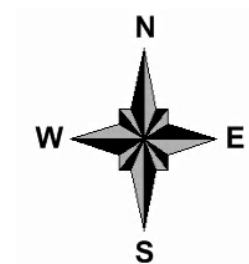




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Landline Scale Grid Index



Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: County Series

Map date: 1885

Scale: 1:10,560

Printed at: 1:10,560



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Edition N/A
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Edition N/A
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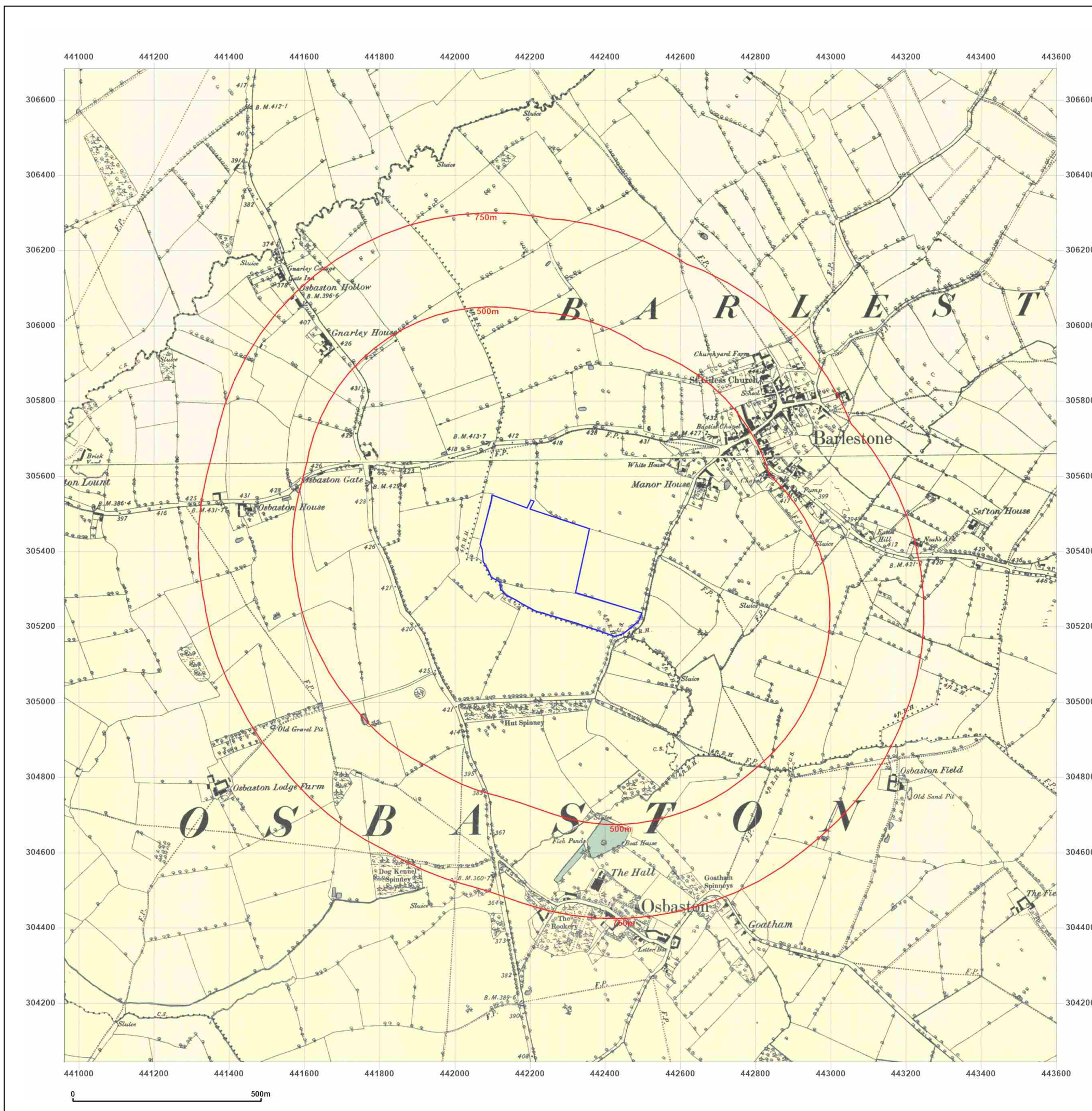


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Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: County Series

Map date: 1904

Scale: 1:10,560

Printed at: 1:10,560



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Edition N/A
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Revised 1904
Edition N/A
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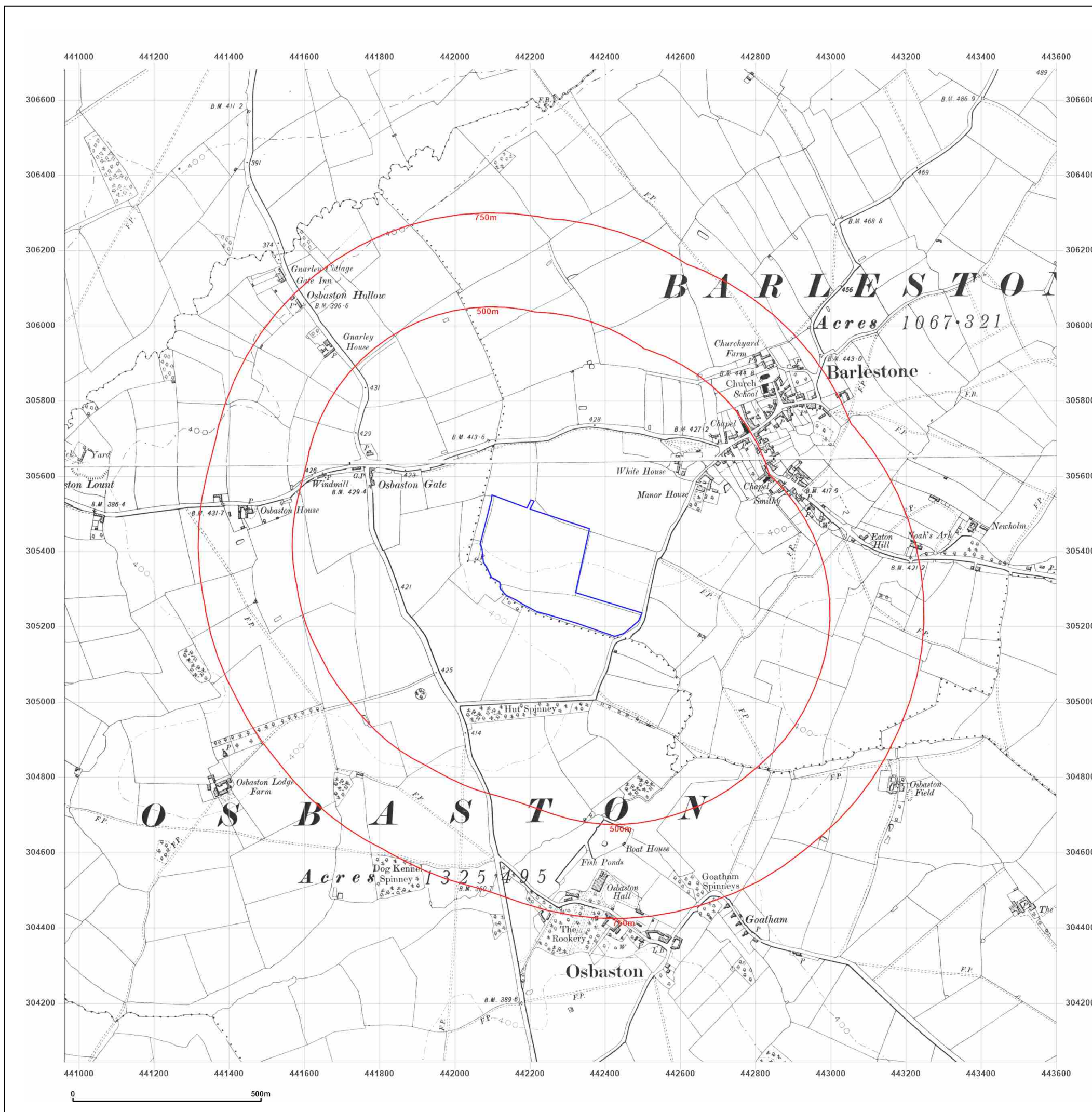


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Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: Provisional

Map date: 1955

Scale: 1:10,560

Printed at: 1:10,560

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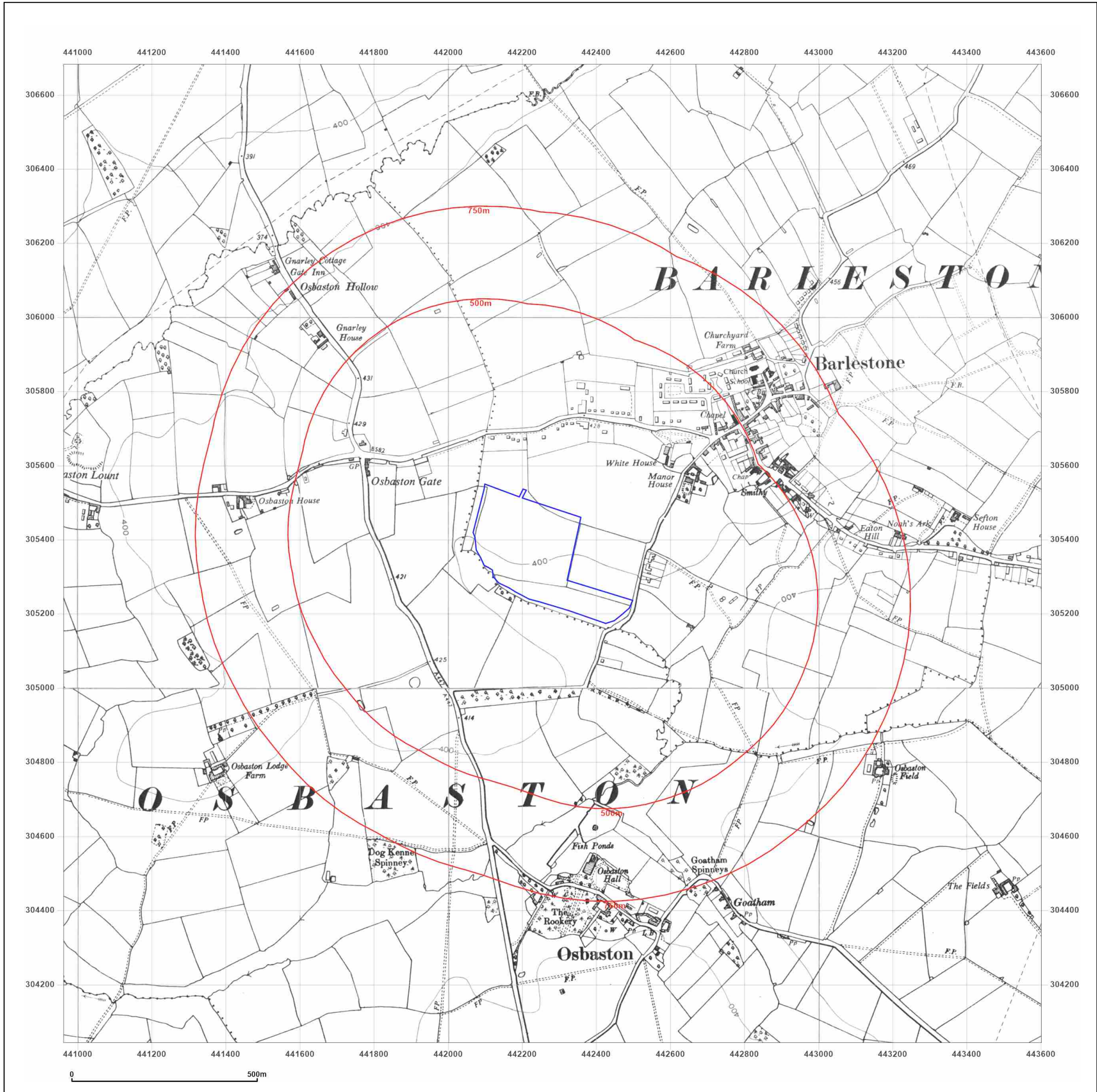
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Site Details:

253278 Cunners Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: Provisional

Map date: 1966

Scale: 1:10,560

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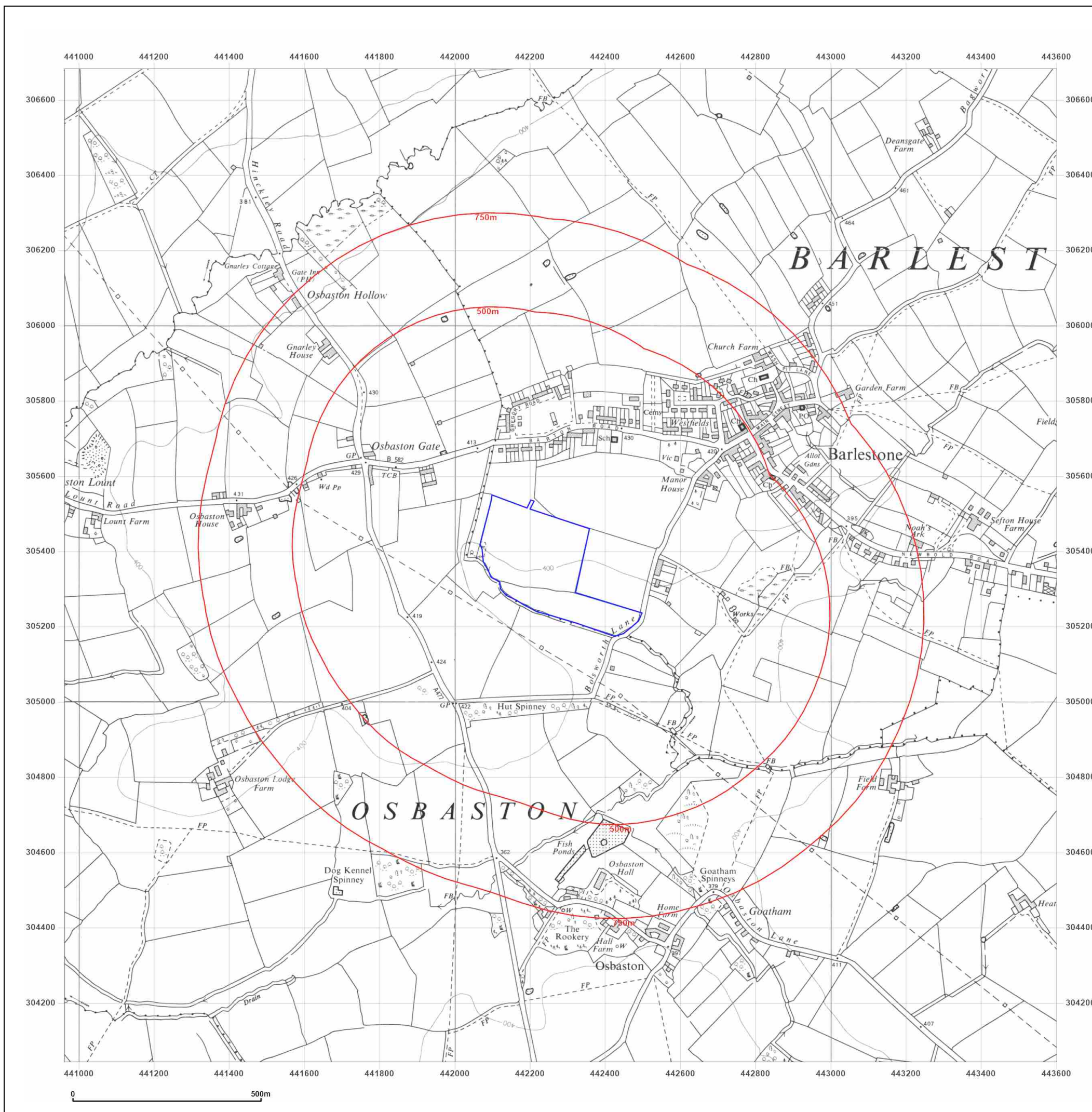


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Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: National Grid

Map date: 1980-1982

Scale: 1:10,000

Printed at: 1:10,000



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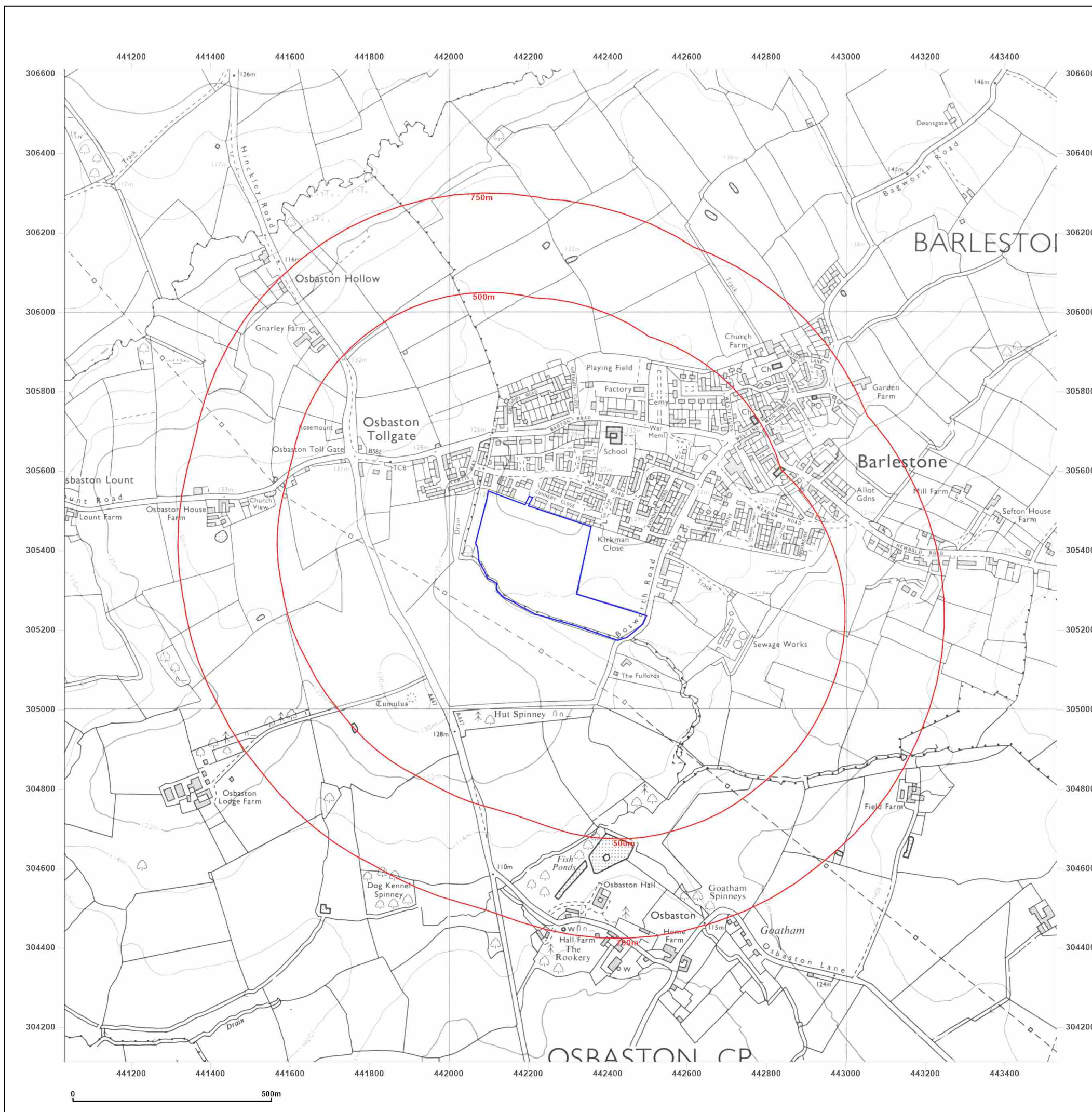


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Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: National Grid

Map date: 2001

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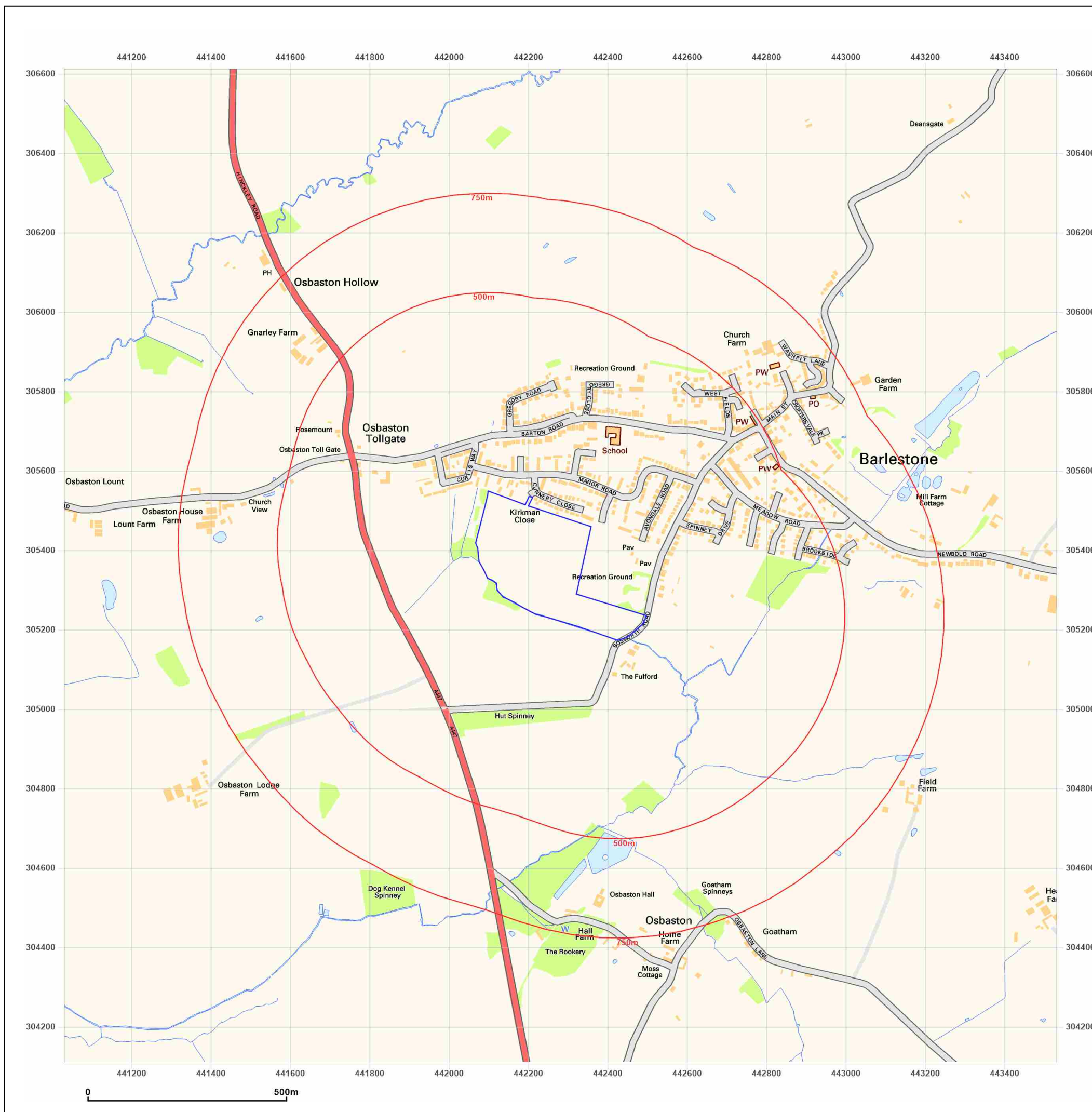


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Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: National Grid

Map date: 2010

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Printed at: 1:10,000



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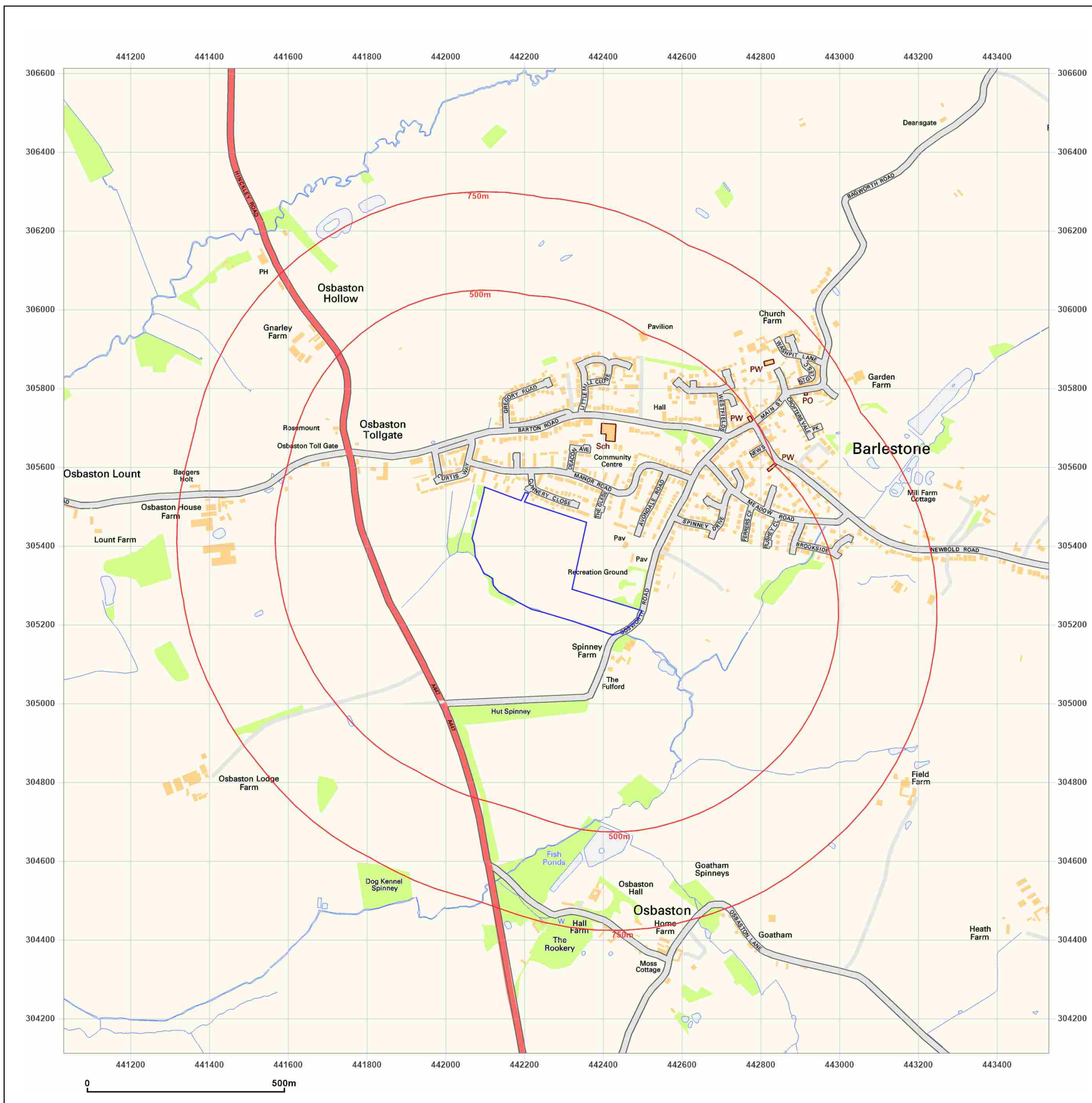


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Site Details:

253278 Cunnery Close
Barlestone

Client Ref: PO2167409
Report Ref: GS-R37-NJ5-N14-QQK
Grid Ref: 442281, 305362

Map Name: National Grid

Map date: 2025

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2025

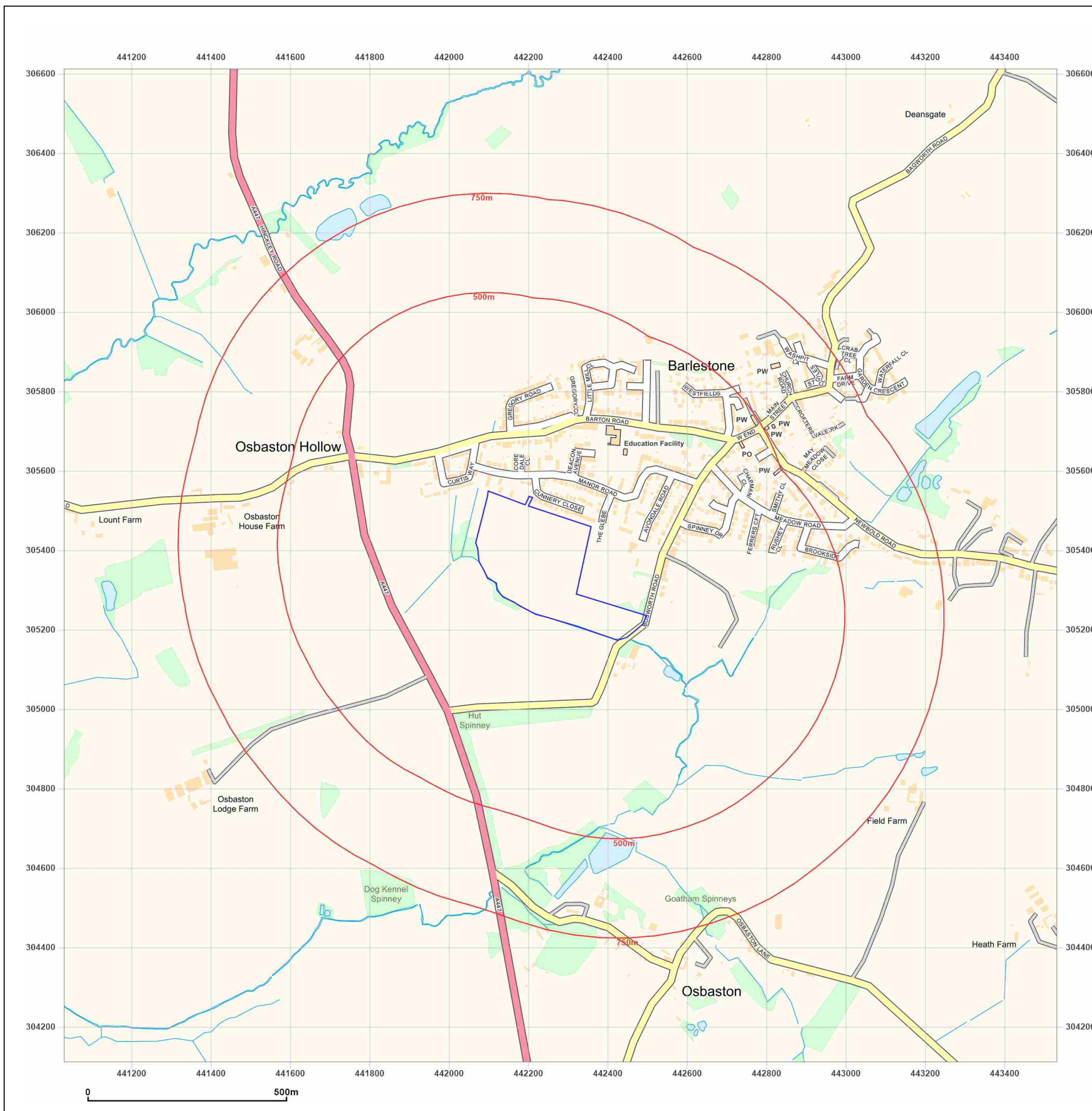


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Appendix E

PHOTOGRAPHIC RECORD

PHOTOGRAPHIC LOG

Photo no.	Date:
1	03/10/2025
Description:	
Access gate off Cunnery Close, note main site area is fenced off from this entry point.	



Photo No.	Date:
2	03/10/2025
Description:	
View of the northwest portion of site, looking west	



Photo No. 3	Date: 03/10/2025	
Description: View of the northern portion of site, looking southeast		

Photo No. 4	Date: 03/10/2025
Description: View of the western half of site, looking north	

A wide-angle photograph of a grassy field under a cloudy sky. The field is covered in green and yellow vegetation. In the background, there is a line of trees and a distant hill.

Photo No. 5	Date: 03/10/2025	
Description: View of the central southern portion of site, looking north		

Photo No. 6	Date: 03/10/2025	
Description: View of the southeast portion of site, looking east		

Photo No. 7	Date: 03/10/2025	
Description: View of the off-site surface waters south of site, looking south.		

Photo No. 8	Date: 03/10/2025	
Description: View of the site access off Bosworth Road.		

Photo No. 9	Date: 03/10/2025	
Description: View of the gravel stockpile observed in the eastern portion of site.		

Photo No. 10	Date: 03/10/2025	
Description: View of the service cover in the eastern portion of site (Left) and its interior, observing a drain pipe running approximately northwest to southeast (Right).		

Photo No. 11	Date: 03/10/2025	
Description: View of the northern site boundary, looking west		

Photo No. 12	Date: 03/10/2025	
Description: View of the small soil and vegetation stockpiles along the northern site boundary, looking northeast		

Photo No. 13	Date: 03/10/2025	
Description: View of fly-tipped materials in the northern site corridor off Cunnery Close, looking north.		

Appendix F

SITE RECONNAISSANCE SURVEY NOTES

Feature observed	Presence Y/N	Description
Physical characteristics		
1. Are there any access constraints?	N	a) No access constraints noted
	-	b) No access is available off Cunnery Close
2. Is the site approximately level?	N	Site is generally level in the northern half, sloping downhill shallowly to the south in the southern half of site.
3. Any evidence of subsidence, landslip or slope erosion?	N	None observed.
4. Any changes in level between the site and adjacent sites?	N	Details including locations
5. Surface cover	-	a) Approx. 100% soft landscaping
	-	b) Site is surfaced by shallowly ploughed grassed soil with sporadic shrubs
Environmental characteristics		
6. Vegetation on site	Y	Grassed over majority of site, with sporadic shrubs. Mature trees and shrubs are present along the perimeter of the site.
7. Evidence for vegetation stress	Y	Minor vegetation stress was noted in the southwest boundary.
8. Invasive species	N	Based upon the walkover survey obvious evidence of Japanese Knotweed or other invasive species has not been identified on-site. However, it should be noted that a detailed survey of the possible presence or absence of invasive species is outside of the scope of investigation and consideration should be given to commissioning a specialist survey, as necessary.
Site visit undertaken in dormancy period?	Y	
9. Surface water features	N	a) Details of any surface waters on site (include name; direction)
	Y	Surface waters are present along the southernmost boundary, running eastward under Bosworth Road away from site.
	-	c) Waters looked to be generally clear and clean.

Feature observed	Presence Y/N	Description
10. Site drainage	-	a) Site drains into ground and via shallow ditches along the perimeter of site, presumed to ultimately flow southward.
	N	b) No soakaways/ interceptors/ lagoons were noted on site. A surface water drain cover is present in the eastern portion of site, however appears to be sourced offsite.
	N	c) No outfalls to water courses were noted.
	N	d) No evidence of waterlogging or flooding was noted
Structures and services		
11. Existing buildings on-site	N	No buildings are present on-site
12. Buried and overhead services present	Y	a) A manhole cover associated with off-site drainage is present in the eastern portion of site, the service is indicated to run northwest-southeast, toward Bosworth Road.
	N	b) No overhead services were noted on-site.
13. Underground structures	Y	c) The service chamber for the drain in the east portion of site was noted approximately 2m deep.
Geotechnical characteristics		
14. Evidence of damage to existing building structures on site?	N	None observed.
15. Remains of building structures present on or adjacent to site?	Y	Damage to residential housing fences as noted in the northern portion of site.
16. Retaining walls and adjacent buildings on or close to site boundary?	N	None observed.
17. Any abrupt changes in ground level present on or adjacent to site?	N	None observed.
18. Any potentially unstable slopes/ exposed ground present on or adjacent to site?	N	None observed.
19. Any mature trees on site?	Y	Mature trees are present sporadically around the perimeter of site.
20. Any visual evidence of infilled basements on site?	N	None observed.

Feature observed	Presence Y/N	Description
Potential evidence for contamination		
21. Underground/ above ground storage tanks and pipework	N	None observed.
22. Potentially hazardous materials storage and use	N	None observed.
23. Waste storage	N	
24. Fly-tipping	Y	Sporadic fly-tipping was noted around the site perimeter, being more abundant in the northern portion around the residential properties.
25. Electricity sub-stations/ transformers	N	None observed.
26. Asbestos-containing materials	N	None observed.
27. Fire suppression	N	Not applicable.
28. Fire history	N	None observed.
29. Is there any visual evidence of potential contamination on site?	Y	Stockpiles of soil were noted in the eastern portion of site, comprising primarily pea shingle, and the northern portions of site, comprising a mix of soil, vegetation and fly tipped materials. No olfactory evidence of contamination was noted during the site inspection.
30. Is there any visual evidence of potential contamination on adjacent sites?	N	None observed.

Appendix G

TECHNICAL BACKGROUND

G 1. Desk Study

Aquifer designation and Source protection zones (England and Wales)

Principal aquifer: layers of rock or drift deposit that have high intergranular and/or fracture permeability (usually providing a high level of water storage). They may support water supply and/or river base flow on a strategic scale.

Secondary A aquifer: permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Secondary B aquifer: predominantly lower permeability layers that may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary undifferentiated aquifer: it has not been possible to attribute either a category A or B to a rock type. In most cases this means that it was previously designated as both a minor and non-aquifer in different locations owing to the variable characteristics.

Unproductive strata: low permeability with negligible significance for water supply or river base flow.

The EA generally adopts a three-fold classification of source protection zones (SPZ) surround abstractions for public water supply. The Site is situated in an area defined as follows:

- Zone 1 or the 'inner protection zone' is located immediately adjacent to the groundwater source and is based on a 50-day travel time from any point below the water table to the source. It is designed to protect against the effects of human activity and biological/chemical contaminants that may have an immediate effect on the source
- Zone 2 or the 'outer protection zone' is defined by a 400-day travel time from a point below the water table to the source. The travel time is designed to provide delay and attenuation of slowly degrading pollutants
- Zone 3 or the 'total catchment' is the area around the source within which all groundwater recharge is presumed to be discharged at the source.

Future climate change considerations

Several data sources, based on UKCP18 data, are available with which climate change projections can be viewed. These are detailed in the following table. In order to enable a consistent approach in our risk assessment we have based our initial assessment on data available for RCP8.5 data for the far future (2080s) for an initial conservative risk screen.

Climate change induced effect	Source	Notes	Comment
Temperature	https://uk-cri.org	RCP 8.5 average temperature maps for far future (2071-2100), UKCP18 Regional, median, 12 x 12 km spatial resolution	Anticipated to be conservative. It has been assumed that a change of +/- 5% is unlikely to have a significant impact

Climate change induced effect	Source	Notes	Comment
Rainfall/recharge	https://uk-cri.org	RCP 8.5 annual rainfall for far future (2017-2100), UKCP18 Regional, median, 12 x 12 km or Local Authority spatial resolution	Anticipated to be conservative. It is anticipated that a change of +/- 5% is unlikely to have a significant impact for all sites. If a site is located in an urban area away from sensitive dependent receptors then a change of +/- 10% is unlikely to have a significant impact.
Flood risk maps for England/ Wales/ Scotland	https://check-long-term-flood-risk.service.gov.uk/risk (England), https://flood-map-for-planning.naturalresources.wales (Wales), https://map.sepa.org.uk/floodmaps/FloodRisk/FutureFloodMaps (Scotland)	Future flood maps are only available for England and Scotland.	Identify areas likely to be affected or at an increased risk from future flooding
Coastal erosion	https://www.gov.uk/check-coastal-erosion-management-in-your-area (England), https://naturalresources.wales/flooding/check-your-coastal-erosion-risk-national-coastal-erosion-risk-management-map/?lang=en (Wales), https://www.dynamiccoast.com/webmaps (Scotland)		Predicted coastal erosion rates. Includes for potential future scenarios to show how erosion may increase with rising sea levels because of climate change based on UKCP18 projections for a high missions scenario.
Shrink and swell potential	BGS Geoindex layer for GeoClimate UKCP18	GeoClimate UKCP18 (2030 to 2070)	Impossible, possible or probable that foundations will be affected by increased clay-shrink-swell

Preliminary risk assessment methodology

LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. An outline conceptual model should be formed at the preliminary risk assessment stage that collates all the existing information pertaining to a site in text, tabular or diagrammatic form. The outline conceptual model identifies potentially complete (termed possible) contaminant linkages (contaminant–pathway–receptor) and is used as the basis for the design of the site investigation. The outline conceptual model is updated as further information becomes available, for example as a result of the site investigation.

Production of a conceptual model requires an assessment of risk to be made. Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk. RSK has adopted guidance provided in CIRIA C552 for use in the production of conceptual models.

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

RSK also adopt a 'very unlikely' probability to account for where there may be increased certainty over whether an event is probable in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem
- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequences have been classified, a risk category can be assigned according to the following:

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low
	Very Unlikely	Low	Very Low	Negligible	Negligible

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required
- high: harm is likely to occur. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term
- moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that the harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term
- low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild
- very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.