

# OXO\_005 rev C LANDSCAPE DESIGN DEVELOPMENT DOCUMENT (STAGE 3)

LAND AT OXPENS, WIGGINTON (Para 79e Application) June 2020

SEED\_\_landscape design ltd



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- 5.3 ORNAMENTAL GARDENS & MONITORING

#### THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH:

#### SEED Landscape Design:

OXO\_002 (Developed masterplan)\_Stage 3

OXO\_006 (new woodland section)\_Stage 3

OXO\_007 (meadow and lake section)\_Stage 3

OXO\_008 (damp wood bats and birds)\_Stage 3

OXO\_009 (Visual Assessment)\_Stage 3

#### **Seymour-Smith Architects:**

117-L-01 Site Location Plan 1:1250 @ A1

117-P-01 D Site / Roof Plan 1:500 @ A2 / 1:250 @ A0

117-P-02 D Ground Floor Plan 1:200 @ A2 / 1:100 @ A0

117-P-03 D First Floor Plan 1:200 @ A2 / 1:100 @ A0

117-S-01 D Sections A & B 1:200 @ A3 / 1:100 @ A1

117-S-02 D Sections C & D 1:200 @ A3 / 1:100 @ A1

117-S-03 D Sections E & F 1:200 @ A3 / 1:100 @ A1 117-S-04 D Sections 1 & 2 1:200 @ A3 / 1:100 @ A1

117-S-05 D Sections 3 & 4 1:200 @ A3 / 1:100 @ A1

117-E-01 E Elevations 1:200 @ A2 / 1:100 @ A0

117-B-01 A Barn drawings as Existing 1:100 @ A3

117-B-02 A Barn drawings as Proposed 1:100 @ A3

117-V-01 3d studies not to scale @ A3

#### **Hughes Planning**

Design & Access Statement

#### Ecology by Design:

Preliminary Ecological Appraisal

Great Crested Newt eDNA Survey Results

National Vegetation Classification Survey

Biodiversity Impact Calculator & spreadsheet

#### Cotswold Wildlife Surveys:

Trees and Construction BS5837 Tree Survey Assessment Canopy Landscaping & Arboricultural Tree Inspection Update June 2020

#### **Energy Zone**

Concepts for Heating, Power & Ventilation

#### **Clive Onions Consulting Civil Engineer**

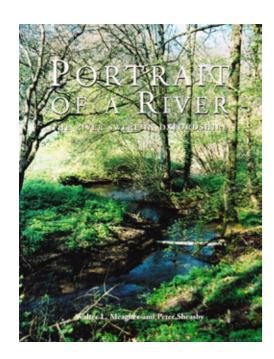
Flood Risk Assessment & Drainage Strategy

#### **Landscape Brief**

SEED\_landscape design has been appointed by Virginia Sweetingham to work with architect Helen Seymour-Smith on the development of a landscape masterplan comprising of one single dwelling for multigenerational living for Virginia and her family. The site is west of the village of Wigginton, Oxfordshire and the planning application will be NPPF PARA 79.

Following a meeting on the 12/04/2019 between SEED, Virginia, the architect and the ecologist Lindsay Stronge, an initial brief was established with the following key points highlighted:

- The client seeks to develop a multi-generational family dwelling for herself and her family that is located adjacent to an existing pond and set into a woodland context.
- A provision of 3 car parking spaces and 2 visitor spaces is to be made with careful consideration for access across the wider site.
- Virginia's description of the future proposal is a place that should be 'magical', 'wild' and 'natural, informal landscape' that encourages exploring and wandering, and is especially suited for her small grandchildren who would play in the grounds and potentially swim in the pond.
- The wider site is ecologically diverse and further observations are to be made concerning the potential presence of rare flora and fauna. The ecologist confirms the presence of barn owls in the existing agricultural barn.
- The barn field located south of the pond is an unimproved meadow (for 10 years) that can be further enhanced and celebrated as part of the overall masterplan.
- A drainage strategy is to be developed by SEED that will address flooding issues and ameliorate the current drainage ditches across the wider site



During our first meeting with Virginia she produce Portrait Of A River by Walter L. Meagher and Peter Sheasby as a way to illustrate the sort of Landscape she bought her family up in and what she would like to recreate.

This book has been a constant source of inspiration and information through out the design process.



Site Location and surrounding context

#### The Site

Oxpens is located to the West of Wigginton parish in Oxfordshire, and North of the River Swere. The site is currently characterised as being of modern and pre-modern agricultural form under the National Historic Landscape Characterisation.

The wider site comprises of several adjoined fields to the South and East, connected by a newly laid hardcore access track and a tyre

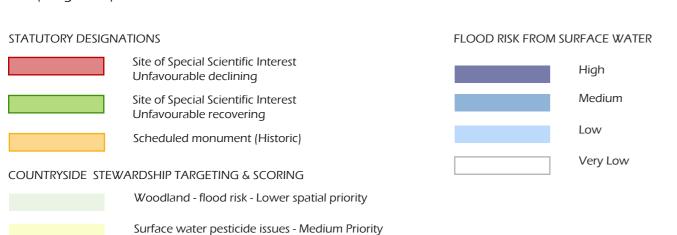
track access leading to an existing agricultural barn and a small woodland. The proposed dwellings would be set on the Northern site, characterised by a modern man-made pond surrounded by an ash plantation. A natural spring runs from the North and connects to the pond, eventually linking to the River Swere tributaries.

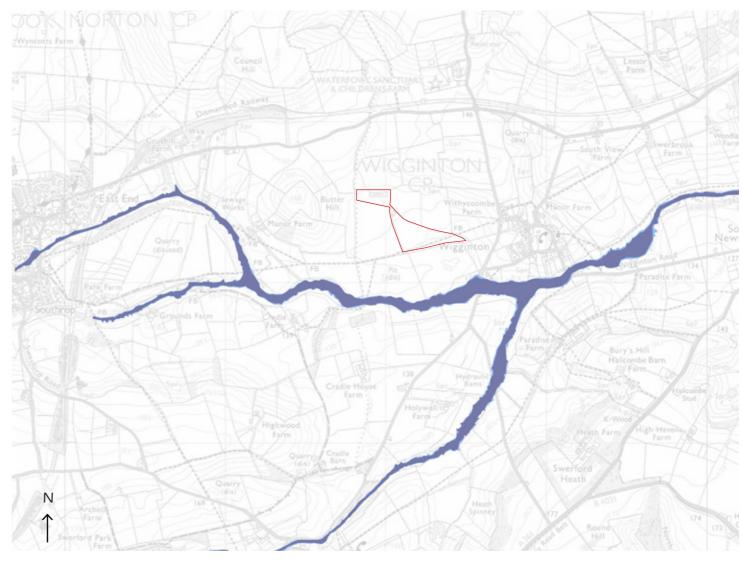




Statutory and non-statutory Designations (source: Magic Maps and the Environmental Agency)

#### KEY (Diagram 1)





Statutory and non-statutory Designations (source: Environmental Agency)

#### KEY (Diagram 2)

#### FLOOD ZONE MAP

Flood Zone 1 - less than 1 in 1,000 annual probability of river or sea flooding (<0.1%)

Flood Zone 2 - 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year

Flood Zone 3 -1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year

#### 2.2 NATIONAL LANDSCAPE CHARACTER ASSESSMENT

## THE NATIONAL LANDSCAPE CHARACTER AREA 107. COTSWOLDS (by Natural England)

The site is situated within National Landscape Character Area 107 Cotswolds. Below are the key extracts from this character area assessment. **Key relevant characters highlighted.** 

#### STATEMENTS OF ENVIRONMENTAL OPPORTUNITIES:

SEO 1: Protect and enhance the highly distinctive farmed landscape, retaining the balance between productive arable, pastoral and wooded elements and the open, expansive views particularly from the scarp, high wold and dip slope.

SEO 2: Safeguard and conserve the historic environment, cultural heritage and geodiversity that illustrate the history, evolution, foundations, land use and settlement of the Cotswolds landscape, and enable access to and interpretation of the relationship between natural processes and human influences.

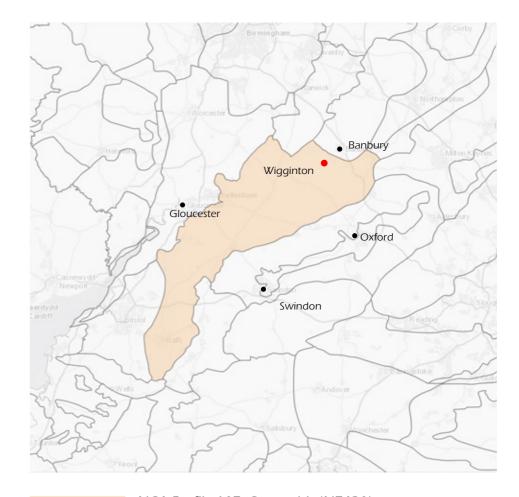
SEO 3: Protect, maintain and expand the distinctive character of the Cotswolds and the network of semi-natural and arable habitats, including limestone grassland, beech woods and wetlands along streams and rivers, to enhance water quality, strengthen ecological and landscape connectivity, support rare species and allow for adaptation to changes in climate.

SEO 4: Safeguard and manage soil and water resources, allowing naturally functioning hydrological processes to maintain water quality and supply; reduce flooding; and manage land to reduce soil erosion and water pollution and to retain and capture carbon.

#### **KEY CHARACTERISTICS:**

Defined by its underlying geology: a dramatic limestone scarp rising above adjacent lowlands with steep combes, and outliers illustrating the slow erosion of escarpments. The limestone geology has formed the scarp and dip slope of the landscape, which in turn has influenced drainage, soils, vegetation, land use and settlement.

- Open and expansive scarp and high wold dipping gently to the southeast, dissected by river valleys.
- Arable farming dominates the high wold and dip slope while permanent pasture prevails on the steep slopes of the scarp and river valleys with pockets of internationally important limestone grassland.
- Drystone walls define the pattern of fields of the high wold and dip slope. On the deeper soils and river valleys, hedgerows form the main field boundaries.
- Ancient beech hangers line stretches of the upper slopes of the scarp, while oak/ash woodlands are characteristic of the river valleys. Regular blocks of coniferous and mixed plantations are scattered across the open high wold and dip slope.
- Large areas of common land, important for unimproved calcareous grassland, are characteristic of the scarp and high wold around the Stroud valleys and along the crest of the scarp to Cleeve Hill.
- The majority of the principal rivers flow south-eastwards forming the headwaters of the Thames with the exception of rivers in the west which flow into the River Avon and then the Severn Estuary.
- Rich history from Neolithic barrows, iron-age hill forts and Roman roads and villas to deserted medieval villages, grand country houses, cloth mills and Second World War airfields. The field patterns largely reflect both the medieval open field system, with fossilised areas of ridge and furrow, and later planned enclosures.
- Locally quarried limestone brings a harmony to the built environment of scattered villages and drystone walls, giving the area a strong sense of unity for which the Cotswolds are renowned. Bath stone is also famous and has been used for building since Roman times, both locally in the principal buildings and streets of Bath and more widely, for example for Buckingham Palace in London. Parkland, gardens and historic designed landscapes are features particularly of the dip slope and broad lowland, such as Lawrence Johnston's garden at Hidcote, and Heather Muir's garden at Kiftsgate, parkland at Stanway, Chastleton and Blenheim Palace.
- Prominent natural and built features in the landscape include the City of Bath WHS, Brailes Hill, Broadway Tower, Cleeve Hill, the Tyndale monument, Freezing Hill, Kelston Round Hill and Blenheim Palace WHS.



NCA Profile:107. Cotswolds (NE420)

## ANALYSIS OF THE SITE 2.3 LOCAL LANDSCAPE CHARACTER ASSESSMENT

#### LANDSCAPE TYPES

Extracts from Oxfordshire Wildlife and Landscape Study (OWLS)



Mondovidan

#### Meadowlands

Key characteristics

- Flat, low-lying topography with seasonally flooded alluvial floodplains.
- Meandering river channels.
- Grazing meadows and small fields of permanent pasture.
- Riparian character with a strong pattern of riverside willows and treelined ditches.
- Sparsely settled with a few roads.

#### Geology and landform

- A thin strip of alluvium underlies the river corridors, giving rise to heavy soils with naturally impeded drainage.
- Many areas are still liable to flooding and are predominantly under permanent pasture.

#### Land use and vegetation

- Small fields of permanent pasture, consisting mainly of wet and semiimproved grassland and some neutral and marshy grassland.
- Tree cover is a notable element in this landscape type, with tree-lined corridors dominated by willows, often pollarded, being characteristic throughout the landscape.
- White willow is more common along the upper Cherwell, the river Swere and Evenlode, with crack willow common elsewhere.
- -Other tree and shrub species include alder, poplar, ash and hawthorn. -Small deciduous plantations, frequently dominated by poplar, and small blocks of wet and semi-natural woodland also add to the tree cover along the river valleys.

#### Cultural pattern

The small pasture fields are enclosed by hawthorn hedges and associated ditches. In places it is the ditches, often bordered by pollarded willows, that form the main field boundaries. Hedges often include scattered ash, willow and oak trees.

- -This landscape type has historically been subject to annual flooding and this is reflected in the relative lack of settlements and buildings.
- The main buildings are water mills, scattered barns and farmhouses.
- -The main building materials are stone and stone tiles.

### TA S 19

#### Rolling Village Pastures

#### **Key Characteristics**

- A strongly undulating landform of rounded hills and small valleys.
- Small to medium-sized fields with mixed land uses, but predominantly pasture.
- Densely scattered hedgerow trees.
- Well-defined nucleated villages with little dispersal into the wider countryside.

### <del>4</del>

Wooded Pasture Valleys and Slopes

#### Key characteristics

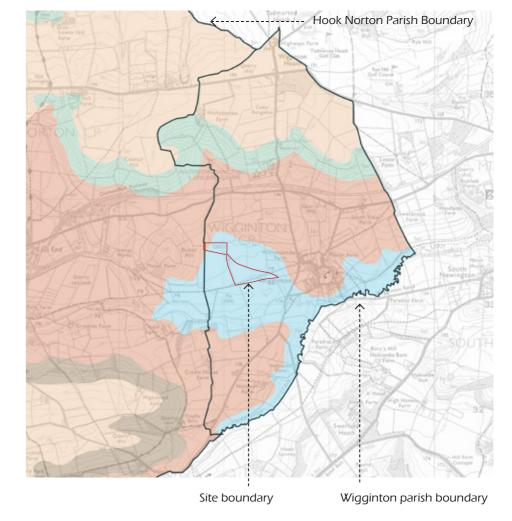
- Steep sided valleys and slopes.
- Large, interlocking blocks of ancient and plantation woodland.
- Small pasture fields with localised unimproved grassland.
- Tall, thick hedges and densely scattered hedgerow trees.
- Small intact villages and hamlets.



#### Farmland Plateau

#### **Key Characteristics**

- Level or gently rolling open ridges dissected by narrow valleys and broader vales.
- Large, regular arable fields enclosed by low thorn hedges and limestone walls.
- Rectilinear plantations and shelterbelts.
- Sparsely settled landscape with a few nucleated settlements.
- Long, straight roads running along the ridge summits.



River

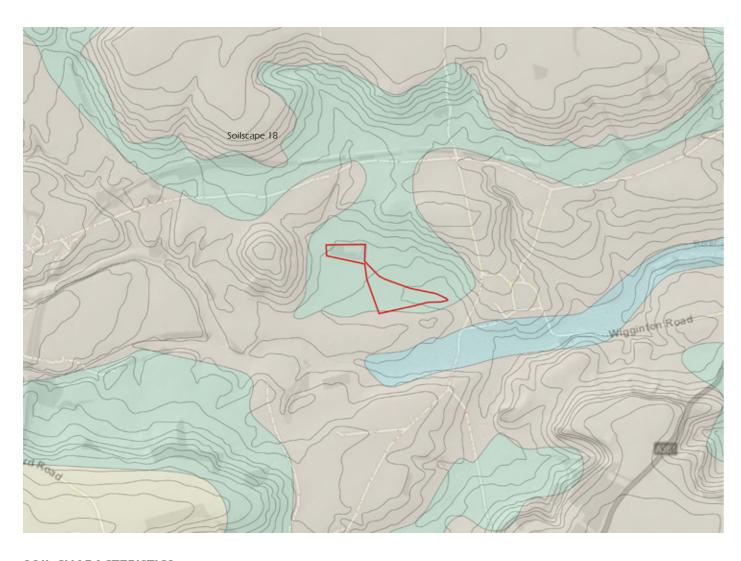
Meadowlands

Rolling Village

**Pastures** 

Wooded Pasture Valleys and Slopes

re Farmland Plateau





(source: http://www.landis.org.uk/soilscapes/) Key points highlighted:

Soilscape 18:

Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils

Texture: Loamy and clayey Drainage: Impeded drainage

Fertility: Moderate

Habitats: Seasonally wet pastures and woodlands Landcover: Grassland and arable some woodland

Carbon: Low

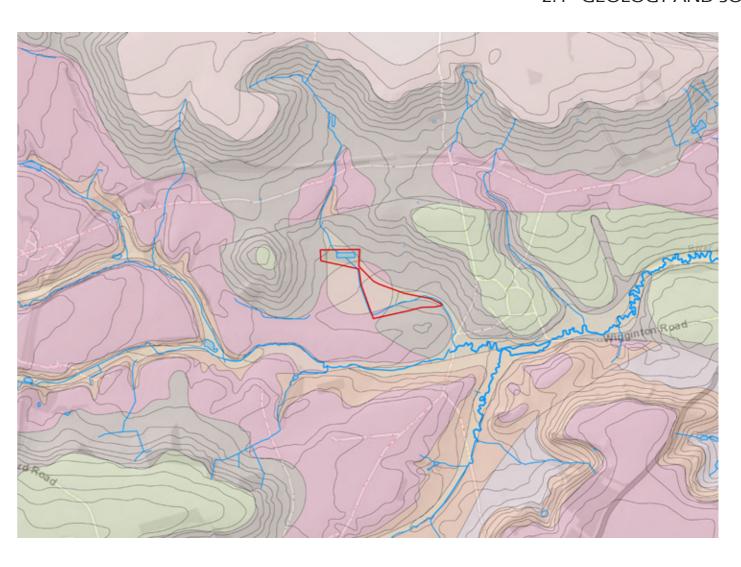
Drains to: Stream network

Water protection:

Main risks are associated with overland flow from compacted or poached fields. Organic slurry, dirty water, fertiliser, pathogens and fine sediment can all move in suspension or solution with overland flow or drain water

General cropping:

Mostly suited to grass production for dairying or beef; some cereal production often for feed. Timeliness of stocking and fieldwork is important, and wet ground conditions should be avoided at the beginning and end of the growing season to avoid damage to soil structure. Land is tile drained and periodic moling or subsoiling will assist drainage.



#### **GEOLOGY LEGEND**

(source: Geology of Britain viewer, British Geological Society)

BEDROCK KEY

Whitby Mudstone Formation.

Mudstone

SUPERFICIAL DEPOSITS KEY

Allu

Flux

Marlstone Rock Formation.

Alluvium - Clay, Silt, Sand And Gravel Fluvial in origin.

Chipping Norton Limestone Formation Limestone, Ooidal

Dyrham Formation.
Siltstone And Mudstone, Interbedded

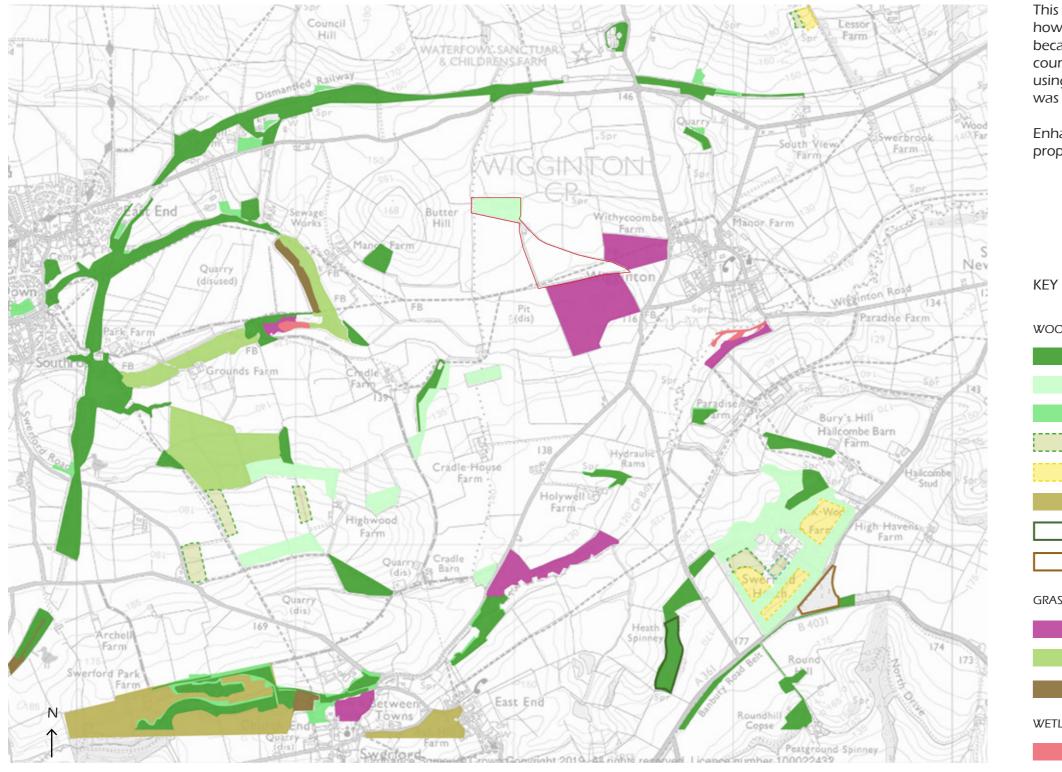
Charmouth Mudstone Formation.

Mudstone.

Northampton Sand Formation.

Sandstone, Limestone And Ironstone.

Horsehay Sand Formation. Sandstone



This map shows the surrounding non statutory habitats. It does not however note the grassland in the south of the site. This maybe because the grassland has been affected by changes in the water course around 2004. The Ecologist has carried out a botanical survey using the National Vegetation Classification and the MG4 community was assessed as being of National value for conservation.

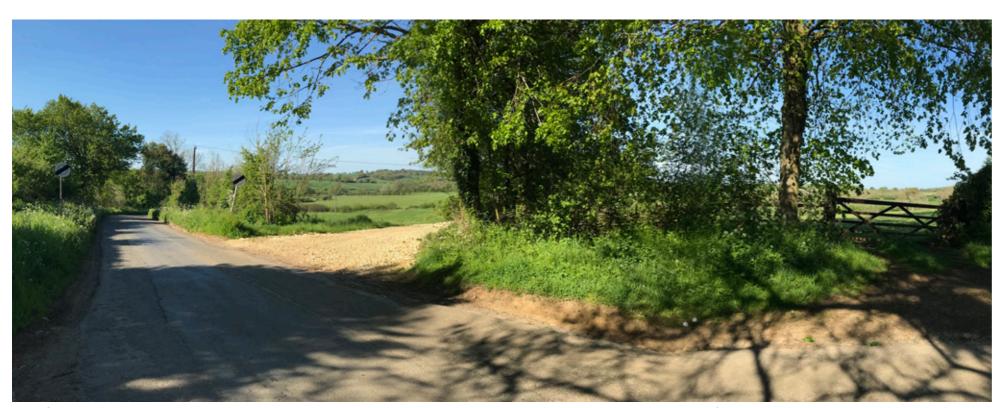
Enhancement and longevity of this habitat is integral to our landscape proposals and are explored further in this report.



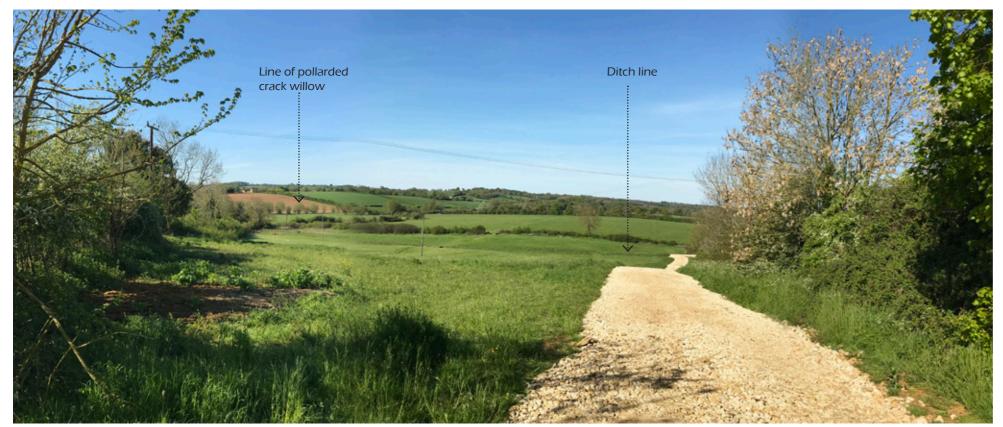
Lowland Fens - Priority Habitat Inventory

Non-statutory habitat designations (source: Magic Maps)





View from unnamed secondary road to Wigginton into prominent site entrance. Entrance positioned between clump of trees and weak hedgerow to the South. The understated field entrance to the right, with the timber gate will be our precedent.

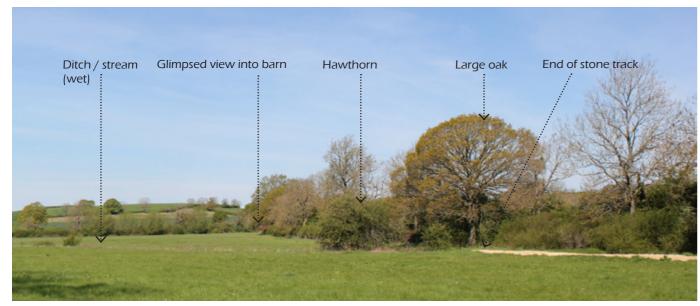


The Vehicular access track leading to site is formed of local Cotswold crushed stone. The middle ground is dominated by overhead power lines. Long-distance views towards Hook Norton can be seen in the background. Blackthorne, hawthorne, Ash and brambles form part of the hedge boundary to the right. This field is not owned by our client.



Location plan

#### **ANALYSIS OF THE SITE** 2.8 THE DAMP MEADOW



View from east end of barn field looking at stone track and stream junction. The stone track ends between the hawthorne and the large oak forming an natural gateway.



End of access track. Large oak tree to the right marks arrival to the top field.



Location plan



Site entrance to top field is marked by the ditched stream culverted underneath access track. This is flanked by a hawthorn tree to the West and a pollarded willow to the East.



Pollarded willow is a focal point at the junction of the field entrance. Plastic pipe culvert with stone ends in the middle of the stream. Adjacent vegetation includes cow parsley, grass and hawthorns.





Lond distance view towards barn and western boundary of the barn field. Line of mature ash and oak can be seen delineating the hedge boundary. Butter Hill is in the background.

## ANALYSIS OF THE SITE 2.9 THE OLD BARN



Location plan



The site is accessed between the old barn and the woodland, through what appears to have been a old yard for the barn.



Narrow window to Eastern elevation of barn could form an important opening for barn owls.



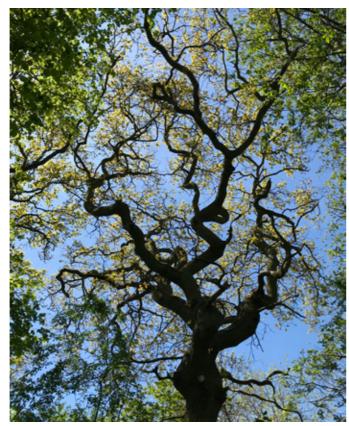
Barn windows frame long distance views into meadow and hedgerow.



Eastern field boundary is formed by an un-managed gappy hedgerow with mature hedgerow trees of oak and ash.

## ANALYSIS OF THE SITE 2.10 THE WOODLAND NORTH OF OLD BARN









Location plan

Mature oak trees are the feature tree of the barn woodland. With the ground story been dominated by blue bells in the spring. This is the woodland character that we would like to bring into the site.



