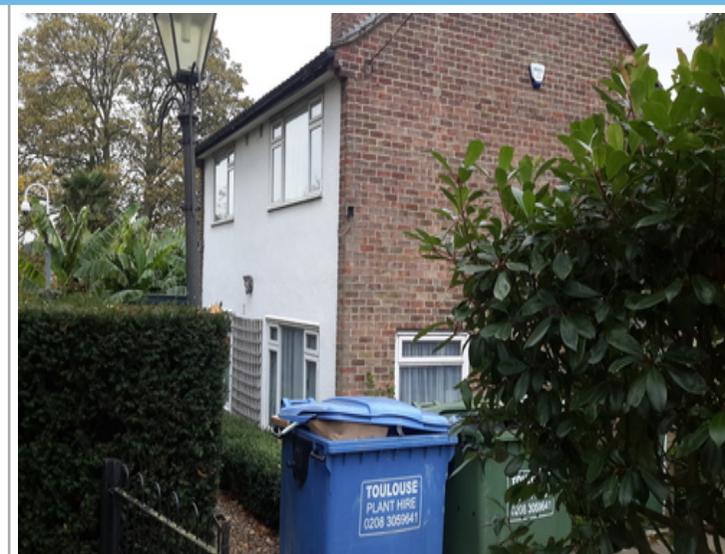
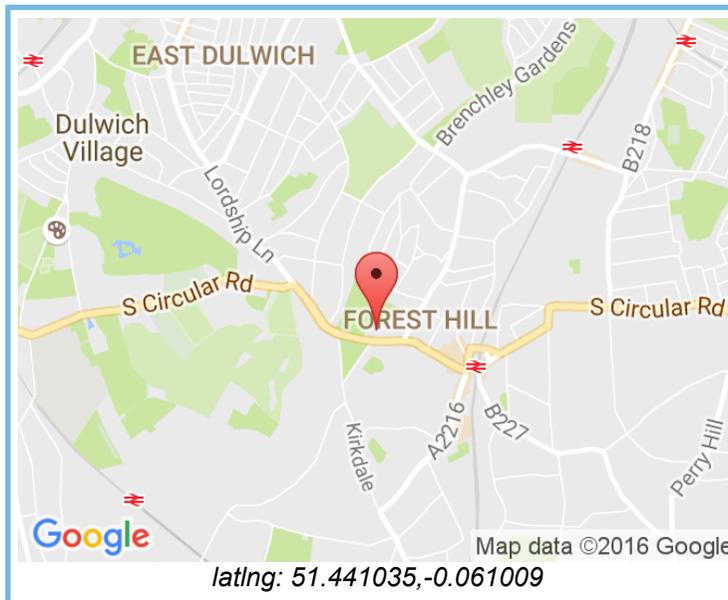


Asbestos Pre-Refurbishment Survey Report

Job Ref No: **140513**, Account Ref No: **18203**, Contract Ref No: **18463**

Horniman Museum and Gardens, 100 London Road, Forest Hill, London, SE23 3PQ

Title: Pre-Demolition Survey to Old Detached House, **Including:** Full demolition survey to old detached house



on site photo

Total Records	Analysed Records	No Asbestos Detected	R3	R2	R1
84	16	8	8	0	0

Report Summary

This certificate is for the attention of	Tim Hopkins Horniman Museum Horniman Museum and Gardens Forest Hill London
Contract Title	Boiler room, house and summer exhibition building
Survey Type	Survey, Pre-refurbishment
Site Address	Horniman Museum and Gardens, 100 London Road, Forest Hill, London, SE23 3PQ
Buildings Surveyed	Old detached house
Report Comments	The gravel shed is included in the survey, but just to look at the two wooden sheds without damaging them as they will be re-used on site.
Surveyor(s)	Luke Armstrong
Surveyor signature(s)	
Survey Date	Tuesday, 1st November, 2016
Analyst(s)	Lee Kerridge, Freya Jones
Analyst signature(s)	
Analysis date	Sunday, 13th November, 2016
Approved signatory	Aaran Phillips
Approved signature	
Approval date	Wednesday, 16th November, 2016
Report Rendered on	Wed 16 Nov 2016 @ 16:06:25

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Asbestos Register and Executive Summary

The current survey report is not intended to be used as a bill of quantities for asbestos removal activities. This survey can be used to compile a scope of work and technical specification. We can assist you in the preparation of these documents.

Summary of Asbestos Containing Materials

Ordered By Building, Level and Location

Building	Level	Location	Item / Product Examined	Material Description	Risk Level (Material Score)	Initial Control Recommendation
Old detached house	0	004/lounge	damp proof course	Asbestos-containing bituminous product	R3 (4)	Remove
Old detached house	0	008/toilet	putty on light	Asbestos-containing putty	R3 (4)	Remove
Old detached house	1	001/bedroom	damp proof course	Asbestos-containing bituminous product	R3 (4)	Remove
Old detached house	1	001/bedroom	flue	Asbestos-containing cement	R3 (5)	Remove
Old detached house	1	002/bedroom	flue	Asbestos-containing cement	R3 (5)	Remove
Old detached house	2	001/loft	flue	Asbestos-containing cement	R3 (4)	Remove
Old detached house	9	999/externals	soffit	Asbestos-containing insulating board	R3 (6)	Remove
Old detached house	9	999/externals	damp proof course	Asbestos-containing bituminous product	R3 (4)	Remove

Summary of Areas Excluded & Not Fully Accessed During Survey

Building	Level	Location	Item / Product Examined	Accessibility	Access Comments
Old detached house	0	004/lounge	Entire Location	Limited Access	physically restricted space
				 due to stored items	
Old detached house	0	005/kitchen	Entire Location	Limited Access	physically restricted space
				 due to stored items	
Old detached house	0	006/dining room	Entire Location	Limited Access	physically restricted space
				 due to stored items	
Old detached house	2	001/loft	flue	No Access	reasons of health and safety
				 within chimney, no safe access	

Introduction

This report aims to:

- Introduce pertinent legislation relating to the management of asbestos in non-domestic premises
- Outline the sample testing and inspection methodology employed by the surveyor
- Relate the significance of the report contents to the Control of Asbestos Regulations (2012)
- Detail survey findings compliant with HSG 264
- Serve as a reference document to assist in making further steps towards the management of any asbestos containing materials in the premises
- Provide the information necessary to compile an asbestos management plan compliant with the Control of Asbestos Regulations (2012)
- Form an asbestos register

Regulation 4 of the Control of Asbestos Regulations (2012) states the obligations that persons defined as "duty holders" have to manage asbestos containing materials in non-domestic premises. This instrument defines a duty holder as being:

"Every person who has, by virtue of a contract or tenancy, an obligation of any extent in relation to the maintenance or repair of non-domestic premises or any means of access thereto or egress there from; or

*In relation to any part of non-domestic premises where there is no such contract or tenancy, every person who, to any extent, has control of that part of non-domestic premises or any means of access thereto or egress there from" - **CAR, 2012.***

Regulation 4 also states the following:

"In order to enable him [sic "dutyholder"] to manage the risk from asbestos in non-domestic premises, the dutyholder shall ensure that a suitable and sufficient assessment is carried out as to whether asbestos is or is liable to be present in the premises"

This report satisfies this requirement, unless stated otherwise, by detailing the inspection findings reporting the presence of asbestos containing materials in those areas given in the survey inspection detail.

Health and Safety Guidance - Publication "Asbestos: The Survey Guide (HSG 264)" details the material assessment that must be carried out to determine the risk posed by asbestos containing materials in buildings. This material risk assessment has been carried out on those materials strongly presumed or proven to contain asbestos. The resulting material assessment risk ratings can (in conjunction with the management recommendation made for these materials) then be used to form the basis of an asbestos management plan.

Where possible the surveyor has attempted to interpret the needs of the client in their refurbishment works however the reader must satisfy themselves that the report includes those areas affected by refurbishment works.

Buildings Included in Survey Scope

Site Address: **Horniman Museum and Gardens, 100 London Road, Forest Hill, London, SE23 3PQ**

Surveyed Buildings: **Old detached house**

Every effort has been made to identify all asbestos materials so far as was reasonably practical to do so within the scope of the survey and the attached report. Methods used to carry out the survey were agreed with the client prior to any works being commenced by way of acceptance of our contract / quotation.

This survey was conducted in accordance with Health and Safety Guidance - Publication "Asbestos: The Survey Guide (HSG 264)". Lucion Environmental Ltd cannot accept any liability for loss, injury, damage or penalty issues that arise for reasons of survey scope limitations. Lucion Environmental Ltd cannot be held responsible for any damage caused as part of this survey carried out on your behalf. Due to the nature and necessity of sampling for asbestos some damage is unavoidable and will be limited to that necessary for taking of the samples.

The "areas excluded and not fully accessed during survey" section of this report gives details of those buildings, locations and items not accessed at the time of the survey (where appropriate, and if all areas were fully accessed, no items are listed). The "included buildings" list above gives details of those buildings included in the survey scope. The inspection log should be referenced for details of specific locations inspected within these buildings.

The scope of this survey relates only to building or area(s) inspected and does not include any form of investigation of the land on which the building is situated.

Where investigation of an intrusive nature (within the scope of the survey being performed) is needed to discern the presence of a material and the property is occupied during the inspection the level of intrusion may be restricted. As far as is reasonably practicable such restrictions will be indicated within the "areas excluded & not fully accessed during survey" section of this report. Scenarios leading to intrusion restriction may [by way of example] include (but are not limited to) security integrity of the building envelope, significant damage to decorative finishes, risk to the structural integrity of the building, occupation within adjacent areas. Investigations undertaken in such situations may, through circumstantial restrictions, be incomplete. Further investigation works may be required once unrestricted access can be offered.

Items or areas not covered by this survey that are scheduled to undergo works that may result in the release of asbestos fibres should be investigated prior to commencement of such activities.

Site Data

Site ID	103173
Address	Horniman Museum and Gardens, 100 London Road, Forest Hill, London, SE23 3PQ

Survey Methodology

The asbestos survey findings detailed in this report were gathered using documented in house inspection (TOP01.01) and sampling procedures (TOP01.02) that implement the requirements of the Health and Safety Executive Publications HSG 264 (Asbestos: The survey guide) and HSG 248 (Asbestos: The analysts' guide for sampling, analysis and clearance procedures). All asbestos surveys aim to locate as far as is reasonable practical, the presence and extent of any ACMs in the building within the defined scope of the survey (refer HSG 264). This method complies with section 3 of Regulation 4 (CAR, 2012)

HSG 264 Asbestos: The Survey Guide

Publication HSG 264 sub-divides asbestos surveys into 2 principal types, termed: Management and Refurbishment & Demolition surveys respectively. These survey types may be summarised as follows (both have been shown to allow visualisation of the scope of the present management survey relative to the refurbishment & demolition survey specification and their suggested application/s).

Management Survey - Standard Sampling, Identification and Assessment

The underlying purpose and inspection methodology of the management survey is to locate the presence, extent and condition by way of sampling and inspection of suspect asbestos containing materials as they are encountered. Where possible, representative samples of materials suspected by the surveyor to contain asbestos are taken and analysed for the presence and type of asbestos fibre present. This survey is intended for integration into a plan for the management of asbestos containing materials under Regulation 4 of CAR (2012). The management surveys offers information allowing routine and simple maintenance works to be carried and this reflects the surveyor's level of intrusion at the time of the inspection. More extensive maintenance or repair work may require additional investigations to be undertaken; the findings of this survey should be checked with this in mind to confirm whether or not they of adequate scope.

Refurbishment Survey - Full Access, Sampling and Identification

The refurbishment and demolition survey is fully intrusive (as far as is reasonably practicable) and is aimed at locating all asbestos containing materials within a survey area. Normally, unless otherwise specified (*refer to the Method Statement as listed in **Annotated Plans and Other Additional Documents** section of this document*), it involves fully invasive and possibly destructive investigation of all survey areas, in order to locate and assess all materials suspected as containing asbestos. The survey records only the location and estimated extent of asbestos containing materials. A priority rating has been assigned to asbestos containing materials encountered during the course of the inspection to aid ongoing management of these materials prior to refurbishment (*HSG 264 states a duration in excess of 3 months as requiring ongoing management of ACMs*). Recommendations made for material management are based solely on isolated item inspection and material assessment and may be subject to change in the context of the overall refurbishment works. However the surveyor will default to "remove" as a recommendation within a refurbishment survey. This type of survey is normally recommended prior to refurbishment work commencing in the survey area. There is a specific requirement in CAR (2012) (Regulation 7) for all asbestos containing materials to be removed as far reasonably practicable before refurbishment.

Survey Methodology - Important Notes

Reasonable Skill and Care

Although all survey areas that have been examined are reported in accordance with HSG 264 and documented in house procedures (for the specified survey type) and all reasonable skill and care has been exercised by the surveyor in doing so, it must be realised that no survey can reasonably guarantee beyond doubt that all asbestos containing materials have been located. Reasons for this limitation may include health and safety issues, reasons of practicality, non-access to live equipment and dangerous or contaminated environments or risk of unsafe levels of damage being inflicted on the survey area amongst others, or the location of the material being outside the investigative scope of the survey type undertaken.

Non-asbestos Materials - A Reasoned Argument

All items examined by the surveyor at the time of the survey are listed in the inspection detail of this report. This detail includes those items believed by the surveyor not to contain asbestos and an appropriate categorisation of their material composition is given. Employing this rationale the surveyor can use experience and judgement to form a reasoned argument that there is evidence to suggest that the material may not contain asbestos. Periodically "non-asbestos" building materials may be sampled by way of a method control to further support the surveyor's argument. These materials do not bear any risk assessment detail.

Materials Presumed to Contain Asbestos

If the surveyor feels that a reasoned argument against a material containing asbestos cannot be formed, the item in question may be presumed to contain asbestos. This may include, but is not restricted to, areas where access cannot be gained. This scenario attracts the designation "P" in the sampling strategy column of the "Survey Inspection Detail, Sample Test Report and Risk Level Assessment Report" table within this report.

Materials Strongly Presumed to Contain Asbestos

In the case of a material or materials being encountered that the surveyor suspects, following visual assessment, as containing asbestos but cannot be sampled for reasons of practicality, that material is strongly presumed to contain asbestos. An assessment (where possible) of the material's extent and condition is made. Nota bene: as no definitive assessment of asbestos fibre type contained in the material may be made, this portion of the priority score is based on a strongly presumed worst-case scenario of fibre type commonly contained in the material concerned. This scenario attracts the designation "SP" in the sampling strategy column of the "Survey Inspection Detail, Sample Test Report and Risk Level Assessment Report" table within this report.

Sampling of Materials

If access to the material permits, a representative sample of the material is taken according to the "sampling strategy". An assessment (where necessary or possible) of the material's extent and condition is made. As no practical sampling strategy can be assured as being entirely representative of the circumstances encountered during surveying, care should be exercised when interpreting results. That is to say that if works are planned that may cause disturbance or require the removal of asbestos containing materials, implementation of a more intense sampling regime may be desirable.

Material Cross Referencing

In the event of a suspect material being encountered with a frequency that does not permit repeated re-sampling on the grounds of practicality, the surveyor may cross reference this item with one that has already been sampled. To do this the surveyor will ensure that the material is identical in nature (through examining visual appearance e.g. colour) to that of the material to which it is referenced. Nota bene: as no definitive assessment of asbestos fibre type contained in the material may be made, this portion of the priority score is strongly presumed as being the same as that of the material from which it is cross referenced.

Method of Sample analysis

The bulk asbestos fibre identification results detailed in this report and the appended certificate of bulk analysis were obtained using a documented in house testing procedure (TOP01.03) that implements the requirements of Health and Safety Executive Publication HSG 248, Appendix 2 (Asbestos: The analysts' guide for sampling, analysis and clearance procedures). All samples collected during the course of this survey are tested in accordance with this method.

HSG 248 Asbestos: The Analysts' Guide for Sampling, Analysis and Clearance Procedures

Publication HSG 248 describes a two stage approach to the detection and subsequent identification of asbestos fibre in bulk (i.e. suspect sample) materials. Initially the microscopist will examine the material under a low power stereo light microscope. The microscopist then performs extensive optical tests using polarised light microscopy in order to confirm or refute that the material contains an asbestos mineral. This technique allows for the detection of the six common forms of asbestos fibre as follows:

Asbestos Fibre Type	Common Nomenclature
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	N/A
Fibrous Anthophyllite	N/A
Fibrous Tremolite	N/A

The results of this test are given, where appropriate, in the inspection detail report for each sample taken and are summarised in the management recommendation report. They are also separately detailed in the bulk-analysis report appended to this report. The homogeneity of asbestos containing materials can differ depending on their type. Typically, homogeneous materials include sprayed coatings, insulating board and asbestos cement products. Other materials are typically less homogeneous including pipe lagging (due to patch repairs, hand mixing at time of application), textured coatings (due to low concentration of asbestos fibre and hand application), composites (due to low concentration of asbestos fibre and material matrix) and debris samples (due to the potentially inconsistent occurrences that have led to their presence). Whilst sampling frequencies / techniques and analysis methods attempt to address the issue of non-homogeneity it should be realised that sampling in accordance with HSG 264 and analysis in accordance with HSG 248 cannot always obviate the problems of determining asbestos fibre content in non-homogeneous materials. The results of sample analysis presented in this report therefore pertain to the samples analysed and so relate only to the time at which sampling took place and to the conditions prevailing during that time.

Sampling Strategy

Product Type	Sampling Strategy
Vinyl, composite floor coverings, surface coverings	One sample per room, or one sample per 40m ² per product type or colour. Where large expanses of the same material have been used throughout an area, the frequency of sampling may be decreased at the discretion of the surveyor. Associated adhesives, depending on site and material conditions, will either be collected as separate samples or included with the floor covering as a single entity.
Textured Coatings	One composite sample per room or one sample per 9m ² dependent on similarity of coating type. Where large expanses of the same material have been used throughout an area. The frequency of sampling may be increased or decreased at the discretion of the surveyor.
Gaskets, ropes, woven product, seals, mastics, papers, felts	One sample per product type, or if appropriate, per area or location.
Asbestos containing insulating board	One sample per location or per 25m ² of continuous product run. The frequency of sampling may be increased or decreased at the discretion of the surveyor dependent on such factors as consistency of product type or occurrence of different board types. The specific nature of this material has been determined on site using the competence and experience of the surveyor. Lucion Environmental accepts no liability for any decision based on this determination and as such it should only be regarded as an opinion. Where doubt exists as to the classification of a board material HSE Approved Code of Practice L143 "Managing and working with asbestos" recommends carrying out a water absorption test. Lucion Environmental will perform this test only upon specific request.
Cement Products	One sample per product type, or if appropriate, per area or location. The specific nature of this material has been determined on site using the competence and experience of the surveyor. Lucion Environmental accepts no liability for any decision based on this determination and as such it should only be regarded as an opinion. Where doubt exists as to the classification of a board material HSE Approved Code of Practice L143 "Managing and working with asbestos" recommends carrying out a water absorption test. Lucion Environmental will perform this test only upon specific request.
Debris	One sample per location, or more at the discretion of the surveyor. Where debris exists in a location quantification can be hindered by a number of factors including paint coverings, air movement, the passage of time etc. The surveyor reports only the material discernable within the confines of the survey sufficient to show that debris exists in a location. Further focused investigation may be needed to determine the extent of debris for the purposes of decontamination.
Insulative Materials	One sample per material product type (to include change in outward appearance) and at least one sample per 10 metre pipe run. In addition, one sample per different product applied to pipe bends.
Sprayed Insulation	One sample per 20m ² of material

Results and Findings

The item examination and inspection findings, bulk analysis results, material assessment and initial risk level assessment are reported in the form of an asbestos inspection and testing detail register. The purpose and structure of this register are explained in the proceeding sections.

Initial Risk Level Assessment

The initial risk level assessments made within this report for those items strongly presumed, or positively proven by sampling and subsequent analysis, to contain asbestos have been made on the basis of the Material Assessment Algorithm detailed within the publications HSG 264 and HSG 227.

This assessment aims to elucidate the potential for a particular material to release hazardous fibres and expose those within the specific area to asbestos dust. The following table gives the scoring strategy for the initial risk level assessment and indicates the scoring degree of those points that are considered, namely product type, condition, surface treatment and asbestos fibre type present.

	Score	Score Category
Product Type An assessment of the inherent risk a product may pose (Product debris is assessed on the product type from which it originates)	1	Asbestos reinforced composites - Plastics / resins / mastics / felts / vinyl tiling / semi rigid paints / decorative finishes / asbestos cement and other such similar bound materials.
	2	Materials of a medium asbestos content including - Asbestos insulating board / millboard / low density insulation board / textiles / gaskets / ropes / papers / debris from asbestos containing composite material and cement.
	3	Materials of a high asbestos content including - Thermal insulation / sprayed asbestos / loose asbestos / packing / filled padding / all other debris.
Material Condition An assessment of the damage or deterioration in condition of product	0	Undamaged - No visible signs of damage
	1	Minor damage - Light material surface abrasion / abrasion to edges
	2	Medium damage - Evidence of loose asbestos fibre protruding from material / poor condition of material is notable
	3	Major damage - Significant damage to materials often resulting in the short-term production of asbestos containing debris / delamination of sprays and thermal insulation / asbestos debris

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	Score	Score Category
<p>Surface Treatment</p> <p>An assessment of the level of fibre retention the surface of a material may be capable of</p>	0	Composite materials - Plastics / resins / mastics / felts / vinyl tiling / semi rigid paints / decorative finishes
	1	Sealed and enclosed materials - Painted asbestos insulating board (with exposed face painted or encapsulated) / enclosed asbestos lagging and sprayed asbestos (as originally installed) / unsealed asbestos cement products
	2	Unsealed and encapsulated materials - Unsealed asbestos insulating board / asbestos lagging, sprayed asbestos and woven material encapsulated (remedially)
	3	Unsealed friable materials - Unsealed asbestos lagging and sprayed asbestos
<p>Asbestos Fibre Type</p> <p>An assessment of asbestos fibre types propensity to cause asbestos related diseases</p>	1	Serpentine Asbestos - Chrysotile
	2	Amphibole Asbestos - Amosite / Anthophyllite / Tremolite / Actinolite
	3	Amphibole Asbestos - Crocidolite

Material / Accessibility Score

Following the rating of a material using the above criteria, the resulting aggregated additive material score may be assessed in terms of accessibility to derive an assessment of initial risk level as follows:

	Very Low Risk (2-4)	Low Risk (5-6)	Medium Risk (7-9)	High Risk (10-12)
Normally Inaccessible (1)	R3	R3	R3	R2
Periodically Accessed (2)	R3	R3	R2	R1
Frequently Accessed (3)	R3	R2	R1	R1

The level of access to the ACM determines how easily the product can be reached by the building occupants which could result in a disturbance that causes fibre release, it relates purely to access and does not consider product type.

The above is defined by the following:

1. Normally inaccessible or occasionally accessed:

The ACM will not be accessed or is unlikely to be disturbed.

2. Periodically accessed:

The ACM is likely to be disturbed occasionally.

3. Frequently accessed:

The ACM is routinely and easily disturbed.

General Interpretation of Risk Assessment Level

Risk Assessment Level	Interpretation of the Recommended Control Action
R1	immediate implementation
R2	as soon as practicable - <i>in interim period material should be regularly inspected and its management planned for</i>
R3	not immediately necessary - <i>material should be regularly inspected and its management planned for</i>

Recommendations

In addition to the risk assessment level assigned to strongly presumed and identified asbestos containing material, a management control action recommendation is also made. In the case of survey carried out prior to refurbishment or demolition works, the "normal" recommendation will be "remove" as the surveyor assumes that asbestos removal will take place prior to other works commencing (unless the surveyor has been advised otherwise in advance of the survey).

The current recommendations conventionally made by the surveyor may include the following:

Recommendation	Description	Notes
Air Monitoring	Sampling of air for asbestos fibre concentration. Necessary where a risk of fibre exposure is present and assessment of such exposure presence or absence is prudent.	UKAS accredited analytical laboratory should perform reassurance air testing.
Access Restriction	Restriction of access to area / location only to personnel wearing appropriate PPE / RPE.	Suitability of RPE / PPE must be carefully assessed and procedure invoked to ensure these control measures are adhered to.
Access Prohibition	Prohibition of access to area / location to all personnel.	Area should be marked clearly as being prohibited to all personnel, possibly in conjunction with asbestos warning stickers.
Environmental Clean	A cleanup of areas following disturbance of asbestos or discovery of loose asbestos dust/debris/material.	The work is not removal (ie requiring physical force) and consists of vacuuming, wiping, picking up and bagging of debris. The work can be either licensed or unlicensed depending on the product and whether exposure is likely to exceed the 4 hour control limit or sporadic and low intensity limit. For licensed work a 4-stage clearance by a UKAS accredited laboratory is required, whilst for non-licensed work appropriate air tests are recommended.
Material Repair	Repair of the material in such a manner as to minimise the release of asbestos fibre.	Repair of materials is recommended by the Health and Safety Executive as an alternative to removal, where reasonably safe to so.
Material Encapsulation	Encapsulation of the material in a manner that ensures the complete enclosure of any remaining asbestos fibres.	Encapsulation of materials is a possible alternative to their removal, where reasonably safe to do so. Works should also be accompanied by appropriate air test performed by a UKAS accredited laboratory.
Material Removal	Removal of the material in instances where it is remaining in situ would lead to a high residual risk level. Or removal may be necessary to permit work within the location. Removal of materials may also be carried out on a preventive basis.	Removal works should be carried out in accordance with the relevant ACOP (approved code of practice), L143
<p><i>Any recommendations made within this report are made on the basis of findings collated at the time of survey. Recommendations should undergo careful client evaluation prior to a final management decision being made. Lucion Environmental Ltd does not accept any responsibility for any works carried out as a result of recommendations made within this report.</i></p>		

If any remedial works need to be carried out, decide whether or not they need to be carried out by a licensed contractor. If you are unsure about this we can offer advice as to what you should do. We can assist you in the compilation of a removals specification and supporting documentation.

Cited References and Further Reading

1. Control of Asbestos Regulations (2012) ~ The Stationery Office. **ISBN 978-0111521083**
2. Construction (Design and Management) Regulations (2015) ~ The Stationery Office. **ISBN 9780717666263**
3. The Hazardous Waste (England and Wales) Regulations (2005) ~ The Stationery Office. **ISBN 011072685-5**
4. Managing and working with asbestos Control of Asbestos Regulations 2012. Approved Code of Practice & guidance L143 (second edition, 2013) ~ HSE Books. **ISBN 978-0717666188**
5. A Comprehensive Guide to Managing Asbestos in Premises (2002) ~ HSE Books. **ISBN 978-0717623815**
6. Asbestos Essentials: A task manual for building, maintenance and allied trades of non-licensed asbestos work (third edition, 2012) ~ HSE Books. **ISBN 978-0717665037**
7. [Asbestos Essentials Task Sheets \[http://www.hse.gov.uk/asbestos/essentials/ \]](http://www.hse.gov.uk/asbestos/essentials/) ~ HSE. *electronic downloadable version of the above*
8. Asbestos: The licensed contractors' guide HSG247 (2006) ~ HSE Books. **ISBN 978-0717628742**
9. Asbestos: The analysts' guide for sampling, analysis and clearance procedures HSG248 (2005) ~ HSE Books. **ISBN 978-0717628759**
10. Asbestos: The Survey Guide HSG 264 (second edition, 2012) ~ HSE Books. **ISBN 978-0717665020**
11. The Management of Health and Safety at Work Regulations (1999) ~ The Stationery Office. **ISBN 011085625-2**
12. The Health & Safety at Work etc. Act (1974) ~ The Stationery Office.

Management Recommendation Detail

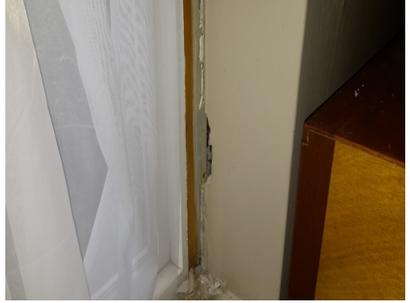
Building	Level	Location	Item / Product Examined	Sample No.	Material Description	Fibre Type	Material Score	Extent	Risk Level Assessment	Initial Control Recommendation	Photograph
Old detached house	0	004/ lounge	damp proof course	140513-8	Asbestos-containing bituminous product	Chrysotile	4	4 Lm.	R3	Remove	
Old detached house	0	008/toilet	putty on light	140513-11	Asbestos-containing putty	Chrysotile	4	0.1 Sqm.	R3	Remove	
Old detached house	1	001/ bedroom	damp proof course	140513-2	Asbestos-containing bituminous product	Chrysotile	4	4 Lm.	R3	Remove	

table continued from previous page...

Building	Level	Location	Item / Product Examined	Sample No.	Material Description	Fibre Type	Material Score	Extent	Risk Level Assessment	Initial Control Recommendation	Photograph
Old detached house	1	001/ bedroom	flue	140513-3	Asbestos-containing cement	Chrysotile, Amosite	5	2 Lm.	R3	Remove	
Old detached house	1	002/ bedroom	flue	140513-3	Asbestos-containing cement	Chrysotile, Amosite	5	2 Lm.	R3	Remove	
Old detached house	2	001/loft	flue		Asbestos-containing cement	Presume Chrysotile	4	2 Lm.	R3	Remove	

table continued from previous page...

Building	Level	Location	Item / Product Examined	Sample No.	Material Description	Fibre Type	Material Score	Extent	Risk Level Assessment	Initial Control Recommendation	Photograph
Old detached house	9	999/externals	soffit	140513-13	Asbestos-containing insulating board	Amosite, Chrysotile	6	16 Lm.	R3	Remove	
Old detached house	9	999/externals	damp proof course	140513-12	Asbestos-containing bituminous product	Chrysotile	4	50 Lm.	R3	Remove	

Areas Excluded & Not Fully Accessed During Survey

⊖ Asbestos should be presumed to be present within Locations and Items not accessed until a further assessment can be performed.

💬 Additional surveyor comments.

Building	Level	Location	Item / Product Examined	Accessibility	Access Comments	Photograph
Old detached house	0	004/lounge	Entire Location	Limited Access 💬 due to stored items	physically restricted space	

table continued from previous page...

Building	Level	Location	Item / Product Examined	Accessibility	Access Comments	Photograph
Old detached house	0	005/kitchen	Entire Location	Limited Access	physically restricted space	
				due to stored items		
Old detached house	0	006/dining room	Entire Location	Limited Access	physically restricted space	
				due to stored items		
Old detached house	2	001/loft	flue	No Access	reasons of health and safety	
				within chimney, no safe access		

Survey Inspection Detail, Sample Test Report and Risk Level Assessment Report

⊖ Asbestos should be presumed to be present within Locations and Items not accessed until a further assessment can be performed.

 Additional surveyor comments.

Building: Old detached house		Level: 0			Location: 001/porch						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	concrete										
walls	brick										
floor covering	ceramics										
floor	concrete										
damp proof course	bituminous product	Sample	140513-5								
		 to porch only									
putty to window frames	putty	Sample	140513-6								 NAD

Building: Old detached house		Level: 0			Location: 002/halway						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	carpet										
floor	concrete										

Building: Old detached house		Level: 0			Location: 003/cupboard						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	wood										
walls	plaster on masonry										
floor covering	lino	Sample	140513-7								 NAD

table continued from previous page...

Building: Old detached house			Level: 0		Location: 003/cupboard						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
floor	concrete										
Building: Old detached house			Level: 0		Location: 004/lounge						
⊖ Limited Access: physically restricted space 💬 due to stored items											
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	lino	Cross Reference	140513-7								
floor	concrete										
damp proof course	Asbestos-containing bituminous product	Sample	140513-8	4 Lm.	1	1	1	Chrysotile	4	2	
💬 Around the window frame, presumed to be the same to all windows on this floor											
Building: Old detached house			Level: 0		Location: 005/kitchen						
⊖ Limited Access: physically restricted space 💬 due to stored items											
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	ceramics										
floor	concrete										

table continued from previous page...

Building: Old detached house **Level: 0** **Location: 005/kitchen** 

Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
boxing	wood										
sink pad	bituminous product	Sample	140513-9								 NAD

Building: Old detached house **Level: 0** **Location: 006/dining room** 

⊖ Limited Access: physically restricted space due to stored items

Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor	concrete										

Building: Old detached house **Level: 0** **Location: 007/store** 

Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plastic										
walls	brick										
walls	textured coating	Sample	140513-10								 NAD
floor	concrete										

Building: Old detached house			Level: 0			Location: 008/toilet					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	fibreboard										
walls	brick										
floor	concrete										
putty on light	Asbestos-containing putty	Sample	140513-11	0.1 Sqm.	1	1	1	Chrysotile	4	2	 R3

Building: Old detached house			Level: 0			Location: 009/shed					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	wood										
walls	wood										
floor	wood										

Building: Old detached house			Level: 0			Location: 010/shed					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	wood										
walls	concrete										
floor	concrete										

Building: Old detached house			Level: 0			Location: 011/shed					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	wood										
walls	wood										
floor	wood										

Building: Old detached house			Level: 1			Location: 001/bedroom					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	carpet										
floor	wood										
damp proof course	Asbestos-containing bituminous product	Sample	140513-2	4 Lm.	1	1	1	Chrysotile	4	2	 R3
		Around the window frame, presumed to be the same to all windows on this floor									
flue	Asbestos-containing cement	Sample	140513-3	2 Lm.	1	1	1	Chrysotile, Amosite	5	2	 R3
		within chimney, presumed to run entire length of the chimney									

Building: Old detached house			Level: 1			Location: 002/bedroom					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor	wood										
flue	Asbestos-containing cement	Cross Reference	140513-3	2 Lm.	1	1	1	Chrysotile, Amosite	5	2	 R3
		within chimney, presumed to run entire length of the chimney									

Building: Old detached house			Level: 1			Location: 003/bedroom					
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	carpet										
floor	wood										

table continued from previous page...

Building: Old detached house			Level: 1		Location: 003/bedroom						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
lino	thermoplastic	Sample	140513-4								
		On box only									

Building: Old detached house			Level: 1		Location: 004/tank cupboard						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor	wood										

Building: Old detached house			Level: 1		Location: 005/wc						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	linoleum										
floor	wood										
boxing	wood										

Building: Old detached house			Level: 1		Location: 006/landing						
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
ceiling	plasterboard										
walls	plaster on masonry										
floor covering	carpet										
floor	wood										

Building: Old detached house		Level: 2		Location: 001/loft							
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
roof	modern										
walls	brick										
floor	plasterboard										
Water tank	plastic										
pipe lagging	modern										
loft insulation	man made mineral fibre										
insulation	vermiculite	Sample	140513-1								 <p>NAD</p>
		🗨️ Loose over the floor									
flue	Asbestos-containing cement	Presume		2 Lm.	1	1	1	Presume Chrysotile	4	1	 <p>R3</p>
		🚫 No Access: reasons of health and safety 🗨️ within chimney, no safe access									

Building: Old detached house		Level: 9		Location: 999/externals							
Item / Product Examined	Material Description	Sampling Strategy	Sample No.	Extent	Product Score	Material Condition	Surface Treatment	Fibre Id.	Material Score	Accessibility Score	Risk Level Assessment
roof	clay tiles										
walls	brick										
damp proof course	Asbestos-containing bituminous product	Sample	140513-12	50 Lm.	1	1	1	Chrysotile	4	2	 <p>R3</p>
soffit	Asbestos-containing insulating board	Sample	140513-13	16 Lm.	2	1	1	Amosite, Chrysotile	6	2	 <p>R3</p>

Annotated Plans and Other Additional Documents

The following documents accompany this report and should be regarded as an integral part of this report.

They can be downloaded from <http://web.lucion.co.uk/reports/140513/attachments>.

- [Method Statement \[http://web.lucion.co.uk/method_statements/140513?s=04246249a265fb2f86518df98d9440ae \]](http://web.lucion.co.uk/method_statements/140513?s=04246249a265fb2f86518df98d9440ae)
- [Risk Assessment \[http://web.lucion.co.uk/risk_assessment/140513?s=652302b213e13bde8066e16284773322 \]](http://web.lucion.co.uk/risk_assessment/140513?s=652302b213e13bde8066e16284773322)
- [A4-Plan_140513_Horniman-Museum-and-Gardens_All-of-Property.pdf](#)

Additional Advice and Information

As the reader of this report you are recommended to make sure that it meets with your requirements. Publication HSG 264 Asbestos: The survey guide suggests the following:

- Check your report against our quotation or your tender
- Check for any caveats or disclaimers you are unsure of
- Check that the survey is as you requested
- Check you understand the included plans
- Check that we have accessed all the areas and rooms you wanted us to

Asbestos Fibre Identification Material Test Certificate

Job Ref No: **140513**, Account Ref No: **18203**, Contract Ref No: **18463**

This certificate is for the attention of	Tim Hopkins Horniman Museum Horniman Museum and Gardens Forest Hill London
Site Address	Horniman Museum and Gardens, 100 London Road, Forest Hill, London, SE23 3PQ
Sampled Buildings	Old detached house
Analyst(s)	Lee Kerridge, Freya Jones
Analyst signature(s)	
Analysis date	Sunday, 13th November, 2016
Approved signatory	Aaran Phillips
Approved signature	
Approval date	Wednesday, 16th November, 2016
Report Rendered on	Wed 16 Nov 2016 @ 16:06:25

Analysis method - In-house method TOP01.03 in accordance with HSG 248 - Asbestos: The Analysts' Guide For Sampling, Analysis and Clearance Procedures H.S.E. 2005. All analysis carried out at Lucion's Head Office laboratory.

Lucion bear no responsibility for sample collection or sample description related information provided by the client.

Where Lucion Environmental Ltd has not undertaken sampling; any prior sampling activity is beyond the company's responsibility. Where Lucion Environmental Ltd has sampled the test material, this has been done in accordance with in-house method TOP01.02. Any opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The results quoted in this report relate to:

1. Samples analysed in accordance with methods described above
2. Samples analysed and not necessarily to the material from which the samples were taken
3. The time during which sampling took place and to the conditions prevailing during that time

The samples referred to in this report will be retained for 6 months unless requested otherwise.

Total Samples	No Asbestos Detected	Asbestos-Containing Samples
13	7	6

Fibre Identification Analysis Results

Sample No.	Building	Level	Location	Item / Product Examined	Material Description	Analyst Comments	Fibre Identification
140513-1	Old detached house	2	001/loft	insulation	vermiculite		NAD
140513-2	Old detached house	1	001/bedroom	damp proof course	Asbestos-containing bituminous product		Chrysotile
140513-3	Old detached house	1	001/bedroom	flue	Asbestos-containing cement		Chrysotile, Amosite
140513-4	Old detached house	1	003/bedroom	lino	thermoplastic		NAD
140513-5	Old detached house	0	001/porch	damp proof course	bituminous product		NAD
140513-6	Old detached house	0	001/porch	putty to window frames	putty		NAD
140513-7	Old detached house	0	003/cupboard	floor covering	lino		NAD
140513-8	Old detached house	0	004/lounge	damp proof course	Asbestos-containing bituminous product		Chrysotile
140513-9	Old detached house	0	005/kitchen	sink pad	bituminous product		NAD
140513-10	Old detached house	0	007/store	walls	textured coating		NAD
140513-11	Old detached house	0	008/toilet	putty on light	Asbestos-containing putty		Chrysotile
140513-12	Old detached house	9	999/externals	damp proof course	Asbestos-containing bituminous product		Chrysotile
140513-13	Old detached house	9	999/externals	soffit	Asbestos-containing insulating board		Amosite, Chrysotile