

Land at New Street, Mawdesley

Proposed Housing Allocation

**REPRESENTATIONS ON CENTRAL LANCASHIRE LOCAL PLAN
REGULATION 19 CONSULTATION**

APRIL 2025

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/1 INTRODUCTION

- 1.1. PWA Planning has been instructed by Applethwaite to make representations in relation to a parcel of land located to the north of New Street, Mawdesley ('the Site'), Location Plan provided as Appendix A.
- 1.2. The Site was previously put forward as a housing allocation as part of the Preferred Options Stage 1 Consultation and Call for Site 4 process that was undertaken December 2022 to February 2023.
- 1.3. The Site has not been included as a draft housing allocation in the Regulation 19 Publication Version. These representations look to reiterate the merits of the Site, with reference to the previously submitted materials and changes to the National Planning Policy Framework with regards to Green Belt.
- 1.4. Since the Site was put forward as part of the Preferred Options consultation, Applethwaite are now involved in taking the Site forward on behalf of the landowners. The previous representations sought to demonstrate that the Site was suitable and deliverable for housing development. Whilst this remains the case, Applethwaite would be looking to take the Site forward for the development of older persons accommodation, comprising of bungalows.

About Applethwaite

- 1.5. Applethwaite is an award-winning SME house builder operating in Central Lancashire. It is the homebuilding division of the Eric Wright Group of healthcare, commercial property, engineering and construction businesses. Owned by the Eric Wright Charitable Trust, its philosophy is a 'commercially focused business with a social purpose' based on the principles of sustained employment and local community well-being.
- 1.6. In this context, Applethwaite has become an unparalleled developer of high-quality traditional bungalows for retired and older people over the age of 55 which mainstream house builders do not provide. Its bungalows are built to Part M4(2) Accessible and Adaptable Homes building regulation standards and qualify as specialist market housing for older people as defined in the Planning Practice Guidance (ID: 63-010-20190626).

- 1.7. Its developments range mostly between 20 and 50 no. bungalows in sustainable locations within and on the edge of desirable towns and large villages.
- 1.8. Applethwaite bungalows are bought by retired and older people who are typically homeowners wishing to continue living in their own home and maintaining independent and active lifestyles but wanting single-level living and to 'down-size' (right-size). They consequently require space for visiting family and grandchildren; home working; leisure pursuits; pets; a private garden; storage and a garage, as well as room for a carer if and when needed. These needs are not met by the serviced-apartment retirement living model and 'pepper-potted' bungalows on mixed housing estates seldom offer the peace of mind and quality of life provided by exclusive bungalow community developments.
- 1.9. The ethos of Applethwaite bungalows is fully aligned with Government policy to widen housing choice for retired and older people (as defined in the NPPF glossary) so that they are able to continue living safely, securely, comfortably and independently in their own homes for as long as possible.

/2 THE SITE

- 2.1. The Site is located to the immediate north of Mawdesley. It extends to approximately 5.2ha and comprises three fields. The western most field is partially used as a paddock and contains a small stable block. The remainder of the Site is in agricultural use.
- 2.2. The south-eastern edge of the Site joins New Street and extends west to the rear of properties and the primary school off Hurst Green, and to the rear of Mawdesley Village Hall, tennis courts and bowling club. Mawdesley Millennium Green borders the site to the west, whilst the northern boundary of the site abuts agricultural land.
- 2.3. The main settlement of Mawdesley is located to the south of the Site, with further development alongside the main roads in the area. In the wider area, the majority of land is agricultural. The majority of the Site and the field boundaries are bounded by mature vegetation and trees.
- 2.4. A watercourse runs along the northern boundary of the Site. Access is currently taken from New Street at the Site's south-eastern edge. A public footpath passes close to the north-western edge of the Site and continues northwest, separated from the Site by mature vegetation and fields. A further public footpath is located to the south of built development along Hurst Green and connects to the Millennium Green.
- 2.5. The Site is outlined on the appended Location Plan.
- 2.6. Further Site context is provided in the Vision Document which was submitted as part of the Preferred Options consultation in February 2023. As above, the Site is located to the immediate north of Mawdesley, which has a range of services and facilities:
 - The closest bus stops to the site are located on New Street within 200m of the site entrance. Buses run to Chorley, Ormskirk and Southport and to the closest secondary school, Bishop Rawstone in Croston.
 - Mawdesley St. Peter's Church of England Primary School is located to the immediate south of the Site. St. Peter and Paul's Catholic Primary School is located 1.7km to the east on Ridley Lane. Bishop Rawstone Church of England Academy is located 5.1km away in Croston.

- The closest shop to the site is Mawdesley Post Office and convenience store (210m from the Site on New Street).
- The Red Lion public house is located 230m to the south of the Site.
- Doctors and dentist surgeries are located in Eccleston, approximately 4.3km from the Site and accessible via a direct bus service.
- The Site sits adjacent to existing community facilities including the village hall, lawn tennis club and bowling club.

2.7. Detailed site analysis is provided in the aforementioned Vision Document which is provided as Appendix B, part of which involved various technical assessments to identify site constraints and opportunities for the Site. The Site generally slopes downwards from southeast to northwest towards the watercourse which runs along the northern boundary of the Site. The majority of the Site is within Flood Zone 1, with a small portion adjacent to the northern boundary in the eastern portion of the Site within Flood Zones 2 and 3. Existing hedgerows and trees form the boundaries of the site and between the individual fields, with the majority of vegetation considered to have bat roost potential. The vegetation on the northern boundary forms a buffer with the open countryside beyond.

2.8. The Vision Document included an indicative layout for the Site demonstrating how the constraints and opportunities had been considered.

/3 PROPOSED DEVELOPMENT OF THE SITE

- 3.1. The Vision Document submitted in support of the allocation of the Site at the Preferred Option stage and submitted again herein demonstrates how the Site could be delivered as a residential-led development.
- 3.2. Assessment work looking at the key technical constraints was undertaken which explains that there are no insurmountable issues which could preclude the Site coming forward for housing.
- 3.3. A masterplan of the Site was provided which demonstrates how the form and layout of the Site could work. The Vision Document demonstrated how the Site could accommodate approximately 70 dwellings, based on a mix of dwelling types and sizes, incorporating areas of amenity green space, room for SuDS ponds, pedestrian and cycle linkages to the adjacent Millennium Green and other nearby routes. An area of additional parking as an extension to the existing car park was also shown, with a portion of the Site suggested for use for additional community sports facilities.
- 3.4. Importantly, the mature tree buffer which runs along the northern boundary of the Site was shown as retained and would provide visual screening of the development from the north. This is considered an important aspect of the Site as this buffer already demarks the Site boundary from the more open Green Belt land beyond. The majority of trees located within the Site itself, notably on field boundaries, could also be retained, with only minor removals needed to facilitate access.
- 3.5. As set out in Section 1, since the Vision Document was prepared, Applethwaite are now involved with the Site and are seeking to take the Site forward as an age-restricted bungalow development for older people. At this stage, a layout specific to that housing type has not been developed, however it is considered that the concepts and principles explored in the Vision Document would be applicable to a scheme for bungalows and the ancillary development referred to above.
- 3.6. Applethwaite have made separate representations specifically in relation to the need for specialist housing for older people within the new Plan, with particular reference to the findings and recommendations of the independent Government appointed Older People's Housing Taskforce which sought to look at options for the provision of greater choice, quality and security of housing for older people. These representations conclude that the

draft Plan fails to take account of, and meaningfully plan to meet, the specialist housing needs of the ageing population of retired and older people in Central Lancashire, which is wholly relevant to the Site and development type proposed herein.

/4 GREEN BELT RELEASE

- 4.1. PWA Planning has made more general representations on the draft Plan, some of which is relevant to this Site. Of particular relevance is our view that whilst the draft Plan acknowledges the need for housing, it does not go far enough in ensuring that housing supply meets demand. The proposed allocations cover only 80% of the identified housing requirement as per HS1, which contradicts the Plan's overall ambition for sustainable growth. There is a reluctance to release Green Belt land or allocate additional sites beyond those already identified, limiting the scale of housing development.
- 4.2. The draft Plan promotes "balanced growth," but this concept appears to be used in a way that constrains housing delivery rather than fully addressing demand. It prioritises development in existing urban areas but does not propose significant new allocations outside these locations. Moreover, the lack of a full Green Belt review and the failure to allocate enough new housing sites suggest that growth is being controlled rather than maximised.
- 4.3. The supporting text to policy HS2 explains that a decision was made to 'park' sites outside of the Green Belt from further assessment. A true growth strategy would include a comprehensive Green Belt review. The failure to consider Green Belt release is a major flaw in the plan, as it prevents sustainable development from taking place in locations where demand is highest.
- 4.4. The NPPF 2024 (Paragraph 145) states that Green Belt boundaries can be altered through the plan-making process where exceptional circumstances exist, particularly if a local authority cannot meet its housing need within existing non-Green Belt land. Presently, the plan does not demonstrate that all reasonable alternatives for meeting housing need have been fully examined.
- 4.5. NPPF Paragraph 146 allows for Green Belt adjustments where housing need exists. Central Lancashire clearly has an identified housing shortfall. Therefore, a proper review should be undertaken to identify suitable land for sustainable expansion. The draft Plan was prepared prior to the release of the NPPF 2024 and the flexibility to make Green Belt changes to support housing growth within it have therefore been overlooked.
- 4.6. It is recommended that a full Green Belt review is conducted to identify opportunities for sustainable development, rather than ruling out Green Belt adjustments arbitrarily.

- 4.7. NPPF paragraph 148 states that where it is necessary to release Green Belt land for development, plans should give priority to previously developed land, then consider grey belt which is not previously developed, and then other Green Belt locations.
- 4.8. With specific regard to the Site, our view is that it meets the definition of grey belt and would make a wholly sensible housing site and should therefore be released from the Green Belt.
- 4.9. Grey belt land is defined in NPPF Annex 2 as:

"For the purposes of plan-making and decision-making, 'grey belt' is defined as land in the Green Belt comprising previously developed land and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in paragraph 143. 'Grey belt' excludes land where the application of the policies relating to the areas or assets in footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development."

- 4.10. The Site is not previously developed but does not, in our view, strongly contribute to the purposes (a), (b) or (d) in NPPF paragraph 143. Taking these purposes in turn:

(a) to check the unrestricted sprawl of large built-up areas

- 4.11. Mawdesley is a village, not a large built-up area. Accordingly, there is no requirement to comply with clause (a). This is clarified in the PPG¹ on Green Belt, which states that *"This purpose relates to the sprawl of large built-up areas. Villages should not be considered large built up areas."*

(b) to prevent neighbouring towns merging into one another

- 4.12. The PPG clarifies that *"This purpose relates to the merging of towns, not villages"* and so again there is no need to comply with this clause.

(d) to preserve the setting and special character of historic towns

- 4.13. The Site is not within the setting of a historic town and therefore this clause is not applicable.

¹ <https://www.gov.uk/guidance/green-belt>

- 4.14. Finally, the Site is not subject to any of restrictions set out in Footnote 7².
- 4.15. Notwithstanding the recent guidance in the PPG, it is noted that an Open Land Designations Study was prepared by LUC in 2022 on behalf of the three Central Lancashire local authorities (Preston City Council, South Ribble Borough Council and Chorley Council). The document provides a strategic assessment of how land in the area contributes to the Green Belt purposes as defined in the NPPF. The areas of Green Belt surrounding the village of Mawdesley are identified in Appendix A1 of the study as falling within Parcel P43 to the north and west of the village and Parcel P40 to the south and east. The Site falls within Parcel P43. In the detailed assessment of Parcel 43, it was found that this parcel makes limited / no contribution to purposes (a), (b) and (d) as per NPPF paragraph 143.
- 4.16. Accordingly, it is our view that the Site complies with the definition of grey belt.
- 4.17. NPPF Paragraph 148 goes onto state that when drawing up or reviewing Green Belt boundaries, the need to promote sustainable patterns of development should determine whether a site's location is appropriate with particular reference to paragraphs 110 and 115. It states that strategic policy-making authorities should consider the consequences for sustainable development of channeling development towards urban areas inside the Green Belt boundary, towards towns and villages inset within the Green Belt or towards locations beyond the outer Green Belt boundary.
- 4.18. Paragraph 110 sets out the need to ensure patterns of development are actively managed with significant development focused on locations which are or can be made sustainable. Paragraph 115 focuses primarily on sustainable transport and the need to ensure sustainable modes of travel are considered together with safe and suitable access to sites. Some of these points would be addressed a forthcoming planning application for development of the Site which would consider matters such as access in more detail, noting that the Vision Document is accompanied by a highway note which demonstrates how access could be achieved. It is considered that, for the scale and nature of development proposed at the Site, it has an appropriate level of sustainability credentials.

² The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 194) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, a National Landscape, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 75); and areas at risk of flooding or coastal change.

- 4.19. NPPF paragraph 148 states that when defining Green Belt boundaries, plans should not include land which it is necessary to keep permanently open, and that it is important to define boundaries clearly, using physical features that are readily recognisable and likely to be permanent. In this regard, it is considered that there is no justification or necessity for keeping the Site permanently open. Moreover, the tree belt to the north boundary of the Site provides a strong boundary with the more open Green Belt land to the north.
- 4.20. Bringing these points together, it is considered a significant flaw of the draft Plan that a Green Belt review has not been undertaken and that this, particularly in Chorley, is a limiting factor constraining the amount of housing which has been suggested and preventing true growth for the area. The Vision Document prepared for this Site previously demonstrates that the Site is suitable for residential development. This is now amplified by the changes to Green Belt policy since the Site clearly complies with the definition of grey belt. The Site is available, with Applethwaite taking this Site forward on behalf of the land owners. Applethwaite's involvement also demonstrates the achievability of the Site given their proven track record and knowledge of delivering housing for older people.

/5 CONCLUSIONS

- 5.1. As demonstrated in the previously submitted Vision Document and supporting assessment work, the Site has the potential to deliver a housing development on the edge of a thriving village. No environmental or technical issues have been identified which would preclude residential use. The Site is located sustainably and would benefit from the existing facilities in the village.
- 5.2. Applethwaite seek to promote the Site specifically for older persons housing, comprising of a bungalow development. This is considered wholly suitable for this Site, which is available and the proposals for which are achievable.
- 5.3. The draft Plan does not go far enough in meeting the future housing needs of the Central Lancashire Area both with regards to general housing need and specifically with regards to specialist housing for older people. A Green Belt review is essential to properly consider how need can be met in a sustainable manner. In this context, it has been demonstrated that the Site would comply with the definition of grey belt set out in the NPPF and should therefore be considered for release and allocation for housing.

Appendix A - Location Plan



General notes
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This drawing is subject to the accuracy of detailed supporting reports, surveys, working drawings and
Local Authority Approval. Dimensions, finished floor levels, exact sizes of houses and areas shown are
approximate only and subject to separate detailed design. Any finished floor levels shown have been
provided by others and should be checked by a qualified structural engineer prior to commencement of
on site works. It is the responsibility of the client and contractor to check the accuracy of this drawing is
correct.



Revisions



urban design | masterplanning | architecture

Client
PWA Planning

Project
Land off New Street, Mawdesley

Drawing Title
Location Plan with Land Search

Drawing No.	Revision	Date	Scale	Drawn	Sheet Size
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Appendix B - Vision Document

LAND ADJACENT TO NEW STREET MAWDESLEY

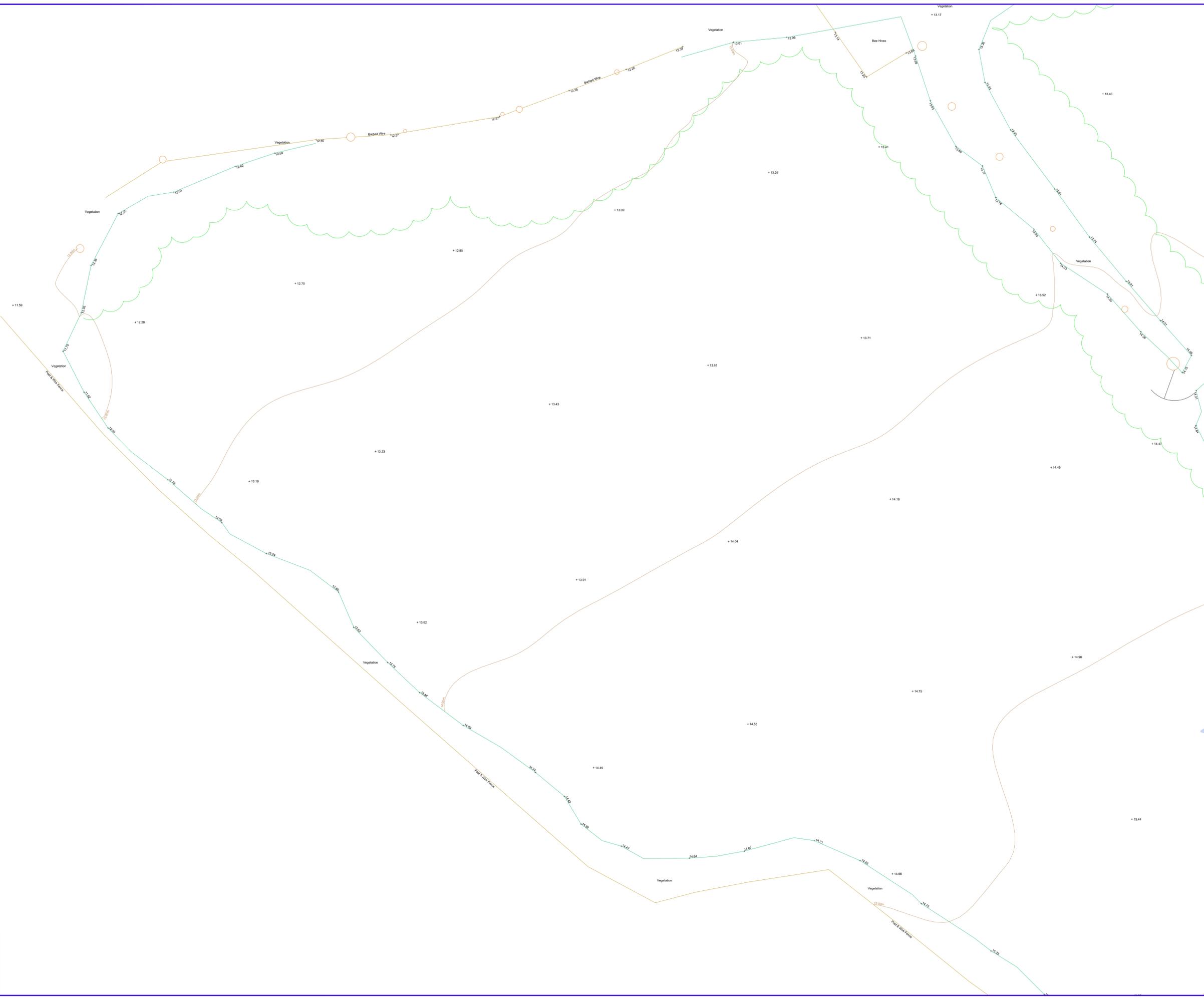
VISION DOCUMENT
APPENDICES



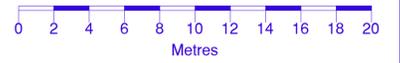
Document Structure

Topographical Survey	2
Preliminary Ecological Survey	3
Transport Note	4
Heritage Note	5
SuDS Plan	6
Phase 1 Land Contamination Report	7
Landscape and Visual Appraisal	8

Topographical Survey



Notes
 All Dimensions to be checked on site. Walls shown on plans are not to be assumed to be solid & should be checked for thickness, construction, load bearing capacity & stability.



- ABBREVIATIONS**
- BT BT Cover
 - CH Cable Height
 - CL Cover Level
 - DK Drop Kerb
 - EH Eaves Height
 - GU Gully
 - MH Man Hole
 - RH Ridge/Roof Height
 - SP Sign Post
 - TP Telegraph Pole
 - WV Water Valve

NOTE
 All levels and coordinates relate to OSGB36(15) using ONSD data.
 Levels defining edge of carriageway are observed at channel (bottom of hets).

Rev.0 Description. Issued



2 Berkshire Close | Wilpshire | Blackburn | Lancashire | BB1 9NG
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Site Address
New Street
Mawdesley
L40 2QW

Project Description
Site Survey

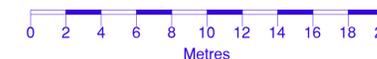
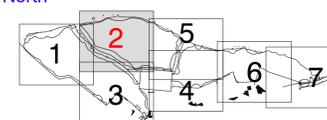
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Drawing Number
TRI-3868-01

Notes

All Dimensions to be checked on site. Walls shown on plans are not to be assumed to be solid & should be checked for thickness, construction, load bearing capacity & stability.



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NOTE

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Levels defining edge of carriageway are observed at channel (bottom of hets).



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Site Address

New Street
Mawdesley
L40 2QW

Project Description
Site Survey

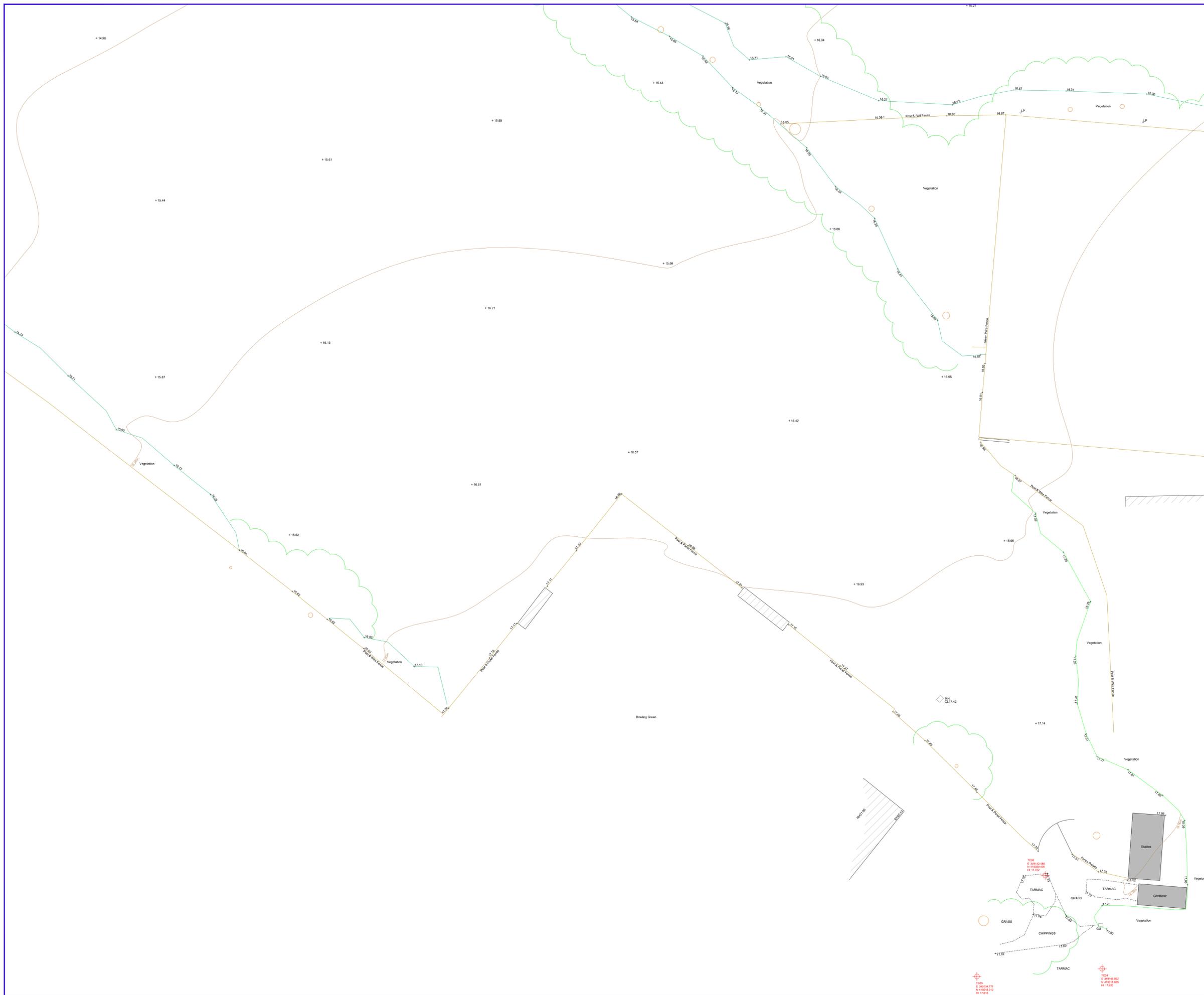
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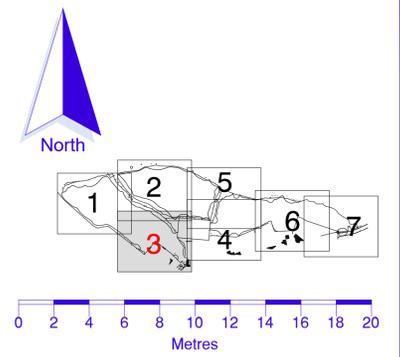
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TRI-3868-02



Notes
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 - TP Telegraph Pole
 - WV Water Valve

NOTE
 All levels and coordinates relate to OSGB36(15) using CHSS data.
 Levels defining edge of carriageway are observed at channel (bottom of kerb).

Rev.0 Description. Issued



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Site Address
New Street
Mawdesley
L40 2QW
 Project Description
Site Survey

Drawing Title
Existing Site Layout

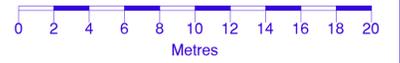
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Drawing Number
TRI-3868-03



Notes

All Dimensions to be checked on site. Walls shown on plans are not to be assumed to be solid & should be checked for thickness, construction, load bearing capacity & stability.



ABBREVIATIONS

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- WV Water Valve

NOTE
 All levels and coordinates relate to OSGB36(15) using CHNS data.
 Levels defining edge of carriageway are observed at channel (bottom of hole).

Rev.0 Description. Issued



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Site Address

New Street
 Mawdesley
 L40 2QW

Project Description

Site Survey

Drawing Title

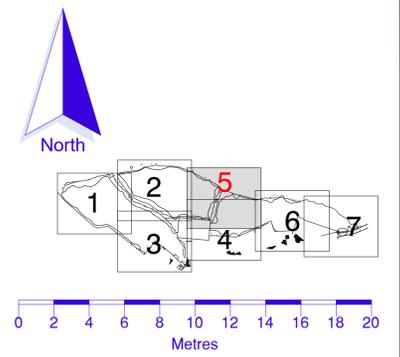
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Drawing Number
TRI-3868-04



Notes
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NOTE
 All levels and coordinates relate to OSGB36(15) using ONSD data.
 Levels defining edge of carriageway are observed at channel (bottom of hets).

Rev.0	Description	Issued
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Site Address
New Street
Mawdesley
L40 2QW
 Project Description
Site Survey

Drawing Title
Existing Site Layout

Scale 1:200@A1	Date 31/08/2022	Drawn By MW
Drawing Number TRI-3868-05		

Preliminary Ecological Survey



Preliminary Ecological Appraisal Report

New Street, Mawdesley

Reference: 80-817-R1-1

Date: October 2022



PRELIMINARY ECOLOGICAL APPRAISAL REPORT

New Street
Mawdesley

Prepared for:
PWA Planning

Report Ref: 80-817-R1-1
Date Issued: 11/10/2022

E3P

Taylor Road
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+ 44 (0) 161 707 9612
<https://e3p.co.uk/>

Registered in England
CRN: 08725262

QUALITY ASSURANCE

PROJECT NUMBER	80-817		
VERSION	Version 1		
REMARKS	Final		
DATE	October 2022		
PREPARED BY	R. Keating		
QUALIFICATIONS	BSc (Hons), MSc, QCIEEM, Graduate Consultant Ecologist		
CHECKED BY	H. Morgan		
QUALIFICATIONS	BSc (Hons) , MEnvSc, ACIEEM, Senior Ecologist		
AUTHORISED BY	C. Barlow		
QUALIFICATIONS	BSc (Hons), MSc, MEnvSc, CEnv, MCIEEM, Associate Director		

EXECUTIVE SUMMARY

Site Address	Land off New Street, Mawdesley, Ormskirk, L40 2QT
Coordinates	E 349158, N 415163
Site Area	Approximately 4.7 ha
Current Site Use and Adjacent Site Use	The site comprised three grassland fields separated and bound by treelines. Mawdesley Bowling Club and Mawdesley Lawn Tennis Club lie adjacent to the site's southern boundary, meanwhile, Mawdesley Millennium Green is located immediately west of the site. The residential area of Mawdesley extends to the south of the site whilst grasslands extend north, east and west.
Designated Sites	<p>There are no statutory designated sites within 2 km of the site boundary. However, the site falls within the Impact Risk Zone of Wrightington Bar Pasture Site of Special Scientific Interest (SSSI) and Martin Mere Special Protection Area (SPA), Ramsar and SSSI.</p> <p>Consultation with MAGIC identified that the development requires further consultation from Natural England for the development to proceed. A Habitat Regulations Assessment (HRA) will be required to determine if the proposed development will have a 'likely significant effect' on the qualifying features of the SPA/Ramsar.</p>
Survey Results	<p>The site was found to comprise three improved grassland fields, along with dense scrub, tall ruderal, one building seven treelines, two hedgerows and scattered trees.</p> <p>The site was found to have the following potential ecological constraints:</p> <ul style="list-style-type: none"> ✦ B1, T2, T4, T6, T8, T9 and T12 were found to have Low bat roosting potential. ✦ T3, T5, T7, T10 and T13 were found to have Moderate bat roosting potential ✦ T1 and T11 were found to have High bat roosting potential. ✦ Potential presence of great crested newt and common amphibians in their terrestrial phase within the dense scrub, tall ruderal, improved grassland, hedgerows and treelines. ✦ Potential presence of nesting birds within the dense scrub, hedgerows, treelines and scattered trees. ✦ Potential presence of hedgehogs within the dense scrub, tall ruderal, hedgerows and treelines. ✦ Potential presence of otter and water vole within the adjacent brook. ✦ Potential presence of brown hare within the improved grassland fields. ✦ Potential presence of reptiles within the treelines, hedgerows and dense scrub.



	<ul style="list-style-type: none">✳ Potential presence of badgers within the local area.✳ Invasive plant species (Himalayan Balsam) present on-site.
Conclusions	<p>The following further surveys are recommended:</p> <ul style="list-style-type: none">✳ One Nocturnal Bat Survey on B1 between May and August (inclusive).✳ Two Nocturnal Bat Surveys on T3, T5, T7, T10 and T13 between May and September (inclusive), with at least one survey completed between May and August, if trees are to be removed.✳ Three Nocturnal Bat Surveys on T1 and T11 Between May and September (inclusive), with at least one survey completed between May and August, if trees are to be removed.✳ One Bat Activity Survey per month (April to October inclusive). At Least one of the surveys should comprise a dusk and pre-dawn survey (or dusk to dawn) within one 24-hour period. Static bat detector surveys should also be undertaken during the same time period as the Bat Activity Surveys. Surveys are only required if significant areas of linear features are to be removed.✳ A Potential Roost Feature Tree Inspection on T1 and T11 between December to February (inclusive) to determine if bats are using the trees to hibernate, if trees are to be removed.✳ One Wintering Bird Survey per month between October to February (inclusive) to inform the HRA. <p>The following mitigation is recommended:</p> <ul style="list-style-type: none">✳ A lighting strategy implemented for bats.✳ T2, T4, T6, T8, T9 and T12 to be soft felled under the supervision of an ecologist to avoid harm to potential roosting bats, should they require removal.✳ Pollution protection measures detailed to protect the on-site brook and Lancaster Canal during and post development, including a proposed 8 m buffer zone around the watercourses.✳ Precautionary 5 m standoff distance from the brook for water vole.✳ If works are to be completed within 5 m of the brook, a pre-commencement check for water vole should be conducted prior to starting works on a precautionary basis.✳ Common amphibians are to be removed by hand from the working area during the clearance phase.



- ✿ If any vegetation requires removal, it should be removed outside of the breeding bird season (March to September inclusive). If this is not possible, a nesting bird check should be undertaken by a suitably qualified ecologist up to 24 hrs before works commence. If a nest, or nest in construction, is located, then a stand-off distance should be maintained until the young have fledged.
- ✿ Updated badger walkover prior to start of works.
- ✿ Precautionary Working Methods for badger.
- ✿ A pre-commencement check for young hare in the improved grassland fields.
- ✿ Precautionary Working Methods for great crested newts.
- ✿ Precautionary Working Methods for otter.
- ✿ Precautionary Working Methods for reptiles.
- ✿ Precautionary Working Methods for hedgehog.
- ✿ Eradication of invasive species prior to works commencing on-site.

The scheme should strive to achieve biodiversity net gain, as per “Biodiversity Net Gain; Good Practice Principles for Development” CIEEM, CIRIA, IEMA (2016). Full details of this and a calculation of net gain could be completed after detailed landscape plans have been prepared.



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1. INTRODUCTION

1.1. BACKGROUND

E3P were commissioned by PWA Planning to undertake a Preliminary Ecological Appraisal at New Street, Mawdesley, hereafter referred to as “the site”.

This report has been prepared by Rhian Keating BSc (Hons) MSc QCIEEM, Graduate Ecologist at E3P, who has experience undertaking Preliminary Ecological Appraisals for various projects across the UK.

1.2. PROPOSED DEVELOPMENT

Detailed development proposals were not available at the time of writing but it is understood that a series of residential properties will be constructed.

1.3. SITE LOCATION

The site is located north of the residential area of Mawdesley, Ormskirk. New Street, leading into Hurst Green, defines the southern boundary, with Mawdesley Lawn Tennis Club and Bowling Club situated immediately south of the site. Mawdesley Millennium Green is located adjacent to the sites western boundary. Residential housing extends to the south of the site, whilst grassland fields surround the remaining site aspects. Please refer to Figure 1.1 for the approximate site location.

FIGURE 1.1 APPROXIMATE SITE LOCATION



1.4. OBJECTIVES

The objectives of the Preliminary Ecological Appraisal are as follows:

- 📌 Identify the major habitats present.
- 📌 Ascertain the presence or potential presence of any legally protected species and habitats.
- 📌 Recommend any further surveys or mitigation that may be required.

The Preliminary Ecological Appraisal comprises a desk study and site walkover. This survey has been completed as a baseline assessment of the site, and as such please see the end of the report for further surveys and mitigation proposed.



2. METHODOLOGY

2.1. DESKTOP STUDY

The following sources of information and ecological records were consulted:

- ✚ MAGIC – A web-based interactive mapping system, on which geographic information regarding key environmental schemes and designations are collated, including details of statutory conservation sites, accessed September 2022.
- ✚ Aerial mapping and ordnance survey maps.
- ✚ Local data records, including Lancashire Environment Record Network (LERN), received on 04th August 2022.

A 2 km search area was utilised for the data search, with this being deemed an appropriate distance for the zone of influence of the site. The 2 km search was selected due to the size of the site and the nature of the surrounding area.

The data search included the request for details of protected and notable species of flora and fauna within 2 km of the central grid reference of the site. In addition, a request was made for any non-statutory designated sites within 2 km of the site boundary.

Please note that a lack of up-to-date records does not confirm absence of a species from the area. Lack of records may simply be a result of a shortage of protected species surveys being undertaken within the local area.

2.2. VEGETATION AND HABITATS

A Preliminary Ecological Appraisal of the proposed development site was undertaken by Rhian Keating with assistance from Lowri Thomas BSc (Hons) ACIEEM, Project Manager – Ecology, on 02nd September 2022. The weather was sunny and dry.

The walkover survey was undertaken to the standard methodology as detailed by the JNCC Handbook for Phase 1 Habitat Survey, 2010. The assessment follows the methodology as per “Guidelines for Preliminary Ecological Appraisal” (CIEEM, 2017).

A vegetation and habitat plan has been produced for the proposed development site and the immediate surrounding area (please refer to Appendix I). The mapping is based on the Joint Nature Conservation Committee Phase I Habitat Survey Methodology (JNCC 2010).

Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act 1981 (as amended) and species which are indicators of important and uncommon plant communities. All plant nomenclature follows Stace (2019).

Searches were carried out for the presence of invasive species, including those listed on the revised (April 2010) Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) including Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*).



2.3. FAUNA

A thorough search of the site for signs of protected species of fauna was undertaken during the site walkover. These searches considered the following:

- ✿ Suitability of any ponds to support notable amphibians, and the suitability of the site's terrestrial habitats to support amphibians.
- ✿ Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
- ✿ Signs of badgers (*Meles meles*), by way of setts, mammal paths, foraging signs or latrines to indicate usage of the site by the species.
- ✿ Search of any watercourses for signs or suitability for water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts and foraging signs.
- ✿ Suitability of the site to support roosting, foraging and commuting bats.
- ✿ Suitability of the site to support notable bird species.
- ✿ Suitability of the site to support notable invertebrates.
- ✿ Search of the site for any invasive species.

2.4. PRELIMINARY ROOST ASSESSMENT

The Preliminary Roost Assessment (PRA) was undertaken by Rhian Keating and Lowri Thomas on 02nd September 2022. Lowri holds a Natural England Bat Licence (2021-55376-CLS-CLS).

The survey involved undertaking a systematic search of the trees, searching for signs of bats, or spaces where bats would be able to access. The methodology followed that described in *Bat Surveys for Professional Ecologists, 3rd Edition (Collins, 2016)*.

The trees and structures were categorised for their bat roosting potential as described in Table 2.1 in accordance with Collins (2016).



TABLE 2.1 BAT ROOSTING POTENTIAL CLASSIFICATION OF STRUCTURES AND TREES

CATEGORY	DESCRIPTION
NEGLIGIBLE	A structure or tree with no potential bat roosting features.
LOW	A structure or tree with one or more potential roost sites. However, the potential roost sites do not provide suitability for large numbers of bats (i.e. for maternity or hibernation) and would only provide suitability for occasional use.
MODERATE	A structure or tree with one or more potential roosting features, which could support bats, but is of a suitability meaning that it would be unlikely to support a roost of high-conservation status.
HIGH	A structure or tree with several potential roosting features which would be able to support a large number of bats on a regular basis and for longer periods of time.

The survey was undertaken utilising suitable binoculars and ladders to access all areas where safe to do so.

2.5. SURVEY LIMITATIONS

A Preliminary Ecological Appraisal does not constitute a full botanical survey. Instead, key species are identified to give a representative description of each habitat type.

This survey was undertaken in September, which is an appropriate time of year to do so. However, due to differing flowering times, it is possible that some species of flora may have been missed or misidentified. It is possible that some invasive/non-native species could have been missed during the survey.

Access to all areas within 30 m of the site was not possible due to residential housing situated to the south of the site and private land adjacent to the north which prevented access, therefore, some features may have been missed.

Waterbodies within 250 m of the site boundary could not be accessed as they were situated within private land, therefore a Habitat Suitability Index (HSI) assessment of the ponds could not be completed.

These constraints have been taken into consideration during the assessment.



3. SURVEY RESULTS

3.1. SITE CONTEXT

The site is located on the northern edge of the village of Mawdesley with agricultural land extending further north of the site. The site comprised predominantly grassland fields, along with hedgerows and treelines. The treelines and hedgerows may act as an important commuting and foraging feature for terrestrial mammals, as well as providing roosting and nesting opportunities for bats and birds. Residential properties are located to the south of the site anticipated to be of low ecological value. Agricultural fields are located to the north which are separated by a network of hedgerows and treelines, which may act as an important feature for wildlife to commute along the local landscape.

An unnamed brook runs adjacent to the northern boundary of the site running through the line of trees, which connects to a wider network of watercourses such as New Reed Brook and Old Reed Brook. A small area of woodland is also located adjacent to the north-west of the site, bordering the brook. The brook may act as a commuting and foraging feature for local otter, while the treelines and woodland may provide sett building opportunities for the species. Water vole may also utilise the brook for shelter, commuting and foraging.

Multiple pockets of woodland are present in proximity to the site which are well connected by treelines and fields. The areas of woodland are anticipated to form foraging, commuting and resting habitat for a variety of local wildlife, as well as roosting and nesting opportunities for bats and birds.

Three waterbodies were located within 250 m of the site boundary. Waterbody 1 (WB1) is located approximately 170 m north-east, Waterbody 2 (WB2) is located approximately 195 m north-east and Waterbody 3 (WB3) is located approximately 220 m south.

3.2. DESIGNATED SITES

No statutory designated sites are located within 2 km of the site boundary. However, the site falls within the Impact Risk Zone of the following Sites of Special Scientific Interest (SSSI's):

- ✿ Wrightington Bar Pasture SSSI, located approximately 4.6 km south-east of the site boundary. It is designated as it forms one of the few remaining species-rich unimproved grasslands in Lancashire and represents the largest flushed example of this community type in the county.
- ✿ Martin Mere Special Protection Area (SPA), Ramsar and SSSI located approximately 6.2 km west of the site. Martin Mere is designated as an SPA as the reserve holds international importance for waterfowl, supporting an excess of 10,000 winter migrants including over 100 different species. Particular species of importance are the wintering populations of pink-footed geese (*Anser brachyrhynchus*), teal (*Anas crecca*) and pintail (*Anas acuta*). Martin Mere is designated as a Ramsar site as it holds a low-lying complex of open water, marsh and grassland habitat overlying deep peat, providing valuable habitat to support internationally important numbers of wintering birds. Martin Mere is designated as a SSSI primarily due to the large number of migrant birds which it supports in the winter months. It also supports nationally important numbers of Bewick's swan (*Cygnus columbianus bewickii*), gadwall (*Anas strepera*), mallard (*Anas platyrhynchos*), whooper swan (*Cygnus cygnus*) and shoveler (*Anas clypeata*). Nationally exceptional numbers of snipe (*Gallinago gallinago*), lapwing (*Vanellus vanellus*) and black-tailed godwit (*Limosa limosa*) have also been recorded.



Croston Moss Biological Heritage Site (BHS) is located approximately 1.5 km north-west of the site. The site comprises an area of mossland which is important for its ornithological interest. It is important for a number of breeding birds including yellowhammer (*Emberiza citrinella*), shelduck (*Tadorna tadorna*), reed bunting (*Emberiza schoeniclus*), corn bunting (*Emberiza calandra*), oystercatcher (*Haematopus ostralegus*) and redshank (*Tringa totanus*). Large numbers of pink-footed geese use the site in winter for feeding. Other birds utilising the site in winter include short-eared owl (*Asio flammeus*), ruff (*Philomachus pugnax*), green sandpiper (*Tringa ochropus*), fieldfare (*Turdus pilaris*) and redwing (*Turdus iliacus*).

3.3. HABITATS

The main habitats encountered during the survey are described in the following subsections. Please refer to Appendix I for the Phase 1 Habitat Plan.

3.3.1. BUILDING

One building (Building 1) was present within the site boundary. A detailed assessment and further photographs of the building are outlined within Appendix III.

PLATE 1 SHOWING BUILDING 1



3.3.2. IMPROVED GRASSLAND

Three improved grassland fields made up the majority of the site, which were separated by treelines. Species within the improved grassland fields included creeping buttercup (*Ranunculus repens*), knapweed (*Centaurea nigra*), meadow foxtail (*Alopecurus pratensis*), bird's foot trefoil (*Lotus corniculatus*), perennial rye-grass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), ribwort plantain (*Plantago lanceolata*), silverweed (*Potentilla anserina*), hedge mustard (*Sisymbrium officinale*), red clover (*Trifolium pratense*), broad-leaved dock (*Rumex obtusifolius*), white clover (*Trifolium repens*), meadow buttercup (*Ranunculus acris*), cock's-foot (*Dactylis glomerata*), vetch sp. (*Lathyrus sp.*) and Canadian fleabane (*Erigeron canadensis*).



PLATE 2 SHOWING IMPROVED GRASSLAND FIELD



3.3.3. TALL RUDERAL

A small area of tall ruderal was located to the south-west of the site. Species within the tall ruderal on site included Himalayan balsam, broadleaved dock, yellow iris (*Iris pseudacorus*), common nettle (*Urtica dioica*), American willowherb (*Epilobium ciliatum*) and bramble (*Rubus fruticosus* agg.).

PLATE 2 SHOWING AN AREA TALL RUDERAL



3.3.4. DENSE SCRUB

A small area of dense scrub was present to the south-west of the site and dense scrub also made up the understories of Treeline 1 (TL1) and Treeline 3 – Treeline 7 (TL7). The species present included bramble, American willowherb, common nettle, broadleaved dock, dog rose (*Rosa canina*), hawthorn (*Crataegus monogyna*), bracken (*Pteridium aquilinum*) and ivy (*Hedera helix*).

PLATE 4 SHOWING DENSE SCRUB



3.3.5. SCATTERED TREES

Three scattered trees were identified within the site. Species present comprised sessile oak (*Quercus petraea*) and sycamore (*Acer pseudoplatanus*).



PLATE 5 SHOWING SCATTERED TREES



3.3.6. TREELINES

Seven treelines were present within the site. The treelines defined the western and northern boundaries of the site and divided the three improved grassland fields. Please see Appendix II for a detailed description and photographs of each treeline.

3.3.7. HEDGEROWS

Two hedgerows were present along the southern boundary of the site bordering a residential garden. Please see Appendix II for a detailed description and photographs of each hedgerow.

3.3.8. RUNNING WATER

An unnamed brook runs adjacent to the northern boundary of the site. The brook was approximately 30 cm deep and 1.5 – 2 m wide. The brook was found to be slow flowing at the time of survey, with a rocky basal structure. The banks of the river were vegetated, with Himalayan balsam present along the entirety.



PLATE 6 SHOWING RUNNING WATER



3.4. PROTECTED AND NOTABLE SPECIES

3.4.1. AMPHIBIANS

Consultation with LERN identified two records of great crested newts (*Triturus cristatus*) with the 2 km search area, located approximately 310 m south-east and 380 m south of the site boundary. The closest record is associated with an area of woodland approximately 100 m west of WB3.

Consultation with MAGIC identified two great crested newt European Protected Species Licences both located approximately 485 m south of the site boundary. The first was active between 2015 and 2022 for the damage and destruction of a great crested newt resting place and the second was active between 2019 and 2017 for the damage and destruction of a great crested newt resting place.

Three waterbodies were identified within 250 m of the site boundary; however, they were located on private land and therefore a full HSI assessment could not be completed. The habitat surrounding WB1 and WB2 was agricultural land and WB3 was located in an improved grassland field bordered by scattered trees with woodland nearby. The habitat surrounding WB3 provides suitable terrestrial habitat to support the species. Furthermore, one record of great crested newt was identified 100 m west of WB3, therefore, it is possible that the species use WB3 for breeding.

The site has potential to support great crested newts in their terrestrial phase within the dense scrub, tall ruderal, improved grassland, hedgerows and treelines. Habitat which great crested newts may utilise located within 250 m of the ponds included improved grassland and a treeline with a dense scrub understory.

Records of common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*), and palmate newt (*Lissotriton helveticus*) were identified within the search area. The closest record was a smooth newt located approximately 230 m south-east of the site boundary associated with an area of woodland.



Due to the absence of waterbodies on site, the site lacks the features to support common amphibians and great crested newts in their breeding phase. However, the site has potential to support great crested newts and common amphibians in their terrestrial phase within the dense scrub, tall ruderal, improved grassland, hedgerows and treelines

3.4.2. BATS

Consultation with LERN identified multiple records of bats within the 2 km search area, including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), pipistrelle species (*Pipistrellus sp.*), brown long-eared (*Plecotus auritus*), noctule (*Nyctalus noctula*), Myotis species (*Myotis sp.*) and unknown bat species (*Chiroptera sp.*). The closest record was a common pipistrelle located approximately 85 m south-west of the site boundary.

Consultation with MAGIC identified the presence of five Natural England Bat Mitigation Licence located within the 2 km search area, details of which can be found in Table 3.1.

TABLE 3.1 NATURAL ENGLAND BAT MITIGATION LICENCES WITHIN 2KM OF THE SITE

LICENCE REFERENCE NUMBER	DISTANCE FROM SITE	DESCRIPTION
EPSM2011-3433	325 m east	Destruction of a common pipistrelle, brown long-eared and whiskered bat (<i>Myotis mystacinus</i>) non-breeding roost, active between 2011 and 2013.
EPSM2011-3839	435 m east	Destruction of a common pipistrelle and whiskered bat breeding and non-breeding roost, active between 2012 and 2015.
2018-38450-EPS-MIT	485 m south	Destruction of a common pipistrelle and brown long-eared breeding and non-breeding roost, active between 2019 and 2029.
2020-50177-EPS-MIT	1.1 km south-east	Destruction of a common pipistrelle non-breeding roost, active between 2020 and 2026.
2018-36265-EPS-MIT	1.2 km north-east	Destruction of a common pipistrelle and brown long-eared breeding and non-breeding roost, active between 2018 and 2023.

During the site survey, an inspection of the trees and building was undertaken as per guidance set out in Collins (2016), to assess their suitability to support roosting bats. Following the assessment, eight trees were found to have Low bat roosting potential, four were found to have Moderate bat roosting potential and two were found to have High bat roosting potential. A detailed description of the trees with accompanying photographs can be found in Appendix III.

A single building (B1), used as a horse shelter, was located within the site which was assessed as having Low bat roosting potential. The building had a corrugated roof reinforced internally with chipboard, which subsequently formed gaps between the roof and chipboard which crevice dwelling bat species may utilise on an occasional basis. A detailed description with accompanying photographs can be found in Appendix III.



The treelines and hedgerows located within the site are anticipated to act as an important foraging and commuting feature for the species group, as well as adjacent brook located to the north of the site. The treelines on site are well connected to a network of hedgerows and treelines in the wider landscape which separate agriculture fields; and the unnamed brook adjacent to the north of site is connected to a wider complex of watercourses, including New Reed Brook and Old Reed Brook. These features also link the site to pockets of woodland which bats may use to roost. The tall ruderal, dense scrub and improved grassland may support a number of common invertebrate species which bats predate on. Overall, the site was assessed as having Moderate potential to support foraging and commuting bats in line with Collins (2016).

3.4.3. BADGER

Consultation with LERN did not identify any records of badger within the 2 km search area. No badger setts or field signs of badger were located on-site or within 30 m of the site boundary where access was possible.

The site was assessed as having suitability for badger as sett building opportunities were present within the treelines and dense scrub. The area of woodland and treelines in proximity to the site are anticipated to provide badger sett building opportunities.

3.4.4. OTHER TERRESTRIAL MAMMALS

Two records of European hedgehog (*Erinaceus europaeus*) were located within 2 km of the site boundary, the closest was located approximately 1.05 km north-east of the site boundary and the second approximately 1.7 km south-west.

The site was assessed as having suitability for hedgehogs with the treelines, hedgerows, tall ruderal and dense scrub providing the most valuable habitat for this species. The surrounding area was also assessed as having suitability due to the presence of treelines and woodland.

Multiple records of brown hare (*Lepus europaeus*) were located within 2 km of the site, the closest of which was located approximately 85 m south-west.

The site was assessed as having suitability to support brown hare due to the presence of the large grassland fields.

3.4.5. OTTER AND WATER VOLE

Consultation with LERN did not identify any records of otter within the 2 km search area.

No watercourses are present within the site boundary, however, an unnamed brook runs adjacent to the northern boundary of the site which otter may use as a commuting feature. The treelines and adjacent woodland to the north-west of the site provide some holt building opportunities for otter. However, the nearest established river is the River Douglas located approximately 1.9 km west of the site. Due to the distance between the treelines and woodland and this watercourse, otters are not anticipated to use the site for holts. Furthermore, due to the shallow water in the brook it is unlikely to hold fish and therefore would not likely be used by otter for foraging or resting purposes.



Four records of water vole were located within 2 km of the site, the closest of which was located approximately 1.1 km north-west of the site associated with New Reed Brook. One record of American mink (*Neovison vison*) was located approximately 1.25 km south-west of the site boundary, a species which is known to predate water vole.

The brook provided limited value for water vole due to the generally shallow depth, lack of emergent vegetation and shading by the adjacent treelines.

3.4.6. BREEDING BIRDS

Consultation with LERN identified numerous records of notable birds within the search area, including treecreeper (*Certhia familiaris*), greenfinch (*Chloris chloris*), black-headed gull (*Chroicocephalus ridibundus*), quail (*Coturnix coturnix*), cuckoo (*Cuculus canorus*), house martin (*Delichon urbicum*), great spotted woodpecker (*Dendrocopos major*), lesser spotted woodpecker (*Dendrocopos minor*), corn bunting, yellowhammer, reed bunting, kestrel (*Falco tinnunculus*), moorhen (*Gallinula chloropus*), oystercatcher, herring gull (*Larus argentatus*), linnet (*Linaria cannabina*), grasshopper warbler (*Locustella naevia*), grey wagtail (*Motacilla cinerea*), yellow wagtail (*Motacilla flava*), curlew (*Numenius arquata*), house sparrow (*Passer domesticus*), tree sparrow (*Passer montanus*), grey partridge (*Perdix perdix*), willow warbler (*Phylloscopus trochilus*), willow tit (*Poecile montana*), dunnock (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*), turtle dove (*Streptopelia turtur*), tawny owl (*Strix aluco*), starling (*Sturnus vulgaris*), shelduck, wren (*Troglodytes troglodytes*), song thrush (*Turdus philomelos*), mistle thrush (*Turdus viscivorus*), barn owl (*Tyto alba*) and lapwing (*Vanellus vanellus*).

During the survey, woodpigeon (*Columba palumbus*) and great tit (*Parus major*) were identified within the site boundary.

Common bird species are anticipated to be present within the treelines, hedgerows scattered trees and dense scrub. The site is assessed as having some value for ground nesting birds due to the large grassland fields, however, at the time of survey, the sward height may be too short to support ground nesting birds. If the improved grassland fields were left unmanaged, the long grass would provide suitable shelter to support ground nesting birds.

3.4.7. REPTILES

Consultation with LERN did not identify any reptile records within the 2 km search area.

The site was found to provide some value for reptiles, particularly within the treelines, hedgerows and dense scrub which may provide some terrestrial cover for the species. However, due to the lack of records in the area and small areas of suitable habitat, reptiles are unlikely to be present on site.

3.4.8. INVERTEBRATES

The data search identified a number of notable invertebrates within the search area, including brimstone (*Gonepteryx rhamni*), wall (*Lasiommata megera*), speckled wood (*Pararge aegeria*), comma (*Polygonia c-album*) and banded dark bee (*Stelis punctulatissima*).

Overall, the presence of notable invertebrates within the site is reasonably discounted due to a lack of good quality habitat that would support notable invertebrates.



3.5. INVASIVE PLANT SPECIES

Consultation with LERN identified records of montbretia (*Crocasmia pottsii x aurea = C. x crocosmiiflora*), Japanese knotweed, giant hogweed, Himalayan balsam, yellow archangel (*Lamium galeobdolon subsp. Argentatum*), rhododendron (*Rhododendron ponticum*) and Japanese rose (*Rosa rugosa*) within the 2 km search area.

Large areas of Himalayan balsam were identified within the site boundary, particularly in association with TL1, TL2, TL3, TL6 and TL7.



4. ECOLOGICAL CONSTRAINTS AND MITIGATION

4.1. DEVELOPMENT PROPOSALS

Detailed development proposals were not available at the time of writing but it is understood that a series of residential properties will be constructed.

4.2. DESIGNATED SITES

The site is located within the Impact Risk Zone of Wrightington Bar Pasture SSSI, located approximately 4.6 km south-east of the site, designated as it forms one of the few remaining species-rich unimproved grasslands in Lancashire; and Martin Mere SPA, Ramsar and SSSI, located approximately 6.2 km west of the site, designated for its complex open water, marsh and grassland habitat and international and national importance to bird species.

Consultation with MAGIC identified that all planning applications that fall within the SSSI Impact Risk Zones (except householder) outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures require further consultation from Natural England for the development to proceed.

A Habitat Regulations Assessment (HRA) will be required to determine if the proposed development will have a 'likely significant effect' on the qualifying features of the SPA/Ramsar. As Martin Mere SPA, Ramsar and SSSI supports important numbers of wintering birds it is possible that some species may use the site to forage or breed. As such, Wintering Bird Surveys are recommended to inform the HRA and to determine if any species related to SPA and Ramsar are using the site.

Croston Moss BHS is located approximately 1.5 km north-west of the site, designated for its ornithological interest. Due to the distance from the site, it is unlikely that the development will have a negative impact on Croston Moss BHS.

4.3. HABITATS

The site comprises habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as bats, birds and terrestrial mammals, with the treelines and hedgerows holding the highest ecological value.

4.3.1. TREELINES, HEDGEROWS AND SCATTERED TREES

It is recommended that, where possible, the treelines, hedgerows and scattered trees are protected throughout development. It is anticipated that some areas may require removal, and where this is needed, the treelines, hedgerows and scattered trees should be replaced as soon as practicable. It is recommended that species-rich hedgerows, containing a minimum of seven woody species with tall trees interspersed, be planted as compensation throughout the site. Any compensation hedgerow planting should equate to a minimum of 1.5 times the length of hedgerow to be lost. Any replacement planting should endeavour to be on the same aspect as that to be lost, in order to retain commuting features through the site.

It is recommended that the landscape planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species. Species deemed suitable for this development could include berry-bearing native species such as:



- ✿ Hawthorn.
- ✿ Rowan (*Sorbus aucuparia*).
- ✿ Holly (*Ilex aquifolium*).
- ✿ Whitebeam (*Sorbus aria*).
- ✿ Spindle (*Euonymus europaea*).
- ✿ Dog rose.
- ✿ Guelder rose (*Viburnum opulus*).
- ✿ Elder (*Sambucus nigra*).

All planting should be from a trusted pest-free source and, where possible, be of local provenance.

Any trees or hedgerow within the site or boundary, to be retained, are to be appropriately protected during the construction phase. Temporary protective demarcation fencing will be used to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.

The fencing will be in accordance with BS 5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations*.

4.3.2. RUNNING WATER

An unnamed brook runs adjacent to the northern boundary of the site. Therefore, it is recommended that an 8 m buffer is maintained around these watercourses. Best practice protection measures as detailed within PPG5 Pollution Prevention Guidelines (2007) are to be put in place to protect the watercourses. The following control measures would be required during any ground works and during the construction phase to ensure there are no impacts on the watercourses and water table, any wildlife utilising it:

- ✿ All operational plant will be kept well maintained and should not enter/be stored within the buffer zone.
- ✿ Turning off plant when not in use.
- ✿ Dampening of the operational areas will be regularly undertaken during dry weather conditions to avoid dust. Dust management will be extended to cover the plant and all operational areas and will be complied with throughout the period of development.
- ✿ Measures to prevent pollutants from entering ground and surface water is standard construction practice through the use of a bunded fuel storage and refuelling area at a discrete distance from any watercourses. These measures should be underwritten by spill management equipment being kept on-site and capable of being effectively utilised by trained operatives to contain any accidental spillage within any part of the operational area.
- ✿ A Toolbox Talk should be completed by a qualified ecologist to ensure contractors are aware of the watercourses and their ecological importance.



- ⚠ During night hours, no lighting is to be located towards the watercourses to ensure wildlife are not deterred from using them.
- ⚠ A 'Site Tidy' protocol is to be put in place on-site. All litter is to be appropriately controlled, whilst on-site materials are to be adequately stored over-night.
- ⚠ All excavations will be battened at a 45-degree angle to allow escape should animals become trapped.

Site drainage will need to be considered and will be subject to the Environmental Agency best practice guidelines to ensure that no highly silted or polluted runoff from the site workings will enter the watercourses during and post construction.

4.4. PROTECTED AND NOTABLE SPECIES

4.4.1. AMPHIBIANS

The site may support common amphibians and great crested newts in their terrestrial phases within the dense scrub, tall ruderal, improved grassland, hedgerows and treelines. As such, a Rapid Risk Assessment has been conducted to identify the impact the development may have on great crested newts that may use the site for shelter. Please see Figure 4.1 for the rapid risk assessment.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	1 - 5 ha lost or damaged	0.04
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Detailed development proposals were not available at the time of writing, therefore it was assumed that all habitats within the site boundary will be affected by the development. Following the Rapid Risk Assessment, it was determined that it is "Highly Unlikely" that any offence would be committed as a result of development. As such a Great Crested Newt Licence will not be required but Precautionary Working Methods (PWMs) should be followed.

It is recommended that the following measures are put into place to ensure great crested newts are not harmed during works and that habitats suitable to support the species are not accidentally created. Measures include the following:

- ⚠ All site operatives will be induced to the potential presence of the species, their working limits and legal responsibilities.
- ⚠ Natural refugia including rubble and debris piles will not be stored within the site.
- ⚠ Deep trenches and excavations are to be covered overnight to prevent amphibians and other animals from being trapped.



- ✿ Should any common amphibians be discovered during the works, they are to be moved by hand and released to the area of woodland located approximately 60 m south-west of the site.

In the unlikely event that a great crested newt is encountered during works, all work must cease and a suitably qualified ecologist should be contacted.

It is recommended that during the clearance phase of works, any common amphibians encountered be moved by hand, away from construction activities to a sheltered area, such as an area of woodland located approximately 60 m south-east of the site.

4.4.2. BATS

The site was found to have value for foraging and commuting bats due to treelines and hedgerows found within the site. The brook located adjacent north of the site is also likely to act as important commuting and foraging routes for bats within the local area. The tall ruderal, dense scrub and improved grassland may support a number of common invertebrate species which bats predate on. B1 and 13 trees located on site hold potential to support roosting bats.

Therefore, it is recommended that the proposed lighting plan considers the habitats of highest importance and maintains the treelines, hedgerow and watercourse as dark areas. It is recommended that any security lighting during construction is appropriately placed to avoid being directed at retained habitats.

To reduce the potential lighting impacts for bats, the following recommendations are advised for the lighting strategy:

- ✿ Lighting should be pre-fixed on any proposed buildings, to ensure impacts on sensitive areas are diminished.
- ✿ Warm white tones are preferable to blue toned lights (3000k).
- ✿ LED lights are preferable as they produce minimal UV.
- ✿ To avoid light spill skyward, ensure lights face downward.
- ✿ Make use of vegetation to block light spill into dark areas.

Lighting should follow the protocols outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting in the UK" (2018) to minimise disturbance and sky-glow off site.

T2, T4, T6, T8, T9 and T12 were assessed as having Low bat roosting potential. If any of these trees require removal to facilitate development, they are to be soft felled under the supervision of an ecologist. The tree should be cut into sections and lowered to the ground, avoiding any Potential Roost Features. The tree should be inspected on the ground for the presence of bats. If the features cannot be fully inspected, the tree should be left overnight with the feature facing upwards to allow any bats within the tree to escape prior to chipping the following day.

It is recommended that any planting within the site be of native fruiting/flowering species in order to enhance the site for foraging bats post-completion. Bat boxes could be installed throughout the site post-construction to enhance the site for the species group.



4.4.3. BADGERS

No badger setts were located during the survey, though the habitats were identified as being suitable for the species. Badgers are highly mobile and can create new setts in a short period of time. It is recommended that an updated site walkover prior to the development is carried out to identify any new badger setts.

If a badger sett is located, a stand-off distance may be required as well as PWMs. If the sett requires closure, a Natural England Badger Licence would be required. Please note that badger licences can only be obtained between July and November each year to avoid potential impact on pregnant females.

The following PWMs will be adhered to during construction phase to ensure that no badgers within the local area are impacted by the proposed development:

- ✚ All site operatives will be inducted to the presence of the species and their working limits and legal responsibilities.
- ✚ All site operatives will be inducted as to identifying potential badger setts, and should be vigilant if they suspect they locate a new sett during works and inform the project ecologist immediately.
- ✚ All excavations will be battened at a 45 degree angle to allow escape should animals become trapped.
- ✚ All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

It is not anticipated that the development will have a significant negative impact on badgers within the local area.

4.4.4. HEDGEHOGS

Hedgehogs are anticipated to be present within the hedgerows, the understory of the treelines, tall ruderal and dense scrub. During site clearance of the aforementioned habitats, vegetation should be trimmed to 50 cm and checked for hedgehog prior to clearing to ground level. It is recommended that vegetation clearance takes place outside of December to March (inclusive) to avoid impacting hibernating hedgehogs. If hedgehogs are located, they should be carefully moved by hand to an area outside of construction workings.

Post-development, a series of hedgehog houses could be installed throughout the site to enhance the site's value for the species group. In addition, gaps in residential fences could be provided to allow the species to commute through the site.

4.4.5. BROWN HARE

Brown hare were recorded within the wider area and the improved grassland fields on site were assessed as providing suitable habitat for the species. It is recommended that a pre-commencement check for young hare, which may have been left in the field by mothers after the breeding season (February to September), is undertaken prior to clearance of the site.



4.4.6. OTTER

An unnamed brook runs adjacent to the northern boundary of the site, which was assessed as a potential commuting feature for otter as it provides good connectivity to the wider landscape. It is unlikely that the brook is used as a foraging feature due to the lack of fish within the brook. It is unlikely that otters use the treelines or adjacent woodland to build holts as the nearest well-established river, the River Douglas, is located 1.9 km. Furthermore, no records of otter were identified within the 2 km search area.

On a precautionary basis, the following PWMs should be adhered to for all works on-site to ensure that no otter within the local area are impacted by the proposed development:

- ✚ All site personnel are to be inducted through use of a Toolbox Talk, on the presence of otters, their legal protection and working limits.
- ✚ No artificial lighting will be installed, both during the works period and following on from the completion of the project, to ensure the river is maintained as a dark area for otter.
- ✚ Any temporarily exposed open pipe system should be capped in such a way as to prevent otters gaining access, as this may happen when contractors are off-site.
- ✚ As otters are naturally inquisitive, any excavations that are left overnight will include a ramp of 45° or less on one face to allow otter and other wildlife to climb out should they fall into the excavation.
- ✚ Commuting otters may lie-up in stacked pipes or beneath pallets. These features should be inspected daily before the start of works.

4.4.7. WATER VOLE

No signs of water vole were identified along the brook during the survey and the site offered limited suitability to support water vole due to the shallow depth of the brook, lack of in channel vegetation and overshadowing. However, due to the presence of water vole in the wider area, with connectivity to the site via New Reed Brook an Old Reed Brook, a precautionary 5 m standoff distance should be maintained from the brook throughout works. If works are to be completed within 5 m of the brook then a pre-commencement check of the brook and its embankment should be conducted.

The following additional PWMs should also be adhered to for all site works to ensure that no water vole within the local area are impacted by the proposed development:

- ✚ All site personnel are to be inducted through use of a Toolbox Talk, on the presence of water vole, their legal protection and working limits.
- ✚ All possible measures should be taken to reduce pollution entering any watercourse.
- ✚ If a water vole is discovered at unsupervised times, work should cease immediately, and a licensed ecologist should be called for advice. Contractors are explicitly forbidden from handling water voles.
- ✚ All site machinery and materials will be appropriately stored to avoid harm to the species.
- ✚ No dogs should be taken onto the site by any of the workforce.



4.4.8. BREEDING BIRDS

The site was assessed as having value for bird species within the treelines, hedgerows, scattered trees and dense scrub. In addition, the site was assessed as holding some value for ground nesting birds due to the large, improved grassland fields. If left to grow, the improved grassland fields would provide suitable cover to support ground nesting birds.

If any vegetation removal, it should be removed outside of the breeding bird season (March to September inclusive). If this is not possible, a nesting bird check will be undertaken by a suitably qualified ecologist no more than 24 hours before works commence. If a nest, or nest in construction, is located then a stand-off distance will be maintained until the young have fledged. The ecologist will advise on suitable stand-off and provide a toolbox talk to all site contractors regarding their working limits and legal implications.

Post-development, bird boxes should be installed throughout the development on retained trees to enhance the sites value for the species group.

4.4.9. REPTILES

The treelines, hedgerows and dense scrub, all of which are restricted to the field boundaries, may provide suitable cover and terrestrial habitat for reptiles. However, due to the lack of records in the 2 km search area and small areas of suitable habitat it is unlikely that reptiles are present within the site.

On a precautionary basis, the following PWMs are recommended:

- ✿ All site contractors are to be inducted as to the potential presence of the species group, their legal responsibilities and working limits, by a suitably qualified experienced ecologist.
- ✿ During works the site should be kept tidy of debris and material, and any vegetation within the working areas should be maintained below 50 mm in height to discourage amphibians or reptiles from re-entering these areas
- ✿ If a reptile is identified, works should cease and the project ecologist contacted immediately to capture the individual.

4.5. INVASIVE PLANT SPECIES

Himalayan balsam was identified throughout the site during the walkover, mainly in associated with the treelines. As such, it is recommended, prior to the development, that this species should be eradicated following the most current guidance set out by the Environment Agency by a qualified contractor.



5. FURTHER SURVEYS

5.1. BATS

B1 was assessed as having Low bat roosting potential; T3, T5, T7, T10 and T13 were assessed as having Moderate bat roosting potential; and T1 and T11 were assessed as having High bat roosting potential.

If B1 is to be demolished, a single Nocturnal Bat Survey is required between May and August (inclusive). If bats are identified roosting within the building, an additional two surveys would be required to characterise the roost and a European Protected Species Licence will be required with up-to-date surveys from the survey season prior to the application submission.

If T3, T5, T7, T10 or T13 are to be removed two Nocturnal Bat Surveys will be required between May and September (inclusive), with at least one survey to be completed between May and August. If bats are identified roosting within the trees, one additional survey would be required to characterise the roost and a European Protected Species Licence will be required with up-to-date surveys from the survey season prior to the application submission.

If T1 or T11 require removal, three Nocturnal Bat Surveys will be required between May and August (inclusive), with at least one survey to be completed between May and August. If bats are identified roosting within the trees, a European Protected Species Licence will be required with up-to-date surveys from the survey season prior to the application submission.

Bat activity surveys would be required on site if any large sections of the linear features, such as treelines, are to be removed. These surveys would identify any important commuting features on site. As per best guidance (Collins, 2016), the site as a whole is assessed as providing Moderate value for commuting and foraging bats. It is therefore recommended that two bat

As such it is recommended that one survey visit per month (April to October inclusive) is undertaken in appropriate weather conditions for bats. At least one of the surveys should comprise a dusk and pre-dawn survey (or dusk to dawn) within one 24-hour period.

Static bat detector surveys should also be undertaken during the same time periods as The Bat Activity Surveys. The static detectors would be put out for five consecutive nights per month at three different locations per transect. This will collect data to determine the activity of bats using the site. The results of these surveys would inform any mitigation required.

Two trees, T1 and T11 were found to have potential to support roosting bats due to large holes that provide access to the tree cavities. As such, if the trees are to be removed to facilitate development, a Potential Roost Feature (PRF) Inspection Survey should be completed between December and February (inclusive) to determine if bats are using the tree to hibernate. This involves searching the PRF from ground level using an endoscope or tree-climbing to access the PRF, where possible, to assess their suitability to support roosting bats in more detail and to search for bat evidence. The aim of the survey is to reclassify the PRF, determine the presence/absence of bats at the time of survey, and assess the need for further mitigation.

All surveys are to follow guidance set out in Collins (2016) and undertaken by suitably qualified ecologists.



5.2. WINTERING BIRD SURVEY

Wintering Bird Surveys will be required on site to determine if the proposed development will have a 'likely significant effect' on the qualifying features of the SPA and Ramsar designations at Martin Mere. As Martin Mere SPA, Ramsar and SSSI supports important numbers of wintering birds it is possible that some species may use the site to forage or breed.

The Wintering Bird Surveys are to follow the standard Common Bird Census (CBC) methodology set out by Gilbert et al. (1998) and Bibby (2000). One survey a month between October and February should be undertaken by a competent bird surveyor to determine if wintering birds are using the site.

5.3. TABLE OF FURTHER SURVEYS

Please refer to Table 5.1 for a summary of further surveys required to inform a planning application.

TABLE 5.1 FURTHER SURVEYS RECOMMENDED

SURVEY TYPE	TIMESCALES
NOCTURNAL BAT SURVEYS	<p>One Nocturnal Bat Survey on B1 between May and August (inclusive).</p> <p>Two Nocturnal Bat Surveys on If T3, T5, T7, T10 or T13 between May and September (inclusive), with at least one survey conducted between May and August if any of the trees are to be removed.</p> <p>Three Nocturnal Bat Surveys on T1 and T11 between May and August (inclusive), with at least one survey conducted between May and August if either tree is to be removed.</p>
BAT ACTIVITY SURVEYS	One visit per month, April – October (inclusive), if large linear features are to be removed.
PRF INSPECTION SURVEY	One visit between December – February (inclusive), if T1 or T11 are to be removed.
WINTERING BIRD SURVEYS	One visit per month between October – February (inclusive).



6. BIODIVERSITY NET GAIN

The scheme should strive to achieve biodiversity net gain, as per “Biodiversity Net Gain; Good Practice Principles for Development” CIEEM, CIRIA, IEMA (2016). Full details of this and a calculation of net gain could be completed after detailed landscape plans have been prepared. An ecologist should be consulted during the design stage. The following habitat measures will increase the on-site biodiversity:

- ✿ Retaining the treelines, hedgerow, scattered trees and dense scrub.
- ✿ Native Hedgerow Planting.
- ✿ Native Scrub Planting.
- ✿ Wildlife Ponds.
- ✿ Broadleaved Trees.
- ✿ Wildflower Meadows.

Habitat measures should be provided within areas of open space or designated wildlife zones. A 30-year management plan should be produced to ensure biodiversity is secured on-site.



7. REFERENCES

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END OF REPORT



APPENDIX I

PHASE 1 HABITAT PLAN



Key:

- Site boundary
- Hedgerow
- Treelines
- Running water
- Himalayan balsam
- Dense scrub
- Improved grassland
- Tall ruderal
- Scattered trees
- × Trees with Low bat roosting potential
- × Trees with Moderate bat roosting potential
- × Trees with High bat roosting potential

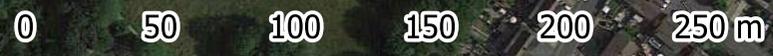
Notes

Issue: 1	Revision: 1	Date: 10/10/2022	Drawn: RK	Authorised: LT
Client: PWA Planning		Job No. 80-817		Date: 10/10/2022
		Drawing No. 80-817-001		Scale: 1:4700 @ A4
Job title: New Street, Mawdesley			Drawing title: Phase 1 Habitat Plan	



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**APPENDIX II
TREELINE AND HEDGEROW
DESCRIPTIONS**

REF.	DESCRIPTION	PHOTOGRAPH
TL1	<p>TL1 formed the western boundary of the site and had a dense scrub understory. Species present include hazel (<i>Corylus avellana</i>), blackthorn (<i>Prunus spinosa</i>), field maple (<i>Acer campestre</i>), pedunculate oak (<i>Quercus robur</i>), dog rose, common nettle, sycamore, scots pine (<i>Pinus sylvestris</i>), common hogweed (<i>Heracleum sphondylium</i>), bilberry (<i>Vaccinium myrtillus</i>) and Himalayan balsam.</p>	
TL2	<p>TL2 separated Field 1 (F1) and Field 2 (F2) and had a tall ruderal understory, which comprised predominantly Himalayan balsam and rosebay willowherb (<i>Chamaenerion angustifolium</i>). Other species present included pedunculate oak, alder (<i>Alnus glutinosa</i>), hawthorn, sycamore, bramble, common hogweed, broadleaved dock and elder (<i>Sambucus nigra</i>).</p>	
TL3	<p>TL3 formed the northern boundary of F1 and had a dense scrub understory. Species present include sycamore, alder, hawthorn, broadleaved dock, bramble, common nettle, Himalayan balsam and pedunculate oak.</p>	



<p>TL4</p>	<p>TL4 was located along the southern boundary, bordering Mawdesley Tennis Club. Species present include willow species (<i>Salix sp.</i>), field maple, beech, bramble, dog rose, greater willow herb (<i>Epilobium hirsutum</i>), cherry (<i>Prunus sp.</i>), broadleaved dock, cherry laurel (<i>Prunus laurocerasus</i>), whitebeam (<i>Sorbus sp.</i>) and firethorn species (<i>Pyracanthus sp.</i>).</p>	
<p>TL5</p>	<p>TL5 separated F2 and Field 3 (F3) and had a dense scrub understory. Species present include sycamore, field maple, dog rose, bramble, hawthorn, Himalayan balsam, bittersweet (<i>Solanum dulcamara</i>) and pedunculate oak.</p>	
<p>TL6</p>	<p>TL6 formed the northern boundary of F2 and had a dense scrub understory. Species present include beech, bramble, sycamore, hawthorn, crack willow and pedunculate oak.</p>	<p>No image.</p>
<p>TL7</p>	<p>TL7 formed the northern boundary of F3 and had a dense scrub understory. Species present include hazel, pedunculate oak, bramble, hawthorn, common hogweed, broadleaved dock, Himalayan balsam, rose spirea (<i>Spiraea douglasii var. douglasii</i>), alder, common nettle, knapweed (<i>Centaurea nigra</i>), crack willow (<i>Salix euxina</i>), horse chestnut (<i>Aesculus hippocastanum</i>), pendulous sedge (<i>Carex pendula</i>) and soft rush (<i>Juncus effusus</i>).</p>	



<p>H1</p>	<p>H1 was present along the southern boundary bordering a residential property. Species present include bramble, hawthorn, St John's wort species (<i>Hypericum sp.</i>) and common nettle. H1 was approximately 20 m in length and 1.5 m wide</p>	 A photograph showing a dense thicket of green vegetation, including brambles and hawthorn, along a residential boundary. The foreground is dominated by tall, green grasses. The sky is blue with a few white clouds.
<p>H2</p>	<p>H2 was present along the southern boundary bordering a residential property. Species present include hawthorn, bramble, common nettle, common hogweed, rose spirea and snowberry (<i>Symphoricarpos albus</i>). H2 was approximately 15 m in length and 1.5 m wide.</p>	 A photograph showing a dense thicket of green vegetation, including hawthorn, bramble, and common hogweed, along a residential boundary. The foreground is dominated by tall, green grasses. The sky is blue with a few white clouds.



**APPENDIX III
TREE AND BUILDING
DESCRIPTION**

REF.	BUILDING DESCRIPTION	PHOTOGRAPH
B1	<p>B1 was a horse shelter constructed of wood with a corrugated roof. The roof was reinforced internally with chipboard, subsequently forming gaps between the roof and chipboard which crevice dwelling bat species may use on an occasional basis.</p> <p>The shelter was open on one side, therefore the internal was exposed to the elements and would not support hibernating bats.</p> <p>B1 was assessed as having Low bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T1	<p>T1 was an alder approximately 20 m tall.</p> <p>The trunk had a large hole on its southern aspect that bats may potentially use to access the trunk to roost on a regular basis.</p> <p>Bat species, such as noctule, may move deeper into the trunk cavity to hibernate.</p> <p>T1 was assessed as having High bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T2	<p>T2 was a pedunculate oak tree approximately 20 m tall.</p> <p>A branch was cracked approximately 5 m from ground level, creating a roost feature that crevice dwelling species may use to roost on an occasional basis.</p> <p>T2 was assessed as having Low bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T3	<p>T3 was a pedunculate oak approximately 20 m tall.</p> <p>Branches were cracked in two places which caused bark to be lifted, creating gaps that opportunistic crevice dwelling bat species may use to roost on an occasional basis.</p> <p>The tree also had a knot hole in on branch, creating an access point for bats to enter the trunk which bats may use to roost on a more regular basis.</p> <p>T3 was assessed as having Moderate bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T4	<p>T4 was a pedunculate oak approximately 20 m tall.</p> <p>The tree had lifted bark along one of its branches approximately 5 m from ground level, creating a gap that crevice dwelling bat species may use to roost on an occasional basis.</p> <p>T4 was assessed as having Low bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T5	<p>T5 was a pedunculate oak approximately 20 m tall.</p> <p>The trunk had a split creating a crevice that opportunistic bat species may use to roost on an occasional basis.</p> <p>A rot hole was also present that was orientated to the ground, therefore it is unlikely rainwater can fill the hole. Bats may use this hole to access the trunk for roosting.</p> <p>T5 was assessed as having Moderate bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
		 The 'PHOTOGRAPH' column contains two vertically stacked photographs of a tree trunk. The top photograph shows a close-up of the tree's bark, with a red rectangular box highlighting a specific section. The bottom photograph shows a wider view of the tree trunk and its branches, with another red rectangular box highlighting a different section of the trunk.



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T6	<p>T6 was a pedunculate oak approximately 15 m tall.</p> <p>The trunk had a crack creating a roost feature that crevice dwelling species may use to roost on an occasional basis. However, bats may be deterred from roosting in this feature as it was positioned approximately 1 m from ground level.</p> <p>T6 was assessed as having Low bat roosting potential.</p>	



T7

T7 was a pedunculate oak approximately 20 m tall.

T7 had a woodpecker hole and lifted bark which crevice dwelling bat species may use to roost on an occasional basis.

A large wound was present on the eastern aspect which may provide access to the trunk and support roosting bats on a regular basis.

T7 was assessed as having **Moderate** bat roosting potential.



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
		 <p>The 'PHOTOGRAPH' column contains two images of tree trunks. The top image shows a tree trunk with a red box highlighting a section of the bark that is peeling and damaged. The bottom image shows a more complex tree trunk structure with two red boxes highlighting areas of bark damage and decay.</p>



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T8	<p>T8 was a pedunculate oak approximately 20 m tall.</p> <p>The tree had lifted bark in multiple places and a woodpecker hole, creating crevices for opportunistic bat species to use to roost on an occasional basis.</p> <p>T8 was assessed as having Low bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
		

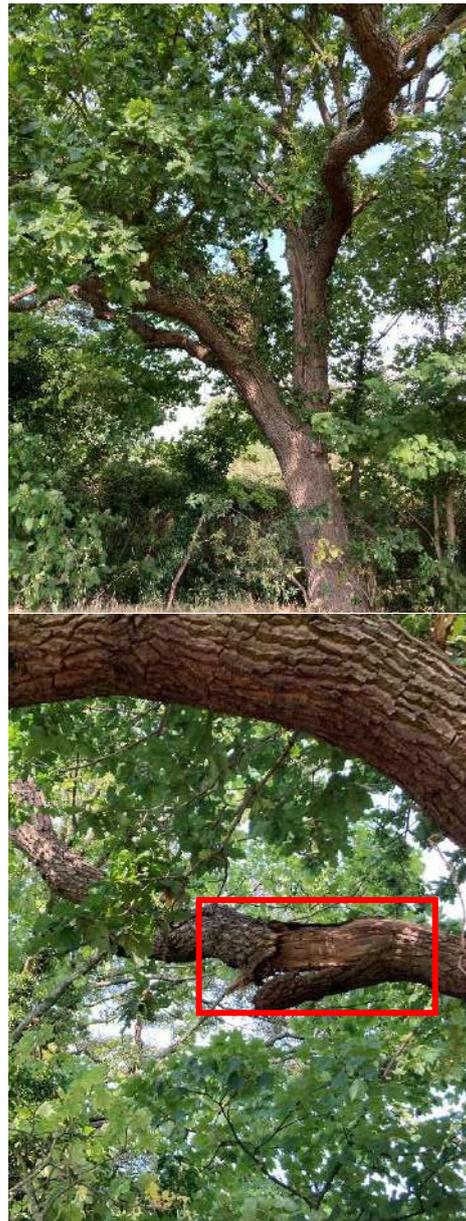


T9

T9 was a sessile oak approximately 20 m tall.

Bark was lifted along one of the branches and a split was present on the trunk. These features create gaps which crevice dwelling bat species may use to roost on an occasional basis.

T9 was assessed as having **Low** bat roosting potential.



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
		 A photograph of a tree trunk, likely a large, mature tree. The bark is thick and textured. A red rectangular box highlights a vertical section of the trunk, showing a lighter, possibly damaged or hollowed-out area. The background shows green foliage and a clear sky.



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T10	<p>T10 was an alder approximately 20 m tall.</p> <p>The tree had a woodpecker hole and a rot hole present on one of its branches. These features may provide access to the tree cavity, which bats may use to roost on a regular basis.</p> <p>T10 was assessed as having Moderate bat roosting potential.</p>	



REF.	BUILDING DESCRIPTION	PHOTOGRAPH
T11	<p>T11 was a pedunculate oak approximately 20 m tall.</p> <p>A branch appeared to have fallen from the trunk, creating a crevice that opportunistic bats may use to roost on an occasional basis.</p> <p>The tree appeared to have been struck by lightning, creating a hollow inside and a large hole on its eastern aspect. Bat species, such as noctule, may use this feature to move deeper into the trunk cavity to hibernate.</p> <p>T11 was assessed as having High bat roosting potential.</p>	 <p>The photograph section contains two images of a tree trunk. The top image shows a vertical view of the trunk with a dark, hollowed-out section highlighted by a red rectangular box. The bottom image shows a close-up of a hole in the trunk, also highlighted by a red rectangular box. The tree has a thick, textured bark and green foliage in the background.</p>



T12

T12 was a pedunculate oak approximately 20 m tall.

Bark was lifted where a dead branch joined the trunk, creating a crevice that opportunistic bat species may utilise on an occasional basis.

T12 was assessed as having **Low** bat roosting potential.



T13

T13 was a pedunculate oak approximately 20 m tall.

A rot hole was present on one of the branches and a hole was present where a branch had fallen from the tree. Bats may utilise these features for roosting on a regular basis.

T13 was assessed as having **Moderate** bat roosting potential.





Transport Note

Potential Residential Development in Mawdesley

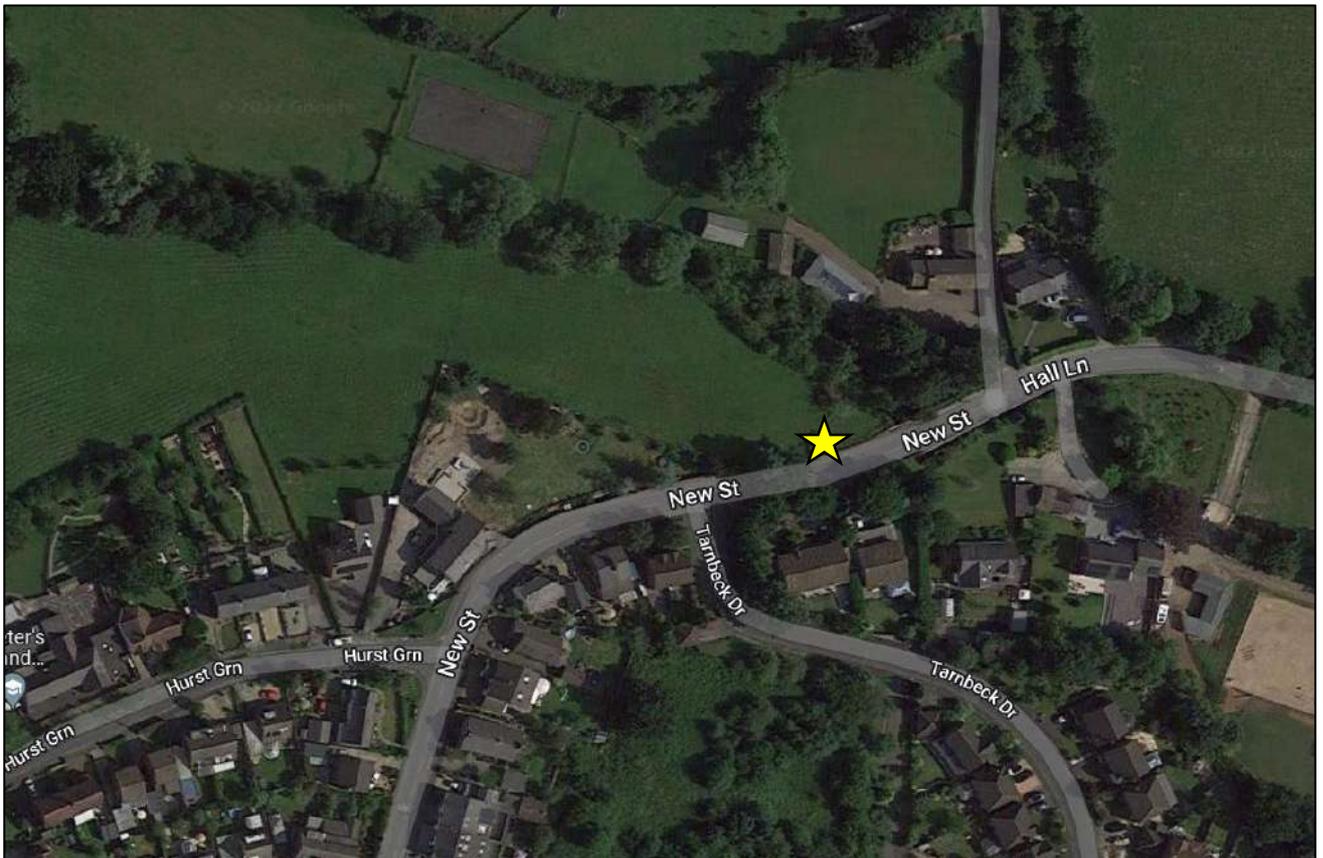
VN222387 Land off New Street, Mawdesley - Initial Site Access Commentary_01

Introduction

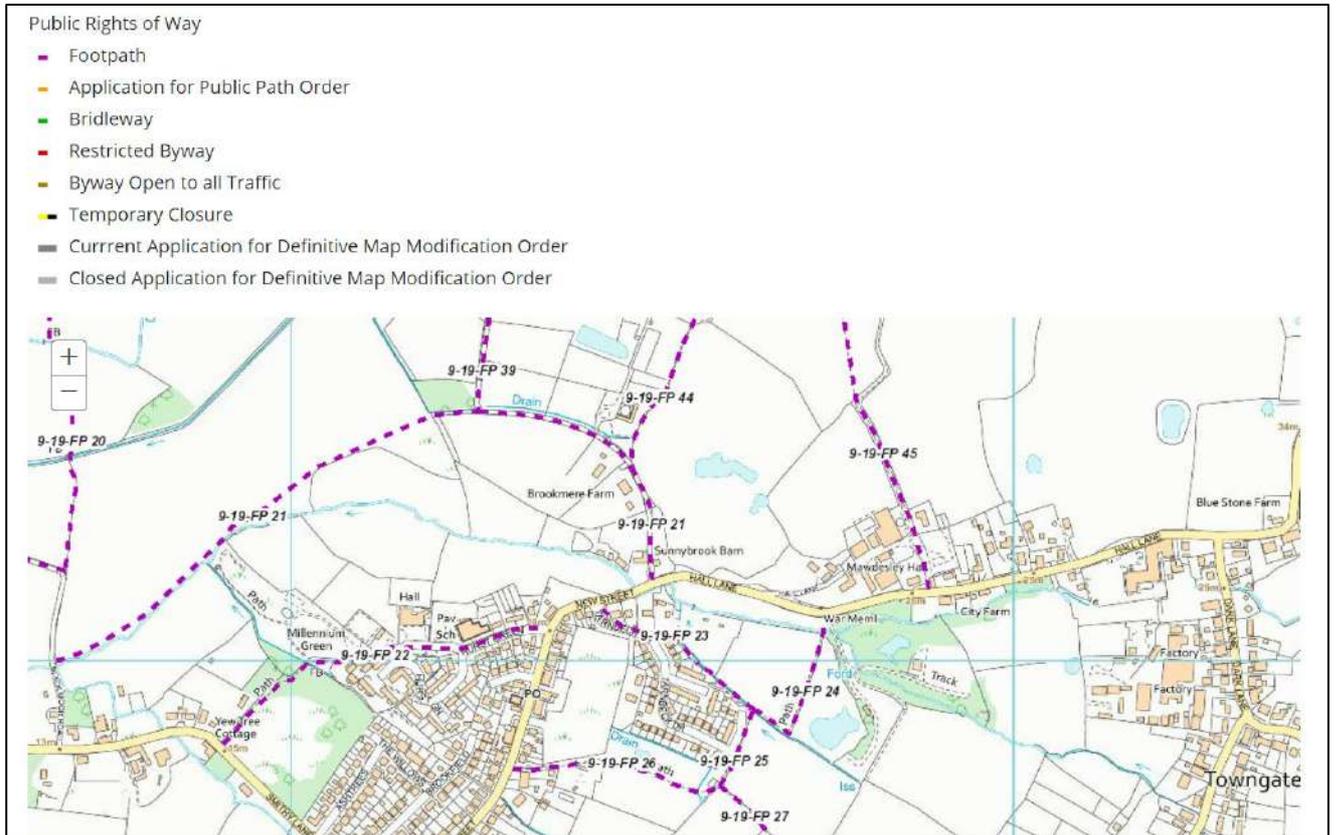
1. Vectos has been appointed to provide initial commentary regarding a potential residential development on land off New Street in Mawdesley.
2. This note provides an initial commentary on the local highway network, road safety records, accessibility and site access options to inform a Vision Document prepared by PWA Planning.

Local Highway Network

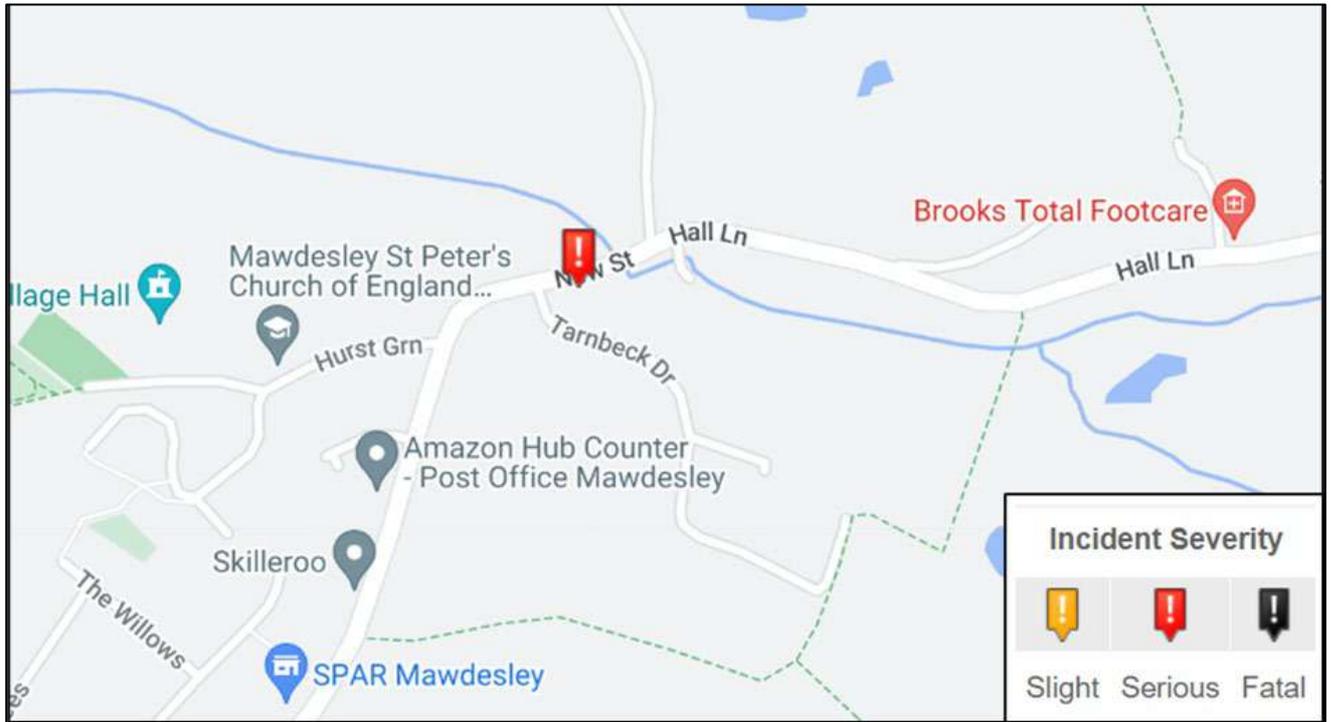
3. New Street forms the main route through Mawdesley and is subject to a 20mph speed limit in the vicinity of the site.
4. In the vicinity of the site access, there are footways on either side of New Street and street lighting provided at regular intervals
5. The site benefits from an existing access on New Street as shown in the image below:



6. To the west of New Street, Hurst Green provides access to a small area of residential dwellings and community facilities, including a school and Mawdesley Village Hall.
7. The image below has been sourced from LCC and shows the Public Rights of Way (PRoW) in the vicinity of the site:



8. There are no PRoW through the site itself, however the private road which provides access to Mawdesley Village Hall is shown as a footpath on the PRoW map above.
9. The Crashmap database has been interrogated for the most recently available 5-year period (2017-2021) for the area in the vicinity of the proposed vehicular access point from New Street
10. The image below shows the recorded accidents in this area:



11. It can be seen that there has been one serious accident in the vicinity of the site, and no slight or fatal accidents. There are no known safety issues with the highway network as this review has shown that there is an accident rate of one every 5 years.

Site Accessibility

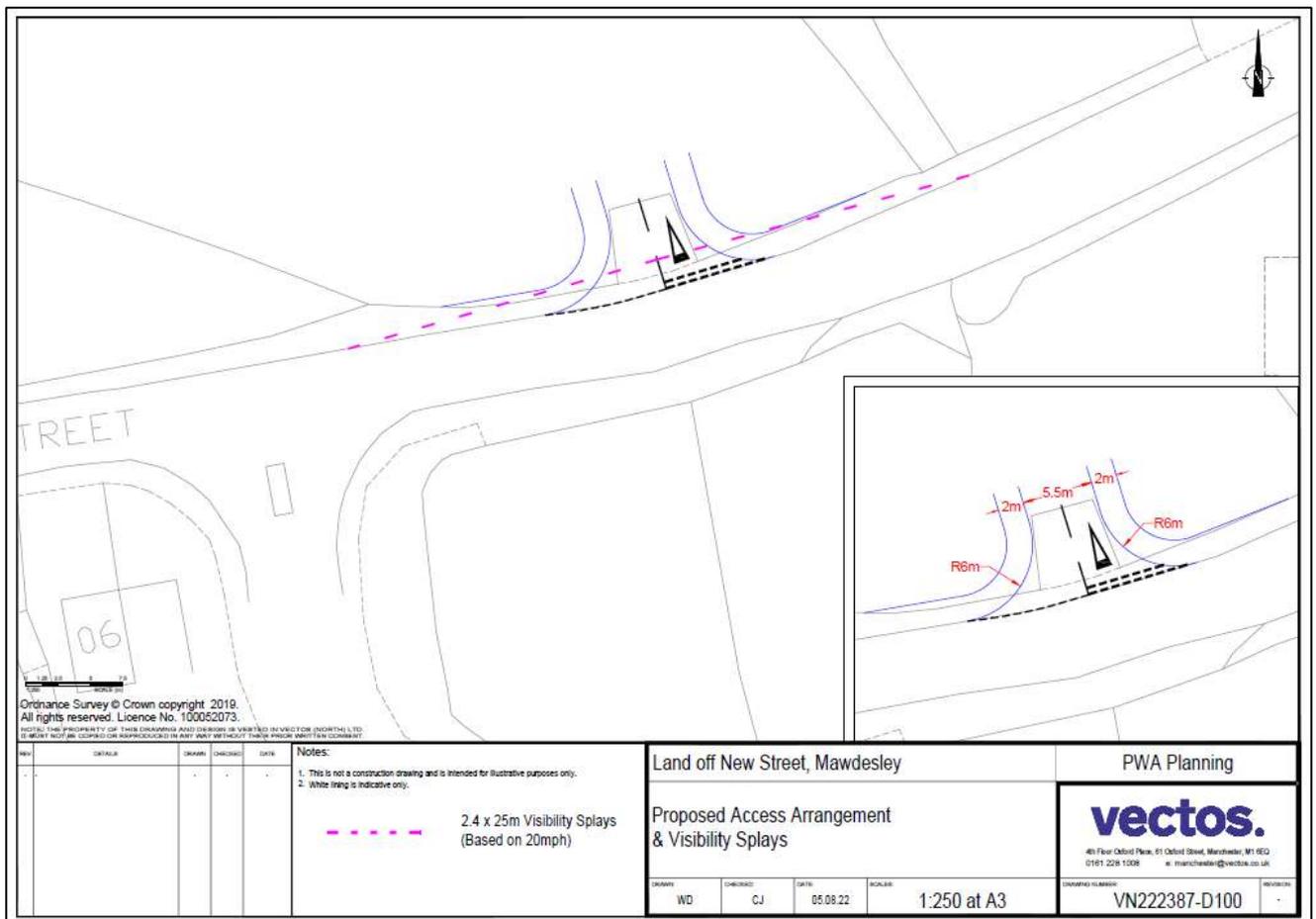
12. There are a number of local amenities in Mawdesley, which are located within reasonable walking distance of the proposed vehicular access point:
 - Mawdesley Post Office – 230m to the south;
 - The Red Lion (Public House) – 230m to the south;
 - Mawdesley St Peter’s C of E Primary School – 240m to the west;
 - Little Acorns Pre School – 250m to the west;
 - Mawdesley Village Hall – 300m to the west; and
 - Spar (Convenience Store) – 400m to the south.

13. The nearest bus stops are located on New Street to the immediate south of Sycamore Close. These bus stops are served by the following bus services:
 - 337 – Chorley to Ormskirk, which operates 5 times a day on Monday-Friday and 6 times a day on Saturday approximately every 2 hours; and
 - 347 – Chorley to Southport, which operates 8 times a day Monday-Friday and 6 times a day on Saturday approximately every 2 hours.

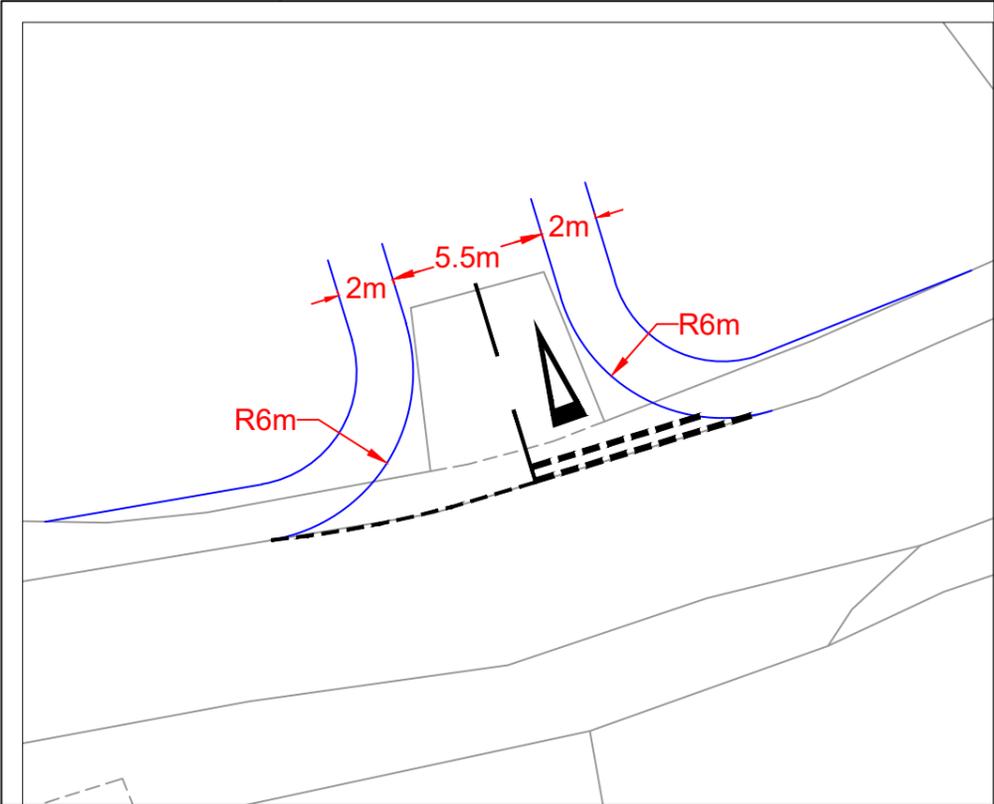
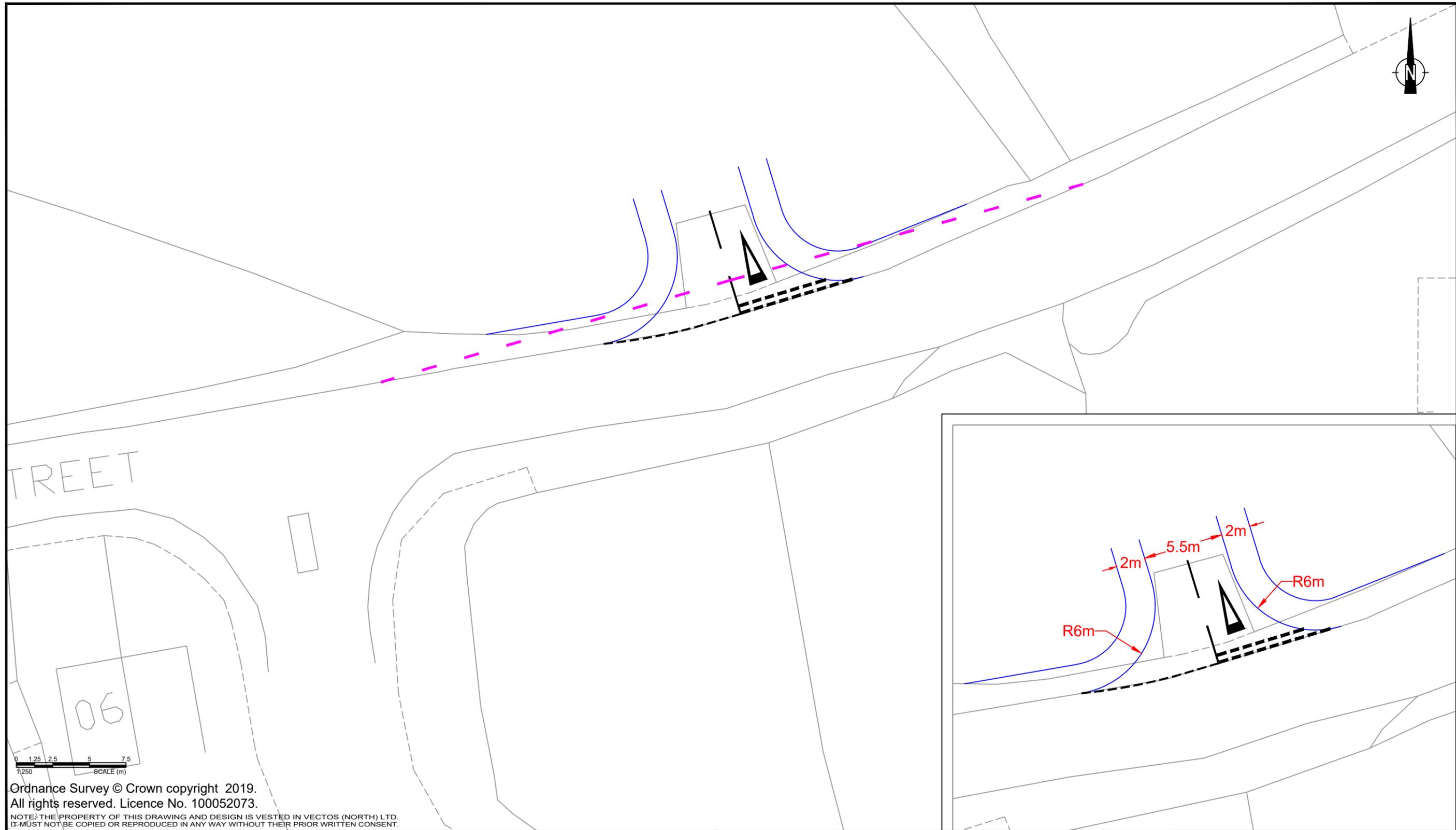
- 14. On average, there is one bus service every hour in each direction from the bus stops of New Street
- 15. There is no railway station in Mawdesley. The nearest railway station to the site is Rufford which is located approximately 3km to the north-west

Potential Access Arrangement

- 16. Access could be provided to the site via the formalisation of the existing access on New Street.
- 17. Dwg VN222387-D100 shows that the existing access point could be modified to be 5.5m wide, with 6m radii and 2m footways either side
- 18. Visibility splays of 2.4 x 25m can be achieved from this point, which are necessary for roads which have a speed limit of 20mph
- 19. A snapshot of Dwg VN222387-D100 is shown below:



- 20. In addition to the main vehicular access on New Street, there is the potential for a further active travel access to the west, providing links to the PRow network and local community facilities.



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REV.	DETAILS	DRAWN	CHECKED	DATE

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.


 2.4 x 25m Visibility Splays
 (Based on 20mph)

Land off New Street, Mawdesley

Proposed Access Arrangement
& Visibility Splays

DRAWN: WD	CHECKED: CJ	DATE: 05.08.22	SCALES: 1:250 at A3
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PWA Planning

vectos.

4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWING NUMBER: VN222387-D100	REVISION: .
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Heritage Note

Heritage Section
in connection with
Proposed development at
New Street Mawdesley

Prepared by
Ian Rowan MSc PGDip

November 2022

1	Introduction.....	3
2	Site Description & Brief History.....	4
3	Heritage Values	6
4	Conclusions.....	9

INTRODUCTION

Purpose and Format

- 1.1 This statement has been prepared to assess proposals to develop land to the north of Mawdesley village centre for residential purposes. The statement has been produced to determine if there is any impact upon any nearby heritage assets. The Grade I Listed Mawdelsey Hall, and associated outbuildings are located approximately $\frac{1}{3}$ mile to the east of the proposed site entrance, whilst the Grade II Listed Black Bull Hotel is located another 100 yards to the east of this. There are unlisted buildings within the village centre that may add to the setting of the centre, and these will be assessed through this report in terms of their collective contribution.
- 1.2 The following has been prepared in accordance with the general guidelines set out in the Historic England publications 'Informed Conservation'ⁱ and 'Conservation Principles, Policies and Guidance'ⁱⁱ and in particular responds to heritage policies outlined in Chapter 16 of the National Planning Policy Framework (MCHLG, 2021).

Methods of Research and Investigation

- 1.3 Inspections of the site and background research has also been conducted to ascertain all relevant contextual matters appertaining to the proposals. The scope of this research has, in accordance with the NPPF, been proportionate to the nature of the proposed works, with particular emphasis placed upon identifying and conserving heritage significance.

The Author

- 1.4 Ian Rowan, the author is a qualified Planning & Conservation Officer. With a background of over 30 years in Planning, Regeneration & Conservation, Ian holds a Masters Degree in Environmental Planning and a Post Graduate Diploma in Conservation & Regeneration, and has specialised in Conservation Planning since 2004.

2 Site Description & Brief History

- 2.1 The site has been relatively undeveloped land since the 1900s, some infill being constructed along Hurst Green in the 20th Century.

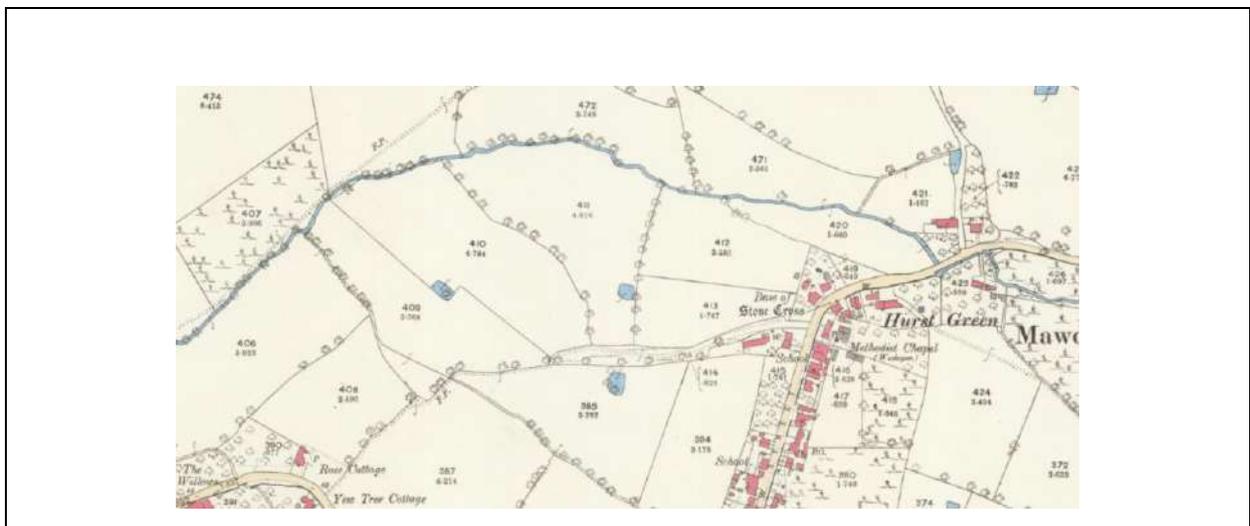


Figure 1 – 1894 OS Map

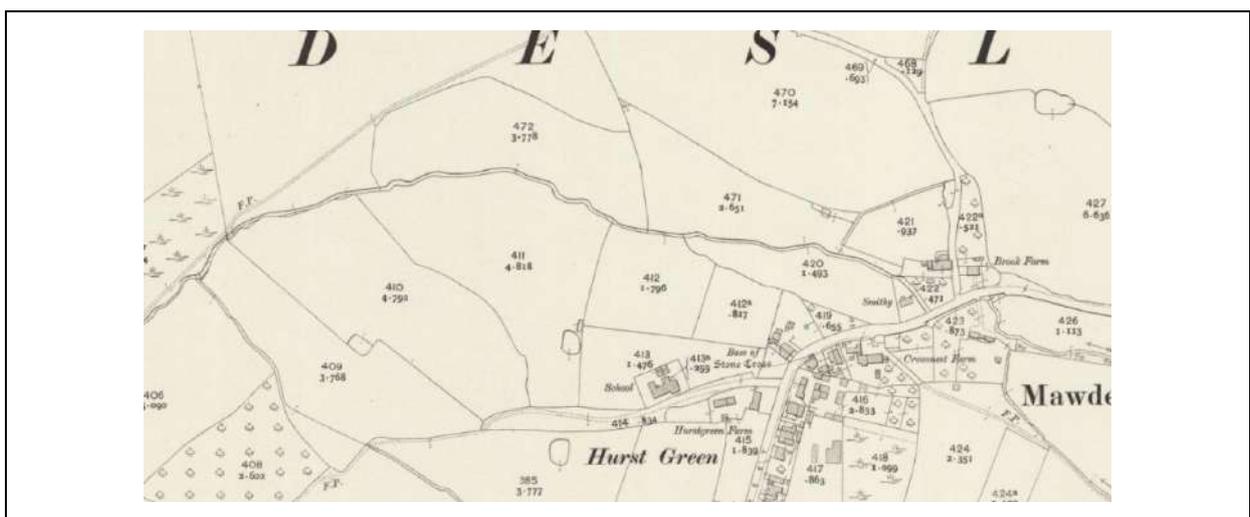


Figure 2 – 1910 Ordnance Survey Map

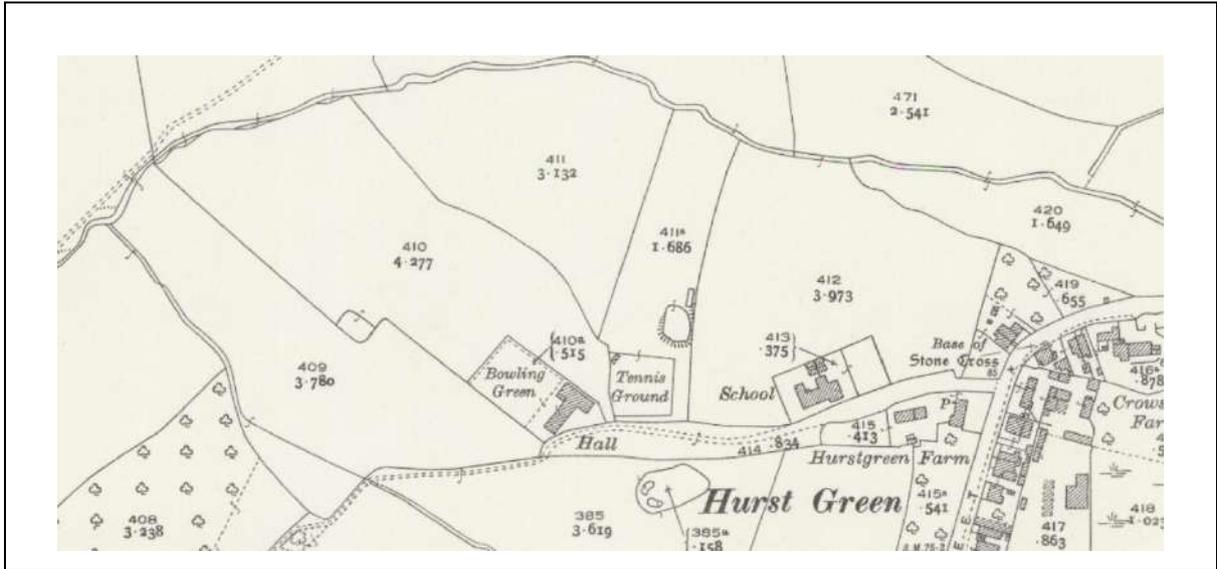


Figure 3 – 1928 Ordnance Survey Map

3 Appraisal of Heritage Values of the Setting

Evidential Interest

Historic England (2008) suggests that "Evidential value derives from the potential of a place to yield evidence about past human activity."

Mawdesley Hall

- 3.1 The hall and its estate offers reasonably authentic evidence of a Tudor manor house with associated estate, and there is potential within the estate to yield evidential evidence of previous past activity. The buildings themselves possess evidential value in terms of past human activity as it relates to the historic use as a gentry house and farmhouse. The presence of earlier buildings on site suggests an earlier agricultural use.

Village and surroundings

- 3.2 The settlement around the proposal site has the potential to yield Evidential value. The former base of a stone cross is identified on New Street, which has no designated heritage status but offers the potential for evidential value of the settlement. An altered early 20th Century School is located to the immediate south of the proposals site, whilst the buildings through the spine of the settlement are mainly 19th and 20th Century buildings, many of which are much altered, offering little in the way of evidential value, save to demonstrate the growth of the settlement.

Proposals Site

- 3.3 The proposals site offers little in the way of evidential value. There has been little in the way of development on the site and has likely been used mainly for agricultural use in the past. As such it contributes little to the evidential value of the setting of the settlement and the listed Mawdesley Hall complex.

Historic Value

Mawdesley Hall

- 3.4 Mawdesley Hall and its estate presents a varied historical interest, partly through association with previous owners and its obvious stature as the home of someone of particular social standing, but also as a complex, the intact nature of the buildings provide some notable historic value. The complex is contained within its own grounds, set at a higher level than the road, and there is a clear link between the curtilage land and the buildings.

Village and surroundings

- 3.5 The surrounding buildings provide some small – scale element of illustrative historic value. The setting of the village as a relatively rural settlement is clear, and this is punctuated by occasional rural buildings to the east of the proposals site. Many of the buildings within the area date from the 20th Century and provide little in the way of historic value, and many of those earlier buildings have been altered so as to not be interpreted as buildings from the settlements past, and as such historic value is relatively low.

Proposals Site

- 3.6 The proposals site provides little in the way of historical value, as an open space to the north of the settlement there is nothing in the way of historic attachment to the settlement, save for its contribution to agriculture.

Communal Value

Mawdesley Hall

- 3.7 The building is a Grade I Listed Building with associated Grade II Buildings and structures and will possess an element of communal value as a

nationally recognised complex. Its private secluded elevated nature will impact upon communal value, as this will be contained within the estate.

Village & Surroundings

- 3.8 The village setting will yield some local communal value. As a sporadic collection of buildings along the main street, the contribution made to village life is acknowledged at the local level. Much of this will be tempered in terms of heritage by alteration and modern buildings.

Proposals Site

- 3.9 As an area of open space that has no historic connections to anything of particular heritage value, the communal value of the proposals site will be very low.

Aesthetic Value

Mawdesley Hall

- 3.10 The Hall has a high aesthetic value in terms of the building and its setting. The variety of materials used in timber, stone and brick add a level of architectural and aesthetic detailing. Set within its own historic boundary, with Grade II Listed steps, the aesthetic setting is extremely high. The immediate setting has been retained to some extent, and as a gentrified house its setting within its own curtilage is to be acknowledged.

Village & Surroundings

- 3.11 The village has an element of aesthetic value to it in terms of the contribution made by various buildings. The Red Lion, 62 – 64, 76, and 51 – 53 New Street offer some higher level of aesthetic value, whilst much of the remaining building stock is relatively run of the mill late 19th Century examples and are relatively plain and unassuming, being of neither rare or exceptional architectural value.

Proposals Site

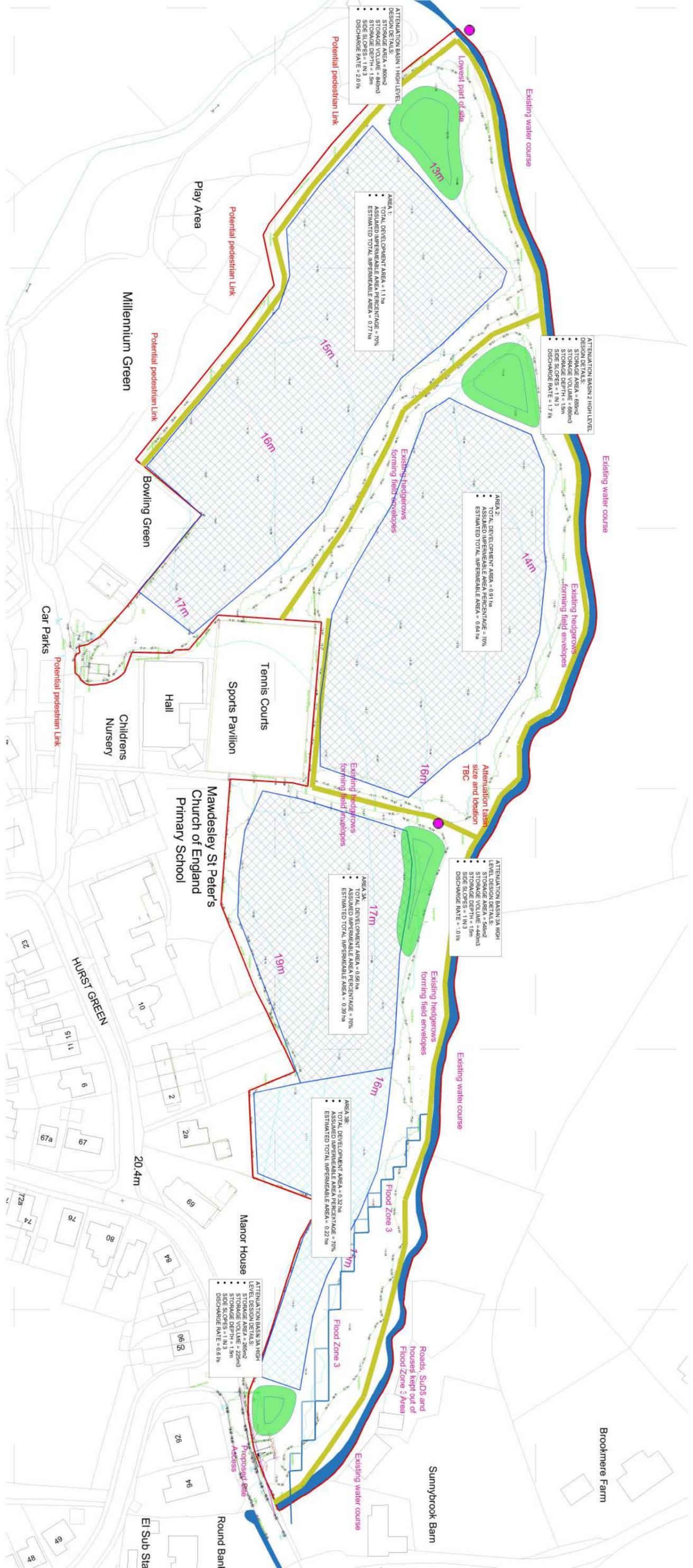
- 3.12 The proposals site is undeveloped and as such, may contribute to setting of the village in terms of landscape value, however, contributes nothing in terms of aesthetic heritage value.

Conclusions

- 3.13 The closest designated heritage assets to the site are the Grade I Listed Mawdesley Hall, with Grade II Listed steps and Cattle House, located $\frac{1}{3}$ mile to the east of the entrance to the proposal site. There is no viewing of the heritage asset from the proposed site, and whilst there is relatively high significance attached to the hall and its setting, this will not be affected by the proposals, the setting of the hall being relatively confined to within its curtilage.
- 3.14 The village to the south contains a collection of mainly 19th and 20th Century buildings, or relatively common occurrence. There is a clear distinction that a village is being passed through, but in terms of heritage value there is very little significance attached to the village, any value being of low, local significance.

¹ Clarke, K, *Informed Conservation*, Historic England 2003

SuDS Plan



ATTENUATION BASIN 1 HIGH LEVEL
 DESIGN DETAILS:
 STORAGE AREA = 80m²
 STORAGE VOLUME = 88m³
 STORAGE DEPTH = 1.1m
 SIDE SLOPES = 1:1.3
 DISCHARGE RATE = 2.0 l/s

AREA 1:
 TOTAL DEVELOPMENT AREA = 1.1 ha
 ASSUMED IMPERMEABLE AREA PERCENTAGE = 70%
 ESTIMATED TOTAL IMPERMEABLE AREA = 0.77 ha

ATTENUATION BASIN 2 HIGH LEVEL
 DESIGN DETAILS:
 STORAGE AREA = 65m²
 STORAGE VOLUME = 69m³
 STORAGE DEPTH = 1.5m
 SIDE SLOPES = 1:1.3
 DISCHARGE RATE = 1.7 l/s

AREA 2:
 TOTAL DEVELOPMENT AREA = 0.91 ha
 ASSUMED IMPERMEABLE AREA PERCENTAGE = 70%
 ESTIMATED TOTAL IMPERMEABLE AREA = 0.64 ha

ATTENUATION BASIN 3A HIGH LEVEL
 DESIGN DETAILS:
 STORAGE AREA = 56m²
 STORAGE VOLUME = 44m³
 STORAGE DEPTH = 1.5m
 SIDE SLOPES = 1:1.3
 DISCHARGE RATE = 0.1 l/s

AREA 3A:
 TOTAL DEVELOPMENT AREA = 0.56 ha
 ASSUMED IMPERMEABLE AREA PERCENTAGE = 70%
 ESTIMATED TOTAL IMPERMEABLE AREA = 0.39 ha

AREA 3B:
 TOTAL DEVELOPMENT AREA = 0.32 ha
 ASSUMED IMPERMEABLE AREA PERCENTAGE = 70%
 ESTIMATED TOTAL IMPERMEABLE AREA = 0.22 ha

ATTENUATION BASIN 3A HIGH LEVEL
 DESIGN DETAILS:
 STORAGE AREA = 29m²
 STORAGE VOLUME = 29m³
 STORAGE DEPTH = 1.5m
 SIDE SLOPES = 1:1.3
 DISCHARGE RATE = 0.6 l/s

Existing water course

Potential pedestrian Link

Attenuation basin size and location TBC

Flood Zone 3

Flood Zone 3

Flood Zone 3

Flood Zone 3

Roads, SUDS and houses kept out of Flood Zone 3 Area

Proposed Site

El Sub Sta

Round Barn

Sunnybrook Barn

Brookmere Farm

Tennis Courts

Sports Pavilion

Hall

Childrens Nursery

Mawdesley St Peter's Church of England Primary School

Manor House

20.4m

HURST GREEN

Play Area

Millennium Green

Bowling Green

Car Parks

Existing hedgerows forming field envelopes

Phase 1 Land Contamination Report



Phase I Geoenvironmental Site Assessment
New Street, Mawdesley

Reference:15-952-R1-1
Date: August 2022



PHASE I GEOENVIRONMENTAL SITE ASSESSMENT

New Street
Mawdesley
Ormskirk
L40 2QW

Prepared for:

PWA Planning



Report Ref: 15-952-r1

Date Issued: August 2022

E3P

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Registered in England
 CRN: 08725262

QUALITY ASSURANCE

PROJECT NUMBER	15-952		
VERSION	Version 1		
REMARKS	Final		
DATE	16 th August 2022		
PREPARED BY	H Mason		
QUALIFICATIONS	BSc (Hons), FGS		
CHECKED BY	M Dee		
QUALIFICATIONS	MESci (Hons), FGS		
AUTHORISED BY	A Smith		
QUALIFICATIONS	BSc (Hons), FGS, MIEnvSc, CEnv		



Cert No 18890

EXECUTIVE SUMMARY

Site Address	Land off New Street, Mawdesley, Ormskirk, L40 2QW	
Grid Reference	E 349140, N 415163	
Site Area	4.83 Ha.	
Proposed Development	<p>E3P understand that PWA are assisting their client in the proposed acquisition and redevelopment of the site for low rise residential housing.</p> <p>At the time of writing no proposed development plans have been made available to E3P.</p>	
Current Site Use	<p>The subject site is an irregular-shaped parcel of land located to the north of New Street, Mawdesley and is currently used as agricultural land.</p> <p>The site is split into three fields which are bound by semi-mature and mature trees with scrubby vegetation and hedgerows. A small stream is present on the northern boundary of the site.</p> <p>In the south west of the site, a small stable is present with other agricultural items being stored in this area such as tractors and tyres.</p>	
Site History	<p>A review of the pertinent Ordnance Survey mapping suggests that the site comprised agricultural land split into five fields. A pond is marked in the centre of the site. Circa 1893 the field boundaries have changed and the pond is no longer marked. Circa 1907 a smithy is marked in the east of the site and second pond is marked at the centre of the site. Circa 1926 the smithy is no longer marked with the pond infilled circa 1976. No other significant changes then occur.</p> <p>Recent aerial imagery shows the site to be split into three fields. These are bound by a series of semi-mature and mature trees. The fields comprise short managed grassland. A small stream is present on the northern boundary. Access to the site can be gained from east of the site of New Street.</p>	
Environmental Setting	Drift Geology	Alluvium (east) Devensian Till (majority of site)
	Bedrock Geology	Sherwood Sandstone Formation - SANDSTONE
	Faults	The nearest geological fault is located circa 155 m south west of the site.
	Hydrogeology	<p>A Principal bedrock aquifer underlying a secondary undifferentiated superficial aquifer is recorded.</p> <p>No groundwater abstraction licence is recorded within 1 km of the site.</p>
	Hydrology	A stream is present on the northern boundary of the site as well as another stream present 38 m south west.
	Flood Risk	The site is predominantly located within Flood Risk Zone 1, however the north east of the site is located within Flood Risk Zone 3.



Utility Locations	A formal drainage survey has not been completed. Floodlights are present on the southern boundary of the site where the tennis courts and school are located. Street lighting is present on the eastern boundary next to the site entrance. An electricity pole was noted in the south east corner of the site.
Landfill Sites and Ground Gases	No landfill sites (current or historic) are located within 250 m of the site. The site has undergone some historic development, the Made Ground associated with the historic development may produce hazardous ground gases such as methane and carbon dioxide.
Radon	Less than 1% of houses above the 'Action Level' – no special precautions required.
Coal Mining/Land Stability	The site is not located in a coal mining reporting area.
Hazardous Installations	No hazardous installations that could potentially prejudice the proposed construction of highly sensitive residential dwellings have been identified within influencing distance of the subject site.
Initial Conceptual Site Model	<p>Contaminant Sources</p> <ul style="list-style-type: none"> ☛ Made Ground (historical smithy, infilled ponds) – PAHs, heavy metals, ACM, gases ☛ Historical agricultural use (spillages of fuel etc.) – PAHs, TPHs, Metals ☛ Ground Gas ☛ ACM <p>Pathways</p> <ul style="list-style-type: none"> ☛ Direct contact and ingestion ☛ Volatilisation/indoor explosion ☛ Vapour inhalation ☛ Dust inhalation ☛ Vertical/horizontal migration <p>Receptors</p> <ul style="list-style-type: none"> ☛ Future site users ☛ Underlying aquifer (Principal bedrock aquifer) ☛ Stream on the northern boundary and 38 m south west



Conclusion	<p>There is potential for localised Made Ground deposits to be present on-site in areas of the former smithy, infilled ponds and current stable block is in the south west of the site.</p> <p>Due to the site's historical and current agricultural land use, there is potential for semi-volatile contamination, PAH's and TPH to be present from localised spillages and site wide use of fertilizers and pesticides.</p>
Recommendations	<p>Whilst the site has had limited historical development it is likely that localised Made Ground deposits will be present on-site, in particular in the east where the former smithy was located, in areas of former infilled ponds and in the south west where the current stable block is located.</p> <p>A site investigation is recommended to confirm the conceptual site model.</p>



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DRAWING LIST

15-592-R1-001	Site Location Plan
15-592-R1-003	Site Features Plan
15-592-R1-004	Historical Features Plan



1. INTRODUCTION

1.1. BACKGROUND

E3P Ltd has been commissioned by PWA Planning, on behalf of their client, to undertake a Phase I Geoenvironmental Site Assessment at land off New Street, Mawdesley, Ormskirk; herein referred to as the site.

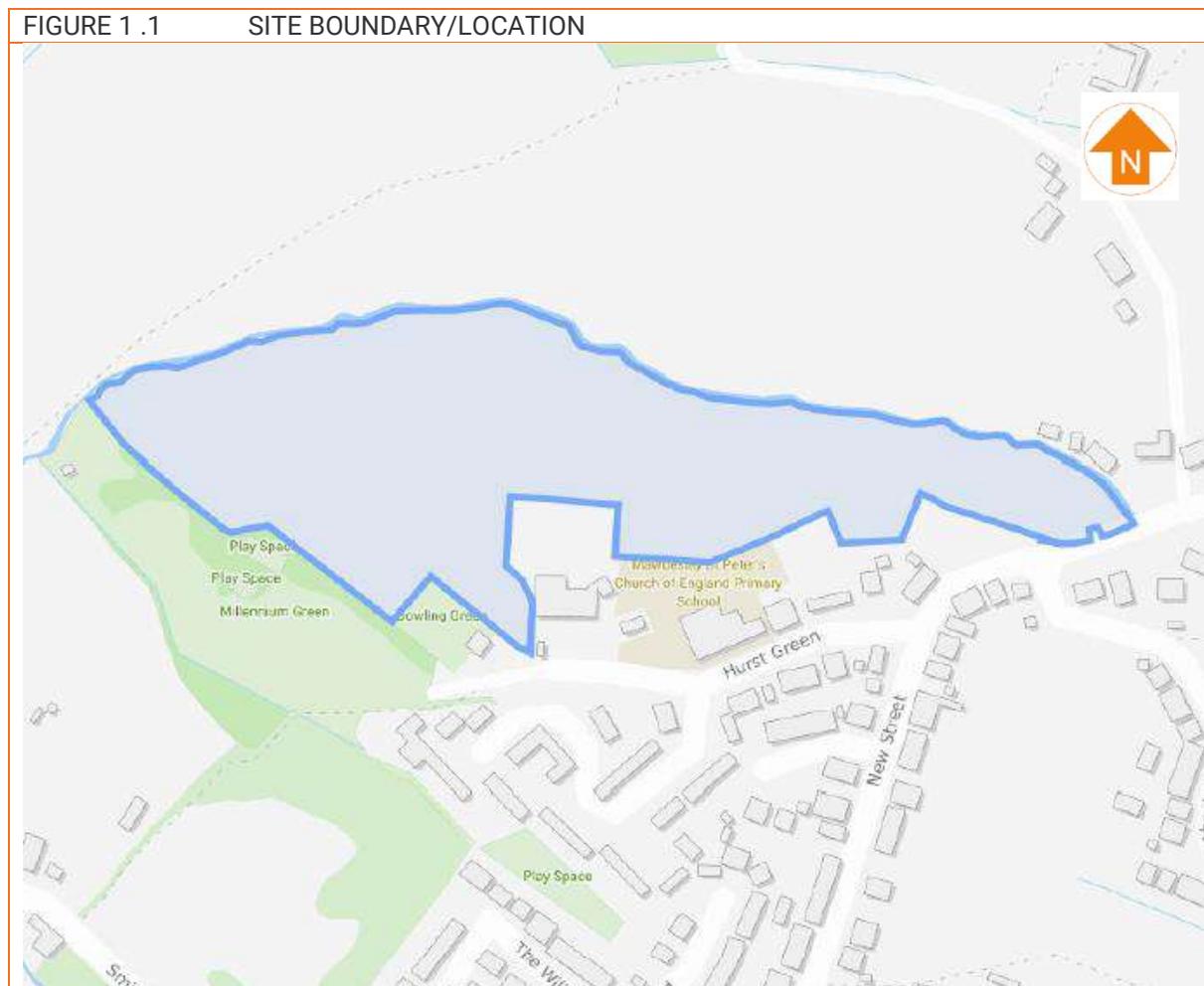
This report is required to determine potential contaminated land liabilities and geotechnical constraints as part of a proposed residential redevelopment.

1.2. PROPOSED DEVELOPMENT

E3P understand that PWA are assisting their client in the proposed acquisition and redevelopment of the site for low rise residential housing.

At the time of writing no proposed development plans have been made available to E3P.

Figure 1.1 shows the site boundary.



1.3. OBJECTIVES

- ✦ The objectives of the geoenvironmental investigation are as follows:
- ✦ Review historical plans, geology, hydrogeology, site sensitivity, floodplain issues, mining records and any local authority information available in order to complete a desk study in line with Environment Agency (EA) document Land Contamination: Risk Management (LC:RM) (2019)
- ✦ Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to the future use of the site and in relation to off-site receptors.
- ✦ Assess the desk-study information and, where possible, provide preliminary recommendations in relation to foundations, pavement construction and floor slabs.
- ✦ Provide recommendations regarding future works required and undertake a preliminary pre-construction cost appraisal.

1.4. SOURCES OF INFORMATION

Background information was sought from the following sources:

- ✦ Groundsure Report;
- ✦ Historical mapping dated 1847 to 2019. A selection of historical maps are reproduced in Appendix V;
- ✦ On-line planning records held by Chorley Council;
- ✦ Consultations with representatives of Chorley Council;
- ✦ Magic Map Groundwater Vulnerability Map;
- ✦ Radon: Guidance on protective measures for new buildings (BRE Document BR 211, 2007);
- ✦ British Geological Survey Map;
- ✦ Groundsure IO database;
- ✦ <https://zeticauxo.com/downloads-and-resources/risk-maps/>; and,
- ✦ <https://flood-map-for-planning.service.gov.uk>.

1.5. LIMITATIONS

The limitations of this report are presented in Appendix I.

1.6. CONFIDENTIALITY

E3P has prepared this report solely for the use of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from E3P; a charge may be levied against such approval.



1.7. RISK CLASSIFICATION

E3P has utilised the available data to classify the site on the basis of its likely contaminated land liability and potential for geotechnical constraints in relation to the site development. The risk classification definitions are summarised in Table 1.1.

TABLE 1.1 RISK CLASSIFICATION

RISK	DEFINITION
Low	There are unlikely to be significant contaminated land liabilities/geotechnical constraints associated with the property.
Low Moderate	There are unlikely to be significant contaminated land liabilities/geotechnical constraints associated with the property with regard to the proposed use. However, minor issues may require further consideration in the event of future redevelopment of the site.
Moderate	Some potential contaminated land liabilities/geotechnical constraints are likely to affect the property as a result of historical and/or current activities. The risks identified are unlikely to pose an immediate significant issue but the purchaser/developer may wish to make further enquiries of the vendor or undertake further environmental improvements. Redevelopment of the site will likely require further site investigation.
Moderate High	Some potentially significant contaminated land liabilities/geotechnical constraints have been identified at the property that requires further assessment, including intrusive ground investigations.
High	Significant potential contaminated land liabilities/geotechnical constraints have been identified at the property. Further assessment including intrusive ground investigation will be required to determine the level of risk and associated liability.



2. SITE SETTING

2.1. SITE DETAILS

Site Address	Land off New Street, Mawdesley, Ormskirk, L40 2QW
National Grid Reference	E 349140, N 415163.
Site Area	4.83 Ha.

All acronyms used within this report are defined in the Glossary presented in Appendix II.

A site location map is presented in Appendix III as Drawing 15-952-001.

2.2. CURRENT SITE USE

E3P has undertaken a site walkover of the entire site and a description of the key findings is summarised in Table 2.1.

TABLE 2.1 SITE DESCRIPTION

Occupancy/Use	<p>The subject site is an irregular-shaped parcel of land located to the north of New Street, Mawdesley and is currently used as agricultural land.</p> <p>The site is split into three fields which are bound by semi-mature and mature trees with scrubby vegetation and hedgerows. A small stream is present on the northern boundary of the site.</p> <p>In the south west of the site, a small stable is present with other agricultural items being stored in this area such as tractors and tyres.</p>	
Surface Cover (%)	Buildings	0%
	Hardstand	0%
	Soft Cover	100%
Structures	The site is predominantly agricultural land with the only structure present appearing to be a stable block in the south west of the site.	
Access	Pedestrian and vehicular access to the site can be gained off New Street in the south east of the site. A series of farm gates are present connecting the fields which can be used to gain access to all areas of the site.	
Slope	The site is relatively flat in topography with only a small depression in the centre of the site. In the east, the site slightly slopes downhill towards the north where a small stream is located.	
Retaining Structures	No retaining structures were identified.	
Vegetation/Ecology	<p>The majority of the site is maintained as agricultural grassland. Around the site boundary and individual field boundaries, semi-mature and mature trees are present along with scrubby vegetation and hedgerows.</p> <p>On the northern boundary of the site, a small stream is present.</p> <p>A habitat survey will be required to support the planning application.</p>	



Hazardous Material Storage	No above-ground storage tanks (ASTs) or underground storage tanks (USTs) were observed at the site during the preliminary site walkover. Due to the previously undeveloped nature of the site, it is unlikely that hazardous materials storage will have occurred on the site.
Asbestos-Containing Material (ACM)	No evidence of ACM was noted across the majority of the site during the site walkover.
Polychlorinated Biphenyls (PCBs)	There is no equipment identified that may contain PCBs within the site boundary.
Waste Storage	Potentially hazardous waste streams are unlikely to be generated at the site and none were observed during the preliminary site inspection.
Drainage	A formal drainage survey has not been completed.

2.3. SURROUNDING AREA

The surrounding area land uses are summarised in Table 2.2.

TABLE 2.2 SURROUNDING LAND USES

DIRECTION	LAND USE
North	Agricultural land
East	POS, agricultural land
South	Mawdesley Village, tennis courts and residential housing
West	Residential units, agricultural land and a farm

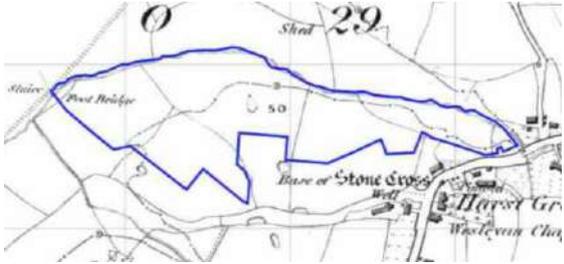
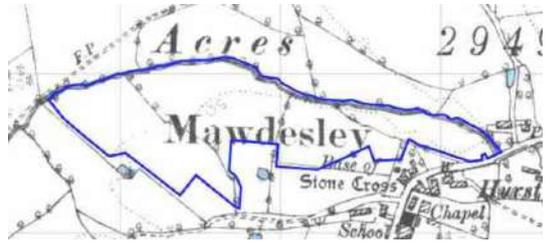
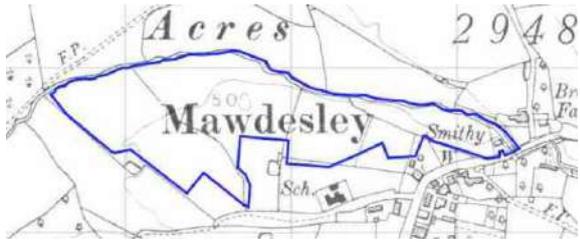
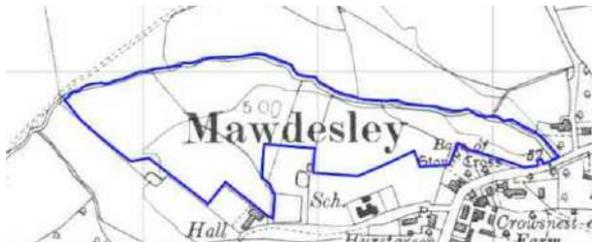


3. SITE HISTORY

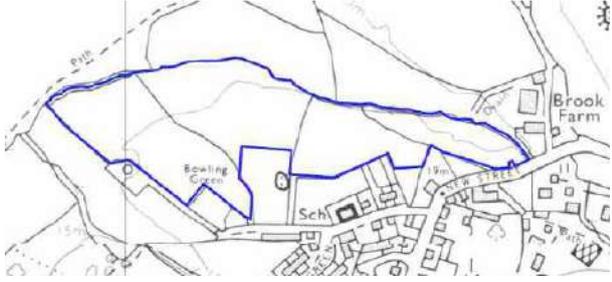
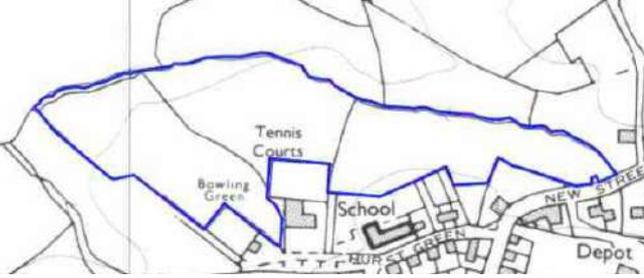
3.1. ON-SITE HISTORICAL DEVELOPMENT

A review of historical mapping and historical aerial imagery pertinent to the site is summarised in Table 3.1. In addition, historical site features are presented on Drawing No 15-952-003 in Appendix III.

TABLE 3.1 HISTORICAL DEVELOPMENT

MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1847 1:10,560	The site is split into five fields by a series of boundaries. A pond is marked in the centre of the site.	
1893 1:10,560	The site is now split into four fields and the pond in the centre of the site is no longer marked.	
1907 1:10,560	The site is now split into five fields. A smithy is marked in the east of the site. A pond is marked at the centre of the site.	
1926 1:10,560	The smithy in the east of the site is no longer marked.	



<p>1976 1:10,000</p>	<p>The pond at the centre of the site is no longer marked. A bowling green is marked on the southern boundary of the site.</p>	
<p>1989 1:10,000</p>	<p>The site is split into three fields. A tennis court is marked on the southern boundary of the site</p>	
<p>2019 Recent Aerial Imagery</p>	<p>Recent aerial imagery from 2019 shows the site to be split into three fields. These are bound by a series of semi-mature and mature trees. The fields comprise short managed grassland. A small stream is present on the northern boundary. Access to the site can be gained from east of the site of New Street.</p>	
<p>2022 Google Earth</p>	<p>No significant changes have occurred on site.</p>	



3.2. OFF-SITE HISTORICAL DEVELOPMENT

A review of potentially contaminative uses identified on historical Ordnance Survey maps within a 250 m radius of the site is summarised in Table 3.2.

TABLE 3.2 SURROUNDING HISTORICAL DEVELOPMENT

SURROUNDING FEATURE	DISTANCE	DATES	DIRECTION
School	30 m	Pre1908 – Present	South
Brook Farm	50 m	Pre 1907–Present	North East
Crownsnest Farm Then: no longer marked	60 m	Pre 1926–Pre 1973 Pre 1973–Present	South East
Depot Then: no longer marked	70 m	Pre 1989 – Pre 2001 Pre 2001 - Present	South East
Hurstgreen Farm Then: no longer marked	80 m	Pre 1910–Pre 1984 Pre 1984–Present	South
Smithy Then: no longer marked	200 m	Pre 1907–Pre 1926 Pre 1926–Present	South

3.3. PLANNING HISTORY

E3P has undertaken a review of online planning records held by Chorley Council and no environmentally pertinent information has been obtained for the site.

3.4. ANECDOTAL INFORMATION

A web-based search of the subject site has recovered no other significant information.

3.5. PREVIOUS REPORTS

E3P are not aware of any previous report for this site.



4. ENVIRONMENTAL SETTING

4.1. GEOLOGY AND HYDROGEOLOGY

The British Geological Survey (BGS) map (Sheet 75) for the site, (1:50,000, Solid and Drift editions) and online records indicate the site is underlain by the geological sequence presented in Table 4.1.

TABLE 4.1 SUMMARY OF UNDERLYING GEOLOGY

GEOLOGICAL UNIT	CLASSIFICATION	DESCRIPTION	AQUIFER CLASSIFICATION
Drift	Devensain Till	CLAY, SAND, GRAVEL, SILT	Secondary undifferentiated
	Alluvium - (North East)	CLAY, SILT, SAND AND GRAVEL	
Solid	Sherwood Sandstone Group	SANDSTONE	Principal

E3P has reviewed the available BGS data and a summary of local boreholes is presented in Table 4.2 below.

TABLE 4.2 SUMMARY OF BGS BOREHOLE RECORDS

LOCATION	DEPTH	MADE GROUND	DRIFT	SOLID
Site	13.00 m	Not encountered	Topsoil 0.00 – 1.00 Clayey SAND 1.00 – 4.60 Sandy CLAY 4.60 – 6.60 Boulder CLAY 6.60 – 13.00	Not encountered
13 m NE	92.00 m	0.00 – 0.60	Brown CLAY 0.60 – 2.13 Boulder CLAY 2.13 – 3.06 SAND and GRAVEL 3.04 – 3.65	SANDSTONE 3.65 – 92.00
29 m E	60.96 m	Not encountered	Topsoil 0.00 – 0.60 Sandy CLAY 0.60 – 10.05 SAND 10.05 – 10.36	SANDSTONE 10.36 – 60.96
29 m NE	152.41	0.00 – 0.60	CLAY 0.60 – 3.04 SAND and GRAVEL 3.04 – 3.65	SANDSTONE 3.65 – 152.41

E3P has reviewed the available BGS data and a summary of local faulting is presented in Table 4.3 below.



TABLE 4.3 FAULTING

LOCATION	DESCRIPTION
155 m SW	Normal fault, inferred

The Groundsure report indicates that the site is not located within a groundwater source protection zone. Furthermore, there are no groundwater/potable abstractions within 1 km of the site.

4.2. NATURAL LANDFORM AND GEOMORPHOLOGY

Based on the initial geological assessment, a review of available topographic data and pertinent mapping, E3P has undertaken a preliminary geomorphological assessment of the landform.

The site is largely underlain by Till, laid down by glacial action during the last ice-age. In the north west of the site a band of Alluvium is recorded. Alluvium is deposited through the action of rivers and is likely associated with the historic deposition of materials from the adjacent stream. Given the mechanism of deposition of Alluvium, it is likely the river has cut into the Till through erosion, depositing granular deposits within a channel – hence the localised Alluvium deposits present.

A review of the relevant records shows that the site has not been subject to significant anthropogenic change with the current topography remaining similar throughout history. The majority of the site represents a natural landform, the east of the site slopes slightly downhill towards the north where a small stream is located. A small depression is present in the centre of the site where a former pond was located and this can be seen in the LIDAR imagery shown in Figure 4.1.

FIGURE 4.1 SURFACE LIDAR DATA (GROUNDSURE IO)



<https://groundsure.io/>

4.3. GEOTECHNICAL DATA

Geotechnical data presented within a commercially available environmental database is summarised in Table 4.4.



TABLE 4.4 SUMMARY OF GEOTECHNICAL DATA

HAZARD	DESIGNATION
Shrink-Swell Clay	Very low risk
Landslides	Very low risk
Ground Dissolution	No hazard
Compressible Ground	Moderate risk
Collapsible Deposits	Very low risk
Running Sand	Low risk
Natural Cavities	No hazard
Anthropogenic Cavities	Very low risk

4.4. RADON RISK POTENTIAL

The Envirocheck report indicates the site is situated in an area where less than 1% of homes are above the “Action Level” and that the BGS reports that full radon protective measures are not necessary in the construction of new dwellings or extensions.

4.5. PRELIMINARY GEOTECHNICAL ASSESSMENT

Based on the desk-study information, the following geotechnical assessment has been made:

- ✦ Given the predominantly undeveloped nature of the site, it is likely there will be limited Made Ground fill deposits and obstructions. Some Made Ground deposits may be present in the east of the site where the former smithy was located and within the infilled former ponds;
- ✦ The historical infilled pond in the centre of the site is a potential source of alluvial deposits, silts and possible organic peat deposits in addition to potential depths of Made Ground; and
- ✦ Based on surrounding BGS borehole information shallow bedrock (>3.00 m bgl) may be present beneath the site. The presence of shallow bedrock may require specialist heavy plant equipment and impede the excavation of material to form sewerage and drainage infrastructure and foundations.

4.6. HYDROLOGY

Surface water features within 250 m of the subject site are summarised in Table 4.5.

TABLE 4.5 SURFACE WATER FEATURES

SURFACE WATER FEATURE	QUALITY	DISTANCE (m)	DIRECTION
Stream	-	1 m	North
Stream	-	38 m	South West
New Reed Brook	-	167 m	North West

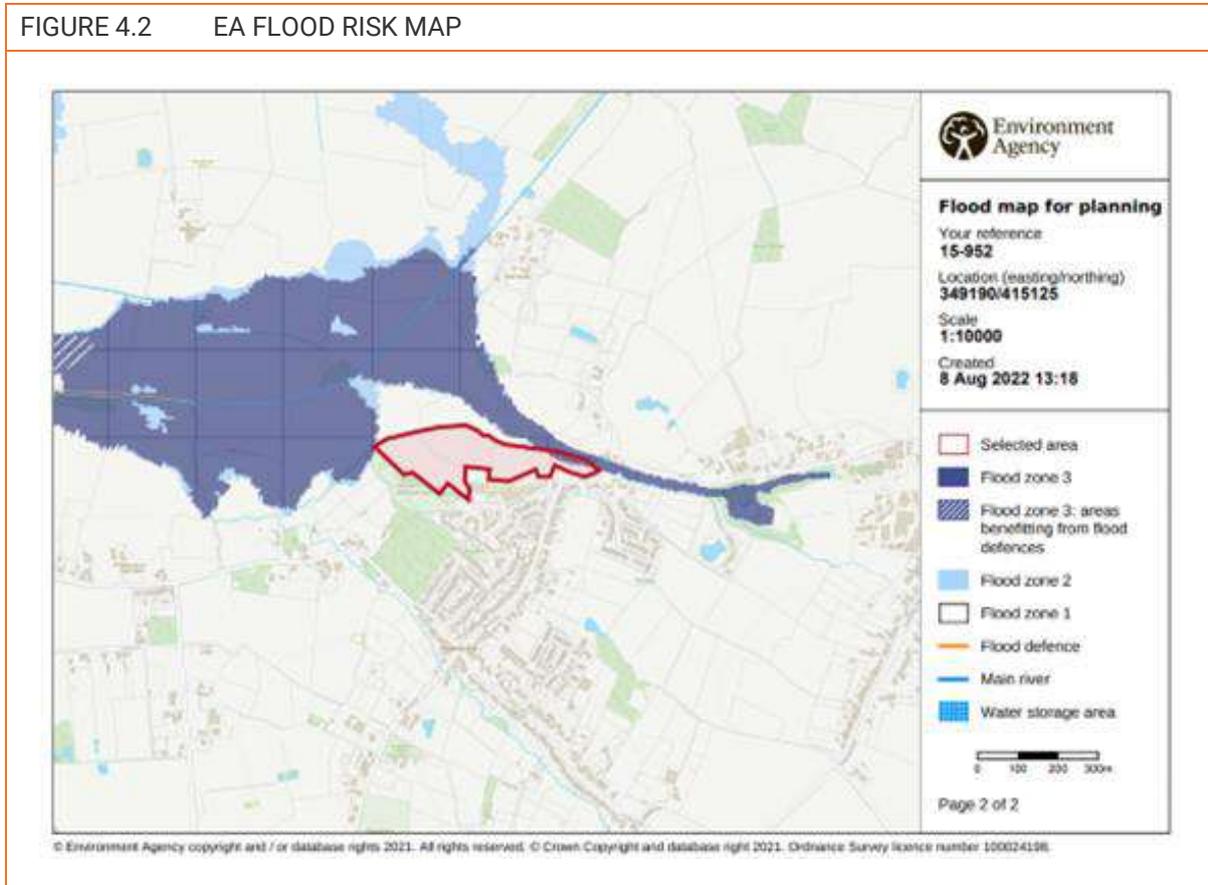


The site is predominantly located within a currently defined “Flood Risk Zone 1”; defined as land assessed as having less than 1 in 1,000 annual probability of river or sea flooding (< 0.1%), and as such is considered to be unaffected by river flooding. However, the north east of the site is located within “Flood Risk Zone 3” which is an area at high risk of flooding.

In addition, the Groundsure report states there is a moderate risk of groundwater flooding and a low risk of surface water flooding occurring at the site.

The Environment Agency (EA) Flood Risk Map for the site is presented in Figure 4.2.

FIGURE 4.2 EA FLOOD RISK MAP



Source - <https://flood-map-for-planning.service.gov.uk/>

4.7. INDUSTRIAL LAND USES

The site is located within a predominantly agricultural and residential area, therefore there are no entries within the trade directory for industrial land uses.

4.8. SENSITIVE LAND USES

The closest residential properties are located adjacent to the southern boundary of the site.

The site is located within the Chorley Green Belt and an SSSI Impact Risk Zone.

The site is also a nitrate vulnerable zone for groundwater which is an area at risk from nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates.



4.9. SITE SENSITIVITY ASSESSMENT

The site is assessed to be located within a “Moderate-High” sensitivity setting as discussed within Table 4.6.

TABLE 4.6 SITE SENSITIVITY ASSESSMENT

SENSITIVITY PROFILE	DISCUSSION	RATING
Groundwater Source Protection Zone or Drinking Water Safeguard Zone	The site is not located within a groundwater source protection zone.	Low
Distance to the Closest Groundwater Abstraction Point	There are no groundwater abstractions within 1km of the site.	Low
Aquifer Classification in Superficial Drift Deposits	A secondary undifferentiated aquifer is located within the superficial drift.	Low
Aquifer Classification in Bedrock	A principal aquifer is located within the Sherwood Sandstone bedrock.	High
Is the Site Underlain by Low-Permeability Drift to Depths in Excess of 10 m?	BGS borehole data shows the site to be underlain by predominantly CLAY with bands of SANDS and GRAVELS. CLAY is likely to reduce the migration of any contaminants.	Low
Is the Site Located Within 50 m of a Surface Watercourse?	There is a stream located on the northern boundary of the site and another one is located 38 m south west.	Moderate
Sensitive Land Uses	The closest residential properties are located adjacent to the southern boundary of the site. The site is located within the Chorley Green Belt and an SSSI Impact Risk Zone. The site is also a nitrate vulnerable zone for groundwater which is an area at risk from nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates.	Moderate
OVERALL SITE ENVIRONMENTAL SENSITIVITY		Moderate



5. REGULATORY DATA

5.1. LANDFILL SITES AND WASTE TREATMENT SITES

There are no recorded current or historical landfills or waste treatment sites within 250 m of the site.

5.2. REGULATORY DATABASE

The information summarised in Table 5.1 has been obtained from a commercially available environmental database. The summary table only includes records from within 250 m of the subject site and not otherwise detailed in the report.

TABLE 5.1 SUMMARY OF ENVIRONMENTAL DATA

RECORD	ENTRIES WITHIN 250 m	DETAILS
Contaminated Land Register Entries and Notices	0	None Identified
Authorised Industrial Processes (IPC/IPPC/LAPPC)	0	None Identified
Fuel Stations Entries	0	None Identified
Licensed Radioactive Substances	0	None Identified
Enforcements, Prohibitions or Prosecutions	0	None Identified
Discharge Consents	1	32 m NE, Brook Farm, sewage discharges into New Reed Brook
Pollution Incidents	0	None Identified
Consents Issued Under the Planning (Hazardous Substances) Act 1990	0	None Identified
Control of Major Accident Hazard (COMAH) Sites	0	None Identified

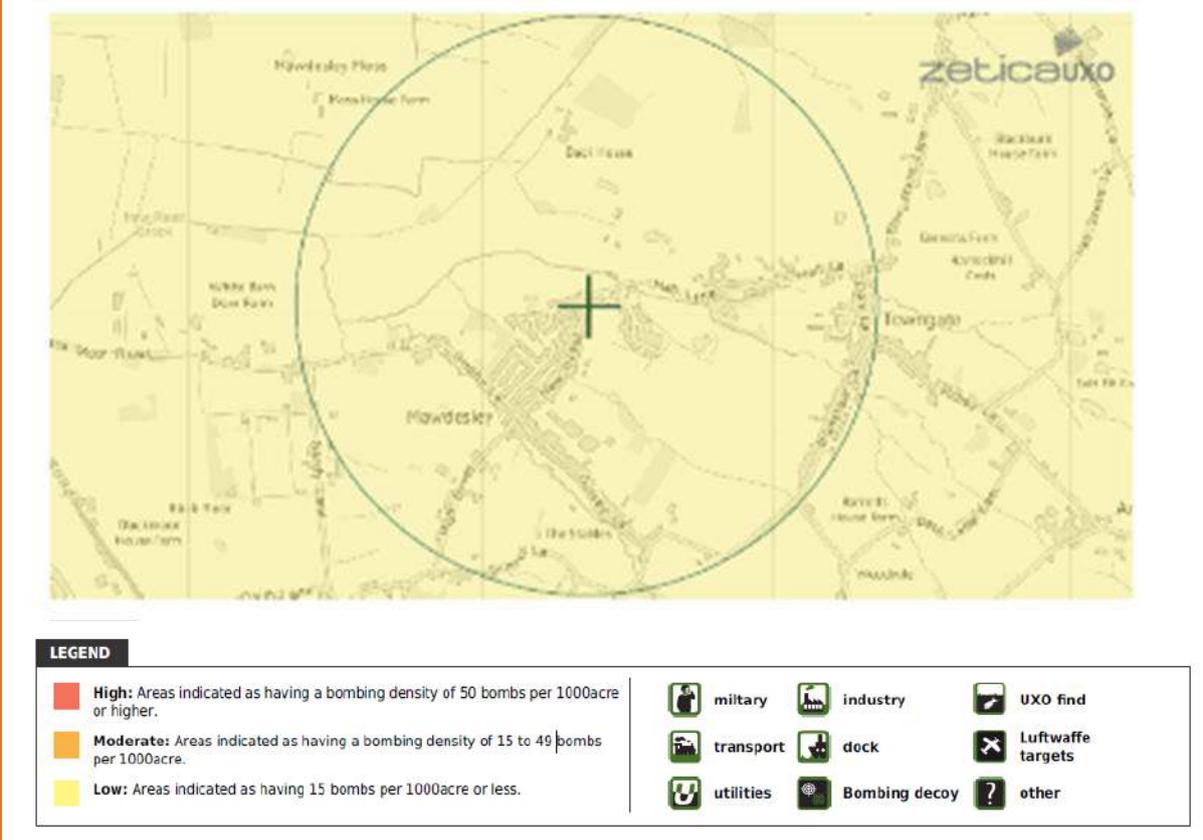
5.1. UNEXPLODED ORDNANCE

The regional unexploded bomb risk map from Zetica (2014) indicates that the site is in an area at low risk from possible unexploded ordnance (UXO) resulting from the Second World War.

The Zetica UXO Risk Map is presented as Figure 5.1 overleaf.



FIGURE 5.1 ZETICA UXO RISK MAP



Source - <https://zeticauxo.com/downloads-and-resources/risk-maps/>

No further assessment, with respect to UXO, is deemed necessary.



5.2. INITIAL CONCEPTUAL SITE MODEL

In accordance with EA LCRM (2019) and BSI 10175 (Code of Practice for Investigation of Potentially Contaminated Land), E3P has developed an initial conceptual site model (CSM) to identify potential contamination sources, migration pathways and receptors within the study area.

This is summarised in Table 5.1.

ON-SITE SOURCES OF CONTAMINATION

The following potential on-site sources of contamination have been identified:

- ✚ Made Ground – heavy metals, PAH, TPH (Former smithy, infilled pond)
- ✚ ACM (Former smithy, stable block)
- ✚ Ground Gas (infilled pond)
- ✚ Nitrates/Pesticides (current agricultural use)
- ✚ TPH (Agricultural machinery leaks/spills)

OFF-SITE SOURCES OF CONTAMINATION

The following potential off-site source of contamination have been identified:

- ✚ Nitrates/pesticides (nearby farms)



5.3. CONCEPTUAL SITE MODEL

Following the completion of the intrusive site investigation, chemical analysis and risk assessment, the conceptual model shown in Table 8.14 has been prepared for the site.

TABLE 5.1 CONCEPTUAL MODEL

POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL1 PL2	Heavy Metals, non-volatile PAH, PCBs (Made Ground)	Dermal contact. Dermal contact and ingestion.	Future site users. Off-site receptors.	Likely	Low	VERY LOW
<p>Discussion: Due to the limited historical development on-site, there are likely to be limited Made Ground deposits present. However, in the east of the site a former smithy was present as well as current stable block in the south west of the site are potential sources for Made Ground. Additionally Made Ground is anticipated within infilled ponds at the centre of the site. Heavy metals and PAH may be present within these Made Ground deposits which could pose a short-term risk to construction workers who may come into contact with contaminated soils during earthworks. To remove this potential risk all construction works must be undertaken using the appropriate Personal Protective Equipment (PPE).</p> <p>Recommendation: Further investigation is required to confirm the conceptual site model.</p>						
PL3	ACM in Made Ground	Inhalation of dust.	Future site users. Off-site land users.	Likely	Low	VERY LOW
<p>Assessment: ACM may be resented within soils in the east of the site where the former smithy was located and in the south west of the site where the current stable block is located. This source may pose a short-term risk to construction workers who may come into contact with impacted soils during construction works. To remove this potential risk all construction works must be undertaken using the appropriate Personal Protective Equipment (PPE).</p> <p>Recommendation: Further investigation is required to confirm the conceptual site model.</p>						



POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL4	Volatile contaminants such as hydrocarbons, solvents, antifreeze (Made Ground)	Inhalation of vapours. Migration through permeable strata and preferential pathways.	Future site users. Off-site receptors.	Low Likelihood	Low	VERY LOW
<p>Assessment: A potential source of volatile contamination identified is leakages and spillages from agricultural machinery utilised on-site. However, if present it is likely to be localised and would require hotspot delineation and further assessment. All construction works must be undertaken using the appropriate Personal Protective Equipment to remove this potential risk.</p> <p>Recommendation: Further investigation is required to confirm the conceptual site model.</p>						
PL4	Methane, carbon dioxide (infilled features on and within 250 m of the site)	Inhalation of gas. Migration through permeable strata and preferential pathways. Explosion in confined spaces.	Future site users. Buildings. Off-site land users.	Likely	Low	VERY LOW
<p>Assessment: Infilled ponds and field boundaries across the site and potential localised Made Ground may be a source of ground gas. Where the material contains putrescible material there is a risk of ground gas generation such as carbon dioxide or methane. Ground gas can accumulate in confined spaces and excavations, inhalation can result in asphyxiation and the accumulation of methane can become explosive.</p> <p>Recommendation: Further investigation is required to confirm the conceptual site model.</p>						



POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL5	Mobile contaminants such as metals, PAHs, hydrocarbons, volatile compounds (Made Ground)	Surface runoff. Migration through permeable strata and preferential pathways. Perched waters migration.	Groundwater (Principal Aquifer). Surface water (Stream).	Likely	Low	VERY LOW
<p>Assessment: Leakages and spillages of mobile contamination are considered possible due to the use of agricultural machinery on-site and potential historical use of fertilisers and pesticides. However, if present this is likely to be localised. Underlying CLAY drift deposits may reduce downward migration into the underlying Principal bedrock aquifer, Therefore reducing the overall sensitivity of this receptor and the risk to controlled waters.</p> <p>Recommendation: Sampling of groundwater and surface water required.</p>						
PL6	Sulphate (potential ash within Made Ground)	Sulphate attack on concrete.	Building structure.	Low Likelihood	Low	LOW
<p>Assessment: Potential for Made Ground to be present on-site means that a source of sulphate could be present.</p> <p>Recommendation: Further investigation is required to confirm the conceptual site model.</p>						



POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL7	Organic contaminants such as hydrocarbons, solvents (Made Ground)	Ingestion of tainted water supply.	Future site users. Water pipes.	Low Likelihood	Low	VERY LOW

Assessment:
The potential for Made Ground to be present on-site could be a source of hydrocarbons and solvents. However, these are likely to be in localised areas of the site, so the wider site is not considered to be at risk.

Recommendation:
Further investigation is required to confirm the conceptual site model.

PL8	Phytotoxic contaminants (Made Ground)	Direct Contact (plant uptake).	Flora.	Likely	Low	VERY LOW
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Assessment:
Likely probability as contamination is considered possible due to potential Made Ground which may be taken up by flora in soft landscaping. However, it is likely to be in localised areas of the site so is considered low risk.

Recommendation:
Further investigation is required to confirm the conceptual site model.

Main exposure pathways:
PL1 = soil ingestion, PL2 = dermal contact and ingestion, PL3 = dust inhalation; PL4 = Vapour/Gas Inhalation; PL5 = Vertical / Lateral Migration; PL6 = Corrosion of concrete; PL7=Tainting of water supply; PL8 = Uptake by plants;



6. CONCLUSIONS AND RECOMMENDATIONS

6.1. SITE SUMMARY

<p>Current Site Use</p>	<p>The subject site is an irregular-shaped parcel of land located to the north of New Street, Mawdesley and is currently used as agricultural land.</p> <p>The site is split into three fields which are bound by semi-mature and mature trees with scrubby vegetation and hedgerows. A small stream is present on the northern boundary of the site.</p> <p>In the south west of the site, a small stable is present with other agricultural items being stored in this area such as tractors and tyres.</p>
<p>Historical Site Use</p>	<p>A review of the pertinent Ordnance Survey mapping suggests that the site comprised agricultural land split into five fields. A pond is marked in the centre of the site. Circa 1893 the field boundaries have changed and the pond is no longer marked. Circa 1907 a smithy is marked in the east of the site and second pond is marked at the centre of the site. Circa 1926 the smithy is no longer marked with the pond infilled circa 1976. No other significant changes then occur.</p> <p>Recent aerial imagery shows the site to be split into three fields. These are bound by a series of semi-mature and mature trees. The fields comprise short managed grassland. A small stream is present on the northern boundary. Access to the site can be gained from east of the site of New Street.</p>
<p>Site Sensitivity</p>	<p>A small stream is present on the northern boundary of the site with a second stream 38 m south west of the site. The surface water features and underlying principal bedrock aquifer are the main receptors for this site. The closest residential properties are located adjacent to the southern boundary of the site. The site is located within the Chorley Green Belt and an SSSI Impact Risk Zone. The site is also a nitrate vulnerable zone for groundwater which is an area at risk from nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates.</p>

6.2. CONTAMINATED LAND ASSESSMENT

<p>Human Health</p>	<p>Due to the largely undeveloped nature of the site, there are limited potential sources of contamination identified. However, there is potential for localised Made Ground deposits to be present on-site due to the former smithy in the east of the site and the current stables in the south west of the site. Additionally Made Ground is anticipated within infilled ponds at the centre of the site.</p> <p>Due to the site's historical and current agricultural land use, there is potential for semi-volatile contamination, PAH's and TPH to be present from localised spillages and site wide use of fertilizers and pesticides.</p>
----------------------------	---



Controlled Waters	<p>Significant sources of contamination have not been identified within the site boundary, with the exception of localised Made Ground deposits. Several receptors have been identified with respect to controlled waters. A stream flows along the northern boundary of the site, as well as another stream present 38 m to the south west. A Principal bedrock aquifer is present beneath the site.</p> <p>The site is not located within a source protection zone and no groundwater abstraction points are considered to be within influencing distance. Additionally, the cohesive deposits will form an aquitard limiting vertical migration of groundwater into the underlying aquifer.</p> <p>The site is considered a low risk due to the lack of contamination sources.</p>
Ground Gas	<p>Potential Made Ground deposits and the infilled pond have the potential to generate hazardous gases.</p>
Potable Water	<p>TPHs are unlikely to be present within Made Ground at pipeline depth however their presence cannot be ruled out due to the site's use for farming and localised areas of Made Ground. A UKWIR will be required for potable water supply.</p>

6.3. GEOTECHNICAL ASSESSMENT

Geological	<p>Superficial deposits of Alluvium and Devensian Till have been recorded overlying bedrock of the Sherwood Sandstone. There may be areas of Made Ground deposits in the east of the site where the smithy was located and in the south west where the current stables are.</p> <p>A coal mining assessment is not required, as the site is not situated within a Coal Authority Reporting Area.</p>
Civil and Structural	<p>Nearby boreholes suggest bedrock is present at 3.65 m bgl. This shallow bedrock may be present on-site. The presence of shallow bedrock may require specialist heavy plant equipment and impede the excavation of material to form sewerage and drainage infrastructure and foundations.</p>
Abnormal Foundations	<p>The depths and extents of superficial deposits and the bedrock is unknown, therefore further investigation is required.</p> <p>Abnormal foundation solutions may be required in areas of deep Made Ground, any soft clay and within areas of tree influence.</p>

END OF REPORT.



APPENDIX I LIMITATIONS

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between E3P and the client as indicated in Section 1.3.
2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information it has been assumed it is correct. No attempt has been made to verify the information.
3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination which are enforced by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
4. During the site walkover, reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover, no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.
5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials, this is for indicative purposes only and do not constitute or replace full and proper surveys.
8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
9. E3P cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by E3P is owned by them and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by E3P in this connection without their explicit written agreement there to by E3P.
10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.



APPENDIX II

GLOSSARY

TERMS

ACM	Asbestos-containing material	MMP	Materials management plan
ADS	Acoustic design statement	ND	Not detected
AST	Above-ground storage tank	NDP	Nuclear density probe
BGS	British Geological Survey	NMP	Noise management plan
BSI	British Standards Institute	NPSE	Noise policy statement for England
BTEX	Benzene, toluene, ethylbenzene, xylenes	NR	Not recorded
CA	Coal Authority	PAH	Polycyclic aromatic hydrocarbon
CBR	California bearing ratio	PCB	Polychlorinated biphenyl
CIEH	Chartered Institute of Environmental Health	PI	Plasticity index
CIRIA	Construction Industry Research Association	PID	Photo ionisation detector
CLEA	Contaminated land exposure assessment	POS	Public open space
CML	Council of Mortgage Lenders	PPE	Personnel protective equipment
CoC	Contaminants of concern	ProPG	Professional practice guidance
CSM	Conceptual site model	QA	Quality assurance
DNAPL	Dense non-aqueous phase liquid (chlorinated solvents, PCB)	SGV	Soil guideline value
DWS	Drinking water standard	SPH	Separate-phase hydrocarbon
EA	Environment Agency	SPT	Standard penetration test
EQS	Environmental quality standard	SVOC	Semi-volatile organic compound
FFL	Finished floor level	TPH	Total and speciated petroleum hydrocarbon
GAC	General assessment criteria	TPH CWG	Total Petroleum Hydrocarbon (Criteria Working Group)
GL	Ground level	UKWIR	United Kingdom Water Infrastructure Risk
GSV	Gas screening value	UST	Underground storage tank
HCV	Health criteria value	VCC	Vibro-concrete column
ICSM	Initial conceptual site model	VOC	Volatile organic compound
LEL	Lower explosive limit	VRSC	Vibro-replacement stone columns
LMRL	Lower method reporting limit	VSC	Vibro-stone columns
LNAPL	Light non-aqueous phase liquid (petrol, diesel, kerosene)	WHO	World Health Organisation
MCV	Moisture condition value	WRAP	Waste and Resources Action Programme



New Street, Mawdesley

Phase I Geoenvironmental Site Assessment

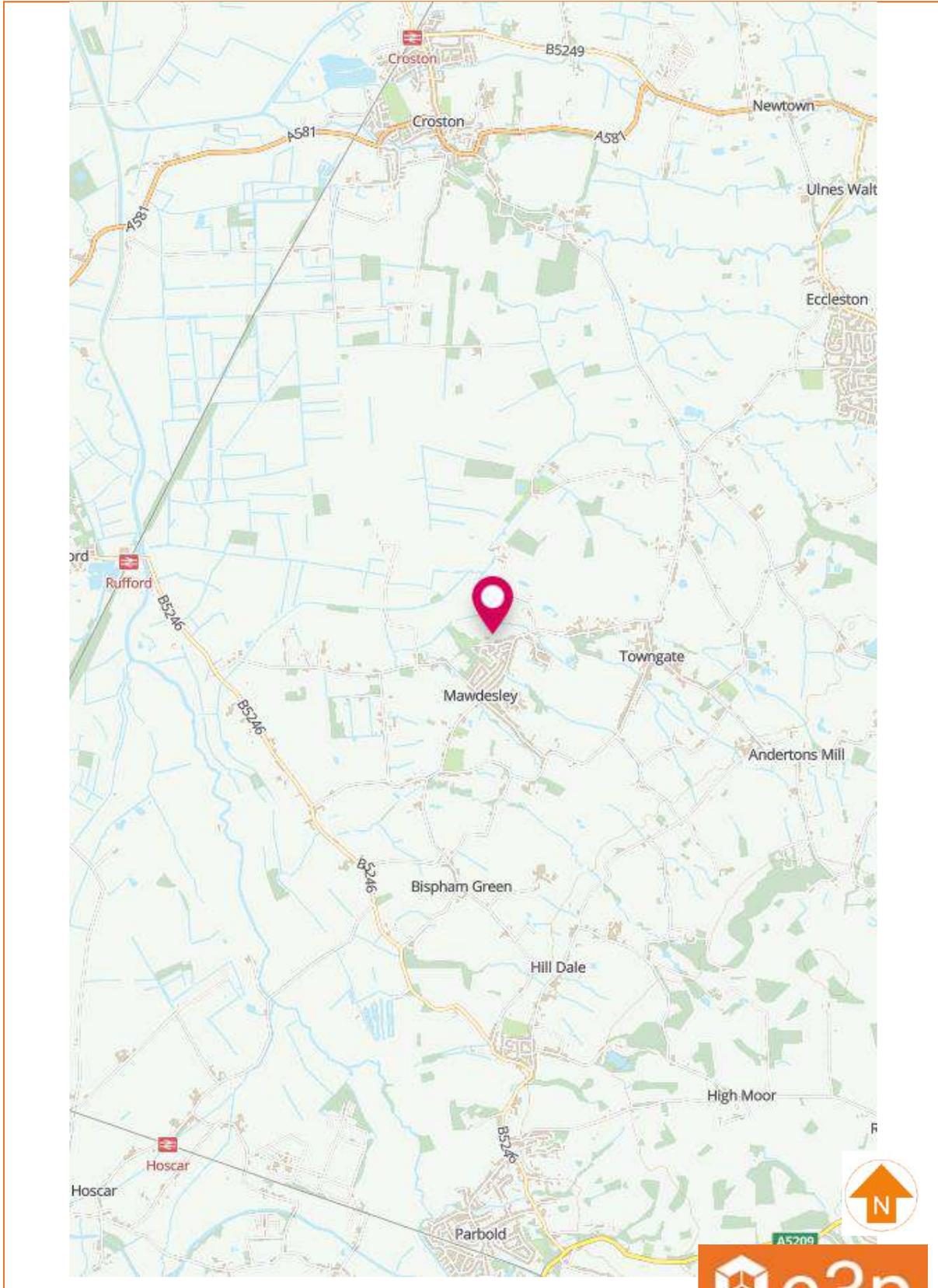
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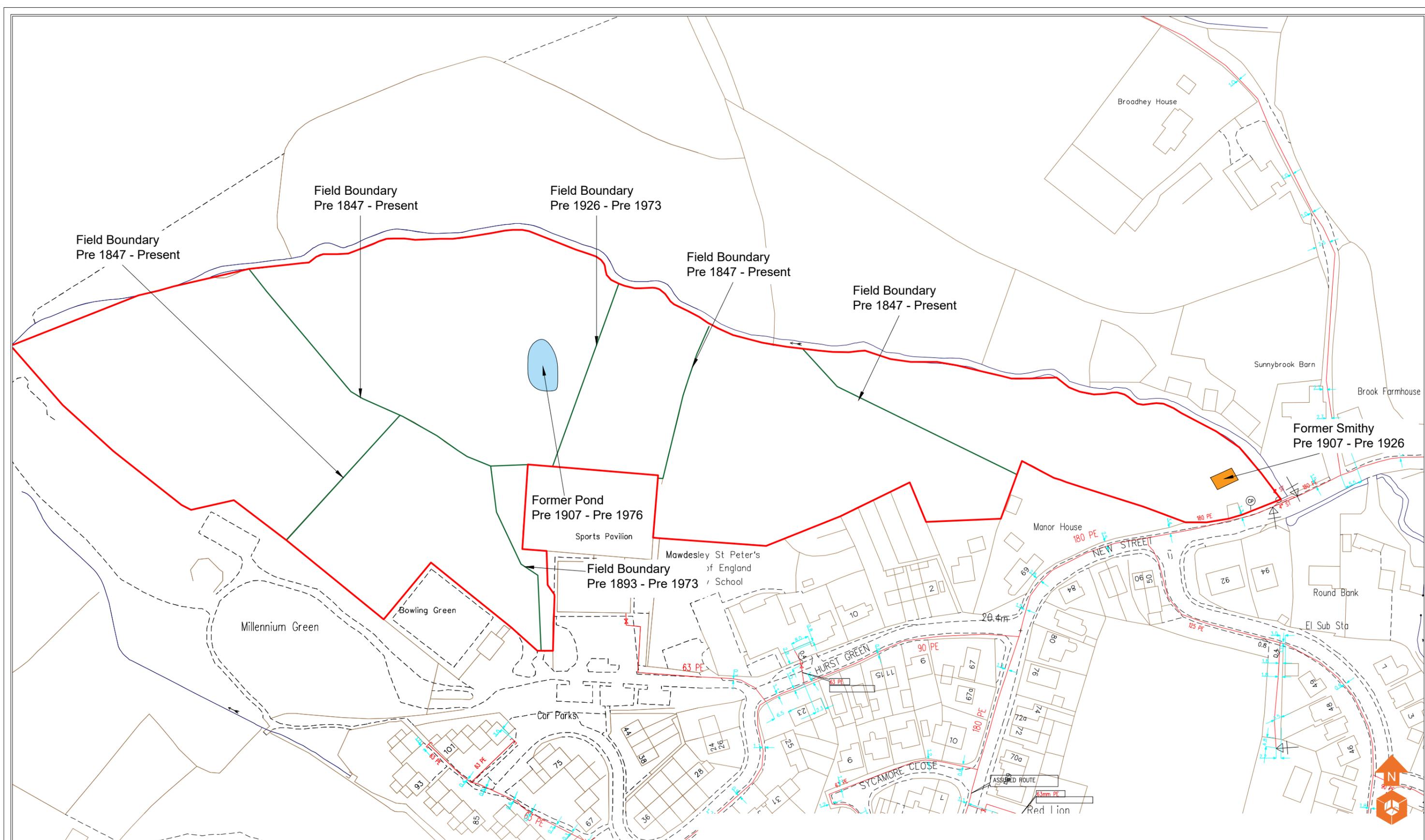
MIBK	Methyl isobutyl ketone	WTE	Water table elevation
m	Metres	ppm	Parts per million
km	Kilometres	mg/m³	Milligram per metre cubed
% v/v	Percent volume in air	m bgl bgl	Metres below ground level
mb	Millibars (atmospheric pressure)	m bcl	Metre below cover level
l/hr	Litres per hour	mAOD	Metres above ordnance datum (sea level)
µg/l	Micrograms per litre (parts per billion)	kN/m²	Kilonewtons per metre squared
ppb	Parts per billion	µm	Micrometre
mg/kg	Milligrams per kilogram (parts per million)	SSRT	Site Specific Remediation Target
PSD	Particle Size Distribution	DD	Dry Density
CL:AIRE	Contaminated Land: Applications in Real Environments	Mc	Moisture Content
ρ	Bulk Density	GPR	Ground Penetrating Radar
NDP	Nuclear Density Probe	FFL	Finished Floor Level
LEL	Lower Explosive Limit	UKWIR	UK Water Industry Research
CIRIA	Construction Industry Research and Information Association	LOD	Limit of Detection



APPENDIX III DRAWINGS

DRAWING 15-952-001 – SITE LOCATION PLAN





- Site Features**
- Field Boundary
 - Former Smithy
 - Former Pond

Notes:

Client:

Job No:

Date:

PWA Planning

15-952

12.08.2022

Job Title:

Drawing No:

Scale:

Phase	Issue	Date	Drawn	Checked
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P1	REVA	09.08.2022	LM	HM

New Street ,
Mawdesley

003

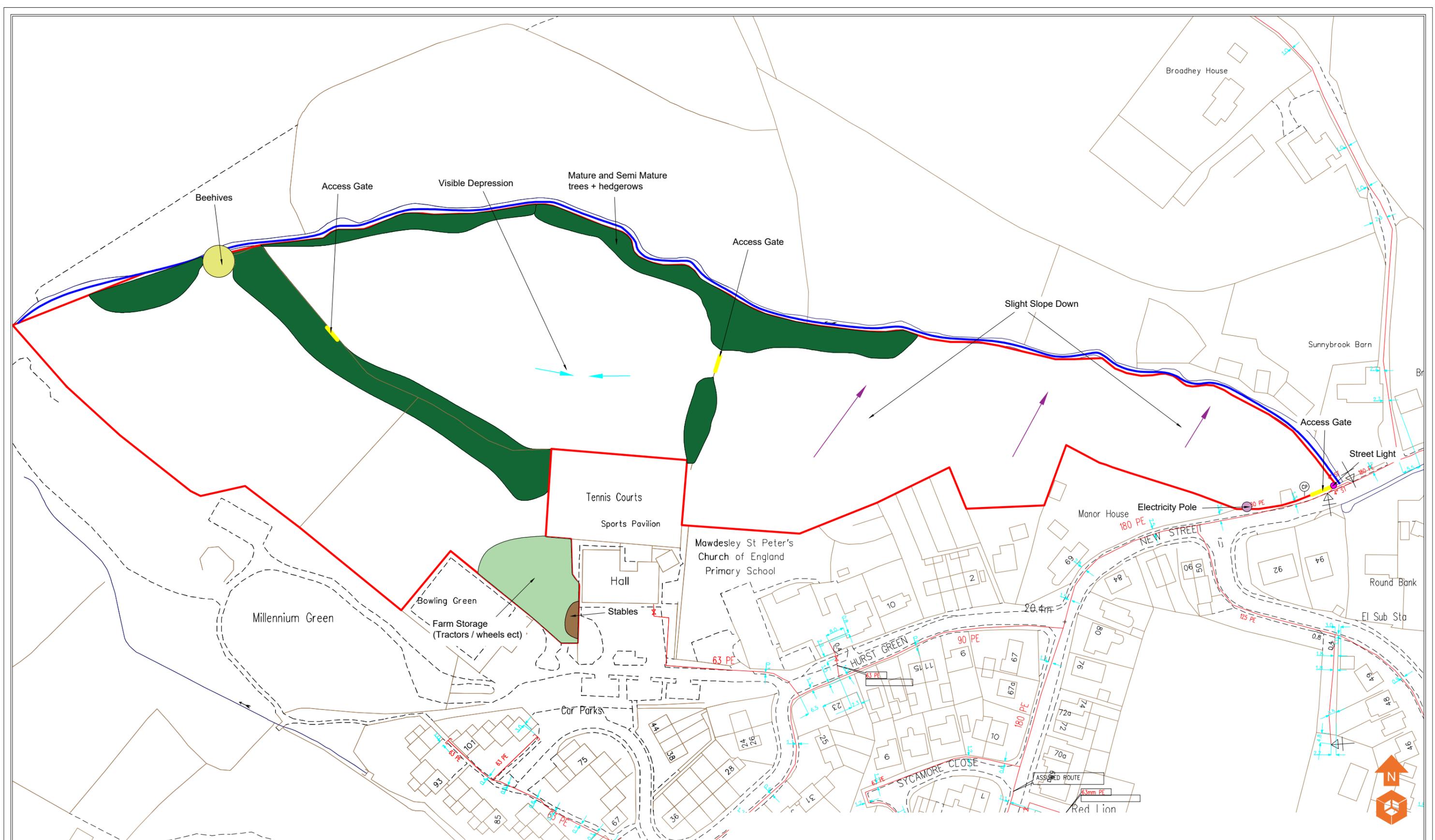
NTS@ A3

Drawing Title:



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Taylor Road, Trafford Park
Urmston, Manchester, M41 7JQ
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E-mail: info@e3p.co.uk
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- Historical Features**
- Farm Standings
 - Mature and Semi Mature trees + hedgerows
 - Beehives
 - Electricity Pole
 - Street Light
 - Stables
 - Access Gate
 - Stream on the northern boundary
 - Visible Depression
 - Slight Slope Down

Notes:				
P1	REVA	09.08.2022	LM	HM
Phase	Issue	Date	Drawn	Checked

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Job No:	15-592
Date:	09.08.2022
Drawing No:	004
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Job Title:	New Street , Mawdesley

Job No:	15-592
Date:	09.08.2022
Drawing No:	004
Scale:	1:1000 @ A3
Drawing Title:	Site Features Plan

Environmental Engineering Partnership Ltd
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APPENDIX V

HISTORICAL MAPS

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Client Ref: 15952_-_002487-_HM
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Grid Ref: 349192, 415125

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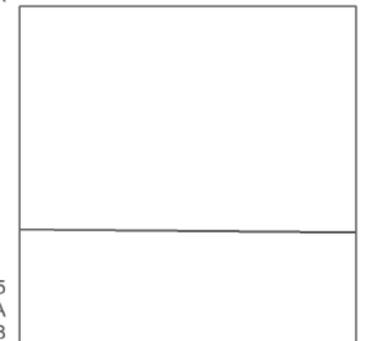
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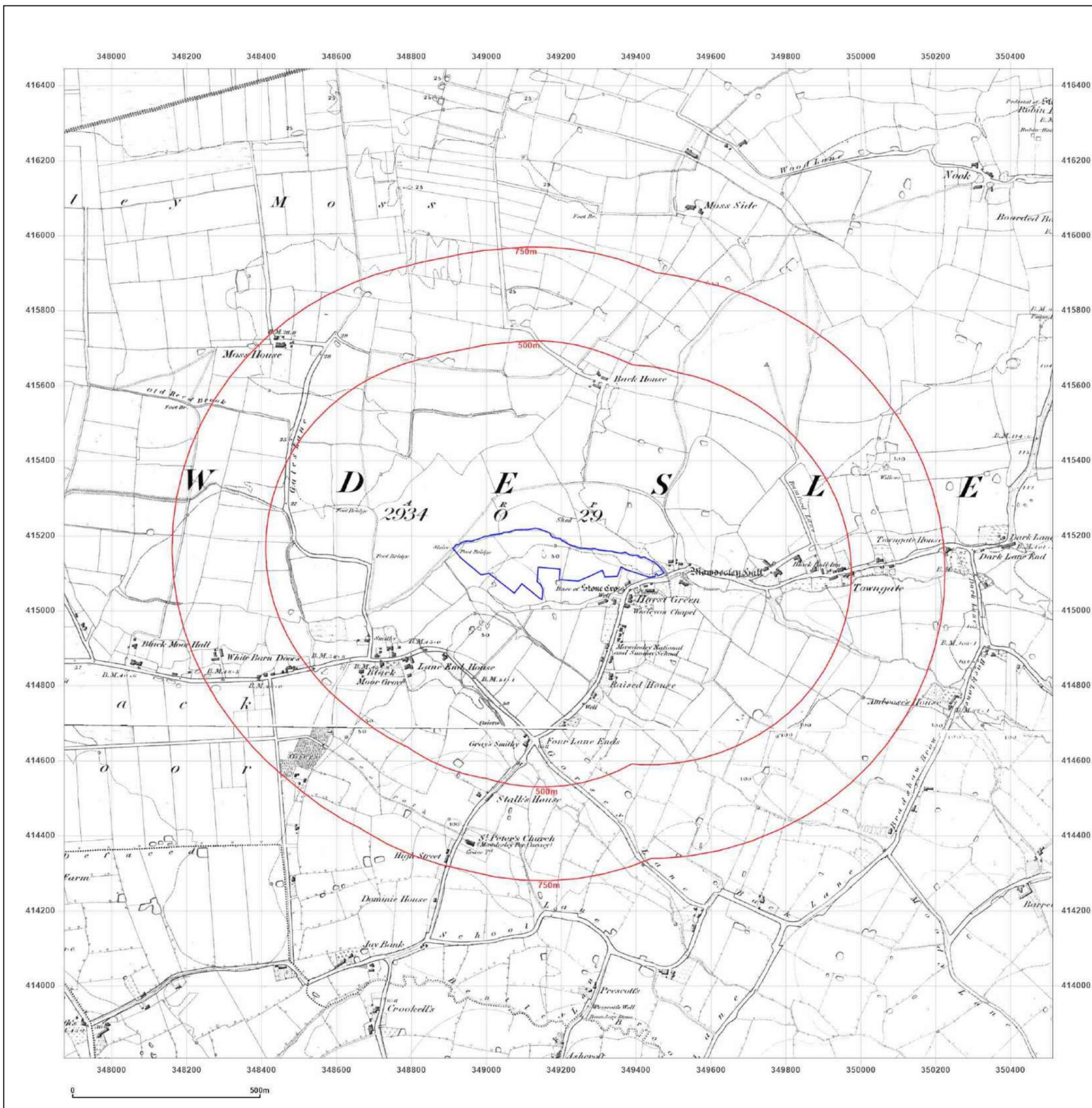


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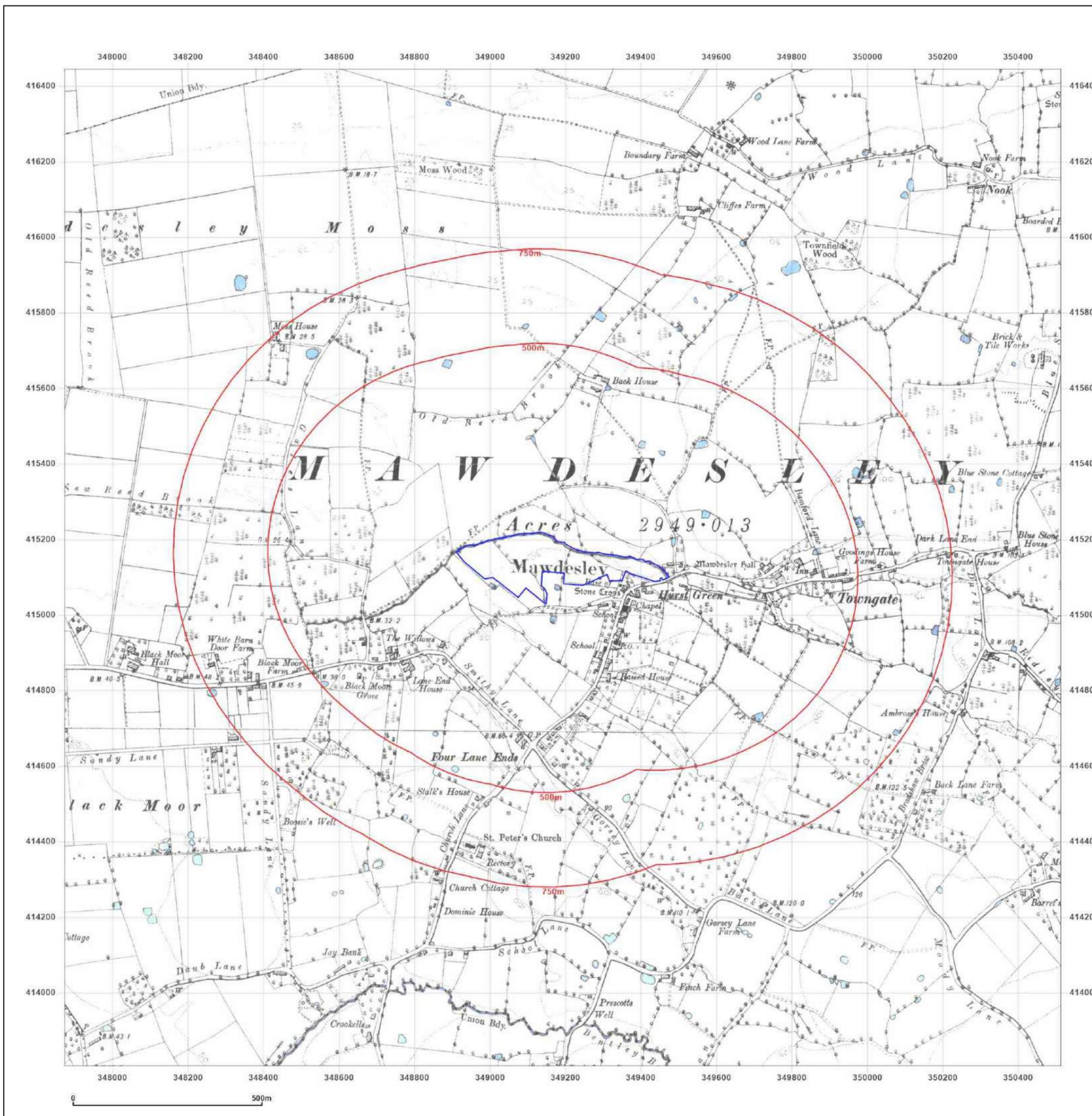


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Revised 1907
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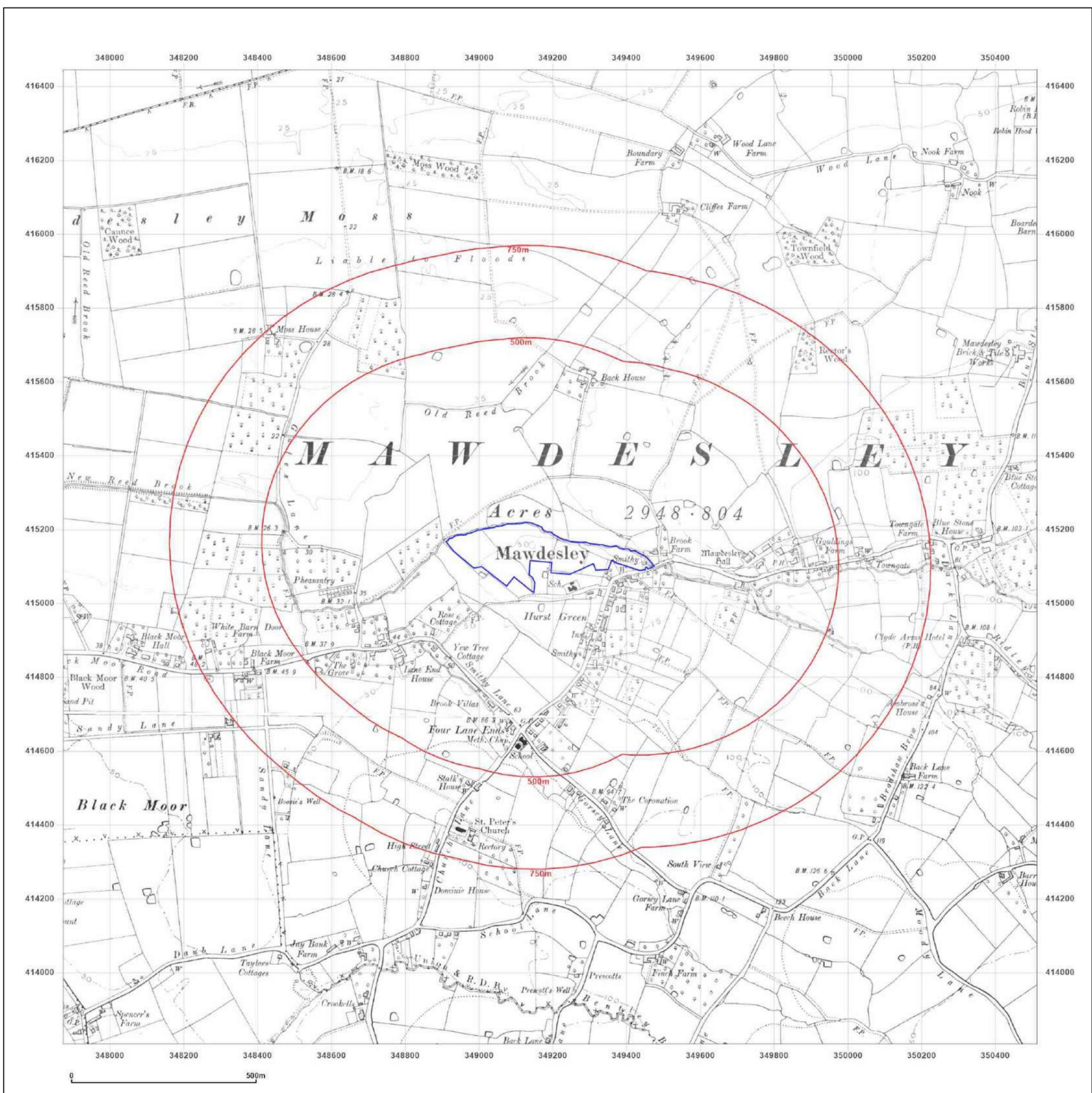


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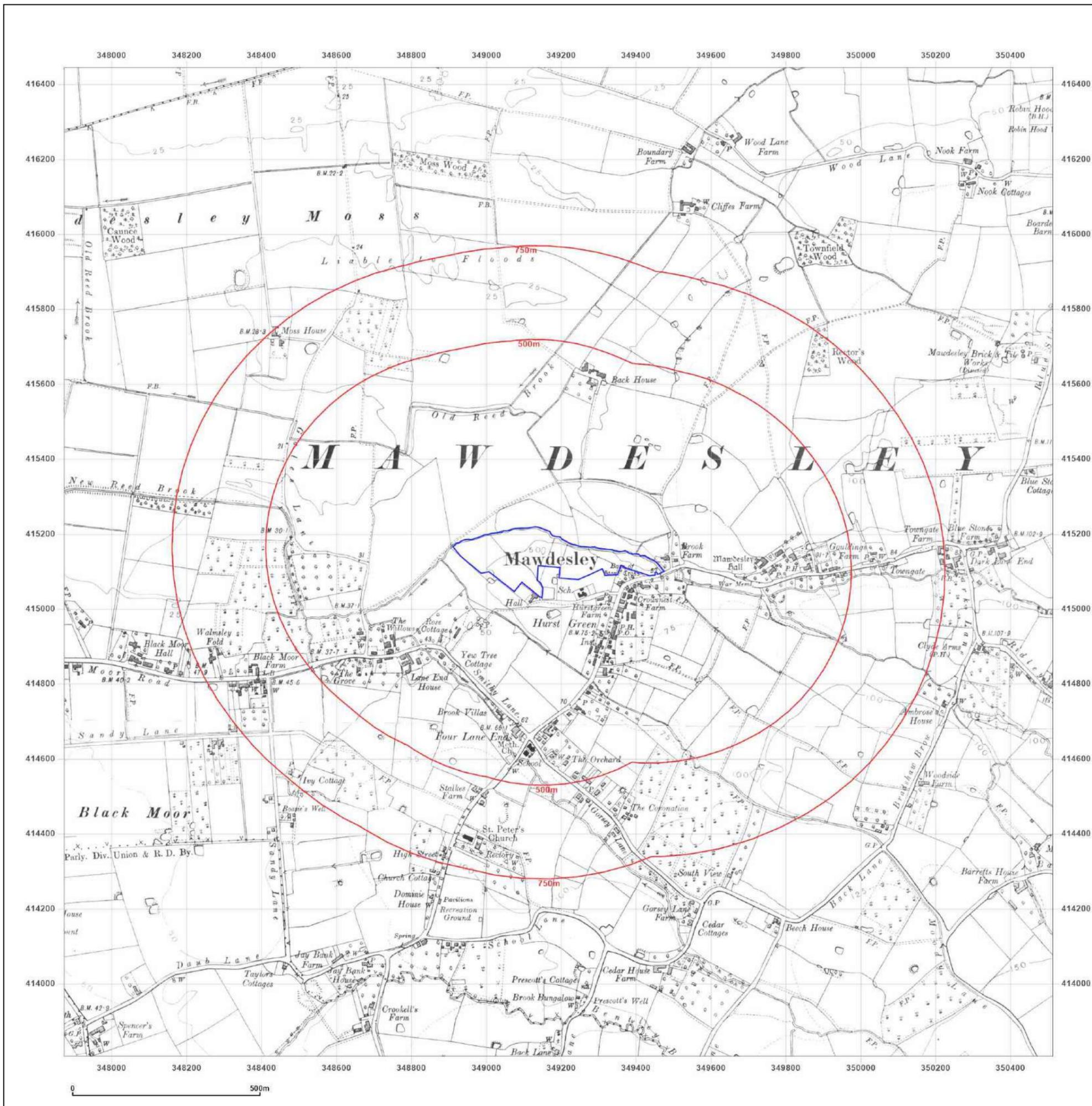


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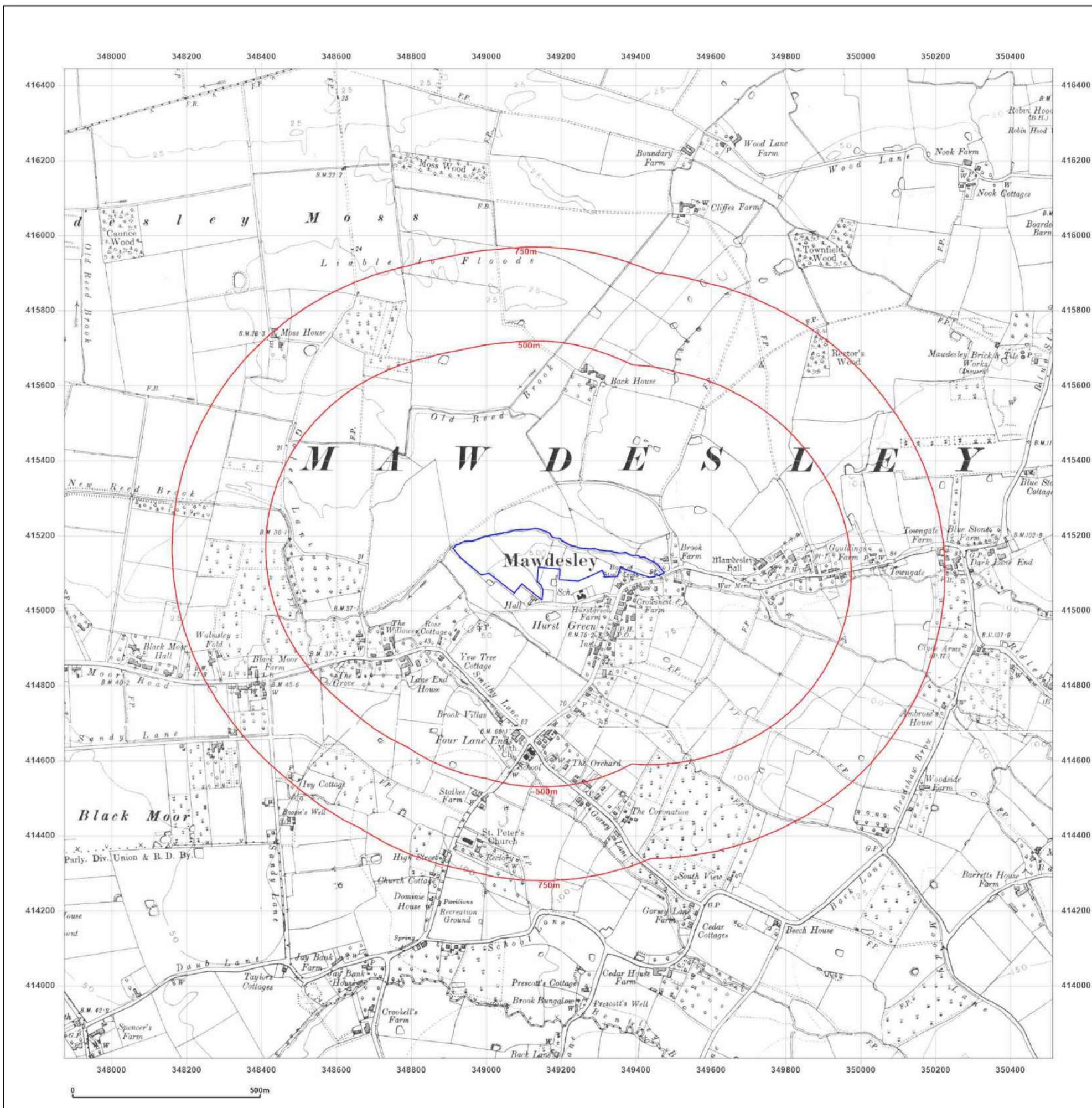


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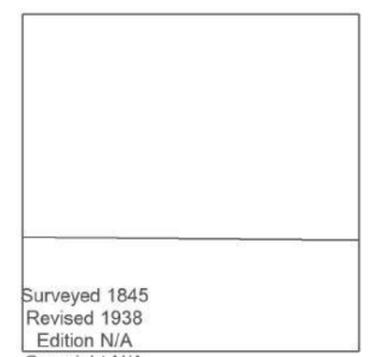
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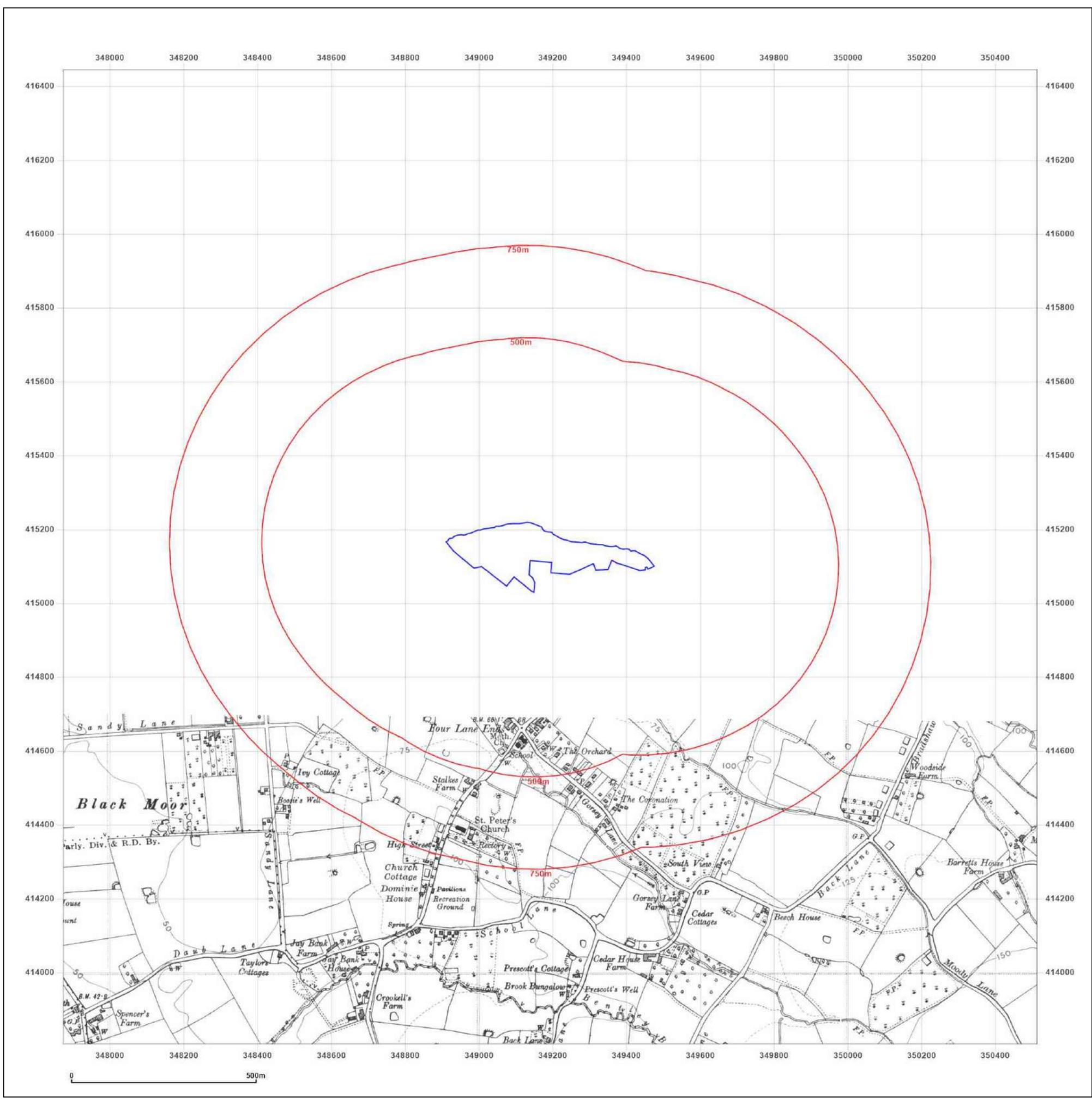


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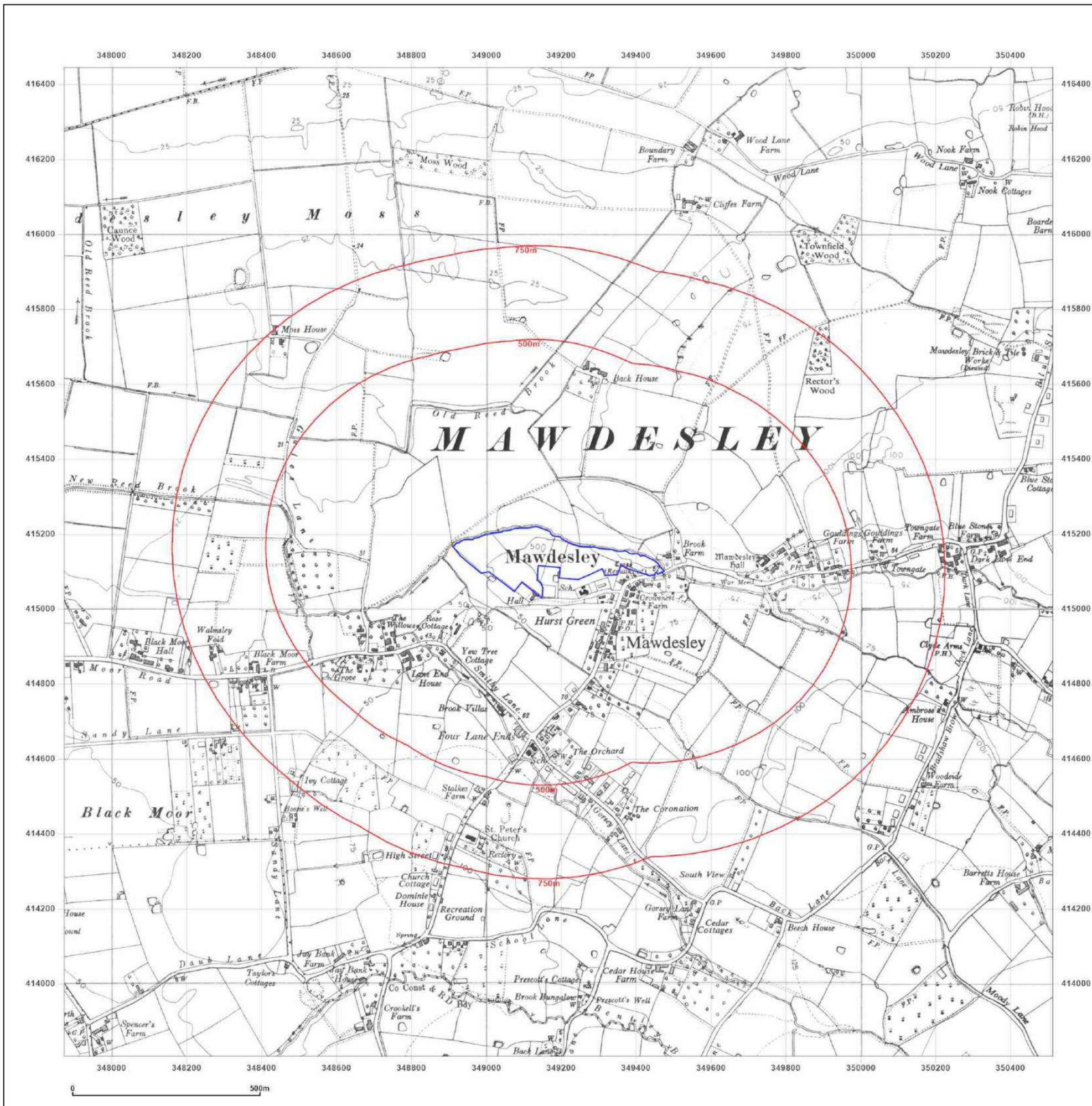


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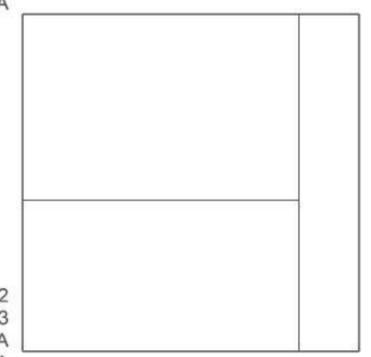
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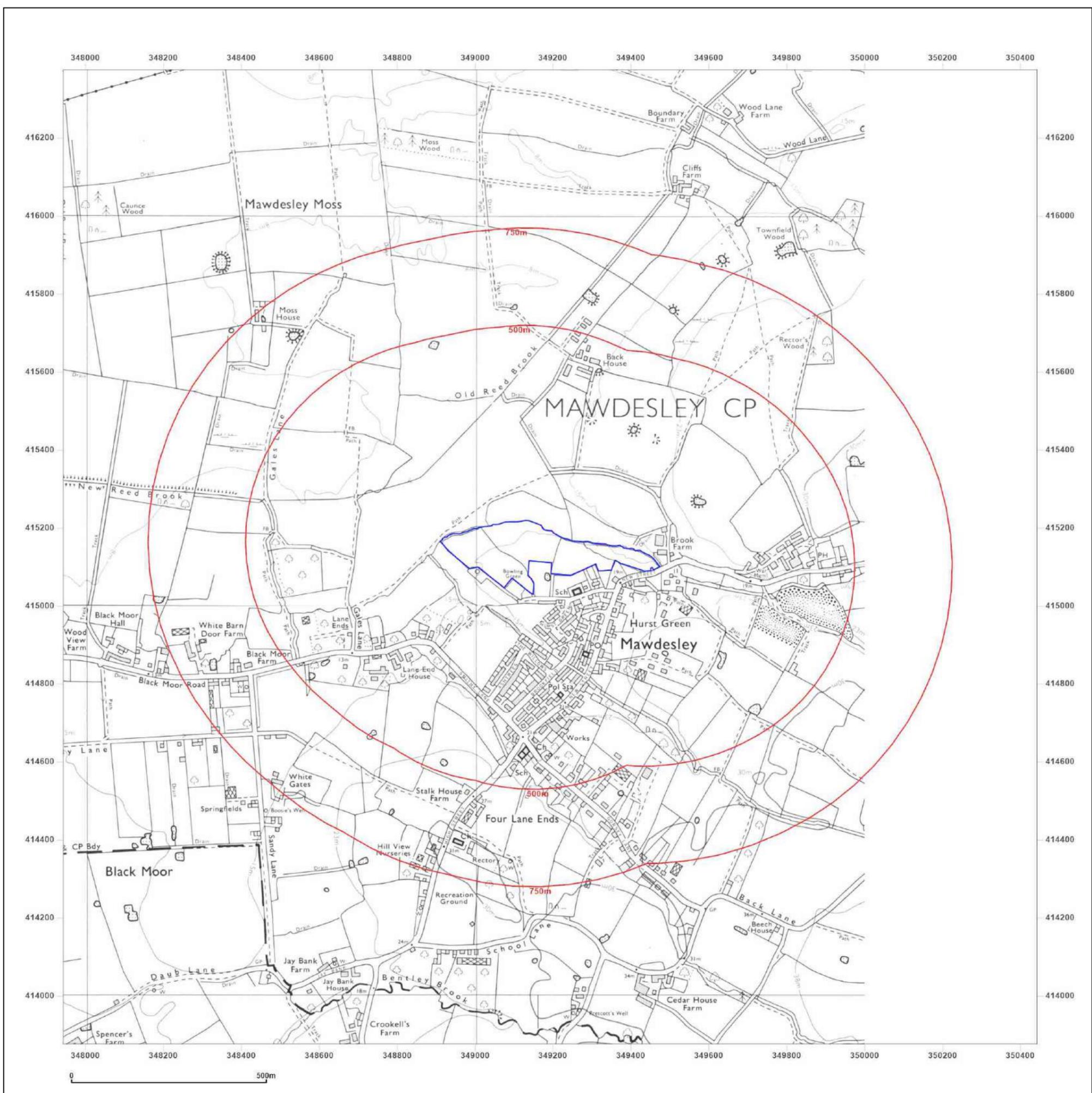


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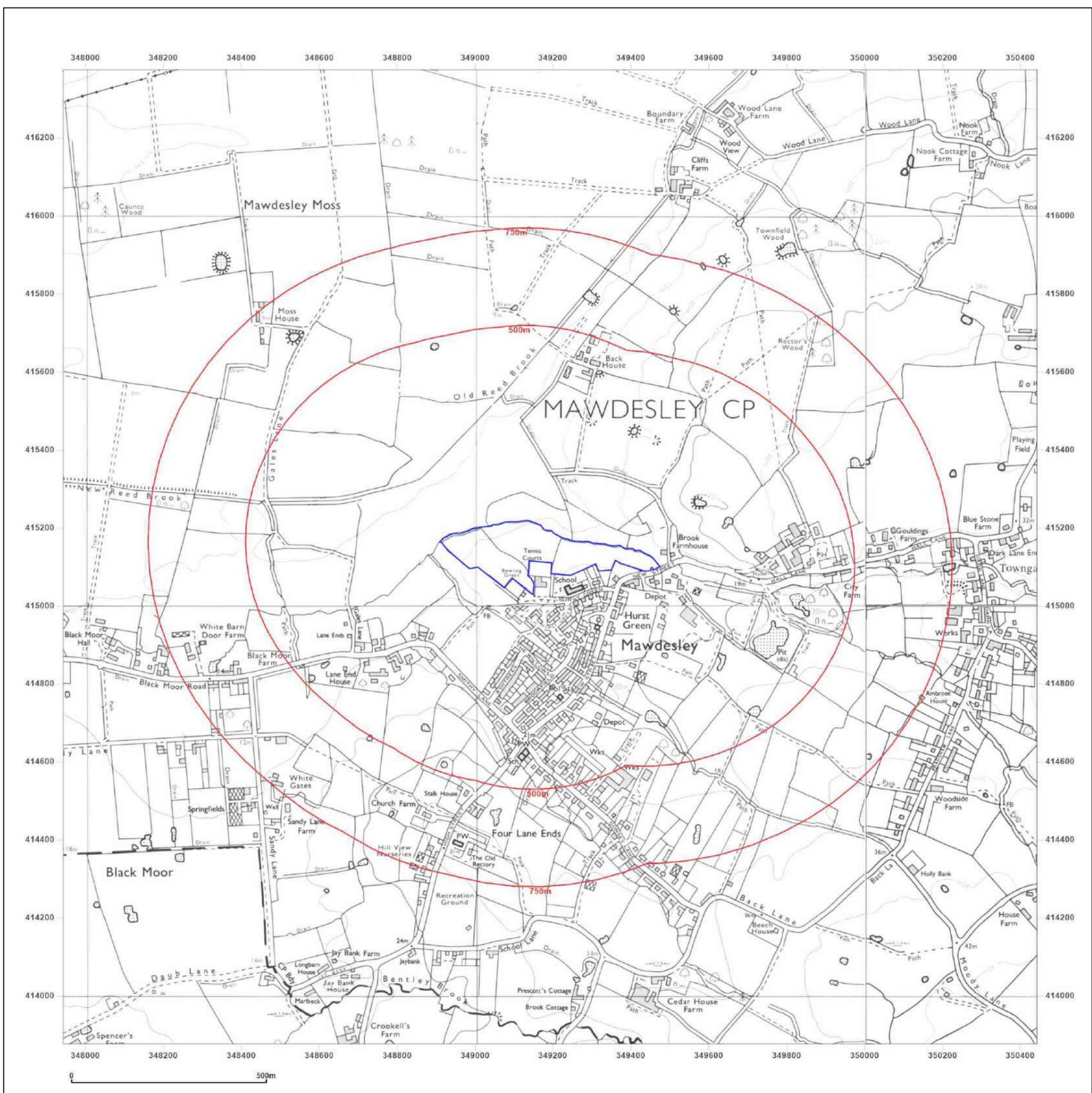


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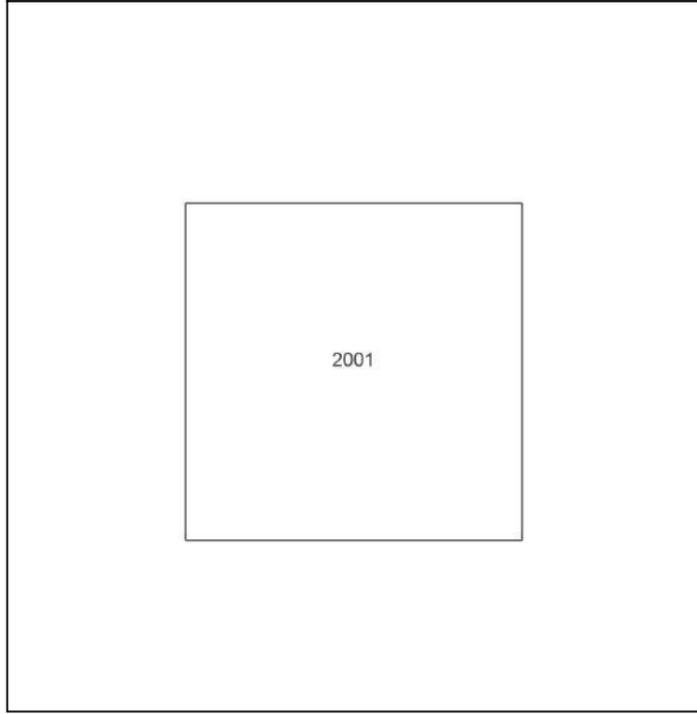
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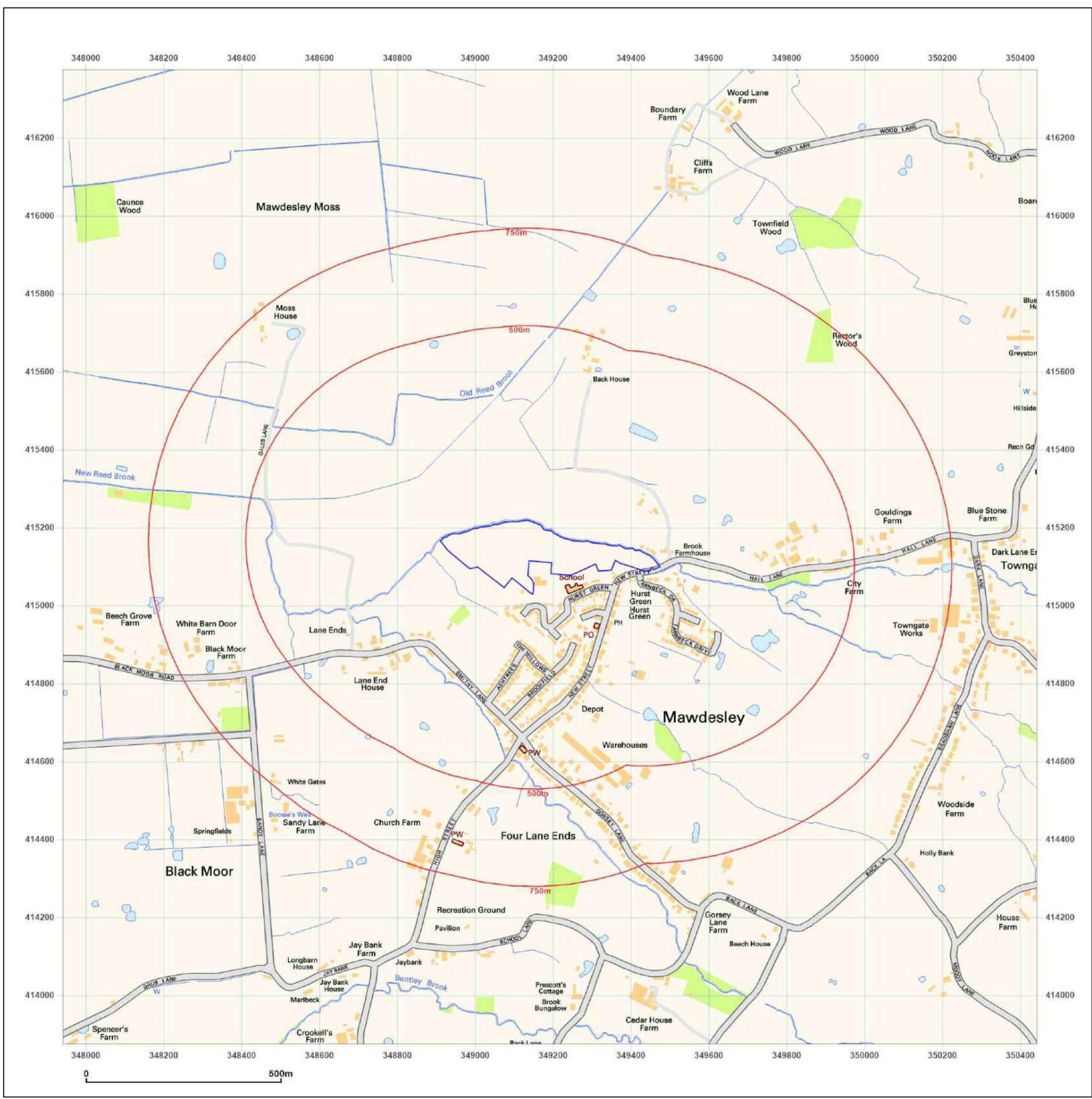


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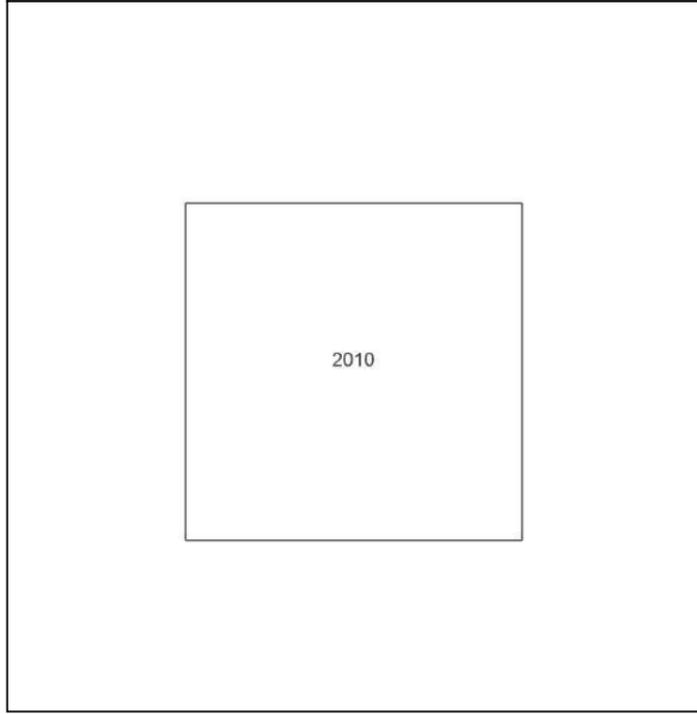
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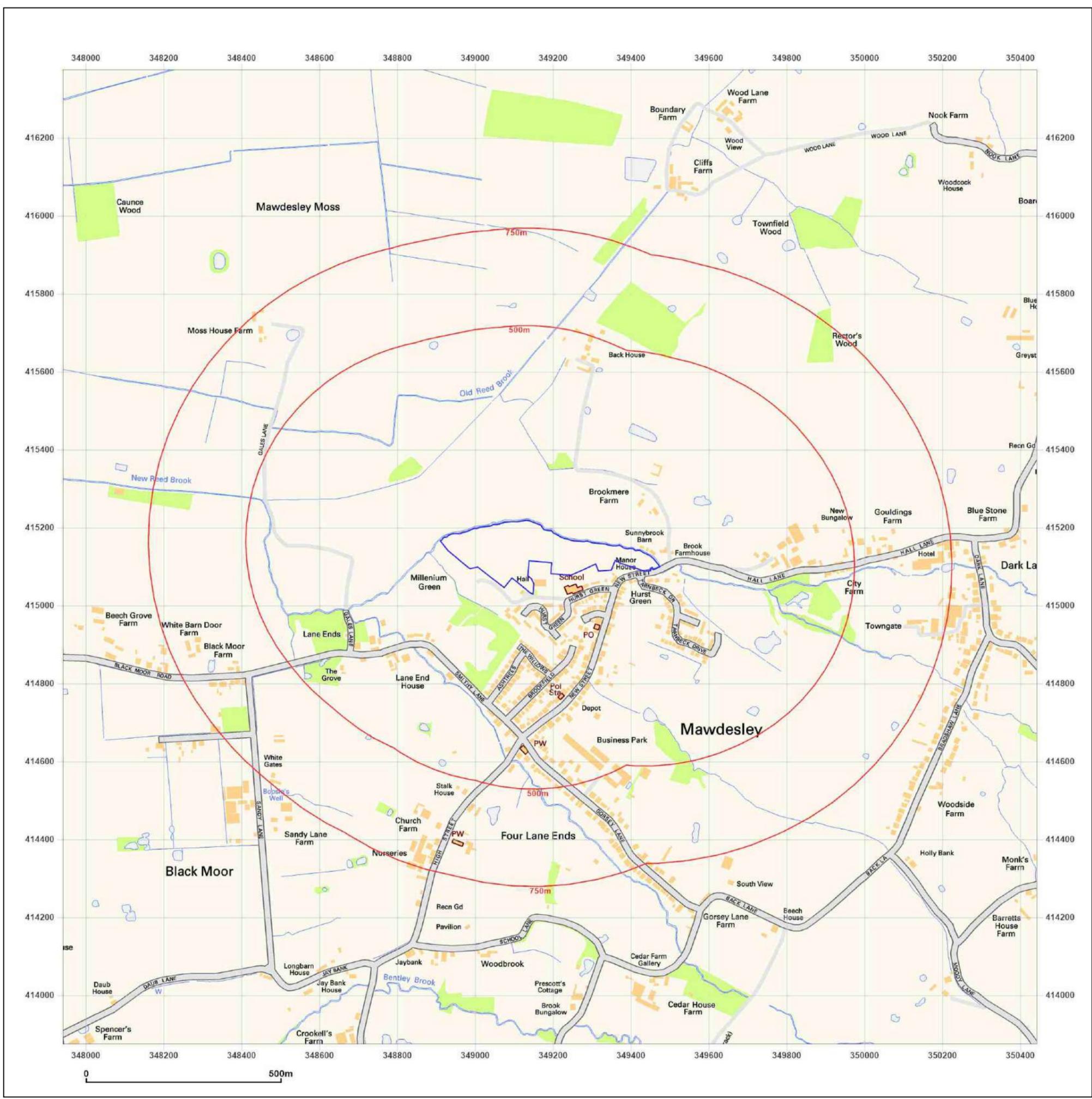


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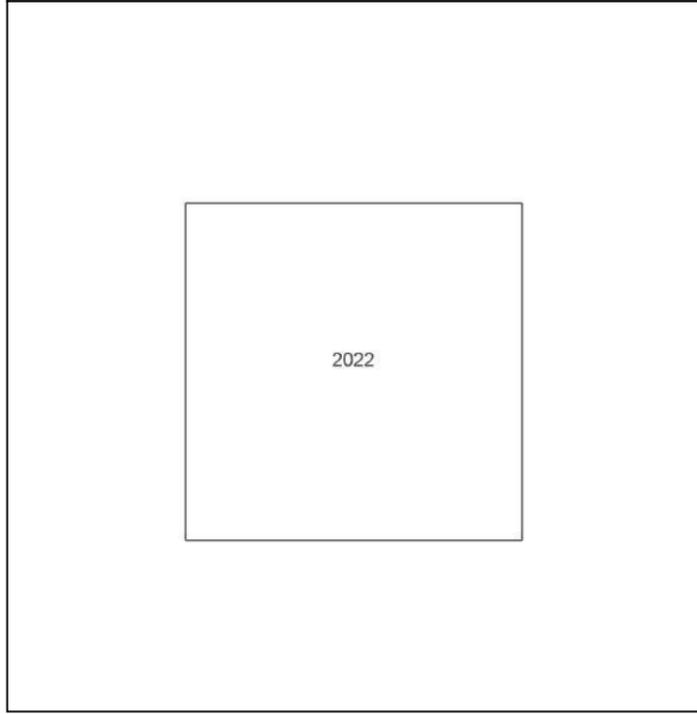
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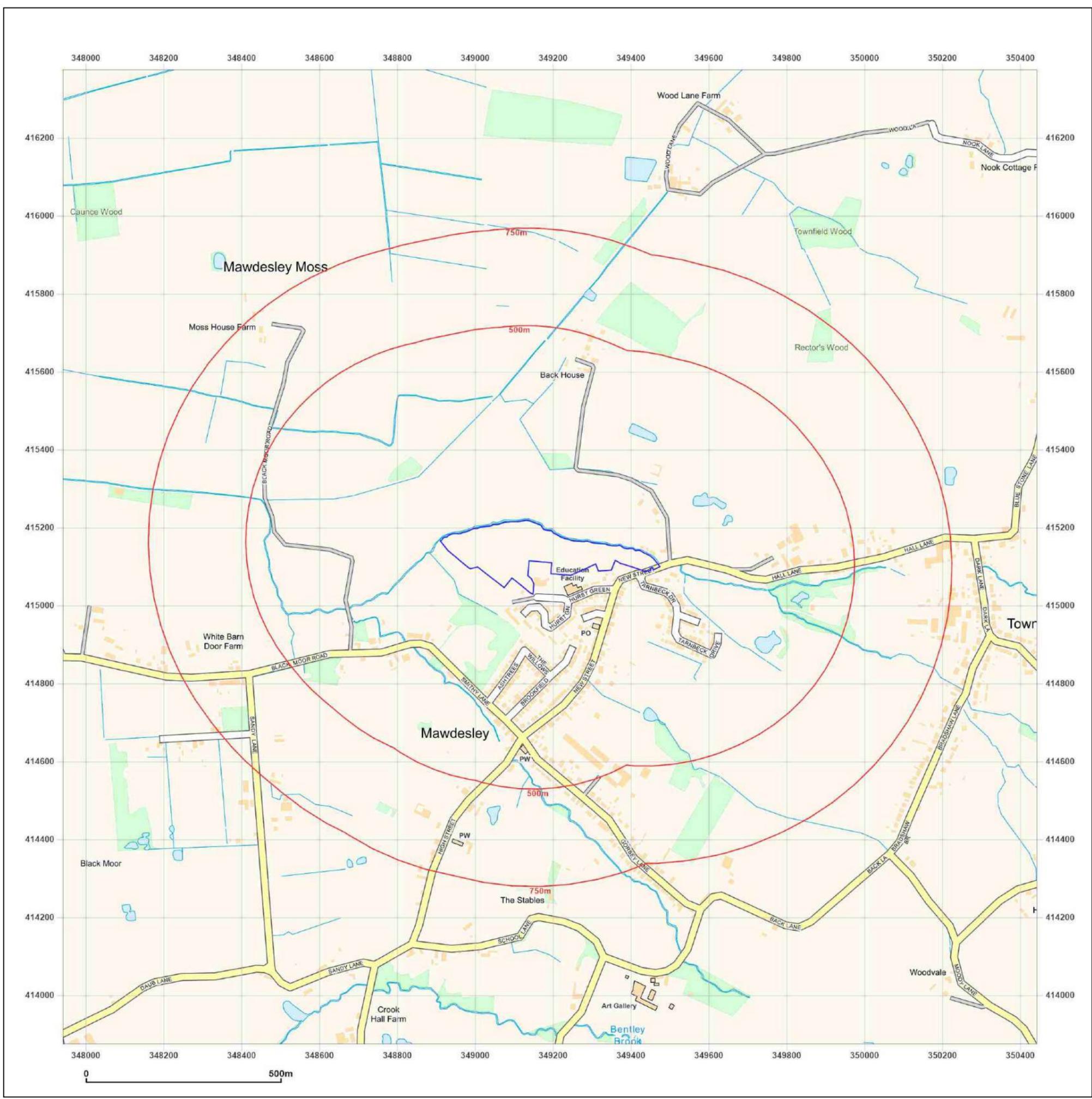


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Landscape and Visual Appraisal

LAND OFF NEW STREET, MAWDESLEY

SITE ASSESSMENT

Prepared for

John Mallinson

Prepared by

December 2022

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General Notes:

- 1. This assessment is designed to be a quick report to give a client at the very start of a project to show the feasibility of the proposed development on a particular site in terms of the likely landscape and visual effects.*
- 2. The report is fairly brief and considers only the most important relevant aspects. This includes the designations, landscape character elements, and receptors.*

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1.0 INTRODUCTION

- 1.1 The focus of this report is to look at the local landscape character & visual amenity and assess what the likely effects of a potential development might be, the possible mitigation measures, and to conclude as to how appropriate the proposals are in this context.

THE SITE

- 1.2 The study area comprises of three adjoining agricultural fields to the north of Mawdesley. In total the area is circa 45,000 m² (4.5Ha). The fields are surrounded by mature planting comprising in the main of deciduous trees and shrubs, and this form of vegetation also splits the site into three different fields. From the east to west, East field 16,000m², Mid field 14,500m², West field 14,500m². All are laid to grass and used for agriculture. The site is gently sloping from the north to the south. this would be approximately 4m in height over 200m in length at its steepest.

THE PURPOSE OF A SITE ASSESSMENT

- 1.3 This assessment is designed to examine a particular site to assess at the very outset the likely effects of a particular development on the landscape character and visual amenity of the local area. Conclusions drawn at the end of the report will be based on consideration of only the most important designations and character assessments.
- 1.4 It should therefore be noted that this report is not intended to form part of a planning application for the Site, a furthermore in-depth report should be prepared in support of that.

2.0 METHODOLOGY

INTRODUCTION

- 2.1 The desktop study and site survey were carried out by John R Nuttall MA, CMLI, BA(hons), Dip. Lan.
- 2.2 This assessment was carried out through a combination of:
- a. a desk top review of available data on major environmental constraints and designations from www.magic.gov.uk (Multi-Agency Geographic Information)
 - b. a review of the National Character Area report for the area published by Natural England
 - c. a site visit augmented by a survey of the wider area within which the Study Area is located
- 2.3 Where it is applicable this appraisal has been carried out in line with the "Guidelines for Landscape and Visual Impact Assessment – Volume 3" (2013) published jointly by the Landscape Institute and the Institute of Environmental Management and Assessment. However, the production of this site assessment does not in itself imply any requirement for a full Environmental Assessment under the EIA regulations 2017 to be carried out. It is therefore intended to stand independently in the absence of further studies.

POTENTIAL DEVELOPMENT

2.4

The likely effects on landscape character and visual amenity will be considered in relation to this site being developed for housing residential development based on the sketch master plan provided illustrating style and density and the impact it will have visually and on the landscape. There have been no cross sections provided so the impact is estimated and relative to those existing residences.

2.5

The proposed development is accessed off a main spinal road taken from New Street. This road runs the length of the development on the northern side of the housing units. This road has smaller arterial roads leading into smaller housing pockets. These pockets are typically 6 – 11 units. The pockets use the existing vegetation to envelope them keeping the maturity and screening this provides and at certain points this planting will be appropriately augmented.

The masterplan illustrates the housing layouts, as well as the natural infrastructure such as the green infrastructure such as the SuDS areas, the land for additional sports facilities (j) and community car parking (h). In addition to this and to compliment the well-used Millennium Green, the site has a network of footpaths running through it linking them together along with the tennis and bowling clubs.2.6

2.6

The site survey was undertaken on the Tuesday the 30th August 2022. The landscape character of the Study Area was reviewed and an assessment made of the visual amenity of the area.

THE STUDY AREA EXTENT

2.7

The boundaries of the Site and of the Study Area are shown on **Figure 1**. It was found that the Site would have very limited visibility or not be visible from any of the publicly accessible paths, roads or tracks. (see VP's 1-14) The site is currently overlooked from the southern boundary by residential properties to a greater or lesser extent through their back garden boundaries, similarly St Peters Church of England primary school, Mawdsley Village Hall, Tennis club and Bowling club will have some glimpsed views into the site from the southern elevation.

2.8

The western side of the site has Mawdesley Millennium Green (which was obviously implemented at the turn of the century) and Moss fields Conservation Area, slightly further to the SW of the site (although this has no formal designation within the Chorley Local Plan). The residential housing located to the south wraps around up the eastern side of the Hurst Green Road where it meets New Street.

2.9

There is a track which has a metalled surface to the eastern side of the site, which runs predominantly South to North approaching New Street, this serves some larger residential properties and farmhouses, 3 of the properties are sited in the fields to the north of the site between the site and this road. There is an all-weather rectangular surfaced area (viewed from the plan) immediately on the other side of the boundary planting to the north of the

site and west of the first residence on the track. This road is very enclosed with buildings initially and then vegetation, restricting the views. (See fig 4.)

2.10

As the road progresses it curves from the N-S axis to travel E-W for roughly 200m, it turns at 90 degrees in a N-S direction to other properties north of the site. At this corner, a footpath then carries on running around the northern boundary of the site in an E-W direction. This footpath at this point is two fields away from the study site (see VPs), however progressing along it effectively gets closer to the study area as it curves around to head in a SW direction. At a point where it reaches the NE boundary of the Millennium Green, glimpsed views are available into the development site on the other side of a ditch drainage channel.

METHODOLOGY

2.11

The initial task undertaken was a desktop study to investigate the major existing designations within the Study Area, and an examination of The National Character Area report. Note that no additional existing character area reports were consulted.

2.12

Information was gathered during the site survey to assist in the description of the landscape character in both physical and aesthetic terms – i.e. those aspects of the landscape which are tangible such as landform and vegetation, and those which are experienced in a more instinctive way such as the sense of spaciousness or enclosure, tranquillity and wildness.

2.13

Next an assessment of the visual environment is made concentrating on the likely experience for receptors (people) who will view the landscape. This is based on three main factors:

- a. The degree to which the potential development is likely to be visible.
- b. The numbers of people who may perceive any changes due to potential development.
- c. The occupation of those people perceiving any changes – it is generally recognised that local residents are more susceptible to any changes, followed by those engaged in leisure pursuits where the surrounding landscape is important, those on roads and public transport, and finally those working in the area.

2.14

Once the likely visual effects have been considered a descriptive assessment of the potential mitigation opportunities has been provided giving a judgement on the potential to reduce any adverse effects on landscape character and visual amenity.

2.15

Following on from the potential for mitigation and the likely residual effects there is a descriptive conclusion summarising the findings of this report.

3.0 THE POLICY CONTEXT OF THE STUDY AREA

DESIGNATIONS

3.1 The major relevant landscape designations for the Study Area are listed below:

a. The Land is in the Green Belt as designated in the Local Plan.

3.2 Other major relevant designations within the Study Area are as follows:

a. None

3.3

Green Belt (as stated in the Lancashire Core Strategy 2012)

Para 10.13 The Green Belt helps ensure that settlements do not coalesce. There is a general presumption against inappropriate development in the Green Belt, and the very special circumstances needed to justify inappropriate development within it will not exist unless the harm, by reason of inappropriateness and any other harm, is clearly outweighed by other considerations.

4.0 SITE ASSESSMENT

THE NATIONAL CHARACTER AREA

4.1 The Study Area falls within the Natural England National Character Area (NCA) Profile number NCA 32 for The Lancashire and Amounderness Plain which includes descriptions of the principal characteristics of the area. Those that are found within the Study Area include:

- A rich patchwork of pasture, arable fields and drainage ditches, on a relatively flat to gently undulating coastal landscape.
- Extensive views across the plain, within which small to medium-sized blocks of mixed woodland (wind-sculpted near the coast) provide punctuation and vertical accents.
- Thickly blanketed by glacial till, with poorly-drained peat-filled hollows that give rise to mosses and meres (now mainly remnants).
- Medium-sized to large fields form an open, large-scale agricultural landscape. Pasture is more dominant north of the Ribble Estuary, with arable to the south. There is a high density of relict pastoral field ponds on the eastern side of the NCA.
- Localised areas of intensive market gardening provide seasonally varied colours and textures.
- A complex network of wide meandering rivers, raised drainage ditches and dykes divide and drain the landscape. Along with fragmented relicts of reedbeds and mosses, and historic place names, these provide a reminder of the area's heritage of wetland reclamation.
- Coastal habitats and large areas of open water are of international importance for their migratory and wintering wildfowl and wading bird populations.
- Mixed arable and pastoral farmland habitats support a nationally important assemblage of breeding farmland bird species.
- A complex network of channelised rivers, canals, drainage ditches and dykes supports a nationally important population of water vole.
- The Fylde coast, which extends from Fleetwood in the north to the mouth of the Ribble Estuary, includes significant urban areas along the coastal strip (such as Blackpool and Fleetwood).
- Urban settlement is concentrated in the planned Victorian coastal resorts (including Blackpool) and inland towns (the largest of which is Preston).
- The Ribble Link, Lancaster Canal, and Leeds and Liverpool Canal all cross the NCA.
- Designed landscapes associated with large houses are locally common in the south, where they provide enclosure in an otherwise open landscape.
- A rectilinear network of lanes and tracks – usually without fences or hedges – subdivides the landscape, and isolated brick farmsteads occur in rural areas.
- Tourism is an important contributor to the local economy, with many opportunities for informal recreation – particularly along the Fylde coast.
- Several long-distance paths cross the NCA, including the Lancashire Coastal Way, the Ribble Way and the Wyre Way, as well as canal towpaths.

4.18

The Lancashire and Amounderness Plain supports an open, large-scale landscape of farmland on a relatively flat to gently undulating coastal landscape. Pasture is more dominant north of the Ribble Estuary, with arable to the south. This rural landscape is dissected by wide rivers and a complex network of drainage channels, which together reinforce the angular form of the field pattern and are a reminder of the area's heritage of mosses and meres. Large flocks of migratory wildfowl and wading birds take up residence on the coast during the winter months. These birds feed and roost not only on the mudflats and salt marshes of the estuaries, but also on the farmland along the coastal plain, using wet pastures, areas of open water, improved pasture and arable fields. The presence of these birds has led to large areas of the NCA being designated as Ramsar sites and Special Protection Areas (SPA).

4.19

The northern plain is predominantly improved pasture, supporting a high density of livestock, with isolated arable fields. It is a medium- to large-scale landscape, with medium-sized fields, field ponds, clipped hedgerows and drainage ditches. Blocks of wind-sculpted, mixed woodland punctuate the relatively flat to gently rolling plain. Views to the east are seen against the dramatic backdrop of the Bowland Fells and Southern Pennines. To the north, bordering Morecambe Bay, areas of stubble and grass leys contribute to significant feeding grounds for internationally important flocks of pink-footed goose and whooper swan

4.20

The statements of environmental opportunity within this publication that are relevant to the Study Area include:

SEO 1: Conserve, manage and enhance the river systems and wetlands – including the Ribble Estuary and the rivers Wyre and Douglas – with their many associated drains, dykes and streams. This will improve water quality and supply, sustainably address flood risk management, and enhance biodiversity and the historic environment through a strategic, landscape-scale approach.

- Seeking opportunities to create woodland to reduce flood flows
- Where new development will generate surface water run-off, ensuring that it incorporates sustainable urban drainage systems. The amount of surface water that enters the combined sewer network should be minimised. Also, seeking opportunities for the retrofitting of sustainable urban drainage systems in locations that generate surface water run-off.

SEO 3: Promote the sense of place of the coastal and inland settlements, and protect the remaining rural character of the wider landscape from further loss and change from development pressures. Manage urban fringe development to ensure that it does not negatively impact the rural character of the area, and ensure that all development is of an appropriate type and scale. Provide good green infrastructure links to enhance people's enjoyment of and access to the varied landscapes and valuable recreational assets that the area provides.

- Ensuring that development respects local settlement patterns and uses traditional building materials where possible.
- Incorporating green spaces into new developments, in particular around the urban fringe. Connecting green spaces with semi-natural habitats where possible, providing communities with recreational green space and wildlife corridors.
- Managing development around the urban fringe and within rural settlements to enhance the distinctive character and countryside setting of the rural landscape.
- Encouraging landscaped buffers for any development that impacts on land outside settlement boundaries, in order to limit the effect on the landscape.

LANDSCAPE CHARACTER

4.21

Following the desk top study and site investigations of the Study Area, the site shows relatively few of the principal characteristics of the NCA 32 The Lancashire and Amounderness Plain (See Fig 3). The closest one would be from the above;

4.22

■ *A rich patchwork of pasture, arable fields and drainage ditches, on a relatively flat to gently undulating coastal landscape.*

4.23

The other characteristics are more associated to the coastal elements of the NCA and do not need to be considered within this report.

4.24

The character of the site is one of being enclosed, with few to no views across it. The topography also lends itself to this enclosure, graduating down from the northern boundary and slightly from the southern boundary to the water course which runs along the northern boundary of the site in an east – west direction. This creates a slight bowl which further creates visual exclusion. The fields are small scale compared with other ones in the locality and as described enveloped by mature planting. It is grazing land bounded and split by trees and hedges into three separate fields.

4.25

Relevant photos taken around the Study Area during the site survey are included in the Appendix, while the photo locations are shown on **Figure 2** in the Appendix. These have been ordered to represent the Areas identified above, while also providing a reference for the visual assessment described later in this section of the report.

LANDSCAPE CHARACTER ASSESSMENT

4.26

Assessing landscape character is a judgement about the degree to which the landscape in question is robust, in that it is able to accommodate change without adverse effects on its character. This means making decisions about whether or not significant characteristic elements of the landscape will be liable to loss, whether or not they could easily be restored, and whether

important aesthetic aspects of character will be liable to change. Equally, consideration must be given to the addition of new elements, which may also have a significant influence on character.

4.27

Once these elements have been combined the overall landscape setting and context can be considered. Using data recorded during the survey work, along with the relevant aspects from the NCA, each of the areas identified has been assessed in the following paragraphs.

4.28

The site is relatively quiet, afforded by the fact there is no public accessible footpaths and it is used for agricultural grazing, which gives it an added air of seclusion. It borders the main road at High Lane on its Eastern boundary. The views into the site from the east boundary are the only uninterrupted ones into and across the site off a public highway. It is showing a narrow 'pinched' view with a tree lined back drop of the northern boundary which is consistent feature all along the boundary edge. Travelling along New street to the south the site quickly becomes screened by the residential boundary fence (VP 5.) and from there no direct views are available into the site.

The site has no PRowS within it and will be viewed as typical agricultural land by the general public, much the same as elsewhere in the locality. The residences boarding it (7 no.) with interrupted views into it, overlooking their garden and the boundaries there, would class it as an enclosed agricultural space.

It is likely people would describe it as uninspiring functional agricultural fields. The Tennis club has built additional courts in it to when it extended its facility, but this too is relatively enclosed by planting. The site has a boundary landscape, in keeping with the area and the fields are put to grazing. Some of the fields outside of the site to the north are of a larger scale and crops are grown in them.

4.29

Wind turbines have been sited to the north (VP 13.) which although is seen as environmentally positive, is generally regarded as a negative impact on the landscape character of the area. Mawdesley is to the south of the site and is a village with fragmented areas of residential ribbon development along various roads and lanes. As such it lacks the clearly defined centre and sense of place of some nearby villages such as Croston and Parbold. It has a population of 1702 (2011 census).

The Northern boundary has other agricultural fields on the other side and these are bounded by mature trees and shrubs and the lane off Hall Lane to the residences. One or two fields separate the site from the lane and the PRow, (See Fig 2.). There are wind turbines (3 No) within 1000m of the site. These are located on to the North.

The Western boundary has Mawdesley Millennium Green running its full length. There are glimpsed views into and across the site. To the extent of both of the sites very North Eastern and North Western boundary respectively it almost meets the PRow which runs 1 (in places 2) fields away from the site. There is no formal access to the Millennium Green although there is evidence (desire lines) the ditch has been crossed to access it.

The Eastern boundary has the views across it off New Street (VP) and a residential property with a long fence line 95 m approx from the junction with Hurst Green.

All of these boundaries preclude views into the site, and where there are any, they are glimpsed (Millennium Green) or briefly open (in the right direction, Southerly) off New Street.

4.31

None of the NCA 32 characteristics are reflected either on site or in the imminent surrounding landscapes and therefore not particularly relevant to this area.

Potential Landscape effects

4.33 Changes to landform

There will be limited change to the landform in and around the site but these will be limited to foundation excavations for the buildings and the road. The levels will stay the same with the existing watercourse providing the surface water drainage.

4.34 Changes to type and extent of the vegetation cover

The boundaries will remain intact and be reinforced where appropriate. There will be limited vegetation removed where the minor roads access areas of the site.

4.35 Change in landuse

The site use will change from agriculture to a housing development although this will have large swathes of green infrastructure. The access off New Street will change from a farm gated entrance into a field to a formal metalled highway.

4.36 Effect on waterbodies

The existing ditch will stay and be further supplemented by SuDS water bodies. This reflects on the **NCA 32 SEO 1** *Where new development will generate surface water run-off, ensuring that it incorporates sustainable urban drainage systems. The amount of surface water that enters the combined sewer network should be minimised. Also, seeking opportunities for the retrofitting of sustainable urban drainage systems in locations that generate surface water run-off.*

4.37 Effects on landscape features

The boundary planting will access swathes cut through them, these will cause limited harm and should be kept to a minimum. The field access will become more urban-like however this already has elements of this through the adjacent residential boundaries being clearly visible on the southern boundary.

4.38 Effect on established footpaths, PRoW and access.

There is no access into the site at the moment and the development will create footpaths and access routes through it, thereby linking into a new area.

- 4.39 Effects on cultural associations
Some of the development will release land for more recreational use and car parking. This will take the strain off the existing one.
- 4.40 Changes to the character, pattern, colour and scale of the landscape
The character of this site would be changed irreversibly, as will the colour of the landscape, albeit one not enjoyed by many people at present due to the limited or non-existent access. The scale will be further reduced as the proposal introduces more planting to break the housing pockets up and as such creates smaller scale areas, further fragmenting it.
- 4.41
There will be seasonal variation in colour and hue as the majority of the mature planting is deciduous, however there is density and width to these boundary lines and this will still create a visual barrier to any views. There are physical barriers to the southern boundary which will not alter fence lines and buildings.
- 4.42
The development will still be glimpsed views rather than be uninterrupted open ones and these could be further mitigated by selective enhancement of the existing planting, possibly with some evergreen species within the mix. In reality, there will be little to no difference of the experience during the seasons to the site.
- 4.43
It is considered the site could accommodate a development of this nature as it is enclosed with substantial boundary screening and the landscape character is not reflective of the NCA typology. The development will still experience a high level of enclosure and the landscape fabric will essentially not be impacted greatly and in some areas it will be enhanced.

VISUAL ASSESSMENT

- 4.45
The site sits in three field pockets each enclosed by mature deciduous planting to three sides (North, East and West) and the South by built form. It is featureless agricultural grassland. There is a water course to the northern boundary, which east to west and effectively drains the site. The one area of open views is off New Street via the field gate. This is an enclosed view of the eastern façade of the site, restricted and stopped by the northern boundary planting and the residential properties wooden fence which pinches the view together in the mid distance. (See view 6.). The minor road (off New Street/Hall Lane) wraps around the eastern and northern boundary, outside of the site, is very enclosed and it is almost like walking in a tunnel in certain places (See fig 4.), it is the only publicly accessible route close to the site from these areas.

Viewpoint 1 – *View from the entrance of the MG.*

The Millennium Green is well used especially by dog walkers and the local community for sitting or the various interactive facilities. This site is well enclosed, to the eastern boundary there are filtered views towards the

proposed development site. The MG is used by pedestrians for rest and relaxation. Their view into the site is sporadic and glimpsed and the proposals will not affect their enjoyment of the MG. This field is proposed to provide for further community recreational use. The residual view is assessed as **neutral**.

Viewpoint 2 - View from Lane through the farmer access road off Hurst Green between the tennis and bowling club

The view shows a typical agricultural gated access into a field. The mature boundary to the far views clearly illustrates the robust nature of the boundary and it acts as a 'full stop' to the view. This access is used by a very limited number of people, however people using the bowling green and MG will pass by it regularly. The proposed use of the field for car parking and to extend the recreational facilities, means the view will remain largely unaltered or reflective of the existing car park extending that character to the other side of the road.

The view is a narrow one over a field gate and into a field. This view apart from being open is very constrained and will not affect the enjoyment of the area and even enhance it. The residual effect will be **Neutral**.

Viewpoint 3. View over the playground of St Peter's Church of England to the site.

The view is predominantly over a tarmac playground towards mature trees. It is enclosed by the boundaries on either side of the children's nursery and the main school building. The view will not change as the mature vegetation acts as a full stop to the view. At best, glimpsed views of any new buildings would possibly be seen. Those using the playground would be most affected. The field at the back of the playground will remain untouched by the proposal and the so the view is not affected. The result of development on this view is **neutral**.

Viewpoint 4. Looking west on Hurst Green, showing the residences

The view is a typical one looking down Hurst Green Road. The development will have little to no effect on this view going forward. The development will have a **neutral** effect on this view.

Viewpoint 5. View east along New Street.

This view down New Street showing the wooden fence and approaching the proposed access into the site will not be changed at the bottom of the hill. The effect of the development will be **neutral** to this view.

Viewpoint 6. Looking west through the field access gate.

The residential boundary can be seen on the left. This view is off New Street directly into the site. The residential wooden fence is seen on the left with the water course unseen to the right under the tree canopy. The tree lined boundary (right) is again prominent and this is a very strong feature.

The proposal does have two units to the left of the view and this will give some building mass as well as an access road off New Street into the site. The road layout curves are in keeping with other minor dwelling access roads within Mawdesley.

The development will remove a typical agricultural field view and replace it with a road and two dwellings. It will impact on the rural feel of that view and will have a **negative** effect on it.

Viewpoint 7. *2.5 storey residential development along the rural lane to the East of the site.*

The view is off the lane to the North East of the site looking directly towards it. The view is foreshortened by the dwelling and boundary fence and gates. The development will have no impact on this view and is therefore **neutral**.

Viewpoint 8,9,10,11 and 12.

All are views towards the site in a southerly direction. Note there is a field between the development site but the views into it are screened by the boundary planting and distance away from it even though that is less than 200m in most of them. The development will have no effect on this view so it is **neutral**.

Viewpoint 13. *Looking to the wind turbines at the top of the hill.*

No impact

Viewpoint 14. *View point in the MG towards the development.*

From this view the development would be visible and therefore assessed as **negative**. The view will be mitigated by planting and screening so the impact will largely be from the boundary of the MG. The planting mix should consider using evergreen as currently the view will be more apparent when the leaves are not on the trees.

POTENTIAL MITIGATION

4.46

Any mitigation to lessen or remove adverse effects on both landscape character and visual amenity needs to be carefully considered in relation to the proposed potential development so that it doesn't constitute an adverse change in its own right. In other words, unsympathetic earth mounding within a flat or regular landform whose purpose is to help to lessen the visual effect of a development, may actually contribute to produce a greater adverse effect than that which may have resulted without it. In the context of the areas which have been identified in this report it is therefore important to carefully consider how mitigation might affect landscape character and visual amenity.

4.47

Mitigation for the site due to the levels and the effect this has on screening the site presently would predominantly be to increase the boundary planting to the perimeter of the plots. This would be particularly important to the western boundary of the site adjacent to the Millennium Green and the access road off New Street, to reinforce the hedge and introduce some planting there, including some evergreen species which will reduce the seasonal

variation experience when the deciduous species lose their leaves. This would further restrict views into the site and whilst enclosing the Green (which would be the case anyway for the MG if the hedge was well maintained) it would mitigate any glimpsed views of the development.

4.48

The SEO 1 and 3 (Statement of Environmental Opportunities, quoted above) taken from the NCA 32 would enhance the area through introducing SuDS (4.36) and SEO 3 which promotes *incorporating green spaces into new developments, in particular around the urban fringe. Connecting green spaces with semi-natural habitats where possible, providing communities with recreational green space and wildlife corridors.*

4.49

Summary of visual effects

The LVA indicates that the visual receptors are limited to the residential houses (views are not available as there is no access into private residences) users of the sports facilities, pupils at the primary school and users of the Millennium Green. There is a buffer zone between these areas and the development site which will mitigate the visual impact of the development.

5.0 CONCLUSIONS

- 5.1 This study has examined the potential effects of a residential development to the north of Mawdesley following a set methodology which is in line with the latest guidance and best practice. After a rigorous analysis of all the data it is considered appropriate to draw the following conclusions.
- 5.2 It is considered that the likely residual effects on Landscape Character as a result of the proposals will be limited due to the existing enclosed wide planting belt boundaries of mature trees and hedges. This pattern of planting is followed in the surrounding fields to the north thereby reducing the impact of any development. In addition, the topography of the site helps to mitigate the impact, currently falling away from the residences, school and sporting facilities.
- 5.3 The landscape character of the area is not aligned with that of the NCA characteristics and as such the proposal will not impact unduly the landscape fabric as an entity. The landscape character of the area will not be affected due to the enclosed nature of it, thereby any changes will not be seen. There will be a more urban feel to the eastern end of the site as an access road and two residential units are proposed, but the layout of the site is sympathetic to the adjacent residences and retains as well as introduces several green elements such as SuDS, more planting and pockets of greenery as well as connecting them to the locality, allowing access which is currently not the case. Enjoyment of the MG could be improved via the proposed access pathways into the site now not experienced and the adjacent field being available for recreational use. This network is in line with SEO 3 (as stated above).
- 5.4 It is considered that the likely residual effects on any Visual Receptors as a result of the proposals will be the loss of perceived openness for the residences, sporting clubs and the primary school to their northern aspect, however this is restricted presently. Their views of the site are currently seen through mature planting and could further be mitigated with selective reinforcement planting in strategic areas.
- 5.5 Summarising briefly all of the likely effects identified within this assessment it can be concluded that the development would result in an overall neutral impact on both the landscape as an entity and visually any views can be controlled via screening. Therefore it is considered that the proposal is appropriate in this location, the landscape character will largely remain unaffected and any views experienced into the site can be mitigated or will remain largely unaffected.

Fig 1. The Site



Fig 2. View Point Photo locations

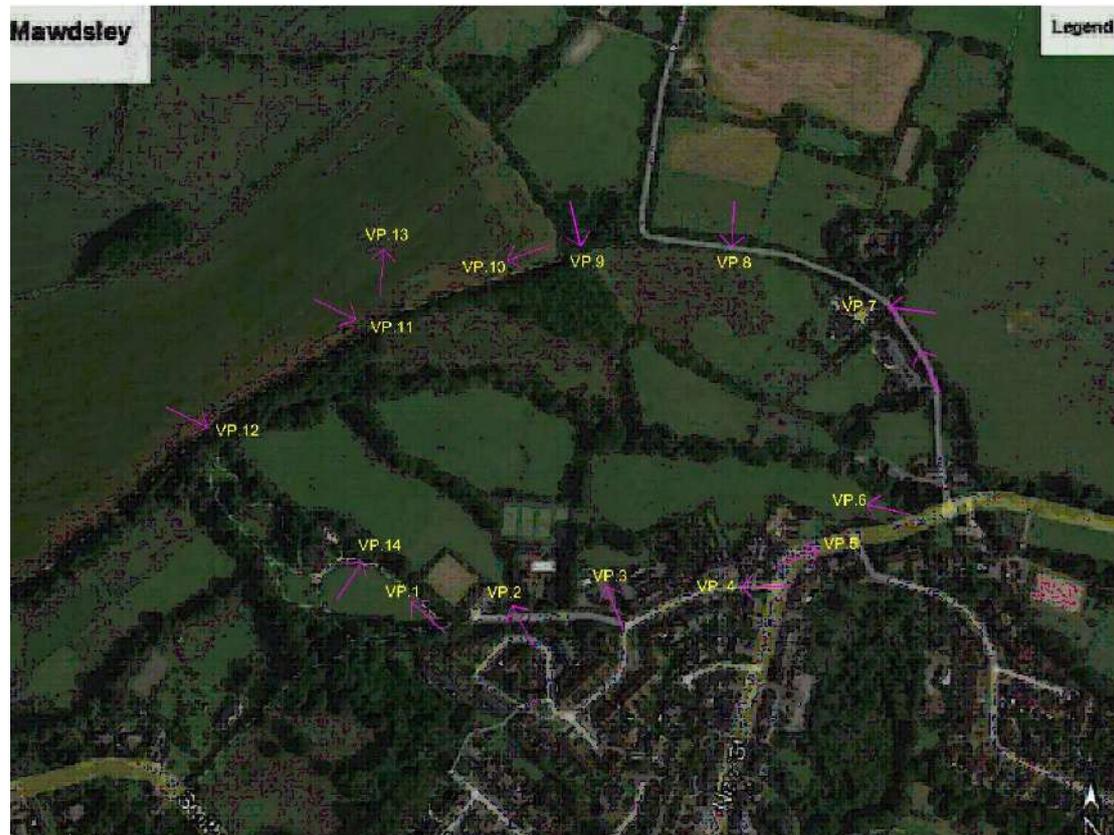


Fig 3. National Character Areas and NCA 32 Lancashire and Amounderness Plain

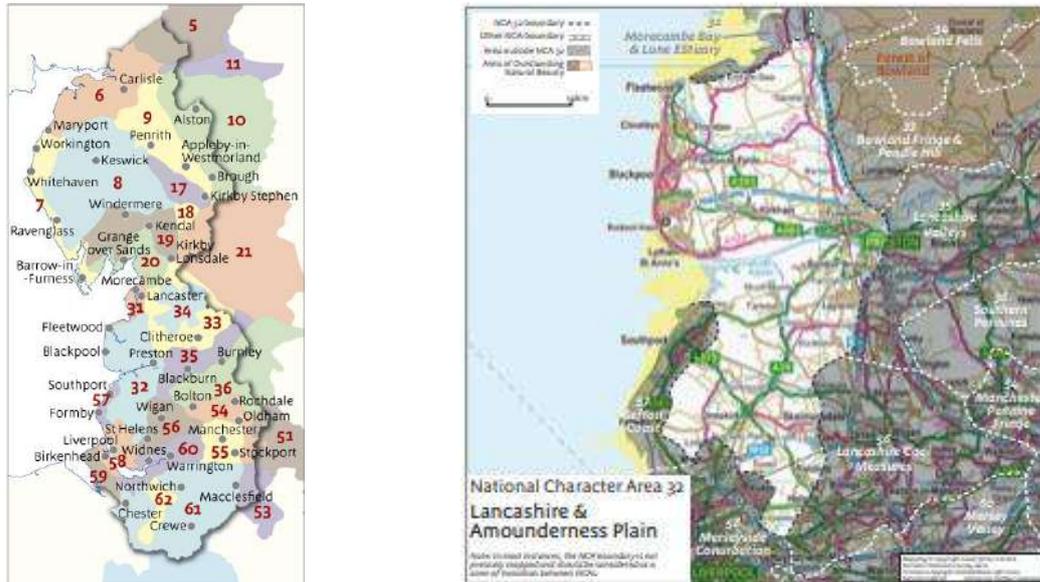


Fig 4. Photos of the lane to the east and north of the site showing the enclosed nature of it.

Typical views along the lane showing enclosed and restricted views.



View Point 1. View from the entrance of the MG. The site is located on the right behind the vegetation.



View Point 2. View from Hurst Green through the field gate located between the bowling club and the Tennis club



View Point 3. View over the primary school playground towards the site



View Point 4. Looking west on Hurst Green, showing the residences



View Point 5. View east along New St. showing the wooden residential fence to the left.



View Point 6. Looking west through the field access gate. The residential boundary can be seen on the left.



View Point 7. 2.5 storey residential development along the rural lane to the East of the site.



View Point 8. Views over the field towards the site. Note this is two fields away and on higher ground.



View Point 9. View towards the site from the private field gate this is still two fields away



View Point 10. View west along the fields. There is a mature boundary and a wide planted width. This is still a field away from the site.



View Point 11. View over the field towards the site. The vegetation procludes any views into and the ground is higher.



View Point 12. The north eastern corner of the MG and looking towards the outermost NW boundary of the site.



View Point 13. View North towards the wind turbines from the PRoW



View Point 14. View through the hedge of the MG into the site.



GLOSSARY

AOD – Above Ordnance Datum

DCLC - Dept. for Communities and Local Government

EIA – Environmental Impact Assessment

ES – Environmental Statement

GLVIA3 – 'Guidelines for Landscape and Visual Impact Assessment' - 3rd edition,
April 2013

LVIA – Landscape and Visual Impact Assessment

LDF – Local Development Frameworks

LSV – Local Service Villages

MG – Millennium Green

NCA - National Character Area

NPPF - National Planning Policy Framework

OS – Ordnance Survey

PROW – Public Right Of Way

SLA - Special Landscape Area

SSSI – Site of Special Scientific Interest

LAND ADJACENT TO NEW STREET MAWDESLEY

VISION DOCUMENT
APPENDICES

