Asbestos-Containing Building Material

Demolition Survey Report

Project 9462AS

Fishguard Primary School, Brodog Lane, Fishguard.

Prepared for:
Cardiff Demolition Company Limited,
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8th June 2018

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EXECUTIVE SUMMARY

PHH Environmental UK Limited was retained by Mr. Phil Farnham on behalf of Cardiff Demolition Company Limited, Ty-To-Maen Farm, Cardiff, CF3 2EJ to carry out a Demolition Asbestos Survey for the building located at Fishguard Primary School, Brodog Lane, Fishguard, SA65 9NF. The purpose of the survey was to identify and quantify ACMs for due diligence and compliance with regulation prior to demolition works.

Please note that ACMs in good condition and undisturbed are not a hazard to health. Please note that as a Demolition intrusive survey was carried out and ACMs have been recommended for removal by PHH, those ACMs that are in good condition, sealed and/or repaired and are not to be disturbed may be left in place (i.e. Management Survey or Refurbishment/Demolition work that will not occur for more than 3 months after this inspection). Please see Annex II for details of which ACMs are recommended for abatement.

Twenty-Four instances of ACM(s) were identified, contaminated or presumed in the following materials(s) and area(s):

Material Description	Location
Insulating board	Boiler room - Ceiling
Insulating board	Canopy (outside G35) - Canopy underside
Insulating board	G01 - Boxing to ceiling extractor fan
Insulating board	G01 - Ceiling
Textiles - cloth	G07 - Switch box internals
Cement - Fully comp flat sheet, tiles, slates & boards	G04 - Bunny burner internals
Cement - Fully comp flat sheet, tiles, slates & boards	G12 - Bunny burner internals
Cement - Fully comp flat sheet, tiles, slates & boards	G32 and G33 - Bunny burner internals
Cement - Pre-formed moulded or extruded products	G04 - Flue from burner through roof
Cement - Pre-formed moulded or extruded products	G12 - Flue from burner through roof
Cement - Pre-formed moulded or extruded products	G32 and G33 - Flue from burner through roof
Bitumen adhesive & paints	G30, G31 and G33 - Bitumen to screed under vinyl
Bitumen adhesive & paints	G35 - Bitumen to screed under vinyl
Reinforced plastic and resin composites	G04 - Wall mounted
Reinforced plastic and resin composites	G05 - Loose on floor
Reinforced plastic and resin composites	G12 - Debris to floor
Reinforced plastic and resin composites	G17 - Wall mounted
Reinforced plastic and resin composites	G18 - Wall mounted
PVC vinyl flooring and adhesive	G07 - Floor covering
PVC vinyl flooring and adhesive	G08 - Floor covering

PVC vinyl flooring and adhesive	G09, G14 and G19 - Floor covering
PVC vinyl flooring and adhesive	G15 - Floor covering
PVC vinyl flooring and adhesive	G19, G20 and G21 - Floor covering
PVC vinyl flooring and adhesive	G28 and G36 - Floor covering

The above may not include reference to all detailed locations of the ACM material types; for details please see Annex II. Recommendation(s) are 'Remove' by licensed contractor; please see Annex II for details. The recommendation(s) are based on the Material and Priority Risk Ratings, where applicable (see Section 2.0 Survey Methodology and Annex II), and the surveyor's assessment of the ACMs in situ.

Please note that additional ACMs may be hidden behind sampled materials and it advisable that PHH are invited to return to site should works involve removal or intrusive access beyond them e.g. 'Artex' to plasterboard ceilings or fixed insulating board ceiling tiles. Please also note this may require the need to hire a competent or licensed removal contractor to remove ACMs to inspect behind them, the cost of which will be agreed with the client prior to works.

1.0 INTRODUCTION

PHH Environmental UK Limited was retained by Mr. Phil Farnham on behalf of Cardiff Demolition Company Limited, Ty-To-Maen Farm, Cardiff, CF3 2EJ to carry out a Demolition Asbestos Survey for the building located at Fishguard Primary School, Brodog Lane, Fishguard, SA65 9NF. The purpose of the survey was to identify and quantify ACMs for due diligence and compliance with regulation prior to demolition works.

Please contact the author referenced in section 5.0 on 02920 493000 if you have any questions.

1.1 Scope of Work

The scope of work included:

Generic

- A room-by-room and external, intrusive inspection of the building materials, components and finishes that are suspected to contain ACMs with the exception of those areas that could not be accessed as detailed in the executive summary, if any.
- Sampling and analysis of representative suspect ACMs, where applicable.
- Production of an ACM Register & Management Plan (draft) detailing the extent, type and condition of ACMs within the premises, (subject to identification of any suspect ACMs). Please see Annex II for details.
- Assessment of the risk of ACMs and derived scores for material risk and priority (where applicable subject to identification of any suspect ACMs, priority scores not applicable if removal recommended on Refurbishment or Demolition surveys).
- Proposals for management action to ensure ACMs are properly dealt with, (subject to identification of any suspect ACMs).

Site Specific

- Demolition - To the whole property.

The survey was performed on 30th May 2018 by Emmanual Weston (Operations Manager) BSc (Hons), AIEMA, TechIOSH and included all areas of the building accessible to visual inspection. The findings and recommendations provided in this report are intended to facilitate compliance with respective guidelines and regulations. Applicability of any regulations and recommendations will depend on the final use of the subject property.

1.2 Facility Description

The building comprises of a former primary school within a detached, single storey property with a flat roof.

1.3 Limitations and Exclusions

This report refers to ACMs within and forming part of the building envelope only. the building envelope only. The survey only considered issues of the structure and finishes, excluding portable

mechanical equipment. The survey did not consider current or past owner or occupant articles within the building (i.e. process materials or equipment, curriculum items and furniture).

This report is based on observations made at the time of the survey. Please note therefore, that since the issue of this report, the condition of the identified asbestos-containing material (ACM) may have deteriorated due to damage or wear and tear etc. If the condition has deteriorated, the risk score and recommendation noted in this report may be inappropriate. The HSE Guide, Managing asbestos in buildings: A brief guide' INDG223, published by the Health & Safety Executive recommends that as a minimum, the material should be checked every six to twelve months even if it is in good condition and not going to be disturbed, as it may for example be accidentally damaged.

Since the date of the survey, ACMs may have been removed from or added to the surveyed area.

Due to the nature of building construction, some inherent limitations exist regarding the extent of the survey. For example, it was not possible to test all suspect ACMs on a foot-by-foot basis.

Sampling of each material was limited to one sample of each visually homogeneous material type, with enough total samples for confident determination of asbestos presence. No air sampling for dusts or mists was conducted as part of this survey. No other hazardous materials were included in this investigation other than what is described in the scope of work. Water absorption testing of cement based ACMs has not been carried out to confirm cement content to differentiate from Asbestos Insulating Board.

Fully intrusive inspection of roofs cannot be carried out without the explicit confirmation from the client that water proofing can be compromised during the inspection. Without acknowledgement of this PHH are unable to fully investigate these building elements as it would cause excessive damage and water ingress as a consequence e.g. Flat roofs with multiple layers of bitumen felt coverings. PHH can revisit and inspect these areas at a later date if required.

Please note areas are approximated and do not always take into account pitched surfaces (e.g. For pitched roofs). Contractors are advised to visit site prior to pricing for works to satisfy themselves of the precise quantities of identified ACMs. PHH cannot be held responsible for variations in quantity extent post work completion where it is the contractor's responsibility to satisfy themselves of quantities on site prior to quoting. In some instances multiple layers of the same material may be in place, PHH have not compromised water tightness/security of sites of external areas to quantify thicknesses of identified ACMs (e.g. To double skinned roofing slates or profiled cement sheeting) and have only made a judgement on visible surface areas.

Where appropriate and reasonably practicable, demolition of structural walls, ceilings or other features was conducted to access and sample hidden ACMs. Every reasonable effort was made to access interiors of walls, floors, ceilings, roof space at eaves and concealed spaces. Every reasonable effort was also made to access any existing fire stops between floors or compartments and around soil and vent pipes, if present.

It is now recognised that even with full access surveys, some ACMs may be not be identified and this may only become apparent during refurbishment and/or demolition works e.g. Cavity walls or voids.

If suspected ACMs are discovered during the refurbishment/demolition, then works must cease until the material can be identified.

2.0 SURVEY METHODOLOGY

The surveyor entered each pre-defined area or room where possible. Twenty-One sample(s) were collected and analysed. Sketches denoting reference and sampling locations are included in Annex III. Sketches denoting reference and sampling locations are included in Annex III. Representative photographs of Sample or Reference Point Locations of identified ACMs can be found in Appendix 3 with the exception of presumed no access areas. The survey was carried out in accordance with Health & Safety Executive guidelines contained in HSG264 "Asbestos: The Survey Guide" (ACMs) and our in house survey methodology procedure P14. The survey was a Demolition Asbestos Survey as defined in HSG264. PHH Environmental UK Limited are a UKAS accredited inspection No. 384 to ISO 17020 for the provision of undertaking Management, Refurbishment and Demolition asbestos surveys, asbestos bulk sampling and provision of material and priority risk ratings.

2.1 Asbestos Identification

Identification of asbestos-containing building materials was performed visually, through bulk sampling and subsequent laboratory analysis by our in house laboratory accredited to ISO 17025. Representative Samples were taken of each homogenous building material suspected to contain asbestos.

In some unambiguous situations, non-friable cementitious asbestos materials (i.e. asbestos cement boards or piping, etc.) were identified by appearance and may not have been sampled.

Obvious fibreglass insulation and cellulose materials were identified visually and were not tested.

In accordance with accepted sampling procedures, visual extrapolation of materials was conducted. For example, if a certain size and pattern of floor tile was observed in more than one location, it has been assumed that the asbestos result is the same (either positive or negative) for both locations. Samples results were also extrapolated on a room basis. For example, if a board sample from one wall was positive, then all walls in that room were assumed to be positive. The extent of sampling and extrapolation related to several factors such as functional areas, renovation zones, construction phases and dates, etc. In each case the extrapolation was based on unequivocal observations made by the surveyor. The results of the sample analysis refer specifically to the location defined. Experience has shown that materials can vary greatly in relatively short distances from sample points, especially with less homogenous materials such as 'Artex'.

2.2 Material Assessment

Each visually homogeneous application of suspected ACM was assessed for product type, extent of damage or deterioration, surface treatment and asbestos type. The Material Assessment included in Annex II has been carried out in accordance with HSE HSG264.

Materials with scores of 10 or more should be regarded as high risk with a significant potential to release fibres if disturbed. Those with scores between 7 and 9 are regarded as medium risk, those between 5 & 6 are low risk and scores of 4 or less are very low risk.

As recommended in HSE HSG264 the 'Extent of Damage' and 'Surface Treatment' categories are shown separately in Annex II. Please use the table below to see the definition of the 'score' in Annex II.

The following definitions apply:

Sample variable	Score	Examples of scores
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 board, millboard, other low-density insulation boards, asbestos textiles, gaskets, ropes & woven textiles, asbestos paper & felt.
	3	Thermal insulation (e.g. pipe & boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing
Extent of damage or deterioration:	0	Good condition: 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 areas where material has been damaged revealing loose asbestos fibres.
	3	High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris.
Surface treatment:	0	Composite materials containing asbestos reinforced plastics, resins, and 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.
	3	Unsealed lagging and sprays
Asbestos type:	1	Chrysotile
	2	Amphibole asbestos excluding crocidolite
	3	Crocidolite

2.3 Priority Assessment

A Priority Assessment on each ACM would normally be carried out in accordance with HSE HSG227 A Comprehensive Guide to Managing Asbestos in Premises. However, as the building is scheduled for works and ACMs are recommended for removal a priority assessment is not applicable. Please note that the 'Accessibility' section of Annex II is not applicable, which has been denoted by the letters 'NA'.

2.4 Total Risk

By adding together the scores of Material Assessment and the Priority Assessment a Total Risk score would normally be determined. However, as the building is scheduled for works and ACMs are recommended for removal, this is not applicable.

2.5 Method of Sample Analysis

Bulk samples were visually examined and any fibrous materials were analysed by polarised light microscopy (PLM) in accordance with Health & Safety Executive HSG 248 ASBESTOS - The Analysts' Guide For Sampling, Analysis and Clearance Procedures.

The confirmation of the presence and type of asbestos material in each bulk sample of asbestos was made by dispersion staining optical microscopy.

3.0 RESULTS

The summary given below includes all major systems, lines, or equipment where suspect asbestos-containing materials were examined. Please refer to Annex I for laboratory results of suspect materials. A detailed assessment of each visual homogeneous application of suspect asbestos and specific control options is included in Annex II.

3.1 Positive Samples and Extent of Visual Extrapolation

Section A of Annex II lists all positive laboratory ACM samples. In each case the positive sample has been extrapolated to the area and extent noted.

3.2 Strongly Presumed ACMs but Not Sampled

Section B of Annex II lists all strongly presumed ACMs, which have been extrapolated from positive laboratory ACM samples.

3.3 Negative Samples

Section G of Annex II lists those suspect ACMs that were tested by the laboratory as negative.

(Please note that any missing section(s) above are not relevant to this report and as such are not included in Annex II)

4.0 RECOMMENDATIONS

4.1 Asbestos-containing Materials

Please refer to Annex II ACM Register & Management Plan for a table of recommendations. The recommendations in Annex II are based on the guidance within HSE Guide 227, "A Comprehensive Guide to Managing Asbestos in Premises".

Based on the advice from the client that the building is scheduled for building works ACMs recommended for removal should be removed by licensed contractor for asbestos removal prior to these works. This is reflected in the table of recommendations at Annex II ACM Register & Management Plan.

Note, ACMs noted in Annex II as 'Licensed Work?' – 'Yes', must be removed or worked on by a contractor that is licensed unless the exposure of employees to asbestos is sporadic and of low intensity and it is clear from a risk assessment that the exposure of any employee to asbestos will not exceed the control limit; and the work involves short, non-continuous maintenance activities or removal of materials in which the asbestos fibres are firmly linked in a matrix or encapsulation or sealing of asbestos-containing materials which are in good condition; as defined in the Control of Asbestos Regs Part 1 sect. 3 (2) see HSE ACoP L143. Any ACM removed must be disposed of at a licensed tip. Employees are subject to the requirements of the Control of Asbestos Regulations and must observe the required safety precautions.

Note, ACMs noted in Annex II as 'Licensed Work?' – 'No', may be removed or worked on by a competent contractor that is not licensed but they must observe the required safety precautions and the ACM must be disposed of at a licensed tip. Employees are subject to the requirements of the Control of Asbestos Regulations. Please note this assessment is only applicable to the ACM in the condition it is in at the time of survey. Materials should be carefully risk assessed prior to any work to confirm the work can be done by an unlicensed contractor as defined in the Control of Asbestos Regs Part 1 sect. 3 (2) see HSE ACoP L143.

All work with asbestos which does not normally require a licence must be dealt with in accordance with HSE ACoP L143 or equivalent. Please note HSE ACoPs have a special status in law. Work should maintain the required fire protection or separation properties where appropriate.

As some ACMs will be required to be removed or worked on by a licensed contractor, it is recommended that all ACMs to be removed or worked on are done so and disposed of (if appropriate) by the licensed contractor. A licensed contractor should be fully aware of the precautions to take in relation to ACMs.

Where ACMs have been visually identified as cement based products these have been noted in Annex II as 'Licensed Work' – No'. Please note the limitation at 1.3 above.

Please note that additional ACMs may be hidden behind sampled materials and it advisable that PHH are invited to return to site should works involve removal or intrusive access beyond them e.g. 'Artex' to plasterboard ceilings or fixed insulating board ceiling tiles. Please also note this may

require the need to hire a competent or licensed removal contractor to remove ACMs to inspect behind them, the cost of which will be agreed with the client prior to works.

4.2 Selection of Management Options.

The recommendations in Annex II ACM Register & Management Plan are based on the surveyor's assessment during the survey.

Please note the 'scores' for material and priority ratings (where applicable) are a guide only. In some cases the surveyor may have recommended ACMs for removal that have a lower score than others recommended for 'Record, Manage & Monitor', this is based on the surveyors experience and assessment of the conditions specific to each location.

For generic descriptions of the management options available, please refer to Appendix 2.

5.0 WARRANTY

PHH Environmental UK Limited warrants to the company, organisation, or individual to whom this report is addressed that the investigation described in this report has been conducted with a reasonable level of care and skill, in accordance with standards currently prevailing in the health, safety, and environmental consulting profession.

The warranty stated above is subject to the following:

i. the investigation has been limited to the scope of work and budget described in our quotation and contract and this report,
ii. this report has been prepared taking into account current government regulations, and does not reflect regulations which may be enacted in the future,
iii. except as stated, we have not made an independent verification of historical or analytical results provided by third parties,
iv. where indicated or implied in this report, conclusions are based on visual observation of the site at the time of this assessment, and
v. the conclusions of this report do not apply to any areas of the site not available for testing or inspection.

This report is intended for the exclusive use of the company, organisation, or individual to whom it is addressed. We make no representation of fact or opinion of any nature whatsoever to any person other than the company, organisation, or individual to whom this report is addressed. The warranty stated above may not be assigned.

Authored by:
PHH Environmental UK Limited
Per:

Name: Emmanual Weston BSc (Hons), AIEMA, TechIOSH
Title: Operations Manager
For & on behalf of:
PHH Environmental UK Limited

Reviewed by:
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Title: Technical Manager/Energy Consultant
For & on behalf of:
PHH Environmental UK Limited

6.0 REFERENCES

1. Health & Safety at Work Act, HMSO, 1974.
2. Control of Asbestos Regulations (CAR), HMSO, 2012
3. Managing and working with asbestos - Control of Asbestos Regulations 2012. Approved Code of Practice and guidance, HSE ACoP L143 (Second Edition)
4. HSE HSG264 “Asbestos: The Survey Guide”, HSE 2012.
5. HSE HSG227 Managing Asbestos in Premises, HSE, 2004.
6. ISO 17020: 2012 Requirements for the operation of various types of bodies performing inspection
7. ISO/EIC 17025: 2005 General requirements for the competence of testing and calibration laboratories, ISO copyright office Geneva, 2012.
8. HSE HSG213 Introduction to Asbestos Essentials. Comprehensive guide to working with asbestos in the building maintenance and allied trades, HSE, 2001.
9. HSE HSG210 Asbestos Essentials Task Manual. Task guidance sheets for the building maintenance and allied trades, HSE, 2003.
10. ASBESTOS - The Analysts’ Guide for Sampling, Analysis and Clearance Procedures. HSG 248, HSE, 2005.
11. The Management of Health and Safety at Work Regulations, HMSO, 1999.
12. Workplace (Health, Safety and Welfare) Regulations, HMSO, 1992.

ANNEX I - Laboratory Results

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PHH ENVIRONMENTAL

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CERTIFICATE OF ASBESTOS FIBRE ANALYSIS

Certificate Reference: PHH6202

Client:	Cardiff Demolition Company Limited, Ty-To-Maen Farm, Newton Road, Rumney, Cardiff,	**Site Address:**	Fishguard Primary School, Brodog Lane, Fishguard

Sampled by:	Emmanual Weston	**Date Received:**	04/06/2018
Project Reference:	9462AS	**Analysis Date:**	05/06/2018

Results:-

Number	Lab Reference	Sample Location	Sample Description	Asbestos Type(s)
1	E23013	9462AS-001	Toilet cistern	Amosite
2	E23014	9462AS-002	Flue pipe	Chrysotile
3	E23015	9462AS-003	Lining board	Chrysotile
4	E23016	9462AS-004	Bitumen pad	No Asbestos Detected
5	E23017	9462AS-006	Beige tiles and adhesive	Chrysotile in Adhesive Only
6	E23018	9462AS-007	Flashguards	Chrysotile
7	E23019	9462AS-008	Lining board	Amosite
8	E23020	9462AS-009	Lining board	Amosite
9	E23021	9462AS-010	Beige tiles and adhesive	Chrysotile in Adhesive Only
10	E23022	9462AS-011	Black/yellow/white tiles and adhesive	Chrysotile in Adhesive Only
11	E23023	9462AS-016	Brown tiles and adhesive	No Asbestos Detected
12	E23024	9462AS-017	Grey tiles and adhesive	Chrysotile in Adhesive Only
13	E23025	9462AS-018	Beige tiles and adhesive	No Asbestos Detected
14	E23026	9462AS-021	Bitumen pads	No Asbestos Detected
15	E23027	9462AS-025	Bitumen adhesive	Chrysotile
16	E23028	9462AS-026	Lining board	Amosite
17	E23029	9462AS-028	Lining board	Chrysotile, Amosite

For and on behalf of PHH Environmental UK Limited

Notes:
1. The method of analysis is conducted by Polarised Light Microscopy (PLM) using PHH Environmental's P43 procedure and Appendix 2 of the HSG 248 'The Analysts Guide' 2005'.
2. Samples are collected in accordance with HSG247 'The Survey Guide' where PHH Environmental conducted the survey. External sample reports are prepared using the samples and information provided by the client.
3. The analytical method does not quantify the amount of asbestos present, however if 1 or 2 asbestos fibres are identified then the description "trace" is permitted. THIS REPORT MAY ONLY BE REPRODUCED OR INTERPRETED IN ITS ENTIRETY.

* Opinions or iterpretations expressed in this report are outside the scope of our UKAS accreditation.
** Comments refer to supplementary information relevant to samples analysed e.g. sample sizes

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CERTIFICATE OF ASBESTOS FIBRE ANALYSIS

Certificate Reference: PHH6202

Client:	Cardiff Demolition Company Limited, Ty-To-Maen Farm, Newton Road, Rumney, Cardiff,	**Site Address:**	Fishguard Primary School, Brodog Lane, Fishguard

Sampled by:	Emmanual Weston	**Date Received:**	04/06/2018
Project Reference:	9462AS	**Analysis Date:**	05/06/2018

Results:-

Number	Lab Reference	Sample Location	Sample Description	Asbestos Type(s)
18	E23030	9462AS-029	Gasket	No Asbestos Detected
19	E23031	9462AS-030	Gasket	No Asbestos Detected
20	E23032	9462AS-031	Bitumen damp proof course	No Asbestos Detected
21	E23033	9462AS-032	Bitumen felt	No Asbestos Detected

Authorised Signature:

Analyst Name: Lloyd Preece

Certificate Issue Date: 05/06/2018

Notes:

For and on behalf of PHH Environmental UK Limited

Notes:
1. The method of analysis is conducted by Polarised Light Microscopy (PLM) using PHH Environmental's P43 procedure and Appendix 2 of the HSG 248 'The Analysts Guide' 2005'.
2. Samples are collected in accordance with HSG247 'The Survey Guide' where PHH Environmental conducted the survey. External sample reports are prepared using the samples and information provided by the client.
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* Opinions or iterpretations expressed in this report are outside the scope of our UKAS accreditation.
** Comments refer to supplementary information relevant to samples analysed e.g. sample sizes

ANNEX II – ACM Register & Draft Management Plan, inc. Sample or Reference Point List

Remove:	Exposed and/or damaged friable asbestos should be controlled by removal to prevent fibre release.
Encapsulate:	Exposed and/or damaged friable asbestos should be controlled by encapsulation to prevent fibre release. Once controlled through encapsulation, then management is recommended.
Enclose:	Exposed and/or damaged friable asbestos should be enclosed to prevent fibre release. Once controlled through enclosure, then management is required.
Manage:	Enclosed and/or encapsulated friable asbestos in good condition and non-friable asbestos should be managed by implementing an Operations and Maintenance (O&M) Program. Major elements of the O&M Program include: administrative controls; training; exposure control plan and identification with labels or signs.

Fishguard Primary School, Brodog Lane, Fishguard.						Survey Type >		Demolition		Initial Survey Date(s) >								30/05/2018			
9462AS						Register Type >		Final							Risk ratings			Management Action			
Report Section	Extrapolated from Site Ref	UPRN (If applicable)	Lab Ref	Site Ref	Area or room	Position	Component description	Material	Asbestos ID	Extent / approx quantity	** Accessibility	** Damage	** Surface treatment	Asbestos type (1 = Chrysotile, 2 = Amosite, 3 = Crocidolite)	Total Material Risk rating "A"	Total Priority Risk rating "B" - Score breakdown available on request	Total Risk Rating "A+B"	Recommendation	Last date ACM inspected	Last date ACM modified	Note	Licensed work?
A			PHH6202-1	9462AS-001	G04	Wall mounted	Toilet cistern	Reinforced plastic and resin composites	Positive asbestos sample	1No	NA	1	0	2	4	NA	NA	Remove	30/05/18			No
A			PHH6202-2	9462AS-002	G04	Flue from burner through roof	Flue pipe	Cement - Pre-formed moulded or extruded products	Positive asbestos sample	2LM	NA	1	1	1	4	NA	NA	Remove	30/05/18			No*
A			PHH6202-3	9462AS-003	G04	Bunny burner internals	Lining board	Cement - Fully comp flat sheet, tiles, slates & boards	Positive asbestos sample	1No	NA	1	1	1	4	NA	NA	Remove	30/05/18			No*
A			PHH6202-5	9462AS-006	G07	Floor covering	Beige tiles and adhesive	PVC vinyl flooring and adhesive	Positive asbestos sample	16SM	NA	1	0	1	3	NA	NA	Remove	30/05/18			No
A			PHH6202-6	9462AS-007	G07	Switch box internals	Flashguards	Textiles - Cloth	Positive asbestos sample	Small Quants	NA	0	0	1	3	NA	NA	Remove	30/05/18		To two 'BILL' switch boxes	No
A			PHH6202-7	9462AS-008	G01	Boxing to ceiling extractor fan	Lining board	Insulating board	Positive asbestos sample	4No	NA	0	1	2	5	NA	NA	Remove	30/05/18		Four panels	Yes
A			PHH6202-8	9462AS-009	G01	Ceiling	Lining board	Insulating board	Positive asbestos sample	38SM	NA	0	2	2	6	NA	NA	Remove	30/05/18			Yes
A			PHH6202-9	9462AS-010	G09, G14 and G19	Floor covering	Beige tiles and adhesive	PVC vinyl flooring and adhesive	Positive asbestos sample	22SM	NA	0	0	1	2	NA	NA	Remove	30/05/18		Tiles contaminated by adhesive	No
A			PHH6202-10	9462AS-011	G19, G20 and G21	Floor covering	Black/yellow/white tiles and adhesive	PVC vinyl flooring and adhesive	Positive asbestos sample	73SM	NA	0	0	1	2	NA	NA	Remove	30/05/18		Tiles contaminated by adhesive	No
A			PHH6202-12	9462AS-017	G28 and G36	Floor covering	Grey tiles and adhesive	PVC vinyl flooring and adhesive	Positive asbestos sample	17SM	NA	1	0	1	3	NA	NA	Remove	30/05/18		Tiles contaminated by adhesive	No
A			PHH6202-15	9462AS-025	G35	Bitumen to screed under vinyl	Bitumen adhesive	Bitumen adhesive & paints	Positive asbestos sample	65SM	NA	0	0	1	2	NA	NA	Remove	30/05/18		Vinyl is contaminated	No
A			PHH6202-16	9462AS-026	Canopy (outside G35)	Canopy underside	Lining board	Insulating board	Positive asbestos sample	25SM	NA	0	2	2	6	NA	NA	Remove	30/05/18			Yes
A			PHH6202-17	9462AS-028	Boiler room	Ceiling	Lining board	Insulating board	Positive asbestos sample	16SM	NA	1	2	2	7	NA	NA	Remove	30/05/18			Yes
B	9462AS-001			9462AS-005	G05	Loose on floor	Toilet cistern	Reinforced plastic and resin composites	Strong presumption (extrapolation)	1No	NA	1	0	1	3	NA	NA	Remove	30/05/18		Tiles contaminated by adhesive	No
B	9462AS-010			9462AS-012	G08	Floor covering	Beige tiles and adhesive	PVC vinyl flooring and adhesive	Strong presumption (extrapolation)	9SM	NA	0	0	1	2	NA	NA	Remove	30/05/18		Tiles contaminated by adhesive	No

Fishguard Primary School, Brodog Lane, Fishguard.						Survey Type >		Demolition		Initial Survey Date(s) >								30/05/2018				
9462AS						Register Type >		Final							Risk ratings			Management Action				
Report Section	Extrapolated from Site Ref	UPRN (If applicable)	Lab Ref	Site Ref	Area or room	Position	Component description	Material	Asbestos ID	Extent / approx quantity	** Accessibility	** Damage	** Surface treatment	Asbestos type (1 = Chrysotile, 2 = Amosite, 3 = Crocidolite)	Total Material Risk rating "A"	Total Priority Risk rating "B" - Score breakdown available on request	Total Risk Rating "A+B"	Recommendation	Last date ACM inspected	Last date ACM modified	Note	Licensed work?
B	9462 AS-011			9462AS-013	G15	Floor covering	Black/yellow/white tiles and adhesive	PVC vinyl flooring and adhesive	Strong presumption (extrapolation)	5SM	NA	0	0	1	2	NA	NA	Remove	30/05/18		Tiles contaminated by adhesive	No
B	9462 AS-001			9462AS-014	G17	Wall mounted	Toilet cistern	Reinforced plastic and resin composites	Strong presumption (extrapolation)	4No	NA	1	0	1	3	NA	NA	Remove	30/05/18			No
B	9462 AS-001			9462AS-015	G18	Wall mounted	Toilet cistern	Reinforced plastic and resin composites	Strong presumption (extrapolation)	2No	NA	1	0	1	3	NA	NA	Remove	30/05/18			No
B	9462 AS-002			9462AS-019	G32 and G33	Flue from burner through roof	Flue pipe	Cement - Pre-formed moulded or extruded products	Strong presumption (extrapolation)	2LM	NA	1	1	3	6	NA	NA	Remove	30/05/18			No*
B	9462 AS-003			9462AS-020	G32 and G33	Bunny burner internals	Lining board	Cement - Fully comp flat sheet, tiles, slates & boards	Strong presumption (extrapolation)	1No	NA	1	1	3	6	NA	NA	Remove	30/05/18			No*
B	9462 AS-002			9462AS-022	G12	Flue from burner through roof	Flue pipe	Cement - Pre-formed moulded or extruded products	Strong presumption (extrapolation)	2LM	NA	1	1	1	4	NA	NA	Remove	30/05/18			No*
B	9462 AS-003			9462AS-023	G12	Bunny burner internals	Lining board	Cement - Fully comp flat sheet, tiles, slates & boards	Strong presumption (extrapolation)	1No	NA	1	1	1	4	NA	NA	Remove	30/05/18			No*
B	9462 AS-001			9462AS-024	G12	Debris to floor	Toilet cistern	Reinforced plastic and resin composites	Strong presumption (extrapolation)	Small Quants	NA	1	0	1	3	NA	NA	Remove	30/05/18			No
B	9462 AS-025			9462AS-027	G30, G31 and G33	Bitumen to screed under vinyl	Bitumen adhesive	Bitumen adhesive & paints	Strong presumption (extrapolation)	11SM	NA	0	0	1	2	NA	NA	Remove	30/05/18		Vinyl is contaminated	No
G			PHH6202-4	9462AS-004	G01	Underside of loose sink	Bitumen pad	Bitumen coatings on metal	Negative asbestos sample	1No	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			
G			PHH6202-11	9462AS-016	G32 and G33	To floor across threshold	Brown tiles and adhesive	PVC vinyl flooring and adhesive	Negative asbestos sample	2LM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			
G			PHH6202-13	9462AS-018	G35	To floor by fire exit threshold	Beige tiles and adhesive	PVC vinyl flooring and adhesive	Negative asbestos sample	1LM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			
G			PHH6202-14	9462AS-021	G33	Under sink unit	Bitumen pads	Bitumen coatings on metal	Negative asbestos sample	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			
G			PHH6202-18	9462AS-029	Boiler room	To pipe joints and flanges	Gasket	Textiles - Gaskets & washers	Negative asbestos sample	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			
G			PHH6202-19	9462AS-030	Boiler room	Gasket between boiler and burner	Gasket	Textiles - Gaskets & washers	Negative asbestos sample	2No	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18		To two boilers	

** see tables 2.2 and 2.3 in Report for definitions

Fishguard Primary School, Brodog Lane, Fishguard.						Survey Type >		Demolition		Initial Survey Date(s) >								30/05/2018				
9462AS						Register Type >		Final							Risk ratings			Management Action				
Report Section	Extrapolated from Site Ref	UPRN (If applicable)	Lab Ref	Site Ref	Area or room	Position	Component description	Material	Asbestos ID	Extent / approx quantity	** Accessibility	** Damage	** Surface treatment	Asbestos type (1 = Chrysotile, 2 = Amosite, 3 = Crocidolite)	Total Material Risk rating "A"	Total Priority Risk rating "B" - Score breakdown available on request	Total Risk Rating "A+B"	Recommendation	Last date ACM inspected	Last date ACM modified	Note	Licensed work?
G			PHH6202-20	9462AS-031	External oil tank	Damp proof course under tank	Bitumen damp proof course	Bitumen damp proof courses	Negative asbestos sample	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			
G			PHH6202-21	9462AS-032	Main roof and tank room roof	Roof coverings	Bitumen felt	Bitumen roofing felts	Negative asbestos sample	600SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	30/05/18			

ANNEX III – Floor Plan Layout Showing Sample or Reference Point Locations

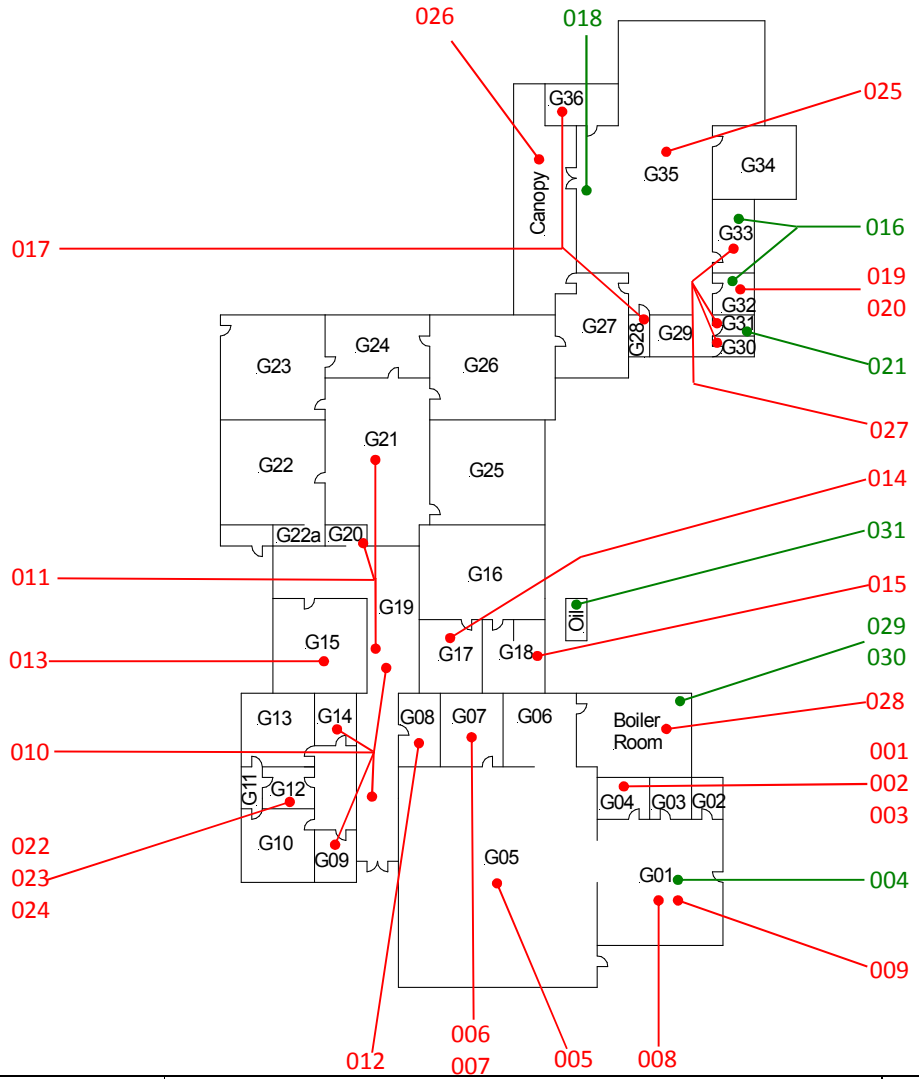
Site reference points colour coding:

RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs
BLUE for 'no access'
GREEN for 'discounted materials', 'no asbestos suspected' and 'negative'
BLACK for removed ACMs

Do not scale, not dimensionally accurate.

Please note front, rear, left and right observations are as viewed from the adjacent highway which forms part of the postal address of the property. If this is not appropriate descriptions will be based on compass points, i.e. N, NE, E, SE, S, SW, W, NW.

0



Roofs
032

Site reference points colour coding:

RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs

BLUE for 'Presumed to contain ACMs due to no access'

GREEN for 'discounted materials', 'no asbestos suspected' and 'negative
BLACK for 'removed' ACMs

Do not scale, not dimensionally accurate

Note:

This must be reproduced in colour and is to be read in conjunction with the full report.

PHH ENVIRONMENTAL

Annex III Project Ref. 9462AS
Fishguard Primary School, Brodog Lane,
Fishguard
Floor Plan

Appendix 1 – Regulations and guidance

Appendix 1

Regulations and guidance

There are a number of health & safety regulations that place a duty on an employer in relation to asbestos. These are summarised below:

General

- The Health and Safety at Work etc Act 1974 (HSW Act) requires an employer to conduct their work in such a way that their employees will not be exposed to health and safety risks, and to provide information to other people about their workplace which might affect their health and safety. Section 3 of the HSW Act contains general duties on employers and the self-employed in respect of people other than their own employees. Section 4 contains general duties for anyone who has control, to any extent, over a workplace.

- The Management of Health and Safety at Work Regulations 1999 require employers and self-employed people to make an assessment of the risk to the health and safety of themselves, employees and people not in their employment arising out of or in connection with the conduct of their business – and to make appropriate arrangements for protecting those people's health and safety.

- There are duties to maintain workplace buildings and or premises to protect occupants and workers under the Workplace (Health, Safety and Welfare) Regulations 1992.

- The Construction (Design and Management) Regulations 1994, as amended 2015 require the client to pass on information about the state or condition of any premises (including the presence of hazardous materials such as asbestos) to the planning supervisor before any work begins and to ensure that the health and safety file is available for inspection by any person who needs the information.

- The Control of Asbestos Regulations 2012 (CAR) requires employers to prevent the exposure of their employees to asbestos, or where this is not practicable, to reduce the exposure to the lowest possible level. CAR includes a regulation placing a duty on those who have repair and maintenance responsibilities for premises, because of a contract or tenancy, to manage the risk from asbestos in those premises. Where there is no contract or tenancy the person in control will be the duty holder. There is also a duty of cooperation on other parties. The duty is supported by Health & Safety Executive publications:
  - an Approved Code of Practice "Managing and working with asbestos" (HSE ACoP L143, Second Edition);
  - A Comprehensive guide to Managing Asbestos in Premises HSG227;
  - HSE HSG264 "Asbestos: The Surveying Guide"

Specific Legal Duties under Regulation 4 of CAR 2012

The broad requirements on employers and others are to:

- Take reasonable steps to find materials likely to contain asbestos;
- Presume materials contain asbestos, unless there is strong evidence to suppose they do not;
- Assess the risk of the likelihood of anyone being exposed to asbestos from these materials;
- Make a written record of the location and the condition of the ACMs and presumed ACMs and keep it up to date;
- Repair or remove any material that contains or is presumed to contain asbestos, if necessary, because of the likelihood of disturbance, and its location or condition;
- Prepare a plan to manage that risk and put it into effect to ensure that;
  - information on the location and condition of ACMs is given to people who may disturb them during work activities;
  - any material known or presumed to contain asbestos is kept in a good state of repair;
- monitor the condition of ACMs and presumed ACMs; and
- review and monitor the action plan and the arrangements made to put it in place.

Assessment of the Hazard from Asbestos in Buildings

Control measures for exposed and or damaged friable asbestos may be specified by removal, enclosure or encapsulation to prevent fibre release. Disadvantages to enclosure/encapsulation are: access control and periodic inspections are required for enclosures, fibre release may occur during construction, encapsulated surfaces may delaminate and long term costs in both cases may be higher. Removal presents a permanent solution. Once controlled through encapsulation or enclosure, then management is required.

Enclosed and or encapsulated friable asbestos in good condition and non-friable asbestos must be managed by implementing an Operations and Maintenance (O&M) Program. Major elements of the O&M Program include: administrative controls; training; exposure control plan and a 'permit to work' system and/or identification with labels or signs.

Appendix 2 – Generic Options for Management of ACMs

General Management Options

Enclosed and/or encapsulated friable asbestos in good condition and non-friable asbestos may be managed by implementing an Operations and Maintenance (O&M) Program. Major elements of the O&M Program include: administrative controls; training; exposure control plan and identification with labels or signs.

Exposed and/or damaged friable asbestos should be controlled by removal, enclosure or encapsulation to prevent fibre release.

Once controlled through encapsulation or enclosure, then management is required.

All ACMs in areas subject to renovation or demolition activities must be removed or safely contained prior to renovation or demolition, by a licensed asbestos removal contractor, except those ACMs such as asbestos cement not covered by the regulation. The HSE or appropriate enforcing agency, e.g. Environment Agency, must be notified in writing before the removal, encapsulation or enclosure of licensed ACMs, or the demolition, dismantling or repair of any building or structure, or parts thereof, in which licensed ACMs have been used.

Record, Manage & Monitor ACMs
ACMs which are in good condition, sealed and/or repaired, and are unlikely to be disturbed, may be left in place. The Client must monitor the condition of any ACMs that are to remain in place. The frequency of checks will depend on the ACM and the activities in the area, however checks should be made no less than annually. If the ACMs are labelled this will assist in monitoring them and warn anyone that may propose to do work in that area. If labelling is not appropriate and has not been done the Client must make sure that they have a management system that communicates the location of ACMs to anyone who is likely to disturb them.

Protection or Enclosure of ACMs
Protecting the ACM means erecting a barrier of some sort to prevent accidental disturbance of the ACM. Enclosing the ACM involves erecting a barrier around the ACM that is as airtight as possible. Beware of disturbing the ACM during the erection of the enclosure. If disturbance is likely then it may fall under the Control of Asbestos Regulations 2012, this will mean you will have to use a licensed asbestos removal contractor to erect the enclosure. This option may ultimately cost as much as removal of the ACM. The enclosed ACM will still need to be monitored.

Seal or Encapsulate the ACM
There are two types of encapsulant; bridging encapsulants which form a durable layer adhering to the surface of the ACM and penetrating encapsulants which penetrate into the ACM before hardening and binding the ACM. There are various types of encapsulant with different life spans. The fire-resistant properties of the encapsulant must be considered if the ACM was to provide fire resistance. Encapsulation of an ACM is only suitable if the ACM is in sound condition and can take the additional weight of the encapsulant. The preparation of the encapsulant must in virtually all cases be carried out by a licensed asbestos contractor.

Repair the ACM.
To be readily repairable the damage needs to be slight, therefore repair should be restricted to patching or sealing small areas. There are a number of methods that can be used depending on the type of material. It is important to consider the fire protection afforded by any ACMs that are treated to ensure that any treatment does not adversely affect the fire resistant or retardant qualities of the ACM. Unless the work is very minor and not covered by the Licensing regulations it should be undertaken by a licensed asbestos contractor.

Remove the ACM.
Where it is not practicable to repair enclose or encapsulate the ACM it will need to be removed. ACMs will need to be removed where a building is going to be demolished or if the area is to undergo refurbishment, which will disturb the ACM. The work will generally have to be undertaken by licensed asbestos removal contractors unless the ACM is asbestos cement or other highly bonded material not covered by the Licensing regulations.

Can I do work that may disturb an ACM?

A Method Statement should be provided for the proposed work following liaison with the client. Liaison with the client is essential to determine the work sequence and appropriate control measures. A firm price for abatement work cannot usually be provided until client liaison has taken place. For work that is not licensed an abbreviated form of the Method Statement may be used but all the key elements such as, inter alia, control measures, personal protective equipment (PPE) & respiratory protective equipment (RPE) and disposal must be covered in the statement. If the work is 'licensed' it can only be done by a licensed contractor; the Method Statement will be prepared by the licensed contractor for licensed work.

If any person is proposing to carry out any work that may disturb an ACM he must carry out a risk assessment **specific** to that work. It will be on the basis of the risk assessment that an option appraisal should then be carried out to confirm the best course of action. An option appraisal should take into account the life cycle costs of dealing with the ACM. Each time, over the life of the building component, that maintenance is required there will be increased costs for dealing with the ACM. There is also clearly a cost involved in 'Record, Manage & Monitor' as this will require an annual inspection with appropriate records; it may also impact on the business of the building occupier. There may also be a need to carry out background reassurance air monitoring on a regular basis; again this will incur repeat costs. In some cases it will be cost effective to leave the ACM in situ, in other cases it may be prudent to remove the ACM. The decision depends on the scope of any proposed work, the potential risk for fibre release and danger to workers and occupiers.

If you are not a licensed contractor as defined by the Control of Asbestos Regs 2012 (CAR 2012) (see also HSE ACoP L143) you can only work on ACMs if:

(a) the exposure of employees to asbestos is sporadic and of low intensity;
(b) it is clear from the risk assessment (as defined in CAR 2012) that the exposure of any employee to asbestos will not exceed the control limit (as defined in CAR 2012) ; and
(c) the work involves—

(i) short, non-continuous maintenance activities,
(ii) removal of materials in which the asbestos fibres are firmly linked in a matrix,
(iii) encapsulation or sealing of asbestos-containing materials which are in good condition.

Appendix 3 - Photographs of Sample or Reference Point Locations

Please note the following are representative photographs of identified ACMs and simple photographs such as 'Artex' may be omitted

9462AS – 001

9462AS – 002

9462AS – 003

9462AS – 005

9462AS – 006

9462AS – 007

9462AS – 008

9462AS – 009

9462AS – 010

9462AS – 011

9462AS – 012

9462AS – 013

9462AS – 014

9462AS – 015

Photo Not Available

9462AS – 017

9462AS – 019

9462AS – 020

9462AS – 022

9462AS – 023

9462AS – 024

9462AS – 025

9462AS – 026

9462AS – 027

9462AS – 028

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