157A BLACKPOOL ROAD, POULTON-LE-FLYDE

PHASE 1: PRELIMINARY RISK ASSESSMENT

Job Number: LKC 20 1381
Date: February 2021
Client: Mr Paul Kelly

INCREASING LAND VALUE

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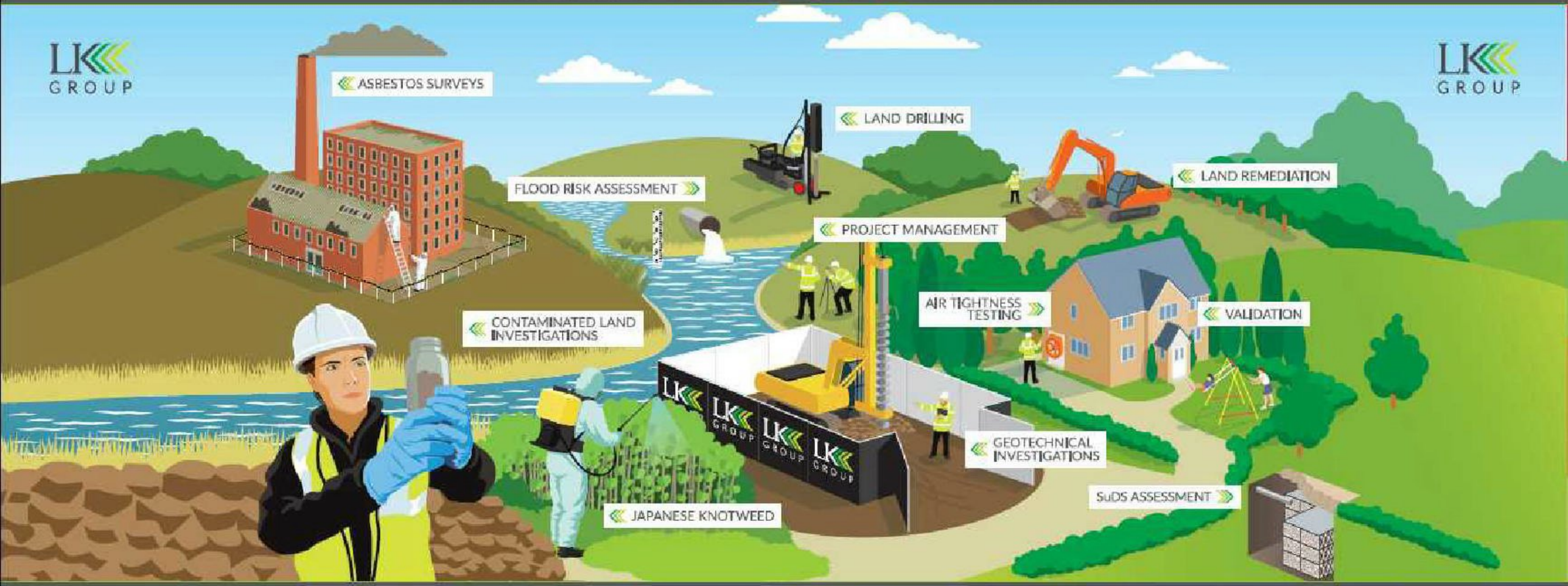

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LK Consult Document Verification			
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Job Number	LKC 20 1381	**Document Ref.**	CL-602-LKC 20 1381-01
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Prepared By	Natasha Jeffery	**Signature**	[redacted]
Reviewed By	Emma Khadun	**Signature**	
	Ben Smith	**Signature**	

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Revision No.	**Date**	**Nature of Revision**	**Approved By**

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1 Introduction

LK Consult Ltd (LKC) has been retained to carry out a Phase 1 Preliminary Risk Assessment (PRA) for the land to the rear of 157A Blackpool Road, Poulton-le-Fylde.

In accordance with current guidance (including LMRM[1] and the National Planning Policy Framework (NPPF)[2]), the PRA will include a site reconnaissance, site history, geology, hydrogeology, hydrology, mineral search and a landfill search. Information gathered from the desk study and site reconnaissance will be used to develop a contamination conceptual model for the site.

In addition, the information gathered will be used to identify potential geotechnical constraints associated with the redevelopment of the site.

Based on the findings of this report, an appropriate site investigation can be derived, if required.

Site details are provided in Table 1-1. Figure 1 shows the site location and boundary. Drawing No. A019/024/S01 shows the proposed development plan.

Site Location	Located at 157A Blackpool Road, the site is located to the rear of a semi-detached house. Centred at approximate National Grid Reference 333310E, 439640N.
Approximate Area	800m^2.
Topography	16 metres Above Ordnance Datum (AOD). Site is approximately level.
Current Site Use	Site is currently used as part of a yard/storage area for tree surgery equipment as well as lumber and wood chipping as well as a space for a mobile home, which is currently occupied by the client.
Purpose of Report	Pre-planning.
Proposed Development	Two storey residential property with soft landscaping.

Table 1-1: Summary of site details

[1] Land Contamination Risk Management (LCRM) https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm
[2] "National Planning Policy Framework." The Ministry of Housing, Communities and Local Government. February 2019.

2 Historical Review

In compiling the site history, LKC consulted Envirocheck historical mapping (Appendix B).

Table 2-1 summarises features on site.

Table 2-2 summarises potentially contaminative land uses within approximately 50m and potentially infilled features within approximate 250m.

Site Features	Location on Site	Dates Present		Comments
		From	To	
Undeveloped land	Whole site	1847	1913	
Rear garden	Whole site	1930	2015	Possibly used as a paddock.
Storage of vehicles / machinery	C, E	2015	Present	

Table 2-1: Summary of site features. Dates based on available historical map editions.

Surrounding Area Features	Distance (m)	Direction	Dates Present		Comments
			From	To	
Nursery	Adj	N	1961	Present	
Blackpool Rd	6	SE	1847	Present	
4no. Ponds	95, 186, 201, 214	E, NE	1891	1956	Marsh in place of some ponds by 1971 and 1993 mapping. No longer present by 1911 and 1961 mapping.
10no. Ponds	114, 163, 165, 179, 181, 181, 203, 225, 227, 239	N, S	1847	1993	4no. longer present by 1895, 1913, 1930 and 1981 mapping. 6no. still present on 2021 mapping.
Old clay pit	122	W	1847	1961	Partially infilled and built on by 1962 mapping. No longer present by 1972 mapping.
Pond	153	NE	1911	1913	No longer present by 1930 mapping.

Table 2-2: Summary of potentially contaminative features within 50m and potentially infilled features with 250m. Dates are based on available historical map editions.

Plate 2-1 shows the features noted in Table 2-1 and 2-2.

Plate 2-1: Historical features within 250m.

3 Environmental Setting

A summary of environmental settings is presented in Table 3-1, based on a review of available environmental data.

Categories(data sources)			Details
Geology[1, 2]	Artificial		- No BGS recorded artificial.
	Superficial		- Till (diamicton).
	Bedrock		- Kirkham Mudstone Member (mudstone).
	BGS Logs (<50m)		- None.
Hydro-geology[1]	Aquifer Designation	- Superficial	- Secondary Undifferentiated Aquifer.
		- Bedrock	- Secondary B Aquifer.
	Source Protection Zone (SPZ)		- Site not within an SPZ.
	Groundwater Abstractions (100m)		- None.
	Groundwater Flooding Risk		- Potential for groundwater flooding of property to occur below ground level.
Hydrology[1]	Surface Water Courses (100m)		- 27m NW, unnamed pond.
	Surface Water Flooding Risk		- Flood Zone 1.
	Surface Water Abstractions (100m)		- None.
	Discharge Consents		- None.
	Pollution Incidents		- None.
Minerals & Mining[1,4,5]	Coal Mining		- Not within a Coal Reporting Area. - Not within a Development High Risk Area.
	Surface Mineral Extractions (250m)		- 146m W, Carleton Clay Pit, opencast clay and shale extraction (ceased).
	Cheshire Brine Compensation District		- Not within Compensation District. - Not within Consultation Area.
	Non-Coal Mining Area		- Not within an area of conclusive metalliferous mining.
Ground Stability[1]	Collapsible Ground		- Very low hazard.
	Compressible Ground		- No hazard.
	Ground Dissolution		- No hazard.
	Landslide		- Very low hazard.
	Running Sand		- Very low hazard.
	Shrinking / Swelling Clay		- Very low hazard.
Landfill Sites (250m)[1]	Known / Registered		- None.
	Potentially Infilled Land (non-water and water), based on Envirocheck Report		- 7no. water features: 24m SE, 164m NE, 177m NE, 192m N, 204m SW, 207m W, 228m E. - 1no. non water feature: 124m W.
	Potentially infilled sites, based on LKC historical review		- 10no. features: See Table 2-1.
Radon Potential[1]			- <1% of homes above Action Level. No protective measures are necessary in the construction of new dwellings or extensions.
Designated Sites (50m)[1]			- Area of Adopted Green Belt 21m NW.

Table 3-1: Summary of the environmental setting.

Notes: Distance in brackets is the distance from site that features are included. Where no distance given, features relate to on site only.

Data Sources:
1 Envirocheck Report (Appendix A & B)
2 BGS Sheet 66 1:50,000
3 BGS GeoIndex http://mapapps2.bgs.ac.uk/geoindex/home.html
4 The Coal Authority Web Mapping Services (WMS) /
Interactive Map Viewer http://coal.decc.gov.uk/en/coal/cms/publications/data/map/map.aspx

Categories(data sources)		Details
Contemporary Trade Directory (50m)[1]		- None.
Fuel Station Entries (50m)[1]		- None.
Unexploded Ordnance Risk (UXO)	Zetica Risk Map[5]	- Low.

Table 3-1: Summary of the environmental setting.

Notes: Distance in brackets is the distance from site that features are included. Where no distance given, features relate to on site only.

Data Sources:

1 Envirocheck Report (Appendix A & B)

5 Zetica UXO Unexploded Bomb Risk Map (Appendix C)

4 Site Reconnaissance

A site reconnaissance was carried out on the 28th January 2021. Hand dug trial holes were undertaken in accessible areas to confirm the shallow ground conditions.

Relevant features identified on site are summarised below:

- The site is access via a gate off Blackpool Road, to the rear of No. 157A accessed via a track to the east of the existing detached property.
- The majority of the site comprises compacted sand and gravel, with several trees and shrubs towards the rear of the site.
- The site is used as a commercial yard for the storage of logs, several pieces of machinery (including a wood chipper), as well as a mobile home which is occupied by the client. Adjacent to the mobile home, there is also a paved area with a shed.
- The track comprises sand and gravel, with a few potholes noted.
- Wooden fencing is present along all site boundaries, noted to be in poor repair in places.
- 3no. gas canisters were present surrounding the mobile home, 2no. to the rear and one connected.
- A manhole cover was noted along the track, running from the mobile home and presumably connecting to the main sewers and drains located on Blackpool Road.
- The adjacent building to the east appears to have been stables but now holds domestic goods. Domestic car parking also occurs to the east of the site.
- The site is relatively flat.
- No access restrictions.

The surrounding area comprises residential rear garden areas, adjacent house 157A Blackpool Road, domestic garage for the house, residential properties and the pathway.

Relevant photographs are provided in Plate 4-1.

Photograph 1: View of site from NW.

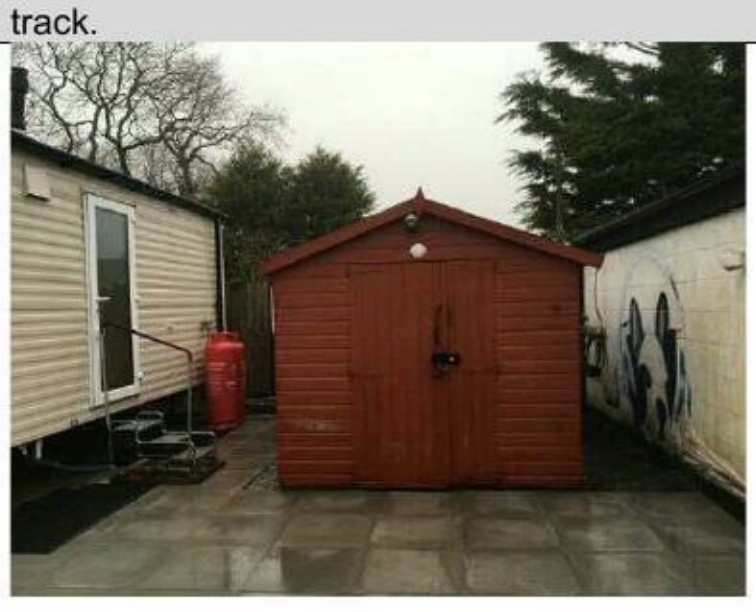
Photograph 2: View of track from N.

Plate 4-1: Site photographs.

Photograph 3: Existing mobile home and drain on site.

Photograph 4: View of manhole cover along the track.

Photograph 5: Machinery present on site – possible wood chipper.



Photography 6: Gas cannister, shed and area of hardstanding in the east of the site.

Plate 4-1 (continued): Site photographs.

Hand dug pits were carried out in 2no. locations and are summarised in Plate 4-2.

HD101	HD102
GL-0.1m Made Ground (silty gravelly sand with occasional brick, plastics). 0.3m Textile membrane underlain by concrete.	GL-0.1m Made Ground (silty gravelly sand with occasional brick, plastic fragments). 0.3m Concrete.

Plate 4-2: Hand Dug Pit Logs.

Relevant features are also shown on Plate 4-3.

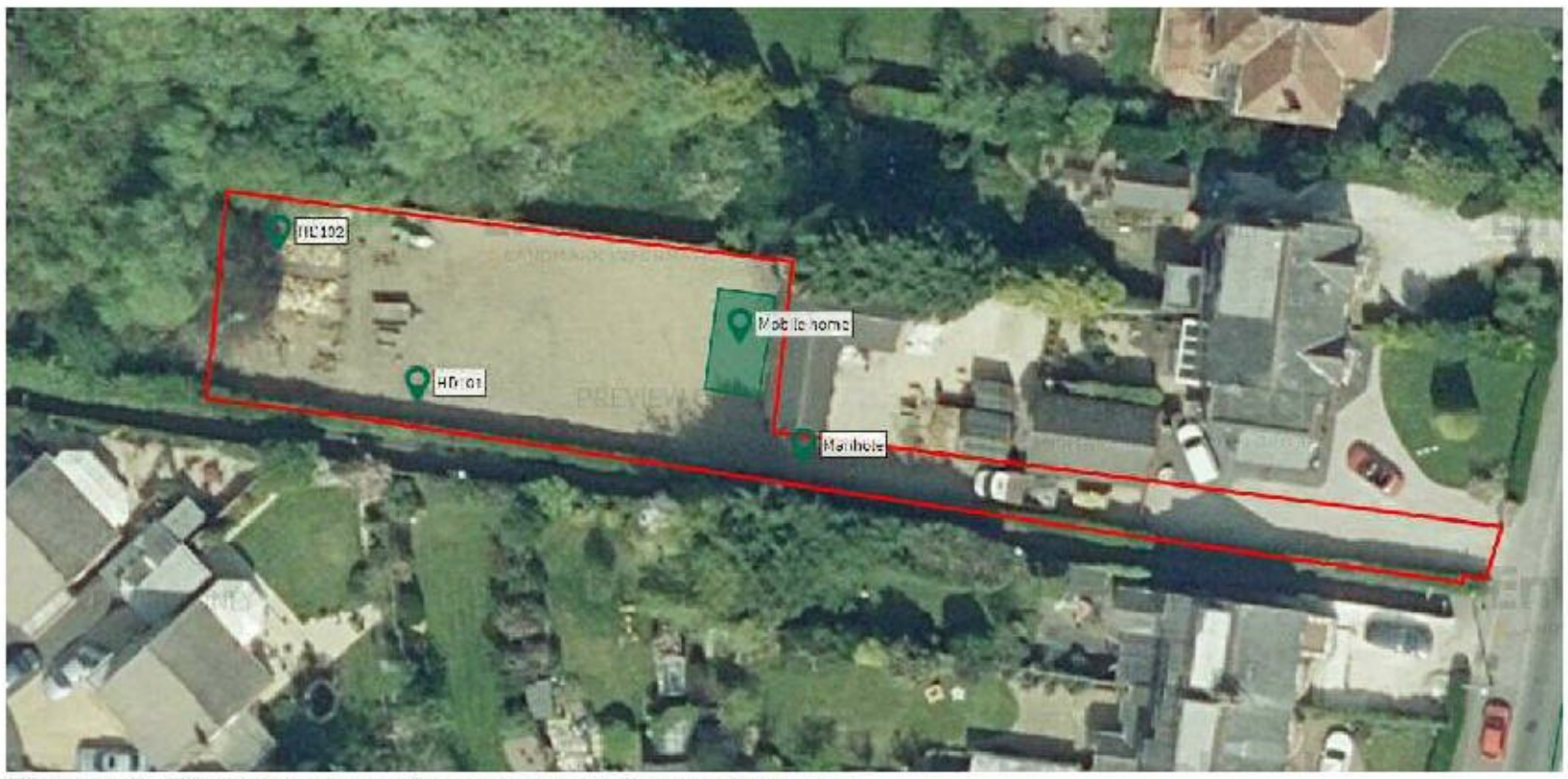


Plate 4-3: Plan showing relevant site walkover features.

5 Preliminary Conceptual Model

5.1 Introduction

The aim of the conceptual model is to provide a preliminary assessment of the likelihood of a pollutant linkage for each potential combination of contaminant, pathway and receptor. A conceptual model can be used to make an informed decision on the contamination risks associated with the site and whether further site investigation work is required.

The Sections below are therefore divided into potential contaminant, potential pathway and potential receptor as described in LMRM[3], on the premise that, if there is no pollutant linkage, then there will be no risk to the receptor. The final Section provides an assessment of the potential pollutant linkages that may still be present on the site if redevelopment were to occur.

5.2 Potential Contaminants

Potential viable contamination sources are detailed in Table 5-1. These are split into onsite sources, offsite sources and underlying geology.

Potential Source	Contaminants
On Site	
Shallow Made Ground below some or all of site (e.g. site levelling)	- Assuming predominantly reworked natural soils with possible, ash and clinker: Asbestos, heavy metals, sulphates, PAHs[4]. - Unknown depth of made ground beneath the site due to concrete encountered in hand pits. - Not expected to be a significant source of gas given anticipated shallow depth and nature of Made Ground.
Commercial Yard (storage of machinery and lumber / car parking for vehicles)	- Assuming concrete extends under sand and gravel and no signs of spills / leaks observed on the surface during the site walkover: contamination anticipated to be minimal and localised.
Mobile Home (residential property)	- No significant contamination anticipated.
Surrounding Area	
Surrounding area	- No significant contamination sources within influencing distance of the site.
Offsite potentially infilled features within 250m (9no. ponds, 1no. clay pit)	- Given age of infilled features (c. 40-50 years), there is not expected to be a significant source of hazardous gas (principally carbon dioxide and methane). - Clay anticipated below site, limited pathway to site.

Table 5-1: Potential contamination sources.

5.3 Potential Receptors

Potential receptors are detailed in Table 5-2.

[3] Land Contamination Risk Management (LCRM) https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm
[4] Defra (2002). "Potential Contaminants for the Assessment of Land". R&D Publication CLR 8.

Receptors	
Human Health	- Future site users (including residents, visitors and site workers). - Offsite land users.
Controlled Waters	- Pond 27m N. - Secondary B and Undifferentiated Aquifers (bedrock and superficial, respectively).
Buildings and structures.	
Potable water pipes.	
Flora within future gardens and landscaping.	

Table 5-2: Potential receptors.

5.4 Potential Pathways

Potential pathways are detailed in Table 5-3.

Pathways		
Soil	Human Health[5] (residential land use: house with private garden)	- Ingestion of soil. - Ingestion of soil-derived indoor dust. - Ingestion of contaminated vegetables. - Ingestion of soil attached to vegetables. - Dermal contact with soil. - Dermal contact with soil-derived indoor dust. - Inhalation of soil-derived outdoor dust. - Inhalation of soil-derived indoor dust. - Inhalation of vapours outside. - Inhalation of vapours inside.
	- Windblown dust and fibres to adjacent receptors.	
	- Direct contact with receptors (building foundations, services).	
	- Root uptake.	
Water	- Surface run-off over impermeable surface. - Site is relatively flat and hardstood; therefore, surface run-off will be likely.	
	- Infiltration into the ground, through potentially contaminated material (contamination possibly going into solution). - Site is flat and hardstood; therefore, infiltration is likely to be limited.	
Water and Gas	- Migration through potentially permeable strata and preferential pathways. - Superficial (Till) likely to be low permeability. - Bedrock (mudstone) likely to low permeability. - Preferential pathways: services.	
Gas	- Migration into buildings (e.g. via services) and accumulation of gases in confined spaces (potentially causing explosion if methane is present).	

Table 5-3: Potential pathways.

5.5 Preliminary Contamination Conceptual Model

The Preliminary Contamination Conceptual Model is illustrated in Table 5-4 and has identified seven generic potential pollutant linkages.

Each linkage is described along with an assessment of the risk based upon guidance on probabilities and consequences outlined in CIRIA C552[6].

In order to assess the potential risk for each pollutant linkage, an assessment of the magnitude of the potential consequence (severity) of the risk occurring and the

[5] EA (2008). "Updated Technical Background to the CLEA Model". Science Report – SC050021/SR3.
[6] CIRIA (2001). "Contaminated Land Risk Assessment: A Guide to Good Practice". C552.

magnitude of the probability (likelihood) of the risk occurring has been considered and classified. This is based on the guidance provided in CIRIA C552 and further details including a risk matrix is provided in Appendix D.

Where LKC identified a low to very low risk, targeted or low density intrusive investigation work, a watching brief (during construction work) or no investigation work will be recommended. This will be dependent on the nature of the site and the proposed development.

Where the risk falls into the moderate/low risk, LKC will undertake an assessment to establish what category the pollutant linkage will fall into (i.e. moderate or low risk will be chosen).

Where LKC identifies a moderate or higher risk, intrusive investigation work or precautionary remedial measures will be recommended.

It should be noted that there may be risk from short term exposure from contaminated soil to site workers. The Preliminary Contamination Conceptual Model deals with long term exposure to key receptors. Acute risks can be easily mitigated by good environmental management of the site during site works. Standard health and safety precautions (as per HSE guidance[7]) should be adopted by all workers involved with site enabling and construction works. Therefore, this receptor is not considered in the contamination conceptual model.

[7] HSE (1991). "Protection of Workers and the General Public During Development of Contaminated Land". London HMSO.

PL	Pathway	Receptor	Contaminants of Concern (CoC)	Probability	Consequence	Risk	Recommendations
1	- Dermal contact. - Inhalation of soil, fibres and dust. - Ingestion of soils, dust, vegetables, soil attached to vegetables. - Windblown dust.	- Future site users. - Offsite receptors.	- ACM. - Heavy metals. - PAHs. - Petroleum hydrocarbons.	Low likelihood (given site history, site conditions and proposed end use)	Medium	**Moderate** / Low (moderate risk assumed due to current use of yard area)	Low density intrusive investigation required. Soil analysis of CoC, subject to ground conditions identified.
2	- Inhalation of vapours. - Migration via permeable strata and preferential pathways.	- Future site users. - Offsite receptors.	- Volatile contaminants (TPHCWG).	Low likelihood (given site history, site conditions and proposed end use)	Medium	**Moderate** / Low (moderate risk assumed due to current use of yard area)	Low density intrusive investigation required to include PID assessment. Soil analysis of CoC subject to ground conditions encountered.
3	- Inhalation of gas. - Migration via permeable strata and preferential pathways. - Explosion in confined spaces. - Exposure to radon.	- Future site users. - Buildings. - Offsite land users.	- Ground / hazardous gas (carbon dioxide, methane).	Low Likelihood (given age of offsite infilled features, limited pathway, unknown depth of made ground on site)	Severe	**Moderate**	Low likelihood given the age and size of potentially infilled features and the anticipated clay superficial deposits below the site. Ground investigation to confirm depth of made ground / pathway. Gas monitoring or gas protection measures required, subject to ground conditions encountered.
			- Radon	Unlikely (as <1% of homes above action level)	Medium	**Low**	(<1%) No protective measures are necessary in the construction of new dwellings or extensions.
4	- Surface run-off. - Migration via permeable strata and preferential pathways. - Perched waters migration.	- Groundwater (Secondary B and Undifferentiated) - Surface water (pond).	- Mobile contaminants such as metals, PAHs, hydrocarbons, volatile compounds.	Low likelihood (only minimal mobile contamination anticipated with limited pathway)	Medium	Moderate / **Low** (low assumed as significant source not anticipated)	Low density ground investigation required with groundwater and surface water sampling and testing for CoC, subject to ground conditions encountered.
5	- Sulphate attack on concrete.	- Building structure.	- Sulphate.	Low likelihood (given site history, site conditions, geology and direct contact / pathway)	Mild	**Low**	Soil analysis for sulphates and pH depending on ground conditions encountered.
6	- Ingestion of tainted water supply.	- Future site users. - Water pipes.	- Organic contaminants such as petroleum hydrocarbons, naphthalene.	Low Likelihood (significant contamination not expected at pipeline depth)	Medium	Moderate / **Low** (low assumed as significant source not anticipated)	Low density intrusive investigation works to establish the depth and composition of made ground. Soil analysis for CoC depending on the findings of the investigation works.
7	- Direct contact (plant uptake).	- Flora.	- Phytotoxic contaminants such as heavy metals.	Low likelihood (given site history, site conditions and proposed end use)	Minor	**Low**	Targeted intrusive investigation required in proposed garden areas. Soil analysis of CoC, subject to ground conditions identified.

Table 5-4: Preliminary Contamination Conceptual Model.

Notes: PL = Pollutant Linkage. Contaminant of Concern (CoC) - See Table 5-1 for contamination sources. Site conditions based on observations during site reconnaissance.

6 Preliminary Geotechnical Risk Assessment

Table 6-1 summarises the possible geotechnical constraints of the site, based on the site history, environmental settings and site reconnaissance. Investigation work will be required to confirm the risks and provide a detailed geotechnical assessment and foundation design.

Coal Mining	Site is not within a Development High Risk Area. No further assessment required.
Slope Stability	Site is relatively flat. No significant slope stability risk anticipated. No further assessment required.
Envirocheck Ground Stability Hazards	No to low hazard identified. No further action required.
Made Ground	Unknown depth and constituent of made ground across the site. Initial information from hand pits undertaken during site walkover indicates made ground underlain by concrete. Unknown strata below concrete.
Superficial	Unknown strength of soils for foundation design. Clay anticipated below the site.
Bedrock	Unknown depth to bedrock.
Groundwater	Unknown depth and variability of groundwater. Shallow / fluctuating groundwater can affect the strength of the soil, particularly in granular ground. Shallow groundwater can also affect construction works.
Plasticity	Plasticity of clay deposits should be confirmed, particularly where trees are present or proposed, to identify the shrink / swell risk. Clay anticipated on site.
Sulphate	Unknown sulphate content of the made ground and natural.
Road / Pavement Design	Unknown CBR values for footpath and road design.

Table 6-1: Summary of geotechnical constraints.

7 Summary Conclusions and Recommendations

7.1 Summary Conclusions

Table 7-1 summarises the site details, historical review, environmental settings and site reconnaissance.

Current Site Use	Site is currently used as part of a yard/storage area for tree surgery equipment as well as lumber and wood chipping as well as a space for a mobile home, which is currently occupied by the client.
Proposed Development	A two-storey residential property with soft landscaping.
Main Historical Features	Onsite: Undeveloped land, paddock. Surrounding Area: Ponds,
Geology / Hydrogeology	Artificial: No BGS recorded artificial. Superficial: Till (diamicton), Secondary Undifferentiaed Aquifer. Bedrock: Kirkham Mudstone member. Secondary B Aquifer.
Landfills / Infilled ground	Potentially infilled ground identified.
Site Walkover	Mobile home, concrete at approximately 0.10mbgl.

Table 7-1: Summary of site details, historical review, environmental settings and site reconnaissance.

A preliminary contamination conceptual model has been produced by LKC, which is summarised in Table 7-2.

Pollutant Linkage		Risk	Recommendations
PL1: Contaminants posing a risk to future site users via dermal contact, ingestion and inhalation (of soil, dust, fibres and vegetables).	ACM, heavy metals, PAHs Petroleum hydrocarbons	**Moderate /** Low	Low density intrusive investigation required. Soil analysis of CoC, subject to ground conditions identified
PL2: Volatile contaminants posing a risk to future site users via the inhalation of vapours.		**Moderate /** Low	Low density intrusive investigation required to include PID assessment. Soil analysis of CoC subject to ground conditions encountered.
PL3: Gas posing a risk to buildings and future site users via the migration of gas into building causing explosion and asphyxiation.	Carbon dioxide & methane	**Moderate**	Gas monitoring or gas protection measures required, subject to findings of investigation works.
	Radon	**Low**	(<1%) No protective measures are necessary in the construction of new dwellings or extensions.
PL4: Mobile contamination posing a risk to controlled waters via the migration through permeable strata.		Moderate / **Low**	Low density ground investigation required with groundwater sampling and testing for CoC, subject to ground conditions encountered.
PL5: Sulphate posing a risk to building via direct contact (sulphate attack).		**Low**	Soil analysis for sulphates and pH depending on ground conditions encountered.
PL6: Organic contaminants posing a risk to water pipes.		Moderate / **Low**	Low density intrusive investigation works to establish the depth and composition of made ground. Soil analysis for CoC depending on the findings of the investigation works.
PL7: Phytotoxic metals posing a risk to flora via root uptake.		**Low**	Targeted intrusive investigation required in proposed garden areas. Soil analysis of CoC, subject to ground conditions identified.

Table 7-2: Summary risk table.
Where moderate / low risk had been identified, the assumed risk is shown in bold.

A preliminary geotechnical assessment has been carried out by LKC. Table 7-3 summarises the geotechnical constraints.

Coal Mining	Site is not within a Development High Risk Area. No further assessment required.
Slope Stability	Site is relatively flat. No significant slope stability risk anticipated. No further assessment required.
Made Ground	Unknown depth and constituent of made ground across the site.
Superficial	Unknown strength of soils for foundation design.
Bedrock	Unknown depth to bedrock.
Groundwater	Unknown depth and variability of groundwater.
Plasticity	Plasticity of clay deposits should be confirmed.
Sulphate	Unknown sulphate content of the made ground and natural.
Road / Pavement Design	Unknown CBR values for footpath and road design should be calculated.

Table 7-3: Summary of geotechnical constraints.

7.2 Recommendations

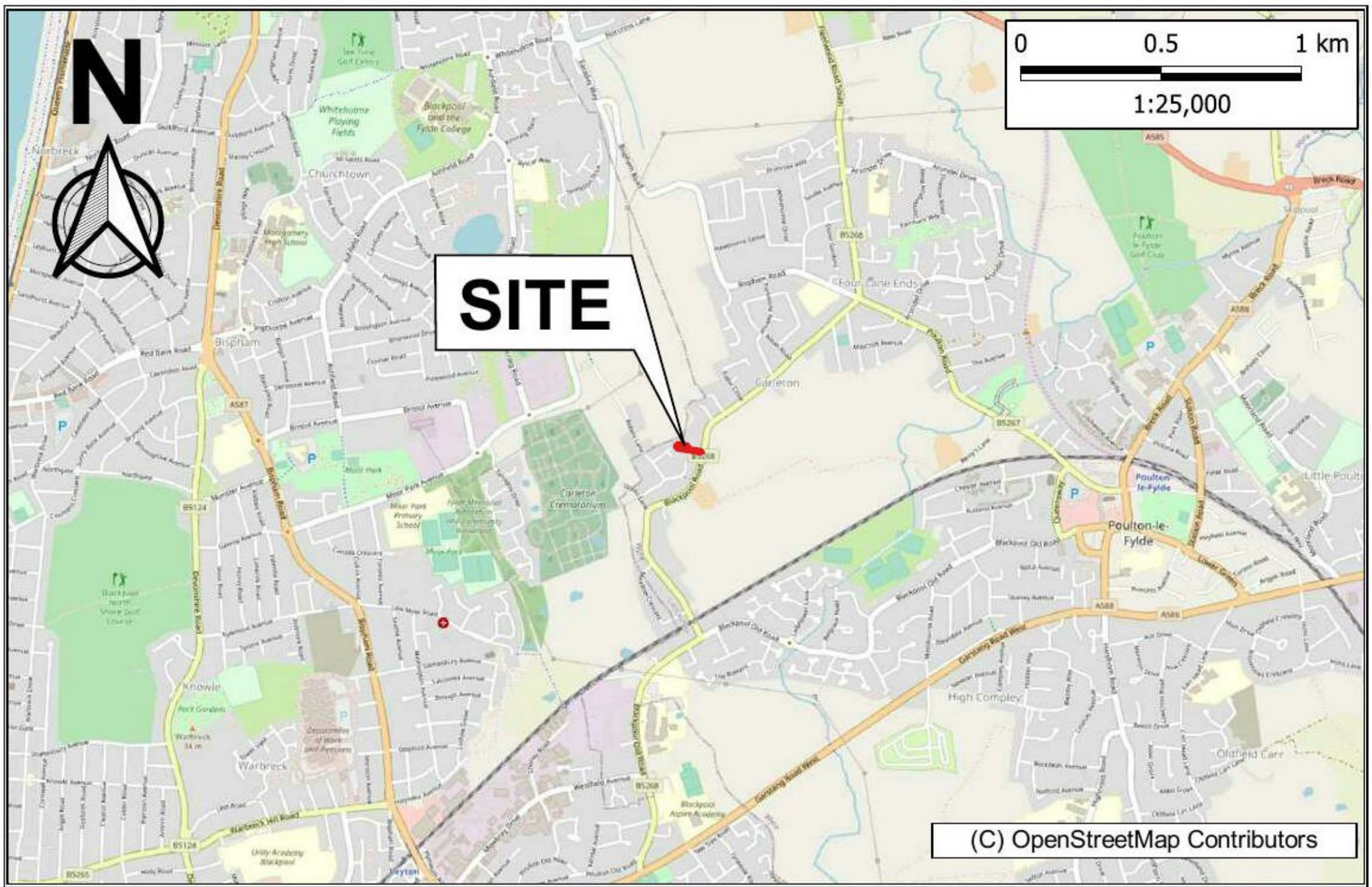
Recommendations are provided in Table 7-4.

Contamination status	There is sufficient information on the potential contaminative status of the site to allow conditional approval of a planning application, based on the proposed end use detailed in the PRA.
Further assessment recommendations	Low density Phase 2 intrusive investigation required. Phase 2 investigation to be carried out in line with current guidance, including BS10175[8], BS5930[9] CIRIA C665[10], RB17[11] and BS8485[12]. Either 'exploratory investigation': 1 sample per 25-50m square centres. Or 'detailed investigation': 1 sample per 10-25m square centres. Plus targeted investigation locations in areas of concern (contamination and geotechnical). To be agreed with the local authority.
Type of investigation work	Boreholes and hand dug pits. Boreholes to confirm depth of made ground and natural soils on site. Targeted investigation in the form of hand dug pits are suggested in the areas of proposed landscaping.
PL 1, 2, 5, 6, 7	Intrusive investigation work recommended to confirm ground conditions across the site. Testing of contaminants of concern based on preliminary conceptual model and field observations (PID tests and visual / olfactory evidence).
PL3	Ground investigation to include gas monitoring or precautionary gas protection measures required, dependent on ground conditions encountered during investigation (unknown pathway).
PL 4	Groundwater and surface water sampling, subject to ground conditions encountered.
Reporting	Information from the above can be used to carry out a contamination and geotechnical assessment and provide a remediation strategy for the site.

Table 7-4: Recommendations.

[8] British Standard (2017). "Investigation of Potentially Contaminated Sites – Code of Practice". BS10175:2017.
[9] British Standard (2015). "Code of Practice for Ground Investigations". BS5930:2015.
[10] CIRIA (2007). "Assessing Risks Posed by Hazardous Ground Gases to Buildings". CIRIA C665.
[11] CL:AIRE Research Bulletin RB17 (November 2012) "A Pragmatic Approach to Ground Gas Risk Assessment".
[12] BSI (2015). "Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings"." BS8485:2015.

Figures



Client: Mr Paul Kelly				Title: Site Location & Boundary Plan	LKC CONSULT
Site: 157A Blackpool Road, Poulton-le-Fylde				Scale (see scale bar): 1:25,000 & 1:2,000 @ A4	Figure: 1 / Revision:
Job No.: LKC 20 1381	Drawn By: NJ	Checked By: EK	Drawn: Jan 2021		

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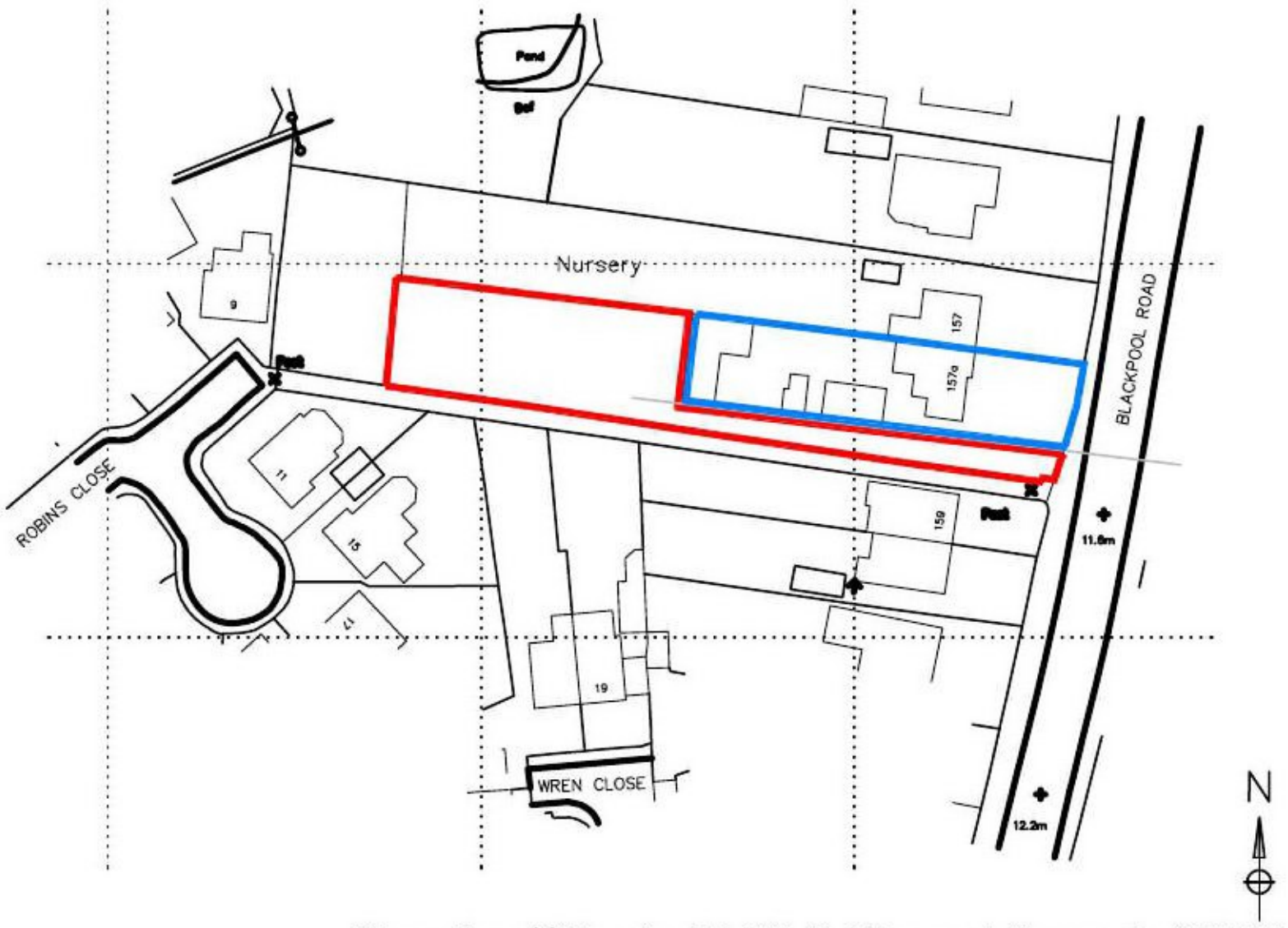

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KEY

TOTAL PLOT AREA 1435m²

BOUNDARY LINE.

TOTAL PLOT AREA 632m²

BOUNDARY LINE.

TOTAL PLOT AREA 803m²

Keystone Design Associates Ltd.

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FY1 3PB

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Fax. No. 01253 752901
Email : Info@keystonedesign.co.uk

PROJECT	157A BLACKPOOL ROAD CARELTON
DRAWING TITLE	SITE LOCATION

Drawn	Checked	Date	Scale
PB		25/02/19	1:1250@A4

DRAWING No.	A019/024/S/01
Rev.	B

H:/Server/Drawings/2019/157A BLACKPOOL ROAD