class			
Demolition contractor details			
Licensed landfill			

General demolition waste

			How will you manage this waste?				
Type of Material	**Less than 10 m³**	**Please specify estimated volumes if more than 10 m³**	**Re-use on-site**	**Recycle** (separate collection from site)	**Recycle** (off-site separation)	**Landfill**	**% of material diverted from landfill**
Bricks	☐		☐	☐	☐	☐	%
Concrete	☐		☐	☐	☐	☐	%
Tiles	☐		☐	☐	☐	☐	%
Timber (clean)	☐		☐	☐	☐	☐	%
Timber (treated)							%
Plasterboard	☐		☐	☐	☐	☐	%
Metals (ferrous)	☐		☐	☐	☐	☐	%
Metals (non-ferrous)	☐		☐	☐	☐	☐	%
Mixed recycling	☐		☐	☐	☐	☐	%
		Total diversion of waste from landfill (needs to be minimum 80% diversion):					%

Principal Off-Site Recycler/s	Off-Site Recycler's Primary Markets for Materials (for residential developments over three storeys and all non-residential developments)	Principal Licensed Landfill Site

Declaration

Name of applicant (please print):

Signature of applicant: Date:

C. Operational Waste and Recycling Management Plan

Site Address:		DA Number:	

☐ Residential Only Development
☐ Mixed Residential/Non-Residential Development

Generation of waste

Refer to the Waste Generation rates in Guidelines.

RESIDENTIAL MULTI-UNIT **Number of dwellings**	Waste generation/ week (100L/dwelling)	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ week (120L/dwelling)	Nominated recycling bin size (L)	Total number of bins estimated
e.g. 6	600	240	3	720	240	3
e.g. 20	2000	660	3	2400	660	4

RESIDENTIAL SINGLE DWELLINGS **Number of dwellings**	Waste generation/ week (100L/dwelling)	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ week (120L/dwelling)	Nominated recycling bin size (L)	Total number of bins estimated	Food waste generation/ week (for single unit dwellings only)	Nominated food waste bin size (L) (for single unit dwellings only)	Total number of bins estimated
e.g. 1	100	120	1	120	120	1	40	60	1

NON-RESIDENTIAL **Calculate generation based on premises type and area**	Waste generation/ L/day	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ L/day	Nominated recycling storage bin size (L)	Total number of bins estimated	Food waste generation/ L/day	Nominated food waste bin size (L)	Total number of bins estimated
e.g Hotel (11,000 m^2)	2200	660	4	2750	660	5	1650	660	3
e.g Restaurant (200 m^2)	200	240	1	1000	660	1	200	240	1

General requirements

All multi-unit residential and non-residential development is to address the following.

Refer to the General Requirements section in Guidelines.

1	Have the Guidelines been considered in conjunction with the City's *Waste Management Local Approvals Policy* (found at www.cityofsydney.nsw.gov.au)?	☐ Yes ☐ No
	Is there a waste and recycling storage area provided?	☐ Yes ☐ No
	Is the waste and recycling areas located in a position that is convenient for both users and waste collection staff?	☐ Yes ☐ No
	Location of waste and recycling storage areas: (e.g. level 2) / Distance (m) from the waste and recycling storage area to the collection point / Size of waste and recycling storage areas (m^2)	
	What is the total area of bin storage provided?	(m^2)
	Is the layout of the waste and recycling storage area designed to encourage easy recycling and separation of different waste types by all users?	☐ Yes ☐ No
	What is the ceiling height of the waste and recycling storage area?	m
	Have you submitted a detailed plan of the waste and recycling storage area, together with the nominated collection point and access pathway marked? Please include name and location of relevant drawings:	☐ Yes ☐ No
	Is there sufficient space provided for the estimated general waste and recycling bins PLUS handling?	☐ Yes ☐ No
2	How much separate space is dedicated for storing bulky waste and problem waste?	m^2
	What type of storage space for bulky and problem waste has been allocated? (e.g. designated area, lockable cage, within waste and recycling storage room or other)	
	Is food waste or compostable material managed in any way? (tick the applicable management system/s below)	☐ Yes ☐ No
	• Suitable space available for composting and worm farming	☐
	• On-site food waste processing system	☐ System type:
	• Other (please specify)	

3	Is the collection point sufficiently accessible by collection operators?	☐ Yes ☐ No
	What is the maximum manual handling distance between the storage point and the collection point for bins?	_____ m
	Are any collection and vehicle access points located adjacent to a habitable room?	☐ Yes ☐ No
	What is the maximum grade of the path for wheeling bins between a storage point and the collection point?	_____ : _____
	Are all externally located on-site collection points constructed within 15 metres from the property boundary?	☐ Yes ☐ No
	What is the clearance height allowed for collection vehicles to enter the site for collection?	_____ m
	Is entry and exit of a collection vehicle from the site in a forward direction?	☐ Yes ☐ No
	Can collection vehicles service the development with minimal reversing?	☐ Yes ☐ No
	Have the following allowances been made for all collection points? • Vehicle access for collection and loading will provide for a maximum grade of 1:20 for the first 6 metres from the street, then a maximum of 1:8 with a transition of 1:12 for 4 metres at the lower • A minimum width of driveway of 3.6 metres • A minimum radius turning circle of 10.5 metres or provision for changing the facing direction	☐ Yes ☐ No
	Who will be responsible for waste management (waste storage area management, cleaning, bin transfer, educating occupants etc.) for the development?	
	Will appropriate signage for waste storage areas and equipment (including bins) for effective waste management and safe handling be implemented where necessary?	☐ Yes ☐ No
4	Please provide an overview summary of the development's waste management system and arrangements, including a description of how occupants, cleaners and/or building management will use the waste management facilities and how waste will be stored, transported and collected. (This is to be consistent with the drawings attached. Please attach additional pages if more space required)	

Multi-unit residential developments dwellings

All residential developments which shared waste and recycling bins are to address the following.

Refer to Multi-Unit Residential Developments Dwellings section in Guidelines.

1	Has space for at least two day's generation of waste and recycling been provided per unit?	☐ Yes ☐ No
	Is the waste and recycling storage area(s) easily accessible by all residents of the development?	☐ Yes ☐ No
	How far is the waste and recycling storage area from the farthest residential dwelling?	_____ m
	Are you requesting any additional infrastructure in the waste and recycling storage room (carousel, optic sensors, number of bins, automatic bin exchange, size)? *If yes, fill in the section below*	☐ Yes ☐ No
2	Please detail the type of additional infrastructure:	
	If a compactor is included, what is the proposed compaction ratio (it is not to exceed 2:1)?	_____
	Will the development elect to have kerbside collection? (only applies to developments with less than 6 units that satisfy the requirements outlined in the General Requirements section)	☐ Yes ☐ No
	What type of problem waste will be dealt with in this development? (e.g. electronic waste, batteries, fluorescent tubes and mobile phones)	_____
	How much space in the waste and recycling storage area has been allocated for textile waste?	_____ m^2
3	Will a chute system be utilised in the new development? If yes, will the chute system be a single (general waste) or dual system (two separate chutes for waste and recycling)? *If no, move onto question 5*.	☐ Yes ☐ single or ☐ dual ☐ No
	Has the chute system been designed according to the relevant minimum manufacturing standard?	☐ Yes ☐ No
	What is the total maximum travel distance from any residential dwelling entry to a chute system on any given storey? (It is not to exceed 30 metres)	_____ m
	Has the chute system been designed and certified according to the relevant acoustic standards?	☐ Yes ☐ No

4	Is there a chute room on each habitable floor of a development with a chute system?	☐ Yes	☐ No
	Does the chute room include space for: • recycling MGBs (if a single chute system is used) • the chute inlet hopper • spare MGBs • large cardboard and/or bulky items to reduce the likelihood of blockages in chutes.	☐ Yes	☐ No
5	In which of the following ways will on-site collection of waste, recycling , textile waste and bulky items take place?		
	1 In the building's basement	☐ Yes	☐ No
	2 At grade within the building in a dedicated collection or loading bay	☐ Yes	☐ No
	3 At grade and off-street within a safe vehicular circulation system where, in all cases, vehicles will enter and exit the premises in a forward direction	☐ Yes	☐ No

Residential single dwellings

All single-dwelling houses, small-scale villas or townhouse-type developments with bins allocated to and managed at each individual dwelling is to address the following.

Refer to Residential Single Dwellings section in Guidelines.

1	Has space for at least two day's generation of waste, recycling and food waste been provided per dwelling?	☐ Yes	☐ No
	Has storage area for one each of council's specified waste bins been allocated per unit? (including general waste, recycling, food waste and garden organics)	☐ Yes	☐ No
	Has appropriate access between the waste and recycling storage area and kerbside collection point been allocated?	☐ Yes	☐ No
	Has sufficient space for the storage of bulky waste, textile waste and problem waste been allocated?	☐ Yes	☐ No

Non-residential developments

All new non-residential developments are to address the following.

Refer to Non-Residential Developments section in Guidelines.

1	How much space is dedicated for storing bulky waste and problem waste for recycling?	☐ m^2
2	Dedicated space (in or attached to the waste and recycling storage area) is provided for the storage and recycling of food waste for collection	☐ Yes ☐ No
3	How much space has been allocated for management of re-usable items (such as crates, pallets, kegs and fit-out waste)?	☐ m
	Have kitchens, office tearooms, service and food preparation areas been designed with dedicated space to collect and recycle food waste?	☐ Yes ☐ No
	Has secure space for the storage of liquid wastes been allocated (such as chemicals, paints, solvents, and motor and cooking oil)?	☐ Yes ☐ No
4	Will collection of non-residential waste take place inside the new development?	☐ Yes ☐ No
5	Will the site employ the use of a waste caretaker or cleaner for managing non-residential waste?	☐ Yes ☐ No
	Will the development employ on-site weighing of waste materials?	☐ Yes ☐ No
6	Has the 'Non-Residential Developments' section of the Guidelines been consulted for specific requirements of different non-residential occupancies at the site?	☐ Yes ☐ No

Mixed use developments

All developments containing both residential and non-residential units are to address the following.

Refer to Mixed Use Developments section in Guidelines.

1	Has separate waste and recycling storage been allocated for residential and non-residential aspects of the site?	☐ Yes ☐ No
	Will the collection point be shared for residential and non-residential waste?	☐ Yes ☐ No
	Have relevant site plans identified the storage areas, collection points and management systems for both residential and non-residential waste streams?	☐ Yes ☐ No

Declaration

Name of applicant (please print):

Signature of applicant: Date:

APPENDIX C: UNEXPECTED FINDINGS PROTOCOL PROFORMA

ENVIRONMENTAL EARTH SCIENCES
CONTAMINATION RESOLVED

Unexpected Findings Protocol Form

Site: **Job reference:**

Client:

Personnel Onsite: **Date:**

Daily Summary

1. Fill or suspect material encountered during daily activities _____
   (if yes compete 2 - 8).
2. Environmental consultant contacted: _____
3. Record location of foreign material (label occurrences sequentially 1, 2, 3, etc).

Description of material encountered:

4. Asbestos or suspected asbestos containing material present (Yes/No): _____
5. If No to 4 is there an obvious odour present (Note: Do Not sniff soil) (Yes/No): _____
6. Visible staining (Yes/No): _____
7. Brief written description:

8. Material quarantined (Yes/No): _____
9. Location of contaminated material: _____
10. Attach photographs taken _____

Signature: _____