thurrock.gov.uk

Alderton Associates
CHARTERED BUILDING SURVEYORS

Tender

Pre-Construction Information

New Nursery Block

at

Corringham Primary School

Herd Lane, Corringham SS17 9BH

Project Ref: A1947

July 2019

T 01245 460222
W www.alderonassociates.co.uk
A 3 Brassie Wood, Chelmsford, CM3 3FP

RICS the mark of property professionalism worldwide

CONTENTS

SECTION 7 – CONSTRUCTION HEALTH AND SAFETY PLAN

SECTION 8 – CONTINUING LIAISON

8.1 Procedures for Dealing with Design Changes
8.2 Design Development
8.3 Health and Safety File

SECTION 9 – INITIAL LIST OF METHOD STATEMENTS REQUIRED FROM THE PRINCIPAL CONTRACTOR

SECTION 10 – PROJECT INFORMATION

10.1 Design Information
10.2 Previous Health and Safety File

APPENDICES

Appendix A CDM Duty Holders

Appendix B Indicative Contents for the Health and Safety File

Appendix C Asbestos R&D Survey Existing Pre-School

Appendix D Asbestos Management Survey Main School

Appendix E Soil Investigation Report

Appendix F Topographical Survey and Utilities Plan

1.0 INTRODUCTION

1.1 Nature of the Construction Work and Outline Description of the Project

Client:

Corringham Primary School
Herd Lane
Corringham
Essex
SS17 9BH

Site Address:

Corringham Primary School
Herd Lane
Corringham
Essex
SS17 9BH

The works comprise of;

- Construction of a new nursery block.
- Demolition of existing pre-school building.
- Drainage alterations.
- Associated hard and soft landscaping.

1.2 Timescale for Completion of Construction Work

The works are anticipated to commence on site in July 2019. The works are envisaged to last approximately 32 weeks over two Phases.

1.3 HSE Office and EMAS Office

Health & Safety Executive
Rose Court
2 Southwark Bridge
London
SE1 9HS

1.4 Details of Notification to Health and Safety Executive

The Initial F10 notification form is yet to be submitted. The Additional Form F10 shall be issued upon the appointment of the Principal Contractor.

1.5 Client's Structure and Organisation

The Funding of the project is through Thurrock Council who will be undertaking the role of Contract Administrators.

Clients

Corringham Primary School
Herd Lane
Corringham
Essex
SS17 9BH

Contact: Lorna Hamilton
Tel: 01375 672157
Email: lhamilton@corringhamprimary.com

Contract Administrator:

Thurrock Council
Civic Offices
New Road
Grays
Essex
RM17 6SL

Contact: Graeme Parker
Tel: 01375 659670
gparker@thurrock.gov.uk

Principal Designer

Alderton Associates Ltd
3 Brassie Wood
Chelmsford
Essex
CM3 3FP

Contact: Daniel Alderton
Tel: 01245 460222
Email: danny.alderton@aldertonassociates.co.uk

Employers Representative

Alderton Associates Ltd
3 Brassie Wood
Chelmsford
Essex
CM3 3FP

Contact: James Sharkey
Tel: 01245 460222
Email: james@aldertonassociates.co.uk

2.0 RESOURCES

2.1 Details of Site, Surrounding Land Use and Background

Corringham Primary School is a two-form entry Academy located to the south-east of Corringham and was first established as a school in 1870. It became an Academy in October 2013 and forms part of The ORTU Federation. Lampits Pre School joined in 2015 and the Academy now provides teaching provision for children from 2 years of age up to 11 years.

The school site is split into two, with the lower site (the subject of this tender) falling within the Green Belt on the edge of Corringham. The school is located on Herd Lane and is adjacent to the residential area of Corringham to the north and the A1014 (The Manorway) and River Thames to the south.

There are currently four separate access/egress points into the school site – one for pedestrians leading to the main school reception, one for vehicles into the main school car park, one for vehicles into the playing field and one for vehicles and pedestrians into the pre-school site.

The site contains the main school building, the playing field, play areas, a car park, a detached pre-school building and the site manager's house. There is a public footpath that runs along the front of the site and also to the north of the site which is separated from the school grounds with a timber close boarded fence.

The appearance of the main school building is single-storey with facing brick external finish with painted softwood shiplap cladding fascias and built-up felt roof. The assembly hall projects higher than the remaining accommodation and is located centrally within the school. Windows are PVCu framed with double glazed units, while external doors are generally aluminum framed with double glazed units and painted T & G timber doors to service areas. The site manager's house is of a similar appearance. To the rear of the site there is an extension attached to the main school building which is approximately 4 years old and of traditional masonry construction with a flat roof. Windows and doors are aluminum double glazed units.

The pre-school building is single-storey with painted softwood shiplap cladding to all elevations and a dual pitch roof covered in felt. Windows and doors are PVCu framed with double glazed units.

The site has a number of large mature trees within the boundary and close to the proposed development.

2.2 Existing Services

The buildings are supplied by underground and aboveground utility services, within the appendices there is a utilities survey by Survey Solutions ref. 24318UG-01. The contractor should still carry out appropriate checks for service routes and locations not indicated on the plan. The site has Gas, Water and Electric services.

All supply services should be located and identified prior to works commencing. No works should be undertaken on live services unless by those who are competent.

A permit to work procedure should be in place as an additional control measure should there be the need to work on or near live services.

All services should be considered live until proven otherwise. The exact route for all utility services into the property must be obtained (with cable / pipe detection) where supply authorities are unable to provide this information.

The proposed development and demolition may disturb existing drainage and electrical provision to a number of buildings. Contractor should take appropriate safety measures and consider diversion works prior to excavation.

2.3 Site Clearance, Ground Conditions and Site Investigation Reports

The school has an asbestos register which the contractor should consult prior to commencing works. In addition, within the appendices there is an Asbestos R&D Survey Report for the existing pre-school and an Asbestos Management Survey for the main school buildings, asbestos has been noted in areas that will be affected by the works.

A soil investigation survey has been undertaken which identifies the ground as gravelly sand.

2.4 Existing Structure

See section 2.1 above.

2.5 Existing Hazards and / or (Storage of Existing) Hazardous Materials on Site

There are a number of existing generic hazards on site which are typical for these construction works. Higher risk / hazards include:

- Lack of adequate security
- Working next to children/school in multiple areas
- Working next to areas used by members of the public
- Working next to a lake/quarry
- Underground and aboveground live services and services within the site and buildings
- Working near moving vehicles
- Access to the site and more particularly to the areas of the works
- Movement of large elements
- Maintaining services to an operational school
- Noise pollution
- Creation of dust
- Protection of construction areas

The Principal Contractor is advised to visit site and determine any additional hazards.

2.6 Potential Hazards to Adjacent Areas and Users that may be Created by the Site Works

The construction works should mainly be contained within the confines of the site. All deliveries should be planned to minimise inconvenience to neighbours and those using the school. The construction works may cause some disturbance and intermittent noise to the users and residents along this residential road. Every effort should be made to cooperate with adjacent residents and occupiers. The contractor should develop agreed lines of access to the site and agreed timings for delivery of materials and labour.

All deliveries should be timed so they do not clash with children coming and leaving the school. Herd Lane can be very busy at these times.

3.0 PROJECT DESIGN

3.1 Principles of Design and Sequences of Assembly

Information regarding the principles of the works is contained within the tender documentation. The works are fairly integrated at the tender stage but will require further development under the control of the contractor. In principle, the works solutions provided by the design team for the new works are believed to be not unusual or particularly complicated and are considered to be within the capabilities of the contractors chosen to tender for the works. However, due to the nature of the site and the proximity of the occupants there are many inherent safety issues.

3.2 Significant Hazards or Work Sequences That Cannot be Designed Out

Due to the nature of this project there are inherent hazards that remain and cannot be designed out at the design stage such as the close proximity of users to the construction works site, working at height and the presence of live services. The hazards mentioned below are generic in nature but will require further implemented control actions from the Principal Contractor.

- Working at height
- Deep excavations
- Deliveries and waste removal
- The lack of close coordination of the sequence of works
- Neighbours / children
- Live services Gas, Water and Electric
- Manual Handling / kinetic movement
- Slip, trips and falls
- Dust
- Noise
- Vehicular movement on and off site
- Deliveries to site
- Movement around site and interaction with school children and staff
- Interaction with various areas of the school

This list is not exhaustive, and more hazards are envisaged throughout the duration of works.

4.0 SITE LOGISTICS

4.1 Site Access and Egress

Site access is to be gained via a public carpark and then via the main entrance gates into the playing field. The contractor will be required to set up an access way to keep operatives away from the children's entrance.

The Principal Contractor is reminded of the needs (particularly access / egress needs) of adjacent neighbours.

Access to high levels will need to be via a suitable scaffold.

Principal Contractor will be required to programme and detail all deliveries to site, the movement and protection on site and agree all details with the Contract Administrator and Principal Designer. Specific attention needs to be paid to the interaction of operatives with the site whilst the school is occupied. Also protection of children is a very high area of concern.

4.2 Site Security

Security around the construction site (Property) is essential. The contractor is to secure the site and liaise with the schools Site Manager to ensure security is maintained throughout the works.

Practical guidance may be obtained from the HSE guide document HS (G) 151 "Protecting the public – your next move".

Each area must be protected when works are in progress.

4.3 Temporary Site Accommodation – Location and / or Restrictions

An area will need to be provided within the site premises where contractors can use a delivery lay down / storage area or a delivery on demand procedure could be adopted. The Contractor is to provide proposals on how this can be achieved safely.

The Principal Contractor will need to allow and price accordingly for welfare facilities as deemed adequate. Temporary arrangements would need to be prearranged taking into consideration the neighbours, local residents and how they could be affected. The Principal Contractor should make provision for all necessary PPE facilities.

4.4 Loading and Unloading – Location and / or Restrictions

The premises are located in a residential area where there are parked vehicles and constantly moving vehicles. Planning should be made to restrict the amount of materials delivered to site and should be made on a need only basis.

Any reversing of delivery vehicles along Herd Lane and the public carpark to the school, should have the assistance of a banks man. The Contractor should make an assessment of the existing roads and provide all necessary protection where deemed appropriate to the roads and playground surfaces.

4.5 Traffic / Pedestrian Routes

A traffic management plan should be submitted by the Principal Contractor for consideration by the project team on how deliveries will be provided, and the safe storage and transportation of materials will be achieved. This should be in drawing / sketch and writing format, and will include site facilities, storage and offices.

4.6 Client Requirements (Health and Safety)

The Client has specified that all due consideration shall be afforded to neighbours and that all reasonable efforts should be made to accommodate any reasonable requests. The Client has also specified that the Principal Contractor follows the below salient points:

- Keep all fire exits clear of materials
- No playing of radios
- No smoking on site (or dropping cigarette butts in unofficial smoking zones on the street). Any smoking by operatives should be away from the site and not in view of the children
- All materials should be stored within dedicated areas
- Housekeeping should be kept to a high standard throughout the duration of works
- Noisy works should be undertaken at a time agreed prior to the commencement of works
- The Principal Contractor shall liaise daily as required with all relevant stakeholders
- All operatives or site visitors will be required to be able to provide DBS security checks. Any operatives without suitable current check will not be allowed onto the site. The contractor will be expected to actively control this and show records to school staff on a regular basis.

These are the client's requirements that are currently known and may evolve throughout the duration of this project.

4.7 Fire & Emergency Procedures

The Principal Contractor is to design and develop an emergency strategy. Corridors, stairs, landings along with all entrance and exit doors should be kept clear. The Principal Contractor should be fully conversant with the fire and emergency strategy for the project.

5.0 SITE RULES

5.1 Site or Client Specific Rules

The Principal Contractor is to implement site rules as required and have a high level of tolerance and cooperation with the users and neighbours. The Principal Contractor shall deliver the works with due diligence as per the scope of works.

5.2 Safety Goals for the Project

Safety goals are deemed important throughout the duration of works. Any incidents, near misses or RIDDOR reportable occurrences shall be investigated and forwarded to the Principal Designer.

The following are suggestions that could be implemented in association with this project:

- The project should be managed so that accidents are minimised.
- The Principal Contractor is to display and update safety reminder notices across the project.
- There are to be frequent toolbox talks / briefings as applicable.

5.3 Monitoring Arrangements and Review of Safety Goals

The Principal Designer shall undertake proactive audits to monitor compliance to health and safety standards on site.

6.0 POTENTIAL RISKS THAT WILL REQUIRE FURTHER INVESTIGATION

6.1 Significant Hazards

Known significant hazards on site are as outlined below, the Principal Contractor shall need to undertake an evaluation on how the works may impact the users and implement the relevant control measures to reduce the risks to a tolerable level:

- Presence of live services
- Scaffolding
- The removal, safe disposal of construction waste and excavated material
- Deliveries and storage
- Working from height
- Open hours
- Working in occupied premises and near small children
- Movement of large elements and buildings
- Maintaining escape routes
- Demolition of a building
- Presence of dangerous materials

6.2 Health and Safety Risks / Client Activities

The contractor will be required to segregate the construction work activities from the school children, teachers and parents. This will include all necessary temporary services, access routes, barriers and hoardings.

6.3 Concurrent Works

None are envisaged other than the works specified.

6.4 Materials Requiring Particular Precautions

All materials used in association with this project should already be known by the

Principal Contractor and only used after a detailed COSHH assessment has been undertaken.

7.0 CONSTRUCTION PHASE PLAN

The Principal Contractor will assume responsibility for compliance with and implementation of all relevant statutory health and safety legislation on site.

Construction work cannot commence on site until the Principal Contractor has prepared a Construction Phase Plan which meets the requirements of Regulation 23(1) and (2) of the Construction (Design and Management) Regulations 2015, and which includes the relevant method statements as listed against item 9.00 of this document. THE CONSTRUCTION PHASE PLAN SHOULD BE ONE DOCUMENT WITH THE NECESSARY APPENDICES FOR RISK ASSESSMENT OR METHOD STATEMENTS WHERE APPLICABLE.

The Principal Designer will require 5 working days prior to commencement to assess the Construction Phase Plan on behalf of the Client.

Further details for the content of a Construction Phase Plan can be found in the HSC ACOP and Guidance booklet for CDM.

8.0 CONTINUING LIAISON

8.1 Procedures for Dealing with Design Changes (where applicable)

Those design changes that have health and safety implications are to be brought to the attention of the Principal Designer. Procedures are to be established with the Design Team in order that the Principal Designer has the opportunity to review the design risks identified and co-ordinate with the Principal Contractor. The Principal Contractor must implement any required amendments to the Construction Phase Plan.

8.2 Design Development for Design and Build Project/Contractor Design Elements

The Principal Contractor must ensure that as the design develops throughout the construction phase, their appointed designers produce risk assessments for all portions of design, as well as principles of design as required.

Items that may create significant hazards must be circulated to the relevant team members, including the Principal Designer.

The Principal Contractor (where applicable) is to provide information regarding programming in relation to contractor design elements in order to facilitate co-ordination. Risk control documents will subsequently be required from the designer(s). The Principal Contractor must assess the competence of the designers that they appoint.

8.3 Health and Safety File (as applicable)

The Principal contractor, in addition to other parties, is to provide the Principal Designer with information for inclusion in the Health and Safety File.

The Principal Contractor is to compile the Health and Safety File. Information is to be supplied by Designers, Contractors and other parties to allow these to be compiled within the given period. The members of the Design Team will be required to check contractors' information as supplied.

This information is to be specific to health and safety issues relevant to those who will maintain, develop or demolish the structure.

It will not be acceptable to provide only drawings and manuals. The Principal Contractor will be required to extract relevant health and safety information and issue it to the Principal Designer in sufficient time to compile the Health and Safety File at the time of Practical completion.

A copy of the proposed format for the Health and Safety File is included in Appendix B of this Plan.

9.0 SUMMARY OF METHOD STATEMENTS REQUIRED FROM THE PRINCIPAL CONTRACTOR

This will include but be not limited to procedures for safe working in or near live services, excavations, and working at height etc:

- Site layout
- Working at height
- Deliveries and waste management
- Working adjacent to children
- Vehicular movements on site
- Demolition of existing pre-school
- Excavations and movement of earth/removal of trees
- Providing safe access to the site
- Managing the control of DBS checking procedure

10.0 PROJECT INFORMATION

10.1 Design Information (as applicable)

Design information is available from the project team. Any contractors design information must be checked independently and submitted to the Lead Designer for comment /approval before being incorporated within the works.

10.2 Previous Health and Safety File

A previous health and safety file is available for inspection at the School Office, strictly by appointment only.

APPENDIX A

CDM DUTY HOLDERS

	Contact	Tel/Fax/Mobile/E-mail
Client		
Corringham Primary School Herd Lane Corringham Essex SS17 9BH	Lorna Hamilton	Tel: 01375 672157 Email: lhamilton@corringhamprimary.com
Site Manager		
Corringham Primary School Herd Lane Corringham Essex SS17 9BH	Bev Bennett	Email: bbennett@corringhamprimary.com
Contract Administrator		
Thurrock Council Civic Offices New Road Grays Essex RM17 6SL	Graeme Parker	Tel: 01375 659670 Email: gparker@thurrock.gov.uk
Principal Designer		
Alderton Associates Ltd 3 Brassie Wood Chelmsford Essex CM3 3FP	Danny Alderton	Tel: 01245 460222 Mobile: 07967 485369 Email: danny@aldertonassociates.co.uk
Employers Representative		
Alderton Associates Ltd 3 Brassie Wood Chelmsford Essex CM3 3FP	James Sharkey	Tel: 01245 460222 Mobile: 07899 912177 Email: james@aldertonassociates.co.uk

APPENDIX B

INDICATIVE CONTENTS FOR THE HEALTH AND SAFELTY FILE

INDEX: Health & Safety File

Index per Property

1. **Address of Property(s)**

2. **Description of Project – (Scope of Works)**

3. **Known residual risks**

4. **Parties / subcontractors involved in the project and contact details**

5. **Description of equipment / facilities installed**

    - Building construction: walls, floor, roof, windows and doors, canopy, equipment.
    - Landscaping
    - Electrical and mechanical systems
    - Wet areas, kitchens and toilets
    - Colour choices / makes and models against room data sheets and specification i.e. paint, floor coverings, etc.
    - Tiles

6. **Operation & Maintenance Manuals for above**

7. **Certificates**

    - Electrical Installation / Periodic Report
    - Commissioning Certificates for electrical and mechanical installations
    - Gas Certificate
    - FENSA Certificate
    - Completion Certificate
    - Asbestos surveys, air clearance certificates / waste removal certificates

8. **Warranties**

9. **As-built / As installed drawings**

    - Wet areas, kitchens and toilets
    - Electrical Plans / Mechanical Plans
    - Layout Plans - showing Water, Gas and Electrical intake locations
    - Structural drawings and calculations

10. **Additional Information**

    - Handover Form, (where applicable)
    - Satisfaction survey, (where applicable)

Please Note: All information to be provided onto a memory stick

APPENDIX C

Asbestos R&D Survey Existing Pre-School

JM ASBESTOS SURVEYORS LTD

97 The Hatherley, Basildon Essex, SS14 2QH

Tel No.: 01268 442286

Asbestos refurbishment and demolition
Survey for Asbestos Materials at

demountable class room at Corringham Primary school Herd Lane, Essex SS17

On behalf of:

Alderton associates

PROJECT MANAGER: JAY MEDDLE

DATE: 31 MAY 2019

REFERENCE: 31052019R&D

SURVEYOR: JAY MEDDLE

QA CHECKED BY:

© JM Asbestos Surveyors
Phone: 01268 442286
General Enquiries:jaymeddle@gmail.com
WWW.JM-ASBESTOS.CO.UK

CONTENTS

APPENDICES

1

SCOPE OF REPORT

1.1 SCOPE OF REPORT

1.1.1 This report contains the findings of a asbestos refurbishment survey (see Appendix E form of inspection details) for asbestos containing materials carried out on 31 May 2019 by Mr Terry Read and Jay Meddle.

1.1.2 JM Asbestos Surveyors Limited was instructed by Alderton Associates LTD to conduct an asbestos refurbishment survey on all internal and externals of the pre school class room at Corringham primary school on the 31 May 2019.

1.1.3 The purpose of the inspection was to provide an updated report to assist in the management and removal of asbestos within the property, and minimise the risk of asbestos exposure to the building occupants and other occupants who enter the building and also members of the public.

1.1.4 The survey was limited to all specified areas accessible by normal occupation and routine maintenance of all the areas in the scope of the survey, which consists of specified areas listed below.

1.1.5 Prior to any remedial or removal works being undertaken as a result of our findings or recommendations contained within this report, we recommend a specific specification for such works be drafted by a reputable asbestos consultant or competent person acting on behalf of the client. The recommendations set out in this report should not be relied upon as a specification for remedial works.

1.1.6 We further recommend that under no circumstances should any removal or remedial works be costed based on this report or subsequent specification alone. Such documents should only be used as an aid to what we consider to be an essential site walkthrough at the planning stage. In addition, all parties involved in any remedial works should be fully conversant with the findings of the report, the scope of the inspection and the limitations of the survey. If at any time a full understanding of the report, its findings or limitations are not fully understood, we, or an alternative competent person should be consulted.

1.2 *Building Survey Summary*

This survey was conducted to all accessible internals and externals of the classroom.

1.3 *Areas Accessed*

1.3.1 All specified accessible internal areas of the property within the scope of the survey were inspected, these include the following;

a) Ground floor
b) Walls and ceilings
c) Floor coverings
d) Office

1.4 *Areas not accessed*

Live fuse boxes and electrical plant

Possible asbestos rope flash guards within live switch gear

1.4.1

1.5 *General Access Notes*

1.5.1 Where possible, each functional space or room within the building has been inspected. Where access was not possible, a comprehensive list inclusive or reason has been compiled of the specific parts/applications and can be found in Appendix A, Register No Access Gained in this report.

1.5.2 Areas outside the scope of the survey and therefore not accessed are highlighted within the exclusions relating to the HSG 264 form of inspection in this report, to which particular attention should be paid to familiarise oneself with the survey limitations.

1.5.3 Concealed spaces or any similarly enclosed or inaccessible areas such as lift shafts, underground duct runs (internal & external), services within walls, unless otherwise stated have *not* been accessed and must therefore be presumed to contain asbestos until such time as they have been subject to thorough inspection by a competent person, and, if necessary, suspect materials confirmed by way of sampling. Representative samples of materials suspected to consist of or contain asbestos have been taken, analysed and reported upon.

1.5.4 Please note the scope of this survey *does* cover all internal parts of the areas specified. A further inspection, likely to involve opening up under controlled conditions by a competent person, this will be required prior to, alteration, demolition or a number of maintenance operations in areas not accessed that may be disturbed as a result.

1.5.5 Our proposal as standard does not allow for the utilisation of other trades unless specifically highlighted or requested such as lift engineers, reinstatement services, electricians, plumbers, ventilation (M&E) engineer, licensed asbestos removal contractors and building contractors. Instruction of other trade elements would require clarification and client instruction outside the scope of our asbestos survey remit prior to these services being engaged. Any asbestos occurrence found subsequent to our survey that would have facilitated use of such trades could not be attributed as a

failure of the survey. We will wherever possible highlight such incidences within the report and areas of no access or suspect materials.

1.5.6 Provision can be made for any such trades or services required or within the specification although they require instruction prior to sur

2

LIMITATIONS AND RESTRICTIONS

2. LIMITATIONS AND RESTRICTIONS

2.1 Report

2.1.1 This report details the findings of a asbestos Refurbishment survey for asbestos containing materials at Corringham primary school on the 31 May 2019.

2.1.2 (Refer to HSG 264 and HSG 248 for further details, ISBN 0-7176-2076-X).

2.1.3 The report must be read and used wholly in conjunction with all elements of its content, many sections relate directly to others. JM Asbestos Surveyors Limited can accept no liability or responsibility for the cost of removal of asbestos or other materials or delays etc caused by the inappropriate use of this report. Should interpretation be taken incorrectly without consulting JM Asbestos Surveyors Limited in the first instance then no liability will be associated.

2.1.3 Prior to any remedial or removal works being undertaken as a result of our findings or recommendations contained within this report, we recommend a specific specification for such works be drafted by a reputable asbestos consultant or competent person acting on behalf of the client. The recommendations set out in this report should not be relied upon as a specification for remedial works.

2.1.4 We further recommend that under no circumstances should any removal or remedial works be costed based on this report or subsequent specification alone. Such documents should only be used as an aid to what we consider to be an essential site walkthrough at the planning stage. In addition, all parties involved in any remedial works should be fully conversant with the findings of the report, the scope of the inspection and the limitations of the survey. If at any time a full understanding of the report, its findings or limitations are not fully understood, we, or an alternative competent person should be consulted.

2.2 Limitations relating to Inspection: -

2.2.1 The findings of this report are limited only to those areas accessed at the time of the survey and detailed in this report as per the instruction.

2.2.2 Flues, ducts, voids or any similarly enclosed areas, the access to which necessitated the use of specialist equipment or tools, or which would have caused damage to floors, decoration, fixtures, fittings or the structure have *not* been inspected unless specific information to the contrary has been provided. Therefore, these areas in accordance with guidance provided in HSG 264 must be presumed to contain asbestos and prior to any works commencing either re-inspected or removed as asbestos.

2.2.3 Lift shafts or similar which require the attendance of a specialist engineer, have not been inspected unless otherwise stated without that engineer in attendance. This attendance must be instructed prior to site works commencing.

2.2.4 Any areas or surfaces that would require the removal or relocation of carpets, furniture, fixed blinds/curtains, fixtures or fittings have not been subject to inspection unless specifically instructed and mentioned elsewhere in this report. This mainly related to occupied properties to which accessing these areas would disrupt normal working activity.

2.2.5 Any part requiring specialist access equipment other than stepladders has not been inspected e.g. internal / external high-level parts, internal elements to boilers / plant. Any requirement for specialist access equipment has been specifically excluded unless otherwise stated or previously instructed.

2.2.6 No report has been made upon concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility or insufficient knowledge of the structure at the time of the survey.

2.2.7 No responsibility is accepted for the presence of asbestos in voids (under floor, floor, wall or ceiling) other than those opened up during the investigation.

2.2.8 Inspection of pipe work has been restricted primarily to the insulation visible due to plant being operational at the time of survey. Where it is evident comment will be made on underlying debris which may be present however a detailed inspection, which is outside the scope of this survey, is required to establish the presence, nature, extent of any asbestos containing debris.

2.3 Limitations and Restrictions relating to Sampling:

2.3.1 Samples have not been taken where the act of sampling would endanger the surveyor or affect or hinder the functional integrity of the item concerned. For example; fuses within electrical boxes, gaskets, fire doors, ropes associated with heating, glazing or power plant etc.

2.3.2 Samples have not been taken where prohibited or prevented by the client, tenant or their representative.

2.3.3 Whilst every effort will have been made to identify the true nature and extent of the asbestos material present in the building to be surveyed, no responsibility has been accepted for the presence of asbestos in materials other than those sampled at the requisite density.

2.3.4 Bulk samples have been taken from all materials which upon visual inspection appeared likely to contain asbestos with the exception of items of bitumen, plastic, resin or rubber which contain asbestos, the thermal and acoustic properties of which are incidental to their main purpose which falls outside the scope of the approved Code of Practice for Work with Asbestos Insulation, Asbestos Coating, and Asbestos Insulating Board

2.3.5 Materials have been referred to as Asbestos Insulating Board or Asbestos Cement based upon their asbestos content and visual appearance alone. Density checks on materials have not been carried out unless stated otherwise.

2.4 General Limitation and Observation

2.4.1 Representative beam casings and bulkheads would be exposed, inspected and any significant dust deposits sampled. If suspect materials are thought to be present, then this would be highlighted at the time and further advice or assessment sought.

2.4.2 Dismantling of structural, load bearing or substantial walls for inspection has not been made provision for within the proposal, as this would form part of any refurbishment, renovation or demolition process. Should it be thought that suspect areas are present within said areas then they will be highlighted and annotated accordingly within the report and advised in summary to await further advice?

2.4.3 Representative floor spaces would be, exposed and any significant dust deposits sampled. If suspect materials are thought to be present, then this would be highlighted at the time and further advice or assessment sought.

2.4.4 Brake linings within lift machinery would not generally be inspected, as a potential element of dismantling of plant may be required and only specifically trained and competent personnel can undertake such an activity. If suspected, it should be presumed that the linings contain asbestos.

2.4.5 As highlighted within our proposal should any plans for existing or historic heating or pipe work systems be available please forward them to us in good time, however it is noted that these are not likely to be available in many cases. In this instance for us to inspect every inch of wall surface and open it is not a particle solution. Should it be thought that pipe work is present within the walls themselves then reasonable measures will be employed to trace this occurrence? Should it be required that continual exposing or dismantling of walls is required then we would envisage revisiting the client to highlight the issue and ask further advice on the intended action. However, we would envisage finding and noting any such occurrences during our standard investigations.

2.4.6 Should service ducts be evident they will be inspected if accessible. We would employ measures to lift the ducts if this was an issue. However, should they be immovable or deemed a confined space, then accessing this element is not provided for and would have to be evaluated at the time.

2.4.7 With regard to the frequency of sampling dust (ventilation, floors and ceiling) and sampling plaster we would ask for guidance on the expected number or frequency to ensure suitable coverage for all parties. Once clarified as to what is reasonable or representative then we can confirm this in writing. Otherwise we will sample only a minimal number of areas of duct or plaster to prove negative results only.

2.4.8 As in accordance with current H&S guidelines we are not permitted to access over 2m in height and the use of ladders is now not the preferred route, platform or podium blocks with the relevant handrails are preferred. We have included for step ladders. Should high-level access equipment be necessary i.e. by scissor lift or boom then this would not be included and would have to be requested in advance of the survey and the proposal amended.

2.4.9 Should asbestos removal works be deemed necessary during the inspection to open up spaces for inspection so the survey is as conclusive as possible the removal costs are not included nor the 14-day period within the timescale (if applicable) for the project timeline. This can generally only be evaluated at the time of the survey and phased in thereafter.

2.4.10 We would advise that the survey report is for reporting of asbestos materials and documenting them. Should you wish to use it to price for removal works then it is your decision as the use of the report is yours. However, we feel it prudent a specific removal specification is implemented for contractors to price. We cannot be held responsible if a situation or additional cost arises from the removal contract that would have been included in a suitable specification document.

2.4.11 In advance we wish the client to acknowledge that in accordance with any previous deadline should plant or similar have to isolated, and a programme submitted that this would be currently unforeseeable then there may be a delay in the timescale for completion purely based on these additional elements.

2.4.12 Should you wish for us to revisit the site once any enabling works are planned to liaise with the structural engineer or similar, we will or course accommodate any requirements where possible. If the assistance is additional then there may be additional costs.

3

SUMMARY OF
ASBESTOS INCIDENCE

3. SUMMARY OF ASBESTOS INCIDENCE

No asbestos containing materials have been identified during this inspection.

Please see asbestos register and floor plans for sample locations.

3.1 Asbestos Coatings

No Asbestos coatings were identified during the inspection.

3.2 Asbestos Insulation

Asbestos insulation was not identified during this inspection.
Other modern alternatives have been used i.e. fibre glass.

3.3 Asbestos Insulating Board

asbestos insulation board has not been identified during this inspection.

3.4 Asbestos Cement Products

Asbestos cement products have not been identified during this inspection.

3.5 Asbestos Rope, Gaskets and Paper Products

Asbestos gaskets have not been identified during this inspection.

3.6 Asbestos Textured Coatings

Asbestos textured coatings have not been identified during this inspection.

3.7 Asbestos Floor Tiles

Asbestos floor tiles and adhesive have not been identified during this inspection.

3.8 Asbestos Millboard

No asbestos millboard products were detected in the survey, as the preferred material in use in this buildings construction appeared to be steel and brickwork.

3.9 Bitumen Products.

Bitumen adhesive has not been identified during this inspection.

4

RECOMMENDATIONS

4. RECOMMENDATIONS

We have no recommendations due to no asbestos containing materials identified during this inspection.

4.1 General Report Recommendations - Please note of all elements within this section.

4.1.1 Legislation states as a requirement that any building controller must manage the asbestos materials in their building(s) to prevent risk of exposure to its employees or tenants from asbestos. This will generally take the form of an asbestos policy / procedures building or companywide to meet the needs of the regulations, which is enforced at all times. Predominately this will involve identification, assessment and management measures. This survey document identifies and assesses the asbestos highlighted and this section is tailored to advice as to how the management of the materials present is ensured.

4.1.2 Recommendations made in this report are made in relation to items or findings identified on site during the course of the inspection and are made in line with the algorithm and the surveyor's recommendation. No specific recommendations are made in relation to any company's policy, procedure, staff training and are as such outside the scope of work undertaken. Recommendations made are based on current guidance issued by the Department of the Environment, Transport and the Regions and the Health and Safety Executive.

4.1.3 A quantifiable assessment of the risk of fibre release has been made using an algorithm, which takes into account factors relevant to the item, further details are provided. Recommended actions will normally involve removal, encapsulation, or management as described below.

i. ***Removal*** of those items vulnerable to damage or in such poor condition that removal is the only practicable option or where refurbishment or demolition works are planned, such that these works will impinge on the asbestos materials present and render such removal necessary.

ii. ***Enclosure or encapsulation*** (together with repair where necessary) where the material is in poor condition / vulnerable to damage such that these works are necessary.

iii. ***Management*** of the asbestos materials present where these are not in poor condition / vulnerable to damage by labelling / registering / periodic inspection/restricting access as necessary. Such management should be undertaken to comply with the employers' duty of care, required by the Health and Safety at Work Act 1974 and Control of Asbestos (Amendment) Regulations 2012 (see other sections for further such recommendation).

4.2 Specific Recommendations

Again, We have no recommendations due to no asbestos containing materials identified during this inspection..

4.3 Building Managers Responsibilities

4.3.1 The building managers and owners have a responsibility to minimise the risk of exposure to asbestos for its occupants/employees and members of the public. All asbestos items highlighted in this report or subsequent suspect materials should be subjected to an initial assessment to determine the risk of exposure and all reasonably practicable measures be taken to reduce that risk to a minimum. This is a legal requirement as laid down in Regulation Four of the Control of Asbestos Regulations 2012. If assistance is required in putting together a management plan or further clarification or guidance is required, those with a duty to manage should seek advice from a reputable asbestos consultancy specialist.

4.4 Remedial Plans or Recommendations

4.4.1 Prior to any remedial or removal works being undertaken as a result of our findings or recommendations contained within this report, we recommend a specific specification for such works be drafted by a reputable asbestos consultant or competent person acting on behalf of the client. The recommendations set out in this report should not be relied upon as a specification for remedial works.

4.4.2 We further recommend that under no circumstances should any removal or remedial works be costed based on this report or subsequent specification alone. Such documents should only be used as an aid to what we consider to be an essential site walkthrough at the planning stage. In addition, all parties involved in any remedial works should be fully conversant with the findings of the report, the scope of the inspection and the limitations of the survey. If at any time a full understanding of the report, its findings or limitations are not fully understood, we, or an alternative competent person should be consulted.

4.5 Definition of terms used within Registers (appendix A)

i. Enclosure:	Provision of physical barrier to provide mechanical protection of the material so as to prevent it being disturbed / damaged. The material chosen should be sufficient to achieve its task.
ii. Encapsulation:	Provision of paint type coating to affect a continuous seal to surface of the material and thereby prevent fibre release. This will only remain effective whilst the seal remains undamaged.
iii. Labelling:	Fixing of labels - standard 'red A' label as per Schedule 2 of the Control of Asbestos Regulations 2012(CAR), Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coatings and Asbestos Insulating Board 2012) to the surface of the material to warn of the hazard.
iv. Registering:	Entering of details, including nature / location / extent of material in a register which is brought to the attention of all persons who might plan or undertake works in the building.
v. Periodic inspection:	Inspection of the material at regular (defined) intervals to verify that its condition has not deteriorated such as to necessitate enclosure / encapsulation / removal.

vi. Repair:	Addition of a seal to the material to prevent the further deterioration and breakdown of the material. Labelling can also be carried out.
vii. Removal:	Complete removal of the material under controlled conditions so as to comply with CAR 2012.
viii. Manage:	Provision of a policy including labelling, regular (periodic) inspection together with procedures, including but not exclusively limited to action should deterioration be observed, as well as training for staff and persons possibly coming into contact with the material

4.5.1 Where remedial action is required for a particular item or finding such action should be taken at the earliest opportunity so as to minimise potential health risks and should form part a structured management plan for the building in accordance with legislation. These items are either damaged or are liable (by virtue of their location or material type) to be damaged in normal occupation or maintenance of the premises, and therefore pose significant health risk to any persons in the vicinity.

4.5.2 Risk ratings and recommended actions are provided based on information available at the time of the survey. Where details change e.g. change of use of room, affected items or findings must be reassessed.

4.6 Asbestos Remediation

4.6.1 *Asbestos Cement / Floor Tiles / Formed Gaskets (non-notifiable)*

Works on or removal of such asbestos products should be carried out using precautions in accordance with the guidelines within the Health and Safety Executive guidance note HSG 189/2 Working with Asbestos Cement, with regard to floor tiles and formed gaskets similar methods are adopted but an assessment should be made. These guidelines outline basic precautions that should be used to prevent fibre release during works, such as wetting of the materials before removal and preventing unauthorised persons from entering the work area. Using these guidelines, it is expected that asbestos fibre levels would be low. A contractor prior to carrying out this work will require an adequate assessment.

Whilst there is no requirement for these works to be undertaken by a contractor licensed to work with asbestos, in practice it is unlikely that an unlicensed contractor will possess the necessary expertise to undertake such works properly.

4.6.2 *All Other (Notifiable) Asbestos Materials*

These works (with the exception of the asbestos cement items) should be carried out under controlled conditions by a contractor licensed to work with asbestos (under the licensed contractors guide (HSG 247) and in accordance with the Control of Asbestos Regulations 2012 (CAR) Approved Code of Practice for Work with Asbestos Insulation, Asbestos Coatings and Asbestos Insulation Board. It should be noted that licensed asbestos contractors, under the terms of their license, have to notify the relevant authority of their intention to remove such items by utilising the required ASB-5 notification certificate.

Notification of such works is normally subject to a 14-day period, except if the works by nature of their duration from start to finish will take less than one hour to complete and the works will not exceed and action level and for unusual or exceptional circumstances when the enforcing authority (either the Health and Safety Executive

or local Environmental Health Department) may grant a waiver if there is immediate risk to health, i.e. an accident, risk of exposure. The client then has to formally write to the enforcing authority stating the reasons for requesting said wavier.

Should the works fall under the demise of section 4.5 then an adequate assessment and plan of work is required to be prepared by the contractor undertaking the works, taking account of the relevant regulations and guidance, and the local enforcing authority notified that such works are to take place. This will generally require the production of a detailed and specific method statement.

4.6.3 *Asbestos Waste*

All waste generated by any asbestos remedial works is to be disposed of as asbestos (special) waste with the required waste consignment note for retention.

4.6.4 *Asbestos Supervision / Air Monitoring*

It is recommended and a requirement for clearance air testing that all asbestos works should be inspected and tested by an independent UKAS accredited company, appointed by the client or their management / representative consultant.

Should supervision of any removal works be advised or required this would involve a full suite of control measures to ensure safe completion of the planned works rather than straight forward reassurance or clearance air monitoring. (Not always applicable)

All air monitoring or supervision works undertaken should produce the necessary certificates or documentation.

4.6.5 *Large Scale Projects*

Work involving asbestos removal contractors with 5 or more operatives on site will be subject to the Construction (Design and Management) Regulations 2015. Further works longer than 30 days or involving 500 person days of construction works will be notifiable to the Health and Safety Executive. The client is required to appoint a Planning Supervisor under Regulation 6 and must ensure his competency for the nature of the project under Regulation 9 of the Construction (Design and Management) Regulations 2015.

5

NOTES ON APPENDICES

Notes on Appendices

Within the Appendices of this report are the following documents, where applicable in the order indicated below:

1. Register of Asbestos
2. Register of No Access Gained
3. Register of Non-Asbestos
4. Photographic Register
5. Annotated Plan (Appendix B)
6. Determination of Asbestos Content Reports (Appendix C)

Items 1, 2, 3, 4 and 5 contain a 'Finding Code' and a 'Sample Reference' to enable cross reference between the different registers, plans and Determination of Asbestos Content Reports. The reader should ***as a minimum*** make reference to 1,2 and 4, starting with the annotated plan and cross referencing with Register of 'No Access Gained' and 'Photographic Register'. Where the reader wishes to ascertain which items have been sampled, reference should be made to the 'Determination of Asbestos Content Report' alone.

Register of Asbestos

The register details the location, approximate extent, risk assessment and required remedial action with respect to each asbestos containing material identified at the time of survey. Not all materials detailed on the register have been sampled. For details on the risk assessment algorithm please refer to Section 4 of the report.

Register of no access gained

Where areas are identified as not having been accessed, they should be inspected for asbestos containing materials ***prior to any work being undertaken*** in these areas. If you need to work in any of the areas listed refer to your line manager.

Materials Listed on 'Register of Non-Asbestos'

The 'Register of Non-Asbestos Materials' contains ***only those materials sampled, analysed and subsequently found not to contain asbestos***. It should not be taken as a comprehensive list of Non-asbestos materials within the Building.

Annotated Plan

The annotated plans show the approximate locations of asbestos materials. Discrete Items will be assigned a 'Finding Code e.g. 03022001JCUA001 within a call out box for the purpose of cross reference with the 'Register of Asbestos Containing Materials'. Shading may be used to show areas to which access was not available or materials such as floor tiles, textured coatings or similar which either repeat or cover large areas.

Photographic Register

Contains representative images of materials listed in the 'Register of Asbestos Materials'

Determination of Asbestos Content Report

Details items sampled the type and approximate composition of asbestos within. This does ***not detail all asbestos materials present -*** see 'Register of Asbestos Materials'***.'***

APPENDIX A

REGISTERS

SAMPLE RISK/MATERIAL ASSESSMENT REGISTER (See appendix D for photos/data sheets)

Pre School class Corringham Primary school SS17

Identification method (ID): - Presumed (P) Strongly Presumed (SP) or Analysed (A)

Area and item	Sample Number	Photo	MC	TR	TY	MA	Quantity	Asbestos type	Total points	ID	Recommendation
Textured coating on ceilings throughout the class	S001	1	0	0	0	0	170 M2	NADIS	0	A	No action required non-asbestos material
External roof felt	S002	2	0	0	0	0	170 M2	NADIS	0	A	No action required non-asbestos material
Possible asbestos rope flash guards within the switch gear and live fuse boxes	SP	3	0	0	1	1	1 M2	CHRYSOTILE	2	SP	REMOVE IF GOING TO BE DISTURBED OR DAMAGED

METHOD OF RISK ASSESSMENT

Introduction

The system of risk assessment, which has been adopted here, is based on the Sawyer Algorithm, and exceeds the requirements of HSG 264 (The Surveying Guide).

The algorithm sets out the factors, which are most relevant in assessment of the potential release of fibres from a suspect material. These factors have been assigned quantifiable numerical values. The algorithm produces a single numerical value for each asbestos item, which may then be used as a priority rating for remedial work. The items that recommend any action should be implemented in accordance with the company's management policy / plan for asbestos containing materials

Each material has been assessed with regard to the following and each number associated with each individual occurrence can be found on the asbestos register.

Formula

Scores to be given

MC **Material Condition.** The condition of the material at the time of the inspection. Factors to be considered include the quality of the installation, deterioration of the outer covering or encapsulation, de-lamination and damage. The range of groups is 0 to 3.

0 No Damage, excellent condition;
1 Very minor damage, no visible debris;
2 Damage is evident, small area; Medium Damage
3 Damage is easily seen, visible asbestos debris;

TR **Surface Treatment**. Is the surface of the material in question encapsulated, papered, painted or covered? The range is 0 to 3.

0 Surface treated; Composite Material containing asbestos, reinforced plastic, resin.
1 Not treated. Enclosed sprays and Lagging
2 Unsealed AIB, or encapsulated lagging and sprays.
3 Unsealed Lagging and Sprays.

TY **Type of Asbestos.** Determined by laboratory analysis. The range of groups is 0 to 3.

0 Non asbestos;
1 Chrysotile (White Asbestos);
2 Amphibole excluding crocidolite
3 Crocidolite

MA **Nature of material.** The range is 1 to 3.

1 Well bonded material (Vinyl floor tiles, bitumen products, mastics, and roofing felt); Cement products;
2 Insulating board, millboard, gaskets, rope and woven textile; asbestos paper and felt
3 Sprayed coatings. Pipe lagging insulation to boilers or vessels;

Significance of the algorithm score

The algorithm is a numerical way of taking into account many influencing factors, giving each factor considered a score. These scores are totalled to give the material assessment score.

Each of the parameters are scored and added to give a total score between 2 and 12:

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

The material assessment identifies the high risk materials, that is those which will most readily release airborne fibres if disturbed. It does not automatically follow that those materials assigned the highest score in the material assessment will be the materials that should be given priority for remedial action. Management priority must be determined by carrying out risk assessment which will take into account factors such as

- Maintenance activity
- Occupant activity
- Likelihood of Disturbance
- Human exposure potential

Recomandations for priority of management of materials are based on level of risk. Assured Safety Management advise their clients to carry out their own priority risk assessments in accordance with HSG227 and MDHS 100, but in the first instance will provide the client with a priority risk assessment completed by the surveyor in accordance with HSG 227 and using the parameters and scoring system reffered to in the aforesaid publication and shown below.

Assessment Factor	Score	Score variable
Normal occupant activity	0	Rare disturbance activity (eg little used store room)
Main type of activity in area	1	Low disturbance activites (eg office type activity)
	2	Periodic disturbance (eg industrial or vehicular activity which may contact ACMs
	3	High levels of disturbance, (eg fire door with asbestos insulating board sheet in constant use)
Secondary activities for area	As above	As above
Likelihood of Disturbance	0	Outdoors
Location	1	Large rooms or well-ventilated areas
	2	Rooms upto 100m2
Accessibility	3	Confined space
	0	Usually inaccessible or unlikely to be disturbed
Extent/amount	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
	0	Small amounts or items (eg strings, gaskets)
	1	=<10m2 or =<10m pipe run
	2	=<10m2 to =<50m2 or =<10m to =<50m pipe run
	3	=<50m2 or =<50m pipe run
Human Exposure Potential		
Number of occupants	0	None
	1	1 to 3
Frequency of use of area	2	4 to 10
	3	>10
Average time area is in use	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
	0	<1 hour
	1	>1 hour to <3 hours
	2	>3 to <6 hours
	3	>6 hours
Maintenance activity	0	Minor disturbance
Type of maintenance activity	1	Low disturbance
	2	Medium disturbance
Frequency of maintenance	3	High level disturbance
activity	0	ACM unlikely to be disturbed for maintenance
	1	=<1 per year
	2	>1 per year
	3	>1 per month

APPENDIX B

BULK SAMPLE REPORTS

LAB UK Limited

34 Britannia Court Burnt Mills Industrial Estate Basildon Essex SS13 1EU
Tel 01268 590 768 – Fax 01268 726 143
Email technical@labukltd.co.uk

Accredited Contractor

UKAS TESTING 0671

CLIENT

FAO: Jay Meddle
JM Asbestos Surveyors Ltd
97 Heatherley

Basildon
Essex SS14 2QH

BULK ANALYSIS REPORT

Date sample(s) booked in. 04-Jun-19
Report confirmation date. 04-Jun-19

Report No: BK 67207
Job No: 155057
Item No: 115862

Sample Source: Brought in by Client

Sample(s) of material were examined by stereo microscope, polarised light & dispersion staining technique as described in our internal document MAAM 04 that incorporates methods in the HSG 248. We are not accredited for 'Soil' analysis, we are accredited to analyse elements within soil.
Material type associated to a sample is the opinion of the analyst based on a visual inspection at the time of analysis.
* Size is the amount of material presented for analysis. Any comments, opinions or observations made are not covered by our UKAS

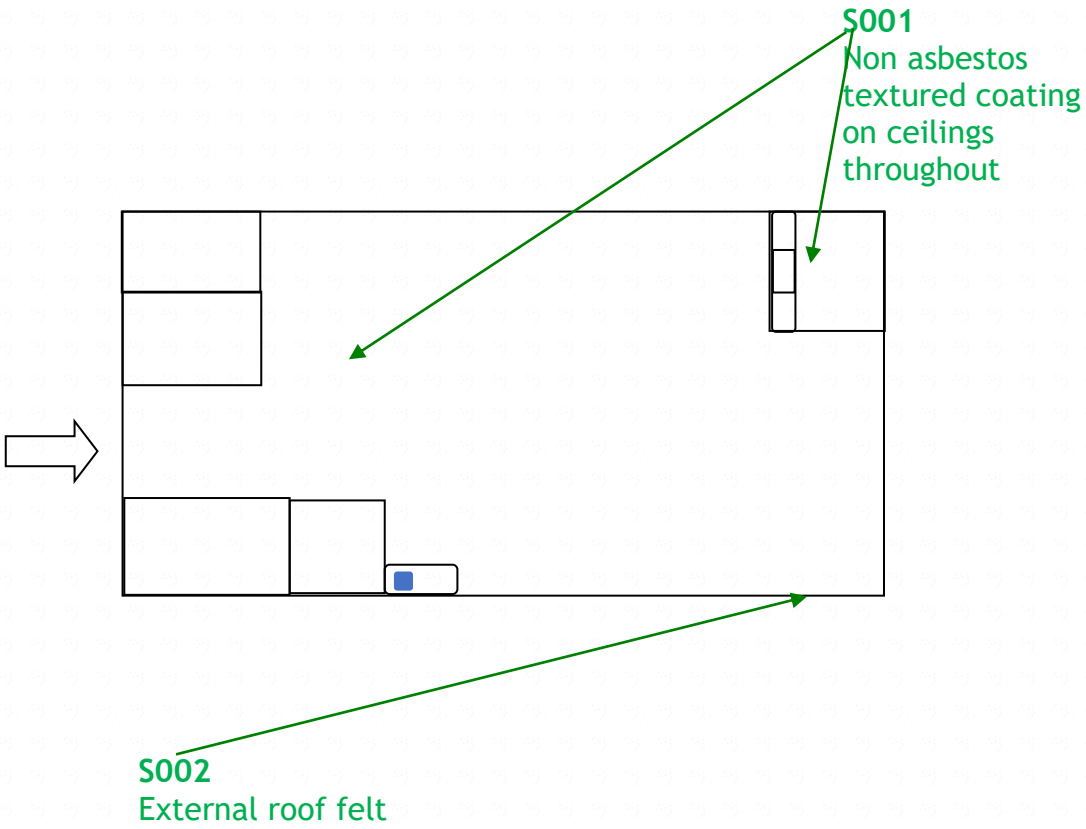
Site: Corringham Primary School

Samples analysed on 04-Jun-19

No	Sample Location/Description	# Material Type	Asbestos Fibre Type	* Size
1	S001 - Text Coat on Ceiling Throughout	Textured Coating	No Asbestos Detected	10 mm²
2	S002 - Roof Felt	Bitumen/Adhesive	No Asbestos Detected	10 mm²

Analysts Signature & Reported by: James Dennis (Contracts Manager)

FLOOR PLAN



APPENDIX D

PHOTOGRAPHIC REGISTER

Photograph of Incident

Sample Number	S001	Risk Score		
Extent	170 M2			
Sample Analysis	NADIS	0		
Product Type	Textured coating	0		
Condition	good	0		
Treatment	sealed	0		
Inspection Number	Location	Risk Assessment	Product Description	Actions & Recommendations
1	Ceilings throughout the classroom	0	Non-asbestos decorative coat on all ceilings	NO ACTION REQUIRED
No asbestos Detected in Sample				
Comments				
No action required				

Photograph of Incident

Sample Number	S002	Risk Score		
Extent	170 M2			
Sample Analysis	NADIS	0		
Product Type	Bitumen roof felt	0		
Condition	good	0		
Treatment	sealed	0		
Inspection Number	Location	Risk Assessment	Product Description	Actions & Recommendations
2	High level external roof felt	0	Non-asbestos roof felt	NO ACTION REQUIRED
No asbestos Detected in Sample				
Comments				
No action required				

APPENDIX E

1. ACTS OF PARLIAMENT

2. REGULATIONS

3. HSE PUBLICATIONS FOR WORK WITH ASBESTOS AND ASBESTOS CONTAINING MATERIALS

ACTS OF PARLIAMENT, REGULATIONS, HSE PUBLICATIONS FOR WORK WITH
Asbestos and Asbestos Containing Materials

Acts of Parliament, Regulations and HSE publications for work with asbestos and asbestos containing materials include, but not exclusively to, those listed on the following pages. There may be other regulations that relate specifically to Scotland and Northern Ireland that ate not listed here. This list is not meant to be exhaustive, there are other pieces of legislation and guidance notes available for dealing with other aspects of health and safety and should be considered at all times.

All Legislation, Approved Codes of Practice and Guidance Notes listed together with any subsequent amendments or revisions and any new relevant requirements should be considered before undertaking any work with asbestos or asbestos containing materials.

The following list was last revised in *April 2014* changes to previous edition appear in **bold** text.

ACTS

Health and Safety at Work, etc Act 1974
Environmental Protection Act 1990
Environment Act 1995
Water Industry Act 1991
Pollution Prevention and Control Act 1999
Water Act 2003

2. REGULATIONS

1983/1649	Asbestos (Licensing) Regulations 1983
1998/3233	Asbestos : Licensed contractors guide (HSG 247)
1985/2042	Asbestos Products (Safety) Regulations 1985
1992/3067	Asbestos (Prohibitions) Regulation 1992
1999/2373	Asbestos (Prohibitions) (Amendment) Regulation 1999
2003/1889	Asbestos (Prohibitions) (Amendment) Regulation 2003
2004/568	Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004
2005/1732	**Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2009**
2002/1689	Chemicals (Hazard Information and Packaging for Supply) Regulations 2002
1997/1713	Confined Spaces Regulations 1997
1994/3140	Construction (Design and Management) Regulations 2015
2000/2380	Construction (Design and Management) (Amendment) Regulations 2015
2000/227	Contaminated Land (England) Regulations 2000
2002/2675	Control of Asbestos Regulations 2012
1990/556	Control of Asbestos in the Air Regulations 1990
2005/1643	**Control of Noise at Work Act 2005**
2002/2677	Control of Substances Hazardous to Health Regulations 2002
2004/3386	Control of Substances Hazardous to Health (Amendment) Regulations 2004
2005/1093	**Control of Vibration at Work Regulations 2006**
1999/1	Environmental Impact Assessment (Scotland) Regulations 1999
1991/2839	Environmental Protection (Duty of Care) Regulations 1991
1991/472	Environmental Protection (Prescribed Processes and Substances) Regulations 1991
2005/894	**Hazardous Waste (England & Wales) Regulations 2005**

Acts of Parliament, Regulations, HSE Publications for Working with Asbestos

1996/1513	Health & Safety (Consultation with Employees) Regulations 1996
2005/676	**Health and Safety (Fees) Regulations 2013**
2002/2174	Health and Safety (Miscellaneous Amendment) Regulations 2002
1996/341	Health and Safety (Safety Signs and Signals) Regulations 1996
2002/1559	Landfill (England and Wales) Regulations 2002
2004/1375	Landfill (England and Wales) (Amendment) Regulations 2004
2005/1640	Landfill (England and Wales) (Amendment) Regulations 2005
2003/235	Landfill (Scotland) Regulations 2003
2003/343	Landfill (Scotland) (Amendment) Regulations 2003
2005/895	**List of Wastes (England) Regulations 2011**
1998/2307	Lifting Operations and Lifting Equipment Regulations 1998
1999/3242	Management of Health and Safety at Work Regulations 1999
1992/2793	Manual Handling Operations Regulations 1992
1992/2966	Personal Protective Equipment at Work Regulations 1992
2002/1144	Personal Protective Equipment at Work Regulations 2002
2000/1973	Pollution Prevention and Control (England and Wales) Regulations 2000
2002/323	Pollution Prevention and Control (Scotland) Regulations 2002
1998/2306	Provision and Use of Work Equipment Regulations 1998
1995/3163	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
1999/2978	Road Vehicles (Brake Linings Safety) Regulations 1999
2003/3314	Road Vehicles (Brake Linings Safety) (Amendment) Regulations 2003
1977/500	Safety Representatives and Safety Committees Regulations 1977
1999/293	Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999
1989/1156	Trade Effluents (Prescribed Processes and Substances) Regulations 1989
1994/1056	Waste Management Licensing Regulations 1994
2005/735	**Work at Height Regulations 2005**
1998/1833	Working Time Regulations 1998
1999/3372	Working Time Regulations 1999
2001/3256	Working Time (Amendment) Regulations 2001
2002/3128	Working Time (Amendment) Regulations 2002
2003/1684	Working Time (Amendment) Regulations 2003
1992/3004	Workplace (Health, Safety and Welfare) Regulations 1992

REFERENCE READING MATERIAL FOR WORKING WITH ASBESTOS

Acts of Parliament, Regulations, HSE Publications for Working with Asbestos

HSG 53	**Respiratory Protection Equipment at Work ~ A Practical Guide (2013)**
MDHS 87	Fibres in Air; Guidance on the Discrimination Between Fibre Types in Samples of Airborne Dust on Filters Using Microscopy (1999)
HSG 264	Surveying, The Surveying Guide Sampling and Assessment of Asbestos-containing Materials (2010)
HSG 189/2	Working with Asbestos Cement (second edition 1999)
HSG 210	Asbestos Essentials: Task Manual (2001)
HSG 213	Introduction to Asbestos Essentials (2001)
HSG 227	A Comprehensive Guide to Managing Asbestos in Premises (2002)
HSG 247	**Asbestos: The Contractors Guide for Asbestos Removal (2006)**

HSG 248	**Asbestos: The Analysts' Guide for Sampling Analysis and Clearance Procedures (2013)**
INDG 188	**Asbestos Alert for Building Maintenance, Repair and Refurbishment Workers (2004)**
INDG 233	A Short Guide to Managing Asbestos in Premises 2003 (rev 3)
INDG 255	Asbestos Dust Kills; Keep Your Mask On 2003 (rev 1)
INDG 288	Selecting of Suitable Respiratory Protective Equipment for Work with Asbestos 2003 (rev 1)
INDG 289	Working with Asbestos in Building 2001
INDG 401	**The Work at Height Regulations 2005 – a brief guide (2005)**
GIS 1	**Heat stress in the workplace. What you need to know as an employer.**
MS 13	**Asbestos: Medical Guidance Notes (5th edition 2012)**
L5	COSHH (fourth edition): Control of Substances Hazardous to Health Regulation 2002: Approved Code of Practice and Guidance
L21	Management of Health and Safety at Work: Management of Health and Safety at Work Regulations 1999: Approved Code of Practice and Guidance
L22	Safe Use of Work Equipment: Provision and Use of Work Equipment Regulations 1992: Approved Code of Practice and Guidance
L24	Workplace Health Safety and Welfare: Workplace Health Safety and Welfare Regulations 1992: Approved Code of Practice and Guidance
L25	Personal Protective Equipment at Work: Personal Protective Equipment at Work Regulations 1992: Guidance on Regulations
L143	Working with materials containing asbestos. HSE 2006.
Occupational Circular 282/28	**Fit Testing of Respiratory Equipment Face pieces**

APPENDIX F

1. ASBESTOS MATERIALS IN BUILDINGS AND SURVEYS LIMITATION

2. FORMS OF INSPECTION

1. ASBESTOS MATERIALS IN BUILDINGS

1.01 Sprayed coatings applied in the UK were typically a mixture of hydrated asbestos cement containing up to 85% asbestos, mainly Amosite but Crocidolite and mixtures have been used. Primarily used for anti-condensation and acoustic control and fire protection to structural steelwork. It is a friable material and is likely to release fibres, especially if disturbed during repair and maintenance work. As it ages the binding medium of sprayed asbestos may degrade with the consequent release of more fibres.

1.02 Thermal insulation to boilers, vessels, pipe work, valves, pumps etc also known as lagging. Lagging may have a protective covering of cloth, tape, paper, metal or a surface coating of cement. All types of asbestos may be found in lagging and the content can vary from 1% to 100% asbestos. The likelihood of fibre release depends upon its composition, friability and state of repair, but it is particularly susceptible to damage and disturbance through maintenance work or the action of water leaks.

1.03 Asbestos insulating boards usually contain between 16 to 40% Amosite (brown) asbestos, although boards may be found to contain other types of asbestos and in other quantities. Insulating boards were developed in the 1950s to provide an economical, lightweight, fire resisting insulating material. As insulation board is semi-compressed it is more likely to release fibres as a result of damage or abrasion than typically occurs with cement. Work on Asbestos Insulation Board can give rise to high levels of airborne asbestos fibres.

1.04 Asbestos cement products generally contain 10 to 15% of asbestos fibre bound in a matrix of Portland cement or autoclaved calcium silicate. Three types of asbestos have been used in the manufacture of asbestos cement. The asbestos fibres in asbestos cement are usually firmly bound in the cement matrix and will be released only if the material is mechanically damaged or as it deteriorates with age.

1.05 Ropes, yarns and cloths are usually high in asbestos content, approaching 100%. They were used as packing, caulking or gasket materials where thermal of fire protection was required. The risk of fibre release depends upon the structure of the material. Bonded gasket material is unlikely to release asbestos but an unbounded woven material may release fibres when in use, especially if damaged or frayed.

1.06 Millboard, paper and paper products are usually high in asbestos content, approaching 100%, and may contain any combination of the three most common types of asbestos. They were used for insulation of electrical equipment and for thermal insulation; asbestos paper has been used as fireproofing to wood fibre panels. These materials are not well bonded and will release asbestos fibres if subject to abrasion and wear.

1.07 Bitumen felts and coatings may contain asbestos either bound in the bitumen matrix or as an asbestos paper liner.

1.08 Reinforced plastics, floor tiles and flooring linoleum may contain asbestos either bound in the matrix or as an asbestos paper liner. These materials may not present a hazard during normal use, but should be removed and disposed of carefully by a licensed asbestos contractor.

1.09 Textured coatings and paints or ‘Artex’ may contain small amounts of asbestos and are notifiable to the Health and Safety Executive. A licensed asbestos contractor should carry out any works to this material.

1.10 Mastics, sealants, putties and adhesives may contain small amounts of asbestos. A risk of exposure to airborne fibres may arise if such materials are sanded.

2. Representative beam casings and bulkheads will be exposed, inspected and the dust sampled (see spec ref. A1.2001 – h). If suspect materials are thought to be present then this would be highlighted at the time and further advice sought.

3. Dismantling of structural, load bearing or substantial walls for inspection has not been made provision for within the proposal, as this would form part of the renovation or demolition process. Should it be thought that suspect areas are present within said areas then they will be highlighted and annotated accordingly within the report and advised in summary two weeks after as per the specification to await further advice?

4. Representative floor spaces will be 'drilled', exposed and dust samples taken (see spec ref. A1.2001 – j). If suspect materials are thought to be present then this would be highlighted at the time and further advice sought.

5. Brake linings within lift machinery would not generally be inspected, as a potential element of dismantling of plant may be required. If suspected it will be presumed that the linings contain asbestos (see spec ref. A1.2001 – g).

6. As highlighted within our quotation should any plans for existing or historic heating or pipe work systems be available please forward them to us in good time, however it is noted in the specification that these are not likely to be available. In this instance for us to inspect every inch of wall surface and open it is not a particle solution. Should it be thought that pipe work is present within the walls themselves then reasonable measures will be employed to trace this occurrence? Should it be required that continual exposing or dismantling of walls is required then we would envisage revisiting the client to highlight the issue and ask further advice on the intended action. However we would envisage finding and noting any such occurrences during our standard investigations.

7. Should service ducts be evident they will be inspected if accessible. We would employ measures to lift the ducts if this was an issue. However should they be immovable or deemed a confined space then accessing this element is not provided for and would have to be evaluated at the time.

8. With regard to the frequency of sampling dust (ventilation, floors and ceiling) and sampling plaster we would ask for guidance on the expected number or frequency to ensure suitable coverage for all parties. Once clarified as to what is reasonable or representative then we can confirm this in writing.

9. As included in the specification we have included for ladders and two storey scaffold towers however should high-level access equipment be necessary i.e. by scissor lift or boom then this would not be included.

10. Should asbestos removal works (spec ref. A1.2003 – a-d) be deemed necessary during the inspection to open up spaces for inspection so the survey is as conclusive as possible the removal costs are not included nor the 14-day period within the timescale (if applicable) for the project timeline.

11. We would advise that the survey report is for reporting of asbestos materials and documenting them. Should you wish to use it to price for removal works then it is your decision as the use of the report is yours. However we feel it prudent a specific removal specification is implemented for contractors to price. We cannot be held responsible if a situation arises from the removal contract that would have been included in a suitable specification document.

12. In advance we wish the client to acknowledge that in accordance with the specification should plant or similar have to be isolated and a programme submitted or that any other required of the specification that is currently unforeseeable then there may be a delay in the timescale for completion purely based on these additional elements.

13. As highlighted within the specification the structural engineer may require us to visit/revisit site during their works we will or course accommodate any requirements where possible. If the assistance is additional then there may be additional costs.

2. FORMS OF INSPECTION

.

2.01 Management survey: Standard sampling, identification and assessment survey (sampling survey)

The purpose and procedures used in this survey are to ensure that representative samples are collected and analysed for the presence of asbestos. Samples from each type of ACM found are collected and analysed to confirm or refute the samples taken. If the material sampled is found to contain asbestos, other similar homogenous materials used in the same way in the building can be strongly presumed to contain asbestos. Less homogenous materials will require a greater number of samples. The number should be sufficient for the surveyor to make an assessment of whether asbestos is or is not present in accordance with DETR guidance. Sampling may take place simultaneously with the survey, or in the case of some larger surveys, can be carried out as a separate exercise,

This form of inspection is predominately used to conform to the legislative requirement of managing asbestos in buildings. It inspects, samples, quantifies, reports and recommends on accessible asbestos products identified that will usually be deemed accessible by day-to-day occupation i.e. that any employer would have to manage as part of the regulations. This inspection will not normally identify all asbestos present as many applications can be concealed by nature of their location, which are not accessible without intrusive means. As such it should not be utilised for *any* refurbishment, renovation or demolition projects, unless used as a pre-cursor prior to the required intrusive investigation.

2.03 Full access sampling and identification survey (pre-demolition / major refurbishment surveys)

This type of survey is used to locate and describe, as far as is 'reasonably practicable', all ACM's in the building and may involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A full sampling programme is undertaken to identify possible ACM's and estimates of the volume and surface area of the ACM's made. The survey is designed to be used as a basis for tendering the removal of ACM's from the building prior to demolition or major refurbishment so the survey does not assess the condition of the asbestos, other than to note areas of damage or where additional asbestos debris may be expected to be present

This form of inspection is to be utilised prior to *any* planned refurbishment, renovation or demolition whether it be a whole site, building or parts thereof. It is a requirement under the Construction (Design & Management) 1994 Regulations and as part of the 'building controllers' responsibility in accordance with the CAR 2006 regulations. This inspection may not identify all asbestos materials even though it is intrusive in nature, as asbestos applications are known to exist in parts of any given building that are inaccessible without demolition and as such are not possible to identify within any survey. This inspection is intrusive by its nature to gain the required access to parts of the building, therefore damage to décor, fixtures and fittings, but not limited to these parts may be disturbed during the investigation.

3. METHODOLOGY FOR INSPECTION / SURVEY OF ASBESTOS CONTAINING MATERIALS

3.01 The surveys conducted by JM Asbestos Surveyors Limited will involve thorough inspection of all accessible parts of a building to which we are able to gain safe access, sampling and testing depending on the type of survey being instructed by the 'client' (or nominated representative) of all suspect materials for asbestos and the provision of a report or similar document which must be wholly read in conjunction with all elements. I would like to draw your attention to the fact that as highlighted within each form of inspection asbestos still may remain undiscovered within any given building or parts thereof and therefore should this be identified at a later stage after our services / involvement have finished that JM Asbestos Surveyors Limited should be consulted in the first instance to advise as necessary in accordance with legislation. Should this not be done we would accept no liability should any costs, time or further implications arise at a later stage through inappropriate use of the report documented or otherwise. Should intrusive investigation be undertaken (type 3) damage will occur to the building or parts thereof by the nature of the inspection, if certain areas are not itemised as not to be inspected all parts will be subjected to such destructive measures and JM Asbestos Surveyors Limited cannot be held liable for any damage.

a. Carefully check all spaces in the building(s) or area(s) to be inspected where safe access is granted in a systematic manner. Devise a methodical order applicable to the site and inspect walls, partitions, ceilings, floors, beams, ducts, risers, plant and equipment;

b. Identify the suspected asbestos containing building materials. All materials not readily identifiable as non-asbestos should be considered suspect until the results of sampling prove otherwise;

c. Group these materials into homogeneous sampling areas, uniform in texture, colour, and which in all other respect appear identical. Materials which appear to have been installed at different times or if there is any other reason to suspect that materials may be different then the materials must be allocated to different sampling areas.;

d. Identification of suspect materials and selection of homogeneous sampling areas are by their very nature subjective processes. If there is any doubt the material must be considered suspect or allocated a separate sampling area as appropriate;

3.2 Prepare and annotate sketch plans if provided

3.3 Determination of the number of samples to be taken is accordance with Annex 2 of the current edition of the Department of the Environment, Transport and the Regions publication, "Asbestos and Man Made Fibre Materials in Buildings".

3.4 Determination of the locations from where samples will be taken is dependent upon the nature of the material but should be chosen so as far as is possible the sample will be representative of the area and that personal bias is avoided.

3.5 Samples will then be collected using the techniques set out in the company UKAS accredited sampling/procedure manual.

3.6 All information will be recorded on standard sample report forms, which details the location, condition nature and extent of the material from where the sample was taken together with the unique reference number and results of analysis; asbestos type and percentage content.

3.7 How the information is recorded on site will ultimately reflect in the register, risk assessment and recommended remedial action. Location of all materials sampled will be recorded on annotated plans to avoid confusion encountered by using descriptive text. The annotation will include the nature, condition, location and extent of the material.

3.8 A mathematical algorithm based upon all the factors, which give rise to fibre release, which can be assessed at the time of inspection. The algorithm and definitions are given in the appendix to this brief. Use of this algorithm produces uniformity between surveyors and of sites' surveyed leading to a more precise product. This algorithm exceeds the requirements of MDHS 100 / HSG 248.

3.9. Whilst on site, we will make every effort to establish the full extent of asbestos materials within the limits defined for inspection / survey / intrusive survey. However where access has been limited by presence of either 'hazards', refusal of access by tenant or similar, or there are parts present of which we have no knowledge, we will not be able to inspect these parts and thus cannot report on any asbestos that may be present in such parts. These parts will, where possible, be detailed in the areas excluded from inspection / survey within the written report. Typically such parts may include any or all of the following:

a. Flues, ducts, voids or any similarly enclosed areas, the access to which will necessitate the use of specialist equipment or tools or which will cause damage to decoration, fixtures, fittings or the structure

b. Lift shafts, plant rooms or similar which require the attendance of a specialist engineer unless arrangements have been specifically made for such an engineer to be in attendance.

c. Any parts or surfaces that would require the removal or relocation of carpets, furniture, blinds, curtains, fixtures or fittings.

d. Any part requiring specialist access equipment other than stepladders. No provision is made for specialist access equipment unless otherwise stated.

e. Concealed spaces, which may exist within the fabric of the building, where the extent or presence of these is not evident due to inaccessibility or insufficient knowledge or information supplied as to the structure.

f. The presence of asbestos in voids (under floor, floor, wall or ceiling) other than those opened up during the site investigation.

g. Bulk samples to be taken, at the density recommended by DETR guidance, from all materials that upon visual inspection appear likely to contain asbestos. However a reduced sampling density may be adopted to meet client imposed technical or financial restraints (e.g. fixed price fee) and the report annotated accordingly.

h. Samples will not be taken where the act of sampling would endanger the surveyor or compromise the functional integrity of the item concerned. For example; flash guards to fuse carriers within live electrical boxes, panels within fire doors, gaskets associated with heating, glazing or power plant etc.

i. Whilst every effort will be made to identify the true nature and extent of the asbestos material present in the building(s), no responsibility can be accepted for the presence of asbestos in materials other than those sampled at the requisite density (see g above).

j. Items of bitumen, plastic, resin or rubber, which may contain asbestos, the thermal and acoustic properties of which are incidental to its main purpose, will be excluded from the survey unless specifically stated.

k. Reference to materials as Asbestos Insulating Board or Asbestos Cement will be based upon their asbestos content and visual appearance alone. Density tests on materials will not be carried out unless stated otherwise.

l. Where heating or hot water service pipe work, other services or structural components are covered with a non asbestos insulation, fire protection, or similar, only limited inspection will be made of the underlying item or surface for the evidence of any residue from any earlier / previous insulation etc. Removal of all non-asbestos insulation for the purposes of a full examination is specifically excluded, unless otherwise stated.

3.10 The criteria for sampling of suspected asbestos materials are that for the first homogeneous area all suspect materials will be sampled in accordance with Annex 3, Sampling asbestos materials of the Department of the Environment, Transport and the Regions publication, "Asbestos and man made mineral fibres in buildings", 4th Edition 1999 (also MDHS 100, Surveying for asbestos) HSG 248:-

a. For sprayed coatings one sample per 10 - 15 m^2 or in installations exceeding 100m^2, one sample per 25 - 30 m^2 should be sufficient. Care being taken to include all layers of the coating;

b. Thermal system insulation. In general one sample per 3m of pipe run, or for longer runs (over 20m) one sample every 6m will usually be sufficient. Particular attention should be paid to pipe-elbows, taps and valves. At least 2 samples of boiler or cylinder lagging should be taken from any one unit, with additional samples from any, "patched" area of insulation on pipe work.

c. Insulating board. One sample per sheet should be sufficient, provided it is representative of the sheet as a whole. If numerous seemingly identical panels have been used then 2 or 3 sheets should be sampled. If they contain asbestos the others will be assumed to do so too;

d. Asbestos Cement Products. Unless there are obvious differences between sheets, pipe runs etc, two or three samples should be taken for each roof, or run of guttering or pipe work. Particular care should be taken to avoid accidents when sampling roofing materials;

e. For asbestos ropes, yarns, cloth, millboard and paper products one sample from each location should be sufficient;

f. For textured coatings 2 - 3 samples should be taken in different areas of the ceiling or coated areas as the material is unlikely to be uniform in content;

g. Thermo-plastic floor tiles, sealants and mastics. One sample from one tile of each colour used in each room or location where they are laid;

h. Bitumen roofing felt, damp proof course, gutter lining and flashings. One small sample per roll or run of material.

i. One sample only will be taken from all similar subsequent findings unless;

I. results exist for identical building elements;

II. where a building element is suspected to contain an asbestos containing material of known composition and that material is within the building element concerned;

III. In which case NO further samples will be taken of the repeat finding(s).

j. Only one sample of each type of debris found in any one functional space will be taken.

3.11 Reports compiled as a result of the inspection strategy noted above will detail:

i. Scope of the report

ii. Limitations & restrictions of the survey and report

iii. Executive summary & summary of asbestos materials identified

iv. General & site-specific recommendations and indicative budget figures for any remediation recommended (if requested)

v. Registers detailing the location, nature, condition and extent of all asbestos and non-asbestos containing materials identified including risk assessment and recommendations as to the future management of asbestos materials identified, in accordance with HSE and DETR guidance; basic management plan for future control of materials

vi. Determination of asbestos content report(s) for samples taken and analysed

vii. Annotated floor plans showing the locations of asbestos materials identified, together with extent and condition, linked to sample / finding reference (if provided).

viii. Representative photographs of all types of asbestos containing materials identified, linked to sample / finding reference.

ix. Lists of legislative & guidance documents for reference. Definitions of terms used and form of inspections.

3.12 Where required by the client, a database for the management of the asbestos information in a site (used to provide a fast, easy to use and comprehensive tool to help property owners and managers record all information generated by survey and used for risk assessment), will contain the following information:

a. Details of the nature, location, extent and condition of the material, along with risk assessments and laboratory test results of samples taken, photographs and location diagrams.

b. Details of the sites, buildings and locations managed, together with diagrams, floor plans and photographs.

c. A risk assessment algorithm to produce an objective Risk Rating that may be used for comparative purposes.

d. Periodic inspection record, providing an up to date risk assessment and historical record of the material, from its discovery to eventual removal.

3.13 JM Asbestos Surveyors Limited is not accredited for surveying, sampling of air for fibre counting, fibre counting, sampling for asbestos in bulk materials and identification of asbestos in bulk material. Opinions and interpretations based on test results are outside the scope of UKAS accreditation.

APPENDIX D

Asbestos Management Survey Main School

Asbestos Management Survey

Upper School
Ortu Corringham Primary School
Herd Lane
Corringham
Stanford-le-Hope
Essex
SS17 9BH

9 Springfield
Lyons Approach
Chelmsford
Essex
CM2 5LB

Client:	Ortu Corringham Primary School
Job Reference:	J000920
Survey Date:	30 May 2018 to 31 May 2018
Report Date:	13 Jun 2018
Property Address:	Upper School Ortu Corringham Primary School Herd Lane Corringham Stanford-le-Hope Essex SS17 9BH
Survey Type:	Management Survey
Surveyor Name:	Sam Cox
Surveyor Signature:	
Report Prepared By:	Summer Yon
Signature:	
Report Authorised By:	Nicola Kingham
Signature:	

TABLE OF CONTENTS

Duty holder's use of survey information

The survey report needs to meet the requirements of the client and comply with the tender/contractual obligations. The report should be fit for purpose and the client should check that this is the case. Therefore the client should examine the report and carry out a number of checks to make sure that the survey has been adequate and that the report is suitable and accurate.

The client/duty holder should do to check the accuracy of the survey report

- Check the report against the original tender.
- Check for un agreed caveats or disclaimers.
- Check that the survey is as requested: Management or refurbishment/demolition (or a combination).
- Check diagrams and plans are clear and accurate.
- Check all rooms and areas have been accessed.
- Check sufficient samples have been taken (usually 1-2 per area/room) and that sample numbers are not disproportionate (e.g. dominated by one ACM type).
- Check sample numbers reflect variations in the same ACMs, e.g. different ceiling tiles in the same room.
- Check for any obvious discrepancies and inconsistencies.

1. Introduction

1.1 An asbestos Management Survey of the premises was carried out on behalf of Ortu Corringham Primary School. The survey and all sampling was carried out in accordance with the requirements of the HSE document 'Surveying, sampling and assessment of asbestos containing material' HSG 264.

1.2 Scope of Works:

The scope of works was to carry out an asbestos Management Survey to the Upper School. The purpose of the survey is to identify:

- The type, condition and extent of asbestos containing materials (ACMs) in the building in all reasonably accessible areas.
- Provide recommendations to ensure that areas of concern are made safe and that all ACMs are managed safely.
- To assess the risk from the ACMs and to derive risk ratings.

1.3 The areas described in the scope of works were surveyed at the time of the survey. Please refer to the specific exclusions/non-accessed table below for areas not included in this survey.

1.4 Executive Summary

General Information:

Salvum Ltd were instructed by Bev Bennett to carry out an asbestos Management Survey to inspect for the presence of asbestos containing materials at the following site: Upper School, Ortu Corringham Primary School, Herd Lane, Corringham, Stanford-le-Hope, Essex, SS17 9BH.

Asbestos containing materials have been identified during this survey, the report must be read in its entirety to understand the recommendations provided, there may also be non-accessed areas or access restrictions.

(See below for full list of areas inspected) The building was constructed circa 1969 and is of brick masonry. The survey was carried out on 30 May 2018 to 31 May 2018 by Sam Cox.

Floor Level	Room / Area	Survey Type	Accessed	Room Construction
Ground Floor	G.001 - Staff room	Management Survey	Yes	Ceiling: Suspended Ceiling: profile metal sheeting Internal Wall: Brick Floor: Vinyl / Linoleum Floor: Carpet
Ground Floor	G.002 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.003 - Office	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.004 - Office	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.005 - Lobby	Management Survey	Yes	Ceiling: metal and mmmf Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.006 - Hall	Management Survey	Yes	Ceiling: metal and mmmf Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.007 - Copy Room	Management Survey	Yes	Ceiling: plasterboard with modern sky lights Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.008 - Open plan Classroom	Management Survey	Yes	Ceiling: profile metal Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.009 - Madagascar room	Management Survey	Yes	Ceiling: profile metal Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board

				Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.010 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.011 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.012 - Kitchen	Management Survey	Yes	Ceiling: profile metal sheeting Ceiling: Suspended Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.013 - Open plan Classroom	Management Survey	Yes	Ceiling: profile metal Ceiling: MMMF Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.014 - Store	Management Survey	Yes	Ceiling: profile metal sheeting Ceiling: Suspended Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.015 - Cupboard	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board
Ground Floor	G.016 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.017 - Open plan Classroom	Management Survey	Yes	Ceiling: profile metal Ceiling: MMMF Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.018 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum

Ground Floor	G.019 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Vinyl / Linoleum
Ground Floor	G.020 - Switzerland Room	Management Survey	Yes	Ceiling: profile metal Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.021 - Open plan Classroom	Management Survey	Yes	Ceiling: profile metal Ceiling: MMMF Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.022 - Classroom	Management Survey	Yes	Ceiling: timber Ceiling: MMMF Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.023 - Classroom	Management Survey	Yes	Ceiling: timber Ceiling: MMMF Suspended tiles Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.024 - Classroom	Management Survey	Yes	Ceiling: profile metal Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet Floor: Vinyl / Linoleum
Ground Floor	G.025 - Cupboard	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board
Ground Floor	G.026 - Meter Cupboard	Management Survey	Yes	Ceiling: metal Internal Wall: Brick Floor: concrete
Ground Floor	G.027 - Plant Room	Management Survey	Yes	Ceiling: metal Internal Wall: Brick

				Floor: concrete
Ground Floor	G.001 - Classroom	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.002 - Book Room	Management Survey	Yes	Ceiling: timber Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.003 - Lobby	Management Survey	Yes	Ceiling: timber Internal Wall: Plaster Board Internal Wall: Brick Floor: modern vinyl Floor: Wood
Ground Floor	G.004 - Classroom	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.005 - Office	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.006 - Lobby	Management Survey	Yes	Ceiling: timber Internal Wall: Plaster Board Internal Wall: Brick Floor: modern vinyl Floor: Wood
Ground Floor	G.007 - Classroom	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.008 - Office	Management Survey	Yes	Ceiling: Plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
				Ceiling: Plaster

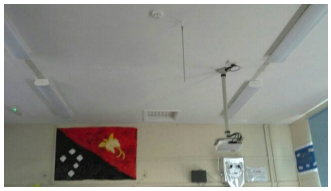
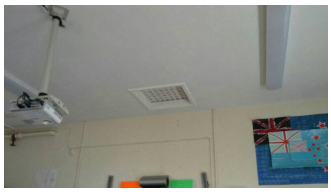
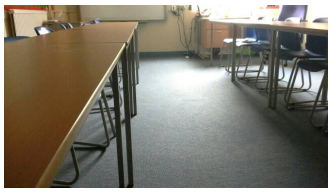
Ground Floor	G.009 - WC	Management Survey	Yes	Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum
Ground Floor	G.010 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum
Ground Floor	G.011 - Classroom	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.012 - Classroom	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.013 - Classroom	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.014 - Office	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.015 - Corridor	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Ground Floor	G.016 - Classroom	Management Survey	Yes	Ceiling: timber Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Wood
Ground Floor	G.017 - Classroom	Management Survey	Yes	Ceiling: timber Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: fitted carpet
Ground Floor	G.018 - Cupboard	Management Survey	Yes	Ceiling: concrete Internal Wall: Brick Floor: concrete
				Ceiling: concrete

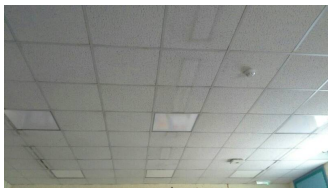
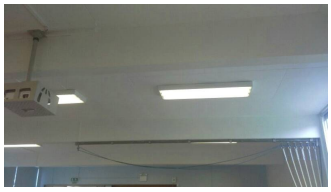
Ground Floor	G.019 - Cupboard	Management Survey	Yes	Internal Wall: Brick Floor: concrete
Ground Floor	G.020 - Office	Management Survey	Yes	Ceiling: timber Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: fitted carpet
Ground Floor	G.021 - Resources	Management Survey	Yes	Ceiling: timber Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: fitted carpet
Ground Floor	G.022 - Corridor	Management Survey	Yes	Ceiling: timber Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.023 - Music	Management Survey	Yes	Ceiling: timber Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.024 - Music	Management Survey	Yes	Ceiling: plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.025 - IT	Management Survey	Yes	Ceiling: plaster Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet Floor: Wood
Ground Floor	G.026 - Electric Cupboard	Management Survey	Yes	Internal Wall: Brick
Ground Floor	G.027 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum
Ground Floor	G.028 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum

Ground Floor	G.029 - Office	Management Survey	Yes	Ceiling: Plasterboard Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet
Ground Floor	G.030 - Office	Management Survey	Yes	Ceiling: Plasterboard Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet
Ground Floor	G.032 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum
Ground Floor	G.033 - WC	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum
Ground Floor	G.034 - Staff Room	Management Survey	Yes	Ceiling: Plasterboard Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet
Ground Floor	G.035 - Store	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick Floor: concrete
Ground Floor	G.036 - Store	Management Survey	Yes	Ceiling: Plasterboard Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet
Ground Floor	G.037 - Corridor	Management Survey	Yes	Ceiling: Plasterboard Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet
Ground Floor	G.038 - Lobby	Management Survey	Yes	Ceiling: Plasterboard Internal Wall: Plaster Board Internal Wall: Brick Floor: Carpet
Ground Floor	G.039 - Kitchen	Management Survey	Yes	Ceiling: plastic clad Internal Wall: Brick Internal Wall: Plaster Board Floor: Vinyl / Linoleum
Ground Floor	G.040 - Hall	Management Survey	Yes	Internal Wall: Brick Floor: Wood

Ground Floor	G.041 - Store	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick
Ground Floor	G.042 - Lobby	Management Survey	Yes	Ceiling: Plaster Internal Wall: Brick
Ground Floor	G.043 - Classroom	Management Survey	Yes	Ceiling: Suspended Internal Wall: Brick Internal Wall: Plaster Board Floor: Carpet
Roof Void	R.001 - Void	Management Survey	Yes	Floor: Wood Ceiling: Timber
Roof Void	R.002 - Archive	Management Survey	Yes	Floor: Wood Ceiling: Timber Internal Wall: Plaster Board

1.5 Specific Exclusions/Non-Accessed:

Floor Level	Room	Reason	Photo
Ground Floor	G.006 - Hall	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground Floor	G.005 - Lobby	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground Floor	G.003 - Office	Limited access - No access beneath fitted carpet	
Ground Floor	G.004 - Office	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground Floor	G.002 - Book Room	Limited access - No access within ceiling void due to height restrictions	No Photographic Evidence Available
Ground Floor	G.001 - Classroom	Limited access - No access within ceiling void due to height restrictions	
Ground Floor	G.004 - Classroom	Limited access - No access within ceiling void due to height restrictions	
Ground Floor	G.007 - Classroom	Limited access - No access beneath fitted carpet	
Ground Floor	G.011 - Classroom	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground	G.012 -	Limited access - No access beneath fitted	No Photographic Evidence Available

Floor	Classroom	carpet	
Ground Floor	G.013 - Classroom	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground Floor	G.016 - Classroom	Limited access - No access to ceiling void due to height restrictions	
Ground Floor	G.043 - Classroom	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground Floor	G.015 - Corridor	Limited access - No access beneath fitted carpet	No Photographic Evidence Available
Ground Floor	G.022 - Corridor	Limited access - No access to ceiling void due to height restrictions	No Photographic Evidence Available
Ground Floor	G.040 - Hall	Limited access - No access to ceiling due to height restrictions	
Ground Floor	G.025 - IT	Limited access - No access within ceiling void due to height restrictions	No Photographic Evidence Available
Ground Floor	G.023 - Music	Limited access - No access to ceiling void due to height restrictions	No Photographic Evidence Available
Ground Floor	G.024 - Music	Limited access - No access within ceiling void due to height restrictions	No Photographic Evidence Available
Ground Floor	G.014 - Office	Limited access - No access beneath fitted carpet	No Photographic Evidence Available

1.6 Specific exclusions relating to surveying;

1.6.1 No inspection was carried out of flues, chutes, ducts, voids and any similar enclosed areas, the access to which would necessitate the use of specialist equipment or tools, or which would have caused damage to decoration, fixtures, fittings or the structure of the building. We are therefore unable to report on the presence of asbestos in these areas, and accept no responsibility for the presence of asbestos in these areas.

1.6.2 No inspection of live electrical or mechanical plant or similar requiring the attendance of a specialist engineer was carried out.

1.6.3 No inspection of any area requiring specialist access equipment other than stepladders was carried out.

1.6.4 No report has been made on any concealed spaces which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility or insufficient knowledge of the structure of the building at the time of the survey.

1.6.5 Any area not accessed (and where no other information exists) must be presumed to contain asbestos and be managed on that basis.

1.7 Specific exclusions relating to sampling;

1.7.1 Samples have not been taken where the act of sampling would endanger the Surveyor or affect the functional integrity of the item concerned e.g. fuses within electrical boxes, fire doors, gaskets, glazing and power plant.

1.7.2 Samples have not been taken where prohibited by the client.

1.7.3 Samples have been taken from all materials which, upon initial visual inspection, appeared to contain asbestos with the exception of some items of mastic, resin or rubber, which contain asbestos where the quantity of those materials and the content of asbestos within the material is insignificant in terms of risk to health and safety.

1.7.4 Materials have been referred to as Asbestos Insulation Board or Asbestos Cement based on their asbestos content and visual appearance alone. Density checks have not been carried out unless otherwise stated.

1.8 Caveat

This report is based on a non-destructive survey of an unfamiliar site. Every effort was made to locate the presence of all ACMs within the areas included in the survey. It is recognised that construction techniques often create inaccessible void spaces, which without destructive sampling techniques being employed, would not be accessed during this survey. It must therefore be presumed that ACMs other than those located within the survey may exist within the building.

It was not possible both in terms of time and cost to sample each and every panel, tile or material of similar type. Where these exist, only a percentage of similar type materials were sampled, on the assumption that other like materials were of an identical composition. It is therefore possible that some other materials of apparently identical composition may vary and as such could contain asbestos not detected in the samples taken.

In the non-domestic sector, there is an expectation that every building will be surveyed on an individual basis to identify the presence and condition of asbestos. In premises where there are large numbers of similar or near--identical rooms (e.g. offices or hotels), a survey strategy can be adopted which reflects the scale and nature of the buildings. All rooms should be visually inspected, as there clearly can be differences in rooms due to location (e.g. presence of risers, services) or function/ facilities. Subsequently, 'similar' rooms can be placed into groups (i.e. rooms with similar locations or facilities, such as next to lifts, containing risers, gable end or middle building rooms, plant rooms etc.). In these groups there is likely to be greater uniformity in the presence of ACMs, e.g. fire protection next to lift shafts). Within these groups, there will be less need for sampling in all rooms. Sampling can be conducted in a representative number of rooms and, where ACMs are identified, the same items in other rooms in this group can be strongly presumed to contain asbestos.

For the reasons set out above, we cannot give assurances that all asbestos containing materials have been located and as such we recommend that further sampling be undertaken should these areas become accessible during the course of any future refurbishment or demolition works.

An HSG 264 Refurbishment and Demolition survey will be necessary prior to any major refurbishment or demolition work

2 Recommendations

2.1 The recommendations detailed in the register in Appendix A are based on each item's potential for releasing fibres as described in the Health and Safety Executive guideline HSG 264.

2.2 A quantifiable assessment of the risk of fibre release has been made by using an algorithm which takes into account all factors relevant to the item and the normal activities of the building occupants. Recommendation will then normally involve removal, encapsulation or management as described below;

- Removal of items vulnerable to damage or in such poor condition that removal is the only practical option, or where refurbishment or demolition work is planned whereby the work will affect the asbestos materials present and render removal necessary.
- Enclosure or encapsulation where the material is in poor condition or is vulnerable to damage.
- Management of the asbestos material present by labelling, registering and periodic inspection as necessary.

2.2.1 Definition of terms;

- ***Enclosure*** - Provision of a physical barrier to provide mechanical protection of the material to prevent it being disturbed or damaged.
- ***Encapsulation*** - Provision of paint type coating to create a continuous seal to the surface of the material and thereby prevent fibre release.
- ***Labelling*** - Fixing of labels to the surface of the material to warn of the hazard
- ***Registering*** - Entering the details, including type, location and extent in a register which is bought to the attention of all persons who might plan or undertake works in the building.
- ***Periodic*** - Inspection of the material at defined intervals to check that its condition hasn't deteriorated to require enclosure, encapsulation or removal.
- ***Repair*** - Addition of a seal to the material to prevent the further deterioration of the material. Carried out in conjunction with labelling.
- ***Removal*** - Complete removal of a material in compliance with CAWR 1998.
- ***Manage in situ*** - a policy of regular inspections to ensure that the ACM is maintained in good condition.

3. Material Assessment Algorithm

In the material assessment process, the main factors influencing fibre release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fibre released from an ACM when subject to disturbance are:

- Product type;
- Extent of damage or deterioration;
- Surface treatment; and
- Asbestos type.

Each parameter is scored between 1 and 3. A score of 1 is equivalent to a low potential for fibre release, 2 = Medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fibre release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACMs are scored as crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise. Examples of scoring for each parameter are given in below.

Materials with assessment scores

Scores of 4 or less have a very low potential to release fibres	< 4	Very Low
Scores of 5 and 6 a low potential	5 - 6	Low
Scores of between 7 and 9 are regarded as having a medium potential	7 - 9	Medium
Scores of 10 or more are rated as having a high potential to release fibres	10+	High
Non--asbestos materials are not scored	0	Not Recorded

Material Assessment Algorithm Table

Sample Variable	Score	Examples of scores(see notes for more details)
Product type (or debris from product)	1	Asbestos-reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi--rigid paints or decorative finishes, asbestos cement etc.).
	2	AIB, millboards, other low--density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.
	3	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.
Extent of damage/deterioration	0	Good condition: 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, AIB (with exposed face painted or encapsulated) asbestos cement sheets etc.
	2	Unsealed AIB, or encapsulated lagging and sprays.
	3	Unsealed lagging and sprays.
Asbestos type	1	Chrysotile.
	2	Amphibole asbestos excluding crocidolite.
	3	Crocidolite.

4. References

- Work with materials containing asbestos. Control of Asbestos Regulations 2012. Approved Code of Practice and guidance L143 Second Edition 2013
- Managing health and safety in construction. Construction (Design and Management) Regulations 2015. Approved Code of Practice L153 HSE Books
- A comprehensive guide to managing asbestos in premises HSG227 HSE Books 2002 ISBN 978 0 7176 2381 5
- Asbestos: The Survey Guide HSG264 HSE Books 2012 ISBN 978 0 7176 6502 0
- Asbestos: The licensed contractors' guide HSG247 HSE Books 2006 ISBN 978 0 7176 2874 2
- The management of asbestos in non-domestic premises. Regulation 4 of the Control of Asbestos Regulations 2012.
- Health and Safety at Work etc. Act 1974 (c.37) The Stationery Office 1974 ISBN 978 0 10 543774 1
- BS EN ISO/IEC 17020: 2012 General criteria for the operation of various types of bodies performing inspection British Standards Institution
- BS EN ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories British Standards Institution
- Asbestos: The analysts' guide for sampling, analysis and clearance procedures HSG248 HSE Books 2005 ISBN 978 0 7176 2875 9
- Accreditation of bodies surveying for asbestos in premises Edition 4 February 2015 RG8 8 (for the application of ISO/IEC 17020)

Appendix A

Asbestos Register
Material Assessment Record

Asbestos Register

Item	Level	Location	Product Type	Quantity	Accessibility	Condition	Asbestos Type	Sample No.	Material Assessment and Score
1	Ground Floor	G.001 - Staff room Ceiling void	Cement	1lm	Usually inaccessible or unlikely to be disturbed	Low Damage	Chrysotile + Crocidolite	GH000184	6
19	Ground Floor	G.015 - Cupboard Floor	Reinforced Composite	2m²	Occasionally likely to be disturbed	Low Damage	Chrysotile	GH000185	3
29	Ground Floor	G.025 - Cupboard Floor	Reinforced Composite	4m²	Occasionally likely to be disturbed	Low Damage	Chrysotile	As GH000185	3
41	Ground Floor	G.006 - Lobby Ceiling	Textured Coating	16m²	Usually inaccessible or unlikely to be disturbed	Good Condition	Chrysotile	GH000187	3
42	Roof Void	R.001 - Void Debris adjacent hatch	Insulating Board	<1m²	Easily disturbed	High Damage	Amosite	GH000188	9
43	Roof Void	R.001 - Void Around hatch	Insulating Board	4m²	Easily disturbed	High Damage	Amosite	GH000189	9
44	Roof Void	R.001 - Void Upstand to access hatch	Insulating Board	2lm	Usually inaccessible or unlikely to be disturbed	Medium Damage	Chrysotile	GH000190	7
63	Ground Floor	G.019 - Cupboard Floor	Reinforced Composite	3m²	Occasionally likely to be disturbed	Low Damage	Chrysotile	GH000192	3

Item	Level	Location	Product Type	Quantity	Accessibility	Condition	Asbestos Type	Sample No.	Material Assessment and Score
74	Ground Floor	G.026 - Electric Cupboard Electrics	Reinforced Composite	<1lm	Usually inaccessible or unlikely to be disturbed	Low Damage	Chrysotile	Visual	3
91	Ground Floor	G.042 - Lobby Floor	Reinforced Composite	6m²	Easily disturbed	Good Condition	Chrysotile	GH000202	2
92	Roof Void	R.002 - Archive Behind book cases	Insulating Board	6m²	Usually inaccessible or unlikely to be disturbed	Good Condition	Crocidolite (or unknown)	Visual	6

Material Assessment Record

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
1	Primary Building	Ground Floor	G.001 - Staff room	Management Survey (with MA only)	1lm	GH000184

Material Description	Material Risk			
Ceiling void – Redundant cement pipe Asbestos Cement	Product Type	1	Surface Treatment	1
	Extent of Damage	1	Asbestos Type	3

Asbestos Type	Score - Material Risk	
Chrysotile + Crocidolite	6	Low

Additional Information	Accessibility
N/A	Usually inaccessible or unlikely to be disturbed

Recommendations	Review Date
Label & Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
19	Primary Building	Ground Floor	G.015 - Cupboard	Management Survey (with MA only)	2m²	GH000185

Material Description	Material Risk			
Floor – Grey thermoplastic floor tiles and bitumen adhesive Reinforced Composite	Product Type	1	Surface Treatment	0
	Extent of Damage	1	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	3	Very Low

Additional Information	Accessibility
Asbestos identified within both the tile and the adhesive	Occasionally likely to be disturbed

Recommendations	Review Date
Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
29	Primary Building	Ground Floor	G.025 - Cupboard	Management Survey (with MA only)	4m²	As GH000185

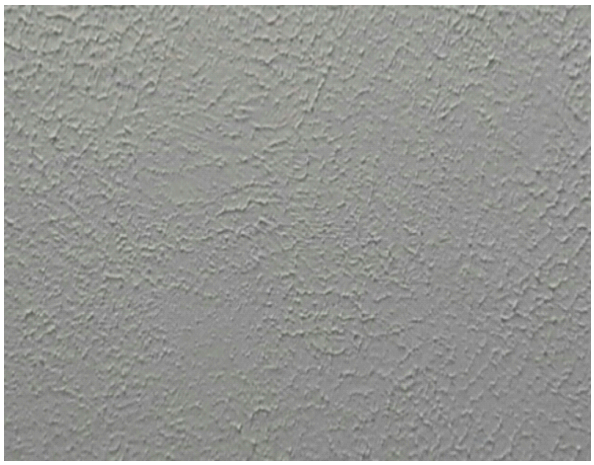
Material Description	Material Risk			
Floor – Grey thermoplastic floor tiles and bitumen adhesive Reinforced Composite	Product Type	1	Surface Treatment	0
	Extent of Damage	1	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	3	Very Low

Additional Information	Accessibility
Asbestos identified within both the tile and the adhesive	Occasionally likely to be disturbed

Recommendations	Review Date
Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
41	Primary school	Ground Floor	G.006 - Lobby	Management Survey (with MA only)	16m²	GH000187



Material Description	Material Risk			
Ceiling – Textured coating Textured Coating	Product Type	1	Surface Treatment	1
	Extent of Damage	0	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	3	Very Low

Additional Information	Accessibility
N/A	Usually inaccessible or unlikely to be disturbed

Recommendations	Review Date
Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
42	Primary school	Roof Void	R.001 - Void	Management Survey (with MA only)	<1m²	GH000188

Material Description	Material Risk			
Debris adjacent hatch – Insulation board Asbestos Insulating Board	Product Type	2	Surface Treatment	2
	Extent of Damage	3	Asbestos Type	2

Asbestos Type	Score - Material Risk	
Amosite	9	Medium

Additional Information	Accessibility
N/A	Easily disturbed

Recommendations	Review Date
Remove	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
43	Primary school	Roof Void	R.001 - Void	Management Survey (with MA only)	4m²	GH000189

Material Description	Material Risk			
Around hatch – Dust Asbestos Insulating Board	Product Type	2	Surface Treatment	2
	Extent of Damage	3	Asbestos Type	2

Asbestos Type	Score - Material Risk	
Amosite	9	Medium

Additional Information	Accessibility
N/A	Easily disturbed

Recommendations	Review Date
Remove	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
44	Primary school	Roof Void	R.001 - Void	Management Survey (with MA only)	2lm	GH000190

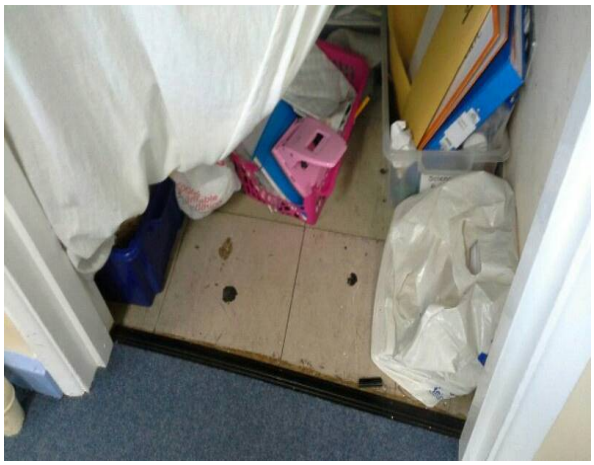
Material Description	Material Risk			
Upstand to access hatch – Insulation board Asbestos Insulating Board	Product Type	2	Surface Treatment	2
	Extent of Damage	2	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	7	Medium

Additional Information	Accessibility
N/A	Usually inaccessible or unlikely to be disturbed

Recommendations	Review Date
Encapsulate/Label & Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
63	Primary school	Ground Floor	G.019 - Cupboard	Management Survey (with MA only)	3m²	GH000192



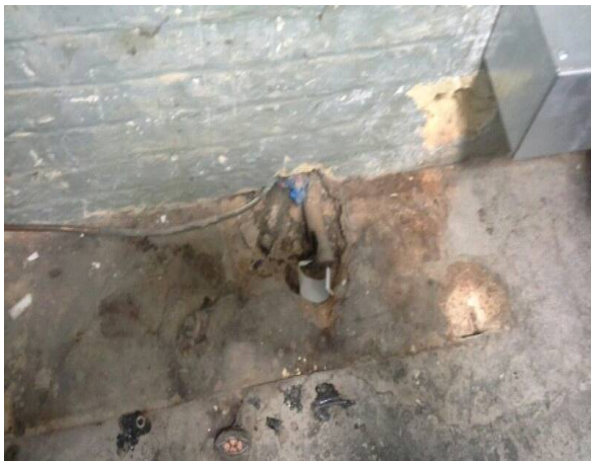
Material Description	Material Risk			
Floor – Beige thermoplastic floor tiles and bitumen adhesive Reinforced Composite	Product Type	1	Surface Treatment	0
	Extent of Damage	1	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	3	Very Low

Additional Information	Accessibility
Asbestos identified within bitumen backing only	Occasionally likely to be disturbed

Recommendations	Review Date
Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
74	Primary school	Ground Floor	G.026 - Electric Cupboard	Management Survey (with MA only)	<1lm	Visual



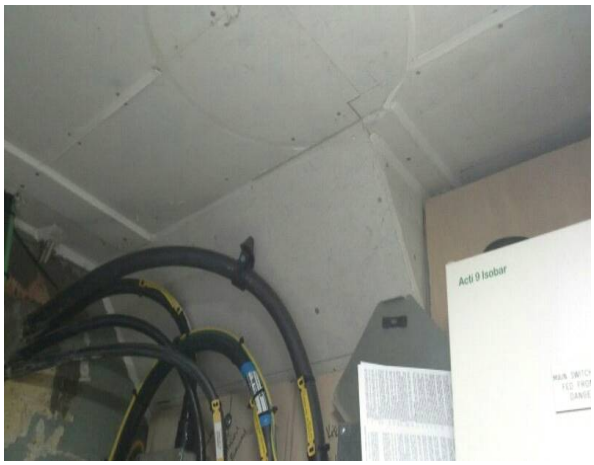
Material Description	Material Risk			
Electrics – Bitumen cable wrap Reinforced Composite	Product Type	1	Surface Treatment	0
	Extent of Damage	1	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	3	Very Low

Additional Information	Accessibility
Unable to sample due to live electrics	Usually inaccessible or unlikely to be disturbed

Recommendations	Review Date
Further Investigation & Sampling Required Prior to Disturbance	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
75	Primary school	Ground Floor	G.026 - Electric Cupboard	Management Survey (with MA only)	N/A	GH000194



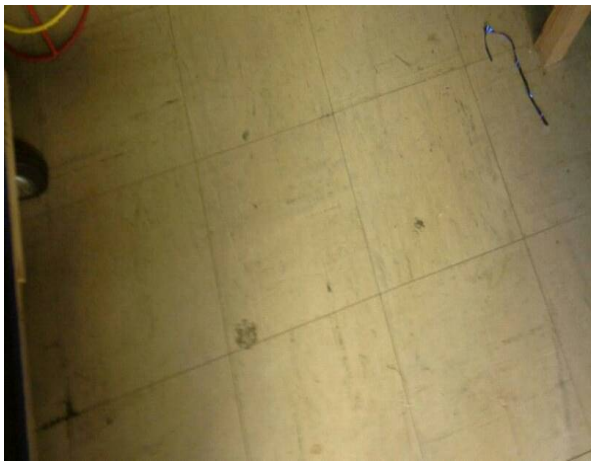
Material Description	Material Risk			
Ceiling – Insulation board Insulating Board	Product Type	N/A	Surface Treatment	N/A
	Extent of Damage	N/A	Asbestos Type	N/A

Asbestos Type	Score - Material Risk	
No Asbestos Detected	N/A	N/A

Additional Information	Accessibility
N/A	N/A

Recommendations	Review Date
No further action required	N/A

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
90	Primary school	Ground Floor	G.041 - Store	Management Survey (with MA only)	N/A	GH000198



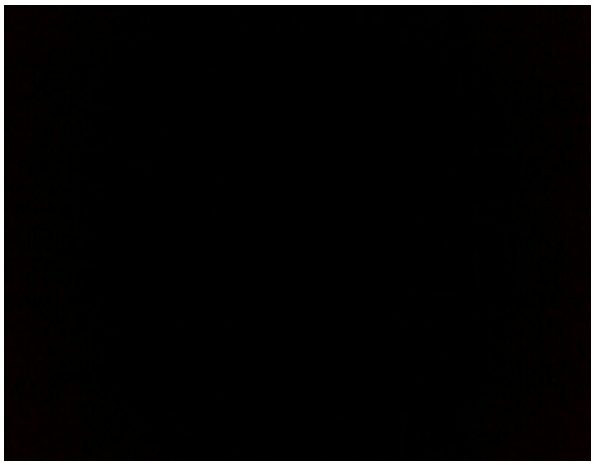
Material Description	Material Risk			
Floor – Beige vinyl tiles Reinforced Composite	Product Type	N/A	Surface Treatment	N/A
	Extent of Damage	N/A	Asbestos Type	N/A

Asbestos Type	Score - Material Risk	
No Asbestos Detected	N/A	N/A

Additional Information	Accessibility
N/A	N/A

Recommendations	Review Date
No further action required	N/A

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
91	Primary school	Ground Floor	G.042 - Lobby	Management Survey (with MA only)	6m²	GH000202



No photographic evidence available.

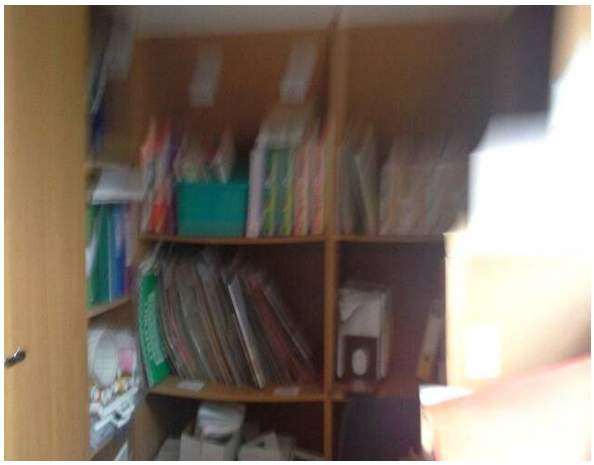
Material Description	Material Risk			
Floor – Grey thermoplastic floor tiles and bitumen adhesive Reinforced Composite	Product Type	1	Surface Treatment	0
	Extent of Damage	0	Asbestos Type	1

Asbestos Type	Score - Material Risk	
Chrysotile	2	Very Low

Additional Information	Accessibility
Asbestos identified within bitumen backing only	Easily disturbed

Recommendations	Review Date
Manage	May 2019

Item	Building	Level	Location / Room number	Survey Type	Quantity	Sample Reference
92	Primary school	Roof Void	R.002 - Archive	Management Survey (with MA only)	6m²	Visual

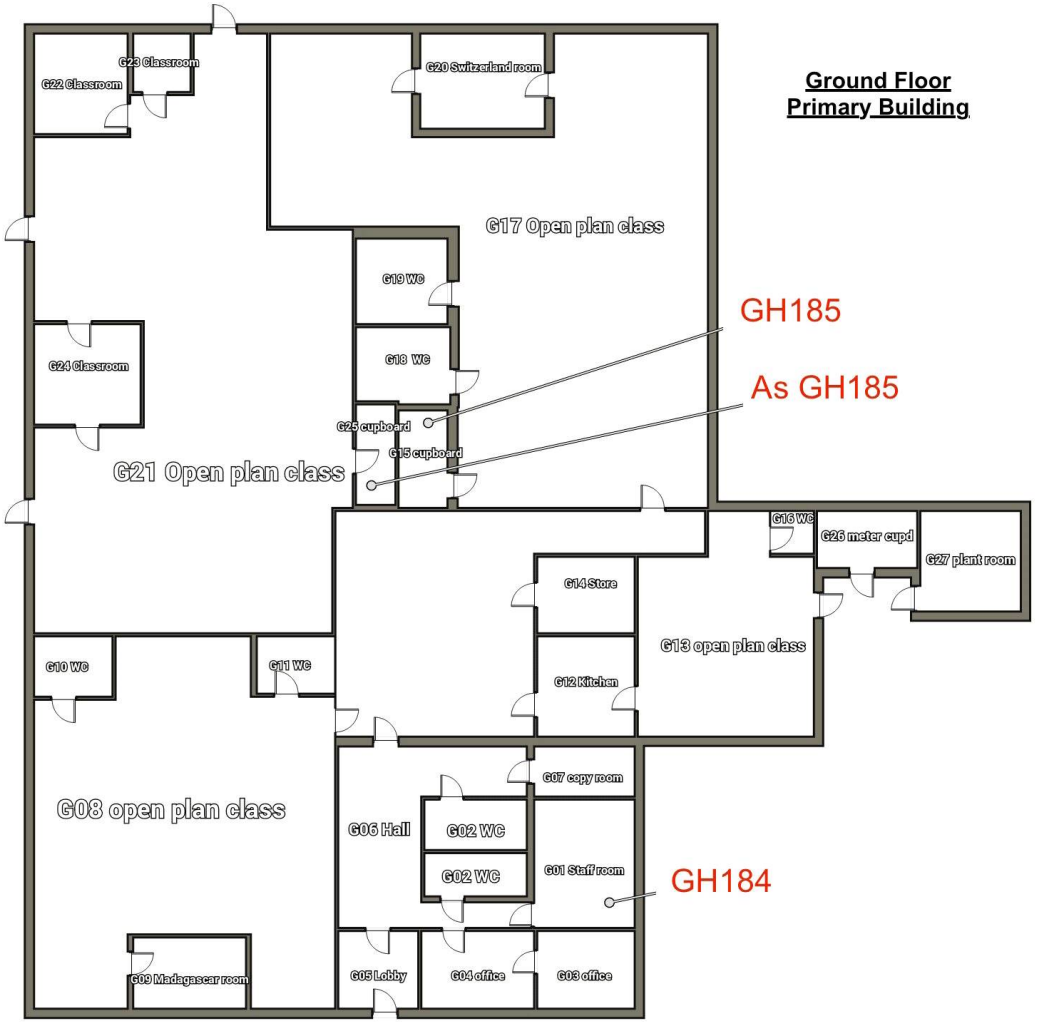


Material Description	Material Risk			
Behind book cases – Insulation board Asbestos Insulating Board	Product Type	2	Surface Treatment	1
	Extent of Damage	0	Asbestos Type	3

Asbestos Type	Score - Material Risk	
Crocidolite (or unknown)	6	Low

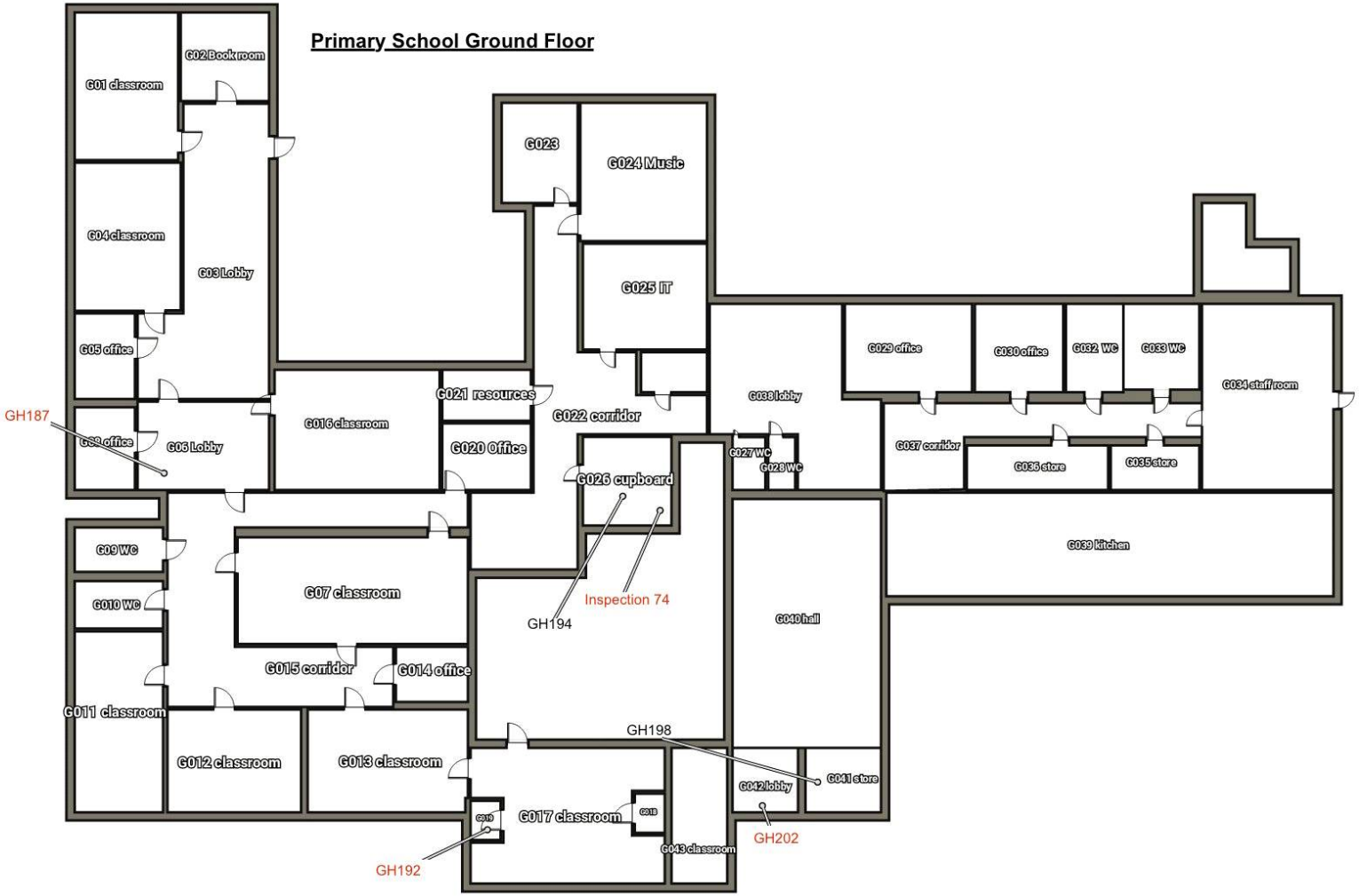
Additional Information	Accessibility
Unable to sample due to access restrictions	Usually inaccessible or unlikely to be disturbed

Recommendations	Review Date
Further Investigation & Sampling Required Prior to Disturbance	May 2019

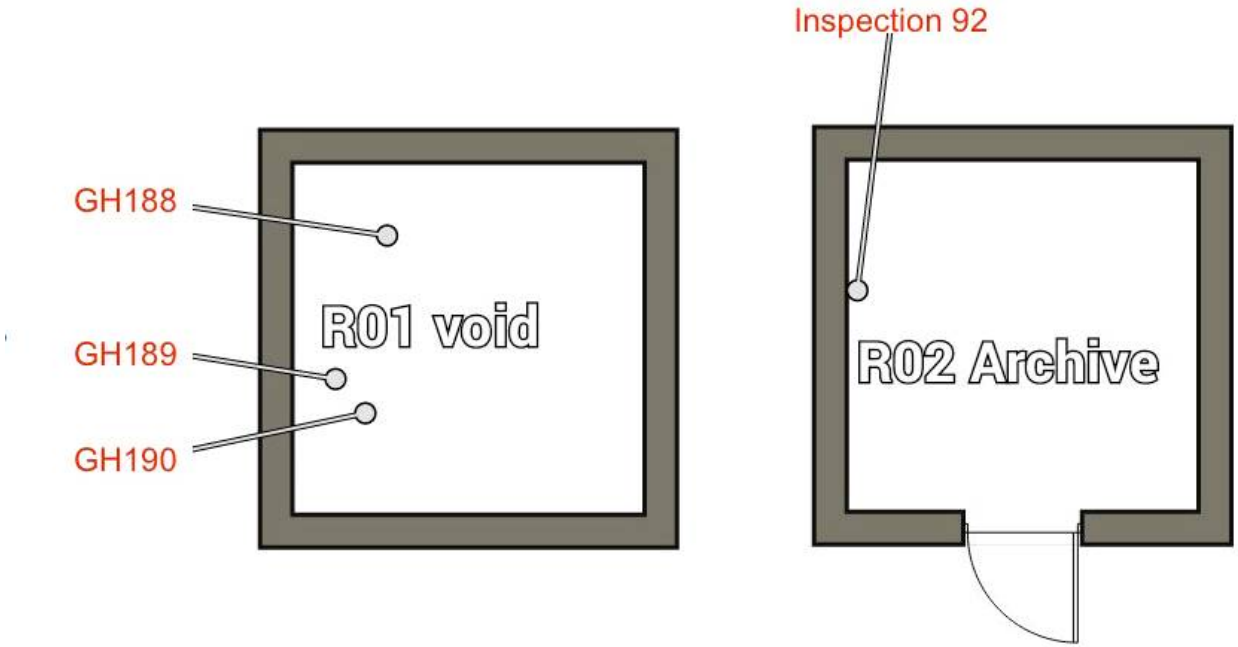


SITE PLAN	THIS SITE PLAN SHOULD BE READ IN CONJUNCTION WITH THE FULL ASBESTOS SURVEY REPORT	**KEY**	**Sample Numbers**	salvum safe in any language	9 Springfield Lyons Approach, Chelmsford, CM2 5LB.	**NOT TO SCALE**	Limitations of reported information The information contained within this report which identifies the locations of asbestos containing materials (ACMs) should not be treated as either exhaustive or definitive. It should always be assumed that there may be other ACMs present, hidden or undetected within the fabric of the building. Further investigations may be necessary when carrying out works likely to disturb the fabric of the building.
		Black Text	Negative Sample Number				
		Red Text	Positive Sample Number				

Primary School Ground Floor



SITE PLAN	THIS SITE PLAN SHOULD BE READ IN CONJUNCTION WITH THE FULL ASBESTOS SURVEY REPORT	**KEY**	**Sample Numbers**	salvum safe in any language	9 Springfield Lyons Approach, Chelmsford, CM2 5LB.	**NOT TO SCALE**	Limitations of reported information The information contained within this report which identifies the locations of asbestos containing materials (ACMs) should not be treated as either exhaustive or definitive. It should always be assumed that there may be other ACMs present, hidden or undetected within the fabric of the building. Further investigations may be necessary when carrying out works likely to disturb the fabric of the building.
		Black Text	Negative Sample Number				
		Red Text	Positive Sample Number				



SITE PLAN	THIS SITE PLAN SHOULD BE READ IN CONJUNCTION WITH THE FULL ASBESTOS SURVEY REPORT	**KEY**	**Sample Numbers**	salvum safe in any language	9 Springfield Lyons Approach, Chelmsford, CM2 5LB.	**NOT TO SCALE**	Limitations of reported information The information contained within this report which identifies the locations of asbestos containing materials (ACMs) should not be treated as either exhaustive or definitive. It should always be assumed that there may be other ACMs present, hidden or undetected within the fabric of the building. Further investigations may be necessary when carrying out works likely to disturb the fabric of the building.
		Black Text	Negative Sample Number				
		Red Text	Positive Sample Number				

UKAS TESTING 2707

SCOPES Asbestos Analysis Services Ltd.

CERTIFICATE FOR IDENTIFICATION OF ASBESTOS FIBRES

STANDARD ☐
PREMIUM ☐
EMERGENCY ☐

Client:	SALVUM LIMITED		
Address:	9 SPRINGFIELD LYONS APPROACH CHELMSFORD ESSEX CM2 5LB	Analysis Report No.	SCO/18/4571A
Attention:	TECHNICAL MANAGER	Report Date.	08/06/18
Site Address:	CORRINGHAM SCHOOL STANFORD LE HOPE SS17 9BH	Site Ref No.	J920
Date sample taken:	30/05/18	Page No:	1 Of 1
Date sample received:	05/06/18 & 08/06/18	No. of Samples:	10
Date of Analysis:	05/06/18 & 08/06/18	Obtained:	DELIVERED

Samples of material, referenced below, have been examined to determine the presence of asbestos fibres, using Scopes Asbestos Analysis "in house" method of transmitted/polarised light microscopy and centre stop dispersion staining, based on HSE's HSG248.
If samples have been DELIVERED the site address and actual sample location is as given by the client at the time of delivery. Scopes Asbestos Analysis Services Limited are not responsible for the accuracy or competence of the sampling by third parties. Under these circumstances Scopes Asbestos Analysis Services Limited cannot be held responsible for the interpretation of the results shown.

SCOPES SAMPLE No.	CLIENT SAMPLE No.	Sample Location	Fibre Type Detected
1	GH184	G01 STAFF ROOM- CEMENT PIPE	CHRYSOTILE/ CROCIDOLITE
2	GH185	G015 CUPBOARD- GREY THERMOPLASTIC FLOOR TILE AND BITUMEN	CHRYSOTILE TO BOTH
3	GH187	G06 LOBBY- TEXTURED COATING TO CEILING	CHRYSOTILE
4	GH188	R01 VOID- INSULATING BOARD DEBRIS	AMOSITE
5	GH189	R01 VOID- DUST	AMOSITE
6	GH190	R01 VOID- INSULATING BOARD UPSTANDS	AMOSITE
7	GH192	G019 CUPBOARD- BEIGE THERMOPLASTIC FLOOR TILE AND BITUMEN	CHRYSOTILE TO BITUMEN BACKING ONLY
8	GH202	G042 LOBBY- GREY THERMOPLASTIC FLOOR TILE AND BITUMEN	CHRYSOTILE TO BITUMEN BACKING ONLY
1	GH194	G026 ELECTRIC CUPBOARD- INSULATING BOARD LINING	NADIS
2	GH198	G041 STORE- BEIGE VINYL TILE	NADIS

KEY: NADIS - No Asbestos Detected in Sample

Note: All samples will be retained for a minimum of six months.
Note: This Certificate for Identification of Asbestos Fibres shall not be reproduced except in full without the written approval of the Laboratory.

Analysed by:	P ROWLAND & M ZHOU	Authorised signatory:	
		Print name:	**C.BOLTON – ADMINISTRATION MANAGER**

BULK 001-VER 5 12-AUGUST-09-QCM

Unit 14 Britannia Court, Burnt Mills Industrial Estate, Basildon, Essex, SS13 1EU
Tel: 01268 724785 Fax: 01268 724796 **Mob:** 07765 685132 **E-Mail:** enquiries@scopesaasl.co.uk
Company Reg No: 5191390 Reg Address: As above

APPENDIX E

Soil Investigation Report

FACTUAL REPORT OF BOREHOLE INVESTIGATION

DATE: 28-05-2019 & 29-05-2019.

SITE: Corringham Primary School, Herd Lane, Corringham, Essex. SS17 9BH.

FOR: Alderton Associates.

REF:

BY
ARKLEY SOIL INVESTIGATION LLP
FOUNDATION INVESTIGATION & TEST DRILLING
UNIT 10, REEDS FARM ESTATE,
ROXWELL ROAD,
WRITTLE, CHELMSFORD,
CM1 3ST
E-mail: arkleysi@btconnect.com

Site Plan

Sheet: 1 of 1

Ref No:

Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

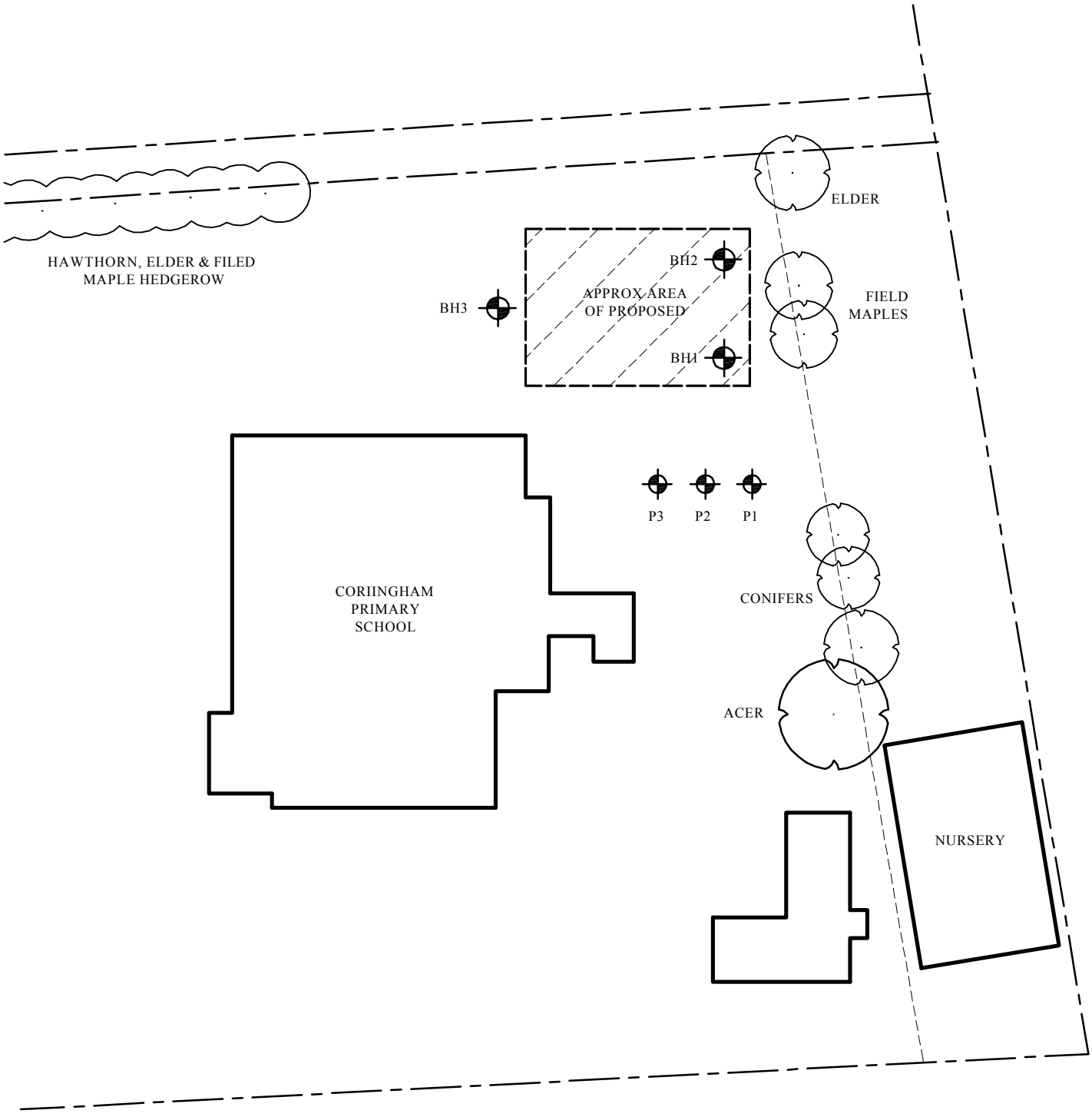
Tel: 01245 423948 / 07780 971533 Email: arkleysi@btconnect.com

Not to scale

Date: 28.5.19

Client: Alderton Associates

Site: Corringham Primary School
Herd Lane
Corringham
Essex



Remarks:

Tree identification not authenticated.

Key:

TP = Trial Pit
BH = Borehole
H = Approximate Height
G = Gulley
SVP = Soil vent pipe
IC = Inspection chamber
IL = Invert level
RWP = Rain water pipe

Borehole No: 1

Sheet: 1 of 1

Ref No:

Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

Tel: 01245 423948 / 07780 971533 Email: arkleysi@btconnect.com

Boring Method: 100mmØ CFA

Date: 28.519

Site: Corringham Primary School
Herd Lane
Corringham
Essex

Client: Alderton Associates

Depth (m)	Description	Thick-ness	Legend	Samples Type	Samples Depth	Insitu tests Type Result	Field comments	Depth to Water
G.L.	Turf over MADE GROUND: compact friable dark brown gravelly topsoil with pieces of brick & concrete rubble.	0.6		D	0.5	WAC	0.1 - Numerous roots of live appearance to 3mmØ. ↓ To 0.6m	
0.6	Medium dense/hard mid brown sandy silty GRAVEL.	0.2		D	1.0	M 50(20) Too dense to drive		
0.8	Medium dense moist light brown-orange gravelly SAND.	2.4		D	1.5	M 50(20) Too dense to drive		
				D	2.0	M 50(40) 50(40) 50(30) 50(30)		
				D	2.5			
				D	3.0	M 50(20) Too dense to drive		
3.2	Medium dense moist light brown gravelly SAND.	1.3		D	4.0	M 50(20) Too dense to drive		
4.5	Medium dense wet orange gravelly SAND.	0.5					Water strike @ →	4.5
5.0	BOREHOLE ENDS AT 5.0m			D	5.0	M 50 50(70) 50(60) 50(60)		

Remarks: Borehole collapsing from 0.8m on completion.

Key:
D = Small Disturbed sample
B = Bulk sample
U = Undisturbed sample
S.P.T. = Standard Penetration Test
M = Mackintosh Probe Penetration Test
V = Pilcon Vane Test
W = Water sample

Borehole No: 2

Sheet: 1 of 1

Ref No:

Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

Tel: 01245 423948 / 07780 971533 Email: arkleysi@btconnect.com

Boring Method: 100mmØ CFA

Date: 28.519

Site: Corringham Primary School
Herd Lane
Corringham
Essex

Client: Alderton Associates

Depth (m)	Description	Thick-ness	Legend	Samples Type	Samples Depth	Insitu tests Type Result	Field comments	Depth to Water
G.L.	Turf over MADE GROUND: compact/hard friable dark brown gravelly topsoil with flints & pieces of brick rubble.	0.4					0.1 - Several hair & fibrous roots ↓ To 0.5m	
0.4	MADE GROUND: compact dark brown topsoily gravel with flints.	0.3		D	0.5			
0.7	Medium dense orange-brown sandy silty clayey GRAVEL.	0.4		D	1.0	M 50(20) Too dense to drive		
1.1	Medium dense moist orange sandy silty GRAVEL.	0.4		D	1.5	M 50(20) Too dense to drive		
1.5	Medium dense moist light brown-orange gravelly SAND.	3.0		D	2.0	M 50(20) Too dense to drive		
				D	2.5			
				D	3.0	M 50(30) Too dense to drive		
				D	4.0	M 50(40) 50(20) Too dense to drive		
4.5	Medium dense wet orange gravelly SAND.	0.5					Water strike @ →	4.5
5.0	BOREHOLE ENDS AT 5.0m			D	5.0	M 50(70) 50(60) 50(60) 50(50)		

Remarks: Borehole collapsing from 1.5m on completion.

Key:
D = Small Disturbed sample
B = Bulk sample
U = Undisturbed sample
S.P.T. = Standard Penetration Test
M = Mackintosh Probe Penetration Test
V = Pilcon Vane Test
W = Water sample

Borehole No: 3

Sheet: 1 of 1

Ref No:

Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

Tel: 01245 423948 / 07780 971533 Email: arkleysi@btconnect.com

Boring Method: 100mmØ CFA

Date: 28.519

Site: Corringham Primary School
Herd Lane
Corringham
Essex

Client: Alderton Associates

Depth (m)	Description	Thick-ness	Legend	Samples Type	Samples Depth	Insitu tests Type Result	Field comments	Depth to Water
G.L.	Turf over MADE GROUND: compact/hard friable dark brown gravelly topsoil with flints & pieces of concrete rubble.	0.4					0.1 - Several hair & fibrous roots ↓	
0.4	MADE GROUND: compact dark brown topsoily gravel with flints.	0.3		D	0.5	WAC	To 0.5m	
0.7	Medium dense orange-brown sandy silty GRAVEL.	1.9		D	1.0	M 50(70) 50(20) Too dense to drive		
				D	1.5	M 50(20) Too dense to drive		
				D	2.0	M 50(20) Too dense to drive		
				D	2.5			
2.6	Medium dense moist light brown-orange gravelly SAND.	1.9		D	3.0	M 50(10) Too dense to drive		
				D	4.0	M 50(20) Too dense to drive		
4.5	Medium dense wet light brown-orange gravelly SAND.	0.5					Water strike @ →	4.5
5.0	BOREHOLE ENDS AT 5.0m			D	5.0	M 50(70) 50(60) 50(60) 50(60)		

Remarks: Borehole collapsing from 1.0m on completion.

Key:
D = Small Disturbed sample
B = Bulk sample
U = Undisturbed sample
S.P.T. = Standard Penetration Test
M = Mackintosh Probe Penetration Test
V = Pilcon Vane Test
W = Water sample

SOIL INVESTIGATION PHOTO SHEET.

SITE: Corringham Primary School, Herd Lane, Corringham, Essex. SS17 9BH.
DATE: 28th May 2019.
CLIENT: Alderton Associates.
REF:

Borehole 1

Borehole 1

Borehole 1

Borehole 2

Borehole 2

Borehole 2

Borehole 3

Borehole 3

Borehole 3

Borehole 1 complete

Borehole 2 complete

Borehole 3 complete

PERCOLATION TEST

SITE: Corringham Primary School, Herd Lane, Corringham, Essex SS17 9BH
DATE: 29-05-2019
BOREHOLE NUMBER: 1
BOREHOLE DIAMETER: 150mm
BOREHOLE DEPTH: 1.5M
SOIL TYPE: Gravelly SAND
INITIAL GROUNDWATER DEPTH: None

20 litres of water added.

TIME ELAPSED (MINS)	**Depth of water Below ground Level (mm)**
1	640
2	740
5	1000
10	1200
30	1390
60	1500
	Dry after 60 mins
Retest	
0	320
5	720
35	1300
65	1450
95	1500
	Dry after 95 minutes
Remarks: Soaked 20 litres of water in 60 mins retest in 95 mins	

PERCOLATION TEST

SITE: Corringham Primary School, Herd Lane, Corringham, Essex SS17 9BH
DATE: 29-05-2019
BOREHOLE NUMBER: 2
BOREHOLE DIAMETER: 150mm
BOREHOLE DEPTH: 2.0M
SOIL TYPE: Gravelly silty SAND
INITIAL GROUNDWATER DEPTH: None

20 litres of water added.

TIME ELAPSED (MINS)	**Depth of water Below ground Level (mm)**
0	1100
10	1300
25	1450
40	1630
70	1800
100	1870
130	1900
160	2000
	Dry after 160 mins
Retest	
0	1040
30	1200
60	1500
90	1640
120	1740
160	1800
	Soaked 760mm in 160 mins
Remarks: Soaked 20 litres of water in 160 mins retest soaked 760mm in 160 mins	

PERCOLATION TEST

SITE: Corringham Primary School, Herd Lane, Corringham, Essex SS17 9BH
DATE: 29-05-2019
BOREHOLE NUMBER: 3
BOREHOLE DIAMETER: 150mm
BOREHOLE DEPTH: 3.0M
SOIL TYPE: Gravelly SAND
INITIAL GROUNDWATER DEPTH: None

20 litres of water added.

TIME ELAPSED (MINS)	**Depth of water Below ground Level (mm)**
1	2100
2	2760
5	3000
	Dry after 5 mins
Retest	
0	2100
1	2550
5	3000
	Dry after 5 minutes
Remarks: Soaked 20 litres of water in 5 mins retest in 5 mins	

SOIL INVESTIGATION PHOTO SHEET.

SITE: Corringham Primary School, Herd Lane, Corringham, Essex. SS17 9BH.
DATE: 29th May 2019.
CLIENT: Alderton Associates.
REF:

Percolation test 1

Percolation test 1

Percolation test 1

Percolation test 2

Percolation test 2

Percolation test 2

Percolation test 3

Percolation test 3

Percolation test 3

Percolation test 1 complete

Percolation test 2 complete

Percolation test 3 complete

REPORT NOTES

Equipment Used:
Hand tools, mechanical concrete breaker & spade, hand augers and 100mm diameter open bored continuous flight auger (access permitting)

Insitu tests:
By Pilcon hand shear vane tester (KPa) in clay soils, and or Mackintosh probe penetration test(blows per 75mm) in granular soil or made ground.

Soil description:
Soil descriptions are on-site descriptions only.

Tree roots:
Tree roots relate to tree roots observed in trial pits and boreholes only.

Note:
Details reported in trial pits and boreholes relate to positions investigated only, as instructed by the client, on the date shown only. We therefore do not accept any responsibility for changes in soil conditions not investigated any variations due to climate, seasons, vegetation and varying ground water levels.

Full terms and conditions are available upon request.

By
ARKLEY SOIL INVESTIGATION LLP
FOUNDATION INVESTIGATION AND TEST DRILLING.
Unit 10, Reeds Farm Estate,
Roxwell Road,
Writtle, Chelmsford,
Essex.
CM1 3ST.

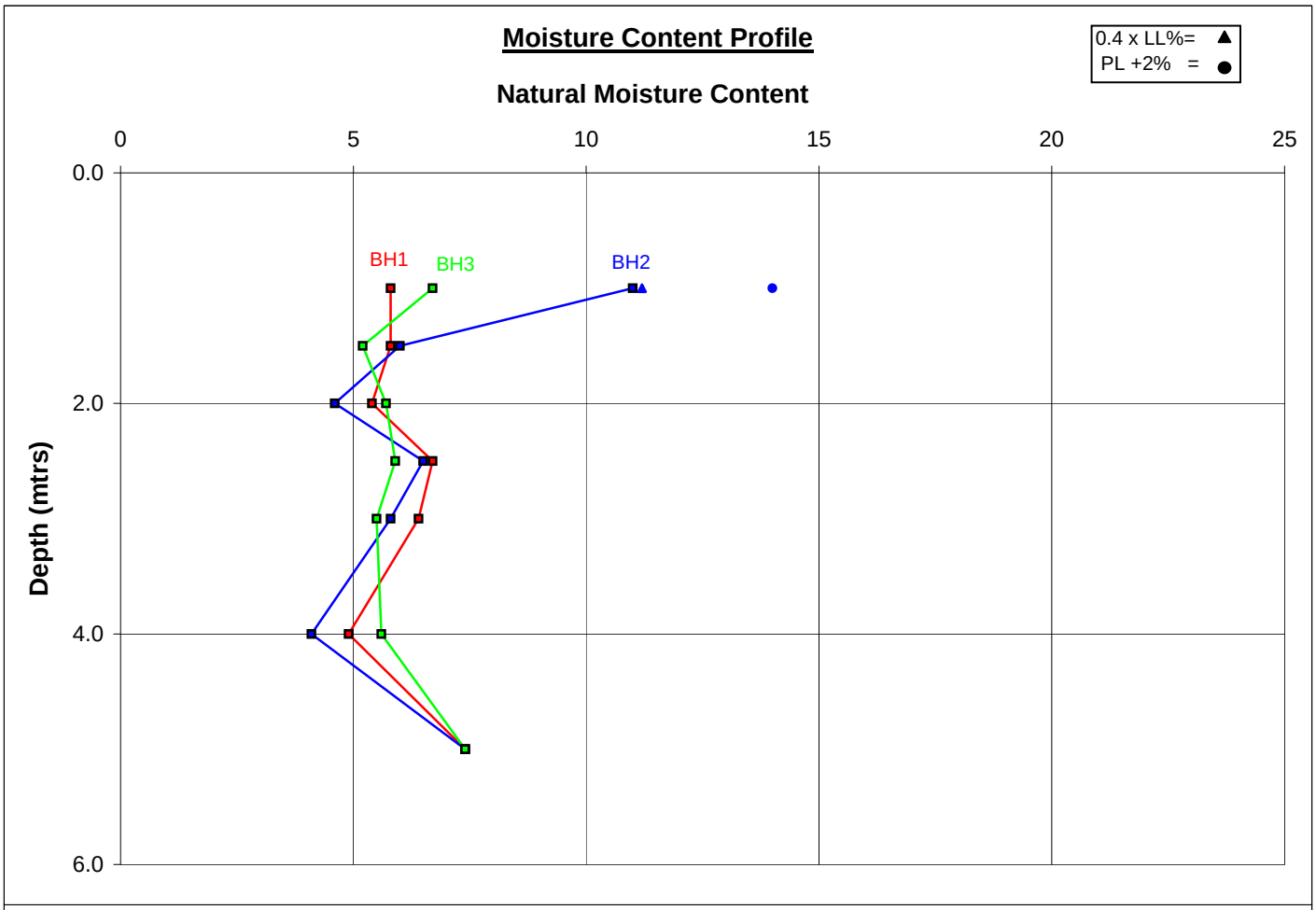
Meridian Soils Limited

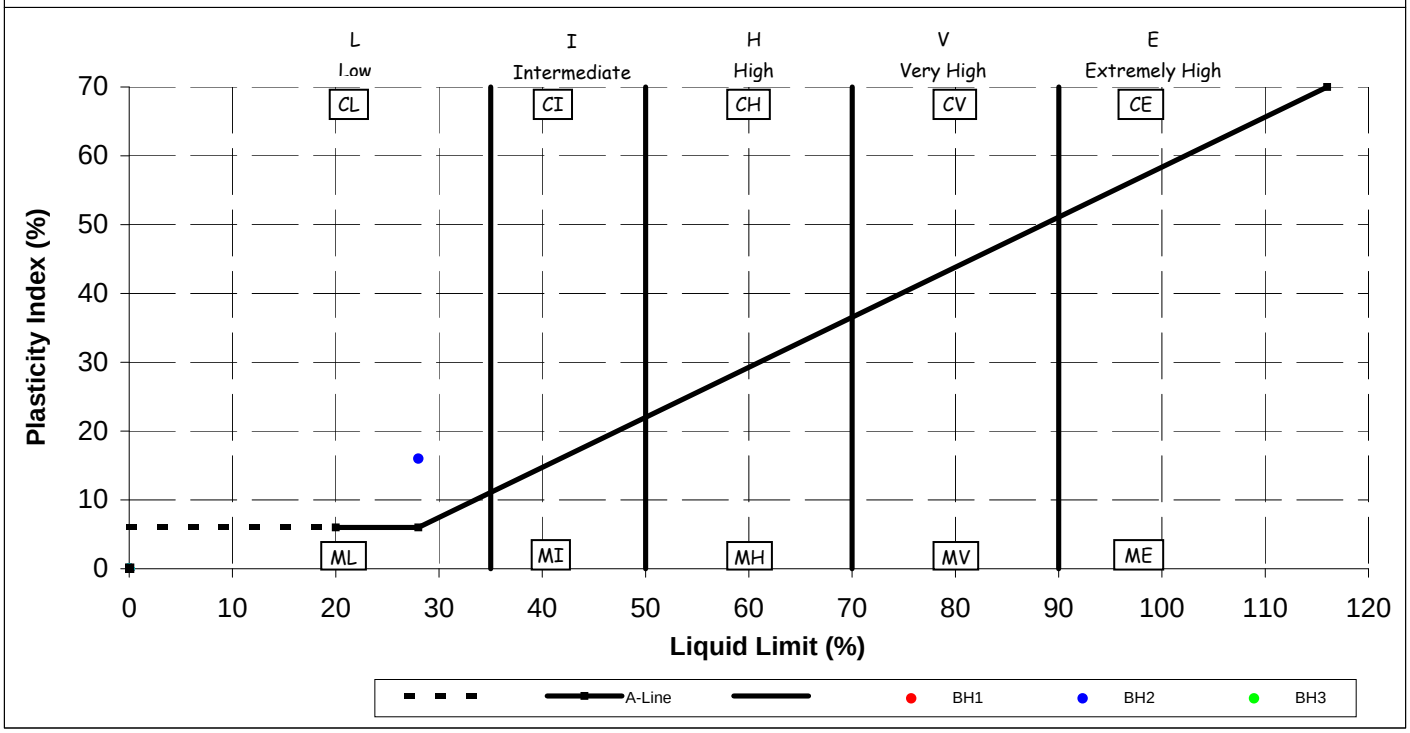
Electron House, Office & Technology Centre, West Hanningfield Road, Great Baddow, Essex. CM2 8JT
Telephone:- 01245 473113 E-mail:- mail@meridiansoils.co.uk Web:- www.meridiansoils.co.uk

Our Ref: S.10302 **Client Ref:**

Location: Corringham Primary School, Herd Lane, Corringham, Essex. **Date:** 14th June 2019

Moisture Content Profile





In Compliance with BS. 5930: 1982

Notes:

1) Unless specifically noted, the profiles have not been related to a site datum

2) If plotted, 0.4 LL and PL +2 (after Driscoll, 1983) should only be applied to London Clay (and similar overconsolidated clays) at shallow depths.

Meridian Soils Limited

Electron House, Office & Technology Centre, West Hanningfield Road, Great Baddow, Essex. CM2 8JT
Telephone :- 01245 473113 E-mail:- mail@meridiansoils.co.uk Web:- www.meridiansoils.co.uk

Our Ref: S.10302 **Client Ref:**
Location: Corringham Primary School, Herd Lane, Corringham, Essex. **Date:** 14th June 2019

TP/BH No.	Sample No.	Depth mtrs.	Moisture Content %	Passing 0.425um sieve %	Equivalent Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Soil Class	Modified Plasticity Index %	Water Soluble Sulphate (g/l^{-1} SO_4)	pH value	Sulphate Class
1		1.00	5.8			Non-Plastic							
		1.50	5.8								<0.01	7.5	DS-1
		2.00	5.4			Non-Plastic							
		2.50	6.7										
		3.00	6.4			Non-Plastic							
		4.00	4.9			Non-Plastic							
		5.00	7.4										

References
BS 1377:Part 2:1990
BS 5930:1981

Meridian Soils Limited

Electron House, Office & Technology Centre, West Hanningfield Road, Great Baddow, Essex. CM2 8JT
Telephone :- 01245 473113 E-mail:- mail@meridiansoils.co.uk Web:- www.meridiansoils.co.uk

Our Ref: S.10302 **Client Ref:**

Location: Corringham Primary School, Herd Lane, Corringham, Essex. **Date:** 14th June 2019

TP/BH No.	Sample No.	Depth mtrs.	Moisture Content %	Passing 0.425um sieve %	Equivalent Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Soil Class	Modified Plasticity Index %	Water Soluble Sulphate (g/l^{-1} SO_4)	pH value	Sulphate Class
2		1.00	11	60	18	28	12	16	CL	10			
		1.50	6.0										
		2.00	4.6			Non-Plastic							
		2.50	6.5										
		3.00	5.8			Non-Plastic							
		4.00	4.1			Non-Plastic							
		5.00	7.4										

References

BS 1377:Part 2:1990
BS 5930:1981

Meridian Soils Limited

Electron House, Office & Technology Centre, West Hanningfield Road, Great Baddow, Essex. CM2 8JT
Telephone :- 01245 473113 E-mail:- mail@meridiansoils.co.uk Web:- www.meridiansoils.co.uk

Our Ref: S.10302 **Client Ref:**

Location: Corringham Primary School, Herd Lane, Corringham, Essex. **Date:** 14th June 2019

TP/BH No.	Sample No.	Depth mtrs.	Moisture Content %	Passing 0.425um sieve %	Equivalent Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Soil Class	Modified Plasticity Index %	Water Soluble Sulphate (g/l^{-1} SO_4)	pH value	Sulphate Class
3		1.00	6.7			Non-Plastic							
		1.50	5.2								<0.01	7.4	DS-1
		2.00	5.7			Non-Plastic							
		2.50	5.9										
		3.00	5.5			Non-Plastic							
		4.00	5.6			Non-Plastic							
		5.00	7.4										

References

BS 1377:Part 2:1990
BS 5930:1981

Site Analytical Services Ltd.

Site Investigations, Analytical & Environmental Chemists, Laboratory Testing Services.

Units 14 + 15, River Road Business Park,
33 River Road, Barking, Essex IG11 0EA

Tel: 0208 594 8134
Fax: 0208 594 8072
E-Mail: services@siteanalytical.co.uk

Directors: J. S. Warren, M.R.S.C., P. C. Warren, J. I. Pattinson, BSc (Hons), MSc
Consultants: G. Evans, BSc., M.Sc., P.G. Dip., FGS., MIEnvSc. A. J. Kingston, BSc C.Eng. MIMM
F. J. Gibbs, F.I.B.M.S. F.I.F.S.T., F.R.S.H. K. J. Blanchette

Your Ref: ORDER NO. S.10302
MR NEIL HAWKINS

Our Ref: 19/30216
JSW/LB

SAMPLES OF 'SOIL'. SAMPLE DATE: 29.05.19
EX: CORRINGHAM PRIMARY SCHOOL, HERD LANE, CORRINGHAM, ESSEX

SUBMITTED BY MERIDIAN SOILS LIMITED

RECEIVED ON 30th MAY 2019

INTRODUCTION

Two samples of the above material were received into the laboratory for Waste Acceptance Criteria (WAC) analysis in order to determine the classification of the material for landfill purposes.

The samples were referenced 'BH1 @ 0.50m' and 'BH3 @ 0.50m'.

RESULTS

WASTE CLASSIFICATION	
'Sample BH1'	**NON-HAZARDOUS WASTE**
'Sample BH2'	**NON-HAZARDOUS WASTE**

Site Analytical Services Ltd.

Ref: 19/30216

COMMENTS

The samples were analysed using the 'Catwastesoil' assessment tool, which concluded that the samples were not hazardous in nature. For the purpose of waste disposal, it is likely that the soil samples submitted would be classified as:

'Sample BH1' **Non-Hazardous Waste**

The concentration of Fluoride encountered was in excess of the Upper Acceptance Limits for Inert waste.

'Sample BH2' **Non-Hazardous Waste**

The concentration of Fluoride encountered was in excess of the Upper Acceptance Limits for Inert waste.

p.p. SITE ANALYTICAL SERVICES LIMITED

7th June 2019

Aubrey Davidson BSc MSc DIC
Environmental Engineer

A P P E N D I X ‘A’

Laboratory Test Data

4480

Aubrey Davidson
Site Analytical Services Ltd
Units 14 & 15
River Road Business Park
33 River Road
Barking
Essex
IG11 0EA

DETS Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 19-07700

Site Reference:	Corringham Primary
Project / Job Ref:	19/30216
Order No:	5481
Sample Receipt Date:	31/05/2019
Sample Scheduled Date:	31/05/2019
Report Issue Number:	1
Reporting Date:	06/06/2019

Authorised by:

Dave Ashworth
Deputy Quality Manager

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate							
DETS Report No: 19-07700	Date Sampled	30/05/19	30/05/19				
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied				
Site Reference: Corringham Primary	TP / BH No	BH1	BH3				
Project / Job Ref: 19/30216	Additional Refs	None Supplied	None Supplied				
Order No: 5481	Depth (m)	0.50	0.50				
Reporting Date: 06/06/2019	DETS Sample No	411721	411722				

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected	Not Detected			
pH	pH Units	N/a	MCERTS	7.1	6.9			
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Complex Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Free Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Total Sulphate as SO_4	mg/kg	< 200	NONE	388	274			
Total Sulphate as SO_4	%	< 0.02	NONE	0.04	0.03			
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS	16	19			
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS	0.02	0.02			
Sulphide	mg/kg	< 5	NONE	< 5	< 5			
Organic Matter	%	< 0.1	MCERTS	2.1	2			
Total Organic Carbon (TOC)	%	< 0.1	MCERTS	1.2	1.2			
Arsenic (As)	mg/kg	< 2	MCERTS	9	8			
W/S Boron	mg/kg	< 1	NONE	< 1	< 1			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	16	16			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	18	16			
Lead (Pb)	mg/kg	< 3	MCERTS	48	30			
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	10	10			
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3			
Zinc (Zn)	mg/kg	< 3	MCERTS	81	66			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C
Subcontracted analysis (S)

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - Speciated PAHs							
DETS Report No: 19-07700	Date Sampled	30/05/19	30/05/19			
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: Corringham Primary	TP / BH No	BH1	BH3			
Project / Job Ref: 19/30216	Additional Refs	None Supplied	None Supplied			
Order No: 5481	Depth (m)	0.50	0.50			
Reporting Date: 06/06/2019	DETS Sample No	411721	411722			

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	0.38	0.32			
Pyrene	mg/kg	< 0.1	MCERTS	0.36	0.28			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.32	0.25			
Chrysene	mg/kg	< 0.1	MCERTS	0.15	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.38	0.28			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.12	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.29	0.18			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.22	0.14			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Coronene	mg/kg	< 0.1	NONE	< 0.1	< 0.1			
Total Oily Waste PAHs	mg/kg	< 1	MCERTS	1.5	< 1			
Total Dutch 10 PAHs	mg/kg	< 1	MCERTS	1.5	< 1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	2.2	< 1.6			
Total WAC-17 PAHs	mg/kg	< 1.7	NONE	2.2	< 1.7			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - TPH CWG Banded							
DETS Report No: 19-07700	Date Sampled	30/05/19	30/05/19				
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied				
Site Reference: Corringham Primary	TP / BH No	BH1	BH3				
Project / Job Ref: 19/30216	Additional Refs	None Supplied	None Supplied				
Order No: 5481	Depth (m)	0.50	0.50				
Reporting Date: 06/06/2019	DETS Sample No	411721	411722				

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3			
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3			
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10			
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2			
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2			
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2			
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3			
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10			
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21			
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - BTEX / MTBE							
DETS Report No: 19-07700	Date Sampled	30/05/19	30/05/19			
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: Corringham Primary	TP / BH No	BH1	BH3			
Project / Job Ref: 19/30216	Additional Refs	None Supplied	None Supplied			
Order No: 5481	Depth (m)	0.50	0.50			
Reporting Date: 06/06/2019	DETS Sample No	411721	411722			

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	5	< 2			
Toluene	ug/kg	< 5	MCERTS	< 5	< 5			
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2			
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
MTBE	ug/kg	< 5	MCERTS	< 5	< 5			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

DETS Ltd
: 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3

DETS Report No: 19-07700	**Date Sampled**	30/05/19	
Site Analytical Services Ltd	**Time Sampled**	None Supplied	
Site Reference: Corringham Primary	**TP / BH No**	BH1	
Project / Job Ref: 19/30216	**Additional Refs**	None Supplied	
Order No: 5481	**Depth (m)**	0.50	
Reporting Date: 06/06/2019	**DETS Sample No**	411721	

Determinand	**Unit**	**MDL**		**Landfill Waste Acceptance Criteria Limits**		
				Inert Waste Landfill	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
TOC[MU]	%	< 0.1	1.2	3%	5%	6%
Loss on Ignition	%	< 0.01	2.90	--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05	6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1	1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10	500	--	--
Total PAH[MU]	mg/kg	< 1.7	2.2	100	--	--
pH[MU]	pH Units	N/a	7.1	--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1	--	To be evaluated	To be evaluated

Eluate Analysis	**2:1 mg/l**	**8:1 mg/l**		**Cumulative 10:1 mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic[U]	< 0.01	< 0.01		< 0.2	0.5	2	25
Barium[U]	< 0.02	< 0.02		< 0.1	20	100	300
Cadmium[U]	< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium[U]	< 0.005	< 0.005		< 0.20	0.5	10	70
Copper[U]	0.01	< 0.01		< 0.5	2	50	100
Mercury[U]	< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum[U]	0.012	0.005		< 0.1	0.5	10	30
Nickel[U]	< 0.007	< 0.007		< 0.2	0.4	10	40
Lead[U]	< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony[U]	< 0.006	< 0.006		< 0.06	0.06	0.7	5
Selenium[U]	< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc[U]	< 0.005	< 0.005		< 0.2	4	50	200
Chloride[U]	1	< 1		< 12	800	15000	25000
Fluoride[U]	1.4	1.1		11.3	**10**	150	500
Sulphate[U]	4	1		< 20	1000	20000	50000
TDS	138	76		824	4000	60000	100000
Phenol Index	< 0.01	< 0.01		< 0.5	1	-	-
DOC	19.3	15		155	500	800	1000
Leach Test Information							
Sample Mass (kg)	0.19						
Dry Matter (%)	94.1						
Moisture (%)	6.2						
Stage 1							
Volume Eluate L2 (litres)	0.34						
Filtered Eluate VE1 (litres)	0.18						

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepencies with current legislation
M Denotes MCERTS accredited test
U Denotes ISO17025 accredited test

DETS Ltd
: 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

UKAS TESTING 4480

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3

DETS Report No: 19-07700	**Date Sampled**	30/05/19	
Site Analytical Services Ltd	**Time Sampled**	None Supplied	
Site Reference: Corringham Primary	**TP / BH No**	BH3	
Project / Job Ref: 19/30216	**Additional Refs**	None Supplied	
Order No: 5481	**Depth (m)**	0.50	
Reporting Date: 06/06/2019	**DETS Sample No**	411722	

Determinand	**Unit**	**MDL**		**Landfill Waste Acceptance Criteria Limits**		
				Inert Waste Landfill	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
TOC[MU]	%	< 0.1	1.2	3%	5%	6%
Loss on Ignition	%	< 0.01	2.70	--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05	6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1	1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10	500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7	100	--	--
pH[MU]	pH Units	N/a	6.9	--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1	--	To be evaluated	To be evaluated

Eluate Analysis	**2:1 mg/l**	**8:1 mg/l**		**Cumulative 10:1 mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic[U]	< 0.01	< 0.01		< 0.2	0.5	2	25
Barium[U]	< 0.02	< 0.02		< 0.1	20	100	300
Cadmium[U]	< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium[U]	< 0.005	< 0.005		< 0.20	0.5	10	70
Copper[U]	< 0.01	< 0.01		< 0.5	2	50	100
Mercury[U]	< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum[U]	0.007	0.003		< 0.1	0.5	10	30
Nickel[U]	< 0.007	< 0.007		< 0.2	0.4	10	40
Lead[U]	< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony[U]	< 0.006	< 0.006		< 0.06	0.06	0.7	5
Selenium[U]	< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc[U]	< 0.005	< 0.005		< 0.2	4	50	200
Chloride[U]	2	1		< 12	800	15000	25000
Fluoride[U]	1.3	1.1		11.2	**10**	150	500
Sulphate[U]	8	2		23	1000	20000	50000
TDS	129	72		766	4000	60000	100000
Phenol Index	< 0.01	< 0.01		< 0.5	1	-	-
DOC	14.6	11.3		115	500	800	1000

Leach Test Information						
Sample Mass (kg)	0.19					
Dry Matter (%)	93.2					
Moisture (%)	7.4					
Stage 1						
Volume Eluate L2 (litres)	0.34					
Filtered Eluate VE1 (litres)	0.14					

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepencies with current legislation
M Denotes MCERTS accredited test
U Denotes ISO17025 accredited test

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 19-07700	
Site Analytical Services Ltd	
Site Reference: Corringham Primary	
Project / Job Ref: 19/30216	
Order No: 5481	
Reporting Date: 06/06/2019	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
411721	BH1	None Supplied	0.50	5.8	Brown loamy sand with stones and concrete
411722	BH3	None Supplied	0.50	7.1	Brown loamy sand with stones and concrete

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample I/S

Unsuitable Sample U/S

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 19-07700
Site Analytical Services Ltd
Site Reference: Corringham Primary
Project / Job Ref: 19/30216
Order No: 5481
Reporting Date: 06/06/2019

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

APPENDIX F

Topographical Survey and Utilities Plan

TOPOGRAPHICAL & MEASURED BUILDING SURVEYS

ABBREVIATIONS & SYMBOLS

AH	Arch Head Height	FH	Fire Hydrant	RSJ	Rolled Steel Joist
AR	Assumed Route	FBD	Floor Board Direction	SI	Sign Post
AV	Air Valve	FH	Fire Hydrant	SP	Arch Spring Point Height
BB	Belisha Beacon	FL	Floor Level	SV	Stop Valve
BH	Bore Hole	FP	Flag Pole	SW	Surface Water
BL	Bed Level	FW	Foul Water	SY	Stay
BO	Bollard	GG	Gully Grate	Tac	Tactile Paving
BrP	Brace Post	GV	Gas Valve	TC	Telecom Cover
BS	Bus Stop	HH	Head Height	TH	Trial Pit
BU	Bush	IC	Inspection Cover	THL	Threshold Level
BW	Barbed Wire Fence	IL	Invert Level	TL	Traffic Light
BX	Box (Utilities)	IR	Iron Railings	ToW	Top of Wall
C/B	Close Board Fence	KO	Kerb Outlet	TP	Telegraph Pole
CH	Cill Height	LP	Lamp Post	TV	Cable TV Cover
CL	Cover Level	MH	Manhole	UB	Universal Beam
CL	Chain Link Fence	MP	Marker Post	UC	Unknown Cover
C-Lev	Ceiling Level	MB	Marine Board	UP	Unknown Pipe
Col	Column	OHL	Overhead Line (approx)	USB	Under Side Beam
CrP	Chestnut Paling Fence	Pan	Panel Fence	UTL	Unable To Lift
CR	Cabra Riser	PB	Post Box	VP	Vent Pipe
DC	Drainage Channel	PM	Parking Meter	WB	Waste Bin
DH	Door Head Height	PO	Post	WH	Weep Holes
DP	Down Pipe	P/R	Post & Rail Fence	WL	Water Level
DR	Drain	P/W	Post & Wire Fence	WM	Water Meter
EL	Eaves Level	P/Wall	Partition Wall	WO	Wash Out
EP	Electric Pole	RE	Rodding Eye		Floor to Ceiling Height
ER	Earth Rod	RL	Ridge Level		F/C Floor to False Ceiling Ht
ET	EP+Transformer	RP	Reflector Post		Survey Control Station
FB	Flower Bed	RS	Road Sign		
FBD	Floor Board Direction	RSD	Roller Shutter Door		

DRAWING NOTE

Topographical Surveys

Trees are drawn to scale showing the average canopy spread. Descriptions and heights should be used as a guide only.

All building names, descriptions, number of storeys, construction type including roof line details are indicative only and taken externally from ground level.

All below ground details including drainage, voids and services have been identified from above ground and therefore all details relating to these features including; sizes, depth, description etc will be approximate only. All critical dimensions and connections should be checked and verified prior to starting work.

Detail, services and features may not have been surveyed if obstructed or not reasonably visible at the time of the survey.

Measured Building Surveys

Measurements to internal walls are taken to the wall finishes at approx 1m above the floor level and the wall assumed to be vertical.

Cill heights are measured as floor to the cill and head heights are measured from cill to the top of window.

General

The contractor must check and verify all site and building dimensions, levels, utilities and drainage details and connections prior to commencing work. Any errors or discrepancies must be notified to Survey Solutions immediately.

The accuracy of the digital data is the same as the plotting scale implies. All dimensions are in metres unless otherwise stated.

The survey control listed is only to be used for topographical surveys at the stated scale. All control must be checked and verified prior to use.

Do not scale from this drawing.

CONTROL CO-ORDINATES

STATIONS	EASTINGS	NORTHINGS	LEVEL	DESCRIPTION
ST01	571177.557	183520.173	16.505	PK Nail
ST02	571216.284	183476.695	16.471	PK Nail
ST03	571211.411	183433.015	15.591	PK Nail
ST04	571168.115	183431.966	15.762	PK Nail
ST05	571138.077	183435.352	16.690	PK Nail
ST06	571147.012	183481.498	16.601	PK Nail

SURVEY GRID AND LEVEL DATUM

The co-ordinate system established for this survey is related to Ordnance Survey (OS) national grid at a single point using GPS Smartnet, then orientated to Grid North with a scale factor of 1.000.

The level datum established for this survey is related to Ordnance Survey (OS) using GPS Smartnet.

To avoid discrepancies, any co-ordinated data used in conjuction with this survey must be derived directly from this control data.

REV	DESCRIPTION	DRAWN	APPR.	DATE

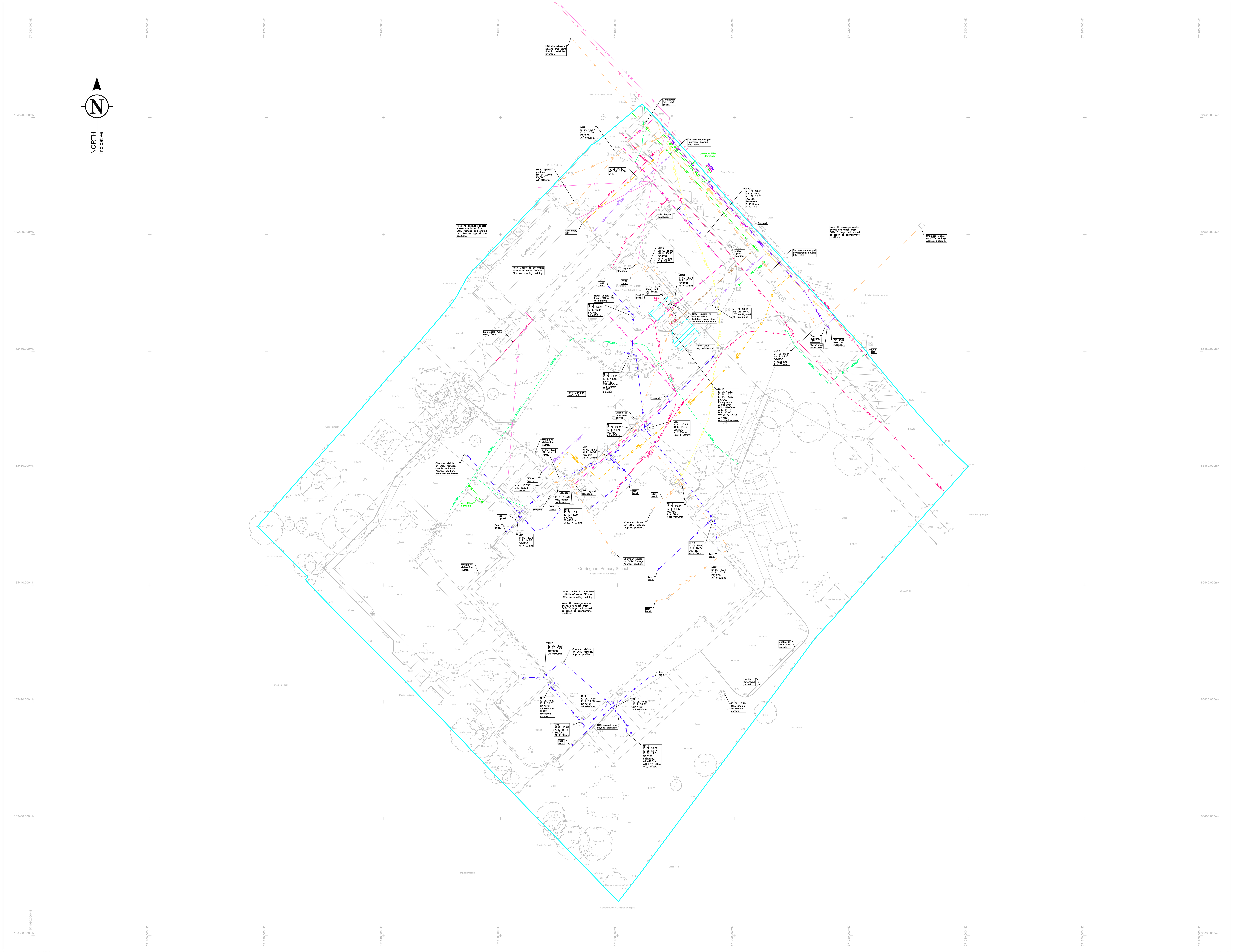
SURVEY SOLUTIONS

Ipswich Coventry Yeovil Norwich Perth Nottingham Brentwood

Tel No: 0845 0405 969 Fax No: 0845 0405 970
www.survey-solutions.co.uk enquiries@survey-solutions.co.uk

LAND SURVEYING BUILDING SURVEYING UNDERGROUND SURVEYING

PROJECT TITLE: CORRINGHAM PRIMARY SCHOOL, HERD LANE, CORRINGHAM, STANFORD-LE-HOPE, SS17 9BH.				
DRAWING DETAIL: TOPOGRAPHICAL SURVEY Sheet 1 of 1				SCALE: 1:200
CLIENT: ALDERTON ASSOCIATES LTD				
SURVEYOR: RH	SURVEY DATE: 14/05/2019	CHECKED BY: AK	APPROVED BY: JM	DWG STATUS: FINAL
DRAWING NUMBER: 24318se-01			REVISION:	ISSUE DATE: 21/05/2019



UTILITIES & UNDERGROUND INVESTIGATIONS

ABBREVIATIONS & SYMBOLS

1D 5C	1 Duct 5 Cables	CPC	Circ Plastic Chamber	EOT	End Of Trace
Ø	Diameter	CrL	Crown Level	IBD	Internal Backdrop
AR	Assumed Route	DCr	Depth To Crown	IL	Invert Level
BL	Base Level	DI	Depth To Invert	RBC	Rectangular Brick Chamber
CB	Concrete Benching	DS	Depth To Silt	RCC	Rectangular Conc Chamber
CBC	Circular Brick Chamber	DTB	Depth To Base	SL	Silt Level
CCC	Circular Conc Chamber	DTW	Depth To Water	SuL	Surcharge Level
CL	Cover Level	DTS	Depth To Surcharge	UTC	Unable To CCTV
				UTL	Unable To Lift
				UTT	Unable To Trace
				TFR	Taken From Records
				PDR	Poor Depth Response
				EBD	External Backdrop

BT — BT CABLE(S)
O/BT — OVERHEAD BT CABLE(S)
COM — COMMUNICATIONS CABLE(S)
CTV — CABLE TV CABLE(S)
E — ELECTRIC CABLE(S)
O/E — OVERHEAD ELECTRIC CABLE(S)
FO — FIBREOPTIC CABLE(S)
GM — GAS MAIN
GS — GAS SERVICE
GPR — GROUND PENETRATING RADAR (GPR) TRACE
HW — HOT WATER PIPE
LC — LIGHTING CIRCUIT
SEC — SECURITY CABLING
UIT — UNIDENTIFIED TRACE
WM — WATER MAIN
WS — WATER SERVICE
COMBINED SEWER
FOUL SEWER
RISING MAIN
SURFACE WATER SEWER
INVESTIGATION EXTENTS

MH CL 48.93 — UTILITIES COMMENT BOX
d0.63m — DEPTH TO SERVICE
??–AR — SERVICE ASSUME ROUTE
??–TFR — SERVICE TAKEN FROM RECORDS

DRAWING NOTES

All below ground details shown have been identified from above ground without excavation. Survey Solution use electro-magnetic and/or ground penetrating radar (GPR) methods to investigate for underground utilities, services and features. Results using these methods are not infallible and we recommend trial excavations are carried out to confirm any identifications, positions and depths.

Any areas on the drawing where services or features have not been shown are not necessarily clear of services or features but are an indication that no items have been identified during our investigations. All reasonable care and normal good practice should still be employed during design and construction processes.

Certain types of services such as plastic or concrete pipes, some conduit and ducting where direct access can not be achieved for tracing may not be shown and alternative locating methods should be used.

Survey Solutions has used all reasonable care to research available service records but the completeness or use of the service records supplied to or by Survey Solutions cannot be guaranteed. Therefore Survey Solutions cannot be held responsible for any features annotated as 'taken from records' (TFR).

Depths obtained using electro-magnetic or GPR are effected by ground conditions and should be treated as indicative only. Electro-magnetic depths to utilities and services are generally taken to the centre of a feature, GPR depths to the top of a feature and drainage depth shown to inverts, unless otherwise indicated.

Drainage pipe sizes will be obtained without entering the camber and therefore should be treated as approximate. Pipe dimensions which have not been obtained visually will be taken from records when available.

All services, drainage and utilities routes are assumed straight between access points, unless otherwise stated. The numbers of cables in runs will not be shown unless specifically requested. All services are below ground unless indicated.

Services, utilities and features may not have been surveyed if obstructed or not reasonably visible or accessible at the time of survey.

Survey Solutions accept no responsibility for the completeness or accuracy of either the topographical survey or base mapping on this project.

All critical dimensions and measurements should be checked and verified with any errors or discrepancies notified to Survey Solutions immediately. The accuracy of the digital data is the same as the plotting scale implies. All dimensions are in metres unless otherwise stated.

The contractor must check and verify all site and building dimensions, levels, utilities and drainage details and connections prior to commencing work.

Do not scale from this drawing.

AVAILABILITY OF UTILITY RECORD DRAWINGS

UTILITY	AVAILABILITY	UTILITY	AVAILABILITY	UTILITY	AVAILABILITY
SEWER	PUBLIC	BT	PUBLIC	OIL PIPES	NO
WATER MAIN	PUBLIC	CABLE TV	NO	OTHERS	NO
GAS MAIN	PUBLIC	ELECTRICITY	PUBLIC		

REV	DESCRIPTION	DRAWN	CHECKED	APPR	SURVEY DATE

SURVEY SOLUTIONS

Ipswich Coventry Yeovil Norwich Perth Nottingham Brentwood

Tel No: 0845 0405 969 Fax No: 0845 0405 970
www.survey-solutions.co.uk enquiries@survey-solutions.co.uk

LAND SURVEYING BUILDING SURVEYING UNDERGROUND SURVEYING

PROJECT TITLE
CORRINGHAM PRIMARY SCHOOL, HERD LANE, CORRINGHAM, STANFORD-LE-HOPE, SS17 9BH.

DRAWING DETAIL
UTILITIES AND CCTV DRAINAGE SURVEY.
SHEET 1 OF 1

CLIENT				SCALE
ALDERTON ASSOCIATES LTD				1:200
SURVEYOR	SURVEY DATE	CHECKED BY	APPROVED BY	DWG STATUS
GSB/JRN	28/05/2019	SJH	RAG	FINAL
DRAWING NUMBER			REVISION	ISSUE DATE
24318UG-01				07/06/2019

Original Sheet Size A0H