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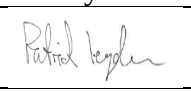
CONFIDENTIAL REPORT

Refurbishment / Demolition Asbestos Survey (RDAS)
No. 1 Munster Avenue, Galway, H91 V2XR

Date: 5th September 2022	
Surveyor: Patrick Leyden	Approved by: James McCusker (Principal Consultant)

Document Control

Client	Galway City Council – Housing Section
Project Title	RDAS – 1 Munster Avenue, Galway City
Document Title	**Refurbishment / Demolition Asbestos Survey (RDAS)** No. 1 Munster Avenue, Galway City
Report No:	Report No: A041/22

REV	Status	Author(s)	Revision History	Approved by:	Date
	Final	Patrick Leyden		James McCusker	5th September 2022
					

Contents

Glossary of Terms:

ACM	Asbestos Containing Material
AIB	Asbestos Insulation Board
AMP	Asbestos Management Plan
HSA	Health & Safety Authority
CAF	Compressed Asbestos Fibre
HSG	Health & Safety Guidance
RDAS	Refurbishment / Demolition Asbestos Survey
MAS	Management Asbestos Survey

Chrysotile – White Asbestos: Amosite – Brown Asbestos: Crocidolite – Blue Asbestos

Site Location: 1 Munster Avenue, Galway City	**Ref|:** A041/22
Client: Galway City Council	**Date**: September 2022

1. Introduction

McCusker Environmental Ltd. was requested by Galway City Council to carry out a Refurbishment / Demolition Asbestos Survey (RDAS) at No. 1 Munster Avenue, Galway City.

The premises comprises of a 3-bed semidetached dwelling, which was unoccupied during the undertaking of the asbestos survey.

The survey undertaken fulfils the Clients' legal duty to identify the presence of asbestos-containing materials, and carryout a risk assessment in respect of these materials at the premises.

2. Executive Summary

Locations of asbestos containing materials:

- **Asbestos containing paper backed lino to Kitchen floors.**
- **Asbestos roof slates to rear extension roof.**
- **Asbestos black Shires toilet cistern and seat – Strongly Presumed.**

Samples taken for Laboratory Analysis.

Site Ref	Lab Ref	Description	Analysis Result	Classification
A - Floors	BS194701	Vinyl floor tile	No Asbestos Detected	Not Applicable
B - Kitchen	BS194702	Lino	Chrysotile	Asbestos Textiles/Paper
C - Rear Extension	BS194703	Slate	Chrysotile	Asbestos Cement

Notes on Asbestos Containing Materials:

- Asbestos Containing roof slates were confirmed. The roof slates are deemed very low risk if undisturbed and can be managed in place. If removal is planned, then the roof slates must be removed and disposed of according to the current Asbestos Regulations.
- The lino in the Kitchen as an asbestos paper backed lining. The lino should be removed under controlled conditions and disposed of as asbestos waste.
- The toilet seat and cistern must be removed intact, double bagged and disposed of as asbestos waste.

3. Survey Specification

The survey was in accordance with *HSG 264 – Asbestos: The Survey Guide (U.K. Health and Safety Executive).*

HSG 264 – Asbestos: The Survey Guide (U.K. Health and Safety Executive) was released on 29th January 2010. This document expands on and replaces MDHS 100. This document is aimed at those conducting surveys, those who commission surveys and those with specific responsibilities for managing asbestos in accordance with Control of Asbestos Regulations (CAR) 2006.

The Survey Guide includes two types of Asbestos Surveys.

Management Surveys (replaces former Types 1 & 2 surveys) to assess compliance with the law. They identify asbestos in all accessible areas; provide risk assessments on all asbestos containing materials identified and make recommendations where problems are identified.

Refurbishment and Demolition Surveys are much more intrusive and use destructive methods to access areas which would normally be classed as inaccessible within a management survey. These are required if a major refurbishment or demolition was required. The aim of these surveys is to locate all asbestos within all areas of the building so that the correct measures can be taken prior to refurbishment or demolition.

SPECIFIC NOTES

General

Once asbestos materials have been identified it is essential that appropriate management and remedial measures be introduced. In general, asbestos materials that are in good condition should not be disturbed. Their location should be recorded, and their existence made known to contractors, staff and others who may be affected. Warning labels advising of the presence of asbestos may be appropriate together with periodic condition inspections. For materials in poor condition remedial action (encapsulation or removal) may be required. Access to areas containing asbestos in poor condition may need to be restricted until remedial measures have been completed. Any person undertaking work within the building should be informed of the presence of asbestos. This briefing also applies to any other person associated with the site, including staff, sub-contractors and others.

All asbestos removal works should be carried out per the current Asbestos Regulations.

4. General Building Information

The survey was in accordance with *HSG 264 – whenever possible, a preliminary desk study is carried out to gather information pertinent to the building(s) under investigation. A review of this information has revealed the following:*

Desk Study

Building name / address	No 1 Munster Avenue, Galway City
Age(s) of construction	1942
Building description	Three-bedroom semidetached dwelling.
Building use	Residential
Site occupation	Unoccupied
Services statue	Live
Drawings / Plans	None
Information on previous surveys / removal etc.	None provided.

General Building Information Internal Aspects

Internal roof materials	Prefabricated timber truss to duo pitched roof, timber ceiling joists, sarking felt
Ceilings and coatings	Gypsum boards plaster finish.
Floors and coverings (general)	Linoleum; older vinyl floor tiles under floor coverings. Asbestos lino to Kitchen
Sub floors	Concrete
Walls internal	Block masonry
Door frames	Timber & uPVC
Window frames and sills	uPVC and timber sills
Heating systems	Oil stove, fireplaces and radiators
Insulation to pipes and boilers	N/A
Flue pipes	Metal
Waste pipes	uPVC
Risers	uPVC
Other:	

General Building Information External Aspects

Roof type	Duo pitched roof
Roof covering	Concrete Marley tile to main roof – Asbestos Slates to rear extension
Soffit	Concrete
Facia	Concrete / timber
Verge under-cloak	N/A
Guttering / downpipes	uPVC
Walls	Block Masonry
Out buildings	N/A
Other:	N/A

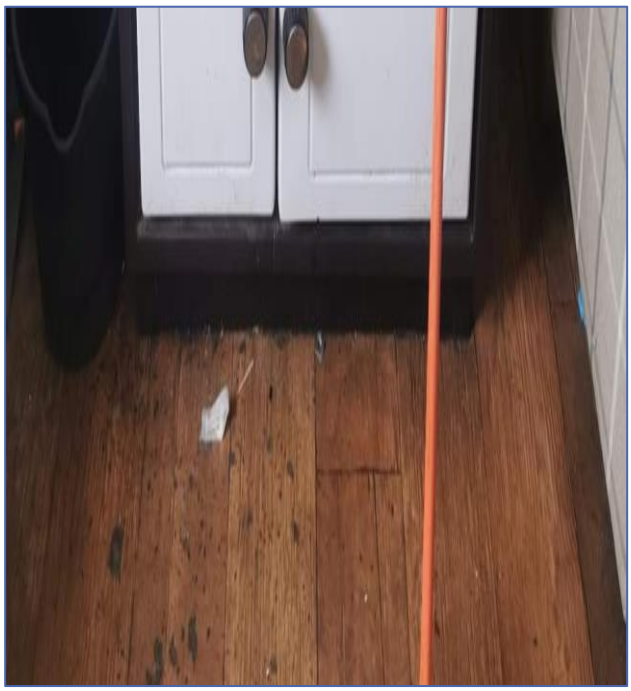
5. Laboratory Analysis

SAMPLING

The number of samples collected will depend on the extent and range of materials present and the extent of variation within the materials. Sample numbers reflect the extent of variation (including materials types, colour/shade, texture, depth, and coating). Decisions are made on the basis of judgement and professional experience. Fewer samples are necessary where items are clearly identical and the lighting is adequate. Different materials are often different colours so samples of each may be needed to confirm the presence or
absence of asbestos. Areas with visual signs of repair, replacement or patching will not be representative of the main material (they may be a more recent non-asbestos replacement material) and sampling has taken this into account.
After sampling, any broken material with potential to cause airborne dust was sealed, and any remaining dust or debris removed by wet wiping (or by using an approved 'type H' vacuum cleaner). Samples were placed in a plastic Ziploc type bag, labelled according to Job Number, Client, Site, Sample Number, Description of product, Area details. The labelled bag was then placed in a second bag Ziploc bag for transport to the laboratory.
All sampling equipment was cleaned following use to prevent cross contamination of samples.
Asbestos is a known human carcinogen (cancer causing agent) that was used extensively in Ireland up to the late eighties and early nineties. Asbestos fibres may cause fatal lung disease when inhaled. These diseases are not sudden and may take many years to develop from the first exposures. Asbestos containing materials constitute a particular risk within the meaning of the Safety Health and Welfare at Work (Construction) Regulations 2006 and should be addressed in the preliminary Health and Safety Plan by the designers and the Project Supervisor Design Process. Asbestos is a fibrous material and has excellent insulating and fire resistant properties. Asbestos was seldom used as pure asbestos fibres but rather combined with other products to add strength and stability or fire resistance to them. Asbestos may be found in products from a few per cent up to 90% depending on the type of material. Asbestos is a hazard to humans but the risks posed by asbestos containing materials (ACM) will depend on the type of ACM found. In simple terms where asbestos products are flaky and would crumble under hand pressure quite easily they are termed friable. The more friable the ACM the more risk there is to the individual handling the material. This is reflected in the material assessment scores in the risk assessments No person is permitted to work with asbestos containing materials unless they have received training and have taken all reasonable steps to prevent exposure to asbestos. The requirement for training is detailed in Regulation 17 of the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations, 2006. Our surveys are undertaken in accordance with HSG 264 for the Sampling and Surveying of Buildings for Asbestos in Buildings. The results of the survey and the risk assessments for the asbestos containing materials found are undertaken in accordance with HSG 264.This document was produced by the Health and Safety Executive in the UK for the management of Asbestos in Premises. Both these documents are acknowledged by the Health and Safety Authority as being the current best practice for asbestos surveying and management in Ireland. This overall assessment can then be used as a guide in taking action to deal with the asbestos containing materials. The type of action to be taken may range from managing the material in place to full removal of the ACM's depending on the outcome of the assessment.

Laboratory Analysis

The bulk sample(s) referred to below have been analysed for asbestos content using dispersion staining and polarised light microscopy using documented UKAS accredited in-house test method in accordance with the requirements of the MDHS 77 & HSG 248.

Location		***Sample No:***	***Result of analysis***
Vinyl Floor Tiles – Ground Floor (Under Lino) 		A	**No Asbestos Detected**
		Extent	N/A
Material Risk Assessment		Score	Risk Rating
Asbestos type: - **Type of product: -** **Condition: -** **Surface Treatment: -**	N/A	0 0 0 0	High Risk Medium Risk Low Risk Very Low Risk
			No Asbestos

Site Location: 1 Munster Avenue, Galway City	**Ref|:** A041/22
Client: Galway City Council	**Date**: September 2022

Laboratory Analysis

The bulk sample(s) referred to below have been analysed for asbestos content using dispersion staining and polarised light microscopy using documented UKAS accredited in-house test method in accordance with the requirements of the MDHS 77 & HSG 248.

Location		***Sample No:***	***Result of analysis***
Kitchen Extension – Lino under lino 		B	**Chrysotile Asbestos Confirmed**
		Extent	Kitchen floor
Material Risk Assessment		Score	Risk Rating
Asbestos type: -	Chrysotile	1	High Risk
Type of product: -	Paper lining	2	Medium Risk
Condition: -	Medium Damage	2	Low Risk
Surface Treatment: -	Non-Friable Composite	0	Very Low Risk
		5	Low Risk

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Laboratory Analysis

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Location		***Sample No:***	***Result of analysis***
Extension Roof slate 		C	**Chrysotile Asbestos Confirmed**
		Extent	Entire Roof Area
Material Risk Assessment		Score	Risk Rating
Asbestos type: -	Chrysotile	1	High Risk
Type of product: -	Reinforced Composite	1	Medium Risk
Condition: -	Low Damage	1	Low Risk
Surface Treatment: -	Non-Friable Composite	0	Very Low Risk
		3	Very Low Risk

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6. Appendix

Sample Material Assessment Algorithm

Sample Variable	*Score*	*Examples / Comparisons*
Product type (or debris from product)	1	Asbestos containing reinforced products (cement, floor tiles, felts, plastics, mastic, artex etc)
	2	Asbestos containing insulation boards, mill-boards, other low-density insulation boards, textiles, gaskets, ropes and paper
	3	Thermal insulation, pipe or boiler lagging, sprayed asbestos, loose asbestos, mattresses or packing
Extent of damage / deterioration	0	Good condition, no visible damage.
	1	Low damage, occasional scratches, broken edges on boards or tiles
	2	Medium damage, significant breakage of non-friable materials or several small areas where friable material has been damaged revealing loose asbestos.
	3	High damage or deterioration of friable materials such as thermal insulation or sprays. Visible asbestos debris.
Surface Treatment	0	Non-friable composite materials, plastics, floor tiles, sealed asbestos cement.
	1	Enclosed sprays and lagging, sealed AIB, unsealed asbestos cement sheeting.
	2	Unsealed AIB, encapsulated thermal insulation.
	3	Unsealed thermal insulation of lagging.
Asbestos Type	1	Chrysotile
	2	Amphibole asbestos excluding Crocidolite.
	3	Crocidolite

Priority Assessments

The Material Risk Assessment above identifies those materials most likely to release airborne fibre if disturbed. It does not necessarily follow that those materials with the highest scores will be the materials that should be given priority for remedial action. Management priority must be determined by carrying out a Risk Assessment that will consider the following Priority Assessment Factors.

Assessment Factor	Score	Examples of scores
Normal occupant activity Main Type of activity in area	0	Rare disturbance activity (i.e. little used store room)
	1	Low disturbance (i.e. office type activity)
	2	Periodic disturbance (i.e. industrial or vehicular activity which may contact ACM.s
	3	High levels of disturbance (i.e fire doors with asbestos insulating board sheet in constant use.)
Likelihood of disturbance		
Location	0	Outdoors
	1	Large room or well-ventilated areas
	2	Room up to 100m^2
	3	Confined spaces
Accessibility	0	Usually inaccessible or unlikely to be disturbed
	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
Extent / amount	0	Small amounts of items (i.e. strings gaskets)
	1	≤10 m^2 or ≤10 m pipe run
	2	≥10 m^2 to ≥ 50 m^2 or > 10 m to > 50 m pipe run
	3	≥50 m^2 or >50m pipe run
Human Exposure potential		
Number of occupants	0	None
	1	1 to 3
	2	4 to 10
	3	>10
Frequency of use of area	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
Average time area is in use	0	<1 hour
	1	>1 to <3
	2	>3 to <6
	3	> 6 hours
Maintenance activity	0	Minor disturbance
	1	Low disturbance
	2	Medium disturbance
	3	High levels of disturbance
	0	ACM unlikely to be disturbed for maintenance
	1	≤ 1 per year
	2	> per year
	3	> per month

Category	Overall Risk score	Level of Risk	Action
Category A	18+	High risk	Immediate action
Category B Risk	13 - 17	Medium Risk	Near term action
Category C Risk	9 -12	Low Risk	Regular Inspection
Category D	8 or below	Very low risk	Annual Inspection

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Limitations

In many instances, asbestos may be present in inaccessible areas such as:

- Wall cavities
- Beneath floors
- Slabs
- Integral parts of boilers, pumps, machinery, plant and pipework.
- Fire doors.

McCusker Environmental cannot guarantee that all asbestos containing materials have been identified, or that the survey results are definitive. There is a possibility that ACM's may remain unidentified in sealed locations, it is strongly suggested that demolition or refurbishment activities are designed to allow for this potential.

Features that generally fall outside the scope of the survey may include:

- Live plant and machinery
- Within solid concrete floors where asbestos shuttering may have been used.
- Areas where asbestos is sandwiched between non-asbestos materials
- Within underground ducts etc. where reasonable access is unavailable.

Survey Techniques

There are two levels of presumption which may be noted in the report and these are described below.

A. **Presumed to contain asbestos –** for example where no access was gained to an area, building, piece of plant / machinery, equipment because it was locked, inaccessible or unsafe. (e.g. floor tiles or textured coating to ceilings or walls).

B. **Strongly presumed to contain asbestos –** where similar materials continue throughout rooms, corridors, ducts, roof voids etc. and have either been sampled and positively identified, or the experience of the surveyor, is obviously and ACM **(e.**g. cement rainwater downpipe, sprayed coating, insulating board).

LEGISLATION AND REMOVAL

- Asbestos containing materials constitute a particular risk within the meaning of the Safety Health and Welfare at Work (Construction) Regulations, 2006. They must be specifically addressed in both the preliminary health and safety plan by the Project Supervisor for design process (PSDP) and in the Health and Safety Plan by the Project Supervisor for Construction Stage (PSCS).

- The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations, 2006 deals with the management and removal of asbestos from buildings. This legislation requires that the employer carrying out the work on ACM's must first make a risk assessment regarding potential exposure to asbestos fibres. This assessment must estimate the type, level and duration of exposure, prior to work being undertaken. The risk assessment results will determine whether a written 14-day notification is required to the Health and Safety Authority.

- Under the above regulations, the chosen contractor must prepare in any event a plan of work for the removal of ACM's from the building. The plan of work must specify how the work is to be carried out safely and the means used to protect workers, public and the environment. This plan of work must be forwarded to the Health and Safety Authority and made available to all relevant parties on the site.

- As part of the monitoring of safety during the removal process we would recommend that Reassurance air tests be carried out and that clearance testing is carried out following removal. We can provide this type of testing and will be happy to provide you with a quotation for this work. We can also assess the standard of work being carried out by the asbestos removal contractor and advise the project supervisor for the design process and the project supervisor for the construction process in this regard.

- All contractors involved in the removal or working with asbestos must be able to provide evidence of their ability to perform Asbestos Work.

- The Project Supervisor for Construction Stage (PSCS), where appointed should be satisfied that the plan of work is adequate, and that the chosen contractor is competent. Failure to do this may result in the PSCS being in breach of the Construction Regulations.

- As part of the monitoring of safety during the removal process we would recommend that Reassurance air tests are carried out and that clearance testing is carried out following removal.

Photographs

Asbestos Toilet Seat & Cistern

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Asbestos lino – under new lino in Kitchen

Asbestos Roof Slates

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Laboratory Certificate

G&L Consultancy Ltd
Specialists in Asbestos Management

BULK MATERIAL SAMPLE REPORT

Reference No:	J665851	Client Order No:	0502/22
Date Received:	8 Aug 2022		
Client Name and Address:	McCusker Environmental (IE), Unit 6, Arbutus Grove, Quin, Ennis		
Site Address:	1 Munster Avenue		
Sampling Officer:	McCusker Environmental (IE)		
Date of Analysis:	9 Aug 2022		
Analyst:	Kel Magee		
Approving Officer:	Emily Richardson	Signed:	
Issue Date:	9 Aug 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
A - Floors	BS194701	Vinyl floor tile	No Asbestos Detected	Not Applicable
B - Kitchen	BS194702	Lino	Chrysotile	Asbestos Textiles/Paper
C - Rear Extension	BS194703	Slate	Chrysotile	Asbestos Cement

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

UKAS TESTING 2083

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References:

Safety Health and Welfare at Work Act 2005.

Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 Amended 2010.

Safety health and Welfare at Work (Construction) Regulations – 2013

HSG 264 The Survey Guide, HSE Books

HSG 248 The Analysts Guide, HSE Books

Practical Guidelines on ACM Management and Abatement, HSA Publication.