



**Castledine
Environmental**

LAND CONTAMINATION SURVEYS

**Phase 1 Land Contamination
Risk Assessment
for
Change of Use from Agricultural
to Commercial (Class R)
on the site of
Manor Farm, No.8 Wood Lane,
Norton-Juxta-Twycross,
Leicestershire CV9 3QB**

Date: July 2025

Status:

Final Report

Reference:

4034D P1 LonXThree – Norton-Juxta-Twycross

Date:

27/07/2025

EXECUTIVE SUMMARY

The site is currently occupied by two large adjoined agricultural barns with a hardstanding access route to the front (north) and a very limited exterior space to the rear (south) of the barns. Historically, the site has been occupied by agricultural features since the earliest mapping reviewed (circa.1885) through until the present-day; however, the earliest barns on site remained present until around circa.1989, when the present-day barns were erected on site. The site then sees little change on historical mapping until the present-day, nor were any significant changes noted on historical satellite imagery, beyond the location of a farmyard north, north east and east of site (also present from the earliest mapping), which has been largely demolished and replaced by a residential estate in the present-day. On the day of the site walkover, a number of potentially contaminative sources were identified including PACM cladding and roofing (broken in areas and in pieces in others), significant made ground deposits site-wide and the storage of containers and tanks in the westernmost barn.

The historied agricultural usage of the site (including various erections and demolitions on site, likely extensive made ground associated with such usages and storage of machinery, agrichemicals and fuels within the barns); alongside the present-day state of the site (i.e. significant made ground deposits, PACM cladding and roofing – broken in areas, fuel and chemical storage) has the potential to have impacted site with various contaminants listed below in Section 7.1 via potential pathways listed in Section 7.2 with potential impact Receptors outlined in Section 7.3.

Based on the information contained in this report, it is the opinion of Castledine Environmental that the site represents a **MODERATE** to **HIGH** level of risk with respect to the proposed development.

It is recommended that further investigation inline with Section 15.0 is planned and carried out on site.

It is recommended that the structures on site be subject to an asbestos survey (and subsequent removal, if required) by appropriately qualified personnel. This should be carried out prior to any demolition or redevelopment occurring in order to ensure site works do not cause future contamination of the site.

This report should be submitted to your Local Planning Authority for agreement to allow the Phase 2 intrusive testing to be undertaken.

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1.0 QUALITY ASSURANCE

Castledine Environmental confirm that all reasonable efforts have been made to ensure that the information outlined within this report is accurate.

Castledine Environmental would further confirm that due care, attention and technical skill were used in the creation of this report.

2.0 LIMITATIONS

The conclusions and recommendations made in this report are limited to those based on the findings of the investigation. Where comments are made based on information obtained from third parties, Castledine Environmental assumes that all third-party information is true and correct. No independent action has been undertaken to validate the findings of third parties. The assessments and interpretation have been made in line with legislation and guidelines in force at the time of writing, representing best practice at the time.

This survey has not included asbestos within existing structures, invasive plant species, geotechnical considerations or any elements unconnected with potential ground contamination at the site. If required, such surveys should be undertaken by suitably accredited organisations.

There may be other conditions prevailing at the site which have not been disclosed by this investigation and which have not been taken into account by this report. Responsibility cannot be accepted for conditions not revealed by the investigation.

3.0 INTRODUCTION AND SITE PROPOSALS

Castledine Environmental have been appointed by LonXthree (c/o 2012 Partnership Homes Ltd) to undertake a Phase 1 Desk study on a site to the rear of No.8 Wood Lane, Norton-Juxta-Twycross, Leicestershire CV9 3QB.

The site proposals consist of the change of use from agricultural usage to residential usage, including the erection of dwellings, associated landscaping and access works.

4.0 SCOPE

Castledine Environmental have prepared this report for the sole use and reliance of LonXThree and associated appointees for the purpose of ensuring compliance with:

- National Planning Policy Framework (NPPF) December 2024;
- Part C1 of the building regulations;
- Support of a Planning Application.

This report may not be used or relied upon by any unauthorised third party, or for any other proposed use than that specified above, without the explicit written agreement of Castledine Environmental.

This report is to be regarded as a Preliminary Risk Assessment in accordance with the Environment Agency's Land Contamination Risk Management (LCRM – 2021), which replaces CLR11 "*Model Procedures for the Management of Land Contamination*", carried out in accordance with BS 10175:2011+A2:2017, "*Investigation of Potentially Contaminated Land - Code of Practice*" and relevant sections of BS5930:2015+A1:2020, "*Code of Practice for Ground Investigations*".

The objectives of the report are:-

- To assess historical activities at the site with respect to their potential impact on the site environment;

- To assess historical and current surrounding land use in relation to known or potential off-site contamination issues that may impact on the subject site;
- Review of geological, hydrogeological and hydrological conditions at the site, pertaining to land contamination issues;
- To characterise the environmental setting of the site, identify migration pathways and vulnerable receptors for contamination originating at the site, focusing on potential soil and groundwater liabilities; and
- To develop a preliminary conceptual site model (CSM).

This report has been produced in order to discharge any relevant planning conditions outlined by the Local Authority and Environment Agency; however, further requirements may be imposed after the findings of this report that may need to be addressed at a later date.

5.0 SITE DESCRIPTION

The site is located in Norton-Juxta-Twycross, Leicestershire at National Grid Reference: 432531,306813 and is approximately 0.81ha in area.

The site is irregular in shape and located in the centre of the wider village of Norton-Juxta-Twycross, being directly bounded by newly constructed dwellings and their associated garden areas to the north, a commercial area with dwellings beyond to the east and housing to the south and west of site. The areas beyond the wider village are predominantly rural and comprise open field in all compass directions.

The site interior comprises two large adjoining barns, hardstanding areas and access routes, a third, linear barn and an extensive area of exterior space.

The access route then terminates at the front of site after turning eastwards, providing access to the two barns on site. The barns themselves were seen to be large in scale and constructed of brick

walling, concrete flooring and potentially asbestos containing corrugated roofing and cladding materials.

The westernmost barn was seen to be in a better state-of-repair than that adjoined to the eastern face of the barn. The interior of the westernmost barn was inaccessible on the day of the walkover (circa. July 2025); however, Castledine Environmental had attended site previously (circa. March 2025) at which time, the interior of the barn was seen to be occupied by general construction materials i.e. wheelbarrows, timbers, pallets, bricks, stone, plasterboard, a container and at least 3 No. tanks (comprising square diesel tanks and a self-bunded, plastic tank). The flooring within this unit appeared to possess inherent ventilation, associated with a fan-system on the southern face of the barn (likely for grain drying purposes).

The easternmost barn, adjoined to that in the west, was then seen to be in a state of heavy disrepair, with the prior concrete flooring having been removed and made ground deposits (i.e. rubbles, some ash, road planings, brick and metal fragments) remaining insitu. Heaped stone, rubble, timber and Heras fencing were noted throughout this barn, alongside a heap of chemical containers (former contents and labelling largely obscured) located inside the north eastern corner of the barn.

The remaining areas on site comprise the hardstanding area to the north of the barns, where a further container, skips (occupied by empty cardboard boxes), a damaged IBC and further heaps of made ground and rubble; with areas to the south remaining overgrown and grassed, with a small structure (with large fan apparatus within); a dilapidated, linear barn located in the north east of site and heavily vegetated, overgrown areas of heaps forming the remaining eastern and south eastern extents of site. The linear barn was seen to largely constructed of timber with some PACM cladding and was seen to be in a heavy state of disrepair. The vegetated heaps to the south of this were then seen to comprise mixtures of soils, gravels and refuses (i.e. timbers, wire, concrete, demolition rubbles).

Potential sources of contamination noted on the walkover include PACM cladding and roofing (broken in areas and in pieces in others), significant made ground deposits site-wide and the storage of containers and tanks in the westernmost barn. Topographically, the site is largely level beyond a slight dip from the south to the north, with the surrounding areas also dipping off in this direction (with the new residential development north of site slightly downgradient from the site under review).

Photos of the site are present in Appendix D.

6.0 REGULATORY AUTHORITY AND OTHER ENVIRONMENTAL DATA

An environmental search listing historical and environmental factors likely to affect the property has been reviewed.

The most pertinent information is summarised in the following sections.

A copy is presented in Appendix A.

Additional geological and hydrological data was obtained from the British Geological Survey.

6.1 HYDROLOGICAL

6.1.1 AQUIFER

6.1.1.1 SUPERFICIAL GEOLOGY

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary (Undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general, these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.1.1.2 BEDROCK GEOLOGY

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers

6.1.2 ABSTRACTIONS AND PRIVATE WATER SUPPLIES

The Groundsure report records an active groundwater abstraction site located 757m south west of site at Twycross Zoo. The record relates to a heat pump with waters sourced via a borehole (effective circa.2010 onwards).

6.1.3 SOURCE PROTECTION ZONE

Site is not in a source protection zone (SPZ).

6.1.4 GROUNDWATER VULNERABILITY AND SOIL LEACHING POTENTIAL

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one-kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

ID	Location	Summary	Soil / Surface	Superficial Geology	Bedrock Geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

6.1.5 POTENTIAL SURFACE WATER

The Groundsure report records an unnamed, surface level watercourse located 79m north east of site at its most proximate point to site with a second located 169m south of site at its most proximate point.

6.1.6 DISCHARGE CONSENTS

The Groundsure report records a total of 19 No. licenced discharge consents formerly located 386-387m north of site, all of which were revoked or surrendered and related to final/treated sewage effluent discharges (on behalf of the local water supplier) direct into Norton Brook.

6.2 PERMITTED PROCESSES

None recorded within 500m of site.

6.3 POLLUTION INCIDENTS

The Groundsure report records:

- An incident located 62m east, dated circa.2001 and relating to smoke effects with a minor impact to air quality and no impact to land or water qualities;
- Two incidents located 199-200m north, dated circa.2003 and relating to effluent materials with a minor impact to both water and air qualities and no impact to land quality.

No further pollution incidents are located within 250m of site and no significant impact incidents are recorded within 500m of site.

6.4 RADIOACTIVE SUBSTANCES REGISTRATIONS

None recorded within 500m of site.

6.5 WASTE

6.5.1 LICENSED WASTE MANAGEMENT FACILITIES (LOCATIONS)

None recorded within 500m of site.

6.5.2 LANDFILL SITES

The Groundsure report records a historical and unlicensed landfill formerly located 178m south west of site; however, no waste type nor first or last date of entry is recorded.

6.6 HAZARDOUS SUBSTANCES

None recorded within 500m of site.

6.7 ECOLOGICAL RECEPTORS

The Groundsure report records the site as being located within the River Trent (from confluence with the River Derwent) surface waters Nitrate Vulnerable Zone (NVZ) with a second record of the NVZ then located 779m south of site.

No further sensitive land usages are recorded within 1000m of site.

6.8 SOILS AND GEOLOGY

"Contains British Geological Survey materials © NERC 2025" obtained from <http://www.bgs.ac.uk/data/mapViewers/home.html> under the [Open Government Licence](#)

6.8.1 SUPERFICIAL DEPOSITS

Both BGS geological mapping and the Groundsure report record superficial geological deposits of the Thrussington Member on site, comprising a brown to reddish-brown diamicton (poorly sorted, terrigenous sediments containing a wide range of particle sizes, often associated with Glacial environmental), i.e. sands, gravels, stoneless clays and silts.

6.8.2 SUPERFICIAL DEPOSITS PERMEABILITY

The Groundsure report records the site as being within an area where the maximum permeability of superficial deposits is recorded as 'high' and the minimum permeability as 'low' and facilitated by mixed flow mechanisms.

This is a qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

6.8.3 BEDROCK DEPOSITS

Both BGS geological mapping and the Groundsure report records bedrock geology of the Gunthorpe Member underlying site, comprising a red-brown mudstone with subordinate dolomitic siltstones and fine-grained sandstones.

6.8.4 BEDROCK PERMEABILITY

The Groundsure report records the site as being within an area where the maximum permeability of bedrock geology is recorded as 'low' and the minimum permeability as 'low' and facilitated by fracture flow mechanisms.

6.8.5 ARTIFICIAL GROUND

BGS geological mapping records no artificial deposits located on or within 500m of site, however made ground deposits were noted on the day of the site walkover.

6.8.6 COAL MINING

The site is not located in a coal mining reporting area and the local geology is not considered appropriate for such extraction. As such the risk from coal mining activities is considered to be negligible.

6.8.7 NON-COAL MINING

The Groundsure report records no non-coal mining operations, activities or features located within 500m of site.

6.8.8 SURFACE WORKINGS

ID	Distance (m)	Direction	Land Usage	Year of Mapping
A	0	On site	Pond	1924
A	0	On site	Pond	1885
A	0	On site	Pond	1950
B	92	W	Pond	1855
B	95	W	Pond	1966
B	96	W	Pond	1950

6.8.9 RADON

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level. No radon protective measures are necessary as described in publication BR211:2015 by the Building Research Establishment.

6.9 AERIAL PHOTOGRAPHY

Aerial photography shows the following:

6.9.1 GOOGLE EARTH

13 No. images are held in the historic imagery dataset, as follows:

Date	Description
December 1999	The site is shown as occupied by the two large barns seen in the present-day, which appear to remain in use at this time as part of a wider farmyard located directly north, north east and east of site (comprising barns, a courtyard etc). The area forming the eastern extent of site is shown as occupied by what appears to be a silage pit, hardstanding, a linear barn, parking / storage areas and a possible bund or heap. Areas in the north of site and extending northwards occupied by bales.
December 2000	No discernible change on site nor site relevant change to the surrounding areas.
July 2006	The silage pit in east of site now appears to have been excavated and machinery is located within the area. A barn directly west of site has been demolished in place of the present-day residential dwellings here, with new residential dwellings directly south of site. The farmyard north and east of site appears slightly more disused than previously.
December 2010	No discernible change on site nor site relevant change to the surrounding areas – imagery is the same as the previous date (i.e. ongoing adjacent developments are unchanged).
September 2011	The eastern extent of site is now overgrown once again with heavy machinery and heaps (appearing to be refuse) noted in the area.
April 2015	The barns north of site now appear dilapidated and disused, with areas of roofing missing or damaged. The eastern extent of site is now shown as rough ground and occupied by heaps, vehicle tracks and indiscernible debris. The linear barn forming the NE extent of site also appear dilapidated at this time.
April 2016	No discernible change on site nor site relevant change to the surrounding areas.
April 2018	No discernible change on site nor site relevant change to the surrounding areas.

Date	Description
April 2020	The former farmyard to the north and NE of site is now shown as under demolition with a number of structures removed and demolished, heaps of debris are now located in the east of site and scattered around the areas north of site (including directly north). The area forming the eastern extent of site now appears heavily occupied by debris, refuse, heaps and made ground deposits. The linear barn in the NE of site (with possible PACM roofing) is now dilapidated and the roofing broken in areas.
June 2021	Areas to the north and NE along with the eastern extent of site remain partially demolished and scattered with heaps and debris, the eastern area of site shows further movements of heaps / mounds, some of which are fresh, some of which are vegetated.
January 2022	Imagery is indistinct; however, there appears no discernible change on site. Areas north of site now appear to be under development. Areas east of site heavily vegetated and overgrown once again.
May 2023	No discernible change on site nor site relevant change to the surrounding areas (a new residential development is known to be located directly north, atop the former farmyard area, in the present-day).
May 2025	Cloud obscures the site but it would appear the linear barn in the NE of site is now further dilapidated and/or partially demolished and the new housing development north of site is established and completed.

6.9.2 GOOGLE STREET VIEW

Google Street View imagery is unavailable for the site due to the site's location at the termination of a private access route and away from the public roadside.

6.10 HISTORIC MAPPING

The following historic maps have been reviewed as part of this assessment:

Map	Onsite	Offsite
OS County Series: 1885, 1:10,560	The site is shown as largely unoccupied beyond a small, linear structure in the NW of site and a second linear barn structure in the NE of site (extending into site from offsite and directly north). The eastern and SE extents of site appear to remain as open field, possibly with a depression or unspecified earth work in the far SE of site.	A farmyard remains located directly north of site with a long, linear pond located directly south, a circular pond approx.50m NW, a second linear pond approx.115m NW and a further 2 No. approx.110-120m NE
OS County Series: 1886, 1:2,500	No discernible change on site.	Surrounding areas see little site relevant change.
OS County Series: 1901, 1:10,560	No discernible change on site.	Surrounding areas see little site relevant change.
OS County Series: 1901-1903, 1:10,560	No discernible change on site.	Surrounding areas see little site relevant change.
OS County Series: 1903, 1:2,500	No discernible change on site.	Far (eastern) end of the linear pond approx.33m east of site (i.e. approx.110m east) is now shown as marshy.
OS County Series: 1924, 1:2,500 & 1:10,560	Far SE extent of site (possible depression or earth working) may also be marked as orchard at this time.	Surrounding areas see little site relevant change.
Provisional: 1950, 1:10,560	No discernible change on site.	Surrounding areas see little site relevant change.
National Grid: 1957, 1:2,500	Possible animal pens are located in the west of site. Earth working and orchard markings in the SE extent of site no longer marked on mapping.	New barns directly west of site.
Provisional: 1966, 1:10,560	No discernible change on site.	Ponds formerly located approx.50m NW, 110-120m NE now removed and assumed infilled, linear pond SE of site now halved in size, linear pond to the NW remains. Minor residential development in the surrounding village.

Map	Onsite	Offsite
National Grid: 1989, 1:2,500 & 1:10,560	Site now occupied by the two barns seen in the present-day.	New dwellings and / or barns directly NW, barn west of site now removed and replaced with smaller barn, new larger works now located approx.70m east of site. Linear pond and a new, smaller pond east / SE of site now removed. Linear pond NW of site also removed.
National Grid: 1989-1994, 1:2,500	No discernible change on site.	Surrounding areas see little site relevant change.
National Grid: 1994, 1:2,500	No discernible change on site.	Surrounding areas see little site relevant change.
National Grid: 2001, 1:10,000	No discernible change on site.	Surrounding areas see little site relevant change.
Landline: 2003, 1:1,250	No discernible change on site.	Surrounding areas see little site relevant change.
National Grid: 2010, 1:10,000	No discernible change on site.	Housing erected directly west, following demolition of barns.
National Grid: 2025 1:10,000	Central, eastern and SE extents of site now marked as green and heavily vegetated, as in the present-day.	Farmyard and barn features etc located north, NE and east of site now removed (beyond linear barn east of site). Narrow gauge hobbyist railway now located approx.210m east of site.

6.11 CURRENT LAND USE DATA

ID	Distance (m)	Direction	Company	Activity	Category
1	9	E	Works	Unspecified works or factories	Industrial features
2	40	N	Overhead Line Fittings UK Ltd	Metals manufacturers, fabricators and stockholders	Industrial products
4	172	NE	Model Passenger Railway	Railways (heritage, steam and miniature)	Tourism

6.12 PETROL AND FUEL SITES

None recorded within 500m of site.

6.13 HISTORICAL PETROL AND FUEL SITE DATABASE

None recorded within 500m of site.

6.14 POTENTIAL CONTAMINATIVE LAND USES IDENTIFIED ON MAPPING

ID	Distance (m)	Direction	Use	Date
1	0	On site	Unspecified works	1989
2	241	W	Smithy	1901

6.15 HISTORICAL TANK DATABASE

None recorded within 500m of site

6.16 HISTORICAL ENERGY FACILITIES

None recorded within 500m of site.

6.17 HISTORICAL GARAGE DATABASE

None recorded within 500m of site.

7.0 PRELIMINARY CONCEPTUAL SITE MODEL

The risk posed by any contaminants in soil or groundwater will depend on the nature of the hazard, the probability of exposure, the pathway by which exposure occurs, and the likely effects on the receptors. A contaminant is defined as a substance in, on or under land (or within groundwaters) that has the potential to cause harm, while a risk is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance. The following sections discuss all the identified potential on and off-site sources, pathways and receptors in the context of the proposed development and plausible pollutant linkages which may represent a risk to identified receptors from the data gained from the desk study. At this stage the assessment is qualitative and aimed to determine all pollutant linkages, irrespective of significance or allowing for uncertainty.

Source	A contaminant or pollutant that is in, on or under land that has the potential for cause harm or pollution to a receptor.
Pathway	The physical route by which a receptor is or could be affected by a contaminant or pollutant.
Receptor	Something or someone that could be adversely affected by a contaminant, i.e. people, controlled waters, ecological systems, buildings, crops, livestock.

By considering each of the three elements above, an assessment of actual and potential hazards to receptors can be carried out, taking into account the significance and degree of risk of each. The three elements above can exist separately; however, they only create a risk where they are linked together, thus creating a contaminant linkage. During the Preliminary Risk Assessment Stage, the linkages are referred to as 'Potential Contaminant Linkages', until they are confirmed via intrusive sampling, thus becoming 'Relevant Contaminant Linkages'.

A tabled, diagrammatic or matrix of pollutant linkages is considered to be a Conceptual Site Model (CSM), the source-pathway-receptor linkages are reviewed and displayed, apportioning a risk-rating and mitigation suggestion after each summary.

Three impact potentials exist for any given site, these are:

- The site impacting upon itself;
- The site impacting on its surroundings; and
- The surroundings impacting on the site.

All three impacts need to be considered in a risk assessment.

7.1 SOURCES

The following potential sources of contamination have been identified:

7.1.1 ONSITE

- Agricultural use of the site (at least circa.1885 through until the present-day or recent times);
- Various erections and demolitions of barns on site (circa.1885 and demolished and replaced by circa.1989);
- Likely historical storage / usage of machinery and associated fuels on site (circa.1885-1989);
- Subsequent, contemporary usage of large-barns for fuel, chemical, machinery storage (circa.1989 until the present-day – including at least 3 No. tanks noted on the site walkover);
- PACM cladding and roofing (noted broken in areas on the site walkover, including lagging and piping);
- Significant made ground deposits on site (likely arising from historical usage and noted on site walkover – site-wide);
- Historical landfill (approx.178m SW of site, no waste type recorded nor first or last entry of waste).

Potential Sources and Associated Contaminants Identified	
Source	Potential Contaminants of Concern
Agricultural use of the site (at least circa.1885 through until the present-day or recent times) – including silage pit	Agrichemicals (i.e. SVOC / VOC), heavy metals, metalloids, PAHs, TPH CWG, BTEX / MTBE (within age of usage), asbestos
Various erections and demolitions of barns on site (circa.1885 and demolished and replaced by circa.1989)	Agrichemicals (i.e. SVOC / VOC), heavy metals, metalloids, PAHs, TPH CWG, BTEX / MTBE (within age of usage), asbestos
Likely historical storage / usage of machinery and associated fuels on site (circa.1885-1989)	Heavy metals, metalloids, PAHs, TPH CWG, BTEX / MTBE (within age of usage)
Subsequent, contemporary usage of large-barns for fuel, chemical, machinery storage (circa.1989 until the present-day – including at least 3 No. tanks noted on the site walkover)	Agrichemicals (i.e. SVOC / VOC), heavy metals, metalloids, PAHs, TPH CWG, BTEX / MTBE (within age of usage), asbestos
PACM cladding and roofing (noted broken in areas on the site walkover, including lagging and piping)	Asbestos (various forms)
Significant made ground deposits on site (likely arising from historical usage and noted on site walkover – site-wide) i.e. large, overgrown vegetated heaps	Agrichemicals (i.e. SVOC / VOC), heavy metals, metalloids, PAHs, TPH CWG, BTEX / MTBE (within age of usage), asbestos

7.1.2 OFFSITE

- Adjacent farmyard (present from the earliest mapping reviewed until circa.2023 when the area is known to have been redeveloped into a residential area);
- Numerous infilled ponds in the local area (approx. approx.33m SE, a circular pond approx.50m NW, a second linear pond approx.115m NW and a further 2 No. approx.110-120m NE and infilled by circa.1966/1989);
- Historical landfill (approx.178m SE of site, no waste types nor first or last date of entry recorded).

Potential Sources and Associated Contaminants Identified	
Source	Potential Contaminants of Concern
Adjacent farmyard (present from the earliest mapping reviewed until circa.2023 when the area is known to have been redeveloped into a residential area)	Agrichemicals (i.e. SVOC / VOC), PAHs, TPH CWG, BTEX / MTBE (within age of usage) – physical contamination (i.e. heavy metals etc) considered unlikely due to adj. farmyard being topographically below site level
Numerous infilled ponds in the local area (approx. approx.33m SE, a circular pond approx.50m NW, a second linear pond approx.115m NW and a further 2 No. approx.110-120m NE and infilled by circa.1966/1989)	Ground gases (CO ₂ , CH ₄ , CO)
Historical landfill (approx.178m SW of site, no waste type recorded nor first or last entry of waste)	Ground gases (CO ₂ , CH ₄ , CO)

7.2 PATHWAYS

A pathway is defined as a mechanism or route by which a contaminant comes into contact with, or otherwise affects a receptor. Pathways by which the identified receptors may be impacted upon in the context of the proposed development are identified as follows:

- Ingestion (direct and indirect via crop uptake);
- Dermal contact;
- Inhalation;
- Plant uptake;
- Direct contact by buried structures (i.e. pipe degradation and leaching, pH & Sulphate attack on concrete); and
- Leaching of soluble contamination into groundwater.

7.3 RECEPTORS

Receptors are defined as people, living organisms, ecological systems, controlled waters, atmosphere, structures and utilities that could be adversely affected by contaminant(s).

- Human Health;
 - Current users of the site;
 - Future users of the site;
 - Users of neighbouring sites;
 - Construction workers;
 - Services personnel working in trenches;
- Buried concrete, which may be affected by high concentrations of sulphate and/or low pH, in the soils and groundwater underlying the site;
- Construction Materials;
- Buried water pipes;
- Controlled Waters;
- Ecological Receptors; and
- Flora and fauna using the proposed development.

8.0 CONCEPTUAL SITE MODEL

The Conceptual Site Model (CSM) is a hypothesis of the nature and sources of contamination, potential receptors that may be the recipient of contamination arising from those sources and any pathways that may exist. It creates a plausible source-pathway-receptor pollutant linkage (hazard), set within the context of the ground and proposed end use of the site.

8.1 PRELIMINARY CONCEPTUAL SITE MODEL

8.1.1 SOIL CONTAMINATION

The site is currently occupied by two large adjoined agricultural barns with a hardstanding access route to the front (north) and extensive exterior space to the east and south east of the barns (now occupied by overgrown heaps). Historically, the site has been occupied by agricultural features since the earliest mapping reviewed (circa.1885) through until the present-day; however, the earliest barns on site remained present until around circa.1989, when the present-day barns were erected on site. The site then sees little change on historical mapping until the present-day, nor were any significant changes noted on historical satellite imagery, beyond the location of a farmyard north, north east and east of site (also present from the earliest mapping), which has been largely demolished and replaced by a residential estate in the present-day. On the day of the site walkover, a number of potentially contaminative sources were identified including PACM cladding and roofing (broken in areas and in pieces in others), significant made ground deposits site-wide and the storage of containers and tanks in the westernmost barn.

The historied agricultural usage of the site (including various erections and demolitions on site, likely extensive made ground associated with such usages and storage of machinery, agrichemicals and fuels within the barns); alongside the present-day state of the site (i.e. significant made ground deposits, PACM cladding and roofing – broken in areas, fuel and chemical storage) are considered potential sources of soil contamination, which should be investigated further.

8.1.2 GROUND GAS AND HAZARDOUS VAPOURS

Potential sources of both ground gas and hazardous vapours have been identified, which should be investigated further. Potential sources of ground gas generation include an unlicensed landfill formerly located 178m south west of site (no waste type recorded nor first or last date of waste entry). the potential for significant made ground deposits on site, the potential for prior hydrocarbon spillages and their associated breakdown on site and a number of nearby, infilled ponds (infilled by circa.1966/1989 and thus potentially remaining gaseous). Potential sources of hazardous vapours include the general agricultural usage of the site (i.e. heavy plant machinery usage, storage, maintenance and storage of associated fuels, lubricants, greases and oils), the noted 3 No. tanks on site and various areas of made ground, heaped debris and chemical containers.

TABLE 1. SUMMARY OF SIGNIFICANT POLLUTION LINKAGES

Source	Pathway	Receptor	Probability of Pollutant Linkage	Conseq.	Risk	Possible Mitigation
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Direct Ingestion & Direct Contact	Site Workers (<i>during site works, excavations, eating and drinking</i>)	Li	Md	M	Site workers to wear appropriate PPE for health and safety reasons, suitable usage of PPE, adherence to relevant HSE guidance, provision of an asbestos survey (prior to works and investigation) considered sufficient to mitigate hazards to LOW – following confirmation via intrusive Phase II SI.
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Inhalation of Dust, Dry Arisings	Site Workers (<i>during site works, excavations, eating and drinking</i>)	Li	Md	M	
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Crop Uptake & Direct Ingestion, Direct Contact	End Users (<i>residents / tenants, children, visitors, service personnel</i>)	Li	Sv	H	Potentially significant sources of contamination have been identified on and directly adjacent to site including a historied agricultural usage (and inherent heavy plant machinery usage, storage, associated fuels, lubricants, oils and grease), various erections and demolitions on site, likely and noted significant made ground deposits, fragmented PACM and a number of noted fuel tanks, vegetated heaps and mounds. Due to the sensitive residential end-usage of the site and the potential hazards identified (i.e. likely asbestos presence on site alongside a significant depth and extent of made ground), the risks to end-users of site are considered to be HIGH to MODERATE. As such, it is recommended that a Phase II Site Investigation comprising both trial pit and borehole formation is planned and carried out on site. A subsequent regime of ground gas and vapour monitoring should then be carried out.
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Inhalation of Dust, Dry Arisings	End Users (<i>residents / tenants, children, visitors, service personnel</i>)	Li	Sv	H	
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Crop Uptake & Direct Ingestion, Direct Contact	Flora and Fauna (<i>on and offsite</i>)	Li	Md	M	
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Vertical and lateral migration (<i>superficial geology potentially highly permeable, bedrock predominantly low</i>)	Controlled Waters (<i>Secondary Undifferentiated & B Aquifers</i>)	Li	Md	M	
Contaminated Soils (<i>historied agricultural usage, various erections & demolitions on site inc. tanks, likely machinery storage, fragmented PACM, extensive made ground deposits – noted on site walkover</i>)	Direct contact (<i>pipe degradation and leaching</i>)	Services (<i>impacted new potable supply piping</i>)	Li	Md	M	
Ground Gases (Methane and CO ₂) (<i>potential for significant made ground deposits, hydrocarbon break-down, silage pit and numerous infilled ponds, historical landfill</i>)	Vertical and lateral migration (<i>superficial geology potentially highly permeable, bedrock predominantly low</i>)	Site Workers & Excavations, End Users & Building Envelope (<i>ingress and build-up</i>)	Lw	Sv	M	
Volatile and Semi-volatile Organic Compounds (<i>historied agricultural usage of site inc. 3 No. known tanks, machinery storage, extensive made ground</i>)	Vertical and lateral migration (<i>superficial geology potentially highly permeable, bedrock predominantly low</i>)	Site Workers & Excavations, End Users & Building Envelope (<i>ingress and build-up</i>)	Li	Md	M	Potential sources of hazardous vapours identified, see Section 8.1.2. – recommend further investigation.
Radon	Vertical and lateral migration	End Users & Building Envelope	UI	Md	L	Site is not located in a Radon Affected Area.

KEY: Probability of pollutant linkage Hi = Highly likely, Li = Likely, Lw = Low Likelihood, UI = Unlikely
Consequence Sv = Severe, Md = Medium, Mi = Mild, Mr = Minor,
Overall Risk VH = Very High, H = High, M = Moderate, M/L = Moderate/Low, L = Low, VL = Very Low

Based on the preliminary CSM for the site, an environmental risk assessment has been undertaken. A simple matrix can provide a consistent basis for decision making. It should be used with caution, recognising the over-simplification that it will normally represent. The probability and consequences are defined according to parameters relevant to the situation; the boundaries of risk acceptability (and tolerability, where relevant) indicated on the matrix provided in Table 2, can be tailored to the factors influencing the significance of the risk. Individual situations are mapped onto the matrix to provide a ready and consistent indication of their acceptability or tolerability.

TABLE 2. RISK CLASSIFICATION MATRIX

		Consequence			
		Severe (Sv)	Medium (Md)	Mild (Mi)	Minor (Mr)
Probability	High (Hi)	Very high risk	High risk	Moderate Risk	Moderate/ Low Risk
	Likely (Li)	High risk	Moderate Risk	Moderate/ Low Risk	Low Risk
	Low Likelihood (Lw)	Moderate Risk	Moderate/ Low Risk	Low Risk	Very Low Risk
	Unlikely (UI)	Moderate/ Low Risk	Low Risk	Very Low Risk	Very Low Risk

Source: CIRIA Report C552, Contaminated Land Risk Assessment. A Guide to Good Practice, 2001

These attributes are evaluated qualitatively against individual hazard assessments to determine the likelihood of a given hazard occurring. The risk evaluations for each plausible pollutant linkage are given in the last three columns of Table 1.

TABLE 3. CLASSIFICATION OF RISK

Very high risk (Vh)	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High risk (Hi)	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short-term and are likely over the longer term.
Moderate risk (Md)	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer-term.
Low risk (Lw)	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very low risk (VI)	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Source: CIRIA Report C552, Contaminated Land Risk Assessment. A Guide to Good Practice, 2001

9.0 ENVIRONMENTAL RISK ASSESSMENT

Based on the information contained in this report, it is the opinion of Castledine Environmental that the site represents a **MODERATE** to **HIGH** level of risk with respect to the proposed development.

It is recommended that further investigation inline with Section 15.0 is planned and carried out on site.

It is recommended that the structures on site be subject to an asbestos survey (and subsequent removal, if required) by appropriately qualified personnel. This should be carried out prior to any demolition or redevelopment occurring in order to ensure site works do not cause future contamination of the site.

This report should be submitted to your Local Planning Authority for agreement to allow the Phase 2 intrusive testing to be undertaken.

10.0 SUMMARY OF RISKS**11.0 HUMAN HEALTH****11.1.1 RESIDENTS / END-USERS**

The risks to end-users of the site are considered to be high to moderate, due to the sensitive residential end-usage of the site proposals, the historied agricultural usage of the site and the potentially contaminative features noted on the site walkover. Whilst the site is to be largely encapsulated beneath building footprint and access routes, limited areas of soft-landscaping are present and may remain (site plans unknown at this time) and as such, credible pathways for contamination to impact end-users (inhalation of dusts, direct and indirect ingestion, direct contact with soils, surface water run-off). Additionally, some hazards may remain to end-users of the site following site redevelopment, associated with the building envelope as vapour and ground gas hazards to end-users via the building envelope as potentially significant sources of both ground gas and vapour generation have been identified during the course of this report. Additionally, the potential for hydrocarbon impact to new potable water supply piping is considered a hazard to end-users of the site via impacted potable supplies.

11.1.2 SITE WORKERS

The risks to site workers during site works are considered to be moderate, due to the potential for asbestos contamination along with a significant depth of made ground. The potential for the inhalation of asbestos fibres, direct contact with contaminated made ground or the build-up of vapours / ground gases in excavations are considered risks to site workers. The provision for considered usage of PPE and adherence to relevant HSE guidance would be sufficient to mitigate the risks to low, following confirmation of both soil and ground gas / vapour hazards on site via an intrusive Phase II Site Investigation.

- Site workers are to maintain good hygiene standards during site works.

- If access to deep excavations is required, pre-monitoring should be carried out.
- In accordance with Control of Asbestos Regulation (CAR) 2012, a provision for RPE/PPE and suitable working protocol should be provided during any works with asbestos containing materials.

12.0 CONTROLLED WATERS

The risks to controlled waters are considered to be moderate due to the potential for contamination on site to be in direct contact with highly permeable superficial deposits, within which a Secondary Undifferentiated Aquifer is located, below which a Secondary B is present within bedrock deposits; however, no abstraction sites are located within 500m of site and the site is not located in a Source Protection Zone, which reduces the risk somewhat. It is recommended that the extent, nature of potential mobility of contamination on site is assessed, alongside the ground conditions (and their potential permeability).

13.0 STRUCTURES

13.1.1 GROUND GASES & VAPOURS

Potential sources of both ground gas and hazardous vapours have been identified, which should be investigated further. Potential sources of ground gas generation include a unlicensed landfill formerly located 178m south west of site (no waste type recorded nor first or last date of waste entry). the potential for significant made ground deposits on site, the potential for prior hydrocarbon spillages and their associated breakdown on site and a number of nearby, infilled ponds (infilled by circa.1966/1989 and thus potentially remaining gaseous). Potential sources of hazardous vapours include the general agricultural usage of the site (i.e. heavy plant machinery usage, storage, maintenance and storage of associated fuels, lubricants, greases and oils), the noted 3 No. tanks on site and various areas of made ground, heaped debris and chemical containers.

14.0 OFFSITE RECEPTORS

The site is located north of and topographically above a new residential estate and within a wider, predominantly residential area. Should significant contamination exist on site, there exists the credible potential for impact to offsite receptors from onsite features such as the scattered refuse and debris, fragmented asbestos and liquid contamination (i.e. hydrocarbons), which may present an impact to the new residential estate directly north of and downgradient from site.

15.0 RECOMMENDATIONS

At this stage, based on the desk study information collected, it is considered that allowance be made for the following:

- A ground investigation designed to BS10175:2011 and BS5930:2015 and comprising both window sampling and trial pitting will be required to confirm ground conditions, assess deeper and relict ground conditions (i.e. made ground, former silage pit), to collect samples for chemical analysis and to form groundwater and ground gas monitoring installations.
- A range of environmental sampling comprising the contaminants outline in Section(s) 7.1.1. & 7.1.2.
- A ground gas, groundwater and vapour monitoring regime.

If point sources have been identified e.g. buried tanks, significant wastes, liquid wastes / contamination, then allow for specific remediation.

16.0 REFERENCES**16.1 LEGISLATION AND REGULATIONS****16.1.1 ACTS**

- [1] Environmental Protection Act 1990, Part IIA: inserted by Environment Act 1995, Section 57. See Environment Act 1995 for text of Part IIA.

16.1.2 PLANNING REGULATIONS

- [2] The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 SI1999/No.293
- [3] The Town and Country Planning (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2000 SI2000/No.2867
- [4] The Town and Country Planning (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2017 SI2017/No.571

16.1.3 CONTAMINATED LAND REGULATIONS

- [5] The Contaminated Land (England) Regulations 2000. SI2000/No.227
- [6] The Contaminated Land (England) (Amendment) Regulations 2001 SI2001/No.663
- [7] The Contaminated Land (England) Regulations 2006 SI2006/No.1380

16.2 STATUTORY GUIDANCE

- [8] Department of Environment, Food and Rural Affairs. 2012. *Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance*. Department of Environment, Food and Rural Affairs
- [9] Communities and local Government, 2024: National Planning Policy Framework.

16.3 BRITISH STANDARDS

- [10] BS 5930:2015+A1:2020 Code of practice for site investigations
- [11] BS 10175:2011+A2:2017 Investigation of potentially contaminated sites - Code of practice
- [12] BS 8485:2015+A1:2019 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings
- [13] BS 8576:2013 Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)
- [14] Bs 10176:2020 Taking Soil Sample for Determination of Volatile Organic Compounds (VOCs)

16.4 NON-STATUTORY TECHNICAL GUIDANCE**16.4.1 ENVIRONMENT AGENCY**

- [15] Land Contamination Risk Management (LCRM) 2020, updated 2023

16.4.2 CIRIA PUBLICATIONS

- [16] Wilson, S., Oliver, S., Mallett, H., Hutchings, H., and Card, G.. 2007, *C 665 Assessing risks posed by hazardous ground gases to buildings* London: Construction Industry Research and Information Association
- [17] Mallett, H., Cox, L., Wilson, S. and Corban, M... 2014, *C 735 Good practice on the testing and verification of protection systems for buildings against hazardous ground gases* London: Construction Industry Research and Information Association

16.4.3 CL:AIRE

- [18] Card G, Wilson S, Mortimer S. 2012. *A Pragmatic Approach to Ground Gas Risk Assessment. CL:AIRE Research Bulletin RB17.* CL:AIRE, London, UK. ISSN 2047- 6450 (Online)

17.0 APPENDICES

APPENDIX A ENVIRONMENTAL SEARCH

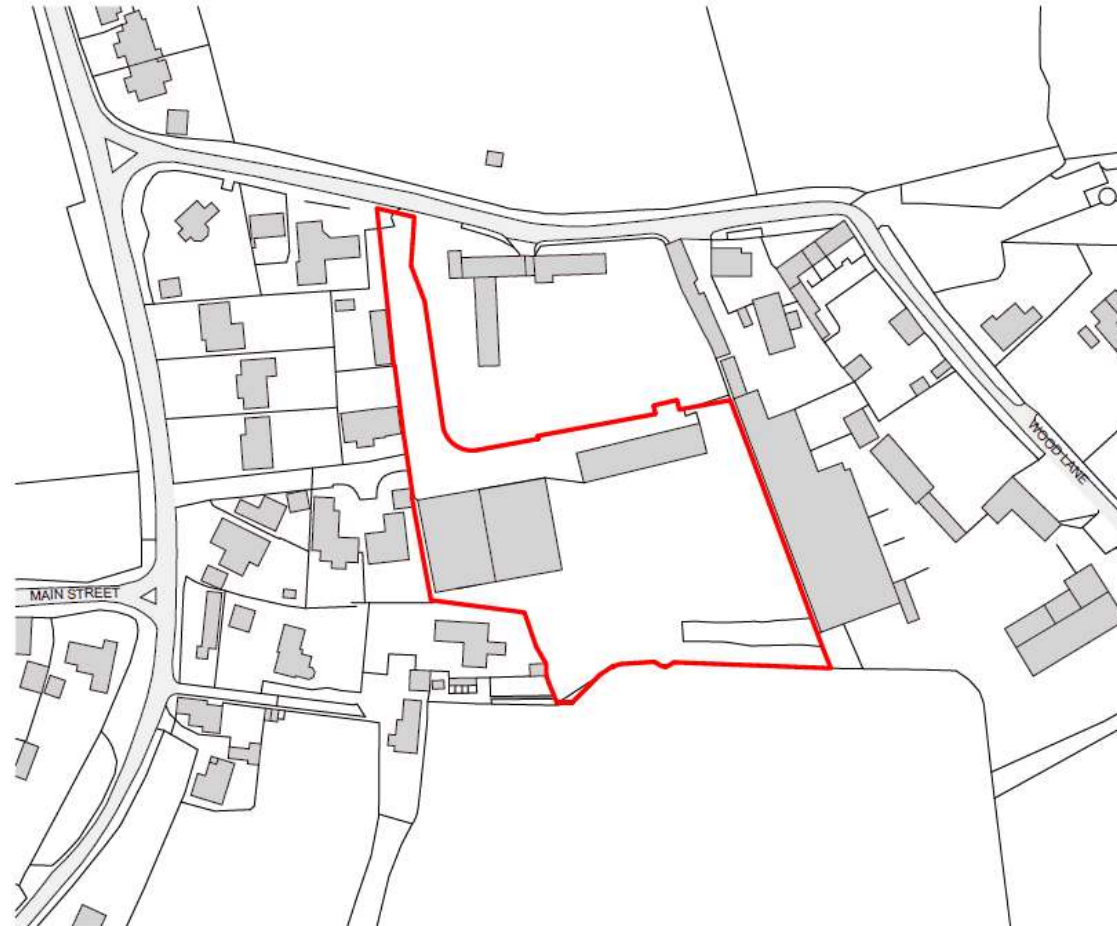
Separate Groundsure Report

APPENDIX B HISTORICAL MAPPING

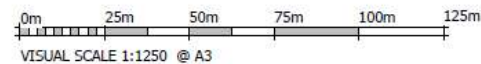
Separate Map Packs (2 No. files)

APPENDIX C

CURRENT SITE PLANS



Site Location Plan
1 : 1250



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Revision	Date	Drn	Ckd
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Status	PLANNING
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Project Number	2501587.7
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Project	8 Wood Lane Norton-Juxta-Twycross
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Drawing Title	Site Location Plan
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Drawn by	SL	Dwg No	A-E10-001
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Check by	CW	Scale	1 : 1250 @ A3
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Revision	Date	22.07.25
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APPENDIX D

SITE PHOTOS AND LOCATIONS



Site Walkover Photos

Photo No.1: Facing north from the site access route back towards Wood Lane



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.2: Facing south from the site access showing the large barns forming the western extent of site





Site Walkover Photos

Photo No.3: Facing SE from the site access showing continuation of the large barns forming the west of site



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.4: Heaped gravels and arisings adj. to site access



Site Walkover Photos

Photo No.5: Heaped debris and refuse noted in west of site



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.6: Facing SE showing front (northern) faces of barns and PACM-cladding





Site Walkover Photos

Photo No.7: Facing south showing interior of westernmost barn with miscellaneous storages (i.e. construction materials)



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.8: Further shot of interior of westernmost barn





Site Walkover Photos

Photo No.9: Showing PACM cladding on barns



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.10: facing south inside the eastern barn adjoined to that in the far west of site



Site Walkover Photos

Photo No.11: Containers noted stored in open-sided barn



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.12: Further shot of interior of westernmost barn





Site Walkover Photos

Photo No.13: Facing NE from outside the eastern face of the barns showing remained of site and further linear barn



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.14: Facing east towards the eastern extent of site showing further heaps and vegetated heaps





Site Walkover Photos

Photo No.15: Facing NW in the east of site back towards the large barns and site access (further heaps noted)



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.16: Facing west from outside the eastern face of the dilapidated linear barn forming the NE extent of site





Site Walkover Photos

Photo No.17: Facing west along and inside the northern boundary of site (right) with linear barn to left of photo



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.18: Facing east showing the rear (southern) face of the linear barn, dilapidated state and further PACM





Site Walkover Photos

Photo No.19: Facing east from the centre of site showing further heaped refuse and vegetated heaps forming SE of site



Address: Site to rear of No.8 Wood Lane, Norton-Juxta-Twycross
Client: LonXthree (c/o 2012 Partnership Homes Ltd)

Photo No.20: Overgrown vegetated heaps forming the eastern and SE extents of site



APPENDIX E**WATCHING BRIEF**

It remains possible that previously unexpected soil conditions may be encountered during the construction process. Examples may include oily pockets within the soil, potential for asbestos containing materials, black ashy materials, soils exhibiting strong odours, brightly coloured materials, and former demolition materials.

Should previously undiscovered contamination be encountered during the demolition/construction of the new buildings the following course of action should be adhered to:

1. The ground workers should report any suspected contamination immediately to the Client's site supervisor. The supervisor should contact the Client or their appointed agent who will in turn contact Castledine Environmental to request an engineer to visit the site to assess the extent of the 'contamination'.
2. Castledine Environmental shall make records of their inspection, and pass details of these to the Local Authority.
3. Where the conditions revealed differ from those previously anticipated, the Castledine Environmental shall take samples as deemed appropriate to be dispatched for appropriate chemical testing.
4. Depending on the results of the testing either:
 - a. no further work will be required;
 - b. a further detailed risk assessment will be required; and/or
 - c. Localised specific remedial measures will be necessary.Appraisal criteria will vary depending on the nature of the assessment.
5. The results of any such testing will be sent to the Local Authority Pollution Control Section, Local Authority development control section, and the appointed building inspector. If remediation is required, the LA/Building inspector will be informed of the date and time of the proposed works.

6. Remediation will be undertaken in accordance with a method statement submitted for approval. The works shall be supervised where necessary by Castledine Environmental who shall provide a Verification Report for the Local Authorities.
7. A copy of the discovery strategy should be lodged on site and provisions made to ensure that all workers are made aware of their responsibility to observe, report and act on any potentially suspicious or contaminated materials they may encounter.

APPENDIX F

DISCOVERY STRATEGY

