RIDGE

SPECIFICATION DOCUMENT

Denver Sluice House/Denver Bungalow
Denver Sluice/Denver Sluice
Downham Market/Downham Market
PE38 0EG/PE38 0EG

Environment Agency

External and Internal Building Repair Works

28 November 2022

SPECIFICATION DOCUMENT
Denver Sluice House and Bungalow

RIDGE

Denver Sluice House/Denver Bungalow, Denver Sluice, Downham Market, PE38 0EG

EXTERNAL AND INTERNAL BUILDING REPAIR WORKS

Environment Agency

14 November 2022

Prepared for
Environment Agency
Kings Meadow House
King's Meadow Road
Reading
Berkshire
RG1 8DQ

Prepared by
Ridge and Partners LLP
Beaumont House
59 High Street
Theale
Reading
RG7 5AL

Contact
Brad Rickard BSc (Hons)
Building Surveyor
07919 397 950
Brad Rickard BSc (Hons)

Version Control

Date	14 November 2022
Originator Initials	BR
Checked	DP 15.11.22
Version	001

SPECIFICATION DOCUMENT

Denver Sluice House/Denver Bungalow

CONTENTS PAGE

1. PRELIMINARIES BREAKDOWNS

1a PRELIMINARIES BREAKDOWN - DENVER SLUICE HOUSE

Ref.	Description	£ time related costs	£ fixed costs
1.0	**PRELIMINARIES BREAKDOWN**		
	Works Contract Procurement		
1.1	Compliance with tender rules		
1.2	Pricing		
1.3	Site Visit		
	Works Contract Establishment		
1.4	General Information		
1.5	Programme		
1.6	Health & Safety Information		
1.7	Management & Staff		
1.8	Temporary Services		
1.9	Temporary Security, Safety & Control		
1.10	Temporary Works		
	Works Contract Management		
1.11	Supervision, Cooperation & Coordination		
1.12	Progress & Operation		
1.13	Protection From		
1.14	Method & Sequence		
	Works Contract Verification		
1.15	Standards of Products & Executions		
1.16	Services Generally		
1.17	Quality Control		

1a PRELIMINARIES BREAKDOWN - DENVER SLUICE HOUSE

Ref.	Description	£ time related costs	£ fixed costs
	Works Contract Administration		
1.18	Use of Documents		
1.19	Documents Provided by Contractor, Subcontractors & Suppliers		
1.20	Subletting & Supply		
	Works Contract Completion		
1.21	Notification		
1.22	Completion Works		
1.23	Information		
	Other		
1.24	Insurance, Bonds, Warranties & Guarantees		
1.25	Site Clearance & Cleaning		
	NOTE: The above relates to the project specific preliminaries and are deemed to include all definitions, procedures, policies and works detailed in this document. Where no project specific preliminaries are confirmed during the tendering stage of the project the contractor pricing the works will price the above based on the JCT Minor Works Building Contract 2016 Edition executed as a deed.		
	SECTION 1a - COSTED TOTAL (Excl VAT) £		

1b - PRELIMINARIES BREAKDOWN DENVER BUNGALOW

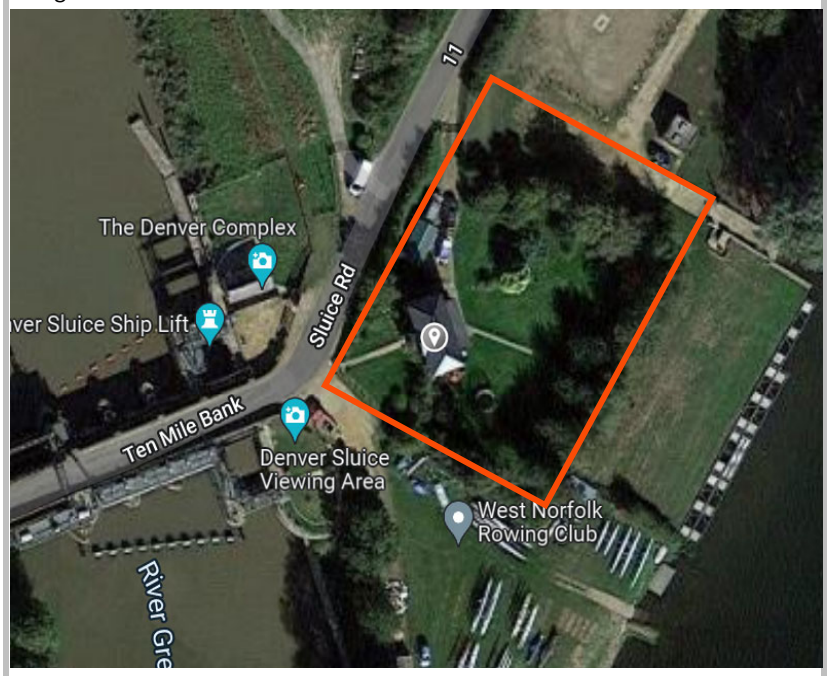
Ref.	Description	£ time related costs	£ fixed costs
1.0	**PRELIMINARIES BREAKDOWN**		
	Works Contract Procurement		
1.1	Compliance with tender rules		
1.2	Pricing		
1.3	Site Visit		
	Works Contract Establishment		
1.4	General Information		
1.5	Programme		
1.6	Health & Safety Information		
1.7	Management & Staff		
1.8	Temporary Services		
1.9	Temporary Security, Safety & Control		
1.10	Temporary Works		
	Works Contract Management		
1.11	Supervision, Cooperation & Coordination		
1.12	Progress & Operation		
1.13	Protection From		
1.14	Method & Sequence		
	Works Contract Verification		
1.15	Standards of Products & Executions		
1.16	Services Generally		
1.17	Quality Control		

1b - PRELIMINARIES BREAKDOWN DENVER BUNGALOW

Ref.	Description	£ time related costs	£ fixed costs
	Works Contract Administration		
1.18	Use of Documents		
1.19	Documents Provided by Contractor, Subcontractors & Suppliers		
1.20	Subletting & Supply		
	Works Contract Completion		
1.21	Notification		
1.22	Completion Works		
1.23	Information		
	Other		
1.24	Insurance, Bonds, Warranties & Guarantees		
1.25	Site Clearance & Cleaning		
	NOTE: The above relates to the project specific preliminaries and are deemed to include all definitions, procedures, policies and works detailed in this document. Where no project specific preliminaries are confirmed during the tendering stage of the project the contractor pricing the works will price the above based on the JCT Minor Works Building Contract 2016 Edition executed as a deed.		
	SECTION 1b - COSTED TOTAL (Excl VAT) £		

2. INTRODUCTION AND 3. SCHEDULE OF WORKS PRICING DOCUMENT

INTRODUCTION

Ref.	Description	£	p
2.1	**INTRODUCTION**		
2.1.1	The contractor is to note that the proposed works forming this schedule are for external repairs and refurbishment to two properties located in close proximity to each other. 1. Denver Sluice House and 2. Denver sluice Bungalow. There are also some minor opening up works and subsequent repairs to Denver Sluice Bungalow.		
2.1.2	The location of Denver Sluice House is shown in the Google Maps image below. 		
2.1.3	Location of works: Denver Sluice House, Denver Sluice, Denver, Downham Market, PE38 0EG The location of Denver Sluice Bungalow is shown in the Google Maps image below 		

INTRODUCTION

Ref.	Description	£	p
	Location of works: Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG		
2.1.4	The Client will be: Environment Agency Address: Kings Meadow House, Kings Meadow Road, Reading, Berkshire, RH1 8DG.		
2.1.5	The Client Representative will be: Ridge & Partners LLP Address: Beaumont House, 59 High Street, Theale, Reading, Berkshire, RG7 5AL.		
2.2	**GENERAL**		
2.2.1	The schedule has been prepared in order for a detailed cost breakdown to be provided, to aid the assessment of the works and to assist with progress and payments.		
2.2.2	The contractor is to take responsibility for the schedule and is to ensure its completeness with regards to the proposed scope of works. No costs incurred by the contractor during the pricing of these works will be accepted by the Employer.		
2.2.3	The contractor should note that all items of work contained within this schedule have been described in reasonable detail, but the contractor shall consider them in conjunction with material manufacturers recommendations, and actual work on site. The contractor shall include in his price for everything that is necessary in order to allow him to carry out the works in the best manner whether specifically mentioned or not. If and where approximate quantities are stated, these are for guidance only and the contractor is to make their own assessment of the actual quantities required by visiting site prior to submitting their costed return.		
2.2.4	The contractor is responsible for checking all dimensions on site. Any alterations or amendments to those detailed in this document are to be confirmed in writing by Ridge & Partners LLP.		
2.2.5	Should there be any items of work which the contractor is unclear as to what is required, then the query should be raised to Ridge & Partners LLP for clarification, during the tender process.		
2.2.6	The contractor is to price the schedule boldly in black ink, or typed to facilitate the photocopying of priced copies.		

INTRODUCTION

Ref.	Description	£	p
2.2.7	The contractor is to allow to price for each item individually where ever possible. Items should not be grouped together quoting lump sums prices.		
2.2.8	No qualifications or alterations of any kind are to be made by the contractor to this schedule of works without the written agreement by the CA (Ridge & Partners LLP) or Environment Agency.		
2.2.9	The contractor is to refer to the Preliminaries section of this document for all applicable standards of all products and materials described below. Strict adherence to the requirements are required at all times.		
2.2.10	The contractor must examine this specification document, to ascertain all local conditions and restrictions, accessibility and visit site to ensure they have allowed for all necessary works (all labour, materials and equipment). No claims arising from the failure to do so, will be considered. The client will not be held responsible for any additional works claims which are deemed to be reasonably foreseeable which the contractor should have included for.		
2.2.11	The contractor's attention is also drawn to the Appendices detailing additional information required to complete the works. The contractor must strictly adhere to the requirements of these sections at all times while completing the works.		
2.2.12	The contractor must notify Ridge & Partners LLP upon the discovery of any discrepancies, errors or omissions within the specification documents or the works required immediately.		
2.2.13	The contractor shall be responsible for ensuring all employees including sub-contractors fully understand and work in accordance with the site's rules and procedures. All contractors must wear company clothing, ID badges and have the correct PPE provisions.		
2.2.14	Allow to submit a detailed and site specific Pre-start Health & Safety Plan for the proposed works to Ridge & Partners LLP for comment and approval.		
2.2.15	The contractor is to allow for regularly removing waste materials from site. Where items are to be set aside, allow to record their condition and for safe and secure storage.		

INTRODUCTION

Ref.	Description	£	p
2.2.16	The contractor is to leave the working areas clean and tidy upon at the end of the each working day.		
2.2.17	The contractor is to price for all works to be undertaken during "normal working hours" unless otherwise stated. Exact timings: to be confirmed, prior to works starting on site. No weekend or Bank Holiday works is permitted. No noisy works are permitted before 8.30am.		
2.2.18	Access to the site is only permitted for working on the proposed works.		
2.2.19	The contractor shall carry out the works without undue inconvenience and nuisance and without danger to building owners, occupants and visitors.		
2.2.20	When undertaking the specified works, they are to be in accordance with manufacturer's recommendations and guidelines.		
2.3	**WORKS PROGRAMMING/ PHASING**		
2.3.1	The works are to be undertaken in occupied residential properties and the contractor must consider this when phases works and providing high level access i.e. scaffolding etc with all safety precautions included.		
2.3.2	The contractor is to outline their proposals for programming the works below. A project programme must be provided with the tender.		
2.3.3	Prior to commencing works on site, the contractor must produce detailed plans for means of access, storage facilities, means of escape and evacuation routes from the building during the course of the works. This is to be issued to Ridge & Partners LLP and the Environment Agency for approval a minimum of two weeks prior to the commencement of works.		
2.3.4	The works are to be undertaken in strict accordance with all Statutory Consents and Conditions required by the local Building Control and Planning Department where necessary. The contractor shall be responsible for ensuring all works undertaken comply with current regulations and byelaws.		

INTRODUCTION

Ref.	Description	£	p
2.3.5	The successful contractor is to undertake the works utilising trades persons and operatives who have the relevant experience, competence and technical skills required to achieve the applicable standards of all works, products and materials described below.		
2.3.6	The contractor is to make a reasonable allowance for the inspection, instruction and agreement of any works by Ridge & Partners LLP during the works as necessary to complete the works to the reasonable satisfaction of Ridge & Partners LLP.		
2.3.7	The contractor is to note that any electrical works that are required to be undertaken to the property, are to be carried out by the Environment Agency's Term Electrical Contractor, such as light fittings, sockets, wiring, extraction etc. As a result, no electrical works have been allowed for in this Schedule of Works. However, where required, the contractor is to allow to liaise with the electrical company and the Environment Agency accordingly. Include to make good affected surfaces (walls, floors, ceilings, joinery etc.), if and where required.		
2.4	**CONSTRUCTION (DESIGN AND MANAGEMENT REGULATIONS) 2015**		
2.4.1	The Construction (Design & Management) Regulations 2015 apply in full to these works. The contractor must comply with these regulations and ensure all required information is provided.		
2.4.2	The contractor must maintain safe access routes for all residents, visitors, deliveries and their own workforce in and around the building and the wider site.		
2.5	**REFURBISHMENT AND DEMOLITION ASBESTOS SURVEY**		
2.5.1	The Environment Agency has provided an Asbestos Survey Reports for both properties within Appendix B. The report provides information relating to the internal and external areas of the properties. Should any asbestos containing materials be found, the contractor is to allow for the safe removal and disposal of all asbestos containing materials as detailed within the report that are identified within the proposed works area.		

INTRODUCTION

Ref.	Description	£	p
2.5.2	Prior to the commencement of any works on site (including any site set up etc.), the contractor is to fully review the extent of Asbestos identified in the Survey Report provided within the Appendices. Where required as part of any works detailed in this specificaiton, the contractor is to employ a UKAS accredited Asbestos Surveying Specialist to undertake full Refurbishment and Demolition (R&D) inspection and survey the areas of the building not included in the Survey Report provided. This is to include for full testing of samples where applicable. Allow for all necessary asbestos air sampling, fibre identification, bulk sampling and bulk sample identification as required.		
2.5.3	The contractor is responsible for ensuring that all asbestos containing materials are correctly removed (if any are found to be present within the proposed working area), upon advice from the CA) from site by a UKAS accredited company with an approved Waste Carriers Licence and disposed of in accordance with current HSE and regulatory guidelines. Copies of disposal certificates are to be issued to Ridge & Partners LLP & the Environment Agency.		
2.5.4	During the works the contractor is to give notice immediately of suspected asbestos-containing materials if discovered during the Works and avoid disturbing such materials. Statutory risk assessments and details of proposed methods for its safe removal are to be undertaken and submitted by the contractor.		
2.5.5	The contractor is to note that all work to be carried out in accordance with Health & Safety Executive (HSE) guidelines, including The Analysts' Guide (HSG248), Asbestos: The Survey Guide (HSG264) and the Control of Asbestos Regulations 2012.		
2.6	**SITE MANAGEMENT & WELFARE**		
2.6.1	The contractor is to submit proposals for site set up, site accommodation and welfare facilities which will be discussed and agreed at the pre-commencement meeting. The contractor is should allow in his return for providing self contained welfare facilities.		

INTRODUCTION

Ref.	Description	£	p
2.6.2	There is parking in and around both of the sites which may be used by the contractor. Prior to any site set up the contractor must provide a photographic schedule of conditon of all the working areas to accurately record the condition prior to commencment. Any damage caused to these areas resulting from the works will remain the contractors liability and will repair upon completion.		
2.6.3	The contractor is to provide all necessary barriers; safety signage and site security required to carry out the works. This must include adequate 1800mm timber hoarding and or "Heras" type fencing, double clipped, around any external works areas and site compounds (if required). The property must remain secure at all times and once works are complete at the end of each day. All necessary lighting, warning and prohibition signs must be provided. The contractor is to ensure that no unauthorised access is permitted within the curtilage of the site or beyond the building secured entrances.		
2.6.4	The contractor is to provide all necessary facilities for the duration of the works. The contractor is to ensure that these are well maintained for the duration of the works. The contractor must ensure that all existing service covers, footpaths and other surfaces are adequately protected from damage from the use of site facilities during the works.		
2.6.5	The contractor shall provide and maintain all necessary mechanical equipment, plant etc. of all descriptions required for the satisfactory completion of the works and remove all, as and when required, or when directed by Ridge & Partners LLP.		
2.6.6	Due to the nature of the site all operatives must respect the surrounding area and be respectful to neighbours and members of the public.		
2.6.7	The contractor is to allow for removal and safe disposal of all waste from site (including hazardous waste material) in accordance with current Control of Asbestos Regulations 2012 and all Health & Safety legislation.		
2.6.8	The contractor is to allow for regularly removing waste materials from site.		

INTRODUCTION

Ref.	Description	£	p
2.6.9	The contractor shall be responsible for obtaining any required permission from the Local Authority, Client or other bodies for the positioning of any temporary facilities or structures outside the premises required for completing the works and ensuring all works undertaken comply with current regulations and byelaws.		
2.6.10	The contractor is to allow for all necessary protection to prevent surfaces and areas adjacent to the works from being damaged by the proposed works.		
2.6.11	The use of any electrical equipment is to be strictly controlled and steps are to be taken to ensure that leads are not long enough to touch the water. All equipment should be connected to lines to prevent their accidental dropping into water causing possible electric shocks etc.		
2.7	**EXISTING SERVICES**		
2.7.1	No disruption of services to the building shall be allowed without written consent from Ridge & Partners LLP or the Environment Agency and without adequate notice of the disruption being provided.		
2.7.2	Adequate protection of the existing services to the building will be required and any damage shall be made good to the satisfaction of Ridge & Partners LLP, the Environment Agency and the appropriate Statutory Authority, with the minimum of delay at the contractor's expense.		
2.7.3	The contractor is to ascertain for themselves the location of all services (which shall include gas, water, electricity, telecommunications services, fibre optic, drains (foul and surface), ducts, tubes, tunnels and the like, on and adjacent to the Site (underground and over ground)), that may be affected by the carrying out of the works and is to allow for all costs in connection with upholding, protecting and, if necessary, temporarily and / or permanently diverting and reinstating these services. All costs associated with works undertaken by Statutory / Service Utility Companies, including builder's work in connection, are to be allowed for by the contractor.		
2.7.4	All chambers, manholes, draw pits, plant and the like shall be adequately protected and any damage shall be made good at the contractor's expense.		
2.8	**ACCESS & SCAFFOLDING**		

INTRODUCTION

Ref.	Description	£	p
2.8.1	The contractor is to provide all necessary access equipment required for completing the specified works. Any scaffolding and access equipment thst is used must be installed/ erected and maintained to current national standards. Where this is permitted the contractor is responsible for maintaining the access routes and providing all necessary barriers, signage etc. to maintain safe working routes for the occupants, visitors and site operatives. Upon completion all access routes to be thoroughly cleaned and reinstated to match the existing standard.		
2.8.2	If used all scaffolding must be installed / erected and maintained to current Building Regulations, NASCC and national standards.		
2.8.3	The contractor is to allow for safe access in order to carry out all elements of the works. The contractor is deemed to have allowed for all alterations and amendments to the scaffold design to allow works by different trades and operatives needed to complete the works.		
2.8.4	Any damage to existing structures arising as a result of scaffold assembly and the works will be made good at the expense of the contractor.		
2.8.5	The contractor is to ensure that at all times, scaffolding / access provisions to undertake the works in no way reduces the security of the property. The contractor is to ensure that the scaffolding is suitably secured and protected from all persons, including any potential intruders at all times. All ladders are to be locked away at second lift level or above at the end of each working day.		
2.8.6	The contractor is to submit proposals for all high level access measures including risk assessments and method statements along with details of proposed specialist sub contractor. Risk assessments and method statement are to be reviewed and discussed with Ridge & Partners LLP prior to the works commencing on site. Any reasonably requested amendments to the submitted documents are to be made and subsequently included within the documents prior to works commencing.		
2.8.7	The contractor is to familiarise themselves with the Environment Agency, Constructing a Better Environment - Safety, Health, Environment and Wellbeing, Code of Practice prior to works starting on site. This document provides guidance on working methods around the water. This is provided within the appendices		

INTRODUCTION

Ref.	Description	£	p
2.8.8	When working near or over the water, the contractor must undertake works in accordance with the rules and requirement stated by the Environment Agency, including buoyancy aid, of a tested and approved pattern, is to be worn by all personnel working over water.		
SECTION 2 - COSTED TOTAL (Excl VAT) £			

3a - SCHEDULE OF WORKS DENVER SLUICE HOUSE

Ref.	Description	£	p
3.1	**REPOINTING OF EXTERNAL BRICKWORK ELEVATIONS**		
4.1.1	Take a minimum of three samples of mortar from different areas of the property, each weighing approximately 20g. These samples should be bagged indivually and marked with what areas these were taken from. These samples should be sent to the lime centre for mortar analysis and colour matching. The report findings should be used to ensure the correct mortar mix is used when re-pointing.		
4.1.2	Mortar bed joints and perps, at areas agreed with the C.A should be raked out to a minimum depth of 25mm (ensuring the depth is consistent) and the joints brushed out to remove dust and debris. All areas which have been raked out should be re-pointed to a bucket handle finish using the recommended mortar mix as per the Lime Centre guidance. Mortar should be well compacted, ensuring no voids are present. Lightly spray the wall with water prior to re-pointing. Ensure the newly re-pointed brickwork is brushed down with a soft brush at regular intervals. Allow for 50M2 of isolated areas of re-pointing.		
4.2	**EXTERNAL DECORATIONS**		
4.2.1	Protect all surfaces, prior to preparation of windows. This is to include masking up of brickwork, blockwork and glass to ensure no overspills occur.		
4.2.2	Remove all old flaking paint to the stone sills, sand down all stone sills using a coarse sandpaper and ensure that the sills are smooth. Fill any gaps or dents in the window sills using Toupret Exterior Masonry Repair Filler (or similar C.A approved), following the manufacturers instructions for use. If there are any areas of algae, lichen, mould or moss , use a suitable fungicidal wash and treat the area. Allow the treated area to dry before applying a single coat of Dulux Weathershield Stabilising Primer using a paintbrush, allow the primer to dry for four hours, before applying Dulux Weather Shield Smooth Masonry Paint (Colour to be agreed with the C.A). Allow for two coats and apply according to the manufacturers instructions. Once dry remove the masking tape. Finished paintwork must be a smooth surface with relevant finish, free from runs, debris or other blemishes. All in accordance with manufacturer's guidance		

3a - SCHEDULE OF WORKS DENVER SLUICE HOUSE

Ref.	Description	£	p
4.2.3	Carefully remove the double timber doors at the rear of the property. Remove any loose matter to the doors and the cladded area, rub down all to a smooth even surface. Fill all joints cracks and holes using exterior grade filler. Ensure surfaces are clean and dry to a sufficient depth. Any parts of the door/cladding that are affected with wet rot, should be carefully removed and repaired using an epoxy filler. The threshold bar which has decayed should be removed and discarded and replaced with a new hardwood threshold bar to match existing. Apply a single coat of Dulux Weathershield Stabilising Primer using a paintbrush, allow the primer to dry for four hours, before applying Dulux Weather Shield Satin wood (Colour to be agreed with the C.A). Allow for a minimum of two coats and apply according to the manufacturers instructions. Paintwork should not be applied in damp conditions. Finished paintwork must be a smooth surface with relevant finish, free from runs, debris or other blemishes. All in accordance with manufacturer's guidance.		
SECTION 3a - COSTED TOTAL (Excl VAT) £			

4b - SCHEDULE OF WORKS DENVER BUNGALOW

Ref.	Description	£	p
4.1	**EXTERNAL BRICKWORK REPAIRS**		
4.1.1	Mortar bed joints and perps, at areas agreed with the C.A should be raked out to a minimum depth of 25mm (ensuring the depth is consistent) and the joints brushed out to remove dust and debris). All areas which have been raked out should be re-pointed to a recessed finish to match existing, using a 1:5 cement:sand mix. Mortar should be well compacted, ensuring no voids are present. Lightly spray the wall with water prior to re-pointing. Ensure the newly re-pointed brickwork is brushed down with a soft brush at regular intervals. sand for mortar to be texture, well graded sand in accordance with BS EN 13139:2002 and to match colour and consistency of the existing/retained brickwork. Allow for 10m2 of isolated areas of re-pointing.		
4.1.2	Seal around all perimeter service penetrations with Sika Sikaflex EBT All Weather selant in white. Clean pipes and ensure the area to be applied is dust free. Ensure a smooth finish around the pipes.		
4.2	**ROOF VOID OPENING UP**		
4.2.1	To each roof slope carefully remove the bottom five courses of roof tiles to both sides of the property and set aside for reuse. Strip back battens, felt and insulation at rafter level to expose the eaves voids to allow for an inspection of the void and insulation levels. On completion of any roof void works instructed by the CA allow to reinstate roof comprising new DuPont Tyvek Supro Breather Membrane Felt Underlay, timber battens to match existing size and guage and new underlay support tray. Contractor must allow for providing all weatherproofing whilst the roof is open and any resulting damage from water ingress will be rectified at the contractors expense.		
4.2.2	Allow a provisional sum of £6,000 for carrying out any remedial works within the roof void, to be expended in whole or part by the CA.		
4.3	**INTERNAL WORKS**		
4.3.1	Prepare all bathroom and bedroom surfaces for decoration. Remove loose and flaking paint by scraping and brushing down, sanding where necessary. Clean down the mould affected areas with warm soapy water, using sparingly to ensure the areas are not saturated. Use an anti-fungal wash to clean down the mould affected areas and allow to dry.		

4b - SCHEDULE OF WORKS DENVER BUNGALOW

Ref.	Description	£	p
4.3.2	Decorate bathroom and bedroom walls and ceilings, seal new or bare surfaces with a thinned first coat (mist coat) of Dulux Trade Diamond Matt (up to 1 part clean water to 5 parts paint), with 2 nr further full coats Zinsser Permawhite Mould Resistant Paint. Ensure the manufacturers instructions are followed. Colours to ceiling: Pure Brilliant White. Colours to walls: To be chosen by client.		
4.3.3	Decorate the skirting boards, door architraves and linings in the bathroom (where applicable) and bedrooms, ensure surfaces to be painted are sound, clean, dry and free from all defective or poorly adhering material such as dirt, grease and wax. Thoroughly rub down previously painted surfaces, using 'wet flatting' method where possible, then wipe off with a damp, lint free cloth. Any surface defects should be filled with an appropriate Polycell Trade Polyfilla. Apply 2 No coats of Dulux Trade Undercoat and 1 No coats of Dulux Trade High Gloss. Colour: Pure Brilliant White		
SECTION 3b - COSTED TOTAL (Excl VAT) £			

4. CONTINGENCY SUM

CONTINGENCY SUM

Ref.	Description	£	p
4.0	**CONTINGENCY SUM**		
4.1	The contractor is to allow a Contingency Sum of 10% of the total value of the **Preliminary Breakdowns , Introduction & Schedule of Works (Sections 1.0 (1a and 1b), 2.0 & 3.0 (3a and 3b)) only**, as described within this specification document. This is for works of an unforeseen nature. All such works to be executed under written instructions from the Ridge & Partners LLP or the Environment Agency.		
	SECTION 4 - COSTED TOTAL (Excel VAT) £		

5. COLLECTION PAGE

RIDGE

COLLECTION PAGE

Ref.	Description	£	p
5.0	**COLLECTION PAGE**		
5.1	**PRELIMINARIES BREAKDOWNS (1a and 1b)**		
5.2	**INTRODUCTION (section 2)**		
5.3	**SCHEDULE OF WORKS (Sections 3a and 3b)**		
5.4	**CONTINGENCY SUM (10%) (Section 4)**		
	SUB TOTAL		
5.5	**MAIN CONTRACTOR OVERHEADS & PROFIT**		
	Add a percentage to cover all Main Contractor overheads and profits based on the value of this tender Submission. The percentage is to allow for all adjustments to the net value of work (including Main Contractor Discount). No other adjustments shall apply.		
	Insert Percentage……		
	TOTAL		
	Contractor : ……		
	Address : ……		
	……		
	……		
	……		
	……		
	Date : ……		
	TOTAL PRICED SUBMISSION (Excl VAT) £		

6. FORM OF TENDER

SPECIFICATION DOCUMENT

Denver Sluice House and Denver Bungalow

RIDGE

FORM OF TENDER

Tender For: External Repairs and Investigations at Denver Sluice House and Denver Bungalow

TENDER RETURNS ARE TO BE ISSUED TO:

The following Environement Agency email address (marked for the Attention of Kathryn Forster):

EstatesResidential@environment-agency.gov.uk

Or, via post to: Kathryn Forster
Environment Agency
Kings Meadow House
King's Meadow Road
Reading
Berkshire
RG1 8DQ

From: .....
.....
.....
.....
.....

We have examined the following documents:

- Specification & Pricing Document
- All appendices included within the Specification & Pricing Document
- All drawings listed in the Specification & Pricing Document

We offer to carry out the whole of the Works described in accordance with the documents referred to above;

for the sum of £ ..... (in words)

£ ..... (in figures) exclusive of any VAT chargeable

with ..... weeks from acceptance of our tender, comprising a period of:

..... weeks from acceptance to the Date of Possession and

..... weeks from the Date of Possession to the Date for Completion.

FORM OF TENDER

Tender For: External Repairs and Investigations at Denver Sluice House and Denver Bungalow

For the purposes of the warranties and guarantee requirements mentioned in the Specification & Pricing Document, We have reviewed the contents of the Specification & Pricing Document and accept, without amendment, the wording set out in the appendices.

We enclose our fully priced document in the separate envelope provided and marked with our name.

We agree that if any obvious errors in pricing or errors in arithmetic are discovered in the priced document before acceptance of this offer, they shall be dealt with in accordance with the Alternative 2 procedure set out in the latest JCT Practice Note.

We undertake in the event of your acceptance to execute with you a formal contract embodying all the conditions and terms contained in this offer within 21 days of being required to do so by the Employer.

This tender remains open for acceptance for 90 days from the latest date fixed for the submission of tenders.

We confirm that this tender is submitted at our expense and agree that the Employer need not necessarily accept the lowest or any other tender.

I/We confirm the following Principle Domestic Sub Contractors will be employed on this project. I/We confirm their sub contract tenders have been used within our tender and, where necessary, all these domestic sub contractors have accepted the wording of

Our list of proposed sub-contractors are;

.....

.....

. .....

. .....

. .....

.....

.....

.....

FORM OF TENDER

Tender For: External Repairs and Investigations at Denver Sluice House and Denver Bungalow

Certificate of Bona Fide Tender

The essence of selective tendering is that the client shall receive bona fide competitive tenders from all those tendering. In recognition of the principle, I certify that this is a bona fide tender, intended to be competitive, and that we have not fixed or adjusted the amount of the tender by or under or in accordance with any agreement or arrangement with any other person. I also certify that we have not done and we undertake that will not do at any time before the hour and date specified for return of this tender any of the following acts:-

a. Communication to a person other than the person calling for those tenders the amount or approximate amount of the proposed tender, except where the disclosure, in confidence, of the approximate amount of the tender was necessary to obtain insurance premium quotations required for the preparation of the tender.

b. entering into any agreement or arrangement with any other person that he shall refrain from tendering or as to the amount of any tender to be submitted.

c. offering or paying or giving or agreeing to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other tender or proposed tender for the said work any act or thing or sort described above.

In this certificate the word "person" includes any person any body or association, corporate or unincorporate and "any agreement or arrangement" includes any such transaction, formal or informal, and whether legally binding or not.

Signed by or on behalf of : .....

Signature : .....
duly authorised to sign

Position : .....

Date : .....

Note: The completed Form of Tender together with the information requested must be received at the above address no later than the agreed time and date set out in the tender invitation.

APPENDIX A

Existing Selection of Initial Site Inspection Photographs

DENVER SLUICE HOUSE – GENERAL PHOTOGRAPHS

Denver Sluice House, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Double timber doors and cladding surround (1)

Double timber doors and cladding surround (2)

DENVER SLUICE HOUSE – GENERAL PHOTOGRAPHS

Denver Sluice House, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Double timber doors and cladding surround

Example of area in need of repointing

DENVER SLUICE HOUSE – GENERAL PHOTOGRAPHS

Denver Sluice House, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Example of stone sill

Front Elevation

DENVER SLUICE HOUSE – GENERAL PHOTOGRAPHS

Denver Sluice House, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Left-hand Elevation (1)

Left-hand Elevation (2)

DENVER SLUICE HOUSE – GENERAL PHOTOGRAPHS

Denver Sluice House, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Rear Elevation

Right-hand-Elevation

DENVER SLUICE BUNGALOW – GENERAL PHOTOGRAPHS

Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Example of area in need of repointing

Front Elevation

DENVER SLUICE BUNGALOW – GENERAL PHOTOGRAPHS

Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Insulation in eaves space (2)

Insulation in eaves space (3)

DENVER SLUICE BUNGALOW – GENERAL PHOTOGRAPHS

Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Insulation in eaves space

Left-hand Elevation

DENVER SLUICE BUNGALOW – GENERAL PHOTOGRAPHS

Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Mould growth in bathroom (2)

Mould growth in bathroom (3)

DENVER SLUICE BUNGALOW – GENERAL PHOTOGRAPHS

Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Mould growth in bathroom

Rear Elevation

DENVER SLUICE BUNGALOW – GENERAL PHOTOGRAPHS

Bungalow, Denver Sluice, Denver, Downham Market, PE38 0EG

RIDGE

Right-hand Elevation

APPENDIX B

Asbestos Survey Report on Denver Sluice House/Denver Bungalow (19.11.

Ipswich Insulations Ltd
Station House
Station Yard
Bentley
Ipswich, Suffolk
IP9 2DB

Tel: 01473 327288
Fax: 01473 327365

ASBESTOS SURVEY

THE BUNGALOW
DENVER SLUICE
SLUICE ROAD
DENVER
NORFOLK
PE38 0EG

SURVEYOR: H. TURPIN

REPORT No: S6542

SURVEY DATE: 19/11/15

REPORT ISSUE DATE: 25/11/15

Contents

1.0 Summary

The aim of our asbestos survey was to locate and record the locations, as far as reasonably practicable, the extents and types of asbestos products present, and determine the risk from any asbestos products found to The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk.

The asbestos survey was conducted in accordance with the Health & Safety Executive methods detailed in 'HSG264 Asbestos: The Survey Guide' (which replaces 'MDHS 100, Surveying, Sampling and Assessment of Asbestos-Containing Materials').

The analysis of materials was conducted in accordance with the requirements of the Health & Safety Executive method 'MDHS 77; Asbestos in Bulk Materials, 1994' and carried out by a UKAS accredited laboratory.

The suspected asbestos material found during the survey, has been assessed in accordance with HSG264 guidelines and classified as non asbestos, very low risk, low risk, medium risk or high risk.

No asbestos-containing materials were found during the survey. The detailed findings of the survey are contained in the main body of this report. Please refer to section 3.0 for details.

2.0 Introduction

2.1 Aims and objectives

An asbestos survey was conducted to The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk, to inspect and establish the presence of asbestos containing materials. The data gained was used to produce this report and survey.

Presented in this report are the findings of our site observations, together with the results of the analysis of samples taken and our recommendations on future actions with respect to the identified materials.

2.2 Scope of works

The survey undertaken was an Asbestos Management Survey in accordance with HSG264, which is used to locate and describe, as far as reasonably practicable, all asbestos containing materials in the surveyed areas.

2.3 Areas Surveyed

An asbestos survey was conducted at all readily accessible areas of the site, but excluding those areas specified as inaccessible below.

General Areas That We Were Unable To Survey

Inaccessible / buried under floor areas
Internal wall cavities
Hidden voids / risers
Areas which may require removal of sealed panels, decorative cladding or any unreasonable degree of dismantling of the structure of the building
Internal areas of potentially live plant or equipment such as fuse boxes, storage heaters, boilers etc.

3.0 Asbestos Materials Found

All materials sampled during the asbestos survey, which includes asbestos materials and those determined by analysis to be non-asbestos, are detailed in the tables on the following pages. No other asbestos materials were found within the specified areas during our survey.

The following section details how the risk ratings on the following pages are allocated to materials identified in the survey and how these risk ratings are calculated.

The material assessment reports the type and condition of an asbestos containing material (ACM) and the ease with which it will release fibres if disturbed. Each positive asbestos sample is given a numerical rating based on product type, extent of damage, surface treatment and asbestos type, based on the material assessment algorithm shown in the chart on page 6. The total of this score results in severity of risk ranging from very low risk to high risk.

The priority assessment (see page 7) reports the likelihood of someone disturbing the ACM. Priority assessment is determined by carrying out an assessment which takes into account factors such as maintenance activity, occupant activity, likelihood of disturbance and human exposure potential.

The scores from the material assessment (i.e. the condition of the ACM) can be added to the scores of the priority assessment (the likelihood of disturbance) to give an overall risk assessment. The higher the overall risk assessment the greater the need for remedial action.

As a general guide the following banding can be used once the Total Risk Rating is determined:

Overall Risk Assessment Score:

≥18	High risk material requiring urgent attention
14-17	Medium risk material requiring attention in the short-medium term
9-13	Low risk material requiring regular monitoring
1-8	Minor risk material

Accessibility

In order to assess the risk from asbestos materials, the accessibility of the asbestos material must be taken in to account. For the purpose of our survey, accessibility to asbestos products is defined as follows:

Low	Would only be touched or accessed after using tools, equipment, ladders or during maintenance i.e. boiler gaskets, roof tiles, materials inside wall or floor ducts
Medium	Can be touched or accessed fairly readily, but unlikely to be disturbed i.e. ceiling panels, garage roof, flue pipes
High	Is exposed and is likely to be touched or accessed readily by any person i.e. walls, doors, loose items such as fire blankets

3.1 Material Assessment Algorithm

Sample variable	Score	Examples
Extent of damage / 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 small 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, vinyl tiles
	1	Enclosed sprays and lagging, insulation board (with exposed face painted or encapsulated), asbestos cement sheets.
	2	Unsealed AIB, encapsulated lagging and sprays
	3	Unsealed lagging and sprays
Product type	1	Asbestos reinforced composites (asbestos cement, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, resins, mastics, plastics).
	2	Asbestos insulating board (AIB), millboards, other low-density insulation boards, asbestos textiles/ropes, gaskets, asbestos paper and felt.
	3	Thermal insulation, sprayed asbestos, loose asbestos and packing.
Asbestos type	1	Chrysotile
	2	Amphibole asbestos excluding Crocidolite
	3	Crocidolite

3.1 Priority Assessment Algorithm

Assessment Factor	Score	Examples of Score Variables
Normal Occupant Activity		
Main type of activity in area	0	Rare disturbance activity (e.g. little used store room)
	1	Low disturbance activities (e.g. office type activity)
	2	Periodic disturbance (e.g. industrial or vehicular activity which may contact ACM's)
	3	High levels of disturbance (e.g. asbestos-lined fire door in constant use)
Secondary activities for area	As above	As above
Likelihood of disturbance		
Location	0	Outdoors
	1	Large rooms or well-ventilated areas
	2	Rooms up to 100m sq.
	3	Confined Spaces
Accessibility	0	Usually inaccessible or unlikely to be disturbed
	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
Extent / Amount	0	Small amounts or items (e.g. strings, gaskets)
	1	≤10 m sq or ≤10 m pipe run
	2	>10 m sq to ≤150 m sq or >10 m to ≤50 m pipe run
	3	>50 m sq or >50 m pipe run
Human exposure potential		
Number of occupants	0	None
	1	1 to 3
	2	4 to 10
	3	>10
Frequency of use of area	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
Average time area is in use	0	<1 hour
	1	>1 to <3 hours
	2	>3 to < 6 hours
	3	>6 hours
Maintenance activity		
Type of maintenance activity	0	Minor disturbance (e.g. possibility of contact when gaining access)
	1	Low disturbance (e.g. changing light bulbs in asbestos insulating board (AIB) ceiling)
	2	Medium disturbance (e.g. lifting one or two AIB ceiling tiles to access a valve)
	3	High levels of disturbance (e.g. removing a number of AIB ceiling tiles to replace a valve or for recabling
	0	ACM unlikely to be disturbed for maintenance
	1	≤1 per year
	2	> 1 per year
	3	> 1 per month

3.2 Materials Found – <u>The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NGZ-1	External	Gable End Roof Areas	Under-cloak below the roof tiles to the gable end roof areas, cement	20 m length.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
Medium	-	-	-	-	No Asbestos Detected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Detected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Detected

<u>Recommendations / Comments:</u>

No asbestos detected, no action needed.

3.2 Materials Found – <u>The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NGZ-1A	Ground	Kitchen	Acoustic under-sink pads are a modern non-asbestos type – not suspect, no sample taken	0.2 m sq.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NGZ-1B	1st	Eaves	Insulation to the eaves void is modern non-asbestos Celotex-type insulation and fibreglass – no suspect materials, no samples taken	Various.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
Medium	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NGZ-1C	External	Perimeter Walls	Damp-proof coarse-layer is a modern non-asbestos type – not suspect, no sample taken	Perimeter walls.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
Medium	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.3 Materials Sampled – **The Bungalow, Denver Sluice, Sluice Road, Denver, Norfolk.**

See Report: B69041 LHS = left hand side RHS = right hand side

Sample Number	Area / Floor	Room	Sample location	Visible Extent - approx.	Access-ibility	Deterior-ation or damage	Surface treatment	Product type	Asbestos type	Material Risk
NGZ-1	External	Gable End Roof Areas	Under-cloak below the roof tiles to the gable end roof areas, cement	20 m length.	Low	-	-	-	-	No Asbestos Detected
NGZ-1A	Ground	Kitchen	Acoustic under-sink pads are a modern non-asbestos type – not suspect, no sample taken	0.2 m sq.	High	-	-	-	-	No Asbestos Suspected
NGZ-1B	1st	Eaves	Insulation to the eaves void is modern non-asbestos Celotex-type insulation and fibreglass – no suspect materials, no samples taken	Various.	Medium	-	-	-	-	No Asbestos Suspected
NGZ-1C	External	Perimeter Walls	Damp-proof coarse-layer is a modern non-asbestos type – not suspect, no sample taken	Perimeter walls.	Medium	-	-	-	-	No Asbestos Suspected

Guidelines for the values apportioned to the material assessments are given in the algorithm table in section 3.1 of this report. The total risk score for each asbestos material is determined by adding the individual scores, the risk is then given as: Scores of 4 or less are very low risk, scores of 5 and 6 are low risk, scores between 7 and 9 are medium risk and scores of 10 or more are high risk. All extents and measurements are approximate and are provided for information only.

4.0 Asbestos Fibre Identification Reports

Asbestos identification report included in this survey is:

B69041

Linsch Consultants Limited

Culfin, Ashey Road, Ryde, Isle of Wight PO33 4BD
Tel:-01983 811134 Fax:-01983 611147

UKAS TESTING
2432

Asbestos Fibre Identification Report.

Job No: J16980 **Batch No:** B69041 **Report Date:** 21/11/2015

Client Name & Address:
Ipswich Insulations
Station Road
Bentley
Suffolk

Premises Of Sample Origin:
The Bungalow
Sluice Road
Denver
Norfolk

NGZ (1 Samples)

L.C.L. Sample Ref. Number	Sample Location/Clients Identification Number and Material Type	Asbestos Fibre Type
SB60771	1 - Cement	No asbestos detected

Name of analyst: L.McComb. **Sampled by*:** Client

Date of sample receipt: 21/11/2015 **Date of analysis:** 21/11/2015

Method:
Analysis was performed in accordance with the Quality Control Manual in-house method of Linsch Consultants Ltd. which is based on the Health & Safety Executive published method The Analysts' Guide for sampling, analysis and clearance procedures: Appendix 2: Asbestos in bulk materials: Sampling and identification by polarized light microscopy (PLM). Opinions and interpretations expressed herein are outside the scope of U.K.A.S accreditation. Linsch Consultants Ltd cannot accept responsibility for any amendments or changes made to this report after issue.
*Linsch Consultants Ltd. cannot accept responsibility for any discrepancy or inaccuracy arising from collection or labelling of samples by the client, *Linsch Consultants Ltd. do not hold U.K.A.S. accreditation for Sampling or Surveying.

Authorised Signatory
Lindsay McComb / Director

Appendix I Assessment of Risk and Asbestos Management Plan

The new duty to manage asbestos risk, under the Control of Asbestos at Work Regulations, will require a written plan to be produced specifying the measures to be taken to control and manage the risk from identified and presumed asbestos materials.

The first stage of assessment is to determine the risk from the asbestos material itself (risk of fibre release). This has already been done in section 4.0 of this survey report, with the risk being derived from four parameters:

- Product type
- Extent of damage or deterioration
- Surface treatment
- Asbestos type

The second stage of assessment is to determine which asbestos materials require the most urgent attention, and what action should be taken for each of the asbestos materials found. This assessment, which forms part of the asbestos management plan, must take in to account the following factors:

- The location of the material (detailed in this report)
- The extent of the material (detailed in this report)
- The risk from the material (detailed in this report)
- The use to which the location is put
- The occupancy of the area
- The activities carried out in the area
- The likelihood or frequency of maintenance activity that may disturb the material

This assessment requires detailed information about the site and its usage and should be undertaken by the duty holder.

The asbestos management plan may require some or all of the following actions:

- Clean up any visible asbestos debris
- Repair damaged areas on the asbestos product
- Encapsulate (paint or seal) the asbestos product to prevent fibre release
- Enclose the asbestos product to prevent access and / or exposure
- Remove the asbestos product
- Maintain and update a register of asbestos materials on site
- Routinely monitor the condition of the asbestos materials on site
- Restrict access or isolate the area where the asbestos material is located
- Label or colour code the asbestos material
- Inform staff, maintenance and other relevant personnel
- Provide training to relevant personnel
- Define and use safe systems of work
- operate a permit-to-work system

Appendix II Types of Asbestos Materials

The asbestos materials and products detailed below have differing compositions; therefore the friability (ease of fibre release) of each type of material is different. The material types shown below are listed in approximate descending order of friability and asbestos hazard.

Sprayed coatings and lagging: These materials have an asbestos content of up to 85%. They are in general the most friable of the asbestos based materials, and present a high risk of fibre release if damaged. Repair should only be considered if the damage to the material is minor, otherwise removal will be necessary. Accessible material which is to remain in place may require additional sealing or protection to avoid future damage. All work must be carried out by a licensed asbestos removal contractor, in accordance with the Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board (3rd Edition).

Ropes, yarns and cloths and paper: These products often have an asbestos content approaching 100% and may represent a hazard particularly when handled in large quantities. Removal of 'unbounded' materials should only be undertaken by a licensed asbestos removal contractor following the Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board.

Insulating board and products: Asbestos insulating board normally has an asbestos content of 15 to 40%. The risk of fibre release from insulating board is relatively low unless it has been damaged, or the material is 'worked-on'. The repair of small areas of damage is possible, and if the board has a raw surface then it should be painted to seal it and prevent further damage and fibre release. If the damage is extensive, or the material is likely to be disturbed frequently, then it should be removed by a licensed asbestos removal contractor, following the Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board (3rd Edition).

Gaskets, brake pads etc.: There are various forms of compressed fibre, rubberised or other polymer asbestos gaskets, seals and pads. In general, these products are 'bonded materials' and are sealed within appliances where they are unlikely to release fibres.

Asbestos cement and products: Asbestos cement products normally have an asbestos content of 10 to 15%. Asbestos cement is unlikely to release fibres due to the density of the material. However, sawing, sanding or wire brushing of this material should be avoided. Minor damage may be repaired by painting. It should be noted that 'weathering' of external cement sheet will cause the surface to soften and become more friable. During removal the cement material should be wetted and removed carefully without breaking the product. Removal should be carried out in accordance with HSG 189 / 2, working with Asbestos Cement, (2nd Edition).

Other products: Other asbestos products include bitumen felts, vinyl flooring and tiles, plastics, coatings, paints, putties and sealants. These materials generally present a very low asbestos hazard because the asbestos fibre content is often relatively low, and the asbestos fibres are trapped within the matrix of the product and unlikely to be released. Appropriate care and precautions should be taken when 'working-on' or removing these products.

Appendix III Exclusions & Limitations

It should be clearly understood that an asbestos survey cannot guarantee to identify all asbestos materials present within a property, and Ipswich Insulations Limited shall accept no responsibility for financial loss that may arise from asbestos materials present in the property surveyed, other than if there is a negligent misstatement in respect of specific areas / samples tested or investigated by our company.

The findings and opinions expressed are relevant to the dates of our survey work and should not be relied upon to represent conditions at substantially later dates. Opinions included herein are based on information gathered during the study and based on our experience. If additional information becomes available, or changes in regulations and legislation occur which may affect our comments, conclusions or recommendations, Ipswich Insulations Limited reserve the right to review the information, reassess any new potential concerns and modify our opinions accordingly.

This report has been prepared for the titled project or named part thereof and should not be used in whole or part and relied upon for any project without the written authorisation of Ipswich Insulations Limited. Ipswich Insulations Limited accepts no responsibility or liability for the consequences of this document if it is used for a purpose other than that for which it was commissioned. Persons wishing to use or rely upon this report for other purposes must seek written authority to do so from the owner of this report and/or Ipswich Insulations Limited and agree to indemnify Ipswich Insulations Limited for any loss of damage resulting there-from. Ipswich Insulations Limited accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

Appendix IV List of Relevant Legislation and Guidance

Work involving asbestos will be carried out in accordance with the following statutes, regulations, guidance and recommendations contained in the following publications, as they apply:

1. HSG264 ‘ Asbestos: The Survey Guide’ which replaces MDHS 100 ‘Surveying, Sampling and Assessment of Asbestos-Containing Materials
2. MS 13 ‘Asbestos: Medical Guidance Notes
3. HSG53 The selection, use and maintenance of respiratory protective equipment (1998)
4. HSG 189/2 Working with Asbestos Cement
5. HSG210 Asbestos Essentials Task Manual
6. HSG227 A Comprehensive Guide to Managing Asbestos in Premises
7. HSG247 Asbestos: The Licensed Contractors’ Guide
8. HSG248 Asbestos : The Analyst’s Guide for Sampling, Analysis and Clearance Procedures
9. L127 The Management of Asbestos in Non-Domestic Premises
10. The Health and Safety at Work Act (1974)
11. The Management of Health and Safety at Work Regulations (1999)
12. The Control of Asbestos At Work Regulations (2012) and Associated Approved Codes of Practices (AcoPs)
13. The Carriage of Dangerous Goods (classification, packaging and labelling) and use of Transportable Pressure Receptacles Regulations
14. CDM2007 Construction (Design and Management) Regulations
15. Control of Substances Hazardous to Health (COSHH)
16. The Personal Protective Equipment at Work Regulations

Appendix V Specific Requirements

Any work on asbestos insulation and asbestos insulating board must only be undertaken by a licensed asbestos removal contractor in accordance with Asbestos Licensing Regulations 1983 (ASLIC) as amended 1998. Together with The Control of Asbestos at Work Regulations 2006 (CAWR) as and the Approved Code of Practice (AcoP) entitled 'Work with asbestos insulation, asbestos coating and asbestos insulation board' (L28) (third edition) (1999).

It is not mandatory to use a licensed asbestos contractor to work on asbestos cement and miscellaneous asbestos containing materials. However, the removal of this material should be undertaken in accordance with the current legislation. The HSE Guidance Note HSG 189/2 entitled 'Working with asbestos cement' (1999) and the Control of Asbestos at Work Regulations 2006 (CAWR) and the associated AcoP L27 entitled 'The Control of Asbestos at Work' (third edition) (1999).

A removal and encapsulation method specification, which defines the scope of work, should be prepared by competent persons and supplied to prospective asbestos removal contractors for tendering and contract purposes. In order to ensure that the proposed asbestos removal contractor's plan of work (method statement) is technically and legally sound, it is advised that a consultant should audit their method statement prior to starting the contract and to supervise and manage the works.

Notification of the asbestos works involving coatings, insulation and insulating board must be submitted in the form of an application to the appropriate enforcing authority or Health and Safety Executive at least 14 days prior to removal.

In order to ensure that all works comply with legislation, air monitoring should be undertaken in accordance with the HSE documents EH 10 and MDHS 39/4. Monitoring should be undertaken by an analytical consultancy independent of the asbestos removal contractor. Furthermore, we are of the opinion that the asbestos removal contractor should not be permitted to appoint or sub-contract the analytical consultancy and that separate contracts should exist for the contractor and the consultancy.

It is further recommended that following any work, and if asbestos containing materials are retained, an asbestos management system should be implemented. This should involve designating competent personnel whose responsibilities should involve routine monitoring of the condition of asbestos materials and the implementation of a 'permit to work' system. Suitable management measures should include the incorporation of materials onto an asbestos register, labelling and encapsulation where appropriate. This will aid compliance with legislation and help to ensure that no planned or unplanned work is carried out without prior knowledge of the implications.

Note: Labelling of asbestos-containing materials is recommended, however labelling is not a requirement, but an option in the management of ACM's and may not be desirable for aesthetic reasons. The Health & Safety Executives' guidance, as detailed in the HSE publication *'A comprehensive guide to managing asbestos in premises'*, is as follows:

> *'Where an ACM is going to be left in place, one option would be to label the material. This may work in a factory environment, but may not be acceptable in a suite of offices or in public areas. The decision to label or not will in part depend on confidence in the administration of the asbestos management system and whether communication with workers and contractors coming to site is effective. If the asbestos record is up to date and control over maintenance workers and contractors is tight, through, for example, the use of permit-to-work systems, then labelling may be seen as unnecessary.'*

It is recommended that during the course of removal works the contractors or other relevant party should be advised to remain vigilant as a matter of course. If any suspect material is discovered, work should be stopped immediately and the appropriate action taken.

Ipswich Insulations Ltd
Station House
Station Yard
Bentley
Ipswich, Suffolk
IP9 2DB

Tel: 01473 327288
Fax: 01473 327365

ASBESTOS SURVEY

DENVER SLUICE HOUSE
DENVER SLUICE
SLUICE ROAD
DENVER
NORFOLK

SURVEYOR: H. TURPIN

REPORT No: S6543

SURVEY DATE: 19/11/15

REPORT ISSUE DATE: 25/11/15

Contents

1.0 Summary

The aim of our asbestos survey was to locate and record the locations, as far as reasonably practicable, the extents and types of asbestos products present, and determine the risk from any asbestos products found to Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.

The asbestos survey was conducted in accordance with the Health & Safety Executive methods detailed in 'HSG264 Asbestos: The Survey Guide' (which replaces 'MDHS 100, Surveying, Sampling and Assessment of Asbestos-Containing Materials').

The analysis of materials was conducted in accordance with the requirements of the Health & Safety Executive method 'MDHS 77; Asbestos in Bulk Materials, 1994' and carried out by a UKAS accredited laboratory.

The suspected asbestos material found during the survey, has been assessed in accordance with HSG264 guidelines and classified as non asbestos, very low risk, low risk, medium risk or high risk.

No asbestos-containing materials were found during the survey. The detailed findings of the survey are contained in the main body of this report. Please refer to section 3.0 for details.

2.0 Introduction

2.1 Aims and objectives

An asbestos survey was conducted to Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk, to inspect and establish the presence of asbestos containing materials. The data gained was used to produce this report and survey.

Presented in this report are the findings of our site observations, together with the results of the analysis of samples taken and our recommendations on future actions with respect to the identified materials.

2.2 Scope of works

The survey undertaken was an Asbestos Management Survey in accordance with HSG264, which is used to locate and describe, as far as reasonably practicable, all asbestos containing materials in the surveyed areas. A Refurbishment & Demolition Survey was carried out to the basement areas.

2.3 Areas Surveyed

An asbestos survey was conducted at all readily accessible areas of the site, but excluding those areas specified as inaccessible below.

General Areas That We Were Unable To Survey

Inaccessible / buried under floor areas
Internal wall cavities
Hidden voids / risers
Areas which may require removal of sealed panels, decorative cladding or any unreasonable degree of dismantling of the structure of the building
Internal areas of potentially live plant or equipment such as fuse boxes, storage heaters, boilers etc.

3.0 Asbestos Materials Found

All materials sampled during the asbestos survey, which includes asbestos materials and those determined by analysis to be non-asbestos, are detailed in the tables on the following pages. No other asbestos materials were found within the specified areas during our survey.

The following section details how the risk ratings on the following pages are allocated to materials identified in the survey and how these risk ratings are calculated.

The material assessment reports the type and condition of an asbestos containing material (ACM) and the ease with which it will release fibres if disturbed. Each positive asbestos sample is given a numerical rating based on product type, extent of damage, surface treatment and asbestos type, based on the material assessment algorithm shown in the chart on page 6. The total of this score results in severity of risk ranging from very low risk to high risk.

The priority assessment (see page 7) reports the likelihood of someone disturbing the ACM. Priority assessment is determined by carrying out an assessment which takes into account factors such as maintenance activity, occupant activity, likelihood of disturbance and human exposure potential.

The scores from the material assessment (i.e. the condition of the ACM) can be added to the scores of the priority assessment (the likelihood of disturbance) to give an overall risk assessment. The higher the overall risk assessment the greater the need for remedial action.

As a general guide the following banding can be used once the Total Risk Rating is determined:

Overall Risk Assessment Score:

≥18	High risk material requiring urgent attention
14-17	Medium risk material requiring attention in the short-medium term
9-13	Low risk material requiring regular monitoring
1-8	Minor risk material

Accessibility

In order to assess the risk from asbestos materials, the accessibility of the asbestos material must be taken in to account. For the purpose of our survey, accessibility to asbestos products is defined as follows:

Low	Would only be touched or accessed after using tools, equipment, ladders or during maintenance i.e. boiler gaskets, roof tiles, materials inside wall or floor ducts
Medium	Can be touched or accessed fairly readily, but unlikely to be disturbed i.e. ceiling panels, garage roof, flue pipes
High	Is exposed and is likely to be touched or accessed readily by any person i.e. walls, doors, loose items such as fire blankets

3.1 Material Assessment Algorithm

Sample variable	Score	Examples
Extent of damage / 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 small 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, vinyl tiles
	1	Enclosed sprays and lagging, insulation board (with exposed face painted or encapsulated), asbestos cement sheets.
	2	Unsealed AIB, encapsulated lagging and sprays
	3	Unsealed lagging and sprays
Product type	1	Asbestos reinforced composites (asbestos cement, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, resins, mastics, plastics).
	2	Asbestos insulating board (AIB), millboards, other low-density insulation boards, asbestos textiles/ropes, gaskets, asbestos paper and felt.
	3	Thermal insulation, sprayed asbestos, loose asbestos and packing.
Asbestos type	1	Chrysotile
	2	Amphibole asbestos excluding Crocidolite
	3	Crocidolite

3.1 Priority Assessment Algorithm

Assessment Factor	Score	Examples of Score Variables
Normal Occupant Activity		
Main type of activity in area	0	Rare disturbance activity (e.g. little used store room)
	1	Low disturbance activities (e.g. office type activity)
	2	Periodic disturbance (e.g. industrial or vehicular activity which may contact ACM's)
	3	High levels of disturbance (e.g. asbestos-lined fire door in constant use)
Secondary activities for area	As above	As above
Likelihood of disturbance		
Location	0	Outdoors
	1	Large rooms or well-ventilated areas
	2	Rooms up to 100m sq.
	3	Confined Spaces
Accessibility	0	Usually inaccessible or unlikely to be disturbed
	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
Extent / Amount	0	Small amounts or items (e.g. strings, gaskets)
	1	≤10 m sq or ≤10 m pipe run
	2	>10 m sq to ≤150 m sq or >10 m to ≤50 m pipe run
	3	>50 m sq or >50 m pipe run
Human exposure potential		
Number of occupants	0	None
	1	1 to 3
	2	4 to 10
	3	>10
Frequency of use of area	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
Average time area is in use	0	<1 hour
	1	>1 to <3 hours
	2	>3 to < 6 hours
	3	>6 hours
Maintenance activity		
Type of maintenance activity	0	Minor disturbance (e.g. possibility of contact when gaining access)
	1	Low disturbance (e.g. changing light bulbs in asbestos insulating board (AIB) ceiling)
	2	Medium disturbance (e.g. lifting one or two AIB ceiling tiles to access a valve)
	3	High levels of disturbance (e.g. removing a number of AIB ceiling tiles to replace a valve or for recabling
	0	ACM unlikely to be disturbed for maintenance
	1	≤1 per year
	2	> 1 per year
	3	> 1 per month

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-1	Ground	Kitchen	Textured ceiling coating, artex	15 m sq.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
Medium	-	-	-	-	No Asbestos Detected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Detected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Detected

<u>Recommendations / Comments:</u>

No asbestos detected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-1A	Ground	Kitchen	Acoustic under-sink pads are a modern non-asbestos type – not suspect, no sample taken	0.2 m sq.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-1B	Ground	Kitchen	Floor lining is a modern non-asbestos type – not suspect, no sample taken	12 m sq.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-1C	Ground	Lounge	Rope gasket to the wood-burner is a modern fibreglass-type – not suspect, no sample taken	<0.5 m length.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-2	Loft	Loft Areas	Bituminous roof felt below the roof tiles	All loft areas.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
Low	-	-	-	-	No Asbestos Detected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Detected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Detected

<u>Recommendations / Comments:</u>

No asbestos detected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-3	Basement	All Basement Wall Areas	Plaster wall linings	All wall areas.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Detected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Detected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Detected

<u>Recommendations / Comments:</u>

No asbestos detected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-3A	Basement	Front Wall Area	Front basement wall is plasterboard with a modern celotex-type insulation to the wall cavity – not suspect, no sample taken	Front wall areas.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-3B	Basement	Utility	Acoustic under-sink pads are a modern non-asbestos type – not suspect, no sample taken	0.2 m sq.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-3C	Basement	Utility	Floor lining is a modern non-asbestos type – not suspect, no sample taken	12 m sq.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.2 Materials Found – <u>Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.</u>

Sample Number	Floor	Area / Room	Sample location	Extent - approx.
NHA-3D	Basement	Various Basement Wall Areas	White residue to wall areas is non-asbestos saltpetre – not suspect, no samples taken	Various.

Material Assessment

Access-ibility	Deterioration or damage	Surface treatment	Product type	Asbestos type	Material Risk
High	-	-	-	-	No Asbestos Suspected

Priority Assessment

Normal Occupant Activity	Likelihood of disturbance	Human Exposure Potential	Maintenance Activity	Priority Assessment Score
-	-	-	-	No Asbestos Suspected

Is the Asbestos-containing material in good condition?	**Overall Risk Assessment** (Material Assessment + Priority Assessment scores)
-	No Asbestos Suspected

<u>Recommendations / Comments:</u>

No asbestos suspected, no action needed.

3.3 Materials Sampled – **Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.**

See Report: B69042 LHS = left hand side RHS = right hand side

Sample Number	Area / Floor	Room	Sample location	Visible Extent - approx.	Access-ibility	Deterior-ation or damage	Surface treatment	Product type	Asbestos type	Material Risk
NHA-1	Ground	Kitchen	Textured ceiling coating, artex	15 m sq.	Medium	-	-	-	-	No Asbestos Detected
NHA-1A	Ground	Kitchen	Acoustic under-sink pads are a modern non-asbestos type – not suspect, no sample taken	0.2 m sq.	High	-	-	-	-	No Asbestos Suspected
NHA-1B	Ground	Kitchen	Floor lining is a modern non-asbestos type – not suspect, no sample taken	12 m sq.	High	-	-	-	-	No Asbestos Suspected
NHA-1C	Ground	Lounge	Rope gasket to the wood-burner is a modern fibreglass-type – not suspect, no sample taken	<0.5 m length.	High	-	-	-	-	No Asbestos Suspected
NHA-2	Loft	Loft Areas	Bituminous roof felt below the roof tiles	All loft areas.	Low	-	-	-	-	No Asbestos Detected
NHA-3	Basement	All Basement Wall Areas	Plaster wall linings	All wall areas.	High	-	-	-	-	No Asbestos Detected
NHA-3A	Basement	Front Wall Area	Front basement wall is plasterboard with a modern celotex-type insulation to the wall cavity – not suspect, no sample taken	Front wall areas.	High	-	-	-	-	No Asbestos Suspected

Guidelines for the values apportioned to the material assessments are given in the algorithm table in section 3.1 of this report. The total risk score for each asbestos material is determined by adding the individual scores, the risk is then given as: Scores of 4 or less are very low risk, scores of 5 and 6 are low risk, scores between 7 and 9 are medium risk and scores of 10 or more are high risk. All extents and measurements are approximate and are provided for information only.

3.3 Materials Sampled – **Denver Sluice House, Denver Sluice, Sluice Road, Denver, Norfolk.**

See Report: B69042 LHS = left hand side RHS = right hand side

Sample Number	Area / Floor	Room	Sample location	Visible Extent - approx.	Access-ibility	Deterior-ation or damage	Surface treatment	Product type	Asbestos type	Material Risk
NHA-3B	Basement	Utility	Acoustic under-sink pads are a modern non-asbestos type – not suspect, no sample taken	0.2 m sq.	High	-	-	-	-	No Asbestos Suspected
NHA-3C	Basement	Utility	Floor lining is a modern non-asbestos type – not suspect, no sample taken	12 m sq.	High	-	-	-	-	No Asbestos Suspected
NHA-3D	Basement	Various Basement Wall Areas	White residue to wall areas is non-asbestos saltpetre – not suspect, no samples taken	Various.	High	-	-	-	-	No Asbestos Suspected

Guidelines for the values apportioned to the material assessments are given in the algorithm table in section 3.1 of this report. The total risk score for each asbestos material is determined by adding the individual scores, the risk is then given as: Scores of 4 or less are very low risk, scores of 5 and 6 are low risk, scores between 7 and 9 are medium risk and scores of 10 or more are high risk. All extents and measurements are approximate and are provided for information only.

4.0 Asbestos Fibre Identification Reports

Asbestos identification report included in this survey is:

B69042

Linsch Consultants Limited

Culfin, Ashey Road, Ryde, Isle of Wight PO33 4BD
Tel:-01983 811134 Fax:-01983 611147

UKAS TESTING
2432

Asbestos Fibre Identification Report.

Job No: J16980 **Batch No:** B69042 **Report Date:** 21/11/2015

Client Name & Address:
Ipswich Insulations
Station Road
Bentley
Suffolk

Premises Of Sample Origin:
Denver Sluice House
Sluice Road
Denver
Norfolk

NHA (3 Samples)

L.C.L. Sample Ref. Number	Sample Location/Clients Identification Number and Material Type	Asbestos Fibre Type
SB60772	1 - Textured coating	No asbestos detected
SB60773	2 - Bitumen	No asbestos detected
SB60774	3 - Plastic	No asbestos detected

Name of analyst: L.McComb. **Sampled by*:** Client

Date of sample receipt: 21/11/2015 **Date of analysis:** 21/11/2015

Method:
Analysis was performed in accordance with the Quality Control Manual in-house method of Linsch Consultants Ltd. which is based on the Health & Safety Executive published method The Analysts' Guide for sampling, analysis and clearance procedures: Appendix 2: Asbestos in bulk materials: Sampling and identification by polarized light microscopy (PLM). Opinions and interpretations expressed herein are outside the scope of U.K.A.S accreditation. Linsch Consultants Ltd cannot accept responsibility for any amendments or changes made to this report after issue.
*Linsch Consultants Ltd. cannot accept responsibility for any discrepancy or inaccuracy arising from collection or labelling of samples by the client, *Linsch Consultants Ltd. do not hold U.K.A.S. accreditation for Sampling or Surveying.

Authorised Signatory
Lindsay McComb / Director

Appendix I Assessment of Risk and Asbestos Management Plan

The new duty to manage asbestos risk, under the Control of Asbestos at Work Regulations, will require a written plan to be produced specifying the measures to be taken to control and manage the risk from identified and presumed asbestos materials.

The first stage of assessment is to determine the risk from the asbestos material itself (risk of fibre release). This has already been done in section 4.0 of this survey report, with the risk being derived from four parameters:

- Product type
- Extent of damage or deterioration
- Surface treatment
- Asbestos type

The second stage of assessment is to determine which asbestos materials require the most urgent attention, and what action should be taken for each of the asbestos materials found. This assessment, which forms part of the asbestos management plan, must take in to account the following factors:

- The location of the material (detailed in this report)
- The extent of the material (detailed in this report)
- The risk from the material (detailed in this report)
- The use to which the location is put
- The occupancy of the area
- The activities carried out in the area
- The likelihood or frequency of maintenance activity that may disturb the material

This assessment requires detailed information about the site and its usage and should be undertaken by the duty holder.

The asbestos management plan may require some or all of the following actions:

- Clean up any visible asbestos debris
- Repair damaged areas on the asbestos product
- Encapsulate (paint or seal) the asbestos product to prevent fibre release
- Enclose the asbestos product to prevent access and / or exposure
- Remove the asbestos product
- Maintain and update a register of asbestos materials on site
- Routinely monitor the condition of the asbestos materials on site
- Restrict access or isolate the area where the asbestos material is located
- Label or colour code the asbestos material
- Inform staff, maintenance and other relevant personnel
- Provide training to relevant personnel
- Define and use safe systems of work
- operate a permit-to-work system

Appendix II Types of Asbestos Materials

The asbestos materials and products detailed below have differing compositions; therefore the friability (ease of fibre release) of each type of material is different. The material types shown below are listed in approximate descending order of friability and asbestos hazard.

Sprayed coatings and lagging: These materials have an asbestos content of up to 85%. They are in general the most friable of the asbestos based materials, and present a high risk of fibre release if damaged. Repair should only be considered if the damage to the material is minor, otherwise removal will be necessary. Accessible material which is to remain in place may require additional sealing or protection to avoid future damage. All work must be carried out by a licensed asbestos removal contractor, in accordance with the Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board (3rd Edition).

Ropes, yarns and cloths and paper: These products often have an asbestos content approaching 100% and may represent a hazard particularly when handled in large quantities. Removal of 'unbounded' materials should only be undertaken by a licensed asbestos removal contractor following the Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board.

Insulating board and products: Asbestos insulating board normally has an asbestos content of 15 to 40%. The risk of fibre release from insulating board is relatively low unless it has been damaged, or the material is 'worked-on'. The repair of small areas of damage is possible, and if the board has a raw surface then it should be painted to seal it and prevent further damage and fibre release. If the damage is extensive, or the material is likely to be disturbed frequently, then it should be removed by a licensed asbestos removal contractor, following the Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board (3rd Edition).

Gaskets, brake pads etc.: There are various forms of compressed fibre, rubberised or other polymer asbestos gaskets, seals and pads. In general, these products are 'bonded materials' and are sealed within appliances where they are unlikely to release fibres.

Asbestos cement and products: Asbestos cement products normally have an asbestos content of 10 to 15%. Asbestos cement is unlikely to release fibres due to the density of the material. However, sawing, sanding or wire brushing of this material should be avoided. Minor damage may be repaired by painting. It should be noted that 'weathering' of external cement sheet will cause the surface to soften and become more friable. During removal the cement material should be wetted and removed carefully without breaking the product. Removal should be carried out in accordance with HSG 189 / 2, working with Asbestos Cement, (2nd Edition).

Other products: Other asbestos products include bitumen felts, vinyl flooring and tiles, plastics, coatings, paints, putties and sealants. These materials generally present a very low asbestos hazard because the asbestos fibre content is often relatively low, and the asbestos fibres are trapped within the matrix of the product and unlikely to be released. Appropriate care and precautions should be taken when 'working-on' or removing these products.

Appendix III Exclusions & Limitations

It should be clearly understood that an asbestos survey cannot guarantee to identify all asbestos materials present within a property, and Ipswich Insulations Limited shall accept no responsibility for financial loss that may arise from asbestos materials present in the property surveyed, other than if there is a negligent misstatement in respect of specific areas / samples tested or investigated by our company.

The findings and opinions expressed are relevant to the dates of our survey work and should not be relied upon to represent conditions at substantially later dates. Opinions included herein are based on information gathered during the study and based on our experience. If additional information becomes available, or changes in regulations and legislation occur which may affect our comments, conclusions or recommendations, Ipswich Insulations Limited reserve the right to review the information, reassess any new potential concerns and modify our opinions accordingly.

This report has been prepared for the titled project or named part thereof and should not be used in whole or part and relied upon for any project without the written authorisation of Ipswich Insulations Limited. Ipswich Insulations Limited accepts no responsibility or liability for the consequences of this document if it is used for a purpose other than that for which it was commissioned. Persons wishing to use or rely upon this report for other purposes must seek written authority to do so from the owner of this report and/or Ipswich Insulations Limited and agree to indemnify Ipswich Insulations Limited for any loss of damage resulting there-from. Ipswich Insulations Limited accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

Appendix IV List of Relevant Legislation and Guidance

Work involving asbestos will be carried out in accordance with the following statutes, regulations, guidance and recommendations contained in the following publications, as they apply:

1. HSG264 ‘ Asbestos: The Survey Guide’ which replaces MDHS 100 ‘Surveying, Sampling and Assessment of Asbestos-Containing Materials
2. MS 13 ‘Asbestos: Medical Guidance Notes
3. HSG53 The selection, use and maintenance of respiratory protective equipment (1998)
4. HSG 189/2 Working with Asbestos Cement
5. HSG210 Asbestos Essentials Task Manual
6. HSG227 A Comprehensive Guide to Managing Asbestos in Premises
7. HSG247 Asbestos: The Licensed Contractors’ Guide
8. HSG248 Asbestos : The Analyst’s Guide for Sampling, Analysis and Clearance Procedures
9. L127 The Management of Asbestos in Non-Domestic Premises
10. The Health and Safety at Work Act (1974)
11. The Management of Health and Safety at Work Regulations (1999)
12. The Control of Asbestos At Work Regulations (2012) and Associated Approved Codes of Practices (AcoPs)
13. The Carriage of Dangerous Goods (classification, packaging and labelling) and use of Transportable Pressure Receptacles Regulations
14. CDM2007 Construction (Design and Management) Regulations
15. Control of Substances Hazardous to Health (COSHH)
16. The Personal Protective Equipment at Work Regulations

Appendix V Specific Requirements

Any work on asbestos insulation and asbestos insulating board must only be undertaken by a licensed asbestos removal contractor in accordance with Asbestos Licensing Regulations 1983 (ASLIC) as amended 1998. Together with The Control of Asbestos at Work Regulations 2006 (CAWR) as and the Approved Code of Practice (AcoP) entitled 'Work with asbestos insulation, asbestos coating and asbestos insulation board' (L28) (third edition) (1999).

It is not mandatory to use a licensed asbestos contractor to work on asbestos cement and miscellaneous asbestos containing materials. However, the removal of this material should be undertaken in accordance with the current legislation. The HSE Guidance Note HSG 189/2 entitled 'Working with asbestos cement' (1999) and the Control of Asbestos at Work Regulations 2006 (CAWR) and the associated AcoP L27 entitled 'The Control of Asbestos at Work' (third edition) (1999).

A removal and encapsulation method specification, which defines the scope of work, should be prepared by competent persons and supplied to prospective asbestos removal contractors for tendering and contract purposes. In order to ensure that the proposed asbestos removal contractor's plan of work (method statement) is technically and legally sound, it is advised that a consultant should audit their method statement prior to starting the contract and to supervise and manage the works.

Notification of the asbestos works involving coatings, insulation and insulating board must be submitted in the form of an application to the appropriate enforcing authority or Health and Safety Executive at least 14 days prior to removal.

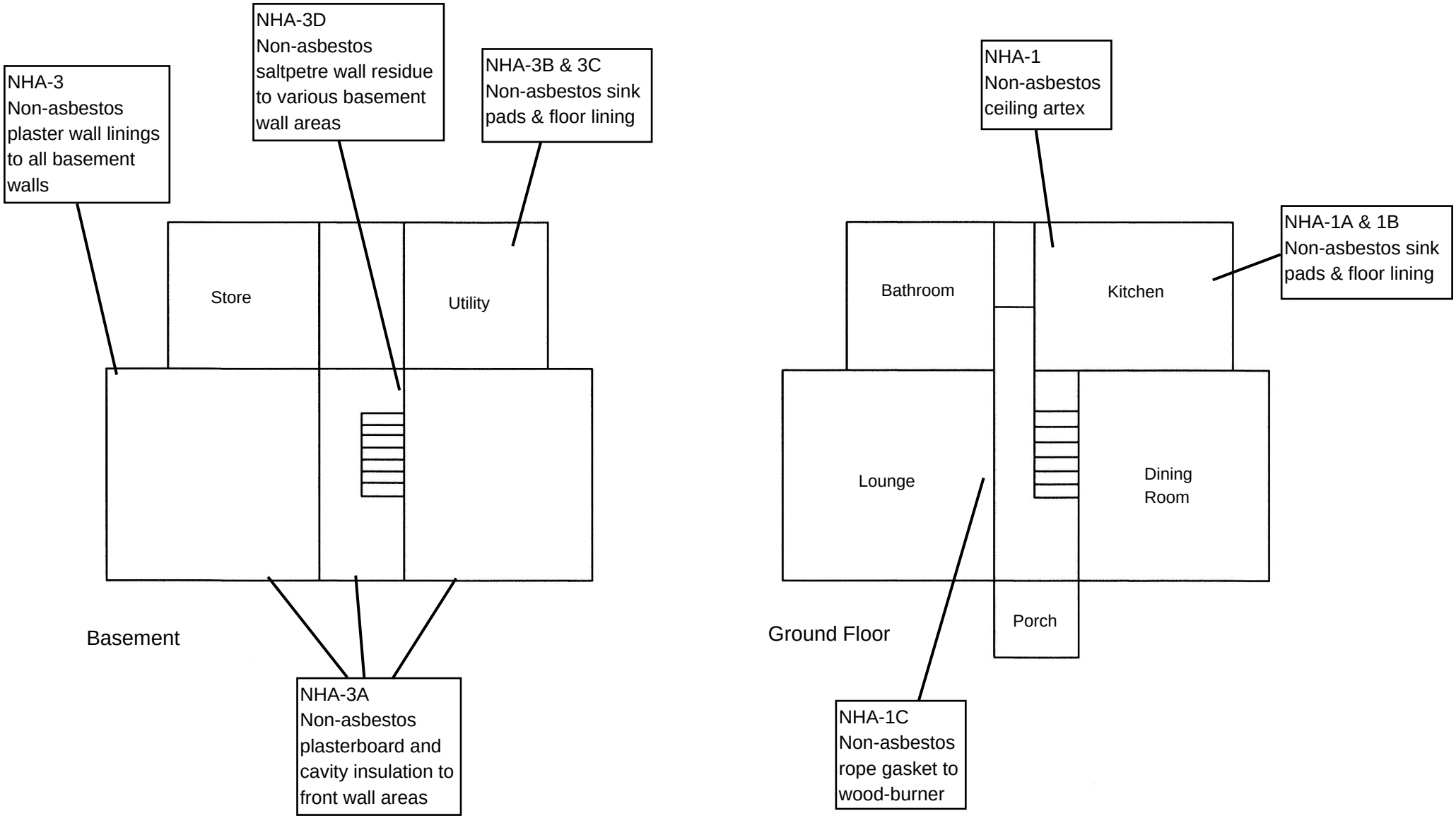
In order to ensure that all works comply with legislation, air monitoring should be undertaken in accordance with the HSE documents EH 10 and MDHS 39/4. Monitoring should be undertaken by an analytical consultancy independent of the asbestos removal contractor. Furthermore, we are of the opinion that the asbestos removal contractor should not be permitted to appoint or sub-contract the analytical consultancy and that separate contracts should exist for the contractor and the consultancy.

It is further recommended that following any work, and if asbestos containing materials are retained, an asbestos management system should be implemented. This should involve designating competent personnel whose responsibilities should involve routine monitoring of the condition of asbestos materials and the implementation of a 'permit to work' system. Suitable management measures should include the incorporation of materials onto an asbestos register, labelling and encapsulation where appropriate. This will aid compliance with legislation and help to ensure that no planned or unplanned work is carried out without prior knowledge of the implications.

Note: Labelling of asbestos-containing materials is recommended, however labelling is not a requirement, but an option in the management of ACM's and may not be desirable for aesthetic reasons. The Health & Safety Executives' guidance, as detailed in the HSE publication *'A comprehensive guide to managing asbestos in premises'*, is as follows:

> *'Where an ACM is going to be left in place, one option would be to label the material. This may work in a factory environment, but may not be acceptable in a suite of offices or in public areas. The decision to label or not will in part depend on confidence in the administration of the asbestos management system and whether communication with workers and contractors coming to site is effective. If the asbestos record is up to date and control over maintenance workers and contractors is tight, through, for example, the use of permit-to-work systems, then labelling may be seen as unnecessary.'*

It is recommended that during the course of removal works the contractors or other relevant party should be advised to remain vigilant as a matter of course. If any suspect material is discovered, work should be stopped immediately and the appropriate action taken.



Asbestos Survey - Denver Sluice House, Sluice Road, Denver, Norfolk

Note: no suspect materials were found to the 1st floor

APPENDIX C

Environment Agency, Constructing a Better Environment

Safety, Health, Environment and Wellbeing, Code of Practice

APPENDIX D

Environment Agency Standard Pre-Construction Information (see separate document)