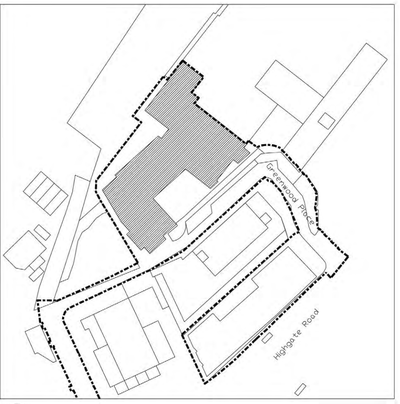

KEY PLAN 1:1250

Outline of building above

GENERAL NOTES

FIGURED DIMENSIONS ARE TAKEN TO STRUCTURE UNLESS INDICATED OTHERWISE.
ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORK.
DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTS DRAWINGS, CONSULTANTS AND SPECIALISTS DRAWINGS, CONSTRUCTION NOTES, SPECIFICATIONS AND EMPLOYER'S REQUIREMENTS WHERE APPLICABLE.
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Area Key:

- CIL/Shared Space
- Raglan Home Space
- PMLD Home Space
- Highgate Home Space
- Autism Home Space
- New Shoots Home Space
- Staff Space
- Plant Space

LEGEND:

4.1. Pool Entrance Lobby
4.2. Accessible Assisted WC Provision
4.3. PMLD Changing Area
4.4. Pool Area
4.5. Unisex Changing Area
4.6. Unisex WC Provision
4.7. Plant Room
4.8. Audi Visual + flotation aid store
0.50 Stair Core

0 0.5 1 2 3 4 5

Entrance-Group Space

Public Entrance-CIL

N

DATE	REV	DESCRIPTION	BY	CHECKED
2013.xx	A	general	PH	PN

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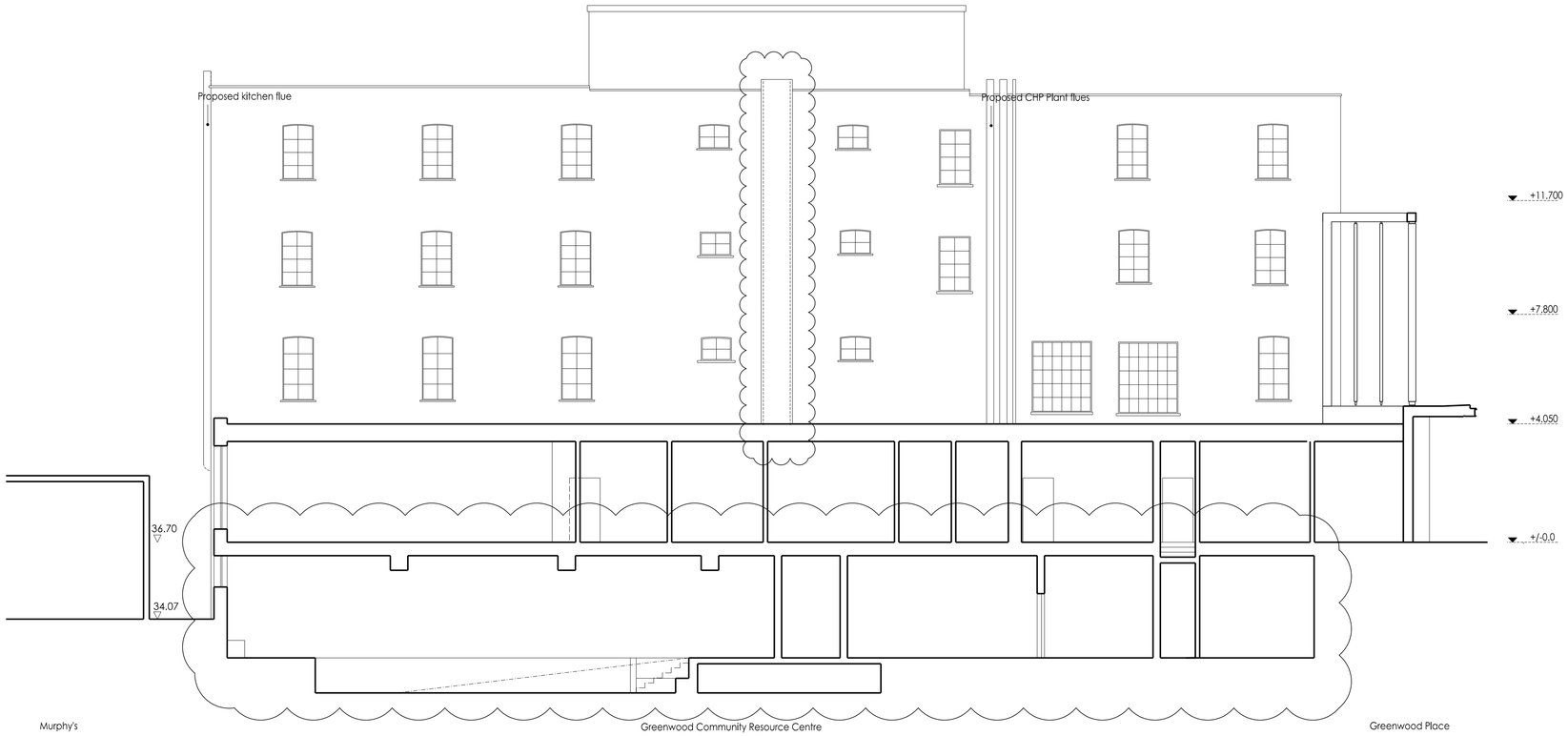
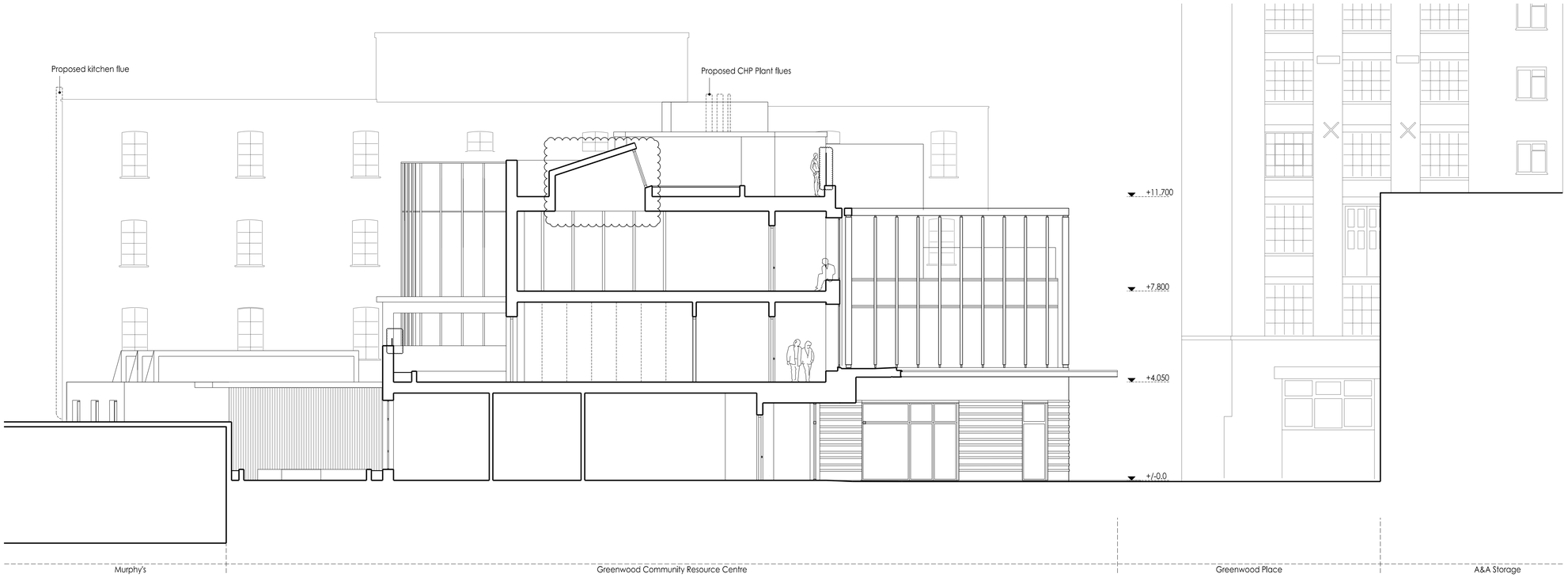
www.pcko.co.uk
ARCHITECTS INTERIOR DESIGNERS
MASTER PLANNERS URBAN DESIGNERS

CLIENT	LB Camden
PROJECT	Greenwood Place
DRAWING TITLE	Basement Plan Greenwood Centre
STATUS	SKETCH
SCALE 1:100@A1	DRAWN BY TM
DATE 2013.08	CHECKED BY PH
DRAWING NO. SK 164	REVISION A



SECTION A-A



SECTION B-B

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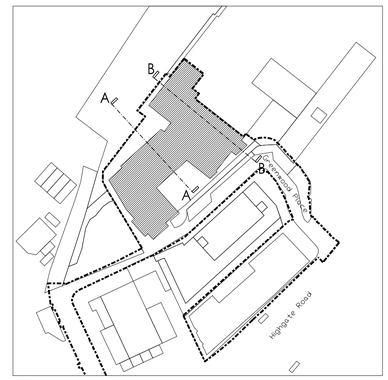

KEY PLAN 1:1250

0 0.5 1 2 3 4 5

DATE	REV	DESCRIPTION	BY	CHECKED
MAR 15	A	GENERAL AMENDMENTS	PH	PP

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MASTER PLANNERS URBAN DESIGNERS

CLIENT	LB Camden
PROJECT	Greenwood Place
DRAWING TITLE	Proposed Sections
STATUS	
SCALE 1:100@A1 1:200@A3	DRAWN BY TM
DATE 2013.08	CHECKED BY PH
DRAWING NO. SK 265	REVISION A

NOTES

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5 DRAWING STATUS:-

S :- SCHEME	- Outline/Scheme drawings for proposals, budgets etc.
D :- DESIGN DEVELOPMENT	- Evolving final design drawings for approvals, tenders, billing etc
C :- CONSTRUCTION	- Fully developed drawings issued under instruction for construction.

ONLY STATUS C DRAWINGS TO BE USED FOR CONSTRUCTION.

NOTE: Existing ground level below lowest floor of existing buildings needs to be determined to confirm construction methods of basement.

NOTE: Details of required pool balance tanks and associated plant requirements TBC

NOTE: A foul water package pumping station will be required to pump foul water generated by the toilets and floor gullies located within the basement.

FOUNDATION SCHEDULE	
Type Mark	Description
Type 1	1No. Pile 750x750x750dp
Type 2	2No.pile- 750x2100x750dp
Type 3	3No.pile-2100x1919x750dp
Type 4	4No. Pile-2100x2100x750dp

1. Cordek Cellcore grade 24/32 type HXB to be placed under all ground beams and pile caps.

2. Cordek Cellcore grade 18/24 type HXS 225mm thick to be placed under all ground floor slabs and basement slab.

3. Cordek Claymaster 75mm thick to be placed against the inside face of all external ground beams and pile caps.

Status/ Rev	Description	Date	By
D6	Basement slab profile with opening for pool updated. Swimming pool slab and wall added. Pile wall added. Pile and cap layout updated. New sections cut through basement walls and pool recess. Notes added.	01.04.15	ASD
D5	BOUNDARY LINE, BASEMENT DETAIL AND SLAB THICKNESS CONFIRMED	17.01.14	ASD
D4	THAMES SEWER ADDED.	13.12.13	AJT
D3	SLAB THICKNESS UPDATED	12.12.13	ASD
D2	ISSUED FOR PRICING	09.12.13	ASD

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BRISTOL 0117 916 1066 ◆ DUBAI 00 971 4 453 4735

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Job Title: GREENWOOD PLACE

Client: LB CAMDEN

COMMUNITY CENTRE BASEMENT PLAN AND LOW LEVEL FOUNDATIONS

drawn	date	scale @ A1	C1 checked	CAD filename
ASD	DEC' 13	1 : 100	-	11167_Revit

Job No.	Drg No.	Status/Revision
11167	S200	D6

notes

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TOPOGRAPHICAL SURVEY INFORMATION

All existing survey information shown or referred to is based upon a topographical survey prepared by engineering land & building surveys dated january 2013, drawing reference: B7106.

Datum used - Newlyn
Bench mark - OSBM 30 Lady Somerset Road value 40.83m

All control stations and dimensions shall be checked and verified prior to commencement and any discrepancies shall be reported to the engineer.

We accept no responsibility for the accuracy of the data which is shown for information only.

ABBREVIATIONS (WHERE APPLICABLE)

AH	ARCH HEIGHT	KO	KERB OUTLET
AV	AIR VALVE	L	LIGHT
B	BOLLARD	LP	LAMP POST
BG	BOX GULLY	MH	MANHOLE
BH	BEAM SOFFIT HEIGHT	MKR	MARKER
BL	BEAM SOFFIT LEVEL	NB	NOTICE BOARD
BW	BRICK WALL	NFI	NO FURTHER INFORMATION
C	WINDOW CILL HEIGHT	O/H	OVERHEAD
CE	CLEANING EYE	P	POST
1.90F	CEILING HEIGHT (FALSE)	PL	PAVEMENT LIGHT
CL	COVER LEVEL	PM	PARKING METER
CM	CABLE MARKER	R	ROOF
CONC	CONCRETE	(R)	FROM RECORDS
CP	CATCH PIT	RG	ROAD GULLY
CPS	CONC PAVING SLABS	RS	ROAD SIGN
D	DEPTH	RSJ	ROLLED STEEL JOIST
DH	DOOR HEIGHT	RW	RETAINING WALL
DP	DOWN PIPE	RWP	RAIN WATER PIPE
E	EARTHING POINT	S	SPREAD
ECP	ELEC CABLE PIT	SC	STOP COCK
EJB	ELEC JUNCTION BOX	SKL	SKYLIGHT
EP	ELECTRICITY POLE	SL	SUMP LEVEL
F	FLOOR	SP	SPRING POINT HEIGHT
FB	FLOWER BED	SV	SLUICE VALVE
FH	FIRE HYDRANT	TIC	TELEPHONE IC
FIG	FEEDS INTO GROUND	TJB	TEL. JUNCTION BOX
FL	FLOOR LEVEL	TL	THRESHOLD LEVEL
G	GULLY OR GRTH	TP	TELEPHONE POLE
GV	GAS VALVE	TRL	TRAFFIC LIGHT
H	WINDOW HEAD HEIGHT OR HEIGHT	UTL	UNABLE TO LIFT
		UTT	UNABLE TO TRACE
HB	HAND BASIN	VP	VENT PIPE
HD	HEATING DUCT	W	WALL
IC	INSPECTION COVER	WC	WATER CLOSET
IL	INVERT LEVEL	WM	WATER METER

FENCES

C/B	CLOSE BOARDED
C/I	CORRUGATED IRON
P/R	POST & RAIL
P/W	POST & WIRE
P&WM	POST & WIRE MESH

LEGEND

EXISTING TWUL COMBINED SEWER
EXISTING TWUL POTABLE WATER
EXTENT OF SWIMMING POOL AND BALANCING TANK

Status/Rev	Description	Date	By
D3	BASEMENT OUTLINE UPDATED. BALANCING TANK AND EXISTING SERVICES ADDED.	02.04.15	TH
D2	BASEMENT OUTLINE UPDATED	02.04.15	TH
D1	ISSUED FOR INFORMATION	21.08.13	MP

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Job Title: GREENWOOD PLACE

Client: LB CAMDEN

TOPOGRAPHICAL SURVEY & PROPOSED BASEMENT LOCATION

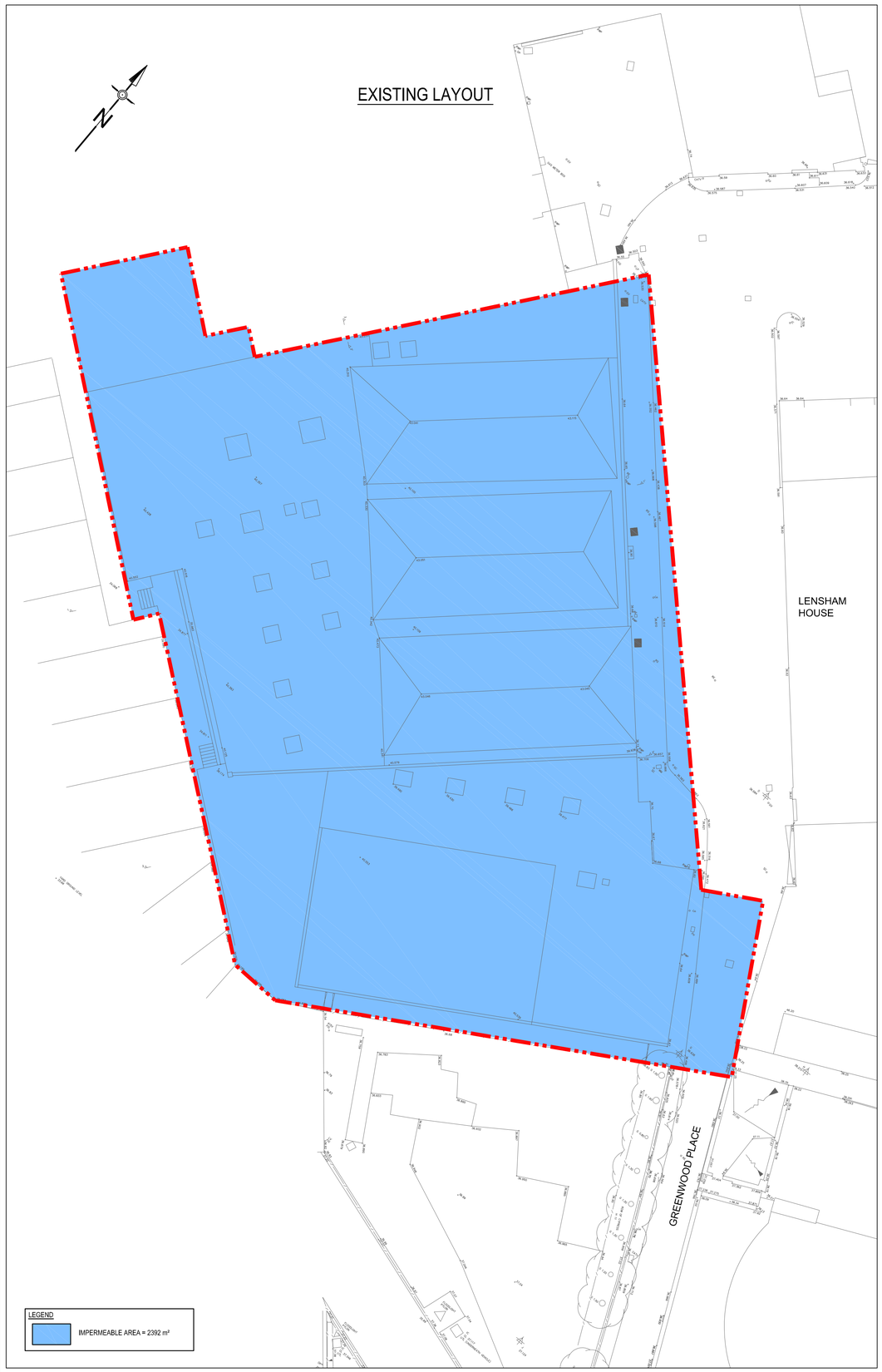
drawn	date	scale	C1 checked	CAD filename
MP	AUG'13	1:200@A1		11167-G150

Job No.	Drg No.	Status/Revision
11167	G100	D3

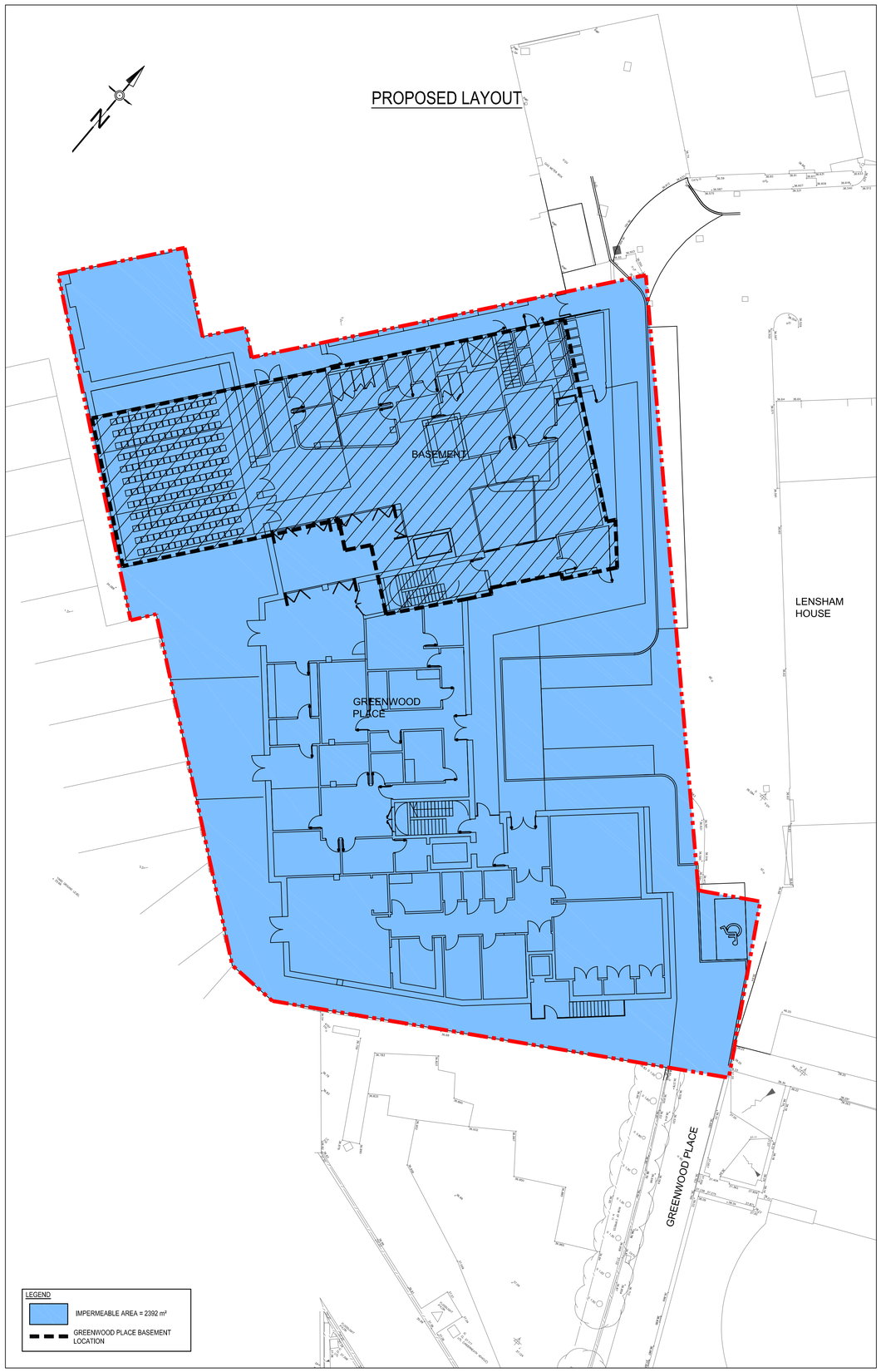
0 5 10 m

A1

EXISTING LAYOUT



PROPOSED LAYOUT



0 5 10 m

A1

notes

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REVISION

Status/Rev	Description	Date	By
D3	BASEMENT OUTLINE UPDATED	22.04.15	TH
D2	BASEMENT OUTLINE UPDATED	02.04.15	TH
D1	ISSUED FOR INFORMATION	21.08.13	MP

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Job Title: GREENWOOD PLACE

Client: LB CAMDEN

EXISTING & PROPOSED IMPERMEABLE AREAS

drawn	date	scale	C1 checked	CAD filename
MP	JUL'13	1:200@A1		11167-G150

Job No.	Drg No.	Status/Revision
11167	G150	D3

LEGEND

- PROPOSED FOUL WATER MANHOLE AND SEWER.
- PROPOSED STORM WATER MANHOLE AND SEWER.
- EXISTING COMBINED MANHOLE AND SEWER.
- EXTENT OF PROPOSED BASEMENT.
- APPROXIMATE SITE BOUNDARY.

LENSHAM HOUSE

GROUND FLOOR

HYDROBRAKE FLOW CONTROL TO LIMIT DISCHARGE TO 9.4L/S

13 X 7 X 0.5M BELOW GROUND ATTENUATION TANK TO HOLD APPROX. 40M³. TANK TO BE STRONG ENOUGH TO WITHSTAND HGV LOADING WITH 0.5M COVER.

HYDROBRAKE FLOW CONTROL TO LIMIT DISCHARGE TO 9.4L/S

0 5 10 m

notes

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5. DRAWING STATUS
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6. Existing details shown on this drawing including kerblines, sewerage pipework, stub connections, levels & inverts etc. Must be confirmed on site by the contractor for their accuracy. If any discrepancies occur the engineer must be informed.
7. The proposed building outlines shown on this drawing are indicative only. Refer to architects layouts for exact external outline of proposed blds.
8. External rain water pipes, & internal svp's, ss's, dp's & floor gully locations/connections etc. Shown on this drawing are approximate/ indicative only. Refer to archs drgs for their exact locations & types.
9. All external adoptable storm pipework & lateral connections shown falls of 1:120 unless stated otherwise.
10. All external private storm pipework & lateral connections shown on this drawing are to be 100Ø & are to have minimum falls of 1:100 unless stated otherwise. All external private foul pipework & lateral connections shown on this drg are to be 100Ø & are to have minimum falls of 1:80 unless stated otherwise.
11. Existing adopted/non-adopted storm & foul water mh's & sewers which have been made redundant by new storm/foul systems, shall be abandoned/removed. Existing sewer & manholes are to be abandoned/ /removed in compliance with L.A. specifications.
12. Cover levels shown on this drawing are approximate & are to be adjusted to suit finished pavement levels on site by contractor. Covers shall be orientated to suit pavement finishes.
13. UNDERSLAB DRAINAGE CONNECTIONS:
    a) All underslab foul connections upto first external inspection chamber/ manhole are to be 100Ø & are to have a minimum fall of 1:40 unless stated otherwise. After first external inspection chamber/manhole connections are to be 100Ø & have a minimum fall of 1:80 unless stated otherwise.
    b) All underslab storm connections upto first external inspection chamber/ manhole are to be 100Ø & are to have a minimum fall of 1:40 unless stated otherwise. After first external inspection chamber/manhole connections are to be 100Ø & have a minimum fall of 1:100 unless stated otherwise.
    c) Final orientation & position of first external chambers receiving underslab connections are to be determined on site by contractor.
    d) Bends along underslab connections are to be long radius 5-45°. Bends at bottom of stacks/soil vent pipes are to be long radius 90°.
    e) All under slab drainage connections are to be clear of unit foundations unless unavoidable. Refer to CRH structural drawings for exact location of unit foundations.
    f) Finished underslab drainage route connections ie. Bend & straight combinations are to be determined on site to suit the number of bends in each connection is to be kept to a minimum.
14. All adoptable storm sewerage runs to be laid soffit to soffit unless stated otherwise. All Adoptable foul sewerage runs to be laid soffit to soffit unless stated otherwise. All non-adoptable storm/foul sewerage to be laid soffit to soffit unless stated otherwise.
15. External rainwater pipes are to be roddable above ground (refer to details).
16. All works are non-adoptable unless stated otherwise.
17. Adoptable pipe work to be concrete or unified clay.
18. Class Z concrete encasement required where vertical clearance between two pipes is less than 300mm.
19. For the provision of land drainage if required refer to landscape architect for details/specification.
20. At least one soil pipe at at the head of each run shall vent to the atmosphere.
21. All adoptable drainage shown on this drawing shall be constructed in accordance with water authorities association sewers for adoption 7th edition.

NOTE:
SETTING OUT OF ALL RWP, STUB-STACK AND SVP POSITIONS TO BE CONFIRMED BY ARCHITECT/M&E.

NOTE:
THE INFORMATION SHOWN IS SUBJECT TO BUILDING CONTROL/LOCAL AUTHORITIES APPROVAL.

NOTE:
RAINWATER HARVESTING REQUIREMENTS TO BE CONFIRMED BY M&E ENGINEER.

Status/Rev	Description	Date	By
D3	ISSUED FOR TENDER	17.03.15	NEJ
D2	ISSUED FOR TENDER	06.12.13	RI
D1	ISSUED FOR INFORMATION	19.08.13	MP

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Job Title: GREENWOOD PLACE

Client: LB CAMDEN

PRELIMINARY DRAINAGE STRATEGY STORMWATER

drawn	date	scale	C1 checked	CAD filename
NEJ	17.03.15	1:125@A1		11167-C300

Job No.	Drg No.	Status/Revision
11167	C300	D3

A1

Appendix B: Selected Desk Study Data

EmapSite
Masdar House,
Eversley, RG27 0RP

Report Reference:	EMS-184935_271160
Your Reference:	EMS_184935_271160
Report Date	Nov 8, 2012
Report Delivery Method:	Email - pdf

GroundSure GeoInsight

Address: Greenwood Place Community Centre

Dear Sir/Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure GeoInsight** as requested.

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc.
GroundSure GeoInsight

GroundSure GeoInsight

Address: Greenwood Place Community Centre

Date: Nov 8, 2012

Report Reference: EMS-184935_271160

Your Reference: EMS_184935_271160

Brought to you by emapsite

Aerial Photograph of Study Site

NW N NE

W E

SW S SE

Site Name: Greenwood Place Community Centre
Grid Reference: 528833,185396
Size of Site: 0.57 ha

Overview of Findings

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Report Section	Number of records found within (X) m of the study site boundary
1. Geology	**Description**
1.1 Artificial Ground,	
1.1.1 Is there any Artificial Ground /Made Ground present beneath the study site?*	Yes
1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology & Landslips	
1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	No
1.2.2 Are there any records relating to permeability of superficial geology within the study site* boundary?	No
1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
1.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No
1.3 Bedrock, Solid Geology & Faults	
1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
1.3.2 Are there any records relating to permeability of bedrock within the study site* boundary?	Yes
1.3.3 Are there any records of faults within 500m of the study site boundary?	No
1.3.4 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
1.3.5 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

* This includes an automatically generated 50m buffer zone around the site

Source:Scale 1:50,000 BGS Sheet No:256

2. Ground Workings	on-site	0-50	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	2	8	-	-
2.2 Historical Underground Workings Features from Small Scale Mapping	0	0	8	13	16
2.3 Current Ground Workings	0	0	0	0	0

3. Mining, Extraction & Natural Cavities	on-site	0-50	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	3	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining*	0	0	0	0	0
3.5 Non–Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

*This includes an automatically generated 50m buffer zone around the site

4. Natural Ground Subsidence	on-site*	0-50	51-250	251-500	501-1000
4.1 Shrink-Swell Clay	Moderate	-	-	-	-
4.2 Landslides	Low	-	-	-	-
4.3 Ground Dissolution of Soluble Rocks	Null	-	-	-	-
4.4 Compressible Deposits	Negligible	-	-	-	-
4.5 Collapsible Deposits	Very Low	-	-	-	-
4.6 Running Sand	Very Low	-	-	-	-

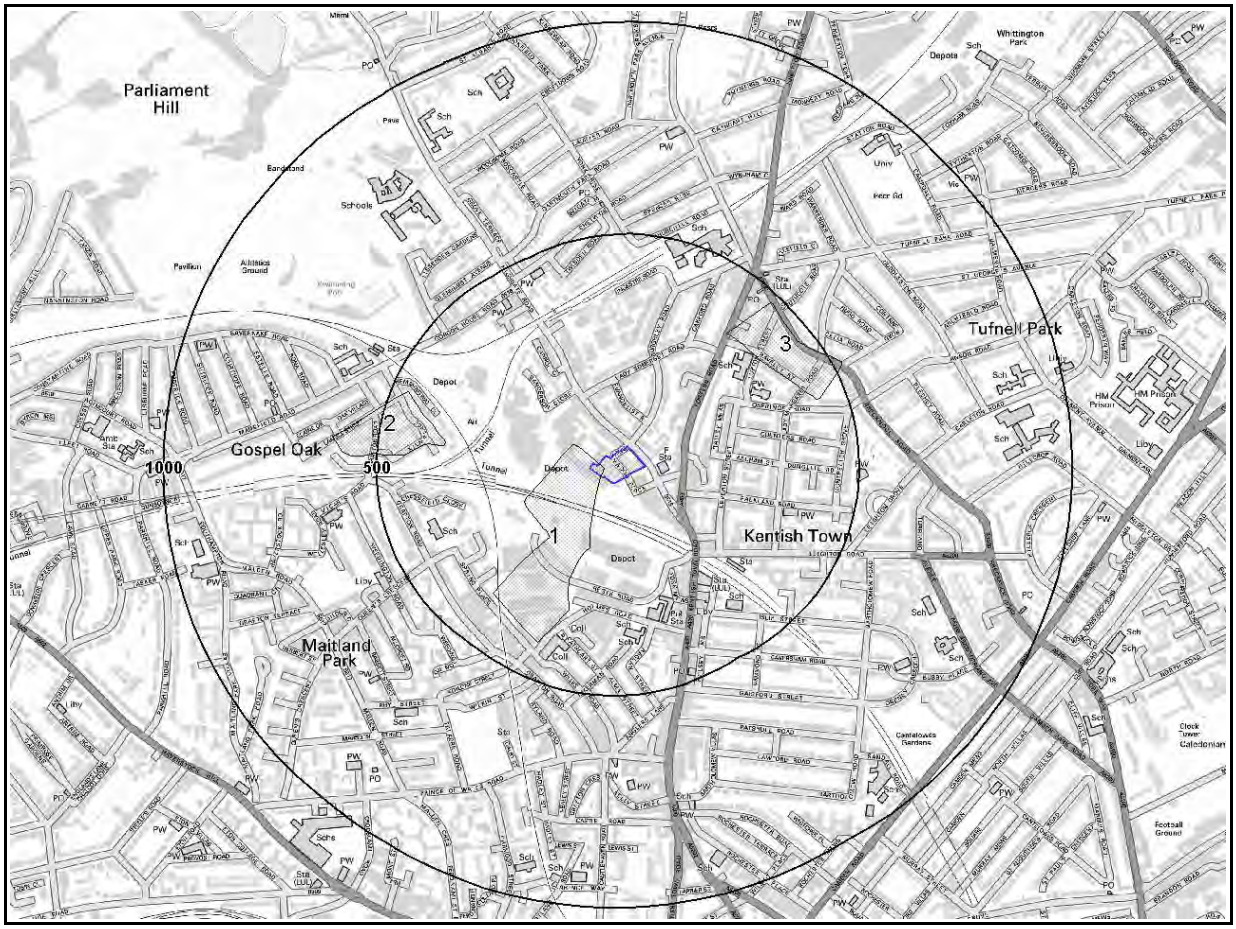
* This includes an automatically generated 50m buffer zone around the site

5. Borehole Records	on-site	0-50	51-250	251-500	501-1000
5.1 BGS Recorded Boreholes	0	0	2	-	-

6. Estimated Background Soil Chemistry	on-site	0-50	51-250	251-500	501-1000
6.1 Records of Background Soil Chemistry	1	0	0	-	-

1.1 Artificial Ground Map

NW N NE



W E

SW S SE

Artificial Ground Legend

Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:256

1.1.1 Artificial/Made Ground

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	WGR-OPEN	WORKED GROUND (UNDIVIDED)	VOID
2	345.0	W	WGR-OPEN	WORKED GROUND (UNDIVIDED)	VOID
3	354.0	NE	WGR-OPEN	WORKED GROUND (UNDIVIDED)	VOID

1.1.2 Permeability of Artificial Ground

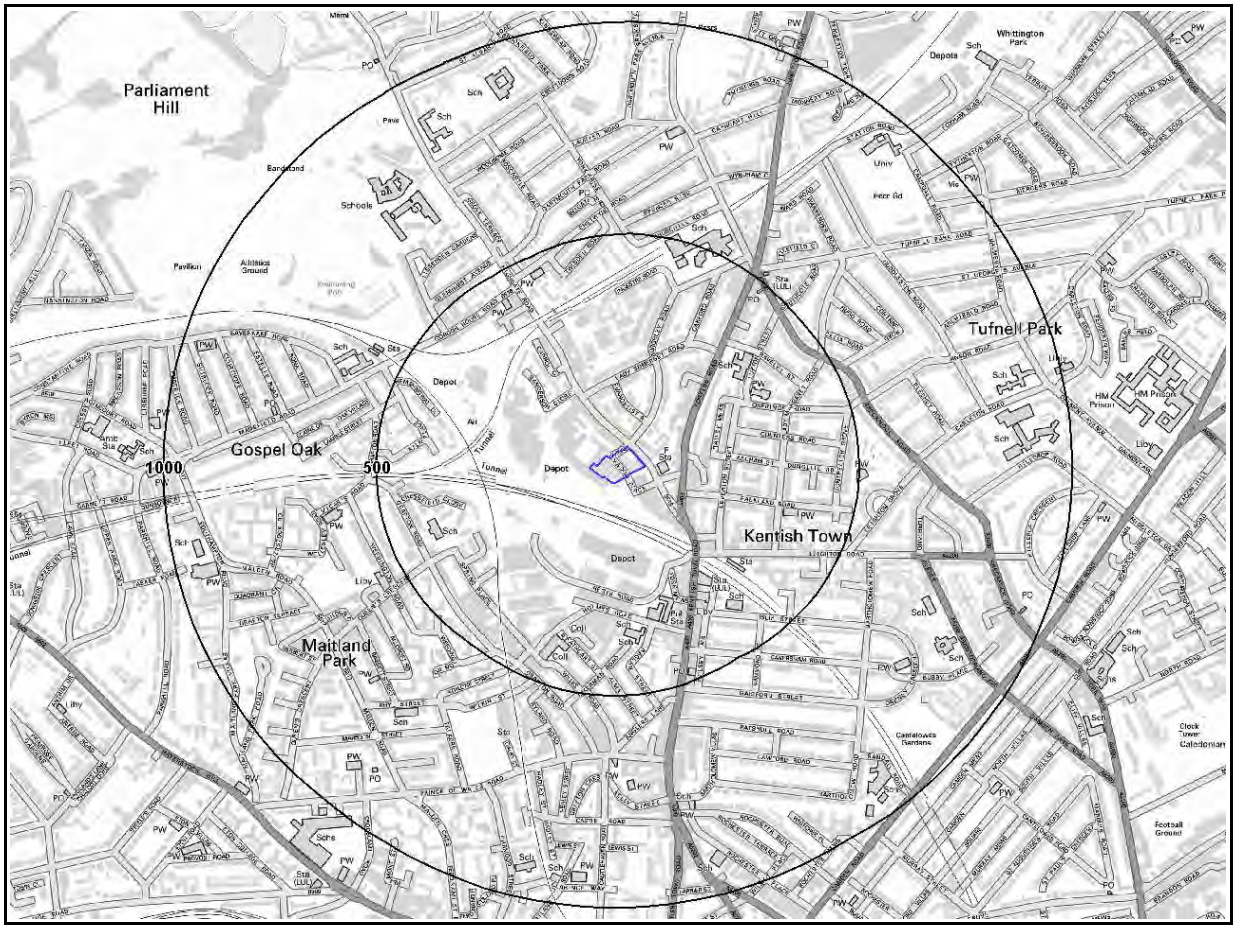
Are there any records relating to permeability of artificial ground within the study site* boundary? No

Database searched and no data found.

* This includes an automatically generated 50m buffer zone around the site.

1.2 Superficial Deposits and Landslips Map

NW N NE



W E

SW S SE

Superficial and Landslips Legend

Site Outline

500
1000
Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/Drift Geology

Are there any records of Superficial Deposits/Drift Geology within 500m of the study site boundary? No

Database searched and no data found.

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site* boundary? No

Database searched and no data found.

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site* boundary? No

Database searched and no data found.

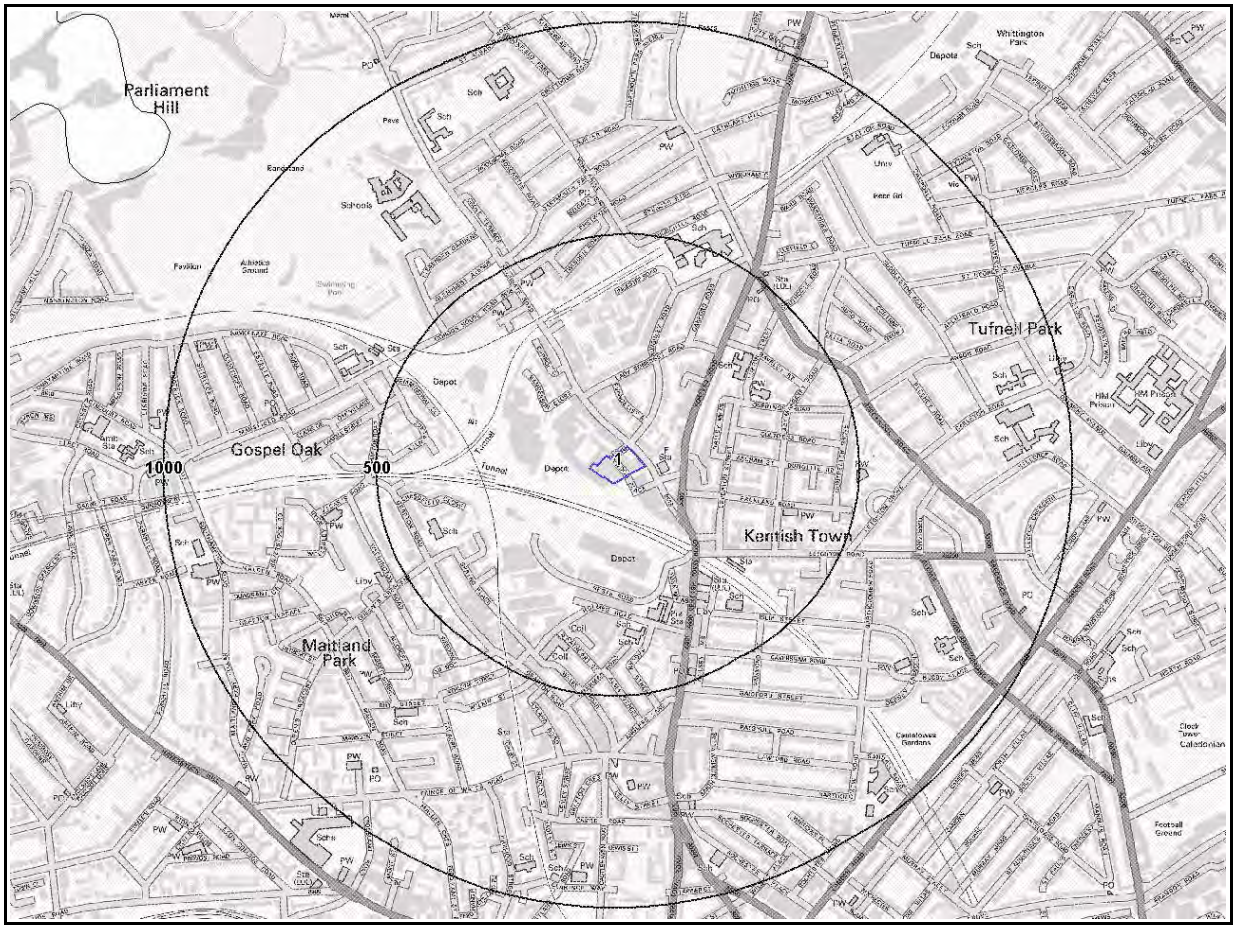
*This includes an automatically generated 50m buffer zone around the site.

1.3 Bedrock and Faults Map

NW N NE

W E

SW S SE



Bedrock & Faults Deposits Legend

Site Outline

500
1000
Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:256

1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	LC-CLSS	London Clay Formation - Clay, Silt And Sand	Eocene

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary? Yes

Distance (m)	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Moderate	Very Low

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3.4 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

1.3.5 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary

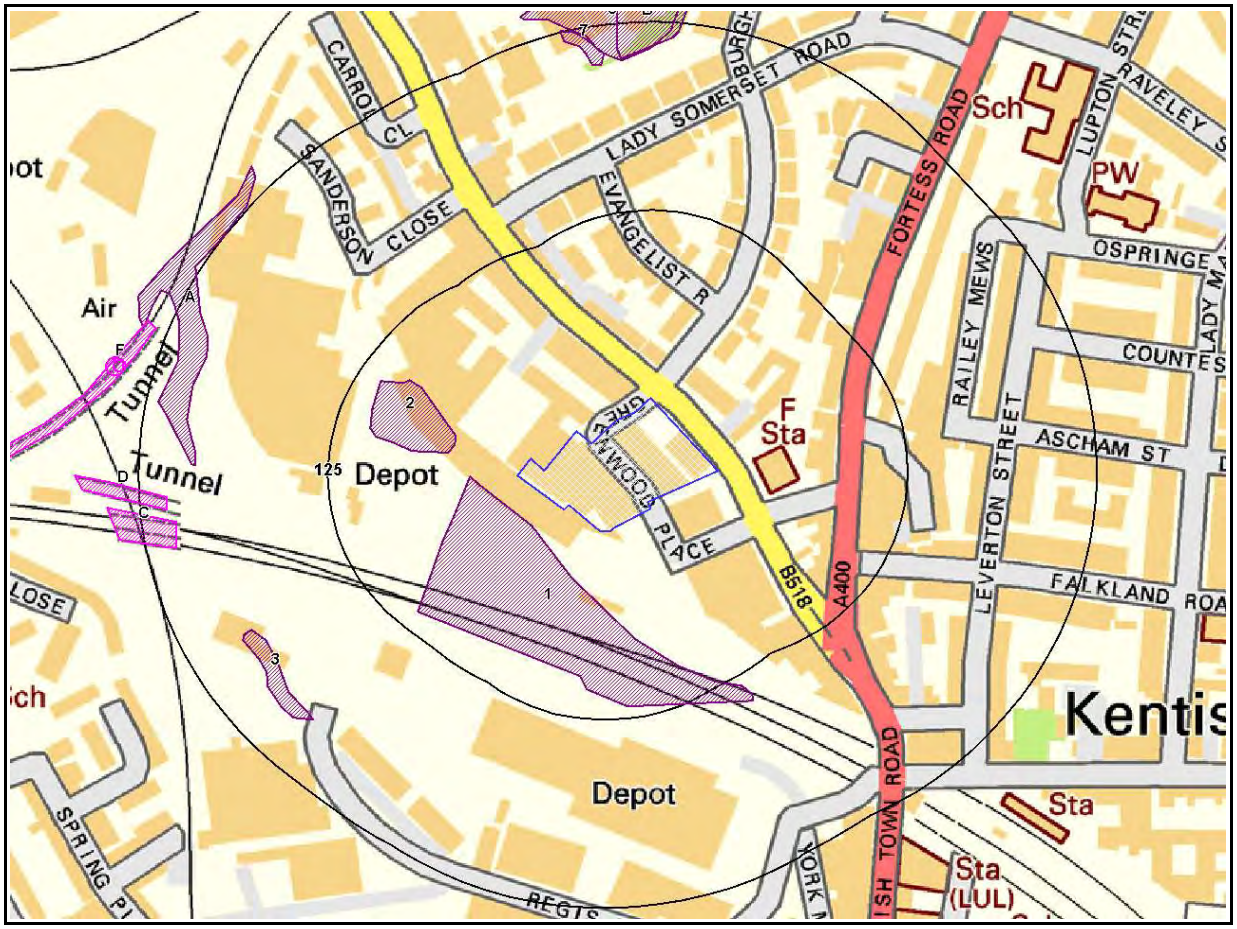
* This includes an automatically generated 50m buffer zone around the site.

2. Ground Workings Map

NW N NE

W E

SW S SE



Ground Workings Legend

Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

Historic Underground Workings

Current Ground Workings

2. Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
1	21.0	SW	528809,185315	Cuttings	1869
2	46.0	NW	528695,185431	Unspecified Heap	1894
3	199.0	SW	528606,185260	Unspecified Ground Workings	1913
4A	213.0	W	528552,185498	Unspecified Ground Workings	1869
5A	213.0	W	528552,185498	Unspecified Ground Workings	1879
6A	213.0	W	528552,185498	Unspecified Ground Workings	1879
7	224.0	N	528807,185675	Unspecified Ground Workings	1913
8	225.0	N	528850,185755	Unspecified Heap	1938
9B	227.0	N	528878,185753	Unspecified Heap	1965
10 B	227.0	N	528878,185753	Unspecified Heap	1958

2.2 Historical Underground Workings Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
11C	227.0	W	528516,185357	Tunnel	1995
12C	227.0	W	528516,185357	Tunnel	1958
13C	227.0	W	528516,185357	Tunnel	1974
14C	227.0	W	528516,185357	Tunnel	1965
15D	232.0	W	528502,185380	Tunnel	1995
16D	232.0	W	528502,185380	Tunnel	1958
17D	232.0	W	528502,185380	Tunnel	1974
18D	232.0	W	528502,185380	Tunnel	1965
19E	258.0	W	528484,185446	Tunnel	1995
20E	258.0	W	528484,185446	Tunnel	1958
21E	258.0	W	528484,185446	Tunnel	1974
22E	258.0	W	528484,185446	Tunnel	1965
23F	269.0	W	528501,185465	Unspecified Shaft	1995
24F	269.0	W	528501,185465	Unspecified Shaft	1974
25F	270.0	W	528498,185464	Unspecified Shaft	1965
Not shown	345.0	NW	528691,185756	Tunnel	1958
Not shown	345.0	NW	528691,185756	Tunnel	1974
Not shown	345.0	NW	528691,185756	Tunnel	1965

Not shown	353.0	N	528750,185788	Tunnel	1958
Not shown	353.0	N	528750,185788	Tunnel	1974
Not shown	353.0	N	528750,185788	Tunnel	1965
Not shown	688.0	W	528025,185363	Tunnel	1995
Not shown	688.0	W	528025,185363	Tunnel	1974
Not shown	688.0	W	528025,185363	Tunnel	1965
Not shown	929.0	W	527029,185170	Tunnel	1995
Not shown	929.0	W	527029,185170	Tunnel	1974
Not shown	932.0	W	527029,185170	Tunnel	1958
Not shown	932.0	W	527029,185170	Tunnel	1965
Not shown	960.0	SE	529576,184558	Tunnel	1914
Not shown	960.0	SE	529576,184558	Tunnel	1938
Not shown	964.0	SE	529574,184527	Tunnel	1873
Not shown	964.0	SE	529574,184527	Tunnel	1873
Not shown	970.0	SE	529582,184534	Tunnel	1957
Not shown	970.0	SE	529582,184534	Tunnel	1940
Not shown	970.0	SE	529602,184492	Tunnel	1973
Not shown	970.0	SE	529602,184492	Tunnel	1968
Not shown	970.0	SE	529602,184492	Tunnel	1989

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? **No**

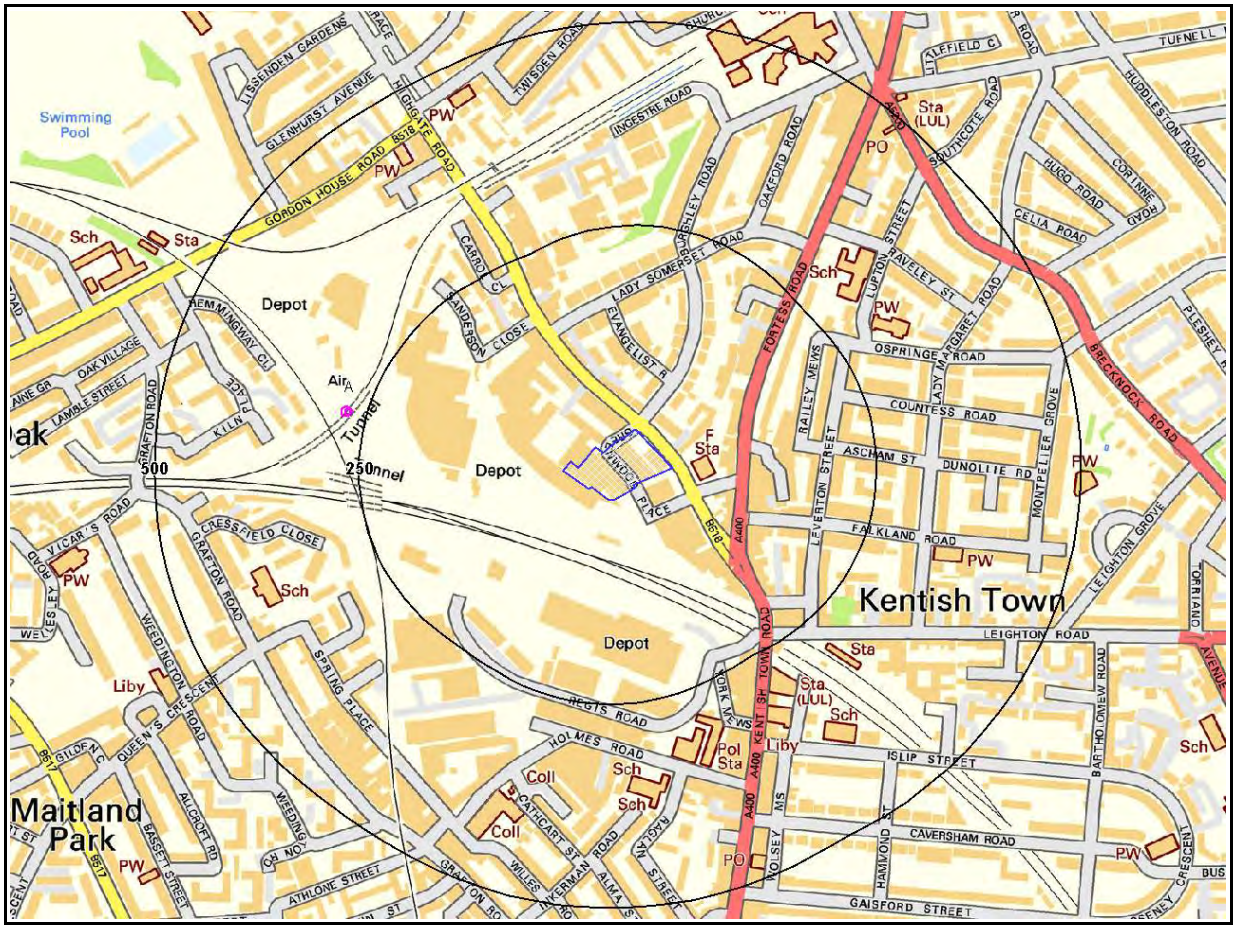
Database searched and no data found.

3. Mining, Extraction & Natural Cavities Map

NW N NE

W E

SW S SE



Mining, Extraction & Natural Cavities Legend

3.Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? **Yes**

The following Historical Mining information is provided by Groundsure :

ID	Distance (m)	Direction	NGR	Details	Date
1A	269.0	W	528501,185 465	Unspecified Shaft	1995
2A	269.0	W	528501,185 465	Unspecified Shaft	1974
3A	270.0	W	528498,185 464	Unspecified Shaft	1965

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? **No**

The following information provided by JPB is not represented on Mapping:

Database searched. No results found.

3.4 Non – Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.5 Non – Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? **No**

Database searched and no data found.

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? **No**

Database searched and no data found.

3.7 Brine Extraction

This dataset provides information from the Brine Compensation Board which has been discontinued and is now covered by the Coal Authority.

Are there any Brine Extraction areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level. More detailed information on potential Tin Mining may be found in Section 3.4 – Non-Coal Mining Hazards.

Are there any Tin Mining areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? **No**

Database searched and no data found.