

Level 19, Tower B, Citadel Tower, 799 Pacific Highway Chatswood NSW 2067 Australia

> t: +61 2 9406 1000 f: +61 2 9415 1678 <u>coffey.com</u>

13 May 2020

Our ref: 754-SYDEN233731

CBRE / SINSW Level 21, 363 George Street Sydney NSW 2000

Attention: Ranya Samaan

Dear Ranya,

Mosman Public School – Update to Asbestos and Hazardous Materials Report

Coffey issued an Asbestos and Hazardous Materials Report for Mosman Public School following the completion of a limited pre demolition asbestos and hazardous materials survey in October 2019. The report (Document Ref. 754-SYDEN233731 – Mosman High School Report) was issued on the 7th November 2019.

CBRE (acting for SINSW) has now requested Coffey to revise the Asbestos and Hazardous Materials report in accordance with the State Significant Development Application (SSDA). There have been some changes to the design of the development and, in particular the staging of the redevelopment works as shown on the Staging Presentation drawings dated 11/5/2020 issued to Coffey by CBRE.

The proposed scope of work outlined in the Staging Presentation drawings dated 11/5/2020, has been covered in the Asbestos and Hazardous Materials Report issued by Coffey (refer to Appendix A – Asbestos and Hazardous Materials Register).

This letter serves to confirm that Coffey has reviewed and updated the Asbestos and Hazardous Materials Report issued on November 7th 2019 to reflect the current concept Design and staging of construction. The revised report is appended to this letter. It should be noted that no additional investigation works were carried out, or were deemed to be required, as a result of the design changes. This letter should be read in conjunction with the limitations of the report.

For and on behalf of Coffey

Willinson

Richard Wilkinson National NATA Accreditation Manager (ISO17020/ISO17025)



CBRE

Limited Asbestos and Hazardous Materials Pre-Demolition Survey R02

Mosman High School 769 Military Road Mosman NSW 2088

13 May 2020

Please note this report supersedes the previous report dated 7 November 2019, this is due to requested report clarifications from the client, clarifications can be found in Appendix E.



When you think with a global mind problems get smaller This page has been left intentionally blank

Limited Asbestos and Hazardous Materials Pre-Demolition Survey R02

Prepared for CBRE

Prepared by Coffey Services Australia Pty Ltd Level 19, Tower B, 799 Pacific Highway Chatswood NSW 2067 Australia t: +61 2 9406 1000 f: +61 2 9406 1002 ABN: 55 139 460 521

Quality information

Revision history

Revision	Description	Date	Originator	Reviewer	Approver
R01	Final	7/11/2019	Phoebe Quessy	Aaron Holmes	Aaron Holmes
R02	Final	13/05/2020	Phoebe Quessy	Richard Wilkinson	Aaron Holmes

Distribution

Report Status	No. of copies	Format	Distributed to	Date
R01 Final	1	PDF	CBRE	7/11/2019
R02 Final	1	PDF	CBRE	13/05/2020

13 May 2020 SYDEN233731

Limitations

Coffey has conducted work concerning the environmental status of the property which is the subject of this report, and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Coffey. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Coffey for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The survey brief is to identify every reasonably accessible ACM. Reasonably accessible does not extend to searching for concealed ACM beneath concrete encased structural beams or beneath concrete floors, behind another ACM, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which ACM was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Hazardous Materials surveys are restricted to areas that are reasonably accessible during the survey, with respect to the following:

- without contravention of relevant statutory requirements or codes of practice;
- without placing the surveyor at undue risk;
- without dismantlement or damage to installed fixtures and fittings, plant, electrical equipment, machinery; and
- without dismantlement, demolition or damage to finishes and structure.

Any areas within the remit of the survey but not described within the body of the report or in the Asbestos Material Assessments should be regarded by the client as un-surveyed, and potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Coffey assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be

presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore the accuracy of all results cannot be guaranteed.

Notably, with some asbestos-containing bulk material it can be very difficult to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos and lead-based paint, and any fluorescent lights inside the buildings should be assumed to contain PCB capacitors until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Coffey will not update the report and has not taken into account events occurring after the time its assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during surveys of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- Risers / Ceiling, Floor or Wall Cavities, and Voids may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- Columns / Structural Elements these will not be penetrated if doing so will damage the stability of the building.
- Roofs / External Areas these will not be checked if safe access cannot be achieved.
- Confined Spaces these will not be checked if safe access cannot be achieved.
- Restricted Access areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the survey.
- Lifts / Shafts these will not be checked for safety reasons unless a lift engineer accompanies the surveyor.
- Live Plant or Electrical Installations live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician.
- Boilers may contain asbestos internally, which is not visible or accessible until the unit is dismantled. Note: Where a bulk sample is obtained from a non-dismantled boiler it should not be regarded as definitive of all materials contained within the boiler's structure.
- Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled
- Safes the walls of some safes cannot be penetrated even where access arrangements have been made.

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

Table of contents

Limi	tations	\$. ii					
1.	Introd	uction		.1					
	1.1.	Backgr	ackground1						
	1.2.	Site De	scription	. 1					
	1.3.	Scope .		.2					
2.	Metho	odology.		.2					
3.	Asses	ssment F	-indings	.3					
	3.1.	Hazard	ous Building Materials	.3					
		3.1.1.	Asbestos Containing Materials	.3					
		3.1.2.	Synthetic Mineral Fibres	.4					
		3.1.3.	Lead Based Paint	.4					
		3.1.4.	Lead Containing Dust	.4					
		3.1.5.	Polychlorinated Biphenyls	.5					
		3.1.6.	Ozone Depleting Substances	.5					
	3.2.	Areas o	of No Access	.5					
4.	Reco	mmenda	ations	.7					
	4.1.	Asbest	os Containing Materials	.7					
	4.2.	Synthe	tic Mineral Fibres	.7					
	4.3.	Lead C	ontaining Dust	.8					
	4.4.	Lead B	ased Paint	.8					
	4.5.	Polychl	orinated Biphenyls (Capacitors Only)	.9					
	4.6.	Ozone	Ozone Depleting Substances (Refrigerants)9						
	4.7.	Training	g	.9					
5.	Risk /	Assessm	nent	11					
	5.1.	Actions	for Asbestos Materials	15					
6.	Biblio	graphy		8					

Appendices

- Appendix A Asbestos and Hazardous Materials Register
- Appendix B Photographs
- Appendix C Laboratory Analysis Certificates
- Appendix D Asbestos Legislative Requirements
- Appendix E Report Clarifications

Executive summary

Coffey Services Australia Pty Ltd (Coffey) conducted a limited pre-demolition asbestos and hazardous materials survey of Mosman High School (Building Blocks B, C, D and E), 769 Military Road, Mosman NSW 2088 (the site). A full pre-demolition survey could not be undertaken, as the school is operational and occupied by staff and pupils. The objectives of this assessment were to:

- Identify and assess the health risk posed by hazardous building materials which may be encountered during future demolition works.
- The hazardous materials survey involved the investigation and identification of Hazardous Materials inclusive of Asbestos Containing Materials (ACM). Other hazardous materials included Lead Based Paint systems (LBP), Lead Containing Dust (LCD), Ozone Depleting Substances (ODS), Polychlorinated Biphenyls in light capacitors (PCB) and Synthetic Mineral Fibre (SMF) in accessible areas.

This was defined within the scope of works determined with the client prior to commencement of the survey.

From the site survey and laboratory analysis results (where applicable), a register of hazardous materials has been produced, in accordance with the requirements of the relevant Codes of Practice and Guidance Notes.

This contract was completed by Coffey on the basis of a defined program of work and terms and conditions agreed with the Client. We confirm that in preparing this report we have exercised all reasonable skill and care bearing in mind the project objectives, the agreed scope of works and prevailing site conditions. The client should be made aware of the limitations of a survey being conducted in a destructive manner and is referred to in the above limitations.

The asbestos information in this report is supplied on the understanding that the area surveyed is scheduled for major demolition works, and that identified Asbestos and other Hazardous Materials will be removed prior to, or as part of these works. Asbestos or other Hazardous Materials remaining in situ will need to be detailed in the site specific Hazardous Materials Register and Asbestos Management Plan as required by the Work Health and Safety Regulation, 2017.

The following asbestos and hazardous materials were identified or suspected to be present at the time of assessment:

Asbestos Containing Materials (ACM)

Block B

No asbestos materials were identified or suspected to be present at the time of the survey.

Block C

- Exterior: all levels, throughout, eaves asbestos containing fibre cement sheeting; and
- Exterior: all levels, throughout, beading to eaves asbestos containing fibre cement sheeting.

Block D

- Exterior: all levels, throughout, eaves asbestos containing fibre cement sheeting;
- Exterior: all levels, throughout, beading to eaves asbestos containing fibre cement sheeting;
- Exterior: ground level, entrance awning, ceiling asbestos containing fibre cement sheeting;
- Interior: all levels, throughout, ceiling asbestos containing fibre cement sheeting;
- Interior: level 1, staff toilets in print room, walls asbestos containing fibre cement sheeting;
- Interior: level 1, R1049 tea room, floor suspected asbestos containing backing material, under floor covering;

- Interior: ground level, boy's toilets (R0086), urinal suspected asbestos containing mastic behind urinals;
- Interior: ground level, girl's toilets (R0065), partition walls suspected asbestos containing fibre cement sheet; and
- Interior: ground level, boy's toilets (R0063), urinal suspected asbestos containing mastic sealant, behind urinals.

Block E

• Exterior: throughout, window frames - asbestos containing window mastic.

Synthetic Mineral Fibres (SMF)

Block B

- Interior: ground level, administration lunch room, hot water boiler suspected SMF containing internal insulation;
- Interior: ground level, hall, ceiling suspected SMF containing compressed ceiling tiles; and
- Interior: ground level, theatre, behind wooden walls suspected SMF containing insulation material.

Block C

No SMF containing materials were identified or suspected to be present at the time of the survey.

Block D

• Interior: ground level, staff room, hot water boiler – suspected SMF containing internal insulation.

Block E

- Interior: all levels, throughout, air conditioning ductwork suspected SMF containing internal insulation material;
- Interior: all levels, throughout ceiling space suspected SMF containing sarking insulation; and
- Interior: ground level, throughout ceiling space suspected SMF containing insulation.

Lead Based Paint (LPB)

Block B

No lead based paint was identified or suspected at the time of the survey.

Block C

No lead based paint was identified or suspected to be present at the time of survey.

Block D

- Interior: all levels, throughout walls 0.19% w/w lead containing light-blue paint;
- Interior: all levels, throughout, window frames 0.28% w/w lead containing white paint;
- Interior: all levels, throughout, walls 0.15% w/w lead containing white paint; and
- Interior: ground level, toilet within D2A, walls and ceiling 0.21% w/w lead containing light-blue paint.

Block E

No lead based paint was identified or suspected to be present at the time of the survey.

Lead Containing Dust (LCD)

Block B,

• Interior: throughout, ceiling space – suspected lead containing dust.

Block C

• Interior: throughout, ceiling space – suspected lead containing dust.

Block D

- Interior: throughout, ceiling space suspected lead containing dust; and
- Interior: corridor adjacent D32A, ceiling space 790 mg/kg lead containing dust; and
- Interior: ground level, girls toilets, ceiling space 80 mg/kg lead containing dust.

Block E

- Interior: ground level, major projects room, within air conditioning ductwork 1000mg/kg lead containing dust;
- Interior: ground level, major projects room, surfaces below air conditioning ductwork 120mg/kg lead containing dust;
- Interior: ground level, major projects room, metal store, floor 240mg/kg lead containing dust;
- Interior: level 1, lab 3 within riser under white board 200mg/kg lead containing dust;
- Interior: level 2, ceiling space 200mg/kg lead containing dust;
- Interior: throughout, ceiling space suspected lead containing dust; and
- Interior: throughout, air conditioning ductwork suspected lead containing dust.

Polychlorinated Biphenyls (PCBs)

- Interior: throughout, light fittings suspected PCB containing capacitors; and
- Exterior: throughout, light fittings suspected PCB containing capacitors.

Ozone Depleting Substances (ODS)

Block B

• Exterior: ground level, adjacent entrance to reception, air conditioning unit – suspected ODS containing refrigerant.

Block C

No ODS containing refrigerant were identified or suspected at the time of the survey.

Block D

No ODS containing refrigerant were identified or suspected at the time of the survey.

Block E

• Exterior: ground level, adjacent entrance to industrial arts, air conditioning unit – R22 ODS containing refrigerant.

1. Introduction

Coffey Services Australia Pty Ltd (Coffey) was engaged by CBRE to conduct a limited pre-demolition asbestos and hazardous materials survey of Mosman High School, 769 Military Road, Mosman NSW 2088.

Phoebe Quessy, Raghuram Muguli and Patricy Cortes of Coffey carried out the limited pre-demolition survey on the 26th and 27th of October 2019. Other information was obtained from vendor manuals, standards, guidelines, regulations and other material available in the public domain.

The assessment was conducted on the basis of the condition of the materials at the time of inspection and the future anticipated activities at the site.

No inspection can be guaranteed to locate all asbestos and hazardous materials in a specific location and therefore this assessment cannot be regarded as absolute. Planned and future demolition to site structures may expose situations which were concealed or otherwise impractical to access during this assessment.

1.1. Background

Coffey understands that CBRE is requesting this limited pre-demolition survey to produce an asbestos and hazardous materials register for the site in accordance with NSW *Work Health and Safety Regulations,* 2017 and the NSW Code of Practice *How to Manage and Control Asbestos in the Workplace* (2019).

The site is acknowledged to be programmed for refurbishment. Hence, the objective of this survey was to identify, where practicable, asbestos and other hazardous materials within the site which could potentially be impacted by proposed refurbishment works.

1.2. Site Description

The limited pre-demolition survey is of Mosman High School, 769 Military Road, Mosman NSW 2088. The structure of the school consists of 4 permanent buildings.

Table 1: Site Information					
Site:	Mosman High S	Mosman High School, Building Blocks B, C, D and E			
Age (Circa):	1903-1935	External walls:	Brick, concrete		
Approximate area:	4,000 m ²	Internal walls:	Concrete, plasterboard, fibre cement, ceramic tiles		
Buildings:	4	Ceiling:	Concrete, plasterboard, fibre cement, ceiling tiles		
Roof type:	Tiles and metal	Floor and coverings:	Concrete, vinyl sheet, carpet, ceramic tiles, timber		

1.3. Scope

The scope of work required Coffey to:

- Conduct a limited pre-demolition asbestos and hazardous materials (HazMat) survey of areas impacted by refurbishment works (Blocks B, C, D and E) within the site, to locate:
 - Asbestos Containing Materials (ACM);
 - Synthetic Mineral Fibre (SMF) materials;
 - Lead Based Paint systems (LBP);
 - Lead Containing Dust (LCD);
 - · Polychlorinated Biphenyls (PCB) containing capacitors in electrical fittings; and
 - Ozone Depleting Substances (ODS).
- Collect representative samples of suspect ACM and/or lead dust and paint material (where
 accessible) and submit samples for laboratory analysis. ODS, PCB and SMF were identified on a
 visual basis only;
- Document the details of materials identified including photographs of any samples taken;
- Record, collate and report the findings; and
- Deliver one electronic report to the client.

2. Methodology

Hazardous Materials surveys are undertaken considering a risk management approach, in accordance with best practice, relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazardous materials identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of Asbestos Containing Materials (ACM), Synthetic Mineral Fibres (SMF), Lead Based Paint systems (LBP), Lead Containing Dust (LCD), Polychlorinated Biphenyls (PCB) and Ozone Depleting Substances (ODS – (CFC, HCFC, HFC). Information was collected from the site owners/occupiers/tenants on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in the Asbestos and Hazardous Materials Register (refer **Appendix A**).

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Coffey's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted.

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Section 5.1: Actions for Asbestos Materials.**

The register is made up of relevant information gathered on site plus Coffey's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

3. Assessment Findings

The findings of this assessment are presented in tabulated format in **Appendix A: Asbestos and Hazardous Materials Register** of this assessment report. Hazardous building materials that have been photographed are depicted in the rear of this assessment report.

The following significant key findings are noted:

3.1. Hazardous Building Materials

3.1.1. Asbestos Containing Materials

Block B

No asbestos materials were identified or suspected to be present at the time of the survey.

Block C

- Exterior: all levels, throughout, eaves asbestos containing fibre cement sheeting; and
- Exterior: all levels, throughout, beading to eaves asbestos containing fibre cement sheeting.

Block D

- Exterior: all levels, throughout, eaves asbestos containing fibre cement sheeting;
- Exterior: all levels, throughout, beading to eaves asbestos containing fibre cement sheeting;
- Exterior: ground level, entrance awning, ceiling asbestos containing fibre cement sheeting;
- Interior: all levels, throughout, ceiling asbestos containing fibre cement sheeting;
- Interior: level 1, staff toilets in print room, walls asbestos containing fibre cement sheeting;
- Interior: level 1, R1049 tea room, floor suspected asbestos containing backing material, under floor covering;
- Interior: ground level, boy's toilets (R0086), urinal suspected asbestos containing mastic, behind urinals;
- Interior: ground level, girl's toilets (R0065), partition walls suspected asbestos containing fibre cement sheet; and
- Interior: ground level, boy's toilets (R0063), urinal suspected asbestos containing mastic sealant, behind urinals.

Block E

• Exterior: throughout, window frames - asbestos containing window mastic.

3.1.2. Synthetic Mineral Fibres

Block B

- Interior: ground level, administration lunch room, hot water boiler suspected SMF containing internal insulation;
- Interior: ground level, hall, ceiling suspected SMF containing compressed ceiling tiles; and
- Interior: ground level, theatre behind wooden walls suspected SMF containing insulation material.

Block C

No SMF containing materials were identified or suspected to be present at the time of the survey.

Block D

• Interior: ground level, staff room, hot water boiler – suspected SMF containing internal insulation.

Block E

- Interior: all levels, throughout, air conditioning ductwork suspected SMF containing internal insulation material;
- Interior: all levels, throughout ceiling space suspected SMF containing sarking insulation; and
- Interior: ground level, throughout ceiling space suspected SMF containing insulation.

3.1.3. Lead Based Paint

Block B

No lead based paint was identified or suspected at the time of the survey.

Block C

No lead based paint was identified or suspected to be present at the time of survey.

Block D

- Interior: all levels, throughout walls 0.19% w/w lead containing light-blue paint;
- Interior: all levels, throughout, window frames 0.28% w/w lead containing white paint;
- Interior: all levels, throughout, walls 0.15% w/w lead containing white paint; and
- Interior: ground level, toilet within D2A, walls and ceiling 0.21% w/w lead containing light-blue paint.

Block E

No lead based paint was identified or suspected to be present at the time of the survey.

3.1.4. Lead Containing Dust

Block B,

• Interior: throughout, ceiling space - suspected lead containing dust.

Block C

• Interior: throughout, ceiling space – suspected lead containing dust.

Block D

- Interior: throughout, ceiling space suspected lead containing dust; and
- Interior: corridor adjacent D32A, ceiling space 790 mg/kg lead containing dust; and
- Interior: ground level, girls toilets, ceiling space 80 mg/kg lead containing dust.

Block E

- Interior: ground level, major projects room, within air conditioning ductwork 1000mg/kg lead containing dust;
- Interior: ground level, major projects room, surfaces below air conditioning ductwork 120mg/kg lead containing dust;
- Interior: ground level, major projects room, metal store, floor 240mg/kg lead containing dust;
- Interior: level 1, lab 3 within riser under white board 200mg/kg lead containing dust;
- Interior: level 2, ceiling space 200mg/kg lead containing dust;
- Interior: throughout, ceiling space suspected lead containing dust; and
- Interior: throughout, air conditioning ductwork suspected lead containing dust.

3.1.5. Polychlorinated Biphenyls

- Interior: throughout, light fittings suspected PCB containing capacitors; and
- Exterior: throughout, light fittings suspected PCB containing capacitors.

3.1.6. Ozone Depleting Substances

Block B

Exterior: ground level, adjacent entrance to reception, air conditioning unit – suspected ODS containing refrigerant.

Block C

No ODS containing refrigerant were identified or suspected at the time of the survey.

Block D

No ODS containing refrigerant were identified or suspected at the time of the survey.

Block E

 Exterior: ground level, adjacent entrance to industrial arts, air conditioning unit – R22 ODS containing refrigerant.

3.2. Areas of No Access

Where Areas of No Access have been identified it should be presumed that hazardous materials are present in these areas until further investigation can confirm or refute the presence.

No inspection can be guaranteed to locate all asbestos and hazardous materials in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

Building service and building core areas were accessible at the time of the survey, excluding the limited access areas listed below.

AREAS OF NO ACCESS

The following areas were not accessible or had limited access at the time of survey:

- Ceiling spaces greater than 3m;
- Ceiling space access was limited to man holes;

- Within live electrics and wall cavities;
- Behind ceramic tiles;
- Within subfloor spaces;
- Roof.

The rooms listed below within the four block buildings were accessible at the time of the inspection. Any rooms that are excluded from the list were not accessible at the time of the inspection. However, it is assumed that the rooms not accessed are structurally similar to the accessible rooms.

BLOCK B

- Tea room;
- Staff toilet;
- Girls toilet;
- Boys toilet;
- Hall;
- School Theatre; and
- Library.

BLOCK C

- Classroom CR1006.
- BLOCK D
- D8;
- 7A;
- D5;
- D2A;
- D1A;
- Girls and Boys toilets (DR0084 and DR0086);
- D14; and
- Print room and staff toilets on Level 2.

BLOCK E

- PDHPE Staffroom;
- Tech Wood 1 and 2;
- Wood store;
- Major projects area;
- Tech Metal;
- Girls and Boys toilet;
- Lab 3, 4 and 5;
- Science prep area; and
- Kitchen 1.

When access is gained to these rooms, any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

4. Recommendations

The recommendations, conclusions or stability of hazardous materials contained in this report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Safety Data Sheets, Work Instructions or reasonable work practices.

4.1. Asbestos Containing Materials

Any asbestos or other hazardous materials remaining in situ at the conclusion of the project will need to be detailed in the site-specific Hazardous Materials Register and Asbestos Management Plan as required by the NSW Work Health and Safety Regulation 2017 and NSW Code of Practice: *How to Manage and Control Asbestos in the Workplace*, 2019.

Based on the findings of this hazardous materials survey, the recommendations regarding ACM are:

- ACM that has been identified or suspected in this survey must be removed prior to the commencement of general demolition works if they will be impacted by the works.
- When asbestos removal works are to be undertaken, the person that commissions the works must ensure that this is undertaken by an appropriately licensed asbestos contractor. The asbestos removal works must be conducted under controlled asbestos removal working conditions.
- When non-friable asbestos removal works are to be conducted within or adjacent to a highly sensitive area or public location, Coffey recommends that a hygienist who is independent of the asbestos contractor should be engaged to undertake airborne asbestos fibre monitoring along the boundary of the works and within the work area on completion of the works.
- If friable asbestos is identified during future works and is to be removed, a licensed asbestos
 assessor who is independent of the asbestos contractor <u>must</u> be engaged to:
 - Inspect the asbestos removal work area prior to commencement of the works;
 - Undertake asbestos fibre air monitoring before and during friable removal works in the surrounding areas and clearance asbestos fibre air monitoring at the conclusion of the asbestos removal work; and
 - Complete a visual inspection of the asbestos removal area and the area immediately surrounding it and ensure these are free from visible asbestos contamination.
- The licensed asbestos assessor must provide a Clearance Certificate that documents the visual clearance inspection and the satisfactory completion of the asbestos removal works. The Clearance Certificate should state that all visible asbestos dust and debris resulting from the asbestos removal process has been removed from the removal area(s) and from areas adjacent to the removal work area(s).

During future demolition works or at a time when access is made available to theses rooms, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

4.2. Synthetic Mineral Fibres

Un-bonded or bonded SMF that has severely deteriorated has the potential of becoming airborne. Health effects that may occur with exposure to certain SMF materials include; irritation of the skin, eyes and upper respiratory tract. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems. The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

- If the SMF is un-bonded or deteriorated, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied and removal is required as soon as practicable;
- If the SMF is un-bonded or deteriorated, in a poor/unstable condition but in inaccessible areas (i.e. Ceiling space), removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, or provide personal protective equipment to personnel required to access the area etc.) may be employed until removal can be facilitated;
- If the SMF is bonded and in a poor/unstable condition; minimising disturbance and removal or encapsulation may be appropriate controls;
- For bonded SMF in a good and stable condition, ongoing maintenance and periodic inspection to ensure they are not deteriorating would be appropriate controls; and
- Prior to any demolition, partial demolition, renovation or refurbishment, synthetic mineral fibre materials likely to be disturbed by those works should be removed in accordance with the NOHSC Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006 (1990)].

Further assessment of risk through airborne fibre monitoring can assist with decisions on the most appropriate, and urgency of, control measures.

4.3. Lead Containing Dust

Confirmed lead-containing dust within the ceiling spaces should be removed prior to refurbishment works in accordance with Australian Standard (AS4361.2), Guide to Hazardous Paint Management – 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.

If any activities are likely to involve disturbance of dust within the ceiling space where access was unable to be gained, these works should be undertaken with caution in accordance with Australian Standard (AS4361.2), Guide to Hazardous Paint Management – 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.

Any work processes involving lead-containing dust must be undertaken in a manner to ensure that no worker is exposed to lead at concentrations above occupational exposure standard (OES) of 0.15mg/m3 over an eight-hour day.

Lead-containing dust removal works should include the use of High Efficiency Particulate Air (HEPA) filtered vacuum cleaners and wet wiping techniques by a licensed contractor under controlled lead-containing dust conditions.

4.4. Lead Based Paint

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and proposed activities. Removal or management is to be undertaken prior to any future demolition, partial demolition, renovation or refurbishment where leadbased paint is likely to be disturbed, in accordance with the Australian Standard (AS 4361.2) Guide to Hazardous Paint Management – 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings

4.5. Polychlorinated Biphenyls (Capacitors Only)

It may not be considered feasible to inspect every light fitting within a premise as information available in the Public Domain on the identification of PCB-containing capacitors is limited. However, all metal capacitors should be treated as containing PCB unless determined otherwise.

All capacitors containing or suspected as PCB or the fluorescent light fittings likely to be disturbed during future works should be removed prior to any future demolition, partial demolition, renovation or refurbishment in accordance with Department of Occupational Health, Safety and Welfare, *Safe* Handling of PCB in Fluorescent Light Capacitors – 1993 and with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003

PCB is a potential environmental hazard and must be handled in accordance with Work Safe Guidance Notes. Post removal, provision should be made for appropriate storage/disposal of PCB-containing capacitors.

Should any further suspect Asbestos and/or Hazardous Materials become evident during future disturbance/ refurbishment works, Coffey should be contacted immediately so that an OHS consultant can confirm the status of the suspect materials

4.6. Ozone Depleting Substances (Refrigerants)

CFCs and HCFCs -Air-conditioning systems may contain refrigerants.

Removal should to be undertaken prior to any future demolition, partial demolition, renovation or refurbishment, where ODS's are likely to be disturbed. A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of in accordance with Association of Fluorocarbon Consumers and Manufacturers, The Australian Refrigeration and Air Conditioning Code of Good Practice – 1992 and the Australian Commonwealth Government Ozone Protection Act – 1989.

4.7. Training

N.B. Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainees' roles and responsibilities under the workplace's hazardous materials management;
- Where the workplace's register of hazardous materials is located and how it can be accessed;
- The timetable for removal of hazardous materials from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazardous materials into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazardous materials, limit the exposure of workers and limit the spread of hazardous materials outside any work area;
- The National Exposure Standard (NES) and control levels for hazardous materials; and

• The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect Asbestos and/or Hazardous Materials become evident during future disturbance/ refurbishment works which have not been addressed in this report, Coffey should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Coffey is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings.

5. Risk Assessment

From the findings of the hazardous materials survey, an individual risk assessment is conducted on each ACM. The following figure outlines the general likelihood of fibre release potential (Source: the NSW Code of Practice: *How to Manage and Control Asbestos in the Workplace* (2019).

Higher likelihood of airborne fibres

Asbestos-contaminated dust (including dust left in place

after past asbestos removal)

Sprayed (limpet) coatings/loose fill

Lagging and packings (that are not enclosed)

Asbestos insulating board

Rope and gaskets

Millboard and paper

Asbestos cement

Floor tiles, mastic and roof felt

Decorative paints and plasters

Lower likelihood of airborne fibres

Coffey adopts the following risk assessment algorithm in order to assess the risks associated with individual asbestos-containing materials identified.

ASBESTOS REGISTER SECTION

Friable

Variable	Score Description	
Friability		Asbestos cement debris, or material which when dry may become crumbled, pulverised or reduced to powder by hand pressure.
	N	Bonded i.e. non-friable material

Materials Assessment

Variables	Scores	Examples of Score Descriptions
	0	No asbestos
	1	Chrysotile only
Asbestos Type	2	Amphibole asbestos (excluding crocidolite)
	3	Crocidolite
	0	No asbestos detected
	1	Bonded asbestos in good condition
Product Type	2	Friable asbestos in good condition or cement in poor condition
	3	Friable asbestos in poor condition
	0	No visible damage
	1	Minor scratches or mark, broken edges
Extent of Damage	2	Significant breakage, many small areas of damage to friable material
	3	High damage, visible debris
	0	Bonded Asbestos including encapsulated asbestos cement
Surface Treatment	1	Enclosed laggings, sprays and boards or bare cement
	2	Bare board or encapsulated lagging/spray or cement debris
	3	Unsealed lagging/spray

Location Assessment

Variables	Scores	Examples of Score Descriptions
	0	Rare disturbance, e.g. little used store room
	1	Low disturbance, e.g. Office type activity
Occupant Activity	2	Periodic disturbance, e.g. industrial or vehicular activity which may contact ACMs
	3	High levels of disturbance e.g. fire door with AIB sheet in constant use
	0	Usually inaccessible or unlikely to be disturbed
Likelihood of	1	Minimal likelihood for disturbance
Disturbance	2	Likely disturbance
	3	Frequent disturbance
	0	Infrequent
Human Exposure	1	Monthly
Potential	2	Weekly
	3	Daily
	0	Minor disturbance (e.g. possibility of contact when gaining access)
	1	Low Disturbance (e.g. changing light bulbs in AIB ceiling).
Maintenance Activity	2	Medium disturbance (e.g. lifting one or two ceiling tiles to access a valve)
	3	High level of disturbance (e.g. moving a number of AIB ceiling tiles to replace a valve or for re-cabling)

Risk Score

The asbestos-containing material risk score is a quantitative assessment determined by the sum of the scores based on the Materials and Location Assessments; i.e. Risk score = Material Score + Location Score (out of as possible 24).

Should no asbestos be detected then the register will indicate a risk score of 0.

Variable	Scores	Examples of Score Descriptions
	0 - 6	Very Low Risk - Action Score A4
Risk Score	7 - 12	Low Risk – Action Score A3
	13 - 18	Medium Risk – Action Score A2
	19 - 24	High Risk – Action Score A1

OTHER HAZARDOUS MATERIALS REGISTER SECTION

Coffey adopt the following material and location assessment algorithms in order to assess the risks associated with individual **hazardous materials other than asbestos** located;

Friable

Variable	Score	Description	
	Y	Unsealed SMF	
Friable	N	Sealed SMF	
	NA	Applicable to ODS, PCB, Lead in paint	

Material Assessment

Variable	Score	Examples of Score Descriptions
	G	Good condition
Extent of Damage	Av	Average condition
	Р	Poor condition
	Y	Sealed
Surface Treatment	Р	Part sealed
	Ν	Not sealed

Location Assessment

Variable	Score	Examples of Score Descriptions
	н	High traffic area
Occupant Activity	М	Medium traffic area
	L	Low traffic area

Risk Score

The hazardous materials other than asbestos risk score is a qualitative assessment determined by the combination of Material and Location Assessments. Depending on the material one or all of these criteria may be used in assessing the recommended Action.

Variable	Score	Examples of Score Descriptions
	L	Low exposure risk
Risk Score	М	Medium exposure risk
	н	High exposure risk

5.1. Actions for Asbestos Materials

Following the assessment for asbestos-containing materials an action score is assigned. For asbestos-containing materials this will be assigned according to the risk score associated with the material.

Action Ratings

		Restrict access and remove
		As a guide, the material conforms to one, or more, of the following:
		Friable or poorly bonded to substrate, located in accessible areas
	Action 1	Severely water damaged, or unstable
A1		Further damage or deterioration likely
		Friable asbestos material located in air conditioning ducting
		Asbestos debris and stored asbestos in reasonably accessible areas
		Post removal of A1 item, update Asbestos Materials Register and Asbestos Management Plan
		Enclose, encapsulate or seal and Label – Re-inspect according to Asbestos Management Plan
		As a guide, the material conforms to one, or more, of the following:
		Damaged material
A2	Action 2	In reasonably accessible area
~~		Friable material or poorly bonded to substrate, with bonding achievable
		Possibility of disturbance through contact
		Possibility of deterioration caused by weathering
		Post encapsulation of A2 item, update Asbestos Materials Register and Asbestos Management Plan
		Remove during refurbishment or maintenance and Label – Re-inspect according to Asbestos Management Plan
		As a guide, the material conforms to one, or more, of the following:
A3	Action 3	Asbestos debris or stored material in rarely accessed areas
AJ	ACTION 5	Further disturbance or damage unlikely other than during maintenance or service
		Readily visible for further assessment
		Asbestos CAF Gaskets
		Asbestos friction materials and brake linings
		No remedial action, Label – Re-inspect according to Asbestos Management Plan
		As a guide, the material conforms to one, or more, of the following:
A4	Action 4	Firmly bonded to substrate and readily visible for inspection
		Inaccessible and fully contained
		Stable and damage unlikely

Acronyms

ACM	Asbestos-containing material
NOHSC	National Occupational Health and Safety Commission
AMP	Asbestos Management Plan
V.O.	Visual Observation
NATA	National Association of Testing Authorities, Australia
PLM	Polarised Light Microscopy
SEM	Scanning Electron Microscopy
EDAX	Energy Dispersive X-ray Analysis
СН	Chrysotile Asbestos
CR	Crocidolite Asbestos
AM	Amosite Asbestos
NAD	No Asbestos Detected

Definitions

Accredited Laboratory – means a testing laboratory accredited by NATA (National Association of Testing Authorities, Australia).

Air Monitoring – means atmospheric sampling for airborne contaminants including asbestos and SMF fibres or lead dust to assist in assessing human exposure and the effectiveness of control measures. This includes exposure monitoring, clearance monitoring (asbestos) and control monitoring.

Appropriately Qualified Person – means the person possesses the qualifications and experience necessary to find hazardous materials in a building.

Approved Respirator - A respirator which complies with AS/NZS 1716 - Respiratory Protective Devices.

Approved Cleaner - Vacuum cleaning equipment that passes all extracted air through a High Efficiency Particulates Air (HEPA) filter before the air is discharged into the atmosphere and conforms to the relevant requirements of the AS 3544 - Industrial Vacuum Cleaners for Particulates.

Asbestos – fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos) and tremolite.

Asbestos-containing Material (ACM) – means any material, object, product or debris containing asbestos.

Asbestos Removalist – means a person whose business or undertaking includes asbestos removal work or a self-employed person whose work includes asbestos removal work.

Asbestos Removal Control Plan – A site specific document to be prepared by the removal contractor based on the information in the National Code of Practice How to Safely Remove Asbestos (Safe Work Australia 2016).

Asbestos Work - means work undertaken in connection with a construction work process in which exposure to asbestos may occur and includes any work process involving the use, application, removal, mixing or other handling of asbestos or asbestos-containing material.

Asbestos Removal Work – means work undertaken to remove friable or bonded asbestos-containing material.

Asbestos Work Area – means the immediate area in which work on ACM is taking place. The boundaries off the work area must be determined by a risk assessment.

Bonded asbestos material - means any material (other than friable asbestos material) that contains asbestos.

Bonded asbestos removal work - means work in which bonded asbestos material is removed, repaired or disturbed.

Clearance Inspection – means a mandatory visual inspection carried out by a competent person to verify that an asbestos work area has been rendered free of visible asbestos contamination and is safe to be returned to normal use after work involving the disturbance of ACM has taken place. A clearance inspection must include a visual inspection, and may also include clearance air monitoring and/or settled dust sampling.

Clearance Monitoring – means air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following work on ACM. An area is cleared when the level of airborne asbestos fibres is measured as being below eth clearance standard of 0.01 fibres/ml.

Construction Work - include all work performed in or in connection with the installation, erection, repair, cleaning, painting, renewal, renovation, dismantling, maintenance, ornamentation or demolition of buildings, ships, structures, pipes, plant, machinery, parts, artefacts, appliances, or tools or parts thereof.

Control Actions - In the process of implementing hazardous building materials management, it is fundamental that any identified situations have control actions determined to prevent personnel from being placed at risk.

Control Monitoring – means air monitoring using static or positional to measure the level of airborne asbestos fibres in an area during work on ACM or airborne lead dust in an area of lead paint removal. Control monitoring is designed to assist in assessing the effectiveness of control measures. Its results are not representative of actual occupational exposures and should not be used for that purpose.

Exposure Standard (TWA) - represent the National Occupational Health and Safety Commission (NOHSC) maximum exposure level by inhalation of airborne concentration of atmospheric lead over an eight-hour day, for a five-day working week, over an entire working life and expressed as 8-hour TWA (Time weighed average). The TWA do not represent 'no-effect' levels which guarantee protection to every worker.

Friable Asbestos-containing Material – means asbestos-containing material that, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.

Hazard – means any matter, thing, process, or practice that may cause death, injury, illness or disease.

HEPA - High Efficiency Particulate Air. A filtering system capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micron in diameter or larger.

Membrane Filter Method - is the technique outlined in the NOHSC Guidance Note on the Membrane Filter Method for Estimating Method Airborne Asbestos Fibres 2nd Edition [NOHSC:3003 (2005)].

National Association of Testing Authorities, Australia (NATA) – the organisation that approves the method of sampling for airborne asbestos fibres, bulk sample analysis of asbestos-containing materials and hazardous materials inspections.

NOHSC - National Occupational Health and Safety Commission.

PPE/RPE - Personal / Respiratory Protective Equipment.

PM – Project Manager of the asbestos removal job. If a Principal Contractor has been appointed the Project Manager of the Principal Contractor, if no PM appointed then the owner is the Project Manager.

Person in charge of area - The person in charge of the building or area affected by the asbestos removal.

Restricted Area - A location requiring an Access/Work Permit because unprotected activity to undertake the intended purpose may expose a person to hazardous respirable (airborne) asbestos fibre. For example: Drilling a switch board containing asbestos; entry to a ceiling space containing asbestos or lead dust; entry to a riser shaft containing asbestos; access onto a fragile asbestos cement roof; a cupboard containing asbestos pipe lagging.

Risk – means the likelihood of a hazard causing harm to a person.

Safe Work Australia - An independent statutory agency responsible to improve occupational health and safety and workers' compensation arrangements across Australia.

6. Bibliography

Association of Fluorocarbon Consumers and Manufacturers, the Australian Refrigeration and Air Conditioning Code of Good Practice - 1992

Australia and New Zealand Environment and Conservation Council (ANZECC), Polychlorinated Biphenyls Management Plan - 1999

Australia and New Zealand Environment and Conservation Council (ANZECC), Identification of PCB – Containing Capacitors - 1997

Australian Commonwealth Government Ozone Protection Act - 1989

Australian Standard 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, public and commercial buildings.

Department of Occupational Health, Safety and Welfare, Safe Handling of PCB in Fluorescent Light Capacitors - 1993

Department of Industrial Resources (DoIR) Guidance for Upstream Petroleum on the National Ban on Asbestos of 31 December 2003.

National Occupational Health and Safety Commission (NOHSC), Approved Criteria for Classifying Hazardous Substances, 1008 - 2002

National Occupational Health and Safety Commission (NOHSC), Control of Inorganic Lead at Work: National Standard, 1012 - 1994

National Occupational Health and Safety Commission (NOHSC), List of Designated Hazardous Substances, 10005 - 1999

National Institute for Occupational Safety and Health [NIOSH (U.S.A.)], Manual of Analytical Methods, Elements by ICP, Method 7300, 4th Edition, Issue 2 - 1994

National Occupational Health and Safety Commission (NOHSC), National Code of Practice for the Control and Safe Use of Inorganic Lead at Work, 2015 - 1994

National Occupational Health and Safety Commission (NOHSC), National Standard and National Code of Practice for Synthetic Mineral Fibre - May 1990

The National Model regulations for the Control of Workplace Hazardous Substances; [NOHSC: 1005 (1994)]

Department of Industrial Resources (DoIR) Guidance for Upstream Petroleum on the National Ban on Asbestos of 31 December 2003.

National Occupational Health and Safety Commission (NOHSC), Approved Criteria for Classifying Hazardous Substances, 1008 - 2002

Code of Practice: How to Manage and Control Asbestos in the Workplace, Safework NSW (2019)

Code of Practice: How to Safely Remove Asbestos, Safework NSW (2019)

Work Health and Safety Act 2011 and Regulations 2017 (NSW)

Occupational Health and Safety Act 2004 and Regulations 2017 (VIC),

Occupational Health and Safety Act 1984 and Regulations 1996 (WA)

The National Occupational Health & Safety Commission -NOHSC 1003-2005: Australian Exposure Standards for Atmospheric Contaminants in the Workplace.

Amendment to the Customs (Prohibited Imports) Regulations 1956 - Regulation 4C – Importation of Asbestos – Australian Customs Notice No. 2009/30. – August 2009.

AS 1319-1994 Safety signs for the occupational environment.

Code of Practice: Demolition Work 2019.

Appendix A - Asbestos and Hazardous Materials Register

This page has been left intentionally blank

Client: CBRE	RE Site Name: Mosman High School							Site Add	ress: 7	69 Mili	tary Roa	ad, Mos	man N	SW 20	88	1	Job No: SYDEN233731						
Area / Level	Room & Location	Feature	Item Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.		
Block B										•	•												
Interior Ground Level	Administration lunch room	Manhole	Fibre cement sheet	Asbestos	A5727	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	1		
Interior Ground Level	Sick bay	Walls	Fibre cement sheet	Asbestos	A5728	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	-		
Interior Level 1	Stairwell to counsellors office	Ceiling	Fibre cement sheet	Asbestos	A5729	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	2		
Exterior Ground Level	Entrance, adjacent hall	Ceiling	Fibre cement sheet	Asbestos	A5730	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	3		
Exterior Throughout	Walls	Expansion joint	Bituminous material	Asbestos	A5731	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Interior Level 1	Throughout library, under carpet	Floor coverings - yellow	Vinyl floor tiles	Asbestos	A5739	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4		
Interior Ground Level	Administration lunch room	Hot water heater	Insulation material - internal	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	1 unit	-	5		
Interior Ground Level	Hall	Ceiling	Compressed ceiling tiles	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	300 m ²	-	6		
Interior Ground Level	Theatre, behind wooden walls	Insulation	Insulation material	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	100 m ²	-	7		
Exterior All levels	Throughout	Doors and pipe work	Purple - Top coat	Lead Paint - Chip	L4688	Lead Not Detected (<0.005 % w/w)	-	-	-	-	-	-	-	-	-	-	-	Result <0.1% lead content, not lead-containing paint as described in AS 4361. 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	-	-	8		
Interior Ground Level	Male and female toilets	Air conditioning ductwork	White - Top coat	Lead Paint - Chip	L3420	Lead Detected (0.009 % w/w)	-	-	-	-	-	-	-	-	-	-	-	Result <0.1% lead content, not lead-containing paint as described in AS 4361. 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	-	-	9		
Interior Ground Level	Male and female toilets	Walls	Blue - Top coat	Lead Paint - Chip	L3419	Lead Not Detected (<0.005 % w/w)	-	-	-	-	-	-	-	-	-	-	-	Result <0.1% lead content, not lead-containing paint as described in AS 4361. 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	-	-	-		
Interior All levels	Throughout	Ceiling space	Dust	Lead Dust	Visual Observation	Suspected Lead Dust	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the findings in other similar aged buildings of the school, and due to the non homogenous nature of lead dust contamination, dust should be remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	-	-	-		
Exterior Ground Level	Adjacent entrance to reception	Air conditioning unit	Unknown refrigerant	Ozone Depleting Substances	Visual Observation	Suspected ODS	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment.	1 unit	-	10		

Area / Level	Room & Location	Feature	ltem Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
Exterior Ground Level	Throughout	Air conditioning unit	R32 Hydrofluorocarbon (HFC)	Ozone Depleting Substances	Visual Observation	Non ODS Refrigerant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior	Administration lunch room	Water cooler	R134a Hydrofluorocarbon (HFC)	Ozone Depleting Substances	Visual Observation	Non ODS Refrigerant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior All levels	Throughout	Fluorescent light fitting - single tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polycholniated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-
Interior All levels	Throughout	Fluorescent light fitting - double tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polycholniated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-
Block C																					
Exterior All levels	Throughout	Eaves	Fibre cement sheet	Asbestos	A5741	Chrysotile Asbestos Detected	N	3	1	0	0	0	0	0	0	4	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	100 m	Oct-24	11
Exterior All levels	Throughout	Beading to eaves	Moulded fibre cement	Asbestos	Ref CB1302	Chrysotile & Amosite Asbestos Detected	N	2	1	0	0	0	0	0	0	3	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	20 m	Oct-24	-
Exterior All levels	Throughout	Walls	Textured coatings	Asbestos	A5732	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	12
Exterior Level 1	Throughout	Window frames	Mastic sealant	Asbestos	A5733	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Interior Ground Level	Throughout	Ceiling space	Dust	Lead Dust	Visual Observation	Suspected Lead Dust	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the findings in other similar aged buildings of the school, and due to the non homogenous nature of lead dust contamination, dust should be remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	-	-	-
Exterior All levels	Throughout	Fluorescent light fitting - double tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polycholniated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-
Interior All levels	Throughout	Fluorescent light fitting - double tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polycholrinated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-
Block D																					
Exterior All levels	Throughout	Eaves	Fibre cement sheet	Asbestos	A5735	Chrysotile, Amosite & Crocidolite Asbestos Detected	N	3	1	0	0	0	0	0	0	4	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	400 m	Oct-24	13
Exterior All levels	Throughout	Beading to eaves	Moulded fibre cement	Asbestos	CB1302	Chrysotile & Amosite Asbestos Detected	N	2	1	0	0	0	0	0	0	3	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	50 m	Oct-24	13
Exterior Ground Level	Throughout, entrance awnings	Ceiling	Fibre cement sheet	Asbestos	Ref A5735	Chrysotile, Amosite & Crocidolite Asbestos Detected	N	3	1	0	0	0	0	0	0	4	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	20 m ²	Oct-24	-

Area / Level	Room & Location	Feature	ltem Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
Interior All levels	Throughout	Ceiling	Fibre cement sheet	Asbestos	A5737	Chrysotile Asbestos Detected	N	1	1	1	0	0	0	0	0	3	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbeatos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	2000 m ²	Oct-24	14
Interior Level 1	Print room, staff toilets	Walls	Fibre cement sheet	Asbestos	CB1298	Chrysotile Asbestos Detected	N	1	1	0	0	1	1	0	0	4	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	15 m ²	Oct-24	15
Interior Level 1	Corridor adjacent D32A	Manhole	Fibre cement sheet	Asbestos	CB1299	Chrysotile Asbestos Detected	N	1	1	0	1	0	1	0	0	4	A4	Maintain in current condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	<1 m ²	Oct-24	-
Interior Level 1	R1049 Tea room	Floor	Backing Material	Asbestos	Not accessible	Suspected Asbestos	Y	1	2	1	0	0	0	0	0	4	A4	No access at the time of the inspection, previously tested positive. Maintain in current condition if to remain in-situ. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor.	Unknown	Oct-24	-
Interior Ground Level	Boys toilets R0086	Urinal	Mastic sealant	Asbestos	Visual Observation	Suspected Asbestos	N	1	1	1	0	0	0	0	0	3	A4	Previously positive in AECOM report, could not locate at the time of the inspection, may be present behind new mastic. Confirm presence, maintain incurrent condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refluibishment or demolition ovrks by a Class B (non- friable) licensed asbestos removal contractor.	Unknown	Oct-24	-
Interior Ground Level	Grils toilets R0065	Partition wall	Fibre cement sheet	Asbestos	Not accessible	Suspected Asbestos	N	1	1	1	0	0	0	0	0	3	A4	No access at the time of the inspection, previously sampled positive in AECOM report. Confirm presence, maintain incurrent condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	Unknown	Oct-24	-
Interior Ground Level	Boys toilets R0063	Urinal	Mastic sealant	Asbestos	Not accessible	Suspected Asbestos	N	1	1	1	0	0	0	0	0	3	A4	No access at the time of the inspection, previously sampled positive in AECOM report. Confirm presence, maintain incurrent condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	Unknown	Oct-24	-
Exterior Level 1	Throughout, roof	Verge Lining	Fibre cement sheet	Asbestos	A5734	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Exterior Level 1	Entrance, false ceiling	Ceiling	Fibre cement sheet	Asbestos	A5736	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior Level 1	Walkway between Block E and D	Floor	Fibre cement sheet	Asbestos	CB1297	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Interior All levels	Throughout, classrooms, in front of sinks	Floor coverings - blue	Vinyl sheet	Asbestos	CB1294	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Interior Level 1	Throughout windows to exterior	Window frames	Mastic sealant	Asbestos	A5378	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Interior Level 1	Corridor adjacent D32A	Ceiling space	Dust	Asbestos	CB1300	No Asbestos Detected above the reporting limit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Area / Level	Room & Location	Feature	Item Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
Interior Level 1	Corridor adjacent D32A	Window frames	Mastic sealant	Asbestos	CB1301	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior Ground Level	Throughout, under carpet	Floor	Paper backing	Asbestos	CB1295	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Interior Ground Level	D1A classroom	Pipe work	Gasket material	Asbestos	CB1293	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Interior Ground Level	Girls toilets R0085	Ceiling	Fibre cement sheet	Asbestos	CB1296	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior Ground Level	Girls toilets R0085	Sink	Mastic sealant	Asbestos	A5740	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	22
Interior Ground Level	Girls toilets R0085	Partition wall	Concrete	Asbestos	Visual Observation	None Suspected	-	-	-	-	-	-	-	-	-	-	-		-	-	-
Interior Ground Level	Staff room	Hot water boiler	Insulation material - internal	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	1 unit	-	-
Interior All levels	Throughout	Walls	Blue (light) - Top coat	Lead Paint - Chip	L4691	Lead Detected (0.19% w/w)	NA	NA	NA	Good	Not Sealed	Low	NA	NA	NA	Low	-	RESULT >0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove loose and peeling paint chips under controlled conditions and dispose of as hazardous wastle in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	2000 m ²	-	23
Interior All levels	Throughout	Window frames	White - Top coat	Lead Paint - Chip	L4690	Lead Detected (0.28% w/w)	NA	NA	NA	Good	Not Sealed	Low	NA	NA	NA	Low	-	RESULT >0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove loose and peeling paint chips under controlled conditions and dispose of as hazardous wastle in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	300 m	-	24
Interior All levels	Throughout	Walls	White - Top coat	Lead Paint - Chip	L4692	Lead Detected (0.15% w/w)	NA	NA	NA	Good	Not Sealed	Low	NA	NA	NA	Low	-	RESULT >0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove loose and peeling paint chips under controlled conditions and dispose of as hazardous wastle in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	2000 m ²	-	25
Interior Ground Level	Toilet in D2A	Walls and Ceiling	Blue (light) - Top coat	Lead Paint - Chip	L4693	Lead Detected (0.21% w/w)	NA	NA	NA	Averag e	Not Sealed	Low	NA	NA	NA	Low	-	RESULT >0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove loose and peeling paint chips under controlled conditions and dispose of as hazardous wastle in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	30 m ²	-	26
Interior Ground Level	Girls toilets	Partition wall	Green (light) - Undercoat	Lead Paint - Chip	L4694	Lead Not Detected (<0.005% w/w)	-	-	-	-	-	-	-	-	-	-	-	Result <0.1% lead content, not lead-containing paint as described in AS 4361.2017 Part 2: Lead in Paint in Residential, Public and commercial buildings	-	-	-
Interior All levels	Throughout	Ceiling space	Dust	Lead Dust	Visual Observation	Suspected Lead Dust	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the findings in other similar aged buildings of the school, and due to the non homogenous nature of lead dust contamination, dust should be remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-

Area / Level	Room & Location	Feature	ltem Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
Interior Level 1	Corridor adjacent D32A	Ceiling space	Dust	Lead Dust	L4696	Lead Detected (790 mg/kg)	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior Ground Level	Girls toilets	Ceiling space	Dust	Lead Dust	L4695	Lead Detected (80 mg/kg)	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior Ground Level	Staff room	Water cooler	R134a Hydrofluorocarbon (HFC)	Ozone Depleting Substances	Visual Observation	Non ODS Refrigerant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior All levels	Throughout	Fluorescent light fitting - single tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychoinrated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-
Interior All levels	Throughout	Fluorescent light fitting - double tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychoinrated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-
Block E																					
Exterior Level 1	Throughout	Window frames	Mastic sealant	Asbestos	A5722	Chrysotile Asbestos Detected	N	1	1	1	1	1	2	1	1	9	A3	Encapsulate exposed sections, label as containing asbestos and maintain in a good condition if to remain in-situ. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor.	50 m	Oct-24	27
Exterior Level 1	Throughout, floor	Expansion joint	Bituminous material	Asbestos	A5719	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	28
Exterior Ground Level	Throughout, floor	Expansion joint	Bituminous material	Asbestos	A5716	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Exterior Ground Level	Throughout, walls	Expansion joint	Mastic sealant	Asbestos	A5717	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Interior Ground Level	PDHPE Staffroom, walls	Expansion joint	Mastic sealant	Asbestos	A5715	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior Ground Level	Major project area	Floor coverings - grey	Vinyl sheet	Asbestos	A5718	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	31
Interior Level 1	Female toilets	Partition wall	Fibre cement sheet	Asbestos	A5720	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Interior Level 1	Male toilets	Partition wall	Fibre cement sheet	Asbestos	A5721	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Exterior Level 1	Throughout	Awning	Fibre cement sheet	Asbestos	A5723	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Area / Level	Room & Location	Feature	Item Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
--------------------------	---	--	--------------------------------	----------------------	-----------------------	---	---------	------------------	--------------	---------------------	----------------------	----------------------	------------------------------	-----------------------	-------------------------	------------	--------	--	--------------------	-------------------	--------------
Interior Level 1	Lab 4	Floor coverings - grey	Vinyl sheet	Asbestos	A5724	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-		-	-	35
Interior Level 1	Science prep area	Heat map	Fibre cement sheet	Asbestos	A5725	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36
Interior Level 1	Science prep area, void above work bench	Ceiling	Fibre cement sheet	Asbestos	Ref A5723	No Asbestos Detected	-	-	-	-	-	-	-	-	-		-		-	-	
Exterior Level 1	Adjacent science staff room, and above stairs	Ceiling	Fibre cement sheet	Asbestos	A5726	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
Interior All levels	Throughout	Air conditioning ductwork	Insulation material - internal	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	200 m	-	38
Interior Ground Level	Throughout	Ceiling space	Insulation batts	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	500 m ²	-	39
Interior All levels	Throughout	Ceiling space	Sarking insulation	SMF	Visual Observation	Suspected SMF	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	500 m ²	-	-
Exterior Ground Level	Throughout	Column	Blue - Top coat	Lead Paint - Chip	L4680	Lead Not Detected (<0.005 % w/w)	-	-	-	-	-	-	-	-	-	-	-	Result <0.1% lead content, not lead-containing paint as described in AS 4361.Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Exterior Level 2	Throughout, adjacent gutters	Beams	Green - Top coat	Lead Paint - Chip	L4685	Lead Detected (0.051 % w/w)	-	-	-	-	-	-	-	-	-	-	-	Result <0.1% lead content, not lead-containing paint as described in AS 4361.Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior Ground Level	Major projects room	Air conditioning ductwork	Dust	Lead Dust	L4681	Lead Detected (1000 mg/kg)	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	High	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	40
Interior Ground Level	Major projects room	Surface beneath air conditioning ductwork	Dust	Lead Dust	L4682	Lead Detected (120 mg/kg)	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior Ground Level	Major projects room, metal store	Floor	Dust	Lead Dust	L4683	Lead Detected (240 mg/kg)	NA	NA	NA	Poor	Not Sealed	Low	NA	NA	NA	Medium	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior Level 1	Lab 3 under white board	Riser	Dust	Lead Dust	L4686	Lead Detected (200 mg/kg)	NA	NA	NA	Poor	Not Sealed	Low	NA	NA	NA	Low	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior Level 2	Corridor	Ceiling space	Dust	Lead Dust	L4687	Lead Detected (200 mg/kg)	NA	NA	NA	Poor	Not Sealed	Low	NA	NA	NA	Medium	-	Due to the non homogenous nature of dust contamination, remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-	-	-
Interior All levels	Throughout	Air conditioning ductwork	Dust	Lead Dust	Visual Observation	Suspected Lead Dust	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the findings in other similar aged buildings of the school, and due to the non homogenous nature of lead dust contamination, dust should be remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-		

Area / Level	Room & Location	Feature	ltem Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
Interior All levels	Throughout	Ceiling space	Dust	Lead Dust	Visual Observation	Suspected Lead Dust	NA	NA	NA	Poor	Not Sealed	Mediu m	NA	NA	NA	Medium	-	Due to the findings in other similar aged buildings of the school, and due to the non homogenous nature of lead dust contamination, dust should be remove under controlled conditions in accordance with AS 4361.2, Guide to Hazardous Paint Management - 2017 Part 2: Lead in Paint in Residential, Public and commercial buildings.	-		
Exterior Ground Level	Adjacent entrance into industrial arts	Air conditioning unit	R22 Hydrochlorofluorocarbon (HCFC)	Ozone Depleting Substances	Visual Observation	ODS Refrigerant	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	Continuoundandon (Cr C), occine deprening substances identified in the assessment that require removal during refurbishment or demolition works should be appropriately decanted and disposed of by a licensed contractor in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management		-	41
Exterior Ground Level	Throughout	Air conditioning unit	R32 Hydrofluorocarbon (HFC)	Ozone Depleting Substances	Visual Observation	Non ODS Refrigerant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior All levels	Throughout	Fluorescent light fitting - single tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	42
Interior All levels	Throughout	Fluorescent light fitting - double tube	Capacitor	PCBs	Visual Observation	PCB Capacitor	NA	NA	NA	Good	Sealed	Low	NA	NA	NA	Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polycholnriated Biphenyls Management Plan, Revised Edition April 2003.	Throughout	-	-

Appendix B - Photographs

This page has been left intentionally blank

Block B



Photo 1 Interior: ground level, administration lunch room, man hole – non asbestos containing fibre cement sheet.



Photo 2 Interior: level 1, stairwell to counselors' office, ceiling – non asbestos containing fibre cement sheet.



Photo 3 Exterior: ground level, entrance adjacent hall, ceiling – non asbestos containing fibre cement sheet.



Photo 4 Interior: level 1, throughout library under carpet – non asbestos containing yellow vinyl floor tiles.



Photo 5 Interior: ground level, administration lunch room, hot water heater – suspected SMF containing internal insulation.



Photo 6 Interior: ground level, hall, ceiling – suspected SMF containing compressed ceiling tiles.



Photo 7 Interior: ground level, theatre behind wooden walls – suspected SMF containing insulation material.



Photo 8 Exterior: Throughout, doors and pipes – non lead based purple paint.



Photo 9 Interior: ground level, male and female toilets, air conditioning ductwork – non lead based white paint.



Photo 10 Exterior: ground level, adjacent entrance to reception, air conditioning unit – suspected ODS containing refrigerant.

Block C



Photo 11 Exterior: all levels, throughout, eaves, and beading to eaves – asbestos containing firbe cement sheet and moulded fibre cement.



Photo 12 Exterior: throughout, walls and windows – non asbestos containing textured coating, and window mastic.

Block D



Photo 13 Exterior: all levels, throughout, eaves and beading to eaves – asbestos containing fibre cement sheeting and moulded fibre cement.



Photo 14 Interior: all levels, throughout, ceiling – asbestos containing fibre cement sheeting.



Photo 15 Interior: level 1, print room, staff toilets, walls – asbestos containing fibre cement sheet.



Photo 16 Exterior: level 1, throughout, roof, verge lining – non asbestos containing fibre cement sheet.



Photo 17 Exterior: level 1, walkway between Block E and D, floor – non asbestos containing fibre cement sheet.



Photo 18 Interior: throughout classrooms, infront of sinks – non asbestos containing blue vinyl sheet.



Photo 19 Interior: throughout, windows to exterior – non asbestos containing window mastic.



Photo 20 Interior: ground level, throughout, under carpet, floor – non asbestos containing paper backing.



Photo 21 Interior: ground level, D1A classroom, pipe work – non asbestos containing gasket.



Photo 22 Interior: ground level girls toilets, sink – non asbestos containing mastic sealant.



Photo 23Interior: all levels, throughout, walls
- 0.19% lead based light-blue paint.



Photo 24 Interior: all levels, throughout, window frames – 0.28% w/w lead containing white paint.



Photo 25 Interior: all levels, throughout, walls - 0.15% w/w lead containing white paint.

Photo 26 Interior: ground level, toilet within D2A, walls and ceiling – 0.21% w/w lead containing light-blue paint.

Block E



Photo 27 Exterior: throughout, window frames – asbestos containing window mastic.



Photo 28 Exterior: level 1, throughout, floor – non asbestos containing expansion joint.





Photo 29 Exterior: ground level, throughout – non asbestos containing expansion joint.

Photo 30 Exterior: ground level, throughout, walls – non asbestos containing expansion joint.



Photo 31 Interior: ground level, major project area, floor – non asbestos containing grey vinyl sheet.



Photo 32 Interior: level 1, female toilets, partition walls – non asbestos containing fibre cement sheet.







Photo 34 Interior: level 1, throughout, awning – non asbestos containing fibre cement sheet.



Photo 35 Interior: level 1, lab 4, floor coverings – non asbestos containing grey vinyl sheet.



Photo 36 Interior: level 1, science prep area, heat mats – non asbestos containing fibre cement sheet.



Photo 37 Exterior: adjacent science staff room, and above stairs, ceiling – non asbestos containing fibre cement sheet.



Photo 38 Interior: all levels, throughout, air conditioning ductwork – suspected SMF containing internal insulation material.



Photo 39 Interior: ground level, throughout ceiling space – suspected SMF containing insulation batts.



Photo 40 Interior: ground level, major projects room, within air conditioning ductwork – 1000mg/kg lead containing dust.



Photo 41 Exterior: ground level, adjacent entrance to industrial arts, air conditioning unit – R22 ODS containing refrigerant.



Photo 42 Exterior: throughout, light fittings – suspected PCB containing capacitors.

Appendix C - Laboratory Analysis Certificates

This page has been left intentionally blank



Bulk Identification Report

Job No: Client: Client Address:	754-SYDEN233731 Mosman High School 30102019 CBRE level 21/363 George St, Sydney NSW 2000	
Contact: E-mail:	Manish Hansji N/A	
Date Sampled: Date Printed: Sampled By:	26/10/2019 30/10/2019 Phoebe Quessy & Patricy Cortes	Accredited for compliance with ISO/IEC 17025 - Testing Accreditation No:2220 Corporate Site No:16909
Site:		t Coffey Services Australia Pty Ltd does not accept any responsibility for the
	samples submitted for analysis have been considered in prese	ny works undertaken at site based on the analytical data provided. Only the nting these results. Should any other material suspected to contain asbestos be ad asbestos hygienist should be engaged to sample or assess the material.
Test Method:	WILAB1, and Australian Standard (AS) 4964 – 2004, Method for detection limit for the test method as per AS 4964 is 0.1 g/kg. F	It microscopy and dispersion staining techniques in accordance with Coffey SOP or the qualitative identification of asbestos in bulk samples (AS 4964). The for non-homogenous samples a semi quantitative aspect is adopted for the test s per Coffey's NATA approved SOP WILAB1 sample retention periods are set at ted).
Total Samples:	37	

Matthew Tang Approved Identifier

Patricy Cortes Approved Identifier and Signatory

Sample No.	Location & Description	Sample Size	Results
A5715	Block E, PDHPE staffroom - mastic to walls - Brown rubbery mastic material	~ 16 x 15 x 3 mm	No asbestos fibres detected
A5716	Block E, ext PDHPE staffroom, expansion joint on ground - Black fibrous bituminous material	~ 22 x 15 x 5 mm	No asbestos fibres detected Organic fibres detected
A5717	Block E, ext, walls mastic expansion joint - Brown rubbery mastic material & foam-like material	~ 27 x 21 x 5 mm	No asbestos fibres detected
A5718	Block E, major project area, floor, grey vinyl sheet - Grey semi-flexible vinyl tile & amber adhesive	~ 42 x 30 x 4 mm	No asbestos fibres detected Organic fibres detected
A5719	Block E ext, level 1 floor expansion joint - mastic - Grey rubbery mastic material	~ 10 x 9 x 4 mm	No asbestos fibres detected
A5720	Block E , level 1, female toilets, partition walls, fibre cement sheet - Beige fibre cement sheet material with attached white paint	~ 6 x 4 x 2 mm	No asbestos fibres detected Organic fibres detected
A5721	Block E , level 1, male toilets, partition walls, fibre cement sheet - Beige layered fibre cement sheet material	~ 10 x 8 x 3 mm	No asbestos fibres detected Organic fibres detected
A5722	Block E, exterior, windows level 1, window mastic - Grey soft mastic material	~ 51 x 5 x 4 mm	Chrysotile (white asbestos) detected
A5723	Block E, level 1, ext veranda awning - Grey fibre cement sheet material	~ 40 x 15 x 8 mm	No asbestos fibres detected Organic fibres detected

Sample No.	Location & Description	Sample Size	Results
A5724	Block E, int, lab 4, floor, grey vinyl sheet - Grey semi-flexible vinyl tile & clear adhesive	~ 44 x 30 x 5 mm	No asbestos fibres detected
A5725	Block E, int. science prep area, heat mat, fibre cement sheet - White layered fibre cement sheet material	~ 200 x 60 x 6 mm	No asbestos fibres detected Organic fibres detected
A5726	Block E, ext, science staff room, ceiling above stairs, fibre cement sheet - Beige layered fibre cement sheet material	~ 26 x 25 x 5 mm	No asbestos fibres detected Organic fibres detected
A5727	Block B, admin lunch room, access hatch, man hole cover - fibre cement sheet - Beige layered fibre cement sheet material	~ 17 x 12 x 5 mm	No asbestos fibres detected Organic fibres detected
A5728	Block B, sick bay, walls - fibre cement sheet - Beige fibre cement sheet material	~ 6 x 4 x 3 mm	No asbestos fibres detected Organic fibres detected
A5729	Block B, stairwell adj counsellors office, ceiling, fibre cement sheet - Beige fibre cement sheet material with attached black paint	~ 7 x 5 x 3 mm	No asbestos fibres detected Organic fibres detected
A5730	Block B, ext, school hall entrance, adj basketball court, fibre cement sheet to covered area - Beige layered fibre cement sheet material with attached white paint	~ 52 x 27 x 4 mm	No asbestos fibres detected Organic fibres detected
A5731	block B, ext, mastic to wall expansion joint - black bituminous material - Black fibrous bituminous material	~ 41 x 36 x 5 mm	No asbestos fibres detected Organic fibres detected
A5739	Block B, level 1, throughout under carpet - yellow vinyl sheet - Yellow semi-flexible vinyl tile & amber adhesive	~ 27 x 20 x 4 mm	No asbestos fibres detected
A5732	Block C, ext, throughout walls, textured coating - Beige crumbly textured coating-like material	~ 30 x 28 x 4 mm	No asbestos fibres detected
A5733	Block C, ext. throughout, window mastic - Grey mastic material	~ 9 x 8 x 2 mm	No asbestos fibres detected
A5734	Block D, throughout, verge lining - fibre cement sheet - Beige layered fibre cement sheet material with attached red paint	~ 10 x 9 x 2 mm	No asbestos fibres detected Organic fibres detected
A5735	Block D, throughout, eaves - fibre cement sheet - Grey compressed fibre cement sheet material with attached white paint	~ 18 x 14 x 3 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Crocidolite (blue asbestos) detected
A5736	Block D, level 1, awning to entrance, fibre cement sheet - Beige layered fibre cement sheet material with attached white paint	~ 19 x 12 x 4 mm	No asbestos fibres detected Organic fibres detected
A5737	Block D, throughout, ceiling fibre cement sheet - Beige fibre cement sheet material with attached pink paint	~ 8 x 7 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected
A5738	Block D, throughout, window mastic - Grey mastic material	~ 22 x 12 x 4 mm	No asbestos fibres detected
CB1295	Block D, paper backing under carpet throughout - Beige layered fibre cement sheet material with attached green paint	~ 18 x 15 x 3 mm	No asbestos fibres detected Organic fibres detected
CB1294	Block D, room D8, blue vinyl in front of sink - Blue semi-flexible vinyl tile & amber adhesive	~ 18 x 16 x 3 mm	No asbestos fibres detected
CB1293	Block D, room D1A, gasket to pipe work - Black fibrous gasket material	~ 17 x 6 x 3 mm	No asbestos fibres detected
CB1296	Block D, girls toilets, man hole cover and ceiling - fibre cement sheet - Beige layered fibre cement sheet material	~ 11 x 10 x 3 mm	No asbestos fibres detected Organic fibres detected
CB1297	Ext. walkway between block E and D, fibre cement sheet - Beige layered fibre cement sheet material with attached black paint	~ 22 x 16 x 4 mm	No asbestos fibres detected Organic fibres detected
CB1298	Block D, level 1, staff toilets, walls between toilet and sink area - fibre cement sheet - Beige layered fibre cement sheet material	~ 9 x 7 x 3 mm	Chrysotile (white asbestos) detected

Sample No.	Location & Description	Sample Size	Results
CB1299	Block D, level 1, corridor adjacent D23A, manhole FCS - Beige layered fibre cement sheet material with attached white paint	~ 8 x 7 x 2 mm	Chrysotile (white asbestos) detected
CB1300	Block D, level 1, ceiling space, asbestos dust - Brown fibrous dust & debris	~ 3.4 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected
CB1301	Block D, level 1, corridor adjacent D23A, window mastic - Grey soft mastic material	~ 20 x 15 x 3 mm	No asbestos fibres detected
CB1302	ext, beading to eaves t/o block C and D - Grey compressed fibre cement sheet material with attached cream paint	~ 18 x 12 x 4 mm	Chrysotile (white asbestos) detected Crocidolite (blue asbestos) detected
A5740	Block D, Girls toilets, mastic to sink - White soft mastic material with attached white paint	~ 16 x 10 x 3 mm	No asbestos fibres detected
A5741	Block C Exterior, eaves, FCS - Grey fibre cement sheet material	~ 20 x 6 x 3 mm	Chrysotile (white asbestos) detected

This Document may not be reproduced except in full.



CERTIFICATE OF ANALYSIS 229510

Client Details	
Client	Coffey Environment
Attention	Phoebe Quessy
Address	Level 19, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details	
Your Reference	754-SYDEN233731, Mosman HS
Number of Samples	10 Paint, 7 Dust
Date samples received	29/10/2019
Date completed instructions received	29/10/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details							
Date results requested by	01/11/2019						
Date of Issue	31/10/2019						
NATA Accreditation Number 2901. This document shall not be reproduced except in full.							
Accredited for compliance with	SO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *						

<u>Results Approved By</u> Jaimie Loa-Kum-Cheung, Metals Supervisor Authorised By

Nancy Zhang, Laboratory Manager



Lead in Paint						_
Our Reference		229510-1	229510-7	229510-8	229510-9	229510-10
Your Reference	UNITS	L4680	L4688	L3420	L3419	L4690
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	30/10/2019	30/10/2019	30/10/2019	30/10/2019	30/10/2019
Date analysed	-	30/10/2019	30/10/2019	30/10/2019	30/10/2019	30/10/2019
Lead in paint	%w/w	<0.005	<0.005	0.009	<0.005	0.28
Lead in Paint						
Our Reference		229510-11	229510-12	229510-13	229510-14	229510-17
			22001012			229510-17
Your Reference	UNITS	L4691	L4692	L4693	L4694	L4685
Your Reference Type of sample	UNITS	L4691 Paint				
	UNITS -		L4692	L4693	L4694	L4685
Type of sample		Paint	L4692 Paint	L4693 Paint	L4694 Paint	L4685 Paint

Lead (dust)						
Our Reference		229510-2	229510-3	229510-4	229510-5	229510-6
Your Reference	UNITS	L4681	L4682	L4683	L4686	L4687
Type of sample		Dust	Dust	Dust	Dust	Dust
Date prepared	-	30/10/2019	30/10/2019	30/10/2019	30/10/2019	30/10/2019
Date analysed	-	30/10/2019	30/10/2019	30/10/2019	30/10/2019	30/10/2019
Lead	mg/kg	1,000	120	240	200	200

Lead (dust)			
Our Reference		229510-15	229510-16
Your Reference	UNITS	L4695	L4696
Type of sample		Dust	Dust
Date prepared	-	30/10/2019	30/10/2019
Date analysed	-	30/10/2019	30/10/2019
Lead	mg/kg	80	790

Method ID	Methodology Summary
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.
Metals-020	Determination of various metals by ICP-AES.

QUALITY CONTROL: Lead in Paint						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			30/10/2019	8	30/10/2019	30/10/2019		30/10/2019	[NT]
Date analysed	-			30/10/2019	8	30/10/2019	30/10/2019		30/10/2019	[NT]
Lead in paint	%w/w	0.005	Metals-004	<0.005	8	0.009	0.01	11	101	[NT]

QUALITY CONTROL: Lead (dust)						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			30/10/2019	[NT]	[NT]		[NT]	30/10/2019	[NT]
Date analysed	-			30/10/2019	[NT]	[NT]		[NT]	30/10/2019	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions							
NT	Not tested						
NA	Test not required						
INS	Insufficient sample for this test						
PQL	Practical Quantitation Limit						
<	Less than						
>	Greater than						
RPD	Relative Percent Difference						
LCS	Laboratory Control Sample						
NS	Not specified						
NEPM	National Environmental Protection Measure						
NR	Not Reported						

Quality Control Definitions						
Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.					
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.					
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.					
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.					
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.					
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform Eaecal Enterococci. & E Coli levels are less than						

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sam When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Appendix D - Asbestos Legislative Requirements

This page has been left intentionally blank

LEGISLATIVE REQUIREMENTS — ASBESTOS

This document has been produced for information only and is under regular review due to frequent changes in legislation and guidance. It contains information relating to the column headings only and not, for instance, in relation to asbestos removal. It is the duty of employers, premise owners and controllers of premises etc. to ensure they are familiar with the latest applicable state legislation and guidance.

Introduction:

New (Harmonised) work health and safety laws commenced in the Commonwealth, New South Wales, Queensland, the Australian Capital Territory and the Northern Territory on 1 January 2012 and in Tasmania and South Australia on 1 January 2013.

For links to these legislation and the most current information on the progress of legislative change for the other states, please access Safe Work Australia at:

http://www.safeworkaustralia.gov.au/Legislation/Pages/ModelWHSLegislation.aspx

Transitional Arrangements

Safe Work Australia has developed transitional principles that set out how arrangements under existing work health and safety legislation are intended to transition to the new harmonised system. There are transitional principles statements for both the WHS Act and Regulations. These are available from the Safe Work Australia site:

http://www.safeworkaustralia.gov.au/Legislation/transitional-arrangements/Pages/transitional-arrangements.aspx

Further, each state and territory work health and safety authority has also developed resources to assist their jurisdiction with the transition. If you have any questions regarding transitional arrangements in your jurisdiction please <u>contact your regulator</u>.

Further Useful Resources

Safe Work Australia publishes a range of guidance material to provide information on the model work health and safety laws and to assist compliance. This information can be accessed from:

http://www.safeworkaustralia.gov.au/Legislation/guidance-material/Pages/guidance-material.aspx

For More Information Contact:

Coffey Services Australia – Work Health and Safety Section:

Phone: 02 9400 1000 Web: www.coffey.com

LEGISLATIVE REQUIREMENTS — ASBESTOS

This document has been produced for information only and is under regular review due to frequent changes in legislation and guidance. It contains information relating to the column headings only and not, for instance, in relation to asbestos removal. It is the duty of employers, premise owners and controllers of premises etc. to ensure they are familiar with the latest applicable state legislation and guidance.

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Management and Labelling/Signage Requirements	Other Requirements
NEW SOUTH WALES Work Health and Safety Act 2011 (Cth, NSW, QLD, TAS, SA) Work Health and Safety Regulations 2017 (NSW) Supported by: Code of Practice - How to Manage and Control Asbestos in the Workplace (2019) Code of Practice - How to Safely Remove Asbestos (2019)	 A person conducting a business or undertaking (PCBU) must, for work place buildings/ structures that are constructed prior to December 31, 2003; survey to identify and locate any Asbestos-containing Materials (ACM; and, Compile and keep at the workplace a site specific Asbestos Register. If ACM is identified at the work place, an Asbestos Management Plan (AMP) is to be compiled for the management of the identified ACM. The Asbestos Register and the Asbestos Management Plan must be made available at the work place for workers, people intending to conduct business at the work place and to Health and Safety representatives. 	Re-inspections of identified ACM are determined on a case-by- case basis depending on the risk situation and should be informed by and conducted in accordance with the site specific Asbestos Management Plan.	 The site specific Asbestos Register needs to include the date, type, location, condition and ACM identified during the survey. The Asbestos Register must be maintained and also updated if: the AMP is under review, further ACM is identified and/or, ACM is removed, disturbed or encapsulated. The site specific AMP must include management actions and justifications, incident and emergency response plans and record details of works carried out that involves ACM at the work place. The AMP must be maintained and updated: when the Asbestos Register is under review, if asbestos is removed, disturbed or encapsulated. if the AMP is no longer adequate for managing the ACM, if a Health and Safety Officer requests a review and/or at least Once every 5 years. 	Generally, health monitoring is not required excepting for workers involved in asbestos removal works. Training is required for persons involved in asbestos removal work or carrying out asbestos related works. All identified ACM in a workplace has to be labelled to indicate clearly asbestos presence and location of the asbestos item. Before refurbishment or demolition: • ensure Asbestos Register is current • undertake necessary inspections A licenced asbestos removalist is required unless: • ACM < 10m2 and non-friable and then by a competent person	 WHS Regulation 419 requires A person conducting a business or undertaking (PCBU) must not carry out, or direct or allow a worker to carry out, work involving asbestos; excepting as is applicable: managing risk; sampling, identification and analysis; maintenance removal/disposal other exemptions per s.419 (3)

Appendix E – Report Clarifications

This page has been left intentionally blank



Level 19, Tower B, Citadel Tower, 799 Pacific Highway Chatswood NSW 2067 Australia

> t: +61 2 9406 1000 f: +61 2 9415 1678 <u>coffey.com</u>

13 May 2020

Our ref: 754-SYDEN233731

CBRE / SINSW Level 21, 363 George Street Sydney NSW 2000

Attention: Ranya Samaan

Dear Ranya,

Mosman Public School – Update to Asbestos and Hazardous Materials Report

Coffey issued an Asbestos and Hazardous Materials Report for Mosman Public School following the completion of a limited pre demolition asbestos and hazardous materials survey in October 2019. The report (Document Ref. 754-SYDEN233731 – Mosman High School Report) was issued on the 7th November 2019.

CBRE (acting for SINSW) has now requested Coffey to revise the Asbestos and Hazardous Materials report in accordance with the Review of Environmental Factors (REF). There have been some changes to the design of the development and, in particular the staging of the redevelopment works as shown on the Staging Presentation drawings dated 11/5/2020 issued to Coffey by CBRE.

The proposed scope of work outlined in the Staging Presentation drawings dated 11/5/2020, has been covered in the Asbestos and Hazardous Materials Report issued by Coffey (refer to Appendix A – Asbestos and Hazardous Materials Register).

This letter serves to confirm that Coffey has reviewed and updated the Asbestos and Hazardous Materials Report issued on November 7th 2019 to reflect the current concept Design and staging of construction. The revised report is appended to this letter. It should be noted that no additional investigation works were carried out, or were deemed to be required, as a result of the design changes. This letter should be read in conjunction with the limitations of the report.

For and on behalf of Coffey

Willinson

Richard Wilkinson National NATA Accreditation Manager (ISO17020/ISO17025)



Level 19, Tower B, Citadel Tower, 799 Pacific Highway Chatswood NSW 2067 Australia

> t: +61 2 9406 1000 f: +61 2 9415 1678 <u>coffey.com</u>

13 May 2020

Our ref: 754-SYDEN233731

CBRE / SINSW Level 21, 363 George Street Sydney NSW 2000

Attention: Ranya Samaan

Dear Ranya,

Mosman Public School – Update to Asbestos and Hazardous Materials Report

Coffey issued an Asbestos and Hazardous Materials Report for Mosman Public School following the completion of a limited pre demolition asbestos and hazardous materials survey in October 2019. The report (Document Ref. 754-SYDEN233731 – Mosman High School Report) was issued on the 7th November 2019.

CBRE (acting for SINSW) has now requested Coffey to revise the Asbestos and Hazardous Materials report in accordance with the State Significant Development Application (SSDA). There have been some changes to the design of the development and, in particular the staging of the redevelopment works as shown on the Staging Presentation drawings dated 11/5/2020 issued to Coffey by CBRE.

The proposed scope of work outlined in the Staging Presentation drawings dated 11/5/2020, has been covered in the Asbestos and Hazardous Materials Report issued by Coffey (refer to Appendix A – Asbestos and Hazardous Materials Register).

This letter serves to confirm that Coffey has reviewed and updated the Asbestos and Hazardous Materials Report issued on November 7th 2019 to reflect the current concept Design and staging of construction. The revised report is appended to this letter. It should be noted that no additional investigation works were carried out, or were deemed to be required, as a result of the design changes. This letter should be read in conjunction with the limitations of the report.

For and on behalf of Coffey

Willinson

Richard Wilkinson National NATA Accreditation Manager (ISO17020/ISO17025)