

Phoenix Environmental Safety Ltd.

ASBESTOS SURVEY REPORT

(Refurbishment / Demolition Survey)

**Client: Board of Management,
Queen of Angels Primary School, Sandyford, Dublin 16**

**Location: Queen of Angels Primary School,
Blackthorn Drive, Wedgewood, Sandyford, Dublin 16**

Date: 13th April 2022

Report No. PE22-434



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Client: Board of Management, Queen of Angels Primary School, Sandyford, Dublin 16

Property: Queen of Angels Primary School, Blackthorn Drive, Wedgewood, Sandyford, Dublin 16

Asbestos Survey Type: Refurbishment/Demolition Asbestos Survey

Survey Company: Phoenix Environmental Safety Ltd.

Surveyors: Eoghan Hickey

Testing Laboratory: G & L Consultancy Ltd.

Date of Survey: 11th April 2022

Date of Survey Report: 13th April 2022

Report issue: Final

Signed: 

Date: 13th April 2022

This report cannot be used for contractual or engineering purposes unless this sheet is signed where indicated by Surveyor. The report must also be designated 'final' on the signatory sheet.

Please note that Phoenix Environmental Safety Ltd. cannot be held responsible for the way in which the Client interprets or acts upon the results. The report must be read in its entirety including any appendices. Phoenix Environmental Safety Ltd. accepts no responsibility for sub-division of this report. All measurements in this report are approximate and therefore should not be used by the asbestos removal contractor for pricing purposes. The asbestos removal contractors should ascertain for themselves, by site measurements and inspection, the exact nature and extent of the work to be done.

The survey information should be used to help in the tendering process for removal of ACMs from the building before work starts. The survey report should be supplied by the client to designers and contractors who may be bidding for the work, so that the asbestos risks can be addressed. In this type of survey, where the asbestos is identified so that it can be removed (rather than to manage it), the survey does not normally assess the condition of the asbestos, other than to indicate areas of damage or where additional asbestos debris may be present. However, where the asbestos removal may not take place for some time, the ACMs' condition will need to be assessed and the materials managed.

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SUMMARY

Following a request made by Sweeney Architects, we have produced this Refurbishment/Demolition Asbestos Survey report for the Queen of Angels Primary School, Blackthorn Drive, Wedgewood, Sandyford, Dublin 16 with the aim of finding asbestos containing materials (ACMs) within the scope of the asbestos survey.

The scope of the asbestos survey was confined to all accessible of Blocks A, B and C at the Queen of Angels Primary School. The areas within the scope of the survey are due for refurbishment works.

During the asbestos survey at the Queen of Angels Primary School, the following asbestos containing materials were identified in the following locations:

- Asbestos containing floor tiles and bitumen adhesive was identified on the floors throughout Block A, B and C (1,100 m² approx. total)

See Appendix C & F for more details

INTRODUCTION

Background

Asbestos has been used extensively in the building industry for over one hundred years and has proved to be an excellent product for a variety of uses, having many qualities such as insulation, fire and chemical resistance to name a few. Its suitability across a wide range of uses and its relatively cheap cost made it very popular, with over 3,000 different asbestos products having been recorded.

The use of asbestos containing materials (ACM's) was most prevalent between the 1950's and 1970's when it provided an economic, easy to use and versatile material. Unfortunately, given the constitution and make up of asbestos it can give rise to microscopic airborne fibres being released into the working environment. The fibres have carcinogenic properties caused by inhalation of the fibres which can get lodged in the lining of the lungs causing disease and death.

Scope & Purpose

The Board of Management have commissioned Phoenix Environmental Safety Ltd. to undertake an asbestos survey at the Queen of Angels Primary School, Blackthorn Drive, Wedgewood, Sandyford, Dublin 16. The aim of the survey was to locate and identify the presence of asbestos containing materials (ACM's) or suspected ACM's. This report provides a record and assessment of the extent and characteristics of ACM's and is based on information made available on the 11th April 2022.

This particular survey comprised of a Refurbishment / Demolition Survey, carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006, the Health and Safety Executive's (UK) guidance document HSG 264 (Asbestos: The Survey Guide) and HSG 227 (A Comprehensive Guide to managing Asbestos in Premises).

This means that:

- As far as reasonably practicable, locate and describe all ACM's in all reasonably accessible areas within the scope of the survey
- A sampling programme is undertaken to identify possible ACM's and estimates of the volumes and the surface areas of ACM made
- A record of the condition of the ACM's or where additional asbestos debris may be expected to be present is produced

Refurbishment / Demolition Surveys (formerly type 3 surveys)

This type of survey is necessary prior to any refurbishment (including "minor") or demolition work being carried out. These "refurbishment / demolition" surveys will be much more intrusive and destructive compared with management surveys as their intention is to locate all the ACMs so that they can be removed before the refurbishment or demolition takes place. Refurbishment/demolition surveys are required as necessary when the needs or use of the building changes and the fabric of the building will be disturbed or complex fixed plant and equipment are to be dismantled.

The purpose of the report is to:

- Enable the client to take appropriate precautions so that people who work at the Queen of Angels Primary School during the forthcoming refurbishment works are not exposed to asbestos-related health risks
- Provide information to assist the client in developing and implementing an action plan before any refurbishment works or demolition is carried out

Presentation of Findings

Data Sheets

A series of data sheets have been prepared to provide assessments and recommendations for each of the locations where samples were taken. These data sheets are presented in Appendix C.

Figures

The schematic diagrams presented in Appendix F at the rear of this document shows the locations of all of the asbestos containing materials detected during the asbestos survey.

Caveats

All reasonable steps have been taken to ensure that the contents and findings of this report are true and accurate. Though as stated below, further undetected ACM's may still be present within the premises. The client should therefore be aware of his responsibilities for identifying, locating, removing and/or managing all ACM's within the premises, and for notifying the appropriate authorities where necessary.

Refurbishment / Demolition Surveys

This type of survey employs the use of destructive sampling techniques of an unfamiliar site. Although every effort is made to locate all asbestos containing materials, it is impossible to rule out the possibility that undiscovered asbestos materials may be present. If the building is to undergo major refurbishment or demolition, it is recommended that the persons carrying out the work are made aware of this and take sufficient precautions, as may be appropriate, to ensure the health and safety of their own employees and any other parties who may be affected by the works.

APPENDIX A

ASBESTOS MATERIALS IN BUILDINGS

Sprayed coatings applied in Ireland were typically a mixture of hydrated asbestos cement containing up to 85% asbestos, mainly amosite but crocidolite and mixtures have been used. Primarily used for anti-condensation and acoustic control and fire protection to structural steelwork. It is a friable material but if in a good condition and unlikely to be disturbed presents no immediate danger; however it is likely to release fibres, if disturbed especially during repair and maintenance work. As it ages the binding medium of sprayed asbestos may degrade with the consequent release of more fibres.

Thermal insulation to boilers, vessels, pipe work, valves, pumps etc also known as hand applied lagging. Lagging may have a protective covering of cloth, tape, paper, metal or a surface coating of cement. All types of asbestos may be found in lagging and the content can vary between 15 and 85% asbestos with the protective papers being up to 100% chrysotile. The likelihood of fibre release depends upon its composition, friability and state of repair, but it is particularly susceptible to damage and disturbance through maintenance work or the action of water leaks.

Asbestos insulating boards usually contain between 15 to 40% amosite, although boards may be found to contain other types of asbestos and in other quantities. Insulating boards were developed in the 1950s to provide an economical, lightweight, fire resisting insulating material. As insulation board is semi-compressed it is more likely to release fibres as a result of damage or abrasion. Work on asbestos insulation board can give rise to high levels of asbestos fibre.

Asbestos cement products as in roofing slates, wall cladding, permanent shuttering, flue, rain water and vent pipes generally contain 10 to 15% of asbestos fibre bounded in Portland cement, some flexible boards contain a small proportion of cellulose. All three types of asbestos have been used in the manufacture of asbestos cement. The asbestos fibres in asbestos cement are usually firmly bound in the cement matrix and will be released only if the material is mechanically damaged or as it deteriorates with age.

Ropes and yarns are usually high in asbestos content, approaching 100% and all three types of asbestos have been used in their manufacture. They were used as in the pipe lagging process and in pipe jointing and also for packing materials as in heat/fire resistant boiler, oven and flue sealing or anywhere thermal or fire protection was required. The risk of fibre release depends upon the structure of the material; bonded gasket material is unlikely to release asbestos but an unbonded woven material may give rise to high fibre release especially if when damaged or frayed.

Cloth thermal insulation and lagging, including fire resistant blankets, mattresses and protective curtains, gloves, aprons, overalls etc. All types of asbestos have been used in the manufacture but since the mid 60's the majority has been chrysotile, the content of which can be up to 100 %.

Millboard, paper and CAF gaskets usually have an asbestos content approaching 100% with all three types of asbestos being used in their manufacture. They were used for insulation of electrical equipment and for thermal insulation. Asbestos paper has been used as a laminate for fireproofing to various fibre panels. These materials are on some occasions not well bonded and will release asbestos fibres if subject to abrasion and wear.

Bitumen felts and coatings may contain asbestos either bound in the bitumen matrix or as an asbestos paper liner. These materials are not likely to present a hazard during normal installation or use, but should be removed and disposed of in compliance with any regulation applicable.

Thermoplastic floor tiles can contain up to 25% asbestos usually chrysotile, PVC vinyl floor tiles and unbacked PVC flooring normally 7-10% chrysotile and asbestos paper backed PVC flooring the paper backing may contain up to 100% chrysotile. Fibre release is not normally an issue but may occur when the material is cut or subjected to abrasion.

Textured coatings. Decorative coatings on walls and ceilings usually contain 3-5% chrysotile. Fibre release may occur when subjected to abrasion.

Mastics, sealants, putties and floor tile adhesives may contain small amounts of asbestos. The only possible risk is from sanding of hardened material when appropriate precautions should be taken.

Reinforced plastic and resin composites, used for toilet cisterns, seats, banisters, stair nosings, window seals, lab bench tops, brake shoes and clutches in machines. The plastics usually contain 1-10% chrysotile and were used in for example car batteries to improve the acid resistance. Resins may contain between 20 and 50% amosite, but because of its composition fibre release is likely to be low.

ASBESTOS FIBRE TYPE COMMON NAMES	
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	N/A
Fibrous Anthophyllite	N/A
Fibrous Tremolite	N/A

		
Chrysotile	Amosite	Crocidolite
		
Tremolite	Actinolite	Anthophyllite

APPENDIX B

RESULTS OF LABORATORY ANALYSIS



G&L Consultancy Ltd
Specialists in Asbestos Management

BULK MATERIAL SAMPLE REPORT

Reference No:	J660365	Client Order No:	N/A
Date Received:	12 Apr 2022		
Client Name and Address:	Phoenix Environmental Safety Ltd (IE), Graigueswood, Freshford, Co. Kilkenny, Ireland		
Site Address:	Queen of Angels National School, Blackthorn Drive, Sandyford, Dublin 16		
Sampling Officer:	Phoenix Environmental Safety Ltd (IE)		
Date of Analysis:	12 Apr 2022		
Analyst:	Andy Webster		
Approving Officer:	Lesley Wallis	Signed:	<i>L. Wallis</i>
Issue Date:	12 Apr 2022		

ANALYSIS RESULTS

Sampling carried out by our own officers follows the procedures documented in our internal method M3: The Sampling of Bulk Materials, for Analysis to Determine the Presence of Asbestos. These samples have been analysed in accordance with internal method M2: The Identification of Asbestos, within Bulk Materials, by the Use of Optical Microscopy. Both these internal methods are based on the standard method as outlined in the HSE Document 'Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Any deviations from these standard methods will be recorded in this report. No responsibility is taken for sampling that is not carried out by own officers. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. Any comments regarding percentage content is outside the scope of our UKAS accreditation. The material classification is the opinion of the analyst, based on the samples' appearance, as received, and may not accurately reflect the source material on site. Where 'Trace Asbestos' has been reported, only 1 or 2 fibres or fibre bundles have been identified and analysed as asbestos following a thorough examination of the sample. All samples are analysed at one of our UKAS accredited laboratories in Somerset or Northern Ireland. This report must not be reproduced, except in full, without the written permission of the laboratory. These samples will be retained within this laboratory for a period of six months prior to disposal at a licensed asbestos disposal site, unless the client makes alternative arrangements. For advice concerning these materials, risk assessments, removal procedures or information regarding the current legislation for work with asbestos containing materials, please contact G&L Consultancy Ltd.

Site Ref	Lab Ref	Description	Analysis Result	Classification
S1	BS191852	Block A - Floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S2	BS191853	Block B - Boiler room - Flange - Gasket	No Asbestos Detected	Not Applicable
S3	BS191854	Block B - Kitchen - Floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S4	BS191855	Block C - Store room - Floor tile & adhesive	Chrysotile	Reinforced Composite + Well Bound Material
S5	BS191856	Block C - Room 7 - Sink unit - Felt pad	No Asbestos Detected	Not Applicable

G&L Consultancy Ltd

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G&L Consultancy Ltd is a company registered in England and Wales with a Company Number: 3687929



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APPENDIX C

ASBESTOS DATA SHEETS



Queen of Angels Primary School, Blackthorn Drive, Sandyford, Dublin 16



PHOENIX ENVIRONMENTAL SAFETY LTD.

ASBESTOS DATA SHEET



Created By	Eoghan Hickey
Date	13 th April 2022
Site Details	Queen of Angels Primary School, Blackthorn Drive, Wedgewood, Sandyford, Dublin 16
Client Name	The Board of Management
Survey Type	R/D Asbestos Survey
Site Ref	PE 22-434
Building Ref.	Block A – C
Location	Floors throughout
Extent/ Amount	1,100 m ² approx. total



Survey Date	11.4.2022	Sample No.	BS 191852
Survey Company	Phoenix Environmental Safety Ltd.		
Testing Laboratory	G & L Consultancy Ltd.		

	MATERIAL ASSESSMENT		PRIORITY ASSESSMENT
Product type	Floor tiles and bitumen adhesive	Normal occupant activity	N/A
Extent of damage	Low	Likelihood of disturbance	N/A
Surface treatment	Composite & well bound material	Human exposure potential	N/A
Asbestos type	Chrysotile	Maintenance activity	N/A
	Material assessment score: N/A	TOTAL SCORE: N/A	Priority assessment score: N/A

CONCLUSIONS AND RECOMMENDATIONS

The floor tiles and bitumen adhesive identified on various areas of the floors throughout Block A - C contain Chrysotile (white) asbestos fibres. Thermoplastic floor tiles usually contain up to 25% asbestos fibres and bitumen adhesive usually contains a small quantity of asbestos fibres, bound into the product matrix

The asbestos containing floor tiles and bitumen adhesive may be left in situ and managed in place. However, if the forthcoming refurbishment works are likely to disturb the floor areas, the asbestos containing floor tiles and adhesive should be removed by an asbestos removal contractor and disposed of as asbestos waste before the works commence

See Appendix F for more details

All asbestos removal work must be carried out in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

DETAIL OF THE ASBESTOS CONTAINING FLOOR TILES & BITUMEN ADHESIVE

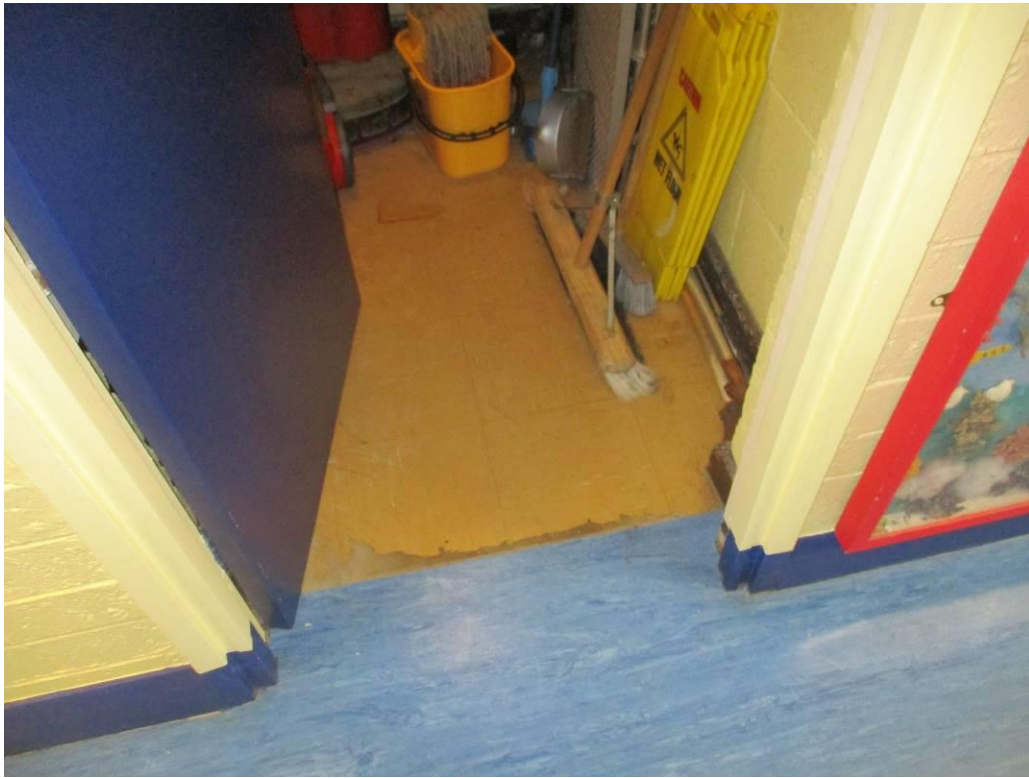


Floor tiles and bitumen adhesive in the classroom entrance and W/C's in Block A



Floor tiles & bitumen adhesive under floor covering beside the sinks in the classrooms in Block A

DETAIL OF THE ASBESTOS CONTAINING FLOOR TILES & BITUMEN ADHESIVE



Floor tiles and bitumen adhesive in the cleaners store in Block B



Bitumen adhesive under the flooring and levelling compound in the staff room in Block B

DETAIL OF THE ASBESTOS CONTAINING FLOOR TILES & BITUMEN ADHESIVE



Bitumen adhesive under the flooring in the corridor in Block B

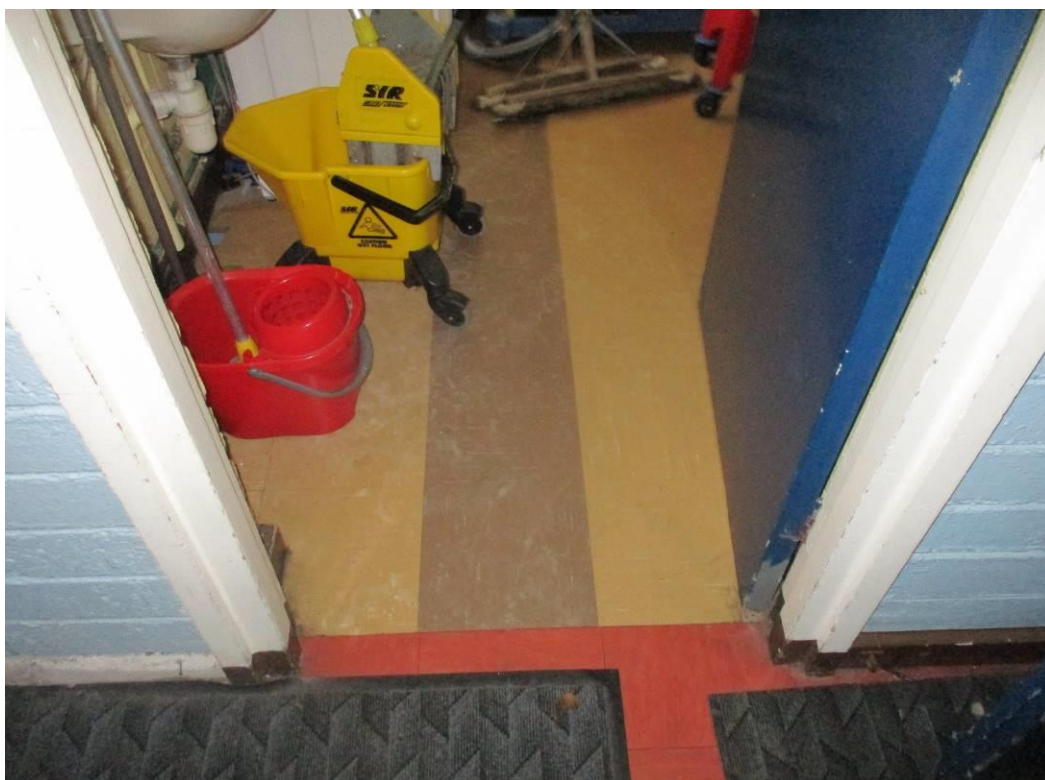


Bitumen adhesive under the flooring in the gym in Block B

DETAIL OF THE ASBESTOS CONTAINING FLOOR TILES & BITUMEN ADHESIVE



Floor tiles and bitumen adhesive in the classroom entrance and W/C's in Block C



Floor tiles and bitumen adhesive in the cleaners store in Block C

APPENDIX D

NON ASBESTOS CONTAINING MATERIALS



Roof cladding on Block A – C



Felt on the roof in Block B

NON ASBESTOS CONTAINING MATERIALS



Plasterboard ceiling boards in Block B

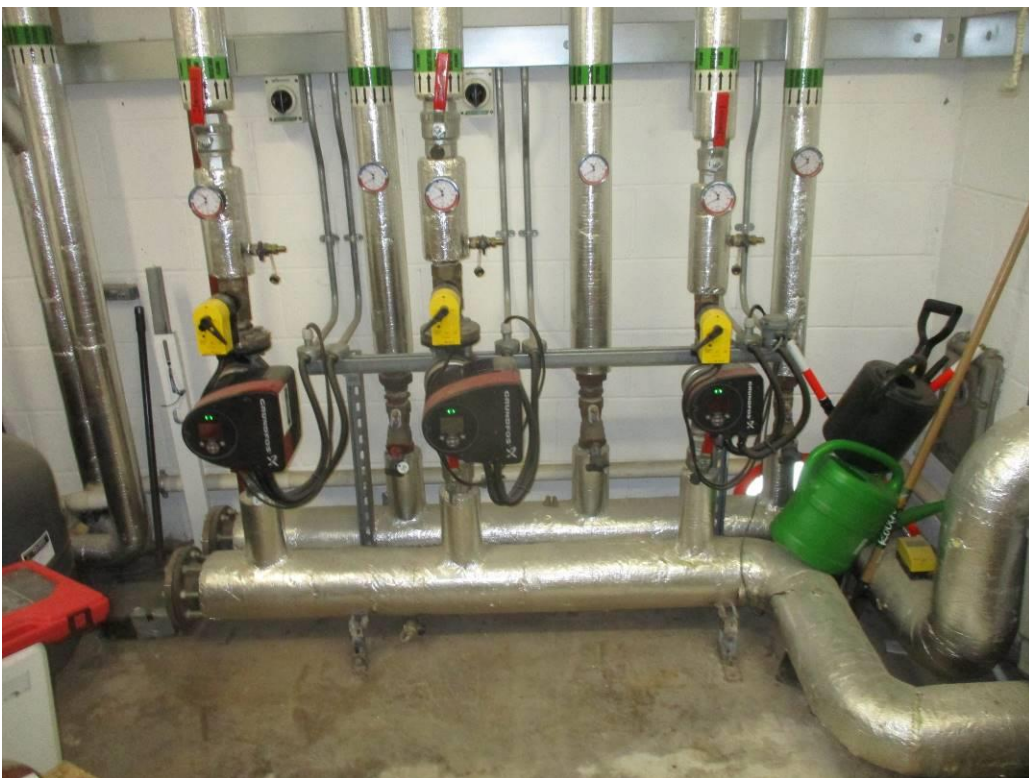


Fiberglass insulation on the pipework in the ceiling void in the boiler room in Block B

NON ASBESTOS CONTAINING MATERIALS

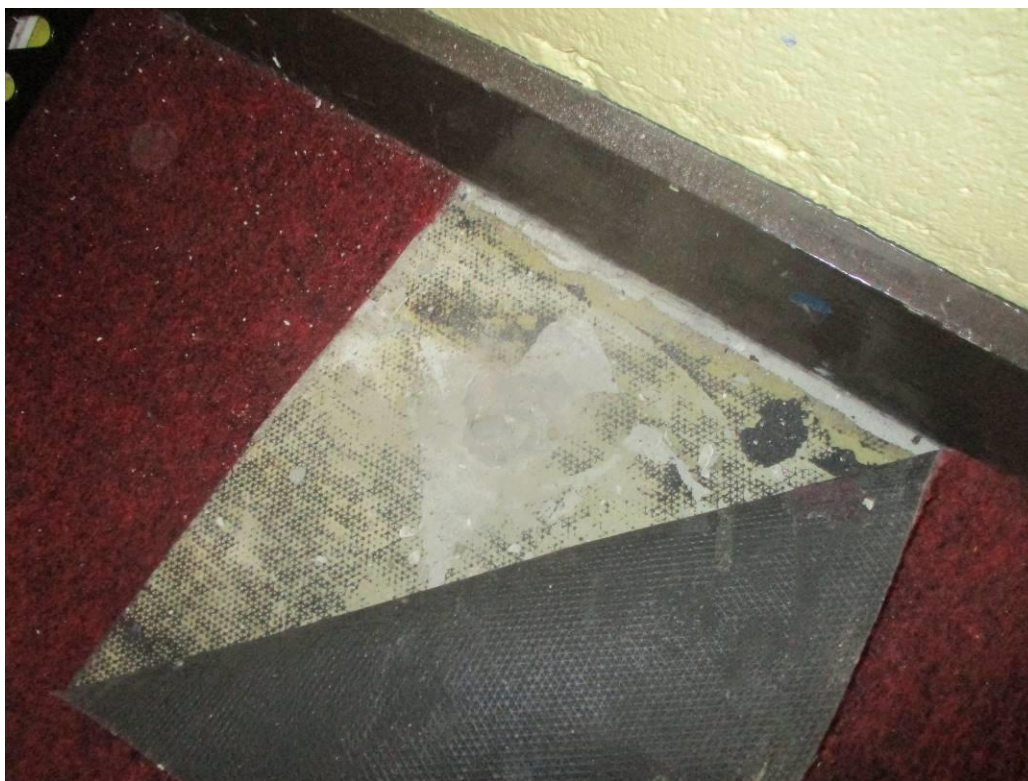


Toilet cisterns in Block A – C



Fiberglass insulation on the pipework and gaskets between flanges in the boiler room in Block B

NON ASBESTOS CONTAINING MATERIALS



Concrete floors under carpet in the classrooms in Block A – C



Skylights on the flat roof

APPENDIX E

NON ACCESSIBLE LOCATIONS

- The school was live and in use and intrusive sampling was kept to a minimum where possible so as not to damage the integrity of the building and its finishes
- Several areas were locked and inaccessible on the day of the survey, these areas are outlined in Appendix F
- No flat roof areas were sampled
- No inspection was carried on flues, ducts, voids and similar enclosed areas, the access to which would necessitate the use of specialist equipment or tools, or which would have caused damage to decorations, fixtures, fittings or the structure of the building
- Floors which could not be easily lifted and resealed e.g. ceramic tiles, wet-room floors and timber flooring, were only visually inspected
- No inspection of live electrical or mechanical plant or similar requiring the attendance of a specialist engineer was carried out
- No inspection of any areas requiring specialist access equipment other than telescopic ladder was carried out
- Samples have not been taken where the act of sampling would endanger the surveyors or affect the functional integrity of the item concerned
- All contractors working on site should always remain vigilant to the possibility that other asbestos containing materials may be concealed within the fabric of the building or equipment. If any suspect asbestos containing materials are uncovered during the course of the work, works must stop in that area and the suspect material should be sampled and analysed immediately for the presence of asbestos

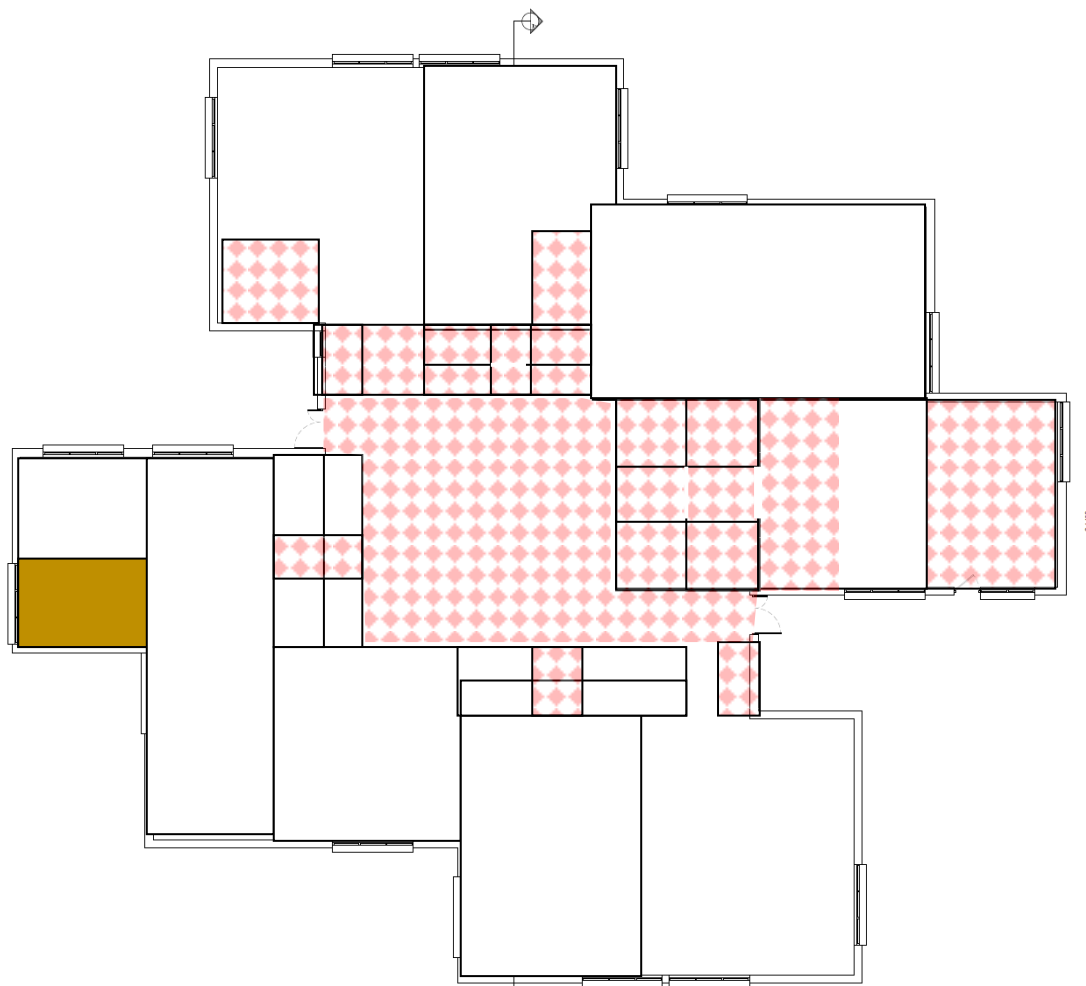
APPENDIX F

FLOOR PLANS & LOCATION OF ASBESTOS CONTAINING MATERIALS

Schematic diagram only
Not to scale
13th April 2022

Queen of Angels Primary School,
Blackthorn Drive, Wedgewood,
Sandford, Dublin 16

BLOCK A - FLOOR PLAN

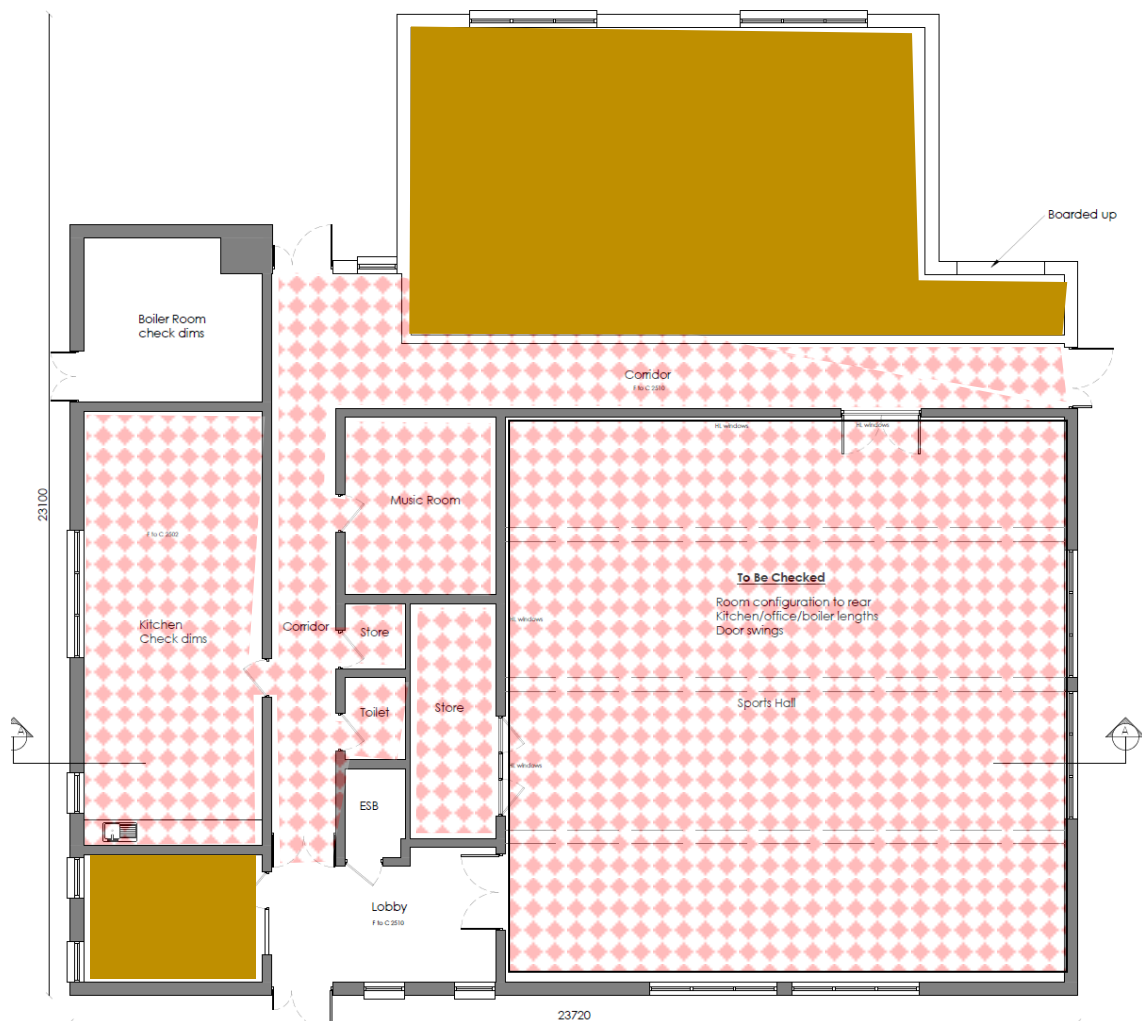


	Area where asbestos containing floor tiles and / or adhesive was identified
	Areas which were not accessible on the day of the survey
	
	
	

Schematic diagram only
Not to scale
13th April 2022

Queen of Angels Primary School,
Blackthorn Drive, Wedgewood,
Sandyford, Dublin 16

BLOCK B - FLOOR PLAN



Area where asbestos containing floor tiles and / or adhesive was identified



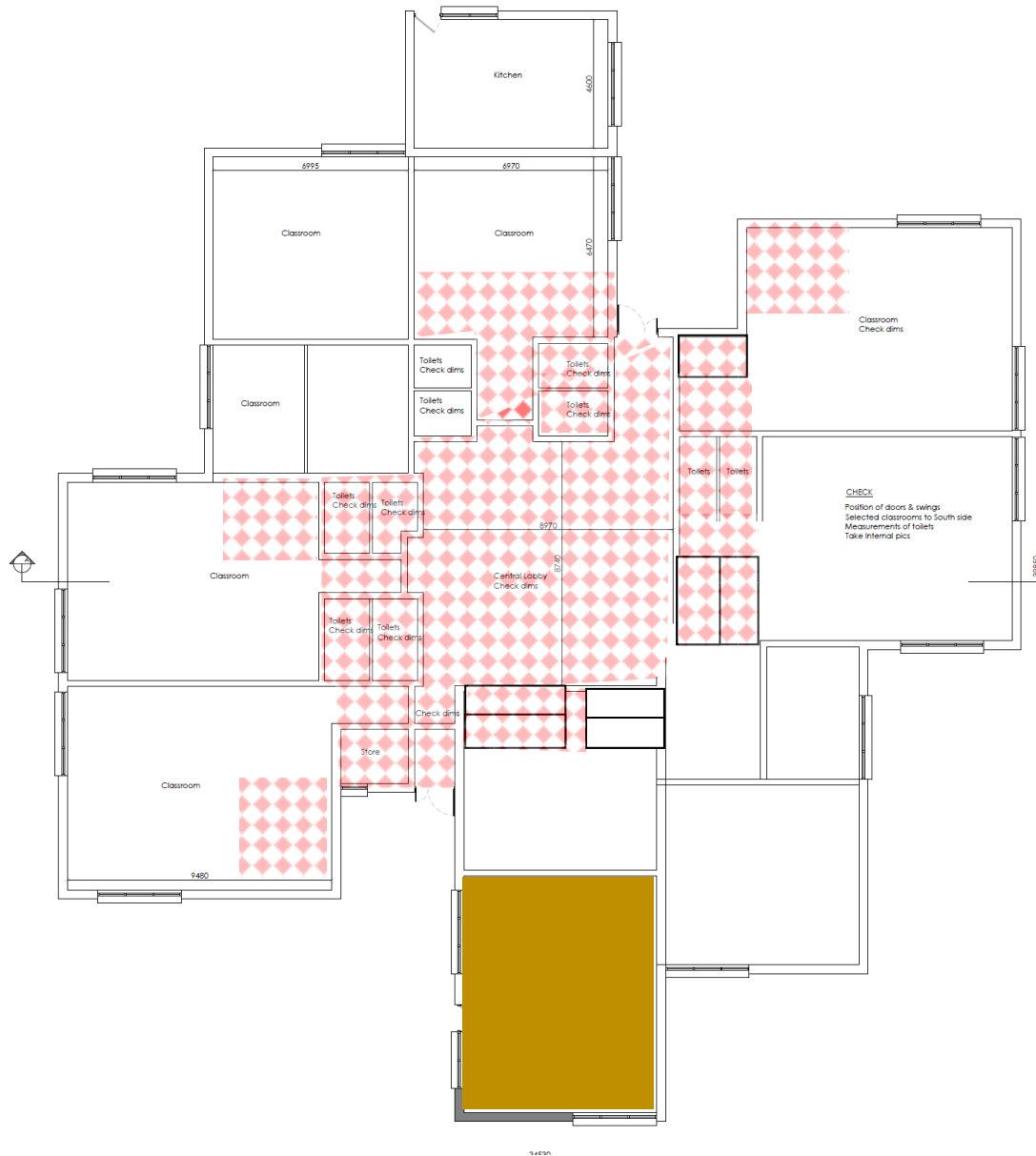
Areas which were not accessible on the day of the survey



Schematic diagram only
Not to scale
13th April 2022

Queen of Angels Primary School,
Blackthorn Drive, Wedgewood,
Sandyford, Dublin 16

BLOCK C - FLOOR PLAN



Area where asbestos containing floor tiles and / or adhesive was identified



Areas which were not accessible on the day of the survey

