

A PHASE I CONTAMINATION ASSESSMENT FOR A RESIDENTIAL DEVELOPMENT AT:

ELM FARM, SOMERSHAM ROAD, LITTLE BLAKENHAM



CLIENT: HAT Projects Limited

REFERENCE: JAH/19.349/Phase1

DATE: 29 October 2019

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1. TERMS OF REFERENCE

A F Howland Associates Limited was instructed by HAT Projects Limited (the “Client”) to carry out a Phase I Contamination Assessment of a plot of land at Elm Farm, Somersham Road, Little Blakenham (Drawing 19.349/Phase I/01). It is proposed to change the use of three of the barns on site from agricultural to residential, and to demolish the two remaining barns. The development proposals include private and public soft landscaped areas, driveways, parking, and a new detached garage. The proposed plans are indicated on Drawings 174_EF_1_HAT_PL_110 and 174_EF_2_HAT_PL_110 in Appendix C.

This report presents archive historical and environmental information and gives details of a walkover survey undertaken to confirm the current condition of the site and surrounding area.

A Site Solutions Report (SSR) has been attained by the Client, which states that in the opinion of the author “no significant contaminant linkage has been identified”, but that a Phase I Contamination Assessment would be the most appropriate next step. This view point was backed the Senior Environmental Protection Officer at Babergh and Mid Suffolk District Council.

A copy of the SSR is included in Appendix B. The pertinent information along with any additional information is used to develop a conceptual model using the *source-pathway-receptor* principle and provides a qualitative assessment of land contamination.

The report has been carried out in general accordance with accepted best practice and methodologies (BSI, 2017) (DEFRA and EA, 2004) (DCLG, 2010) and was prepared for the sole and exclusive use of the Client and its advisors. Other parties using the contained information do so at their own risk and any duty of care to those parties is specifically excluded subject to copyright as detailed below.

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No part of the content of, procedures described, or other facets of the report will be copied or used by others outside of the immediate context for which the work was commissioned without the express and specific request and approval to do so in writing.

2. LOCATION

The site is located in the western outskirts of the village of Little Blakenham approximately 7.3 km north-west of Ipswich, centred at National Grid reference 609970, 248757 and at an approximate elevation of 18 m above Ordnance Datum (aOD).

The site is situated within the base of a relatively broad shallow valley. As a result, the immediate surrounding area slopes gently upwards to the north and south, with the site being generally level.

3. GEOLOGY

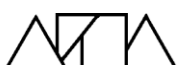
The regional geology is mapped for the area by the British Geological Survey (BGS, 2019). The geology comprises bedrock of the Newhaven Chalk Formation. No superficial deposits were mapped across the site. Superficial Head Deposits were mapped approximately 10 m off site to the east/south.

Data obtained from a BGS archive borehole approximately 20 m to west of the site, referenced TM04NE28 (BGS, 2019) indicates drift deposits overlying chalk down to 27.43 m below ground level (bgl).

4. HYDROLOGY AND HYDROGEOLOGY

No surface water features were noted on site. A small stream was noted between approximately 25 to 65 m to the south of the site, orientated in a west to east direction flowing into the River Gipping. No surface water abstraction licences are reported within 1 km of the site.

The bedrock of the Chalk is designated a principal aquifer status, and the superficial head deposits off site designated as a secondary B aquifer status. A shallow groundwater table is anticipated beneath the site.



The site is recorded to be within a groundwater source protection zone (Zone III - Total Catchment). The closest groundwater abstraction licence is 9 m west of the site associated with general farming and domestic use (Licence No. 7/35/08/*G/0135).

5. HISTORICAL INFORMATION

5.1 HISTORICAL MAPS

A review of historical maps¹ shows Elm Farm to comprise a collection of buildings (assumed agricultural) from the earliest available map, dated 1882-1884. Only three buildings were noted within the current site boundary, in the western half. No significant changes were noted on site through to 1926. As of the next available map, dated 1964-1970, three new buildings were constructed on site, labelled as *Piggeries* (commensurate with Barns B, C, and D - see Section 7). By 1973, two of the buildings on the eastern boundary of the site were no longer mapped, leaving a single building (commensurate with Barn A - see Section 7).

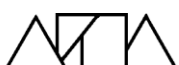
The 1964-1970 maps, a *Sewage Works* was noted off site, approximately 120 m south. This works comprised a series of settling tanks, two circular filter beds, and several separate smaller tanks. An outfall was mapped from the sewage works, running into the stream to the north, between the works and the site. These works were noted to still be present in a similar configuration in the current day.

5.2 HISTORICAL TRADE DIRECTORIES

A search of available historical directories for the site, known as Elm Farm, was carried out². The History, Gazetteer & Directory of Suffolk 1891-1892 confirmed that the site was in use as a farm (Owner: John Ransom). A Kelly's Directory entry of 1912, re-confirmed this (Owner: Jackson Orlando). No other records of any commercial activity were recorded on site within the available records (1891 through to 1912).

¹Available online [www.oldmaps.co.uk - accessed 21 October 2019]

²University of Leicester Special Collections [<http://specialcollections.le.ac.uk/digital/collection/p16445coll4> - accessed 21 October 2019]



5.3 HISTORIC AERIAL PHOTOGRAPHS

Aerial photographs are available from 2000 until 2019³. The site was noted to be broadly similar to the present day layout with the exception of an additional barn along the western site boundary. This barn was last photographed in May 2012, with the next photograph, April 2015, showing the adjacent Elm Farmhouse having been redeveloped, and the barn on site having been demolished along with an adjacent barn (off site).

5.4 PLANNING APPLICATION SEARCH

A review of planning records indicate that the development at the adjacent Elm Farmhouse (application 2130/13 and 1870/13) was undertaken around June 2013, comprising the demolition of two outbuildings/barns (one on site, one off site at the western site boundary), extensions to the main farmhouse building, and a new stable building.

6. CURRENT LAND USES

The site comprised a collection of various agricultural barns, located in a rural setting, with crop fields to the north and livestock grazing the east and south. Elm Farmhouse was a residential property with a stable located adjacent to the western site boundary.

7. WALKOVER SURVEY

A walkover survey was carried out on 16 October 2019 to enable identification of the current land use and other details not otherwise available from the archival information. The salient features are shown on drawing 19.349/Phase I/02 and 19.349/Phase I/03, in Appendix C.

The site was accessed off Somersham Road to the north, via an area of concrete hardstanding which extended around the barns through to the southern boundary. The far western extent was noted to be compact hard-core/gravel rather than concrete, which was being used for vehicle parking.

The most westerly barn was a brick built timber frame building with a tiled roof, possibly a former granary building. A later construction of concrete blocks was noted on the

³Google Earth Imagery [Accessed 21 October 2019]

northern gable end. The building was noted to have an internal concrete floor and contained timber beams and empty plastic crates. A water supply tap was noted internally in the south-eastern corner. A sign affixed to the outside wall of the barn indicated that the premises had been occupied by 'William Brown Company (Ipswich) Limited'. No records pertaining to the nature of this company were found.

The remaining barns on site have been named A through D, commensurate with Drawing 174_EF_2_HAT_PL_010 in Appendix C.

Barn A was rectangular with a pitched roof barn and a masonry and timber structure. The barn was noted to be open sided to the south, with the southern half of the barn used to store straw. The northern half of the barn was split into three separate animal pens, the middle one containing stacked piles of corrugated cement board sheets (possible asbestos containing material - ACM).

Barn B was roughly square with a pitched roof and a timber structure. The roof was noted to be corrugated cement board sheets (possible ACM). The barn was split into two halves; east and west. The eastern half was empty, bar an old plough. The western half contained stockpiles of split wood. Some insulation/lagging was noted to be hanging from the roof space in the north-west corner (possible ACM).

Barn C was a linear building comprising a pitched roof and timber cladding on a masonry plinth wall. The roof was noted to be corrugated cement board (possible ACM). The interior was divided into two sections with a collection of small rooms in the western end, and a large animal enclosure covering the eastern portion. A sign affixed above the main door of Barn C indicated that the premises had been occupied by 'Gabriel, Wade & English Ltd'. A review of available London Metropolitan Archives⁴ indicates that this company was a timber importer/merchants with branch offices all around the country, active between 1760 and 1952. It is unclear the dates this particular branch office was active, however the company name was changed to its current configuration in 1919.

Barn D was a linear barn comprising pitched roof timber structures on a masonry plinth. The roof was noted to be corrugated cement board sheets (possible ACM). A lean-to roof spans the gap between Barn C and Barn D, providing a covered walkway. The barn was subdivided into a series of animal pens/enclosures by a series of metre high walls.

⁴Available at <https://www.cityoflondon.gov.uk/things-to-do/london-metropolitan-archives/Pages/> - Accessed 24 October 2019

A hydraulic log splitter was noted upon the concrete hardstanding to the south of Barn B, with stacks of tiles, bricks, and patio slabs adjacent. Some surface staining was noted around the hydraulic ram of the splitter. Immediately to the east of this, and off site, was a large partially infilled pit, with a small area of burning. The pit was noted to have been filled with flint, brick, concrete, tiles, and rare metalwork.

A rectangular concrete lined infilled pit was noted to the north of Barn B. This pit was noted to have been filled with flint, brick, concrete, and tarmac culminating in a mound of flint, brick, and concrete fragments approximately 1.20 m in height.

To the east of the gable ends of Barns C and Barn D was a small area of burning with cement pipes (possible ACM) scattered adjacent, in whole and broken condition. To the south of this in the south-eastern corner of the site was an open silage pit.

8. HAZARDOUS GASES

The SSR indicates that the site is not within an area where specific protection from radon gas is required.

Databases published by the Environment Agency⁵ indicate that the nearest historical landfill site is located 1.05 km to the east⁶, and the nearest authorised active landfill is 1.20 km south west⁷ of the site.

No areas of infilled land have been identified by the SSR within 500 m of the site. However, the site walkover confirmed the presence of a filled square concrete pit on the northern boundary and a partially filled pit adjacent to the southern boundary. A visual inspection from surface indicates that these pits have not been filled with putrescible material, which could generate ground gases via degradation.

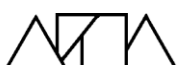
9. DISCUSSION OF ENVIRONMENTAL ISSUES

The site is proposed to be developed for residential purposes with associated private gardens, areas of public open space and water supply infrastructure. The proposed plans

⁵Datasets last updated 10 September 2019 [Available at <https://data.gov.uk/dataset/17edf94f-6de3-4034-b66b-004ebd0dd010/historic-landfill-sites> and <https://data.gov.uk/dataset/ad695596-d71d-4cbb-8e32-99108371c0ee/permited-waste-sites-authorised-landfill-site-boundaries>]

⁶Accepting Inert, commercial, and household waste between 21 July 1983 and 31 October 1992 (WRC ref. 3500/0560)

⁷Licence held by Viridor Waste Management Ltd, accepting waste from 19 January 2015



are indicated on Drawings 174_EF_1_HAT_PL_110 and 174_EF_2_HAT_PL_110 in Appendix C.

Historically, the site is understood to have been agricultural and is currently occupied by a various agricultural buildings. Aside from general agricultural use, the only other known uses of the buildings were as piggeries and a timber merchants. Presently on site, there was noted to be significant amounts of cement board sheets, both on roofs and stacked within Barn A, and cement pipes, all of which have been identified as potential ACM, in various conditions. Some surface staining was noted around the hydraulic log splitter. Two areas of burning were identified, one on site and one off site. Two infilled pits were also noted, one on site and one off site. All of these activities have the potential to have introduced contamination into near surface soils.

The sewage works is unlikely to have impacted the shallow soils of the site, as it is located at a similar elevation, and a stream runs parallel between it and the site, which is likely to intercept any potential soil contamination. The impact of off site sources of contamination upon off site receptors is beyond the scope of this report.

No historical or authorised landfill sites, which could impact upon the site have been identified. The site is not within a radon affected area. The hazard posed by ground gases is considered to be negligible as there are no identified potential sources.

The anticipated geology underlying the site comprises bedrock of the Newhaven Chalk Formation, which is designated a principal aquifer. The site is also located within a groundwater source protection zone. The closest groundwater abstraction licence is held 9 m to the west of the site, at the adjacent Elm Farmhouse.

The nearest surface water feature is a stream to the south of the site. No surface water abstraction licences are located within 1 km of the site.

It is plausible for any near surface contamination to have become mobile and entered the water environment via shallow throughflow, or base flow where groundwater is present, into the adjacent stream to the south. Bar any near surface contamination caused by the historic and current land uses, no significant sources of mobile contamination, such as fuel and oil storage, have been identified.



10. PRELIMINARY CONCEPTUAL MODEL

Following a review of the archival information and the walkover survey a preliminary conceptual model was devised to determine the risk to appropriate targets from any potential contaminating activities. This collates the evidence gained and establishes the potential linkages that may exist under the principle of “source-pathway-receptor” and is presented in Table 1 below.

A risk category is determined for the potential linkages and an assessment made of risk and the significance of that risk from professional judgement. Risk assessment classification is included in Appendix D. Where appropriate, further work is recommended to fully quantify any potential risk.

It should be noted that an assessment of risk to construction workers suggests that only contamination of acute toxicity might represent an unacceptable risk to the health of construction workers but which should be managed through health and safety procedures.



Source of Contamination	Pathway	Receptor	Probability and Reasoning	Consequence and Reasoning	Risk Classification
Potentially contaminated soils (near surface soil impacted by historical and/or recent land use)	Direct contact, inhalation, ingestion	Human end-users	Likely – It is possible that the former and current land uses on site have introduced contamination into near surface soils.	Medium – Chronic damage to human health	Moderate Risk
		Construction workers		Mild – Potential short term exposure; can be managed with toolbox talks, PPE and adoption of good hygiene practices	Low/Moderate Risk
	Percolation of leachate / mobile contaminants	Groundwater	Low likelihood – No significant sources of mobile contamination identified. There is the potential for near surface contamination to become mobile into the water environment, though this is unlikely to be at a significant concentration.	Medium – The site was noted to overlie a principal aquifer, and within a source protection zone. A groundwater abstraction licence was also noted in close proximity to the site.	Low/Moderate Risk
		Surface water		Medium – A stream was noted in close proximity to the site	Low/Moderate Risk
	Direct Contact	Buildings	Low likelihood – Potentially isolated contamination may be present, most likely associated with any oils.	Mild – Damage to buildings/structures	Low Risk
	Permeation through water supply pipes	Human end-users		Medium – Chronic damage to human health from permeation of plastic water supply pipes	Low/Moderate Risk
Potentially infilled land (on and off site)	Gas migration through permeable strata, ingress and accumulation in structures	Human end-users	Unlikely – On site and off site infilled ground is not considered to be a viable source of ground gases, and the landfill sites are considered to be too far away from the site to pose a significant risk.	Severe – Acute risk to potential end users	Low Risk⁸
		Structures			
Radon Gas		Human end-users	Unlikely – Site outside of radon affected area	Medium – Chronic risk to human end users	Low Risk

Table 1 – Preliminary Conceptual Site Model and Risk Assessment

⁸ Whilst the comparison of consequence against probability results in a moderate/low risk classification, the risk has been downgraded to low based on the negligible risk of gas generation

11. SUMMARY AND RECOMMENDATIONS

1. A Phase I Contamination Desk Study and Risk Assessment was carried out for a proposed residential development, comprising the partial demolition of the site and the change of use of the remaining structures, at Elm Farm, Somersham Road, Little Blakenham.
2. Geological mapping indicates the site to be underlain by a bedrock of Newhaven Chalk Formation. No superficial deposits were mapped on site. The bedrock is designated a principal aquifer status. The closest groundwater abstraction licence is 9 m to the west of the site. The site is also located within a groundwater source protection zone.
3. A stream was noted in close proximity to the site running parallel with the southern site boundary. No surface water abstraction licences are present within 1 km of the site.
4. Historical mapping shows that the site has been in use for agricultural activities with various buildings/barns throughout. Historic directories highlighted that the site was a farm, and a timber merchant used to occupy one of the buildings during the late 20th century.
5. The walkover survey identified which barns were still present on site. Two infilled/partially filled pits were also noted on site and adjacent to the site. Stacks of possible ACM was identified on site within the barns, scattered in soft landscaped areas, and in roof materials across the site. Some minor surface staining was noted around the hydraulic log splitter.
6. Given the potential for contamination of near surface soils a risk rating of moderate has been identified to human health from direct contact, inhalation or ingestion of contaminated soil and dust.
7. A low/moderate risk to construction workers has been identified, providing that toolbox talks and health and safety procedures are followed.
8. The risk to controlled waters (groundwater and surface water) has been assessed as low/moderate, from potential contamination within the near surface soils being mobilised into the water environment.
9. There may be potentially isolated sources of contamination on site, such as hydraulic oil, which may aggressive to buried concrete, or permeate into any water supply pipes. A low to low/moderate risk to buildings and human health have been concluded.
10. No significant sources of ground gas have been identified, both on and off site. A low risk to human end users via gas migration through permeable strata, ingress and accumulation in structures has been identified.



11. The site is not within an area where specific protection from radon gas is required.
12. It is recommended that an intrusive investigation of the near surface soils across the site is carried out to confirm the absence of any significant soil contamination, or otherwise to determine if the soil is suitable to be used within the proposed high exposure soft landscaped areas of the development. This should also include an assessment of the suitability of plastic water supply pipes, if the soil is aggressive to buried concrete, and confirmation of the presence/lack of mobile and/or leachable contamination and the presence/lack of asbestos within near surface soils. Representative samples of the groundwater beneath the site should also be taken to assess any potential impact from site upon the water environment.

Prepared by:



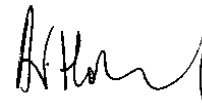
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Checked by:



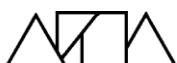
Mr B J Horne
MSc BSc FGS

Authorised by:



Dr A F Howland
MSc PhD DIC CEng FIMMM CGeol FGS

A F HOWLAND ASSOCIATES
29 October 2019



APPENDIX A: REFERENCES

BRITISH GEOLOGICAL SURVEY (BGS). 2019. OpenGeoscience Website. Geology of Britain Viewer. www.bgs.ac.uk/opengeoscience

BRITISH STANDARDS INSTITUTION. 2017. BS 10175:2011+A2:2017. Code of practice for investigation of potentially contaminated Sites. British Standards Institution. London.

DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG). The Building Regulations. 2013. England. Approved Document C: Site preparation and resistance to contaminants and moisture, 2004 and incorporating 2010 and 2013 amendments.

DEFRA AND THE ENVIRONMENT AGENCY. 2004. Model Procedures for the Management of Land Contamination. Contaminated Land Report 11. Environment Agency, Bristol.



APPENDIX B: SITE SOLUTIONS REPORT (SSR)



SiteSolutions Commercial



Overall Opinion

PASSED ✓



Argyll's Overview

Considering the information reviewed during this assessment, no significant contaminant linkage has been identified. Accordingly soil and groundwater liabilities are unlikely to occur. However, your attention is drawn to prudent measures suggested on page 3.

No other Environmental Hazards have been identified in the immediate vicinity of the Site.



Report on:

Elm Farm, Little Blakenham, Ipswich, IP8 4NF

Report prepared for:

Direct Client

Client Reference:

Report Reference:

AEL-4491-SSR-975332

National Grid Reference:

609881,248757

Report date:

22nd July 2019



Site Location

Report prepared on

Elm Farm, Little Blakenham, Ipswich, IP8 4NF

Site Area (m²)

4009.38

Current Use

Agricultural

Proposed Use

Development site (Presumed Residential)

Report Author

Lauren Sharpe

Telephone: 0330 036 6115

E-mail: orders@argyllenviro.com

Additional Information Provided





Summary of Contamination Risk and Liabilities

Liability Assessment



Passed

Read recommendations



Liability Assessment

Within the scope of this assessment no Liabilities have been identified. However, your attention is drawn to the prudent measures suggested below.

Risk



Contaminated Land

Issue

What is the overall on-site risk?

What is the overall off-site risk?

What is the environmental sensitivity rating?

Evaluation

Low to Moderate

Low to Moderate

High



Recommendations

The Site is in agricultural use. While this may have caused some contamination, the risk of liability is not high. As the Site is being redeveloped, it will need to be suitable for the proposed use.







Based on the Site context, a Phase 1 Environmental Assessment is the most appropriate next step. This will involve a visual inspection to assess the risk of contamination in the context of the development. Please note, it may highlight a requirement for further investigation.

We would be happy to confirm with the Planning Authority that this approach is acceptable and provide a quote for the work. Please contact your report writer on 03300 366 115 to discuss any aspect of our recommendation.

Upgrade to a Phase 1 Environmental Audit: from £950 + VAT including third-party costs



Contaminated Land Risk Analysis

Investigation	Commentary
 <p>On-site sources</p> <p>Argyll's Comment </p>	<p>A review of historical maps shows the Site existed as agricultural land with associated farm buildings in the west from the earliest mapping 1882. Minor footprint changes had been noted, and by 1970, the farm buildings had extended over the remainder of the Site, with piggeries in the east. From this point the Site had been labelled as Elm Farm. No further significant changes were noted in subsequent mapping.</p> <p>The Site appears to be in agricultural use, and have been told by the client the Site is due to undergo redevelopment. We have assumed it will be redeveloped for residential use.</p> <p>As a result of the historical and current use of the Site, there is a low to moderate risk of contaminants being present.</p>
 <p>Off-site sources</p> <p>Argyll's Comment </p>	<p>A review of historical maps dating from 1882 shows the following potentially contaminative uses within 100m of the Site: worked ground 5m north c.1882-1858</p> <p>The historical and current use of the surrounding area is therefore considered to present a low to moderate risk of affecting the Site.</p>
 <p>Pathways and receptors</p> <p>Argyll's Comment </p>	<p>The general area appears to be in agricultural use, and we have assumed that residential properties are being developed on Site.</p> <p>The bedrock hydrogeology underlying the Site is classified as a Principal Aquifer (highly permeable formations).</p> <p>The Site lies within a Zone II Source Protection Zone (SPZ). An SPZ is a protection zone placed around a well or borehole that supplies groundwater of potable quality. There are two abstraction licences located within 500m. The closest of these is a groundwater abstraction (9m west) for general farming and domestic use.</p> <p>A pond is located 6m south. Finally no designated eco-receptors were identified within a 500m radius of the Site.</p> <p>Overall, the Site is therefore considered to have a high environmental sensitivity.</p>
<p>Additional Sources of Information</p>	<p>No additional materials have been used in this assessment.</p>





Argyll's Conclusion

Considering the information reviewed during this assessment, plausible contaminant linkages have been identified associated with the proposed redevelopment. However, we do not consider these likely to be significant. We would draw your attention to the recommendation on Page 3.

Please refer to risk analysis methodology section for further guidance and definition of terms.



Other Environmental Hazards

	Risk	Recommendation
	Natural or Mining Related Hazards	No natural or mining related hazards have been identified in the immediate vicinity of the Site.
	COMAH	No Control of Major Accident Hazards (COMAH) sites are located within 500m.

Argyll's Comment



This report is primarily a desktop assessment of potential soil and groundwater liabilities. We also comment whether the above Environmental Hazards are relevant. Contact details are provided at the end of this report.



Current Operations

Environmental Damage Regulations 2009 (EDR)

Potential for owner/operation to incur a Liability under the EDR

Argyll's
Comment



The Site is in close proximity to a potentially sensitive receptor as set out in the EDR. It would therefore be prudent to ensure that operations on the site are audited on a regular basis to minimise the risk of causing environmental damage that could result in liability under the EDR. In addition, the presence of such receptors should be considered as part of any future development or activity. Please refer to the risk analysis methodology section for further guidance and definition of terms.

Additional Considerations

Item	Summary	Suggested Action
Asbestos (Development)	If buildings at the Site are to be redeveloped or refurbished a Refurbishment or Demolition (RoD) Survey will be required. In addition, brownfield development sites may have asbestos containing materials (ACM) in top soils and made ground. A soil survey can confirm this.	Contact a UKAS accredited asbestos consultancy.
Energy Performance Certificate	Under the Energy Performance of Buildings (England and Wales) Regulations 2012 and the Energy Performance of Buildings (Scotland) Regulations 2008, there is a requirement for all buildings to have an Energy Performance Certificate (EPC) upon their construction, sale or lease (and in some cases when the building is modified).	Check for EPC or conduct energy assessment
Change of Use Redevelopment	Proposed changes in land use require permission from the Local Authority and are subject to conditions as part of the statutory planning process.	Contact local planning authority or speak with planning consultant

Argyll's
Comment



Whilst this assessment is primarily a desktop assessment of potential soil and groundwater liabilities, the above potential liability considerations that fall outside the scope of the Risk Analysis Methodology have been identified.

Additional sources of information may be available for the Site. These sources could include previous environmental reports (including audits, contaminated land investigation and remediation reports), valuation reports (including property observation checklists), a Land Quality Record, and property deeds. Argyll Environmental would be pleased to review any reports that are available and revise this report accordingly. This may entail additional fees depending upon the volume and complexity of information available. Please contact us for further information.

Contents of the Data Section

Section	Description
Tabular Summary	<p>This section presents a tabular summary of information found for the Site and surrounding area. The data is presented in three buffer zones for ease of reference: data found at the Site, from 1-250m and from 251-500m.</p> <p>If a database has been searched the number of records found will be displayed under the relevant search band. If a database is not available or has not been searched, this will be represented by the abbreviation N/A under the relevant search band.</p>
Current Land Use Mapping	<p>This section provides information on current land uses and is divided into three sections, statutory information, waste and current industrial uses. It is preceded by two maps.</p>
Statutory Information	<p>This section presents detailed statutory information for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
Waste	<p>This section presents detailed information on waste and landfill sites for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
Current Industrial Land Use	<p>This section presents detailed information on current land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
Historical Land Use Mapping	<p>The Historical Land Use Map presents 1:10,000 scale and selected 1:2,500 scale (tanks and energy facilities) historical land use information within 250m of the Site boundary.</p>
Historical Land Use	<p>This section presents selected information on historical land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
Aquifer Designations and Geology	<p>This section is preceded by two maps that present information relating to the aquifer designations beneath the Site. The first of these maps indicates the designation of the Superficial geology. The second map presents the aquifer designation of the solid geology.</p> <p>These maps are followed by detailed information in relation to aquifer designations/groundwater vulnerability and geology at the Site and surrounding area (0-500m).</p> <p>If no data is identified then the section will be omitted.</p>
Environmental Sensitivity	<p>This section presents detailed information on the environmental sensitivity of the Site and surrounding area (up to 500m depending upon dataset) and is preceded by two maps. The first shows areas with statutory designations, the second shows source protection zones. The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
Natural and Mining Related Hazards	<p>This section contains information on natural and mining related hazards which may affect the Site. These include subsidence, radon and mining.</p>

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Tabular Summary

Statutory Information

Authorisations	On-site	1-250m	251-500m
Local Authority Pollution Prevention and Controls	0	0	0
Local Authority Integrated Pollution Prevention and Controls	0	0	0
Integrated Pollution Controls	0	0	0
Integrated Pollution Prevention And Control	0	0	0
Registered Radioactive Substances	0	0	0
Discharges	On-site	1-250m	251-500m
Discharge Consents	0	10	1
Water Industry Act Referrals	0	0	0
Control of Major Accident Hazards Sites	0	0	0
Explosive Sites	0	0	0
Notification of Installations Handling Hazardous Substances	0	0	0
Planning Hazardous Substance Consents	0	0	0
Contraventions	On-site	1-250m	251-500m
Contaminated Land Register Entries and Notices	0	0	0
Local Authority Pollution Prevention and Control Enforcements	0	0	0
Enforcement and Prohibition Notices	0	0	0
Planning Hazardous Substance Enforcements	0	0	0
Substantiated Pollution Incident Register	0	0	0
Prosecutions Relating to Authorised Processes	0	0	0
Prosecutions Relating to Controlled Waters	0	0	0

Waste

Waste/Landfill Sites	On-site	1-250m	251-500m
BGS Recorded Landfill Sites	0	0	0
Integrated Pollution Control Registered Waste Sites	0	0	0
Licensed Waste Management Facilities (Landfill Boundaries)	0	0	0
Licensed Waste Management Facilities (Locations)	0	0	0
Local Authority Recorded Landfill Sites	0	0	0 (0) *
Registered Landfill Sites	0	0	0 (0) *
Registered Waste Transfer Sites	0	0	0
Registered Waste Treatment or Disposal Sites	0	0	0
Historical Landfill Sites	0	0	0

Current Land Use

Current Potentially Contaminative Uses	On-site	1-250m	251-500m
Contemporary Trade Directory Entries	0	0	0
Fuel Station Entries	0	0	0
Other Features	On-site	1-250m	251-500m
Overhead Transmission Lines	0	0	0
Gas Pipelines	0	0	0
Gas Feeders	0	0	0

Historical Land Use

Historical Potentially Contaminative Uses	On-site	1-250m	251-500m
Historical Tanks And Energy Facilities	0	2	0
Potentially Infilled Land	On-site	1-250m	251-500m
Former Marshes	0	0	0
Potentially Infilled Land (Non-Water)	0	0	0
Potentially Infilled Land (Water)	0	0	0

Groundwater Vulnerability

Hydrogeology	On-site	1-250m	251-500m
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Groundwater Vulnerability

Superficial Aquifer Designations	0	6	1
Bedrock Aquifer Designations	2	0	0
Geology	On-site	1-250m	251-500m
BGS 1:50,000 Bedrock Geology	1	0	1
BGS 1:50,000 Superficial Deposits	0	2	1
BGS 1:50,000 Geological Mapping Coverage	1	0	0
BGS 1:625,000 Solid Geology	1	N/A	N/A
BGS Borehole Logs	0	1	N/A

Environmental Sensitivity

Environmental Sensitivity	On-site	1-250m	251-500m
Areas of Outstanding Natural Beauty	0	0	0
Environmentally Sensitive Areas	0	0	0
Forest Parks	0	0	0
Local Nature Reserves	0	0	0 (0) *
Marine Nature Reserves	0	0	0 (0) *
National Nature Reserves	0	0	0 (0) *
National Parks	0	0	0
National Scenic Areas	0	0	0
Nitrate Sensitive Areas	0	N/A	N/A
Nitrate Vulnerable Zones	2	N/A	N/A
Ramsar Sites	0	0	0 (0) *
River Quality Biology Sampling Points	0	0	0
River Quality Chemistry Sampling Points	0	0	0
Nearest Surface Water Feature	0	1	0
Sites of Special Scientific Interest	0	0	0 (1) *
Special Areas of Conservation	0	0	0 (0) *
Special Protection Areas	0	0	0 (0) *
Water Abstractions	0	1	1 (3)*
Source Protection Zones	2	0	0

Natural and Mining Related Hazards

Subsidence	On-site	1-250m	251-500m
Collapsible Ground Stability Hazards	1	0 ¹	N/A
Compressible Ground Stability Hazards	1	0	N/A
Ground Dissolution Stability Hazards	1	1	N/A
Landslide Ground Stability Hazards	1	1	N/A
Running Sand Ground Stability Hazards	1	1	N/A
Shrinking or Swelling Clay Subsidence Hazards	1	1	N/A
Non-Coal Mining Hazards	1	1	N/A
Radon	On-site	1-250m	251-500m
Radon Potential	1	N/A	N/A
Radon Protection Measures	1	N/A	N/A
Mining	On-site	1-250m	251-500m
Brine Compensation Areas	0	N/A	N/A
Coal Mining Affected Areas	0	N/A	N/A
Natural and Mining Cavities	0	0	0
Mining Instability	0	0	N/A
BGS Recorded Mineral Sites	0	0	0

Tabular Summary Explanation

Argyll has carefully selected a range of datasets which are considered appropriate for the intended use of this report. Each dataset is searched to a set radius from the Site boundary and the tabular summary is divided into different search bands accordingly. If a database is searched and information is found, then the number of records available are detailed in the table above. If the database was searched and no data was found, then a zero will be present. If a database was not searched then the abbreviation N/A will be found, indicating this information was not available at the radius searched.

¹Ground stability hazards are only searched to a radius of 50m from the Site boundary.

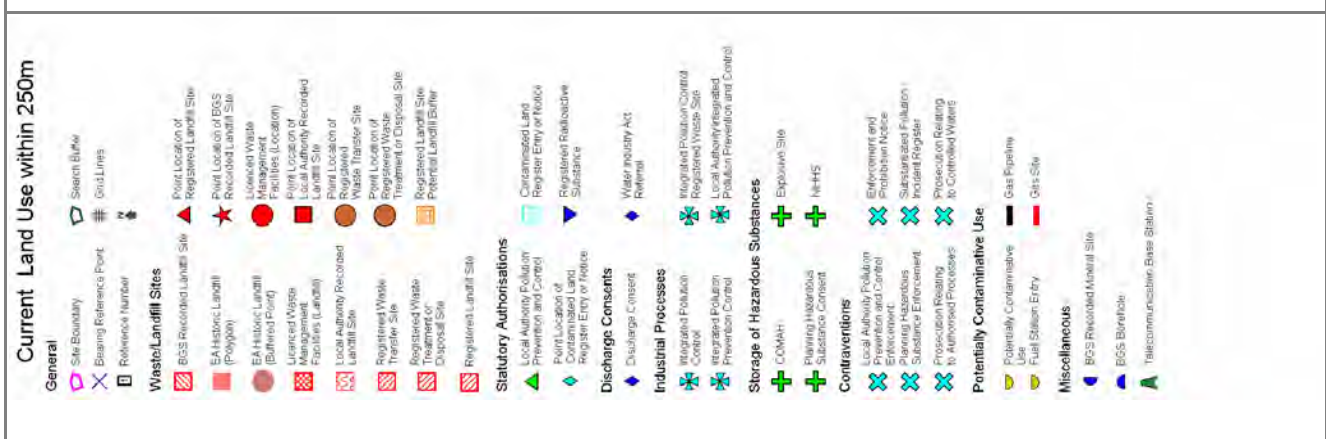
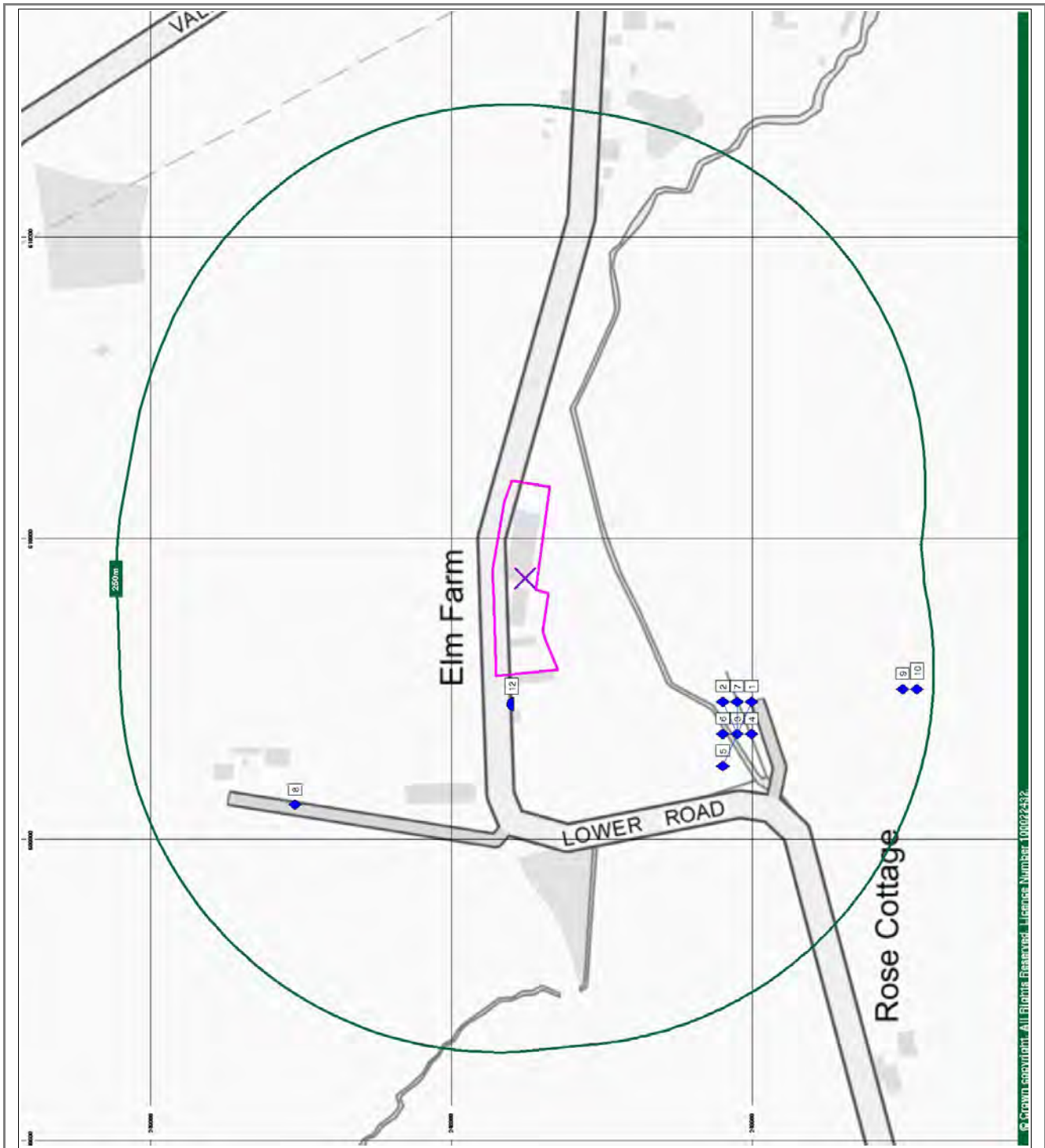
Landfill Site Information

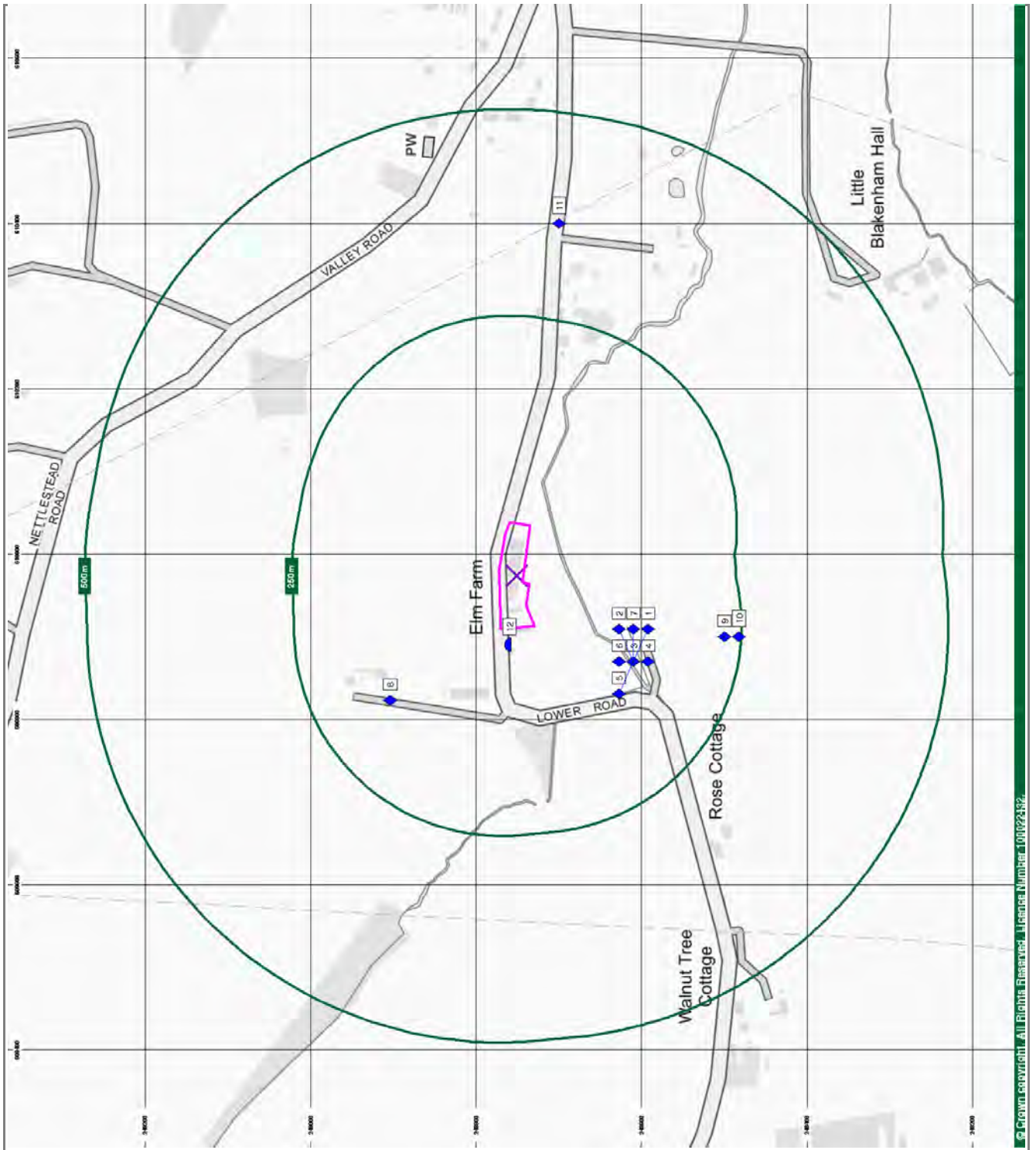
Registered landfill site boundaries (where available), are shown on the map as a red diagonal hatched polygon and referred to in the map legend as Registered Landfill Sites. At present no complete national dataset exists for landfill site boundaries, therefore a point grid reference provided by the data supplier is used for some landfill sites. The point grid references supplied provide only an approximate position, and can vary from the site entrance to the centre of the site. A point cannot properly define landfill boundaries therefore Landmark constructs a 250 metre or 100 metre "buffer" zone around the point to warn of the possible presence of landfill. The "buffer" zone is shown on the map as an orange crosshatched area and is referred to in the map legend as Potential Landfill Buffer.

Local Authority landfill data is sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control of Pollution Act (COPA) in 1974. Appropriate authorities are listed under Local Authority Landfill Coverage with an indication of whether or not they were able to make landfill data available. Details of any records identified are disclosed. You should be aware that if the local authority had landfill data but passed it to the relevant Environment Agency office, it does not necessarily mean that local authority landfill data is now included in our other Landfill datasets. In addition if no data has been made available for all or part of the search area, you should be aware that a negative response under 'Local Authority Recorded Landfill Sites' does not necessarily confirm that no local authority landfills exist.

Subsidence Hazards

Information on subsidence hazards is provided by the British Geological Survey (BGS). Information present within 250m of the Site is reported under Natural and Mining Related Hazards. Due to the level of detail of this data and the complexities of the real world, the BGS recommends a precautionary approach when using this information and advises taking the worst reading noted for each dataset within the vicinity of a property. Therefore, Argyll reports the presence of a ground stability or non-coal related mining hazard in the Risk Analysis section based on the highest reading found within 50m of the Site boundary.





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Statutory Information

Discharges

Discharge Consents

Map ID	Details	Distance	Direction
1	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 5, Effective Date: 31st March 2010, Issued Date: 31st March 2010, Revocation Date: 4th June 2013, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	127m	SW
2	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 1, Effective Date: 25th February 2005, Issued Date: 25th February 2005, Revocation Date: 31st December 2005, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	127m	SW
3	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 3, Effective Date: 1st April 2007, Issued Date: 25th February 2005, Revocation Date: 31st March 2009, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	127m	SW
4	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 4, Effective Date: 1st April 2009, Issued Date: 14th October 2008, Revocation Date: 30th March 2010, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	127m	SW
5	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 7, Effective Date: 25th February 2015, Issued Date: 25th February 2015, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Varied under EPR 2010, Positional Accuracy: Located by supplier to within 10m.	127m	SW

Discharge Consents

Map ID	Details	Distance	Direction
6	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 2, Effective Date: 1st January 2006, Issued Date: 25th February 2005, Revocation Date: 31st March 2007, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	127m	SW
7	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537, Permit Version: 6, Effective Date: 5th June 2013, Issued Date: 5th June 2013, Revocation Date: 24th February 2015, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Somersham Brook, Trib Gipping, Status: Varied under EPR 2010, Positional Accuracy: Located by supplier to within 10m.	127m	SW
8	Operator: Mr Nick Glendinning, Property Type: Domestic Property (Multiple), Location: The Elms And Annexe Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4nf, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Npswqd008226, Permit Version: 1, Effective Date: 19th June 2009, Issued Date: 19th June 2009, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Ditch Ldng To River Gipping, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	159m	NW
10	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Aw4nf478x, Permit Version: 1, Effective Date: 27th November 1964, Issued Date: 27th November 1964, Revocation Date: 18th September 1992, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib River Gipping, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	230m	S
9	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Somersham Water Recycling Centre Lower Road, Little Blakenham, Ipswich, Suffolk, Ip8 4pb, Authority: Environment Agency, Anglian Region, Catchment Area: River Gipping / River Jordan, Permit Ref: Aw4nf537c, Permit Version: 1, Effective Date: 8th July 1988, Issued Date: 8th July 1988, Revocation Date: 25th February 2005, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary River Gipping Nt, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	230m	S
11	Operator: Anglian Water Services Limited, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Little Blakenham No2, Little Blakenham, Ipswich, Ip8, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Asenf2423, Permit Version: 1, Effective Date: 2nd January 1990, Issued Date: 2nd January 1990, Revocation Date: 27th January 1993, Discharge Type: Storm /emergency overflow, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib R Gipping, Status: Post National Rivers Authority Legislation where issue date > 31/08/1989, Positional Accuracy: Located by supplier to within 100m.	367m	E

Waste

Historical Land Use

Historical Potentially Contaminative Uses

Historical Tanks and Energy Facilities

Map ID	Details	Distance	Direction
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1970.	155m	S
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1970.	197m	S

Potentially Contaminative Industrial Uses (Past Land Use)

Map ID	Details	Distance	Direction
	Sewage, Date of Mapping: 1973.	124m	S
	Cemetery or Graveyard, Date of Mapping: 1889.	425m	E
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1958.	464m	E

Historical Maps

The following maps have been manually reviewed by a consultant and presented in the Risk Analysis section at the front of this report:

Scale	Map Sheet	Published Date
1:2,500	Suffolk 066_13	1882
1:2,500	Suffolk 075_01	1882
1:2,500	Suffolk 066_13	1904
1:2,500	Suffolk 075_01	1904
1:2,500	Suffolk 066_13	1926
1:2,500	Suffolk 075_01	1926
1:2,500	National Grid TM1048	1964
1:2,500	National Grid TM1049	1964
1:2,500	National Grid TM0949	1969
1:2,500	National Grid TM0948	1970
1:2,500	National Grid TM1048	1976
1:2,500	National Grid TM1048	1976
1:2,500	National Grid TM1049	1976
1:2,500	National Grid TM0948	1994
1:2,500	National Grid TM0949	1994
1:2,500	National Grid TM1049	1994
1:10,560	Suffolk 066_SW	1889
1:10,560	Suffolk 074_NE	1889
1:10,560	Suffolk 075_NW	1889
1:10,560	Suffolk 065_SE	1891
1:10,560	Suffolk 065_SE	1905
1:10,560	Suffolk 066_SW	1905
1:10,560	Suffolk 074_NE	1905
1:10,560	Suffolk 075_NW	1905
1:10,560	Suffolk 074_NE	1927
1:10,560	Suffolk 075_NW	1927
1:10,560	Suffolk 066_SW	1928
1:10,560	Suffolk 075_NW	1938
1:10,560	National Grid TM14NW	1957
1:10,560	National Grid TM04NE	1958
1:10,560	National Grid TM14NW	1969
1:10,000	National Grid TM04NE	1973
1:10,000	National Grid TM14NW	1977
1:10,000	National Grid TM04NE	1973
1:10,000	National Grid TM14NW	1989
1:10,000	National Grid TM04NE	2014
1:10,000	National Grid TM14NW	2014

Aquifer Designation (Superficial)

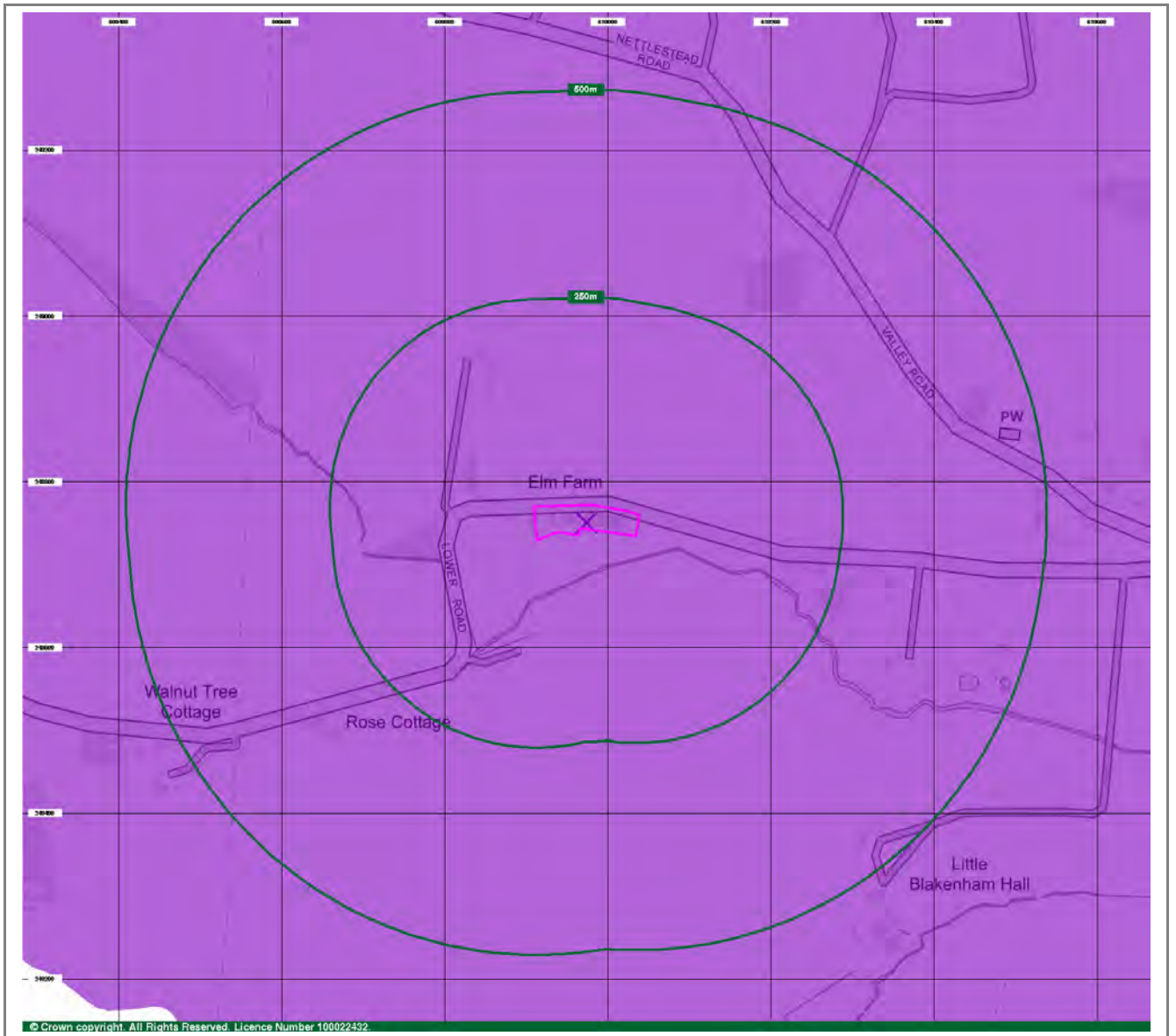


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Aquifer Designations

- | | |
|---|--|
|  Site Boundary |  Principal Aquifer |
|  Search Buffer |  Secondary A Aquifer |
|  Bearing Reference Point |  Secondary B Aquifer |
|  N |  Secondary Undifferentiated |
| |  Unproductive Strata |
| |  Unknown |

Aquifer Designation (Bedrock)



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Aquifer Designations

- | | |
|---|--|
|  Site Boundary |  Principal Aquifer |
|  Search Buffer |  Secondary A Aquifer |
|  Bearing Reference Point |  Secondary B Aquifer |
|  N |  Secondary Undifferentiated |
| |  Unproductive Strata |
| |  Unknown |

Groundwater Vulnerability

Hydrogeology

Superficial Aquifer Designations

Map ID	Details	Distance	Direction
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	9m	SE
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	28m	SE
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	64m	SE
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	83m	S
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	136m	N
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	159m	N
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	475m	N

Bedrock Aquifer Designations

Map ID	Details	Distance	Direction
	Principal Aquifer These aquifers are typically formed of layers of rock or drift deposits that have a high permeability and provide a high level of water storage. They may support water supply and/or base river flow on a strategic scale.	On Site	E
	Principal Aquifer These aquifers are typically formed of layers of rock or drift deposits that have a high permeability and provide a high level of water storage. They may support water supply and/or base river flow on a strategic scale.	On Site	-

Geology

BGS 1:50,000 Bedrock Geology

Map ID	Details	Distance	Direction
	LEX Code: NCK, Rock Name: Newhaven Chalk Formation, Rock Type: Chalk, Min Age: Not Supplied, Max Age: Santonian.	On Site	-
	LEX Code: CFB, Rock Name: Chillesford Church Sand Member, Rock Type: Sand, Min Age: Not Supplied, Max Age: Antian / Bramertonian.	255m	N

BGS 1:50,000 Superficial Deposits

Map ID	Details	Distance	Direction
	LEX Code: HEAD, Rock Name: Head, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Quaternary.	9m	SE
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	64m	SE
	LEX Code: HEAD, Rock Name: Head, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Quaternary.	475m	N

BGS 1:50,000 Geological Mapping Coverage

Map ID	Details	Distance	Direction
	Map Sheet No: 207, Map Name: Ipswich, Map Date: 2006, Bedrock Geology: Available, Superficial Geology: Available, Artificial Geology: Available, Faults: Not Supplied, Landslip: Available, Rock Segments: Not Supplied.	On Site	-

BGS 1:625,000 Solid Geology

Map ID	Details	Distance	Direction
	White Chalk Subgroup.	On Site	-

BGS Boreholes

Map ID	Details	Distance	Direction
12	BGS Reference: Tm04ne28, Drilled Length (m): 27.43, Borehole Name: The Elms Little Blackenham.	20m	W

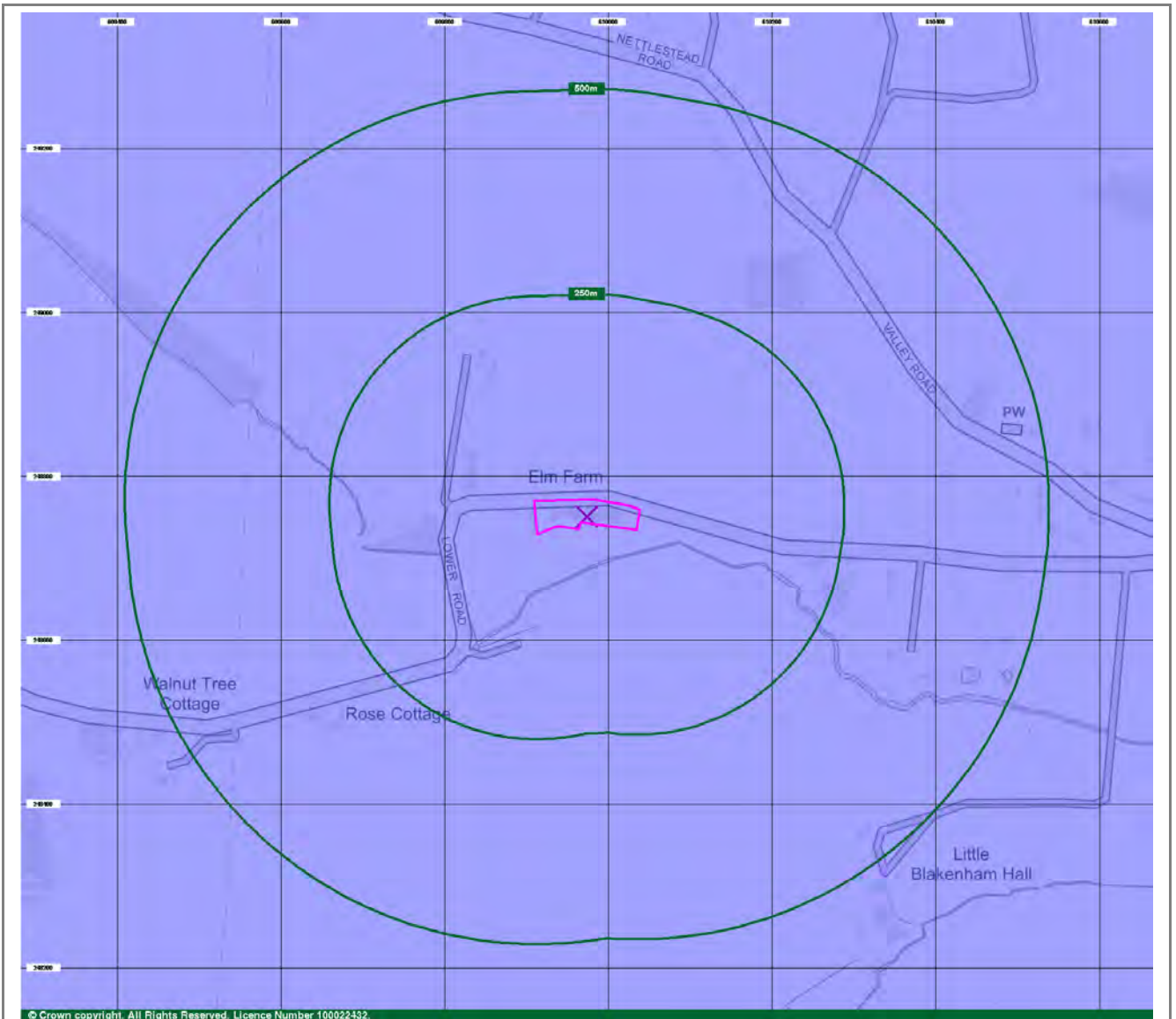
Environmentally Sensitive Features



Sensitive Land Uses

- | | | |
|------------------------------------|-------------------------|-------------------------------------|
| Site Boundary | Local Nature Reserve | Ramsar Site |
| Search Buffer | Marine Nature Reserve | Nearest Surface Water Feature |
| Bearing Reference Point | National Nature Reserve | Site of Special Scientific Interest |
| N | National Park | Special Area of Conservation |
| Area of Outstanding Natural Beauty | National Scenic Area | Special Protection Area |
| Environmentally Sensitive Area | Nitrate Sensitive Area | Water Abstraction |
| Forest Park | Nitrate Vulnerable Zone | Historical Flood Liability |

Source Protection Zones



Source Protection Zones

- | | | |
|-------------------------|---|--|
| Site Boundary | Inner zone (Zone 1) | Total catchment (Zone 3) |
| Search Buffer | Inner zone - subsurface activity only (Zone 1c) | Total catchment - subsurface activity only (Zone 3c) |
| Bearing Reference Point | Outer zone (Zone 2) | Special interest (Zone 4) |
| N | Outer zone - subsurface activity only (Zone 2c) | |

Environmentally Sensitive Features

Nitrate Vulnerable Zones

Map ID	Details	Distance	Direction
1	Name: River Gipping Nvz, Description: Surface Water, Source: Environment Agency, Head Office.	On Site	-
2	Name: Sandlings And Chelmsford, Description: Groundwater, Source: Environment Agency, Head Office.	On Site	-

Nearest Surface Water Feature

Map ID	Details	Distance	Direction
3	Surface water feature identified in proximity.	6m	S

Sites of Special Scientific Interest

Map ID	Details	Distance	Direction
	Name: Little Blakenham Pit, Multiple Area: N, Area (m ²): 33884.45, Source: Natural England, Reference: 1004523, Designation Date: 1st April 1987, Date Type: Notified, Designation Details: Local Wildlife Site.	819m	NE

Water Abstractions

Map ID	Details	Distance	Direction
4	Operator: Blakenham Farms, Licence Number: 7/35/08/*G/0135, Permit Version: 100, Location: Bore At Elm Fm, L Blakenham, Authority: Environment Agency, Anglian Region, Abstraction: General Farming And Domestic, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m ³): Not Supplied, Yearly Rate (m ³): Not Supplied, E chalk; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st January 1967, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	9m	W
5	Operator: P C Garrod, Licence Number: 7/35/08/*G/0054, Permit Version: 100, Location: Bore At Little Blakenham Hall, Authority: Environment Agency, Anglian Region, Abstraction: General Farming And Domestic, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m ³): Not Supplied, Yearly Rate (m ³): Not Supplied, E chalk; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st February 1972, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	491m	SE
	Operator: Blakenham Farms, Licence Number: 7/35/08/*G/0135, Permit Version: 100, Location: Bore At Red House Fm, L Blake'M, Authority: Environment Agency, Anglian Region, Abstraction: General Farming And Domestic, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m ³): Not Supplied, Yearly Rate (m ³): Not Supplied, E chalk; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st January 1967, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	713m	E
	Operator: Mrs E J Runacres, Licence Number: 7/35/08/*G/0001, Permit Version: 100, Location: Bore At The Nuttery, L.Blaken'M, Authority: Environment Agency, Anglian Region, Abstraction: General Farming And Domestic, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m ³): Not Supplied, Yearly Rate (m ³): Not Supplied, E chalk; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st March 1970, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	756m	N
	Operator: D K Richards, Licence Number: 7/35/08/*G/0046, Permit Version: 100, Location: Bore At 'Inghams', L.Blakenham, Authority: Environment Agency, Anglian Region, Abstraction: General Farming And Domestic, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m ³): Not Supplied, Yearly Rate (m ³): Not Supplied, E chalk; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st February 1966, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	816m	NE

Source Protection Zones

Map ID	Details	Distance	Direction
--------	---------	----------	-----------

Name: , Source: Environment Agency, Head Office, Reference: Not Supplied, Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	On Site	-
Name: , Source: Environment Agency, Head Office, Reference: Not Supplied, Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	On Site	-

Natural and Mining Related Hazards

Subsidence

Collapsible Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	E

Compressible Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	E

Ground Dissolution Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	E
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	64m	SE

Landslide Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	E
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	81m	S

Running Sand Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	E
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	9m	SE

Shrinking or Swelling Clay Subsidence Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	E
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	9m	SE

Non-Coal Mining Hazards

Map ID	Details	Distance	Direction
	Risk: Rare, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Risk: Highly Unlikely, Source: British Geological Survey, National Geoscience Information Service.	225m	SW

Radon

Radon Potential

Map ID	Details	Distance	Direction
	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level)., Source: British Geological Survey, National Geoscience Information Service.	On Site	-

Radon Protective Measures

Map ID	Details	Distance	Direction
	None, Source: British Geological Survey, National Geoscience Information Service.	On Site	-

Useful Contacts

Name and Address	Telephone/Fax/Email
Argyll Environmental Limited 1 st Floor 98 – 99 Queens Road Brighton BN1 3XF www.argyllenvironmental.com	Telephone 0330 036 6115 orders@argyllenviro.com
Environment Agency National Customer Contact Centre (NCCC) PO Box 544	Telephone 03708 506 506
Suffolk County Council St Edmund House www.suffolkcc.gov.uk	Telephone 01473 583000 Fax: 01473 230240
Mid Suffolk District Council Environmental Health Department Council Offices www.midsuffolk.gov.uk	Telephone 01473 826622 customer.services@baberghmidsu ffolk.gov.uk
British Geological Survey Enquiry Service British Geological Survey www.bgs.ac.uk	Telephone 0115 936 3143 Fax: 0115 936 3276 enquiries@bgs.ac.uk
Environment Agency Head Office Rio House	Telephone 01454 624400 Fax: 01454 624409
Natural England County Hall www.naturalengland.org.uk	Telephone 0300 060 3900 enquiries@naturalengland.org.uk

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries. When contacting these agencies please mention that this data has been received from the Landmark database, alternatively Argyll Environmental Limited would be pleased to assist with consultation to the above bodies. Please contact us for a quotation.

Risk Analysis Methodology

The Site Solutions reports have been designed to assist in making informed decisions during property transactions. The Report is a desktop assessment of direct liabilities (Liabilities) which could affect the owner /occupier of the Site and arise under Part 2A of the Environmental Protection Act 1990 and/or equivalent requirements under the planning regime and/or the Water Resources Act 1991². (Relevant Legislation). If a risk is identified, then a number of options for finding out more about the risk, managing it or transferring it are proposed.

The assessment of environmental liability under the Relevant Legislation is based upon the principle of determining the presence of a plausible contaminant-pathway-receptor relationship (a contaminant linkage). A 'contaminant' is a source of contamination, a 'pathway' is a medium through which the contamination can mobilise and 'a receptor' is a person or entity that could be detrimentally affected by the contamination. If all three are identified, then a 'plausible contaminant-pathway-receptor relationship' may be present. By definition, this is one which Argyll believes could result in significant harm, a significant possibility of significant harm or significant pollution or the possibility of significant pollution to Controlled Waters.

In our assessment we use the following test to decide if there is a potential liability affecting the Site. For the purpose of this assessment a site where a potential Liability has been identified is defined as follows:

A Site which, from the information assessed by Argyll, is considered to have the potential of being affected by contaminative substances present in or under the Site (but excluding potential sources of contamination on or above the land) such that, on the basis of its current or proposed use, there is a reasonable likelihood of a UK regulatory authority, acting in accordance with Relevant Legislation, requiring that remedial measures are taken in order to remedy or mitigate the contaminative substances that are present in or under the land that forms all or part of the Site.

The term Liabilities is defined within the scope of this assessment to mean, remedial works under Part 2A of the Environmental Protection Act 1990 (or where appropriate, equivalent requirements under the planning regime) and/or the Water Resources Act 1991 which may result in direct liability for the site owner/occupier.

The assessment within the Report has been produced and quality checked by a team of qualified environmental professionals. The assessment is based upon a manual review of the data contained within the Data Section of this Report and of 1:2500 and 1:1250 (where available) scale historical mapping.

Ecological Risk Assessment

The evaluation of ecological risk is becoming an increasingly important input when making risk management decisions. In the Site Solutions Commercial report, Argyll assesses two different drivers for risks and liabilities driven by ecological receptors;

1. The Contaminated Land Regime; and
2. The Environmental Damage Regulations 2009, as amended (EDR).

The Environment Agency has designed a generic framework for conducting ecological risk assessment (see Assessing Risk to Ecosystems from Land Contamination, R&D Technical Report P299, EA 2002). This recommends a tiered approach in line with best practice for human health and controlled water risk assessment and defines Relevant Ecological Receptors as any of the Relevant Types of Receptor as set out in Table 1 of Defra Statutory Guidance on Contaminated Land dated April 2012.

Argyll assesses Relevant Ecological Receptors as part of its assessment process. To do so it uses the Argyll EcoRisk model which was developed and tested in consultation with leading experts and is based on the Environment Agency framework.

The Environmental Damage (Prevention and Remediation) Regulations 2009, as amended, were introduced on 1 March 2009 to implement the provisions of the European Union's Environmental Liability Directive into law in England³. The aim of EDR is to prevent and remedy damage to protected species or natural habitats or a site of special scientific interest, surface water, groundwater, coastal water or to land. 'Environmental damage' has a specific meaning in the Regulations, and must meet key criteria. Existing legislation with provisions for environmental

² Water Environment (Controlled Activities)(Scotland) Regulations 2005 where appropriate.

³Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009 or Environmental Liability (Scotland) Regulations 2009 where appropriate.

liability remains in place. The Regulations apply on land in England and on the seabed around the UK up to the limits set out in the Continental Shelf Act 1964, and to waters out to the Renewable Energy Zone, which extends approximately 200 miles out to sea.

Argyll will apply due consideration to the nature of any activities likely to be occurring on Site and review EDR Receptors surrounding the Site. However, Argyll are unable to consider the standard of current operations or instances where environmental damage arises either intentionally or as a result of negligence on behalf of the Site operator.

The assessment excludes the identification of potential liabilities arising as a result of genetically modified organisms and the transportation or delivery of polluting goods which may occur at locations off Site. In addition, not all EDR Receptors can be identified in this assessment including protected species/natural habitats such as nesting bats, nesting birds or migratory bird routes which are not officially designated.




When conducting either assessment, Argyll will primarily assess information provided in the Data section of the Report. However, in some cases Argyll may choose to supplement this with freely available public information such as that provided by Natural England and/or information provided by the Argyll Europa System.

Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009, Environmental Damage (Prevention and Remediation) (Northern Ireland) Regulations 2009 or Environmental Liability (Scotland) Regulations 2009 where appropriate.

Liability Assessment

In this section Argyll will report on any potential soil and groundwater liabilities which it considers are associated with the Site. Our assessment of Liability is based upon the proposed and current use of the Site(as supplied by the client)in line with current Government guidance.

There will be one of the following three responses:

Assessment	Liability Statement & explanation	Defra Category*
PASSED 	<p>Within the scope of this assessment no Liabilities have been identified. No further action is required.</p> <p>This statement indicates that within the scope of this assessment, no issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation.</p>	3 or 4
PASSED 	<p>Within the scope of this assessment no Liabilities have been identified. However, your attention is drawn to the prudent enquiries suggested below.</p> <p>This statement indicates that within the scope of this assessment, no issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation. However, a client may wish to obtain further information about other issues disclosed in the Report, which could be material.</p>	3 or 4
FURTHER ACTION 	<p>Potential Liabilities have been identified under Part 2A of the Environmental Protection Act 1990 (or where appropriate, equivalent requirements under the planning regime) and/or the Water Resources Act 1991⁴. To quantify these you may decide to undertake a more detailed assessment through the recommendation(s) set out below.</p> <p>This statement indicates that within the scope of this assessment, an issue or a number of issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation. In this event, recommendations are made, in order that additional information is collected so that the liabilities may be more accurately assessed.</p>	Potentially 1 or 2

* According to Defra's updated Statutory Guidance on Contaminated Land, Regulators have a four-stage test to decide when land is and is not contaminated. Category 1 and Category 2 sites would encompass land which is capable of being determined as contaminated land, whereas Category 3 and Category 4 sites would encompass land which is not capable of being determined as contaminated land.

⁴Water Environment (Controlled Activities)(Scotland) Regulations 2005 where appropriate.

Limitations of the Report

The Site Solutions reports have been designed to satisfy standard environmental due-diligence enquiries, as recommended by the Law Society's contaminated land warning card. It is a 'remote' investigation and reviews only information provided by the client and from the databases of publicly available information that have been chosen to enable a desk based environmental assessment of the Site. The Report does not include a site investigation, nor does Argyll make specific information requests of the regulatory authorities for any relevant information they may hold. Therefore, Argyll cannot guarantee that all land uses or factors of concern will have been identified by the Report.

The information in the Data Section of the Report is derived from a number of statutory and non-statutory sources. While every effort is made to ensure accuracy, Argyll cannot guarantee the accuracy or completeness of such information or data. Argyll will not accept responsibility for inaccurate data provided by external data providers.

Further information regarding our risk assessment methodology is provided in the Products and Services User Manual which is available free of charge from the client area of our website www.argyllenvironmental.com. For further information regarding the datasets reviewed within our assessment, please contact one of our technical team on 0330 036 6115. This report is provided under The Argyll Environmental Terms and Conditions for Data Reports, a copy of which is available on our website.



Important Consumer Protection Information

This search has been produced by Argyll Environmental Ltd, 1st Floor, 98 – 99 Queens Road, Brighton, BN1 3XF. Telephone: 0330 036 6115, e-mail: orders@argyllenviro.com which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Web site: www.tpos.co.uk
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk.

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE



Complaints procedure

If you want to make a complaint, we will:

- Acknowledge it within 5 working days of receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

Complaints should be sent to:

Legal Director
Argyll Environmental Ltd
1st Floor
98 – 99 Queens Road
Brighton
BN1 3XF

Telephone: 0330 036 6115
Email: orders@argyllenviro.com

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

APPENDIX C: DRAWINGS

Drawing 19.349/Phasel/01	Site Location Plan
Drawing 19.349/Phasel/02	Relevant Feature Plan (Photographs 1 to 10)
Drawing 19.349/Phasel/03	Relevant Feature Plan (Photographs 11 to 15)
Drawing 174_EF_2_HAT_PL_010	Existing Site Layout (Barns A-D); HAT Projects dated 26 September 2019
Drawing 174_EF_2_HAT_PL_110	Proposed Site Layout (Barns A-D); HAT Projects dated 26 September 2019
Drawing 174_EF_1_HAT_PL_110	Proposed Site Layout (Westerly barn); HAT Projects dated 26 September 2019





North



Circle indicates approximate location of site



A F Howland Associates
Geotechnical Engineers

Site: Elm Farm, Somersham Road, Little Blakenham

SITE LOCATION PLAN

Client : HAT Projects Limited

Date : October 2019

Dwg : 19.349/Phasel/01

Scale 1: 25,000 @ A4

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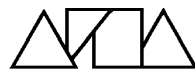


Photo 1 - Concrete hardstanding along the northern boundary



Photo 2 - Compacted gravel/hard-core along the western boundary



Photo 3 - Concrete hardstanding along the southern boundary



Photo 4 - Gate access adjacent to Barn A



Photo 5 - Barn A



Photo 6 - Wood and construction supplies south of Barn B



Photo 7 - Hydraulic log splitter



Photo 8 - Stacks of cement board sheets in Barn A



Photo 9 - Pile of construction debris mounded above concrete pit



Photo 10 - Barn D



A F Howland Associates Ltd.
The Old Exchange
Newmarket Road
Cringleford
Norwich
NR4 6UF

Tel: 01603 250754

Website: www.howland.co.uk Email: admin@howland.co.uk

Client: HAT Projects Limited
Site: Elm Farm, Somersham Road, Little Blakenham
Job No.: 19.349
Drawing title: Relevant Feature Plan
Drawing No.: 19.349/Phase/02
Date: October 2019



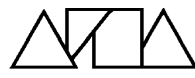


Photo 11 - Inside of Barn D, showing animal pens



Photo 12 - Inside of Barn C, showing large animal enclosure



Photo 13 - Secondary entrance off Somersham Road



Photo 14 - Cement pipes in the eastern corner of the site



Photo 15 - Silage pit in the south-east corner

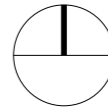


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The Old Exchange
Newmarket Road
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Tel: 01603 250754

Website: www.howland.co.uk Email: admin@howland.co.uk

Client: HAT Projects Limited
Site: Elm Farm, Somersham Road, Little Blakenham
Job No.: 19.349
Drawing title: Relevant Feature Plan
Drawing No.: 19.349/Phase/03
Date: October 2019





Do not scale from this drawing. Use figured dimensions only. Figured dimensions are in millimetres. All levels are given in metres.

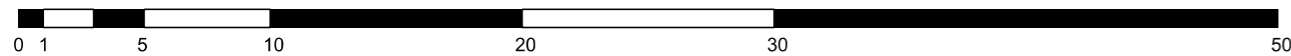
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This drawing must be printed in colour.

Key

- Site boundary
- Existing structure to be demolished
- Existing tree/hedge to be removed



The Piggeries Blakenham Farms

Site Plan
174_EF_2_HAT_PL_010

Status: Planning
Revision: P1
Date: 26/09/2019
Scale: 1:300@A3

HAT Projects

Trinity Works, 24 Trinity Street,
Colchester, Essex, CO1 1JN
T 01206 766 585
blakenhamfarms@hatprojects.com

Do not scale from this drawing. Use figured dimensions only. Figured dimensions are in millimetres. All levels are given in metres.

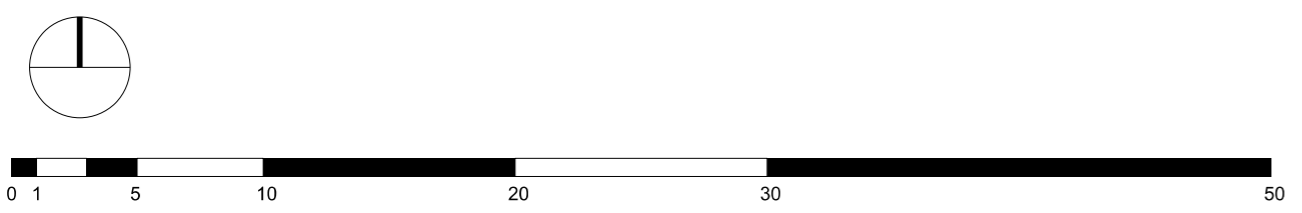
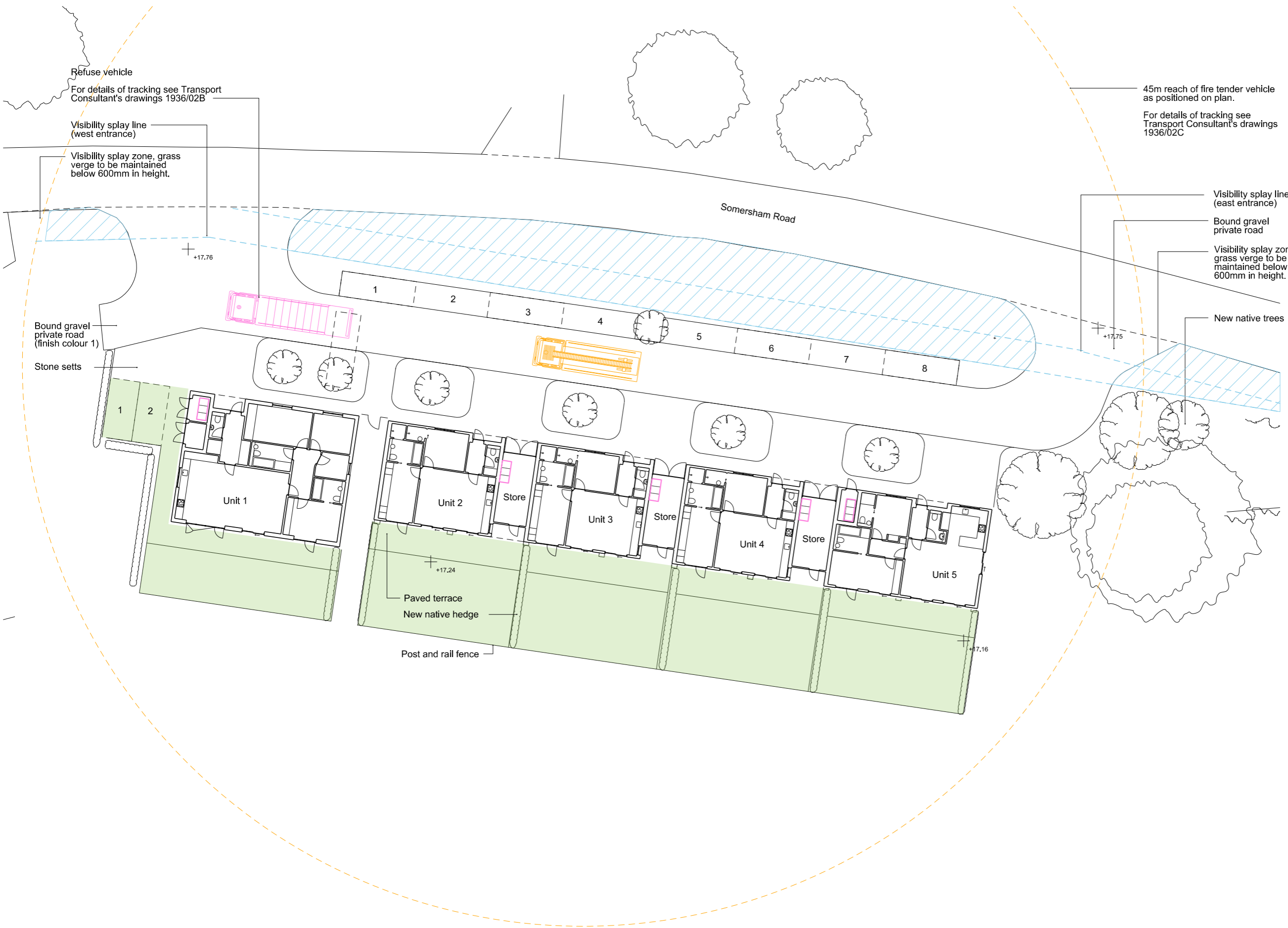
This drawing and the works depicted are the copyright of this practice and may not be reproduced except by written permission.

This drawing must be printed in colour.

Key

- Site boundary
- Identified curtilage area
- Refuse storage area
For details of refuse vehicle tracking see Transport Consultant's drawings 1936/02B
- Visibility splay area - Existing vegetation/trees removed. Proposed grass verge to be maintained below 600mm in height
- Visibility splay line to existing entrances

For further details see Transport Consultant Visibility Assessment drawings 1936/01 & 1936/01A



The Piggeries Blakenham Farms

174_EF_2_HAT_PL_110

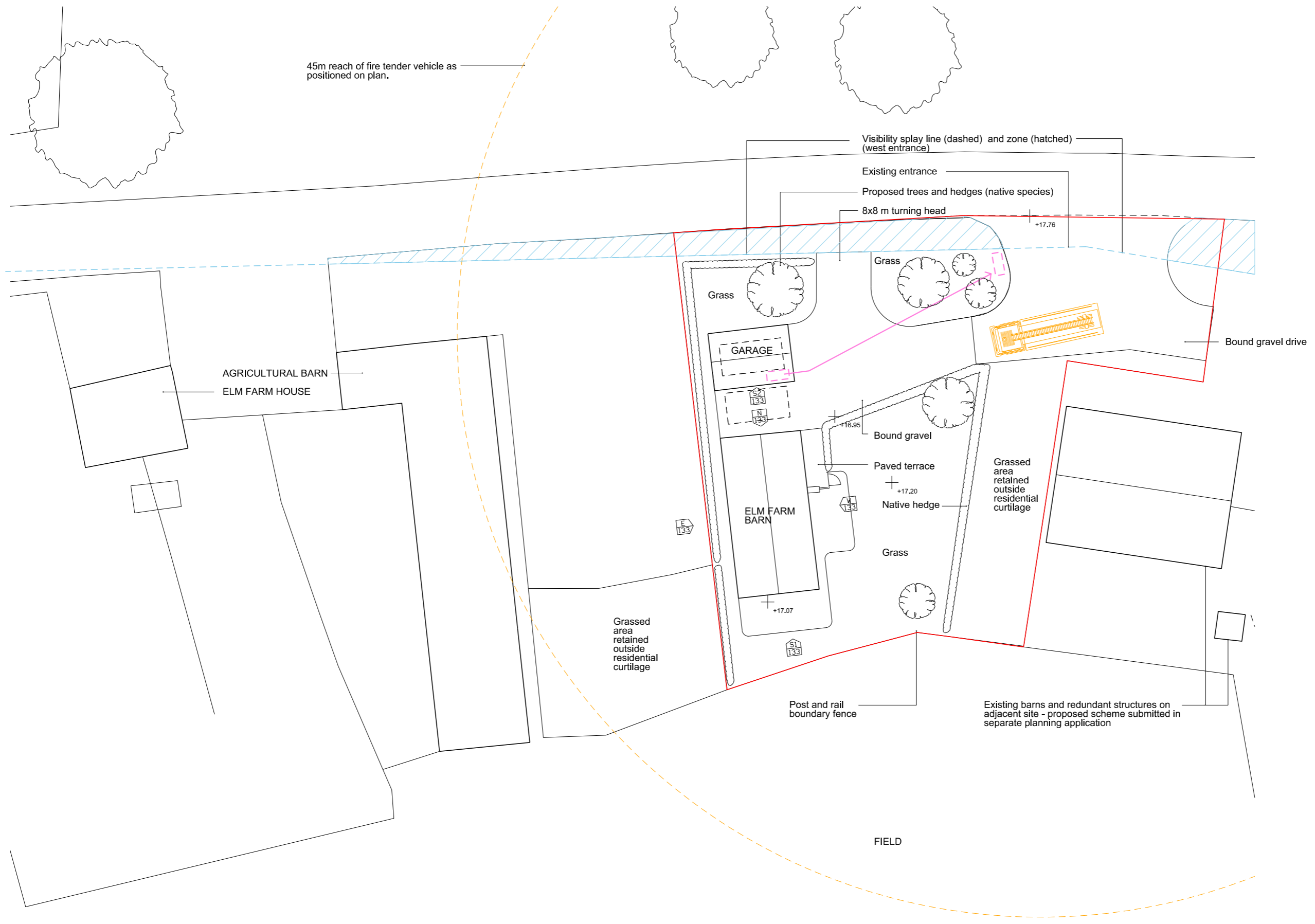
Status: Planning
 Revision: P1
 Date: 26/09/2019
 Scale: 1:300@A3

HAT Projects

Trinity Works, 24 Trinity Street,
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Do not scale from this drawing. Use figured dimensions only. Figured dimensions are in millimetres. All levels are given in metres.

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This drawing must be printed in colour.

Key:

Indicative refuse storage/collection point

Visibility

Visibility splay area - Existing vegetation/trees removed. Proposed grass verge to be maintained below 600mm in height

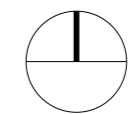
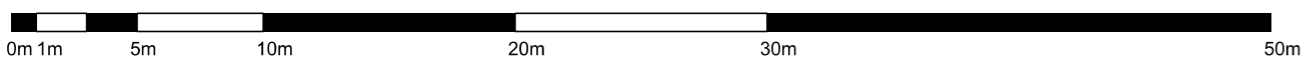
Visibility splay line to existing entrances

For further details see Transport Consultant Visibility Assessment drawings 1936/01

Site boundary

Existing/proposed levels

Proposed site plan



Elm Farm Barn Blakenham Farms

Proposed Site Plan
174_EF_1_HAT_PL_110

Status: Planning
Revision: P1
Date: 26/09/2019
Scale: 1:500@A3

HAT Projects

Trinity Works, 24 Trinity Street,
Colchester, Essex, CO1 1JN
T 01206 766 585
blakenhamfarms@hatprojects.com

APPENDIX D: RISK ASSESSMENT CLASSIFICATION

Classification	Definition	Examples
High Likelihood	There is a pollution linkage and an event which would either appear very likely in the short term and almost inevitable over the long term, or, there is evidence at the receptor of harm or pollution.	Free product visible on surface of sensitive water body or in the soil. On site or adjacent gassing 'landfill site'.
Likely	There is a pollution linkage and all the elements are present and in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	Potentially contaminative land use i.e. 'Brownfield' site, fuel storage depot, factory, petrol station etc. Sensitive receptors to be introduced as part of site redevelopment. Potentially infilled land identified on site or off-site with credible migration pathway.
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.	Potential source of contamination identified i.e. historical land use as allotments or domestic above ground fuel storage tanks, areas of burning garden waste. Possible off-site infilled land.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.	No significant potential sources of contamination identified e.g. 'Greenfield' site. No potential sources of ground gas.

TABLE D1: CLASSIFICATION OF PROBABILITY

Classification	Definition	Examples
Severe	Short term (acute) risk to human health. Short term risk of pollution of sensitive water resource. Catastrophic damage to buildings/property. A short term risk to a particular ecosystem.	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Credible source of ground gas.
Medium	Chronic damage to Human Health. Pollution of sensitive water resources. A significant change in a particular ecosystem, or organism forming part of such ecosystem.	Concentrations of a contaminant from site exceeds the generic, or site specific assessment criteria. Leaching of contaminants from a site to a Secondary or Principal aquifer or watercourse.
Mild	Pollution of non-sensitive water resources. Significant damage to buildings/structures and crops ("significant harm" as defined in the Circular on Contaminated Land, DETR, 2000). Damage to sensitive buildings/structures or the environment.	Concentrations of a contaminant do not exceed the generic, or site specific assessment criteria. Leaching of contaminants from a site to an Unproductive Aquifer. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as Personal Protective Equipment, etc).	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme.

TABLE D2: CLASSIFICATION OF CONSEQUENCE



APPENDIX D: RISK ASSESSMENT CLASSIFICATION (CONTINUED)

Classification	Definition
Very High Risk	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 is occurring. The risk, if realised, is likely to result in a substantial liability. Urgent investigation and remediation will be required.
High Risk	Harm or chronic damage is likely to arise to a designated receptor from an identified hazard. Investigation is required and remediation is likely to be required to ensure the site is suitable for a proposed use.
Moderate Risk	It is possible that harm or chronic damage could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe. Investigation and remediation are likely to be required to ensure the site is suitable for a proposed use.
Low/Moderate Risk	It is possible that harm or chronic damage could arise to a designated receptor from an identified hazard. Investigation is likely to be required. However, circumstances are such that investigation may prove the consequence to be mild and the site suitable for use without remediation.
Low Risk	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 be mild. Investigation is unlikely to be required.
Very Low Risk	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. Investigation is not required.

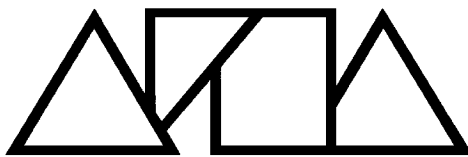
TABLE D3: DESCRIPTION OF RISK

		CONSEQUENCE			
		Severe	Medium	Mild	Minor
PROBABILITY	High likelihood	Very High	High	Moderate	Low/Moderate
	Likely	High	Moderate	Low/Moderate	Low
	Low likelihood	Moderate	Low/Moderate	Low	Very Low
	Unlikely	Low/Moderate	Low	Very Low	Very Low

TABLE D4: DETERMINATION OF RISK

Risk assessment classification v1.1 dated 08/03/2019





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