

Construction Waste Management Plan

For the proposed Mortdale Resource Recovery Facility Development SSD.7421

20 Hearne St, Mortdale NSW 2223

Rev 3 - 11th November 2016

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1. EXECUTIVE SUMMARY

Purpose

This document forms part of the State Significant Development application SSD.7421 and supports the request by the EPA for the proponent to prepare a Construction Waste Management Plan.

This plan will seek to address the following:

- Waste Management for materials generated as a result of the development;
- Traffic Impact Management during the demolition and construction; and
- Impact Management during construction activities.

Scope

The scope of this document includes:

- Demolition of the existing building structure;
- Construction of the new proposed development.

Outcomes

The outcomes of implementing the initiatives as detailed in this plan will be as follows:

- Removal and disposal of wastes in compliance with Protection of the Environment Operations Act 1997, and the Waste Avoidance and Resource Recovery Act 2001;
- Maximise material recycling and reduce contribution to landfills;
- Successful management of the risks/impacts as identified resulting in zero (0) incident, non-conformance, complaint, and infringement;
- Successful delivery of the finished project through the implementation of effective and commercially viable measures; and
- Effective communication with all stakeholders (client, authority, public).

2. ROLE OF DEWCAPE

Dewcape designs, constructs and fits out retail, commercial, health, and residential developments. We hold enviable credentials with over 25 years of experience and a long-standing blue-chip client base of national and international market leaders.

Our distinctive portfolio of innovative, award-winning designs and multimillion-dollar projects ranges from original constructions to complex rollouts undertaken nationally and delivered with unfailing consistency. Our unusually comprehensive suite of in-house design, development and construction services together with outstanding project management capabilities extend beyond the capabilities of our competitors.

Dewcape has prepared this document, Construction (& Demolition) Waste Management Plan (CWMP) for the purpose of the State Significant Development application SSD.7421. Dewcape has also been appointed as the Principal Contractor for the proposed development at No.20 Hearne St Mortdale and is responsible for the development and implementation of the CWMP.

This CWMP has been developed in consultation with Skylife Properties Pty Ltd (Applicant) and conforms with the relevant legislation as stipulated in the Protection of the Environment Operations Act 1997 and the Waste Avoidance and Resource Recovery Act 2001;

Dewcape is an accredited company which conforms with ISO 14001:2004 for Environmental Management Systems. Dewcape is committed to reducing the impact of its activities on the environment and assisting our customers by encouraging them to use sustainable resources. Dewcape's Environmental Policy and Accreditation is attached in Appendix A for reference.

Dewcape's commitment to environmental consideration and preservation has been recognised by the Masters Builders Association for the works completed at the Bingo Recycling Facility in Auburn NSW. Dewcape received the Award for Excellence in Construction 2016 for Environmental Management in the category of \$10-\$50million. (<http://www.mbansw.asn.au/Excellence-Awards/EIC/2016/22/>)

3. OUTLINE OF PROPOSAL

SITE DETAILS

Site Address

20 Hearne Street, Mortdale NSW 2223

Lot 102 DP585775

Site Location



(Figure 1 - Location of the site 20 Hearne St, Mortdale NSW 2223)

Existing buildings and other structures currently on the site:

- 1 x Brick and metal clad shed, with detached single storey brick and fibro building; and
- 1 x Single storey brick and fibro office building.

BRIEF DESCRIPTION OF PROPOSAL OF WORKS

The proposed development located at No. 20 Hearne St, Mortdale NSW 2223 (DP585775 Lot 102), is a Resource Recovery Facility which comprises:

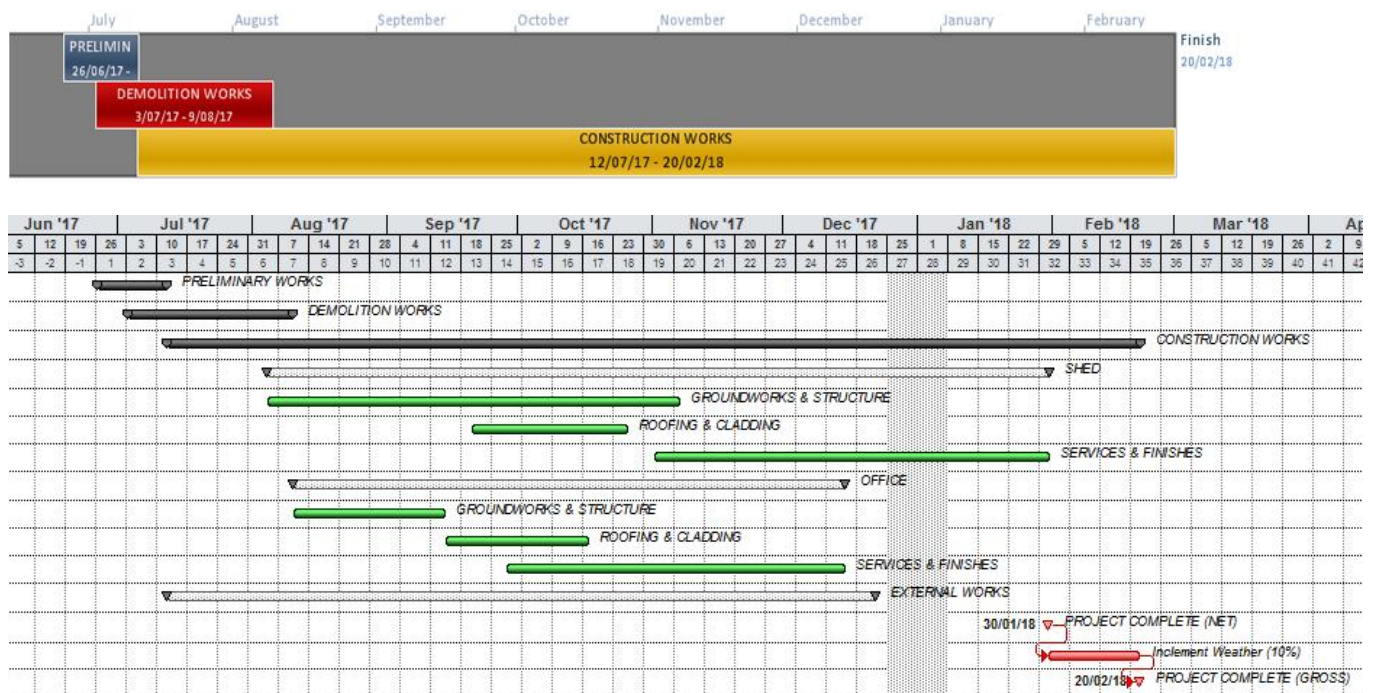
-) New 3150m2 Shed constructed with concrete tilt panel, structural steel, and metal cladding;
-) New 200m2 single storey administrative/amenities building;
-) 2 new weighbridges;
-) Material storage bays;
-) Material processing plant/machinery.

CONSTRUCTION PROGRAMME

The construction process will occur in stages of varying length. The total project onsite period is estimated to be approximately 34 weeks (refer to Appendix D for preliminary project program). The project timeframe is summarised in Ghant Chart below.

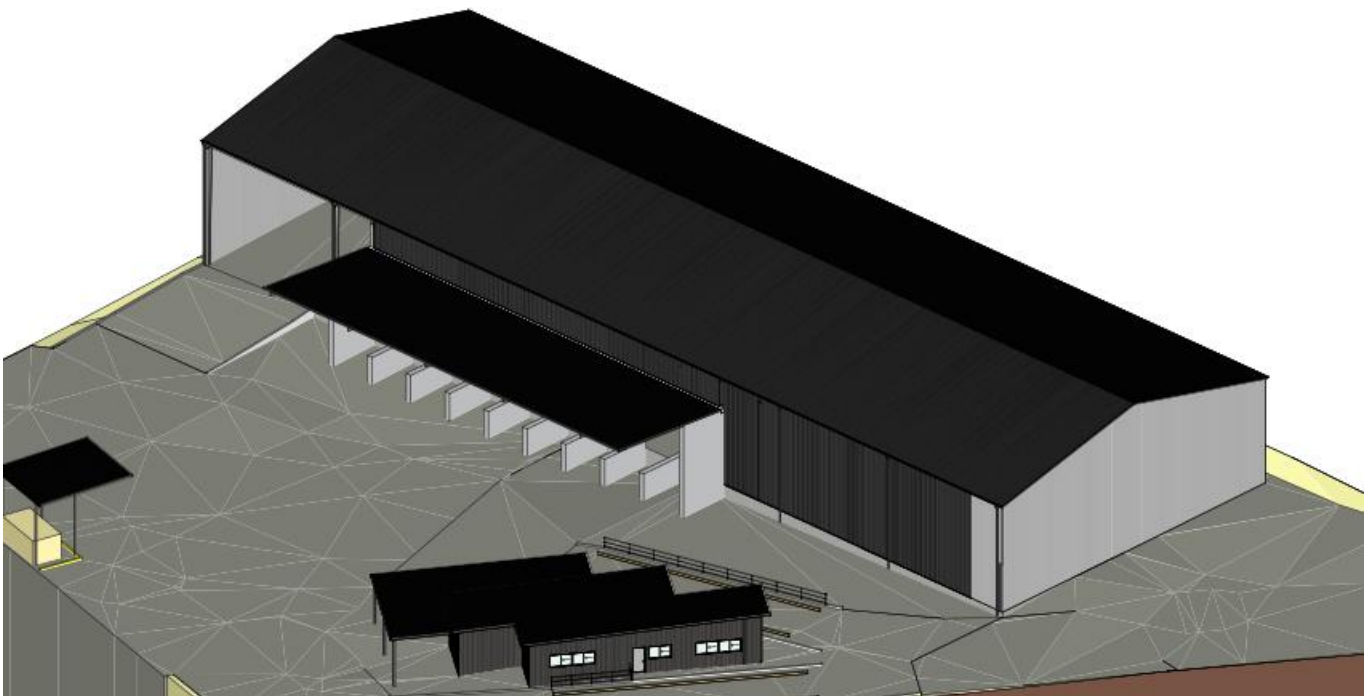
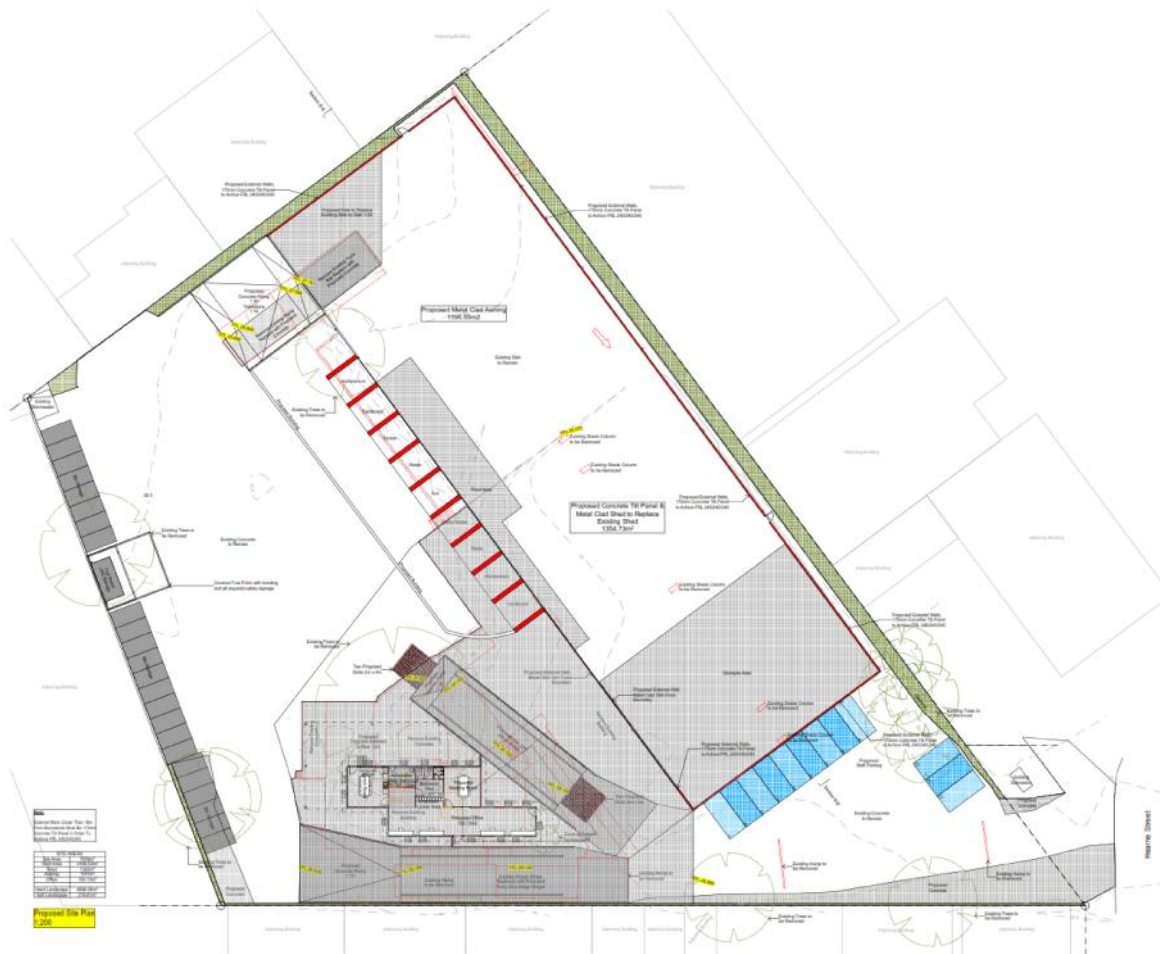
Indicative Construction Dates

- Preliminary Works (site establishment) Start - June 2017
- Demolition Start - July 2017
- Demolition Finish - August 2017
- Construction Start - July 2017
- Construction Finish - February 2018



(Figure 2 - Summary of project program (Refer to Appendix D for further details).)

Proposed Development Layout & 3d Visual



SITE LAYOUT



MORTDALE RECYCLING
20 HEARNE ST, MORTDALE

DEWCAPE



(Figure 3 – Site Layout Plan (Attached to Appendix C).)

RISKS/IMPACTS

RISKS	IMPACTS	MEASURES
Material Generated	Contributing to landfill waste,	Addressed in Section 4
Pollution (noise, dust, fume, & storm water run-off)	Resident, Local business, Waterways, Georges River / Wetlands	Addressed in Section 5
Hazardous Materials	Health risk, Contamination,	Addressed in Section 6
Vehicle Traffic	Resident, Local business,	Addressed in Section 7

(Table 1 – Risk/Impact Register)

4. WASTE MANAGEMENT

DESIRED OUTCOME

The desired outcome of a successful waste management policy is as follows:

- Most of the material as generated from the development is recycled, reused, or repurposed;
- The net results will be the minimisation of the landfill contribution and less reliant on the consumption of new material; and
- Removal and disposal of wastes in compliance with Protection of the Environment Operations Act 1997, and the Waste Avoidance and Resource Recovery Act 2001.

WASTE MATERIAL CLASSIFICATION

The waste materials expected to be generated during demolition & construction of the proposed development can be classified as per the below and will be further addressed in this section:

- Building Material;
- Green Waste;
- Excavated Soil; and
- Hazardous Material.

The Management of Hazardous Material is detailed in Section 4.

Building Materials

On the site of the proposed development, there are currently several structures currently used for the facilities current operations. The demolition of these structures and construction of the proposed building, facilities and car parking is expected to generate various types of material which includes:

- Concrete;
- Steel;
- Metal (steel and aluminum)
- Timber;
- Plasterboard;
- Masonry and Ceramics;
- Soil;

Green Waste

Green waste will be generated in the demolition stage where existing landscaping and trees will be removed and cleared for the new layout. Green waste will be removed from the site and if suitable, provided to a third party for composting or mulching.

Excavated Soil

The development is expected to generate quantities of soil during the demolition and construction activities.

In the absence of a geotechnical report, the soil type has not been classified. The risk that the soil containing contaminated substances which may or may not cause harm to public health is unknown and therefore the process to identify such contaminants will form part of the procedure prior to the removal of the materials from site.

A Contamination Investigation and soil classification report are to be undertaken by an EPA licensed contractor, and the disposal of any identified material will be in compliance with Protection of the Environment Operations Act 1997, and the Waste Avoidance and Resource Recovery Act 2001.

WASTE MINIMISATION AND DISPOSAL

All materials removed and disposed of the proposed site will be managed within the framework of ISO14001:2004, and in compliance with Protection of the Environment Operations Act 1997, and the Waste Avoidance and Resource Recovery Act 2001.

Record of disposal is required for all materials. This including but not limited to tip dockets and disposal reports. Records will be kept for 3 years to evidence the lawful disposal of waste.

Management and disposal of asbestos waste will be detailed in Section 5.

To achieved the desired outcomes, the below strategies will be implemented:

1. Separation of Waste Materials

Where possible, before demolition, the nature of the materials is identified. Designated areas or bins need to be established to allow demolition materials to be separated and therefore reused or recycled. Concrete and bricks can be “sold” to a recycler for screening and crushing into a resalable product. Steel can be stockpiled and sold for recycling;

2. Salvageable Materials

Windows, doors and other building structures which are in good salvageable condition should be removed manually and provided to a resource recovery centre or recycler for use;

3. Environmental Culture

Construction waste minimisation requires early planning and establishment of “Waste minimisation Culture” by all participants in the Design, Construction, and End User process; and

4. Implementation of Strategies

The principal contractor must ensure that effective communication of the CWMP to direct staff and contractors during the demolition and construction stages. Implementation audit and regular inspections of the measures are required to ensure of CWMP have been maintained.

The waste management strategy has been developed from best practice models. Specific procedures have been prepared which will be followed by all staff to ensure works are undertaken in a safe and effective manner and in compliance with the environmental requirements by authority and legislation. The key measures are listed in Section 6, but are also outlined below:

- Waste Materials generated on site are to be managed such that recycling is maximised and the volume of waste transported to landfill is minimised;
- Waste Recycling and disposal reports and records of disposed material will be kept to evidence the lawful management of waste;
- Waste tracking system (WTS) to ensure all the excavated waste fill is accounted for and relocated to its appropriate location;
- Internal waste is handling for managing the excavation, demolition, construction, separating, stockpiling, storage and transportation of waste materials;
- Off-site waste disposal for the transportation and disposal of waste material off site;
- Materials selected must be fit for use. The use of building materials that are fully recycled and/or include recycled material in their production will be maximised where practicable; and
- Imported clean fill to ensure only suitable fill is used.

Each procedure will address the objective, and provide actions to achieve the objectives, performance indicators, monitoring programs and potential corrective actions.

DEMOLITION PHASE

Where possible, Principal Contractor considers the reuse of existing building materials, or parts thereof, for the proposed use. By managing the on-site sorting and storage and by staging work programs, it is possible to reuse many materials, either on-site or off. Instead of simply pulling down a building, this waste management plan encourages the practice of recycling on site. The following strategies will be implemented by the Principal Contractor:

- Colour-coded or clearly labeled bins on-site rather than one size fits all;

- Designate location of on-site storage space for materials (for reuse) and containers for recycling and disposal; and
- Development and implementation of a TCP for vehicle access to the site and storage and container areas.

MATERIALS ON-SITE		DESTINATION		
Type of Material	Estimated Quantity	RE-USE AND RECYCLING		DISPOSAL
		ON-SITE	OFF-SITE	Proposed contractor/ landfill site
Excavation material	200m ³ (non-contaminated)	Nil	Land Fill	TBC
	50m ³ (contaminated)	Nil	By Approved Waste Company	
Green waste	13 no. (trees)	Nil	Remainder	Nil
Bricks	1100m ²	Nil	Concrete mortar bricks to recycling company nominated by client.	Nil
Concrete	2321m ²	Crush concrete for temporary driveway	Concrete to Crushing / Recycling Company	Nil
Timber - hardwood / pine	Nil	Nil	Nil	Nil
Plasterboard	600m ²	Break-up and remove from site	To Recycling Facilities	Nil
Metal	3000m ²	Nil	To Recycling Facilities	Nil
Metals - zinc / aluminium	50m	Nil	To Metal Recyclers	Nil
Tiles, glass, plastics	50m ²	Broken tiles for fill on-site. Recycle glass.	Remainder to Recycling Facilities	Nil
Kitchen cupboards, sink, & stove	1 set	Nil	To Recycling Facilities	Nil
vanity and closet pan	1 set	Nil	To Recycling Facilities	Nil
Asbestos	As per Appendix B: Asbestos Inspection & Register table 3	Nil	By approved waste contractor	By approved waste contractor

(Table 2 - Expected materials as generated in the Demolition Phase)

Note: Details of site area to be used for on-site separation, treatment and storage (including weather protection) are to be directed on site by the Principal Contractor.

CONSTRUCTION PHASE

The following measures will form part of strategies when looking to save resources and minimise waste at the construction stage:

- Purchasing Policy – considering measures such as ordering the right quantities of materials and prefabrication of materials where possible;
- Minimising site disturbance, limiting unnecessary excavation;
- Careful source separation of off-cuts to facilitate re-use, re-sale or efficient recycling; and
- Co-ordination / sequencing of various trades

The following details are to be directed by the Principal Contractor (indicated on Section 3 site layout plan):

- Location of temporary storage space;
- Location of Waste Storage and recycling area(s), garbage and recycling room;
- Site office, Amenities shed, Lunch shed;
- Access for vehicles.

The allocated Waste Storage and Recycling Area can be flexible in size and layout to cater for future changes in use. The size can be calculated on the basis of estimated waste generation rates and proposed bin sizes.

MATERIALS ON-SITE		DESTINATION		
Type of Material	Estimated Vol. (m3) or Area (m2)	RE-USE AND RECYCLING		DISPOSAL
		ON-SITE	OFF-SITE	Proposed contractor/ landfill site
Excavation material	450m ³	Covered in section as part of demolition	To Land Fill (excess excavation)	Nil
Green waste	Nil	Covered in section as part of demolition	Remainder to Land Fill	Nil
Bricks	Nil	Nil	Nil.	Nil
Concrete	3m ³	Use for fill temporary access pathways	Remainder to Crushing & Recycling Company	Nil
Timber – oregon / pine / timber pallets / particle board finishes	5m ³	Chip for use in landscaping	Remainder Recycling Company	Nil
Plasterboard	10m ²	Re-use where required	Remainder to Recycling Company	Nil
Metals	100m ²	Nil	To Recyclers for re-use	Nil
Other – electrical fittings, reject trade-ins, PVC plastics, cardboard, etc		Nil	To Recyclers for re-use	Nil

(Table 3 – Expected materials as generated in the Demolition Phase)

Note: Details of site area to be used for on-site separation, treatment and storage (including weather protection) are to be directed on site by the Principal Contractor.

5. HAZARDOUS MATERIAL

ASBESTOS-CONTAINING MATERIAL (ACM)

An inspection by Safe Environments was conducted for Asbestos Containing Material (ACM) was carried out at 20 Hearne Street Mortdale NSW 2223 on the 27 July 2015. The full report is attached in Appendix B for reference.

The results of the inspection, including the location, sample analysis or presumed ACM, risk assessment, and recommendations, are tabulated through the use of an Asbestos Register. The below is an extraction from the Asbestos Inspection & Register Report No.R9002.

ASBESTOS MATERIALS	GENERAL LOCATION	CONTROL MEASURE (RECOMMENDATION)
Cement debris on ground	External	To pick up all surface asbestos and dispose of in accordance with EPA guidelines by an asbestos removalist.
Cement and presumed cement corrugated sheeting, capping, gutters, drain pipes, eaves, roof sheeting and textured and flat wall cladding.	Refer to Appendix B Table 3 – Asbestos Register	Follow the procedure from Asbestos Removal Plan. Decontaminate ACM from structure to Asbestos waste drums or bins/vehicle tray. Disposed of by nominated asbestos removalist.
Cement and presumed cement wall and ceiling lining, infill panels, capping, cisterns, fascia panels and roof sheeting	Refer to Appendix B Table 3 – Asbestos Register	Follow the procedure from Asbestos Removal Plan. Decontaminate ACM from structure to Asbestos waste drums or bins/vehicle tray. Disposed of by nominated asbestos removalist.
Stored broken corrugated sheets	Refer to Appendix B Table 3 – Asbestos Register	Follow the procedure from Asbestos Removal Plan. Decontaminate ACM from structure to Asbestos waste drums or bins/vehicle tray. Disposed of by nominated asbestos removalist.
Presumed resin electrical mounting board and resin to windows	Refer to Appendix B Table 3 – Asbestos Register	Follow the procedure from Asbestos Removal Plan. Decontaminate ACM from structure to Asbestos waste drums or bins/vehicle tray. Disposed of by nominated asbestos removalist.

(Table 4 – Summary of Inspection (extraction from Asbestos Inspection & Register Report No.R9002))

Procedure

1. Contractor Engagement

Ensure asbestos removal work is carried out only by a licensed asbestos removalist who is appropriately licensed to carry out the work.

2. Secure the site

Limiting access, displaying signs and installing barricades.

3. Personal Protective Equipment

An asbestos removalist must provide all workers with PPE that is suitable for asbestos removal work. Workers must also use the PPE given to them by the asbestos removalists. PPE must be worn at all times during the work in the asbestos removal area. PPE includes clothing, coveralls, gloves and safety footwear, as well as RPE.

4. Decontamination

Air monitoring equipment will be attached with asbestos removalist who will enter into the site and the asbestos waste container. Tools and equipment that can be used during asbestos removal work include asbestos vacuum cleaners, manually operated hand tools and equipment—other than compressed air or high-pressure water spray—that have been designed to capture or suppress respirable dust or are used in a way that is designed to capture or suppress respirable dust. In addition to any equipment required to complete a particular task, the following equipment may be required on-site before the work begins: disposable cleaning rags, a bucket of water and a misting spray bottle, sealant suitable asbestos waste container, warning signs and barrier tape.

5. Waste Containment And Disposal

The licensed asbestos removalist must ensure that asbestos waste is contained and labeled in accordance with the GHS before the waste is removed from the asbestos removal area. It must be disposed of as soon as is practicable at a site authorised to accept asbestos waste. PPE Disposable PPE that has been used in the asbestos work area and is contaminated with asbestos must be sealed and labeled in a container and disposed of upon completion of the asbestos removal work.

6. Clearance Inspection

A person commissioning licensed asbestos removal work must ensure that, once the licensed asbestos removal work has been completed, a clearance inspection is carried out and a clearance certificate is issued before the workplace can be re-occupied.

6. ENVIRONMENTAL MANAGEMENT

This section identifies the potential environmental risks with the project and details effective risk management strategies which are to be adopted during the works. These include;

- Noise and Vibration Management
- Erosion, Sediment & Stormwater run-off management
- Transport management
- Dust/Air Quality control
- Dangerous Goods Management
- Waste Minimisation and Disposal

The performance of risk management measures is based on the number of complaints versus corrective action of complaints as recorded in the complaints register. Unless otherwise agreed upon by stakeholder parties (neighbour and client), complaints register is to be recorded and kept and managed by Dewcape.

NOISE AND VIBRATION MANAGEMENT

Objectives

To minimise the generation of noise and vibration from the construction activities occurring on site and its impact on other workers, surrounding residents, businesses and building structures.

Risk Identification

Potential risks associated with noise and vibrations are as follows:

- Construction noise affecting other workers or the general public on or near the site
- Construction noise affecting the surrounding residences and businesses.
- Excessive vibration from construction activities causing discomfort to nearby residents or businesses.
- Excessive vibration from construction activities causing damage to nearby buildings, structures and services.

Risk Management

Management actions are as follows:

- Working hours will be restricted to the hours stated in the contract. No work will occur on Sundays or Public Holidays without consultation and approval from the Principal Contractor.
- No noise generating plant or equipment shall be used outside of the Council DA approved working hours.
- All practical measures will be used to minimise noise and vibration from construction equipment.
- All plant and equipment will be operated in a proper and efficient manner.
- All complaints are to be detailed and recorded in the Complaints Register.
- Works must not be exposed to noise exceeding the national noise exposure standard. PPE to be used by all workers when working near noisy plant.
- Audiometric testing is required for workplace which generates noise for long periods of time. Audiometric tests to be conducted no less than 3 months of commencing operations and once every 2 years.
- Alternative methodology is to be considered if excessive noise or vibration is generated from construction activities.

Performance measures

- No complaints received from adjoining properties or statutory authorities.
- Environmental Management Checklist completed weekly.

- Non-Conformances are to be reported in compliance with Dewcape management system.

EROSION, SEDIMENT, AND STORMWATER RUNOFF MANAGEMENT

Objectives

To avoid erosion, contamination and sedimentation occurring as a result of the construction activities associated with the project.

To control the quality of stormwater leaving the construction site such that no unacceptable impact occurs to adjoining natural watercourses or storm water drains discharging into these waterways.

Risk Identification

Potential risks associated with Erosion, Sediment, and Stormwater Management are as follows:

- Sediment-laden water from the site potentially flowing into the storm water system and adjacent waterways
- Site cut off drains eroding and increasing run-off water sediment loads

Risk Management

Management actions are as follows:

- Erosion and sediment control devices will be constructed within the catchment area by the Principal Contractor before the commencement of any construction activities. These devices may include sediment basins, cut-off and diversion drains, silt fencing, etc. Such erosion and sediment control devices will be regularly maintained by the Principal Contractor.
- All major site drains are to remain unobstructed and adequately stabilised.
- All complaints are to be detailed and recorded in the Complaints Register
- A designated area for the stockpiling of the soil should be identified. Each stockpile should have appropriate sediment and erosion controls in place. If, after a period, the material is not required on-site, it may be sold for re-use.
- As per Appendix C: Site Plan, the temporary construction exit will be adequately covered with geotextile material (gravel) to ensure duct protection. Additionally, a regular road sweep will be conducted for some part of Hearne Street where will be used by construction vehicles.

Performance measures

- No complaints received from adjoining properties or from statutory authorities.
- Environmental Management Checklist completed weekly or after a rain event.

TRANSPORT MANAGEMENT

Objectives

- To minimise any potential conflict associated with site traffic, traffic routes and parking over the duration of the proposed construction and demolition works,
- To maintain the surrounding residents' amenity.

Risk Identification

The risks associated with Transport Management are as follows:

- Congestion of the site and local streets from delivery vehicles,
- Removal of bulk excavation material from site spilling from trucks and polluting roadways.

Risk Management

Management actions are as follows:

- Transport and deliveries to be properly co-ordinated by the site supervisor to avoid congestion.
- Construction vehicles to remain on-site access roads wherever possible.
- All unloading or loading of materials is to be carried out under the supervision of the Principal Contractor.
- All complaints are to be detailed and recorded in the Complaints Register

Performance Measures

- No complaints from council or others regarding private or public road conditions around the site.
- Environmental Management checklist to be completed weekly or after rain event.
- Non-Conformances are to be reported in compliance with Dewcape management system.

DUST/AIR QUALITY CONTROL

Objectives

- To ensure construction activities do not prejudice local air quality.
- To minimise the generation of dust in and around the project site and its impact on surrounding residents and businesses.
- To implement appropriate controls to suppress dust and other suspended particulates in accordance with the consent conditions and risk management requirements.

Risk Identification

The generation of dust, air emissions or odours from the site can create unsafe working conditions on site and result in environmental degradation. Given this, the following risks have been identified:

- Dust generated from construction activities affecting adjoining properties or public access.
- Dust generated on the construction site affecting site personnel or operations.

Risk Management

Management actions are as follows:

- Visual assessment of the site during construction activities.
- Appropriate dust suppression methods are to be used such as water spraying and vacuum cleaners. Methods are to be considered on the individual site requirements.
- All construction vehicles/equipment will be adequately maintained so they do not emit excessive visible exhaust emissions.
- Complaints are to be detailed and recorded in a Complaints Register.

Performance measures

- Achieve air quality monitoring targets.
- No odour or dust complaints received from adjoining operations, nearby residents or from Statutory Authorities.
- Environmental Management checklist completed weekly.
- Where monitoring is carried out ensure levels are within acceptable limits.
- Non-Conformances are to be reported in compliance with Dewcape management system.

DANGEROUS GOODS MANAGEMENT

Objectives

- To receive, store, use, handle and dispose of hazardous materials in a safe and environmentally responsible manner.
- To prevent any contamination of site work areas and adjoining property including aquatic ecosystems by chemicals used on the construction site.

Risk Identification

The risks associated with Transport Management are as follows:

- Exposure of site personnel to dangerous goods or hazardous substances.
- Exposure of the general public, which uses the existing surrounding facilities.
- Inappropriate disposal of hazardous substances – silicones.

Risk Management

Management actions are as follows:

- Hazardous substances to be stored in an approved designated area.
- Material Safety Data Sheets (MSDS) are to be kept on site for all chemicals and dangerous goods used in the workplace. Hazardous material and MSDS register are to be completed.
- Any contaminated materials will be removed from the site to the appropriate disposal facilities with relevant approvals/documentation.

Performance measures

- No chemical or hazardous materials stored outside designated site area.
- Non-Conformances to be reported in compliance with Dewcape management system.
- Environmental Management checklist completed daily.

WASTE MINIMISATION AND DISPOSAL

Objectives

The objectives of the Waste Management Plan are based on the hierarchy of avoidance/reduce, re-use, recycle, treat and dispose of as outlined in the National Waste Minimisation and Recycling Strategy. Best Practice should be adopted wherever possible, to achieve waste minimisation and reduction. Key areas that will be targeted in the Waste Management Plan are:

- To avoid, whenever possible, the generation of wastes
- Construction Materials
- Domestic Waste
- Wastewater
- Litter generation due to construction activities
- To reuse and recycle a minimum of 60% of all Hard Waste Material, and Soft Waste Material generated on the construction site, thus achieving up to 60% reduction/avoidance in waste to landfill.

Risk Management

Management actions are as follows:

- Waste Materials generated on site are to be managed such that recycling is maximised and the volume of waste transported to landfill is minimised;

- Waste Recycling and disposal reports and records of disposed material will be kept to evidence the lawful management of waste;
- Waste tracking system (WTS) to ensure all the excavated waste fill is accounted for and relocated to its appropriate location;
- Internal waste is handling for managing the excavation, demolition, construction, separating, stockpiling, storage and transportation of waste materials;
- Off-site waste disposal for the transportation and disposal of waste material off site;
- Materials selected must be fit for use. The use of building materials that are fully recycled and include recycled material in their production will be maximised where practicable;
- Imported clean fill to ensure only suitable fill is used.

Performance Measures

- The waste system (bins/signage/training) is in place prior to any major waste generation works.
- All waste transportation and disposal documentation to be maintained on-site and signed as received or disposed of by the appropriate contractor or waste receiving facility.

7. TRAFFIC MANAGEMENT

The below is an extraction from the Transport Impact Assessment Reported prepared by GTA Consultants section 6.5 page 25 to 26 which summarises the impact of the existing traffic conditions during the redevelopment of 20 Hearne St Mortdale.

Construction activities associated with the proposed development are anticipated to primarily involve demolition of existing buildings and modifying the remaining existing buildings. There will be minimal excavation, but there will be a need to remove demolition material and bring in construction materials, fittings, and equipment. The construction activities are anticipated to involve the following:

- demolition of the existing structures and earthworks
- construction of the shed, awning, ancillary office building and staff amenities
- replacement of the existing weighbridge with two new weighbridges
- installation of pollution control equipment to mitigate environmental impacts; and
- installation of new recycling equipment.

All construction activities associated with the proposed development will be undertaken following the ceasing of operations at the Mortdale Recycling Facility. Operations are anticipated to cease at this site prior to demolition and construction commencing and recommencing on completion of redevelopment works. This is estimated to result in a reduction of 204 vehicle movements per day on the road network.

At this stage, it is not possible to accurately quantify the traffic volumes likely to be generated during construction as the design is not developed yet. However, construction activities associated with the proposed development are anticipated to generate only a small proportion of the daily vehicle movements compared to that currently generated by the Mortdale Recycling Facility. Given this, the construction activities would result in a net decrease in traffic generation when compared with the existing traffic generated by the operation of the site. Thus construction traffic is not expected to compromise the safety and function of the road network surrounding the site.

It is anticipated that trucks associated with construction will access the site via the same routes as operational vehicles i.e. via Boundary Road/Hearne Street and Barry Street with the vast majority of these traveling on the M5 Motorway, 5 kilometres north of the site.

Further in this section details will be provided relating to:

- Construction working hours;
- Peak periods for construction vehicles;
- Volume of traffic generated;

In summary, the construction activities of the proposed development during the demolition and construction phase will have less impact on the traffic volume compared to the normal operations of the existing facility.

Notwithstanding the above, a separate Traffic Control Plan (TCP) which relates to the management of traffic within the site and access into the site must be developed and implemented during the demolition and construction stage. The TCP however does not form part of the CWMP.

Construction Working Hours

The typical working hours for construction as allowed by the council is:

- Monday to Friday: 7:00 am to 5:00 pm
- Saturday: 7:00am to 1:00pm
- Sunday: no work

Traffic Routes

In reference to the map below, the red arrow indicates vehicle access route from site to offsite. Vehicle entering from Boundary Road into Hearne Street and then access into the site.



(Figure 4 – Traffic Route)

Peak Periods for Construction Vehicles

The periods where construction traffic will be at its highest are as per the below:

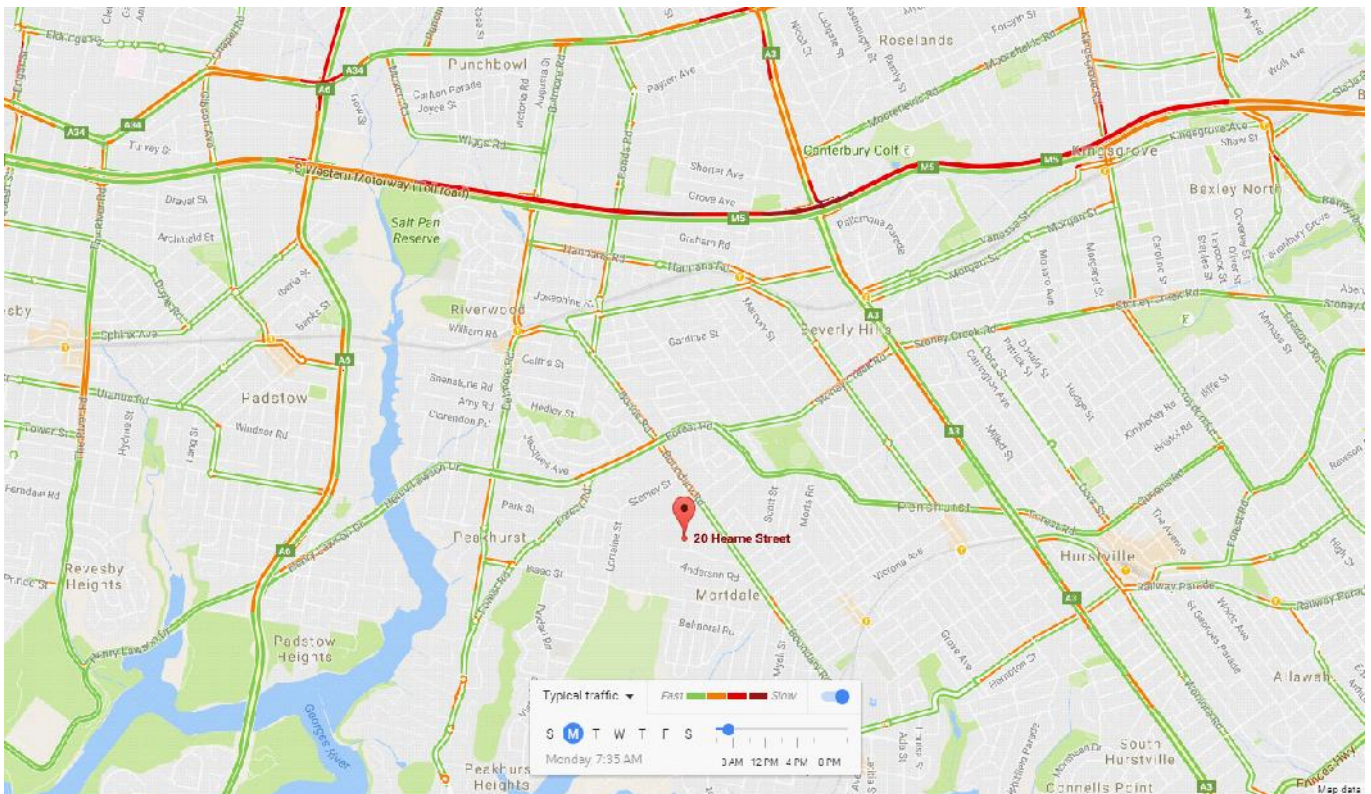
- Staff arrival to site: 6:30 am to 7:30 am;
- Delivery Trucks: 7:30 am to 10:30 am;
- The staff is leaving from the site: 3:30 pm to 4:30 pm.

In comparison, the road networks peak periods are as per the below:

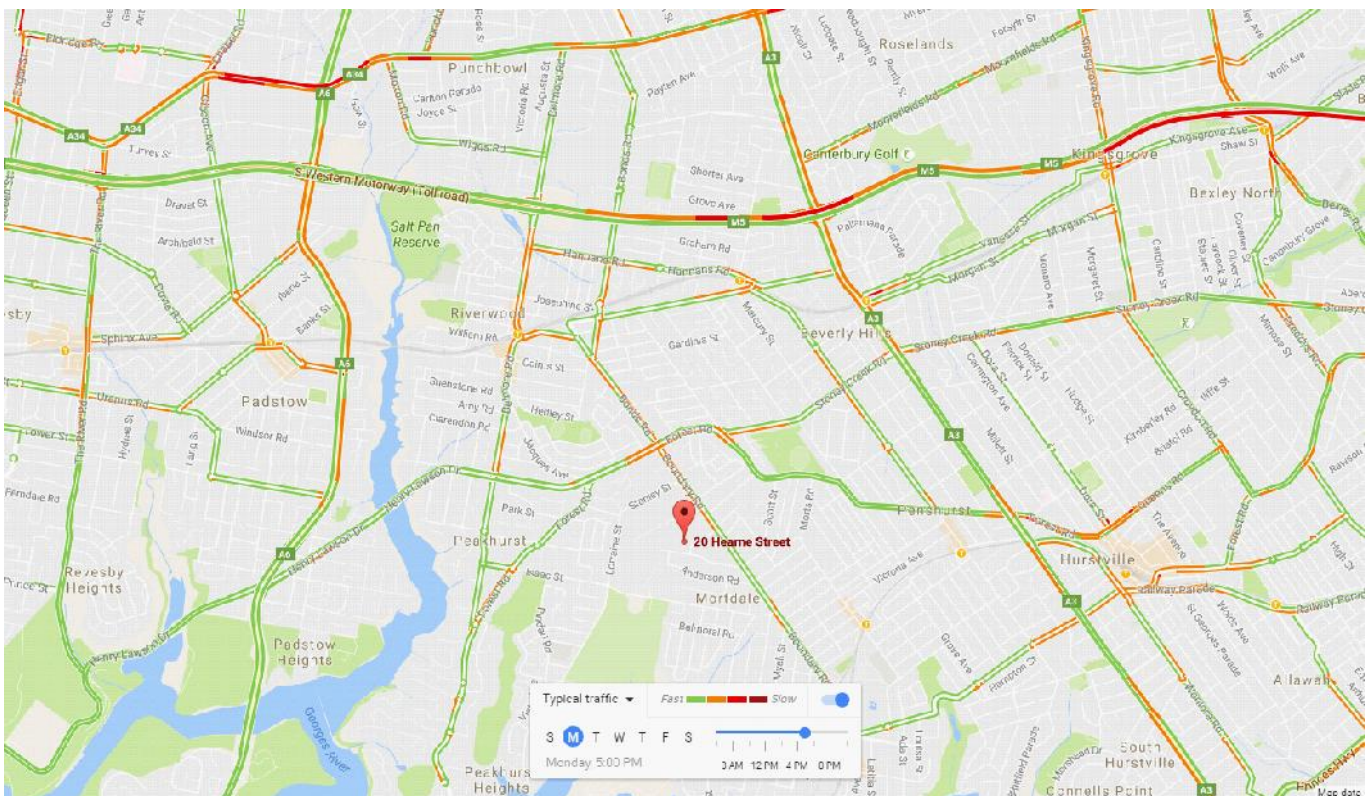
- 9:00 am and 10:00 am;
- 4:30 pm to 5:30 pm.

The below maps shows the typical traffic conditions during the construction working times. In general, the traffic condition off Boundary Road and Hearne Street maintains light to medium traffic volume during the construction periods. The main artery road off the M5 is as expected to have heavy traffic generally in the mornings and afternoon peak periods.

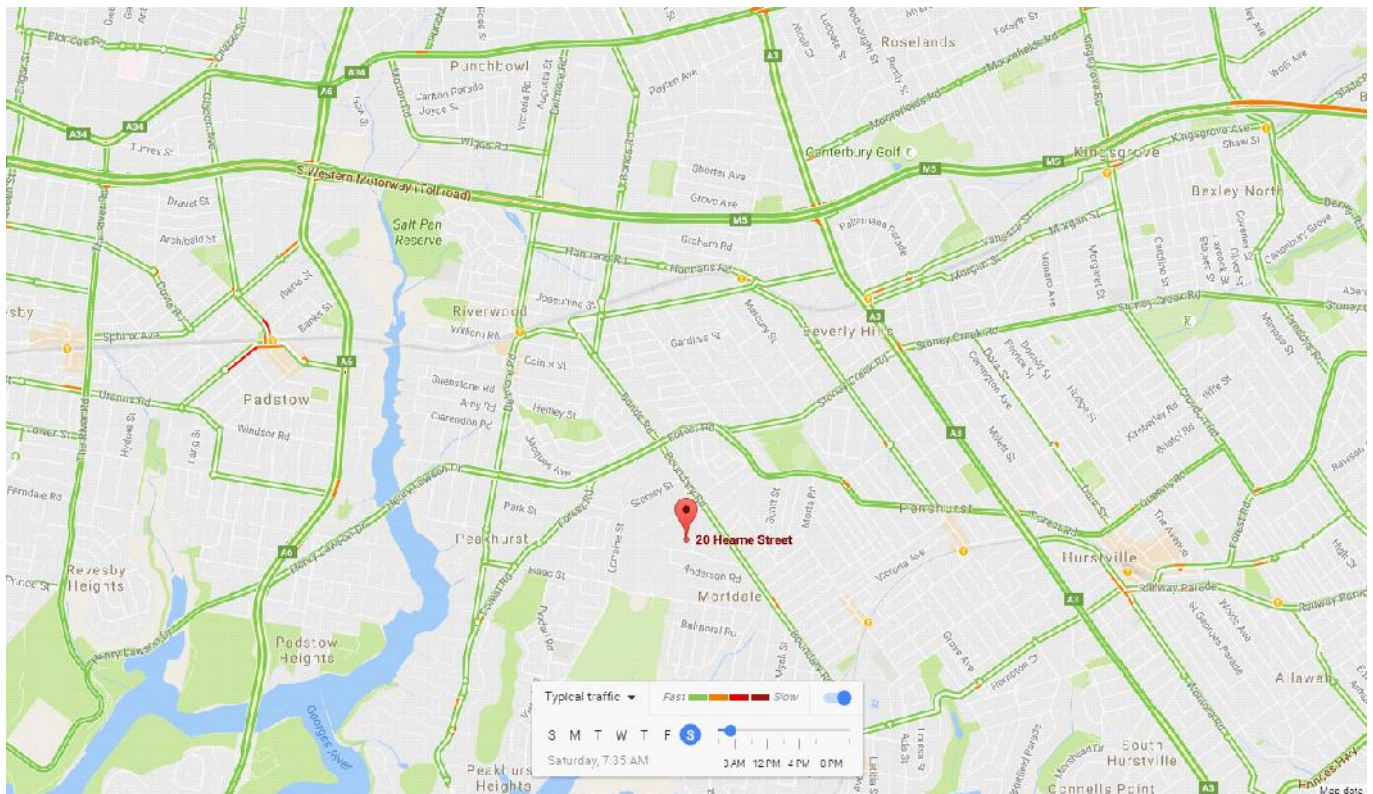
Typical Weekday traffic at 7:35 am (source: Google Maps Traffic Data)



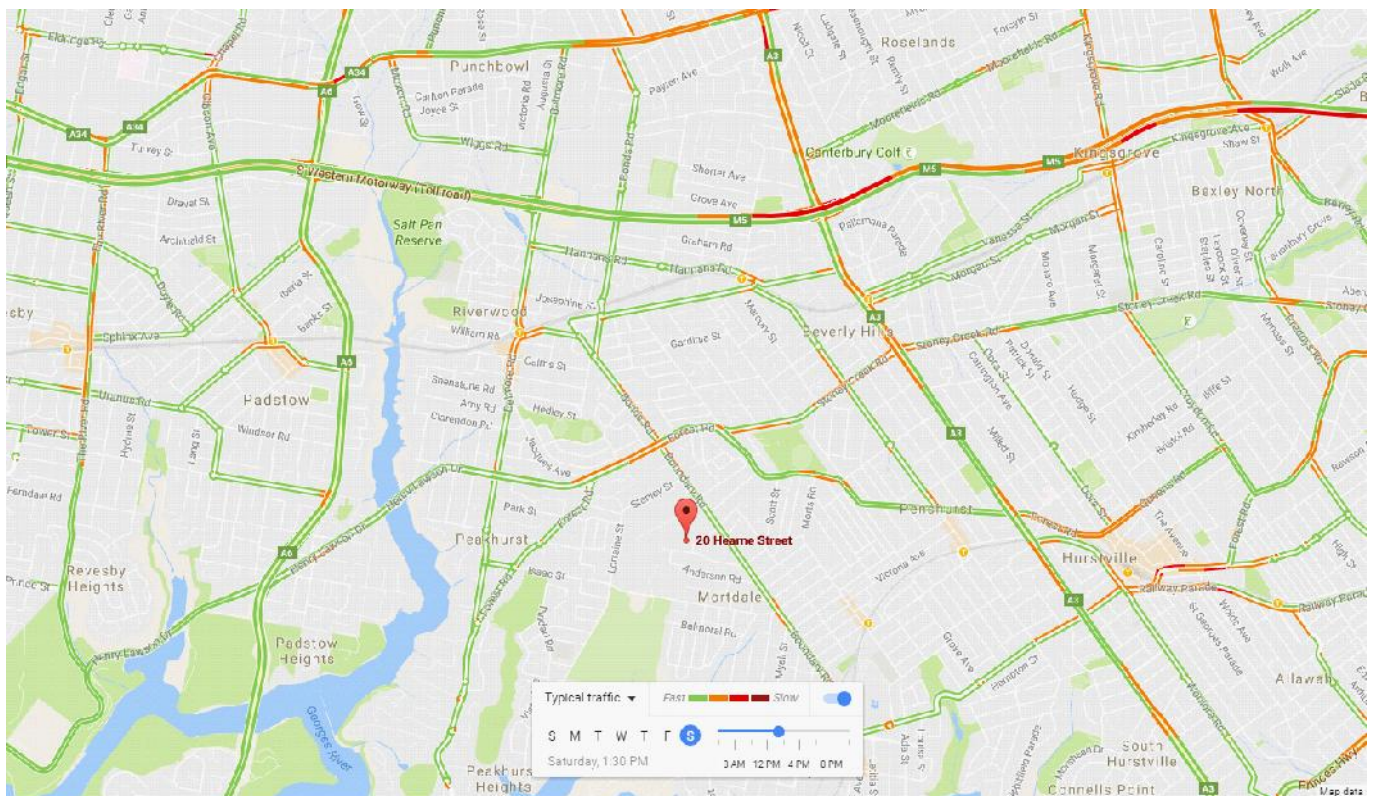
Typical Weekday traffic at 5:00 pm (source: Google Maps Traffic Data)



Typical Saturday traffic at 7:35 pm (source: Google Maps Traffic Data)



Typical Saturday traffic at 1:30 pm (source: Google Maps Traffic Data)



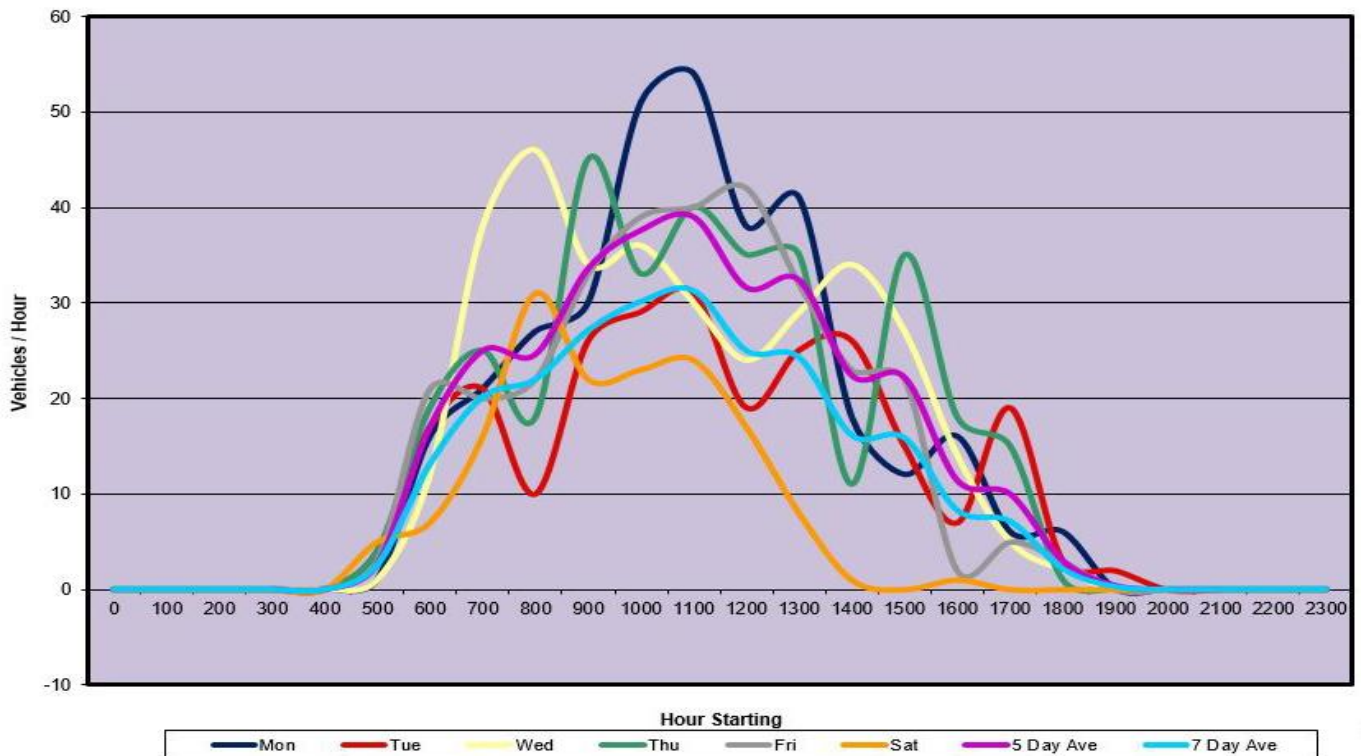
CONSTRUCTION TRAFFIC VOLUME

Existing Traffic Volume

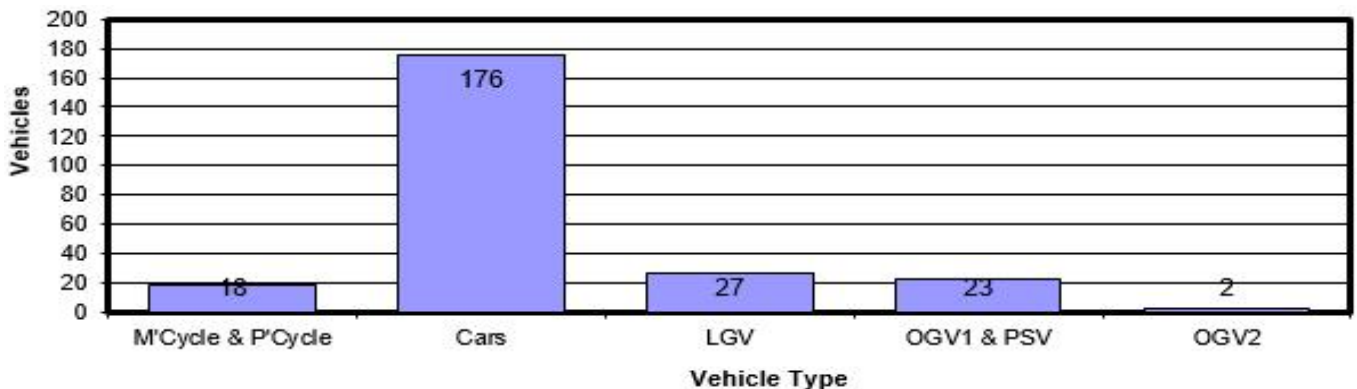
A Transport Impact Assessment Reported prepared by GTA consultants (Ref.15S1239100) dated 10/05/2016, provides data for traffic volume of 20 Hearne St Mortdale.

The below figures showing the traffic volume during the period of the facilities existing operations. In summary, the 7 day average of Trucks (LGV, OGV1, PSV & OGV2) is approximately 52 vehicles/hour.

This study will be used as a baseline for comparison to the construction traffic volume.



(Figure 5 - shows that the peak traffic volumes to the existing facility activity occur between 11:30 am and 12:30pm)



(Figure 6 - shows the summary of existing vehicle classifications (Seven Day Average))

Construction Workers

It is anticipated that the number of workers during the demolition and construction of the proposed development to be a range of 40-60 persons during demolition and construction period.

All personnel is encouraged to car pool to manage the constraint of limited parking, as well as the reduction traffic volume to the site.

During demolition & construction stage, up to 20 on-site parking spaces will be available for construction worker parking at the northwest corner right along the western boundary. Construction worker inductions and briefings will reiterate the need to park in the designated car park rather than use kerb side parking in an effort to reduce and minimise disturbance to the surrounding industrial/residential areas.

The Contractor will locate their on-site parking area (at the northwestern corner) to minimise disturbance to the surrounding industrial/residential areas. Refer to Appendix C for the location of car parking.

Workers will be encouraged to use public transport (trains and buses) as the site is in walking distance to Mortdale Railway Station and bus stops.

Construction Traffic Volume

It is anticipated that during the demolition and construction stage, the amount of material removed from the site and imported into the site will be less than the normal operations of the existing facility. We can, therefore, deduce that the traffic during the demolition and construction phase of the development will have less impact to the local area than during its normal operations.

Estimated construction traffic volumes (assume construction truck average net load is 5t and 1t for Internal services trades)

The below table shows the daily average for construction traffic is significantly lower than that of the existing traffic condition of the operating facility.

CONSTRUCTION PHASE	DUR. (DAYS)	WASTE TO BE PICKED UP TO OFFSITE (T)	CONSTRUCTION MATERIAL TO BE DROPPED OFF ONSITE (T)	APPROX. TRUCK MOVEMENTS (IN + OUT)		AVERAGE DAILY MOVEMENTS
				Trucks	Cars	
Preliminary Work (June - July)	12 d	0t	10t	2	80	6.8
Demolition (July - Aug)	28 d	400t	0t	80	373	16.2
Structure (July - Nov)	66d	50t	700t	150	1320	22.3
Roofing & Façade (Sep - Oct)	25d	0t	300t	60	333	15.7
Internal Services Fitout (Nov -Feb18)	54d	2t	20t	22	1080	20.4

DEWCAPE



DISTINCTION IN BUILDING

8. APPENDIX A: Dewcape Environmental Policy and Accreditation

ENVIRONMENTAL POLICY

OUR AIM:

Dewcape Pty Ltd is committed to reducing the impact of its activities on the environment and assisting our customers by encouraging them to use sustainable resources.

To this end **Dewcape Pty Ltd** has implemented an Environmental Management System to continuously improve its environmental performance.

In order to meet this commitment **Dewcape Pty Ltd** will pursue the following objectives:

- To ensure compliance with all applicable environmental legislation and regulations.
- To reduce emissions and prevent pollution.
- To improve waste management practices.
- To reduce consumption of natural resources.
- To minimise noise and other nuisances.
- To assist in the management of ecology and promote biodiversity wherever possible.
- To continuously assess our environmental performance.
- To work continuously to improve the environmental aspects of any task(s), including influencing our clients to adopt environmentally conscious design of projects, and use of environmental assessment tools.
- To assist in the investigation of environmental incidents in which it is involved on operational sites.
- To make its environmental information available to interested parties

The necessary personnel and financial resources will be allocated to assist **Dewcape Pty Ltd** in meeting its environmental objectives and targets that will be reviewed as appropriate. In addition **Dewcape Pty Ltd** will continue to raise the levels of environmental awareness throughout its workforce and to promote this awareness to its customers and suppliers.

Dewcape Pty Ltd is committed to operating its Environmental Management System in a manner that attains and sustains compliance to the international Environmental Management Standard ISO 14001 2004.

This policy shall be reviewed annually by the Dewcape Management Team in consultation with all employees.

This policy has been authorised by:



Andrew Ishak
General Manager
Dewcape Pty Ltd

15th January 2015



REGISTRATION CERTIFICATE

This document certifies that the administration systems of

Dewcape Pty Ltd

Ground Floor, 135-153 New South Head Road, Edgecliff, NSW 2027, Australia

***have been assessed and approved by QAS International
to the following management systems, standards and guidelines:***

ISO 14001 : 2004

The approved administration systems apply to the following:

***Designs, constructs and fits out retail, commercial,
health and residential developments of distinction.***

Original Approval **11th March 2015**
Current Certificate **11th March 2016**
Certificate Expiry **11th March 2017**
Certificate Number **AEN1088**

Signed: Certification Officer

On behalf of QAS International

This certificate remains valid while the holder maintains their quality administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International. The holder is entitled to display the above registration mark for the duration of this certificate, which should be returned to QAS International upon reasonable request.
Issuing Office: QAS International, 20A Oxford Street, Malmesbury, Wiltshire SN16 9AX, UK



DEWCAPE



DISTINCTION IN BUILDING

9. APPENDIX B: Asbestos Inspection & Register

Asbestos Inspection & Register 20 Hearne Street Mortdale NSW 2223

Report Number: R9002

Date: 12 August 2015

Total Number of Pages 38

NATA Accreditation Number 17139

Accredited for compliance with ISO/IEC 17020

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports

Issued by

Safe Environments Pty Ltd
Unit 4, 40 Bessemer Street
Blacktown NSW 2148

Prepared for


Mortdale Recycling Pty Ltd
PO Box 7
Enfield NSW 2136

Report Title : **Asbestos Inspection & Register**
20 Hearne Street
Mortdale NSW 2223

Report Status : **First Issue**

Report No. : **R9002**

Date of issue : **12 August 2015**

Approved Signatory : 
Amy Morris
Property Risk Assessor

This report shall not be reproduced unless in full, without written approval of Safe Environments Pty Ltd



20 Hearne Street, Mortdale NSW 2223

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Report Disclaimers

This report has been prepared by Safe Environments Pty Ltd and its contents are provided exclusively for the use of Mortdale Recycling Pty Ltd.

Every care has been taken in the preparation of this report and its contents are believed to be accurate and current as at the date of the report. However, neither Safe Environments nor its officers, employees or contractors (**personnel**) give any representation or warranty as to the reliability, accuracy or completeness of the report. Neither Safe Environments nor its personnel will be liable in any way for any loss or damage, (whether direct or indirect), howsoever arising (whether in negligence or otherwise), out of or in connection with this report, except where such liability is made non-excludable by legislation.

In the case of goods or services supplied by Safe Environments, liability for breach of any implied warranty or condition which cannot be excluded (**non-excludable conditions**) is limited at Safe Environment's option to either:

- (a) The supply of the goods (or equivalent goods) or services again; or
- (b) The payment of the cost of having the goods (or equivalent goods) or services supplied again.

Except in the case of non-excludable conditions, the total liability of Safe Environments to the client or any third party will not exceed in aggregate the total amount of the fees payable by the client

1 Executive Summary

An inspection for asbestos containing materials (ACM) was carried out at 20 Hearne Street Mortdale NSW 2223 on the 27 July 2015. The purpose of the inspection is to comply with Australian Commonwealth and State Workplace Health and Safety Legislation to ensure, so far as is reasonably practicable, that asbestos or ACM at the workplace is identified. The findings of this inspection shall not be used for the purpose of identifying materials prior to maintenance, refurbishment, renovation or demolition whereby a specific inspection and management plan is required in consideration of the works to be undertaken.

The site consists of two main structures:

- The workshop/shed is a single storey building with brick, metal and fibre cement external and internal walls, fibre cement roof and concrete floors.
- The office is a single storey building with brick & fibre cement external walls, brick & timber panel internal walls, concrete floor, sprayed coating ceiling and fibre cement roof.

The inspection was conducted in line with Safe Work Australia *Code of Practice: How to Manage and Control Asbestos in the Work Place*, December 2011, the United Kingdom Health and Safety Executive (HSE) publication *The Survey Guide (HSG 264)* and Safe Environments in-house documents. Safe Environments is accredited by NATA under AS ISO/IEC 17020 for the inspection of asbestos and hazardous materials, which demonstrates competence as outlined within the Code of Practice.

The results of the inspection, including the location, sample analysis or presumed ACM, risk assessment and recommendations, are tabulated through the use of an Asbestos Register at Section 4. Representative photographs of confirmed or presumed ACM are depicted at Section 5. A schematic of the site is provided at Section 6 to outline relative layout of the site and the location of ACM.

The risk algorithm was compiled based on the normal occupant activity as observed during the time of the inspection, which may change over time and use of the building. It is recommended that annual re-inspection is conducted to take this into account along with potential ACM deterioration and damage.

Table 1: Summary of inspection

Asbestos Materials	General Location	Risk Level	Comments
Cement debris on ground	External	Low	Debris found in the soil and is thought to have been as a result of uncontrolled maintenance or accidental damage. It is recommended to pick up all surfaces asbestos and dispose of in accordance with EPA guidelines.

Asbestos Materials	General Location	Risk Level	Comments
Cement and presumed cement corrugated sheeting, capping, gutters, drain pipes, eaves, roof sheeting and textured and flat wall cladding.	Refer to Table 3	Low	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
Cement and presumed cement wall and ceiling lining, infill panels, capping, cisterns, fascia panels and roof sheeting	Refer to Table 3	Very low	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
Stored broken corrugated sheets	Office, B.1 Storage	Very Low	Very Low risk of exposure under current condition and use. Recommended to dispose of stored items in accordance with EPA guidelines.
Presumed resin electrical mounting board and resin to windows	Office	Very Low	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis

During the time of the inspection the following areas as listed below were inaccessible. Please note that any areas which were not accessed during the inspection should be presumed to contain asbestos until inspected.

Table 2: Areas that could not be accessed at the time of the inspection

Inaccessible Area	Reason
Above 3 metres in height	Not fully accessed in line with company OHS policies
Within confined spaces	Not fully accessed in line with company OHS policies
Sub floor void	No Access

Mortdale Recycling Pty Ltd should understand the methodology in undertaking the inspection which is outlined at Section 3, in particular that this inspection is limited to only normally accessible parts of the building and conducted in a non-destructive manner. Consequentially, there is a possibility that asbestos materials may be located within structural elements (between partition walls, under floor cavities etc.) that are not normally accessible during normal occupancy.

This report is required to be read and understood in full and be made available to workers, health and safety representatives and other persons.

2 Introduction

Safe Environments was engaged to undertake an asbestos inspection of 20 Hearne Street Mortdale NSW 2223 by Mortdale Recycling Pty Ltd. The purpose of the inspection is to comply with Australian Commonwealth and State Workplace Health and Safety Legislation to ensure, so far as is reasonably practicable, that asbestos or ACM at the workplace is identified.

2.1 Site Details

Safe Environments undertook the inspection on 27 July 2015 by experienced personnel assessed as being competent through the organisations AS ISO/IEC accreditation.

The site consists of two main structures:

- The workshop/shed is a single storey building with brick, metal and fibre cement external and internal walls, fibre cement roof and concrete floors.
- The office is a single storey building with brick & fibre cement external walls, brick & timber panel internal walls, concrete floor, sprayed coating ceiling and fibre cement roof.

Any areas not identified within the register and plans are considered outside the remit of this inspection.

2.2 Purpose of the Inspection

The purpose of the inspection is to identify common asbestos containing materials to normally occupied and accessible areas within the selected buildings and structures as far as reasonably practicable. A risk assessment is provided on those materials identified as containing asbestos, on the basis of the normal occupant activity at the time of the inspection.

The findings of this inspection shall not be used for the purpose of identifying materials prior to maintenance, refurbishment, renovation or demolition. A specific inspection and/or Safe Work Method Statement is required prior to the commencement of these activities to identify materials that may be disturbed during works. All identified materials must be removed prior to these works taking place. Additionally, a clearance inspection is required prior to these works being undertaken to confirm the removal of Asbestos Containing Materials.

Hence, there is a possibility that even if asbestos containing materials were not identified within normally accessible areas, there still may be asbestos materials present behind, within and underneath building elements, the subsurface, plant and equipment.

2.3 Scope of Work

- Identify Asbestos Containing Materials (ACM) within the site
- Collect samples for analysis to determine type of asbestos if present
- Conduct a validated risk assessment (Material & Priority Assessment) on identified ACM
- Take representative photographs and mark up on a schematic the location of identified ACM

- Provide client with one electronic report including asbestos register, photographs and plans

2.4 Workplace Health & Safety Requirements

Australian Commonwealth & State based Workplace Health & Safety Requirements Legislation is in the process of harmonisation; however throughout each jurisdiction, there is in effect, a requirement for a Person Conducting a Business or Undertaking (PCBU) with management or control of a workplace to identify as far as reasonably practicable all asbestos or ACM.

This is provided within the form of an asbestos register which is collated by a competent person that outlines where the asbestos is located. An assessment of the likelihood of exposure to asbestos is conducted based on the material condition and location amongst other factors. The asbestos register and risk assessment are required to formulate an Asbestos Management Plan to manage and control health and safety risks relating to potential asbestos exposure.

This document has been collated to fulfil the requirements relating to the development of an asbestos register and to assess the risk to occupant safety under normally occupied conditions. It is recommended that the risk assessment be conducted on an annual basis to assess potential:

- Damage, deterioration or maintenance that may have affected the condition of the material
- The use of areas within the building that may affect the priority assessment
- Updated legislative requirements or new information in the public domain regarding materials that previously may not have been commonly suspected as containing asbestos
- Removal of ACM that may no longer be present and/or the addition of new construction materials that otherwise may be considered to contain asbestos. If new material is disturbed and there is no information to indicate that it is non-ACM, the precautionary approach is to assume that the material is asbestos, invoking emergency shutdown, evacuation and clean up procedures.

If there is any evidence which suggests that the risk assessment is no longer valid, then a re-inspection is necessary. In any case, the review of the register shall not be longer than five years as recommended by the Code of Practice.

Please note Australian Commonwealth and State Legislation requires to the effect that a person with management or control of the workplace must ensure that a written Asbestos Management Plan (AMP) for the workplace is prepared. This report is not an AMP; however it should be used to assist in the preparation of developing an AMP.

2.5 Asbestos Management Plans (informative)

A PCBU or a person with management of a workplace is required to have an Asbestos Management Plan (AMP) to manage and control risks arising from the presence of ACM. The AMP must include reference to the asbestos register so that people are informed as to the location, condition and risk of exposure from the ACM present. This information is informative only and does not fulfil the requirements of an Asbestos Management Plan to safely control and manage ACM.

Labelling of ACM

The AMP outlines the procedure and protocol for labelling ACM so that people. In particular maintenance personal who may potentially work on asbestos material be made aware of which element of the site contain ACM. The labelling of ACM should follow protocols of the Global Harmonised System (GHS). Examples of labels, size, number and location should be outlined.

Emergency Procedures

The AMP should outlines procedures in the event of disturbance of ACM, contacts for those who are competent in assisting in an emergency or incident including occupational hygienists and removal contractors. Reporting mechanisms should also be outlined for notification of incidents and potential health monitoring.

Elimination or Reduction of Risk

The elimination or reduction of potential exposure should be included within the AMP by way of Hierarchy of Controls (HoC). A timetable of controls should include both long and short term considerations of elimination of exposure through removal, or by reducing the risk though isolation, encapsulation, administrative controls and Personal Protective Equipment (PPE).

Risk Assessments including Air Monitoring

The AMP should also outlines the method for assessing the risk of exposure to asbestos and the provision of air monitoring services where required to assess the airborne fibre concentrations.

Awareness Training

General awareness training should be provided to all personal is recommended to reduce the risk of exposure through working unknowingly on ACM and to be vigilant in regards to the condition of ACM within site.

Asbestos Removal

Procedures for the safe removal of asbestos should be provided which outlines the process of engaging suitable removalists, review of Asbestos Removal Control Plans (ARCP), notification to regulatory authorities, engagement of occupational hygienists and air monitoring services. Clearance inspections are also required to ensure the area is considered safe to be re-occupied at the completion of asbestos removal activities. Procedures should also be outlined for documenting the process and updating the asbestos register.

Safe Environments can assist in the development of Asbestos Management Plans

3 Inspection Methodology

3.1 General

Safe Environments has taken all reasonable effort to identify any ACM in those areas detailed within the "Introduction" to this Report. The inspection methodology is considered to be in accordance with the HSE HSG 264 as identified within Safe Environments in-house procedures.

Only safely accessible areas were inspected. We have not inspected any part requiring specialist access equipment such as cherry pickers or scaffoldings, unless stated otherwise. The inspection height will not exceed more than 3 metres above ground level, accessed using stepladders. Areas at height greater than three metres (such as roofs) have not been inspected unless otherwise stated.

Suspected ACMs were sampled in accordance with the required number detailed in HSG 264 and the Safe Environments' in-house methods. Most materials only require one or two samples of each type, while others may require a far greater number. Some homogeneous such as cement, insulating board and thermoplastic tiles and vinyl covering materials may be cross-referenced against an original sample where excess samples of known content would otherwise be collected. Materials that require a greater number of samples are those materials that are heterogeneous in nature such as dusts and soils. This is particularly the case for materials that may give rise to 'false negative' results.

Sampling may not be carried out during this kind of inspection where doing so would put the inspector at an unreasonable health or safety risk, or where the client or person with management or control of the premises has requested samples not to be taken. Materials that can be reasonably expected to contain asbestos are presumed as containing asbestos unless sampled and analysed as not to contain asbestos, or there is information available to discount materials as non-asbestos e.g. electrical installations, fire doors, air conditioning etc., that were installed post 2003.

Where materials have been suspected to contain asbestos these have been identified within the analysis results as 'presumed' and will retain the prefix 'ACM' to identify the presumption of Asbestos Containing Material (ACM).

Density checks on materials have not been carried out by the laboratory to assess low or high density fibre board material as outlined within HSG 264. Materials referred to Asbestos Insulating Board (Fibro-Plaster) or Asbestos Cement (AC) is done so purely on their content and appearance.

3.2 Bulk Sample Analysis

Analysis of asbestos bulk samples were carried out by Asbestos Check laboratory, accredited by the National Association of Testing Authorities (NATA) Accredited for compliance with:

- Australian Standard AS 4964 *Method for the qualitative identification of asbestos in bulk analysis* and Safe Environments in-house *SOP - Asbestos Identification*
- Australian & International Standard AS ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories*.

AS 4964 utilises Polarised Light Microscopy (PLM) as the primary technique for identification because of its simplicity, low cost, relevance and detection limits. PLM identifies asbestos by confirming the refractive index is within a specified range through dispersion staining (DS), and that the fibres exhibit a crystalline structure through various other optical properties using PLM.

The Standard sets out relatively simple aspects of sample preparation and PLM that enable a large proportion of commercial samples containing chrysotile, amosite and crocidolite asbestos to be identified. Materials that contain Unknown Mineral Fibres (UMF) shall be considered to contain asbestos until otherwise confirmed through another analytical technique. Some samples will be difficult or impossible to analyse which include polymeric and bituminous materials may require the use of an independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning electron microscopy or transmission electron microscopy, if PLM fails to give an unequivocal identification, or more complex sample preparation is required.

3.3 Inaccessible Areas

While inspectors seek to inspect all areas within a building, this is not possible for a number of reasons. In general, the following items which are not safely and readily accessible are considered outside the scope of this inspection. These include, but are not limited to:

- Within support columns, enclosed within cladding or concealed within the fabric of the building; sealed voids (under floor, wall or ceiling) and confined spaces
- Areas such as the internals of partition walls or above fixed and/or plasterboard ceilings
- Areas below fitted floorings, such as non-asbestos tiling, fitted vinyl or carpet where access would usually cause excess decorative and structural / functional damage
- Under ceramic wall and floor tiles in wet areas and lining under properties with confined spaces
- Under suspected ACM, i.e. nothing that would disturb possible asbestos and give rise to airborne fibres
- Within live electrical fuse or switch boxes; air conditioning systems such as reheating banks, conduits and all other live plant items at the time of the inspection
- Lift shafts or machinery, unless the client arranged the safe access with a qualified engineer
- Within any fire doors; any access within fire doors would cause functional damage.

Bulk samples have not been taken where the act of sampling would endanger the inspector or affect the functional / structural integrity of the item concerned.

3.4 Risk Assessment (UK HSE Algorithm)

The risk assessment was conducted in line with the United Kingdom Health and Safety Executive publication HSG 264 *Asbestos: The Survey Guide*. The algorithm is based on the propensity of the material to liberate fibres and the likelihood of released fibres to expose people within the area. These factors are known as the *Material Assessment* and *Priority Assessment*.

Material Assessment

The material assessment considers the condition of the material and the ability to release fibres when disturbed. The contributing parameters that comprise the material Assessment score include:

- Product type
- Extent of damage
- Surface treatment
- Asbestos type

Priority Assessment

A priority assessment has also been carried out which assesses the potential for people to be exposed to ACM taking into account the likelihood of disturbance of the ACM, involving factors such including:

- Occupant activity
- Likelihood of disturbance
- Human exposure potential
- Maintenance activity

The priority assessment is the responsibility of the person with management or control of the premises. Safe Environments has completed it taking into account the apparent use and occupancy of the area.

Risk Assessment Score and Action Level

The combined algorithms of the material and priority assessment generates a *Risk Assessment Score* to a maximum of 24, which is the worst-case and requires urgent attention.

- (18 +) High risk material
- (14-17) Medium risk material
- (9-13) Low risk material
- (2-8) Very low risk material

For low scoring materials, the only action required in the immediate future may be to carry out periodic inspections. For materials attaining a higher score, e.g. greater than 13, there may be a requirement to carry out urgent work which may consist of repairing or enclosing the damaged material, sealing off the area, or to remove the material entirely.

The final score for each ACM acts as a comparative quantitative measure, which can be used to aid the prioritisation of action for their management, where the materials are to remain within the building. A copy of the material assessment algorithm and priority assessment categorisation is contained in Appendix A.

3.5 Limitations

The recommendations presented in this report are professional opinions based on the indicated data described within this report. They are intended only for the purpose, the location, and the project described.

Please note that this inspection is not a definitive study as it is not reasonably practicable to inspect every area. Due diligence and professional judgment has been used to attempt to identify and sample all suspected ACM as far as reasonably practicable. Whether identified or otherwise, inaccessible ACM may be present in areas where access or visual observation is not possible. If such features should become accessible as a result of future refurbishment or alterations, they should be inspected for possible asbestos content.

Some ACMs are heterogeneous in nature; hence it is possible to get a false negative when sampling materials such as textured coatings, dust and debris. Therefore, Safe Environments has taken multiple samples, where required, to ensure ACMs are detected as far as reasonably practicable. Please also note that Polarised Light Microscopy (PLM) method may also yield false negative results at low concentrations of asbestos fibres.

More sensitive laboratory analyses such as scanning electron microscopy (SEM) and transmission electron microscopy (TEM) may result in the detection of asbestos and higher asbestos concentrations due to their increased resolution. Due to the additional time and expense involved these methods are not normally used unless agreed in advance with the client for a specific purpose.

Quantities of materials identified as part of the inspection are estimates made by the inspector and shall not be used for the purpose of tendering for work. Contractors are required to undertake their own measurement, or Safe Environments can provide a more accurate inspection for this specific purpose.

Changes in standards may occur as a result of legislative amendments or the progress in understanding effects of asbestos. Accordingly, the findings of this report may be nullified, wholly or in part, by changes beyond our control. Opinions and judgments expressed herein, which are based on our current understanding and interpretation of current legal standards and guidelines, should not be interpreted as legal judgments.

4 Asbestos Register, Risk Assessment & Recommendations

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Workshop/shed		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
Roof	Presumed cement corrugated sheeting and roof capping	Presumed	ACM1	> 100 m ²	-	NF	11	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
Roof	Cement gutters and drain pipes	CHR, AMO, CRC	AQ380/R1	> 100 LM	4755	NF	10	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
External	Cement corrugated wall cladding and capping	CHR, AMO	AQ385/R1	> 50 m ²	4753	NF	11	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
External	Cement textured wall cladding	CHR, AMO	AQ383	> 40 m ²	4754	NF	9	C	Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Cement soffit lining	CHR, AMO, CRC	AQ390/R1	5 m ²	4760	NF	9	C	Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Putty to windows	NAD	AQ382	< 1 m ²	4751	-	0	E	No further action required

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually presumed to contain asbestos (i.e. no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Minor risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Workshop/shed		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
External	Cement debris on ground	CHR, AMO, CRC	AQ381	< 1 m ²	4759	NF	11	C	Debris found in the soil and is thought to have been as a result of uncontrolled maintenance or accidental damage. It is recommended to pick up all surfaces asbestos and dispose of in accordance with EPA guidelines.
External	Cement gutters and drain pipes	CHR, AMO, CRC	AQ380	> 20 LM	4762	NF	9	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
External	Presumed cement fascia panels	Presumed	ACM7	5 m ²	-	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.1 Sorting shed	Cement corrugated wall cladding	CHR, AMO	AQ385/R2	40 m ²	4748	NF	12	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
G.1 Sorting shed	Presumed cement corrugated roof sheeting	Presumed	ACM2	> 100 m ²	4746	NF	12	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
G.2 Room 1	Putty to windows	NAD	AQ386	< 1 m ²	4739	-	0	E	No further action required

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Workshop/shed		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
G.2 Room 1	Millboard ceiling tiles	NAD	AQ389/R3	25 m ²	4738	-	0	E	No further action required
G.3 Corridor	Cement corrugated wall lining	CHR, AMO	AQ385	5 m ²	4735	NF	6	D	Very Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
G.3 Corridor	Millboard ceiling tiles	NAD	AQ389/R1	8 m ²	4735	-	0	E	No further action required
G.4 Wash room	Putty to windows	NAD	AQ386/R1	< 1 m ²	4733	-	0	E	No further action required
G.4 Wash room	Millboard ceiling tiles	NAD	AQ389/R1	20 m ²	4731	-	0	E	No further action required
G.4 Wash room	Cement ceiling lining	CHR, AMO	AQ388/R3	20 m ²	4730	NF	4	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.5 Toilets	Presumed cement cistern	Presumed	ACM3	1 m ²	4729	NF	5	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis

Sample Numbers: **/**/R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Workshop/shed		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
G.5 Toilets	Cement ceiling lining	CHR, AMO	AQ388/R2	8 m ²	4728	NF	4	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.6 Toilet	Cement wall lining	CHR, AMO	AQ388/R1	5 m ²	4726	NF	7	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.7 Kitchen and toilet	Cement wall lining	CHR, AMO	AQ388	10 m ²	4722	NF	5	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.7 Kitchen and toilet	Fibre board wall lining	NAD	AQ387	10 m ²	4727	-	0	E	No further action required
G.8 Room 2	No Asbestos Identified	-	-	-	-	-	0	E	No further action required
G.9 Room 3	No Asbestos Identified	-	-	-	-	-	0	E	No further action required
G.10 Store room 1	Millboard ceiling tiles	NAD	AG389	20 m ²	4721	-	0	E	No further action required
G.11 Store room 2	Cement wall panels	CHR, AMO, CRC	AQ390	4 m ²	4718	NF	7	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Workshop/shed		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
G.11 Store room 2	Presumed cement corrugated roof sheeting	Presumed	ACM4	15 m ²	4719	NF	6	D	Very Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
G.12 Workshop	Cement corrugated wall panels	CHR, AMO	AQ385/R3	< 1 m ²	4717	NF	5	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.12 Workshop	Presumed cement fascia panels	Presumed	ACM5	5 m ²	4716	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.12 Workshop	Presumed cement corrugated roof sheeting	Presumed	ACM6	> 50 m ²	4715	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.13 Shed	No Asbestos Identified	-	-	-	-	-	0	E	No further action required
B.1 Storage	Stored broken corrugated cement sheets	CHR, AMO	AQ384	3 m ²	4740	NF	7	D	Very Low risk of exposure under current condition and use. Recommended to dispose of stored items in accordance with EPA guidelines.
Sub floor void	No Access	Presumed	-	-	-	-	-	-	This area is presumed to contain asbestos unless otherwise tested or inspected by a competent person.

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Office		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
Roof	Cement corrugated sheeting and capping	CHR, AMO	AQ397	> 50 m ²	4705	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Cement corrugated wall cladding	CHR, AMO, CRC	AQ391	8 m ²	4713	NF	9	C	Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Cement textured wall cladding	CHR, AMO	AQ396	40 m ²	4706	NF	9	C	Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Cement flat wall cladding	CHR, AMO, CRC	AQ392	10 m ²	4712	NF	11	C	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
External	Cement eaves	CHR, AMO, CRC	AQ393	> 40 LM	4710	NF	9	C	Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Presumed resin electrical mounting board	Presumed	ACM8	1 m ²	4709	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
External	Putty to windows	NAD	AQ395	< 1 m ²	4707	-	0	E	No further action required

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Office		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
External	Putty to windows	NAD	AQ394	< 1 m ²	4708	-	0	E	No further action required
B.2	No Asbestos Identified	-	-	-	-	-	0	E	No further action required
G.14 Corridor	Sprayed coating to ceiling	NAD	AQ400	30 m ²	4690	-	0	E	No further action required
G.14 Corridor	Resin to windows	CHR	AQ399	< 1 m ²	-	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.15 Offices	Sprayed coating to ceiling	NAD	AQ400/R1	20 m ²	4691	-	0	E	No further action required
G.15 Offices	Resin to windows	CHR	AQ399/R1	< 1 m ²	-	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.16 Meeting room	Sprayed coating to ceiling	NAD	AQ400/R2	10 m ²	4692	-	0	E	No further action required
G.16 Meeting room	Rein to windows	CHR	AQ399/R2	< 1 m ²	-	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.17 Lunch room	Sprayed coating to ceiling	NAD	AQ400/R3	20 m ²	4693	NF	0	E	No further action required

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Office		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
G.17 Lunch room	Resin to windows	CHR	AQ399/R3	< 1 m ²	4694	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.18 Rooms	Sprayed coating to ceiling	NAD	AQ400/R4	20 m ²	4695	-	0	E	No further action required
G.18 Rooms	Resin to windows	CHR	AQ399/R4	< 1 m ²	4696	NF	6	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.19 Room	Cement ceiling lining	CHR, AMO, CRC	AQ398	10 m ²	4697	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.20 Male toilet	Cement ceiling lining	CHR, AMO, CRC	AQ398/R1	3 m ²	5699	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.20 Male toilet	Cement infill panel	CHR, AMO, CRC	AQ398/R2	< 1 m ²	4700	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.21 Kitchen	Cement ceiling lining	CHR, AMO, CRC	AQ398/R3	6 m ²	4701	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)

Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.

Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

Site: 20 Hearne Street Mortdale NSW 2223			Table 3: Asbestos Register						Surveyors: SL
Date: 27 July 2015	Building Reference: Office		Client: Mortdale Recycling Pty Ltd						Laboratory: NATA Accreditation No. 17139
Location	Building Component	Asbestos Detected CHR, AMO, CRC, UMF, NAD	Sample Number	Extent (units)	Photo	Risk Assessment			Comments & Recommendations
						Friable or Non Friable	Final Risk Rating	Action Level	
G.21 Kitchen	Cement infill panel	CHR, AMO, CRC	AQ398/R4	< 1 m ²	4702	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.22 Female toilet	Cement ceiling lining	CHR, AMO, CRC	AQ398/R5	3 m ²	-	NF	8	D	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis
G.23 Strong rooms	No Asbestos Identified	-	-	-	-	-	0	E	No further action required

Sample Numbers: **/**R1, 2, 3... / RX denotes sample has been referenced. ACM denotes material visually identified only (no sample was taken)



Asbestos Detected refers to results of asbestos testing to AS 4964 where: CHR = Chrysotile, AMO = Amosite, CRO = Crocidolite, UMF = Unknown mineral fibre, NAD = No Asbestos Detected.



Risk Score: A – High risk requiring immediate attention, B –Medium risk requiring near term attention, C – Low risk requiring regular inspection, D – Very low risk requiring annual inspection, E – No asbestos detected

5 Representative Photographs of Confirmed or Presumed ACM



This section is provided as a visual aid to assist in identifying asbestos containing materials that have been confirmed or presumed to contain asbestos during the course of the inspection. Not all photographs have been provided, however where a material has been found in several locations a 'representative' photograph may have been included.



20 Hearne Street, Mortdale NSW 2223

Photograph: 4755	Photograph: 4753
Description: Cement gutters and drain pipes	Description: Cement corrugated wall cladding and capping
Locations Found: Roof to workshop/shed, External	Locations Found: External to workshop/shed
	

Photograph: 4760	Photograph: 4759
Description: Cement soffit lining	Description: Cement debris on ground
Locations Found: External to workshop/shed	Locations Found: External to workshop/shed
	

20 Hearne Street, Mortdale NSW 2223

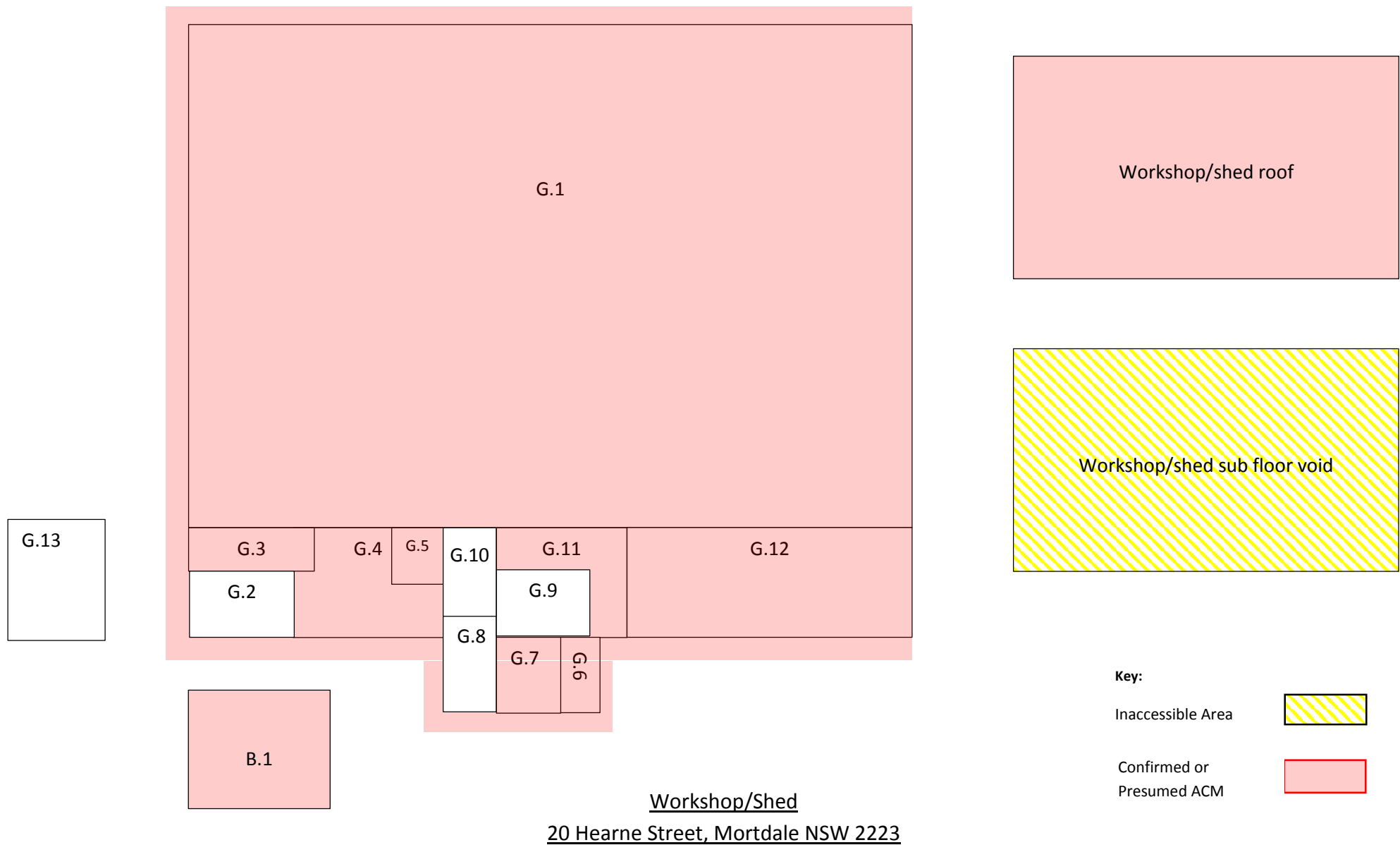
Photograph: 4729	Photograph: 4740
Description: Presumed cement cistern	Description: Cement stored broken corrugated sheets
Locations Found: G.5 Toilets	Locations Found: B.1 Storage to workshop/shed
	

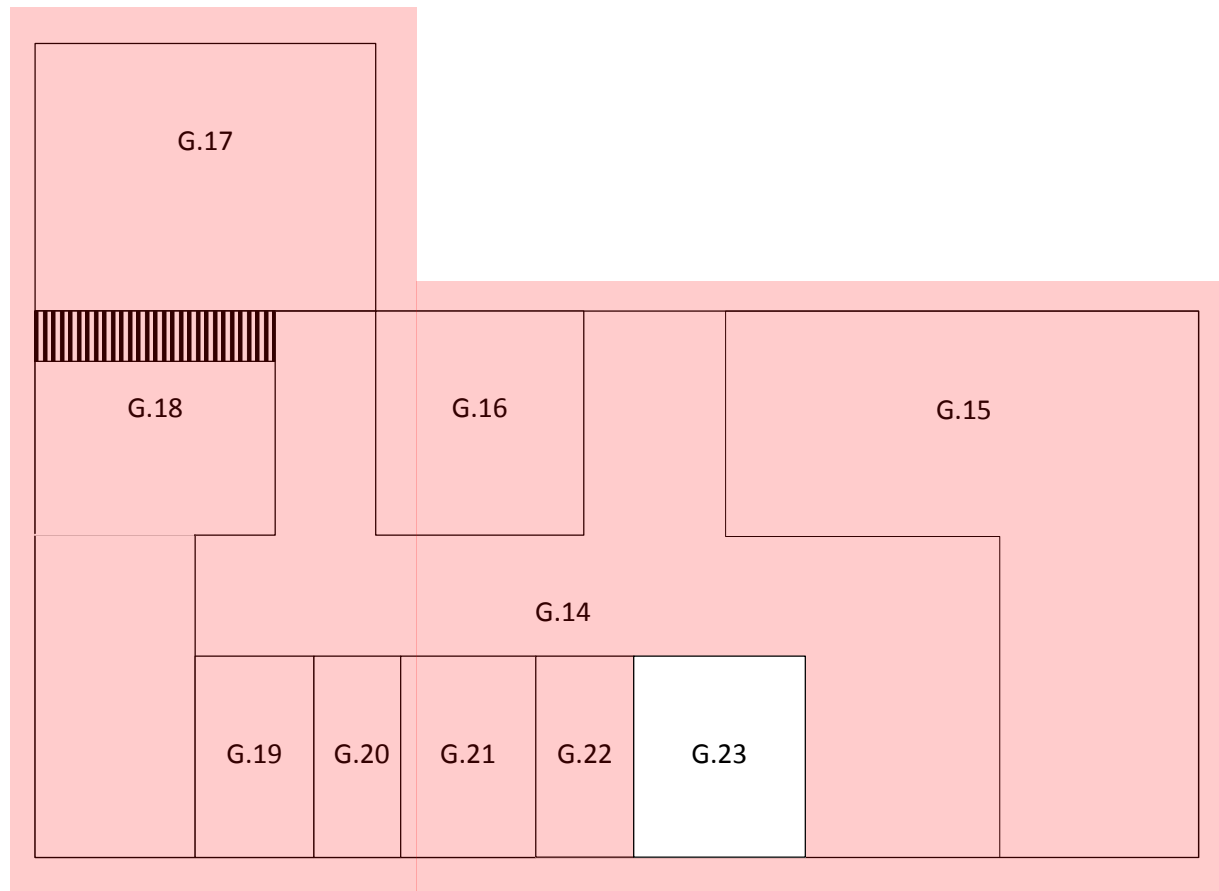
Photograph: 4710	Photograph: 4709
Description: Cement eaves	Description: Presumed resin electrical mounting board
Locations Found: External to office	Locations Found: External to office
	

20 Hearne Street, Mortdale NSW 2223

Photograph: 4694	Photograph: 4700
Description: Resin to windows	Description: Cement infill panel
Locations Found: G.17 Lunch room, G.14 Corridor, G.15 Offices, G.16 Meeting Room, G.18 Rooms	Locations Found: G.20 Male toilet
	

6 Schematic of Confirmed or Presumed ACM





Office

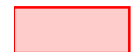
20 Hearne Street, Mortdale NSW 2223

Key:

Inaccessible Area



Confirmed or
Presumed ACM



Appendix A

UK HSG 264 Risk Algorithm

Material Assessment

<i>Sample Variable</i>	<i>Examples</i>	<i>Score</i>
Asbestos Type	Chrysotile	1
	Amosite and other amphiboles (except crocidolite)	2
	Crocidolite	3
Product Type (Product Friability)	Asbestos reinforced composites, plastics, resins, mastics, roofing felts, vinyl floor tiles, semi rigid paints, decorative finishes and asbestos cement	1
	Asbestos insulating board, mill board, low density boards, textiles, ropes, fabrics, felt, and paper	2
	Thermal Insulation, including lagging, sprayed and loose asbestos, mattresses and packing	3
Surface Treatment	Composite materials	0
	Asbestos cement, enclosed thermal insulation, encapsulated boards and textiles	1
	Non-encapsulated boards and textiles, encapsulated thermal insulation	2
	Unsealed thermal insulation	3
Extent of Damage	Good condition, no visible damage	0
	Low damage, a few scratches	1
	Medium damage, significant breakages. Loose fibres visible	2
	High damage, visible asbestos debris	3

Priority Assessment

Normal Occupant Activity – Non Maintenance		Average of these two scores
Rare disturbance – little used store	0	
Low disturbance – office type	1	
Periodic disturbance – Industrial or vehicular activity	2	
High disturbance – e.g. fire door in constant use	3	
Other Occupant Activity – Non Maintenance		
Rare disturbance – little used store	0	
Low disturbance – office type	1	
Periodic disturbance – Industrial or vehicular activity	2	
High disturbance – e.g. fire door in constant use	3	
Likelihood of Disturbance – Location		Average of these three scores
Outdoors	0	
Large rooms > 100m ²	1	
Rooms up to 100m ²	2	
Confined spaces	3	
Accessibility of Material		
Usually inaccessible	0	
Occasionally visited	1	
Easily visited	2	
Routinely visited	3	
Extent/Amount		
Small amounts (fuse boxes, single items, etc.)	0	
<10m ² OR <10m run	1	
>10m <50m ² OR >10m <50m ²	2	
>50m ² OR 50m run	3	

Priority Assessment (continued)

No. of Occupants		Average of these three scores
None	0	
1 to 4	1	
4 to 10	2	
>10	3	
Frequency of Use		
Infrequently	0	
Monthly	1	
Weekly	2	
Daily	3	
Average Time of Use		
<1 Hour per day	0	
>1 Hour and <3 Hours per day	1	
>3 Hours and <6 Hours per day	2	
>6 Hours per day	3	
Maintenance Activity		Average of these two scores
Minor disturbance possible	0	
Low disturbance possible	1	
Medium disturbance possible	2	
High disturbance possible	3	
Maintenance Frequency		
Material unlikely to be disturbed	0	
< 1 activity per Year	1	
> 1 activity per Year	2	

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Appendix B

Legislations and References

Legislations and References

The following legislative references summarise the requirements associated with the management of asbestos within premises. This is not an exhaustive review of all legal requirements and further information should be obtained when required.

- Code of Practice How to Manage and Control Asbestos in the Work Place, December 2011
- Work Health and Safety Regulation 2011
- NOHSC: 2018 (2005) Code of Practice for Management and Control of Asbestos in Workplace
- NOHSC: 2002 (2005) Code of Practice for the Safe Removal of Asbestos
- National Occupational Health and Safety Guide to Control of Asbestos
- National Occupational Health and Safety Guide on the Membrane Filter Method of Estimating Airborne Asbestos Dust 1988
- NSW Dangerous Goods Act 1975
- NSW Dangerous Goods (General) Regulation 1999
- NSW Occupational Health and Safety Act 2000, as amended 2006
- Occupational Health and Safety Regulation 2001, Division 4
- Environmental Hazardous Chemicals Act 1985
- Occupational Health and Safety Amendment (Chrysotile Asbestos) Regulation 2003
- Code of Practice for the Safe Removal Of Asbestos 2nd Edition [NOHSC:2002(2005)]
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
- NSW Government Working With Asbestos Guide 2008
- National Code of Practice for Workplace Hazardous Substances[NOHSC:2007(1994)]
- Health and Safety Executive, HSG227A comprehensive guide to Managing ASBESTOS in premises 2002
- Health and Safety Executive, MDHS 39/4, Methods for the Determination of Hazardous Substances Health and Safety Laboratory Asbestos fibres in air Sampling and evaluation by Phase Contrast Microscopy (PCM) under the Control of Asbestos at Work Regulation, 1995
- Health and Safety Executive, MDHS 100, Methods for the Determination of Hazardous Substances Health and Safety Laboratory 'Surveying, sampling and assessment of asbestos-containing materials', 2001
- Health and Safety Executive, HSG 264, Asbestos: The inspection guide, 2010
- Health and Safety Executive, MDHS 77, Methods for the Determination of Hazardous Substances, Asbestos in Bulk Materials, Sampling and Identification by Polarised Light Microscopy (PLM), 1994
- Victorian Occupational Health and Safety Regulations 2007, Part 4

Appendix C

Sample Analysis Report

**Asbestos Identification to AS 4964
Method for the Qualitative Identification
of Asbestos in Bulk Samples**

**R9002
Mortdale Recycling Pty Ltd**

-

**Sampling location:
20 Hearne Street
Mortdale NSW 2223**

NATA Accreditation Number 17139

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

Accredited for compliance with ISO/IEC 17025

NATA is a signatory to the APLAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports

7 August 2015

Test Report No. R9002

AS 4964 Method for the qualitative identification of asbestos in bulk analysis

Requested by: Mortdale Recycling Pty Ltd
Clients Address: PO Box 7
Enfield NSW 2136

Clients Ref/Job No: -

Sampling Location: 20 Hearne Street
Mortdale NSW 2223

Date(s) Sample(s) Received: 27 July 2015
Date(s) of Analysis: 31 July & 6 August 2015

This report consists of 4 pages

This test method for the qualitative identification of asbestos in bulk analysis polarized light microscopy (PLM) as the primary technique for identification because of its simplicity, low cost, relevance and detection limits. The determination of principal refractive indices by dispersion staining (DS) on its own is not sufficient and needs to be used in conjunction with various other optical properties using PLM.

The Standard sets out relatively simple aspects of sample preparation and PLM that enable a large proportion of commercial samples containing chrysotile, amosite and crocidolite asbestos to be identified, even though some samples will be difficult or impossible to analyse. These samples may require the use of an independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning electron microscopy or transmission electron microscopy, if PLM fails to give an unequivocal identification, or they require more complex sample preparation.

The procedure has the following known limitations:

- (a) PLM is a qualitative technique only.
 - (b) It does not cover the identification of airborne and water-borne asbestos.
 - (c) Most samples of tremolite, actinolite and anthophyllite asbestos show a wide range of optical properties and cannot be equivocally identified by PLM and dispersion staining. Materials identified as unknown mineral fibre may contain asbestos which requires further analysis.
 - (d) For valid asbestos identification there must be sufficient sample of the unknown fibres for them to exceed the practical detection limit of the technique used. To report 'trace' levels using confirming techniques the fibres must be observed at 'trace' levels by PLM, because of the difference in detection limits between the techniques.
-

Test Report No: R9002
Client Ref: -
Sampling Procedures: Safe Environments Hazardous Materials Procedure Complying with ISO 17020

Analytical method: Polarised light microscopy including dispersion staining to AS 4964
Sample Preparation: Safe Environments in-house SOP - Asbestos Identification
Approved Identifier: Ryan Voorderhake / Kate Barnes

Sample Description & Results:

Sample Number	Sample Description	Weight ¹ (g)	Analysis Result ²
AQ380	Sample containing fibre board material (homogenous) consisting of asbestos fibres.	1	Chrysotile, Amosite and Crocidolite Asbestos Detected
AQ381	Sample containing fibre cement material (homogenous) consisting of asbestos fibres.	2	Chrysotile, Amosite and Crocidolite Asbestos Detected
AQ382	Sample containing putty material (homogenous) consisting of no fibres.	7	No Asbestos Detected
AQ383	Sample containing fibre board material (homogenous) consisting of asbestos fibres.	2	Chrysotile and Amosite Asbestos Detected
AQ384	Sample containing fibre cement material (homogenous) consisting of asbestos fibres.	7	Chrysotile and Amosite Asbestos Detected
AQ385	Sample containing cement material (homogenous) consisting of asbestos fibres.	4	Chrysotile and Amosite Asbestos Detected
AQ386	Sample containing polymer material (homogenous) consisting of no fibres.	< 1	No Asbestos Detected
AQ387	Sample containing fibre board material (homogenous) consisting of organic fibres.	3	No Asbestos Detected
AQ388	Sample containing fibre cement material (homogenous) consisting of asbestos fibres.	5	Chrysotile and Amosite Asbestos Detected
AQ389	Sample containing fibrous material (homogenous) consisting of organic fibres.	1	No Asbestos Detected
AQ390	Sample containing cement material (homogenous) consisting of asbestos fibres.	3	Chrysotile, Amosite and Crocidolite Asbestos Detected
AQ391	Sample containing cement material (homogenous) consisting of asbestos fibres.	2	Chrysotile, Amosite and Crocidolite Asbestos Detected
AQ392	Sample containing cement material (homogenous) consisting of asbestos fibres.	4	Chrysotile, Amosite and Crocidolite Asbestos Detected

¹ Approximate sample weight only – not covered as part of the scope of accreditation

² detected by polarised light microscopy including dispersion staining

Sample Number	Sample Description	Weight ¹ (g)	Analysis Result ²
AQ393	Sample containing cement material (homogenous) consisting of asbestos fibres.	7	Chrysotile, Amosite and Crocidolite Asbestos Detected
AQ394	Sample containing polymer material (homogenous) consisting of no fibres.	3	No Asbestos Detected
AQ395	Sample containing polymer material (homogenous) consisting of no fibres.	< 1	No Asbestos Detected
AQ396	Sample containing fibre board material (homogenous) consisting of asbestos fibres.	1	Chrysotile and Amosite Asbestos Detected
AQ397	Sample containing cement material (homogenous) consisting of asbestos fibres.	2	Chrysotile and Amosite Asbestos Detected
AQ398	Sample containing cement fibre material (homogenous) consisting of asbestos fibres.	< 1	Chrysotile, Amosite and Crocidolite Asbestos Detected
AQ399	Sample containing polymer material (homogenous) consisting of asbestos fibres.	< 1	Chrysotile Asbestos Detected
AQ400	Sample containing vermiculite material (homogenous) consisting of organic fibres.	9	No Asbestos Detected

**Asbestos Management Plan
20 Hearne Street, Mortdale NSW
2223
Site Reference: -**

Report Number: R9002

Date: 12 August 2015

Total Number of Pages 40


NATA Accreditation Number 17139

Accredited for compliance with ISO/IEC 17020

NATA is a signatory to the APLAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports

Prepared for

Mortdale Recycling Pty Ltd
PO Box 7
Enfield NSW 2136

Report Title	:	Asbestos Management Plan
Building / Project Code	:	-
Address	:	20 Hearne Street, Mortdale NSW 2223
Job No.	:	R9002
Date of issue	:	12 August 2015
Approved by	:	 Amy Morris (Property Risk Assessor)



20 Hearne Street, Mortdale NSW 2223

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Report Disclaimers

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1 Executive Summary

A survey for asbestos containing materials (ACM) was carried out at 20 Hearne Street, Mortdale NSW 2223 on 27 July 2015. The site consists of two main structures:

- The workshop/shed is a single storey building with brick, metal and fibre cement external and internal walls, fibre cement roof and concrete floors.
- The office is a single storey building with brick & fibre cement external walls, brick & timber panel internal walls, concrete floor, sprayed coating ceiling and fibre cement roof.

Safe Environments is NATA accredited (accreditation NO: 17139) and complies with the requirements of AS/NZS ISO.IEC 17020 (2000) for the inspection of asbestos and hazardous materials. This report has been produced in accordance with the Code of Practice How to Manage and Control Asbestos in the Work Place, December 2011, Code of Practice for Management and Control of Asbestos in Workplace NOHSC: 2018 (2005) and in-house documents for conducting hazardous materials inspections. This document is issued in accordance with NATA Accreditation requirements for ISO17020.

Safe Environments' survey undertaken is considered to be in line with the Health and Safety Executive (HSE) document The Survey Guide (HSG 264); Management Survey, identification and assessment survey (presumptive and sampling survey). This type of survey is fundamentally intrusive but not destructive and entails the collection of representative samples where possible or required for subsequent laboratory analysis.

Asbestos Materials	General Location	Risk Level	Comments
Cement debris on ground	External	Low	Debris found in the soil and is thought to have been as a result of uncontrolled maintenance or accidental damage. It is recommended to pick up all surfaces asbestos and dispose of in accordance with EPA guidelines.
Cement and presumed cement corrugated sheeting, capping, gutters, drain pipes, eaves, roof sheeting and textured and flat wall cladding.	Refer to Table 3	Low	Low risk item under current use. Some damage is apparent to structure. It is recommended to repair damage and encapsulate the material, thereafter, label and monitor condition on annual basis
Cement and presumed cement wall and ceiling lining, infill panels, capping, cisterns, fascia panels and roof sheeting	Refer to Table 3	Very low	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis

<i>Asbestos Materials</i>	<i>General Location</i>	<i>Risk Level</i>	<i>Comments</i>
Stored broken corrugated sheets	Office, B.1 Storage	Very Low	Very Low risk of exposure under current condition and use. Recommended to dispose of stored items in accordance with EPA guidelines.
Presumed resin electrical mounting board and resin to windows	Office	Very Low	Very Low risk of exposure under current condition and use. Recommended to label as asbestos containing and reinspect condition on annual basis

Please read ALL of the report document and refer to asbestos register per site

2 Definitions

Airborne asbestos means any fibres of asbestos small enough to be made airborne. For the purposes of monitoring airborne asbestos fibres, only respirable fibres are counted.

Asbestos means the asbestiform varieties of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals, including actinolite asbestos, grunerite (or amosite) asbestos (brown), anthophyllite asbestos, chrysotile asbestos (white), crocidolite asbestos (blue) and tremolite asbestos.

Asbestos containing material (ACM) means any material or thing that, as part of its design, contains asbestos.

Asbestos-contaminated dust or debris (ACD) means dust or debris that has settled within a workplace and is (or assumed to be) contaminated with asbestos.

Asbestos-related work means work involving asbestos that is permitted under the exceptions set out in state specific regulations.

Asbestos removalist means a person conducting a business or undertaking who carries out asbestos removal work.

Asbestos removal work means:

- work involving the removal of asbestos or ACM
- Class A asbestos removal work or Class B asbestos removal work.

Competent person means a person who has acquired, through training, qualification or experience, the knowledge and skills to carry out the task.

Exposure standard for asbestos is a respirable fibre level of 0.1 fibres/ml of air measured in a person's breathing zone and expressed as a time weighted average fibre concentration calculated over an eight-hour working day and measured over a minimum period of four hours in accordance with:

- the Membrane Filter Method
- a method determined by the relevant regulator.

Friable asbestos means material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry, and contains asbestos.

GHS means *Globally Harmonised System of Classification and Labelling of Chemicals*.

NATA-accredited laboratory means a testing laboratory accredited by the National Association of Testing Authorities (NATA), Australia, or recognised by NATA either solely or with someone else.

Naturally occurring asbestos (NOA) means the natural geological occurrence of asbestos minerals found in association with geological deposits including rock, sediment or soil.

Non-friable asbestos means material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound.

Person Conducting a Business or Undertaking (PCBU) means persons responsible for ensuring, so far as is reasonably practicable, that workers and other persons are not put at risk from work carried out as part of the business or undertaking.

Respirable asbestos means an asbestos fibre that:

- is less than 3 microns (μm) wide
- is more than 5 microns (μm) long
- has a length to width ratio of more than 3:1.

3 Scope

Safe Environments has been commissioned by Mortdale Recycling Pty Ltd to provide an asbestos management plan of 20 Hearne Street, Mortdale NSW 2223. Experienced surveyors from Safe Environments undertook the survey to compile an asbestos register on the 27 July 2015.

Safe Environments are not responsible for application of the Asbestos Management Plan. It is the responsibility of the site PCBU with management or control of a workplace to ensure that recommendations within this report are adhered to by relevant parties and that the Management plan is modified as required.

4 Introduction

Experienced surveyor from Safe Environments undertook the survey on the 27 July 2015. The survey undertaken was in line with the Health and Safety Executive (HSE) document. The Survey Guide (HSG 264); Management Survey, identification and assessment survey (presumptive and sampling survey). This type of survey is fundamentally intrusive but not destructive and entails the collection of representative samples where possible or required for subsequent laboratory analysis.

A Demolition and Refurbishment survey is recommended prior to any refurbishment / demolition work or any alterations which may affect the fabric of the building. This type of asbestos survey allows identification of ACM which may otherwise be hidden within the fabric of the building as far as reasonably practicable. All identified materials must be removed prior to these works taking place.

It should be noted that a Refurbishment, Demolition Full access sampling and identification survey of the property has **not** been undertaken as part of this asbestos survey. Hence, there is a possibility of asbestos materials being present in structural elements.

4.1 Legal Requirement

Regulation 420 The person or organisation undertaking a business must ensure, so far as is reasonably practicable, exposure of a person at the workplace to airborne asbestos is eliminated. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable. The exposure standard for asbestos must not be exceeded at the workplace.

Section 47 The WHS Act requires the person conducting a business or undertaking to consult, so far as is reasonably practicable, with workers who carry out work who are (or are likely to be) directly affected by a work health and safety matter.

Section 48 If the workers are represented by a health and safety representative, the consultation must involve that representative.

Regulation 422 A person with management or control of a workplace must ensure asbestos or ACM at the workplace is identified by a competent person. This is done by appointing a competent person to provide the property controller with a valid asbestos register

Regulation 429 The person with management or control of the workplace must ensure the asbestos management plan is readily accessible to:

- a worker who has carried out, carries out or intends to carry out work at the workplace
- health and safety representatives who represent workers that carry out or intend to carry out work at the workplace
- a person conducting a business or undertaking who has carried out, carries out or intends to carry out work at the workplace, and
- a person conducting a business or undertaking who has required, requires or intends to require work to be carried out at the workplace

The purpose of an asbestos management plan is to help key personnel with control of premises to comply with the asbestos prohibition and prevent exposure to airborne asbestos fibres while ACM remain in the workplace.

4.2 Asbestos Overview

Asbestos is a term used for a number of naturally occurring minerals which have crystallised to form long thin fibres and fibre bundles. The fibres have high tensile strength, and chemical, electrical and heat resistance, and were widely used for these properties; either raw (eg asbestos textiles and insulation packings), or more often, combined with other materials (fireproofings, insulations, boards, asbestos cement sheets etc). There are six regulated types of asbestos, the three main types being - chrysotile, amosite and crocidolite, which were widely used in Australia. These are also referred to as white, brown and blue asbestos respectively. The other three types of regulated asbestos are fibrous actinolite, fibrous tremolite and fibrous anthophyllite, although these were less commonly used.

Although asbestos is a hazardous material, it can only pose a risk to health if the asbestos fibres become airborne and then inhaled. ACMs only release fibres into the air when they are disturbed. If you therefore maintain all your ACMs in good condition, they cannot release fibres and put the health of your workers or others at risk. ACMs are disturbed:

- during any direct action on them, eg drilling, boring, cutting, breaking, smashing, etc;
- during their removal;
- during the demolition of buildings containing them;
- through minimal, but repeated damage, eg an unprotected asbestos insulating board panel on the back of a door which is continually being accidentally knocked or scraped;
- when damaged asbestos, eg damaged pipe insulation or sprayed asbestos on beams/columns, is subject to mechanical vibration and/or strong air currents;
- during any other action that causes the ACM to be disturbed.

If ACMs are not disturbed airborne fibres will not be released and therefore they will not pose a risk to health.

Control risk of exposure

- must ensure, so far as is reasonably practicable, that exposure of a person at the workplace to airborne asbestos is eliminated, except in an area that is enclosed to prevent the release of respirable asbestos fibres and negative pressure is used. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable
- must ensure the exposure standard for asbestos is not exceeded at the workplace.

Health monitoring

- must ensure health monitoring is provided to a worker who is carrying out licensed removal work, other ongoing asbestos removal work or asbestos-related work and there is risk of exposure when carrying out that work
- must ensure the health monitoring is carried out under the supervision of a registered medical practitioner and information as specified in the WHS Regulations is provided to that medical practitioner
- must pay all expenses for health monitoring, obtain report and keep records of all health monitoring.

Training and use of equipment

- must ensure that information, training and instruction provided to a worker is suitable and adequate and that it is provided in a way that is readily understandable by any person to whom it is provided
- must ensure that, if a worker is either carrying out asbestos-related work or may be involved in asbestos removal work, they are trained in the identification and safe handling of asbestos and ACM and the suitable control measures
- for workers who carry out work where naturally occurring asbestos (NOA) is likely to be found, training must be provided on hazards and risks associated with NOA.

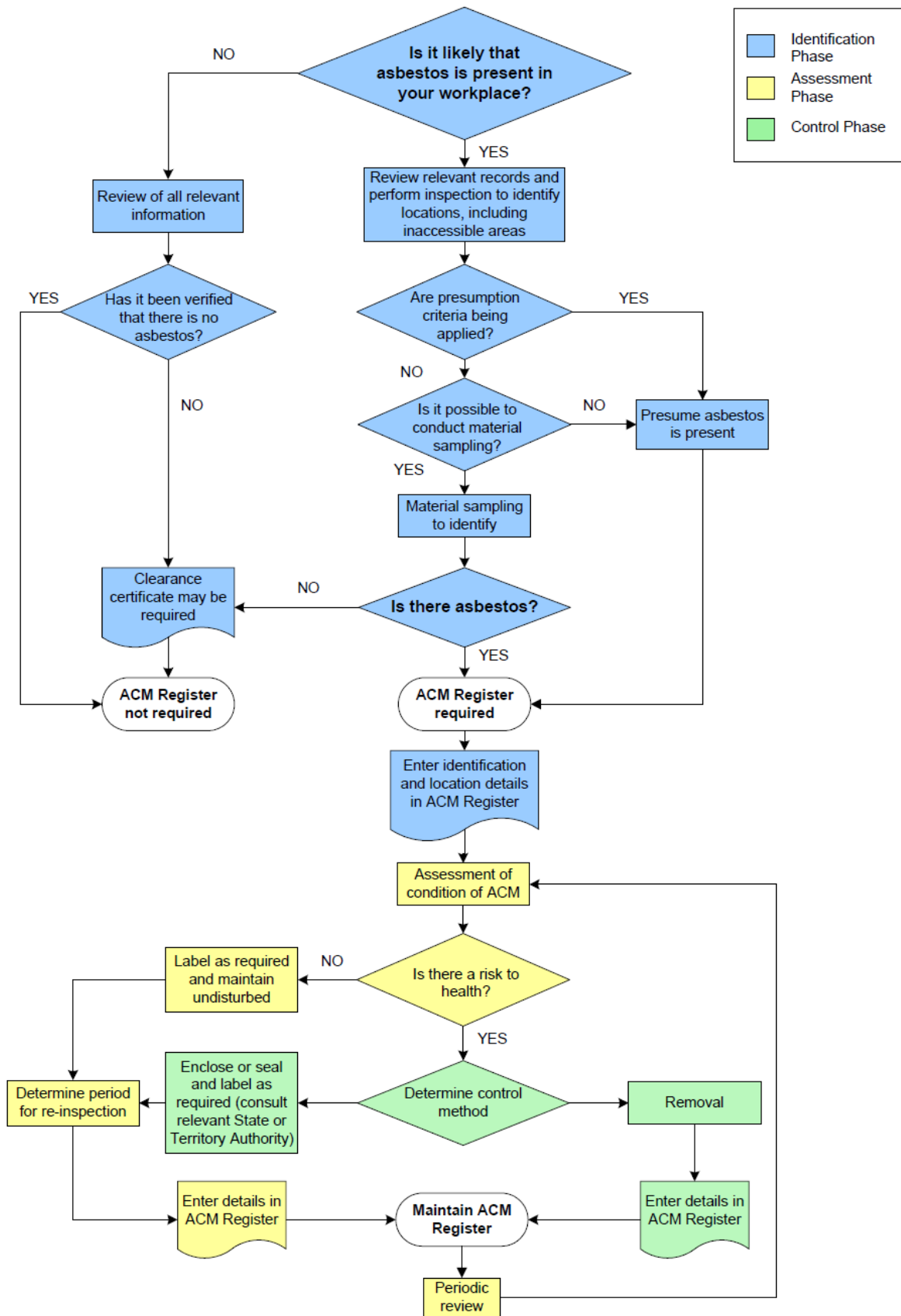
Controlling the use of equipment

- must not use, or direct or allow a worker to use, certain equipment on asbestos and ACM.

Asbestos-related work

- must, if there is uncertainty as to whether work is asbestos-related work, assume asbestos is present or arrange for an analysis of a sample to be undertaken to determine if asbestos or ACM is present
- must give information as specified in regulation 480 of the WHS Regulations to a person who is likely to be engaged to carry out asbestos-related work
- must ensure the asbestos-related work area is separated from other work areas at the workplace, signs are used to indicate where the asbestos-related work is being carried out and barricades are used to delineate the asbestos-related work area
- must ensure a competent person carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded
- must ensure that decontamination facilities (including containers and labels labelled in accordance with the GHS) are available when asbestos-related work is being carried out
- must ensure that asbestos waste is contained and labelled in accordance with the GHS before it is removed, and is disposed of as soon as practicable
- must ensure, where personal protective equipment (PPE) is used and contaminated with asbestos, such PPE is sealed, decontaminated, labelled and disposed of in accordance with the WHS Regulations. If this is not reasonably practicable, the PPE must be laundered in accordance with the WHS Regulations. PPE that is not clothing and cannot be disposed of must be decontaminated and kept in a sealed container until it is reused for the purposes of asbestos-related work.

A comprehensive guide to management of asbestos in premises flow chart:



5 Responsibilities

The responsibilities of all persons involved and the sections of the plan they are responsible for, training arrangements for workers and contractors, a procedure for reviewing and updating the management plan and the register of ACM, including a timetable; and safe work method statement

Table 4: Responsibilities	
Responsible Person/s	Action
Person conducting a business or Undertaking (PCBU)	<p>Control risk of exposure</p> <ul style="list-style-type: none"> • must ensure, so far as is reasonably practicable, that exposure of a person at the workplace to airborne asbestos is eliminated. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable • must ensure the exposure standard for asbestos is not exceeded at the workplace. <p>Health monitoring</p> <ul style="list-style-type: none"> • must ensure health monitoring is provided to a worker who is carrying out licensed removal work, other ongoing asbestos removal work or asbestos-related work and there is risk of exposure when carrying out that work • must ensure the health monitoring is carried out under the supervision of a registered medical practitioner • must pay all expenses for health monitoring, obtain report and keep records of all health monitoring. <p>Training and use of equipment</p> <ul style="list-style-type: none"> • must ensure that information, training and instruction provided to a worker is suitable and adequate and that it is provided in a way that is readily understandable by any person to whom it is provided • must ensure that, if a worker is either carrying out asbestos-related work or may be involved in asbestos removal work, they are trained in the identification and safe handling of asbestos and ACM and the suitable control measures • for workers who carry out work where NOA is likely to be found, training must be provided on hazards and risks associated with NOA. <p>Controlling the use of equipment</p> <ul style="list-style-type: none"> • must not use, or direct or allow a worker to use, certain equipment on asbestos and ACM.

Table 4: Responsibilities	
Responsible Person/s	Action
	<p>Asbestos-related work</p> <ul style="list-style-type: none"> • must, if there is uncertainty as to whether work is asbestos-related work, assume asbestos is present or arrange for an analysis of a sample to be undertaken to determine if asbestos or ACM is present • must give information as specified in regulation 480 of the WHS Regulations to a person who is likely to be engaged to carry out asbestos-related work • must ensure the asbestos-related work area is separated from other work areas at the workplace, signs are used to indicate where the asbestos-related work is being carried out and barricades are used to delineate the asbestos-related work area • must ensure a competent person carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded • must ensure that asbestos waste is contained and labelled in accordance with the GHS before it is removed, and is disposed of as soon as practicable • must ensure, where personal protective equipment (PPE) is used and contaminated with asbestos, such PPE is sealed, decontaminated, labelled and disposed of in accordance with the local OHS Regulations. If this is not reasonably practicable, the PPE must be laundered in accordance with the local OHS Regulations. PPE that is not clothing and cannot be disposed of must be decontaminated and kept in a sealed container until it is reused for the purposes of asbestos-related work.
PCBU with management or control of a workplace	<p>Identifying or assuming asbestos or ACM</p> <ul style="list-style-type: none"> • must ensure, so far as is reasonably practicable, that all asbestos or ACM at the workplace is identified by a competent person or assume its presence may identify asbestos or ACM by arranging a sample of the material to be analysed. <p>Indicating presence and location</p> <ul style="list-style-type: none"> • must ensure the presence and location of asbestos or ACM identified (or assumed to be identified) at the workplace is clearly indicated (by a label if reasonably practicable). <p>Asbestos register</p> <ul style="list-style-type: none"> • must ensure an asbestos register is prepared, maintained, reviewed and kept at the workplace. It must be readily available to workers, their health and safety representatives and other persons • must ensure, when management or control of the workplace is relinquished, a copy of the asbestos register is given to the person assuming management or control.

Table 4: Responsibilities	
Responsible Person/s	Action
	<p>Asbestos management plan</p> <ul style="list-style-type: none"> must, where asbestos has been identified at the workplace, ensure an asbestos management plan is prepared, maintained and reviewed. It must be accessible to workers, their health and safety representatives and other persons. <p>Naturally Occurring Asbestos (NOA)</p> <ul style="list-style-type: none"> must manage the risks associated with NOA at the workplace and, where identified at the workplace or likely to be present, ensure that a written asbestos management plan is prepared, maintained and reviewed. <p>Demolition and Refurbishment Work</p> <ul style="list-style-type: none"> prior to demolition or refurbishment work starting, must review the asbestos register and ensure all asbestos that is likely to be disturbed is identified and removed so far as is reasonably practicable must provide a copy of the asbestos register to the person carrying out the demolition or refurbishment work before the work commences must, if an emergency occurs and a structure or plant is to be demolished, ensure that before the demolition occurs there is a procedure to reduce the risk of exposure to asbestos to below the exposure standard and notify the regulator about the emergency.
PCBU carrying out demolition or refurbishment work	<p>Demolition and Refurbishment Work</p> <ul style="list-style-type: none"> must, prior to the demolition or refurbishment work being carried out: obtain a copy of the asbestos register for the workplace from the person with management or control before the work commences if an asbestos register is not available, ensure the structure or plant to be demolished or refurbished has been inspected by a competent person to determine if any asbestos or ACM is fixed to or installed (or assume it's presence) where asbestos is determined to be fixed to or installed, tell the occupier, owner (if at a domestic premises) or the person with management or control in any other case ensure asbestos at domestic premises that is likely to be disturbed by the demolition or refurbishment is identified and, if reasonably practicable, removed before the work starts if an emergency occurs at domestic premises where asbestos is identified (or assumed) and it must be demolished, ensure there is a procedure to reduce the risk of the exposure to asbestos to below the exposure standard and notify the regulator about the emergency.

Table 4: Responsibilities	
Responsible Person/s	Action
Key Staff	<ul style="list-style-type: none"> Attend Asbestos awareness training to ensure good knowledge of Asbestos safety Ensure no damage is caused to any asbestos materials identified throughout building as a result of their day to day activities Report any damage immediately to PCBU with management or control of a workplace

6 General Guidance for Management of Asbestos Containing Materials

6.1 Minimum Requirements

Asbestos must be continuously monitored within premises to ensure that all changes and damage to asbestos materials are promptly identified and corrective action is taken

- Asbestos survey must be conducted by competent person and an asbestos register to be complied and kept on site
- Documentations kept within the site management plan specifying asbestos re-inspection dates (recommended once a year)
- All asbestos documentations (Asbestos Register), must be referred to prior to any maintenance, refurbishment or demolition work
- Reasonable steps must be taken to label all identified ACM. Where ACM are identified or presumed, the locations must be recorded in a register of ACM
- If a risk assessment suggests an ACM might be disturbed or persons might be exposed and it is not practical to label the ACM (e.g. floor tiles or a friable ACM such as lagging), a prominent warning sign, specifying the ACM, should be posted in its immediate vicinity.
- All warning signs and labels should comply with Australian Standard 1319 Safety Signs for the Occupational Environment
- Any areas of a workplace which contain ACM, including plant, equipment and components, should be signposted with warning signs to ensure that the asbestos is not unknowingly disturbed without the correct precautions being taken
- These signs should be placed at all of the main entrances to the work areas where asbestos is present
- Prior to refurbishment or demolition or redesign of building, a Demolition (Intrusive) Asbestos Survey should be conducted to identify asbestos materials which may be encountered within building fabric, which were previously inaccessible during the Asbestos Management Survey.
- All identified or presumed ACM — or their enclosures if the ACM are inaccessible — should be clearly labelled. In conjunction with warning signs and the register of ACM, these labels should warn people of the presence of ACM. **Safe Environments recommends to have materials which are identified as asbestos containing to be labelled accordingly.** This should correspond with Asbestos register provided as part of the original asbestos survey conducted.
- All contractors must agree that their work within premises does not disturb any asbestos materials identified within Asbestos Survey reports
- Asbestos Containing Materials must be removed should any proposed work impact on their condition and pose a threat to health and safety of all whom are involved
- Procedures must be put into action to ensure that any work carried out around asbestos materials minimises accidental damage or exposure to asbestos
- Any dust or debris must be immediately reported if suspected to have originated from an asbestos containing material
- Any changes to the condition of asbestos containing materials must be immediately reported
- Emergency procedures must be put into place to deal with any damage or possible exposure to asbestos materials

- General contractors should be orientated prior to commencement of work which includes a review of asbestos register and familiarisation to company safe working methods and Personal Protective Equipment (PPE) requirements
- Management to provide Time table for action, including priorities and date(s) for reviewing the risk assessment(s) and specific circumstances and activities that may impact timings (i.e. plant shut-down periods); monitoring arrangements
- Asbestos management plan must be reviewed once every 5 years.

6.2 Maintenance and Removal of Asbestos

Where materials encountered during this survey have been found to be in a good condition, then no further action may be necessary other than ensuring the material remains in a good condition and undertaking periodic re-inspection. This is recommended at an annual basis and a minimum frequency of once every 5 years which may need to be altered if the material condition or use of area changes.

Where materials have been encountered in a condition that is unsatisfactory, then encapsulation, sealing or removal will probably be required. The following provides a brief description of the abatement requirements for various types of ACM and identifies further approved guidance.

Generally, insulation (lagging), ropes, blankets, flash guards, paper insulating products and sprayed asbestos, both within the buildings and externally, above and below ground, must only be removed by a licensed asbestos removal contractor. Some weathered non-friable asbestos can become friable over the years and produce ACD, which must also be removed by licensed removalist.

Removal of asbestos cement (including sheets, guttering, down pipes, ceiling panels, tanks) is required to be undertaken by contractors (Class B) with licence to remove **non-friable asbestos**, where the total surface area is 10m² or more. A licence to remove non-friable asbestos does not allow removal of friable asbestos.

Removal techniques must minimise damage to the material and should include lowering sheets, for example, to the ground; avoiding the use of power tools or using power tools only with integral dust suppression; and spraying sheets with binding and wetting solutions (e.g. surfactant solution) to minimise fibre release during handling. The materials will require wrapping individually or placing in a lined skip and then sealed until it is removed from site for disposal at a suitably licensed hazardous waste disposal site.

A **licence for friable asbestos** (Class A) is required to remove, or work with, any friable material. A licence to remove or work with friable asbestos also covers removal of any amount of non-friable asbestos.

Asbestos removal contractor should prepare an asbestos removal control plan (ARCP) prior to commencement of works preferably in consultation with the Hazardous materials consultant. An asbestos removal control plan is a document that identifies the specific control measures a licence holder will use to ensure workers and other persons are not at risk when asbestos removal work is being conducted. It should include as a minimum:

- how the asbestos removal will be carried out, including the method, tools, equipment and PPE to be used;
- the asbestos to be removed, including the location, type and condition of the asbestos.

Prior to asbestos removal the following must be present:

- Notification from the regulator of asbestos removal works;
- Limited access, displayed signs and installed barricades;
- Decontamination unit and Negative pressure unit (If applicable, friable only);
- Waste contamination and disposal rout and method

During and after asbestos removal the following are required:

- **More than 10 m² of non-friable asbestos removal** – Air monitoring is not required but may be considered to be carried out by an independent licensed asbestos assessor or competent person to ensure compliance with the duty to eliminate or minimise exposure to airborne asbestos and to ensure the exposure standard is not exceeded.
- **Friable asbestos removal** – Air monitoring is mandatory for all friable asbestos removal. This includes prior to dismantling an enclosure and for the purposes of the clearance inspection.
- **Clearance Certificate** - A person commissioning licensed asbestos removal work must ensure that, once the licensed asbestos removal work has been completed, a clearance inspection is carried out and a clearance certificate is issued before the workplace can be re-occupied by an independent competent person (Non-friable work) or a licensed asbestos assessor (Friable work). Please note this is state specific and reference to relative state legislature must be made.
- **Public Location** – Air monitoring should be considered where the asbestos removal work is being undertaken in or next to a public location.

When carrying out licensed asbestos removal work, the licensed asbestos removalist must ensure that asbestos waste is contained and labelled in accordance with the documented safe work method statement and *relative state legislature and codes of practice for safe removal of asbestos*; before the waste is removed from the asbestos removal area. It must be disposed of as soon as is practicable at a site authorised to accept asbestos waste in accordance with EPA guidelines.

6.3 Clearance inspections and certificates

Where client commissions any licensed asbestos removal work, client will ensure that once the licensed asbestos removal work has been completed, a clearance inspection is carried out and a clearance certificate is issued by an independent licensed asbestos assessor (Friable asbestos) or competent person. Please note this is state specific and reference to relative state legislature must be made.

The friable asbestos clearance certificate will require visual inspection as well as air monitoring of the asbestos removal site. Air monitoring is mandatory for all friable asbestos removal.

The friable asbestos clearance certificate is to state that there was no visible asbestos residue in the area or vicinity of the area where the work was carried out and that the airborne asbestos fibre level was less than 0.01 asbestos fibres/ml.

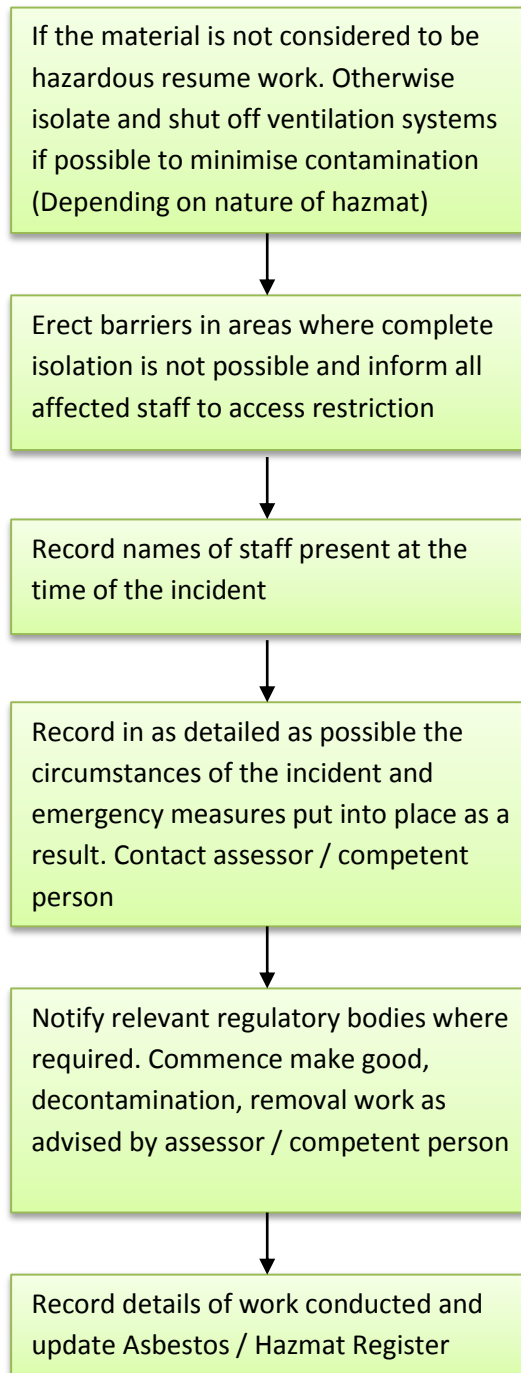
7 Emergency Procedures

7.1 Definition

When an asbestos material has been damaged and has caused asbestos debris or asbestos fibres may have become airborne.

7.2 Procedures

In an event of an emergency the following procedures should be adhered to:



8 Limitations

The recommendations presented in this report are professional opinions based on the indicated data described within report. They are intended only for the purpose, the location, and the project described.

Please note that the survey is not a definitive study as it is not reasonably practicable to inspect every area. Due diligence and professional judgment has been used to attempt to identify and sample all suspect ACM as far as reasonably practicable. Whether identified or otherwise, inaccessible ACM may be present in areas where access or visual observation is not possible. If such features should become accessible as a result of future refurbishment or alterations, they should be surveyed for possible asbestos content.

Quantities of materials identified as part of the survey are estimates made by the surveyor and should not be used for the purpose of tendering for work. Contractors should make their own measurement.

Changes in standards may occur as a result of legislative amendments or the progress in understanding effects of asbestos. Accordingly, the findings of this report may be nullified, wholly or in part, by changes beyond our control. Opinions and judgments expressed herein, which are based on our current understanding and interpretation of current legal standards and guidelines, should not be interpreted as legal judgments.

Safe Environments are not responsible for application of Asbestos Management Plan. It is the responsibility of the site PCBU with management or control of a workplace to ensure that recommendations within this report are adhered to by relevant parties and that the Management plan is modified as required.

Appendix A

Maintenance Details

Safe Environments Pty Ltd
R9002 20 Hearne Street, Mortdale NSW 2223
12 August 2015

Asbestos Removal Checklist

To be completed by a representative of the Asbestos Removal Contractor, prior to commencement of work

Site Address: _____

In accordance with the Asbestos Removal Specification for these works I confirm I have checked the following:

- ☐ Control authority notified, applicable fees paid and appropriate permit obtained
- ☐ Copy of asbestos removal licence displayed at site
- ☐ Warning signs/barricade posted
- ☐ Independent asbestos analyst engaged to conduct asbestos air monitoring
- ☐ Method statement for asbestos removal provided and verified by independent asbestos consultant
- ☐ Notification of asbestos removal works provided for display in common area of site for staff
- ☐ Air condition system isolated
- ☐ Decontamination facilities available
- ☐ Appropriate PPE provided
- ☐ Approved HEPA vacuum provided
- ☐ Approved asbestos waste bags on site
- ☐ Disposal arrangement and documentations on site
- ☐ Asbestos carriers licence provided
- ☐ Asbestos fibre monitoring results and clearance test results will be provided

Contact Name:----- Position:-----

Company:----- Contact No:-----

Emergency Contact:----- Date: -----/-----/-----

Signature:-----

Acknowledgement by PCBU with management or control of a workplace:

I received this completed Asbestos Removal Checklist on ----- / ----- / ----- (date)

Name:----- Signature:-----

Asbestos removal works were authorised to commence following receipt.

Appendix B

Reviews of the asbestos register and condition assessment

The register of ACM, including any risk assessments, recommended to be reviewed every 12 months or earlier where:

- *a risk assessment indicates the need for reassessment*
- *any ACM has been disturbed or removed.*
- *A visual inspection of identified ACM should be undertaken as part of any review by a competent person.*

The asbestos management plan should be reviewed whenever the register of ACM is reviewed

These reviews should critically reassess all asbestos management processes and their effectiveness in:

- *Preventing exposure to airborne asbestos fibres;*
- *Controlling maintenance workers and contractors;*
- *Highlighting the need for action to maintain or remove ACM;*
- *Raising awareness among all workers; and*
- *Maintaining the accuracy of the register of ACM.*

Appendix C

Clearance Certificate

Air Monitoring and Clearance Certificates

Air monitoring should be performed whenever ACM are being removed, to ensure the control measures within the asbestos removal control plan are effective. Before clearance is granted for demolition there must be a thorough clearance inspection by a competent person who is independent from the person responsible for the removal work

Asbestos Clearance Checklist	
To be completed by a representative of the Asbestos Removal Contractor, Asbestos Analyst and Management upon completion of asbestos removal / maintenance work	
Site Address: ----- -----	
Asbestos Removal Contractor	
Comments: ----- ----- -----	
<p>I have checked the location where the work has been carried out and am satisfied the work has been carried out in accordance with specifications and asbestos removal checklist previously forwarded. Personnel and equipment have been withdrawn, normal safeguards have been restored and asbestos has been correctly disposed.</p>	
Contact Name:-----	Position:-----
Company:-----	Contact No:-----
Emergency Contact:-----	Date: -----/------/------
Signature:-----	
Asbestos Assessor / Consultant	
Comments: ----- ----- -----	
<div style="margin-left: 20px;"> <input type="checkbox"/> Air Monitoring conducted (Results to be forwarded) <input type="checkbox"/> Clearance inspection conducted <input type="checkbox"/> Evidence of safe disposal to approved site is attached <input type="checkbox"/> Safe re-occupation recommended (This maybe dependant on clearance air testing, please note in comments) </div>	
<p>I am satisfied that the works have been completed in accordance within the specification and asbestos removal checklist and that the area has been cleaned to the required standard. Dependant on the air test results confirming that the area can be safely re-occupied</p>	
Contact Name:-----	Position:-----
Company:-----	Contact No:-----
Signature:----- Date: -----/------/------	
Reviewed by PCBU with management or control of a workplace:	
Received on ----- / ----- / ----- (date)	
Name:-----	Signature:-----

Appendix D

Staff Asbestos Awareness Training and Notice

Asbestos Awareness Training Database				
Certificate Number	Candidates Name	Position within organisation	Date of Birth	Date of Training Completion

The asbestos management plan and register for this premises has been prepared and available from Person Conducting a Business or Undertaking (PCBU) with management or control of a workplace. It can be reviewed by employees

Asbestos is considered hazardous if airborne and is normally considered safe if left alone and undamaged.

Asbestos containing materials were used within building construction, up to 2004

Serious respiratory problems as well as cancer can occur if asbestos is breathed in

Asbestos is categorised into:

- **Friable Asbestos Materials**
 - Easily Disturbed and crushed by hand pressure
 - Exposed fibres visible
 - High Airborne friability
- **Non-Friable (Bonded) Asbestos Materials**
 - Bound by hard matrix (Resin, cement, etc.) and cannot be crushed by hand pressure
 - Requires significant disturbance to release bound asbestos fibres

Asbestos is very low risk when it is found in good condition and cannot become airborne (breathable) unless cut, broken or severely worn out

Relevant emergency procedures are kept with PCBU with management or control of a workplace.

Should anyone find asbestos materials broken or in bad condition please leave area and inform PCBU with management or control of a workplace as soon as possible

The asbestos management plan explains how Mortdale Recycling Pty Ltd at 20 Hearne Street, Mortdale NSW 2223 aims to protect the health and safety of all occupants within our premises

If you have any further questions regarding asbestos containing materials please feel free to contact PCBU with management or control of a workplace

Appendix E

Contractor Asbestos Acknowledgment Form

Appendix F

Legislations and References

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Documentation Review Requirements	Reporting Requirements	Labelling/Signage Requirements	Supporting Documentation
http://www.safeworkaustralia.gov.au/sites/swa/model-whs-laws/pages/jurisdictional-progress-whs-laws					
COMMONWEALTH Work Health & Safety Act 2011 Work Health & Safety Regulations 2011 <i>Chapter 8 - Asbestos</i>	Person who manages or controls a workplace must ensure, so far is reasonably practicable, that all asbestos present under their management or control is identified by a competent person . If sampling is to be conducted must be NATA accredited laboratory. A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace. An asbestos register is to be kept at the workplace.	Asbestos Management Plan (AMP) & Asbestos Register are to be kept current. Should be reviewed at least once every 5 years.	AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consultation, responsibility and training of persons who will be involved with asbestos works. Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified. An asbestos register is not required if building was constructed after 31 December 2003.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Documentation Review Requirements	Reporting Requirements	Labelling/Signage Requirements	Supporting Documentation
AUSTRALIAN CAPITAL TERRITORY Work Health & Safety Act 2011 Work Health & Safety Regulations 2011 <i>Chapter 8 - Asbestos</i>	Person who manages or controls a workplace must ensure, so far is reasonably practicable, that all asbestos present under their management or control is identified by a competent person . If sampling is to be conducted must be NATA accredited laboratory. A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace. An asbestos register is to be kept at the workplace.	Asbestos Management Plan (AMP) & Asbestos Register are to be kept current. Should be reviewed at least once every 5 years.	AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consolation, responsibility and training of persons who will be involved with asbestos works. Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified. An asbestos register is not required if building was constructed after 31 December 2003.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.
NEW SOUTH WALES Work Health & Safety Act 2011 Work Health & Safety Regulations 2011 <i>Chapter 8 - Asbestos</i>	Person who manages or controls a workplace must ensure, so far is reasonably practicable, that all asbestos present under their management or control is identified by a competent person . If sampling is to be conducted must be NATA accredited laboratory. A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace. An asbestos register is to be kept at the workplace.	Asbestos Management Plan (AMP) & Asbestos Register are to be kept current. Should be reviewed at least once every 5 years.	AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consolation, responsibility and training of persons who will be involved with asbestos works. Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified. An asbestos register is not required if building was constructed after 31 December 2003.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Documentation Review Requirements	Reporting Requirements	Labelling/Signage Requirements	Supporting Documentation
NORTHERN TERRITORY Work Health & Safety (National Uniform Legislation) Act 2011 Work Health & Safety (National Uniform Legislation) Regulations 2011 <i>Chapter 8 - Asbestos</i>	<p>Person who manages or controls a workplace must ensure, so far as is reasonably practicable, that all asbestos present under their management or control is identified by a competent person. If sampling is to be conducted must be NATA accredited laboratory.</p> <p>A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace.</p> <p>An asbestos register is to be kept at the workplace.</p>	<p>Asbestos Management Plan (AMP) & Asbestos Register are to be kept current.</p> <p>Should be reviewed at least once every 5 years.</p>	<p>AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consultation, responsibility and training of persons who will be involved with asbestos works.</p> <p>Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified.</p> <p>An asbestos register is not required if building was constructed after 31 December 2003.</p>	<p>The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.</p>	<p>Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.</p>
QUEENSLAND Work Health & Safety Act 2011 Work Health & Safety Regulations 2011 <i>Chapter 8 - Asbestos</i>	<p>Person who manages or controls a workplace must ensure, so far as is reasonably practicable, that all asbestos present under their management or control is identified by a competent person. If sampling is to be conducted must be NATA accredited laboratory.</p> <p>A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace.</p> <p>An asbestos register is to be kept at the workplace.</p>	<p>Asbestos Management Plan (AMP) & Asbestos Register are to be kept current.</p> <p>Should be reviewed at least once every 5 years.</p>	<p>AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consultation, responsibility and training of persons who will be involved with asbestos works.</p> <p>Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified.</p> <p>An asbestos register is not required if building was constructed after 31 December 2003.</p>	<p>The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.</p>	<p>Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.</p>

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Documentation Review Requirements	Reporting Requirements	Labelling/Signage Requirements	Supporting Documentation
SOUTH AUSTRALIA Work Health & Safety Act 2012 Work Health & Safety Regulations 2012 <i>Chapter 8 - Asbestos</i>	Person who manages or controls a workplace must ensure, so far as is reasonably practicable, that all asbestos present under their management or control is identified by a competent person . If sampling is to be conducted must be NATA accredited laboratory. A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace. An asbestos register is to be kept at the workplace.	Asbestos Management Plan (AMP) & Asbestos Register are to be kept current. Should be reviewed at least once every 5 years.	AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consultation, responsibility and training of persons who will be involved with asbestos works. Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified. An asbestos register is not required if building was constructed after 31 December 2003.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.
TASMANIA Work Health & Safety Act 2012 Work Health & Safety Regulations 2012 <i>Chapter 8 - Asbestos</i>	Person who manages or controls a workplace must ensure, so far as is reasonably practicable, that all asbestos present under their management or control is identified by a competent person . If sampling is to be conducted must be NATA accredited laboratory. A written Asbestos Management Plan (AMP) is required if asbestos is identified at the workplace. An asbestos register is to be kept at the workplace.	Asbestos Management Plan (AMP) & Asbestos Register are to be kept current. Should be reviewed at least once every 5 years.	AMP must include information identification of asbestos, decisions on management of identified materials, as well as procedures for detailing incidents and emergencies with regard to asbestos and consultation, responsibility and training of persons who will be involved with asbestos works. Asbestos register is to contain details of the location, type and condition asbestos materials plus date asbestos was identified. An asbestos register is not required if building was constructed after 31 December 2003.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace 2011.

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Documentation Review Requirements	Reporting Requirements	Labelling/Signage Requirements	Supporting Documentation
VICTORIA Occupational Health & Safety Act 2004 Occupational Health and Safety Regulations 2007 – Part 4.3 - <i>Asbestos</i>	Person who manages or controls a workplace must ensure, so far as is reasonably practicable, identify all asbestos present that is under their management or control. Must determine the location, type, friability condition and likelihood of ACM sustaining damage or deterioration. Division 6 requires that prior to any demolition or refurbishment works, the person who manages or controls the workplace must review the asbestos register and revise if it is inadequate in regard to the planned works.	Undertake review and revision of risk assessment when condition of asbestos changes, remedial work has been carried out or the assessment is no longer valid. At least once every 5 years.	Reports must include the type, location, friability & condition of asbestos, Identification of inaccessible areas and risk assessment including dates.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	Work Safe Victoria Compliance Code – Managing Asbestos in Workplaces Work Safe Victoria Compliance Code – Removing Asbestos in Workplaces
http://www.austlii.edu.au/au/legis/vic/consol_reg/ohasr2007382/					
WESTERN AUSTRALIA Occupational Safety and Health Act 1984 Occupational Health and Safety Regulations 1996 <i>Division 4 - Further requirements in relation to certain hazardous substances. Subdivision 1 – Asbestos. Regulation 5.43</i>	Employer, main contractor, self-employed person or person having control of the workplace to ensure that presence and location of asbestos at the workplace is identified. The process of identification and assessment of risks arising from asbestos hazards are to be conducted in accordance with the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)].	Annual review of register and management plan under NOHSC: 2018(2005). A visual inspection of ACM should be undertaken as part of any review.	Under NOHSC:2018(2005): Maintain a register on the premises which includes date of assessment, location & types of asbestos, analysis, risk assessments, control measures, and details of competent person who undertook the assessment. Details of presumptions made and likely asbestos in inaccessible areas to be included	Warning signs & labels to be used in conjunction with the workplace register to warn people of the presence of ACM. Competent person to determine number and position of labels. Areas containing ACM to be signposted.	Health (Asbestos) Regulations 1992 Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)] Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018 (2005)]
http://www.commerce.wa.gov.au/worksafe/content/safety_topics/Asbestos/Asbestos_Management.html					

References

- Australian Standard AS ISO/IEC 17020 *General criteria for the operation of various types of bodies performing inspection*;
- Australian Standard AS ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories*;
- Safe Environments Quality Manual;
- Health and Safety Executive (UK), HSG264, *Asbestos: The survey guide*; 2010;
- Health and Safety Executive (UK) HSG248, *Asbestos: The Analysts Guide for Sampling, Analysis and Clearance Procedures*
- Health and Safety Executive (UK), HSG227, *A comprehensive guide to Managing Asbestos in premises*, 2002;
- Code of Practice for the Management and Control of Asbestos in Work Place [NOHSC: 2018 (2005)];
- WA Environmental Health Directorate, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*; 2009;
- ANZECC, *Identification of PCB-Containing Capacitors*; 1997;
- UNEP, *Inventory of Trade Names of Chemical Products Containing Ozone Depleting Substances and their Alternatives*; 2001;
- Australian Standard AS 4361.2 *Guide to Lead Paint Management Part 2*; 1998
- Code of Practice: *How to manage and Control Asbestos in the Workplace*; 2011

DEWCAPE



DISTINCTION IN BUILDING

10. APPENDIX C: 2D Site Plan



SEDIMENT CONTROL FOR STOCKPILED MATERIALS



DEWCAPE



DISTINCTION IN BUILDING

11. APPENDIX D: Preliminary Program

Date : 2/11/16
 Planner : SW Checked:WY
 Revision : 0

ID	Task Name	Dur	Start	Finish	Float	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	Apr '17	May '17	Jun '17	Jul '17	Aug '17	Sep '17	Oct '17	Nov '17	Dec '17	Jan '18	Feb '18	Mar '18	Apr '18	Ma
						31 7 14 21 28	5 12 19 26	2 9 16 23 30	6 13 20 27	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26	3 10 17 24	31 7 14 21 28	4 11 18 25	2 9 16 23 30	6 13 20 27	4 11 18 25	1 8 15 22 29	5 12 19 26	5 12 19 26	2 9 16 23 30	7
72	Roof Wiring, Safety & Insulation	15 d	27/09/17	18/10/17	0 d																			
73	Roof Sheetting / Flashing & Cappings	15 d	5/10/17	25/10/17	0 d																			
74	Facade Frames	10 d	22/09/17	6/10/17	15 d																			
75	Install Metal Cladding / Fire Doors	12 d	29/09/17	17/10/17	15 d																			
76	Building Mainly Watertight	0 d	25/10/17	25/10/17	9 d																			
77	SERVICES & FINISHES	54 d	1/11/17	30/01/18	0 d																			
78	High Level Services Rough-in	5 d	1/11/17	7/11/17	0 d																			
79	Services Fit-out	10 d	8/11/17	21/11/17	0 d																			
80	General Shed Fit-out - Hardware, Signage	15 d	15/11/17	5/12/17	0 d																			
81	Install Machinery / Testing & Commissioning	40 d	21/11/17	30/01/18	0 d																			
82	Shed Complete	0 d	30/01/18	30/01/18	0 d																			
83	OFFICE	90 d	10/08/17	14/12/17	22 d																			
84	GROUNDWORKS & STRUCTURE	25 d	10/08/17	13/09/17	22 d																			
85	Detail Excavate Footing	5 d	10/08/17	16/08/17	22 d																			
86	FRP Footings	6 d	15/08/17	22/08/17	22 d																			
87	Inground Drainages	5 d	23/08/17	29/08/17	113 d																			
88	Subgrade Preparation	5 d	23/08/17	29/08/17	22 d																			
89	FRP Slab on Ground	8 d	25/08/17	5/09/17	22 d																			
90	Erect Timber Stud Walls	3 d	6/09/17	8/09/17	22 d																			
91	Erect Roof Trusses	3 d	11/09/17	13/09/17	22 d																			
92	ROOFING & CLADDING	22 d	14/09/17	16/10/17	22 d																			
93	Gutters & Drainage	3 d	14/09/17	18/09/17	22 d																			
94	Roof Wiring, Safety & Insulation	2 d	19/09/17	20/09/17	22 d																			
95	Roof Sheetting / Flashing & Cappings	5 d	21/09/17	27/09/17	22 d																			
96	Window Frames & Window / Doors	7 d	28/09/17	9/10/17	36 d																			
97	Install Metal Cladding	8 d	5/10/17	16/10/17	36 d																			
98	Building Mainly Watertight	0 d	16/10/17	16/10/17	36 d																			
99	SERVICES & FINISHES	55 d	28/09/17	14/12/17	22 d																			
100	High Level Services Rough-in	5 d	28/09/17	5/10/17	22 d																			
101	In-wall Services Rough-in / Insulation	5 d	6/10/17	12/10/17	22 d																			
102	Wall Linings	5 d	13/10/17	19/10/17	22 d																			
103	Ceilings & Bulkheads	3 d	20/10/17	24/10/17	22 d																			
104	Set & Sand / Initial Paint	8 d	25/10/17	3/11/17	22 d																			
105	Hang Doors / Carpentry Works	8 d	6/11/17	15/11/17	22 d																			
106	Amenities - Screeds, Membranes & Tiling	2 d	20/10/17	23/10/17	30 d																			
107	Amenities - Ceilings	1 d	24/10/17	24/10/17	30 d																			
108	Amenities - Joinery, Sanitary Fittings & Hyd. Fit-off	3 d	25/10/17	27/10/17	30 d																			
109	Amenities - Mirrors, Screens, Fittings & Fit-off	3 d	30/10/17	1/11/17	30 d																			
110	Services Fit-off / Initial Commission	5 d	14/11/17	20/11/17	22 d																			
111	Fitout - Hardware, Signage, Fittings, Blinds etc	5 d	21/11/17	27/11/17	22 d																			
112	Final Paint & Clean	5 d	28/11/17	4/12/17	22 d																			
113	Floor & Clean	2 d	5/12/17	6/12/17	22 d																			
114	F, F & E / Builders Defects Rectification	8 d	5/12/17	14/12/17	22 d																			
115	Office Complete	0 d	14/12/17	14/12/17	22 d																			
116	EXTERNAL WORKS	116 d	12/07/17	21/12/17	17 d																			
117	Remove Tress	5 d	12/07/17	18/07/17	68 d																			
118	Remove Existing Ramp, Bridge, Pavement & Hump	5 d	10/08/17	16/08/17	52 d																			
119	Clear & Strip Site	2 d	17/08/17	18/08/17	52 d																			
120	Fuel Point - Excavate & Construct Underground Tank	8 d	21/08/17	30/08/17	54 d																			
121	Fuel Point - Back Fill & Pour Slab on Ground	5 d	31/08/17	6/09/17	54 d																			
122	Fuel Point - Erect Structure & Install Roofing	4 d	7/09/17	12/09/17	54 d																			
123	Fuel Point - Fitoff	5 d	13/09/17	19/09/17	54 d																			
124	Construct New Entry Weigh Bridge & Associated Ramps	12 d	21/08/17	5/09/17	52 d																			
125	New Entry Weigh Bridge Complete	0 d	5/09/17	5/09/17	52 d																			
126	Construct New Exit Weighbridge & Associated Grids, Ramps	12 d	26/10/17	10/11/17	17 d																			
127	New Exit Weigh Bridge Complete	0 d	10/11/17	10/11/17	17 d																			
128	Install New Concrete Pavement	8 d	13/11/17	22/11/17	17 d																			
129	Install Western Bin Storage	5 d	17/11/17	23/11/17	17 d																			
130	FRP Pavements & Ramps	10 d	24/11/17	7/12/17	17 d																			
131	Signage, Metalwork, Finishes, Make Good Surrounds / Landscaping	15 d	1/12/17	21/12/17	17 d																			
132	External Works Complete	0 d	21/12/17	21/12/17	17 d																			
133	PROJECT COMPLETE (NET)	0 d	30/01/18	30/01/18	0 d																			
134	Inclement Weather (10%)	15 d	31/01/18	20/02/18	0 d																			
135	PROJECT COMPLETE (GROSS)	0 d	20/02/18	20/02/18	0 d																			

Date : 2/11/16
Planner : SW Checked:WY
Revision : 0

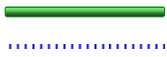
Critical Task
Non-critical



Milestone
Project Summary



Summary
Split



Complete Milestone
Progress

Baseline Normal
Baseline Critical

