

RANDAZZO C & G DEVELOPMENTS

MAY 2024

ASBESTOS MANAGEMENT PLAN

LOT 2305 - POWER HOUSE
41 SMITH STREET
DARWIN NT 0800



Question today *Imagine tomorrow* Create for the future

Asbestos Management Plan

Lot 2305 - Power House, 41 Smith Street, Darwin NT 0800

RANDAZZO C & G DEVELOPMENTS

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REV	DATE	DETAILS
A		Initial report issued to client

	NAME	DATE	SIGNATURE
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GLOSSARY

Terminology	Description
Primary Location/Room	The primary location description of the material described in the hazardous materials register (e.g. Main Office).
Secondary Location/Application	Means the use or application of the material described in the asbestos register (e.g. wall lining, floor covering, soffit lining, pipe lagging, etc.).
Material/Product Description	Refers to the type of known/suspected ACM identified (e.g. vinyl tile, fibre cement sheeting, fibrous insulation, etc.). Does not refer to the use or application of the material. This is covered in 'Secondary Location/Application'.
Friable (Asbestos)	Means asbestos-containing material which, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.
Non-Friable (Bonded Asbestos)	Material containing asbestos that is not friable asbestos, includes materials containing asbestos fibres reinforced with a bonding compound.
Condition (Good)	Condition of a material where: — The material has no evidence of any significant damage/deterioration. — The material is in, or is close to, 'as new' condition.
Condition (Fair)	Condition of a material where: — There is some minor damage or wear throughout the extent of the material. — There is some obvious damage or significant wear but only in localised areas.
Condition (Poor)	Condition of a material where: — The material exhibits consistent damage or wear throughout the extent of the material. — Major or significant damage is evident, even if only in localised areas. — Any non-fixed material (e.g. debris).
Disturbance (Low)	The potential for disturbance is low when: — Activities in the area where the hazardous material is located are unlikely to result in damage or deterioration of the material. — The material is completely isolated from normal day to day activities. — The material is completely protected from nearby activities by an enclosure or encapsulation.
Disturbance (Medium)	The potential for disturbance is medium when: — Activities in the area have a potential to mildly impact upon the material and the activities are infrequent — The material is protected from activities by an enclosure or encapsulation, however the protection is not comprehensive.
Disturbance (High)	The potential for disturbance is high when: — Activities undertaken in the area are likely to result in immediate damage to identified hazardous materials — Activities in the area, whilst typically of low impact, happen on a regular basis and are likely to result in deterioration or damage to the material in the short to medium term.

Terminology	Description
Airborne asbestos	Any fibres of asbestos small enough to be made airborne. For the purposes of monitoring airborne asbestos fibres, only respirable fibres are counted.
Asbestos	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 Cement (AC)	Products consisting of sand aggregate and cement reinforced with asbestos fibres (e.g. asbestos cement pipes and flat or corrugated asbestos cement sheets).
Asbestos containing material (ACM)	Any material, object, product or debris that contains asbestos.
Asbestos contaminated dust or debris (ACD)	Dust or debris that has settled within a workplace and is (or is assumed to be) contaminated with asbestos.
Asbestos removal work	Work involving the removal of asbestos or ACM.
Asbestos-related work	Work involving asbestos.
Asbestos Removal Control Plan (ARCP)	An asbestos removal control plan is an action plan that should be created before undertaking any asbestos removal work. The aim of the plan is to outline the specific methods and processes that will be used to ensure the removal is safe and effective.
Competent person	A person possessing adequate qualifications, such as suitable training and sufficient knowledge, experience and skill, for the safe performance of specific work.
Dust and debris	Visible particles, fragments or chunks of material, large and heavy enough to have settled in the work area, that are likely to have originated from ACM.
Hazard	Anything in the workplace that has the potential to harm people and the environment.
Inaccessible areas	Areas that are difficult to access, such as wall cavities and the interiors of plant and equipment.
In-situ asbestos	Asbestos or ACM fixed or installed in a structure, equipment or plant but does not include naturally occurring asbestos.
Licensed asbestos assessor	A licensed asbestos assessor can conduct the following: — Air monitoring for Class A asbestos removal work — Clearance inspections for Class A asbestos removal work — Issuing clearance certificates in relation to Class A asbestos removal work
Licensed asbestos removal contractor	A person conducting a business or undertaking who is licensed under the WHS Regulation to carry out Class A or Class B asbestos removal work (refer to Section 7.2.1 for licence requirements for asbestos removal work).
Must	Indicates a legal requirement that must be complied with.
NATA-accredited laboratory	A testing laboratory accredited by the National Association of Testing Authorities (NATA), Australia, or recognised by NATA either solely or with someone else.
Person conducting a business or undertaking (PCBU)	A person conducts a business or undertaking is one who meets the definition outlined in Section 5 of the WHS Act.
Person with control	In relation to premises, a person who has control of premises used as a workplace. The person with control may be: — The owner of the premises — A person who has, under any control or lease, an obligation to maintain or repair the premises — A person who is occupying the premises — A person who can make decisions about work undertaken at the premises.

Respirable asbestos	An asbestos fibre that: — Is less than 3 microns (μm) wide — Is more than 5 μm long — Has a length to width ratio of more than 3:1.
Risk	Refers to the level of risk posed by the ACM based on its condition, friability, potential for disturbance (accessibility) and other factors such as proposed demolition/refurbishment works. Refer to the Risk Matrix in Appendix B.
Sealed	Refers to whether the ACM is encapsulated with a sealant (such as paint, wall paper, etc.), concealing its exposed surfaces.
Should	Indicates a recommended course of action.

ABBREVIATIONS

A	Amosite asbestos (brown asbestos)
AC	Asbestos Cement (Asbestos-containing fibrous cement material)
ACD	Asbestos Contaminated Dust or Debris
ACM	Asbestos Containing material
AMP	Asbestos Management Plan
ARCP	Asbestos Removal Control Plan
ASCC	Australian Safety & Compensation Council
C	Crocidolite asbestos (blue Asbestos)
CH	Chrysotile asbestos (white Asbestos)
EPA	Environment Protection Authority
FC	Fibre Cement (usually sheeting)
Fibres/mL	Countable fibres per millilitre of air sampled
L/min	Litres per minute of air
LAA	Licensed Asbestos Assessor
LARC	Licensed Asbestos Removal Contractor
NAD	No Asbestos Detected
NATA	National Association of Testing Authorities
NOHSC	National Occupational Health and Safety Commission
OH&S	Occupational Health and Safety (also, refer to WH&S)
PCBU	Person Conducting a Business or Undertaking
PPE	Personal Protective Equipment
RPE	Respiratory Protective Equipment
SWMS	Safe Work Method Statement
WH&S	Workplace Health and Safety

1 INTRODUCTION

WSP Australia Pty Limited (WSP Australia) was commissioned by Randazzo C & G Developments Pty Ltd to prepare an Asbestos Management Plan (AMP) for Asbestos Containing Materials (ACM) identified within the building(s) at Lot 2305 - Power House, located at 41 Smith Street, Darwin NT 0800 (referred to as the 'Site').

1.1 SCOPE

The purpose of this AMP is to assist persons with control of the premises to comply with the regulatory requirements for managing ACM remaining in the workplace.

This report is limited to addressing the ACM identified in buildings within the current Asbestos Register for the Site (WSP ref PS140070-OHH RevA1 - Lot 2305 - Power House - 2024 Asbestos Register dated May2024) and is subject to the limitations therein. This AMP does not address in-ground contamination that may be present.

This AMP incorporates the following buildings at the Site:

Table 1.1 Site Buildings

BUILDING	BUILDING DESCRIPTION	APPROXIMATE BUILDING AGE
Lot 2305 - Power House	The Power House is an eight storey building constructed of concrete. Interior walls are constructed of concrete and plasterboard. Interior ceilings are plasterboard and plasterboard tiles. Floors are carpet and ceramic tile over concrete.	1960s

This AMP must be reviewed:

- At least every five years or
- When requested by a health and safety representative, or
- When asbestos is removed, disturbed, sealed or enclosed, and
- When changes to a control measure are made or when the plan is no longer adequate.
- This should be undertaken in accordance with the *How to manage and control asbestos in the workplace: Code of Practice*, NT WorkSafe, 2020.

No one section or part of a section of this report (including the register and plan) should be taken as giving an overall idea of this report. Each section must be read in conjunction with the whole of this report, including the Asbestos Register (WSP ref PS140070-OHH RevA1 - Lot 2305 - Power House - 2024 Asbestos Register dated May2024).

1.2 OBJECTIVES

- The objectives of the AMP are to outline the required procedures for the handling of asbestos containing material in accordance with *How to manage and control asbestos in the workplace: Code of Practice*, NT WorkSafe, 2020 and : *How to Safely Remove Asbestos: Code of Practice*, NT WorkSafe, 2020. Specifically, the objectives are to provide guidance with respect to:
- Documentation of the existing extent of asbestos presence at the site
- Safe work procedures required to ensure that works are carried out in such a way as to minimise potential health effects personnel engaged in works on-site

- Procedures required to ensure that all personnel engaged in the works comply with the terms and conditions of the AMP
- Ongoing management requirements of the site to ensure that the risk posed by any potential asbestos impact at the site is properly managed
- Assign responsibilities under the AMP, provide contingency plans and timeframes for application of the AMP during site works including but not limited to:
 - Roles and responsibilities
 - Training
 - Prohibitions
 - Management plan and register reviews
 - Labelling
 - Demolition and refurbishment work
 - Asbestos removal works
 - Incidents and emergencies
 - Record keeping.

1.3 LEGISLATIVE REQUIREMENTS

The inspection works and production of this report have been undertaken in accordance with the requirements of the following documents:

- *Work Health and Safety Act 2011 (Commonwealth)*
- *Work Health and Safety (National Uniform Legislation) Act 2011 (NT)*
- *Work Health and Safety (National Uniform Legislation) Regulations 2011 (NT)*
- *How to manage and control asbestos in the workplace: Code of Practice*, NT WorkSafe, 2020
- *How to Safely Remove Asbestos: Code of Practice*, NT WorkSafe, 2020
- *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres. 2nd Edition [NOHSC:3003(2005)]*
- *AS 1319:1994, Safety Signs for the Occupational Environment*
- *AS/NZS 1715:2009, Selection, Use and Maintenance of Respiratory Protective Equipment*
- *AS/NZS 1716:2012, Respiratory Protective Devices*
- *NOHSC (1989b). Guidance Note on the Membrane Filter Method for the Estimation of Airborne Synthetic Mineral Fibres. [NOHSC:3006 (1989)] June 1989*
- *Environment Protection Act 2019 (NT).*
- *Environment Protection Regulations 2020 (NT).*
- *Waste Management and Pollution Control Act 1998 (NT)*
- *AS 2601 Demolition of Structures*

2 RISK ASSESSMENT CRITERIA

2.1 ACM RISK ASSESSMENT FACTORS

Identification of hazards and subsequent risk assessment is a core component of health and safety management in the workplace, and when dealing with asbestos it is a legal requirement. In order to assess the risk of identified ACM, there are several factors that must be considered to ensure appropriate action is taken where required. These factors include:

- Condition of the material
- Proximity of air plenums and direct air stream
- Friability of the material (ease with which the material can be crumbled) listed as either friable or non-friable
- Requirement for access for building or maintenance operations and accessibility (low, medium or high)
- Likelihood of disturbance of the material
- Exposed surface areas
- Environmental conditions.

These aspects are in turn judged upon; (i) potential for fibre generation; and, (ii) the potential for exposure. When these factors have indicated that there is a possibility of exposure to airborne fibres, appropriate recommendations for repair, maintenance or abatement of the asbestos containing materials are made.

2.2 ASBESTOS MATERIALS – RISK ASSESSMENT RATING

The purpose of a Risk Assessment Rating is to allow informed decisions to be made about ACM, including control measures or required remedial actions, induction and training, air monitoring, health surveillance requirements, etc. It also assists in the prioritisation of the implementation of management actions.

In order to assess the potential for fibre release from an ACM a Material Assessment is undertaken for each identified (sampled or assumed) material noted during the survey inspection.

The three principal parameters determining the amount of fibre released from an ACM when subject to disturbance are:

- Friability
- Condition (extent of damage and application of sealants)
- Potential to be disturbed.

Each of these variables are given a score which can then be added together to obtain a Material Assessment Rating (MAR) of between 2 and 7. A low MAR indicates a low potential for fibre release and a MAR indicates a high potential for fibre release. Non-asbestos containing materials are not scored. The MAR Algorithm used during the survey is provided in **Appendix B**.

3 CONTROL OPTIONS

When determining the most appropriate course of action for controlling asbestos risks, the hierarchy of controls should be referred to as a method to ensure that the most risk-weighted response is chosen. The hierarchy of controls from most effective to least effective for managing risk is listed below:

- **Elimination/removal** – Remove the hazard completely. Eliminating the hazard is the most effective way to manage risks.
- **Substitution** – Replace the hazard with a safer alternative.
- **Engineering Controls** – Change the design to implement safeguards to harm. This may include physically enclosing the hazard or installing protective barriers/ guards.
- **Administrative Controls** – Where the risk cannot be minimised sufficiently through the previous control options, documentation such as work procedures and including training and instruction may be implemented.
- **Personal Protective Equipment (PPE)** – PPE is the last line of defence against workplace hazards and should only be resorted to as a “no-alternative” option in conjunction with other higher order controls. Relying on PPE solely introduces additional risks involving correct fitment and use. Ensure any PPE to be used is checked, fitted correctly and maintained.

A combination of these controls may be required in order to manage ACM. The documents outlined in Section 1.3 of this report should be consulted whenever developing/implementing a control measure.

Since the ultimate goal is for the workplace to be free of all asbestos, preferential consideration should be given to removing ACM during renovation, refurbishment and maintenance activities etc. where removal is practicable.

Notwithstanding the above, asbestos materials and any areas of a workplace that contain asbestos materials including plant, equipment and components should be signposted with appropriate warning signs to ensure that asbestos materials are 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 materials are present and should conform with *Australian Standard 1319-1994 Safety Signs for the Occupational Environment*. The number of labels and the location of signage are to be determined by a competent person in consideration of access and usage requirements.

3.1 WARNING SIGNS AND LABELLING REQUIREMENTS

All areas of a workplace that contain ACM, including plant, equipment or components, must be signposted with warning signs, or labels, as appropriate to ensure personnel are not unknowingly exposed to asbestos when undertaking operational activities. These should be consistent with locations listed in the Asbestos Containing Materials Register.

The location, type and positioning of signs and labels must be decided, or authorised, by a competent person. Where removal is undertaken an exclusion zone of 10 metres should be maintained where practicable.

Asbestos warning signs must comply with the requirement of *AS 1319-1994 Safety Signs for the Occupational Environment* for size, illumination, location and maintenance. Warning signs may include some of the following examples:

Figure 3.1 Asbestos warning signs



4 RESPONSIBILITIES

Responsibilities of parties involved in the management of asbestos materials are outlined below. It should be noted that this is not an exhaustive list and reference should be made to the legislation, codes and standards identified in Section 10.

4.1 ASBESTOS MANAGEMENT AND INFORMATION FOR THE PCBU

- In accordance with the *Work Health and Safety (National Uniform Legislation) Regulations 2011 (NT)*, a principal contractor (Person Conducting a Business or Undertaking) shall:
 - Maintain an asbestos register for all ACM present on site
 - Comply with occupational health and safety and environmental legislation, regulations, standards, codes and the site-specific rules relating to safety contained in this AMP
 - Ensure that all persons involved with proposed project work have undertaken occupational health and safety training and are competently trained
 - Keep records of induction training for site workers/staff and any site-specific training
 - Ensure that any subcontractors provide safe work method statements for the activities for which they are engaged
 - Monitor any subcontractors to ensure that they are complying with the safe work method statements
 - Be responsible for the proposed project work at all times until the work is completed.
-

4.2 LICENSED ASBESTOS REMOVAL CONTRACTOR

For non-friable asbestos containing material, it is recommended that either a Class A (friable or non-friable) or Class B (non-friable only) Licensed Asbestos Removal Contractor (LARC) is engaged to complete the asbestos impacted material removal/make safe. Any removal/make safe works of friable asbestos occurrences require a Class A license. The LARC will be the primary person responsible and in charge for works on site involving ACM.

Their responsibilities include:

- Preparation of a site-specific Asbestos Removal Control Plan (ARCP) prior to any asbestos works being completed
- Ensuring compliance with relevant legislation and the conditions of this AMP
- Ensuring handling and management of ACM at the site is in accordance with relevant legislation
- Ensuring appropriate environmental and safety controls outlined in this AMP are maintained for the duration of the works
- Notifying WorkSafe NT prior to any asbestos removal works being completed
- Ensuring compliance with relevant legislation and the conditions of this AMP
- Ensuring appropriate environmental and safety controls outlined in this AMP are maintained for the duration of the works
- Assisting all site sub-contractors, where required, in complying with relevant legislation and the procedures outlined in this AMP.

4.3 CONSULTATION

The WHS Act requires the Client 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. Consultation on health and safety risks arising from work involving asbestos or ACM needs to comply with the Clients WHS Consultation Statement.

5 AWARENESS AND TRAINING

The PCBU must not allow any person to carry out project works unless he/she is satisfied that the person has undergone WHS induction training.

Work undertaken at the site is to be managed in accordance with regulatory requirements and the management systems of the PCBU. Prior to the commencement of any task, a safe work method statement (SWMS)/job risk assessment must be prepared to identify any potential for workers to be exposed to contaminants of concern.

In addition, all workers that will conduct work potentially involving asbestos on the site should have undertaken asbestos awareness training (either formal or in-formal, site specific) to ensure that workers on the site are familiar with the risks posed from asbestos and asbestos controls.

5.1 NON-COMPLIANCE

Non-compliance with the intent and procedures of the AMP may occur during the implementation of the AMP. Where a non-compliance is identified, they shall inform the site operator of the non-compliance in writing. The site operator shall have the responsibility of informing the non-complying party in writing of the non-compliance. The non-compliant party will be required to rectify the non-conformity as soon as possible, as per the requirements of the relevant procedure(s) where the non-compliance has occurred. Detail of the action taken to rectify the non-compliance shall be provided to the site owner. Where a non-compliance cannot be rectified, the AMP is to be reviewed.

6 ASBESTOS HANDLING AND DISTURBANCE PROCEDURES

6.1 ASBESTOS REMOVAL CONTROL PLAN (ARCP)

Prior to the commencement of any specific asbestos removal works, a site and material specific asbestos removal control plan (ARCP) must be developed by the LARC.

6.2 PERSONAL PROTECTIVE EQUIPMENT

All persons engaged in asbestos removal work should wear appropriate PPE including respiratory protective equipment (RPE) conforming with the requirements of *AS/NZS1716-2003 Respiratory Protective Devices* and *AS/NZS 1715:2009 Selection, Use and Maintenance of Respiratory Protective Devices*. Protective disposable coveralls must be chosen that provide particle-tight protection (Type 5) and limited splash-tight protection (Type 6). Disposable coveralls should not have external pockets or Velcro fastenings.

6.3 AIR MONITORING AND CLEARANCE PROCEDURES

6.3.1 AIR MONITORING

Monitoring locations shall be determined by the LAA (non-friable or friable removal works) or competent person (non-friable removal works only) but shall include locations surrounding the work area or site boundary. At the end of each monitoring period the pump and attached filter will be collected and analysed at a NATA-accredited laboratory.

Monitoring works shall be conducted in accordance with *NOHSC Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition (NOHSC:3003 [2005])*.

The results of air monitoring will be available prior to the commencement of work on the following business day (with exception to weekend monitoring). Daily air monitoring reports shall be displayed in a common area outside of the asbestos work area (e.g. site office or lunch shed) or be able to be produced upon request.

The following action levels will be applied upon receipt of daily results:

- Result of less than 0.01 fibres/mL – control measures in place are working effectively, site works to continue
- Result between 0.01 and 0.02 fibres/mL – a review of control measures shall be completed in the work area
- Result greater than 0.02 fibres/mL – works shall cease until the cause of contamination is identified and rectified (the removal contractor is required to notify SafeWork regarding the level of exceedance).

6.3.2 CLEARANCE PROCEDURES

During non-friable removal works, air monitoring and clearance inspections can be performed by a competent person or a licensed asbestos assessor (LAA).

- Only following satisfactory clearance inspection and air monitoring where required, will removal works be deemed as completed
- The LAA/ competent person will undertake a comprehensive visual inspection of the asbestos removal works area to ensure that all visible asbestos has been removed

- If removal works are not to the satisfaction of the LAA/ competent person, removal contractors will be required to re-enter the work area and rectify any issues arising from the inspection.

During friable asbestos removal works, air monitoring, clearance inspections and clearance monitoring must be undertaken by a LAA.

- Only following satisfactory clearance inspection and clearance air monitoring will removal works be deemed as completed
- The LAA will undertake a comprehensive visual inspection of the asbestos removal works area to ensure that all visible asbestos has been removed. Following this, asbestos ‘clearance’ monitoring must be undertaken and satisfactory
- If removal works are not to the satisfaction of the LAA, removal contractors will be required to re-enter the work area and rectify any issues arising from the inspection.

6.4 WASTE DISPOSAL

All asbestos containing materials removed must be either wrapped and sealed within 200 µm thick polythene or placed within 200 µm polythene bag which is no longer than 1200 mm and no wider than 900 mm wide.

All asbestos waste must be transported and disposed of in accordance with the requirements laid out in the *Environment Protection Regulations 2020* (NT).

Disposal dockets issued at the landfill weighbridge will be forwarded to the client. Additionally, all waste weighing over 100 kg or greater than 10 m² must be tracked using the EPA Waste Locate Tracking System. This system allows all loads to be tracked from when they leave the collection point until they arrive and are disposed of at the licenced landfill facility.

6.5 DECONTAMINATION

The LARC shall ensure that an area is established on the site for people to personally decontaminate themselves and any tools and equipment when they are entering and leaving each asbestos works zone.

- The details for decontamination shall be specified in the LARC’s ARCP and SWMS for asbestos related work and is to comply with the requirements outlined in *How to Safely Remove Asbestos: Code of Practice*, NT WorkSafe, 2020.

In summary, when leaving the removal work area all site personnel must enter the decontamination area, wash footwear, remove obvious signs of asbestos dust and remove coveralls and mask and place in 200 µm thick polythene bag.

The LARC shall ensure that an area is established on the site for people to personally decontaminate themselves and any tools and equipment when they are entering and leaving each asbestos works zone.

Non-reusable clothing and masks will be collected in asbestos bags for disposal by licensed asbestos removal contractors as asbestos waste. No waste will be removed from the site without the approval of the site operator.

At the conclusion of the works, any plant or equipment shall be parked within a designated washing area or wash bay. Decontamination should include removing all debris from the tracks, body and bucket of the plant as far as reasonably practicable.

All water generated from decontamination of asbestos impacted materials, persons or plant will be considered to be impacted by asbestos. All asbestos impacted water must be captured and prevented from movement outside the exclusion zone.

6.6 INACCESSIBLE AREAS

The status of the inaccessible areas should be confirmed as soon as practicable. Until suspected materials are confirmed to be non-asbestos, they should be treated as asbestos-containing.

If other ACM is discovered within the site, the unexpected finds and emergency procedure in section 6.8 should be followed.

6.7 MANAGEMENT PLAN REVIEW PERIODS AND UPDATES

Details of any asbestos handling and disturbance works must be documented within this management plan. Clearance certificates and air monitoring certificates should be filed with this document for a period of at least 30 years.

This management plan and Asbestos Containing Materials Register must be reviewed at least every five years or when requested by a health and safety representative or when asbestos is removed, disturbed, sealed or enclosed or when changes to a control measure are made or when the plan is no longer adequate.

6.8 UNEXPECTED FINDS AND EMERGENCY PROCEDURE

The ACM Emergency Procedure should be followed if damaged ACM or suspected damaged ACM is identified during normal occupation or use of the building or site. This emergency procedure should apply when there has been a dangerous incident that has exposed a worker or any person to a serious risk to the person's health and safety from an uncontrolled release of asbestos fibres. Depending on the nature of the emergency event, the site-specific Emergency Response Plan should also be followed, and an incident report should be made.

Communicate the incident to the Site Manager. The Site Manager will initiate and authorise further action/s.

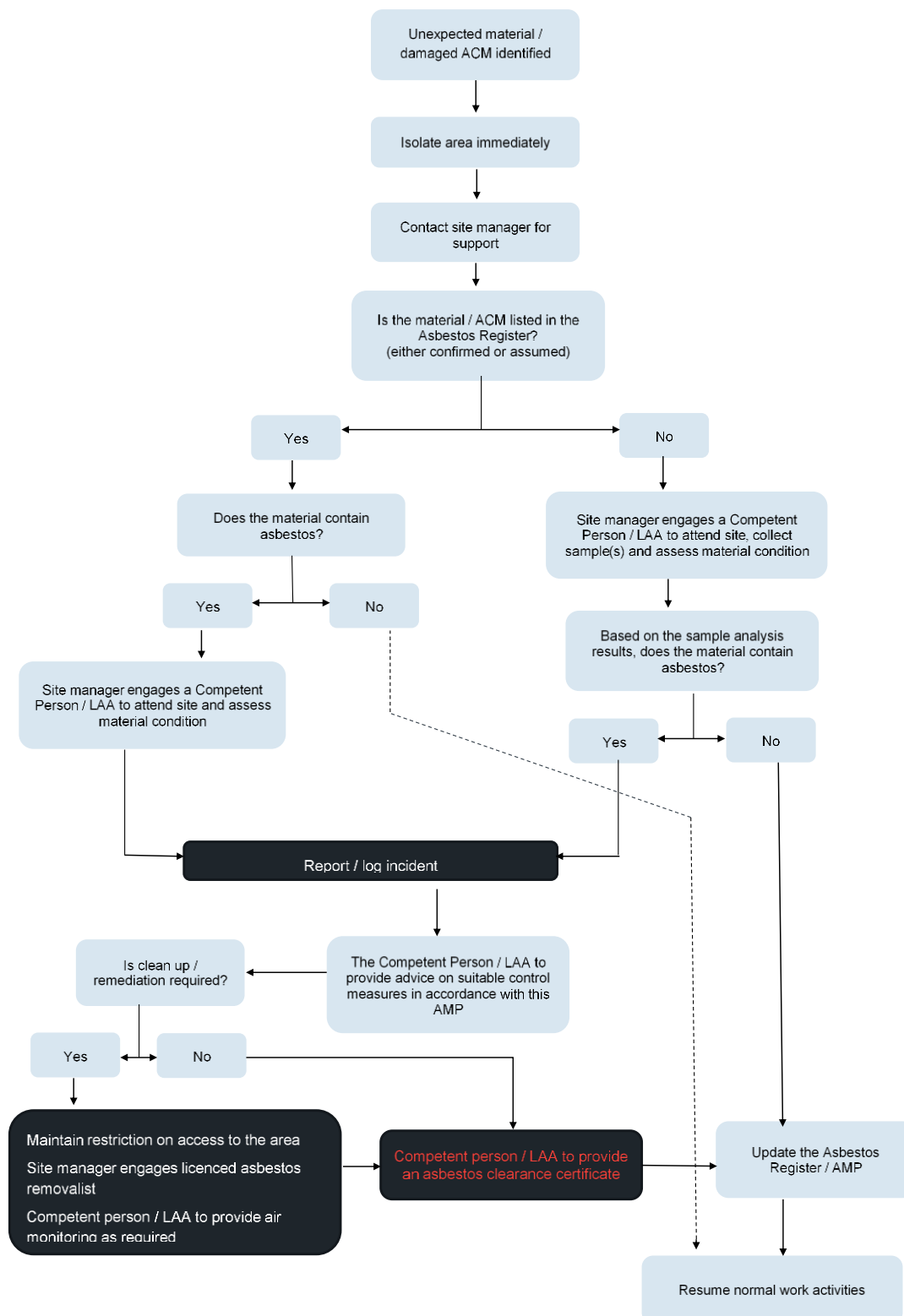
- 1 Unexpected Find/ Disturbance incident - Asbestos Detected.
- 2 STOP all work in the immediate affected area and isolate the area.
- 3 Evacuate personnel present in the vicinity and at risk of exposure to ACM.
- 4 Isolate the area using doors or barricade with warning signage and/or tape. Note if the emergency is a notifiable incident under the WHS Act, there may be a requirement to preserve the site. The Facilities Manager will advise on this requirement.
- 5 Engage a competent person or LAA to investigate the damaged or suspected ACM and determine if the asbestos is friable or non-friable.
- 6 In the case of a suspected asbestos containing substance, the material will undergo testing at a NATA accredited laboratory. Test results must be confirmed before further work can continue in the isolated area.
- 7 In the case of an emergency relating to exposure, investigation should include asbestos fibre air monitoring. Air monitoring must be conducted in accordance with the *National Occupational Health and Safety Commission (NOHSC) (2005), Guidance Note on the Membrane Filter Method for Estimation Airborne Asbestos Fibres [NOHSC:3003(2005)]*. Further action to be undertaken as per the engaged competent person or LAA's recommendations.
- 8 Recommendations are likely to include but not limited to; engaging a LARC in either Friable (Class A) or Non-friable (Class B) removal (depending on the assessment made) being engaged to remove / stabilise the damaged ACM. If licensed removal of asbestos is required, the commissioned LARC must prepare an ARCP. Further air monitoring may be required, clearance inspections undertaken, and clearance certificates prepared by a competent person/ LAA.

- 9 Update safe work method statements to reflect the management recommendations undertaken. Update AMP/HMMP and Asbestos Containing Materials Register.
- 10 A copy of the updated Asbestos Containing Materials Register shall be provided to all contractors before the commencement of works within the property.
- 11 Contractors shall undergo induction training before commencing works on the property.
- 12 Copies of the risk assessment (conducted in preparing a register entry) must be kept until at least 28 days after the work to which it relates is completed, and a copy of the safe work method statement until the work to which it relates is completed.
- 13 The cause of the emergency should be investigated and changes to work practices implemented as required.

See Figure 6.1 for a graphical representation of unexpected finds/ emergency procedures for ACM.

Figure 6.1 Emergency response flow chart

EMERGENCY SITUATIONS



During this protocol, other non-asbestos related risks may be encountered that may require modification to this protocol or adherence to a new agreed protocol. This protocol should be read in conjunction with the AMP.

7 RECOMMENDATION DESCRIPTION TABLE

The Recommendation Numbers provided in **Table 7.1** below relate to **Table 8.1** in **Section 8** of this report. All recommendations to be conducted in accordance with relevant legislation including; *Work Health and Safety (National Uniform Legislation) Act 2011 (NT)*. *Work Health and Safety (National Uniform Legislation) Regulations 2011 (NT)*. *How to manage and control asbestos in the workplace: Code of Practice*, NT WorkSafe, 2020. *How to Safely Remove Asbestos: Code of Practice*, NT WorkSafe, 2020. Australian Standard 1319-1994 *Safety Signs for the Occupational Environment*.

Table 7.1 Recommendation Numbers

Recommendation Number	Action	Action Priority
1	Minimal risk if left undisturbed, leave in place unless works are likely to cause disturbance or significant damage occurs. — Label as asbestos containing material — Consider further sampling/analysis to establish whether asbestos is present within the material (if not already undertaken) — Manage <i>in-situ</i> — Re-inspect conditions every 5 years or sooner if deemed necessary — Remove prior to any works in the area that may disturb the material — No buffing should be performed on asbestos containing VFT.	Medium 0-2 year Low 5-10 years
2	The material should be removed as soon as possible. — Seal-off area and erect appropriate warning signage — Undertake a suitable and sufficient Risk Assessment prior to access, which may include the use of appropriate PPE & RPE — Restrict access to maintenance/service personnel — Remove as soon as possible.	Immediate 0-6 months High 0-1 year
3	The material should be encapsulated as soon as possible. The materials can be left in place unless works are likely to cause disturbance or significant damage occurs. — Seal-off area and erect appropriate warning — Undertake a suitable and sufficient Risk Assessment prior to access, which may include the use of appropriate PPE & RPE — Restrict access to maintenance/service personnel — Encapsulate/enclose in as soon as possible — Label as asbestos containing material — Consider further sampling/analysis to establish whether asbestos is present within the material (if not already undertaken)	Immediate 0-6 months High 0-1 year Medium 0-2 year

Recommendation Number	Action	Action Priority
	— Manage in-situ — Re-inspect conditions every 5 years or sooner if deemed necessary — Remove prior to any works in the area that may disturb the material.	Low 5-10 years
4	Minimal risk if left undisturbed, leave in place unless works are likely to cause disturbance or significant damage occurs. — Label as asbestos containing material — Consider further sampling/analysis to establish whether asbestos is present within the material (if not already undertaken) — Seal damaged edges with an appropriate sealant such as Emerclad paint — Manage in-situ — Re-inspect conditions every 5 years or sooner if deemed necessary — Remove prior to any works in the area that may disturb the material — No buffing should be performed on asbestos containing VFT.	Medium 0-2 year Low 5-10 years
5	Minimal risk if left undisturbed and within boxing, leave in place unless works are likely to cause disturbance or significant damage occurs. However, dust within the boxing (if found or suspected to be asbestos containing) may require immediate action. — Seal-off area and erect appropriate warning signage — Undertake a suitable and sufficient Risk Assessment prior to access, which may include the use of appropriate PPE & RPE — Restrict access to maintenance/service personnel — Label as asbestos containing material — Consider further sampling/analysis to establish whether asbestos is present within the material (if not already undertaken) — Seal damaged edges with an appropriate sealant such as Emerclad paint — Manage in-situ — Re-inspect conditions every 5 years or sooner if deemed necessary — Remove prior to any works in the area that may disturb the material	Immediate 0-6 months Medium 0-2 year Low 5-10 years
6	The material should be encapsulated. The materials can be left in place unless works are likely to cause disturbance or significant damage occurs. — Label as asbestos containing material — Encapsulate/enclose — Manage <i>in-situ</i>	Medium 0-2 year

Recommendation Number	Action	Action Priority
	— Re-inspect conditions every 5 years or sooner if deemed necessary — Remove prior to any works in the area that may disturb the material	Low 5-10 years
7	Minimal risk if left undisturbed but as a precaution the materials should be encapsulated, leave in place unless works are likely to cause disturbance or significant damage occurs. — Label as asbestos containing material — Consider further sampling/analysis to establish whether asbestos is present within the material (if not already undertaken) — Consider further sampling/analysis to establish whether asbestos is present within the associated dust or on immediate areas — Encapsulate/enclose — A detailed roof inspection by a competent person, such as WSP, is recommended to investigate the potential for contamination in areas such as gutters, drains/pipes and air conditioning systems. Subsequent to this detailed inspection, recommendations can be made about the condition of the roof and an appropriate course of action detailed. — Manage in-situ — Re-inspect conditions every 5 years or sooner if deemed necessary — Remove prior to any works in the area that may disturb the material	Medium 0-2 year Low 5-10 years

8 ABESTOS MATERIALS MANAGEMENT PLAN

Where recommendations are made to re-inspect the condition of materials (e.g. every 5 years), the period until the next re-inspection commences immediately (e.g. re-inspection is to be undertaken within 5 years of the issuing of this report). Management plan items consist of inspected items

Table 8.1 Management Recommendations

Lot 2305 - Power House - External					
Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Perimeter, Eave linings above windows to all levels, Cement sheeting	Good, Sealed	Low	1		

Lot 2305 - Power House - Internal					
Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Ground Level Switch room, Unknown electrical components , Insulation material	Good, Sealed	Low	1		
Levels 1, 2, 3, 4, 5 & 7 Electrical cupboard, Electrical switchboard panel, Bituminous material	Good, Sealed	Low	1		
Levels 1 -7 Foyer to each floor, In front of elevators, Fire hose cupboard wall lining, Cement sheeting	Good, Unsealed	Low	3		
Plant room, Generator gasket , Gaskets	Good, Sealed	Low	1		
Plant room, Infill panel above entrance doorway, Cement sheeting	Good, Unsealed	Low	3		
Plant room, AHU surround wall lining, Cement sheeting	Good, Sealed	Low	1		
Plant room, Unknown electrical components, Insulation material	Good, Sealed	Low	1		
Lift motor room, Ceiling lining, Cement sheeting	Good, Sealed	Low	1		
Foyer to each floor, Fire door core, Insulation material	Good, Sealed	Low	1		

9 LIMITATION STATEMENT

This Report is provided by WSP Australia Pty Limited (WSP) for Randazzo C & G Developments Pty Ltd (Client) in response to specific instructions from the Client and in accordance with WSP's proposal and agreement with the Client dated (Agreement).

9.1 PERMITTED PURPOSE

This Report is provided by WSP for the purpose described in the Agreement and no responsibility is accepted by WSP for the use of the Report in whole or in part, for any other purpose (Permitted Purpose).

9.2 QUALIFICATIONS AND ASSUMPTIONS

The services undertaken by WSP in preparing this Report were limited to those specifically detailed in the Report and are subject to the scope, qualifications, assumptions and limitations set out in the Report or otherwise communicated to the Client.

Except as otherwise stated in the Report and to the extent that statements, opinions, facts, conclusion and / or recommendations in the Report (Conclusions) are based in whole or in part on information provided by the Client and other parties identified in the report (Information), those Conclusions are based on assumptions by WSP of the reliability, adequacy, accuracy and completeness of the Information and have not been verified. WSP accepts no responsibility for the Information.

Where the report identifies that hazardous materials are on Site, the Conclusions are indicative of the presence of hazardous materials and cannot be regarded as absolute without further extensive sampling, outside the scope of the services set out in the Agreement. Site conditions, including the extent and visibility of hazardous materials, can change with time. On all sites, varying degrees of non-uniformity of conditions are encountered and the presence of hazardous materials which are not visually apparent at the time of inspection, may not be detected. No monitoring, common testing or sampling technique provides results that are totally representative of the presence or non-presence of hazardous materials at the Site. Site conditions, including subsurface conditions can change with time due to natural and anthropogenic causes.

Only material that was physically accessible at the time of inspection was sampled. Consequently, not all hazardous material may have been located at the Site. The survey identifying hazardous materials on Site should be reviewed prior to demolition or refurbishment as a more detailed destructive survey may be required prior to demolition or refurbishment works. Care should be taken during normal Site works, refurbishment or demolition works when entering previously inaccessible areas. If suspect material is encountered, works should cease in the area until samples have been collected and analysed by competent personnel.

It is impossible to locate all hazardous materials during an inspection. This is due to such factors as (without limitation):

- Time, budget and constraints requested by the Client
- Access restrictions
- The need to avoid causing physical damage to fixtures or structures on the Site
- The need to minimise hazardous materials exposures to building occupants
- The need to minimise inconvenience when the Site is in use (e.g. occupied) whilst an inspection is being conducted, and / or
- The availability of relevant building / plant construction plans.

Hazardous materials that could be routinely encountered in the normal day-to-day activities occurring on the Site have been identified and assessed, however there is no guarantee that the Site is free of hazardous materials, since future activities may reveal hazardous materials in areas inaccessible or unknown to WSP.

Within the limitations referred to above, the preparation of this Report has been undertaken and performed in a professional manner in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by reputable consultants. No other warranty, expressed or implied, is made.

WSP has prepared the Report without regard to any special interest of any person other than the Client when undertaking the services described in the Agreement or in preparing the Report.

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This Report can only be relied upon for the Permitted Purpose and may not be relied upon for any other purpose. The Report does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise. It is the responsibility of the Client to accept (if the Client so chooses) the Conclusions and implement any recommendations in an appropriate, suitable and timely manner. WSP does not (and will not) accept liability arising out of or in connection with any health or safety risks associated with hazardous materials.

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APPENDIX A

GENERAL ASBESTOS INFORMATION



A1 BACKGROUND

Asbestos is the generic term for a group of naturally occurring mineral fibres with high tensile strength, flexibility, and resistance to thermal, chemical and electrical conditions. On account of these properties, asbestos has been used in many products for strength, heat, friction resistance and as insulation.

There are six types of the fibrous asbestos minerals, in two groups as described below:

- The serpentine asbestos is chrysotile (or white) asbestos. Chrysotile has been the most commonly used form of asbestos.
- Amphibole asbestiforms of which amosite (brown asbestos) and crocidolite (blue asbestos), were the most common types of amphibole asbestos used in building products.

Asbestos fibres enter the body by the inhalation and/or ingestion of airborne particles that can become embedded in tissues of the respiratory or digestive systems. International agencies and national authorities now recognise asbestos to be a human carcinogen. This designation was based on an observation of an increased incidence of lung cancer, mesotheliomas and gastrointestinal cancer in occupationally exposed workers, being consistent across investigators and study populations. Information from animal studies on the inhalation of fibres support these findings, although evidence for carcinogenicity via ingestion is limited.

In recognition of the above-mentioned issues, every effort should be made to eliminate the use of asbestos materials in buildings.

A2 USE OF ASBESTOS PRODUCTS

Asbestos was used extensively in structures such as buildings, processing plants, ships, trains and motor vehicles in the 1950s, 1960s and 1970s. Asbestos cement products are commonplace in building materials and buildings constructed prior to 1990.

Asbestos has been used in hundreds of different building materials. Some of the common building materials include:

- Adhesive sealants and paints.
- Electrical backing boards and internal linings.
- Vinyl floor tiles and vinyl sheets.
- Fibro-cement sheets in wall, ceiling and eave linings (internal & external).
- Fibro-cement internal flues and downpipes
- Bitumen-based water proofing such as malthoid (typically on roofs).

Whilst these materials are known to commonly contain asbestos, not all will. Confirmation must be made by detailed visual inspections coupled with laboratory analysis.

Generally, ACM consists of asbestos fibres bound in a cement matrix. The degree of fibre release and the risk posed by the asbestos will depend on the type of material (e.g. friable or non-friable), its condition and the potential for disturbance. As a result, it is necessary to have in place safe systems of work when working with or near asbestos.

A3 LEGISLATIVE REQUIREMENTS

State and Territory governments around Australia have generally adopted a consistent approach to asbestos management within workplaces. Whilst some minor differences are present from state to state, the following general requirements apply within workplaces:

- The owner of a workplace must determine if ACM are present in the workplace. This is usually undertaken through a visual inspection of the property.
- Upon identifying ACM, a risk assessment must be undertaken and must consider the following:
 - Friability
 - Condition
 - Location
 - Surrounding activities that could disturb the asbestos
- Where ACM is identified, it should be removed if removal is reasonably practicable. Where it is not reasonably practicable to remove, it must, depending on the level of risk, be either repaired, maintained and/or protected from future damage.
- ACM that is to remain in use (i.e. *in-situ*) must, when reasonably practicable, be labelled. An example of a warning label is shown below:

Figure A.1 Example asbestos warning label



- If ACM is found to be damaged, or is in a position where it is likely to be damaged, steps must be taken to prevent it being or becoming an unacceptable risk.
- If the risk of the ACM is found to be elevated, then steps must be taken to minimise the risk to employees / workers and other personnel who attend the workplace.

A4 HEALTH IMPACTS

As ACM is no longer used in Australia, most worker exposures now occur during the removal of asbestos and the renovation and maintenance of buildings and structures containing asbestos; particularly when asbestos is disturbed during activities such as handling, sawing, sanding, grinding, drilling, turning or similar.

The presence of asbestos may constitute a potential hazard; however, risk to health is based on the likelihood that respirable asbestos fibres are inhaled in significant quantities.

The level of risk posed by asbestos is linked to the size and shape of the fibres and the ability of it to penetrate deep into the lungs and become lodged. Fibres that measure less than three (3) microns wide and greater than five (5) microns long are referred to as respirable fibres and may enter the deepest part of the lungs. Larger fibres are deposited in the nose and major airways and can generally be cleared by normal physiological processes.

Once asbestos fibres have been inhaled (particularly respirable fibres) they can become lodged and are harder for our bodies to destroy, breakdown or remove. This is when they pose the greatest potential to cause disease and the likelihood of disease increases as the number of asbestos fibres inhaled increases.

Significant health risks may arise from the inhalation of airborne asbestos fibres, and their passage into the lungs. The risk of cancer increases as fibres diameter decreases and with increased exposure. Cigarette smoking greatly increases the risk of lung cancer in people heavily exposed to asbestos, but has no known association with mesothelioma.

Crocidolite and amosite have the most potent documented effects in producing the highly malignant mesothelioma tumour.

Asbestos fibres reaching the alveoli are handled in different ways. Some are carried out of the lung through the lymphatic system (part of the immune system). Of those fibres that remain some do not cause health effects whilst some may lead to lung changes such those outlined below:

Table 9.1 Asbestos health effects

Asbestosis	A form of fibrosis (scarring) of the lungs, which results in breathlessness. Asbestosis is a serious, chronic, non-cancerous respiratory disease. Asbestosis can take between 20 to 40 or longer years to develop.
Lung Cancer	Lung cancer is a disease which consists of uncontrolled cell growth in tissues of the lung. The incidence of lung cancer in people who are directly involved in the mining, milling, manufacturing and use of asbestos and its products is much higher than those who weren't involved in those industries.
Mesothelioma	Mesothelioma is a cancer of the outer covering of the lung (the pleura) or the abdominal cavity (the peritoneum). It is usually fatal. Mesothelioma is caused by the inhalation of needle-like asbestos fibres deep into the lungs where they can damage mesothelial cells, potentially resulting in cancer. The latency period is generally between 35 and 40 years, but it may be longer, and the disease is very difficult to detect prior to the onset of illness. Mesothelioma was once rare, but its incidence is increasing throughout the industrial world because of past exposures to asbestos. Australia has the highest incidence rate in the world.

The primary objective in any asbestos management plan is to eliminate, where possible, exposure to airborne asbestos fibres, or as a minimum, ensure workers are not exposed to fibre concentrations greater than the National Occupational Health and Safety Commission's occupational exposure standards for asbestos. It should be noted, that in situations where asbestos has been incorporated into a stable matrix and airborne dust is not generated, the asbestos-related health risk is negligible.

APPENDIX B

RISK MATRIX



RISK MATRIX

POTENTIAL TO BE DISTURBED

Score	Potential to be disturbed
High (3)	Disturbance may occur during typical occupancy of the building and is likely during maintenance works.
Medium (2)	Disturbance unlikely during typical occupancy of the building however may occur during maintenance works.
Low (1)	Disturbance unlikely during typical occupation of the building.

CONDITION

Score	Condition description
Poor (3)	Obvious damage or deterioration, extensive dust/contamination. Friable asbestos not encapsulated.
Fair (2)	Minor damage or deterioration, not sealed/encapsulated. Friable asbestos encapsulated (e.g. fire door) with no damage to encapsulation.
Good (1)	No obvious damage or deterioration, secured in place, sealed/encapsulated.
Unknown (1)	No access to assess condition.

FRIABILITY

Score	Friability Descriptor
Friable (1)	Material that; (A) is in a powder form or that can be crumbled, pulverised or reduced to powder by hand pressure when dry, and (B) contains asbestos.
Non-friable (0)	Material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound.

RISK MATRIX TABLE

Material Condition	Disturbance Potential		
	High (3)	Medium (2)	Low (1)
Poor (3)	>6	5	4
Fair (2)	5	4	3
Good / Unknown (1)	4	3	2

Note – Friable asbestos containing materials also assigned a score of one (1).

Legend

>6	High Risk
4-5	Medium Risk
2-3	Low Risk

ABOUT US

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