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PRELIMINARY RISK ASSESSMENT



58 KINGSTON ROAD, DIDSBURY, MANCHESTER

REPORT REF: BEK-17314-1 July 2017

REPORT PREPARED FOR

PAVILION
PROPERTY HOLDINGS

Project Quality Assurance Information Sheet

PRELIMINARY RISK ASSESSMENT

58 Kingston Road, Didsbury, Manchester

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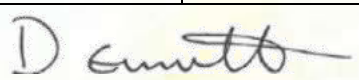	
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TABLE OF CONTENTS

1. INTRODUCTION
1.1 Appointment
1.2 Proposed Development
1.3 Objective & Scope of Work
1.4 Limitations

2. SITE DESCRIPTION
2.1 Site Location
2.2 Site Layout & Description
2.3 Surrounding Land Use

3. SITE HISTORY

4. ENVIRONMENTAL SETTING
4.1 Geology
4.2 Mining & Ground Stability
4.3 Hydrogeology
4.4 Hydrology
4.5 Contaminated Land & Landfill Activities
4.6 Sensitive Land Uses
4.7 Radon

5. POTENTIAL POLLUTANT LINKAGES
5.1 General
5.2 Potential Contaminants of Concern
5.3 Potential Pathways
5.4 Receptors
5.5 Preliminary Conceptual Model
5.6 Potentially Significant Pollutant Linkages

6. RECOMMENDATIONS

APPENDICES

APPENDIX A Historical OS Maps
APPENDIX B GeoInsight Report
APPENDIX C EnviroInsight Report
APPENDIX D Photographs
APPENDIX E Drawings

DRAWINGS

BEK Drawing 17314-1 Site Location Plan
BEK Drawing 17314-2 Site Layout Plan
Calderpeel Architects Drawing 13055 (PL) 002 A Site Plan & Street Scene

1. INTRODUCTION

1.1 Appointment

1.1.1 BEK Enviro Limited (BEK) have been commissioned by Pavilion Property Holdings to prepare a Preliminary Risk Assessment for Kingston Road, Didsbury (hereafter referred to as 'the site') to assess potential risks associated with contamination with respect to development for residential use.

1.1.2 The existing site location is presented on BEK Drawing Ref: 17314-1, a copy of which is presented in Appendix E.

1.2 Proposed Development

1.2.1 The site has planning permission (subject to conditions) for the 'erection of a two-storey detached dwelling with living accommodation in the basement, including car parking and landscaping following the demolition of existing bungalow'.

1.2.2 The report has been prepared to satisfy the Preliminary Risk Assessment element of Part A of Condition No 10 of the planning permission. Part A of Condition No 10 is presented below:

Before the development hereby approved commences, a report (the Preliminary Risk Assessment) to identify and evaluate all potential sources and impacts of any ground contamination, groundwater contamination and/or ground gas relevant to the site shall be submitted to and approved in writing by the City Council as local planning authority. The Preliminary Risk Assessment shall conform to City Council's current guidance document (Planning Guidance in Relation to Ground Contamination).

In the event of the Preliminary Risk Assessment identifying risks which in the written opinion of the Local Planning Authority require further investigation, the development shall not commence until a scheme for the investigation of the site and the identification of remediation measures (the Site Investigation Proposal) has been submitted to and approved in writing by the City Council as local planning authority.

The measures for investigating the site identified in the Site Investigation Proposal shall be carried out, before the development commences and a report prepared outlining what measures, if any, are required to remediate the land (the Site Investigation Report and/or Remediation Strategy) which shall be submitted to and approved in writing by the City Council as local planning authority.

1.2.3 The existing site layout is presented on BEK Drawing Ref: 17314-2, a copy of which is presented in Appendix E.

1.3 Objective & Scope of Work

1.3.1 This report provides the details of the works undertaken by BEK to assess the potential risks from contamination considering the change of use to residential.

1.3.2 To achieve the objective BEK will undertake the following:

- Carry out a site inspection and take photographs
- Review the available relevant background information for the site, including:
  - Recent Ordnance Survey Map
  - BGS Web Page
  - Site Specific GroundSure Reports
  - Site Specific Historical Maps
- Develop a preliminary conceptual site model in accordance with guidance to identify potentially significant pollutant linkages specific to the proposed development
- Establish areas of potential concern based on identified risks and/or potential risks
- Identify any actions required to assess or reduce the risks identified

1.4 Limitations

1.4.1 The conclusions and recommendations presented in this report are the result of our professional interpretation of the information currently available. BEK reserves the right to amend the conclusions and recommendations if further information becomes available.

1.4.2 However, it should be noted that much of the information has been derived from reports written by others and BEK takes no responsibility for the accuracy of that information. Notwithstanding the above, the reports reviewed have all been written by professional environmental consultants with a duty of care to provide relevant and accurate information.

2. SITE DESCRIPTION

2.1 Site Location

2.1.1 The site is located to the west of Kingston Road, Didsbury approximately 7.8 km south of Manchester City centre and 4.3 km west of Stockport town centre.

2.1.2 The National Grid Reference for the centre of the site is 384916, 390033. The site location and current layout is shown on BEK Drawing No 17314-2 in Appendix E.

2.2 Site Layout & Description

2.2.1 An engineer from BEK visited the site on 20 June 2017 to carry out a site inspection. The general site layout is shown on BEK Drawing No 17314-2 (see Appendix E).

2.2.2 The site occupies a roughly triangular shaped plot of land of approximately 900 m^2. The site is comprised of an existing building, paved driveway area and a grassed garden area. The existing building is constructed from red brick with a concrete tiled roof.

2.2.3 The site is accessed from the east from Kingston Road which leads onto the paved driveway hardstanding. The east of the site is bound by a wooden and brick fence with trees surrounding the site boundary. There is a grassed garden area located towards the south and north of the site with the building located in the centre of the site. There are some semi-mature trees located within the garden areas of the site. A brick wall forms the western boundary of the site.

2.2.4 The topography of the site is generally flat.

2.2.5 A selection of photographs are provided within Appendix D. The general site layout is presented on BEK Drawing No 17314-2, a copy of which is presented in Appendix E.

2.3 Surrounding Land Use

2.3.1 The site is located in an area of Didsbury dominated by residential properties; residential dwellings located to the north, east, south and west of the site. A number of office buildings are located some 150 m north-east of the site and a large park known as Fletcher Moss Park is located some 100 m west of the site.

3. SITE HISTORY

3.1 The history of the site has been established using historical OS maps supplied by Groundsure. A selection of the maps reviewed is presented in Appendix A.

1881

3.2 The earliest available maps show the site is vacant. There is a greenhouse located immediately west of the site with an attached building located to the south-west of the site. Kingston Road marks the eastern site boundary. There are detached residential dwellings located to the north of the site within 100 m and there is a large building marked as 'The Towers' some 180 m north-east of the site.

1893-1894-1907-1910

3.3 The 1893-1894 map shows the site remains vacant. The surrounding area remains relatively unaltered.

1922

3.4 The 1922 map shows that the southern half of the site is occupied by trees with the north of the site remaining vacant. Fletcher Moss Playing Fields and tennis courts are located some 230 m north-west of the site.

1934

3.5 The 1934 map shows the site remains vacant (trees are absent) and some of the buildings adjacent to the south-western boundary of the site are absent. Residential development has occurred some 20 m east of the site beyond Kingston Road. New recreational facilities including tennis courts and a putting green have been developed some 110 m south of the site and 'The Towers' building is now labelled as 'Shirley Institute' with a number of associated buildings. It is understood the Shirley Institute was used as a research centre associated with cotton production.

1955-1958

3.6 The 1955-1958 map shows the site remains vacant and the buildings located immediately south and west of the site are marked as 'Rose Hill Cottage' and 'Rose Hill' respectively. The building associated with 'Shirley Institute' has been extended and there is a 'tank' some 90 m north-east of the site. A large number of residential dwellings have been constructed to the south-east of the site and the East Didsbury Methodist Church is now located some 80 m south of the site.

1974-1975

3.7 The 1974-1975 map shows the existing residential building located near the centre of the site. Residential buildings have been constructed to the north of the site. An electrical sub-station is located some 60 m west and a refuse tip is located some 110 m south-west of the site at its nearest point.

1988-1992

3.8 The 1988-1992 maps show the site remains unchanged. The refuse tip located some 110 m south-west of the site has been redeveloped for residential use.

2002-2010-2014

3.9 The 2002-2014 maps show that the site has remained unchanged. The Shirley Institute building has been converted into several office buildings.

4. ENVIRONMENTAL SETTING

4.0.1 GeoInsight and EnviroInsight Reports have been obtained from Groundsure and information provided in this report has been used within this section. Copies of these report are presented in Appendix B and C, respectively.

4.1 Geology

4.1.1 The site geology is illustrated in the GeoInsight Report which has sourced data from several sources including British Geological Society (BGS), BRITPITS database and the Coal Authority. A copy of the GeoInsight Report is presented in Appendix B.

4.1.2 In addition, BEK has sought site investigation information from the BGS website however there are no exploratory locations located within 250 m of the site.

Made Ground

4.1.3 According to the report there is no artificial ground (made ground) present beneath the site.

Superficial Geology

4.1.4 The GeoInsight Report states that the underlying superficial geology comprises River Terrace deposits, Glaciofluvial deposits and alluvium. These deposits generally consist of sand and gravels with clay and silt.

Bedrock

4.1.5 The underlying solid geology comprises the Wilmslow Sandstone Formation..

Faults

4.1.6 According to the GeoInsight Report there are no faults located in close proximity of the site.

4.2 Mining & Ground Stability

4.2.1 Information in the GeoInsight report indicates that the site is not located in an area that may have been affected by coal mining.

4.2.2 The GeoInsight report indicates that there is historical mining within 250 m of the site. The record indicates a slag heap was located some 55 m west of the site dated 1966. This is possibly associated with sandstone quarrying.

4.2.3 In addition to the above, the GeoInsight Report provides hazard ratings associated with ground subsidence at the site, as summarised below:

Shrink-Swell Clay:	Negligible
Landslides:	Very Low
Ground Dissolution of Soluble Rocks:	Negligible
Compressible Deposits:	Negligible
Collapsible Deposits:	Very Low
Running Sands:	Very Low

4.2.4 It can be seen from the above that the site is unlikely to be affected by ground instability.

4.3 Hydrogeology

4.3.1 The underlying superficial geology is classified by the Environment Agency as a 'Secondary A Aquifer'. These formations are 'permeable layers capable of supporting water supplies at a local rather than strategic scale'.

4.3.2 The underlying Wilmslow Sandstone Formation is classified by the Environment Agency as a 'Principal Aquifer'. This formation has 'high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale'.

4.3.3 The EnviroInsight Report indicates the site is not located within a source protection zone.

4.3.4 There are no groundwater abstraction licenses within 250 m of the site.

4.4 Hydrology

4.4.1 The EnviroInsight Report indicates that the nearest surface water feature is a drain located some 100 m west of the site.

4.4.2 There are no licensed discharge consent within 250 m of the site and there are no surface water abstractions located within 250 m of the site.

4.4.3 According to Groundsure the site is not located in an area which may be affected by flooding from surface water.

4.5 Contaminated Land & Landfill Activities

4.5.1 The information presented in the EnviroInsight Report indicates that there are two records of Environment Agency historic landfill sites within 250 m of the site with one located some 125 m west of the site called Parrs Wood Road, Manchester with a waste type of commercial, household first recorded 30 November 1959 and last recorded 31 December 1976 and operated by Manchester Corporation Cleansing Department.

4.5.2 The second historical landfill was located some 208 m west of the site at Parrs Wood Road, Didsbury which had a waste license and accepted inert, industrial, commercial, household, special, liquid and sludge waste types. The license holder was Manchester City Council and was first recorded on 31 December 1947 and last recorded 31 August 1976.

4.5.3 There are no EA Records of pollution incidents within 250 m of the site.

4.5.4 There are no Part A(2), Part B or IPPC Authorised Activities within 250 m of the study site.

4.5.5 According to the EnviroInsight Report there are 9 potentially contaminative industrial sites located within 250 m of the site. The nearest of these relates to an electricity sub-station located some 56 m west of the site. The likelihood of these activities having impacted upon the site is considered to be low.

4.6 Sensitive Land Uses

4.6.1 The site is not affected by any of the ecological systems identified as a statutory receptor in the DETR Circular 01/2006.

4.7 Radon

4.7.1 Groundsure reports that 'less than 1% of homes are above the action trigger level' and that 'no radon protective measures are necessary in the construction of new dwellings or extensions'.

5. POTENTIAL POLLUTANT LINKAGES

5.1 General

5.1.1 This section identifies the potential contaminants of concern, sources, pathways and receptors that may be associated with the site based on its known history and the current condition and with respect to the development of the site for residential use.

5.1.2 This information is used to develop a conceptual model which is a qualitative description of potential sources of environmental pollutants, the pathways by which they are transported and the receptors:

i) Potential sources of contamination: these include any actual or potentially contaminating materials and activities, located either on or in the vicinity of the site

ii) Potential pathways for contamination migration: these comprise the routes or mechanisms by which contaminants may migrate from the source to the receptor including environmental migration pathways and human health exposure pathways

iii) Potential receptors of contamination: these include future land users, ecological systems, water resources and property.

5.2 Potential Contaminants of Concern

5.2.1 Based on the earliest available historical maps (circa 1881) the site has been vacant until 1974-1975 when a residential building was developed on the site which remains to present day.

5.2.2 The site walkover confirmed that the residential building is still present and there was no visual evidence of contamination at the site.

5.2.3 Based on the available information the likelihood of potentially significant contamination to be present is considered to be very low.

5.2.4 However, the EnviroInsight Report indicates that there are two landfill sites located with 250 m of the site, the closest of which is some 125 m west of the site. These sites represent a potential source of ground gas. However, considering the age of the tips (last waste accepted 1976) and the distance, the risks from gas from these sites is considered to be negligible. The existing building has never been affected by ground gas.

5.3 Potential Pathways

5.3.1 No potential pathways have been identified.

5.4 Receptors

5.4.1 No potential receptors have been identified.

6. RECOMMENDATIONS

6.1 Based on the findings of the preliminary risk assessment, no potential issues associated with contamination has been identified with respect to the demolition of the existing building and construction of a new residential property.

6.2 Notwithstanding the above, BEK recommends the following works are carried out:

- All buildings on site should be subjected to a pre-demolition asbestos survey and any asbestos containing materials identified should be removed by a specialist contractor prior to their re-development/demolition and disposed of in accordance with the Duty of Care Regulations.

- All contractors on site should remain vigilant during any ground works and if visual or olfactory evidence of contamination is encountered then works should cease and specialist advice sought.

- If it is necessary to import sub/topsoil for use in the garden areas of the site it will be necessary to assess suitability.

- Whilst risks to service pipes are considered to be negligible, we recommend that consideration is given to the requirements of the water supply service provider and the completion of the UKWIR risk assessment for water pipe selection

- Any soils removed as part of the redevelopment of the site should be done so in accordance with Duty of Care Regulations.

APPENDIX A

Historical OS Maps

APPENDIX B

GeoInsight Report

APPENDIX C

EnviroInsight Report

APPENDIX D

Photographs

APPENDIX E

Drawings

GEO-ENVIRONMENTAL CONSULTING ENGINEERS

smas worksafe consultant www.smasltd.com as recognised by SSIP SAFETY SCHEMES IN PROCUREMENT



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