



CHAMIC INDUSTRIAL SERVICES LIMITED

SECTION 1: APPROVAL/TITLE PAGE

REPORT OF AN ASBESTOS SURVEY & REGISTER
AT
THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART
FOR
GLASGOW SCHOOL OF ART
COPY NO: 1



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Asbestos Survey: ASG164
Issue A:
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contractors committed to the safe
removal of hazardous materials*

REPORT OF AN ASBESTOS SURVEY
THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART

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REPORT OF AN ASBESTOS SURVEY

THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART

1: INTRODUCTION

The following is a report of a further asbestos survey for Glasgow School of Art. The survey was carried out at the request of Mr Bill Mason in order that they could establish the extent of asbestos materials within areas of the above property. The survey was carried out on Tuesday 15th July 2003

The survey was a standard sampling, identification and assessment survey or Sampling Type 2 survey as recommended within MDHS 100 for sampling of asbestos in buildings. Reference was also made to the Institute of Occupational Hygienists 'Code of Practice for the sampling of bulk materials for asbestos'.

The buildings were surveyed by fully qualified occupational hygienists with many years experience of similar surveys. The survey was carried out by Chris Griffin who has passed The Institute of Occupational Hygienists Certificate of Proficiency (Surveying and Sampling of Asbestos in Buildings) BIOH Module 402.

The survey made reference to the following areas and materials where asbestos is known to be contained in buildings of this type including: Building fabric and structure, heating and ventilation systems, sprayed coatings and thermal insulation products, ceiling structures and paneling, wall boards and partitions, firebreaks and bulkheads, fire doors and infill paneling, decorative flooring and vinyl floor tiles, external cladding and soffits, cement roofing, down pipes and guttering and electrical switch gear.

Unless stated access was gained into all attics and voids, underground ducts and floor area. Access was gained into service riser if available, however in areas where these risers were sealed, access was only gained into riser which could be opened or dismantled without damage to the riser or decoration of the rooms.

Samples for the analysis of asbestos content were collected and placed into individual containers. Care was taken to ensure that cross contamination between samples did not occur. A label containing the sampling information and unique sampling number were placed at the site of the sampling location.

The samples were analysed by the Asbestos Analytical Services (AAS). AAS has U.K.A.S accreditation for this type of analysis. A copy of the Certificate of Analysis is contained in Appendix 1. AAS analysed the samples qualitatively for asbestos by polarised light and dispersion staining as detailed by The Health & Safety Executive in MDHS 77.

Samples were not always taken if it were established that similar materials were present within the same areas of the building (i.e. decorative flooring) but found in different locations.

Risk factor and photographs of relevant asbestos materials are listed in Appendix 2.

Plans of relevant asbestos listed in Appendix 3.

Asbestos Register listed in Appendix 4.

Access was gained to all area of the building, except the electrical switchgear as the power was still live.

Care was taken to ensure that all asbestos materials within the building were identified; however it may still be possible that asbestos materials may yet be uncovered during the refurbishment/demolition of the building buildings that were not accessible during the present survey

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2: RESULTS

Asbestos materials are classified as: INSULATION or SPRAYED COATINGS, INSULATION BOARD or CEMENT BOARD. The criteria on which these classification are based are detailed within The Asbestos (Licensing) Regulations 1983 as amended by the Asbestos (Licensing) (Amendment) Regulations 1998. These classifications are relevant as they trigger differing requirements for remedial or removal work.

The classifications are based on the density of the material. A 5 centimetre square section of material is required in order to carryout a density test to comply with the British Standard testing requirements. Taking a sample of suspected asbestos of this size is not appropriate in most instances therefore the experience of the surveyor is used to assess the density of the material. A density sample would therefore only be taken in circumstances were the classification between asbestos insulation board and asbestos cement was in doubt and additional control measures would be required to prevent the release of airborne asbestos. Density tests to distinguish between insulation/sprayed coatings and insulation boards are not required as all work involving these materials is notifiable to the Health & Safety Executive and must be carried out by a Licensed Asbestos Removal Contractor.

Other types of asbestos materials include: textured coatings, paints, asbestos rope products, gaskets, vinyl floor tiles, hard decorative floors, wall joints, tapes, mastics, felts and paper products.

The asbestos material classifications and risk factors/assessments are noted within the Tables of Results listed below.

5 samples were taken and asbestos was found in 2 of them.

TABLE 1 – DETAILS OF ASBESTOS SAMPLES – THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART

Sample Number	Type of material	Location	Type of asbestos	Condition Ref No.	Risk Factor
MBGSA -01	Board	Library Stairwell	Chrysotile	Fair	Low (4)
MBGSA -02	Insulation	Basement Pipe-work	No Asbestos	N/A	N/A
MBGSA -03	Insulation	Basement Pipe-work	No Asbestos	N/A	N/A
MBGSA -04	Board	Sub-Basement, Woodwork Workshop, Bulkhead	Chrysotile	Fair	Low (4)
MBGSA - 05	Ceiling Tile	Ground Floor, Female Toilets	No Asbestos	N/A	N/A

2.1 Classification of the Condition of Asbestos

- GOOD - The asbestos is encapsulated, shows no sign of damage and has no friable edges.

- FAIR - The asbestos is not encapsulated but is otherwise sound, the asbestos material is cracked, has flaking paint-work or frayed edges or shows signs of water damage or staining.

- POOR - The asbestos is badly cracked, water stained or has loose or visible asbestos fibres or is in the form of dust

2.2 Risk Factor/Assessment Criteria

The legislation regarding the control of risk factors from asbestos in buildings is currently in draft form and as yet has not been implemented. However, The Control of Asbestos at Work Regulations (as amended in 1992 & 1998) requires that employers shall not carry out any work, which exposes or is liable to expose any of their employees to asbestos unless they have made an adequate assessment of exposure. Furthermore, employers are obliged to identify the type of asbestos involved in the work, or assume that it is Crocidolite or Amosite, and for the purpose of the regulations treat it accordingly.

The risk factors used within this report are based on the criteria listed with MDHS 100 Surveying, sampling and assessment of asbestos-containing materials and the Control Action Flow Charts listed within the document: Asbestos and man made mineral fibres in buildings – Practical Guidance. (The Department of the Environment). The control charts use the following criteria: The condition of the asbestos, the type of material i.e. sprayed coating, insulation board etc. (not the type of asbestos i.e. crocidolite, chrysotile etc), the accessibility of the asbestos material and the number of people who use the area or may be potentially exposed to airborne asbestos fibres.

Based on the information noted within MDHS 100 this report utilises the Material Assessment Algorithm as listed below.

The four main parameters used to calculate risk criteria include:

- Product Type
- Extent of damage/Deterioration
- Surface Treatment
- Asbestos Type

Each parameter is scored as:	High	=	3
	Medium	=	2
	Low	=	1

The value assigned to each of the four parameters is added together to give a total score of between 2 and 12.

Materials with assessment score of 10 or more are regarded as having a high potential to release asbestos fibres if disturbed.

Scores of between 7 and 9 are regarded as having medium potential to release asbestos fibres if disturbed.

Scores between 5 and 6 are regarded as having a low potential to release asbestos fibres if disturbed.

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Scores of 4 or less have a very low potential to release asbestos fibres if disturbed.

<u>Sample Variable</u>	<u>Score</u>	<u>Examples of Scores</u>
Product Type	1	Asbestos reinforced composites (plastics, resins mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc)
	2	Asbestos insulating boards, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.
	3	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.
Extent of damage/ deterioration	0	Good condition or no visible damage
	1	Low damage, a few scratches or surface marks, broken edges on boards, tiles etc
	2	Medium damage, significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres
Surface Treatment	0	Composite materials containing asbestos, reinforced plastics, resins, vinyl tiles.
	1	Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), asbestos cement sheets etc.
	2	Unsealed AIB, or encapsulated lagging and sprays
Asbestos Type	1	Chrysotile
	2	Amphibole asbestos excluding crocidolite.
	3	Crocidolite

Based on the information noted above in the Material Assessment Algorithm, and the potential for fibre release, the remedial actions/recommendations are listed below.

SCORES 10 –12

HIGH RISK - Asbestos materials may be in poor condition and present a strong risk of exposure to occupants from airborne asbestos fibres. The materials may be in fair condition but are located in areas where they can be easily damaged. These materials should be dealt with within the short-term (< 3months). Remedial actions include restricting access, encapsulation or total removal. If these actions are not 'Reasonably Practical' then the material should be inspected at least every 3 months for signs of deterioration.

SCORES 7 - 9

MEDIUM RISK - Asbestos materials may be in fair condition and present some risk of exposure to airborne asbestos fibres under certain conditions or if disturbed. These materials should be dealt with within the medium-term (3 – 12 months). Remedial actions include encapsulation or total removal. Materials of medium risk should be inspected every six months for signs of deterioration.

SCORES 5 - 6

LOW RISK - Asbestos materials are in good condition and present little risk of exposure to airborne asbestos fibres under normal conditions. No remedial actions are required; however the material should be inspected at least every 12 months for signs of deterioration.

SCORES 0 – 4

VERY LOW RISK - Asbestos materials are in good condition and present no or minimal risk of exposure to airborne asbestos fibres under normal conditions. No remedial actions are required; however the material should be inspected at least every 12 months for signs of deterioration.

3: CONCLUSIONS

3.1 Asbestos Cement Boards

Asbestos cement boards were located in the Library stairwell wall & the sub-basement woodwork workshop bulkhead. See Photos (1 & 2)

The asbestos cement boards were found to contain Chrysotile (white) asbestos and was in fair condition and so assigned a low risk factor (4)

3.4 ASBESTOS REGISTER

The findings of this report should be incorporated in the asbestos register of the buildings.

If the building was to undergo a major Demolition/ Refurbishment programme, it would be advisable to ensure that any asbestos materials contained within the building are removed prior to the start of these works. The asbestos materials should be removed by a licensed asbestos removal contractor.

Care was taken to ensure that all asbestos materials within the building were identified, however it may still be possible that asbestos materials may yet be uncovered during the refurbishment of the buildings that were not accessible during the present survey.

4 RECOMMENDATION

- 4.1 An asbestos register should be made available to all occupants of the buildings. This will ensure that any materials present within the building are not disturbed.
- 4.2 All asbestos materials identified within the buildings should be removed prior to the start of any demolition / refurbishment programme. This work should be carried out by a licenced contractor.
- 4.3 It is recommended that all asbestos materials be labeled.

Chris Griffin
Contracts Manager

APPENDIX 1

RESULTS OF ASBESTOS ANALYSIS

THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART

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APPENDIX 2

RISK FACTOR & PHOTOGRAPHS OF RELEVANT ASBESTOS MATERIALS

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APPENDIX 3

PLANS OF RELEVANT ASBESTOS MATERIALS

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THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART



Asbestos Cement Boards @ Library Stairwell

LOCATION		MATERIAL		SURVEY DETAILS	
Library Stairwell		Asbestos Cement Board		Date of Survey	15/07/03
				Survey Type	Type 2
				Surveyor	CG
Asbestos Type	Chrysotile	Accessibility	Unlikely to be Disturbed	Condition of Material	Fair
Material Type	Board	Approx. Size	8m2	Risk Factor Algorithm	4
Surface Treatment	Sealed	Location	Library Stairwell	Re-inspection Date	15/07/04
Extent of damage	None	Likelihood of sustaining damage	Low	Priority Actions	Low
REMEDIAL ACTION		Manage & Label			

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Asbestos Cement Boards @ Sub-basement, Woodwork Workshop, Bulkhead

LOCATION		MATERIAL		SURVEY DETAILS	
Sub-basement, Woodwork Workshop, Bulkhead		Asbestos Cement Board		Date of Survey	15/07/03
				Survey Type	Type 2
				Surveyor	CG
Asbestos Type	Chrysotile	Accessibility	Unlikely to be Disturbed	Condition of Material	Fair
Material Type	Board	Approx. Size	25m2	Risk Factor Algorithm	4
Surface Treatment	Sealed	Location	Sub-basement, Woodwork Workshop, Bulkhead	Re-inspection Date	15/07/04
Extent of damage	None	Likelihood of sustaining damage	Low	Priority Actions	Low
REMEDIAL ACTION		Manage & Label			

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APPENDIX 4

ASBESTOS REGISTER

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**APPENDIX 4
ASBESTOS REGISTER**

THE MacKINTOSH BUILDING, GLASGOW SCHOOL OF ART

LOCATION	MATERIAL TYPE	ASBESTOS TYPE	RISK	ACTION	CHECK 2004
Library Stairwell	Cement Board	Chrysotile	Low (4)	Manage & Label	
Sub-basement, Woodwork Workshop, Bulkhead	Cement Board	Chrysotile	Low (4)	Manage & Label	