
Chapel Lane, Widnes

Hedgerow Regulations Assessment Survey Report

Compiled by Ecology Services Ltd.

on behalf of

Taylor Wimpey

May 2020 (rev. April 2023)



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1.0 Introduction

- 1.1 Ecology Services Limited was commissioned by Taylor Wimpey in March 2020 to carry out a Hedgerow Regulations Assessment of one hedgerow within the land at Chapel Lane, Widnes, hereinafter referred to as 'the site'. The centre of the site is located by National Grid Reference (NGR) 35004, 38780. The location and boundary of the site are shown on Figure 1.
- 1.2 This Hedgerow Regulations Assessment Survey report has been prepared by Ecology Services Limited on behalf of Taylor Wimpey UK Ltd to assist the local planning authority's consideration of an outline planning application for a site at Chapel Lane, Widnes for:
- "Outline planning application (with all matters other than access reserved) (to be determined by Halton Borough Council only) for the development of up to 350 dwellings, public open space, landscaping and associated infrastructure works. Full details for site access arrangements via a new junction on Chapel Lane (to be determined by Knowsley Borough Council only) and emergency access via Sandy Lane (to be determined by Halton Borough Council)."*
- 1.3 The proposed development site is located to the north-west of the Widnes urban area. The site is situated within the boundary of two separate allocations for residential development within the adopted Halton Delivery and Allocations Local Plan [DALP] (March 2022) under Policy RD1 (Residential Development Allocations). The allocations comprise two separate land parcels separated by Sandy Lane, (Site Ref. W4 to the west of Sandy Lane and Site Ref. W5 to the east). The application red line boundary does not extend to the full extent of the allocation.
- 1.4 At the time of compiling this report, no detailed development scheme has been prepared and only outline biodiversity enhancements are provided. This report shall be updated to ensure that mitigation and enhancement measures are incorporated at the detailed design stage.
- 1.5 The site is located on the outskirts of the town of Widnes, within the Borough of Halton but on the boundary with Knowsley Council and contains a mix of habitats including: improved and poor semi-improved grassland, species-rich and species-poor hedgerows, wet and dry ditches, three ponds, scattered trees and buildings. The land to the north and west of the site is largely under arable cultivation crossed by hedgerows and ditches with further ponds and an area of broadleaved woodland. Broadleaved woodland adjoins the site to the east, beyond which lies residential development with further residential development to the south.
- 1.6 The Hedgerow Regulations Assessment survey was recommended following a Preliminary Ecological Appraisal (PEA) of the site carried out by Ecology Services Ltd in April 2019, which identified one hedgerow within the site that has the potential to be impacted by the development proposals and which may classify as 'Important' under the Hedgerow Regulations 1997. An updated Ecological Appraisal of the site undertaken in June 2022, found the hedgerow to be in the same condition as when previously surveyed and this report remains a valid assessment.
- 1.7 The purpose of the Hedgerow Regulation Assessment survey was to assist the client in:
- Determining the ecological, historical and cultural value of the potentially affected hedgerow.
 - Identifying if the hedgerow that qualifies as 'Important' under the Hedgerow Regulations 1997.
 - Identifying methods to mitigate any loss of 'Important' and non-important hedgerows, and their associated features.

- Identifying an optimal replanting methodology to reflect species being affected or removed.

- 1.8 This report provides the methodology and results of the hedgerow assessment survey, and makes outline recommendations to mitigate any potential impacts of the development proposals and to maintain the ecological value of the site in relation to hedgerows.

2.0 Planning Policy and Legislation

- 2.1 The below sections provide an overview of current planning policy and legislation relating to hedgerows.

National Planning Policy Framework (NPPF)

- 2.2 The National Planning Policy Framework (NPPF, 2021) places a clear responsibility on Local Planning Authorities (LPA) to contribute to conserving and enhancing the natural and local environment. LPAs should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species (e.g. Species of Principal importance, Local Biodiversity Action Plan species); and identify and pursue opportunities for securing measurable net gains for biodiversity. Hedgerows losses and gains would fall under this.

- 2.3 The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 which accompanies the NPPF, states that habitats listed as Habitats of Principal Importance under the Natural Environment and Rural Communities (NERC) Act 2006 are capable of being a material consideration in making planning decisions.

Hedgerow Regulations 1997

- 2.4 The Hedgerow Regulations 1997 fall under Section 97 of the Environment Act 1995 and came into force on 1st June 1997. A hedgerow is protected, meaning you cannot remove it, if it meets the following criteria for:

- length
- location
- 'importance'

- 2.5 **Length:** To meet the length criterion, a hedgerow must be over 20m in length with gaps no more than 20m in length within it, or be under 20m in length and meet another hedgerow at each end.

- 2.6 The hedgerow must be more than 20m long with gaps of 20m or less in its length or less than 20m long, but meeting another hedge at each end.

- 2.7 **Location:** A hedgerow can only be protected if it is located on or next to:

- land used for agriculture or forestry;
- land used for breeding or keeping horses, ponies or donkeys;
- common land;
- a village green;
- a Site of Special Scientific Interest (SSSI);
- a protected European site, such as a Special Area of Conservation (SAC) or Special Protection Area (SPA);
- a National Nature Reserve;
- a Local Nature Reserve; or
- Crown land.

- 2.8 No protection is afforded to hedgerows within or marking the boundary of private gardens.
- 2.9 If these initial criteria are met, a further hedgerow assessment survey is undertaken to gather further information about the species composition and associated features of the hedgerow to determine whether it can be classified as 'Important' under the Hedgerow Regulations 1997.
- 2.10 **'Importance'**: A hedgerow is important, and is protected, if it's at least 30 years old and meets at least one of these criteria:
- marks all or part of a parish boundary that existed before 1850;
 - contains an archaeological feature such as a scheduled monument;
 - is completely or partly in or next to an archaeological site listed on a Historic Environment Record (HER), (formerly a Sites and Monuments Record);
 - marks the boundary of an estate or manor or looks to be related to any building or other feature that's part of the estate or manor that existed before 1600;
 - is part of a field system or looks to be related to any building or other feature associated with the field system that existed before 1845;
 - contains protected species listed in the Wildlife and Countryside Act 1981;
 - contains species that are endangered, vulnerable and rare and identified in the British Red Data books;
 - includes woody species and associated features as specified in Schedule 1, Part II Criteria, paragraph 7(1) of the Hedgerow Regulations.
- 2.11 Removal of a hedgerow as defined under the Regulations is only permitted (subject to certain exceptions as detailed in the Regulations) where the LPA has been notified and given its consent or the notice period has expired. The LPA cannot refuse permission to remove a hedgerow which does not qualify as 'Important'. Removal of a hedgerow without submitting a hedgerow removal notice to the LPA is permitted where planning permission has been granted or is deemed to have been granted, except development in most cases for which permission is granted under permitted development rights.
- 2.12 In respect of 'Important' hedgerows, the LPA will decide if the circumstances justify the removal. Unless satisfied that removal of an 'Important' hedgerow is justified, the LPA must refuse permission and they will issue a Hedgerow Retention Notice to say that removal of the hedgerow is prohibited.

Natural Environment and Rural Communities (NERC) Act 2006

- 2.13 The NERC Act 2006 places a duty on every public authority, in exercising their functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat. The Secretary of State published a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity.

3.0 Methodology

- 3.1 The hedgerow was assessed using the criteria set out in the Hedgerow Regulations 1997. A standard procedure for local hedgerow surveys in the UK was followed as defined by the Defra (2007) "*Hedgerow Survey Handbook*". All 'essential assessment elements' were recorded in addition to relevant 'optional assessment elements'.

- 3.2 The hedgerow was measured and the number of 30m sections for surveying was determined by using Table 1. The numbers of woody species and ground flora species within each 30m section were recorded.

Table 1: Sampling Method

Length of hedgerow	Number of 30m Sections to survey for woody species and ground flora
0 - 30 metres	1
31 - 100 metres	1
101 - 200 metres	2
>200 metres	3

- 3.3 Hedgerows that are connected to habitats such as ponds, broadleaved woodland and other hedgerows create wildlife corridors, linking habitats in the wider landscape. The hedgerow was assessed to see if it was connected to any of these habitats. The following point system was utilised:

- Connected to another hedgerow = 1 point
- Connected to a broadleaved woodland (over 0.25 hectares) = 2 points
- Connected to a pond = 2 points

- 3.4 Other data collated about the hedgerow included:

- Hedgerow height and width
- Percentage of gaps
- Hedgerow type (shrubby hedgerow with trees, line of trees and shrubby hedgerow)
- Shape (trimmed & dense, intensively managed, untrimmed, tall & leggy, untrimmed with outgrowths, recently coppiced and recently laid)
- Adjacent land use
- Adjacent to bridleway, footpath or road
- Nutrient enrichment (percentage of nettles, cleavers and docks)
- Hedgerow standard trees present

- 3.5 To determine whether the hedgerow can be classified as 'Important' under the Hedgerow Regulations 1997, the hedgerow was also assessed to see if any associated features were also present (Table 2).

Table 2: Associated Features

i)	Presence of hedgebank or wall for at least half of total length
ii)	Presence of ditch for at least half of total length
iii)	Presence of parallel hedge within 15 metres
iv)	Total gap length less than 10% of total hedgerow length
v)	1 standard tree* in hedgerow less than 50 metres in length
vi)	2 standard trees* in hedgerow between 50 metres and 100 metres in length
vii)	Average of 1 standard tree* every 50 metres for hedgerow more than 100 metres in length
viii)	3 woodland species (see Appendix 3) within 1 metre of hedgerow edge
ix)	4 points worth of connections

* Standard trees require a minimum trunk diameter of 20cm in a single trunk and 15cm if multiple stems are present.

Criteria for Designation as an 'Important Hedgerow'

- 3.6 If a hedgerow meets any one or more of the following criteria, it indicates that it is an 'important hedgerow' under the Hedgerow Regulations (Table 3):

Table 3: Criteria for Designation

A	Marker for pre-1850 parish/township boundary.
B	Marker for pre-1600 estate or manor boundary.
C	Marker for “field system”, Pre-Enclosure Act.
D	Scheduled Ancient Monument or Archaeological site.
E	Presence of protected*** or endangered**** species (e.g. badger sett).
F	7** woody species (See Appendix 4).
G	6** woody species (including black poplar (<i>Populus nigra</i>), large-leaved lime (<i>Tilia platyphyllos</i>), small-leaved lime (<i>Tilia cordata</i>) or wild service tree (<i>Sorbus.torminalis</i>).
H	6** woody species + 3 Associated Features.
I	5** woody species + 4 Associated Features.
J	Adjacent to a public right of way (excludes adopted highways) and has 4** woody species + 2 Associated Features (excluding iii & ix).

**The Hedgerow Regulations Part II Criteria, Wildlife and Landscape 7.(2) Where the hedgerow in question is situated wholly or partly in the county (as constituted on 1st April 1997) of the City of Kingston upon Hull, Cumbria, Darlington, Durham, East Riding of Yorkshire, Hartlepool, Lancashire, Middlesbrough, North East Lincolnshire, North Lincolnshire, Northumberland, North Yorkshire, Redcar and Cleveland, Stockton-on-Tees, Tyne and Wear, West Yorkshire or York (14), the number of woody species stated in paragraphs (a) to (d) of sub-paragraph (1) is to be treated as reduced by one.

***Species listed in Part 1 of Schedule 1, Schedule 5 or Schedule 8 of the Wildlife and Countryside Act 1981 (as amended)

**** Species categorised as a declining breeder in “Red Data Birds in Britain” (1990) or categorised as “endangered”, “extinct”, “rare” or “vulnerable” in the British Red Data Books.

Timing

- 3.7 The survey was undertaken on the 11th May 2020 which is an optimal time of year to undertake such a survey.

Weather Conditions

- 3.8 Weather conditions during the survey were reasonable, with no appreciable rain or wind affecting the survey.

Personnel

- 3.9 The hedgerow survey was carried out by Senior Ecologist Ms L. Redgrave MA (Oxon), MSc, CEnv, CEcol, MCIEEM.

Limitations

- 3.10 Access to the southern side of the hedgerow was slightly constrained by the presence of a live electric fence and contractors were strimming the vegetation along the public footpath on the northern side of the hedgerow at the time of survey. These constraints, however, are not considered to have significantly affected the assessment.
- 3.11 Some species of early flowering spring plants listed as ‘woodland species’ in Schedule 2 of the Regulations may not have been visible at the time of year that the surveys took place. See Appendix 3 for the list of these species.
- 3.12 The survey includes assessment for the importance of hedgerows under criteria E to J only (wildlife and landscape) and excludes assessment of the hedgerows under criteria A to D (archaeology and history) which is beyond the remit of this study.

4.0 Survey Results and Evaluation

- 4.1 All the data collated on the hedgerow is detailed in Appendix 1. Very few hedgerows are classified as being ‘Important’ solely on species richness. It should be noted that they could still be classified as ‘Important’ historically (criteria A to D), the assessment of which is beyond the scope of this report.

- 4.2 No legally protected, endangered or invasive species were recorded within the hedgerow at the time of the survey. Great crested newts have been confirmed as likely absent at the site and bat roosts have been confirmed as present.
- 4.3 One hedgerow within the site was subject to survey during the hedgerow assessment. The results of the assessment show that hedgerow H1 meets criterion J for designation as ecologically 'important' hedgerows under Part II Wildlife and Landscape of The Hedgerow Regulations 1997.
- 4.4 Further research would be required to establish whether the hedgerows within the site meet Criteria A, B, C and D in Section 3.9 to qualify as 'Important' hedgerow under Part II of The Hedgerow Regulations 1997 - Archaeology and History.

5.0 Impacts and Recommendations

- 5.1 The hedgerow H1 within the site has been assessed as being 'important' under The Hedgerow Regulations 1997. It is understood that Hedgerow H1 will be retained but a short section will need to be removed to create necessary access through the site. No detailed development plan is currently available and therefore the full extent of impacts to the hedgerow is unknown. Full planning consent will be required prior to any removal of 'important' hedgerows.
- 5.2 Although the remaining hedgerows within the site do not meet the criteria to qualify as 'Important' hedgerows, all the hedgerows located within the development site are considered to be a Habitat of Principal Importance as they are over 20m in length and are composed of at least 80% of one or more UK native species. In combination the hedgerows are considered to be of value as habitat corridors, facilitating the movement of wildlife across the site and into the wider area.
- 5.3 Any loss of hedgerow habitat, whether it is classed as 'important' or not, should be avoided where possible. Where loss cannot be avoided, this should be minimised and mitigated against to ensure that no net loss of biodiversity results from the site's development with due regard for the classification of all hedgerows over 20m long that are composed of at least 80% of one or more native species as a Habitat of Principal Importance. The majority of the hedgerows will be retained with loss of hedgerow limited to provide road access into and through the site. Where there are existing gaps in hedgerows and where possible, these should be utilised for road accesses to minimise the loss of hedgerow.
- 5.4 Retained hedgerows and trees within and adjacent to the site should receive adequate provision for root protection in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction' or the advice of a suitably qualified arboriculturalist. This may involve the use of appropriate tree/ hedgerow protection fencing to exclude construction works from root protection zones. A buffer of at least 5m should be maintained along retained hedgerows which prohibits storage of materials or machinery within these areas.
- 5.5 All hedgerow loss should be compensated through the creation of new hedgerows or scrub lines and/ or enhancement of existing hedgerows/ linear vegetated corridors within the site with the aim of creating new ecologically 'important' hedgerows. Compensatory hedgerows and linear scrub habitats should be appropriately located in order to maintain and, where possible, enhance opportunities for the movement of wildlife around and across the site. Consideration could also be given to relocation of impacted sections hedgerows within the site.
- 5.6 It is advised that all hedgerows lost should be replaced on a minimum like-for-like basis and seek to provide ecological enhancement by overall increasing the length of hedgerow within

the site and species-richness of hedgerows. Newly created hedgerows should aim to fall under the Hedgerow Habitat of Principal Importance criteria, i.e. over 20m in length and consist of at least 80% cover of one or more woody native species. Any associated features such as ditches should also be replicated where present.

5.7 Any new hedgerows created within the site should comprise a species-rich mix of UK native species and be of local provenance where possible. In accordance with the species recorded within hedgerows at the site during the surveys, it is recommended that new hedgerows comprise a selection of the following species: hawthorn, blackthorn, hazel, holly, pedunculate oak, European gorse, field maple¹ and elder.

5.8 A method statement for creation of new hedgerows is outlined below:

Hedgerow Creation:

- Ideally new hedgerows should be planted by an experienced contractor between December and March when the ground is relatively moist and the saplings are dormant.
- The area required for the hedgerows should be stripped of any turf. The turfs can then be broken up into loose soil which can then be used to create a linear bank for the new hedgerow plants.
- Any associated features such as ditches should also be created at this stage.
- The hedgerows should be notch planted as a double staggered row with approximately 40cm spacing between each sapling and 4-6 saplings per metre.
- Notch planting involves cutting a slit or L shape in the soil and holding it open with a spade whilst inserting the sapling. Insert the saplings carefully so that the roots spread downwards, and ensure the sapling is covered up to the original soil mark on the stem.
- All new hedgerows will require protection from grazing animals such as rabbits by installing appropriately sized biodegradable tree guards.

Hedgerow Management:

- During the growing season the newly planted hedgerow whips should be watered to ensure that the soil is kept constantly moist. When watering, it is important to make certain that the whips receive sufficient quantity. In dry weather or on dry sites the soil around the whips should be thoroughly soaked. It is recommended that there are a minimum of five watering visits per annum.
- All newly planted diseased/ dead whips will be removed and replaced and if new planting is required this should be undertaken during the winter months and shall be of native species and of local provenance (see paragraph 5.7).
- Once the hedgerow is established, approximately after the third growing season, 1/3 of the hedgerow should be cut each year to allow different vegetative structures to establish. Cutting should take place between early December and early March.
- Hedgerow height and width should not exceed 3m, with the exception of standard trees.
- Hand trimming should be considered as opposed to machine cutting to produce and maintain more deadwood. Arisings should be stored in piles at

¹ Although field maple was not recorded within any of the sections of the hedgerow surveyed, this species is present in the wider hedgerow.

intervals along the base of the hedgerow to create habitat piles to benefit a range of species.

- A 2m buffer zone around the base of the hedgerow should be cut alternate years to prevent scrub succession, to be undertaken outside breeding bird season.

Hedgerow Monitoring:

- Hedgerows should be inspected annually to check that the newly planted hedgerows are in good condition and any dead plants replaced as necessary.
- The hedgerows should be monitored annually for up to five years.

5.9 The Wildlife and Countryside Act (WCA) 1981, states that all wild birds are protected. Under the WCA, it is an offence to kill, injure or take any wild bird, to take damage or destroy the nest of any wild bird, or to take or destroy the egg of any wild bird. It is therefore, recommended that any management of newly planted hedges such as trimming are conducted outside the breeding bird season. The breeding bird season is generally regarded as between March and August/ September inclusive.

5.10 It is recommended that the long-term management of the hedgerows is secured via a long-term management plan covering the retained and created habitats within the proposed development.

5.11 In line with current planning policy to provide net gains for biodiversity, the development proposals should include appropriate enhancement measures. The following enhancement measures are recommended:

- Planting of gaps in existing hedgerows with a range of native species (see paragraph 5.7)
- Planting/ allowing new hedgerow trees to grow within existing and new hedgerows.
- Creation of new native species-rich hedgerows in excess of the length lost.
- Installation of bat and bird boxes on hedgerow trees to increasing the roosting and nesting opportunities for bats and birds.

6.0 Conclusion

6.1 Hedgerow H1 within the site has been assessed as qualifying as 'important' under the Hedgerow Regulations. All hedgerows within the site, however, qualify as a Habitat of Principal Importance under the NERC Act 2006.

6.2 It is understood that the hedgerows within the site will be retained, but some will need to be breached for the creation of accesses through the site. Any loss of hedgerow must be kept to a minimum, utilising existing gaps wherever possible, and compensated by the provision of new native species hedgerows within the proposed development on a minimum like-for-like basis.

6.3 The landscape scheme should seek to enhance retained hedgerows through planting up of gaps with a species-rich mix of native species and provision of additional hedgerow trees. The landscape scheme should also seek to increase the overall amount of native, species-rich hedgerow within the site.

7.0 References

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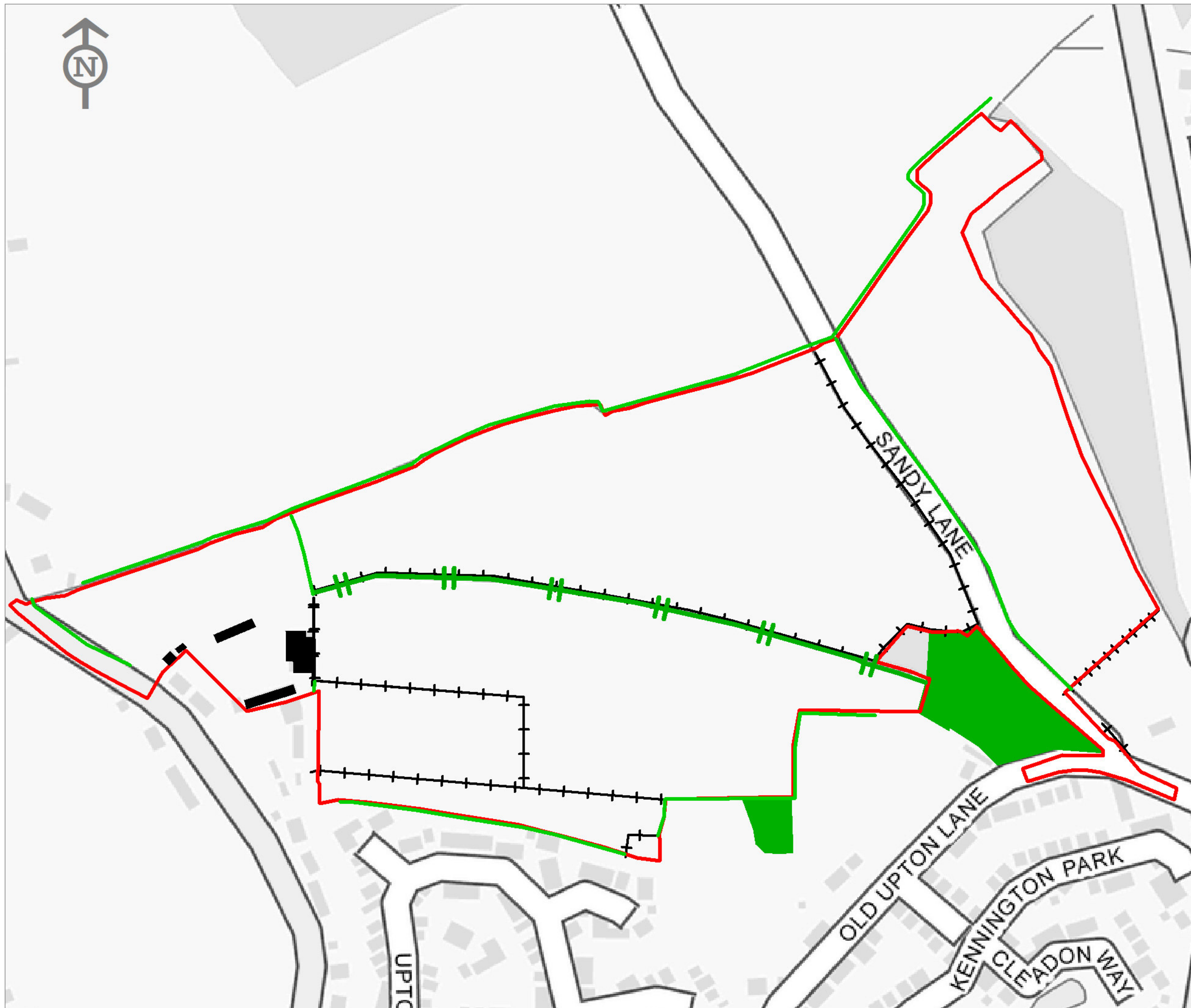
Figure 1:
Hedgerow Survey Summary Plan

Figure 1: Hedgerow Survey Summary Plan

Map Ref: (NGR) 350000, 387750
Map Scale: 1:2,250 @ A3

KEY

-  Site boundary
-  Hedgerow Surveyed (H1) - Important under Hedgerow Regulations 1997
-  Other hedgerows - Habitat of Principal Importance
-  Broad-leaved semi-natural woodland
-  Fence
-  Building



Appendix 1: Hedgerow Assessment Table

Hedge Reference Number:	H1		
Date surveyed:	11/05/2020		
Grid reference: (centre of hedge)	349907, 387781		
Initial Criteria (Y/N)			
Hedgerow > 20m in length	Y		
Hedgerow > 30 years old	Y		
Hedgerow Characteristics		Hedgerow Characteristics (cont.)	
Total length (m)	395	Connections score	
Total length of gaps (m)	44	Total number of other hedgerows connected to each end of the hedgerow = 1 point	1
% gaps	11	Connections to a broad-leaved woodland over 0.25ha = 2 points	2
Height (m)	2-3 (variable) – trees c. 10m tall	Connections to a pond = 2 points	0
Width (m)	1-2 (variable)	Total connection points	3
Hedgerow type	Shrubby hedge ²	Species composition	
Hedgerow shape	Untrimmed with gaps	Section 1	5
Mature trees	Y	Section 2	5
Adjacent land use	Improved grassland	Section 3	3
Number of Sections	3	Average woody species	4.3
Section 1 Length (m)	30	Associated Features	
Section 1 Start Point (m)	47 from W	Associated features present	Y (ii and vii)
Section 1 Mid-Point (m)	62 from W	Total associated features	2
Section 1 Finish Point (m)	77 from W	Age/earliest reference date	Over 30 years
Section 2 Length (m)	30		
Section 2 Start Point (m)	171 from W		
Section 2 Mid-Point (m)	186 from W		
Section 2 Finish Point (m)	201 from W		
Section 3 Length (m)	30		
Section 3 Start Point (m)	295 from W		
Section 3 Mid-Point (m)	310 from W		
Section 3 Finish Point (m)	325 from W		
Adjacent to public right of way (PROW)	Y (footpath)		
Protected species present	N		
Important Hedgerow			Yes
Qualifying Criteria			J

² While there are a number of trees associated with the hedgerow averaging < 20m spacing, they are mostly within 36% of the length of the hedgerow i.e. not over most of its length and therefore the hedgerow has been classified as a shrubby hedge.

Appendix 2: Species Lists

Common Name	Scientific name
<u>Hedgerow 1 - Section 1</u>	
Ash	<i>Fraxinus excelsior</i>
Gorse	<i>Ulex europaeus</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Pedunculate oak	<i>Quercus robur</i>
Bramble	<i>Rubus fruticosus</i> agg.
Cleavers	<i>Galium aparine</i>
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Field horsetail	<i>Equisetum arvense</i>
Foxglove	<i>Digitalis purpurea</i>
Horse chestnut (seedling)	<i>Aesculus hippocastanum</i>
Ivy	<i>Hedera helix</i>
Male fern*	<i>Dryopteris filix-mas</i>
Rosebay willowherb	<i>Chamerion angustifolium</i>
<u>Hedgerow 1 - Section 2</u>	
Ash	<i>Fraxinus excelsior</i>
Elder	<i>Sambucus nigra</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Pedunculate oak	<i>Quercus robur</i>
Bramble	<i>Rubus fruticosus</i> agg.
Broad buckler fern*	<i>Dryopteris dilatata</i>
Cleavers	<i>Galium aparine</i>
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Field horsetail	<i>Equisetum arvense</i>
Foxglove	<i>Digitalis purpurea</i>
Ivy	<i>Hedera helix</i>
Male fern*	<i>Dryopteris filix-mas</i>
Rosebay willowherb	<i>Chamerion angustifolium</i>
Willowherb sp.	<i>Epilobium</i> sp.
<u>Hedgerow 1 - Section 3</u>	
Blackthorn	<i>Prunus spinosa</i>
Hawthorn	<i>Crataegus monogyna</i>
Pedunculate oak	<i>Quercus robur</i>
Sycamore**	<i>Acer pseudoplatanus</i>
Bramble	<i>Rubus fruticosus</i> agg.
Broad buckler fern*	<i>Dryopteris dilatata</i>
Campion sp.	<i>Silene</i> sp.
Cleavers	<i>Galium aparine</i>
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping thistle	<i>Cirsium arvense</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Field horsetail	<i>Equisetum arvense</i>
Ivy	<i>Hedera helix</i>
Male fern*	<i>Dryopteris filix-mas</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Rosebay willowherb	<i>Chamerion angustifolium</i>

* Woodland species (ground flora) included on Schedule 2 Regulation 2(3) and Schedule 1, Part I of the Hedgerow Regulation 1997

** Woody species not included on Schedule 3 Regulation 2(3) and Schedule 1, Part I

Appendix 3: Woodland Species

SCHEDULE 2

Regulation 2(3) and Schedule 1, Part I

WOODLAND SPECIES

Barren strawberry (*Potentilla sterilis*)
 Bluebell (*Hyacinthoides non-scripta*)
 Broad buckler fern (*Dryopteris dilatata*)
 Broad-leaved helleborine (*Epipactis helleborine*)
 Bugle (*Ajuga reptans*)
 Common cow-wheat (*Melampyrum pratense*)
 Common dog violet (*Viola riviniana*)
 Common polypody (*Polypodium vulgare*)
 Dog's mercury (*Mercurialis perennis*)
 Early dog violet (*Viola reichenbachiana*)
 Early purple orchid (*Orchis mascula*)
 Enchanter's nightshade (*Circaea lutetiana*)
 Giant fescue (*Festuca gigantea*)
 Goldilocks buttercup (*Ranunculus auricomus*)
 Great bell-flower (*Campanula latifolia*)
 Greater wood-rush (*Luzula sylvatica*)
 Hairy brome (*Bromus ramosus*)
 Hairy woodrush (*Luzula pilosa*)
 Hard fern (*Blechnum spicant*)
 Hard shield fern (*Polystichum aculeatum*)
 Hart's tongue (*Asplenium scolopendrium*)
 Heath bedstraw (*Galium saxatile*)
 Herb paris (*Paris quadrifolia*)
 Herb-robert (*Geranium robertianum*)
 Lady fern (*Athyrium filix-femina*)
 Lords-and-ladies (*Arum maculatum*)
 Male fern (*Dryopteris filix-mas*)
 Moschatel (*Adoxa moschatellina*)
 Narrow buckler-fern (*Dryopteris carthusiana*)

Nettle-leaved bell-flower (*Campanula trachelium*)
 Oxlip (*Primula elatior*)
 Pignut (*Conopodium majus*)
 Primrose (*Primula vulgaris*)
 Ramsons (*Allium ursinum*)
 Sanicle (*Sanicula europaea*)
 Scaly male-fern (*Dryopteris affinis*)
 Small cow-wheat (*Melampyrum sylvaticum*)
 Soft shield fern (*Polystichum setiferum*)
 Sweet violet (*Viola odorata*)
 Toothwort (*Lathraea squamaria*)
 Tormentil (*Potentilla erecta*)
 Wild strawberry (*Fragaria vesca*)
 Wood anemone (*Anemone nemorosa*)
 Wood avens (*Geum urbanum*)
 Wood false-brome (*Brachypodium sylvaticum*)
 Wood horsetail (*Equisetum sylvaticum*)
 Wood meadow-grass (*Poa nemoralis*)
 Wood melick (*Melica uniflora*)
 Wood millet (*Milium effusum*)
 Wood sage (*Teucrium scorodonia*)
 Wood sedge (*Carex sylvatica*)
 Wood sorrel (*Oxalis acetosella*)
 Wood speedwell (*Veronica montana*)
 Wood spurge (*Euphorbia amygdaloides*)
 Woodruff (*Galium odoratum*)
 Yellow archangel (*Lamium galeobdolon*)
 Yellow pimpernel (*Lysimachia nemorum*)

Appendix 4: Woody Species

SCHEDULE 3

Regulation 2(3) and Schedule 1, Part I

WOODY SPECIES

Alder (<i>Alnus glutinosa</i>)	Hawthorn, midland (<i>Crataegus laevigata</i>)
Apple, crab (<i>Malus sylvestris</i>)	Hazel (<i>Corylus avellana</i>)
Ash (<i>Fraxinus excelsior</i>)	Holly (<i>Ilex aquifolium</i>)
Aspen (<i>Populus tremula</i>)	Hornbeam (<i>Carpinus betulus</i>)
Beech (<i>Fagus sylvatica</i>)	Juniper, common (<i>Juniperus communis</i>)
Birch, downy (<i>Betula pubescens</i>)	Lime, large-leaved (<i>Tilia platyphyllos</i>)
Birch, silver (<i>Betula pendula</i>)	Lime, small-leaved (<i>Tilia cordata</i>)
Black-poplar (<i>Populus nigra</i> subsp. <i>betulifolia</i>)	Maple, field (<i>Acer campestre</i>)
Blackthorn (<i>Prunus spinosa</i>)	Mezereum (<i>Daphne mezereum</i>)
Box (<i>Buxus sempervirens</i>)	Oak, pedunculate (<i>Quercus robur</i>)
Broom (<i>Cytisus scoparius</i>)	Oak, sessile (<i>Quercus petraea</i>)
Buckthorn (<i>Rhamnus cathartica</i>)	Osier (<i>Salix viminalis</i>)
Buckthorn, alder (<i>Frangula alnus</i>)	Pear, Plymouth (<i>Pyrus cordata</i>)
Butcher's-broom (<i>Ruscus aculeatus</i>)	Pear, wild (<i>Pyrus pyraster</i>)
Cherry, bird (<i>Prunus padus</i>)	Poplar, grey (<i>Populus x canescens</i>)
Cherry, wild (<i>Prunus avium</i>)	Poplar, white (<i>Populus alba</i>)
Cotoneaster, wild (<i>Cotoneaster integerrimus</i>)	Privet, wild (<i>Ligustrum vulgare</i>)
Currant, downy (<i>Ribes spicatum</i>)	Rose (<i>Rosa</i> sp.)
Currant, mountain (<i>Ribes alpinum</i>)	Rowan (<i>Sorbus aucuparia</i>)
Dogwood (<i>Cornus sanguinea</i>)	Sea-buckthorn (<i>Hippophae rhamnoides</i>)
Elder (<i>Sambucus nigra</i>)	Service-tree, wild (<i>Sorbus torminalis</i>)
Elm (<i>Ulmus</i> sp.)	Spindle (<i>Euonymus europaeus</i>)
Gooseberry (<i>Ribes uva-crispa</i>)	Spurge-laurel (<i>Daphne laureola</i>)
Gorse (<i>Ulex europaeus</i>)	Walnut (<i>Juglans regia</i>)
Gorse, dwarf (<i>Ulex minor</i>)	Wayfaring-tree (<i>Viburnum lantana</i>)
Gorse, western (<i>Ulex gallii</i>)	Whitebeam (<i>Sorbus</i> sp.)
Guelder rose (<i>Viburnum opulus</i>)	Willow (<i>Salix</i> sp.)
Hawthorn (<i>Crataegus monogyna</i>)	Yew (<i>Taxus baccata</i>)