



Hazardous Building Materials Action Plan

Project
195-213 Fitzgerald Avenue & 40-64 Yorktown Parade,
Maroubra, NSW

Prepared for
New South Wales Land and Housing Corporation
(ABN 24 960 729 253)

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Maroubra Project Summary

The following project summary has been provided by the client.

Project Overview

This hazardous building materials action plan (HBMAP) has been prepared by Alliance Geotechnical Pty Ltd (Alliance) on behalf of Homes NSW for a State Significant Development Application (SSD-71454960) for the redevelopment of existing social housing (the Project) at 195-213 Fitzgerald Avenue and 40-64 Yorktown Parade, Maroubra (the Site). The Project involves the replacement of the 33 social housing units across eight 2 storey apartment buildings and a single storey dwelling with 144 units across four 3 storey buildings and two part 3/part 4 storey buildings.

The purpose of this HBMAP is to assist addressing relevant requirements related to the identification of hazardous building materials, as set out in SafeWork NSW (2022a), SafeWork NSW (2022b) and other relevant guidance, in the context of the proposed redevelopment works and to address the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 6 June 2024 which identified the following specific assessment requirements:

- Condition 17 – Waste Management: If buildings are proposed to be demolished or altered, provide a hazardous materials survey.

SEARs Requirement 17 - Waste Management		Section Addressing SEARs Requirement
If buildings are proposed to be demolished or altered, provide a hazardous materials survey.		Addressed throughout each report

Site Information

The Site is located within the Randwick City Council local government area (LGA) and is zoned R3 Medium Density Residential under the Randwick Local Environmental Plan (LEP) 2012.

The Site has a total area of approximately 9,596 square metres (sqm) with frontages to Fitzgerald Avenue to the north and Yorktown Parade to the south. Refer to **Figure 1**.

The existing buildings on the Site are currently occupied. There are street trees located along the Fitzgerald Avenue frontage and a series of trees within the Site between the buildings and along both street frontages.

The site is accessible by public transport with services that run along Fitzgerald Avenue with frequent services to Maroubra town centre and Bondi Junction, with connecting services to Sydney CBD.

Proposed Development

The proposed development comprises demolition of existing buildings and the construction of four 3 storey and two part 3/part 4 storey residential flat buildings to accommodate 144 social and affordable housing apartments, a communal room and a single level basement car park including bulk earthworks, tree removal and associated landscaping and public domain works.

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FIGURES

Figure 1 Site Location, Boundary and Current Layout Plan

APPENDICES

Appendix A Site Survey
Appendix B Proposed Development Plans

1 Introduction

1.1 Background

Alliance Geotechnical Pty Ltd (Alliance) was engaged by New South Wales Land and Housing Corporation operating as Homes NSW (the client) to prepare a hazardous building materials action plan (HBMAP) for pre-existing residential building structures located at 195-213 Fitzgerald Avenue and 40-64 Yorktown Parade, Maroubra NSW. The site location, boundary and current layout is shown on **Figure 1**.

At the commencement of the project, Alliance had the following project appreciation:

- The site is owned by the client;
- The site is occupied with eight residential two-storey buildings, one residential single-storey building, unsealed areas around the buildings, hardstand pavement driveways and footpaths. A current survey plan is presented in **Appendix A**;
- The site is proposed for development comprising demolition of existing buildings and the construction of four 3 storey and two part 3/part 4 storey residential flat buildings to accommodate 144 social and affordable housing apartments, a communal room and a single level basement car park including bulk earthworks, tree removal and associated landscaping and public domain works. A copy of the proposed development plans is presented in **Appendix B**;
- The proposed development is considered to be a state significant development under application number SSD 71454960 issued on 6 June 2024;
- A hazardous building material survey report for the site was carried out for Unit 4, 56 Yorktown Parade and reported in Alliance (2024);
- The client was not able to arrange access to the remaining internal building structures and units that make up the site for the purpose of undertaking a hazardous building material survey (HBMS) on the nine existing residential unit buildings and associated structures, due to the existing buildings being occupied/tenanted, however visual inspection of the external areas was possible; and
- This HBMAP is required to assist the client in addressing relevant requirements related to the identification of hazardous building materials, as set out in SafeWork NSW (2022a), SafeWork NSW (2022b) and other relevant guidance, in the context of the proposed redevelopment works and condition 18 of the Secretary's environmental assessment requirements (SEARs).

1.2 Objectives

The objective of this project was to prepare a HBMAP for the site that contains:

- A methodology to undertake a HBMS at the site, for the purpose of assessing the type, location, quantity, and condition of hazardous building materials in the reasonably accessible areas of each structure on site; and
- A strategy to address the removal of identified hazardous building materials during demolition of each building structure at the site.

It was not within the objectives of this project to address interim management of hazardous building materials between the survey being undertaken, and their subsequent removal.

1.3 Scope of Work

The following scope of works was undertaken to address the project objectives:

- Data assessment and reporting.

The nominated scope of works was primarily undertaken with reference to the relevant sections of ANZECC (1997), AS 4874-2000, AS/NZS 4361.1:2017, AS/NZS 4361.2:2017, HB 40.1-2001, NSW EPA (1997), NSW EPA (2004), NSW EPA (2014), SafeWork NSW (2022a) and SafeWork NSW (2022b).

2 Site Identification

2.1 Site Details

Site identification details are presented in **Table 2.1**.

Cadastral Identification	Lot 1 in Deposited Plan (DP) 668769, Lot 248-249 in DP36345
Geographic Coordinates (Google Earth)	33°56'47" S and 151°14'47" E
Site Area	Approximately 9,596 m ²
Local Government Authority	City of Randwick Council
Current Zoning	R2 – Medium Density Residential

2.2 Site Layout

The current layout of the site is present in **Figure 1**.

The layout plan includes locations of:

- Current nine residential unit buildings (noting there are structures attached and separate from these buildings, which this HBMAP also applies to).

A copy of a detail and level survey of the site is presented in **Appendix A**.

A site walkover was conducted by Alliance on 20 June 2024 to make observations of the general conditions of the site. Photographs of a selection of structures on site are presented in **Photograph 2.2.1** to **Photograph 2.2.11** below.

Image 2.2.1 Photograph taken facing north showing the single-storey bungalow located at 40 Yorktown Parade



Image 2.2.2 Photograph taken facing north showing a portion of the two-storey building located at 42-48 Yorktown Parade



Image 2.2.3 Photograph taken facing north-east showing a portion of the two-storey building located at 50-56 Yorktown Parade



Image 2.2.4 Photograph taken facing north-east showing a portion of the two-storey building located at 58-64 Yorktown Parade



Image 2.2.5 Photograph taken facing south-west showing a portion of the two-storey building located at 211-213 Fitzgerald Avenue.



Image 2.2.6 Photograph taken facing south-west showing a portion of the two-storey building located at 207-209 Fitzgerald Avenue.



Image 2.2.7 Photograph taken facing south-west showing a portion of the two-storey building located at 203-205 Fitzgerald Avenue.



Image 2.2.8 Photograph taken facing south-west showing a portion of the two-storey building located at 199 Fitzgerald Street.



Image 2.2.9 Photograph taken facing south-west showing a portion of the two-storey building located at 201 Fitzgerald Avenue.



Image 2.2.10 Photograph taken facing south-west showing a portion of the two-storey building located at 197 Fitzgerald Avenue.



Image 2.2.11 Photograph taken facing south showing a portion of the two-storey building located at 195 Fitzgerald Avenue.



3 Previous Hazardous Building Material Reports

A copy of the following reports held by Alliance were reviewed for the site:

- Alliance 2024, 'Hazardous Building Materials Survey, 4/56 Yorktown Parade, Maroubra, NSW 2035, dated 18 October 2024, ref: 17716-ER-4-1 Revision 2 (Alliance 2024).

3.1 Alliance (2024)

The objective of the survey was to determine the presence, location, quantity, condition, and type of ACM, ACD, LBP, LCD, SMF, PCBs and ODs within the building structure located at Unit No. 4 / 56 Yorktown Parade, Maroubra, prior to proposed demolition works.

The nominated scope of works was primarily undertaken with reference to the relevant sections of ANZECC (1997), AS 4874-2000, AS/NZS 4361.1:2017, AS/NZS 4361.2:2017, HB 40.1-2001, NSW EPA (1997), NSW EPA (2004), NSW EPA (2014), SafeWork NSW (2022a) and SafeWork NSW (2022b).

The scope of works undertaken to address the HBMS objectives included:

- Development of a task specific Safe Work Method Statement (SWMS);
- Inspection and destructive survey of the residential buildings and structures;
- Risk assessment and identification of all visible and accessible hazardous materials, including ACM, ACD, SMF, LBP, LCD, PCB and ODs;
- Sampling of suspect hazardous materials where necessary or possible;
- Laboratory analysis of the representative suspected hazardous building material samples collected; and
- Preparation of a Hazardous Building Material Survey Report, including Hazardous Building Materials Register in accordance with all relevant legislation and regulations.

Summary of survey findings are presented below:

- ACM was visually identified and presumed to be contained within the following locations:
 - Exterior roof and eaves, white coloured painted cement plasterboard (Sample ID: VO), on the residential building structure;
- No LBP were reported by the laboratory in the samples collected, with all lead concentrations reported below 0.1% w/w by mass in the dry film;
- No SMFs were visually identified/presumed within the accessible areas of the Unit or detected by the laboratory within the samples collected;
- No PCBs were visually identified/presumed within the accessible areas of the Unit; and
- No ODs were visually identified/presumed within accessible areas of the Unit.

Alliance note that nothing was identified which would preclude the proposed development with respect to hazardous building materials.

4 Hazardous Building Material Survey

4.1 Preamble

Given the age of the buildings, it is considered likely that they will contain hazardous building materials, and as such a pre-demolition hazardous building material survey (HBMS) will be undertaken on all buildings and structures on the site with the exception of Unit No. 4 / 56 Yorktown Parade, which was completed within Alliance (2024) when access is available to the buildings.

For the purpose of this survey, the following hazardous building materials will be considered:

- Asbestos containing materials (ACM);
- Asbestos containing dusts (ACD);
- Lead based paints (LBP);
- Lead containing dust (LCD);
- Synthetic mineral fibres (SMF);
- Polychlorinated biphenyls (PCB); and
- Ozone depleting substances (ODs).

4.2 Objective

The objective of the HBMS will be to assess the location, quantity, condition, and type of hazardous building materials in the reasonably accessible areas of each building structure on site.

4.3 Project Team

The project team and technical support experts identified for the project include the Alliance project director, Alliance project manager, and Alliance field staff.

4.4 Survey Methodology

4.4.1 Safe Work Method Statement

All parties involved in the survey will prepare a safe work method statement (SWMS) that documents:

- The task/s to be undertaken;
- Hazards associated with undertaking those task/s;
- A risk assessment of each hazard, considering consequence and likelihood;
- Control measures to be implemented to mitigate identified risks; and
- A re-assessment of each hazard, assuming control measure implementation, and showing a demonstrable decrease to the risk.

4.4.2 Personnel

The survey will be undertaken by an environmental consultant or occupational hygienist, with suitable survey experience, and relevant qualifications, including but not limited to an asbestos assessor licence.

4.4.3 Access

Areas and surfaces that are safely and reasonably accessible in structures will be surveyed. It is acknowledged that hazardous building materials may be concealed within restricted and/or inaccessible areas/voids at the time of the survey.

Areas and surfaces at the site which may not be safely or reasonably accessible, may include areas and surfaces that:

- Are considered unsafe to enter because they are structurally unsound
- Meet the definition of 'confined space;'
- Are subfloor voids or crawl spaces;
- Are only accessible by destruction of equipment or performing demolition works;
- Contain services including electricity, gas, water, chemical lines, or pressurised services;
- Require use of an elevated work platform (EWP);
- Are greater than 2.5 metres in height above ground level; and
- Are below-ground building structures including footings, foundations or service pits, confined spaces, voids.

4.4.4 Sampling

A walk-through will be undertaken of the accessible areas and surfaces in each building structure.

Building/structure fabric and fittings suspected of containing ACM, ACD, SMF, LBP, LCD, PCBs, and OCD will be identified initially by means of visual observation.

Assumptions regarding the presence or absence of hazardous building materials in inaccessible areas and surfaces, will be made at the time of the survey, using industry accepted practice and professional judgement.

Representative samples of suspected hazardous building materials will be collected using industry accepted practices, which may include use of a knife blade and/or pliers or ghost wipes for dust samples, and partial destructive techniques such as scraping surfaces and minor destruction of interior and exterior surfaces.

Representative sampling of different materials will consider multiple similar locations/situations that have been visually assessed, using professional judgement, as being comparable, to mitigate hazards associated with disturbance of hazardous building materials.

Sampling equipment will be decontaminated between sample collection at each location.

The location, type of material, accessibility, condition, friability, volume, and dimensions will be recorded for each suspected hazardous building material identified during the survey. A photographic record of suspected hazardous building material will be made.

4.4.5 Sampling Identification, Handling and Storage

The dust (ghost wipes) or material bulk samples collected will be placed in laboratory supplied zip-lock bags.

Samples will be identified using the relevant Alliance project number, the sampling point identification number and date the sample was collected.

Samples will be transported to the relevant analytical laboratory by Alliance or a third party courier, using chain of custody (COC) documentation.

4.4.6 Selection of Laboratory

The analytical laboratories used for this project will be reputable industry recognised environmental laboratories, which are NATA accredited for the analytical methods used.

4.4.7 Scheduling of Laboratory Analysis

Collected samples will be scheduled for laboratory analysis based on:

- The hazardous building material identified that the sample was collected from; and
- Observations made of the sample when collected.

4.4.8 Data Assessment and Reporting

At the completion of the hazardous building material survey, a hazardous building material survey report will be prepared with reference to relevant sections of hazardous building material guidance.

The hazardous building material survey report will include:

- An executive summary;
- Site identification details;
- Information on the scope of work undertaken;
- Field data collected (including text and photographs);
- Laboratory data;
- Laboratory data QA/QC assessment; and
- A register of the location, quantity, condition, and type of hazardous building materials in the reasonably accessible areas of each structure on site.

5 Hazardous Building Materials Removal

5.1 Preamble

Removal of hazardous building materials will be undertaken prior to demolition of buildings and structures, to facilitate mitigation of hazardous building material related:

- Work health and safety exposure risks to demolition workers on site;
- Health and safety exposure risks to offsite receptors; and
- Cross contamination of soils on the site.

5.2 Notifications and Approvals

Development consent or a construction certificate will be obtained (if required) from the relevant planning authority for demolition works.

Demolition works (if required) will be undertaken by a contractor holding an appropriate SafeWork NSW demolition licence.

Asbestos removal works (if required) will be notified to SafeWork NSW by the contractor.

The asbestos removal works will be undertaken by a contractor that will hold a:

- Class A licence for removal of friable asbestos / asbestos fines; and
- Class B licence for removal of bonded asbestos.

5.3 Structural Stability

The stability of structures (including, but not necessarily limited to footings, walls, buildings, and roads), which may be impacted by the proposed removal works) will be assessed by a suitably experienced structural consultant before commencing removal.

Recommendations made by the structural consultant will be incorporated by the removal contractor, into the execution of all relevant site works.

5.4 Asbestos Containing Materials and Dusts

Guidance in SafeWork NSW (2022a) and SafeWork NSW (2022b) will be used to inform selection of removal methods for asbestos.

Asbestos will be removed under controlled conditions by an experienced hazardous material removal contractor prior to demolition. The selection of the most appropriate removal method will be determined following risk assessment of the location, quantity, nature and extent of the material, and site-specific conditions.

5.5 Lead Paint and Dusts

Lead based paints will be managed in accordance with the relevant sections of AS4361.2-2017, including removal under controlled conditions by an experienced hazardous material removal contractor prior to demolition.

The selection of the most appropriate removal method will be determined following risk assessment of the location, quantity, nature and extent of the material, and site-specific conditions.

5.6 Synthetic Mineral Fibres

Synthetic mineral fibres will be removed in accordance with the relevant sections of NOHSC (1993) and <https://www.safework.nsw.gov.au/resource-library/manufacturing/safe-management-of-synthetic-mineral-fibres-smf-glasswool-and-rockwool>, including removal under controlled conditions by an experienced hazardous material removal contractor prior to demolition.

The selection of the most appropriate removal method will be determined following risk assessment of the location, quantity, nature and extent of the material, and site-specific conditions.

5.7 Polychlorinated Biphenyl

Polychlorinated biphenyl's will be removed in accordance with the relevant sections of ANZECC (2003) and ETU / ECAA / NECA (1993), including removal under controlled conditions by an experienced hazardous material removal contractor prior to demolition.

The selection of the most appropriate removal method will be determined following risk assessment of the location, quantity, nature and extent of the material, and site-specific conditions.

5.8 Ozone Depleting Substance Hazards

Ozone depleting substances will be removed in accordance with the relevant sections of HB 40.1-2001, including removal under controlled conditions by an experienced hazardous material removal contractor prior to demolition.

The selection of the most appropriate removal method will be determined following risk assessment of the location, quantity, nature and extent of the material, and site-specific conditions.

5.9 Waste Management

For information regarding management of wastes during hazardous building material removal works, refer to **Section 7.9**.

6 Hazardous Building Materials Clearance

6.1 Hazardous Building Materials Clearance Methodology

The hazardous building material clearance survey will be undertaken by a suitably experienced environmental consultant or occupational hygienist (holding an asbestos assessor licence, where asbestos clearance is involved).

A safe work method statement will be prepared for the hazardous building material clearance survey prior to it being undertaken.

A walk-through will be undertaken of the safely and reasonably accessible removal areas and surfaces of each structure, to make a visual assessment of whether ACM, ACD, SMF, LBP, LCD, PCBs and/or OCDs have been removed.

The environmental consultant or occupational hygienist will conduct clearance air monitoring (for friable asbestos or lead dusts only), using industry accepted practices (where applicable).

Representative material bulk and dust samples will be collected from within the removal areas using industry accepted practices, which may include use of a knife blade and/or pliers or ghost wipes for dust samples, and partial destructive techniques such as scraping surfaces and minor destruction of interior and exterior surfaces. Sampling equipment will be decontaminated between sample collection at each location.

The dust (ghost wipes) or material bulk samples collected will be placed in laboratory supplied zip-lock bags, and identified using the relevant Alliance project number, the sampling point identification number and date the sample was collected.

The location, type of material and accessibility will be recorded for each validation sample collected during the clearance visual assessment.

Collected samples will be scheduled for laboratory analysis based on the material types reported in the HBMS, and observations made during the hazardous building material clearance visual assessment.

Samples will be transported to the relevant analytical laboratory by Alliance or a third party courier, using chain of custody (COC) documentation.

The analytical laboratories used for this project will reputable industry recognised environmental laboratories, which are NATA accredited for the analytical methods used.

A photographic record of areas where hazardous building material has been removed, will be made.

6.2 Clearance Certificates

The environmental consultant or occupational hygienist will assess the results of the clearance visual assessment, the analytical results of the clearance validation samples and the results of the clearance air monitoring.

Subject to the findings of that assessment, the environmental consultant or occupational hygienist will issue a clearance certificate for the removal area/s, which will include a statement for the area/s being re-occupied under non-hazardous building material controls.

Clearance certificates will be prepared with reference to guidance provided in Appendix D of SafeWork NSW (2022a).

6.3 Removal Summary Report

At the completion of all removal works, a hazardous building materials removal summary report will be prepared.

The report will include:

- An executive summary;
- Site identification details;
- Information on removal works undertaken;
- Information on monitoring works undertaken;
- Information on waste management;
- Information on the validation works undertaken;
- A copy of all clearances issued; and
- Conclusions.

7 Site Management Plan

7.1 Register of Contacts

A register of contact details of stakeholders considered relevant to the project, is presented in **Table 7.1**.

Table 7.1 Register of Contacts

Role	Person	Stakeholder	Contact
Emergency Services	-	Police / Fire Ambulance	000
Site Owner	-	New South Wales Land and Housing Corporation	-
Project Owner	Naoise Gogan	New South Wales Land and Housing Corporation	0401 574 192
Planning Authority	-	City of Randwick Council	1300 722 542
WHS Regulatory Authority	-	SafeWork NSW	131 050
Environmental Regulatory Authority	-	NSW EPA	131 500
Environmental Consultant	Samuel Willis	Alliance Geotechnical	0472 784 385
Licensed Asbestos Assessor	Sam Jones	Alliance Geotechnical	0430 214 402
NSW EPA Accredited Site Auditor	Louise Walkden	Ramboll Group	0433 982 855

7.2 Emergency Preparedness and Response

An emergency assembly point will be established at an appropriate location, and this location communicated to workers and visitors during the site induction process. In the event an emergency situation arises, workers and visitors will assemble at this location (if safe to do so) and await further instructions from the site supervisor, project manager or emergency services.

Spill control kits and fire extinguishers will be located at appropriate locations at the site.

Contact details to be used in the event of an emergency, are presented in **Table 7.1**.

7.3 Community Relations

Occupants of properties adjoining the site and located immediately across the road from the site, will be provided with a notification of intent to undertake removal works on the site, a minimum of two business days before commencing those removal works.

A register will be maintained on site, for the recording of removal works related communications from the community.

Communication received from community about the removal works, will be directed to the project manager in the first instance. The project manager will arrange for the communication to be responded to, in accordance with arrangements agreed to between the removal contractor and the principal.

7.4 Signage, Security and Hours of Operations

The hours of operation at the site will be limited to:

- days and times set out in the relevant development consent conditions (if available).

The 24-hour contact details of the removal contractor will be put on a sign, and posted on the site boundary, adjacent to the site access point. The sign will be maintained by the removal contractor until completion of removal works.

Security of the site will be maintained for the duration of the removal works, with appropriate boundary fencing/barricades and access point locks.

7.5 Workplace Health and Safety

7.5.1 Safe Work Method Statements

All parties intending to undertake tasks in the removal area/s will prepare a safe work method statement (SWMS) that documents:

- The task/s to be undertaken;
- Hazards associated with undertaking those task/s;
- A risk assessment of each hazard, considering consequence and likelihood;
- Control measures to be implemented to mitigate identified risks; and
- A re-assessment of each hazard, assuming control measure implementation, and showing a demonstrable decrease to the risk.

7.5.2 Personal Protective Equipment (PPE)

The following personal protective equipment (PPE) will be worn (as a minimum) by all persons working on, or visiting, the removal work area/s:

- Eye protection (e.g. safety glasses or goggles);
- Long sleeves and long pants;
- A high visibility vest (or clothing);
- Protective footwear (e.g. safety boots);
- Hard hat; and
- Cut resistant gloves.

Additional PPE or respiratory protective equipment (RPE) may also be required, subject to the control measures set out in the SWMS for the task.

These may include, but not be limited to:

- For asbestos, lead and SMF:
 - Lace less steel capped safety boots/rubber rolled work shoes/steel capped gum boots;
 - Disposable latex/nitrile gloves (non-penetrable);
 - Boot covers;
 - Coveralls (type 5, category 3 (EN ISO 13982–1) or equivalent that would meet this standard; and
 - Disposable half-face particulate respirator (P3 rated or higher): The respirator will comply with requirements of AS/NZS 1716:2009 *Selection, Use and Maintenance of Respiratory Protective Devices* or its equivalent.
- For PCBs:
 - Gloves that are resistant to PCB (not PVC or latex);
 - Chemical resistant (e.g. Tyvek) coveralls;
 - Full face shields;
 - Hair protection; and
 - Twin cartridge respirators suitable for chlorinated vapours.

7.5.3 Occupational Hygiene

Atmospheric monitoring will be undertaken (subject to the findings of the risk assessment in the relevant SWMS), or as may be recommended by a suitably experienced occupational hygienist.

Monitoring may include:

- Airborne fibre monitoring during asbestos and/or synthetic mineral fibre (SMF) removal works; and
- Airborne lead monitoring during lead paint and dust removal works.

Plant and equipment will be appropriately decontaminated before leaving a removal works zone.

7.5.4 Decontamination

The following decontamination procedure will apply to all persons exiting the removal work area/s:

- Cleaning of protective footwear, including removal of potentially contaminated material from the soles of the footwear; and
- Washing of hands (including prior to eating, drinking, or smoking).

7.6 Asbestos Removal Control Plan (ARCP)

An ARCP will be prepared before licensed asbestos removal work commences, with reference to Appendix B in SafeWork NSW (2022).

The ARCP will include details of:

- How the asbestos removal will be undertaken, including the method, tools, equipment, and PPE to be used; and
- The asbestos to be removed, including the location, type, and condition of the asbestos.

Specifications and drawings relevant to the asbestos removal work, will be attached to the ARCP, to provide additional information about the asbestos.

Preparation of the ARCP will include, as far as is practicable, consultation with the client, the person with management or control of the site, workers, and workers' health and safety representatives.

For residential asbestos removal work, the person conducting a business or undertaking (PCBU), and the owner/occupier will also be consulted.

Once prepared, copies of the ARCP will be:

- Given to the person who commissioned the licensed asbestos removal work
- Kept at the workplace until the completion of the asbestos removal work; and
- Readily accessible on site for the duration of the licensed asbestos removal work, to:
 - PCBU at the workplace;
 - Workers or their health and safety representatives; and
 - The occupants of the premises (if the work is carried out in residential premises).

The ARCP will also be made available for inspection under the Work Health and Safety Act 2011.

If a notifiable incident occurs in connection with the asbestos removal work to which the ARCP relates, the licensed asbestos removalist will keep the plan for at least two years after the incident occurs.

7.7 Traffic Management

The removal contractor will:

- Ensure vehicles exit the site in a forward direction;
- Arrange for receipt and dispatch of materials during approved removal working hours (refer **Section 7.4**);
- Securely cover all loads to prevent dust or odour emissions during transportation; and
- Utilise suitable experienced and qualified traffic controllers (as required).

Traffic and haulage routes will be selected based on:

- Compliance with traffic road rules;
- Opportunities to mitigate noise, vibration, dust, and odour impacts to properties/occupants adjacent to the site; and
- Preference for state controlled roads (as opposed to local roads).

7.8 Soil and Stormwater Management

7.8.1 Site Access and Egress

A sediment and erosion control plan will be prepared by the removal contractor, to suit the nature and staging of the removal works. Control measures will be operated and maintained by the removal contractor, until completion of the removal works.

Vehicle and plant site access/egress will be managed to prevent soils being tracked onto roads and pathways external to the site (e.g. gravels, gabions, cattle grids). Soil will be broomed or washed off tyres/tracks prior to the vehicle or plant leaving the removal work area. Broomed/washed soil will be managed onsite, depending on its likely contamination status.

Surface stormwater generated from (or travelling through) the removal works area, will be managed using relevant sediment and water control measures set out in Landcom (2004) 'Managing Urban Stormwater: Soils and Construction' dated March 2004', to achieve appropriate stormwater quality outcomes. The management measures outline the requirements to help mitigate land and water degradation during the development works.

In the event soils are tracked onto roads or pathways external to the site, these soils will be removed by sweeping and/or shovelling.

7.8.2 Stockpiles

Stockpiles of material generated during removal works will be:

- Generally constructed as low elongated mounds on level surfaces;
- Placed away from stormwater pits, drainage lines and gutters;
- Not located on footpaths or nature strips, unless approved by the local planning authority;
- Stored in secure areas and covered if remaining on site for more than 24 hours; and
- Kept damp if containing (or suspected of containing) asbestos.

7.8.3 Site Rehabilitation

Areas of the site that become exposed as a result of removal works, will be stabilised progressively, as removal works are completed.

Stabilisation methods will be maintained until such time as they are no longer required (e.g. vegetation becomes established and self-sustaining, or site development work commences).

7.9 Waste Management

Wastes generated during removal works will be removed from site for disposal, with reference to NSW EPA (2014).

The removal contractor will maintain detailed records of each load of waste generated during removal works, including:

- The location the waste was generated from;
- The classification of the waste;
- The date and time the waste was removed from the site;
- The vehicle registration number of the waste transport vehicle;
- Evidence of Integrated Waste Tracking Solution (IWTS) information (where applicable)
- The volume of each waste type removed from site;
- Weighbridge receipt docket from the waste receiving facility; and
- The number of the environment protection licence (EPL) authorising the receiving facility to accept that classification or waste.

7.10 Dust Control

The following control measures will be implemented to mitigate risk of dust emissions migrating beyond the boundary of the removal work area/s:

- Erection of dust screens around the perimeter of the site (e.g. fencing with shade cloth attached);
- Securely covering all loads entering or exiting the site;
- Use of water sprays across the site to suppress dust;
- Covering stockpiles if remaining on site for more than 24 hours;
- Keeping excavation surfaces moist;
- Sweeping of hardstand surfaces;
- Minimising soil disturbance works during windy days; and
- Retaining stabilised site access/egress points for vehicles.

7.11 Odour Control

Should odours be detected at the site boundary during removal works, monitoring of those odours may be undertaken, using methods¹ suited to the odour type, based on recommendations from a suitably experienced odour consultant (if required). This may include:

- Use of appropriate covering techniques such as plastic sheeting to cover removal areas or removed materials;
- Use of fine mist sprays (which may incorporate deodorizing agents); and
- Adequate maintenance of equipment and machinery to minimise exhaust emissions.

7.12 Airborne Asbestos Fibre Monitoring

Airborne asbestos fibre monitoring will be undertaken on site by a Licensed Asbestos Assessor (LAA) during friable asbestos removal or handling.

Monitoring during bonded asbestos removal, will be undertaken, subject to advice provided by the occupational hygienist/competent person appointed to the project.

Monitoring will be used to validate controls put in place to mitigate potential asbestos exposure.

Portable battery operated air monitors will be placed in static positions approximately 1.5m above the ground surrounding the asbestos handling / removal area.

Analysis of monitors will be undertaken by a NATA-accredited laboratory. The results of analysis will be compared to the criteria presented in **Table 7.12** and the appropriate action applied.

¹ Methods could include instrumental, chemical analysis, electronic, sensory tests or olfactometry.

Table 7.12 Atmospheric Monitoring Action Criteria and Measures

Detected Concentration (fibres per millilitre)	Action
<0.01	Continue with established control measures
0.01 to 0.02	Review established control measures Investigate probably cause Establish additional control to mitigate further fibre release
>0.02	Stop works Notify the relevant regulatory authority that work has ceased Investigate probably cause Extent the works exclusion zone Establish additional control to mitigate further fibre release Do not re-commence work until detected concentrations are at or below 0.01 fibres per millilitre

7.13 Noise and Vibration Control

Plant and equipment being utilised for removal works, will be fitted with noise attenuation devices (e.g. exhaust mufflers). Where possible, selection and use of reversing alarms will avoid standard tonal pulse alarms.

Vehicle access roads will be designed to mitigate the need for vehicles and mobile plant to reverse during travel (e.g. creation of turning circles in the immediate vicinity of removal work area/s).

'Offensive noise,' as defined under the Protection of the Environment Operations Act 1997, will not be emitted beyond the site boundary, during removal works.

Vibrations generated during removal works will be managed to mitigate risk of damage to structural assets and risk of amenity loss to adjacent land occupiers. Advice from geotechnical, structural or vibration consultants will be sought, if required.

7.14 Site Incident Contingency Plan

There are inherent risks of incidents to occur onsite that may affect the surrounding environment and community. Based on the site history information made available to Alliance for preparation of this plan, it is considered plausible that incidents involving the surrounding environment and community, outlined in **Table 7.14**, could occur during site works.

Contingency plans and protocols to be implemented, should those incidents occur, are presented in **Table 7.14**.

Table 7.14 Site Incident Contingency Plan

Site Incident	Contingency Plan
High levels of dust detected outside the boundary of the site as a result of site works	<p>Stop works, notify relevant stakeholders.</p> <p>Assess the application and effectiveness of measures outlined in Section 7.10.</p> <p>If measures are assessed to be inappropriate, consider additional measures, such as (but not limited to) postponing of works to account for poor weather conditions, or similar, and update the site management plan.</p>
High levels of odours detected outside the boundary of the site as a result of site works	<p>Stop works, notify relevant stakeholders. Assess the application and effectiveness of measures outlined in Section 7.11.</p> <p>If measures are assessed to be inappropriate, consider additional measures, such as engaging a suitably experienced odour consultant, or similar, to assess and provide advice on odour management.</p>
Asbestos detected above 0.02 fibres per millilitre in asbestos air monitors at site boundaries	<p>Stop works, notify relevant stakeholders, and as per Table 7.12:</p> <ul style="list-style-type: none"> ○ Notify the relevant regulatory authority that work has ceased. ○ Investigate probable cause. ○ Extend the works exclusion zone. ○ Establish additional control to mitigate further fibre release. ○ Do not re-commence work until detected concentrations are at or below 0.01 fibres per millilitre.
High levels of noise and/or vibration detected outside the boundary of the site as a result of site works	<p>Stop works, notify all necessary stakeholders, and assess the applications and effectiveness of measures outlined in Section 7.13.</p> <p>If measures are assessed to be inappropriate, consider additional measures, such as engaging a suitably experienced geotechnical, structural or vibration consultant, or similar, to assess and provide advice on noise / vibration management.</p>

8 Conclusions

Alliance considers that:

- The type, location, quantity, and condition of hazardous building materials in the reasonably accessible areas of each structure on site can be assessed; and
- The identified hazardous building materials can be removed during demolition of each structure at the site,

can be achieved by implementation of the strategies, methodologies, plans, and procedures set out in this plan.

This report must be read in conjunction with the ***Important Information About This Report*** statements at the front of this report.

9 References

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SafeWork New South Wales (2022b) Code of Practice: How to Manage and Control Asbestos the Workplace

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FIGURE

APPENDIX A – Site Survey Plan

APPENDIX B – Proposed Development Plans