Design and Refurbishment of Big Lottery Fund's Offices at Apex House

Pre-construction Information

May 2016

1. **The Project**

   The Big Lottery Fund (BLF) currently occupies the whole of Apex House under a full repair and maintenance lease. As of the 8th September 2016 the Fund will enter into a new lease with the Landlord under a multiple tenancy agreement.

   The new lease will see the communal areas, including basement, reception, lifts, stairwells, toilets, roof, plant rooms and external areas return to Landlord control. BLF will then occupy floors 2 3 and 4 with the westerly half of floor 2 being sub-let to another government organisation

   The project is to refurbish the 2nd, 3rd and 4th floors of Apex house to make them compliant with Government Property Unit guidelines on office accommodation which includes greater density of occupation and the need to achieve circa 9 desks for every 10 employees.

   Further the office layouts are no longer efficient and the spaces need to be modernised. The project will include:-

   - Replacement of the existing Fan Coil Units on the 3 floors on a like for like basis with upgraded controls (ceilings to be replaced as necessary)
   - Re-working of the existing kitchens
   - General re-decoration
   - Re-working existing meeting rooms
   - Furniture

   The project works will be undertaken with the building in occupation, there is sufficient capacity to accommodate all staff in two and a half floors of the building and it is proposed that the works are undertaken on a half floor at a time basis.

2. **Key Dates**

   The Landlord will be undertaking key repair and upgrade works to the communal areas, including basement, reception, lifts, stairwells, toilets, roof, plant rooms and external areas under a 16 week programme. It is anticipated that this will commence in June 2016 and run until late September – early October 2016.

   BLF anticipate that the Apex House refurbishment works will commence late September and the works will be co-ordinated to minimise cross-over

   The Lease renewal date for Apex House is 8th September 2016

   There are no longstop dates for completion of the BLF works.

3. **Contact Details**

   The Project Manager is:-

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07831211429

The Employer / Client is Big Lottery fund represented by the following, who are located at Apex House, 3 Embassy Drive, Edgbaston, Birmingham, B15 1TR:-

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The Consultant Engineer is:-
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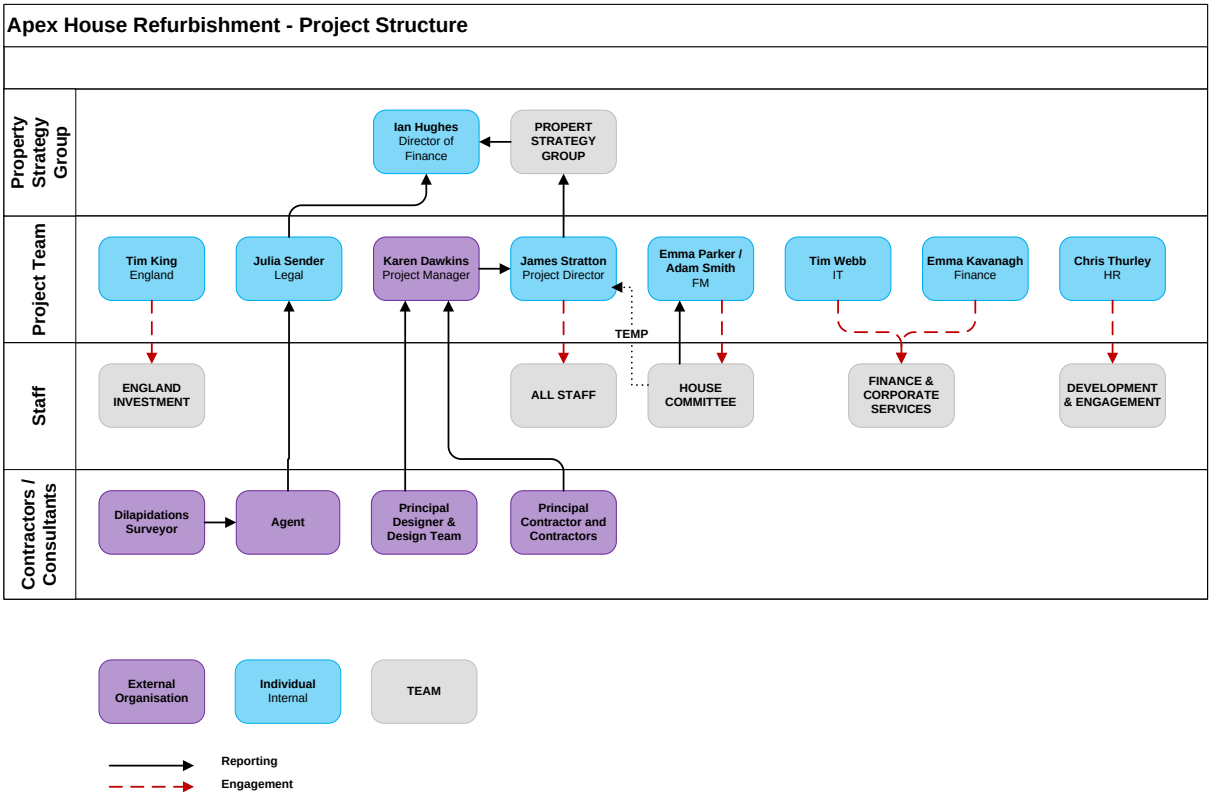
07817972172

4. Project Arrangements

- Planning the construction work – The project will be procured using design and build arrangements. Because of the need to undertake the works with staff in-situ; BLF are keen to appoint a contractor with appropriate skills, knowledge and experience as early in the design process as possible. Some indicative design work has been undertaken to allow the procurement process to commence, however the successful contractor will take on the role of Principal Designer and Principal Contractor. The contractor will be responsible for the designs going forward and will be required to revise any existing information, where necessary, to ensure that design risks are appropriately managed.

- Managing the Construction Work – The construction work will be managed by the Project Manager who will act as the Employer's Agent under the JCT 2011 Design and Build form of contract. The Project Manager will be responsible for all primary communication with the Contractor. It should be noted that the Employer employs their own in house team of construction experts and the Project Manager may, from time to time, be supported by the members of this team. All requests for information, variations and communications will be made through the PM.

5. Project Structure



6. Security

Up until the 7th September, BLF will be responsible for general security at Apex House, except where areas have been released to the Landlord for the completion of the Landlord repair and upgrade works.

As of the 8th September, the responsibility for building security will revert to the Landlord; BLF will retain security for access to the IT comms rooms and HR Stores on the 4th Floor.

The security system is an electronic pass card arrangement that releases mag locks on the 2 main doors from the lift lobby on each floor. Additionally the two fire escape stairs at each end of the building have similar controls. Egress is via a switch to release the mag locks.

It should be noted that persons who find themselves in the basement or emergency exists without a pass can leave the building either through the fire escapes or the basement shutters which can be manually operated (internally) from the control panel adjacent to them.

CCTV is present in the basement, this is relayed to a screen on the main reception desk

BLF employs 24 hour on site security protection, a guard mans the reception desk and undertakes routine inspections inside of the building.

The contractor will be responsible for maintaining security on the areas of the building in which construction work is ongoing, to mitigate the risk to the security personal.

7. **Site Hoardings**

   There will be no requirement for site hoardings around the working areas. The contractor will be responsible for ensuring that staff and visitors using the building cannot inadvertently or intentionally access the working areas.

   The Contractor will be afforded space to temporarily store materials at the front of the building and in the basement car park. Where this is the case, these areas should be kept safe and secure in accordance with all best practice which may include hoardings, signage and lighting.

8. **Site Transport**

   The site is fairly compact and includes a front car-park with 13 spaces and a basement with in excess of 75.

   It should be noted that during the course of the works, both areas will be used by staff and visitors on a regular basis on foot and in vehicles. The contractor should ensure that construction traffic and pedestrians are separated as is appropriate and best practice. Where construction vehicles are reversing appropriate banking will be required.

   Vehicular access to the basement is via Calthorpe Road only. Access to the front car park is via Calthorpe or Harborne Roads. On both routes the estate roads are fairly narrow and include speed humps.

   It should be noted that, whilst Apex House is in a commercial district, the roads and gardens surrounding the building are used as access routes by children of all ages, especially on weekdays.

   There is a height restriction of 1.8m for access into the basement

9. **Permits to work**

   The contractor will be required to plan the works to ensure that construction works in occupied office and communal areas is kept to a minimum and is only undertaken when it is not reasonably practicable to undertake this out of hours. In such cases the contractor will be required to consult with the Fund's Facilities Manager or the Landlord's representatives to agree a plan of work and method statement before commencement.

   The contractor will be required to implement, enforce and record a permit to work system within areas which they have full possession, to include but not be limited to confined spaces and hot works.

   The contractor will be required to seek a permit to work BLF or the Landlord, as relevant, before undertaking works on the fire alarm, security or data systems.

10. **Fire Precautions**

    The building is protected by a fire and smoke alarm system which is connected into the door access security system. Upon activation of the fire alarms all security doors including basement entrance shutter are released.

The fire alarm control panel is located in the main building reception area.

The basement is protected by a sprinkler system which is linked into the main fire panel.

The comms room on the fourth floor (which will remain live throughout the works) is protected by a FM 200 fire suppression system using HFC-227ea gas. There is a fire control panel outside of the comms room which must not be purposefully or inadvertently disturbed unless previously agreed with the IT team.

In the case of a fire the main alarm sounds continuously. All staff will leave the building via the three main staircases and through the emergency exits towards the gardens at the front of Apex House. The facilities team currently liaise with the Fire Brigade and grant permission to re-occupy the building.

A fire alarm test is carried out every Wednesday at 10am

As of the 8th September, the fire procedures may change as these will be prescribed by the Landlord.

11. Emergency procedures

In the case of any emergency the first action should be to call the emergency services on 999. From telephones within BLF's offices the caller will be required to use a prefix 9 to get an outside line.
There are two local emergency medical facilities.

Queen Elizabeth Hospital

Mendelsohn Way
Birmingham
B15 2TH

0121 627 2000

The alternative (2.7 miles) is City Hospital located at:-

Dudley Road
Birmingham
West Midlands
B18 7QH

0121 554 3801

The Environment Agency can be contacted on their incident Hotline:

0800 80 70 60

12. Smoking

In accordance with UK Health and Safety legislation, Apex House is a non-smoking building, which includes electronic cigarettes or vaping. Smoking is only permitted on the designated rostrum to the east of the main reception. As of the 8th September, the Landlord may choose to move this location.

13. Parking restriction

Up to the 7th September the visitor's parking at the front of Apex House will be fully controlled by BLF and all deliveries and visitors should be co-ordinated through the BLF facilities team.

As of the 8th September the parking will be reduced and co-ordinated by the landlord. It is anticipated that a temporary license will be granted to the contractor for use as storage or parking.

14. Boundaries and Access

There are no formal boundaries to the building, however there are roads and footpaths on all sides of the building.

As of the 8th September access to the building will be shared with the Landlord and other tenants. The demise of BLFs lease will be as per Appendix 1. Access will be possible via the 3 main stair cases and the lifts, however this will need to be co-ordinated to ensure that access and emergency escape are not compromised.

The Fund currently employs staff with disabilities which should be considered when creating temporary access arrangements:-

- Limited sight – navigation with the use of a cane only
- Breathing difficulties - reduced walking / stair climbing capacity
- Loss of arms – reduced ability to open heavy doors
- Wheelchair user – wheelchair and helping dog access required

15. Restrictions on deliveries and storage

The site is quite restricted in its nature and a method statement for the management of deliveries and storage will be required for both sole tenancy and multiple tenancy arrangements. Deliveries can only be made through the front reception area.

The building has 3 designated passenger lifts only so consideration will be needed to make sure only one lift is used at a time for the transportation of equipment to floors.

16. Adjacent land Use

The building is located in a commercial area of Birmingham and adjacent land use is primarily commercial offices. Other uses are:-

- Marriott Hotel opposite Apex House on the Harborne Road
- Morrison's Supermarket opposite Apex House on the Harborne Road

- Shops and restaurants to the east of Apex House and on the traffic island between Apex House and Five Ways round-about
- Works are currently underway to convert low rise office accommodation to the west of Apex House (on Harborne Road) into a leisure complex of shops, restaurants and bars.

17. Existing Services

Apex House currently benefits from the provision of the following services, as per Appendix 2:-

- Gas main from the north of the building which enters into a Gas Meter room in the basement and rises through the building to the main plant room
- Electricity which enters the basement from the main substation on the most westerly corner of the building and which is terminated in a basement switchroom.
- Main water tank is located on the easterly side of basement and is fed to tanks in the plant room by two motorised pumps.
- The basement also includes an emergency generator (located adjacent to the switch rooms) which automatically provides power to our comms room in the event of an electrical outage.
- Telephone and data services are provided also. It should be noted that the BLF comms room on the 4th floor is the main hub for all of the BLF data requirements across the UK and this is to remain live throughout the works. There are two fibre optic cables that run through the building which should not in any way be disturbed.

18. Ground conditions

The ground conditions are not currently know, however there are no external or structural works anticipated as part of this project

19. Existing Structures

The building is 25 years old and is constructed of in situ concrete with a full underground car park and five office floors above.

The roof of the building includes a main plant area across the central section. The westerly end externally houses the condensers for the main chiller plant.

The main visitor car-park at the front of the building, and some other external areas, are formed on a podium slab above the basement.

The building is not believed to use pre or post stressing methods but this cannot be ruled out.

The building is clad in brickwork which is supported at 2nd and 4th floor levels. Fenestration is a curtain walling system which is believed to be bolted to the main structure at floor levels, this is yet to be verified.

The current structure is prone to leaking, especially around the curtain walling system and in the main reception areas.

20. Plant

The building is currently heated and cooled by a series of fan coil units above the ceilings on each floor. Typically there are 50 – 55 units per floor and these are fed from boilers and chillers on the main roof level.

The chillers are known to use R410A refrigerant as per the BOC Gases Safety Data Sheet attached in Appendix 3

Air handling is provided by two main AHUs located in the plant room. One provides air to the ground, half of 1st all of 2nd& 3rd and the main floor plate of 4th floors and the other to the Eastern side of 1st floor and the central area of 4th floor where the meeting rooms are currently located.

There are three main boilers independently providing hot water to the stairwell heating system, hot water and FCUs.

Electricity is distributed through the building from the basement switch rooms. The risers include separate distribution boards for tenant and landlord, the former being metered. The risers are located on the north, east and west side of the building. Small power distribution is via a bus bar system beneath the raised access flooring. Lighting is powered from the tenant boards. Distribution boards are also located in the basement areas of the main stair well and the two fire escape stairwells on the east and west of the building.

21. Health and Safety Information

The following health and safety manuals are in place and available for inspection on request:-

- O&M Manual – Reconfigure Fan Coil Units for Open Plan Configuration
- O&M Manual - Replacement of Chiller Units
- O&M Manual – Big Lottery Fund Fit-Out Works
- Asbestos Survey 2008

22. Asbestos

A full Asbestos survey was carried out on behalf of BLF on 27th June 2008. The report is available as Appendix 4. The report identified no apparent Asbestos within the building on the basement to 4th Floors. We are however aware of an Asbestos monitoring point in the main plant room between the cladding system and the structure adjacent to the external doors to the roof of the eastern wing of the building, however this is not expected to be within the site boundary

We are aware of one Asbestos monitoring point in the 5th floor plant room between the underside of the mansard roof and the partition adjacent to the door that leads out to the eastern roof. This area does not form part of the project works and will be in Landlord control once the works commence.

The contractor will be required to carry out a fully obtrusive R&D survey before commencing the works.

23. Contaminated Land

The scope of the project includes no external works**.**

24. Client Activity

The Big Lottery Fund are a government organisation that distribute money to good causes. There are no on site uses of the building which abnormally increase the risks to those involved in the refurbishment works.

25. Storage of Hazardous Materials

The materials stored on site are those commonly associated with the operation and maintenance of a large office building; such as general cleaning and maintenance materials.

Additionally the main bulk storage of materials is;-

- Refrigerant R410 A within the chiller and fan coil systems
- Fire suppression gas within the 4th floor comms room

26. The following hazards have been identified as part of the planning of the works to date;-

- Health and safety of staff requiring access to the comms room and 4th floor secure storage during construction works on that floor
- The transportation of materials through the building whilst in occupation
- Maintenance of emergency escape routes
- The building will become multitenant as of the 8th September 2016 under the control of the Landlord
- The building will be occupied during the works
- The needs of those with disabilities using the building. We have one member of staff with almost full loss of vision, a member of staff without arms and a frequent visitor who requires wheelchair and assistance dog access
- The possibility of the works overlapping with the Landlord's repair and upgrade programme of works. Landlords works to commence June 2016 for 16 weeks
- Replacement of Fan Coil Units whilst the landlord's plant is functional
- Refrigerant within the Fan Coil / Chiller system
- Restricted site access / segregation of staff from site plant and materials
- Segregation of construction wing from the occupied wing
- Accidental fire evacuations if the correct isolation of detectors is not undertaken during dust / heat related works
- The fire suppression system on the 4th floor comms room.

27. Assumptions

The project team have assumed that the works will be undertaken on a half floor basis, vacating half a floor at a time.

The project team is in possession of an Asbestos report undertaken in 2008 which it believes to satisfy the requirements of the Control of Asbestos Regulations 2012 to undertake a Refurbishment and Demolition Survey. The contractor must review this document and identify in their cost plan and programme, any additional asbestos related surveys that they believe are necessary.

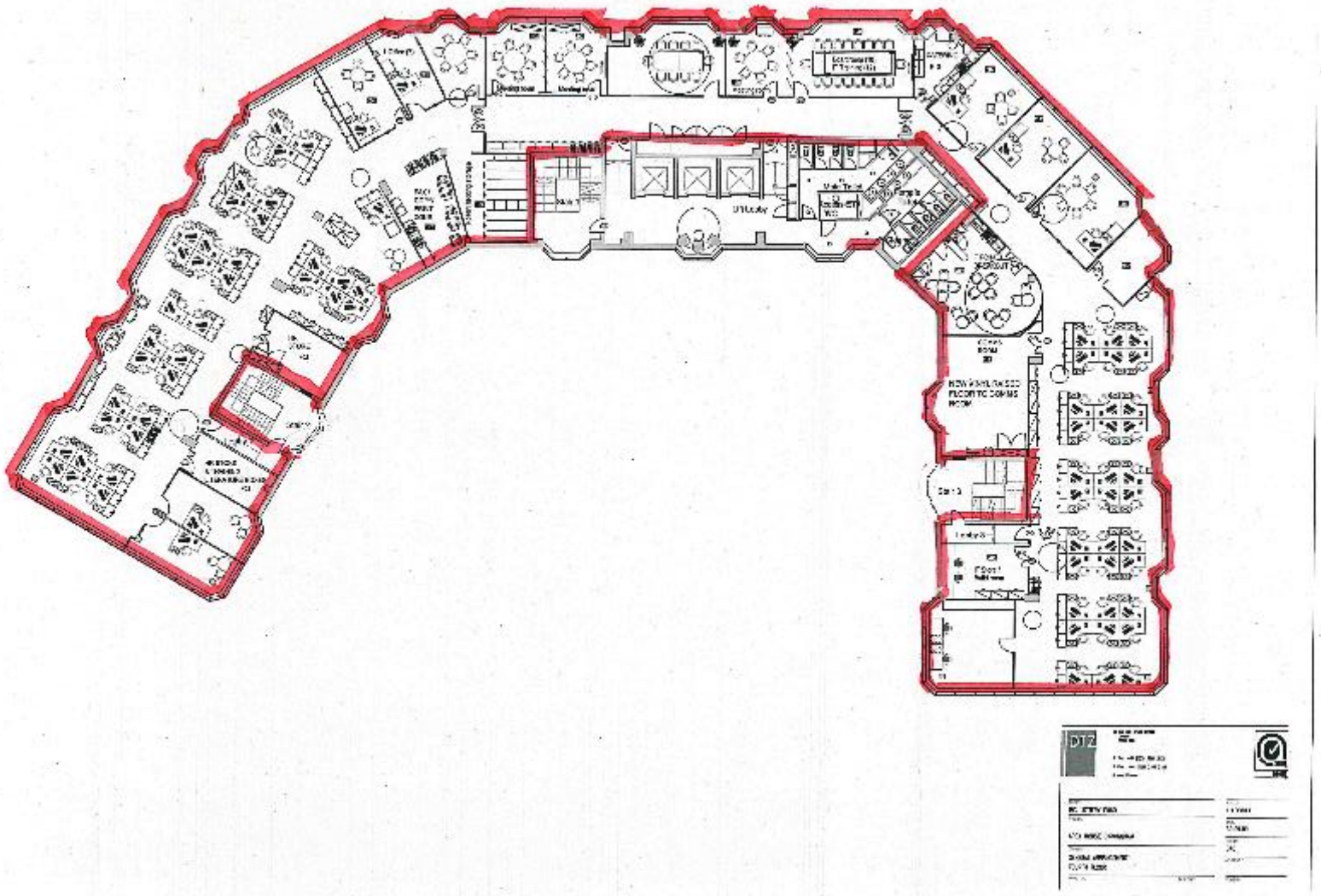
28. Co-ordination of design moving forward

The project team has not undertaken any formal design work, only preliminary investigations to ascertain the number of staff that could be located within the building and to allow for consistency in procurement.

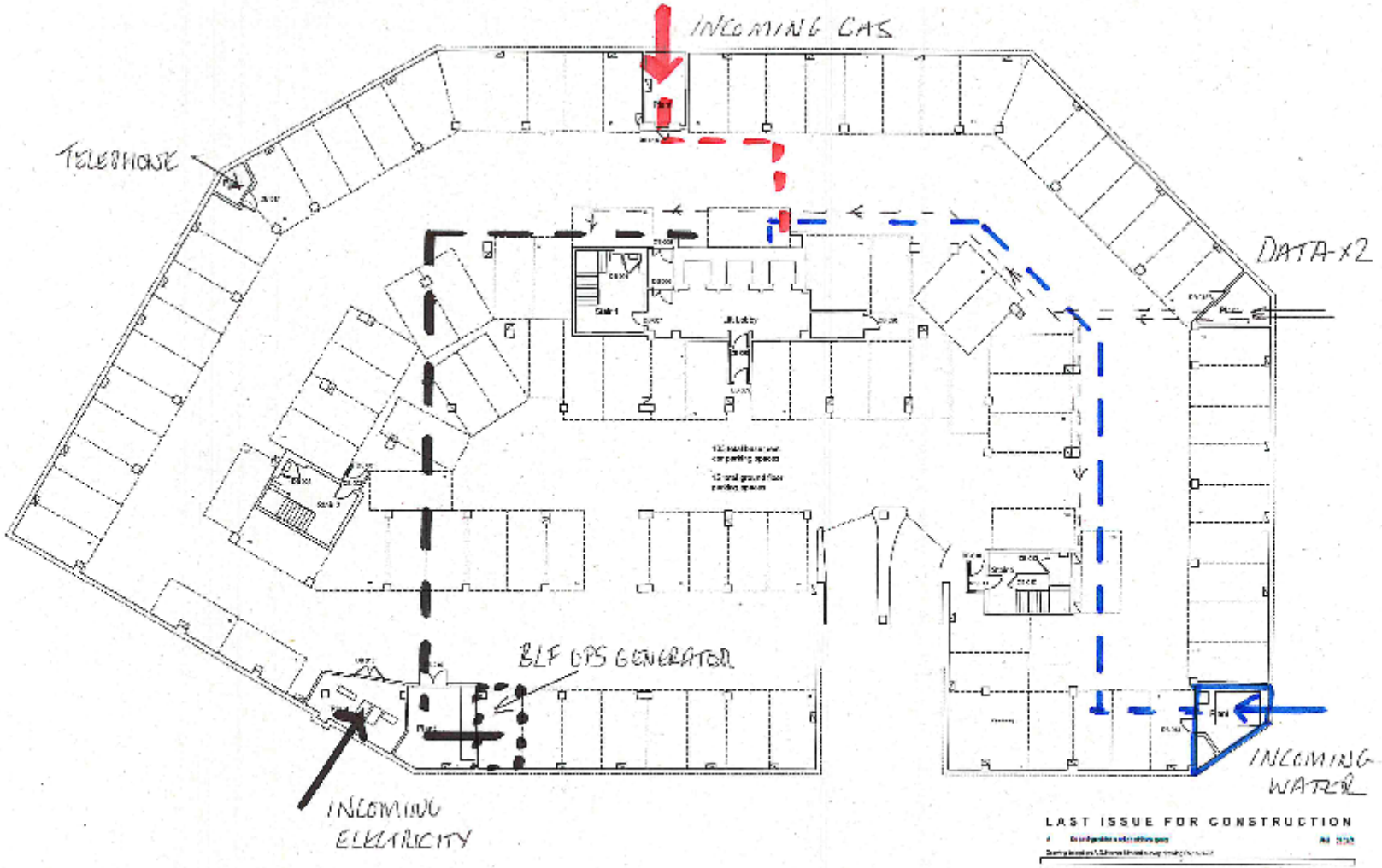
The works will be procured under a JCT 2011 Design and Build Contract with the Contractor undertaking the Principal Designer and Principal Contractor roles as required by the Construction (Design & Management) Regulations 2015. Tendering contractors will need to demonstrate that they have the appropriate skills, knowledge and experience to perform these.

The drawings provided as part of the tender documents are indicative only to enable procurement. The successful designer will be required to appraise the health and safety risks associated with these plans or performance specifications before including any element within their final contractor's proposals.

Appendix 1 Typical BLF Demise on Floors 2/3/4



Appendix 2 Incoming Services – Basement



LAST ISSUE FOR CONSTRUCTION

Associated Architects

2612 AL (2) 001 A

Appendix 3 – BOC Safety Data Sheet

BOC GASES

Safety Data Sheet

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name	R410A
Company identification	see heading and/or footer
Emergency phone numbers	see heading and/or footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	Preparation
Components/Impurities	Contains the following components: 50% w/w Difluoromethane (R32) (EINECS No. 200-839-4)/50% w/w Pentafluoroethane (R125) (EINECS No. 206-557-8)
EC Nr (from EINECS)	Not applicable for preparations

3 HAZARDS IDENTIFICATION

Hazards Identification	In high concentrations may cause asphyxiation. Liquefied gas Not classified as dangerous preparation.

4 FIRST AID MEASURES

Inhalation	In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Skin/eye contact	In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical assistance.
Ingestion	Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards	Exposure to fire may cause containers to rupture/explode. Non flammable.
Hazardous combustion products	If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Carbonyl fluoride.

Appendix 4 – Asbestos Survey 2008

BIG LOTTERY FUND

Apex House
3 Embassy Drive
Edgbaston
Birmingham
B15 1TR

Asbestos Survey Report

27th June 2008

Big Lottery Fund

Apex House, Embassy Drive, Edgbaston, Birmingham B15 1TR

Asbestos Survey Report

CONTENTS

1.0 I ntroduction

E ackground

1.1 A sbestos has been used extensively in the building industry for over one h ndred years and has proved to be an excellent product for a variety of u es, having many qualities such as insulation, fire and chemical r sistance to name a few. Its suitability across a wide range of uses and it relatively cheap cost made it very popular, with over 3,000 different a sbestos products having been recorded.

1.2 T e use of asbestos containing materials (ACM's) was most prevalent b tween the 1950's and 1970's when it provided an economic, easy to u e and versatile material. Unfortunately, given the constitution and n ake up of asbestos it can give rise to microscopic airborne fibres being r leased into the working environment. The fibres have carcinogenic p operties caused by inhalation of the fibres which can get lodged in the li ing of the lungs causing disease and death.

1.3 F r this reason the use of asbestos has receded and its use in buildings w as eventually banned in 1999. Despite its ban, millions of tonnes of A CM's are still present in properties and building throughout the UK. A ppendix A details some of the more common types and forms of A CM's that may be present in client's properties.

S cope and Purpose

1.4 T e Big Lottery Fund has commissioned MDHS Consultants to u dertake an Asbestos Survey of Apex House, 3 Embassy Drive, E gbaston, Birmingham B15 1TR. The aim of the survey was to locate a d identify the presence of ACM's or suspected ACM's. This report p ovides a record and assessment of the extent and characteristics of A CM's and is based on information made available at the time of the s rvey.

1.5 A sbestos surveys can be one of three types, as described below:

T pe 1 - Location and assessment survey (presumptive)

A visual asbestos survey, giving an assessment of the site by h ghlighting all suspected asbestos installations present. The survey te chnique relies on the ability of surveyor to visually identify asbestos a d does not include the taking of samples confirm the presence of a bestos. Hence the surveyor has presumed the presence of asbestos u ing their experience and knowledge of asbestos in buildings.

The benefits of this survey technique are that it is quicker and less expensive than other survey types.

The disadvantages are that the accuracy of the survey is heavily dependent on the experience and expertise of the surveyor and that the survey will only highlight areas of probable asbestos. There is significant scope for inaccuracy in such surveys with the possibility of some asbestos-containing materials not being identified and some non-asbestos materials being visually identified as containing asbestos.

Type 2 - Standard sampling, identification and assessment survey (sampling)

This type of survey is the most common form of asbestos survey undertaken. This also requires the surveyor to identify any installations on a site that she/he suspects may contain asbestos, as with a type 1 survey. However, these installations are then sampled (this may require several samples depending on size and complexity of the suspect installation) and analysis of the samples are carried out at a UKAS accredited laboratory, which allows confirmation of whether the sampled materials definitely contain asbestos or are asbestos free. Visually similar homogenous materials are then referenced to sampled materials, and are `strongly presumed' to be the same material i.e. contain asbestos or not, as the sampled material.

The benefits of this survey technique are that it provides a much more accurate result than the walk through survey by confirming where asbestos is present, and will give additional information on asbestos types/concentrations on which to base an assessment of risk.

The disadvantages are that the survey technique will require more time and hence be more expensive. The survey does not include for breaking into voids or inaccessible areas and therefore may miss any asbestos present in such areas and, because only representative samples are taken of suspected asbestos installations, it may be possible that visually similar asbestos and non asbestos materials could be confused.

T ype 3 - Full Access sampling and identification survey (pre-c omolition/major refurbishment survey)

A full-access intrusive asbestos survey, extending the 'standard s ampling asbestos survey', to include investigations into reasonably a ccessible sealed voids and the fabric of the building.

T his survey shall include breaking through partition walls, ceilings etc. to c onfirm the presence or absence of asbestos and, normally, this is c arried out prior to demolition or refurbishment works where significant c amage to the building will not be a problem. This will result in damage t stud partition walls, plasterboard ceilings, wood riser covers, doors, c omputer floors, carpets, kitchens, bathrooms etc. The damage caused b y this type of survey is kept to a minimum, but in some cases requires r instatement, which is not included in the survey unless pre-arranged. A T ype 3 survey shall only be carried out if safe to do so - for example if t ere are live services inside a building, type 3 access may not be p ossible to certain areas and may require a further visit in the future.

T his survey type shall result in a more accurate survey, but will again t ke more time and hence entail a greater cost. In addition, an asbestos r gister is not included in this type of survey, as it is presumed that all a sbestos materials identified are to be removed to facilitate demolition v orks.

T he disadvantages include the degree of damage to internal surfaces t at could result from the survey and the fact that, again, only r presentative samples are taken of suspected asbestos installations. T here is still a chance that some asbestos containing material may not b e identified if they are in sealed voids or highly inaccessible areas. T hese may only be found at the time of demolition.

1.6 T his particular survey comprised a **Type 2 standard sampling, I entification and assessment survey**, carried out in accordance with t e Health and Safety Executive's guidance document MDHS 100. This r eans that:

- As far as reasonably practicable, locate and describe all ACM's in all reasonably accessible areas of the building.
- A sampling programme is undertaken to identify possible ACM's and estimates of the volumes and the surface areas of ACM made.
- A record of the condition of the ACM's or where additional asbestos debris may be expected to be present is produced.

1.7 T he purpose of the report is to:

- Enable the client to take appropriate precautions so that people who work at Apex House, 3 Embassy Drive, Edgbaston, Birmingham B15 1TR are not exposed to asbestos-related health risks.
- Provide information to assist the client in developing and implementing an action plan for the further investigation, treatment, removal and/or monitoring of ACMs.

1.8 T he findings of this report will need to be revised and updated p eriodically to reflect the progress of made in the action plan.

C ontrol of Asbestos at Work Regulations

1.9 T he Control of Asbestos at Work Regulations 2002 (CAWR) apply to most v ork situations involving risk of exposure to asbestos. From May 2004 the C AWR will require that employers:

- Take all reasonable steps to identify the locations of materials likely to contain asbestos.
- Assume that the identified materials contain asbestos, unless there is evidence to the contrary.
- Keep an up to date written record (an **Asbestos Register**) of the location of asbestos-containing materials.
- Monitor the condition of asbestos-containing materials.
- Make a written assessment of the risk of exposure from asbestos.
- Prepare and implement a **management plan** to control asbestos-related health risks, including measures to ensure that:
  - material known or presumed to create a risk of exposure to asbestos is repaired or, if necessary, removed.
  - material known or presumed to contain asbestos, but which does not pose a risk of exposure, is maintained in a good state of repair.
  - information about the location and condition of material known or presumed to contain asbestos is given to anyone who is likely to disturb it.

(ther Health & Safety Regulations

1.10 L nder Section 2 of the Health and Safety at Work etc. Act 1974 (HSWA), e nployers have a duty of care for the health, safety and welfare of their e nployees whilst at work. In addition, employers that are in control of p emises have a duty of care, under Section 4 of the HSWA, towards all c her people (non-employees) who use or work at their premises.

1.11 (ther regulations embodied in the HSWA require employers to ensure t at:

- Immediate steps are taken to reduce exposure to asbestos, in situations where the control level or action level is exceeded.
- Risk assessments are carried out and are used to prepare method statements for any work that is likely to involve exposure to asbestos.
- The number of workers exposed to asbestos is kept to a minimum.
- Information on the location of asbestos is made available to any person likely to be exposed to ACMs.
- Training is given to anyone liable to be exposed to asbestos.

1.12 T his report can be used as a reference to assist the client in fulfilling its c ties and obligations under present regulatory framework.

S ources of Data

A ackground Information

1.13 N o information was available from the client concerning the location of a bestos-containing materials within the buildings on the site.

I spection, sampling and testing

1.14 M DHS Consultants carried out a visual inspection of the buildings at the ti ne of the survey. The purpose of the inspection was to identify l cations where the presence of asbestos is suspected, and to make a rangements for the recovery and testing of representative samples, v here practicable. The inspection also enabled informed judgements to b made about the likelihood of asbestos being present in situations v here samples could not be recovered.

1.15 Based on the findings of the visual inspection, nil representative bulk samples of materials suspected of containing asbestos were recovered from the site on 25th June 2008. During the sampling process, care was taken to verify that the recovered samples were representative of the situation and the medium in which asbestos contamination was suspected. The sampling protocol that was used is as specified in MDHS 100, published by the Health & Safety Executive.

1.16 The recovered samples were subsequently examined in an UKAS Accredited laboratory to establish their asbestos content, in accordance with MDHS 77: Asbestos in Bulk Materials – Sampling and Identification by Polarised Light Microscopy, published by the Health & Safety Executive.

1.17 The results of the laboratory testing for all recovered samples are presented at Appendix B.

1.18 Unfortunately, access could not be obtained to all of the buildings and areas at the time of the full sampling survey. As a result, there are a number of areas where further inspection and sampling needs to be carried out. Areas that could not be sampled should be presumed to contain ACM's until proved otherwise. These areas are identified in Section 5.

Presentation of Findings

Data Sheets

1.19 A series of data sheets have been prepared to provide assessments and recommendations for each of the locations where samples were taken. These data sheets are presented in Appendix C.

Figures

1.20 Figure 1 presented at the rear of this document shows the locations of all of the samples that were recovered for testing purposes. Where the laboratory analysis for a particular sample (as shown in Appendix B) identifies the presence of asbestos, the corresponding sample location is shown on the relevant Figure in red. Conversely, where a laboratory analysis indicates that asbestos is not present in the sample, the sample location is shown on the relevant Figure in green. Material considered to contain asbestos where no laboratory analysis has been carried out is identified in yellow. The locations of all materials that were sampled during the survey are shown in Figure 1.

Representative Sampling

1.21 Every attempt has been made to ensure that representative samples of materials suspected of containing asbestos have been recovered for testing purposes. Nevertheless, where the laboratory results of analysis shown in Appendix B) indicate that no asbestos has been detected, caution should be exercised in extrapolating the same conclusion to the parent material. Where doubt remains, further sampling and testing should be carried out.

Risk Classification

1.22 The data sheets at Appendix C incorporate assessments of risk and provide recommendations concerning access restrictions that should be imposed and priorities for treatment or removal of suspected asbestos-containing materials. A material assessment score for each location represents the assessments of risk. The basis of the assessment scoring is described in Section 4.

1.23 The material assessment scores are based on the assumption that no future actions are planned that will disturb the asbestos-containing materials. Any future work that could involve disturbing the identified materials would require a risk assessment to assist in developing a suitable method statement.

Report Format

Text

1.24 Remaining sections of text are structured as follows:

Section 2 Describes the current buildings and their uses.

Section 3 Describes the survey work carried out.

Section 4 Describes the procedure used to assess suspected asbestos-containing materials and provides an overview of the nature and extent of suspected asbestos-containing materials.

Section 5 Provides recommendations for action plans to address the issues identified in the report.

ppendices

1.25 he following Appendices provide details of the factual data obtained uring the inspection and survey work and the results of the ssessments that have been made.

Appendix A contains information on the types and forms of ACM likely to be present in buildings.

Appendix B contains copies of the results of laboratory analyses (bulk sample identification certificates) for samples recovered. It also contains a copy of the laboratory UKAS Accreditation Certificates.

Appendix C contains Data Sheets that summarise the information obtained from the visual inspection, sampling and testing work carried out. The information provided on the Data Sheets includes:

- A photograph of the material.
- Our opinion about the origin of the asbestos contamination, where relevant.
- Access restrictions that should be applied, where necessary.
- Priorities for treatment or removal of asbestos material.

igures

1.26 I igure 1 shows the locations and references of samples taken during the urvey, and should be read in conjunction with the data sheet provided at ppendix C.

2.0 ite Description

lte History

2.1 Ve have no previous history of the site before the client occupied the rea.

resent Layout and Use

The la out of buildings is shown in Figure 1.

3.0 I vestigations

B seline Information

3.1 Tl ere is no baseline information concerning the presence of asbestos at A ex House, 3 Embassy Drive, Edgbaston, Birmingham B15 1TR. It a pears that no previous work has been carried out to identify, remove o repair any asbestos-containing materials at the site.

I spection, Sampling and Analysis

T pical sources considered

3.2 Tl e inspection work undertaken by MDHS Consultants has taken a count of the typical sources of asbestos found in other similar b ildings, of a similar age.

3.3 A bestos has been added to many different building materials over the p st century to improve their thermal, insulation and strength properties. Tl e commercial use of asbestos began in the late nineteenth century a d increased steadily until the 1940s. After World War II, asbestos was u ed extensively in buildings, particularly during the 1950s, 1960s and 1 70s.

3.4 In 1999 the Government banned the import, supplies and use of all fo ms of materials containing asbestos.

3.5 Tl e most common asbestos-containing materials and products are:

- Roofing materials, including sheet materials and components of composite sheeting, tiles and felts,
- Guttering and drainpipes,
- Wall cladding and soffit boards,
- Spray coatings to ceilings, walls and beams/columns,
- Loose asbestos in ceiling/floor cavities or ductwork,
- Firebreaks above ceilings or between trusses,
- Textured coatings (e.g. Artex) and paints,
- Loose asbestos inside partition walls,
- Partition walls and wall/ceiling panels,

- Floor tiles, linoleum and floor backing paper,
- Lagging, gaskets and gaiters to Air Handling Units,
- Lagging on boilers, pipework, calorifiers, etc.,
- Paper linings under pipe lagging,
- Gaskets at pipe and vessel joints,
- Rope seals on boiler access hatches and between boiler sections,
- Boiler flues,
- String seals on radiators,
- Fire blankets.

Visual Inspection

3.6 A visual inspection survey was carried out by MDHS Consultants on 25th June 2008, and involved examination of all of the buildings within the Site.

Sampling and Analysis

3.7 Sampling was carried out on 25th June 2008 in accordance with the method specified in MDHS 100, published by the Health & Safety Executive.

3.8 Access to the buildings was arranged by Mr A Smith, and photographs were taken to provide a record of all of the locations and materials examined. A photographic record of the inspection is incorporated in the data sheets in Appendix C.

3.9 Analysis of any recovered samples would have been carried out by Scopes Asbestos Analysis Services Ltd in accordance with the procedure specified in MDHS 77, published by the Health & Safety Executive. which is accredited by the United Kingdom Accreditation Service (UKAS) for the identification of asbestos in bulk samples. A copy of their accreditation certificates is included in Appendix B.

Results of Laboratory Testing

3.10 Results obtained from the analysis of the recovered samples are provided in Appendix B.

ignificance of Laboratory Test Results

3.11 he following are the three main types of asbestos identified by the aboratory testing procedure, and recorded on the laboratory result heets in Appendix C:

Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos

3.12 he analysis of the samples can also identify the presence of non-sbestos material fibres, and the presence of these is indicated in ppendix B where appropriate, using the sub-divisions:

Organic	Organic fibres, such as animal hair
MMMF	Man Made Mineral Fibre, such as fibre glass

3.13 is emphasised that all types of asbestos, irrespective of their nineralogical compositions and concentration levels, fall within the cope of the Control of Asbestos at Work Regulations (see Section 1). herefore, details of the type and quantity of asbestos materials dentified by the laboratory analyses do not significantly affect the Duty olders legal duties and obligations. However, they do influence the ssessment of risk, and therefore assist in determining the priorities for emedial action.

reas excluded from the survey

3.14 lone

4.0 A sessment and Overview

Ri sk Assessment Methodology

4.1 Ri k assessments for fibre release have been carried out for all suspected as bestos materials, based on their *product type, condition (extent of da mage/deterioration), surface treatment* and *asbestos type*. The method ac opted is as described in MDHS 100. The results of the risk as sessments for each sample are shown in the data sheets in Appendix C and are classified as High, Medium or Low. A Material Assessment Sc ore is also provided. The data sheets include recommendations co ncerning access restrictions and priorities for treatment or removal of as bestos materials, based on the Material Assessment Score.

4.2 Th e meaning of the specialist terms employed and the key stages of the ris k assessment process are described below.

Pr oduct Type

4.3 Th e **Product Type** or product debris is classified into one of the following:

1	Asbestos – reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement, etc.).
2	Asbestos insulating board, mill board, other low density insulation board, asbestos textiles, gaskets, rope and woven textiles, asbestos paper and felt.
3	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.

Condition

4.4 The **Condition** of materials containing asbestos is classified into one of the following:

0	Material that is intact, without damage or disturbance - good condition is generally achieved in moulded, encased or preformed products, where the moulding has not been damaged, cracked or broken. A good condition would normally be assigned to pipe lagging or asbestos insulating board that is fully sealed, and may also be assigned where an asbestos material has been over-clad or encapsulated with a resistant covering of non-asbestos material.
1	Only minor damage, scratches or surface marks; no damaged material has fallen off or broken away.
2	Medium damage, disturbed or broken material, giving rise to visible loose asbestos fibres.
3	High degree of damage, disturbed or broken material giving rise to visible asbestos debris. Some material has become detached from the parent material.

4.5 It should be noted that the surface treatment of the material would also affect its condition. For example, asbestos insulation board that has received a layer of paint will be less likely to release fibres than unpainted asbestos insulation board.

S irface Treatment

4.6 Tl e **Surface Treatment** of asbestos-containing material is an important in icator of risk, since it determines the amount of asbestos fibre that w uld be released into the atmosphere if the material were to be di turbed. The **Surface Treatment** of asbestos material is classified as fo ows:

0	Asbestos fibres are well bonded and difficult to remove. Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles, etc.
1	Asbestos fibres are enclosed by sprays or lagging. Asbestos insulation board with painted or encapsulated surfaces. Asbestos cement sheeting.
2	The asbestos-containing material is unsealed asbestos insulation board or consists of encapsulated lagging or sprays.
3	The asbestos-containing material is unsealed lagging or sprays.

A bestos Type

4.7 F r the purpose of the risk assessments described here, the **Asbestos T pe** is classified as follows:

1	Chrysotile
2	Amphibole excluding Crocidolite
3	Crocidolite

Material Assessment Score

4.8 The Material Assessment Score is derived by adding together the above classification numbers and assigning the scores High, Medium and Low as follows:

High — **Material Assessment Score of 10 or more.**
The asbestos-containing material is in a condition or in a location that requires urgent attention. It should either be removed or treated as soon as possible. All fallen asbestos debris and loose surface material is assigned a high risk rating, because any disturbance of materials is likely to release airborne respirable asbestos fibres and may spread contamination throughout the building.

Medium — **Material assessment Score of between 7 and 9.**
The asbestos-containing material is in a location or in a condition that requires remedial action. The action may entail minor repairs to damaged surfaces or encapsulation of exposed asbestos surfaces. Following the remedial measures, the Material Assessment Score may be reduced to Low. However, in the long term it is recommended that all materials in this risk category should be removed as soon as possible.

Low — **Material Assessment Score of between 5 and 6.**
The asbestos-containing material is in a condition or in a location that does not create a significant health risk, provided that it remains undisturbed. A Low Material Assessment Score applies only if there is little or no risk of disturbance. However, changes in work methods, or building use could change this assessment. The Material Assessment Score could increase to High if it were decided to carry out building works that would disturb the material.

Very Low — **Material Assessment Score of 4 or less.**
The asbestos-containing material is in a condition or form that represents a very low risk to health, provided that it remains undisturbed. Examples includes composite resin products where the asbestos fibres are securely bound into the product.

D ıta Sheets

4.9 T e above risk assessment methodology has been incorporated in the d: ta sheets at Appendix B. The data sheets provide recommendations c(ncerning access restrictions and remedial measures that should be a(opted at each sample location. Where appropriate, they also provide a opinion concerning the likely source of any surface deposits of a: bestos dust or debris that are present.

4.10 T e reader is reminded of the significance of the colour coding that is a(opted on the Data Sheets, as follows:

Green	Laboratory analysis shows that **asbestos is not present** in the recovered sample.
Red	Laboratory analysis shows that **asbestos is present** in the recovered sample.
Yellow	No laboratory analysis has been carried out because it was not possible to recover a sample at this location and it is **considered likely that asbestos is present.**

O ıerview

4.11 T e remainder of this Section provides an overview of the situation based o the results of inspection, sampling and testing in the buildings. For a m ıre detailed appraisal, the reader should also refer to Figure 1 and to th ı Data Sheets at Appendix C.

5.0 Conclusions & Recommendations

ntroduction

5.1 The recommendations provided in this Section identify the main elements of the Action Plans that need to be developed and implemented by The Big Lottery Fund in order to address the asbestos management issues that affect Apex House, 3 Embassy Drive, Edgbaston, Birmingham B15 1TR.

Additional Inspection, Sampling and Testing

5.2 We recommend that further inspection, sampling and testing is carried out in areas that are not covered by the inspection work described in Sections 3 and 4 above. These fall into two categories:

a) Buildings and areas for which access could not be obtained during the course of the survey work.

b) Materials that are presumed to contain asbestos. Sampling and testing is recommended, where practical, in these to establish the nature and extent of the material.

nspection of areas where further access needs to be arranged

5.3 Access needs to be provided to the following buildings and areas to allow inspection work to be carried out:

Building	Area
N/A	N/A

reas Excluded from the Survey

5.4 uring the survey the following areas were excluded from the survey ecause they were found to be either inaccessible due to the physical ature of the premises; the extraction of samples would have affected the nctional integrity of the article or where access could have endangered he surveyor:

- All electrical fuse boxes, distribution boards, heating equipment and electrical appliances were considered live and access was not attempted during the survey. It is probable that in a building of this age, that fuse boxes in particular may contain asbestos products.
- All concealed voids, spaces and pipes.
- Any gaskets which are integral to a pipeline or other article.
- The grounds surrounding the building(s).

5.5 lthough the presence of asbestos in these areas has not been onfirmed, caution should be exercised if any works are carried out there in the future. If any suspect materials are encountered in these areas, it is ecommended that all works are stopped and the area evacuated until uch time that the material can be sampled, analysed and confirmed to be ee of any asbestos.

abels and Warning Signs

5.6 is recommended that labels and warning signs should be provided to identify materials that contain asbestos, this is particularly applicable in reas subject to regular maintenance activities such as workshops, torerooms and boiler rooms.

5.7 he programme for providing labels and warning signs should be ystematic, beginning with the areas that are most readily accessible and here risk from asbestos exposure is greatest.

5.8 he appropriate statutory warning labels are identified in Annex 3 of IDHS 100. However, although labels and warning signs should adopt tandard symbols wherever appropriate, it is very important that the ording on them is made as simple and effective as possible. The ording should be devised to reflect the specific hazards and rcumstances at each location. Careful attention also needs to be given to the sizes, positions and method of fixing for the labels and warning gns. Signs and labels alone should never be relied upon to provide an dequate warning, where ACM's are present a permit to work system hould also be considered.

P ogramme for removal or treatment of asbestos materials

5.9 A programme for the removal, encapsulation or monitoring of asbestos m aterials should be identified in the Asbestos Management Plan. This w rk is beyond the scope of our current commission, though technical a sistance can be provided to assist clients if required.

5.10 T e management plan for the removal, encapsulation and/or monitoring o ACM's, requires a priority assessment to be completed, this looks at th e likelihood of someone disturbing the ACM, and takes account of:

- The Material Assessment Scores for the materials in question.
- The Disturbance Potential for the materials in question.
- Areas where planned future works or maintenance activities entail contact with materials that are known to contain asbestos.
- The occupant activities undertaken in the area concerned.
- The human exposure potential.

M aterials with a high Material Assessment Score

5.11 S spected *high-risk* asbestos-containing materials are identified in A pendix C. It may be more economic to remove *high-risk* asbestos m aterials than to attempt to carry out insitu remediation (e.g. by e capsulation and periodic monitoring). Licensed contractors should a ways be used to remove these materials.

5.12 L ose materials and debris, which can have a medium or low Material A sessment Score should also be removed as they may have a high p tential for disturbance and therefore a risk of contamination spread.

M aterials with a medium or low Material Assessment Score

5.13 T e recommended approach for dealing with the *medium-risk and low-r k* asbestos containing materials identified in Appendix C is different. F r these materials, the decision to remove the materials should be based o the priority assessment of whether the risk associated with removal w uld be less than the risk associated with insitu management. In some c cumstances, the 'do nothing' option may be more appropriate in the s ort to medium term, particularly where the material is in good condition, th e location is 'remote' and it is considered feasible to provide adequate s feguards against inadvertent contact or exposure.

Areas affected by Planned Future Works

5.14 Where asbestos is present in areas where future work is planned or contemplated, special consideration must be given to the health and safety risks associated with the work, irrespective of the Material Assessment Score assigned to the material.

5.15 Employers have a duty of care under the Control of Asbestos at Work Regulations to any person or organisation that may work at their premises. Information must therefore be provided to any contractor or employee that may come into contact with ACM's. The information provided should include but need not be limited to the details provided in this report. Information concerning the presence of asbestos should not only be given to contractors, but also to Designers, Planning Supervisors, and Principal Contractors (within the meaning of the CDM Regulations) so that suitable risk assessments can be carried out and used to develop the Health & Safety Plan and safe systems of work.

5.16 Planning for individual projects that involve dealing with specific asbestos management issues should also consider the wider context, including opportunities for the cost-effective treatment or removal of asbestos materials.

Internal Arrangements

Training and Communications

5.17 It is recommended that all employees who are directly or indirectly in control of activities that may affect asbestos-containing materials should receive asbestos awareness training and should have access to the Asbestos Register, or the information contained within it.

Management Responsibility

5.18 Responsibility should be allocated to a specific individual to provide a source of information, advice and authority for situations where decisions relating to asbestos are needed. The nominated individual should also be responsible for:

- Communicating information about asbestos,
- Controlling the Asbestos Register,
- Liasing with specialist asbestos consultants and contractors,
- Monitoring the action plan.

Asbestos Register

5.19 t is recommended that this report should form the basis of an Asbestos Register. An Asbestos Register is a 'living document' used to identify where asbestos-containing materials are and to assist in managing them safely.

5.20 The Asbestos Register should record the location, extent, product type, condition, surface treatment and accessibility of asbestos-containing materials,

5.21 The Asbestos Register needs to be updated regularly to reflect changes brought about by implementation of action plans for the removal and treatment of asbestos materials and to incorporate the results of further inspection, sampling and testing.

5.22 All areas identified should be re-inspected at intervals of six months, and revisions should be made to the data provided in Appendix C (and Figure 1) to reflect the findings of the inspections and any laboratory testing that is carried out.

Summary Table

5.23 The following table details the key findings and associated recommendations for each of the samples taken. Further details are contained in the various Data Sheets in Appendix C.